HINSDALE COUNTY
COLORADO

311 N. Henson St. Lake City, Colorado 81235 970-944-2225 www.hinsdalecountycolorado.us

County Road 30 Bike Lane Installation and Chip Seal Overlay

Request for Proposals for Construction

MTF C630-001/ SA# 25371

Release Date: May 13, 2024
Proposals Due: June 3, 2024
Proposal Opening: June 5, 2024

1.0 Introduction

Hinsdale County, Colorado, is requesting proposals to provide construction of a state-funded road resurfacing and bike lane installation project. The project consists of installation of bike lanes and a chip seal overlay on 4.5 miles of County Road 30 and in Hinsdale County. A vicinity map is attached.

The project generally consists of constructing two 11-foot motorized lanes along with two 4-foot-wide bike/pedestrian lanes. The project roadway is thirty feet wide for 4.5 miles, and will also include two 125-foot spurs connecting the roadway to two bridges. The existing road surface is improved gravel. A double layer chip consisting of one ¾" layer and a ½" layer will be installed over the existing roadway. Oil fog coat and road striping are also included. Other project components include traffic control and temporary erosion control.

This Request for Proposals provides the specifications and requirements for prospective applicants to provide sealed bids for construction of the project.

This project is funded through a Colorado Department of Transportation (CDOT) Multi-Modal grant and must meet all requirements of CDOT as outlined in the project specifications.

2.0 Background/Site Description

Hinsdale County is mountainous, sparsely populated county of 1,123 square miles in southwest Colorado, located in the south-central San Juan Mountains. Hinsdale County contains the headwaters of the Lake Fork of

the Gunnison River and is home to U.S. Forest Service and Bureau of Land Management lands. The county contains the Silver Thread Scenic Byway and the Alpine Loop Backcountry Byway. Hinsdale County contains one municipality, the Town of Lake City, which has a year-round population of 400 residents. The county has a year-round population of 800. Hinsdale County and the Town of Lake City are summer tourist destinations.

Hinsdale County Road 30 is one of two county roads that make up the majority of the Alpine Loop Backcountry Byway. CR 30 is located approximately three miles south of Lake City off of State Highway 149. The road travels alongside the Lake Fork of the Gunnison River, past Lake San Cristobal, and continues west through the backcountry to Cinnamon Pass. The road is used to access private residences, Lake San Cristobal and a county-owned campground, as well as to access the Alpine Loop Byway. Summer traffic is busy with a variety of vehicles using the roadway, while winter traffic is minimal and primarily for local residents.

The section of CR 30 included in this project is 4.5 miles in length from the intersection of Highway 149 to the inlet of Lake San Cristobal. This section travels through spruce forests with minimal single-family residences spread out above and away from the roadway. A few homes and one RV campground are adjacent to the roadway. Two bridges are adjacent to the roadway, at the inlet and outlet of Lake San Cristobal. On more than half of the roadway, there are no adjacent structures or infrastructure. All Right of Way included in the project are the property of Hinsdale County.

Hinsdale County desires to make a safe travel experience for the variety of users of County Road 30, which includes cars, trucks, jeeps, off-highway vehicles and bicycles. The goal of this project is to provide a stable, long-lasting road surface that provides safe passage for motorized and non-motorized vehicles.

3.0 Scope of Services

<u>General Requirement of Contractor:</u>

Provide quality construction and installation of the bike lanes and chip and seal overlay that meet all requirements of the project plans and specifications. While completing this, the contractor will perform the following tasks:

a. Work directly with County Administrator Sandy Hines as county point of contact.
b. Work directly with project Engineer Dan Quigley as the Local Agency point of contact for the project.
c. Provide public information and notification of the project as required by Hinsdale County
d. Provide required material submittals.
e. Provide required project documents per current CDOT standards and project specifications.
f. Provide pay applications for compliance to the County for project documentation to CDOT.

g. Completion: Before being issued a certificate of final completion, participate in a substantial completion inspection and a final completion inspection in the company of the County, CDOT, and Project Engineer
h. Assist the project Engineer with Project Closeout documentation as required by CDOT.

General Requirements of Hinsdale County:

The County will provide project reports, plans and specifications including required CDOT forms as part of the bid documents.

4.0 Tentative Project Schedule

RFP Release: May 13, 2024
Questions Deadline: May 20, 2024
Question Responses Deadline: May 24, 2024
Submittal deadline for Proposals: 5 p.m., June 3, 2024
RFP Opening: June 5, 2024
Decision Date: June 7, 2024
Contract Approval: TBD
Project Start Date: Summer 2024
Project Completion: October 31, 2024

5.0 Evaluation

Hinsdale County Board of Commissioners, following the closing date for submission, will evaluate submitted proposals. The commissioners will review each proposal. The following evaluation criteria will be used:

- The firm's overall qualifications and experience related to similar projects and their technical competence and resources to carry out the project successfully.
- A demonstrated understanding of the project and the work required as well as the thoroughness and conciseness of the firm's proposal.
- Ability of the firm to provide required services and to perform the required work within the project period
- Cost of construction

Contract will be awarded to the most responsible lowest bidder.

The cost of preparing responses to this RFP shall be borne by the respondents and shall not be reimbursed by Hinsdale County.

6.0 Submittal Procedures

Sealed bids must be received by 5 p.m. June 3, 2024. Bids received after this time/date will not be considered. Bids may be mailed or hand delivered to the address below, or emailed to: administrator@hinsdalecountycolorado.us. Firms emailing proposals must confirm receipt of email by calling 970-944-2225. Sealed bids shall be addressed to:

Sandy Hines,
Hinsdale County Administrator
PO Box 277
311 North Henson Street
Lake City, CO 81235
RE: CR 30 Bike lane and Chip Seal Overlay Project - Construction
BID ENCLOSED

Any questions regarding RFP should be addressed to Ms. Hines at 970-944-2225.

The recipient must supply a statement that the consulting firm presently has no interest and shall not have any interest, direct or indirect, which would conflict in any manner with the performance of the services contemplated by the agreement with the project. No person having such interest shall be employed by or associated with consultant during the term of this agreement.

CR 30 BIKE LANE AND CHIP SEAL OVERLAY					
CDOT PROJECT # MTF C630-001					
REVISED BID SCHEDULE - May 6, 2024					
CONTRACT ITEM NO.	DESCRIPTION	UNIT	QUANTITY	UNIT COST	TOTAL
304-06007	Aggregate Base Course (Class 6)	CY	270		
306-01000	Reconditioning	SY	1,000		
409-04015	Cover Coat Material (TYPE II) (1/2")	SY	80,000		
409-04015	Cover Coat Material (TYPE IV) (3/4")	SY	80,000		
411-10216	Emulsified Asphalt (Rapid Setting) (Polymerized)(CRS2P)	GAL	88,000		
411-10253	Emulsified Aspahlt (CSS-1H) (Fog Coat)(Diluted)	GAL	9,000		
614-00012	Sign Panel (Class II)	SF	60		
614-00220	Steel Sign Post(2.5 x 2.5 Tubing))	LF	120		
620-00020	Sanitary Facility	EACH	1		
625-00000	Construction Surveying	L.S.	1		
626-00307	Mobilization/Demobilization	L.S.	1		
626-01114	Public Information Management	DAY	45		
627-00005	Pavement Marking Paint	GAL	360		
630-00012	Traffic Control Management	DAY	30		
630-00012	Traffic Control inspections (Weekends)	DAY	8		
700-00001	Force Account	Each	1	$ 5,000.00	$ 5,000.00

TOTAL CONSTRUCTION COST

CONTRACT DOCUMENTS, SPECIFICATIONS AND PLANS

FOR THE

COUNTY ROAD 30
BIKE LANE INSTALLATION AND CHIP SEAL OVERLAY
HINSDALE COUNTY
PROJECT NUMBER: MTF C360-001
SA #: 25371

Prepared May 6, 2024

By

Buckhorn Engineering, Inc.
222 S. Park Avenue
Montrose, CO 81401

CERTIFCATE

These specifications, contract documents and accompanying plans for the construction of the bike lane installation and chip seal project in Hinsdale County were prepared by me or under my direct supervision, on behalf of Buckhorn Engineering, Inc. for Hinsdale County and are limited to the design elements contained herein.

Daniel C. Quigley
Colorado Professional Engineer
Registration No. 38334

Hinsdale County, Colorado, Owner, does hereby accept and approve these specifications, contract documents and accompanying plans for the CR 30 Bike Lane Installation and Chip Seal Overlay project

Date:_____

Owner: Hinsdale County, Colorado

By:_____ **ATTEST:**

Title:_____ **By:_____**

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SECTION 01.00

INSTRUCTIONS TO BIDDERS

1.0 DEFINED TERMS

Terms used in these Instructions to Bidders which are defined in the **Colorado Department of Transportation Standard Specifications for Road and Bridge Construction, 2023 version**, have the meanings assigned to them in the General Conditions. The term "Bidder" means one that submits a Bid to OWNER, as distinct from a sub-bidder, who submits a Bid to Bidder. The terms "Successful Bidder" means the lowest qualified responsible and responsive Bidder to whom OWNER (on basis of OWNER's evaluation as hereinafter provided) makes an award. The term "Bidding Documents" includes the Advertisement or Invitation to Bid, Instructions to Bidders, the Bid Form, and the proposed Contract Documents (including all Addenda issued prior to receipt of Bids).

2.0 COPIES OF BIDDING DOCUMENTS

2.1 Complete sets of Bidding Documents may be obtained as stated in the Invitation to Bid, Section 02.00. No partial sets will be issued. The Bidding Documents may be examined at the locations identified in the Invitation to Bid.

2.2 Complete sets of Bidding Documents shall be used in preparing Bids; neither OWNER nor ENGINEER assumes any responsibility for errors or misinterpretations resulting from the use of incomplete sets of Bidding Documents.

2.3 The submitted Bid proposal shall include Section 03.00 - Bid Form, Bid Security per Section 02.00 – Invitation to Bid, Section 04.20 - Statement of Bidder's Qualifications, and Section 04.30 - Schedule of Subcontractors, fully executed.

2.4 OWNER, in making copies of Bidding Documents available on the above terms, do so only for obtaining Bids on the Work and do not confer a license or grant for any other use.

3.0 QUALIFICATION OF BIDDERS

3.1 To demonstrate qualifications to perform the Work, each Bidder must submit at the time of the Bid opening, a written statement of qualifications including financial data, a summary of previous experience, previous commitments and evidence of authority to conduct business in the jurisdiction where the Project is located. Each Bid must contain evidence of Bidder's qualification to do business in the state where the Project is located or covenant to obtain such qualification prior to award of the contract. The Statement of Qualifications shall be prepared on the form provided in Section 04.20.

3.2 In determining the Bidder's qualifications, the following factors will be considered: Work previously completed by the Bidder and whether the Bidder (a) maintains a permanent place of business, (b) has adequate plant and equipment to do the Work properly and expeditiously, (c) has the financial resources to meet all obligations incidental to

the Work, and (d) has appropriate technical experience. (e) availability for the proposed period of construction.

3.3 Each Bidder may be required to show that they have handled former Work so that no just claims are pending against such Work. No Bid will be accepted from a Bidder who is engaged on any other Work, which would impair his ability to perform or finance this Work.

3.4 No Bidder shall be in default on the performance of any other contract with the OWNER or in the payment of any taxes, licenses or other monies due to the OWNER.

4.0 EXAMINATION OF CONTRACT DOCUMENTS AND SITE

4.1 It is the responsibility of each Bidder before submitting a Bid, to (a) examine the Contract Documents thoroughly, (b) visit the site to familiarize themselves with local conditions that may in a manner affect cost, progress or performance of the Work, (c) familiarize themselves with federal, state and local laws, ordinances, rules and regulations that may in any manner affect cost, progress or performance of the Work, (d) study and carefully correlate Bidder's observations with the Contract Documents, and (e) notify OWNER of all conflicts, errors or discrepancies in the Contract Documents.

4.2 The submission of a Bid will constitute an incontrovertible representation by Bidder that Bidder has complied with every requirement of the Article 4, that without exception the Bid is premised upon performing and furnishing the Work required by the Contract Documents and such means, methods, techniques, sequences or procedures of construction as may be indicated in or required by the Contract Documents, and that the Contract Documents are sufficient in scope and detail to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.

5.0 INTERPRETATIONS AND ADDENDA

5.1 All questions about the meaning or intent of the Bidding Documents are to be submitted in writing to the OWNER. Interpretation or clarifications considered necessary in response to such questions will be issued only by Addenda. Questions received less than three (3) days prior to the date for opening of the Bids may not be answered. Only questions answered by formal written Addenda will be binding. Oral and other interpretations or clarifications will be without legal effect.

5.2 All questions should be directed to the OWNER.

5.3 Addenda may also be issued to modify the Bidding Documents as deemed advisable by OWNER.

5.4 Addenda will be mailed or delivered to all parties recorded by the OWNER as having received the Bidding documents.

6.0 BID SECURITY

6.1 Each Bid must be accompanied by Bid Security made payable to OWNER in the amount stated in the Invitation to Bid. The required security must be in the form of a certified or bank cashier's check payable to OWNER or a Bid Bond.

6.2 The Bid Security of the successful Bidder will be retained until such Bidder has executed the Agreement and furnished the required contract security, whereupon Bid Security will be returned. If the successful Bidder fails to execute and deliver the Agreement and furnish the required contract security within ten (10) days of the Notice of Award, OWNER may annul the Notice of Award and the Bid Security of that Bidder will be forfeited. The Bid Security of other Bidders whom OWNER believes to have a reasonable chance of receiving the award may be retained by OWNER until the earlier of the seventh day after the effective date of the Agreement or the forty fifth day after the Bid Opening, whereupon Bid Security furnished by such Bidders will be returned. Bid Security with Bids, which are not competitive, will be returned within seven (7) days after the Bid opening.

7.0 CONTRACT TIME

The number of days within which, or the date by which the Work is to be substantially complete and also completed and ready for Final Payment (the CONTRACT TIMES) are set forth in the Agreement - Section 05.00 (Article 3).

8.0 LIQUIDATED DAMAGES

Provisions for liquidated damages are set forth in Section 108 of the Specifications and in the Standard Special Revision of Section 108.

9.0 SUBSTITUTE ("OR EQUAL") MATERIAL AND EQUIPMENT

The Contract, if awarded, will be on the basis of material and equipment described on the Drawings or specified in the Specifications without consideration of possible substitute or "or equal" items.

Whenever it is indicated on the Drawings or specified in the Specifications that a substitute or "or equal" item of material or equipment may be furnished or used by CONTRACTOR is acceptable to OWNER, application for such acceptance will not be considered by ENGINEER until after the "effective date of the Agreement". The procedure for submittal of any such application by CONTRACTOR and consideration by OWNER is set forth in the General Conditions, which may be supplemented in the General Requirements.

10. SUBCONTRACTORS, SUPPLIERS AND OTHERS

10.1 Each Bidder shall submit at the Bid opening to OWNER a list of major subcontractors he/she proposes to be used in the Work. Refer to Section 04.30 – Schedule of Subcontractors contained within these Documents.

10.2 If OWNER, after due investigation, has reasonable objection to any proposed Subcontractor, Owner may, before the Notice of Award is given, request the apparent successful Bidder to submit an acceptable substitute without an increase in Bid price. If the apparent successful Bidder declines to make any substitution, OWNER may award the contract to the next lowest Bidder that proposed to use acceptable subcontractors. Subcontractors, suppliers, other persons, or organization listed and to whom OWNER does not make written objection prior to the giving of the Notice of Award will be deemed acceptable to OWNER subject to revocation of such acceptance after the effective date of the Agreement as provided in the Supplementary Conditions.

10.3 CONTRACTOR shall not be required to employ any subcontractor, supplier or other persons or organizations against which they have reasonable objection. The use of subcontractors listed by the Bidder and accepted by OWNER prior to the Notice of Award will be required in the performance of the Work. The OWNER will approve any subcontractor changes by the CONTRACTOR before the Work is performed.

11. BID FORM

11.1 A copy of the Bid Form is bound in the Contract Documents, which may be retained by the Bidder. A separate unbound copy is enclosed for submission with the Bid.

11.2 Bid Forms must be complete in ink or typed. Totals must be stated in words and numbers. in case of conflict, words will take precedence. Unit prices shall govern over extensions of sums.

11.3 Bids by corporations must be executed in the corporate name by the president or a vice-president (or other appropriate officer accompanied by evidence of authority to sign) and the corporate seal shall be affixed and attested by the secretary or an assistant secretary. The corporate address and state of incorporation shall be shown below the corporate name.

11.4 Bids by partnerships must be executed in the partnership name and signed by partner, his title must appear under his signature, and the official address of the partnership must be shown below the signature.

11.5 Bids by joint venture shall be signed by each participant in the joint venture or by an authorized agent of each participant. The full name of each person or company interested in the Bid shall be listed on the Bid Form. The joint venture companies will designate a person and a single company as the sole/primary responsible party for the Work as outlined in the Agreement - Section 05.00.

11.6 The Bid shall contain an acknowledgment of receipt of all Addenda (the numbers of which must be filled in on the Bid Form).

11.7 No alterations in Bids, or in the printed forms therefore, by erasures, interpolations, or otherwise will be acceptable unless each such alteration is signed or initialed by the Bidder; if initialed, OWNER may require the Bidder to identify any alteration so initialed.

11.8 The address and telephone number for communications regarding the Bid shall be shown.

12.0 BID PRICING

Bids must be priced as set forth in Section 03.00 - Bid Form under subsection 3.2 - Bid Schedule.

13.0 SUBMISSION OF BIDS

13.1 Bids shall be submitted at the time and place indicated in the Invitation to Bid and shall be enclosed in an opaque sealed envelope marked with the Project title, Bid No., name and address of the Bidder and accompanied by the Bid Security, Bid Form, Bid Bond, Statement of Bidders Qualifications, and Schedule of Subcontractors. The sealed envelope shall be enclosed in a separate envelope with the notation “BID ENCLOSED” on the face of it.

13.2 Bids shall be deposited at the designated location prior to the time and date for receipt of Bids indicated in the Invitation to Bid, or any extension thereof made by addendum. Bids received after the time and date for receipt of Bids will be returned unopened. Bidder shall assume full responsibility for timely delivery at the location designated for receipt of Bids.

13.3 Oral or telephone Bids are invalid and will not receive consideration.

13.4 No Bidder may submit more than one Bid. Multiple Bids under different names will not be accepted from one firm or association.

14.0 MODIFICATION AND WITHDRAWAL OF BIDS

14.1 Bids may be modified or withdrawn by an appropriate document duly executed (in a manner that a Bid must be executed) and delivered to the place where Bids are to be submitted at any time prior to the opening of Bids.

14.2 Bids may also be modified or withdrawn in person by the Bidder or an authorized representative provided he could prove his identity and authority at any time prior to the opening of Bids.

14.3 Withdrawn Bids may be resubmitted up to the time designated for the receipt of Bids if they are then fully in conformance with these Instructions to Bidders.

15.0 OPENINGS OF BIDS

Bids will be opened and (unless obviously non-responsive) read aloud publicly as indicated in the Invitation to Bid. An abstract of the amounts of the Base Bids and major alternates (if any) will be made available after the opening of Bids.

16.0 BIDS TO REMAIN OPEN SUBJECT TO ACCEPTANCE

All Bids shall remain open for twenty-eight (28) days after the day of the Bids Opening, but OWNER may, in his sole discretion, release any Bid and return the Bid Security prior to that date.

17.0 AWARD OF CONTRACT

17.1 OWNER reserves the right to reject any and all Bids, to waive any and all informalities including, but not limited to, price, time, or changes to the Work, to negotiate contract terms with the Successful Bidder, and the right to disregard all nonconforming, non- responsive, unbalanced or conditional Bids, as determined by the OWNER in its sole discretion.

Also, OWNER reserves the right to reject the Bid of any Bidder if OWNER determines, in its sole discretion, that it would not be in the best interest of the Project to make an award to the bidder, whether because doubtful financial ability or because it fails to meet any other pertinent standard or criteria established by OWNER in its sole discretion.
Discrepancies between the indicated sum of any column of figures and the correct sum thereof will be resolved in favor of the correct sum.

17.2 In evaluating Bids, OWNER will consider the qualifications of the bidders, whether or not the Bids comply with prescribed requirements, and such alternates, unit prices and other data, as may be requested in the Bid Form or prior to the Notice of Award.

17.3 OWNER may consider the qualification and experience of Subcontractors, Suppliers, and other persons and organizations proposed for those portions of the Work as to which the identity of Subcontractors, Suppliers, and other persons and organizations is submitted as requested by OWNER. OWNER also may consider the operating costs, maintenance requirements, performance data and guarantees of major items of material and equipment proposed for incorporation in the Work when such data is required to be submitted prior to the Notice of Award.

17.4 OWNER may conduct such investigations as OWNER deems necessary to assist in the evaluation of any Bid and to establish the responsibility, qualifications and financial ability of the Bidder's proposed Subcontractors, Suppliers and other persons and organizations to do the Work in accordance with the Contract Documents to OWNER's satisfaction within the forty-five (45) days allowed in Article 16. See Section 05.00 - Agreement and Article 17.6 below for the prescribed time as determined by the OWNER.

17.5 If the Contract is to be awarded, it will be awarded to the lowest responsive, responsible, and qualified Bidder whose evaluation by OWNER indicates to OWNER that the award

will be in the best interest of the Project, as determined by OWNER in its sole discretion. The basis for award shall be the Bid Total for the Schedule or, in the case of more than one Schedule, for sum of all Schedules.

17.6 If the Contract is to be awarded, OWNER will give the Successful Bidder a Notice of Award within forty-five (45) days after the date of the Bid opening.

18.0 CONTRACT SECURITY

The Specifications and the Supplementary Provisions set forth OWNER's requirements as to performance and other Bonds. When the Successful Bidder delivers the executed Agreement - Section 05.00 to the OWNER, it shall be accompanied by the required Contract Security.

19.0 SIGNING OF AGREEMENT

When OWNER gives a Notice of Award to the Successful Bidder, it will be accompanied by the required number of unsigned counterparts of the Agreement with all other written Contract Documents attached. Within ten (10) days thereafter, CONTRACTOR shall sign and deliver the required number of counterparts of the Agreement and attached documents to OWNER with required Bonds. Within ten (10) days thereafter, OWNER shall deliver one fully signed counterpart to CONTRACTOR. Each counterpart is to be accompanied by a complete set of the Drawings with appropriate identification.

20.0 TAXES

OWNER is exempt from Colorado State Sales and Use Taxes on materials and equipment to be incorporated in the Work. Said taxes shall not be included in the Contract Price. Reference is made in Article 6 of the General and Supplementary Conditions.

21.0 COLLUSIVE OR SHAM BIDS

Any Bid deemed by the OWNER in its sole discretion to be a collusive or sham Bid will be rejected and reported to authorities as such. Bidder's authorized signature of this Bid assures that such Bid is genuine and is not a collusive or sham Bid. In addition, any Bid deemed by the OWNER in its sole discretion to be unbalanced will be rejected.

22.0 BID RESULTS

For information regarding results for individual Bids send a self-addressed, self-stamped envelope and a Bid tally will be mailed to you.

END OF SECTION

SECTION 02.00

NOTICE TO BIDDERS

The proposal guaranty shall be a certified check, cashier's check, or bid bond in the amount of 5 percent of the Contractor's total bid.

The Disadvantaged Business Enterprise (DBE) Goal for this project is 0%. Note that if bidders submit an anticipated DBE Participation Plan that is greater than the DBE goal they will commit themselves to that plan and will be subject to penalties if the plan is not met. The use of DBEs is encouraged but inclusion of those firms in a formal DBE Participation Plan that exceeds the DBE goal should be carefully considered before doing so.

Pursuant to subsections 102.04 and 102.05, it is recommended that bidders on this project review the work site and plan details with an authorized Department representative. Prospective bidders shall contact one of the following listed authorized Department representatives at least 12 hours in advance of the time they wish to go over the project.

Design/Project Engineer - Dan Quigley, P.E.
Buckhorn Engineering, Inc.
Office Phone: (970) 497-8852
Email: dquigley@buckhornengineering.com

CDOT Representative Resident Engineer –

Nathan Jean, P.E.
CDOT Region 3
Office Phone: (970) 210-9578
Email: Nathan.jean@state.co.us

or

Michael Konn
CDOT Region 3 Local Agency Manager
(970) 549-6608
email: michael.konn@state.co.us

County / Owner Representative – Sandy Hines, County Administrator
Hinsdale County
Office Phone: (970) 944-2225
Email: administrator@hinsdalecountycolroado.us

The above referenced individuals are the only representatives of the Department with authority to provide any information, clarification, or interpretation regarding the plans, specifications, and any other contract documents or requirements.

Owner: Hinsdale County
311 Henson Street
Hinsdale, CO 81235

Date: May 13, 2024
Hinsdale County Board of Commissioners (hereinafter referred to as OWNER), care of Sandy Hines, County Administrator, 311 Henson Street, Hinsdale, CO 81235 is accepting bids based until 5:00 p.m, on June 3, 2024 for the **CR 30 Bike Lane Installation and Chip Seal Overlay** Project**.** All Bids that have been duly received at the Hinsdale County site will be publicly opened and read aloud on June 5, 2024, in the Conference Room at 311 Henson Street, Hinsdale, CO 814235

The following Colorado Department of Transportation (CDOT) forms are required to be submitted by responding bidders:

- **CDOT Form 606 – Anti-Collusion Affidavit**
- **CDOT Form 1413 – Bidders List**
- **Bid Schedule**

If Form 606 (Anti-Collusion Affidavit) is not submitted with the bid, the bid will be considered non-responsive and shall be rejected. Please refer to the Information for Bidders Section for more detailed requirements of the Bid Documents.

The following are due to Hinsdale County Road and Bridge by the low responsible bidder by 4:30 P.M. on the fifth calendar day after bid opening are:

- **CDOT Form 605 – Contractors performance Capability Statement**
- **CDOT Form 621 Assignment of Anti-Trust Claims**

The following Colorado Department of Transportation (CDOT) forms are included in The Appendix:

- **CDOT Form 606 – Anti-Collusion Affidavit**
- **CDOT Form 1413 – Bidders List**
- **CDOT Form 1414 – Anticipated DBE Participation Plan**
- **DBE Project Special Provision**
- **DBE Standard Special Provision**
- **Davis Bacon Wage Determination**
- **FHWA Form 1273 – required Contract Provision, Federal-Aid Construction Contracts**

An EEO-1 Report must be submitted to the Joint Reporting Committee if the contractor or subcontractors meet the eligibility requirements (29 CFR 1602.7). For additional information regarding these federal requirements, please refer to: http://www.eeoc.gove/employers/eeo1survey/faq.cfm .

Hinsdale County in accordance with provisions of Title VI of the Civil Rights Act of 1964 (78 Stat. 252, US.C §§ 2000d to 2000d-4) and the Regulations, hereby notifies all bidders that it will affirmatively ensure that any contract entered into pursuant to this advertisement, disadvantaged business enterprises will be afforded full and fair opportunity to submit bids in response to this invitation and will not be discriminated against on grounds race, color, or national origin in consideration for an award.

The Contract Documents generally provide for the construction of the following items:

CR 30 Bike Lane and Chip Seal

The project is located approximately 2 miles south of the Town of Lake City, Colorado.

Contract Documents will be available on May 13, 2024.
Contact Dan Quigley at 970-497-8852 to schedule an onsite meeting and for any questions if needed.

Copies of the Contract Documents, complete with Construction Specifications and Drawings, may be obtained from the OWNER at the Hinsdale County Administration Office at 311 Henson Street, Hinsdale , CO 81235. No partial sets will be issued.

Bids will be received as set forth in the Bid Form – Section 3 on or before5:00 p.m. on June 3, 2024 at Hinsdale County BidNet site or at the Hinsdale County Administration office 311 Henson Street, Hinsdale, CO 81235

The Work is expected to commence on/or before July 15, 2024. Substantial Completion of the Work is required as specified in the Agreement - Section 05.00. Substantial Completion is specified in the Agreement - Section 05.00.

If the bidder has a question or requests clarification that involves the bidder's innovative or proprietary means and methods, phasing, scheduling, or other aspects of construction of the project, the Project Engineer will direct the bidder to contact the Resident Engineer directly to address the question or clarification. The Resident Engineer will keep the bidder’s innovation confidential and will not share this information with other bidders.

The Resident Engineer will determine whether questions are innovative or proprietary in nature. If the Resident Engineer determines that a question does not warrant confidentiality, the bidder may withdraw the question. If the bidder withdraws the question, the Resident Engineer will not answer the question and the question will not be documented on the County web site. If the bidder does not withdraw the question, the question will be answered, and both the question and County answer will be posted on the web site. If the Resident Engineer agrees that a question warrants confidentiality, the Resident Engineer will answer the question, and keep both question and answer confidential. County will keep a record of both questions and answers in their confidential file.

All questions shall be directed to the County contacts listed above no later than 7:00 A.M. Monday of the week of bid opening. Final questions and answers will be posted no later than Tuesday morning of bid opening week. Questions and answers shall be used for reference only and shall not be considered part of the Contract The successful Bidder will be required to furnish a Performance Bond and a Payment Bond guaranteeing faithful performance and the payment of all bills and obligations arising from the performance of the Contract.

No Bid may be withdrawn within a period of forty-five (45) days after the date fixed for opening Bids.

Bid security in the amount of not less than five percent (5%) of the total Bid must accompany each Bid in the form specified in the Instructions to Bidders.

Sales prohibited / conflict of interest: No officer, employee, or their dependent or person residing in and sharing the expenses of their household, shall have a financial interest in the sale to the Hinsdale County of any real or personal property, equipment, material, supplies or services. This rule also applies to subcontractors with Hinsdale County. This shall not apply to members of any authority, board, committee or commission of Hinsdale County. Soliciting or accepting any gift, gratuity, favor, entertainment, kickback or any items of monetary value from any person who has

or is seeking to do business with Hinsdale County is prohibited. Any vendor knowing of this type of activity is encouraged to report in confidence to the County Attorney so the matter can be dealt with.

END OF SECTION

SECTION 03.00

BID FORM

PROJECT: CR 30 Bike Lane and Chip Seal

CDOT Project # MTF C360-001

3.1.3 This Bid is submitted to:

Hinsdale County
311 Henson Street,
Hinsdale , CO 81235

3.1.4 The undersigned BIDDER proposes and agrees, if this Bid is accepted, to enter into an agreement with OWNER in the form included in the Contract Documents to perform and furnish all Work as specified or indicated in the Contract Documents for the Contract Price and within the Contract Time indicated in this Bid and in accordance with the other terms and conditions of the Contract Documents.

3.1.5 BIDDER accepts all of the terms and conditions of the Advertisement of Invitation to Bid and Instructions to Bidders, including without limitation those dealing with the disposition of Bid security. This Bid will remain subject to acceptance for forty-five (45) days after the day of Bid opening. BIDDER will sign and submit the Agreement with the Bonds and other documents required by the Bidding Requirements within fifteen (15) days after the date of OWNER's Notice of Award.

3.1.6 In submitting this Bid, BIDDER represents, as more fully set forth in the Agreement, that:

a. BIDDER has examined copies of all the Bidding Documents and of the following Addenda (receipt of all which is hereby acknowledged):

Date	Number
_____	_____
_____	_____

b. BIDDER has familiarized itself with the nature and extent of the Contract Documents, Work, site, locality, and all local conditions and Laws and Regulations that in any manner may affect cost, progress, performance or furnishing of the Work.

c. BIDDER has given ENGINEER written notice of all conflicts, errors or discrepancies that it has discovered in the Contract Documents and the written resolution thereof by ENGINEER is acceptable to BIDDER.

d. This Bid is genuine and not made in the interest of or on behalf of any undisclosed person, firm or corporation and is not submitted in conformity with any agreement or rules of any group, association, organization or corporation; BIDDER has not directly or indirectly induced or solicited any other Bidder to submit a false or sham

Bid; BIDDER has not solicited or induced any person, firm or corporation to refrain from bidding; and BIDDER has not sought by collusion to obtain for itself any advantage over any other Bidder or over OWNER.
BID SCHEDULE

BIDDER will complete the work for the following price:

Total $_____

Completion Time

The Contractor shall commence work under the Contract around July 15, 2024 or shortly thereafter. The Contractor shall complete all work within 60 calendar days after the "Notice to Proceed."

Subsection 108.08 shall include the following:

3.3.2 The following documents are attached to and made a condition of this Bid:

(a) Required Bid Security in the form of_____.

(b) Required BIDDER'S General Information Statement with supporting data.

(c) Information Required of Bidder General Information

3.3.2 The terms in this Bid which are defined in the General Conditions of the Construction Contract included as part of the Contract Documents have the meanings assigned to them in the General Conditions

SUBMITTED ON_____, 2024

CONTRACTOR:

BY:

TITLE:

ADDRESS:

TELEPHONE:

(SEAL, IF CORPORATION):

INFORMATION REQUIRED OF BIDDER – GENERAL INFORMATION

The bidder shall furnish the following information. Failure to comply with this requirement will render the proposal informal and may cause its rejection. Additional sheets may be attached if necessary.

1. Firm name and address:

2. Telephone:

3. Type of firm (check one)
   Individual Partnership
   Corporation

4. Contractor's license: Primary class_____Lic. No.

5. Supplemental classifications held, if any:

6. Names and titles of all officers of the firm:

7. Number of years as a contractor in construction work of this type:

8. Three projects of this type and complexity recently constructed by bidder:

Contract Amount	Type of Project	Date Completed	Owner's Name & Address

9. Subcontractors who will perform work in excess of one-half percent of the total bid price:

Name	Address	Work to be Performed

10. Person who attended the mandatory pre-bid conference:

*Name:*_____*Date of Inspection:*

11. NOTE: If requested by the Owner, the bidder shall furnish a notarized financial statement, references, and other information, sufficiently complete to permit an appraisal of his current financial condition.

END OF SECTION

SECTION 04.20

STATEMENT OF BIDDERS QUALIFICATIONS

All questions must be answered and the data given must be clear and comprehensive. This statement must be notarized. If necessary, questions may be answered on separate attached sheets. The Bidder may submit any additional information he desires.

1. Name of Bidder:

2. Permanent main office address:

3. When organized:

4. If a corporation, where incorporated:

5. How many years have you been engaged in the contracting business under your present firm or trade name?

6. Contracts on hand: (Schedule these, showing the amount of each contract and the appropriate anticipated dates of completion.)

7. General character of Work performed by your company:

8. Have you ever failed to complete any Work awarded to you?
   If so, where and why?

9. Have your ever defaulted on a contract?
   If so, where and why?

10. List the similar scale projects recently completed by your company, stating the approximate cost of each, and the month and year completed location and type of construction.

11. List your major equipment available for this contract.

12. Experience in construction work similar in scope to this project:

13. Background and experience of the principal members of your organization, including officers: 14. Credit

Available: $

15. Bank reference:

16. Will you, upon request, fill out a detailed financial statement and furnish any other information that may be required by the OWNER?

17. Are you licensed as a General Contractor?

    If yes, in what city, county and state?

    What class, licenses and numbers?

18. Do you anticipate subcontracting Work under this Contract?

    If yes, what percent of total contract?
    and to whom?
    **See Section 4.3 for Schedule Form of Subcontractors.

19. Are any lawsuits pending against you or your firm at this time?
    if yes, DETAIL

20. What are the limits of your public liability? DETAIL

What company?

21. What are your company's bonding limitations?

the undersigned hereby authorizes and requests any person, firm, or corporation to furnish any information requested by the OWNER in verification of the recital comprising this Statement of Bidder's Qualifications.

Dated at_____this_____day of_____20_____.

Name of Bidder

By:

Title:

State of_____)

County of_____)

being duly sworn deposes and says that they are_____of

(Name of Organization)

and that the answers to the foregoing questions and all statements therein contained are true and correct.

Subscribed and sworn to before me this_____day of_____, 20_.

Notary Public

My commission expires_____ .

END OF SECTION

SECTION 04.30

SCHEDULE OF SUBCONTRACTORS

The bid is based on subcontracting certain major portions of the Work to subcontractors as listed below.

ITEM	SUBCONTRACTOR

END OF SECTION

SECTION 05.00

AGREEMENT

THIS AGREEMENT is entered into between:

Hinsdale County, Colorado (hereinafter called OWNER) and_____(hereinafter called CONTRACTOR).

is dated as of the____day of_____in the year of 2024, and shall be effective on the date this AGREEMENT is signed by the OWNER.

OWNER and CONTRACTOR, in consideration of the mutual covenants hereinafter set forth, agree as follows:

ARTICLE 1. WORK

CONTRACTOR shall complete all Work as specified or indicated in the Contract Documents. The Project shall be governed by the **Colorado Department of Transportation Standard Specifications for Road and Bridge Construction, 2023 version**, which are made a part of the Contract Documents by this reference. The Project, for which the Work under the Contract Documents may be the whole or only a part, is defined as the project shall include construction of a soft surface trail, installation of a pedestrian bridge and associated culverts and signs.

ARTICLE 2. OWNER'S REPRESENTATIVE

Dan Quigley, hereinafter referred to as the OWNER'S REPRESENTATIVE, shall assume the duties and responsibilities and shall have the rights and authority assigned to the OWNER' S REPRESENTATIVE and/or the ENGINEER or PROJECT ENGINEER in the Contract Documents in connection with completion of the Work in accordance with the Contract Documents.

ARTICLE 3. CONTRACT TIMES

3.1 The Work for the Hinsdale County **CR 30 Bike Lane and Chip Seal Project** shall be Substantially Completed as follows:

Substantial Completion: 60 Calendar Days after notice to Proceed

The Work shall be substantially completed and ready for the last progress Payment and Acceptance, not including withheld retainage, in accordance with the General Conditions by the 120th Calendar Day after Notice to Proceed, with final acceptance within 30 days thereafter.

Final Settlement shall be conducted within ninety days of the Owner's Final Acceptance of the completed Project, following which the Final Payment including retainage shall be disbursed pursuant to Section 38-26-107, C.R.S.

Refer to Section 108 concerning milestones and remedies for failure to meet milestones.

Liquidated Damages. Refer to Section 108 concerning Liquidated Damages.

ARTICLE 4. INSURANCE - See Section 107 for insurance.
Hinsdale County and CDOT shall be named as additional insured on the Commercial General Liability and Automobile Liability Insurance policies.

ARTICLE 5. BUDGET RE-APPROPRIATION – Not Used

ARTICLE 6. CONTRACT PRICE

6.1 OWNER shall pay CONTRACTOR for performance of the Work in accordance with the Contract Documents in current funds as follows:

_____in accordance with the Bid Form, attached and incorporated herein by this reference. In compliance with Section 24-91- 103.6, C.R.S., OWNER has lawfully budgeted and appropriated funds for the Project that are equal to, or in excess of, the Contract Price, for the year 2024. No Project Change Orders that increase the Contract Price may be legally approved by the Owner unless it has appropriated, or otherwise legally authorized, an additional amount that is sufficient to fund such Change Order(s).

ARTICLE 7. PAYMENT PROCEDURES – See Section 109 for Payment Procedures

ARTICLE 8. CONTRACTOR'S REPRESENTATION

In entering into this Agreement, the CONTRACTOR makes the following representations:

8.1 CONTRACTOR has familiarized himself with the nature and extent of the Contract Documents, Work, site, locality, and with all local conditions and Laws and Regulations that in any manner may affect cost, progress, performance or furnishing of the Work.

8.2 CONTRACTOR has obtained and carefully studied (or assumes responsibility for obtaining and carefully studying) all such examinations, investigations, explorations, tests, reports, and studies which pertain to the subsurface or physical condition at or contiguous to the site or otherwise may affect the cost, progress, performance or furnishing of the Work as CONTRACTOR considers necessary for the performance or furnishing of the Work at the Contract Price, within the Contract Times and in accordance with the other terms and conditions of the Contract Documents, including specifically the provisions of paragraph 4.2 of the General Conditions; and no additional examinations, investigations, explorations, tests, reports, studies or similar information or data are or will be required by CONTRACTOR for such purposes.

8.3 CONTRACTOR has reviewed and checked all information and data shown or indicated on the

Contract Documents with respect to data shown or indicated on the Contract Documents with respect to existing Underground Facilities at or contiguous to the site and assumes responsibility for the accurate location of said Underground Facilities. No additional examinations, investigations, explorations, tests, reports, studies or similar information or data in respect of said Underground Facilities are or will be required by CONTRACTOR in order to perform and

furnish the Work at the Contract Price, within the Contract Times and in accordance with the other terms and conditions of the Contract Documents, including specifically the provision of paragraph 4.3 of the General Conditions. It shall be the responsibility of the CONTRACTOR to coordinate all utility adjustments.

8.4 CONTRACTOR has correlated the results of all such observations, examinations, investigations, tests, reports, and data with the terms and conditions of the Contract Documents.

8.5 CONTRACTOR has given OWNER written notice of all conflicts, errors or discrepancies that he has discovered in the Contract Documents and the written resolution thereof by OWNER is acceptable to CONTRACTOR.

8.6 CONTRACTOR agrees to provide a qualified project superintendent that will be on site full time until the project is substantially complete and then as necessary to adequately coordinate the completion of the project. The project superintendent must be capable of following the project schedule and coordinating the Work accordingly to complete the project on schedule; communicating effectively with the adjacent residents and business owners to insure their understanding of the work and the access to their property; and working with the OWNER and OWNERS REPRESENTATIVE and ENGINEER.

ARTICLE 9. CONTRACT DOCUMENTS

9.1 The Contract Documents which comprise the entire Agreement between OWNER and

CONTRACTOR concerning the Work consist of the following documents:

Colorado Department of Transportation Standard Specifications for Road and Bridge Construction, 2023 version
Standard Special Provisions Project Special Provisions

01.00 Instructions to Bidders
02.00 Invitation to Bid
03.00 Bid Form
04.20 Statement of Bidders Qualifications
04.30 Schedule of Subcontractors
05.00 Agreement
05.10 Notice of Award
05.30 Notice to Proceed
06.10 Performance Bond

06.35 Certificate of Substantial Completion
06.40 Certificate of Final Acceptance
06.50 Lien Waiver Release (Contractor)
06.51 Lien Waiver Release (Subcontractor)
06.60 Consent of Surety

Drawings labeled:___ **County Road 30 Bike Lane Installation and Chip Seal Overlay**

9.4 Documentation submitted by CONTRACTOR and accepted by OWNER, in writing prior to Notice of Award.

9.5 The Contract Documents also include all written amendments and other documents amending, modifying, or supplementing the Contract Documents pursuant to paragraphs 3.5 and 3.6 of the General Conditions.

9.6 There are no Contract Documents other than those listed above in this Article 9. The Contract Documents may only be amended, modified or supplemented as provided in paragraphs 3.5 and 3.6 of the General Conditions.

9.7 In the event of a conflict or inconsistency in the Contract Documents, the more stringent provision shall control.

ARTICLE 10. INDEMNIFICATION

10.1 The CONTRACTOR agrees to indemnity and hold harmless Hinsdale County, their officers, agents, employees, consultants, and insurers, from and against all liability, claims, and demands, on account of injury, loss, or damage, including without limitation claims arising from bodily injury, personal injury, sickness, disease, death, property loss or damage, or any other loss of any kind whatsoever, which arise out of or are in any manner connected with this contract, if such injury, loss, or damage is caused in whole or in part by, or is claimed to be caused in whole or in part by, the act, omission, error, professional error, mistake, negligence, or other fault of the CONTRACTOR, any subcontractor of the CONTRACTOR, or which arises out of any worker's compensation claim of any employee of the CONTRACTOR or of any employee of the subcontractor of the CONTRACTOR. The CONTRACTOR agrees to investigate, handle, respond to, and provide defense for and defend against, any such liability, claims, or demands at the sole expense of the CONTRACTOR. The CONTRACTOR also agrees to bear all other costs and expenses related thereto, including court costs and attorney fees, whether or not any such liability, claims, or demands alleged are groundless, false, or fraudulent.

ARTICLE 11. MISCELLANEOUS

11.1 Terms used in this Agreement which are defined in Section 101 of the General Provisions shall have the meanings indicated in the General Provisions.

11.2 No assignment by a party hereto of any rights under or interests in the Contract

Documents will be binding on another party hereto without the written consent of the party sought to be bound; and specifically but not without limitations, moneys that may become due and moneys that are due may not be assigned without such consent (except to the extent that the effect of this restriction may be limited by law), and unless specifically stated to the contrary in any written consent to an assignment, no assignment will release or discharge that assignor from any duly or responsibility under the Contract Documents.

11.3 OWNER and CONTRACTOR each binds itself, its partners, successors, assigns and legal representatives to the other party hereto, its partners, successors, assigns and legal representatives in respect to all covenants, Agreement and obligations contained in the Contract Document.

OWNER: Hinsdale County, Colorado CONTRACTOR:

By: By:

Title:_____ Title:_____

Date:_____ Date:_____

Attest:_____ Attest:_____

Address for giving notices:

Hinsdale County Contractor:
Mailing Address:
311 Henson Street, Hinsdale , CO 81235:

END OF SECTION

SECTION 05.10

NOTICE OF AWARD

DATE:

TO:

PROJECT: **County Road 30 Bike Lane Installation and Chip Seal Overlay**

OWNER: Hinsdale County, Colorado (hereinafter referred to as the OWNER)

You are hereby notified that your Bid dated_____, for the above project has been considered. You are the apparent successful Bidder and have been awarded a Contract for the **County Road 30 Bike Lane Installation and Chip Seal Overlay**

The Price of your Contract (Agreement) is $_____

Four (4) copies of each of the proposed Contract Documents (except Drawings) accompany this Notice of Award. Three (3) sets of the Drawings and specifications will be delivered separately or otherwise made available to you immediately.

You must comply with the following conditions precedent within ten (10) days of the date of this Notice of Award.

1. You must deliver to the OWNER four (4) fully executed counterparts of the Agreement including all the Contract Documents.
2. You must deliver with the executed Agreement the Contract Security (Bonds) as specified in the Instructions to Bidders, Bid Form, General Conditions (Article 5.1) and Supplementary Conditions.

Failure to comply with these conditions within the time specified will entitle OWNER to consider your Bid abandoned, to annul this Notice of Award and to declare your Bid Security forfeited.

Within ten (10) days after you comply with those conditions, OWNER will return to you one (1) **fully signed** counterpart of the Agreement with the Contract Documents attached.

OWNER: Hinsdale County, Colorado

BY:

TITLE:

END OF SECTION

SECTION 05.30

NOTICE TO PROCEED

DATED:

PROJECT: **County Road 30 Bike Lane Installation and Chip Seal Overlay**

To:

This notice is to advise you:

That the contract covering the above-described Project has been fully executed by the CONTRACTOR and the OWNER.

That the required CONTRACTOR's Performance Bond and Payment Bond has been received by the OWNER.

That the OWNER has approved the said Contract Documents, refer to Payment Procedures Article 7 of the Agreement - Section 5.

Therefore, as the CONTRACTOR for the above described Work, you are hereby authorized and directed to proceed upon receipt this notice as required by the Agreement.

Dated this_____day of_____, 2024

The dates for Substantial Completion shall be **60 Days after Notice to Proceed** for **County Road 30 Bike Lane Installation and Chip Seal Overlay**

The date for Final Completion for the entire project shall be **30 days thereafter**.

Hinsdale County, Colorado (OWNER)

By:

Title:

ACKNOWLEDGMENT OF NOTICE
Receipt of the above Notice to Proceed is hereby acknowledged this_____day of 2024.

CONTRACTOR

By:_____

Title:_____

END OF SECTION

SECTION 06.10

PERFORMANCE BOND

Bond No.

KNOW ALL MEN BY THESE PRESENTS: that (Firm) _____

(Address) _____
(an Individual), (a Partnership), (a Corporation), hereinafter referred to as the Principal and

(Firm) _____
(Address) _____

hereinafter referred to as the Surety, are held and firmly bound unto Hinsdale County, Board of County Commissioners 311 Henson Street, Hinsdale , CO 81235 a hereinafter referred to as the OWNER, in the penal sum of

_____
in lawful money of the United States, for the payment of which sum well and truly to be made, we bind ourselves, successors and assigns, jointly and severally, firmly by these presents.

THE CONDITIONS OF THIS OBLIGATION are such that whereas the Principal entered into a certain Agreement with the OWNER, dated the_____day of_____,2024
a copy of which is hereto attached and made a part hereof for the performance of the **County Road 30 Bike Lane Installation and Chip Seal Overlay Project**

NOW, THEREFORE, if the Principal shall well, truly and faithfully perform its duties, all the undertakings, covenants, terms, conditions and agreements of said Agreement during the original term thereof, and any extensions thereof which may be granted by the OWNER, with or without Notice to the Surety and during the life of the guaranty period (two years - Refer to Section 00800 - Supplementary Conditions (SC-13.12), and if shall satisfy all claims and demands incurred under such Agreement, and shall fully indemnify and save harmless the OWNER from all cost and damages which it may suffer by reason of failure to do so, and shall reimburse and repay the OWNER all outlay and expense which the OWNER may incur in making good any default and then this obligation shall be void; otherwise to remain in full force and effect.

PROVIDED, FURTHER, that the said Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the Agreement or to the Work to be performed there under or the Specifications accompanying the same shall in any way affect its obligation on this bond; and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the Agreement or to the Work or to the Specifications.

PROVIDED, FURTHER, that no settlement between the OWNER and the CONTRACTOR shall abridge the right of any beneficiary hereunder, whose claim may be unsatisfied.

PROVIDED, FURTHER, that the Surety Company must be authorized to transact business in the State of Colorado and be acceptable to the OWNER.

IN WITNESS WHEREOF, this instrument is executed in four (4) counterparts, each one of which shall be deemed an original, this_____day of_____, 2024

IN PRESENCE OF

Principal

By:_____

(Title)_____

(Address) _____

(Corporate Seal)

IN PRESENCE OF:

Other Partners

By:_____

IN PRESENCE OF:

Surety

By:_____
(Attorney-in-Fact)

(Address) _____

(Surety Seal)

Note: Date of Bond must not be prior to date of Agreement. If CONTRACTOR is Partnership, all partners should execute Bond.

END OF SECTION

SECTION 06.15

PAYMENT BOND

Bond No._____

KNOW ALL MEN BY THESE PRESENTS: that (Firm) _____

(Address) _____
(an Individual), (a Partnership), (a Corporation), hereinafter referred to as the Principal and

(Firm) _____
(Address) _____

hereinafter referred to as the Surety, are held and firmly bound unto Hinsdale County, 311 Henson Street, Hinsdale, CO 81235 a hereinafter referred to as the OWNER, in the penal sum of _____ in lawful money of the United States, for the payment of which sum well and truly to be made, we bind ourselves, successors and assigns, jointly and severally, firmly by these presents.

THE CONDITIONS OF THIS OBLIGATION are such that whereas the Principal entered into a certain Agreement with the OWNER, dated the_____day of_____, 2024, a copy of which is hereto attached and made a part hereof for the performance of the Town of Telluride Project,

NOW, THEREFORE, if the Principal make payment to all persons, firms, subcontractors, and corporations furnishing materials for or performing labor in the prosecution of the Work provided for in such Agreement and any authorized extension or modification thereof, including all amounts due for materials, lubricants, repairs on machinery, equipment and tools, consumed, rented or used in connection with the construction of such Work, and all insurance premiums on said Work, and for all labor, performed in such Work whether by subcontractor or otherwise, then this obligation shall be void; otherwise to remain in full force and effect.

PROVIDED, FURTHER, that the said Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the Agreement or to the Work to be performed thereunder or the Specifications accompanying the same shall in any way affect its obligation on this bond; and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the Agreement or to the Work or to the Specifications.

PROVIDED, FURTHER, that no settlement between the OWNER and the CONTRACTOR shall abridge the right of any beneficiary hereunder, whose claim may be unsatisfied.

PROVIDED, FURTHER, that the Surety Company must be authorized to transact business in the State of Colorado and be acceptable to the OWNER.

IN WITNESS WHEREOF, this instrument is executed in four (4) counterparts, each one of which shall be deemed an original, this_____day of_____, 2024.

IN PRESENCE OF:

Principal

By:_____

(Title) _____

(Address) _____

(Corporate Seal)

IN PRESENCE OF:

Other Partners

By:_____

IN PRESENCE OF:

Surety

By:_____
(Attorney-in-Fact)

(Address) _____

(Surety Seal)

Note: Date of Bond must <u>not</u> be prior to date of Agreement. If CONTRACTOR is Partnership, all partners should execute Bond.

END OF SECTION

SECTION 06.35

CERTIFICATE OF SUBSTANTIAL COMPLETION

TO: Hinsdale County, Colorado
(OWNER)

DATE OF SUBSTANTIAL COMPLETION:

60 Days after Notice to Proceed

PROJECT TITLE:

County Road 30 Bike Lane Installation and Chip Seal Overlay
CDOT Project #: 25371

OWNER: Hinsdale County

CONTRACTOR:_____

CONTRACT DATE:_____

The Work performed under this contract has been inspected by authorized representatives of the OWNER, CONTRACTOR, and the ENGINEER and the project (or specified part of the project, as indicated above) is hereby declared to be substantially completed on the above date.

The Project, for which the Work under the Contract Documents may be the whole or only a part, is defined as the project shall include roadway reconditioning, chip seal overlay, signage and pavement markings.

A tentative list of items to be completed or corrected is appended hereto. This list may not be exhaustive, and the failure to include an item on it does not alter the responsibility of the CONTRACTOR to complete all the Work in accordance with the Contract Documents.

By:_____ _____
AUTHORIZED REPRESENTATIVE DATE

The CONTRACTOR accepts the above Certificate of Substantial Completion and agrees to complete and correct the items on the tentative list within the time indicated.

By:_____ _____
CONTRACTOR AUTHORIZED REPRESENTATIVE DATE

The OWNER accepts the project or specified area of the project as substantially complete and will assume full possession of the project or specified area of the project at 12:01 a.m._____. The responsibility for heat, utilities, security, and insurance (See the General Requirements Section 01560 - Temporary Utilities) under the Contract Documents shall be as set forth under 'Remarks' below.

Hinsdale County, Colorado

By:_____
OWNER AUTHORIZED REPRESENTATIVE DATE_____

END OF SECTION

SECTION 06.40

CERTIFICATE OF FINAL ACCEPTANCE

TO:

Gentlemen:

You are hereby notified that on the_____day of_____, 2024 Hinsdale County has accepted the Work completed by_____ for the **County Road 30 Bike Lane Installation and Chip Seal Overlay** Payment of the withheld retainage, and any other amounts legally due and owing to the Contractor, will be made by the Owner in accordance with the statutory Final Settlement process. In accordance with the applicable statutory Notice requirements the Owner will conduct the Final Settlement for this Project on the_____day of _____-____ 2024, at_____pm, to be held in Conference Room, at 311 Henson Street, Hinsdale , CO 81235 In conformance with the Contract Documents for this project, your obligations and guarantees will continue for the specified time from the following date:_____.

Sincerely,

OWNER: Hinsdale County, Colorado

By:_____

Title:_____

ATTEST:_____

Title:_____

END OF SECTION

SECTION 06.50

LIEN WAIVER RELEASE
(CONTRACTOR)

TO: Hinsdale County, Colorado (OWNER)

FROM: _____(CONTRACTOR)

PROJECT: **County Road 30 Bike Lane Installation and Chip Seal Overlay**
CDOT SA #:25371

1. The CONTRACTOR acknowledges having received payment, except retainage from the OWNER for all work, labor, skill and material furnished, delivered and performed by the CONTRACTOR for the OWNER of for anyone in the construction, design, improvement, alteration, addition or repair of the above described project.

2. In consideration of such payment and other good and valuable consideration, the receipt and adequacy of which are hereby acknowledged, the CONTRACTOR voluntarily waives all rights, claims and liens, including but not limited to, mechanic's liens, Miller Act claims (40 U.S.C.A 270 a and b), stop notices, equitable liens and labor and material bond rights which the CONTRACTOR may now or may afterward have, claim or assert for all and any work, labor, skill or materials furnished, delivered or performed for the construction, design, improvement, alteration, addition or repair of the above described project, against the OWNER or its officers, agents, employees or assigns, against any fund of or in the possession or control of the OWNER, against the project or against all land and the buildings on and appurtenances to the land improved by the project.

3. The CONTRACTOR affirms that all work, labor and materials, furnished, delivered or performed to or for the construction, design, improvement, alteration, addition or repair of the project were furnished, delivered or performed by the CONTRACTOR or its agents, employees, and servants, or by and through the CONTRACTOR by various Subcontractors or materialmen or their agents, employees and servants and further affirms the same have been paid in full and have released in full any and all existing or possible future mechanic's liens or rights or claims against the project or any funds in the OWNER's possession or control concerning the project or against the OWNER or its officers, agents, employees or assigns arising out of the project.

4. The CONTRACTOR agrees to defend and hold harmless the OWNER, the lender, if any, and Surety on the project against and form any claim hereinafter made by the CONTRACTOR's Subcontractors, materialmen, employees, servants, agents or assigns against the project or against the OWNER or its officers, employees, agents or assigns arising out of the project for all loss, damage and costs, including reasonable attorney's fees, incurred as a result of such claims.

5. The parties acknowledge that the description of the project set forth above constitutes an

adequate description of the property and improvements to which this Lien Waiver Release pertains. It is further acknowledged that this Lien Waiver Release is for the benefit of and may be relied upon by the OWNER, the lender, if any, and Surety on any labor and material bonds for the project.

Signed this_____day of_____, 20___.

CONTRACTOR:

By:_____

Title:_____

ATTEST:_ _____
Secretary

STATE OF COLORADO)
) ss.
COUNTY OF)

Subscribed and sworn to before me this_____day of
_____, 20___, by_____.

Witness my hand and official seal.
My Commission Expires:_____.

_____
Notary Public

END OF SECTION

SECTION 06.51

LIEN WAIVER RELEASE
(Subcontractor)

TO: _____(CONTRACTOR)

FROM: _____(Subcontractor)

PROJECT: **County Road 30 Bike Lane Installation and Chip Seal Overlay**
CDOT SA #:25371

1. The Subcontractor acknowledges having received payment from the CONTRACTOR for all work, labor, skill and material furnished, delivered and performed by the Subcontractor for the CONTRACTOR or for anyone in the construction, design, improvement, alteration, addition or repair of the above described project.

2. In consideration of such payment and other good and valuable consideration, the receipt and adequacy of which are hereby acknowledged, the Subcontractor voluntarily waives all rights, claims and liens, including but not limited to, mechanic's liens, Miller Act claims (40 U.S.C.A 270 a and b), stop notices, equitable liens and labor and material bond rights which the Subcontractor may now or may afterward have, claim or assert for all and any work, labor, skill or materials furnished, delivered or performed for the construction, design, improvement, alteration, addition or repair of the above described project, against the CONTRACTOR or its officers, agents, employees or assigns, against any fund of or in the possession or control of the OWNER, against the project or against all land and the buildings on and appurtenances to the land improved by the project.

3. The Subcontractor affirms that all work, labor and materials, furnished, delivered or performed to or for the construction, design, improvement, alteration, addition or repair of the project were furnished, delivered or performed by the Subcontractor, its agents, employees, and servants, or by and through the Subcontractor by various Sub-contractors or materialmen or their agents, employees and servants and further affirms the same have been paid in full and have released in full any and all existing or possible future mechanic's liens or rights or claims against the project or against the CONTRACTOR or its officers, agents, employees or assigns arising out of the project.

4. The Subcontractor agrees to defend and hold harmless the CONTRACTOR, the lender, if any, and Surety on the project against and form any claim hereinafter made by the Subcontractor's sub- subcontractors, materialmen, employees, servants, agents or assigns against the project or against the CONTRACTOR, OWNER, lender or Surety or their officers, employees, agents or assigns arising out of the project for all loss, damage and costs, including reasonable attorneys fees, incurred as a result of such claims.

5. The parties acknowledge that the description of the project set forth above constitutes an adequate description of the property and improvements to which this Lien Waiver Release pertains. It is further acknowledged that this Lien Waiver Release is for the benefit of and may be relied upon by the CONTRACTOR, OWNER, the lender, if any, and Surety on any labor and material bonds for the project.

Signed this_____day of_____, 20____.

Subcontractor:_____

By:_____

Title:_____

ATTEST:_ _____
Secretary

STATE OF COLORADO)
) ss.
COUNTY OF)

Subscribed and sworn to before me this_____day of _____, 20_____,

by_____.

Witness my hand and official seal.
My Commission Expires:_____.

_____
Notary Public

END OF SECTION

SECTION 06.60

CONSENT OF SURETY

TO: Hinsdale County, Colorado, (hereinafter referred to as the OWNERS)

CONTRACTOR:

PROJECT: **County Road 30 Bike Lane Installation and Chip Seal Overlay**
CDOT PROJ #:25371

CONTRACT DATE:
In accordance with the provisions of the Contract between the OWNER and the CONTRACTOR as indicated above, for _____
_____

on bond of (Surety)_____

hereby approves of the Final Payment to the CONTRACTOR, and agrees that Final Payment to the CONTRACTOR shall not relieve the Surety Company of any of its obligations to the OWNER, as set forth in the said Surety Company's Bond.

IN WITNESS WHEREOF, the Surety Company has hereunto set it hand this
day of_____, 202___

(Surety Company)

By:_____

ATTACH: Power of Attorney and Certificate of Authority of Attorney(s)-in-Fact.

END OF SECTION

APPENDIX A

CDOT FORM 606
CDOT FORM 1413
CDOT FORM 1414

COLORADO DEPARTMENT OF TRANSPORTATION

ANTI-COLLUSION AFFIDAVIT

PROJECT NO.

LOCATION

I hereby attest that I am the person responsible within my firm for the final decision as to the price(s) and amount of this bid or, if not, that I have written authorization, enclosed herewith, from that person to make the statements set out below on his or her behalf and on behalf of my firm.

I further attest that:

1. The price(s) and amount of this bid have been arrived at independently, without consultation, communication or agreement for the purpose or with the effect of restricting competition with any other firm or person who is a bidder or potential prime bidder.

2A. Neither the price(s) nor the amount of this bid have been disclosed to any other firm or person who is a bidder or potential prime bidder on this project, and will not be so disclosed prior to bid opening.

2B. Neither the prices nor the amount of the bid of any other firm or person who is a bidder or potential prime bidder on this project have been disclosed to me or my firm.

3A. No attempt has been made to solicit, cause or induce any firm or person who is a bidder or potential prime bidder to refrain from bidding on this project, or to submit a bid higher than the bid of this firm, or any intentionally high or non-competitive bid or other form of complementary bid.

3B. No agreement has been promised or solicited for any other firm or person who is a bidder or potential prime bidder on this project to submit an intentionally high, noncompetitive or other form of complementary bid on this project.

4. The bid of my firm is made in good faith and not pursuant to any consultation, communication, agreement or discussion with, or inducement or solicitation by or from any firm or person to submit any intentionally high, noncompetitive or other form of complementary bid.

5. My firm has not offered or entered into a subcontract or agreement regarding the purchase or sale of materials or services from any firm or person, or offered, promised or paid cash or anything of value to any firm or person, whether in connection with this or any other project, in consideration for an agreement or promise by any firm or person to refrain from bidding or to submit any intentionally high, noncompetitive or other form of complementary bid or agreeing or promising to do so on this project.

6. My firm has not accepted or been promised any subcontract or agreement regarding the sale of materials or services to any firm or person, and has not been promised or paid cash or anything of value by any firm or person, whether in connection with this or any other project, in consideration for my firm's submitting any intentionally high, noncompetitive or other form of complementary bid, or agreeing or promising to do so, on this project.

7. I have made a diligent inquiry of all members, officers, employees, and agents of my firm with responsibilities relating to the preparation, approval or submission of my firm's bid on this project and have been advised by each of them that he or she has not participated in any communication, consultation, discussion, agreement, collusion, or other conduct inconsistent with any of the statements and representations made in this affidavit.

8. I understand and my firm understands that any misstatement in this affidavit is and shall be treated as a fraudulent concealment from the Colorado Department of Transportation, of the true facts relating to submission of bids for this contract.

I DECLARE UNDER PENALTY OF PERJURY IN THE SECOND DEGREE, AND ANY OTHER APPLICABLE STATE OR FEDERAL LAWS, THAT THE STATEMENTS MADE ON THIS DOCUMENT ARE TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

Contractor's firm or company name	By	Date
	Title	
2nd contractor's firm or company name. (If joint venture.)	By	Date
	Title	

Sworn to before me this day of, 20

Notary Public	
My commission expires	

NOTE: This document must be signed in ink.

CDOT Form #606 1/02

COLORADO DEPARTMENT OF TRANSPORTATION

BIDDERS LIST

Project Name/Description	Project Number	Project Code/ SubAccount	Proposal Date
Contractor			Region

Subcontractors/Suppliers/Vendors: The bidder must list all firms seeking to participate on the contract. This information is used by the Colorado Department of Transportation (CDOT) to determine overall goals for the Disadvantaged Business Enterprise Program. Failure to submit this form may result in the proposal being rejected.

Firm Name	Email	Work Proposed (Select all that apply)	DBE (Y/N)	Selected (Y/N)

I certify that the information provided herein is true and correct to the best of my knowledge.

Name	Signature/Initials	Title	Date

Work Proposed Categories:

1. *Materials and Supplies*
2. *Flagging and Traffic Control*
3. *Trucking and Hauling*
4. *Precast Concrete, Foundations, and Footings*
5. *Concrete Paving, Flatwork and Repair*
6. *Lighting and Electrical*
7. *Signs, Signal Installation, and Guardrail*
8. *Fencing*
9. *Buildings and Vertical Structures*
10. *Utility, Water and Sewer Lines*
11. *Structural Steel and Steel Reinforcement*
12. *Riprap and Anchored Retaining Walls*
13. *Landscape and Erosion Control*
14. *Bridge and Bridge Deck Construction*
15. *Asphalt Paving*
16. *Road and Parking Lot Marking*
17. *Chip Seal, Crack Seal, Joint Seal and Crack Fill*
18. *Bridge Painting and Coating*
19. *Stairway and Ornamental Metal*
20. *Parking Lots and Commercial Sidewalks*
21. *Clearing, Demolition, Excavation and Earthwork*
22. *Engineering and Surveying Services*
23. *Public Relations and Involvement*
24. *Piles and Deep Foundations*
25. *Waste Management and Recycling*
26. *Site Clean Up*
27. *Mechanical and HVAC*
28. *Tunnel Construction*
29. *Profiling and Grinding*
30. *Environmental Health and Safety*

This form must be submitted by the proposal deadline. For CDOT projects, submit to cdot_hq_dbeforms@state.co.us.

CDOT Form #1413 12/16

COLORADO DEPARTMENT OF TRANSPORTATION

ANTICIPATED DBE PARTICIPATION PLAN

Bidder:		Project Name:	
Bidder Contact:		Subaccount #:	
Bidder Phone:		Bid Submission Date:	
Bidder Email:		DBE Contract Goal:	
Preferred Contact Method:		Region:	

DBE Commitments

DBE Firm Name	Work to Be Performed	Commitment Amount	Eligible Participation

Total Eligible Participation	$0.00
Total Bid Amount	
Total Eligible Participation Percentage	#DIV/0!

Bidder Signature

COMMITMENTS LISTED ON THIS FORM SHALL BE BINDING ON THE BIDDER UPON CONTRACT AWARD. IF THE DBE GOAL IS ZERO, DBE COMMITMENTS ARE OPTIONAL AND THE BIDDER IS NOT REQUIRED TO LIST ANY DBE COMMITMENTS ON THIS FORM. This section must be signed by an individual with the authority to bind the Bidder. By signing this form, as an authorized representative of the Bidder, you declare under penalty of perjury in the second degree and any other applicable state or federal laws that the statements made in this document are true and complete to the best your knowledge. Further, you attest that you understand the following:

CDOT shall not award a contract (or provide its concurrence to award a Local Agency Project) until it has been determined that commitments are sufficient to meet the DBE contract goal or else good faith efforts have been made to meet the goal despite falling short. Once your bid has been submitted, commitments may not be modified or terminated without the approval of CDOT. If selected as the lowest apparent bidder, you shall submit a Form 1415 for each commitment listed above. If you have not met the contract goal, you will also be required to submit documentation of all good faith efforts to meet the contract goal. It is your responsibility to ensure that the selected DBEs are certified for the work to be performed and that their eligible participation has been properly counted. Please review your project's DBE requirements for additional information and instructions on calculating eligible participation.

Name	Title	Signature	Date

CDOT Form # 1414 10/20

APPENDIX B

CDOT FORM 205
CDOT FORM 1425

APPENDIX C

PROJECT SPECIAL PROVISIONS

COLORADO DEPARTMENT OF TRANSPORTATION

PROJECT SPECIAL PROVISIONS
CR 30 BIKE LANE INSTALLATION AND CHIP SEAL OVERLAY
HINSDALE COUNTY, COLORADO

NOTICE TO BIDDERS

The proposal guaranty shall be a certified check, cashier's check, or bid bond in the amount of 5 percent of the Contractor's total bid.

Pursuant to Subsections 102.04 and 102.05, it is recommended that bidders on this project review the work site and plan details with an authorized Department representative. Prospective bidders shall contact one of the following listed authorized Department representatives at least 12 hours in advance of the time they wish to go over the project.

Program Engineer	Rob Beck
Resident Engineer	Nathan Jean, PE 2424 North Townsend Avenue Montrose, CO 81401 Office Phone: (970) 210-9578
Project Engineer	Dan Quigley, Buckhorn Engineering, Inc. 222 Park Avenue Montrose, CO 81401 Office Phone: 970-497-8852

The above referenced individuals are the only representatives of the Department with authority to provide any information, clarification, or interpretation regarding the plans, specifications, and any other contract documents or requirements.

Questions received from bidders along with CDOT responses will be posted on the CDOT web site listed below as they become available.

http://www.coloradodot.info/business/bidding/future-bidding-opportunities

If the bidder has a question or requests clarification that involves the bidder's innovative or proprietary means and methods, phasing, scheduling, or other aspects of construction of the project, the Project Engineer will direct the bidder to contact the Resident Engineer directly to address the question or clarification. The Resident Engineer will keep the bidder’s innovation confidential and will not share this information with other bidders.

The Resident Engineer will determine whether questions are innovative or proprietary in nature. If the Resident Engineer determines that a question does not warrant confidentiality, the bidder may withdraw the question. If the bidder withdraws the question, the Resident Engineer will not answer the question and the question will not be documented on the CDOT web site. If the bidder does not withdraw the question, the question will be answered, and both the question and CDOT answer will be posted on the web site. If the Resident Engineer agrees that a question warrants confidentiality, the Resident Engineer will answer the question, and keep both question and answer confidential. CDOT will keep a record of both question and answer in their confidential file.

2
NOTICE TO BIDDERS

All questions shall be directed to the Project contacts listed above no later than 7:00 A.M. Monday of the week of bid opening. Final questions and answers will be posted no later than Tuesday morning of bid opening week. Questions and answers shall be used for reference only and shall not be considered part of the Contract.

COMMENCEMENT AND COMPLETION OF WORK
FLOATING START DATE)

The Contractor shall select the date that contract time begins for this project, subject to the following conditions:

a) The earliest date shall be: July , 2024

b) The latest date shall be: July 30, 2024

c) The Contractor shall notify the Engineer, in writing, at least 30 days before the proposed beginning date. If the earlier date, as stated above, follows the award date by less than 30 days, the Contractor's written notice to the Engineer shall be at least 10 days before the proposed beginning date.

d) The date that contract time begins shall be subject to the Region Transportation Director's approval. A different date may be authorized in writing by the Chief Engineer in the "Notice to Proceed".

The Contractor shall complete all work within 60 working days in accordance with the "Notice to Proceed".

If material stockpiling begins before the beginning date, contract time will not be charged for the stockpiling effort. Stockpiling of materials before the beginning date is subject to the Engineer's approval. If such approval is given, stockpiled material will be paid for in accordance with sections 109 and 626.

REVISION OF SECTION 102

PROJECT PLANS AND OTHER DATA

Section 102 of the Standard Specifications is hereby revised for this project as follows:

Subsection 102.05 shall include the following:

After the proposals have been opened, the low responsible bidder may obtain an electronic set of plans and special provisions from the CDOT Business Management System (B2Gnow) website here: https://cdot.dbesystem.com/. In addition, if they are available for the project, the low responsible bidder may also obtain cross sections, major structure plan sheets, and computer output data.

REVISION OF SECTION 108

PROSECUTION AND PROGRESS

Section 108 of the Standard Specifications is hereby revised for this project as follows:

Subsection 108.05 shall include the following:

The Contractor shall provide and maintain traffic on the existing, temporary, or permanent hard paved surface during the duration of the project unless otherwise approved by the Project Engineer.

Delays or impacts to the Contractor due to the requirements of this provision shall not be a basis for an extension of time or additional compensation, or both.

Any denial or revocation of prior approval for traffic-handling requests shall not be the basis for any claim for additional time or compensation.

All costs incidental to the foregoing requirements will not be paid for separately but shall be included in the work.

Subsection 108.08 shall include the following:

No work will be allowed on Saturdays or Sundays without the Project Engineer's prior written approval. Requests to work weekends shall be made in writing to the Project Engineer by noon on Monday.

Working hours shall be 30 minutes after sunrise to 30 minutes before sunset, unless otherwise approved in writing by the Project Engineer.

No work will be allowed during the specific no-work times.

REVISION OF SECTION 304
AGGREGATE BASE COURSE (BLOTTER MATERIAL)

Section 304 of the Standard Specifications is hereby revised for this project as follows:

Subsection 304.02 shall include the following:

Materials for Aggregate Base Course (Blotter Material) shall conform to the requirements for Fine Aggregate, AASHTO M6, as shown in Subsection 703.01.

Subsection 304.04 shall include the following:

Aggregate Base Course (Blotter Material) shall be placed as directed by the Engineer. The Contractor shall ensure that an adequate supply of Aggregate Base Course (Blotter Material) is stockpiled at a location approved by the Engineer and is available for immediate use at all times.

Subsection 304.08 shall include the following:

Aggregate Base Course (Blotter Material) will not be measured and paid for separately but shall be included in the work.

REVISION OF SECTIONS 409 AND 411 CHIP SEAL

Section 409 of the Standard Specifications is hereby deleted and replaced with the following:

DESCRIPTION

409.01 This work consists of furnishing and applying asphalt emulsion and cover coat material on an existing surface, in accordance with these specifications and in conformity with the lines shown on the plans or established. When rejuvenating agent or emulsified asphalt is used as a fog seal, cover coat material will not be required over the fog seal.

MATERIALS

409.02 Asphalt Emulsion. Emulsified asphalt shall be polymerized or latex modified and shall be rapid set or medium set conforming to the requirements of subsection 702.02 for CRS-2P. The asphalt emulsion shall be CRS-2P. The fog coat shall be CSS-1H diluted at a 3:2 emulsified asphalt to water dilution rate.

Samples of the production chips and asphalt emulsion from the supplier shall be submitted to the Region Laboratory for compatibility testing in accordance with CPL 2213 a minimum of ten working days prior to work commencing. The Region Materials Engineer may require a change in emulsion for the cover coat and fog coat emulsions based on this testing. The Contractor shall obtain the samples in accordance with the current Field Materials Manual sampling procedures, and the chip sampling shall be witnessed by the Engineer or his representative.

409.03 Cover Coat Material. Cover coat material shall meet the requirements of subsection 703.05 for the type specified. Unless otherwise specified, no lightweight aggregates will be allowed. At the discretion of the Engineer, a portion of the samples or all of the samples of cover coat material for gradation testing shall be obtained at the stockpile of last location, prior to placement of material on the roadway. The Contractor shall open the face of stockpiles using a loader for representative sampling of the stockpile. Otherwise, acceptance samples shall be sampled by the Contractor at the spreader, in the locations directed by the Engineer. The Engineer or his representative shall witness the sampling and take immediate possession of the samples. Cover coat material recovered after sweeping shall not be used on the project unless it is stockpiled separately, sampled, tested, and approved by the Engineer.

CONSTRUCTION REQUIREMENTS

409.04 Weather Limitations. Asphalt emulsion shall not be applied on a damp surface, when either the air or pavement surface temperature is below 70 °F, or when weather conditions would prevent the proper construction of the chip seal.

409.05 Equipment. The following equipment or its equivalent shall be used:

(1) Asphalt distributor and equipment shall be capable of uniformly distributing asphalt emulsion at even temperature and uniform pressure on variable widths of surface up to 15 feet at readily determined and controlled rates from 0.05 to 2.0 gallons per square yard. The allowable variation from any specified rate shall not exceed plus or minus 0.02 gallon per square yard. The distributor's spreading capabilities shall be computer controlled or it shall be calibrated to conform to the distributor manufacturer's procedure prior to applying the emulsified asphalt.

Distributor equipment shall include a tachometer, pressure gauges, accurate volume measuring devices or a calibrated tank, and a thermometer for measuring temperatures of tank contents. Distributors shall be equipped with a power unit for the pump, and full circulation spray bars adjustable laterally and vertically. Distributors shall be equipped with an automatic heater capable of maintaining the asphalt emulsion at the manufacturer's recommended application temperature or at 140 °F, whichever is higher.

(2) At least one rotary power broom.

(3) A minimum of two pneumatic tire rollers, which weigh at least 10 tons each.

(4) One self-propelled aggregate spreader of approved design supported by at least four wheels equipped with pneumatic tires on two axles. The aggregate spreader shall be capable of applying the larger cover coat material to the surface ahead of the smaller cover coat material and shall have positive controls so the required quantity of material is deposited uniformly over the full width of the asphalt emulsion. Other types of aggregate spreaders may be used provided they accomplish equivalent results and are approved by the Engineer.

409.06 Preparation of Surface. The entire surface that is to receive a chip seal shall be cleaned of loose sand, dust, rock, mud, and all other debris that could prevent proper adhesion of the asphalt coating. The cleaning shall be accomplished by power broom, scraping, blading, or other approved measures. Chip sealing operations shall not be started until the surface is approved.

409.07 Applying Asphalt Emulsion. Asphalt emulsion shall be applied by a pressure distributor in a uniform, continuous spread and within the temperature range specified. The distributor's spreading capability shall be computer controlled or calibrated to conform to the distributor manufacturer's procedure prior to applying the emulsified asphalt. If streaking occurs, the distributor operation shall be stopped immediately until the cause is determined and corrected. Streaking is alternating, narrow, longitudinal areas of excessive and then insufficient quantities of asphalt emulsion. The quantity of asphalt emulsion per square yard may vary from the rate shown in the Contract, as directed. A strip of building paper, at least 3 feet in width and with a length equal to that of the spray bar of the distributor plus 1 foot shall be used at the beginning of each spread. If the distributor does not have a positive cut-off, the paper shall be used at the end of each spread. The paper shall be removed and disposed of in a satisfactory manner. The distributor shall be moving forward at proper application speed at the time the spray bar is opened. Skipped areas and deficiencies shall be corrected. Junctions of spreads shall be carefully made to assure a smooth riding surface.

The length of spread of asphalt emulsion shall not be in excess of the area that trucks loaded with cover coat material can immediately cover.

The spread of asphalt emulsion shall not be more than 6 inches wider than the width covered by the cover coat material from the spreading device. Under no circumstances shall operations proceed so asphalt emulsion will be allowed to chill, set up, dry, or otherwise impair retention of the cover coat.

Prior to placing emulsified asphalt for chip seal, the Contractor shall cover all bridge expansion joints, bridge drains, inlet grates, manhole covers, valve covers, and thermoplastic or plastic pavement markings. The Contractor shall protect these areas from contamination by materials from construction operations.

In the event that material enters inlet openings, expansion joints, drains, manhole lids, or valve lids, the Contractor shall clean the affected area, including any pipes or inlet boxes, at his own expense. In the event that the Contractor fails to protect the pavement markings, other than existing pavement marking paint or epoxy pavement marking for center lines, edge lines, and lane lines, the Contractor shall replace the affected markings with approved materials and using approved methods, at his own expense.

The distributor shall be parked so that asphalt emulsion will not drip on the surface of the traveled way. The Contractor shall adjust the distributor bar to prevent overspray onto curb and gutter, concrete barrier, or other items adjacent to the work. The Contractor shall completely remove any overspray at his own expense, using methods approved by the Engineer.

Some areas may require hand application of emulsion, cover coat and fog coat. There will be no additional payment for these areas.

409.08 Application of Cover Coat Material. Immediately following the application of the asphalt emulsion, cover coat material shall be spread in quantities as designated. The spreading rate may vary from the rate shown in the Contract only when approved in writing by the Engineer. Spreading shall be accomplished so the tires of the trucks or aggregate spreader do not contact the uncovered and newly applied asphalt emulsion.

The cover coat material shall be moistened with water prior to spreading, to eliminate or reduce the dust coating of the aggregate. The cover coat material shall not contain free moisture as evidenced by drain down in the delivery truck bed.

Immediately after the cover coat material is spread, deficient areas shall be covered with additional material. Rolling shall begin immediately behind the spreader and shall continue until at least three complete coverages are obtained. The Engineer may require additional rolling. Rolling shall be completed the same day the asphalt emulsion and cover coat materials are applied.

The completed roadway surface shall be lightly swept the following morning to remove any excess material, without removing any embedded material. Sweeping may be conducted the same day only if approved by the Engineer. The Contractor shall conduct additional sweeping if so directed. The second chip seal application shall not take place until the following day at the earliest and until the emulsion on the first layer is set and the surface is lightly broomed.

If included in the contract, a fog seal shall be applied to the surface of the completed chip seal at the rate of 0.11 ± 0.04 gallon per square yard of diluted emulsion. The fog seal shall have a 3:2 emulsion to water dilution rate. The application rate and the dilution rate may be changed by the Engineer. The Contractor shall allow the cover coat to cure for a minimum of five days before the fog seal may be applied.

Prior to construction, the Contractor shall submit a Process Control Plan to the Engineer. Work shall not begin until the plan is approved. The plan shall include the following:

(1) Type and size of Equipment to be used on the project. This includes information on distributor trucks, chip spreader and brooms as specified in subsection 409.05. The process control plan shall include the method and last date of calibration or certification of equipment, and the method to prevent overspray.

(2) The rate and method for sampling and testing of aggregates during production. The plan shall define the methods for crusher control on each aggregate used for the project. The crusher control test data shall be included.
(3) Method and location for handling, stockpiling and moistening aggregates. This shall include methods that will be used to avoid segregation and excessive aggregate breakdown.
(4) Method, location, and personnel that will be responsible for providing materials samples for Owner Acceptance Testing. The plan shall include a means and time to mechanically open the face of a stockpile for proper sampling.
(5) Results from Compatibility testing of the Aggregate and Emulsion as defined in CPL-2213, that result in Fair or Good Compatibility. A copy of CPL-2213 is available from the Region Materials Engineer.
(6) Proposed locations and lengths of test sections and proposed initial application rates.

The Contractor shall arrange work so that longitudinal joints in the chip seal occur only at centerline and/or lane lines in the existing roadway.

Prior to construction, the Contractor shall construct a test section to verify the rates of application of the cover coat and binder materials. Adjustments to the application rate shall be made using test sections until approved by the Engineer. Locations and lengths of the test sections shall be subject to the approval of the Engineer. If the Contractor proceeds beyond the test sections without the approval of the Engineer, the work shall be considered unauthorized work and shall be at the Contractor's expense.

The Contractor shall allow the fog seal to cure for a minimum of two days before epoxy pavement marking and plastic or thermoplastic pavement markings may be applied.

METHOD OF MEASUREMENT

409.09 Chip seal will be measured by the number of tons or square yards of the designated type of cover coat aggregate, in accordance with the project plans. Unless otherwise specified, the Contractor shall provide scale tickets meeting the requirements of Section 109.01. Tickets shall be provided upon delivery of the cover coat material to the project and prior to the application of cover coat material on the project. If the applied rate is less than the minimum rate allowed by the contract or otherwise approved in writing by the Engineer, the work shall be considered unacceptable and shall be corrected by the Contractor at his own expense, using a method approved by the Engineer. If the application rate exceeds the maximum rate in the contract or approved in writing by the Engineer, no payment will be made for the quantity in excess of the approved rate. Unless otherwise approved, the application rate for the cover coat shall follow the parameters established in the following Table 409.1:

TABLE 409.1
ALLOWABLE RANGE OF EMULSION SHOT RATE AND AGGREGATE SPREAD RATE

Emulsion Shot Rate Limit		Aggregate Coverage		Aggregate Type
Gallons/SY		Pounds/SY		
Minimum	Maximum	Minimum	Maximum	
0.39	0.42	26	30	Type II, Type IV

BASIS OF PAYMENT

409.10 The accepted quantities of chip seal will be paid for at the contract price per ton or square yard for cover coat material, as shown in the project plans.

Payment will be made under:

Pay Item	Pay Unit
409-01015 Cover Coat Material (Type II)	Square Yard
409-01015 Cover Coat Material (Type IV)	Square Yard

No additional payment will be made for additional rolling or brooming required by the Engineer.

Asphalt emulsion, including the asphalt emulsion used for fog seal, will be measured and paid for in accordance with section 411.

Section 411 of the Standard Specifications is hereby revised for this project as follows:

In Section 411.04, delete the final paragraph and replace with the following:

Diluted emulsified asphalt used for fog seal on chip seals will be measured by the actual weight of asphalt prior to dilution with water. The quantity to be corrected will be determined from the invoices of emulsified asphalt delivered to the project, corrected by the weight of any remaining emulsion in the distributor truck or tanker at the conclusion of the project. Correction for the final diluted emulsion at the conclusion of a project will be based on CDOT test results.

Section 411.05 shall include the following:

Pay Item	Pay Unit
411-10216 Emulsified Asphalt (CRS-2P)	GAL
411-10253 Emulsified Asphalt (CSS-1H)	GAL

REVISION OF SECTION 626
PUBLIC INFORMATION MANAGEMENT (TIER IV)

Section 626 of the Standard Specifications is hereby revised for this project to include the following:

DESCRIPTION

This work consists of providing Public Information Management throughout the duration of the project. The Contractor shall submit all documentation associated with the Public Information Management item to the Project Engineer. Before approval, the Engineer will coordinate review and approval with the Region Communications Manager (RCM).

This project (25731) will take place on 4.5 miles of CR30 roadway in Hinsdale County near the town of Lake City. The project work consists of chip seal and installing pavement markings on the new roadway

Anticipated communications issues on this project include:

(1) Consistent and timely communication is required with local governments (cities and counties) and stakeholders potentially impacted by the project, including the town of Lake City. Communication materials will need to include why the project is necessary, given there was a recent resurfacing project.
(2) Consistent and timely communication will also be necessary with residents surrounding Lake San Cristobal
(3) The project site is located on a busy county roadway used by local commuters and visitors to Lake San Cristobal in the Slumgullion Valley
(4) Accuracy and timeliness of communications, as well as full transparency on any setbacks, will be key to a successful project.
(5) Potentially strong reaction from area residents and businesses due to potential impacts on summer tourism, which plays a strong role in the local economy.
(6) Informing the public about the reasoning for removal of the existing epoxy pavement markings and replacing with temporary high-build paint prior to chip seal. The chip seal does not adhere to the epoxy paint and must be removed to prevent future separation.

CONSTRUCTION REQUIREMENTS

(a) *Public Information Manager (PIM)* The PIM shall perform all activities associated with Public Information Management for this project. In the event the PIM is not available, the Backup PIM shall perform the required activities. The PIM may be the Project Superintendent.

Within ten days of the Notice to Proceed date or five days before the Pre-construction Conference, whichever is later, and at least 14 days before starting PIM work, the Contractor shall submit the name, contact information, and resume of the PIM and the Backup PIM to the Engineer. The PIM and Backup PIM shall have a minimum of five years of professional experience in public or media relations, marketing, or other related field and appropriate verbal and written communication skills. Experience in administrative or business office duties is not a related field.

(b) *Activities of the PIM*. From 14 days prior to the start of construction through the Final Acceptance of the Project, the PIM shall be responsible for the following:

(1) *Project Onboarding Checklist.* The PIM of Backup PIM shall complete and update the Project Onboarding Checklist (https://form.jotform.com/71167524405150) on a monthly basis or as requested by the Engineer. The checklist will assist the PIM and CDOT with tracking required activities and deliverables.

(2) *On-Call*. The PIM shall be available or on-call each day there is work on the project and shall be available upon the Engineer's request outside of normal working hours.

(3) *Public Information Office*. The Contractor shall establish a public information office equipped with a telephone, a local telephone number with voicemail, a computer, and an email address. The public information office may be located within the project office, off-site, or within the PIM's office. The telephone line will be the Project Hotline and shall be included on the Project Information signs. The voicemail greeting shall be updated at least weekly. The greeting will include the project's completion date, forthcoming activities for the update period, and allow the caller to leave a voice message. The PIM shall answer calls, check voicemail and email messages, and respond to messages throughout each day that construction operations are in effect. The PIM, and when necessary the Engineer, shall respond to all inquiries with a phone call, a voice message, or an email within one work day. The PIM shall document the name, contact information, either a phone number or an email address, and the action taken. Within two days of receiving the message, the PIM of Backup PIM shall enter message details and follow-up action into Dialog.

(4) *Project Meetings.* The PIM shall participate in the weekly project meetings, discuss communication issues, and provide a status on the items in this specification.

(5) Lane Closure Reporting

i. *Electronic Reporting System*. Before the Pre-construction Conference and at least 14 days before the project start, the PIM shall submit a request for access to the electronic reporting system through the Project Onboarding/Offboarding Request Form (b.1). At least once per week, the PIM shall enter project information into the electronic reporting system.

ii. *Weekly Lane Closures.* The Superintendent or PIM shall notify the Engineer one week in advance of all planned "no work" periods and planned lane closures. The PIM shall enter the planned weekly lane closures and updates into the electronic reporting system for the upcoming work period, Sunday through Saturday, by Thursday at 12:00 P.M. The Engineer will approve the Lane Closure and Updates by Friday at 3:00 P.M. Each Monday by 12:00 P.M., the PIM shall review www.cotrip.org and verify that the lane closure and update information is accurate. If corrections are necessary, the PIM shall coordinate with the Engineer to make necessary corrections to www.cotrip.org.

iii. *Real-Time Lane Closure Changes.* The Superintendent shall notify the PIM and the Engineer at least 24 hours in advance on approved Lane Closure changes. The Engineer will notify the PIM when the electronic reporting system is available for changes. After completing the changes, the PIM shall notify the Engineer that the changes are ready for review and approval.

(6) *Public Information Collateral.* The PIM shall develop a variety of Public Information Collateral to share project information with the public as necessary for major project milestones such as long-term closures or impactful construction activities. Collateral includes the following:

i. *Photographs and Video Recordings.* The PIM shall take photographs and video recordings on regular intervals and submit them to the Engineer and the Region Communications Manager. A cell phone camera is permitted. Photographs and video recordings may capture traffic control, paving, slope repair, erosion control, bridge deck, and rail work activities. Photographs and video recordings may also include other key areas of work as identified by the Contractor or the Engineer and will be used in Public Information Collateral. The Contractor shall submit a minimum of two digital photographs or video recordings each month to the Engineer. Each photograph and video recording shall include project number, project code, date, time, location and station or milepost, and name of person taking the picture or video recording.

ii. *Maps and Graphics.* The PIM shall develop maps, detour maps, and graphics for use in Public Information Collateral.

iii. *Web Page Updates.* The PIM shall work with CDOT to develop the latest project information for the internet web page content. The PIM shall supply information for the web page using the CDOT web page template in the Project Onboarding/Offboarding Request Form PIM resources. When applicable, the updates shall contain all appropriate web page links to and from other sites. The PIM shall provide updated information at least weekly. In addition, CDOT will update the web page.

iv. *Stakeholder List.* The PIM shall submit a Stakeholder List as a component of the Public Information Plan with each stakeholder's name, telephone number, email address, and notes on communication needs for the project.

v. *Public Information Management Contact Sheet.* The PIM shall prepare and update a Public Information Management Contact Sheet with the names and contact information of the individuals pertinent to the project's public information. At a minimum, the Contact Sheet shall include the Resident Engineer, Project Engineer, RCM, CDOT website administrator, the electronic reporting system administrator, PIM, Backup PIM, Contractor Superintendent, and Traffic Control Supervisor. The contact sheet shall include the applicable Traffic Management Centers. (Joint Operations Center-Golden, Joint Operations Area-Eisenhower Johnson Memorial Tunnel, Joint Operations Center- Pueblo, and Joint Operations Center-Hanging Lake Tunnels.) The Public Information Plan shall include the Public Information

Management Contact Sheet.

vi. *Traffic Advisories and Project Updates*. The PIM shall develop weekly traffic advisories and project updates developed from the weekly Lane Closure Report, including lane closures and project update information. The CDOT traffic advisories and project updates templates are available in the Project Onboarding/Offboarding Request Form PIM resources. The Engineer will approve traffic advisories and project updates before distribution. The PIM shall email the traffic advisory and project updates to the stakeholder list by Friday of each week to announce the following week's upcoming project activity. The emailed advisory may come from the project email box or an automated distribution platform. A Mailchimp account is available through CDOT.

vii. *Media Relations*. At least 14 days before the start of work or a milestone, the PIM shall prepare media releases using the CDOT media release template available in the Project Onboarding/Offboarding Request Form PIM resources. The PIM shall allow the Engineer at least three days to review and approve the media release before distribution. CDOT will distribute media releases.

CDOT will address all media inquiries and media requests. The PIM shall immediately notify the Engineer of any project and on-site situations involving the media. When the media contacts the PIM or Contractor staff, the PIM shall provide the media the RCM's contact information.

The PIM shall prepare a media release announcing the project, summarizing the scope, construction phasing, construction activities that affect traffic, the project end date, and a summary of project benefits. The PIM shall develop additional media releases for major construction milestones, traffic control or lane shifts, closures, project completion, and as directed by CDOT. The releases shall also include maps or other graphics.

viii. *Project Fliers.* The Contractor or PIM shall develop Project Fliers using the CDOT template and shall include CDOT's logo, and at the Engineer's discretion may include the project logo. The Contractor or PIM shall contact the Engineer for copies of the template. At least 14 days prior to delivering Project Fliers, the Contractor or PIM shall prepare and submit a draft of the flier to the Engineer. The Engineer's review will not exceed seven days. Fliers shall be approved by the Engineer before distribution. Fliers shall be delivered in person, by mail, and by email. The list of recipients shall be developed via http://uspseverydoordirectmail.com, the use of a mailing list from county GIS mapping, or other approved method. An email containing the flier shall be sent to stakeholders identified in the Stakeholder list. The RCM will post the Project Fliers on social media. This project requires Project Fliers at the following milestones:

REVISION OF SECTION 626

1. Initial Project Flier

Initial Project Flier. At least four days prior to the start of work, the PIM shall deliver one approved flier per owner and tenant on the project route, as well as: along the postal delivery routes for Somerset (zip code 81434), Paonia (zip code 81428) and Hotchkiss (zip code 81419), and to stakeholders in Marble and Redstone. The Initial Project Flier shall provide the project start and end dates, project location, description of work, traffic impacts, scheduled work hours and work days, the Project Hotline, email address, web address, project map, photo of project area, and a construction safety message as defined by CDOT. The estimated number of printed fliers is **3600**.

(7) *Public Information Plan.* The PIM shall submit a Public Information Plan (PIP) within five days of the Pre-construction Conference. The PIP shall be specific to the project. The PIP shall include public information strategies for affected road users using the Public Information Collateral, the expected work zone impacts and closure details, commuter alternatives, community, government and business relations, media relations, identification of public information issues, proposed outreach strategies, approach to crisis communications, the Stakeholder List, and the Public Information Management Contact Sheet. The PIM shall update the plan when necessary and as directed by the Engineer. The PIP is a component of subsection 630.10 Transportation Management Plan.

(c) *Response Protocol to CDOT and the Public.* The PIM shall follow Table 626-1 in responding to correspondence from stakeholders and the public:

Table 626-1 - Response Timing

Type	Timing
Project Hotline calls and voice messages	Answer calls and check messages throughout each day. Respond within one day. Enter details into the electronic reporting system within two days.
Email messages	Respond within one day. For high-volume situations, respond within two days. Enter details into the electronic reporting system within two days.
Calls from CDOT Staff	Respond as soon as possible and within 24 hours.
Web page inquiries	Respond within one day. For high-volume situations, respond within two days.

METHOD OF MEASUREMENT

Public Information Management will be measured as the number of calendar days elapsed from 14 days before the construction start date and no earlier than the project Notice to Proceed through Final Acceptance. Failure to provide acceptable Public Information Management will result in withholding payment for the days affected as determined by the Engineer.

BASIS OF PAYMENT

Payment will be made under:

Pay Item	Pay Unit
626-01114 Public Information Management (Tier IV)	Day

Payment for Public Information Management will be full compensation for each measured day where the work, materials, and equipment to provide public information as per this specification.

If the Contractor fails to complete construction within the approved contract time, CDOT will not pay for Public Information Management for the period after expiration of the approved contract time. The Contractor shall continue to provide Public Information Management through Final Acceptance at its expense.

REVISION OF SECTION 627

PAVEMENT MARKING PAINT

Sections 627 of the Standard Specifications are hereby revised for this project as follows:

In Subsection 627.04 shall include the following:

For permanent pavement marking during construction, pavement marking paint and stripes shall fall within the following minimum and maximum ranges:

Description		**Pavement Marking Paint**
Alignment	Lateral Deviation	2.0 inch per 200 feet Max
Coverage Rate	Sq. Ft. Per Gallon	100-110
Thickness	Mil	15
Width	Inches	4
Dry Time	Minutes	7-12
Beads	Application Rate, lbs./gal	5 lbs 3 oz – 6 lbs 3 oz

FORCE ACCOUNT ITEMS

DESCRIPTION

This special provision contains the Department's estimate for force account items included in the Contract. The estimated amounts marked with an "*" will be added to the total bid to determine the amount of performance and payment bonds. Force Account work shall be performed as directed by the Engineer.

BASIS OF PAYMENT

Payment will be made in accordance with Subsection 109.04. Payment will constitute full compensation for all work necessary to complete the item.

Force account work valued at $5,000 or less, that must be performed by a licensed journeyman in order to comply with federal, state, or local codes, may be paid for after receipt of an itemized statement endorsed by the Contractor.

Force Account Item	Unit	Amount
F/A Minor Contract Revisions	F.A.	$5,000*

F/A Minor Contract Revisions – This work consists of minor work authorized and approved by the Engineer, which is not included in the Contract plans or specifications and is necessary to accomplish the scope of work of this Contract.

TRAFFIC CONTROL PLAN - GENERAL

The key elements of the Contractor's method of handling traffic (MHT) are outlined in subsection 630.10(a).

The components of the TCP for this project are included in the following:

(1) Subsection 104.04 and Section 630 of the specifications.
(2) Standard Plan S-630-1, Traffic Controls for Highway Construction, Cases No. 17, 19, 24, 35, and Standard Plan S-630-2.

Unless otherwise approved by the Engineer, the Contractor’s equipment shall follow normal and legal traffic movements. The Contractor’s ingress and egress of the work area shall be accomplished with as little disruption to traffic as possible. Traffic control devices shall be removed by picking up the devices in a reverse sequence to that used for installation. This may require moving backwards through the work zone. When located behind barrier or at other locations shown on approved traffic control plans, equipment may operate in a direction opposite to adjacent traffic.

Special Traffic Control Plan requirements for this project are as follows:

During the construction of this project, traffic shall use the present traveled roadway unless identified on the plans or approved by the Engineer.

The Contractor shall not have construction equipment or materials in the lanes open to traffic at any time, unless approved by the Engineer.

Only one lane may be closed to traffic at any time.

Traffic shall not be delayed for more than 15 minutes for all closures combined, or as directed by the Engineer.

The Contractor may elect to utilize two separate lane closures in one location. No more than two concurrent lane closures shall be allowed at any time in one location. If the delay time for traffic exceeds 15 minutes, the length of the lane closure shall immediately be reduced until the delay time meets requirements. Delay times in excess of 15 minutes may result in the Engineer requiring the Contractor to stop work on the project, until the Contractor has submitted a written plan for decreasing the delay times to within the allowable time, and the plan has been approved by the Engineer. If this occurs, time counts shall continue and any delays shall be non-excusable and non-compensable.

The Contractor shall submit a plan for lane closure to the Engineer for review and approval at least 72 hours in advance of the time the closure is to be implemented. Lane closures will not be allowed to remain unless being used continuously for the purpose for which they were set up. If a lane closure is set up for over one hour with no work performed, due to weather, equipment breakdown, failure of scheduled equipment or personnel to arrive as scheduled, or other reasons, the traffic control devices, flagging, pilot car and traffic control management used during the time not worked shall be at the Contractor’s expense. If a lane closure is set up on a day that no work is performed, no payment will be made by CDOT for any traffic control items except for traffic control inspection, for that day.

Temporary signing and approved temporary delineation (approved channeling devices) shall be in full compliance with phasing plans and MHT’s at the completion of each working day.

2

TRAFFIC CONTROL PLAN - GENERAL

The Contractor shall organize the work such that there will be no hazards within the Clear Zone at the completion of each day's work. The Contractor shall clean the roadway surface of all construction debris.

Prior to opening the roadway to traffic, the Contractor shall inspect the roadway surface to determine that it is free of all safety hazards.

The Contractor shall coordinate all operations requiring traffic control with scheduled Holidays and Special events.

Unauthorized delays or traffic interruptions will be considered a violation of this provision and shall be subject to price reductions as described in Revision of Section 105 – Violation of Working Time Limitation.

The Contractor shall submit construction sequencing, traffic sequencing proposal, and methods of construction to the Engineer for approval.

Any signs, delineators or other items damaged due to the Contractors operations shall be replaced in-kind or repaired by the Contractor at no expense to the project. The Contractor shall provide each flagger, the Traffic Control Supervisor, and the Project Engineer with a minimum 5-watt VHF radio in order to provide adequate communications during construction. The radios shall have sufficient range to communicate a minimum of 5 miles. The method of handling traffic (MHT) submitted by the Contractor shall address radio communications.

Employee vehicle parking is prohibited where it conflicts with safety, access, or flow to traffic. No employee parking will be allowed within the clear zone. The Contractor and the Engineer, prior to starting work, shall locate parking areas to be approved by the Engineer.

The Contractor shall provide a Traffic Control Supervisor (TCS) with at least one year of experience, as accepted by the Engineer, as the Traffic Control Supervisor. A copy of the certification of the Traffic Control Supervisor shall be provided to the Engineer at least two days prior to the project preconstruction conference. The TCS shall be on site at all times when construction activities are underway.

Traffic Control Management shall include all Traffic Control Supervisors and helpers necessary to perform the work. There shall be a minimum of one helper for each Traffic Control Supervisor required for the project. At least one Traffic Control Supervisor and one Helper shall be on site at all times when construction activities are underway.

The Traffic Control Supervisor shall be paid Truck Driver/Pickup Truck (Includes Pilot and Sign/Barricade Truck) wages for all hours that they are on the project. Helpers for the Traffic Control Management item may give flagger breaks. However, the time shall be included in the Item for Traffic Control Management, and shall not be paid as additional flagging hours. The TCS helper(s) shall be paid Traffic/Sign Laborer wages.

All costs incidental to the foregoing requirements shall be included in the original contract prices for the project.

Sufficient traffic control devices are included in the plans to cover expected construction activities. Should the Contractor elect to utilize additional devices to enhance operation or extend the work zone (if approved by the Engineer), the additional devices shall not be paid for but shall be provided at the Contractor's expense, unless otherwise approved for payment by the Engineer.

UTILITIES

Known utilities within the limits of this project are:

CDOT REGION 3 (TRAFFIC SECTION)	MARC TRAVIS	970-683-7534
		Cell: 970-379-9809
CDOT REGION 3 (ELECTRIC)	DONALD OLMSTEAD	970-379-0539
LUMEN – TELEPHONE	GREG PELHAM	702-673-8404
GUNNISON COUNTY ELECTRIC ASSOC.	BRIAN MUTH	970-642-3520
TDS TELECOM	BILL LONG	970-872-2122
TRI-STATE GENERATION & TRANSMISSION	BRAD HAUGER	970-216-5466

The work described in these plans and specifications requires full cooperation between the Contractor and the utility owners in accordance with subsection 105.11 in conducting their respective operations so the utility work can be completed with minimum delay to all parties concerned.

The Contractor shall be required to meet with each utility owner impacted by the work a minimum of thirty (30) days in advance of any construction operations to coordinate required utility work with the construction activity. Coordination with utility owners includes, but is not limited to, providing, and periodically updating an accurate construction schedule that includes all utility work elements. Surveying and/or staking of utility relocations to be performed by the owner shall be the responsibility of the owner.

A pre-construction field review should be completed prior to starting any construction work. The Contractor shall conduct coordination meetings a minimum of weekly for the purpose of coordinating construction activities with the utility owners. Frequency of utility coordination meetings may be revised with the prior written consent of the Engineer.

The Contractor shall provide traffic control for any utility work expected to be coordinated with construction operations as directed by the Engineer. However, traffic control for utility work outside of typical project work hours or outside of project limits shall be the responsibility of the utility owner. The Contractor shall be compensated for traffic control as per the bid items for traffic control as established on this project.

FOR EACH UTILITY OWNER SHOWN BELOW, THE WORK LISTED UNDER “CONTRACTOR RESPONSIBILITIES” SHALL BE PERFORMED BY THE CONTRACTOR IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS, OR AS DIRECTED BY THE ENGINEER. EACH UTILITY OWNER, OR THEIR AGENTS, WILL PERFORM THE WORK LISTED UNDER “UTILITY COMPANY RESPONSIBILITIES”.

IF A UTILITY OWNER IS NOT SPECIFICALLY SHOWN BELOW, IT IS BECAUSE THERE ARE NO KNOWN CONFLICTS WITH THEIR FACILITIES. HOWEVER, THE CONTRACTOR SHALL BE RESPONSIBLE FOR REQUESTING LOCATES AND PROTECTING ALL EXISTING UTILITIES FROM DAMAGE DUE TO THE CONTRACTOR’S OPERATIONS.

The Contractor shall keep each utility owner advised of any work being done to its facility so that each utility owner can coordinate its inspections for final acceptance of the work with the Engineer.

-2- UTILITIES

NOTE: The contractor shall provide written notice to each utility owner, with a copy to the Engineer, immediately prior to each utility work element expected to be coordinated with construction and shall allow the expected number of working days for utilities to complete necessary work. The number of day's prior notice is noted for each utility owner.
There are possible utility conflicts within the project limits. The Contractor is responsible for protecting all utility facilities within the project limits from damage due to the Contractor's operations. The Contractor shall be responsible for verifying the location and depth of all existing utility lines prior to commencing excavations in the close proximity of any utility line. If pothole information identifies a conflict notification to the utility owner will be required in a timely manner to allow said utility owner, the ability to adjust or relocate the facility.

GENERAL:

The Contractor shall comply with Article 1.5 of Title 9, CRS ("Excavation Requirements") when excavation or grading is planned in the area of underground utility facilities. The Contractor shall notify all affected utilities at least two (2) business days, (NOT INCLUDING THE DAY OF NOTICE OR THE DAY OF EXCAVATION)
prior to commencing such operations. Contact the Utility Notification Center of Colorado (UNCC) at 811 or 1- 800-922-1987 to have locations of UNCC registered lines marked by member companies. All other underground facilities shall be located by contacting the respective company. CDOT locates are requested through the UNCC. Utility service laterals shall also be located prior to beginning ANY excavation or grading.

All costs incidental to the foregoing requirements will not be paid for separately but shall be included in the work.

APPENDIX D

CDOT STANDARD SPECIAL PROVISIONS

COLORADO DEPARTMENT OF TRANSPORTATION
COUNTY ROAD 30
BIKE LANE INSTALLATION AND CHIP SEAL OVERLAY
HINSDALE COUNTY, COLORADO
STANDARD SPECIAL PROVISIONS

Name	Date	No of Pages
Revision of Section 105 – Construction Drawings	(October 1, 2023)	1
Revision of Section 105 – Control of Work	(October 1, 2023)	1
Revision of Section 105 – Dispute Review Board and Claims for Unresolved Disputes	(October 1, 2023)	9
Revision 0f Section 105 – E-Signatures	(January 8, 2024)	1
Revision of Section 207 – Topsoil	(October 1, 2024)	9
Revision of Section 212 – Soil Amendments, Seeding, and Sodding	(October 1, 2023)	25
Revision of Section 240 – Protection of Migratory Birds	(October 1, 2023)	3
Affirmative Action Requirements Equal Employment Opportunity	(October 1, 2023)	13
Certified Payroll Requirements for Construction Contracts	(October 1, 2023)	1
Disadvantaged Business Enterprise (DBE) Requirements	(October 1, 2023)	15
Minimum Wages, Colorado	(January 5, 2024)	8
U.S. Department of Labor General Decision Number CO20240012 Highway Construction For Alamosa, Archuleta, Chaffee, Conejos, Custer, Delta , Dolores, Fremont, Gunnison, Hinsdale, La Plata, Mineral, Montezuma, Montrose, Ouray, Rio Grande, Saguache, San Juan, and Hinsdale counties.		
On the Job Training	(October 1, 2023)	6

REVISION OF SECTION 105

CONSTRUCTION DRAWINGS

Section 105 of the Standard Specifications is hereby revised for this project as follows:

Delete subsection 105.02(f).

REVISION OF SECTION 105

CONTROL OF WORK

Revise Section 105 of the Standard Specifications as follows: Revise Paragraphs 4, 5 and 6 of Subsection 105.20 as follows:

If damage occurs to an existing structure through improper maintenance per 105.19, the Contractor shall submit a repair procedure to the Engineer to repair the defect(s).

The repair categories and requirements are defined as follows:

a) *"In-kind" repairs*. In-kind repairs are repairs where the As-Built or Advertised plans are utilized to replace or repair damaged components with identical dimensions and materials used plans and where no plan modifications are made. In-kind repair procedures shall be reviewed and accepted by the Engineer before any repair. The use of approved repair grouts or doweled reinforcing with epoxy adhesive is permitted in in-kind repairs. Doweled reinforcing shall meet or exceed the strength requirements of the original design.

a) "*Modified repairs*". Modified repairs are those which deviate in dimensions and/or materials from the As-Built or Advertised plans or where plans are not available. Modified repair procedure submittals shall include calculations, independent design calculations, shop drawings, and/or working drawings per 105.02, and any other applicable section of the specifications for the needed repair. The Contractor's Engineer shall electronically seal Modified repair submittals.

Damage to new structures or modified structures, shall be repaired per the contract documents. The Engineer of Record shall be notified and review all corresponding submittals before any repairs.

Revision of Section 105

Dispute Review Board And

Claims For Unresolved Disputes

Revise Section 105 of the Standard Specifications as follows:

Delete and replace Section 105.23 (i) with the following:

(i) *Dispute Review Board Recommendation*. The DRB shall issue a Recommendation per the following procedures:

1. The DRB shall not make a recommendation on the dispute at the meeting. Before the closure of the hearing, the DRB members and the Contractor and CDOT together will discuss the time needed for analysis and review of the dispute and the issuance of the DRB's recommendation. The maximum time shall be 30 days unless otherwise agreed to by both parties.
2. After the meeting has been closed, the DRB shall prepare a written Recommendation signed by each member of the DRB. In the case of a three member DRB where one member dissents, that member shall prepare a written dissent and sign it. The DRB's recommendation shall include the following:
   (a) A summary of the issues and factual evidence presented by the Contractor and CDOT concerning the dispute.
   (b) Recommendations concerning the validity of the dispute.
   (c) Recommendations concerning the value of the dispute as to cost impacts if the dispute is determined to be valid.
   (d) The contractual and factual bases supporting the recommendation(s) made including an explanation as to why each and every position was accepted or rejected.
   (e) Detailed and supportable calculations which support any recommendation(s).
3. The chairperson shall transmit the signed Recommendation and any supporting documents to both parties.

105.24 Claims for Unresolved Disputes delete and replace with the following:

105.24 Claims for Unresolved Disputes. The Contractor may file a claim only if the disputes resolution process described in subsections 105.22 and 105.23 has been exhausted without resolution of the dispute. Other methods of nonbinding dispute resolution, exclusive of litigation, can be used if agreed to by both parties.

This subsection applies to any unresolved dispute or set of disputes between CDOT and the Contractor with an aggregate value of more than $15,000. Unresolved disputes with an aggregate value of more than $15,000 from subcontractors, materials suppliers or any other entity not a party to the Contract shall be submitted through the Contractor per this subsection as a pass-through claim. Review of a pass-through claim does not create privity of Contract between CDOT and any other entity.

Subsections 105.22, 105.23 and 105.24 provide both contractual alternative dispute resolution processes and constitute remedy- granting provisions pursuant to Colorado Revised Statutes (CRS) which must be exhausted in their entirety.

Litigation proceedings must commence within 180-calendar days of the Chief Engineer's decision, absent written agreement otherwise by both parties.

The venue for all unresolved disputes with an aggregate value $15,000 or less shall be the County Court for the City and County of Denver.

Non-binding Forms of alternative dispute resolution such as Mediation are available upon mutual agreement of the parties for all claims submitted per this subsection.

The cost of the non-binding ADR process shall be shared equally by both parties with each party bearing its own preparation costs. The type of nonbinding ADR process shall be agreed upon by the parties and shall be conducted within the State of Colorado at a mutually acceptable location. Participation in a nonbinding ADR process does not in any way waive the requirement that litigation proceedings must commence within 180-calendar days of the Chief Engineer's decision, absent written agreement otherwise by both parties.

(a) *Notice of Intent to File a Claim*. Within 30 days after rejection of the Dispute Resolution Board's Recommendation issued per subsection 105.23, the Contractor shall provide the Region Transportation Director (RTD) with a written notice of intent to file a claim. The Contractor shall also send a copy of this notice to the Resident Engineer. For the purpose of this subsection, Region Transportation Director shall mean the Region Transportation Director or the Region Transportation Director's designated representative. CDOT will acknowledge in writing receipt of Notice of Intent within seven days.

(b) *Claim Package Submission*. Within 60 days after submitting the notice of intent to file a claim, the Contractor shall submit to the RTD five copies of a complete claim package representing the final position the Contractor wishes to have considered. All claims shall be in writing and in sufficient detail to enable the RTD to ascertain the basis and amount of claim. The claim package shall include all documents supporting the claim, regardless of whether such documents were provided previously to CDOT.

If requested by the Contractor, the 60-day period may be extended by the RTD in writing before final acceptance. At a minimum, the following information shall accompany each claim:

1. A claim certification containing the following language, as appropriate:

A. For a direct claim by the Contractor:

CONTRACTOR'S CLAIM CERTIFICATION

Under penalty of law for perjury or falsification, the undersigned, (name) , (title) , of (company) , hereby certifies that the claim of $___for extra compensation and Days additional time, made for work on this Contract is true to the best of my knowledge and belief and supported under the Contract between the parties.

This claim package contains all available documents that support the claims made and I understand that no additional information, other than for clarification and data supporting previously submitted documentation, may be presented by me.

Dated /s/__

Subscribed and sworn before me this day of

.

NOTARY PUBLIC

My Commission Expires: _____

B. For a pass-through claim:

PASS-THROUGH CLAIM CERTIFICATION

Under penalty of law for perjury or falsification, the undersigned, (name) , (title) , of (company) , hereby certifies that the claim of $__ for extra compensation and Days additional time, made for work on this Project is true to the best of my knowledge and belief and supported under the Contract between the parties.

This claim package contains all available documents that support the claims made and I understand that no additional information, other than for clarification and data supporting previously submitted documentation, may be presented by me.

Dated /s/__ Subscribed and sworn before me this day of _____

NOTARY PUBLIC

My Commission Expires: _____ Dated _/s

The Contractor certifies that the claim being passed through to CDOT is passed through in good faith and is accurate and complete to the best of my knowledge and belief.

Dated /s/__ Subscribed and sworn before me this day of_

NOTARY PUBLIC

My Commission Expires: _____

2. A detailed factual statement of the claim for additional compensation, time, or both, providing all necessary dates, locations, and items of work affected by the claim. The Contractor's detailed factual statement shall expressly describe the

basis of the claim and factual evidence supporting the claim. This requirement is not satisfied by simply incorporating into the claim package other documents that describe the basis of the claim and supporting factual evidence.

3. The date on which facts were discovered which gave rise to the claim.
4. The name, title, and activity of all known CDOT, Consultant, and other individuals who may be knowledgeable about facts giving rise to such claim.
5. The name, title, and activity of all known Contractor, subcontractor, supplier and other individuals who may be knowledgeable about facts giving rise to such claim.
6. The specific provisions of the Contract, which support the claim and a statement of the reasons why such provisions support the claim.
7. If the claim relates to a decision of the Project Engineer, which the Contract leaves to the Project Engineer's discretion, the Contractor shall set out in detail all facts supporting its position relating to the decision of the Project Engineer.
8. The identification of any documents and the substance of all oral communications that support the claim.
9. Copies of all known documents that support the claim.
10. The Dispute Review Board Recommendation.
11. If an extension of contract time is sought, the documents required by subsection 108.08(d).
12. If additional compensation is sought, the exact amount sought and a breakdown of that amount into the following categories:

    A. These categories represent the only costs that, if applicable, are recoverable by the Contractor. All other costs or categories of costs are not recoverable:

        (1) Actual wages and benefits, including FICA, paid for additional labor.

        (2) Costs for additional bond, insurance, and tax.

        (3) Increased costs for materials.

        (4) Equipment costs calculated per subsection 109.04(c) for Contractor owned equipment and based on certified invoice costs for rented equipment.

        (5) Costs of extended job site overhead (only applies if the dispute also includes a time extension).

        (6) Salaried employees assigned to the project (only applies if the dispute also includes a time extension or if the dispute required salaried employee(s) to be added to the Project).

        (7) Claims from subcontractors and suppliers at any level (the same level of

detail as specified is required for all such claims).

(8) An additional 16 percent will be added to the total of items (1) through (7) as compensation for items for which no specific allowance is provided, including profit and home office overhead.

(9) Interest shall be paid per CRS 5-12-102 beginning from the date of the Notice of Intent to File Claim.

B. In adjustment for the costs as allowed above, the Department will have no liability for the following items of damages or expense:

(1) Profit in excess of that provided in 12.A.(8) above.

(2) Loss of Profit.

(3) Additional cost of labor inefficiencies in excess of that provided in A. above.

(4) Home office overhead in excess of that provided in A. above.

(5) Consequential damages, including but not limited to loss of bonding capacity, loss of bidding opportunities, and insolvency.

(6) Indirect costs or expenses of any nature in excess of that provided in A. above.

(7) Attorney's fees, claim preparation fees, and expert fees.

(c) Region Transportation Director Decision. When the Contractor properly files a claim, the RTD will review the claim and render a written decision to the Contractor to either affirm or deny the claim, in whole or in part, per the following procedure.

The RTD may consolidate all related claims on a project and issue one decision, provided that consolidation does not extend the time period within which the RTD is to render a decision. Consolidation of unrelated claims will not be made.

The RTD will render a written decision to the Contractor within 90 days after the receipt of the claim package or receipt of the audit whichever is later. In rendering the decision, the RTD: (1) will review the information in the Contractor's claim; (2) will conduct a hearing if requested by either party; and (3) may consider any other information available in rendering a decision.

The RTD will assemble and maintain a claim record comprised of all information physically submitted by the Contractor in support of the claim and all other discoverable information considered by the RTD in reaching a decision. Once the RTD assembles the claim record, the submission and consideration of additional information, other than for clarification and data supporting previously submitted documentation, at any subsequent level of review by anyone, will not be permitted.

The RTD will provide a copy of the claim record and the written decision to the Contractor describing the information considered by the RTD in reaching a decision and the basis for that decision. If the RTD fails to render a written decision within the 60-day period, or within any extended time period as agreed to by both parties, the Contractor shall either: (1) accept this as a denial of the claim, or (2) appeal the claim to the Chief Engineer, as described in this subsection.

If the Contractor accepts the RTD decision, the provisions of the decision shall be

implemented per subsections 108.08, 109.04, 109.05, or 109.10 and the claim is resolved.

If the Contractor disagrees with the RTD decision, the Contractor shall either: (1) accept the RTD decision as final, or (2) file a written appeal to the Chief Engineer within 30 days from the receipt of the RTD decision. The Contractor hereby agrees that if a written appeal is not properly filed, the RTD decision is final.

(d) Chief Engineer Decision. When a claim is appealed, the RTD will provide the claim record to the Chief Engineer. Within 15 days of the appeal either party may submit a written request for a hearing with the Chief Engineer or duly authorized Headquarters delegates. The Chief Engineer or a duly authorized Headquarters delegate will review the claim and render a decision to affirm, overrule, or modify the RTD decision per the following.

The Chief Engineer will render a written decision within 60 days after receiving the written appeal. The Chief Engineer will not consider any information that was not previously made a part of the claim record, other than clarification and data supporting previously submitted documentation.

The Contractor shall have 30 days to accept or reject the Chief Engineer's decision. The Contractor shall notify the Chief Engineer of its acceptance or rejection in writing.

If the Contractor accepts the Chief Engineer's decision, the provisions of the decision will be implemented per subsections 108.08, 109.04, 109.05, or 109.10 and the claim is resolved.

If the Contractor disagrees with the Chief Engineer's decision, the Contractor shall either (1) pursue an alternative dispute resolution process per this specification or (2) initiate litigation per subsection 105.24(f).

If the Chief Engineer does not issue a decision as required, the Contractor may immediately initiate litigation per subsection 105.24(f).

For the convenience of the parties to the Contract it is mutually agreed by the parties that any merit binding or De Novo litigation shall be brought within 180-calendar days from the date of the Chief Engineer's decision. The parties understand and agree that the Contractor's failure to bring suit within the time period provided, shall be a complete bar to any such claims or causes of action.

(e) De Novo Litigation If the Contractor disagrees with the Chief Engineer's decision, the Contractor may initiate de novo litigation to finally resolve the claim that the Contractor submitted to CDOT. Such litigation shall be strictly limited to those claims that were previously submitted and decided in the contractual dispute and claims processes outlined. This does not preclude the joining in one litigation of multiple claims from the same project provided that each claim has gone through the dispute and claim process specified in subsections 105.22 through 105.24. The parties may agree, in writing, at any time, to pursue some other form of alternative dispute resolution.

Any offer made by the Contractor or the Department at any stage of the claims process, as set forth in this subsection, shall be deemed an offer of settlement pursuant to Colorado Rule of Evidence 408 and therefore inadmissible in any litigation.

If the Contractor selected litigation, then de novo litigation shall proceed per the Colorado Rules of Civil Procedure and the proper venue is the Colorado State District Court in and for the City and County of Denver.

Revision Of Section 105
E-Signature

Revise Section 105 of the Standard Specifications as follows:

Add the following to Subsection 105.08:

105.08 Document Management and Professional Engineer and Professional Land Surveyor Electronic Seals. Where the specifications require the Contractor to submit or return documents either in writing or the format is not specified, an electronic file is preferred. The Contractor shall submit the schedule native file, video recordings, photographs, image files, and other media formats in their native file formats. When the document format is not specified, the contractor shall submit electronic documents in PDF. When a submittal requires multiple copies, one electronic document shall satisfy the requirement.

Where a signature is needed, an electronic signature is acceptable. An original signature is a signature signed in ink. Where original signatures or original documents are required a scan shall satisfy the requirement.

The Department will issue Contract Modification Orders (Form 90) and Form 105s that authorize additional work for signature via AdobeSign.

CDOT forms and records shall be signed with an electronic signature that includes the signer's name, date, and time the document was signed, in addition to locking the appropriate portions after signing. This guidance does not change the approval process or the content requirements for Buy America, COC, and CTR documentation, rather it allows the documentation to either be all electronically signed or a Scanned Original Wet Signature.

An electronic seal is when a Contractor's Engineer, a Professional Engineer or a Professional Land Surveyor affix their electronic signature and seal to plans or documents prepared under their responsible charge or control. The electronic seal needs to meet State of Colorado Architects, Professional Engineers, and Professional Land Surveyors Rules and Regulations, 4 CCR 730-1 requirements, lock the document after signature and shall have a non-expiring transaction identification number that can be used to view the final locked and signed document online.

REVISION OF SECTION 207

TOPSOIL

Section 207 of the Standard Specifications is hereby deleted for this project and replaced with the following:

DESCRIPTION

207.01 This work consists of salvaging topsoil from onsite locations, stockpiling, maintaining, and preparing the subsoils for the placement of the topsoil at locations shown on the plans. It also includes creating seeding media by amending subsoils, and importing offsite topsoil when shown on the plans.

Substitutions from this specification will not be allowed unless submitted in writing to the Engineer and approved by the Region or Headquarters Landscape Architect.

MATERIALS

207.02 General. Topsoil shall be salvaged onsite, imported, or produced as shown on the plans. Topsoil shall be free of refuse and litter along with noxious weed seed and reproductive plant parts, as listed in current State of Colorado A and B Noxious Weed List and local agency weed lists. Topsoil shall not include heavy clay, hard clods, toxic substances, pathogens, or other material, which would be detrimental to growing native vegetation. All required amendments shall be thoroughly incorporated to parent material, onsite. All amendments shall conform to Section 212. Topsoil and parent material shall be free of clods, sticks, stones, debris, concrete, and asphalt in excess of 4 inches in any dimension for all material used within the designed clear zone for the project. Topsoil outside of the clear zone may contain rock larger than 4 inches in any dimension. For slopes with no structures being used to protect areas from falling rocks the Contractor shall remove or secure any rocks deemed unstable and could pose a safety hazard.

Topsoil shall be generated from one or more of the following as shown on the plans:

(a) *Topsoil (Onsite).* Topsoil shall consist of the upper 6-inch layer of the A horizon, as defined by the Soil Science Society of America, or at the depths and locations shown on the Stormwater Management Plan (SWMP). It shall consist of loose friable soil, salvaged from onsite and stockpiled or windrowed. Litter and duff (layer of partially decomposed plant material) shall be collected as part of the salvaging of topsoil unless specified to be removed and hauled offsite on the plans.

(b) *Topsoil (Wetland).* Wetland topsoil shall consist of moist, organic soil obtained from delineated wetlands, including any existing wetland vegetation and seeds. Wetland topsoil shall be extracted from the project site at locations shown on the plans or as directed, to a minimum depth of 12 inches or at the depths as shown on the plans.

(c) *Seeding Media.* Seeding Media shall consist of one or all of the following approved materials: sub-soil, overburden, or material generated from rock. Contractor shall select onsite or offsite locations to generate material that meet the requirements of Table 207-1. The Contractor shall provide a Certified Test Report (CTR) in accordance with subsection 106.13, excluding lot, heat, and batch confirming that the excavated material conforms to Table 207-1.

(d) *Topsoil (Offsite).* The Contractor shall submit a CTR for Topsoil (Offsite) for approval a minimum of 60 days prior to import in accordance with subsection 106.13. The Contractor shall

include with the CTR a complete Soil Nutrient Analysis for the properties listed in Table 207-2 from an independent laboratory that participates in the National Association for Proficiency Testing (NAPT). If topsoil nutrient analysis is deficient, an Amendment Protocol shall be submitted by the Contractor for approval. The Amendment Protocol shall contain a complete list of amendments and associated quantities to produce topsoil that conforms to Table 207-2.

The Contractor shall submit a Certificate of Compliance (COC) for Topsoil (Offsite) for approval a minimum of 60 days prior to import that the source has controlled noxious weeds in accordance with the State of Colorado Noxious Weed Act 35-5.5-115.

Table 207-1

PHYSICAL PROPERTIES OF SEEDING MEDIA

Property	Range	Test
Soil pH (s.u.)	5.6 – 7.5	ASA Mono. #9, Part 2, Method 10-3.2 or TMECC 04.11-A
Soil Electrical Conductivity (EC) (mmhos/cm or ds/m)	< 5.0	ASA Mono. #9, Part 2, Method 10-3.3
Soil SAR (s.u.)	0 - 10	ASA Mono. #9, Part 2, Method 10-3.4
Rock Content (%)	≤ 25	USDA NRCS Rock Fragment Modifier Usage
Trace Contaminants (Arsenic, Cadmium, Copper, Mercury, Selenium, Zinc, Nickel, and Lead)	Meets US EPA, 40 CFR 503 Regulations	TMECC 04.06 or EPA6020/ASA (American Society of Agronomy)
Rock Content (%) greater than 3” diameter	≤ 25	USDA NRCS Rock Fragment Modifier Usage
USDA Soil Texture	No more than 70% clay, silt, and sand by percentage volume of topsoil.	ASA Monograph #9, Part 1, Method 15-4 or ASA 1 43-5
All Particle Sizes	< 6 Inches	
Physical contaminants (man-made inerts) (%)	< 1	TMECC 03.08-C
C:N ratio	<20	TMECC 05.02-A
* Fines % when manufacturing material from rock	>25% material passing through #4 sieve	ASTM D6913

Amendments to the base imported material shall have the quantities of material verified onsite prior to incorporation into parent material, either at the stockpiles or after placement of parent material. Topsoil amended at the stockpiles shall be distributed to the site within seven days. * Substitute this requirement for USDA Soil Texture requirement when project are approved to use material manufactured from native rock material on site.

Table 207-2

TOPSOIL (OFFSITE) PROPERTIES

Property	Range	Test Methods
Soil pH (s.u)	5.6 – 7.5	ASA Mono. #9, Part 2, Method 10-3.2 or TMECC 04.11-A
Salt by Electrical Conductivity (EC) (mmhos/cm or ds/m)	< 2.0	ASA Mono. #9, Part 2, Method 10-3.3
Soil SAR (s.u.)	0 – 10	ASA Mono. #9, Part 2, Method 10-3.4
Soil OM (%)	3 – 5	Methods of Soil Analysis, Part 3, Method 34
Soil N (NO_3-n, ppm)	≥ 20.0	Methods of Soil Analysis, Part 3. Chemical Methods. Ch. 38 Nitrogen – Inorganic Forms
Soil P (ppm)	≥ 13.0	ASA Mono. #9, Part 2, Method 24-5.4 or others as required based on soil pH
Soil K (ppm)	≥ 80	ASA Mono. #9, Part 2, Method 13-3.5
Rock Content (%) greater than 3" diameter	≤ 25	USDA NRCS Rock Fragment Modifier Usage
Bioassay (seedling emergence and relative vigor)	> 80% of control	TMECC 05.05-A or Approved Germination Test
Soil Texture	No more than 70% clay, silt and sand by percentage volume of topsoil	ASA Mono. #9, Part 1, Method 15-4
Physical contaminants (man-made inerts) (%)	< 1	TMECC 03.08-C
Trace Contaminants (Arsenic, Cadmium, Copper, Mercury, Selenium, Zinc, Nickel, and Lead)	Meets US EPA, 40 CFR 503 Regulations	TMECC 04.06 or EPA6020/ASA (American Society of Agronomy)
All Particle Sizes	< 6 Inches	
C:N ratio	<20	TMECC 05.02-A

The Contractor shall utilize a rod penetrometer for determining subgrade soil preparation and determining looseness of soil after ripping. The penetrometer shall have a psi pressure gage, and shall meet the following requirements:

(1) Steel rod with a minimum diameter of ½ inch with graduations (tick marks) every 6 inches.

(2) The rod shall be made of stainless steel or other metal that will not bend when weight is applied.

(3) The end of the rod shall have a 30-degree cone tip.

(4) The diameter of the cone at its tip shall be no more than 0.1 inch.

(5) The top of the rod shall be a T-handled configuration.

CONSTRUCTION REQUIREMENTS

207.03 Site Pre-vegetation Conference. Prior to the start of the initial Subgrade Soil Preparation for the project, the Contractor shall request a Site Pre-vegetation Conference. The Engineer will set up the conference and will include: the Engineer or designated representative, the Superintendent or designated representative, the sub-contractor(s) performing the subgrade soil preparation and soil amendments, and the CDOT Landscape Architect representing the Region. Only one meeting is required for the project unless a new sub-contractor is brought on that did not attend the previous meeting.

The Agenda of the Pre-vegetation Conference can be found in Appendix A of the Construction Manual and includes the following:

(1) Final review of the Topsoil (Offsite) Amendment Protocol

(2) Review of the Method Statement detailing the equipment which will be used for the subgrade soil preparation operations

(3) Review of rod penetrometer which will be used to determine subgrade soil preparation of topsoil

(4) Permanent Stabilization Phasing Plan (identify strategies and site management measures to protect de-compacted, topsoil amended, seeded, and blanketed areas from foot, vehicle loads, and other disturbances).

(5) Seeding. See subsection 212.03 for submittal requirements.

(6) Meeting attendee sign-in log

207.04 Topsoil Stockpiling. Stockpiles of topsoil shall be created as shown on the plans or as approved by the Engineer. All Stockpiles of topsoil which are scheduled to remain in place for 14 days or more shall receive interim stabilization in accordance with subsection 208.04. All topsoil stockpiles shall be identified using white pin flags with “TOPSOIL” printed in black letters and shall have their locations shown on the SWMP Plans. Each individual stockpile shall require at least one flag, and one additional flag for each 10 cubic yards of salvaged topsoil. The contractor shall provide only perimeter flags for stockpile larger than 100 cubic yards with a minimum spacing of 25 feet.

Topsoil may be placed in stockpiles or windrowed at the edge of the disturbance. Windrowed topsoil shall not be used as perimeter erosion control or extensively compacted. When topsoil is windrowed, all stockpile requirements still apply.

(1) Upland Topsoil. If included on the plans, stockpiles shall be treated with herbicide, in accordance with Section 217, or as directed.

(2) Wetland Topsoil. Wetland stockpiles shall not be treated with herbicide. Weeds shall be hand pulled. Wetland topsoil shall be placed within 24 hours from excavation, unless otherwise approved by the Engineer. Wetland topsoil shall not be stockpiled for more than six months.

207.05 Subgrade Soil Preparation. Before placement of topsoil, the subgrade shall be ripped to a minimum depth of 14 inches. Subgrade shall be mostly dry and friable. Subgrade shall crumble without sticking together, yet not be so dry and hard that it does not break apart easily.

Underground utilities shall be located prior to soil preparation.

Subgrade soil preparation equipment shall meet the requirements for either winged tip or parabolic shanks. Operation shall be performed to fracture the soil uniformly without lifting or furrowing the surface excessively. The Contractor shall submit a method statement for subgrade soil preparation other equipment will be considered.

1. Winged tip shanks (dozer equipment) shall be a minimum of 6 inches wide and have 2 inches of vertical profile change on the blade with a 40 – 60-degree sweep angle.

The Contractor shall calibrate the subgrade soil preparation equipment using a minimum 30 linear feet of the initial pass. The Contractor shall utilize the rod penetrometer to verify that that de-compaction was successfully done. The Contractor shall take penetration measurements every 6 inches across a transect perpendicular to the direction of the tractor and spanning the width of the subgrade soil preparation. Depths of penetration shall confirm that a minimum of 12 inches can be achieved without reaching 300 psi on the rod penetrometer pressure gage (approximately 30 pounds of pressure on the T-handle).

Existing subgrade shall be de-compacted to a depth of 14 inches. If multiple passes are needed, the subsequent passes shall be positioned so that the ripping equipment (subsoilers) from the previous pass are split by the subsequent pass. Following ripping, the Contractor shall remove all sticks, stones, debris, clods, and all other substances greater than 6 inches in diameter. The Contractor shall restrict motorized vehicle and foot traffic from passing over the ripped area since this would recompact the areas that received subgrade soil preparation.

The first 4 feet from the edge of pavement shall be ripped to a depth of 6 inches. If the project is going to use aggregate base course or recycled asphalt as a shouldering technique, those areas will not require subgrade soil preparation. Depth of soil ripping for the subgrade soil preparation shall be checked with the rod penetrometer.

The Contractor shall verify adequate de-compaction of the entire area to have topsoil placed using a rod penetrometer in the presence of the Engineer. Tests shall be performed at a minimum of ten random locations per each acre as selected by the Engineer. The Test shall verify that a depth of 12 inches of penetration into the soil can be achieved without reaching 300 psi on the rod penetrometer pressure gage (approximately 30 pounds of pressure on the T-handle). If this depth cannot be achieved for 80 percent of the penetrations, the Contractor shall re-rip the area at no additional cost to the Department.

207.06 Placement of Topsoil and Seeding Media. Topsoil and Seeding Media shall be hauled and placed at the locations disturbed and will be re-vegetated or as shown on the plans. The contractor shall place a minimum thickness of 6 inches and should only be handled when it is dry enough to work without damaging soil structure. Topsoil and Seeding Media shall be placed a minimum depth of twelve (12) inches when placed over riprap as required on the plans. No Topsoil or Seeding Media shall be placed below ordinary high water mark except as otherwise specified in bio-stabilization bank treatments.

Salvaged topsoil placement deeper than 6 inches is allowed if additional approved material is on-site.

Contractor shall place topsoil in a method that does not re-compact subgrade material using low ground-contact pressure equipment, or by excavators and/or backhoes operating adjacent to it.

The final grade shall be free of all materials greater than 4 inches in diameter within the designed clear zone for the project. Equipment not required for revegetation work will not be permitted in the areas of placed topsoil.

Soil amendments, seedbed preparation, and permanent stabilization mulching shall be accomplished within four working days of placing the topsoil on the de-compacted civil subgrades. If placed topsoil is not mulched with permanent stabilization mulch within four working days, the Contractor shall complete interim stabilization methods in accordance with subsection 208.04(e), at no additional cost to the Department. Time to perform the work may be extended for delays due to weather.

METHOD OF MEASUREMENT

207.07 Topsoil material will be measured by the actual number of cubic yards of topsoil placed and accepted. Subgrade soil preparation will be measured by the square yards of subgrade which is ripped and accepted for adequate de-compaction.

BASIS OF PAYMENT

207.08 The accepted quantities measured will be paid for at the Contract unit price for each of the pay items listed below that appear in the bid schedule.

Payment will be made under:

Pay Item	**Pay Unit**
Topsoil (Onsite)	Cubic Yard
Seeding Media	Cubic Yard
Topsoil (Offsite)	Cubic Yard
Topsoil (Wetland)	Cubic Yard
Subgrade Soil Preparation	Square Yard

Amendments for Topsoil (Onsite) and Seeding Media will be measured and paid for in accordance with Section 212.

Amendments for Topsoil (Offsite) will not be measured and paid for separately, but shall be included in the

work. Noxious Weed Management will be measured and paid for in accordance with Section 217.

Stockpiling or windrowing of topsoil will not be measured and paid for separately, but shall be included in the work.

Testing of Seeding Medial and Topsoil (Offsite) will not be measured and paid for separately but shall be included in the work.

Rod penetrometer and associated verification testing of random locations will not be measured and paid for separately, but shall be included in the work.

The Site Pre-vegetation Conference will not be paid for separately, but shall be included in the work.

Additional passes with the ripping equipment to achieve the desired de-compaction will not be measured and paid for separately, but shall be included in the work.

Removing of clods, sticks, stones, debris, concrete, and asphalt in excess of 4 inches in any dimension for all topsoil and Seeding Media used within the designed clear zone for the project will not be measured and paid for separately, but shall be included in the work.

Section 212 of the Standard Specifications is hereby deleted for this project and replaced with the following:

DESCRIPTION

212.01 This work consists of application of fertilizer, soil amendments, seedbed preparation, and placing seed and sod.

Substitutions from this specification will not be allowed unless submitted in writing to the Engineer and approved by the Region or Headquarters Landscape Architect.

MATERIALS

212.02 Seed, Fertilizers, Soil Conditioners, Mycorrhizae, Elemental Sulfur, and Sod.

(a) *Seed.* Seed shall be delivered to the project site in sealed bags tagged by a registered seed supplier conforming to the requirements of the Colorado Seed Act, CRS 35-27-111(1). Seed used on the project shall not be in the Contractor's possession for more than 30 days from the date of pickup or delivery on the seed vendors packing slip. Bags which have been opened or damaged prior to Engineer inspection will be rejected. The State required legal tags shall remain on the bag until opened and the seed is placed in either the drill or hydraulic seeders in the presence of the Engineer. The Engineer shall remove all tags after seed has been planted. Each seed tag shall clearly show the following:

(1) Name and address of the supplier

(2) Botanical and common name for each species

(3) Lot numbers

(4) Percent by weight of inert ingredients

(5) Guaranteed percentage of purity and germination

(6) Pounds of Pure Live Seed (PLS) of each seed species

(7) Total net weight in pounds of PLS in the sealed bag

(8) Calendar month and year of test date

Seeds shall be free from all noxious weed seeds in accordance with Colorado Seed Act (CRS 35-17) prohibited noxious weed seed list.

Weed seed content shall not exceed the requirements in part 7.2 of the Colorado Department of Agriculture's Seed Act Rules and Regulations.

Seed which has become wet, moldy, or damaged in transit or in storage will not be accepted.

Seed and seed labels shall conform to all current State regulations and to the testing provisions of the Association of Official Seed Analysis. Computations for quantity of seed required on the project shall include the percent of purity and percent of germination.

The Contractor shall store seed under dry conditions, at temperatures between 35 °F to 90 °F, under low humidity and out of direct sunlight. The Contractor shall provide the location of where seed is stored and access to stored seed locations to the Engineer. Seed stored by the Contractor for longer than 30 days will be rejected.

(b) *Organic Fertilizer*. Fertilizer derived directly from plant or animal sources shall conform to Colorado Revised Fertilizer Rules 8 CCR 1202-4. Fertilizer shall be uniform in composition and shall be delivered to the site in the original, unopened containers, each bearing the manufacturer's name, address, and nutrient analysis. Fertilizer bags (containers) which arrive at the project site opened, damaged, or lacking a label will be rejected. The Contractor shall only use bulk shipments such as tote bags or super sacks that have a manufacturer's original label and sealed at the manufacturing facility. Fertilizer which becomes caked or damaged will not be accepted. Fertilizer shall be stored according to manufacturer's recommendations in a dry area where the fertilizer will not be damaged.

Organic fertilizer formulation being submitted for use must be registered with the Colorado Department of Agriculture.

Verification tests may be conducted by CDOT on grab samples of organic fertilizer delivered to the site to determine the reliability of bag label analysis and for ingredients which are injurious to plants. If a product of any supplier is found to consistently deviate from the bag level analysis, the acceptance of that product will be discontinued. Copies of the failing test reports will be furnished to the Colorado State Board of Agriculture for appropriate action under the "Colorado Fertilizer Law".

Fertilizer shall be supplied in one of the following physical forms:

(1) A dry free-flowing granular fertilizer, suitable for application by agricultural fertilizer spreader.

(2) A homogeneous pellet, suitable for application by agricultural fertilizer spreader. Pellet size shall be 2-3 mm. Smaller may be allowed when Seeding (Native) Hydraulic is shown on the plans.

(3) A soluble form that will permit complete suspension of insoluble particles in water, suitable for application by power sprayer.

The application rate of the organic fertilizer shall be either as high or low nitrogen (N) fertilizer as shown on the plans.

High N organic fertilizer chemical analysis shall conform to Table 212-1.

Table 212-1

Chemical Analysis for High N Fertilizer

Ingredient	Range	Test Method
Nitrogen (N) (%)	6 - 10	AOAC Official Method 993.13 Nitrogen (Total) in Fertilizers Combustion Method
Phosphorus (P) (%)	1 - 8	AOAC Official Method 960.03 Phosphorus (Available) in Fertilizers
Potassium (K) (%)	1 - 8	AOAC Official Method 983.02 Potassium in Fertilizers

Low N organic fertilizer chemical analysis shall conform to Table 212-2.

Table 212-2

Chemical Analysis for Low N Fertilizer

Ingredient	Range	Test Method
Nitrogen (N) (%)	2 -5	AOAC Official Method 993.13 Nitrogen (Total) in Fertilizers Combustion Method
Phosphorus (P) (%)	3 - 8	AOAC Official Method 960.03 Phosphorus (Available) in Fertilizers
Potassium (K) (%)	1 - 8	AOAC Official Method 983.02 Potassium in Fertilizers

Organic fertilizers shall conform to Table 212-3.

Table 212-3 Organic Fertilizer Properties

Criteria	Range
Moisture content by weight	< 6%

(c) *Compost (Mechanically Applied).* Compost shall be suitable for use in Erosion Log (Type 2) and permanent seeding applications. Compost shall not contain visible refuse, other physical contaminants, or substances considered harmful to plant growth. Compost shall be used in accordance with all applicable EPA 40 CFR 503 standards for Class A biosolids including the time and temperature standards. Materials that have been treated with chemical preservatives as a compost feedstock will not be permitted.

The Contractor shall provide material that has been aerobically composted in a commercial facility. Compost shall be from a producer that participates in the United States Composting Council's (USCC) Seal of Testing Assurance (STA) program. The Department will only accept STA approved compost that is tested in accordance with the USCC Test Methods for Examining of Composting and Compost (TMECC) manual.

Verification tests may be conducted by CDOT on grab samples of compost delivered to the site to determine the gradation and physical properties. Testing may be done for indication of ingredients which are injurious to plants. Sampling procedures will follow the STA 02.01 Field Sampling of Compost Materials and 02.01-B Selection of Sampling Locations for Windrows and Piles. If a product is found to consistently deviate from the gradation and property analysis, the acceptance of that product will be discontinued. Copies of the failing test reports will be furnished to the USCC.

1. Compost for permanent seeding soil conditioner locations onsite and application rates shall be as shown on the plans.

   Organic matter in compost shall be no more than 2 inches in length.

   Compost (Mechanically Applied) for permanent seeding shall meet the gradation and physical properties as shown in Table 212-4 and Table 212-5. The Contractor shall provide a written explanation for compost tested parameters not within the acceptable requirements for review and consideration.

   The Contractor shall provide documentation from the composting facility confirming that the material has been tested in accordance with USCC TMECC.

Table 212-4

Gradation for Permanent Seeding Compost

Sieve Size	Percent Passing		
	Minimum	Maximum	Test Method
25.0 mm (1")	100		TMECC 02.02-B, "Sample Sieving for Aggregate Size Classification"
19.0 mm (3/4")	90	100	
6.25 mm (1/4")	70	100	

Note: Compost shall be from a producer that participates in the USCC STA program.

Table 212-5

Properties for Permanent Seeding Compost

Compost Parameters	Reported as	Requirements	Test Method
pH	pH units	6.0 - 8.5	TMECC 04.11-A
Soluble Salts (Electrical Conductivity)	dS/m (mmhos/cm)	< 5.0	TMECC 04.10-A
Moisture Content	%, wet weight basis	25% - 50%	TMECC 03.09-A
Organic Matter Content	%, dry weight basis pounds per cubic yard	20% - 50% >240	TMECC 05.07-A
Carbon to Nitrogen Ratio (C:N)		< 15:1	
Man-made Inert Contamination (plastic, concrete, ceramics, metal, etc.)	%, dry weight basis	< 1%	TMECC 03.08-A
Stability (respirometry)	mg CO_2-C per g TS per day mg CO_2-C per g OM per day	8 or below	TMECC 05.08-B
Select Pathogens and weed free	(PASS/FAIL) Limits: Salmonella < 3 MPN/4 grams of TS, or Coliform Bacteria < 1000 MPN/gram	Pass	TMECC 07.01-B Fecal Coliforms, or 07.02 Salmonella
Trace Metals	(PASS/FAIL) Limits (mg $kg^{-1,}$ dw basis): Arsenic (As) 41, Cadmium (Cd) 39, Copper (Cu)1500, Lead (Pb) 300, Mercury (Hg) 17, Nickel (Ni) 420, Selenium (Se) 100, Zinc (Zn) 2800	Pass	TMECC 04.06
Maturity (Bioassay) Percent Emergence Relative Seedling Vigor	%, (average) %, (average)	> 80% > 80%	TMECC 05.05-A
Use the STA Lab bulk density lb/cu ft as received, multiplied by organic matter % as received, multiplied by 27 to calculate pounds per cubic yard of organic matter.			

2. Compost for Erosion Log (Type 2) shall meet the gradation and physical properties as shown in Table 212-6 and Table 212-7.

Table 212-6

Gradation for Erosion Log (Type 2) Compost

Sieve Size	Percent Passing		Test Method
	Minimum	Maximum	
75.0 mm (3")	100		TMECC 02.02-B, "Sample Sieving for Aggregate Size Classification"
25.0 mm (1")	90	100	
9.5 mm (3/8")	10	50	

Note: Organic matter for erosion log compost shall be no more than 4 inches in length. Compost shall be from a producer that participates in the USCC STA program.

Table 212-7

Properties for Erosion Log (Type 2) Compost

Compost Parameters	Reported as	Requirements	Test Method
pH	pH units	6.0 - 8.5	TMECC 04.11-A
Soluble Salts (Electrical Conductivity)	dS/m (mmhos/cm)	< 5.0	TMECC 04.10-A
Moisture Content	%, wet weight basis	< 60%	TMECC 03.09-A
Organic Matter Content	%, dry weight basis	25% - 100%	TMECC 05.07-A
Man-made Inert Contamination (plastic, concrete, ceramics, metal, etc.)	%, dry weight basis	< 0.5%	TMECC 03.08-A
Stability (respirometry)	mg CO_2-C per g TS per day mg CO_2-C per g OM per day	N/A	TMECC 05.08-B
Select Pathogens and weed free	(PASS/FAIL) Limits: Salmonella < 3 MPN/4 grams of TS, or Coliform Bacteria < 1000 MPN/gram	Pass	TMECC 07.01-B Fecal Coliforms, or 07.02 Salmonella
Trace Metals	(PASS/FAIL) Limits (mg $kg^{-1,}$ dw basis): Arsenic (As) 41, Cadmium (Cd) 39, Copper (Cu)1500, Lead (Pb) 300, Mercury (Hg) 17, Nickel (Ni) 420, Selenium (Se) 100, Zinc (Zn) 2800	Pass	TMECC 04.06
Maturity (Bioassay) Percent Emergence Relative Seedling Vigor	 %, (average) %, (average)	 N/A N/A	TMECC 05.05-A

(d) *Biotic Soil Amendments (Hydraulically Applied*). Soil amendments shall be a combination of natural fibers, growth stimulants, and other biologically active material designed to improve seed germination and vegetation establishment as shown in Table 212-8. Biotic soil amendments shall be pre-packaged in

ultraviolet and weather resistant packaging and labeled from the manufacturer. Bags (containers) which arrive at the project site opened, damaged, or lacking a label will be rejected. Bulk shipments such as tote bags will be rejected. Biotic soil amendments shall be stored in locations not exceeding 80 °F. Acceptance of material shall be subject to the requirements of the Department's Approved Product List (APL).

The application rate of the biotic soil amendments shall be in accordance with the rates shown on the plans. Use of mulch tackifier (Plantago Insularis or pre-gelatinized corn starch polymer) shall be in accordance with Section 213. It shall be used as a wetting agent at a rate of 30 pounds per acre. Biotic soil amendments shall provide a continuous and uniform cover and shall consist of one of the components in Table 212-8 and all of the performance and physical properties in Table 212-9.

Table 212-8

Required Percentage Ranges of Biotic Soil Amendments

Components	Units	Requirement
Professional grade sphagnum peat moss, professional grade reed sedge peat moss or compost that meets the Seal of Testing Assurance Program of the US Composting Council	%, dry weight basis	> 41%
Mechanically processed straw consisting of weed free agricultural straw, flexible flax fiber or rice hulls	%, dry weight basis	< 57%

Table 212-9

Performance and Physical Requirements of Biotic Soil Amendments

Parameters	Reported as	Requirement	Test Method
pH	pH units	5.0 – 7.5	ASTM D1293
Moisture content	%, wet weight basis	10% - 50%	ASTM D 2974
Organic matter content	%, dry weight basis	> 85%	ASTM D586
Carbon Nitrogen Ratio	Ratio C:N	< 38:1	ASTM E1508
Man-made inert contamination	%, dry weight basis	< 1.0%	
Acute Toxicity	(Pass/Fail)	Pass (non-toxic)	ASTM E729-96(2014) or EPA Method 2021.0 or EPA Method 2002.0
Vegetative Minimum		> 400%	ASTM 7322
The Contractor shall provide a CTR with independent laboratory analysis for the required parameters in accordance with subsection 106.13.			

(e) *Humate*. The Contractor shall provide a screened dry granular form of organic humic and fulvic acid substance. Humate shall be pre-packaged and labeled from the manufacturer. Bags (containers) which arrive at the project site opened, damaged, or lacking label will be rejected. The Contractor shall only use bulk shipments such as tote bags or super sacks that have a manufacture's original label and sealed at the manufacturing facility. Humate shall be stored in locations not exceeding 80 °F. Humate shall be provided in accordance with the rates shown on the plans. Product shall conform to the parameters in Table 212-10 and Table 212-11.

Table 212-10

Screened Size Requirements for Humate

Seeding Method	Reported as	Requirement
Seeding (Native) Drill, Hydraulic and Broadcast	inches	< 1/4

Table 212-11

Performance and Physical Requirements of Humate

Parameters	Reported as	Requirement	Test Method
Organic Matter	%, dry weight basis	>70%	
Fines (material that is finer than the No. 200 (75-µm) sieve)	%, dry weight basis	<2%	ASTM D7928
pH	pH units	3.0 - 4.5	ASTM D1293
Acute Toxicity	Pass / Fail	Non Toxic	ASTM 7101 or EPA Method 2021 or 2002
Humic and Fulvic Acids	%, dry weight basis	> 70%	A & L Western method; total alkali extractable
Carbon Content	%, dry weight basis	40% - 50%	
Moisture Content	%, dry weight basis	< 20%	
Heavy Metal / Ash Content	%, dry weight basis	< 15%	
The Contractor shall provide a CTR with independent laboratory analysis for the required parameters in accordance with subsection 106.13.			

(f) *Mycorrhizae*. Mycorrhizae shall arrive onsite in original and undamaged packaging. Handling of this material shall follow manufacturer's safety recommendations. Mycorrhizae shall be stored onsite in such a way as to avoid exposure to direct sunlight for more than four hours and to prevent package temperatures to rise above 85 °F. The endo mycorrhizal inoculum shall provide at least 60,000 propagules per pound and shall contain all of the following species and conform to the parameters in Table 212-12:

(1) Glomus intraradices (a.k.a. Rhizophagus intraradices)

(2) Glomus mosseae (a.k.a. Funneliformis mosseae)

(3) Glomus aggregatum (a.k.a. rhizophagus aggregatus)

(4) Glomus etunicatum (a.k.a. Claroideoglomus etunicatum)

Table 212-12

Physical Requirements of Endo Mycorrhizae

Parameters	Reported as	Requirement	Test Method
Acute Toxicity	Pass or Fail	Non Toxic	ASTM 7101 or EPA Method 2021 or 2002

The Contractor shall provide a CTR with independent laboratory analysis has been done on the product for the required parameters in accordance with subsection 106.13.

The following rates shall be used for Seeding Methods:

(1) For Seeding (Native) Drill, the mycorrhizae product shall be provided as a dry free-flowing granular material, suitable for application by agricultural drill seeder. Application rate shall be 8 pounds per acre.

(2) For Seeding (Native) Hydraulic, the mycorrhizae product shall be provided as a fine granular (< 2 mm) or powdered form (particle size less than 300 microns) that will permit complete suspension and used with hydro-seeder equipment. Application rate shall be 20 pounds per acre.

(3) For Seeding (Native) Broadcast, the mycorrhizae product shall be provided as a dry free-flowing granular material, suitable for application by fertilizer spreader. Application rate shall be 20 pounds per acre.

(g) *Elemental Sulfur.* The Contractor shall provide a free-flowing granular material consistent in size suitable for application by agricultural spreader and conform to the parameters in Table 212-13. Elemental sulfur shall arrive onsite in original and undamaged packaging.

Table 212-13

Physical Requirements of Elemental Sulfur

Parameters	Reported as	Requirement
Guaranteed Analysis of Elemental Sulfur (S)	%	> 90
Bulk Density	Lbs per cu. ft.	> 75

(h) *Sod.* Sod shall be nursery grown and 99 percent weed free. Species shall be as shown on the plans. The 1 percent allowable weeds shall not include undesirable perennial or annual grasses or plants defined as noxious by current State statute or county noxious weed list. Soil thickness of sod cuts shall not be less than ¾ inch or more than 1 inch. Sod shall be cut in uniform strips with minimum dimensions of 18 inches in width and 48 inches in length. The Contractor shall submit a sample of the sod proposed for use, which shall serve as a standard if approved. Sod furnished, whether in place or not, that is not up to the standard of the sample will be rejected. CDOT will reject all sod that was cut more than 72 hours prior to installation.

Each load of sod shall be accompanied by a certificate from the grower stating the type of sod and the date and time of cutting. The Contractor shall submit the certificate to the Engineer prior to application of the sod. Only sod that is accompanied by the certificate from the grower will be accepted and paid for.

CONSTRUCTION REQUIREMENTS

212.03 Submittals. The Contractor shall provide the name and contact information of the seeding contractor 30 days prior to start of seeding work. The Contractor shall provide two copies of items (1) - (14) listed below to the Pre-vegetation Conference in accordance with Section 207. When the Contractor provides resubmittals to meet Contract requirements, the Region or Headquarters Landscape Architect shall be copied on all correspondence.

(1) Written confirmation from the registered seed supplier, on the Contractor's letterhead, that the Contract specified seed has been secured. No substitutions of the contract specified seed will be permitted unless evidence is submitted, from one of the registered seed suppliers that the Contract specified seed is not available and will not become available during the anticipated construction period.

(2) Seed vendor's "seed dealer" endorsement.

(3) A copy of each seed species germination report of analysis that verifies the lot has been tested by a recognized laboratory for seed testing within 13 months prior to the date of seeding.

(4) A copy of each seed species purity laboratory report of analysis that verifies that the lot has been tested by a recognized laboratory for seed testing. The report shall list all identified species, seed count, and date of test.

(5) Manufacturer's documentation stating that the fertilizer meets the Contract requirements.

(6) Organic fertilizer documentation showing manufacturer and chemical analysis.

(7) Permit issued from CDPHE confirming that the vendor can produce or sell compost in accordance with House Bill (HB) 1181.

(8) Documentation from the compost manufacturer that it is a participating member of in the U.S. Composting Council's Seal of Testing Assurance Program (STA).

(9) Results of compost testing on an STA Compost Technical Data Sheet confirming all required test methods are met using the STA Program.

(10) Sample of physical compost (at least one cubic foot of material).

(11) Manufacturer's documentation confirming that biotic soil amendment meets the required physical and performance criteria based on independent testing by the manufacturer.

(12) Manufacturer's documentation confirming that humate meets the required physical and performance criteria based on independent testing by the manufacture.

(13) Manufacturer's documentation confirming that mycorrhizae meets the physical criteria based on independent testing and that the minimum required species is provided.

(14) Pictures and descriptions of seeding equipment proposed to be used on the project. Based on the seeding methods required at a minimum this should include the drill seeder, hydraulic seeder, cultipacker or seed bed roller implements.

(15) Instructions and documentation on how seeders will be calibrated onsite, in accordance with subsection 212.05(a).

212.04 Seeding Seasons. Seeding in areas that are unirrigated shall be restricted according to the parameters in Table 212-14.

Table 212-14
Seeding Seasons

Zone	Spring Seeding	Fall Seeding
Areas other than the Western Slope		
Below 6000'	Spring thaw to June 1	September 15 until consistent ground freeze
6000' - 7000'	Spring thaw to June 1	September 1 until consistent ground freeze
7000' - 8000'	Spring thaw to July 15	August 1 until consistent ground freeze
Above 8000'	Spring thaw to consistent ground freeze	
Western Slope		
Below 6000'	Spring thaw to May 1	August 1 until consistent ground freeze
6000' - 7000'	Spring thaw to June 15	September 1 until consistent ground freeze
Above 7000'	Spring thaw to consistent ground freeze	

(1) "Spring thaw" is the earliest date in a new calendar year in which seed can be buried ½ inch into the surface soil (topsoil) through normal drill seeding methods.

(2) "Consistent ground freeze" is the time during the fall months in which the surface soil (topsoil), due to freeze conditions, prevents burying the seed ½ inch through normal drill seeding operations. Seed shall not be sown, drilled, or planted when the surface soil or topsoil is in a frozen or crusted state.

Seeding accomplished outside the time periods listed above will be allowed only when the Contractor's request is approved by the Engineer in writing, with coordination from the Region Landscape Architect. If requested by the Contractor, the Contractor must agree to perform the following work at no cost to the Department: reseed, remulch, and repair areas which fail to produce species indicated in the Contract.

If seeding is ordered by the Engineer outside the time periods listed above, the cost to repair areas that fail to produce species will be paid for by the Department.

212.05 Native Seeding Methods. Areas to be seeded shall be installed in accordance with SWMP Permanent Stabilization Plan.

All amendments and seeding shall be applied based on the seeding method and rates specified on the plans.

The Contractor shall complete the Amendments Verification Prerequisite for each of the seeding methods described herein. This shall be done by completing a Seed and Amendment Quantities Worksheet for each work

area. This worksheet shall have a list of all amendments and the seed labels for each of the areas to be worked on. The State required legal tags shall remain on the bag until opened and the seed placed in either the drill or hydraulic seeders in the presence of the Engineer. Seeding work shall not begin until written approval of the worksheet has been received from the Engineer.

In determining the weight of seed required for each work area, the Contractor shall use the Pure Live Seed (PLS) weight shown on each bag of seed. Calculations based on net weight will not be accepted.

The Contractor shall submit a proposed Permanent Stabilization Phasing Plan to the Engineer prior to the Pre-revegetation Conference for approval showing how the SWMP Permanent Stabilization Plans will be implemented to minimize traffic loading damage to subgrade soil prepared and seeded areas. The proposed sequencing shall consider and identify strategies and site management control measures to protect seeded areas from foot, vehicle, and other disturbances. The strategic planning of the permanent seeding and mulch shall consider all other phasing of construction activities including traffic management and utility work. Areas damaged due to the Contractor's failing to protect the seeded areas shall be repaired at no cost to the Department. Seeded areas damaged due to circumstances beyond the Contractor's control shall be repaired and reseeded as ordered. Payment for corrective work, when ordered, shall be at the Contract prices shown and in accordance with subsection 109.04.

The following seeding application methods shall not be implemented during winds which are consistently higher than 20 MPH, or when the ground is frozen, excessively wet, or otherwise untillable. The Engineer may test to see if the moisture level in the soil is acceptable to work the soil by performing a Soil Plasticity Test as described in the Construction Manual. Multiple seeding operations shall be anticipated, based on acceptable seeding conditions. The seeding methods to be implemented shall be one or more of the following, as shown on the plans:

(a) *Seeding (Native) Drill.*

(i) *Fertilizer, Compost, Humates and Elemental Sulfur.* The Contractor shall uniformly apply compost and elemental sulfur on the surface of the topsoil using an agricultural spreader at the rate of application specified on the plans. All competitive, non-native vegetation shall be uprooted and hauled offsite prior to spreading amendments. Prior to starting incorporation of compost and elemental sulfur, the Contractor shall receive written acceptance from the Engineer on the Seed and Amendment Quantities Worksheet. Verification Prerequisite for this method also requires documentation on the Permanent Stabilization SWMP Site Maps with the approved areas outlined, signed, and dated by the Engineer to track progress. If SWMP Site Maps are not included in the Contract, the Contractor shall use the Contract grading or roadway plan sheets.

Once the Quantities Verification Prerequisite is completed for an area, the Contractor shall homogenously incorporate the compost and elemental sulfur into the top 6 inches of topsoil. Tillage of the amendments shall be completed using a disc and harrow, field cultivator, vibra-shank, or other method suitable to site conditions. For small areas tillage shall be completed using rotary tillers. No measurable depth of organic amendment shall be present on the surface.

The shanks on the back of a grader or dozer shall not be used for tillage. Tillage may take multiple passes to achieve the desired harmonious incorporation. If multiple passes are required, the Contractor shall cross till the soil with the second pass occurring at a 30-degree angle to the first pass. On slope areas, all tillage shall be parallel to the contour. For project that will utilize aggregate or recycled asphalt shouldering material amendments, tillage is not required under shouldering material. Projects seeding up to the edge of pavement, tillage is not required for first 12" from the edge of pavement.

Once incorporation of compost and elemental sulfur is approved, the Contractor shall uniformly apply fertilizer and humates on the surface of the topsoil using an agricultural spreader, as shown in the Contract documents.

(ii) *Seedbed Preparation.* Amended topsoil shall be cultivated to a firm but friable seedbed using cultipacker or seed bed roller implements. Crusted hard soils shall be broken up and all areas shall be free of clods, sticks, stones, debris, concrete, and asphalt in excess of 4 inches in any dimension in accordance with Section 207. Areas shall be left in a rough and uncompacted condition with a surface variance of 2 to 4 inches.

(iii) *Seed and Mycorrhizae.* Prior to seeding, the finished grade of the soil shall be 1 inch below the top of all curbs, junction and valve boxes, walks, drives and other structures. Seeding shall be done within two days of seedbed preparation efforts (tilling or scarifying). If a rain event occurs that compacts or erodes the seedbed prior to performing seeding, the seedbed shall be re-prepared as directed by the Engineer.

Areas shall be seeded by mechanical power drawn drills suitable for area soils, topography, and size followed by packer wheels. Mechanical power drawn drills shall have furrow openers and depth bands set to maintain a planting depth of at least ¼ inch and not more than ½ inch and shall be set to space the rows not more than 8 inches apart. Seeding equipment shall have a double disk opener, seed box agitator, and seed metering device.

The seeder shall be calibrated by collecting seed from a single drop tube in the presence of the Engineer based on the following procedure. The Contractor shall provide the tape measure, scale, collection cup, and seed bag with complete label from the supplier. The Contractor may submit an alternative method for approval at the site Pre-vegetation Conference.

(1) Measure the total width (W) of the drill seeder in feet.

(2) Count the number of drill rows (N) on the seeder.

(3) On drill seeders that the tire drives the seeding mechanism, measure the tire circumference (C) in feet.

(4) Calculate the number of rotations the tire will complete per acre using the following equation:

A = one acre or 43,560 square feet (SF)

A /W = feet (F) the drill seeder needs to travel for each acre

F/C = number of rotations (R) of the tire per acre

(5) Reduce the amount of tire rotations by one tenth.

.90R = # Tire rotations to calibrate seeder (RCS)

(6) Find the seeding rate (LBS PLS / Acre) on the Stormwater Management Plan.

(7) Using the information from the seed tag, convert the PLS seed rate to a bulk seeding rate using the following equations:

% PLS = (% purity (in decimal form) from seed label) x (% germination (in decimal form) from seed label)

(LBS PLS / Acre) from the SWMP / % PLS = Required bulk seed per acre in LBS

(8) Reduce the required bulk seed per acre based on the number of seeder tubes.

Required bulk seed per acre / N = Weight in LBS of bulk seed from one tube

(9) Reduce the required bulk seed rate from the tube by one tenth.

0.90 x Weight of bulk seed from one tube = Collected bulk seed weight (CBS) in LBS

(10) Set the drill seeder to the correct seeding rate using the manufacturer's recommendation.

(11) With the collection cup under one tube and the driving wheel jacked up, rotate the tire the RCS amount of times. Use the value stem to count the rotations.

(12) Using the scale, weigh the seed in the collection cup.

(13) Adjust the drill calibration until the weight of bulk seed in the collection cup equals the CBS in LBS.

Drill seeders shall be recalibrated every time the drill is mobilized onsite. The Contractor shall submit a written statement that the equipment is calibrated, and shall provide the correct depth based on conditions before seeding actions are initiated. The Contractor shall continuously monitor equipment to ensure that it is providing a uniform seed application.

If mycorrhizae is called for on the plans, the granules shall be included with the seed in the drill seeder such that the mycorrhizae is placed at or below the seed.

The distance between furrows produced using the drill shall not be more than 8 inches. If rows on the drill exceed 8 inches, the Contractor shall drill the areas twice (if achievable at 30-degree angles to each other) at no additional cost to the Department.

After seeding, the furrows that were created by the drill shall be maintained in place. Construction traffic, other than what is needed to mulch the areas, shall not be permitted on the areas completed.

Permanent stabilization mulching shall be accomplished within 24 hours of drill seeding.

(b) Seeding (Native) Hydraulic.

This method utilizes water as the carrying agent and mixes biotic soil amendments, seed, organic fertilizer, humates, mycorrhizae and elemental sulfur into a single slurry for hydraulic application. The Contractor shall furnish and place combined slurry with a hydro-seeder that will maintain a continuous agitation and apply homogenous mixture through a spray nozzle. The pump shall produce enough pressure to maintain a continuous, non-fluctuating spray that will reach the extremities of the seeding area. Water tanks shall have a means of measuring volume in the tank. Seed shall be added to the slurry onsite, no more than 60 minutes before starting application. Slurry shall be applied from a minimum of two opposing directions to achieve complete soil coverage.

The application of the single slurry shall be applied within four hours of adding Mycorrhizae.

The Contractor shall prevent seed, fertilizer, and mulch from falling or drifting onto areas occupied by rock base, rock shoulders, plant beds, or other areas where grass is detrimental. The Contractor shall remove material that falls on plants, roadways, gravel shoulders, structures, and other surfaces where material is not specified.

(i) *Seedbed Preparation*. All areas shall be loosened to at least 6 inches, leaving the surface in rough condition with a surface variance of 6 to 8 inches. On steep slopes, tillage shall be accomplished with appropriate equipment as the slope is constructed. Soil areas shall be tilled to produce loose and friable surfaces with crusted hard soils broken up. All slopes shall be free of clods, sticks, stones, debris, concrete, asphalt and all other materials in excess of 4 inches in any dimension. All competitive, non-native vegetation shall be uprooted and hauled offsite prior to spreading amendments. Under no circumstances shall the ground surface be smooth and compacted.

(ii) *Biotic Soil Amendment, Fertilizer, Humate, Mycorrhizae and Seed*. The Contractor shall assemble all materials for proposed areas to hydro-seed and review quantities with area of coverage with the Engineer as the Quantities Verification Prerequisite for this method. Prior to mixing in the tank, the Contractor

shall receive written acceptance from the Engineer on the Seed and Amendment Quantities Worksheet that the correct quantities are onsite. This quantities verification prerequisite also requires documentation on the Permanent Stabilization SWMP Site Maps with the approved areas outlined, signed, and dated by the Engineer to track progress. If SWMP Site Maps were not included in the Contract, grading or roadway plan sheets shall be used. For the verification process, the Contractor shall provide the Engineer with all documentation for materials in unopened packaging.

After the Quantities Verification Prerequisite has been approved, the hydro-seeder shall be filled with water to 1/3 of its required volume. Following this, water and biotic soil amendments shall be added to the hydro-seeder at a consistent rate. The ratio of water to Biotic Soil Amendments shall be in accordance with manufacturer's recommendations. Fertilizer, humates and mycorrhizae shall then be added until the tank has reached 3/4 of its required volume. The tank shall then be filled with water to the required volume. Uniform slurries shall be agitated or mixed for a minimum of ten minutes after all water and materials are in the tank.

Hydraulic seeding equipment shall include a pump capable of being operated at 100 gallons per minute and at 100 pounds per square inch pressure. The equipment shall have a nozzle adaptable to hydraulic seeding requirements. Storage tanks shall have a means of estimating the volume used or remaining in the tank.

Seed shall be added to the slurry onsite no more than 60 minutes before starting application. The Contractor shall increase the Seed Plan rates (LBS PLS / Acre) as shown on the plans by 1.5 times at no additional cost to the Department. The Contractor may be required to apply slurry using multiple hoses to ensure uniform application to all areas of the site. Coverage rates shall be based on the volume of material in the tank, as verified by the Engineer. Areas of lighter applications (covering more area than what is calculated) will require additional application, as directed.

An appropriate curing period shall be in accordance with manufacturer's recommendations, and shall consider forecasted weather conditions.

Permanent stabilization mulching shall be accomplished within 24 hours of hydraulic application of native seed.

(c) *Seeding (Native) Broadcast.*

This method utilizes hand equipment to broadcast spread amendments and seed over prepared seedbeds.

(i) *Fertilizing, Compost, Humate and Elemental Sulfur.* The Contractor shall uniformly apply compost and elemental sulfur on the surface of the placed topsoil using an agricultural spreader at the rate of application specified on the plans. All competitive non-native vegetation shall be uprooted and hauled offsite prior to spreading amendments. Prior to starting incorporation, the Contractor shall receive written acceptance from the Engineer on the Seed and Amendment Quantities Worksheet that the correct quantities will be applied. The Quantities Verification Prerequisite for this method also requires documentation on the Permanent Stabilization SWMP Site Maps with the approved areas outlined, signed, and dated by the Engineer to track progress. If SWMP Site Maps are not included in the Contract, the grading or roadway plan sheets shall be used.

Once the Quantities Verification Prerequisite is completed for an area, the Contractor shall homogenously incorporate the Compost into the top 6 inches of soil. Tillage of the amendments shall be completed using appropriate tools depending on the size of the area to be worked. Contractor shall use hand tillers or approved small space implements.

Once incorporation of compost and elemental sulfur is approved, the Contractor shall uniformly apply

organic fertilizer and humates on the surface of the topsoil using an agricultural spreader.

(ii) *Seedbed Preparation.* Amended topsoil shall be cultivated to a firm but friable seedbed using tractor implements. Crusted hard soils shall be broken up and all areas shall be free of clods, sticks, stones, debris, concrete, and asphalt in excess of 4 inches in any dimension in accordance with Section 207. Areas shall be left in a rough condition with a surface variance of 2 to 4 inches. Under no circumstances shall the ground surface be smooth and compacted.

(iii) *Seed and Mycorrhizae.* Prior to seeding, the finished grade of the soil shall be 1 inch below the top of all curbs, junction and valve boxes, walks, drives and other structures. Seeding shall be accomplished within two days of seedbed preparation efforts (tilling or scarifying) to make additional seedbed preparation unnecessary. If a rain event occurs that compacts or erodes the seedbed prior to performing seeding, the seedbed shall be re-prepared as directed.

Areas shall be seeded by broadcast-type seeders (cyclone or approved mechanical seeders). The Contractor shall increase the Seed Plan rates (LBS PLS / Acre) as shown on the plans by 1.5 times at no additional cost to the Department.

After seeding, mycorrhizae shall be evenly hand-distributed across the area. Seed and mycorrhizae shall be covered by hand raking and covering with ¼ to ½ inch of topsoil. To ensure seeds have a firm contact with the soil the Contractor shall use a heavy roller as approved in the Site Pre-vegetation Conference. Mycorrhizae shall not be exposed to sunlight for more than four hours. Using equipment with continuous cleat tracks (cat-tracking) to cover seed is not permitted.

Permanent stabilization mulching shall be accomplished within 24 hours of broadcast seed application of native seed.

212.06 Seeding (Temporary). Areas of topsoil shall be seeded with annual grasses in accordance with SWMP Interim Site Maps or as directed by the Engineer.

Seeding may take place at any time during the year as long as the ground is not covered in snow and topsoil is not frozen. Topsoil may be placed in a stockpile or distributed on-grade after receiving subgrade soil preparation.

Interim stabilization for areas that receive temporary seeding shall be in accordance with subsection 208.04(e)2. Seed shall not be included with interim hydraulic mulch applications.

The Contractor shall wait to amend topsoil until the area is ready for permanent seeding with native seed mix shown on the SWMP. The Contractor shall use either the drill, hydraulic, or broadcast method of seeding. Seeding rates (LBS PLS / Acre) shall be increased by 1.5 times for hydraulic and broadcast methods at no additional cost to the Department.

Seed shall meet the requirements of 212.02(a) and shall be selected from Table 212-1 based on the application time.

Table 212-1 Temporary Seed Mixes

Common Name	Botanical Name	Application Time	Seeding Rates (LBS PLS / Acre)	Planting Depth (inches)
Oats	Avena sativa	October 1 - May 1	35	1 - 2
Foxtail Millet	Setaria italica	May 2 - September 30	30	1/2 - 3/4

The Contractor shall restrict motorized vehicle and foot traffic from areas that have received temporary seeding.

212.07 Seeding (Lawn). Lawn grass seeding shall be accomplished in the seeding seasons in accordance with subsection 212.03.

(a) *Fertilizing and Soil Conditioning.* The first application of fertilizer, soil conditioner, or both shall be incorporated into the soil immediately prior to seeding, and shall consist of a soil conditioner, commercial fertilizer, or both as designated in the Contract. Fertilizer called for on the plans shall be worked into the top 4 inches of soil at the rate specified in the Contract. Biological nutrient, culture, or humate based material called for on the plans shall be applied in a uniform application onto the soil service. Organic amendments shall be applied uniformly over the soil surface and incorporated into the top 6 inches of soil.

The second application of fertilizer shall consist of a fertilizer having an available nutrient analysis of 20-10-5 applied at the rate of 100 pounds per acre. It shall be uniformly broadcast over the seeded area three weeks after germination or emergence. The area shall then be thoroughly soaked with water to a depth of 1 inch.

Fertilizer shall not be applied when the application will damage the new lawn.

(b) *Seedbed Preparation.* In preparation of seeding lawn grass, irregularities in the ground surface, except the saucers for trees and shrubs, shall be removed. Measures shall be taken to prevent the formation of low places and pockets where water will stand.

Immediately prior to seeding, the ground surface shall be tilled or hand worked into an even and loose seedbed to a depth of 6 inches, free of clods, sticks, stones, debris, concrete, and asphalt in excess of 2 inches in any dimension, and brought to the desired line and grade.

(c) *Seeding.* Seed shall be drilled with mechanical landscape type drills. Broadcast type seeders or hydraulic seeding will be permitted only on small areas not accessible to drills. Seed shall not be drilled or broadcast during windy weather or when the ground is frozen or untillable.

212.08 Sodding.

(a) *Fertilizing and Soil Conditioning*. Prior to laying sod, the 4 inches of subsoil underlying the sod shall be treated by tilling in fertilizer, compost, or humates as specified on the plans. Amendments shall be applied uniformly over the soil surface and incorporated into the top 6 inches of soil.

After laying the sod, it shall be fertilized with a fertilizer having a nutrient analysis of 20-10-5 at the rate of 200 pounds per acre. Fertilizer shall not be applied when the application will damage the sod.

(b) *Soil Preparation.* Prior to sodding, the ground shall be tilled or hand worked into an even and loose sod bed to a depth of 6 inches, and irregularities in the ground surface shall be removed. Sticks, stones, debris, clods, asphalt, concrete, and other material more than 2 inches in any dimension shall be removed. Depressions or variances from a smooth grade shall be corrected. Areas to be sodded shall be smooth before sodding occurs.

(c) *Sodding.* Sod shall be placed by staggering joints with all edges touching. On slopes, the sod shall run approximately parallel to the slope contours. Where the sod abuts a drop inlet, the subgrade shall be adjusted so that the sod shall be 1-½ inches below the top of the inlet.

Within one hour after the sod is placed and fertilized it shall be watered. After watering, the sod shall be permitted to dry to the point where it is still wet enough for effective rolling. The Contractor shall roll the sod in two directions with a lawn roller capable of applying between 50 - 80 pounds per square inch of surface pressure to eliminate air pockets.

METHOD OF MEASUREMENT

212.09 The quantities of lawn seeding and the three native seeding types will not be measured but shall be the quantities designated in the Contract, except that measurements will be made for revisions requested by the Engineer, or for discrepancies of plus or minus five percent of the total quantity designated in the Contract.

The quantity of sod will be by the actual number of square feet, including soil preparation, water, fertilizer, and sod, completed and accepted.

Organic Fertilizer, Compost (Mechanically Applied), Humates, Mycorrhizae soil amendments for Seeding (Native) methods drill, hydraulic, and broadcast will be measured by the actual quantity of material applied and accepted.

Measurement for acres will be by slope distances.

BASIS OF PAYMENT

212.10 The accepted quantities of lawn seeding, native seeding, soil conditioning, and sod will be paid for at the contract unit price for each of the pay items listed below that appear in the bid schedule. Rejected seed that has been stored longer than 30 days shall be re-ordered at the expense of the Contractor.

Payment will be made under:

Pay Item	Pay Unit
Organic Fertilizer	Pound
Compost (Mechanically Applied)	Cubic Yard
Biotic Soil Amendments (Hydraulic Applied)	Pound
Humate	Pound
Mycorrhizae	Pound
Elemental Sulfur	Pound
Seeding (Native) Drill	Acre
Seeding (Native) Hydraulic	Acre
Seeding (Native) Broadcast	Acre
Seeding (Wetland) Drill	Acre
Seeding (Wetland) Hydraulic	Acre
Seeding (Wetland) Broadcast	Acre
Seeding (Temporary)	Acre
Seeding (Lawn)	Acre
Sod	Square Foot

Topsoil preparation including incorporating and applying amendments, seedbed preparation, water, and seed mix (LBS PLS / Acre) will not be measured and paid for separately but shall be included in the work.

Calibrating, adjusting, or readjusting seeding or fertilizing equipment will not be measured and paid for separately but shall be included in the work.

No additional cost will be accepted for approved substitution of specified seed mix.

No payment will be made for areas seeded using one of the seeding methods without receiving signed Seed and Amendment Quantities Worksheet from the Engineer.

Additional seedbed preparation prior to seeding to correct compaction or erosion from storm events will not be measured and paid for separately but shall be included in the work.

Additional mobilizations as needed to complete seeding within allowed seeding seasons will not be measured and paid for separately but shall be included in the work.

Removal of all competitive, non-native vegetation prior to spreading amendments will not be measured and paid for separately but shall be included in the work.

END OF SECTION

SECTION 240

PROTECTION OF MIGRATORY BIRDS

BIOLOGICAL WORK PERFORMED BY THE CONTRACTOR'S BIOLOGIST

Section 240 is hereby added to the Standard Specifications for this project as follows:

DESCRIPTION

240.01 This work consists of protecting migratory birds during construction.

MATERIALS AND CONSTRUCTION REQUIREMENTS

240.02 The Contractor shall schedule clearing and grubbing operations and work on structures to avoid taking (pursue, hunt, take, capture or kill; attempt to take, capture, kill or possess) migratory birds protected by the Migratory Bird Treaty Act (MBTA). The Contractor shall retain a qualified wildlife biologist for this project. The wildlife biologist shall have a minimum of three years experience conducting migratory bird surveys and implementing the requirements of the MBTA. The Contractor shall submit documentation of the biologist's education and experience to the Engineer for acceptance. A biologist with less experience may be used by the Contractor subject to the approval of the Engineer based on review of the biologist's qualifications.

The wildlife biologist shall record the location of each protected nest, bird species, the protection method used, and the date installed. A copy of these records shall be submitted to the Engineer.

(a) *Vegetation Removal.* When possible, vegetation shall be cleared prior to the time when active nests are present. Vegetation removal activities shall be timed to avoid the migratory bird breeding season which begins on April 1 and runs to August 31. All areas scheduled for clearing and grubbing between April 1 and August 31 shall first be surveyed within the work limits for active migratory bird nests. The Contractor's wildlife biologist shall also survey for active migratory bird nests within 50 feet outside work limits. Contractor personnel shall enter areas outside CDOT right of way only if a written, signed document granting permission to enter the property has been obtained from the property owner. The Contractor shall document all denials of permission to enter property. The Contractor shall avoid all active migratory bird nests. The Contractor shall avoid the area within 50 feet of the active nests or the area within the distance recommended by the biologist until all nests within that area have become inactive. Inactive nest removal and other necessary measures shall be incorporated into the work as follows:

1. *Tree and Shrub Removal or Trimming.* Tree and shrub removal or trimming shall occur before April 1 or after August 31 if possible. If tree and shrub removal or trimming will occur between April 1 and August 31, a survey for active nests shall be conducted by the wildlife biologist

within the seven days immediately prior to the beginning of work in each area of tree and shrub removal or trimming. The survey shall be conducted for each phase of tree and shrub removal or trimming.

If an active nest containing eggs or young birds is found, the tree or shrub containing the active nest shall remain undisturbed and protected until the nest becomes inactive. The nest shall be protected by placing fence (plastic) a minimum distance of 50 feet from each nest to be undisturbed. This buffer dimension may be changed if determined appropriate by the wildlife biologist and approved by the Engineer. Work shall not proceed within the fenced buffer area until the young have fledged or the nests have become inactive.

If the fence is knocked down or destroyed by the Contractor, the Engineer will suspend the work, wholly or in part, until the fence is satisfactorily repaired at the Contractor's expense. Time lost due to such suspension will not be considered a basis for adjustment of time charges, but will be charged as contract time.

2. *Grasses and Other Vegetation Management*. Due to the potential for encountering ground nesting birds' habitat, if work occurs between April 1 and August 31, the area shall be surveyed by a wildlife biologist within the seven days immediately prior to ground disturbing activities.

   The undisturbed ground cover to 50 feet beyond the planned disturbance, or to the right of way line, whichever is less, shall be maintained at a height of 6 inches or less beginning April 1 and continuing until August 31 or until the end of ground disturbance work, whichever comes first.

   If birds establish a nest within the survey area, an appropriate buffer of 50 feet will be established around the nest by the CDOT biologist. This buffer dimension may be changed if determined appropriate by the CDOT biologist and approved by the Engineer. The Contractor shall install fence (plastic) at the perimeter of the buffer. Work shall not proceed within the buffer until the young have fledged or the nests have become inactive.

   If the fence is knocked down or destroyed by the Contractor, the Engineer will suspend the work, wholly or in part, until the fence is satisfactorily repaired at the Contractor's expense. Time lost due to such suspension will not be considered a basis for adjustment of time charges, but will be charged as contract time.

(b) *Work on structures*. The Contractor shall prosecute work on structures in a manner that does not result in a taking of migratory birds protected by the Migratory Bird Treaty Act (MBTA). The Contractor shall not prosecute the work on structures during the primary breeding season, April 1 through August 31, unless he takes the following actions:

(1) The Contractor shall remove existing nests prior to April 1. If the Contract is not awarded prior to April 1 and CDOT has removed existing nests, then the monitoring of nest building shall become the Contractor's responsibility upon Notice to Proceed.

(2) During the time that the birds are trying to build or occupy their nests, between April 1 and August 31, the Contractor shall monitor the structures at least once every three days for any nesting activity.

(3) If the birds have started to build any nests, they shall be removed before the nest is completed. Water shall not be used to remove the nests if nests are located within 50 feet of any surface waters.

(4) Installation of netting may be used to prevent nest building. The netting shall be monitored and repaired or replaced as needed. Netting shall consist of a mesh with openings that are ¾ inch by ¾ inch or less.

If an active nest become established, i.e., there are eggs or young in the nest, all work that could result in abandonment or destruction of the nest shall be avoided until the young have fledged or the nest is unoccupied as determined by the wildlife biologist and approved by the Engineer. The Contractor shall prevent construction activity from displacing birds after they have laid their eggs and before the young have fledged.

If the project continues into the following spring, this cycle shall be repeated. When work on the structure is complete, the Contractor shall remove and properly dispose of netting used on the structure.

(c) *Taking of a Migratory Bird.* The taking of a migratory bird shall be reported to the Engineer. The Contractor shall be responsible for all penalties levied by the U. S. Fish and Wildlife Service (USFWS) for the taking of a migratory bird.

METHOD OF MEASUREMENT

240.03 Wildlife Biologist will be measured by the actual authorized number of hours a wildlife biologist is on site performing the required tasks.

Removal of nests will be measured by the actual number of man-hours spent removing inactive nests just prior to and during the breeding season, April 1 through August 31. During this period, the Contractor shall submit to the Engineer each week for approval a list of the workers who removed nests and the number of hours each one spent removing nests.

Netting will be measured by the square yard of material placed to keep birds from nesting on the structure. Square yards will be calculated using the length of netting measured where it is attached to the ground and the average height of the netting where it is attached to the structure.

BASIS OF PAYMENT

240.04 The accepted quantities measured as provided above will be paid for at the contract unit price for each of the pay items listed below that appear in the bid schedule.

Payment will be made under:

Pay Item	**Pay Unit**
Wildlife Biologist	Hour
Removal of Nests	Hour
Netting	Square Yard

Payment for Wildlife Biologist will be full compensation for all work and materials required to complete the item, including wildlife biologist, wildlife survey, and documentation (record of nest location and protection method)

Payment for Removal of Nests will be full compensation for all work and material required to complete the work.

Payment for netting will be full compensation for all work and material required to complete the item. Overlaps of netting will not be measured and paid for separately, but shall be included in the work. Maintenance and replacement, removal, and disposal of netting will not be measured and paid for separately, but shall be included in the work.

Clearing and grubbing will be measured and paid for in accordance with Section 201. Mowing will not be measured and paid for separately, but shall be included in the work.

Removal and trimming of trees will be measured and paid for in accordance with Section 202.

Fence (Plastic) will be measured and paid for in accordance with Section 607

END OF SECTION

Oversight / NHS	
FHWA FULL OVERSIGHT?	☒NO ☐YES
NATIONAL HIGHWAY SYSTEM?	☒NO ☐YES

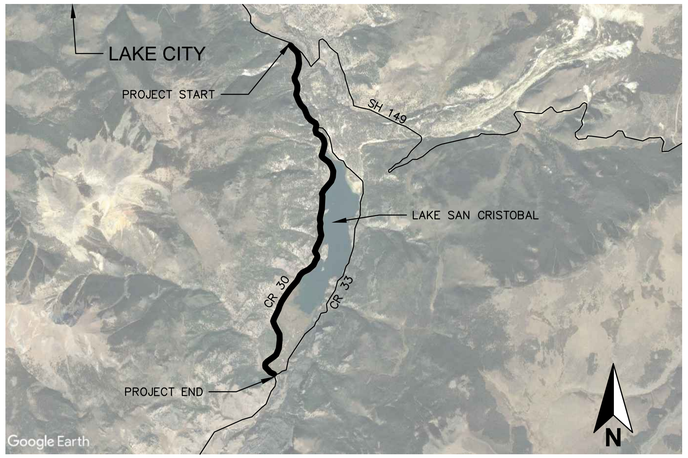
HINSDALE COUNTY, COLORADO

Related Projects:
P. E. UNDER PROJECT: Project Number Project Code
R.O.W. Projects: Project Number

COUNTY ROAD 30
BIKE LANE INSTALLATION & CHIP SEAL OVERLAY
HINSDALE COUNTY, CO
PROJECT #: MTF C360-001
SA #: 25371

TABULATION OF LENGTH

STATION	FEET	MILES
COUNTY ROAD 30 STA. 0+00 TO STA. 215+25	21,523.11	4.076
TOTAL	21,523.11	4.076



Part of NW 1/4 Section 10,
Township 43N, Range 4W,
New Mexico Principal Meridian

VICINITY MAP

N.T.S.

INDEX OF SHEETS

DESIGN DATA

DESIGN SPEED: XX MPH
POSTED SPEED: XX MPH
MAXIMUM GRADE: 5.00%
MINIMUM GRADE: 0.00%
MINIMUM S.S.D.: xxx FT.
ADT: XXX

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

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T:\CIVIL\2023\2023-047-CIV CR 30 Bike Lane and Chip Seal Overlay\65CAD\SHT-COV-CR 30.dwg PLOT DATE 2024-1-29 15:11 SAVED DATE 2024-01-29 15:05 USER: sjackson

Print Date: 1/29/24	Sheet Revisions			BUCKHORN ENGINEERING 222 South Park Avenue Montrose, Colorado 81401 970-249-6828 DANIEL QUIGLEY, P.E., (970) 497-8852	HINSDALE COUNTY 311 N. HENSON ST. LAKE CITY, CO 81235
File Name: SHT-COV-CR 30.DWG	Date:	Comments	Init.		
Horiz. Scale:					
Vert. Scale: As Noted					
Unit Information:					
Unit Leader Initials:					

Construction Set	COUNTY ROAD 30 BIKE LANE INSTALLATION & CHIP SEAL OVERLAY TITLE SHEET			Project No./Code
No Revisions:	Designer: DQ	Structure Numbers		2023-047-CIV
Revised:	Detailer: WL			
Void:	Sheet Subset:	Subset Sheets:		Sheet Number: 1

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COLORADO
DEPARTMENT OF TRANSPORTATION

M&S STANDARDS PLANS LIST

July 31, 2019

Revised on November 7, 2023

ALL OF THE M&S STANDARD PLANS, AS SUPPLEMENTED AND REVISED, APPLY TO THIS PROJECT WHEN USED BY DESIGNATED PAY ITEM OR SUBSIDIARY ITEM.

THE M&S STANDARD PLANS USED TO DESIGN THIS PROJECT ARE INDICATED BY A MARKED BOX ■, AND WILL BE ATTACHED TO THE PLANS. ALL OTHER M&S STANDARD PLANS ARE STILL ELIGIBLE FOR USE IN CONSTRUCTION IF APPROVED BY AN APPROPRIATE CDOT ENGINEER.

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Last Modification Date: 11/07/23	(R-X)		
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Colorado Department of Transportation
2829 West Howard Place
CDOT HQ, 3rd Floor
Denver, CO 80204
Phone: 303-757-9021 FAX: 303-757-9868
Construction Engineering Services JBK

STANDARD PLANS LIST

Issued by the Project Development Branch: July 31, 2019

STANDARD PLAN NO.
STANDARDS PLANS LIST
Standard Sheet No. 1 of 1
Project Sheet Number: 2

GENERAL NOTES

1. ALL CONSTRUCTION SHALL BE DONE IN ACCORDANCE CURRENT COLORADO DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS, AND APPLICABLE UTILITY COMPANY'S SPECIFICATIONS. ALL MATERIALS AND WORKMANSHIP SHALL CONFORM TO CURRENT COLORADO DEPARTMENT OF TRANSPORTATION SPECIFICATIONS.
2. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS, LINES, LEVELS, MATERIALS, ETC PRIOR TO START OF CONSTRUCTION AND SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES IN WRITING.
3. SURVEY CONTROL TO BE ESTABLISHED BY THE ENGINEER, AND SHALL CONSIST OF PROJECT HORIZONTAL AND VERTICAL CONTROL.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS REQUIRED FOR THIS PROJECT PRIOR TO START OF CONSTRUCTION FROM THE COLORADO DEPARTMENT OF TRANSPORTATION, APPLICABLE UTILITY COMPANIES AND ANY OTHER GOVERNING AGENCY AS REQUIRED.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION OF ALL EXISTING UTILITIES, INCLUDING ANY UTILITIES NOT SHOWN ON THE DRAWINGS. WHEN WORKING NEAR EXISTING UTILITIES, THE CONTRACTOR SHALL EXERCISE SUFFICIENT CARE TO PREVENT DAMAGE TO THE LINES IN THE EVENT THAT THE INFORMATION SHOWN ON THE DRAWINGS DOES NOT REFLECT ACTUAL FIELD CONDITIONS.
6. ALL FINISHED GRADING SHALL BE SUCH THAT NO DEPRESSIONS OF MORE THAN 2" REMAIN, UNLESS OTHERWISE DIRECTED BY THE PROJECT ENGINEER. ALL SLOPES SHALL DRAIN TO A DEDICATED DRAINAGE CONTROL STRUCTURE.
7. THE STORMWATER MANAGEMENT PLAN (SWMP) PREPARED FOR THIS PROJECT SHALL BE MAINTAINED BY THE CONTRACTOR. THE OWNERS REPRESENTATIVE SHALL MONITOR THE CONTRACTOR'S SWMP MAINTENANCE ACTIVITIES TO ENSURE SWMP PERMIT COMPLIANCE.
8. ALL STATIONING IS BASED ON CENTERLINE OF ROAD.
9. ROUGH GRADING SHALL BE ACCOMPLISHED PRIOR TO UTILITY CONSTRUCTION.
10. UNLESS OTHERWISE DIRECTED THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING AND REPLACING OR PROTECTING ANY EXISTING SIGNS, STRUCTURES, FENCES, ETC. ENCOUNTERED ON THE JOB AND RESTORING THEM TO THEIR ORIGINAL CONDITION.
11. THE CONTRACTOR SHALL PROVIDE A CLEAR AND CONCISE RED LINE SET OF AS-CONSTRUCTED PLANS TO THE ENGINEER PRIOR TO FINAL ACCEPTANCE. PLANS SHALL SHOW THE AS-BUILT LOCATIONS OF ALL UTILITIES, CULVERTS, ROADS, GRADES, ETC. INSTALLED DIFFERENT FROM THE APPROVED PLANS.
12. CONTRACTOR SHALL HAVE ONE SET OF ENGINEER SIGNED APPROVED PLANS ON THE JOB SITE AT ALL TIMES DURING CONSTRUCTION.
13. UTILITY LENGTHS SHOWN ON THE DRAWINGS ARE APPROXIMATE AND SHALL BE FIELD VERIFIED.
14. A PRECONSTRUCTION MEETING MUST BE HELD BETWEEN THE CONTRACTOR AND THE COLORADO DEPARTMENT OF TRANSPORTATION PERSONNEL PRIOR TO ANY CONSTRUCTION ACTIVITIES.
15. COLORADO DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS AND THESE NOTES SHALL APPLY TO THIS PROJECT. IN CASE OF CONFLICT BETWEEN THESE DOCUMENTS, THE MORE STRINGENT/CONSERVATIVE NOTE SHALL GOVERN.
16. ALL PUBLIC IMPROVEMENTS SHALL BE SUBJECT TO INSPECTION BY THE COLORADO DEPARTMENT OF TRANSPORTATION THROUGHOUT CONSTRUCTION. PLEASE PROVIDE AT LEAST 48 HOURS' NOTICE FOR ALL INSPECTIONS.
17. CONSTRUCTION WITHOUT INSPECTION IS THE BASIS FOR REJECTION.
18. DURING ALL SUBSURFACE ACTIVITIES, WORKERS SHALL BE ALERT FOR VISUAL AND OLFACTORY SIGNS OF CONTAMINATION. IF CONTAMINATION IS ENCOUNTERED, WORK SHALL STOP AND PROCEDURES ESTABLISHED IN THE CDOT 250 SPECS SHALL BE FOLLOWED. ANY CONTAMINATED SOILS OR LANDFILL MATERIAL SHALL BE PROPERLY HANDLED AND SAMPLED PRIOR TO DISPOSAL.
19. PREVENT SEDIMENT OR DEBRIS FROM ENTERING STREAMS, RIVERS, OR WETLANDS.
20. CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS AND APPROVALS REQUIRED TO PERFORM THE WORK SUCH AS RIGHT-OF-WAY PERMIT, GRADING AND EXCAVATION PERMIT, CONSTRUCTION DEWATERING PERMIT, STORM WATER QUALITY PERMIT, ARMY CORP OF ENGINEER PERMIT, ETC. IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN A COPY OF ALL APPLICABLE CODES, LICENSES, SPECIFICATIONS, AND STANDARDS NECESSARY TO PERFORM THE WORK, AND BE FAMILIAR WITH THEIR CONTENTS PRIOR TO COMMENCING ANY WORK. THE TOWN WILL NEED TO OBTAIN THE STORMWATER CONSTRUCTION PERMIT AND THEN TRANSFER TO THE CONTRACTOR (NEW PROCESS THRU CDPHE).
21. FOR PRELIMINARY PLAN QUANTITIES OF PAVEMENT MATERIALS, THE FOLLOWING RATES OF APPLICATION WERE USED:
    i. FOR CHIP SEAL: COVER COAT MATERIAL (TYPE I)--------- @ 25 LBS/SY
    ii. FOR CHIP SEAL: EMULSIFIED ASPHALT (CRS-2P)----------@ 0.39 GAL/SY
    iii. FOR FOG COAT: EMULSIFIED ASPHALT (CSS-1H)----------@ 0.11 GAL/SY (DILUTED)
    iv. FOR CHIP SEAL EMULSIFIED ASPHALT: CONVERSION---@8.525 LBS/GAL
22. 'FOG COAT (DILUTED) SHALL CONSIST OF THREE PARTS ASPHALT (CSS-1H) AND TWO PARTS WATER.
23. SAMPLING OF CHIPS FOR GRADATION TESTING WILL BE PERFORMED AT THE SPREADER OR LAST STOCKPILE LOCATION BEFORE PLACEMENT OF MATERIAL ON THE ROADWAY. THE CONTRACTOR WILL BE REQUIRED TO OPEN THE FACE OF STOCKPILES WITH A LOADER FOR PROPER AND REPRESENTATIVE SAMPLING. SAMPLING WILL NOT BE PAID FOR SEPARATELY BUT WILL BE INCLUDED IN THE WORK.
24. THE CONTRACTOR SHALL LOG THE TYPE, SIZE, COLOR, AND LOCATION OF EXISTING LANE MARKINGS FOR DUPLICATION. THE CONTRACTOR SHALL LAY OUT ALL LANE MARKINGS ON THE SURFACE AS LOGGED FOR TEMPORARY AND FINAL STRIPING. THE CONTRACTOR SHALL PROVIDE PAVEMENT MARKING LOG TO THE ENGINEER PRIOR TO COMMENCING PROJECT WORK. ANY CHANGES IN PAVEMENT MARKINGS SHALL BE LATHED AND DOCUMENTED IN THE PAVEMENT MARKING LOG. THIS WORK WILL NOT BE MEASURED AND PAID FOR SEPARATELY, BUT WILL BE INCLUDED IN BID ITEM 627 - MODIFIED EPOXY PAVEMENT MARKING.
25. THE CONTRACTOR SHALL TAKE PRECAUTIONS TO MAINTAIN EXISTING SIGNS, DELINEATORS, GUARDRAIL, AND MILE MARKERS. IF THE CONTRACTOR DAMAGES ANY EXISTING SIGNS, DELINEATORS, GUARDRAIL, OR MILE MARKERS, THE CONTRACTOR SHALL REPLACE THE DAMAGED ITEMS AT THEIR OWN EXPENSE.
26. EXISTING CURB AND GUTTER, CROSS PANS, SIDEWALKS, OR DRIVEWAYS NOT IDENTIFIED IN THE CONTRACT, WHICH ARE DISTURBED AS A RESULT OF THE CONTRACTOR'S OPERATIONS, SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.
27. IF MULTIPLE WORK ZONES ARE PLANNED ON THE COUNTY ROAD 30 ROADWAY, TRAFFIC CONTROL MANAGEMENT SHALL INCLUDE AT LEAST ONE FLAGGER WITH VEHICLE FOR EACH DAY AND FOR EACH LOCATION. ADDITIONAL TCS/FLAGGER/LABORER SHALL NOT BE PAID FOR SEPARATELY BUT INCLUDED IN THE COST OF TRAFFIC CONTROL MANAGEMENT.
28. AT ALL TIMES, THE CONTRACTOR SHALL MAINTAIN REASONABLE INGRESS AND EGRESS FOR ACCESSES WITHIN THE PROJECT LIMITS, UNLESS OTHERWISE DIRECTED BY THE PROJECT ENGINEER.
29. THE CONTRACTOR SHALL STATION/STAKE PROJECT LIMITS AT 500 FOOT INTERVALS PRIOR TO BEGINNING WORK AND STAKES SHALL BE REMOVED UPON PROJECT COMPLETION. THIS SHALL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE WORK.
30. THE CONTRACTOR SHALL NOT PARK ANY VEHICLES OR EQUIPMENT, STOCKPILE MATERIALS, OR DISTURB ANY AREAS NOT APPROVED BY THE ENGINEER. SEE PLANS FOR LOCATIONS.
31. STAGING AREAS SHALL BE LOCATED IN PREVIOUSLY DISTURBED AREAS OR IN AREAS WHERE VEGETATION REMOVAL WILL NOT BE REQUIRED AND AS APPROVED BY THE PROJECT ENGINEER.
32. HINSDALE COUNTY SHALL OBTAIN THE STORMWATER CONSTRUCTION PERMIT AND TRANSFER TO THE CONTRACTOR.
33. CONTRACTOR WILL BE REQUIRED TO MAINTAIN ACCESS AT ALL TIMES TO TRAILHEADS AND RECREATIONAL AREAS LOCATED WITHIN THE LIMITS OF THIS PROJECT.

LEGEND

- EXISTING FENCE
- PROPOSED FENCE
- EXISTING WATER LINE
- EXIST. WATER LINE TO BE ABANDONED
- NEW 8" DUCTILE IRON PIPE WATER LINE
- EXISTING SANITARY SEWER LINE
- NEW 12" PVC SANITARY SEWER LINE
- EXISTING GAS LINE
- NEW GAS LINE
- EXISTING ELECTRIC LINE
- EXIST. ELECTRIC LINE TO BE ABANDONED
- EXISTING OVERHEAD POWER LINE
- NEW (2) 6" ELECTRIC CONDUITS
- NEW (2) 4" ELECTRIC CONDUITS
- EXISTING TELEPHONE LINE
- NEW JOINT UTILITIES (PHONE, CABLE, FIBER)
- NEW DRAINAGE SWALE
- NEW IRRIGATION LINE
- NEW IRRIGATION OPEN DITCH
- NEW ADS STORM DRAIN (SIZE AS NOTED ON PLAN)
- PROPERTY LINE / PLANNING AREA LINE
- RIGHT-OF-WAY LINE
- EASEMENT LINE
- EXISTING PEDESTRIAN TRAIL
- NEW ASPHALT PEDESTRIAN TRAIL
- NEW NATURAL SURFACE DEEP CREEK TRAIL
- 100-FT WETLAND BUFFER
- EXIST. SEWER MANHOLE
- NEW SAN. SEWER MANHOLE
- EXIST. WELL
- EXIST. UTILITY POLE
- EXIST. ELECTRIC TRANSFORMER
- NEW ELECTRIC JUNCTION BOX
- NEW ELECTRIC TRANSFORMER
- EXISTING CATV PEDESTAL
- EXISTING TELEPHONE PEDESTAL
- EXISTING FIRE HYDRANT
- NEW FIRE HYDRANT
- EXIST. WATER VALVE
- NEW WATER VALVE
- NEW STORM DRAIN MANHOLE
- NEW STORM DRAIN INLET AND PIPE
- EXISTING GRAVEL DRIVEWAY
- NEW ASPHALT PAVEMENT - PHASE 1
- NEW ASPHALT PAVEMENT - PHASE 2
- NEW ASPHALT PAVEMENT - PHASE 3
- NEW GRAVEL FIELD ROAD
- NEW CONCRETE SIDEWALK & CURB/GUTTER
- SNOW STORAGE AREA
- NEW UNDERGROUND STORMDRAIN STRUCTURE
- ARMY CORP OF ENGINEERS AND SAN MIGUEL COUNTY WETLANDS, BY SGM
- SAN MIGUEL COUNTY WETLANDS

ABBREVIATIONS

A.B.C.	- AGGREGATE BASE COURSE	LS	- LUMP SUM
APPROX.	- APPROXIMATE	MH	- MANHOLE
BVCE	- BEGIN VERT. CURVE ELEV.	MAT.	- MATERIAL
BVCS	- BEGIN VERT. CURVE STA.	MAX.	- MAXIMUM
℄	- CENTERLINE	MIN.	- MINIMUM
CH L	- CHORD LENGTH	MISC.	- MISCELLANEOUS
CMP	- CORRUGATED METAL PIPE	N	- NORTHING
CONC.	- CONCRETE	N.I.C.	- NOT IN CONTRACT
CONT.	- CONTINUOUS	NTS	- NOT TO SCALE
CP	- CONTROL POINT	P.C.	- POINT OF CURVE
CRWN	- CROWN	PCC	- POINT OF COMPOUND CURVE
CY	- CUBIC YARDS	PGL	- PROFILE GRADE LINE
DIA. ⌀	- DIAMETER	P.I.	- POINT OF INTERSECTION
DIM.	- DIMENSION	P.T.	- POINT OF TANGENCY
DIST.	- DISTANCE	P.V.C.	- POLYVINYL CHLORIDE
DWG.	- DRAWING	P.V.C.	- POINT OF VERTICAL CURVE
E	- EASTING	P.V.I.	- POINT OF VERTICAL INTERSECTION
EG	- EXISTING GROUND	P.V.T.	- POINT OF VERTICAL TANGENT
EL.	- ELEVATION	R	- RADIUS
ELEV.	- ELEVATION	REINF.	- REINFORCING
EQ.	- EQUAL	REQD.	- REQUIRED
EXIST.	- EXISTING	R.O.W.	- RIGHT OF WAY
EVCE	- END VERTICAL CURVE ELEVATION	SCH.	- SCHEDULE
EVCS	- END VERTICAL CURVE STATION	SHT.	- SHEET
E.A.	- EACH WAY	SPEC.	- SPECIFICATIONS
FG	- FINISHED GRADE	STA.	- STATION
FL	- FLOWLINE	STD.	- STANDARD
FT	- FOOT (FEET)	S.Y.	- SQUARE YARD
G.B.	- GRADE BREAK	TYP.	- TYPICAL
EXIST.	- HORIZONTAL	U.N.O.	- UNLESS NOTED OTHERWISE
IMP.	- IMPROVEMENT	VAR.	- VARIES
IN	- INCH	VERT.	- VERTICAL
INV	- INVERT	V.C.	- VERTICAL CURVE
L	- LENGTH (ARC LENGTH)	VPI	- VERTICAL POINT INTERSECTION
LF	- LINEAR FOOT	V.P.T.	- VERTICAL POINT OF TANGENCY
L.P.	- LOW POINT	W/	- WITH

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Vert. Scale: As Noted					
Unit Information:					
Unit Leader Initials:					

HINSDALE COUNTY
311 N. HENSON ST.
LAKE CITY, CO 81235

Construction Set	COUNTY ROAD 30 BIKE LANE INSTALLATION & CHIP SEAL OVERLAY NOTES, LEGEND & ABBREVIATIONS		Project No./Code
No Revisions:			2023-047-CIV
Revised:	Designer: DQ	Structure Numbers	
Void:	Detailer: WL		Sheet Number: 3
	Sheet Subset:	Subset Sheets:	

SUMMARY OF APPROXIMATE QUANTITIES

CONTRACT ITEM NO.	DESCRIPTION	UNIT	QUANTITY
201-00000	Clearing, Grubbing	L.S.	1
202-04002	Clean Culvert	EACH	18
203-00012	Unclassified Excavation (Complete in Place)	CY	310
208-00000	Erosion Control (including management)	DAY	30
208-00041	Rock Check Dam	EACH	238
208-00106	Sediment Removal	Hour	8
212-00700	Organic Fertilizer	Pounds	660
212-00702	Biotic Soil Amendments (Hydraulic Applied)	Pounds	7,700
212-00703	Humate	Pounds	440
304-06007	Aggregate Base Course (Class 6)	CY	270
212-00707	Seeding (Native) (hydraulic)	ACRE	2.2
306-01000	Reconditioning	SY	1,000
409-04015	Cover Coat Material (TYPE II) (1/2")	SY	80,000
409-04015	Cover Coat Material (TYPE IV) (3/4")	SY	80,000
411-10216	Emulsified Asphalt (Rapid Setting) (Polymerized)(CRS2P)	GAL	64,000
411-10253	Emulsified Asphalt (CSS-1H) (Fog Coat)(Diluted)	GAL	9,000
614-00012	Sign Panel (Class II)	SF	60
614-00220	Steel Sign Post(2.5 x 2.5 Tubing))	LF	120
620-00020	Sanitary Facility	EACH	1
625-00000	Construction Surveying	L.S.	1
626-00307	Mobilization/Demobilization	L.S.	1
626-01114	Public Information Management	DAY	45
627-00005	Pavement Marking Paint	GAL	360
630-00012	Traffic Control Management	DAY	30
630-00012	Traffic Control inspections (Weekends)	DAY	8

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Unit Leader Initials:

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970-249-6828

HINSDALE COUNTY
311 N. HENSON ST.
LAKE CITY, CO 81235

Construction Set
No Revisions:
Revised:
Void:

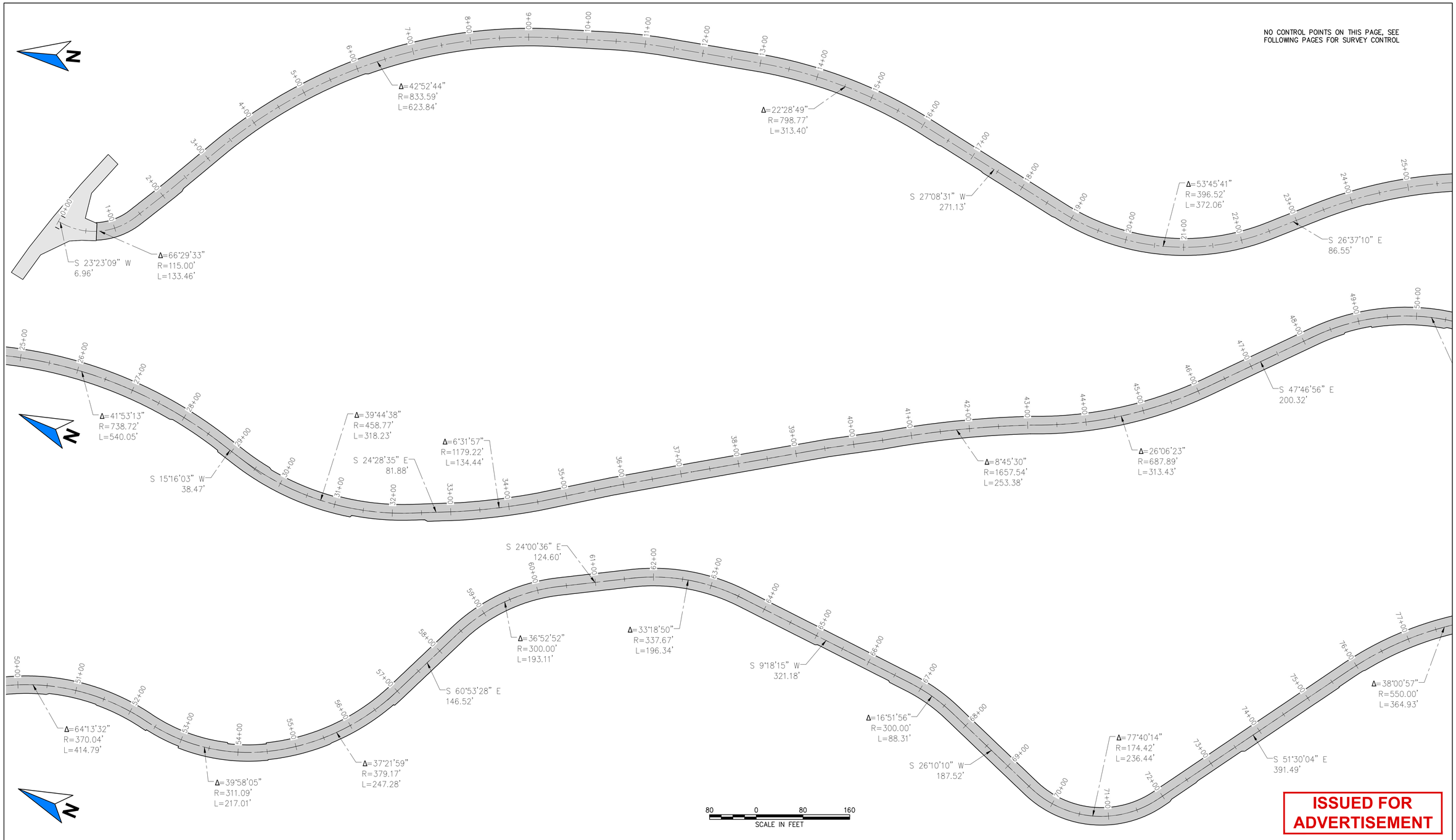
COUNTY ROAD 30
BIKE LANE INSTALLATION & CHIP SEAL OVERLAY
QUANTITIES

Designer: DQ
Detailer: WL
Sheet Subset:
Structure Numbers
Subset Sheets:

Project No./Code
2023-047-CIV

Sheet Number: 4

NO CONTROL POINTS ON THIS PAGE, SEE FOLLOWING PAGES FOR SURVEY CONTROL



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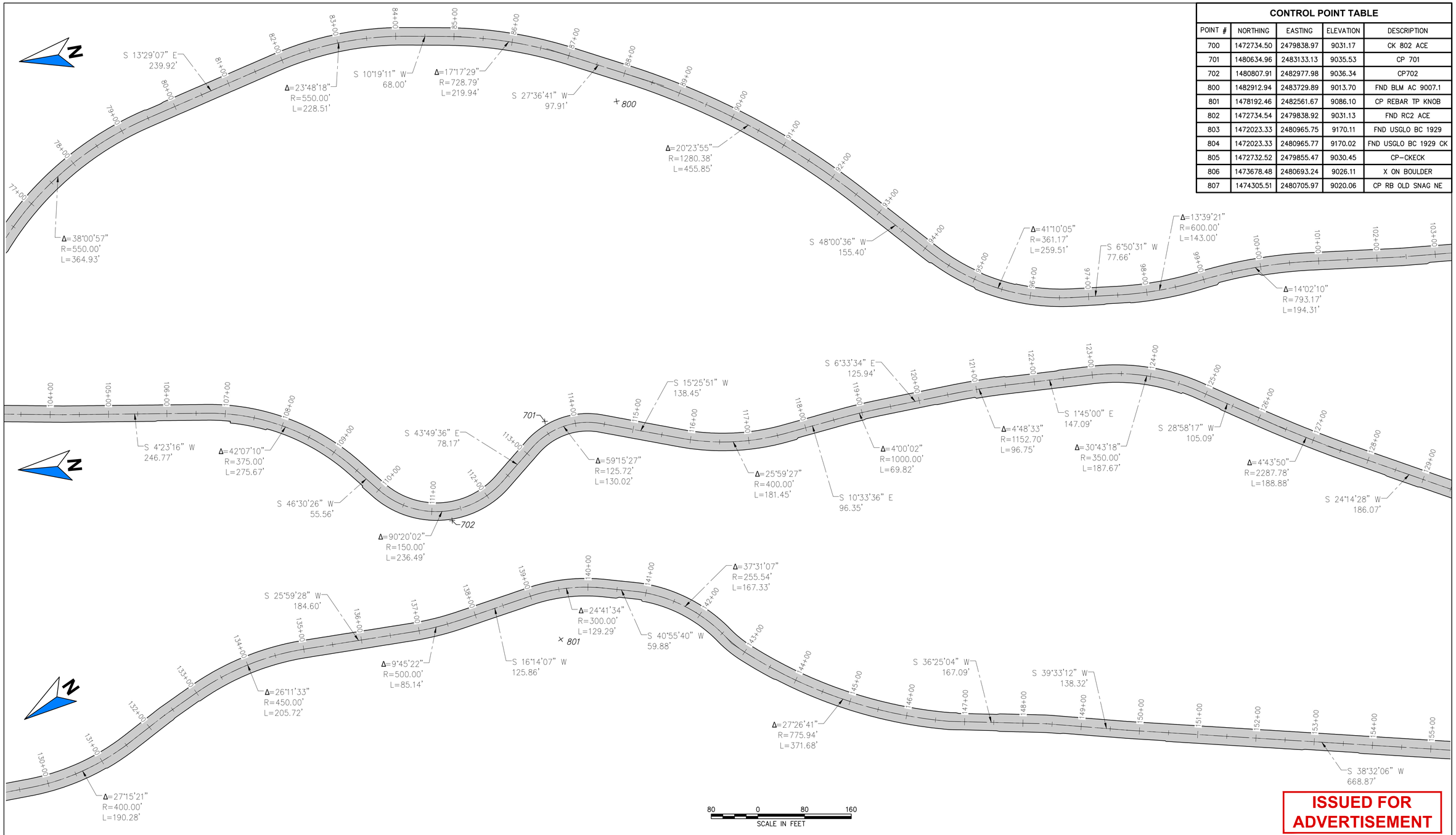
Vert. Scale: As Noted				HINSDALE COUNTY 311 N. HENSON ST. LAKE CITY, CO 81235
Unit Information:				
Unit Leader Initials:				

Construction Set	COUNTY ROAD 30 BIKE LANE INSTALLATION & CHIP SEAL OVERLAY SURVEY CONTROL & ROAD GEOMETRY		Project No./Code
No Revisions:			2023-047-CIV
Revised:	Designer: DQ	Structure Numbers	
Void:	Detailer: WL		Sheet Number: 5
	Sheet Subset:	Subset Sheets:	

CONTROL POINT TABLE				
POINT #	NORTHING	EASTING	ELEVATION	DESCRIPTION
700	1472734.50	2479838.97	9031.17	CK 802 ACE
701	1480634.96	2483133.13	9035.53	CP 701
702	1480807.91	2482977.98	9036.34	CP702
800	1482912.94	2483729.89	9013.70	FND BLM AC 9007.1
801	1478192.46	2482561.67	9086.10	CP REBAR TP KNOB
802	1472734.54	2479838.92	9031.13	FND RC2 ACE
803	1472023.33	2480965.75	9170.11	FND USGLO BC 1929
804	1472023.33	2480965.77	9170.02	FND USGLO BC 1929 CK
805	1472732.52	2479855.47	9030.45	CP-CKECK
806	1473678.48	2480693.24	9026.11	X ON BOULDER
807	1474305.51	2480705.97	9020.06	CP RB OLD SNAG NE



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Unit Information:				
Unit Leader Initials:				

Construction Set	COUNTY ROAD 30		Project No./Code
No Revisions:	BIKE LANE INSTALLATION & CHIP SEAL OVERLAY SURVEY CONTROL & ROAD GEOMETRY		2023-047-CIV
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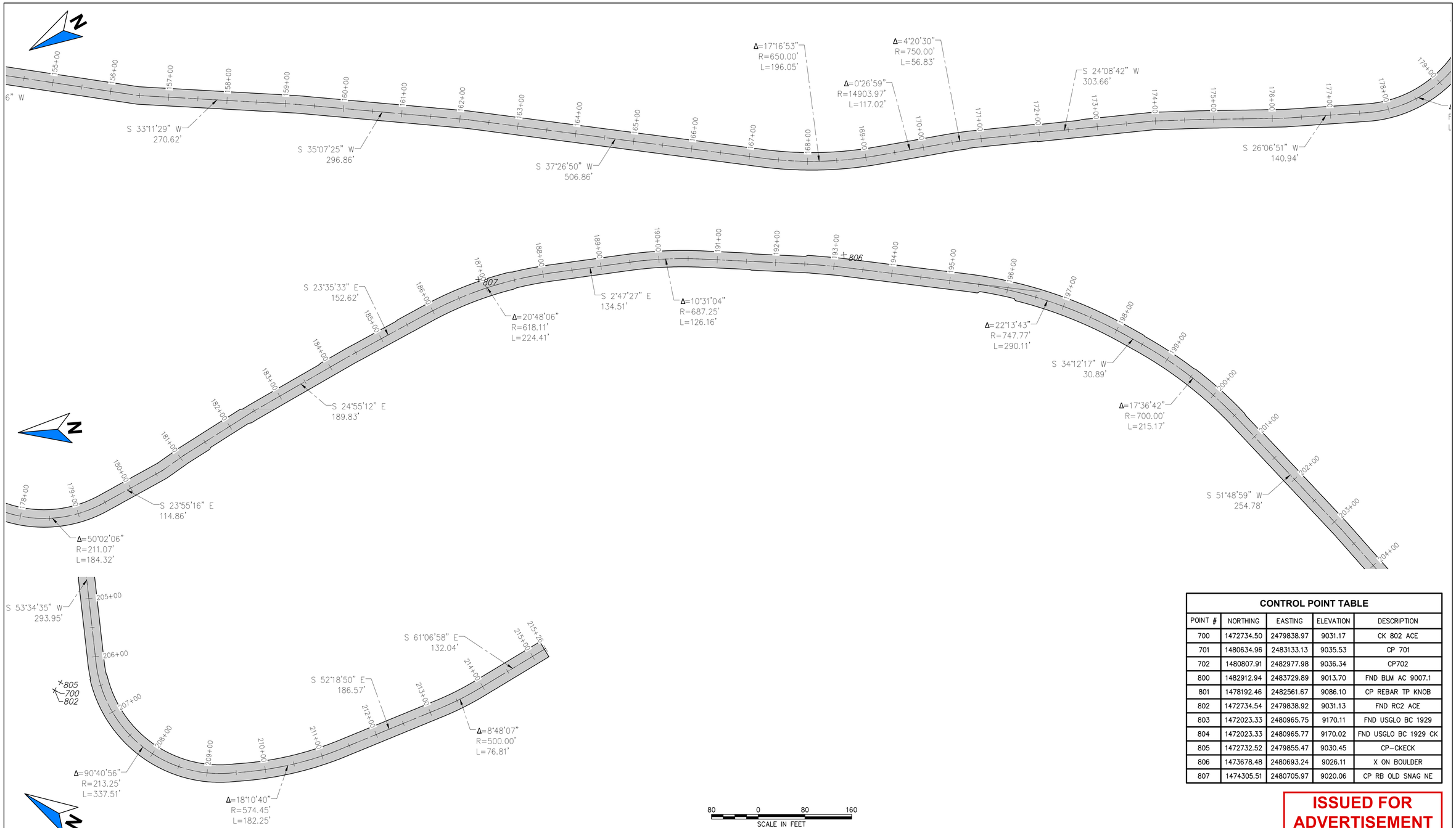

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Construction Set	COUNTY ROAD 30		Project No./Code
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Revised:	SURVEY CONTROL & ROAD GEOMETRY		2023-047-CIV
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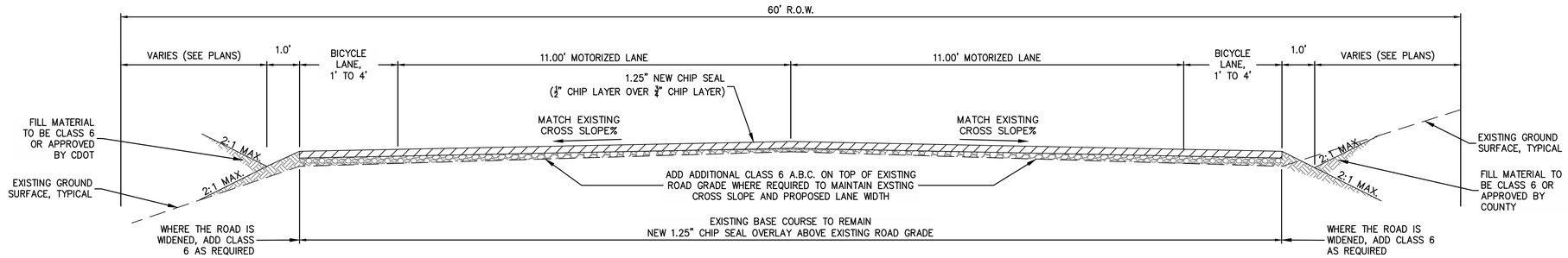

1/8 TYPICAL ROAD SECTION
NOT TO SCALE

TYPICAL ROAD SECTION SHOULDER WIDTH TABULATION		
STATION	LEFT	RIGHT
0+00 TO 0+68	–	–
0+68 TO 2+30	4	4
2+30 TO 6+10	4	2
6+10 TO 16+40	4	4
16+40 TO 17+25	4	3
17+25 TO 18+70	4	4
18+70 TO 24+25	4	3
24+25 TO 27+80	4	4
27+80 TO 28+80	4	2
28+80 TO 29+70	4	4
29+70 TO 31+00	2	4
31+00 TO 31+30	4	4
31+30 TO 32+55	4	1
32+55 TO 48+70	4	4
48+70 TO 49+20	4	2
49+20 TO 50+50	4	4
50+50 TO 51+40	4	2
51+40 TO 52+40	4	3
52+40 TO 53+00	4	1
53+00 TO 53+80	4	4
53+80 TO 54+50	2	4
54+50 TO 55+55	4	3
55+55 TO 56+80	4	2
56+80 TO 65+05	4	4
65+05 TO 66+45	4	2
66+45 TO 72+05	4	4
72+05 TO 72+60	4	2
72+60 TO 73+55	4	1
73+55 TO 75+55	4	4
75+55 TO 76+05	4	3
76+05 TO 79+50	4	4
79+50 TO 79+80	3	4
79+80 TO 94+20	4	4
94+20 TO 95+05	4	2
95+05 TO 95+70	3	4
95+70 TO 97+25	4	4
97+25 TO 97+70	4	3
97+70 TO 99+20	4	4
99+20 TO 99+95	4	1
99+95 TO 102+85	4	4
102+85 TO 105+80	4	2
105+80 TO 107+10	4	1

TYPICAL ROAD SECTION SHOULDER WIDTH TABULATION		
STATION	LEFT	RIGHT
107+10 TO 107+75	4	4
107+75 TO 109+75	4	2
109+75 TO 117+80	4	4
117+80 TO 120+95	4	2
120+95 TO 121+50	4	4
121+50 TO 122+40	3	4
122+40 TO 124+60	4	4
124+60 TO 125+30	4	2
125+30 TO 128+35	4	3
128+35 TO 128+95	4	4
128+95 TO 131+00	4	3
131+00 TO 132+40	4	4
132+40 TO 132+95	4	3
132+95 TO 140+50	4	4
140+50 TO 140+95	4	2
140+95 TO 143+65	4	4
143+65 TO 146+85	4	3
148+85 TO 147+55	3	3
147+55 TO 148+65	4	4
148+65 TO 150+45	4	3
150+45 TO 152+80	4	4
152+80 TO 153+75	4	3
153+75 TO 170+75	4	4
170+75 TO 171+95	4	3
171+95 TO 172+70	3	4
172+70 TO 181+50	4	4
181+50 TO 182+30	4	2
182+30 TO 183+85	2	4
183+85 TO 185+35	3	4
185+35 TO 187+45	4	4
187+45 TO 191+55	3	3
191+55 TO 192+50	2	4
192+50 TO 195+50	4	4
195+50 TO 196+15	4	1
196+15 TO 198+45	4	4
198+45 TO 199+45	3	4
199+45 TO 200+60	4	4
200+60 TO 201+00	3	4
201+00 TO 204+00	4	4
204+00 TO 204+60	4	2
204+60 TO 206+35	3	3
206+35 TO 215+25	4	4

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Vert. Scale: As Noted					
Unit Information:					
Unit Leader Initials:					

Construction Set	COUNTY ROAD 30 BIKE LANE INSTALLATION & CHIP SEAL OVERLAY TYPICAL ROAD SECTION		Project No./Code
No Revisions:			2023-047-CIV
Revised:	Designer: DQ	Structure Numbers	
Void:	Detailer: WL		Sheet Number: 8
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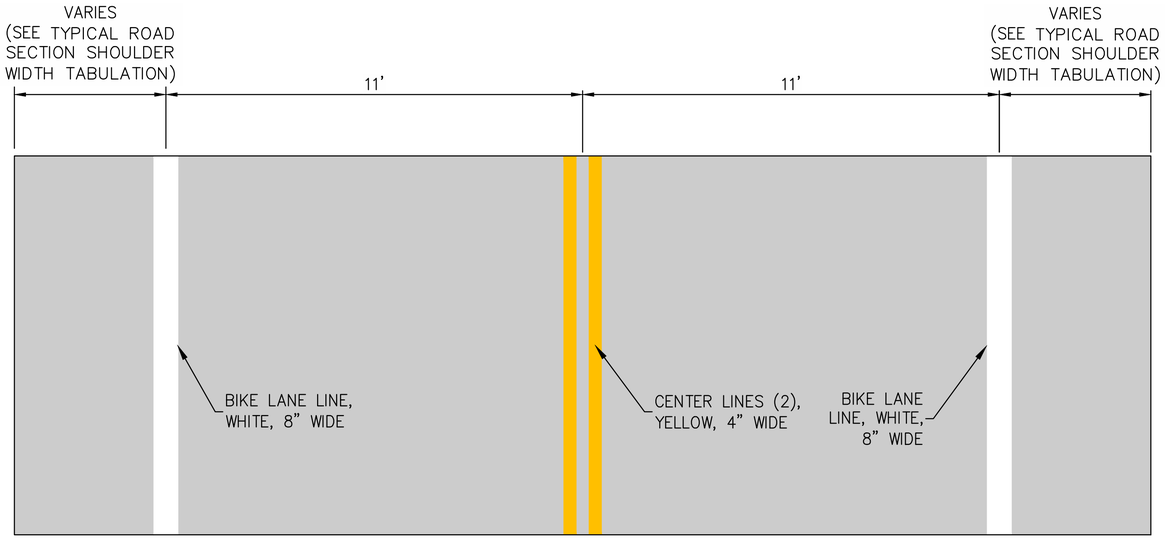

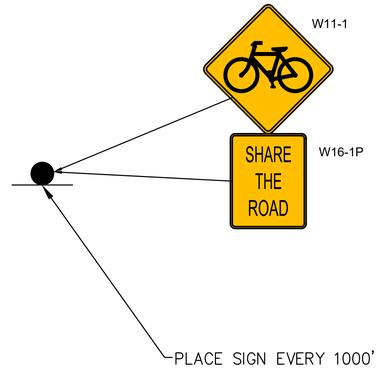

1/9 TYPICAL ROAD STRIPING - PLAN VIEW
NOT TO SCALE

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File Name: SHT-DET-CR 30.DWG	Date:	Comments	Init.	
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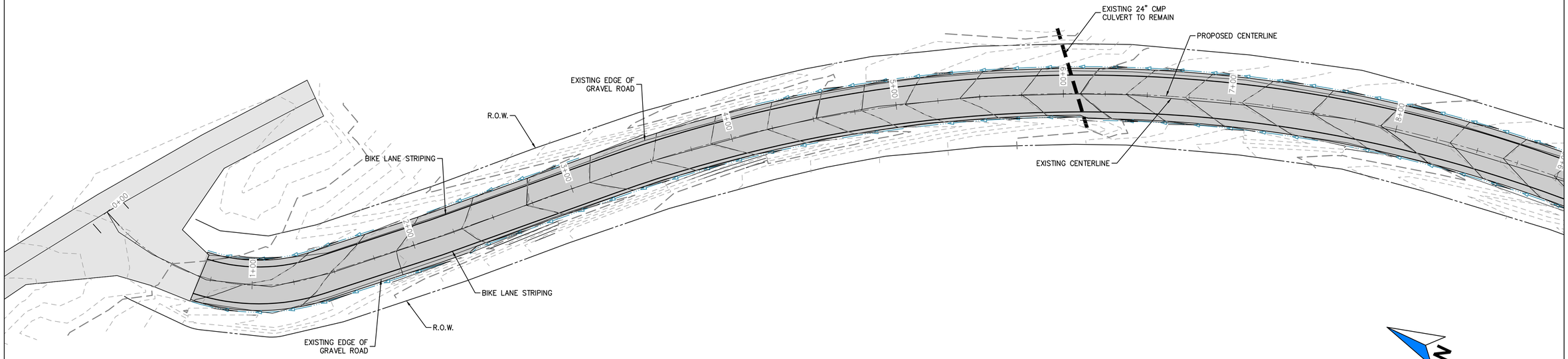
Unit Information:				Construction Set No Revisions: Revised: Void:
Unit Leader Initials:				Designer: DQ Detailer: WL Sheet Subset:

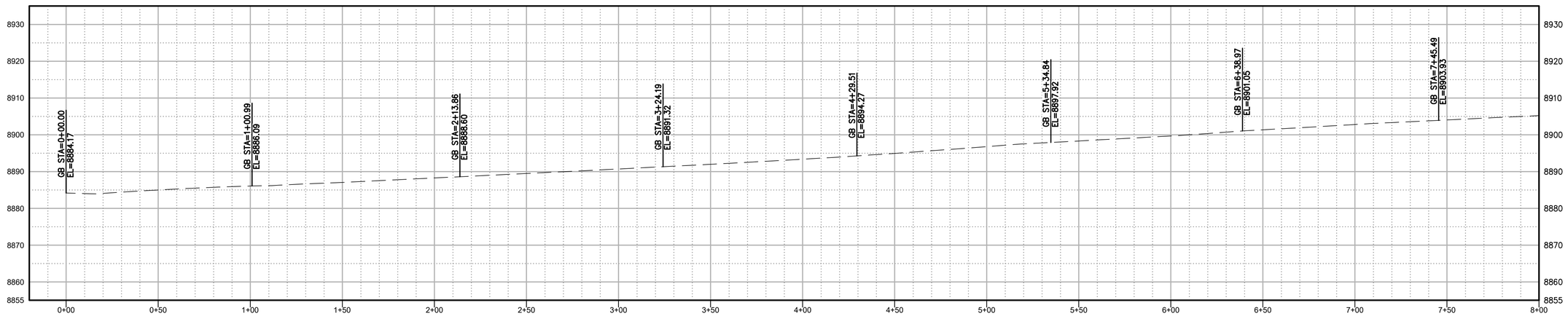
COUNTY ROAD 30
BIKE LANE INSTALLATION & CHIP SEAL OVERLAY
TYPICAL STRIPING PLAN

Structure Numbers
Subset Sheets:

Project No./Code
2023-047-CIV

Sheet Number: 8





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Horiz. Scale:				Montrose, Colorado 81401
Vert. Scale: As Noted				970-249-6828
Unit Information:				
Unit Leader Initials:				

HINSDALE COUNTY
311 N. HENSON ST.
LAKE CITY, CO 81235

Construction Set	COUNTY ROAD 30		Project No./Code
No Revisions:	BIKE LANE INSTALLATION & CHIP SEAL OVERLAY		2023-047-CIV
Revised:	PLAN & PROFILE VIEW		
Void:	Designer: DQ	Structure Numbers	
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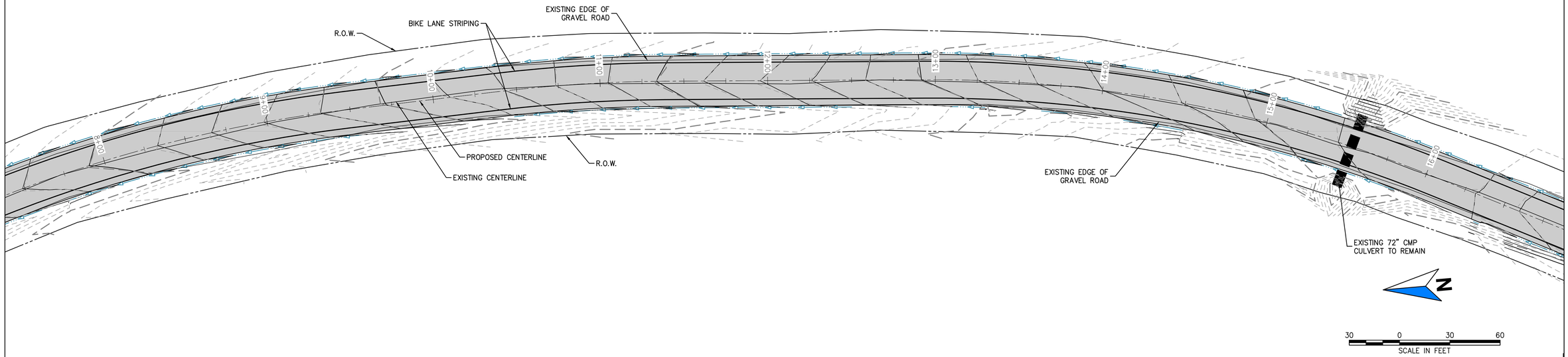

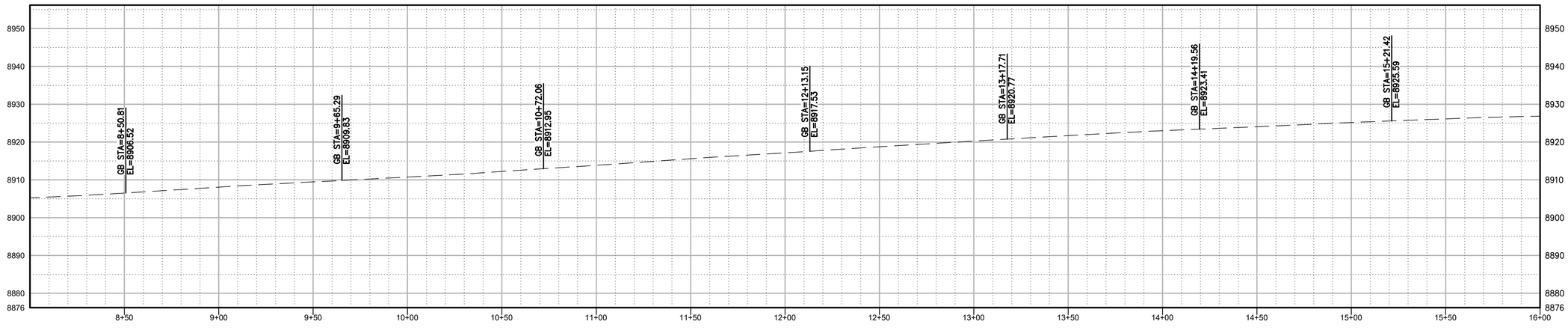

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Unit Information:		HINSDALE COUNTY	COUNTY ROAD 30
Unit Leader Initials:		311 N. HENSON ST.	BIKE LANE INSTALLATION & CHIP SEAL OVERLAY
		LAKE CITY, CO 81235	PLAN & PROFILE VIEW
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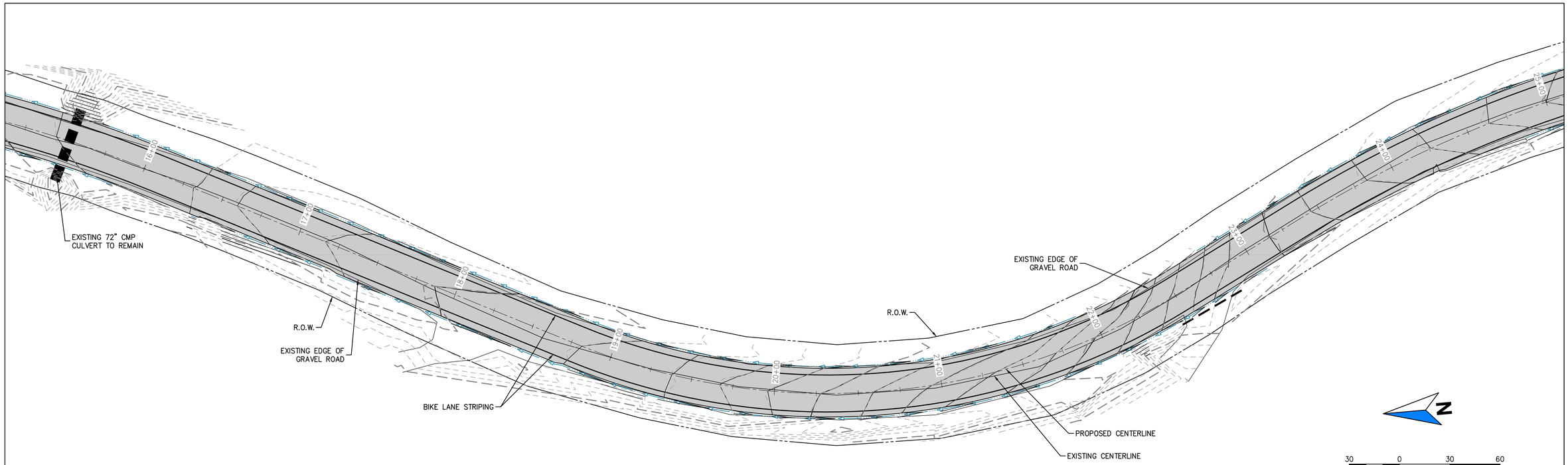

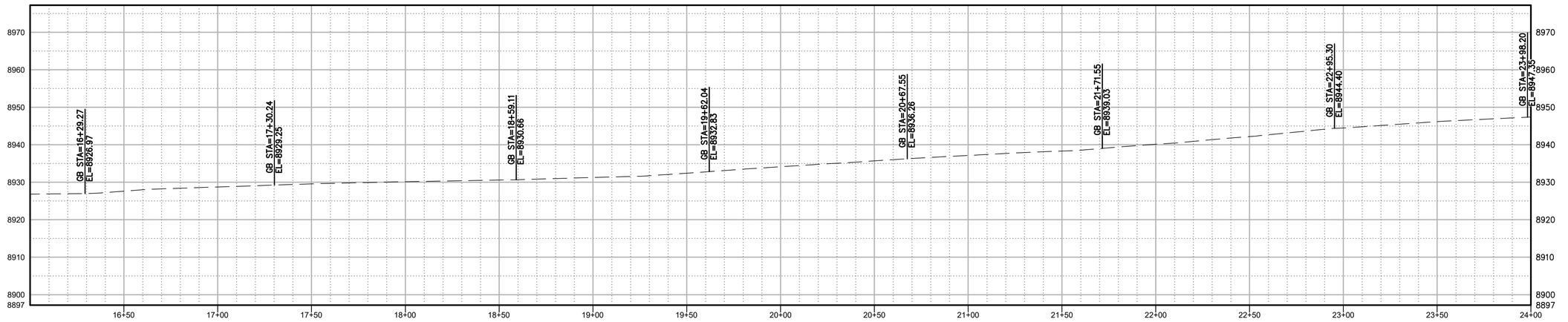

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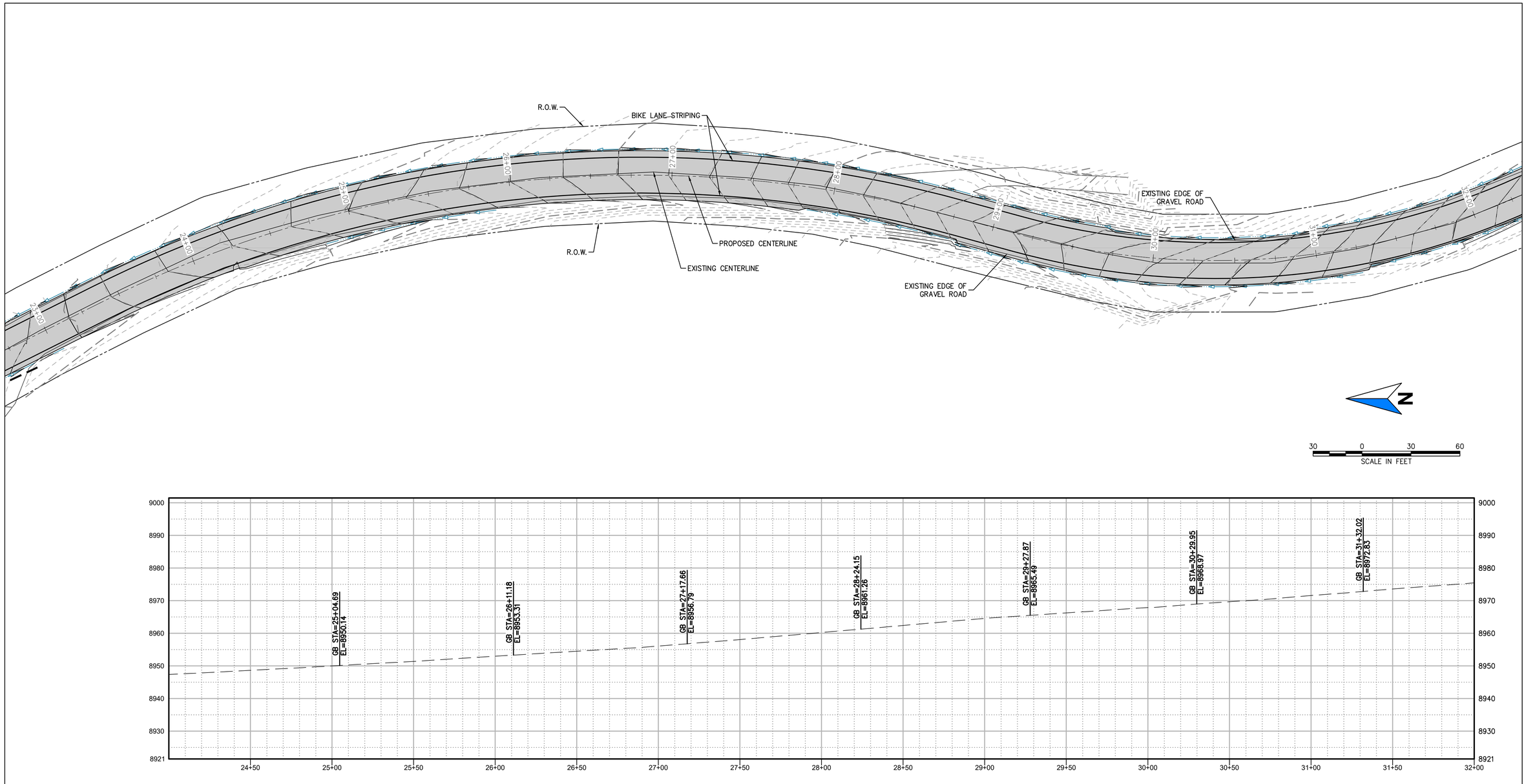

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Sheet Revisions

Date:	Comments	Init.

BUCKHORN ENGINEERING
222 South Park Avenue
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311 N. HENSON ST.
LAKE CITY, CO 81235

Construction Set

No Revisions:	
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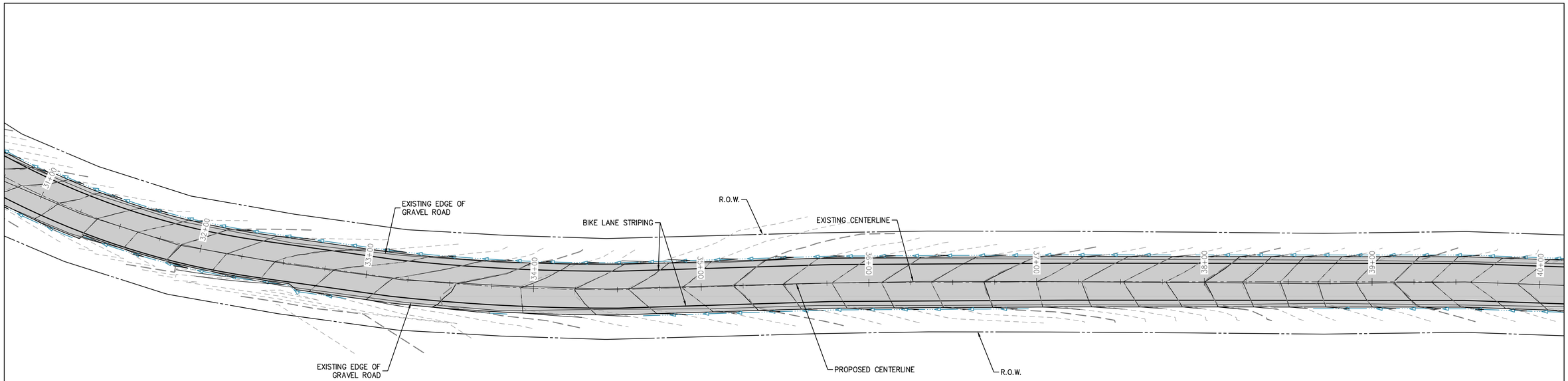
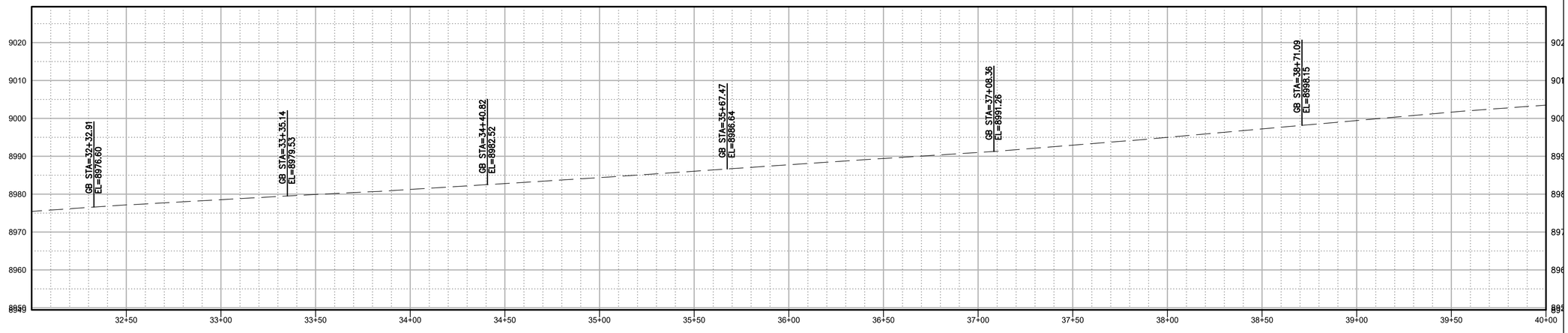
COUNTY ROAD 30
BIKE LANE INSTALLATION & CHIP SEAL OVERLAY
PLAN & PROFILE VIEW

Designer:	DQ	Structure Numbers	
Detailer:	WL		
Sheet Subset:		Subset Sheets:	

Project No./Code: 2023-047-CIV

Sheet Number: 13





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HINSDALE COUNTY
311 N. HENSON ST.
LAKE CITY, CO 81235

Construction Set	COUNTY ROAD 30 BIKE LANE INSTALLATION & CHIP SEAL OVERLAY PLAN & PROFILE VIEW		Project No./Code
No Revisions:			2023-047-CIV
Revised:	Designer: DQ	Structure Numbers	
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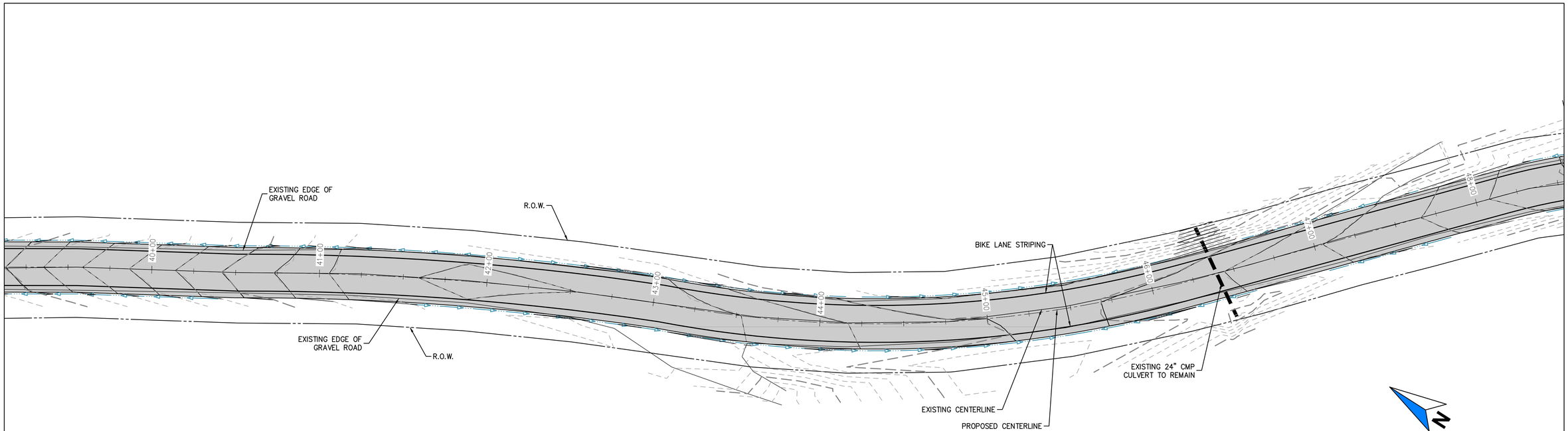

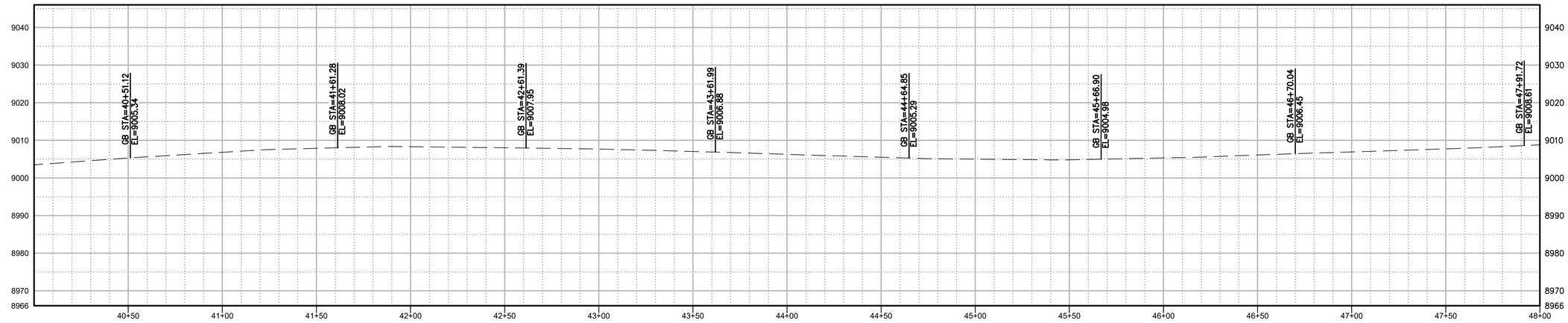

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Horiz. Scale:		Montrose, Colorado 81401	LAKE CITY, CO 81235
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Unit Leader Initials:			

Construction Set	COUNTY ROAD 30		Project No./Code
No Revisions:	BIKE LANE INSTALLATION & CHIP SEAL OVERLAY		2023-047-CIV
Revised:	PLAN & PROFILE VIEW		
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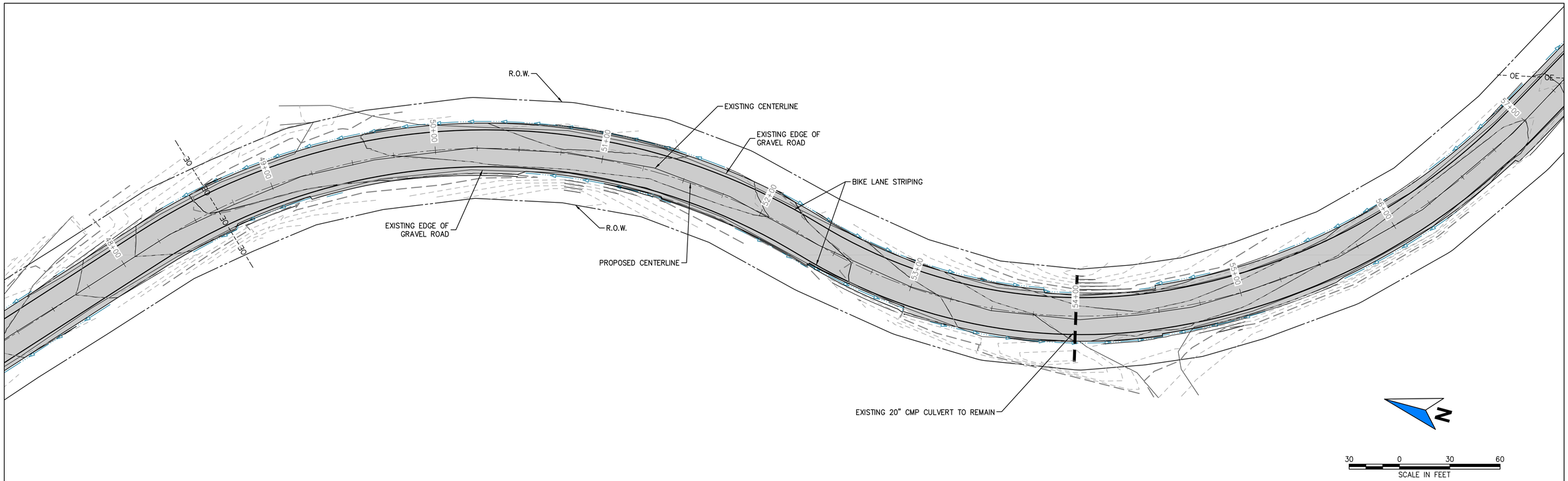

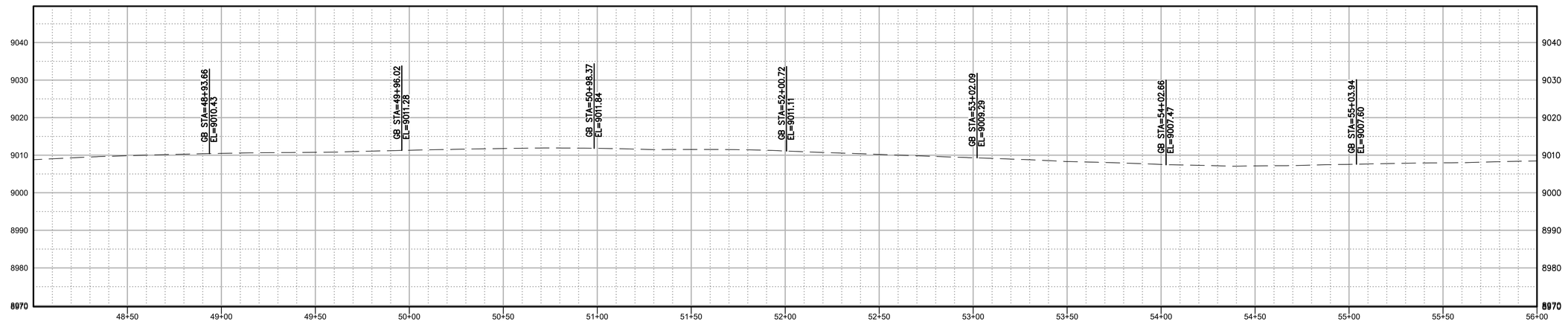

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Sheet Revisions

Date:	Comments	Init.

BUCKHORN ENGINEERING
222 South Park Avenue
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HINSDALE COUNTY
311 N. HENSON ST.
LAKE CITY, CO 81235

Construction Set

No Revisions:

Revised:

Void:

COUNTY ROAD 30
BIKE LANE INSTALLATION & CHIP SEAL OVERLAY
PLAN & PROFILE VIEW

Designer: DQ
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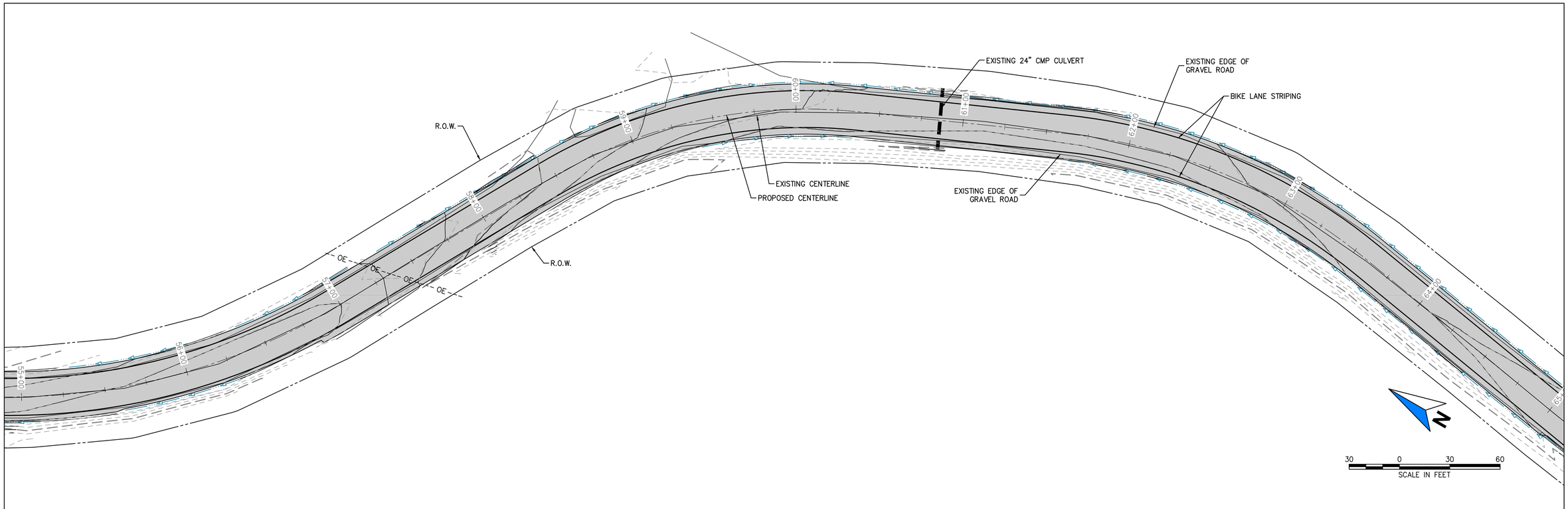
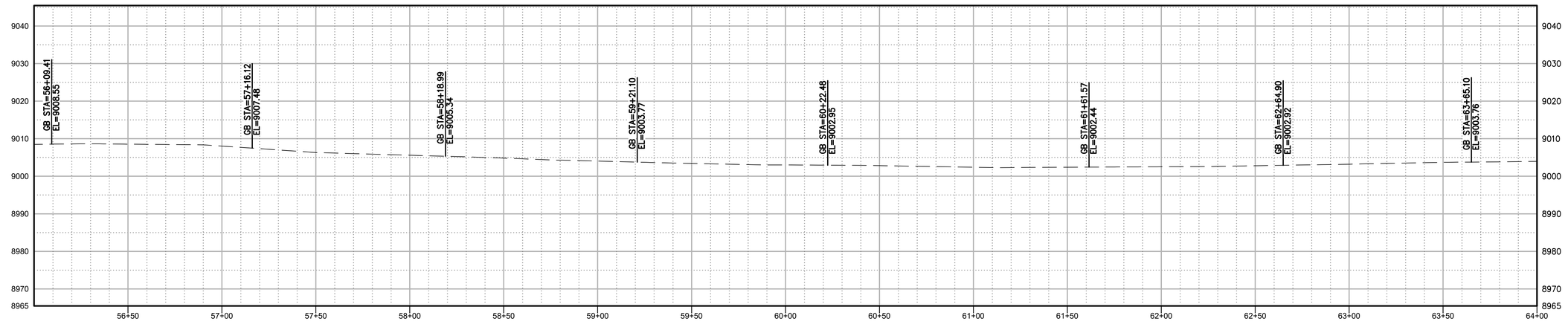
Project No./Code
2023-047-CIV

Sheet Number: 16





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HINSDALE COUNTY
311 N. HENSON ST.
LAKE CITY, CO 81235

Construction Set

No Revisions:

Revised:

Void:

COUNTY ROAD 30
BIKE LANE INSTALLATION & CHIP SEAL OVERLAY
PLAN & PROFILE VIEW

Designer: DQ
Detailer: WL
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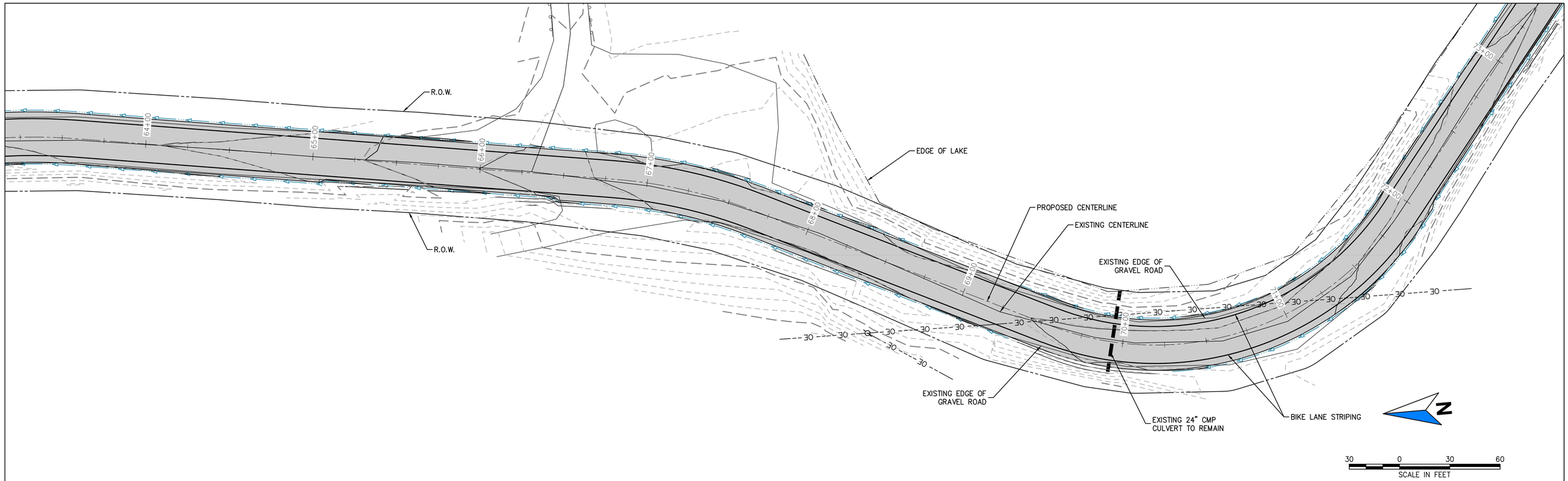
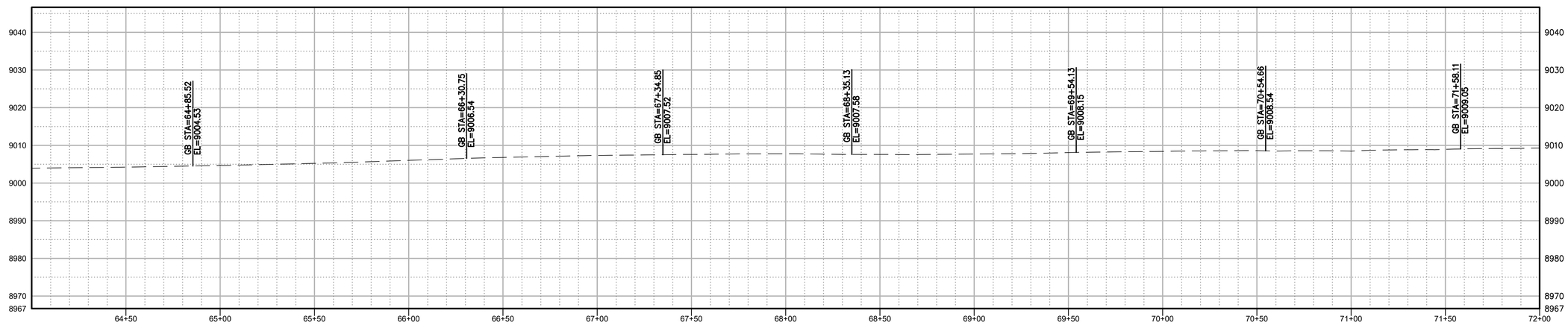
Subset Sheets:

Project No./Code
2023-047-CIV

Sheet Number: 17





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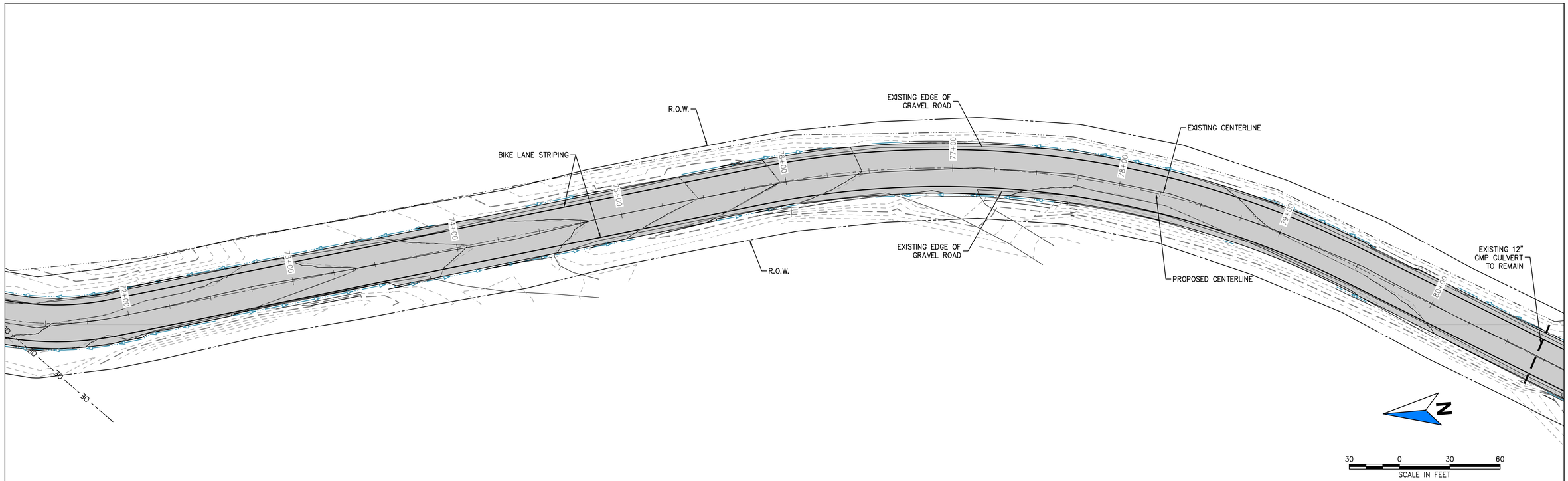

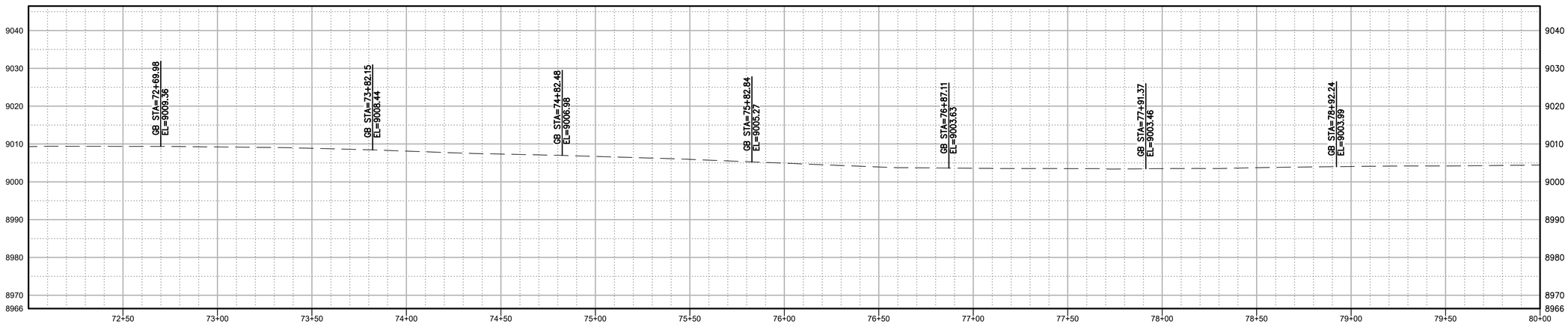

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Construction Set	COUNTY ROAD 30 BIKE LANE INSTALLATION & CHIP SEAL OVERLAY PLAN & PROFILE VIEW		Project No./Code
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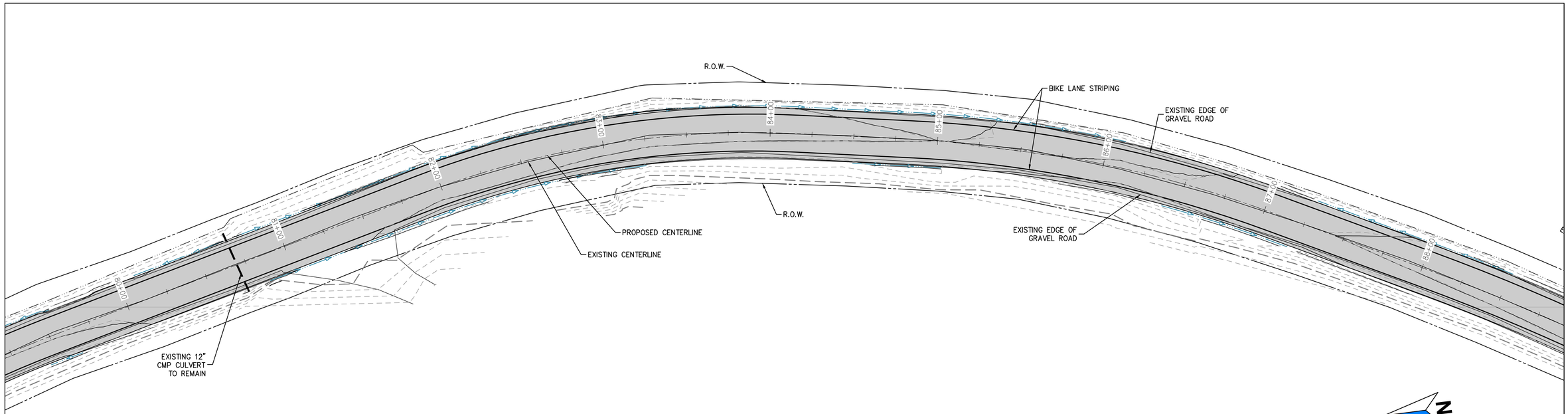

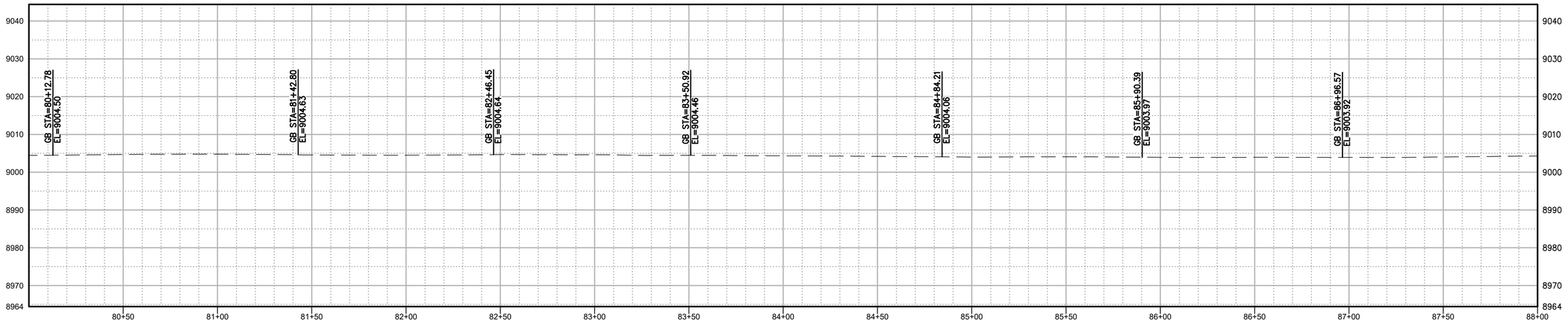

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HINSDALE COUNTY
311 N. HENSON ST.
LAKE CITY, CO 81235

Construction Set	COUNTY ROAD 30 BIKE LANE INSTALLATION & CHIP SEAL OVERLAY PLAN & PROFILE VIEW		Project No./Code
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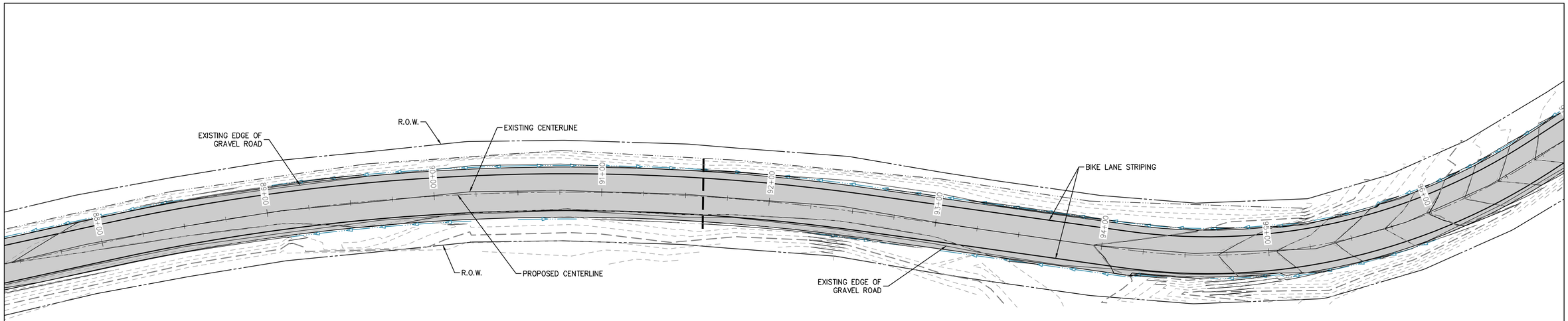

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Sheet Revisions

Date:	Comments	Init.

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311 N. HENSON ST.
LAKE CITY, CO 81235

Construction Set

No Revisions:

Revised:

Void:

COUNTY ROAD 30
BIKE LANE INSTALLATION & CHIP SEAL OVERLAY
PLAN & PROFILE VIEW

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Project No./Code
2023-047-CIV

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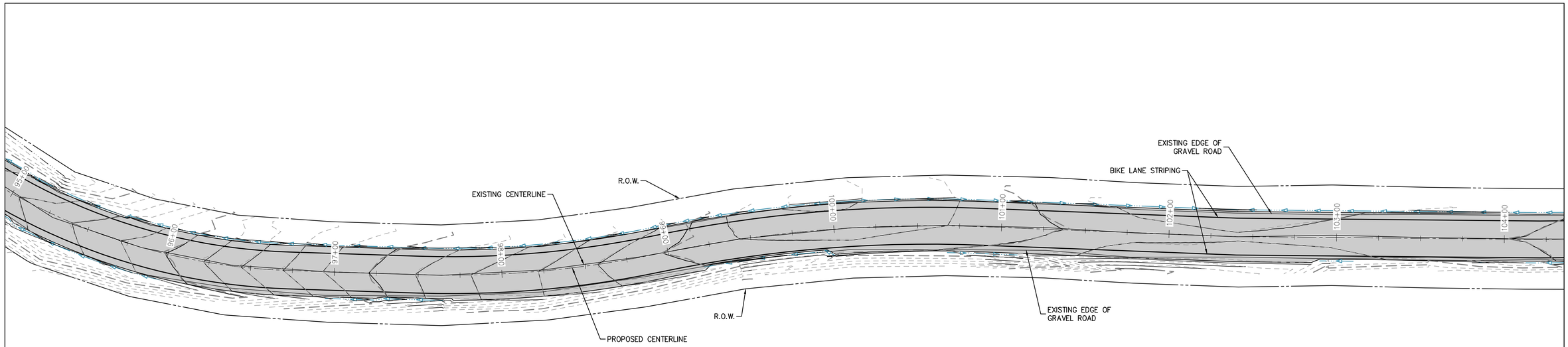

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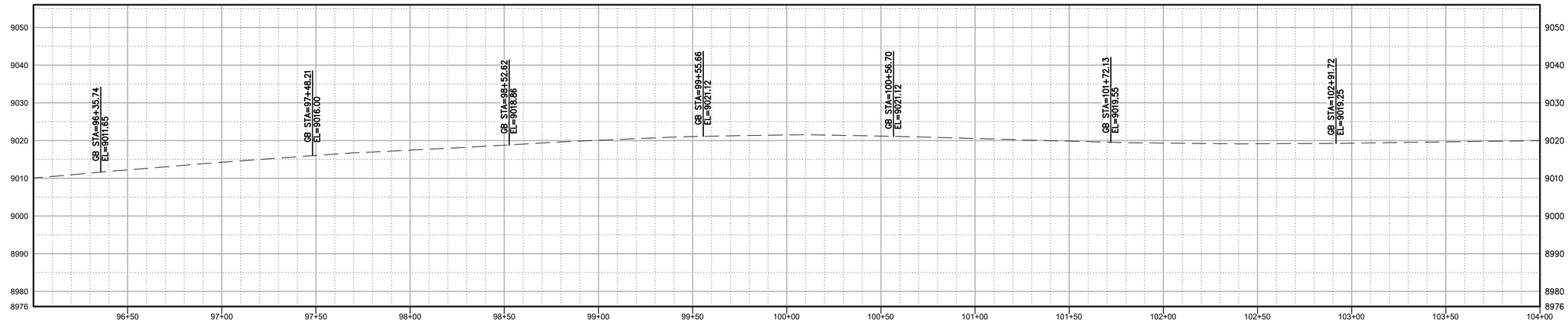

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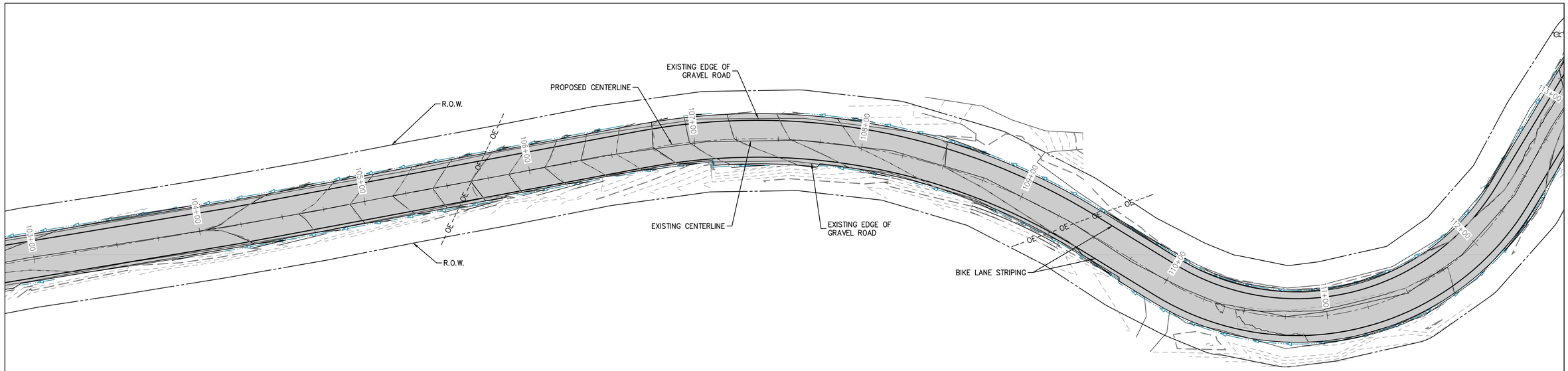

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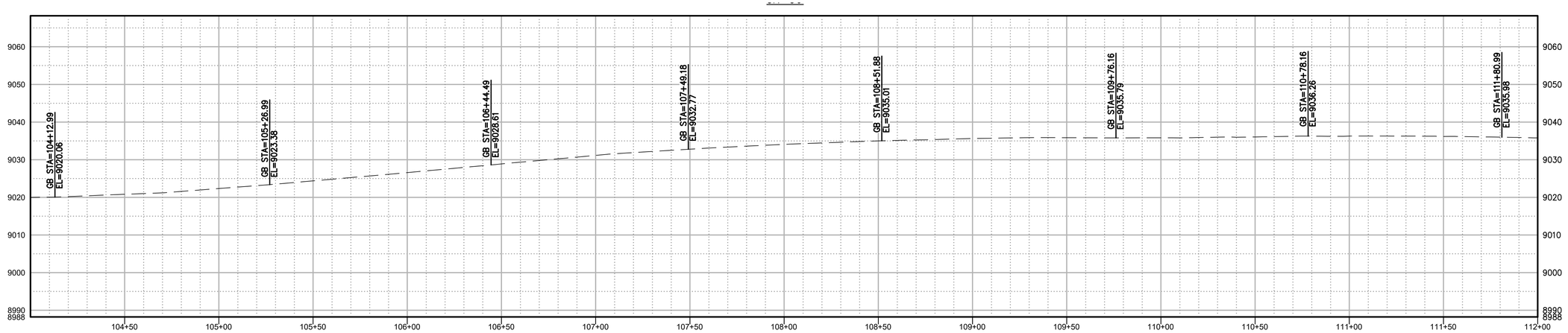

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Construction Set	COUNTY ROAD 30 BIKE LANE INSTALLATION & CHIP SEAL OVERLAY PLAN & PROFILE VIEW		Project No./Code
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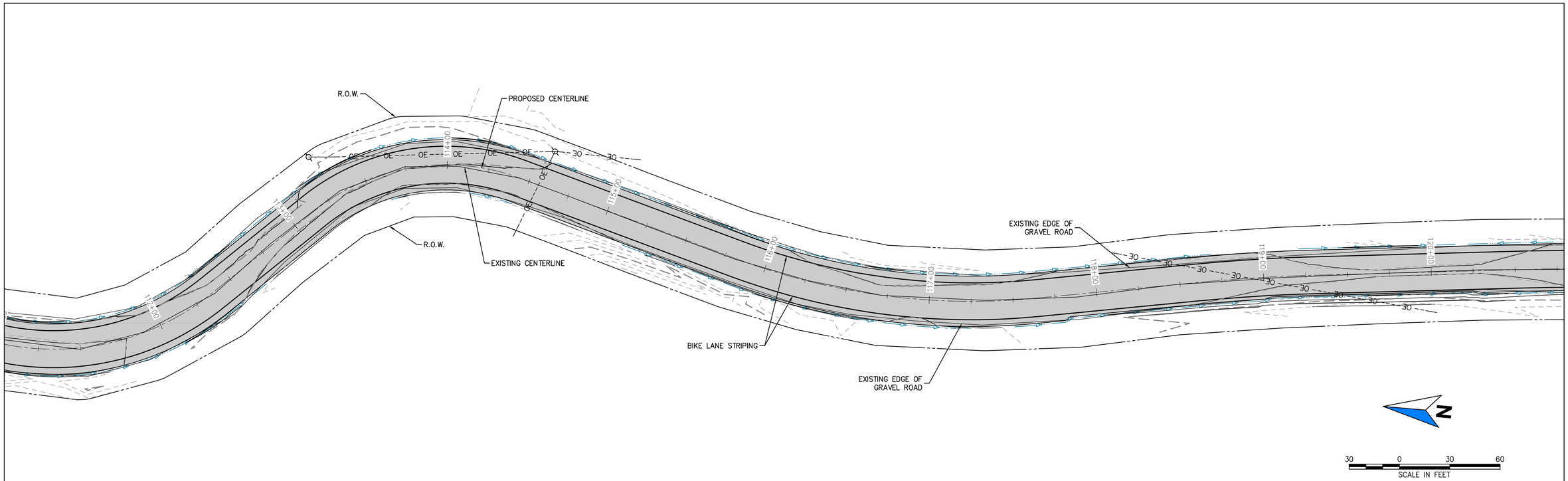

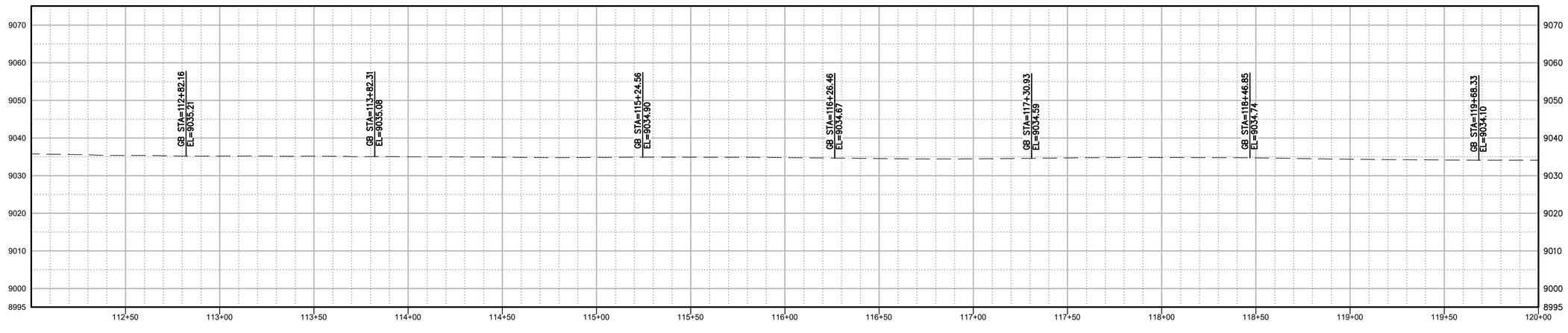

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Print Date:	1/29/24
File Name:	SHT-PP-CR 30.DWG
Horiz. Scale:	
Vert. Scale:	As Noted
Unit Information:	
Unit Leader Initials:	

Sheet Revisions

Date:	Comments	Init.

BUCKHORN
ENGINEERING
222 South Park Avenue
Montrose, Colorado 81401
970-249-6828

HINSDALE COUNTY
311 N. HENSON ST.
LAKE CITY, CO 81235

Construction Set

No Revisions:

Revised:

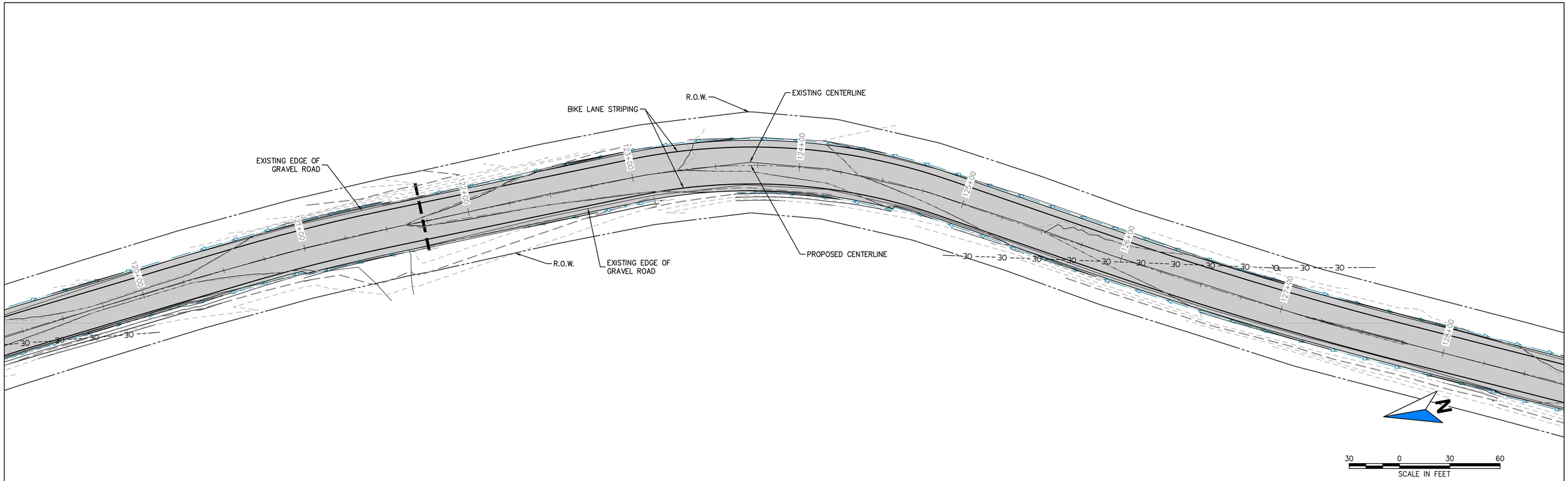
Void:

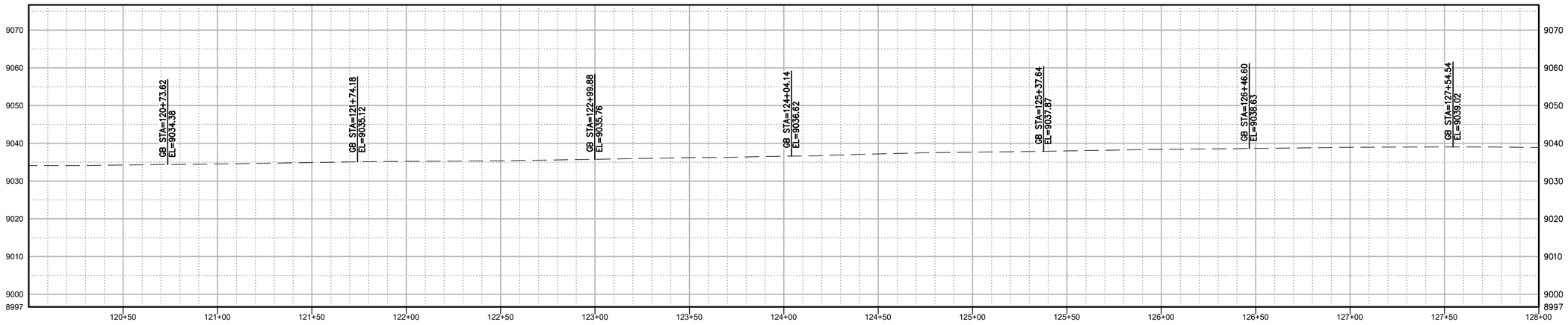
COUNTY ROAD 30
BIKE LANE INSTALLATION & CHIP SEAL OVERLAY
PLAN & PROFILE VIEW

Designer: DQ
Detailer: WL
Sheet Subset:
Structure Numbers
Subset Sheets:

Project No./Code
2023-047-CIV

Sheet Number: 24





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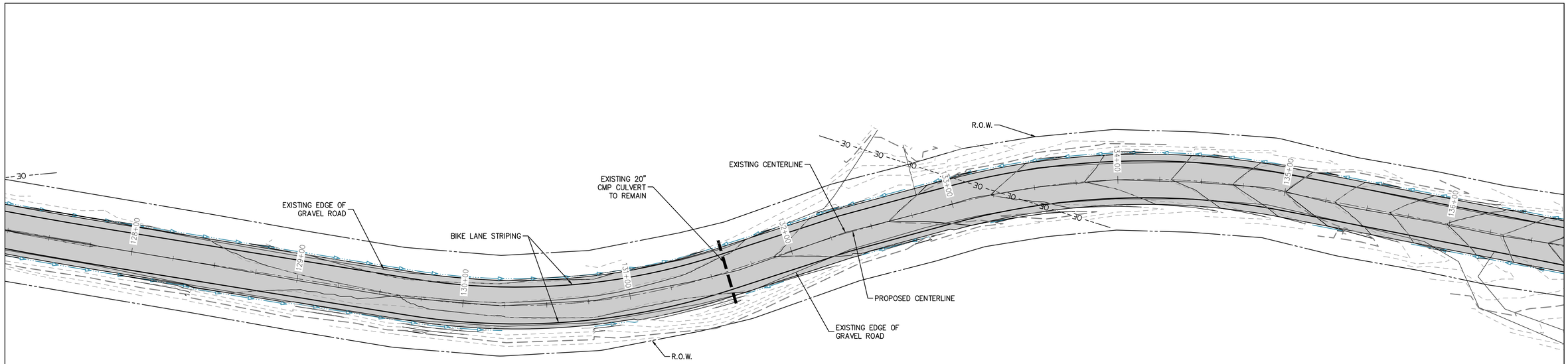
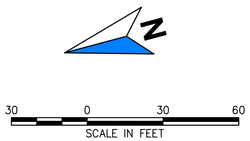
Print Date: 1/29/24	Sheet Revisions			BUCKHORN ENGINEERING 222 South Park Avenue Montrose, Colorado 81401 970-249-6828
File Name: SHT-PP-CR 30.DWG	Date:	Comments	Init.	
Horiz. Scale:				HINSDALE COUNTY 311 N. HENSON ST. LAKE CITY, CO 81235
Vert. Scale: As Noted				
Unit Information:				Construction Set No Revisions: Revised: Void:
Unit Leader Initials:				COUNTY ROAD 30 BIKE LANE INSTALLATION & CHIP SEAL OVERLAY PLAN & PROFILE VIEW Designer: DQ Detailer: WL Structure Numbers Sheet Subset: Subset Sheets:
				Project No./Code 2023-047-CIV Sheet Number: 25





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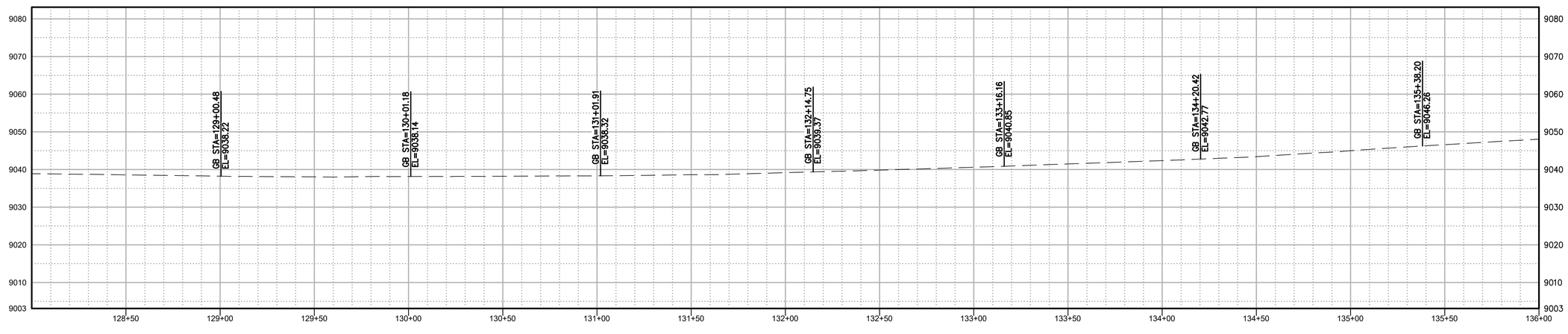

ISSUED FOR ADVERTISEMENT

Print Date: 1/29/24	Sheet Revisions	BUCKHORN ENGINEERING	Construction Set
File Name: SHT-PP-CR 30.DWG	Date: / Comments / Init.	222 South Park Avenue, Montrose, Colorado 81401, 970-249-6828	No Revisions:
Horiz. Scale:		HINSDALE COUNTY, 311 N. HENSON ST., LAKE CITY, CO 81235	Revised:
Vert. Scale: As Noted			Void:
Unit Information:			
Unit Leader Initials:			

COUNTY ROAD 30 BIKE LANE INSTALLATION & CHIP SEAL OVERLAY PLAN & PROFILE VIEW		Project No./Code 2023-047-CIV
Designer: DQ Detailer: WL Sheet Subset:	Structure Numbers Subset Sheets:	Sheet Number: 26

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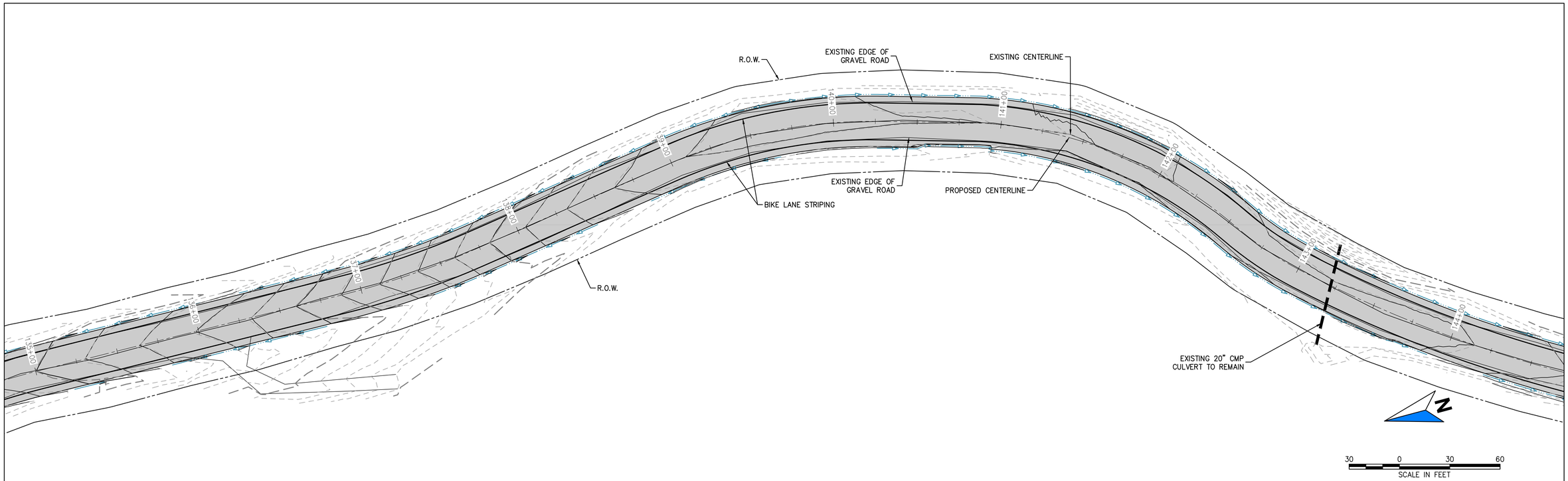

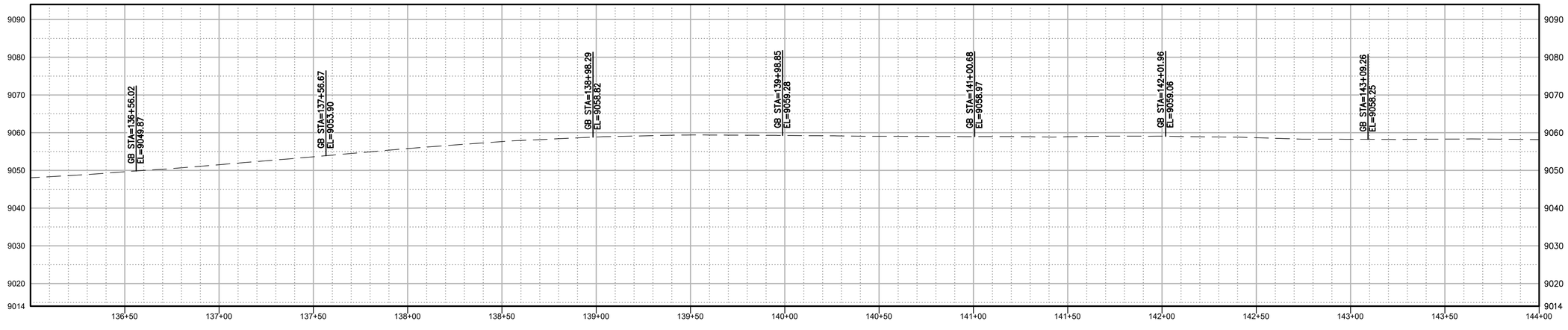

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Print Date: 1/29/24	Sheet Revisions			BUCKHORN ENGINEERING
File Name: SHT-PP-CR 30.DWG	Date:	Comments	Init.	222 South Park Avenue
Horiz. Scale:				Montrose, Colorado 81401
Vert. Scale: As Noted				970-249-6828
Unit Information:				
Unit Leader Initials:				

HINSDALE COUNTY
311 N. HENSON ST.
LAKE CITY, CO 81235

Construction Set	COUNTY ROAD 30 BIKE LANE INSTALLATION & CHIP SEAL OVERLAY PLAN & PROFILE VIEW		Project No./Code
No Revisions:			2023-047-CIV
Revised:	Designer: DQ	Structure Numbers	
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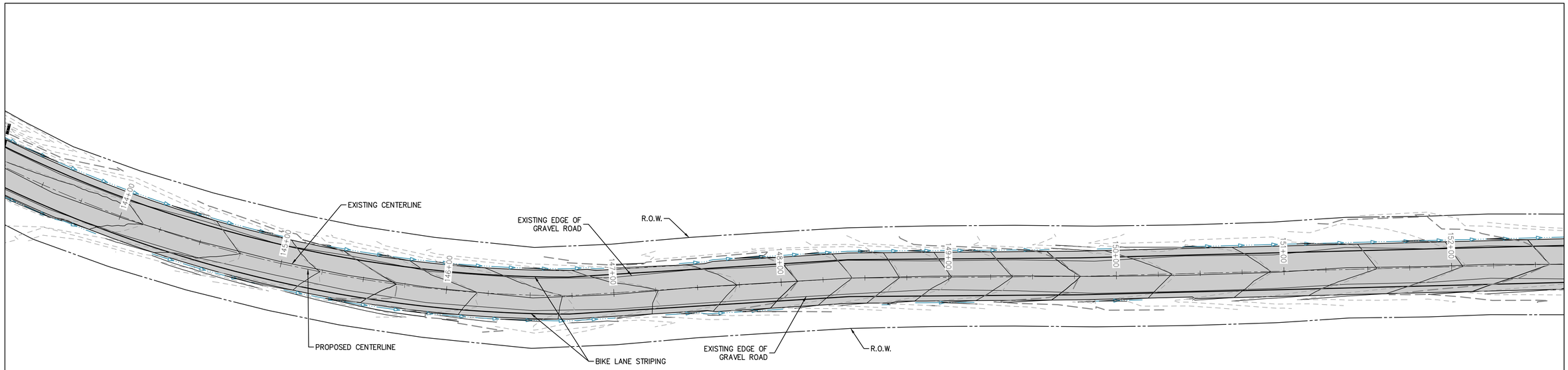

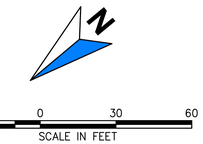

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ISSUED FOR ADVERTISEMENT

Print Date: 1/29/24	Sheet Revisions	BUCKHORN ENGINEERING	Construction Set
File Name: SHT-PP-CR 30.DWG	Date: / Comments / Init.	222 South Park Avenue Montrose, Colorado 81401 970-249-6828	No Revisions:
Horiz. Scale:			Revised:
Vert. Scale: As Noted		HINSDALE COUNTY 311 N. HENSON ST. LAKE CITY, CO 81235	Void:
Unit Information:			
Unit Leader Initials:			

COUNTY ROAD 30
BIKE LANE INSTALLATION & CHIP SEAL OVERLAY
PLAN & PROFILE VIEW

Designer: DQ
Detailer: WL
Sheet Subset:
Structure Numbers
Subset Sheets:

Project No./Code: 2023-047-CIV

Sheet Number: 28

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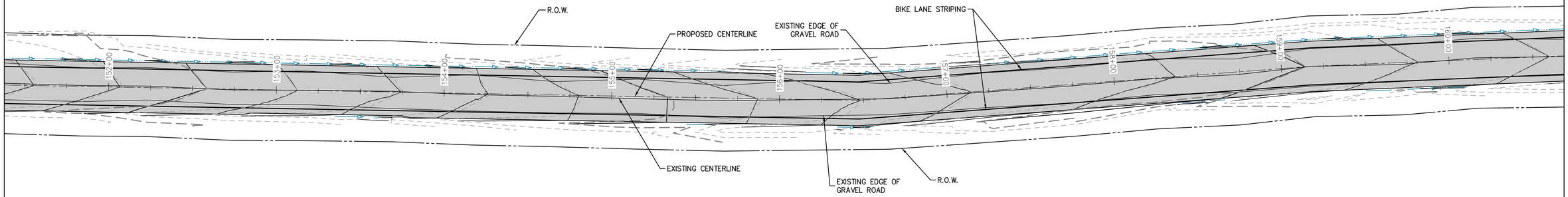

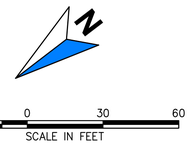

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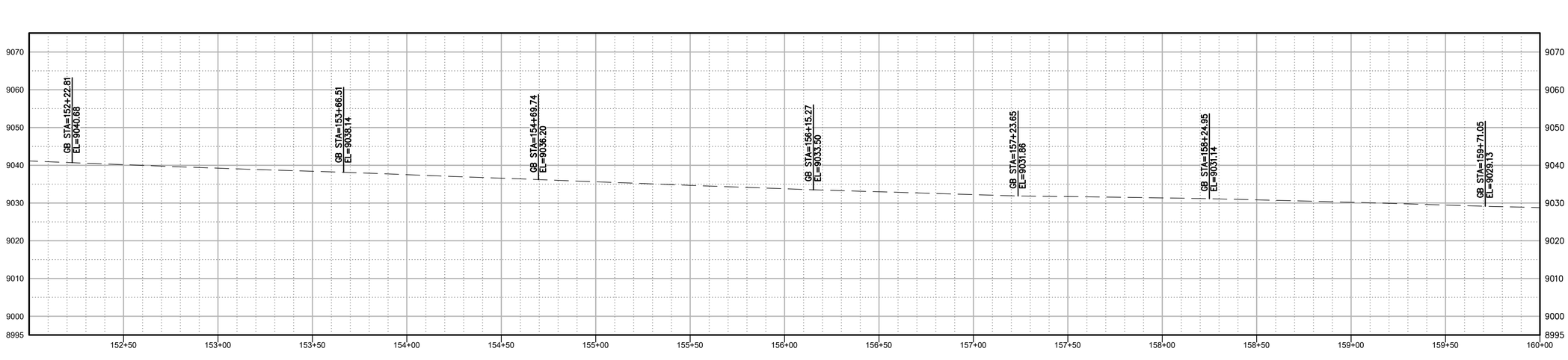

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Print Date: 1/29/24	Sheet Revisions			BUCKHORN ENGINEERING 222 South Park Avenue Montrose, Colorado 81401 970-249-6828
File Name: SHT-PP-CR 30.DWG	Date:	Comments	Init.	
Horiz. Scale:				
Vert. Scale: As Noted				
Unit Information:				
Unit Leader Initials:				

HINSDALE COUNTY
311 N. HENSON ST.
LAKE CITY, CO 81235

Construction Set	COUNTY ROAD 30 BIKE LANE INSTALLATION & CHIP SEAL OVERLAY PLAN & PROFILE VIEW		Project No./Code
No Revisions:			2023-047-CIV
Revised:	Designer: DQ	Structure Numbers	
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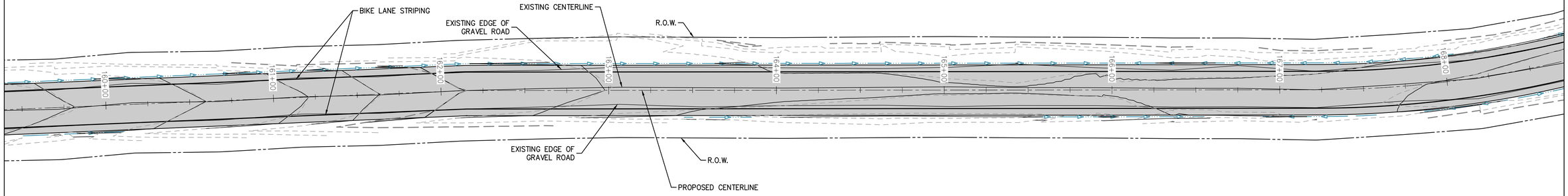

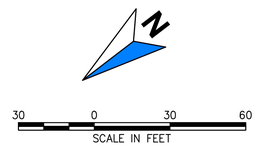

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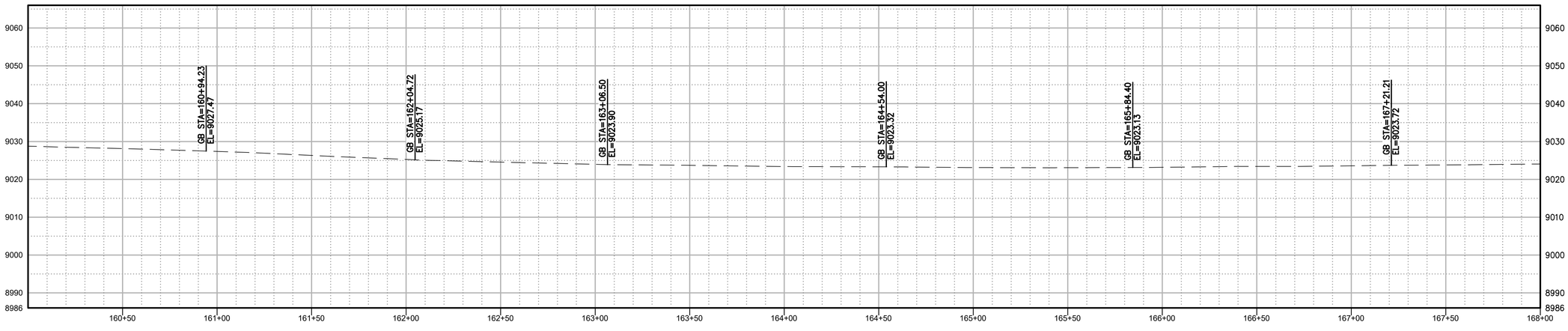

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Print Date: 1/29/24	Sheet Revisions	BUCKHORN ENGINEERING	HINSDALE COUNTY
File Name: SHT-PP-CR 30.DWG	Date: / Comments / Init.	222 South Park Avenue	311 N. HENSON ST.
Horiz. Scale:		Montrose, Colorado 81401	LAKE CITY, CO 81235
Vert. Scale: As Noted		970-249-6828	
Unit Information:			
Unit Leader Initials:			

Construction Set	COUNTY ROAD 30 BIKE LANE INSTALLATION & CHIP SEAL OVERLAY PLAN & PROFILE VIEW	Project No./Code
No Revisions:		2023-047-CIV
Revised:	Designer: DQ / Structure Numbers	
Void:	Detailer: WL	
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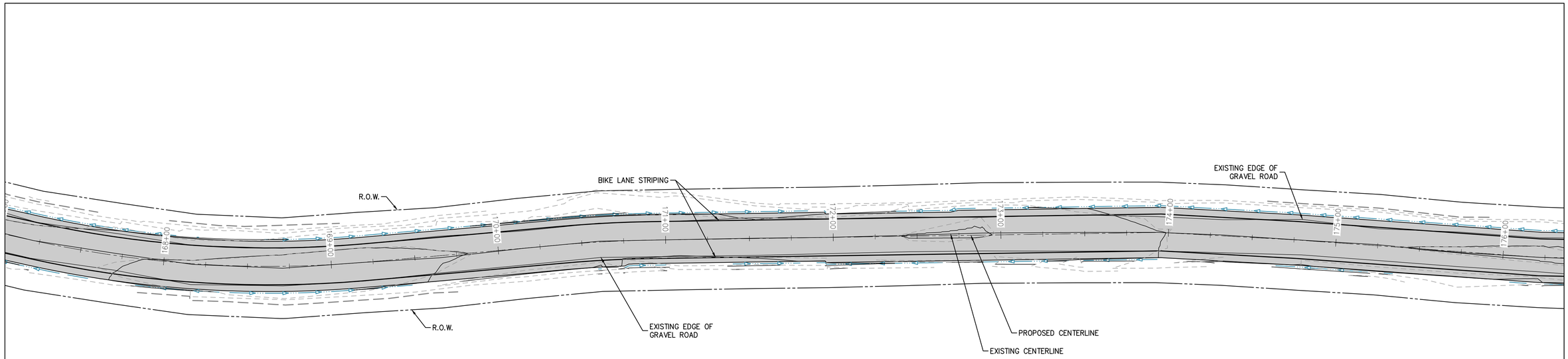

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ISSUED FOR ADVERTISEMENT

Print Date: 1/29/24	Sheet Revisions	BUCKHORN ENGINEERING	HINSDALE COUNTY
File Name: SHT-PP-CR 30.DWG	Date: / Comments / Init.	222 South Park Avenue	311 N. HENSON ST.
Horiz. Scale:		Montrose, Colorado 81401	LAKE CITY, CO 81235
Vert. Scale: As Noted		970-249-6828	
Unit Information:			
Unit Leader Initials:			

Construction Set	COUNTY ROAD 30	Project No./Code
No Revisions:	BIKE LANE INSTALLATION & CHIP SEAL OVERLAY	2023-047-CIV
Revised:	PLAN & PROFILE VIEW	
Void:	Designer: DQ / Detailer: WL / Structure Numbers	
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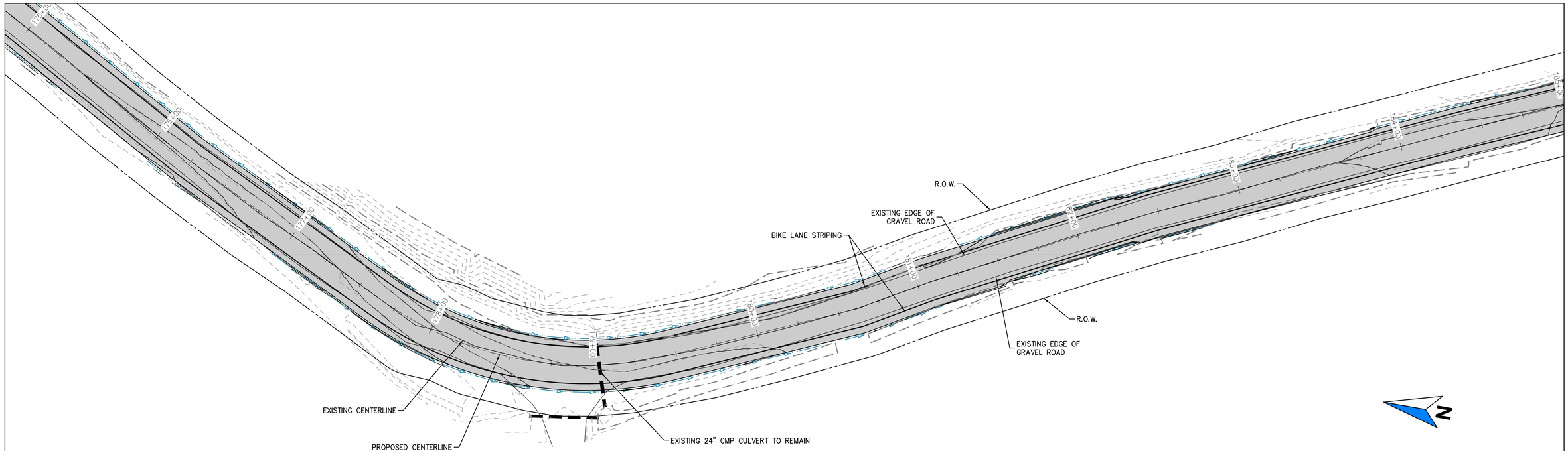

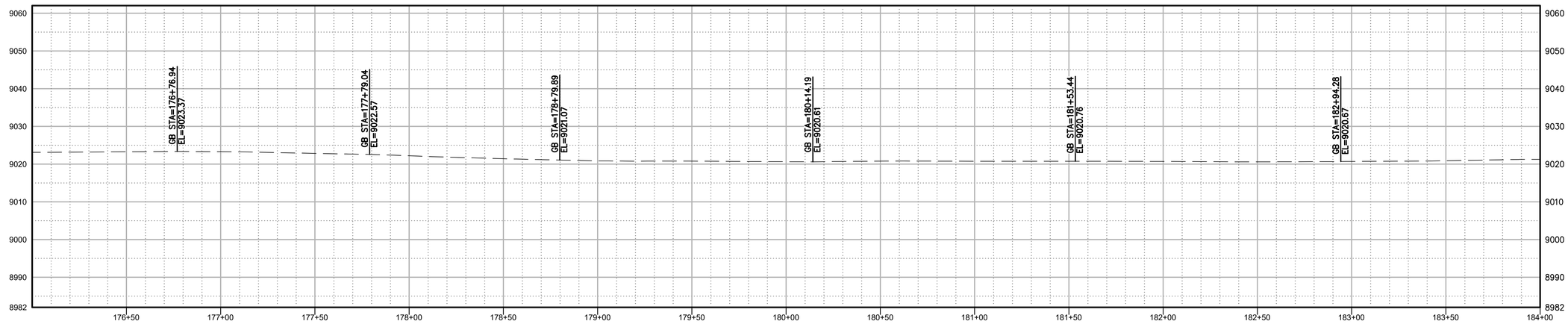

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File Name: SHT-PP-CR 30.DWG	Date:	Comments	Init.	222 South Park Avenue
Horiz. Scale:				Montrose, Colorado 81401
Vert. Scale: As Noted				970-249-6828
Unit Information:				
Unit Leader Initials:				

HINSDALE COUNTY
311 N. HENSON ST.
LAKE CITY, CO 81235

Construction Set
No Revisions:
Revised:
Void:

COUNTY ROAD 30
BIKE LANE INSTALLATION & CHIP SEAL OVERLAY
PLAN & PROFILE VIEW

Designer: DQ
Detailer: WL
Sheet Subset:
Structure Numbers
Subset Sheets:

Project No./Code
2023-047-CIV

Sheet Number: 32

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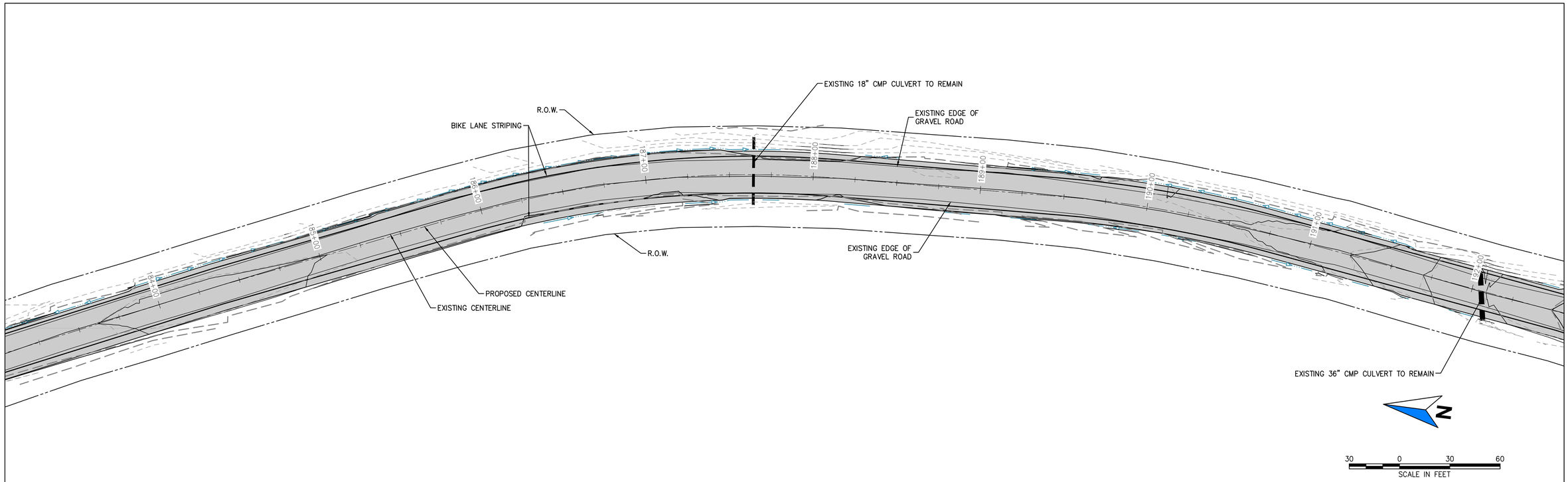

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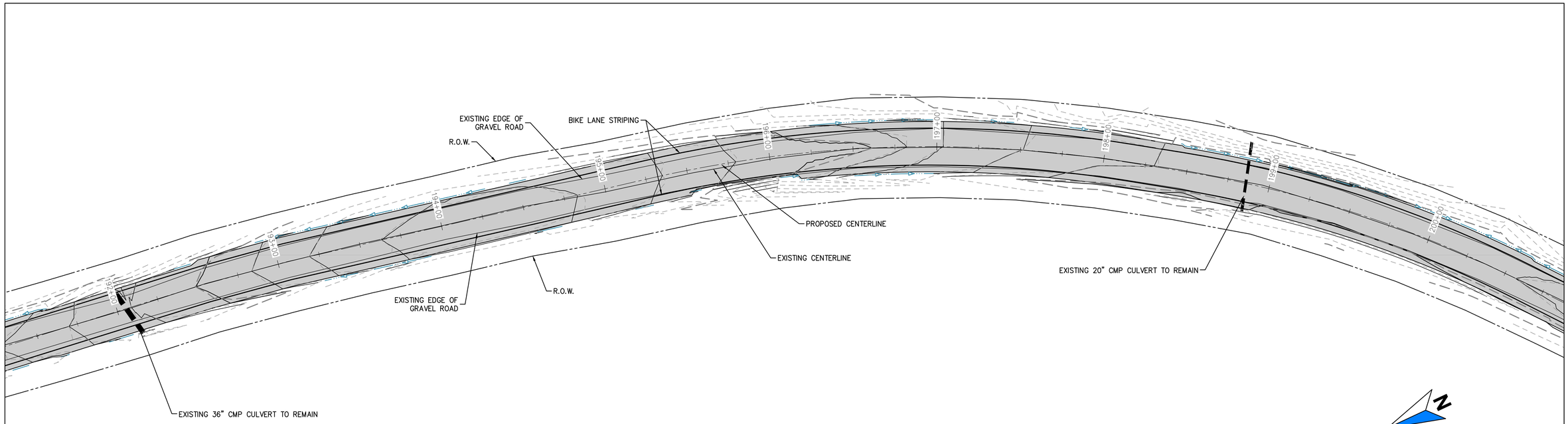
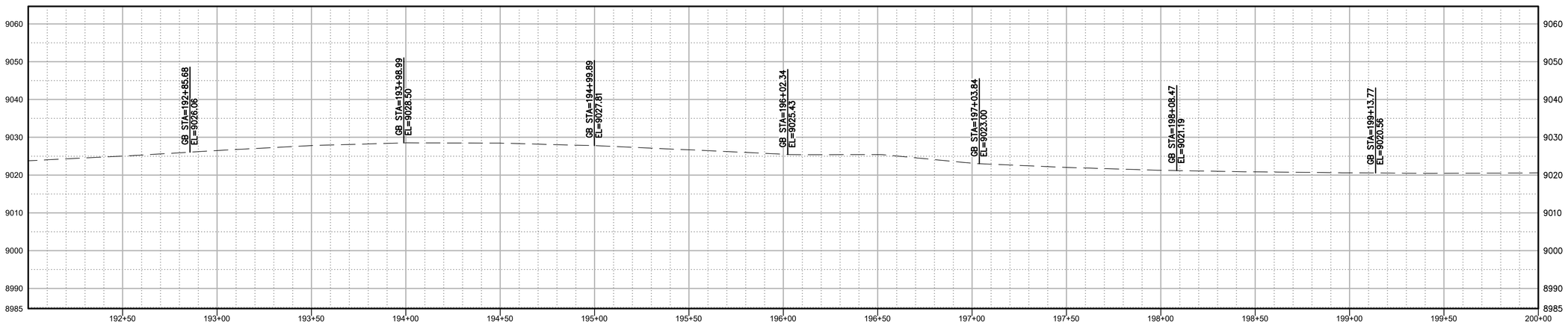
Print Date: 1/29/24	Sheet Revisions	BUCKHORN ENGINEERING	Construction Set
File Name: SHT-PP-CR 30.DWG	Date: / Comments / Init.	222 South Park Avenue Montrose, Colorado 81401 970-249-6828	No Revisions:
Horiz. Scale:			Revised:
Vert. Scale: As Noted		HINSDALE COUNTY 311 N. HENSON ST. LAKE CITY, CO 81235	Void:
Unit Information:			
Unit Leader Initials:			

COUNTY ROAD 30 BIKE LANE INSTALLATION & CHIP SEAL OVERLAY PLAN & PROFILE VIEW		Project No./Code 2023-047-CIV
Designer: DQ Detailer: WL Sheet Subset:	Structure Numbers Subset Sheets:	Sheet Number: 33





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Print Date:	1/29/24
File Name:	SHT-PP-CR 30.DWG
Horiz. Scale:	
Vert. Scale:	As Noted
Unit Information:	
Unit Leader Initials:	

Sheet Revisions

Date:	Comments	Init.

BUCKHORN ENGINEERING
222 South Park Avenue
Montrose, Colorado 81401
970-249-6828

HINSDALE COUNTY
311 N. HENSON ST.
LAKE CITY, CO 81235

Construction Set

No Revisions:

Revised:

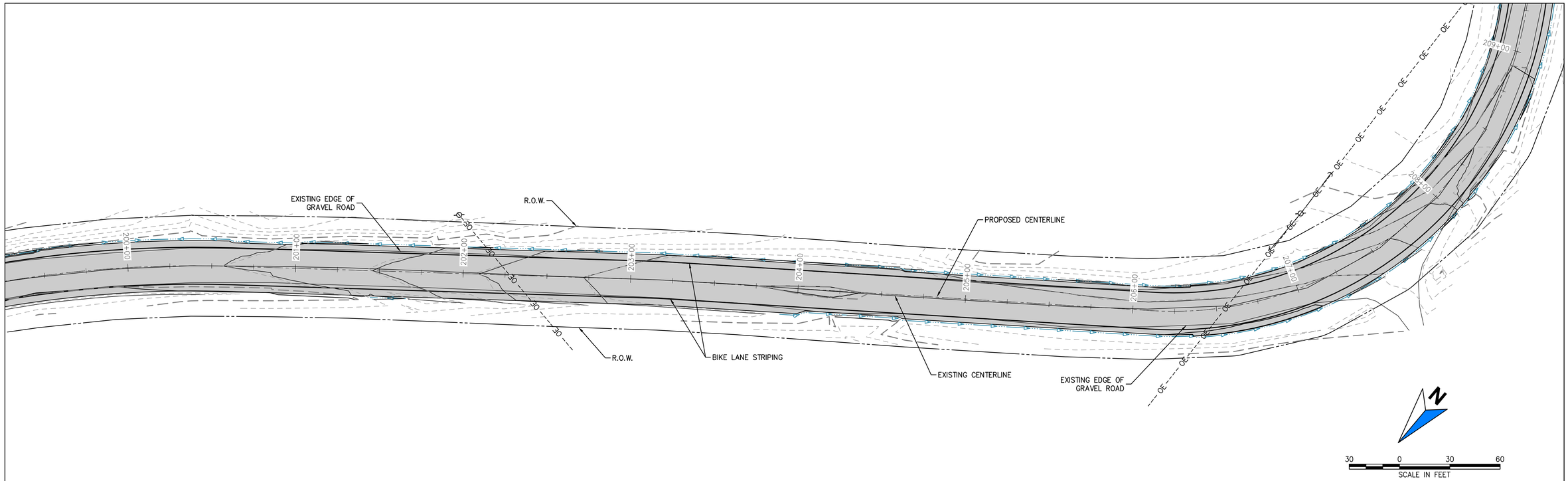
Void:

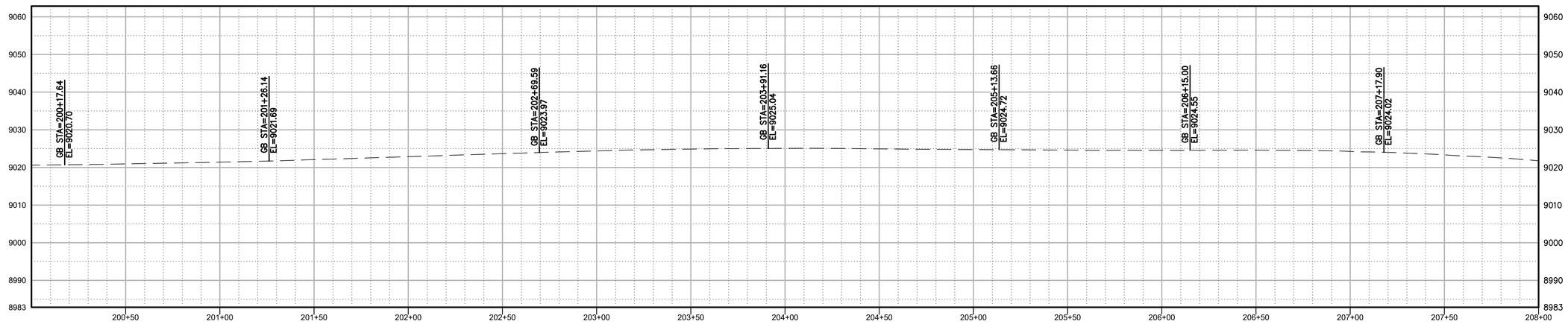
COUNTY ROAD 30
BIKE LANE INSTALLATION & CHIP SEAL OVERLAY
PLAN & PROFILE VIEW

Designer: DQ
Detailer: WL
Sheet Subset:
Structure Numbers
Subset Sheets:

Project No./Code
2023-047-CIV

Sheet Number: 34





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Print Date: 1/29/24	Sheet Revisions			BUCKHORN ENGINEERING
File Name: SHT-PP-CR 30.DWG	Date:	Comments	Init.	222 South Park Avenue
Horiz. Scale:				Montrose, Colorado 81401
Vert. Scale: As Noted				970-249-6828
Unit Information:				
Unit Leader Initials:				

HINSDALE COUNTY
311 N. HENSON ST.
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Construction Set	COUNTY ROAD 30 BIKE LANE INSTALLATION & CHIP SEAL OVERLAY PLAN & PROFILE VIEW		Project No./Code
No Revisions:			2023-047-CIV
Revised:	Designer: DQ	Structure Numbers	
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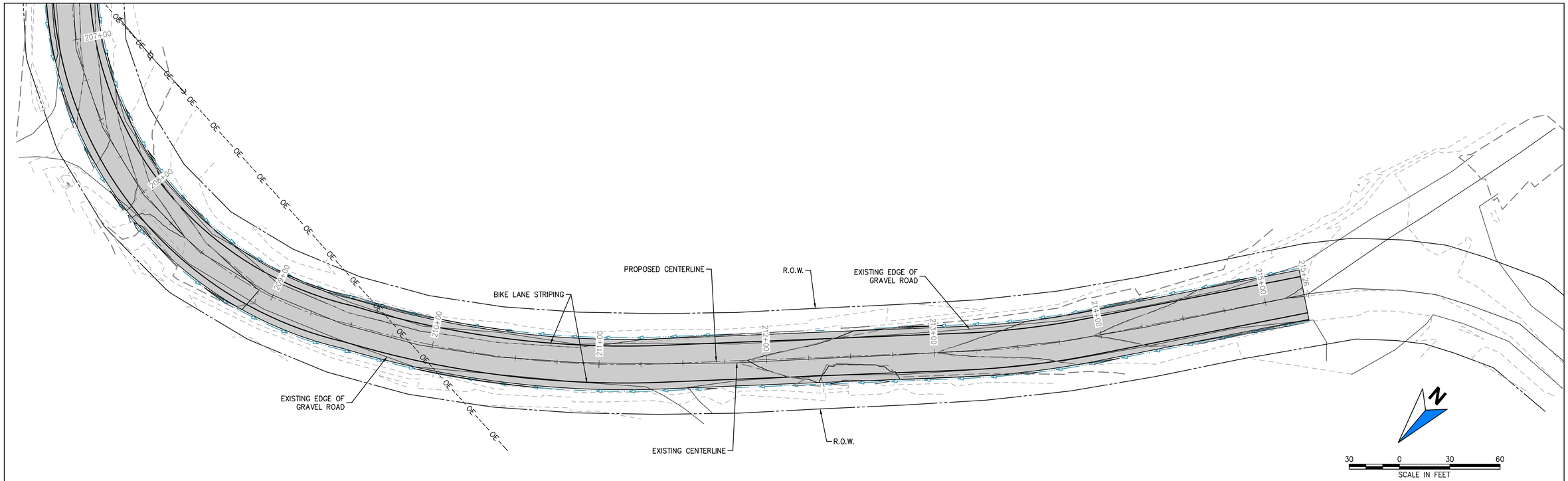

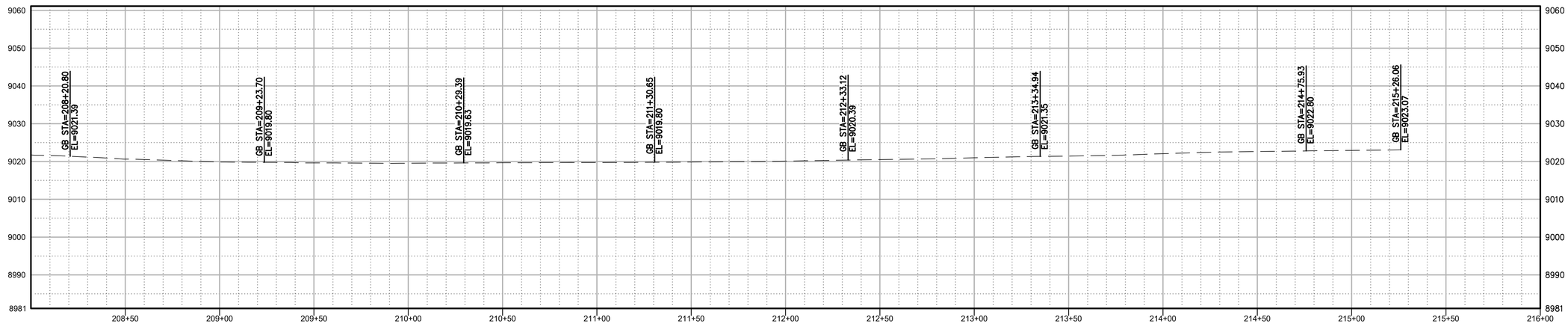

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Print Date:	1/29/24
File Name:	SHT-PP-CR 30.DWG
Horiz. Scale:	
Vert. Scale:	As Noted
Unit Information:	
Unit Leader Initials:	

Sheet Revisions

Date:	Comments	Init.

BUCKHORN ENGINEERING
222 South Park Avenue
Montrose, Colorado 81401
970-249-6828

HINSDALE COUNTY
311 N. HENSON ST.
LAKE CITY, CO 81235

Construction Set

No Revisions:

Revised:

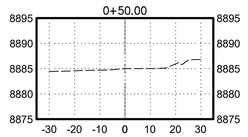
Void:

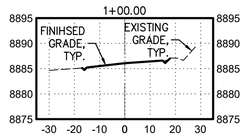
COUNTY ROAD 30
BIKE LANE INSTALLATION & CHIP SEAL OVERLAY
PLAN & PROFILE VIEW

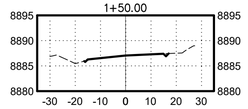
Designer:	DQ	Structure Numbers	
Detailer:	WL		
Sheet Subset:		Subset Sheets:	

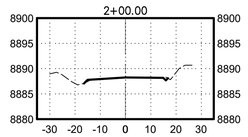
Project No./Code
2023-047-CIV

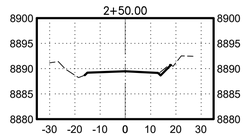
Sheet Number: 36

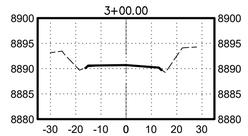


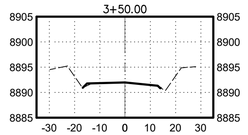


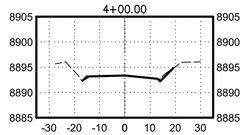


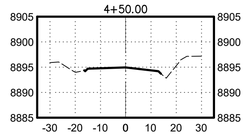


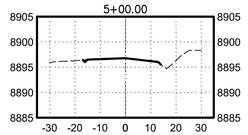


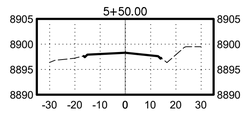


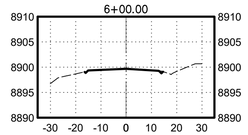


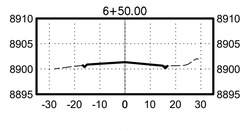


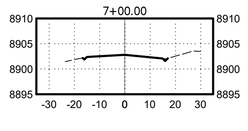


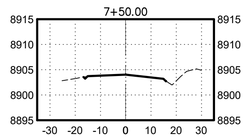


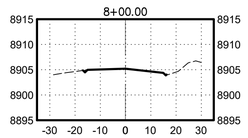


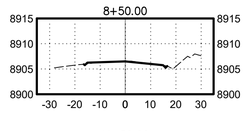


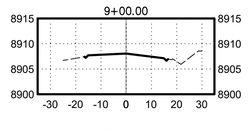


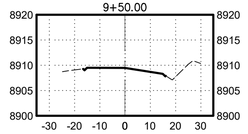


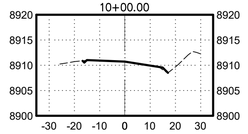


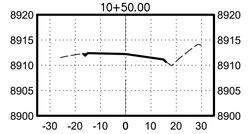


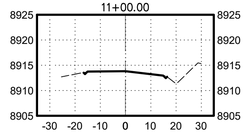


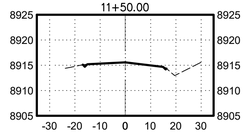


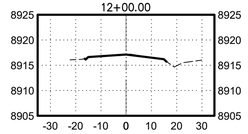


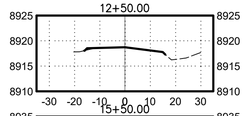


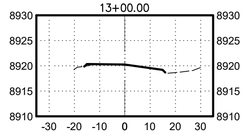


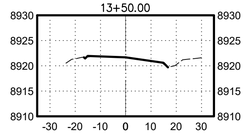


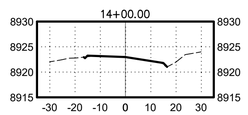


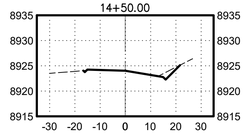


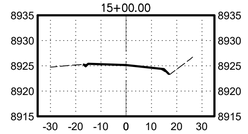


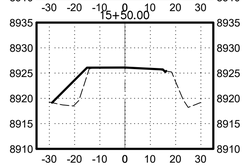


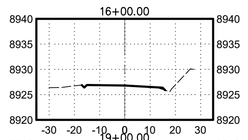


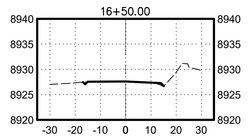


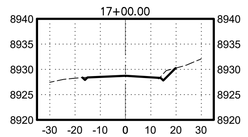


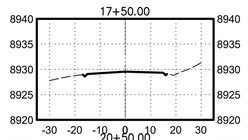


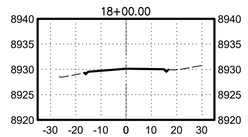


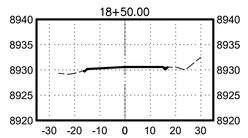


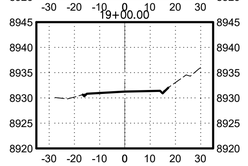


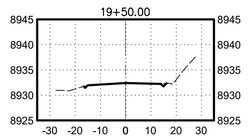


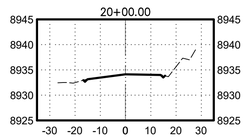


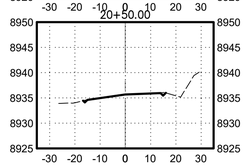


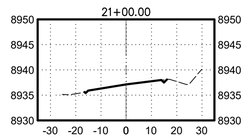


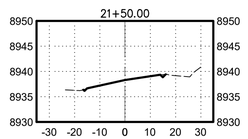


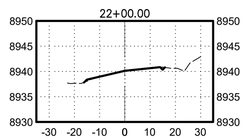


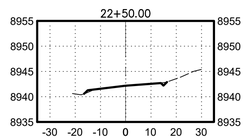


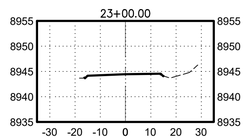


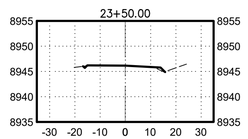


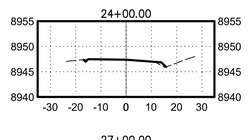


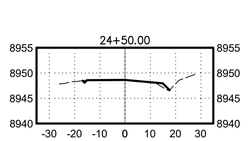


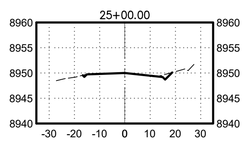


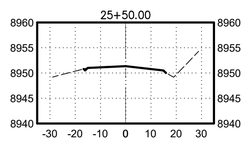


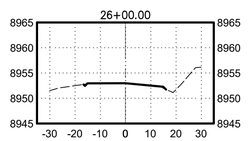


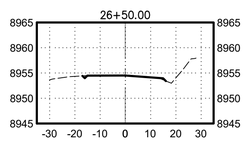


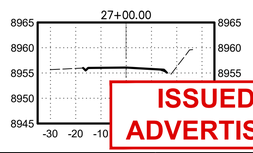












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Horiz. Scale:	
Vert. Scale:	As Noted
Unit Information:	
Unit Leader Initials:	

Sheet Revisions

Date:	Comments	Init.

BUCKHORN ENGINEERING
222 South Park Avenue
Montrose, Colorado 81401
970-249-6828

HINSDALE COUNTY
311 N. HENSON ST.
LAKE CITY, CO 81235

Construction Set

No Revisions:

Revised:

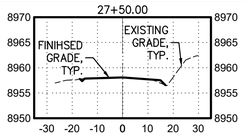
Void:

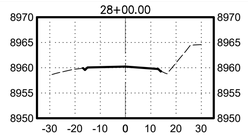
COUNTY ROAD 30
BIKE LANE INSTALLATION & CHIP SEAL OVERLAY
CROSS SECTION VIEWS

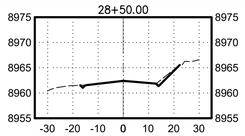
Designer: DQ
Detailer: WL
Sheet Subset:
Structure Numbers
Subset Sheets:

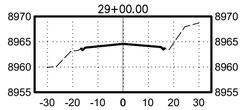
Project No./Code
2023-047-CIV

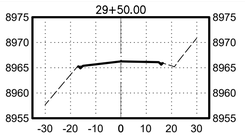
Sheet Number: 37

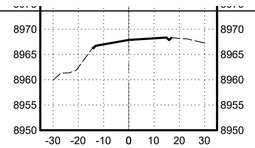


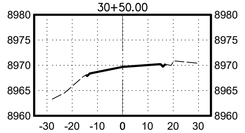


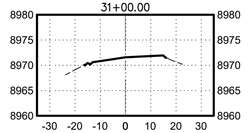


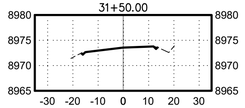


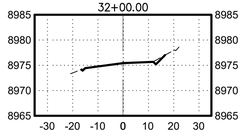


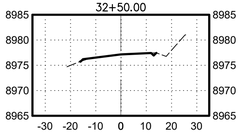


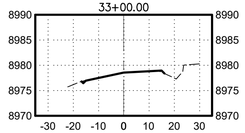


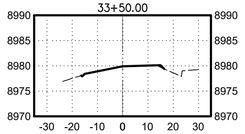


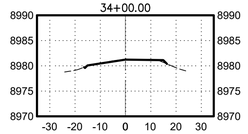


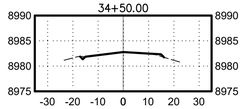


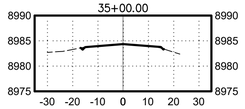


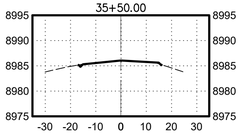


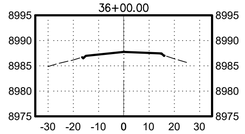


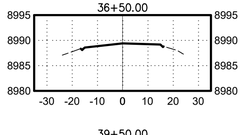


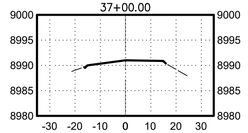


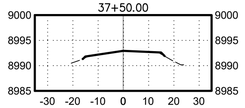


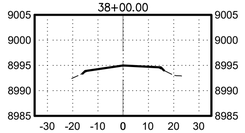


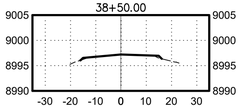


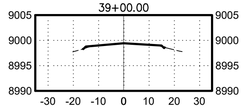


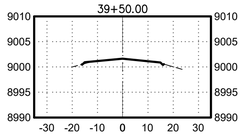


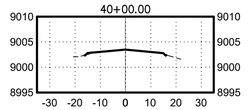


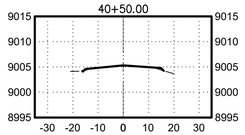


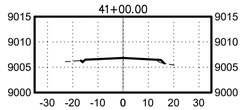


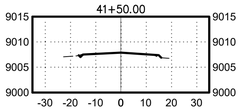


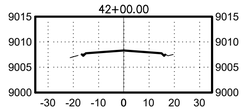


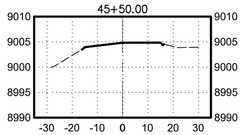


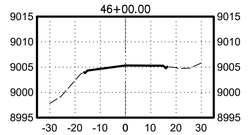


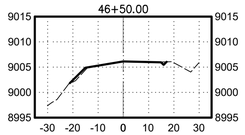


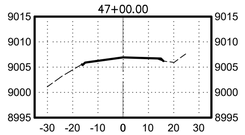


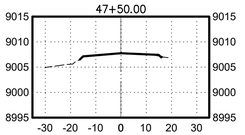


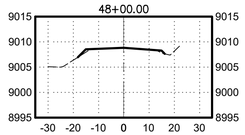


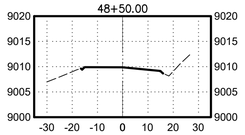


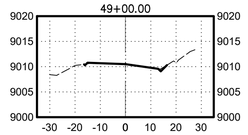


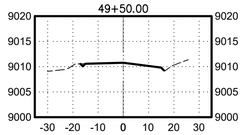


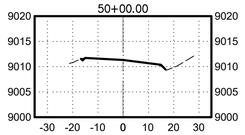


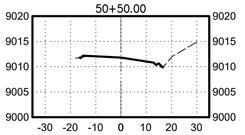


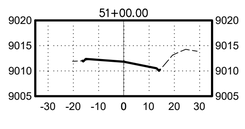


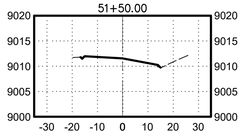


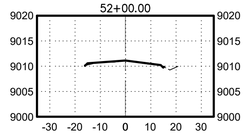


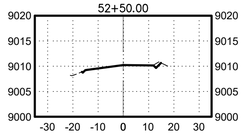


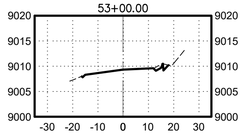


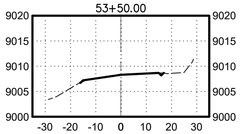


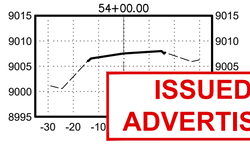












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Print Date: 1/29/24	Sheet Revisions			BUCKHORN ENGINEERING 222 South Park Avenue Montrose, Colorado 81401 970-249-6828
File Name: SHT-XSEC-CR 30.DWG	Date:	Comments	Init.	
Horiz. Scale:				
Vert. Scale: As Noted				
Unit Information:				
Unit Leader Initials:				

HINSDALE COUNTY
311 N. HENSON ST.
LAKE CITY, CO 81235

Construction Set	COUNTY ROAD 30 BIKE LANE INSTALLATION & CHIP SEAL OVERLAY CROSS SECTION VIEWS		Project No./Code
No Revisions:			2023-047-CIV
Revised:	Designer: DQ	Structure Numbers	
Void:	Detailer: WL		Sheet Number: 38
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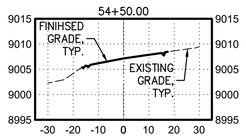

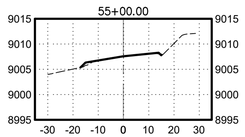

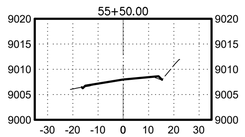

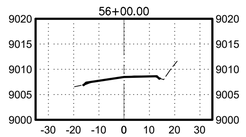

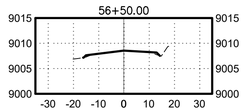

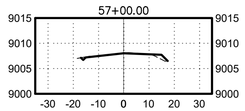

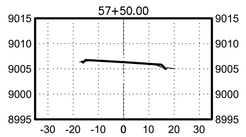

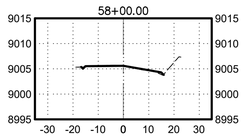

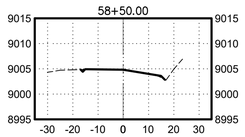

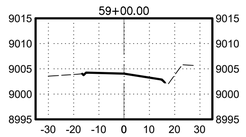

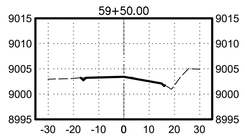

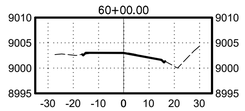

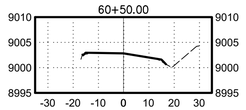

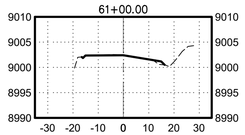

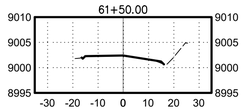

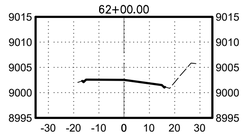

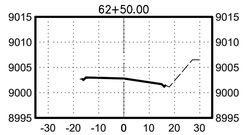

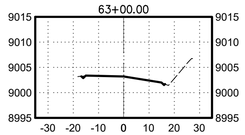

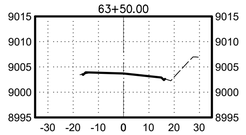

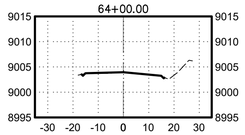

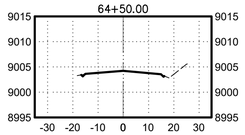

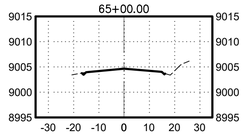

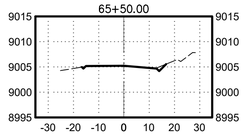

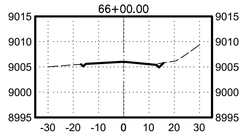

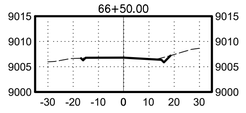

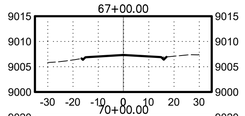

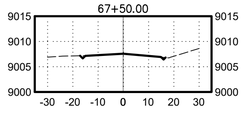

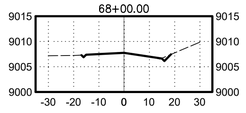

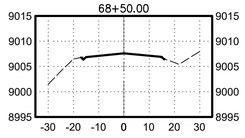

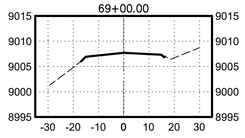

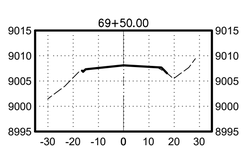

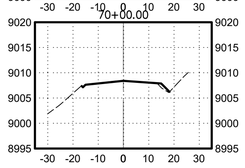

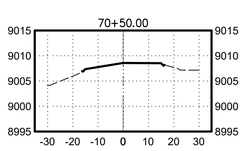

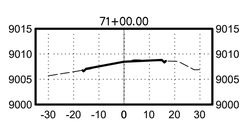

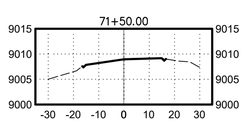

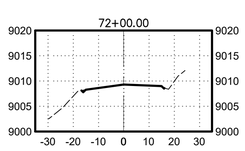

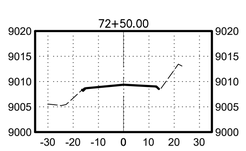

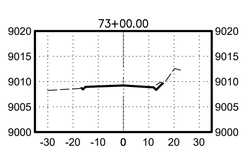

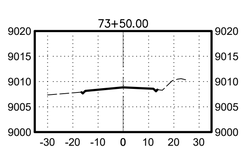

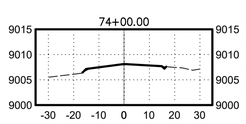

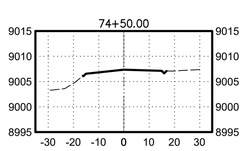

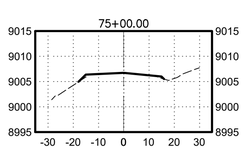

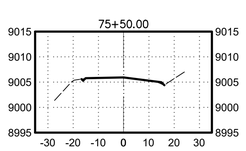

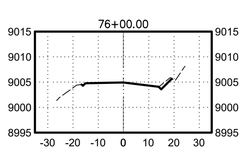

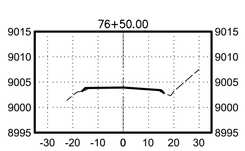

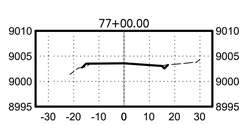

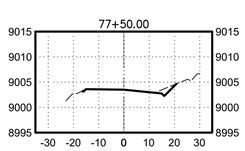

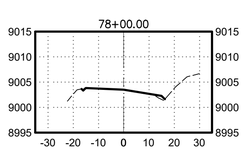

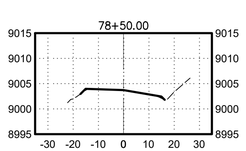

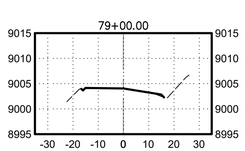

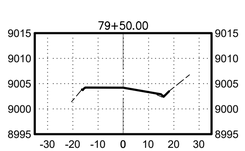

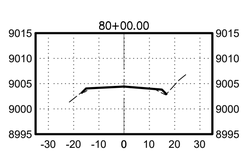

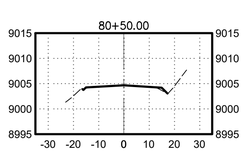

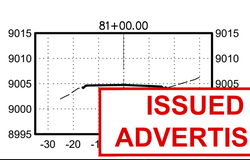

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Horiz. Scale:			
Vert. Scale: As Noted			
Unit Information:			
Unit Leader Initials:			

BUCKHORN ENGINEERING
222 South Park Avenue
Montrose, Colorado 81401
970-249-6828

HINSDALE COUNTY
311 N. HENSON ST.
LAKE CITY, CO 81235

Construction Set

No Revisions:

Revised:

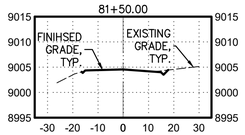
Void:

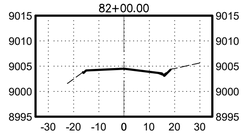
COUNTY ROAD 30
BIKE LANE INSTALLATION & CHIP SEAL OVERLAY
CROSS SECTION VIEWS

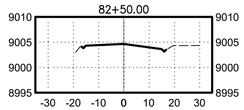
Designer: DQ
Detailer: WL
Sheet Subset:
Structure Numbers
Subset Sheets:

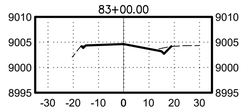
Project No./Code
2023-047-CIV

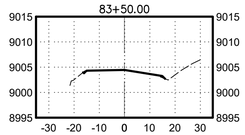
Sheet Number: 39

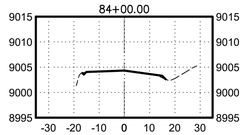


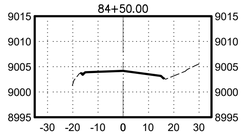


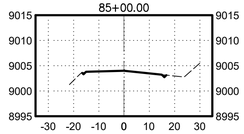


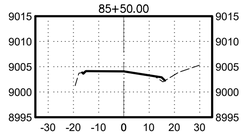


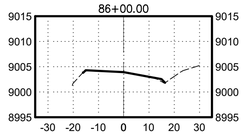


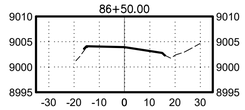


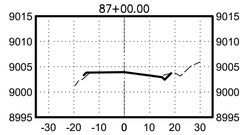


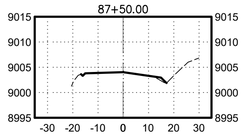


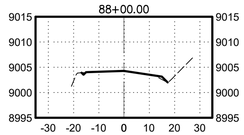


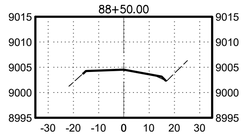


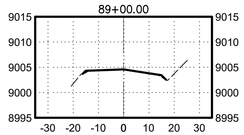


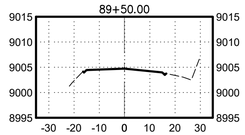


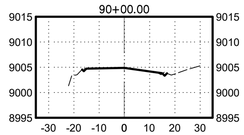


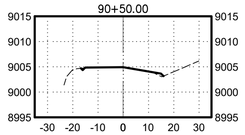


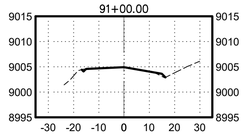


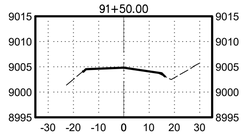


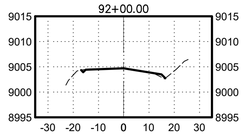


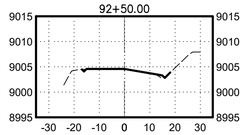


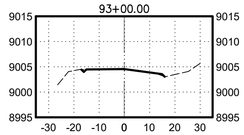


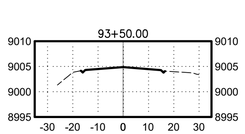


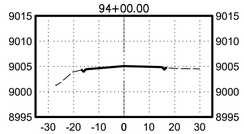


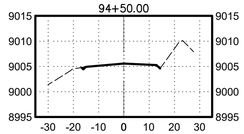


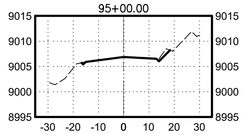


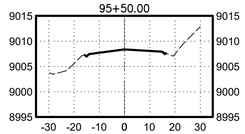


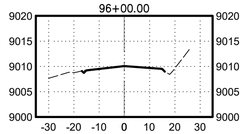


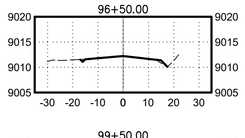


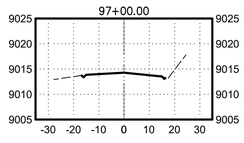


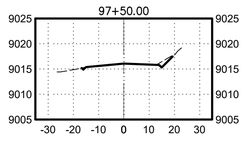


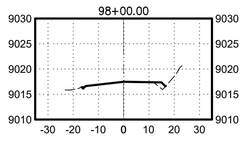


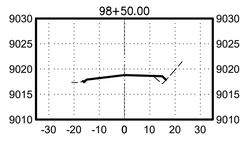


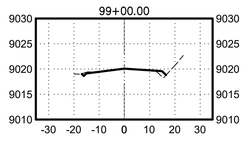


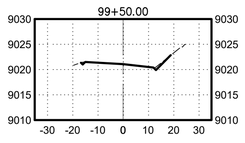


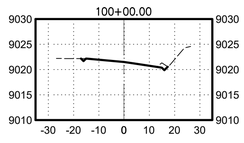


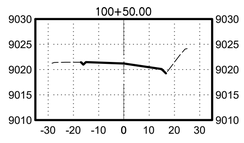


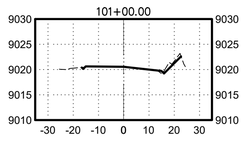


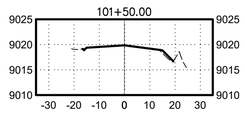


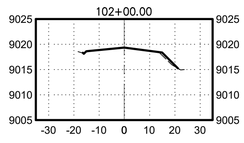


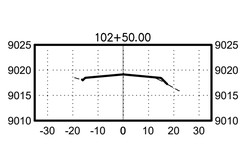


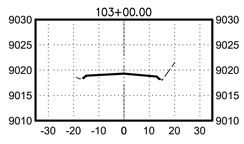


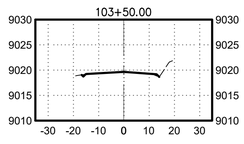


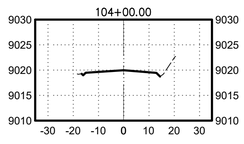


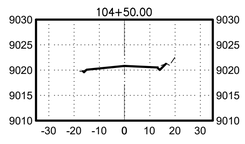


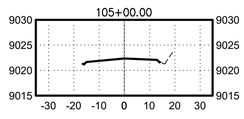


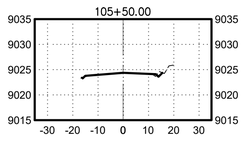


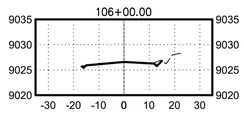


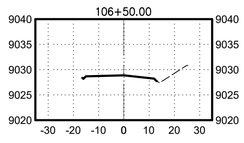


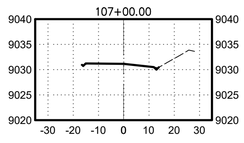


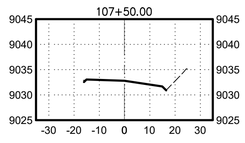


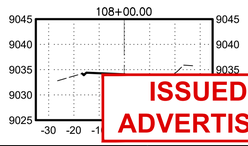












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Vert. Scale: As Noted				
Unit Information:				
Unit Leader Initials:				

HINSDALE COUNTY
311 N. HENSON ST.
LAKE CITY, CO 81235

Construction Set

No Revisions:

Revised:

Void:

COUNTY ROAD 30
BIKE LANE INSTALLATION & CHIP SEAL OVERLAY
CROSS SECTION VIEWS

Designer: DQ
Detailer: WL
Sheet Subset:
Structure Numbers
Subset Sheets:

Project No./Code
2023-047-CIV

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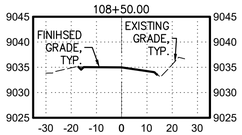

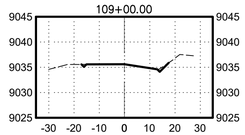

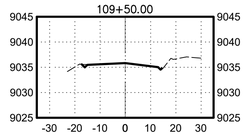

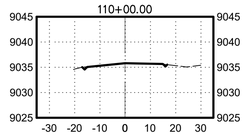

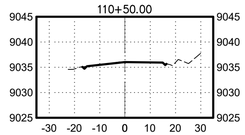

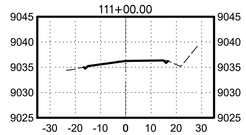

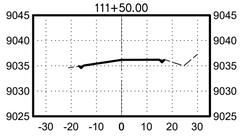

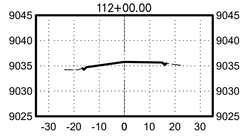

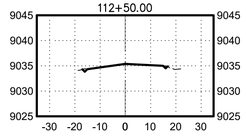

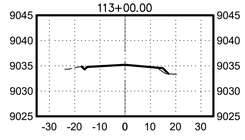

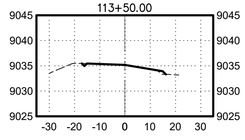

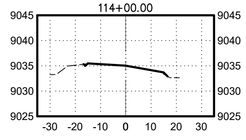

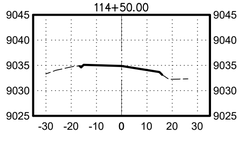

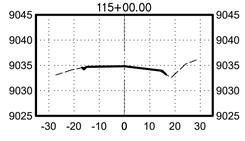

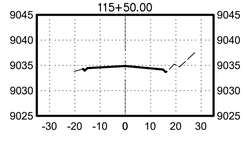

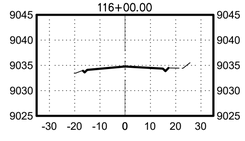

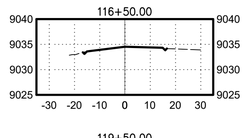

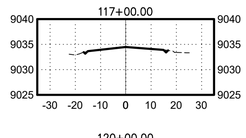

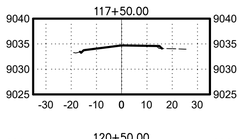

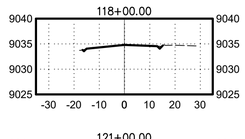

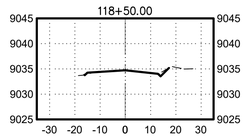

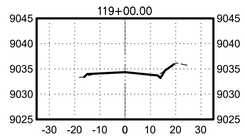

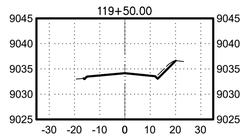

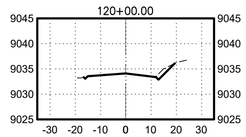

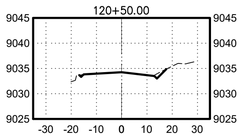

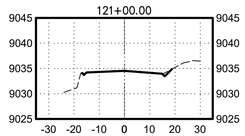

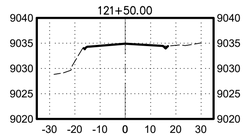

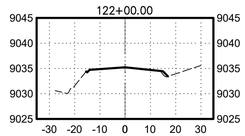

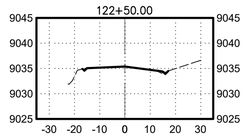

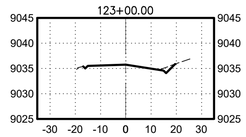

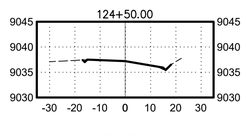

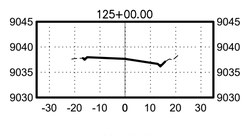

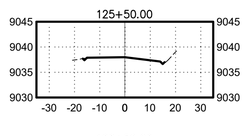

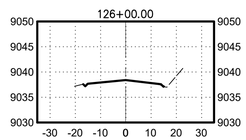

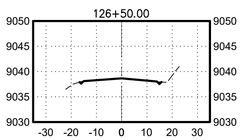

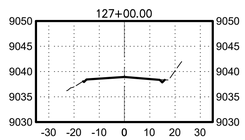

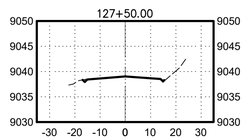

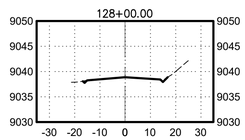

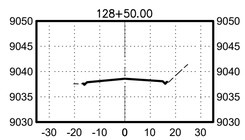

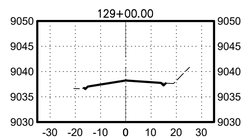

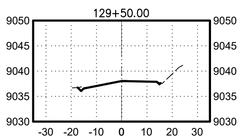

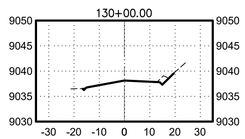

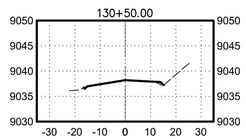

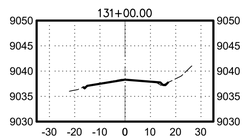

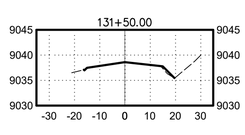

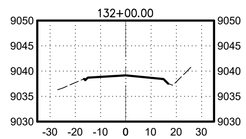

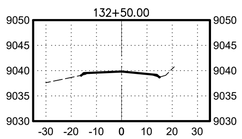

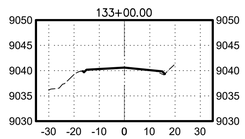

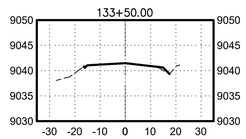

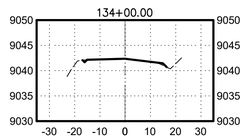

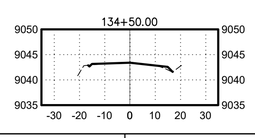

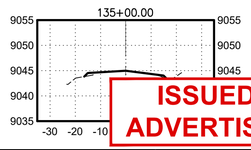

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Print Date: 1/29/24	Sheet Revisions			BUCKHORN ENGINEERING 222 South Park Avenue Montrose, Colorado 81401 970-249-6828
File Name: SHT-XSEC-CR 30.DWG	Date:	Comments	Init.	
Horiz. Scale:				
Vert. Scale: As Noted				
Unit Information:				
Unit Leader Initials:				

HINSDALE COUNTY
311 N. HENSON ST.
LAKE CITY, CO 81235

Construction Set	COUNTY ROAD 30 BIKE LANE INSTALLATION & CHIP SEAL OVERLAY CROSS SECTION VIEWS		Project No./Code
No Revisions:			2023-047-CIV
Revised:	Designer: DQ	Structure Numbers	
Void:	Detailer: WL		Sheet Number: 41
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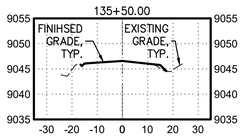
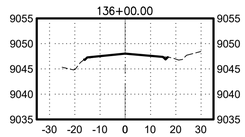
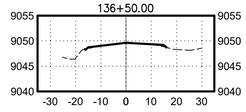
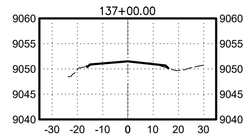
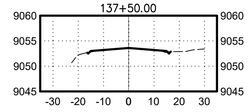
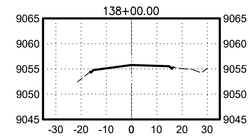


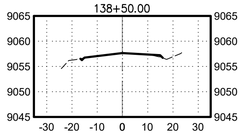


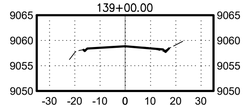


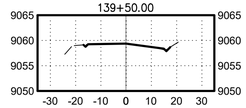


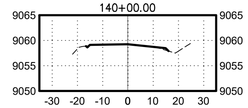


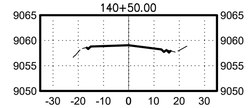


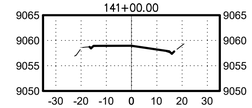


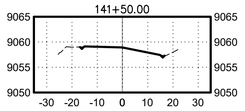


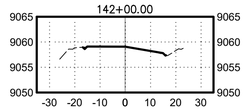


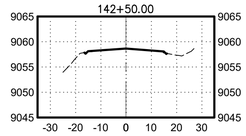


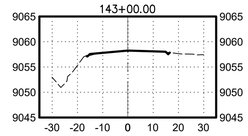


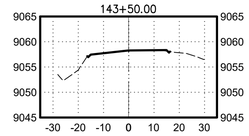


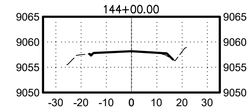


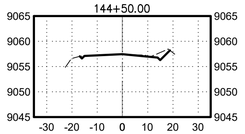


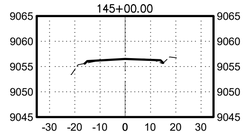


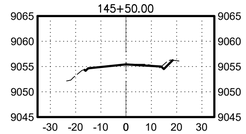


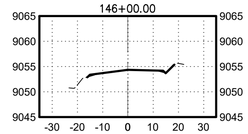


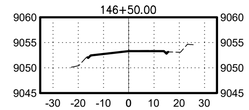


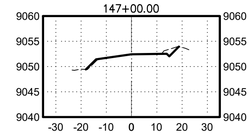


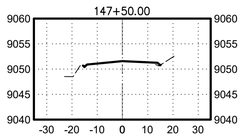


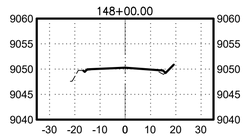


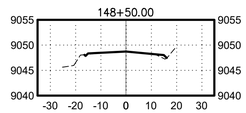


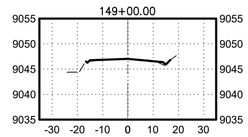


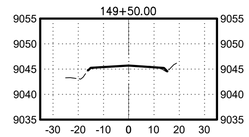


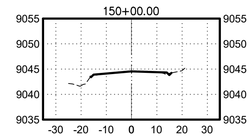


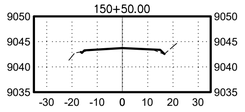


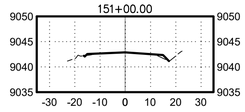


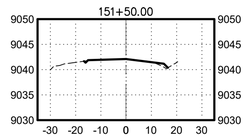


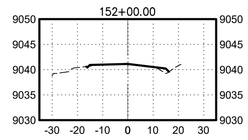


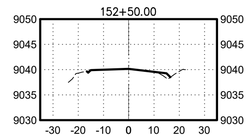


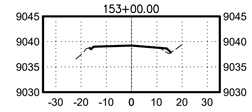


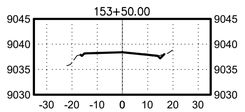


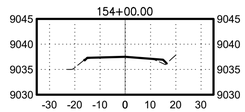


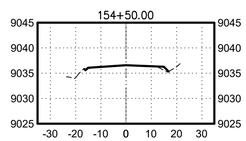


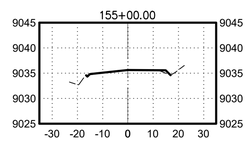


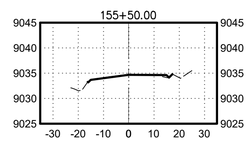


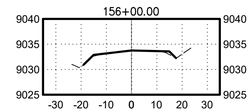


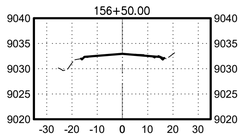


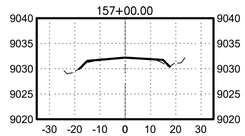


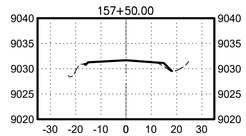


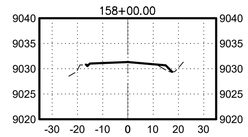


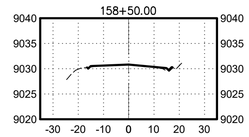


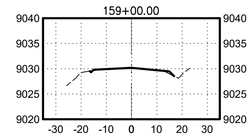


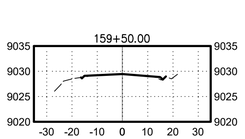


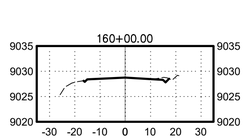


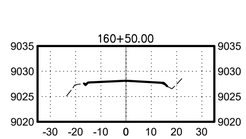


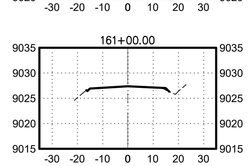


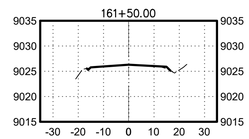


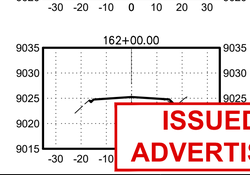








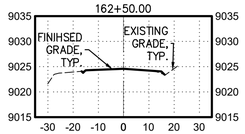


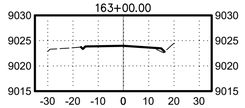


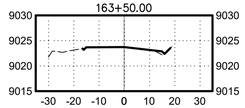
ISSUED FOR ADVERTISEMENT

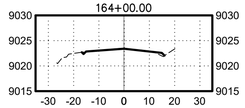
T:\CIVIL\2023\2023-047-CIV CR 30 Bike Lane and Chip Seal Overlay\65CAD\SHT-XSEC-CR 30.dwg PLOT DATE: 2024-1-29 15:20 SAVED DATE: 2024-01-29 13:41 USER: sjackson

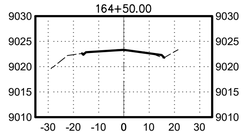
Print Date: 1/29/24	Sheet Revisions			BUCKHORN ENGINEERING 222 South Park Avenue Montrose, Colorado 81401 970-249-6828
File Name: SHT-XSEC-CR 30.DWG	Date:	Comments	Init.	
Horiz. Scale:				HINSDALE COUNTY 311 N. HENSON ST. LAKE CITY, CO 81235
Vert. Scale: As Noted				
Unit Information:				Construction Set No Revisions: Revised: Void:
Unit Leader Initials:				COUNTY ROAD 30 BIKE LANE INSTALLATION & CHIP SEAL OVERLAY CROSS SECTION VIEWS Designer: DQ Detailer: WL Sheet Subset: Structure Numbers Subset Sheets:
				Project No./Code 2023-047-CIV Sheet Number: 42

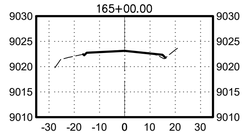


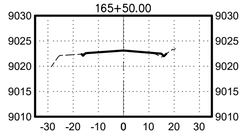


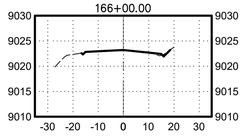


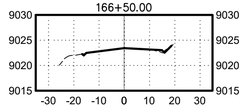


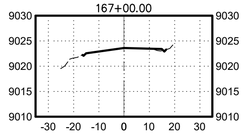


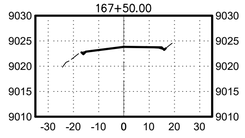


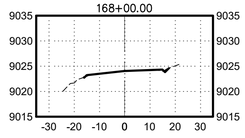


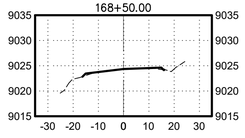


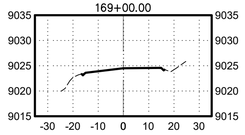


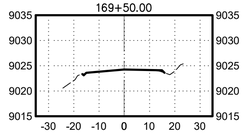


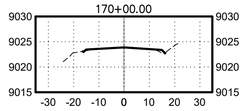


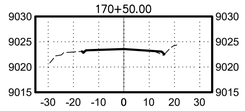


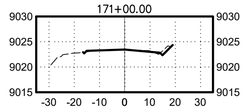


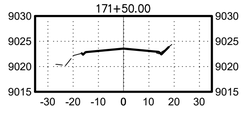


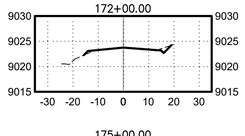


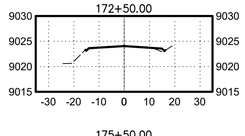


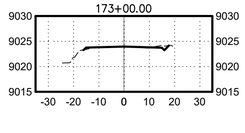


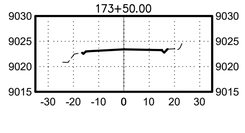


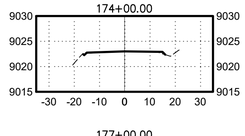


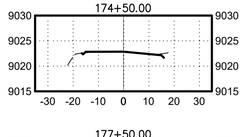


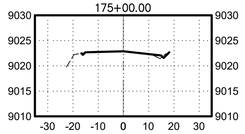


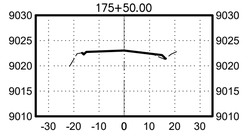


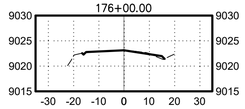


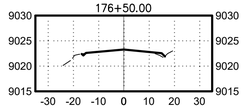


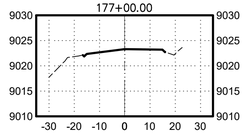


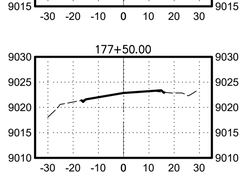


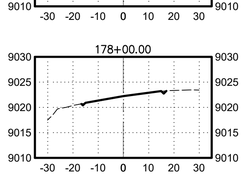


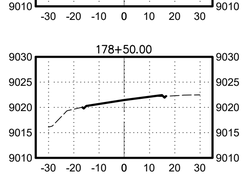


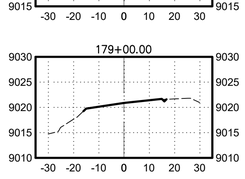


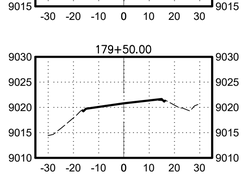


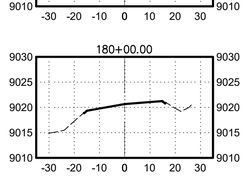


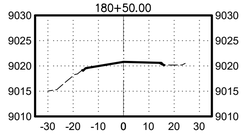


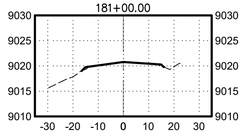


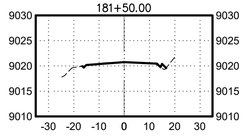


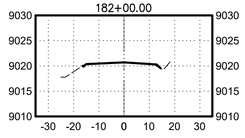


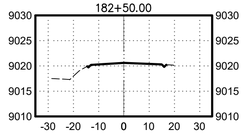


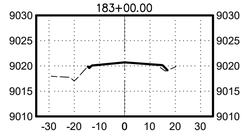


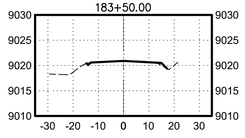


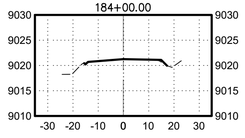


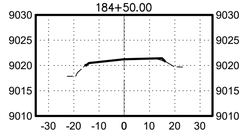


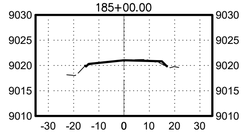


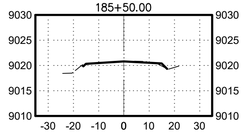


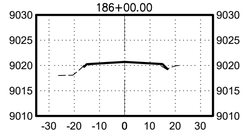


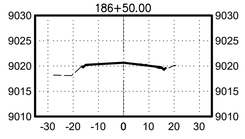


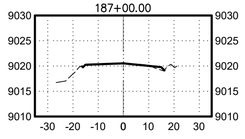


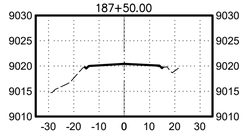


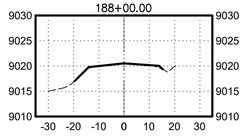


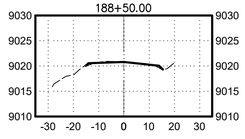


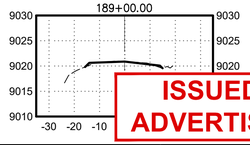








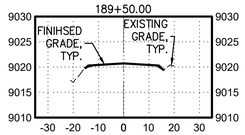


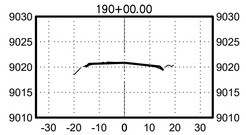


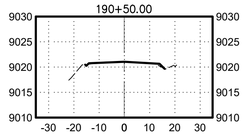
ISSUED FOR ADVERTISEMENT

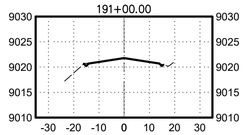
T:\CIVIL\2023\2023-047-CIV CR 30 Bike Lane and Chip Seal Overlay\65CAD\SHT-XSEC-CR 30.dwg PLOT DATE: 2024-1-29 15:20 SAVED DATE: 2024-01-29 13:41 USER: sjackson

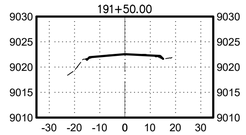
Print Date: 1/29/24	Sheet Revisions			BUCKHORN ENGINEERING 222 South Park Avenue Montrose, Colorado 81401 970-249-6828
File Name: SHT-XSEC-CR 30.DWG	Date:	Comments	Init.	
Horiz. Scale:				HINSDALE COUNTY 311 N. HENSON ST. LAKE CITY, CO 81235
Vert. Scale: As Noted				
Unit Information:				Construction Set No Revisions: Revised: Void:
Unit Leader Initials:				COUNTY ROAD 30 BIKE LANE INSTALLATION & CHIP SEAL OVERLAY CROSS SECTION VIEWS Designer: DQ Detailer: WL Sheet Subset: Structure Numbers Subset Sheets:
				Project No./Code 2023-047-CIV Sheet Number: 43

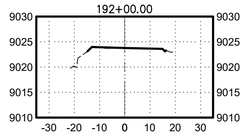


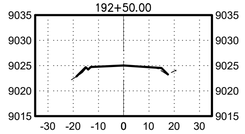


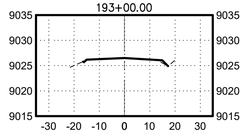


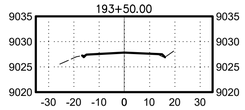


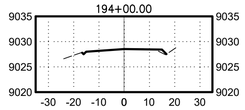


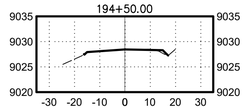


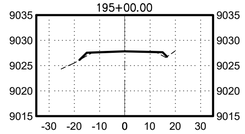


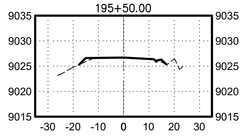


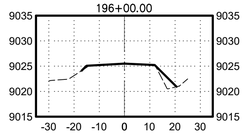


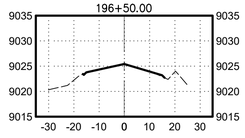


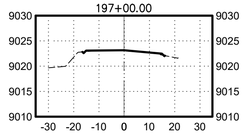


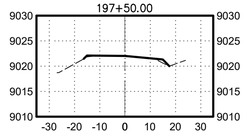


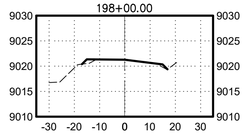


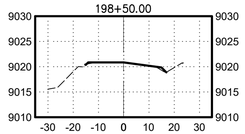


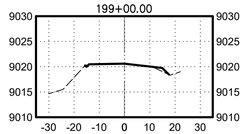


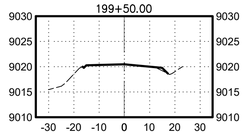


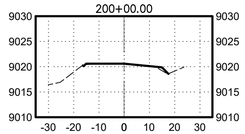


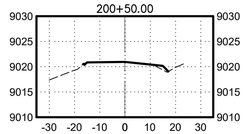


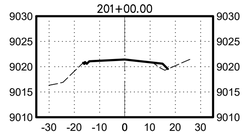


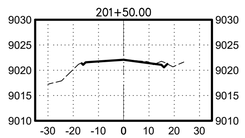


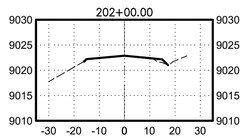


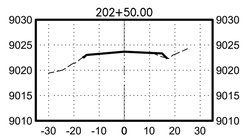


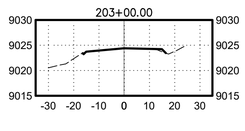


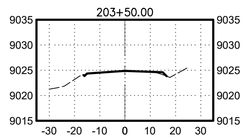


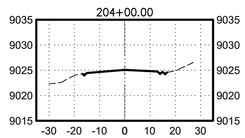


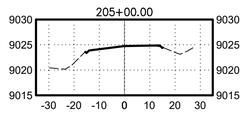


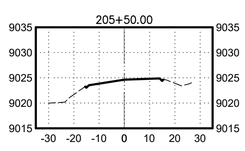


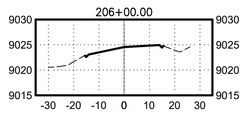


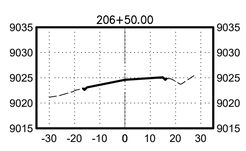


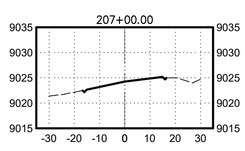


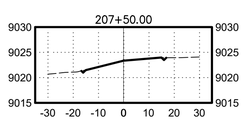


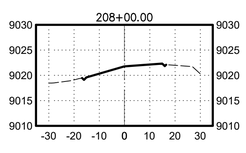


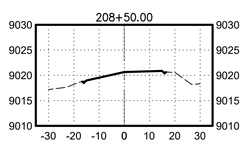


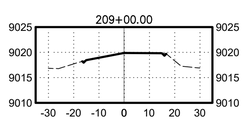


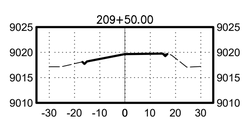


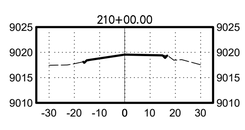


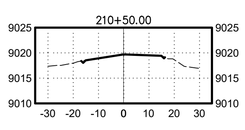


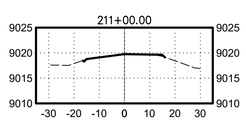


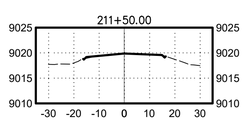


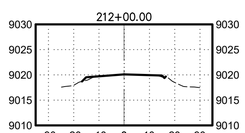


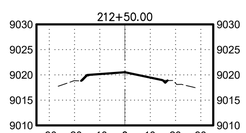


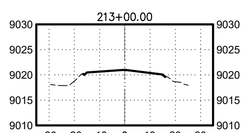


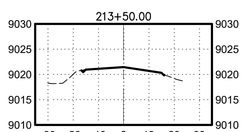


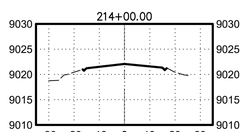


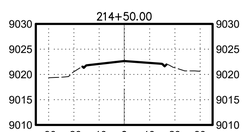


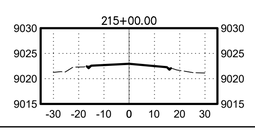












ISSUED FOR ADVERTISEMENT

T:\CIVIL\2023\2023-047-CIV CR 30 Bike Lane and Chip Seal Overlay\65CAD\SHT-XSEC-CR 30.dwg PLOT DATE: 2024-1-29 15:20 SAVED DATE: 2024-01-29 13:41 USER: sjackson

Print Date: 1/29/24	Sheet Revisions			BUCKHORN ENGINEERING 222 South Park Avenue Montrose, Colorado 81401 970-249-6828
File Name: SHT-XSEC-CR 30.DWG	Date:	Comments	Init.	
Horiz. Scale:				HINSDALE COUNTY 311 N. HENSON ST. LAKE CITY, CO 81235
Vert. Scale: As Noted				
Unit Information:				Construction Set No Revisions: Revised: Void:
Unit Leader Initials:				COUNTY ROAD 30 BIKE LANE INSTALLATION & CHIP SEAL OVERLAY CROSS SECTION VIEWS Designer: DQ Detailer: WL Sheet Subset: Structure Numbers Subset Sheets:
				Project No./Code 2023-047-CIV Sheet Number: 44

SWMP TEMPLATE (PLAN SHEETS) FOR PROJECTS WITH 1 ACRE OR MORE OF DISTURBANCE 2/25/2022 UPDATE

1. SITE DESCRIPTION

The Contractor shall comply with all CDOT contractual requirements, and all requirements associated with the CDPS-SCP on this project. The SWMP Administrator for Construction shall update the SWMP to reflect current project site conditions.

A. PROJECT SITE LOCATION:
Location or address of construction office:
Hinsdale County Road 30

B. PROJECT SITE DESCRIPTION:
Road reconstruction and installation of approximately 4.5 miles of double layer chip seal, signage and striping.

C. PROPOSED SCHEDULE FOR SEQUENCE FOR MAJOR CONSTRUCTION ACTIVITIES:
Stabilize all areas that are not paved or landscaped through establishment of vegetation cover.
Install required stormwater controls, regrade road as needed to match design grades, reconstruction any soft or yielding areas, place double layer of chip seal pavement, install signage and striping.

D. ACRES OF DISTURBANCE:
1. Total area of construction site (LOC (PERMITTED AREA)): 16.4 acres
2. Total area of proposed disturbance (LDA): 16.4 acres (Note disturbance is heavy truck traffic on an existing County road)
3. Total area of seeding: 0 acres
4. Total area of pre-project impervious surface: 712,800 sq. ft.
5. Total area of final impervious surface712,800 sq. ft.

E. EXISTING SOIL DATA: Soils classify as GC or SC per USCS. Low to moderate plasticity indices (11 to 15), clayey sand and gravel.

Data Source(s): Buckhorn Engineering Geotechnical report dated August 30, 2023.

F. EXISTING VEGETATION, INCLUDING PERCENT OF VEGETATIVE COVER:
During design, the SWMP Administrator for Design in consultation with the Engineer will determine if the SWMP Administrator for Design or the SWMP Administrator for Construction will conduct the Vegetation Transects. If the site is disturbed, an Adequate Reference Site(s) may be utilized, refer to the permit.

Pre-Construction Date of survey: April 24, 2023 Percent Existing Vegetative Cover: 0
Description of existing vegetation: Trees, shrubs and grasses outside of right of way and area of disturbance.
Method for determining percent vegetative cover
Include a map or table showing transect locations, photos documenting pre-Construction vegetative cover, and methodology used to determine existing vegetative cover to SWMP tab 17:

Post-Construction Date of survey: _____ Percent Vegetative Cover: _____
Description of vegetation:
The method used to determine pre-construction percent cover shall be used to determine post construction percent cover.
Include map or table showing transect locations, photos documenting post-Construction vegetative cover, and methodology used to determine existing vegetative cover to SWMP tab 17:

G. POTENTIAL POLLUTANTS SOURCES:
Refer to Potential Pollutant Sources in SWMP Section 4A. The SWMP Administrator for Construction shall prepare a list of all potential pollutants and their locations in accordance with subsection 107.25.

H. DRAINAGE PATTERNS AND RECEIVING WATER(S):
1. Description of drainage patterns from the Site: Road is crowned and drains to both sides of the roadway. Roadside ditch on the west and slope to the east.
2. Names of immediate and ultimate receiving water(s) on site: Lake San Cristobal
3. Description of all stream crossings located within the Construction Site Boundary:

Location	Stream Name	Description Of Any Disturbed Upland Areas
	Lake Fork of the Gunnison River	None

I. ALLOWABLE NON-STORMWATER DISCHARGES:

Discharge Description	Site Map #	Method Statement (Location)
Uncontaminated Springs		
Concrete Washout Water (in-ground washout structure)#		
Landscape Irrigation Return Flows		
Discharges from Diversions of State Waters		
Emergency Fire Fighting		

#Concrete washout water associated with the washing of concrete tools and concrete mixer chutes can be discharged to the ground if site is managed accordingly to prevent the water from leaving the site as surface runoff or reaching receiving waters.

J. DIVERSION CRITERIA:
1. Is a diversion planned for the Site? Yes _____ No __X___.
2. If yes, complete information below:
   a. What is the 2-year peak flow for the waterway being diverted (cubic feet per second)?
   b. What are the monthly averages if available? (provide averages for Jan- Dec if available)
   c. What is the upstream contributing drainage area and imperviousness?
   d. A method statement must be prepared by the Contractor and approved by CDOT for each diversion. Diversion structures must minimize soil transport and erosion within the entire diversion, minimize erosion during discharge, and minimize run-on into the diversion and meet the conditions in the SCP.
   e. If the conditions in the SCP cannot be met and an alternative is required, CDOT must approve the alternative and then it must be submitted and approved by CDPHE's Water Quality Control Division prior to implementation.

K. ALTERNATIVE TEMPORARY STABILIZATION SCHEDULE:
[If applicable, provide a description of the alternative temporary stabilization schedule. If temporary stabilization exceeds the 14-day schedule, then the SWMP must document the constraints necessitating the alternative schedule, provide the alternative schedule, and identify all the locations where the alternative schedule is applicable on the site map. Alternative temporary stabilization schedules must be approved by CDOT prior to implementation]

2. SITE MAP COMPONENTS:

Pre-construction

A. PROJECT CONSTRUCTION POTENTIAL SITE BOUNDARIES:
[See SWMP Site Maps]

B. FLOW ARROWS THAT DEPICT STORMWATER FLOW DIRECTIONS ON-SITE, RUN-ON AND RUNOFF DIRECTION:
[See SWMP Site Maps]

C. ALL AREAS OF GROUND SURFACE DISTURBANCE:
[See SWMP Site Maps]

D. AREAS OF CUT AND FILL:
[See SWMP Site Maps]

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Construction Set	COUNTY ROAD 30 BIKE LANE INSTALLATION & CHIP SEAL OVERLAY SWMP PLAN		Project No./Code
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Revised:	Designer: DQ	Structure Numbers	
Void:	Detailer: WL		Sheet Number: 45
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E. AREAS USED FOR STORING AND STOCKPILING OF MATERIALS, STAGING AREAS (field trailer, fueling, etc.) and LOCATIONS OF ALL WASTE ACCUMULATION and BATCH PLANTS INCLUDING MASONRY MIXING STATIONS:
[See SWMP Site Maps]

F. LOCATION OF ALL STRUCTURAL CONTROL MEASURES IDENTIFIED IN THE SWMP:
[See SWMP Site Maps]

G. LOCATION OF NON-STRUCTURAL CONTROL MEASURES AS APPLICABLE IN THE SWMP:
[See SWMP Site Maps]

H. SPRINGS, STREAMS, WETLANDS, DIVERSIONS, AND OTHER STATE WATERS, INCLUDING AREAS THAT REQUIRE PRE-EXISTING VEGETATION BE MAINTAINED WITHIN 50 FEET OF A RECEIVING WATER:
[See SWMP Site Maps]

I. LOCATIONS OF ALL STREAM CROSSING LOCATED WITHIN THE CONSTRUCTION SITE BOUNDARY:
[See SWMP Site Maps]

J. PROTECTION OF TREES, SHRUBS, SENSITIVE HABITAT, AND CULTURAL RESOURCES:
[See SWMP Site Maps]

K. LOCATIONS WHERE ALTERNATIVE TEMPORARY STABILIZATION SCHEDULES APPLY:
[See SWMP Site Maps]

3. QUALIFIED STORMWATER MANAGERS:

A. SWMP ADMINISTRATOR FOR DESIGN:
CDOT Certified Individual responsible for developing SWMP Plan Sheets and SWMP Site Maps during the design phase.

Name/Title	Contact Information [phone & email]	Certification #
Dan Quigley	970-497-8852, dquigley@buckhornengineering.com	

B. SWMP ADMINISTRATOR FOR CONSTRUCTION: (As defined in Section 208) The Contractor shall designate a SWMP Administrator for Construction upon accepting co-permittee of the permit. The SWMP Administrator for Construction shall become the operator for the SWMP and assume responsibility for all design changes to the SWMP implementation and maintenance in accordance to 208.03, the SWMP shall remain the property of CDOT. The SWMP Administrator for Construction shall be responsible for implementing, maintaining and revising SWMP, including the title and contact information. The activities and responsibilities of the SWMP Administrator for Construction shall address all aspects of the project's SWMP. (Update the information below for each new SWMP Administrator for Construction) (A copy of TECS Certification must be included in the SWMP.)

Name/Title	Contact Information (phone & email)	Certification #	Start Date	Engineer Approval

C. EROSION CONTROL INSPECTOR: (As defined in Section 208) The Contractor may designate an Erosion Control Inspector. The Erosion Control Inspector shall complete duties in accordance with subsection 208.03 (c) (Copy of TECS Certification must also be included in the SWMP.)

Name/Title	Contact Information (phone & email)	TECS Certification #	Start Date	Engineer Approval

D. PERMANENT STABILIZATION SUBJECT MATTER EXPERT: This qualified individual will be either a Regional Environmental Staff member, or an Independent Contractor Controller (Independent Assurance Program). This expert is a project team leader responsible for ensuring project adherence to requirements of the 207 and 212 Project Special Provisions as follows and will be available for questions regarding permanent stabilization requirements.

1. Review the Topsoil Management Plan and the Permanent Stabilization Site Maps.
2. Attend the Environmental Pre-Construction Conference.
3. Coordinate the Site Pre-Vegetation Conference.
4. Review and recommend approval of products.
5. Review and recommend approval of the Quantities Verification Prerequisite.
6. Attend the Partial Landscape Completion Walkthrough.
7. Attend the Final Landscape Completion Walkthrough.

Name/Title	Contact Information

4. STORMWATER MANAGEMENT CONTROLS FOR FIRST CONSTRUCTION ACTIVITIES

THE CONTRACTOR SHALL PERFORM THE FOLLOWING:

A. POTENTIAL POLLUTANT SOURCES:
Evaluate, identify, locate and describe all potential sources of pollutants at the site in accordance with subsection 107.25, CDPS-SCP and place in the SWMP. All control measures related to potential pollutants shall be shown on the SWMP Site Map by the Contractor's SWMP Administrator for Construction.

B. OFFSITE DRAINAGE (RUN ON WATER):
Describe and record control measures on the SWMP Site Map that have been implemented to address off site run-on water in accordance with subsection 208.03.

C. VEHICLE TRACKING CONTROL:
Control measures shall be implemented in accordance with subsection 208.04.

D. PERIMETER CONTROL:
1. Perimeter control shall be established as the first item on the SWMP to prevent the potential for pollutants leaving the construction site boundaries, entering the stormwater drainage system, or discharging to state waters. Perimeter control shall be in accordance with subsection 208.04
2. Perimeter control may consist of berms, silt fence, erosion logs, existing landforms, or other control measures as approved.

5. DURING CONSTRUCTION

RESPONSIBILITIES OF THE SWMP ADMINISTRATOR FOR CONSTRUCTION: Considered a "living document", the SWMP is continuously reviewed and modified throughout the construction phases. During construction, SWMP Administrator for Construction shall add, update, or amend the items A-G below as needed in accordance with subsection 208.03.

During construction, indicate how items that were not addressed during design are being handled in construction. If items are covered in other sections of the SWMP, indicate below what section the discussion takes place.

A. MATERIALS HANDLING AND SPILL PREVENTION AND RESPONSE PLAN: Prior to construction commencing the Contractor shall submit a Spill Response Plan. Materials handling and Spill Response Plan shall be in accordance with subsection 208.06.

B. OTHER CDPS PERMITS: List applicable CDPS permits associated with the permitted site and activities.

C. STOCKPILE MANAGEMENT: Shall be done in accordance with subsections 107.25 and 208.07.

D. CONCRETE WASHOUT: Concrete washout water or waste from field laboratories and paving equipment shall be contained in accordance with subsection 208.05.

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							Sheet Subset:

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SWMP PLAN

Structure Numbers:

Subset Sheets:

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E. SAW CUTTING: Shall be done in accordance with subsections 107.25, 208.04, 208.05

F. STREET SWEEPING: Shall be done in accordance with subsection 208.04.

6. INSPECTIONS

A. Water Quality Inspections shall be in accordance with subsection 208.03(c).

B. Permanent Stabilization Inspections shall be in accordance with subsections 208.04(e)4 and 208.10.

7. CONTROL MEASURE MAINTENANCE

Maintenance shall be in accordance with subsection 208.04(f).

8. RECORD KEEPING

Records shall be kept in accordance with subsection 208.03(d).

9. INTERIM, PERMANENT STABILIZATION and LONG-TERM STORMWATER MANAGEMENT

The Contractor shall comply with all interim stabilization and permanent stabilization requirements in accordance with subsection 208.04(e).

A. SEEDING PLAN:
The following seed mix(es) and rates are for drill seeding method as shown on the Permanent Stabilization Site Maps shall be used:

COMMON NAME	BOTANICAL NAME	LBS. PLS PER ACRE
	Total	

B. SEEDING APPLICATION METHOD:
The following seeding methods shall be used for all areas shown on the Permanent Stabilization Site Maps. Soil compaction shall be minimized for areas where permanent stabilization will be achieved through vegetative cover.

Pay Item	Seeding Method (subsection 212.05)	Acre
212-00706	Seeding (Native) Drill	
212-00707	Seeding (Native) Hydraulic	2.2
212-00708	Seeding (Native) Broadcast	
212-00709	Seeding (Wetland) Drill	
212-00710	Seeding (Wetland) Hydraulic	
212-00711	Seeding (Wetland) Broadcast	
	Total	

C. SOIL STABILIZATION METHODS:
Minimum soil stabilization methods (attached mulch) for all disturbances to receive seeding.
Prior to winter shutdown or the summer seeding window closure: Uncompleted slopes shall be mulched with 2 tons of mulching (weed free) per acre, mechanically crimped into the topsoil in combination with an organic mulch tackifier in accordance with Sections 208 and 213.
2. Apply Spray-on Mulch Blanket hydraulically in accordance with Section 213.
3. Apply Bonded Fiber Matrix hydraulically accordance with Section 213.
4. Install Soil Retention Blankets in accordance with Standard Plan M-216-1 and Section 216.

D. SPECIAL REQUIREMENTS:
1. Soil amendments, seedbed preparation, and permanent stabilization mulching shall be accomplished within four working days of placing the topsoil on the de-compacted civil subgrades. If placed topsoil is not mulched with permanent stabilization mulch within four working days, the Contractor shall complete interim stabilization methods in accordance with subsection 208.04(e) at no additional cost to the Department.
2. Complete permanent stabilization mulching within 24 hours of hydraulic application of native seed.
3. The Contractor shall submit a proposed Permanent Stabilization Phasing Plan to the Engineer for approval showing how implementation of SWMP Permanent Stabilization Plans will minimize damage to seeded areas.

E. SOIL AMENDMENT REQUIREMENTS: Minimum amendment material requirements for all disturbances to receive seeding.

2.2 Total Acres of Seeding (Native) Hydraulic With Topsoil Generated From

	Pay Item	Description	Amount/Acre	Units	Total For This Method
Seeding (Native) Hydraulic Pay Item 212-00707	212-00700	Organic Fertilizer (Low N)	300	Pounds	660
	212-00702	Biotic Soil Amendments (Hydraulically Applied)	3500	Pounds	7700
	212-00703	Humate	280	Pounds	440
	212-00704	Mycorrhizae		Pounds	

F. Permanent Stabilization Application Under Structures:
Under structures shade patterns should be considered and the use of Median Cover Material (Stone) or other stabilized options with an approved Project Special Provision should be used. See SWMP Site Map for locations.

G. RESEEDING OPERATIONS/CORRECTIVE STABILIZATION:
Prior to stormwater construction work partial acceptance.
1. All seeded areas shall be reviewed by the SWMP Administrator for Construction and or Erosion Control Inspector for bare soils caused by surface or wind erosion. Bare areas caused by surface or gully erosion, blown away mulch, etc. shall be re-graded, seeded, and have the designated mulching applied as necessary, at no additional cost to the project.
2. The Contractor shall maintain seeding/mulch/tackifier/blanket/TRM, mow to control weeds or apply herbicide to control weeds in the seeded areas, at no additional cost to the project.

H. LOCATION AND DESCRIPTION OF PLANNED PERMANENT CONTROL MEASURES: Is Permanent Water Quality Required. Yes_____No___X___.

10. PRIOR TO PROJECT FINAL ACCEPTANCE

A. When directed by the Engineer, removal and disposal of temporary control measures shall be included in the cost of work.

B. At the end of the project, all ditch checks shall consist of either temporary erosion logs (or equivalent) or permanent riprap.

C. All storm drains shall be cleaned prior to the Final Acceptance of the project. If required, include work in 202-04002 Clean Culvert. [**Check with Region Water Quality staff to see if CLEAN CULVERT PSP is needed and what Pay Item to use.**]

D. Refer to subsection 208.10 for Items to be completed prior to requesting partial acceptance of water quality work.

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	Sheet Subset:	Subset Sheets:	

11. NARRATIVES

Control Measure Matrixes During Construction:

1. Control measure narratives have been included for the CDOT Standard Specifications and Standard Plan M-208 and M-216 along with any non-standard control measures approved during the design process. If a Non-Standard Control Measure not included in the SWMP is proposed and approved by the Engineer the SWMP Administrator for Construction shall do the following: Place an "X" in the column for non-standard and complete a Non-Standard Control Measure Specification and Narrative covering the what, when, where and why the control measure is being used shall be add to the SWMP. The appropriate "X" shall also be added to the implementation phase(s).
2. The SWMP Administrator for Construction shall place an "X" in the column In Use On Site when the control measure has been installed.
3. A "B" in the Initial Activities Column indicates that the control measure shall be installed **before** construction activity starts. Locations and quantities will be discussed during the Environmental Pre-Construction Conference with the Regional Water Pollution Control Manager.

STRUCTURAL Control Measures that may be potentially used on the project for erosion and sediment control; practices may include, but are not limited to the following:

APPLICATION, CONTROL MEASURE	NARRATIVE	M- 208 STANDARD or "X" for NON-STANDARD	IN USE ON SITE	CONTROL MEASURE IMPLEMENTATION PHASE		
				INITIAL ACTIVITIES	INTERIM ACTIVITIES	PERMANENT STABILIZATION
PROTECTION OF EXISTING WETLANDS *Fence (plastic) and erosion logs*	Fence (plastic) shall be placed in combination with erosion logs to prevent encroachment of construction traffic and sediment into state waters prior to start of construction disturbances. Fence (plastic) shall be placed adjacent to the wetlands; erosion logs shall be placed between the plastic fence and disturbance area. Logs shall be placed to direct flows away from or filter water running into wetlands from disturbance areas.					
PROTECTION OF EXISTING TREES/LANDSCAPING *Fence (plastic)*	Fence (plastic) shall be used in areas indicated in the plans to prevent encroachment of construction traffic and sediment for the protection of sensitive habitat, mature trees and/or existing landscaping prior to start of construction disturbances.			B		
CHECK DAM/DITCH CHECK *Erosion log, silt berm, silt dike, rock check dam*	Placed in ditches immediately upon completion of ditch grading to reduce velocity of runoff in ditch. For existing ditches, place prior to start of construction disturbances.	M-208		B	X	
Storm Drain Inlet Protection In Paved Roadways (Type 1, 2 and 3 as shown on M-208-1, sheet 5 of 11)	Manufactured storm drain inlet protection placed prior to construction disturbances as detailed in M-208-1, to protect existing inlets or immediately upon completion of new inlets to prevent sediment from entering the inlet throughout construction.	M-208				
Storm Drain Inlet Protection In Native Seed Areas (M-604 Standard Inlets Type C and D)	Erosion logs or aggregate bags placed around inlet grate to prevent sediment from entering inlet. Place prior to construction disturbances to protect existing inlets or immediately upon completion of new inlets.	M-208				
CULVERT INLET/OUTLET PROTECTION *Erosion logs, aggregate bags*	Placed at mouth of culvert inlets and over top of culvert at inlet and outlet where disturbance may be occurring adjacent to pipe to prevent sediment laden water from entering pipe or drainage. Place prior to the start of construction disturbances.	M-208		B	X	X
TYPE C, TYPE D AND TYPE 13 PROTECTION *Erosion logs, aggregate bags, erosion bales*	Placed around inlet grate or slope and ditch paving to prevent sediment from entering inlet. Place prior to the start of construction disturbances.	M-208				
STOCKPILE PROTECTION *Temporary berm, erosion logs, aggregate bags**	Placed within specified distance, in accordance with subsection 208.06, from toe to contain sediment around stockpile. *Aggregate bags are easily moved and replaced for access during the work day. Place prior to start of stockpiling, increase control as the stockpile increases size.	M-208			X	
TOE OF FILL PROTECTION *Erosion logs, temporary berm, silt fence, topsoil windrow**	Place prior to slope/embankment work to capture sediment and protect and delineate undisturbed areas. *Can be used to stockpile topsoil for salvage.	M-208				
PERIMETER CONTROL *Erosion logs, silt fence, temporary berm, topsoil windrow**	Placed prior to construction commencing to address potential run-on water from off site, and to divert around disturbed area. *Can be used to stockpile topsoil for salvage.	M-208		B	X	
SLOPE CONTROL *Silt fence, erosion logs*	Placed on the contour of a slope to contain and slow down construction runoff. Place prior to the start of construction disturbances.	M-208		X	X	
TEMPORARY SEDIMENT TRAP	Used to capture sediment laden runoff from disturbed areas < 5 acres during construction. Place prior to the start of construction disturbances. Outlets that withdraw water from or near the surface may be installed when discharging from basins and impoundments.	M-208				
TEMPORARY SLOPE DRAIN	Placed as a conduit or chute to drain runoff down slope and to prevent erosion of slope.	M-208				
OUTLET PROTECTION *Riprap, or approved other*	Material placed as an energy dissipater to prevent erosion at outlet structure.	M-601-12				

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Void:	Detailer: WL		Sheet Number: 48
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APPLICATION, CONTROL MEASURE	NARRATIVE	M- 208 STANDARD or "X" for NON-STANDARD	IN USE ON SITE	CONTROL MEASURE IMPLEMENTATION PHASE		
				INITIAL ACTIVITIES	INTERIM ACTIVITIES	PERMANENT STABILIZATION
CONCRETE WASHOUT *In-ground or fabricated*	Construction control, used for waste management of concrete and concrete equipment cleaning. Place prior to the start of concrete activities.	M-208				
VEHICLE TRACKING PAD	Source control, placed to prevent tracking of sediment from disturbed area to offsite surface. Place prior to the start of construction disturbances.	M-208				
Engineered SEDIMENT BASIN	Constructed early in the project, prior to storm sewer/ditches and in accordance with 208.05(p) to capture storm flow. Outlet structure and/or outfall shall be modified for temporary sediment control using an approved non-standard detail. Outlets that withdraw water from or near the surface shall be installed when discharging from basins and impoundments, unless infeasible					
DEWATERING *(Contractor is responsible for obtaining a permit from Colorado Department of Health and Environment.)*	Shall be done in such a manner to prevent potential pollutants from entering state waters.					
TEMPORARY STREAM CROSSING	Constructed over stream or drainage to prevent discharge of pollutants from construction equipment into water.					
CLEAN WATER DIVERSION	Placed to divert clean surface or groundwater around the disturbance area to prevent it from mixing with construction runoff.					
OTHER						

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222 South Park Avenue
Montrose, Colorado 81401
970-249-6828

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BIKE LANE INSTALLATION & CHIP SEAL OVERLAY
SWMP PLAN

Designer: DQ
Detailer: WL
Sheet Subset:
Structure Numbers:
Subset Sheets:

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NON-STRUCTURAL Control Measures that may be potentially used on the project for erosion and sediment control; practices may include, but are not limited to:
Erosion control devices are used to limit the amount of soil loss on site. Sediment control devices are designed to capture sediment on the project site. Construction controls are control measures related to construction access and staging. Control Measure locations are indicated on the SWMP Site Map.

* **Use of vegetative buffer strip requirements.** The CDPHE Water Quality Control Division Technical Memorandum dated August 27, 2015 clarifies the requirements for utilization of existing vegetation as a buffer type of sediment control measure, while maintaining compliance with the CDPS permit for Stormwater Discharges Associated with Construction Activity – CDPS Permit No. COR4000000. In general, the division does not recommend that vegetated buffers be implemented as a sediment removal control measure for runoff from disturbed areas at construction sites, unless implemented as a "finishing" component of a treatment train comprised of additional, adequate up-gradient Control Measures. The entire memorandum can be found at: **https://www.colorado.gov/pacific/sites/default/files/Vegetative%20Buffer%20Memo.pdf**

APPLICATION, CONTROL MEASURE	NARRATIVE	M-STANDARD or "For NON-STANDARD	IN USE ON SITE	CONTROL MEASURE IMPLEMENTATION PHASE		
				INITIAL ACTIVITY	INTERIM ACTIVITIES	PERMANENT STABILIZATION
** VEGETATIVE BUFFER STRIP*	Finishing component for filtering sediment-laden runoff from disturbance area. Area within CDOT ROW or temporary easement to be identified on SWMP prior to construction starting.					
GRADING APPLICATIONS (LANDFORM)	Existing or created landforms may be used as a control measure if they prevent sediment from entering or leaving the disturbance area. If a landform directs flow of water to a concentrated outfall point, the outfall point shall be protected to prevent erosion. Area to be identified on SWMP prior to construction starting.	M-208				
TOPSOIL MANAGEMENT STOCKPILE/SALVAGE Stockpile	Prior to any site disturbance work commencing, existing topsoil shall be scraped to a depth six inches or as specified, and placed in stockpiles or windrows. Upon completion of final grading, topsoil shall be evenly distributed over embankment to a depth of six inches or as specified.	M-208				
SURFACE ROUGHENING / GRADING TECHNIQUES	Temporary stabilization of disturbance and to minimize wind and erosion.					
SEEDING (TEMPORARY)	Temporary stabilization used for over wintering of disturbance or used to control erosion for areas scheduled for future construction.					
BONDED FIBER MATRIX or MULCHING (HYDRAULIC)	Not to be used in areas of concentrated flows, i.e. ditch lines. To be for either Interim or Permanent Stabilization placed as a surface cover for erosion control. May be used as surface cover when work is temporarily halted and as approved by the Engineer for stockpiles.					
Straw or Hay MULCH/MULCH TACKIFIER	Interim or Permanent Stabilization placed as a surface cover for erosion control and or seeding establishment. To be installed as Interim Stabilization as a surface cover when work is temporarily halted and as approved by the Engineer					
SPRAY-ON MULCH BLANKET (Not to be used in areas of concentrated flows, i.e. ditch lines.)	Interim or Permanent Stabilization placed as a surface cover for erosion control and or seeding establishment. To be installed as temporary surface cover when work is temporarily halted and as approved by the Engineer					
SEEDING PERMANENT (NATIVE PERENNIAL)	Permanent Stabilization of disturbance and to reduce runoff and control erosion on disturbed areas.					
SOIL RETENTION BLANKET (SRB)	Permanent Stabilization of disturbance and to reduce runoff and control erosion on disturbed areas.	M-216				
TURF REINFORCEMENT MAT (TRM)	Permanent Stabilization of disturbance and to reduce runoff and control erosion on disturbed areas. Placed in channels or on slopes for erosion control, channel liner and seeding establishment.	M-216				
Sweeping	Source control, used to remove sediment tracked onto paved surfaces and to prevent sediment from entering drainage system. Sweep daily and at the end of the construction shift as needed. Kick brooms shall not be permitted.					
OTHER						

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Print Date: 1/29/24	Sheet Revisions			BUCKHORN ENGINEERING 222 South Park Avenue Montrose, Colorado 81401 970-249-6828
File Name: SHT-SWMP-CR 30.DWG	Date:	Comments	Init.	
Horiz. Scale:				HINSDALE COUNTY 311 N. HENSON ST. LAKE CITY, CO 81235
Vert. Scale: As Noted				
Unit Information:				Construction Set No Revisions: Revised: Void:
Unit Leader Initials:				COUNTY ROAD 30 BIKE LANE INSTALLATION & CHIP SEAL OVERLAY SWMP PLAN Designer: DQ Detailer: WL Structure Numbers Sheet Subset: Subset Sheets:
				Project No./Code 2023-047-CIV Sheet Number: 50

12. TABULATION OF STORMWATER QUANTITIES

A. Control Measure sediment removal and disposal shall be paid for as: 208 Removal and Disposal of Sediment (Equipment) and 208 Removal and Disposal of Sediment (Labor). All other control measure maintenance shall be included in the cost of the control measure.

PSP Spec.	Pay Item	Description	Pay Unit	Initial Const.	Interim Const.	Permanent Stabilization	*Total Quantity
	208-00002	Erosion Log Type 1 (12 inch)	LF				
15840	208-00020	Silt Fence	LF				
215	208-00041	Rock Check Dam	Each				
	208-00103	Removal and Disposal of Sediment (Labor)	Hour				
	208-00105	Removal and Disposal of Sediment (Equipment)	Hour				
	208-00106	Sweeping (Sediment Removal)	Hour				
	208-00107	Removal of Trash	Hour				
	208-00207	Erosion Control Management (ECM)	Day				
	208-00300	Temporary Berm	LF				
	607-11525	Fence (Plastic)	LF				
X	615-00152	Erosion Protector (Special)	LF				
X	700-70380	F/A Erosion Control	FA				
X	700-70310	F/A Landscaping	FA				

PSP Spec.	Pay Item	Description	Pay Unit	Initial Const.	Interim Const.	Permanent Stabilization	*Total Quantity

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PSP Spec.	Pay Item	Description	Pay Unit	Initial Const.	Interim Const.	Permanent Stabilization	*Total Quantity

*It is anticipated that additional control measures and control measure quantities not shown on the SWMP Site Maps shall be required on the project for unforeseen conditions and replacement of items that are beyond their useful service life, see subsections 208.03 and 208.04. **Quantities for all control measures shown above are estimated and have been increased for unforeseen conditions and normal control measure life expectancy.** Quantities shall be adjusted according to the conditions encountered in the field as directed and approved by the Engineer. Payment shall be for the actual work completed and material used.
**Pay Item 208-00071 is included for anticipated maintenance of vehicle tracking pads based on the service life of the control measure in the field. The use of the material shall be directed and approved by the Engineer.
*** F/A refers to CDOT's Force Account Pay Items.

13. BIOLOGICAL IMPACTS and DEWATERING

A. ENVIRONMENTAL IMPACTS:
1. Wetland Impacts: NO
2. Stream Impacts: NO
3. Threatened and Endangered Species: None Identified in Environmental clearance

B. DEWATERING:
(Not covered under the CDPHE guidance document Low Risk Discharge Guidance Discharges of Uncontaminated Groundwater to Land):
https://www.colorado.gov/pacific/sites/default/files/WQ%20LOW%20RISK%20GW.pdf
1. Dewatering: Refer to other environmental permits in accordance with subsection 107.02 and the permits contained in Tab 16 of the SWMP.
2. If groundwater does not meet water quality standards for receiving water a separate CDPS Dewatering Permit shall be obtained by the Contractor from CDPHE in accordance with subsections 107.02 and 107.25.

14. NOTES

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BIKE LANE INSTALLATION & CHIP SEAL OVERLAY
SWMP PLAN

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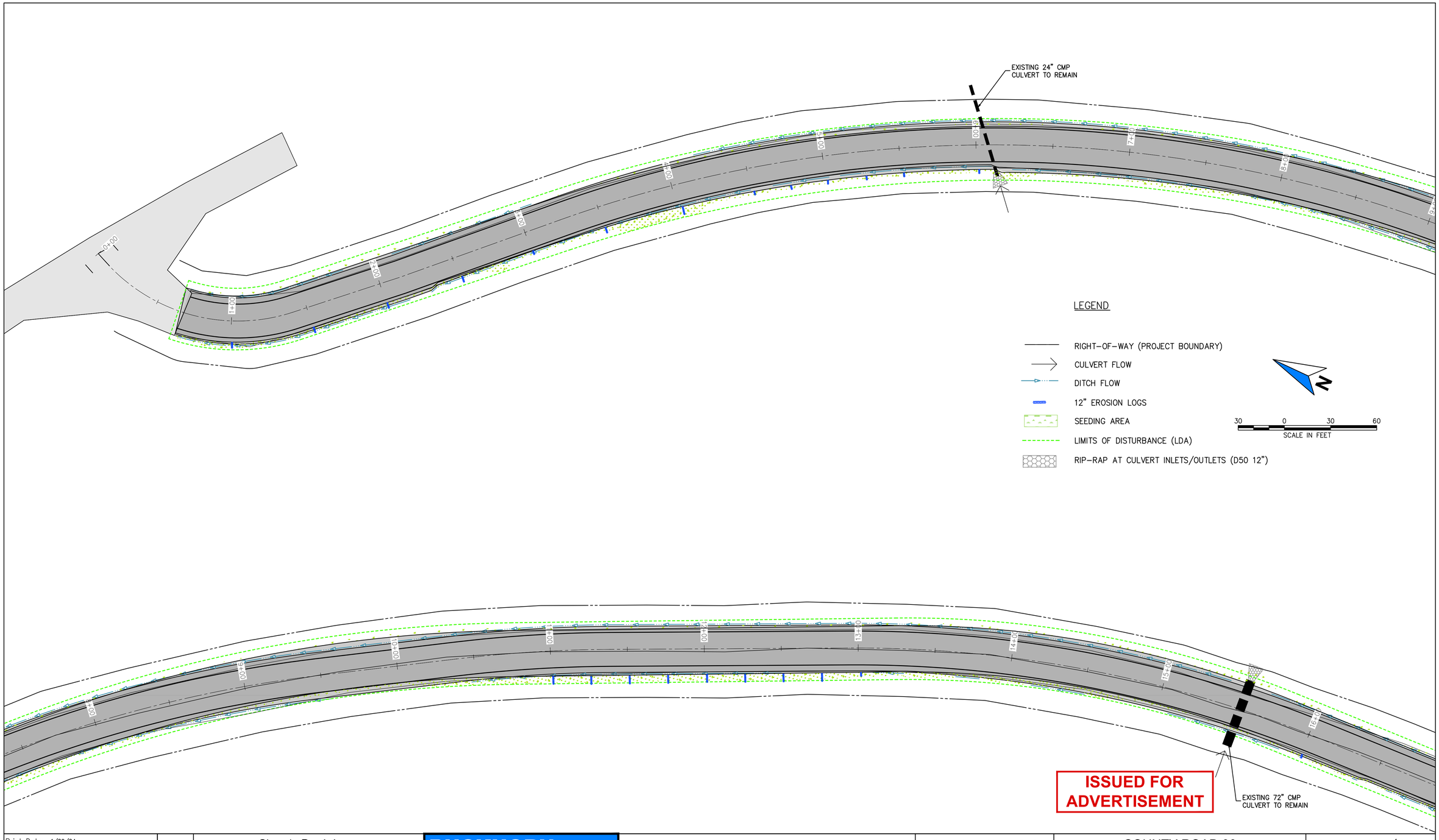

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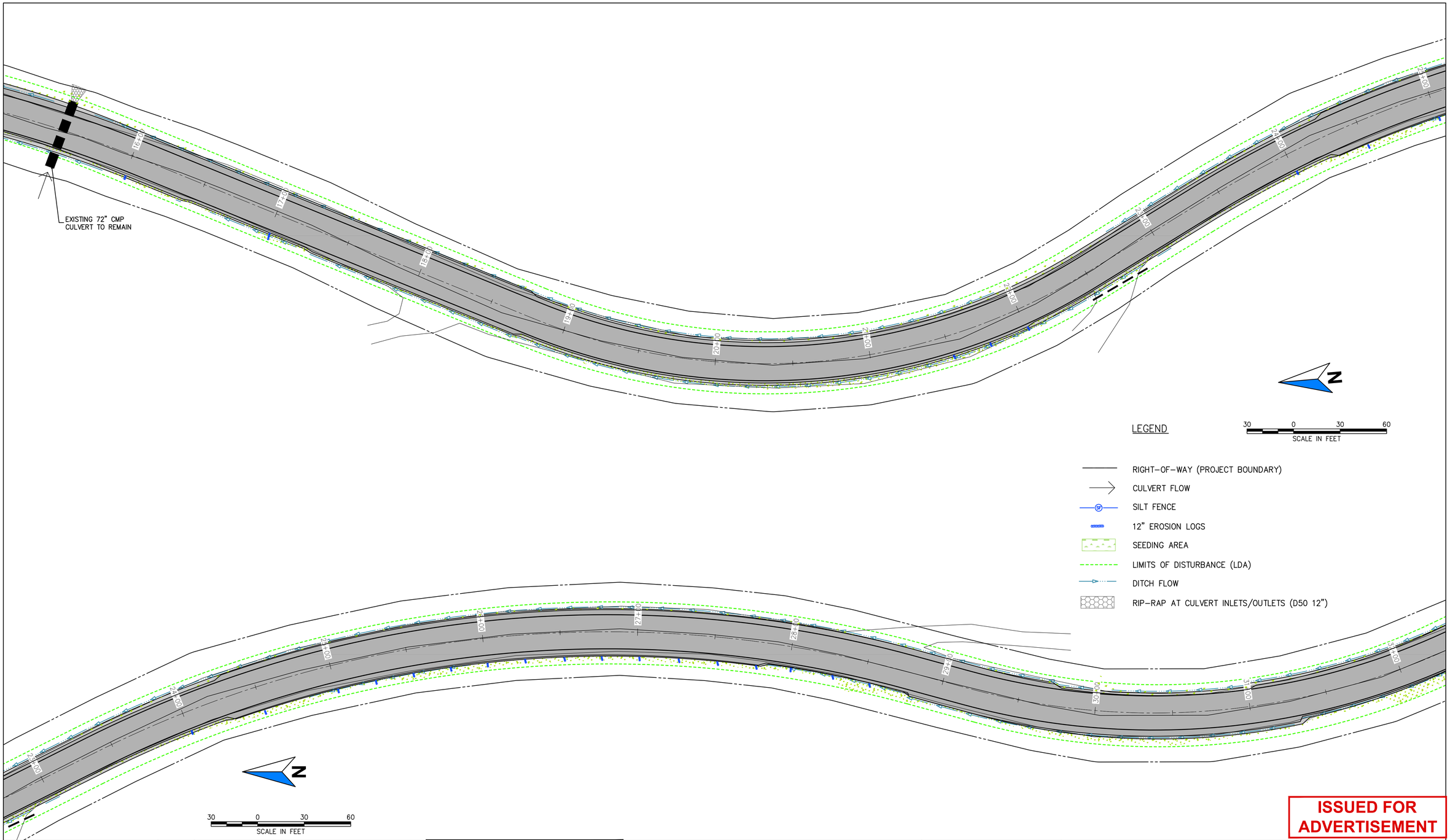

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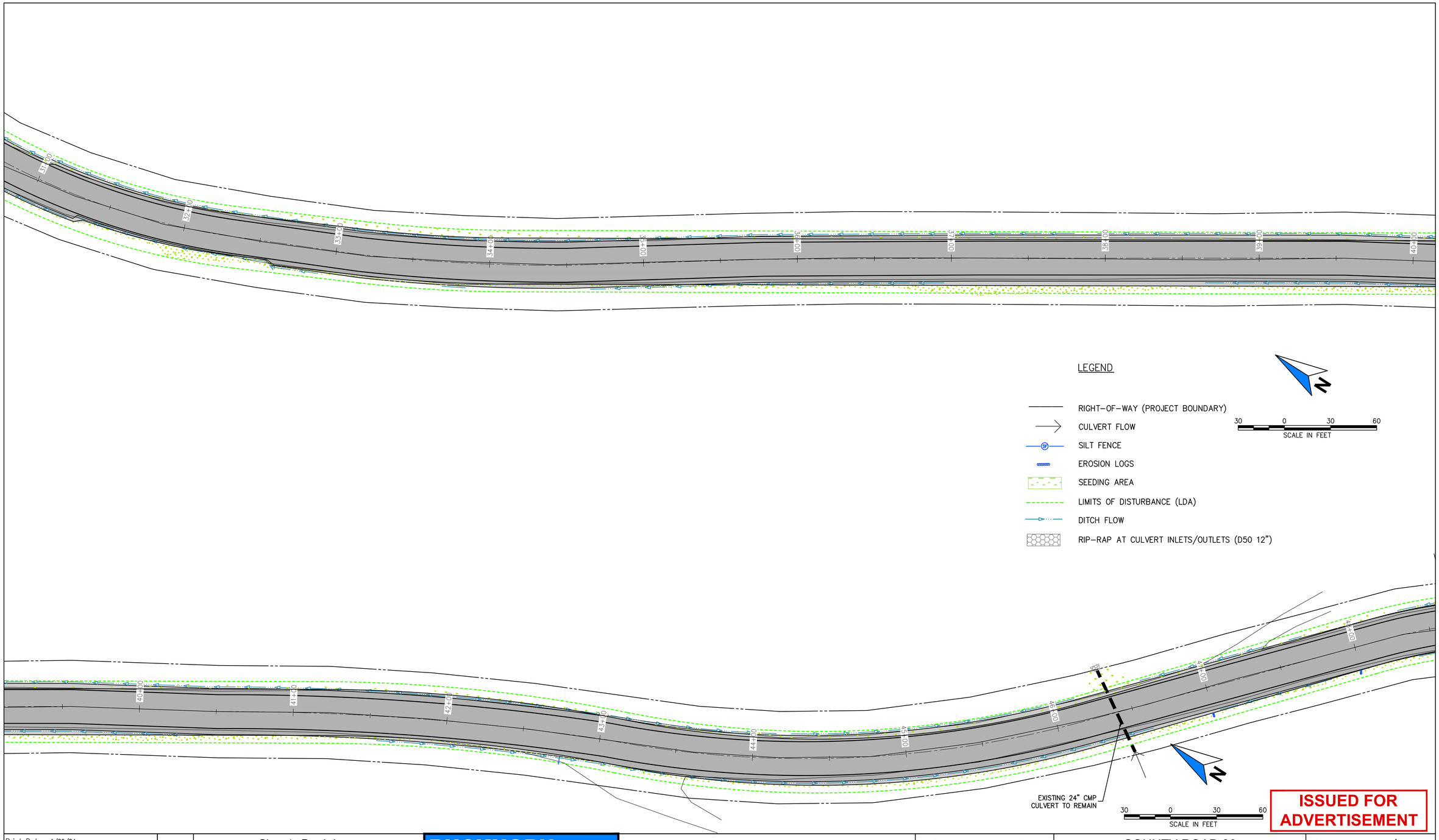

LEGEND

- RIGHT-OF-WAY (PROJECT BOUNDARY)
- CULVERT FLOW
- SILT FENCE
- EROSION LOGS
- SEEDING AREA
- LIMITS OF DISTURBANCE (LDA)
- DITCH FLOW
- RIP-RAP AT CULVERT INLETS/OUTLETS (D50 12")

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SCALE IN FEET

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Unit Leader Initials:	

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COUNTY ROAD 30
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SWMP PLAN

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Detailer:	WL		
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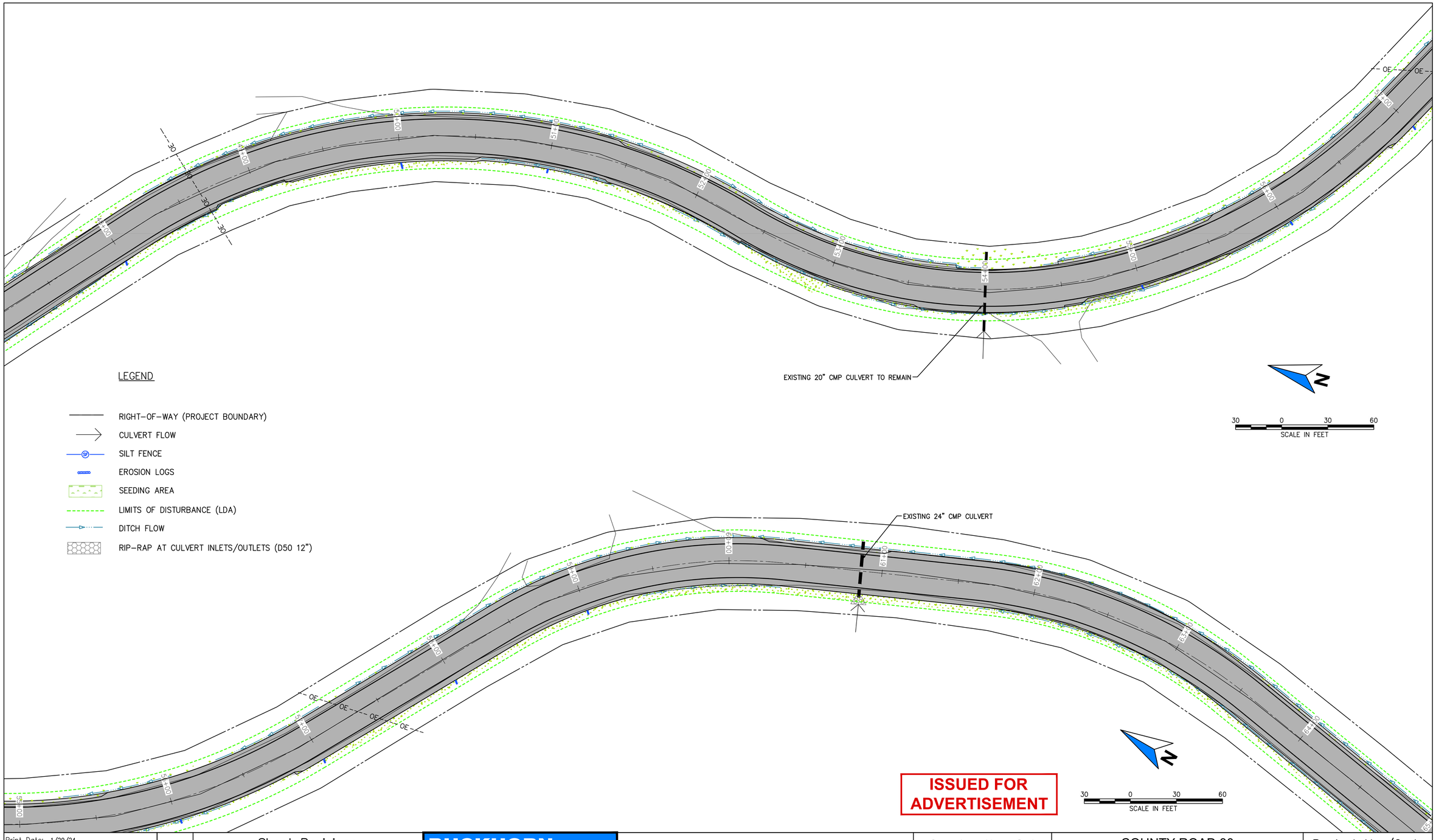

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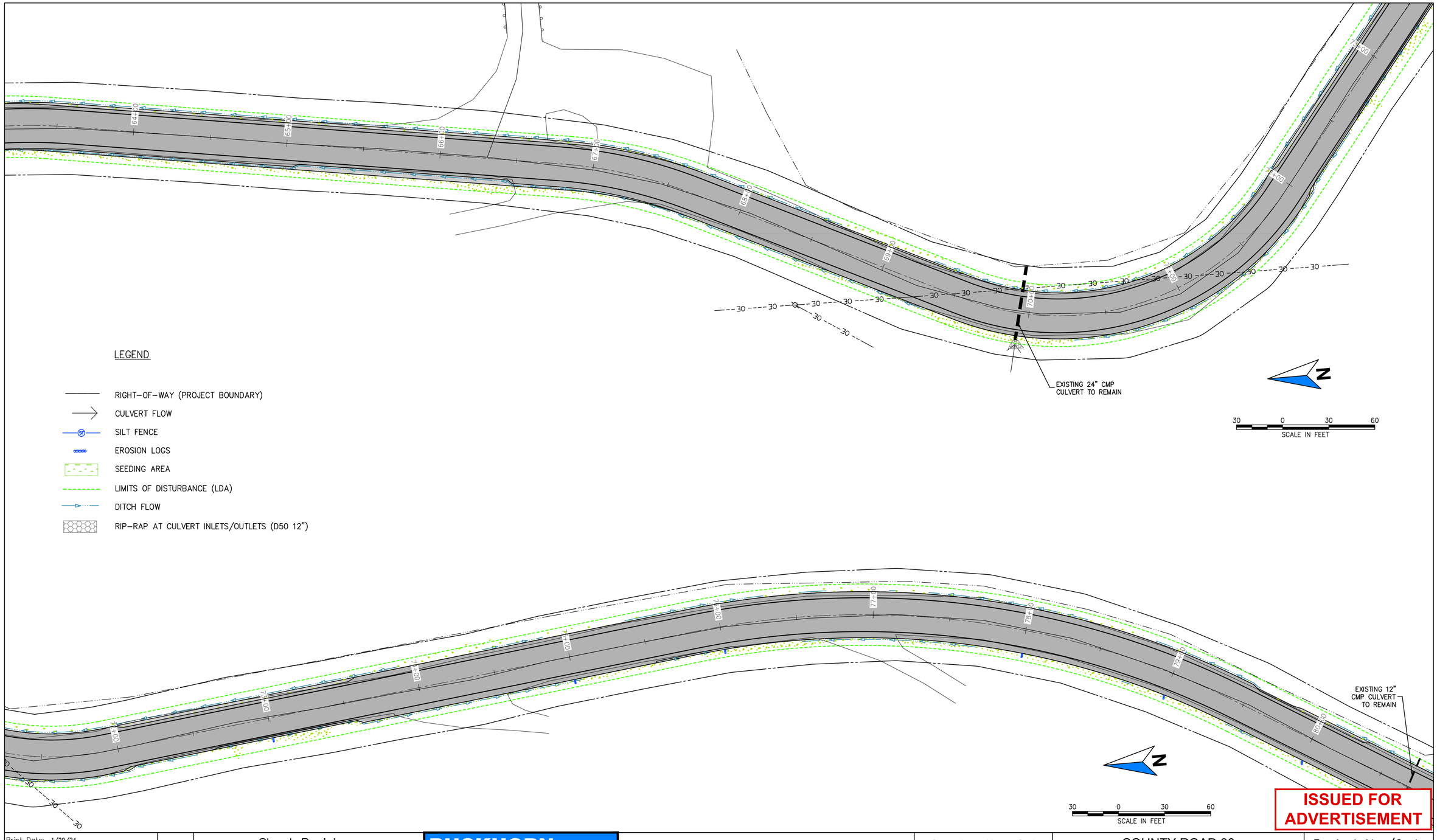

LEGEND

- RIGHT-OF-WAY (PROJECT BOUNDARY)
- CULVERT FLOW
- SILT FENCE
- EROSION LOGS
- SEEDING AREA
- LIMITS OF DISTURBANCE (LDA)
- DITCH FLOW
- RIP-RAP AT CULVERT INLETS/OUTLETS (D50 12")

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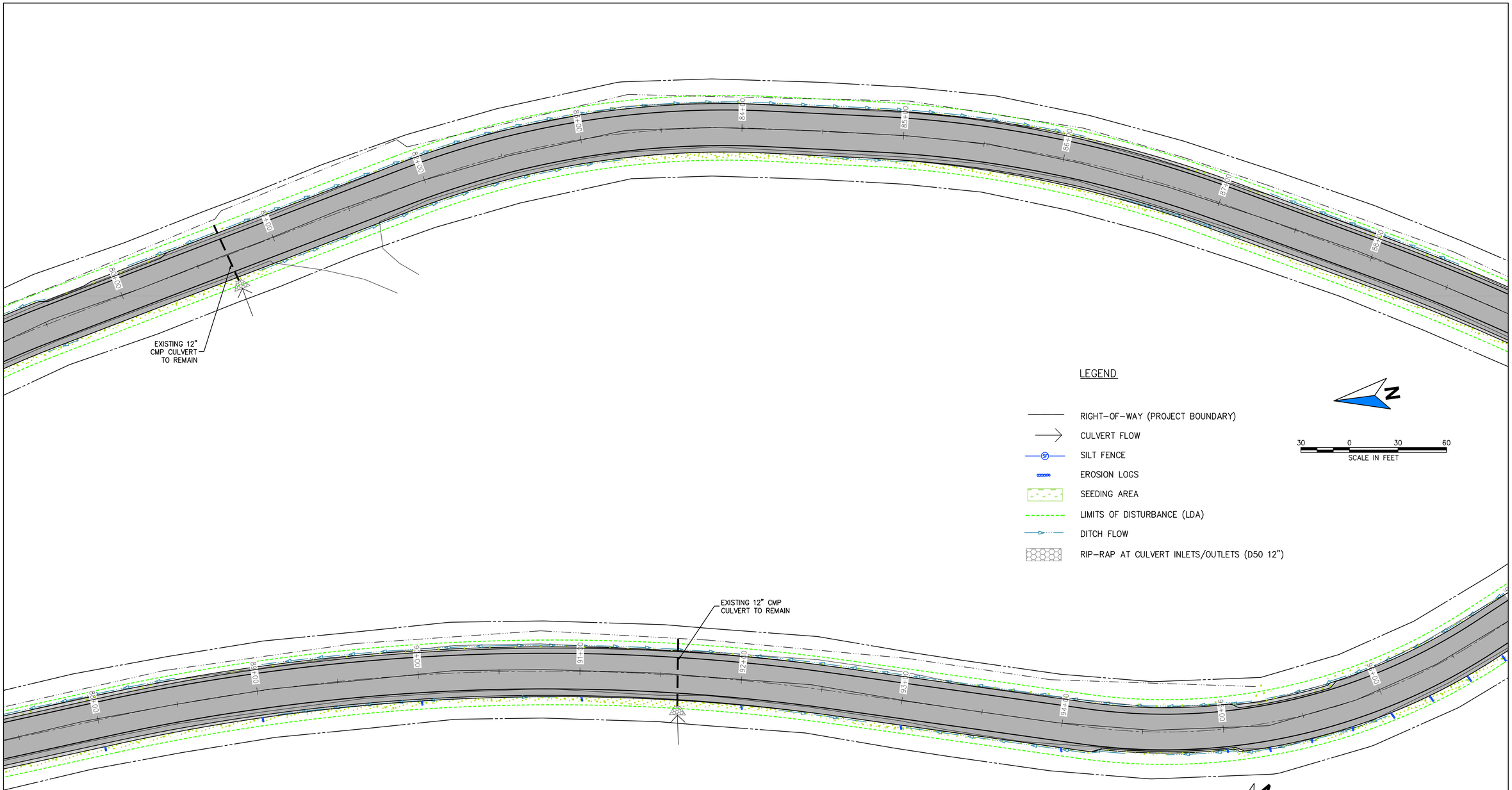

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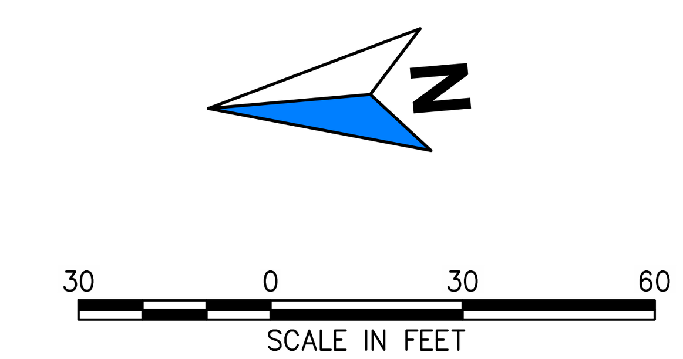
LEGEND

	RIGHT–OF–WAY (PROJECT BOUNDARY)
	CULVERT FLOW
SF	SILT FENCE
	EROSION LOGS
	SEEDING AREA
	LIMITS OF DISTURBANCE (LDA)
	DITCH FLOW
	RIP–RAP AT CULVERT INLETS/OUTLETS (D50 12")



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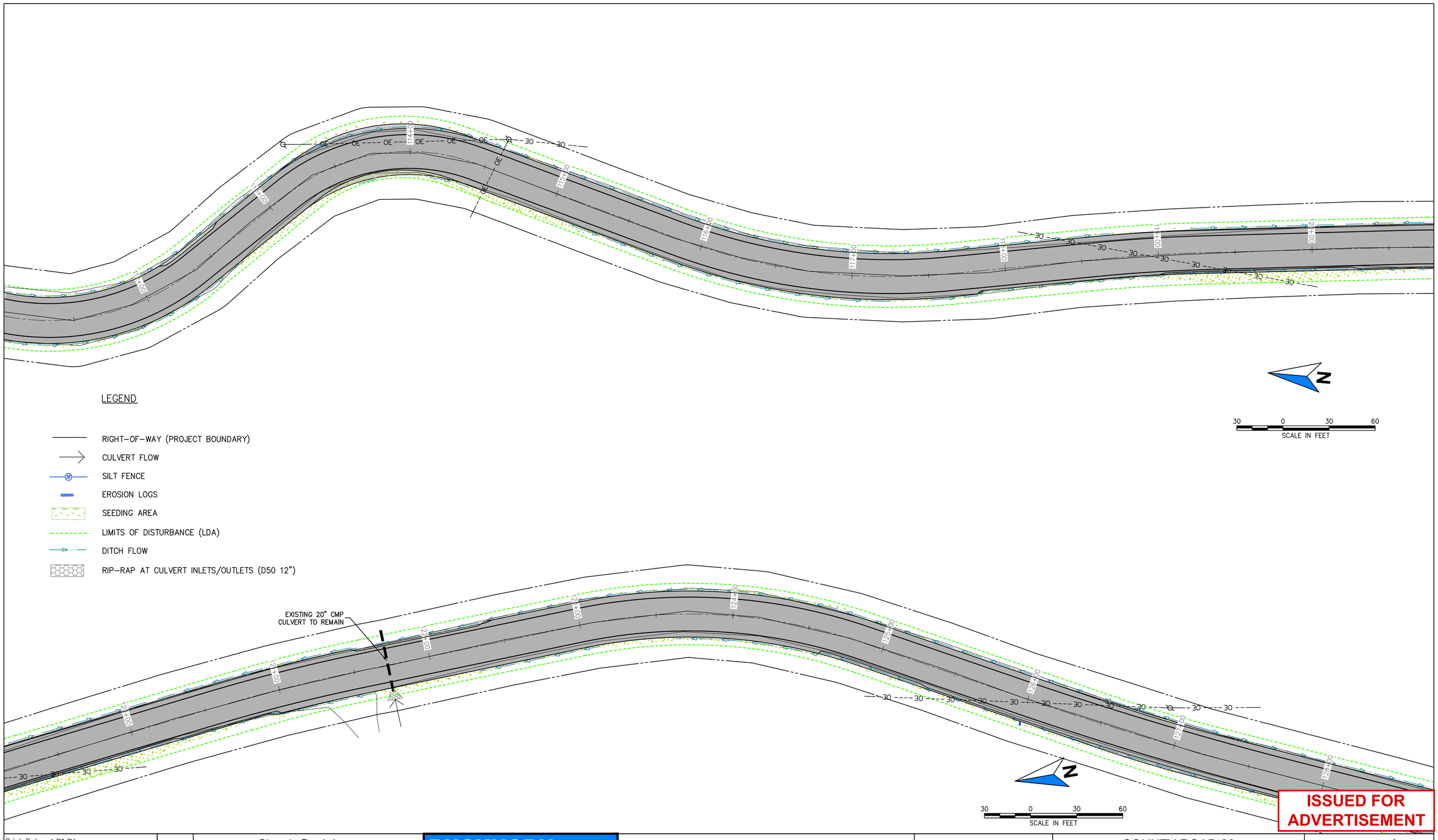

LEGEND

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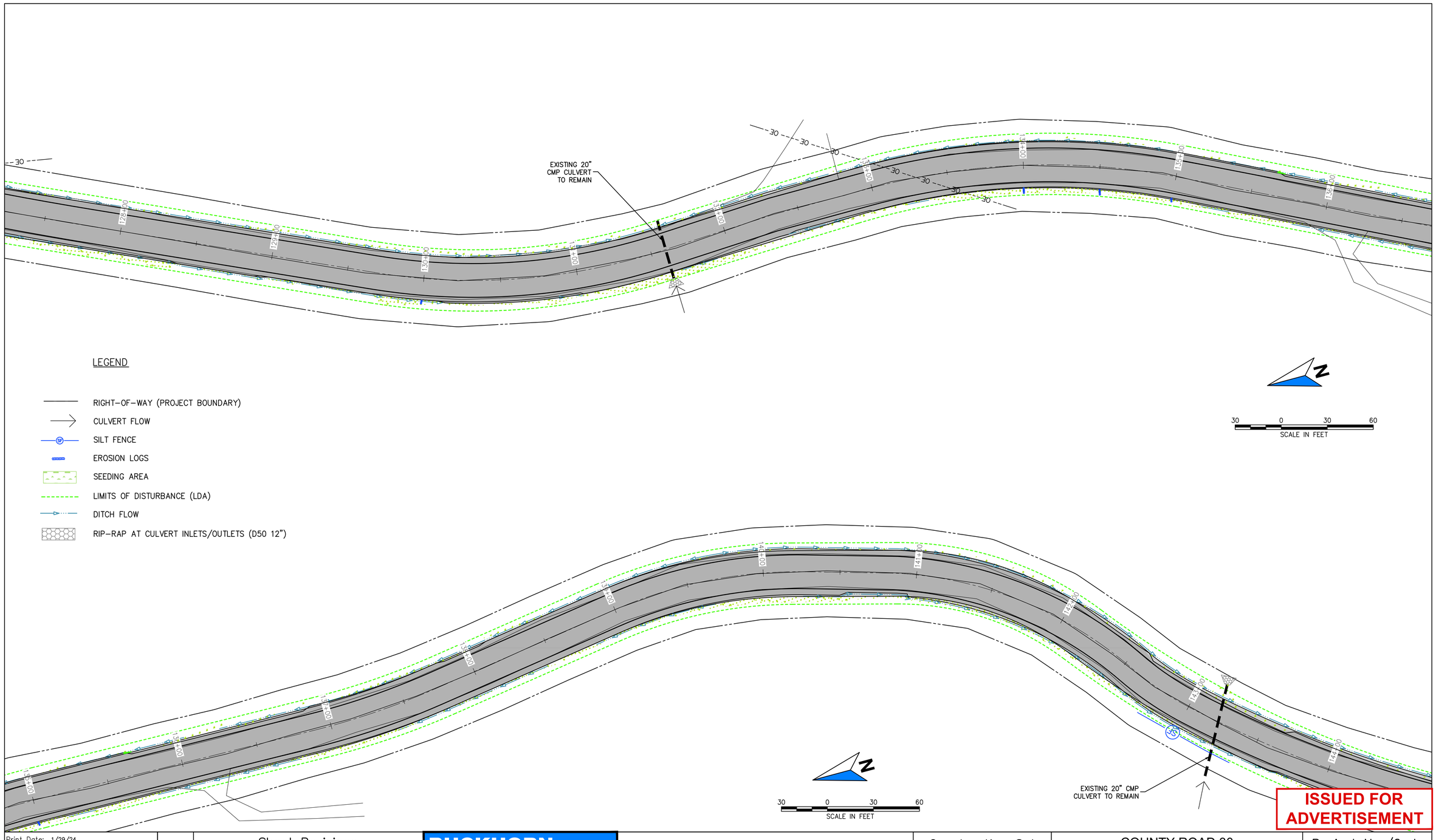

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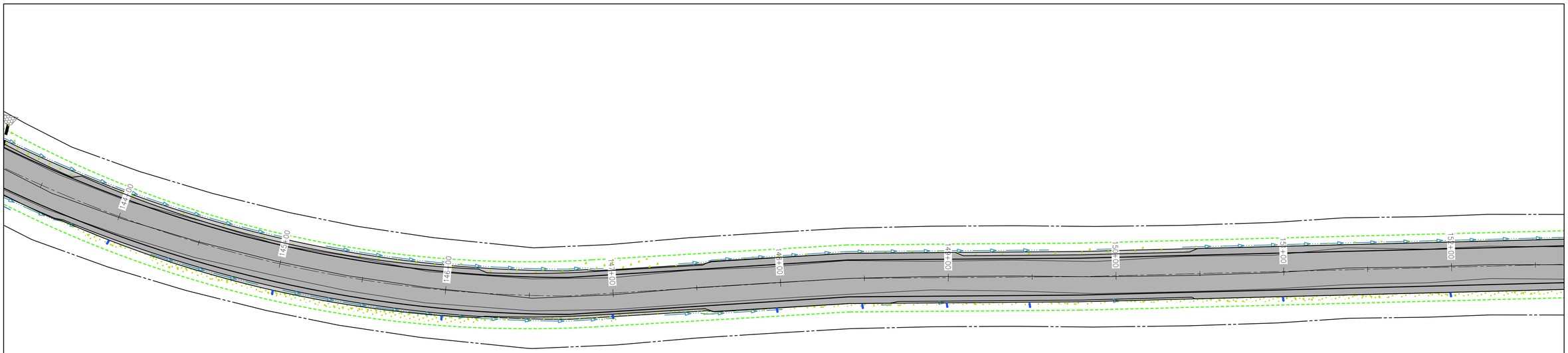

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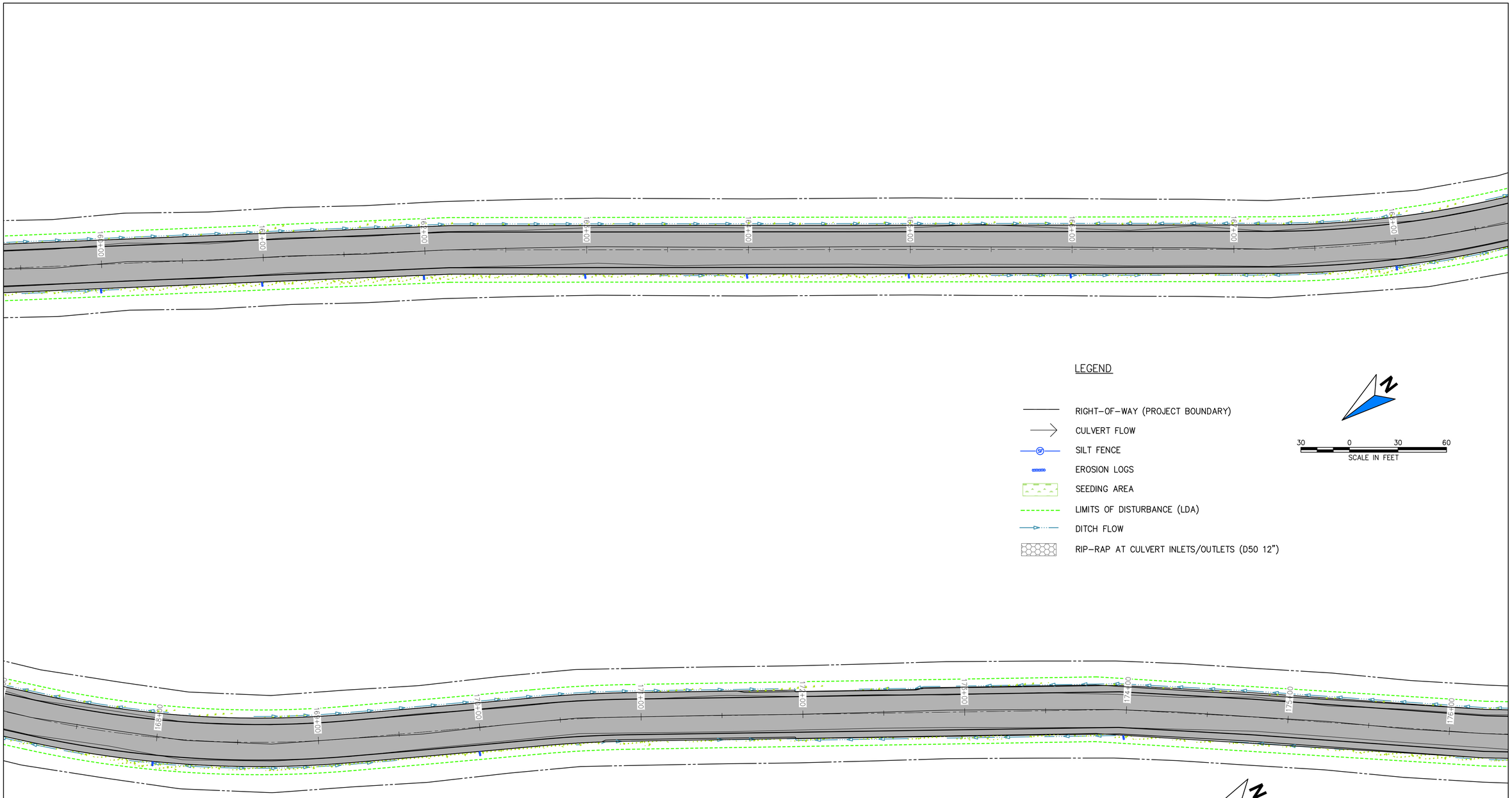

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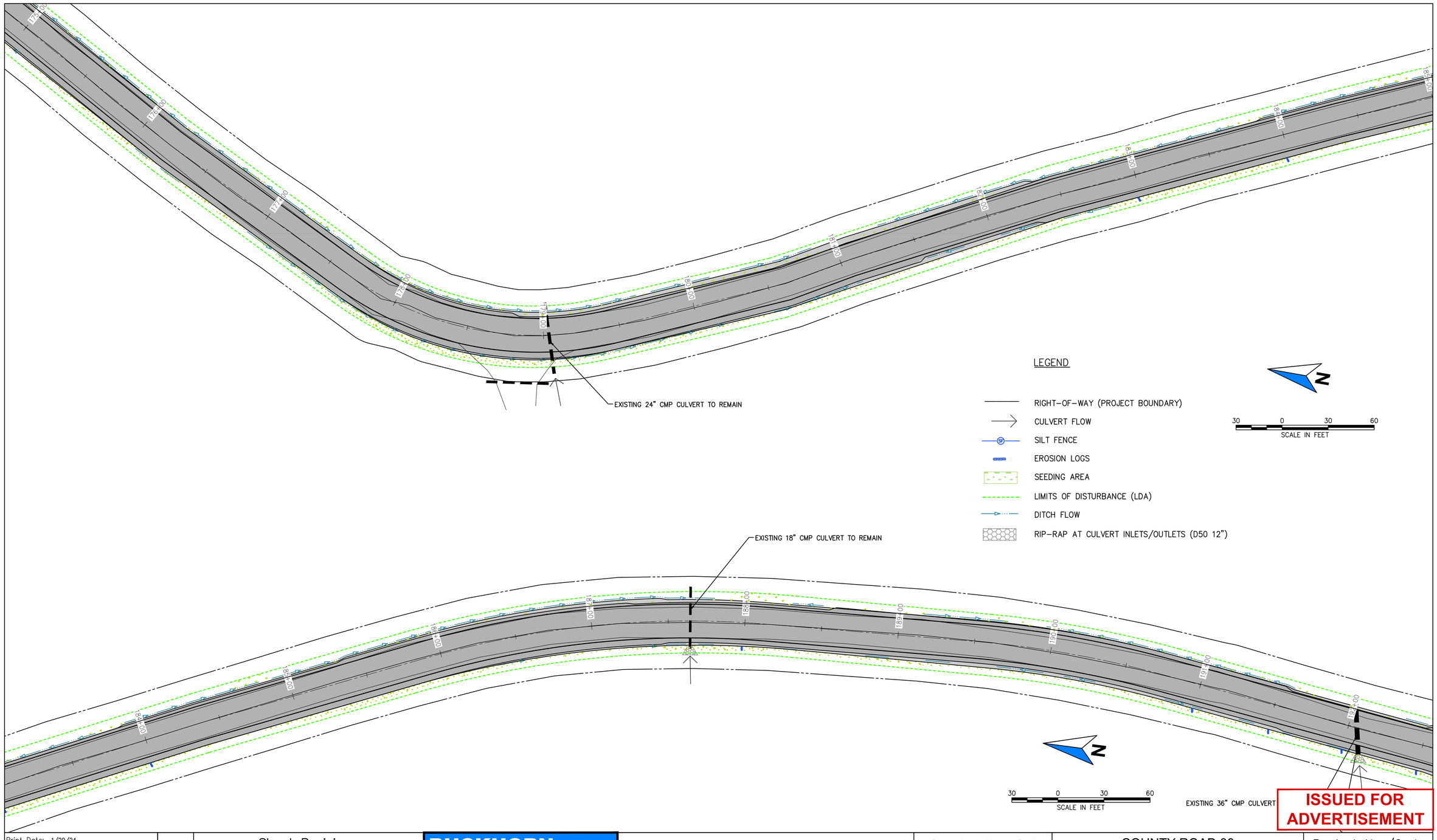

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Vert. Scale: As Noted			Void:
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Unit Leader Initials:			

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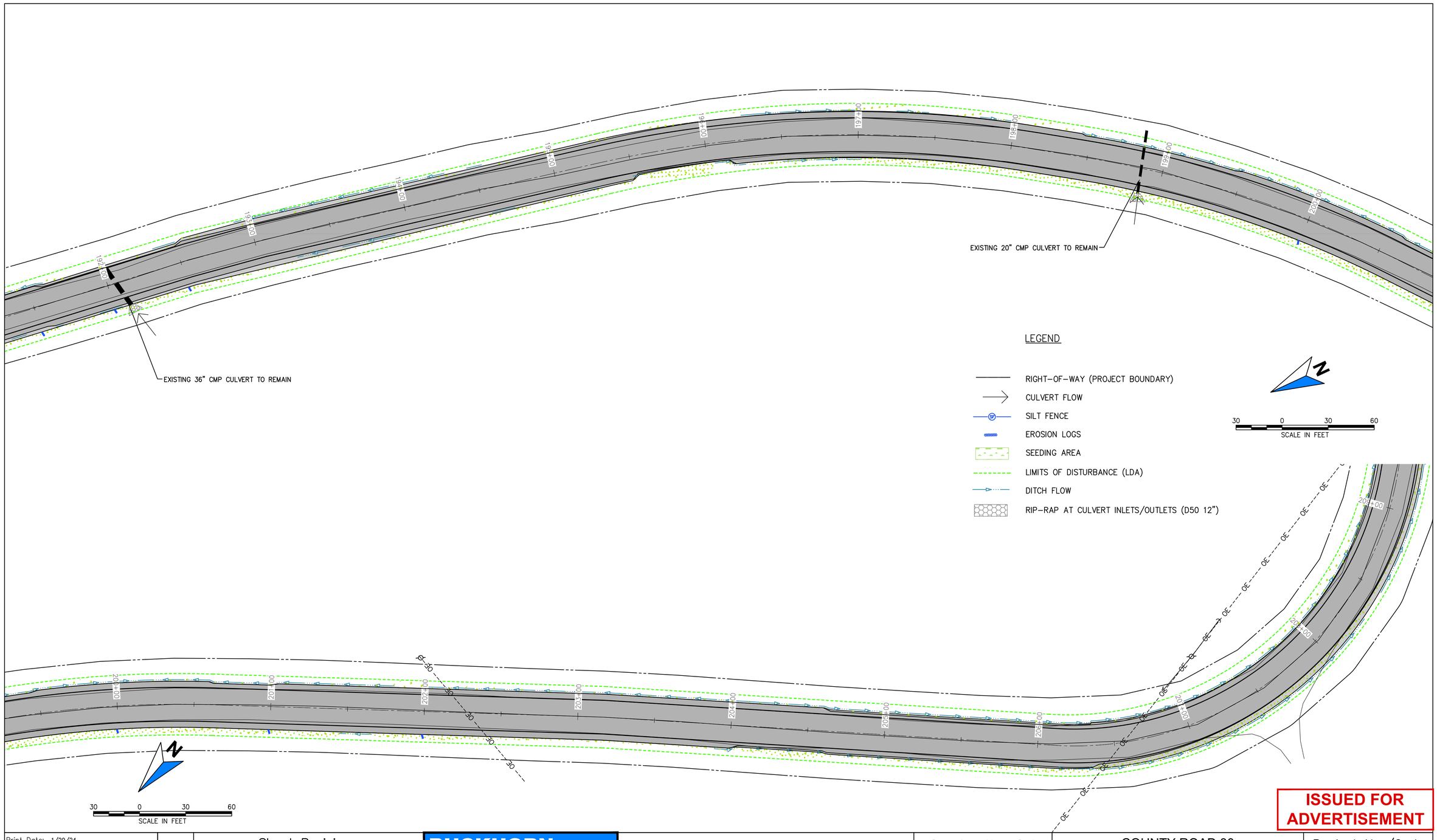

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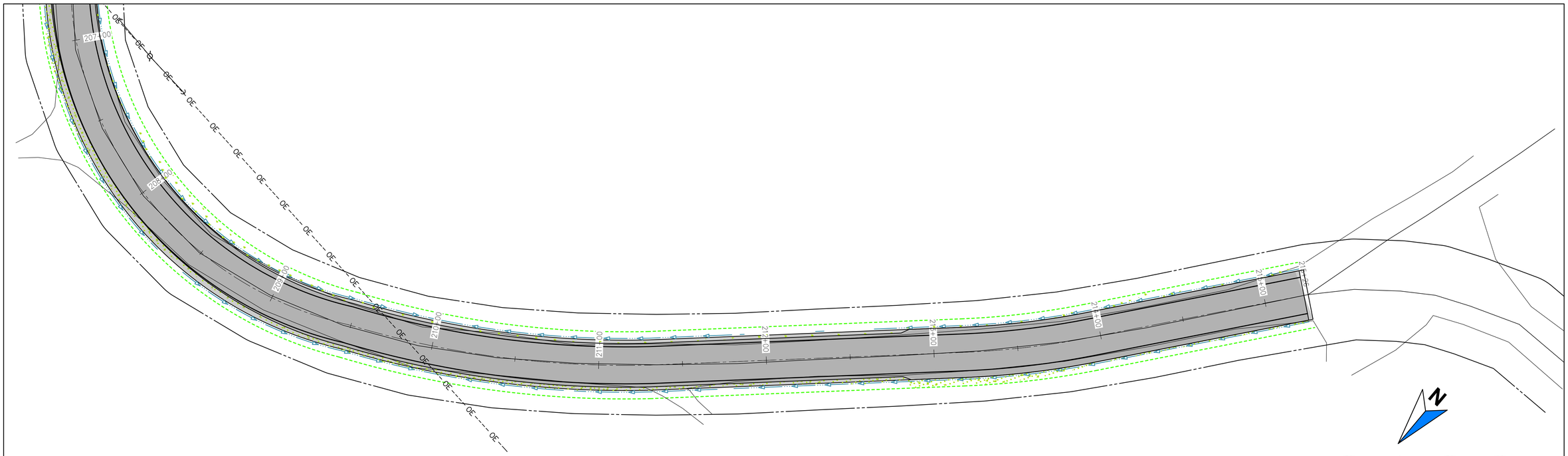

LEGEND

- RIGHT-OF-WAY (PROJECT BOUNDARY)
- CULVERT FLOW
- SILT FENCE
- EROSION LOGS
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- LIMITS OF DISTURBANCE (LDA)
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