DS-23094
(Replaces DS-23081)

DEVELOPMENTAL SPECIFICATIONS FOR ~~CONSTRUCTION OR~~ MAINTENANCE WORK ON RAILROAD RIGHT-OF-WAY (UNION PACIFIC RAILROAD)

Effective Date
November 17, 2026

THE STANDARD SPECIFICATIONS, SERIES 2023, ARE AMENDED BY THE FOLLOWING MODIFICATIONS AND ADDITIONS. THESE ARE DEVELOPMENTAL SPECIFICATIONS AND THEY PREVAIL OVER THOSE PUBLISHED IN THE STANDARD SPECIFICATIONS.

23094.01 DESCRIPTION.

A. This specification applies to projects on the Interstate, Primary, Secondary, and Local Road systems involving ~~construction or~~ maintenance of roadways and structures involving the Union Pacific Railroad (UPRR).

B. This specification describes the following:
- Requirements when work is within the Right-of-way (ROW) or properties of the UPRR and adjacent to tracks, wire lines, and other facilities.
- Coordination with UPRR when work by the Contractor will be performed upon, over, or under the UPRR ROW, or may impact current or future UPRR operations.

C. The UPRR representative will be the person or persons identified by the UPRR Manager of Industry and Public Projects to handle specific tasks related to the project. The UPRR Representative will be identified in the Contractor Endorsement provided following award of the contract. Any issues prior to receipt of the Contractor Endorsement can be directed to Alex Fiorini (email: AFiorini@benesch.com; tel: 612-391-9572.

D. Prior to advertising the project for letting, the Contracting Authority will negotiate and obtain an agreement with UPRR for work on UPRR ROW. Contractor is required to execute and return the Railroad's Contractor Endorsement following award of the contract. ~~Contractor shall pay to Railroad upon execution of the Contractor Endorsement the administrative fee of $2,200.00.~~

E. Contractor shall provide track protection for all equipment operating within 25 feet from nearest rail.

23094.02 REQUESTS FOR INFORMATION.

Requests for information involving work within UPRR ROW shall be in accordance with procedures listed in the contract documents. Requests shall be submitted to the Engineer. Engineer will forward request to UPRR as necessary.

23094.03 RAILROAD FLAGGING.

A. Flagging and Notification.

1. Contractor shall notify the UPRR and Engineer at least 45 working days in advance of the commencement of work and at least 10 working days in advance of proposed performance of work by the Contractor in which person(s) or equipment will be within 25 feet of any track, or near enough to any track that any equipment extension (such as, but not limited to, a crane boom) will reach to within 25 feet of any track. This notice shall include the following:

- Project Number
- Contractor's name
- Date flagging is needed
- Location of flagging services to be provided
- Duration of flagging

2. No work shall be performed, and no person, equipment, machinery, tools, materials, vehicles, or things shall be located, operated, placed, or stored within 25 feet of any of UPRR's track at any time, for any reason, unless and until a railroad flagger is provided to watch for trains.

3. Upon receipt of such 10 day notice, the UPRR will determine and inform the Contractor whether a flagger need be present and whether the Contractor need implement any special protective or safety measures. If flagging or other special protective or safety measures are performed by the UPRR, such services will be provided at Contractor's expense with the understanding that if the UPRR provides any flagging or other services, the Contractor shall not be relieved of any of its responsibilities or liabilities set forth herein. The Contractor shall pay the UPRR all charges connected with such services within 30 calendar days after presentation of a bill.

4. Work performed without proper flagging services, when required, will be subject to a $5,000 per day price adjustment.

5. Contractor shall provide the UPRR a minimum of 5 working days notice prior to the completion of work for which the flagging services were requested.

B. Flagger Rate of Pay.

The rate of pay per hour for each flagger will be the prevailing hourly rate in effect for an 8 hour day for the class of worker used during regularly assigned hours and overtime in accordance with Labor Agreements and Schedules in effect at the time the work is performed. In addition to the cost of such labor, a composite charge for vacation, holiday, health and welfare, supplemental sickness, Railroad Retirement and UC, supplemental pension, Employee, Liability and Property Damage, and Administration will be included, computed on actual payroll. The composite charge will be the prevailing composite charge in effect on the day of execution of the agreement between the UPRR and the Contracting Authority. One and one-half times the current hourly rate is paid for overtime, Saturdays and Sundays; two and one-half times current hourly rate for holidays. Wage rates are subject to change, at any time, by law or by agreement between the UPRR and its employees, and may be retroactive as a result of negotiations or a ruling of an authorized Governmental Agency. Additional charges on labor are also subject to change. If the wage rate or additional charges are changed, the Contractor shall pay based on the new rates and charges.

C. Reimbursement to the UPRR.

1. Reimbursement to the UPRR, by the Contractor, shall cover the full 8 hour day during which any flagger is furnished, unless they can be assigned to other UPRR work during a portion of

such day. Reimbursement will not be required for the portion of the day during which the flagger is engaged in other UPRR work. Reimbursement will also be required for any day not actually worked by said flagger following assignment to work on the project for which the UPRR is required to pay the flagger and which could not reasonably be avoided by the UPRR by assignment of such flagger to other work, even though the Contractor may not be working during such time.

2. In the event the Contractor fails to reimburse the UPRR, the Contracting Authority will reimburse the UPRR within 30 calendar days of the Contractor defaulting on the payment (default is defined as non-payment within 30 calendar days of final billing by the UPRR to the Contractor). Failure of the Contractor to reimburse the UPRR may result in a reduction or suspension of the Contractors bidding qualifications according to Article 1102.03 of the Standard Specifications.

D. Documentation and Reimbursement to the Contractor.

1. The Contractor shall initially pay UPRR invoices for all flagging costs in conjunction with railroad flaggers when any of the conditions identified in Article DS-23094.03, warrant a flagger. The Contracting Authority will reimburse the Contractor for any daily cost that exceeds $1,400 per day for the cost of flagger services provided by the UPRR. The Contracting Authority will reimburse the Contractor 100% of the total cost of flagger services, as deemed necessary by the UPRR, that does not meet any of the conditions identified in Article DS-23094.03, unless the flagger's presence on the project was a result of the Contractor's communication, or lack of communication, with the UPRR. The Contracting Authority will reimburse the Contractor following completion of all work necessitating flagging operations by the UPRR and receipt of documentation verifying the UPRR invoices have been paid.

2. For each day that railroad flaggers have been provided, the Contractor shall document daily the conditions on the project site that warrant the flagger. The Contractor shall submit the daily records to the Engineer each week. The Engineer will review the daily logs and promptly notify the Contractor if any information in the daily log is believed to be incorrect.

3. The Contractor shall forward copies of the invoices received from the UPRR for flaggers and a summary of the flagging costs incurred that exceed the Contactors' requirements described in Article DS-23094.03, to the Engineer with a request for payment for the additional railroad flagger costs. The Engineer will review the Contractor's daily logs against the UPRR's invoice and make payment for the eligible costs in accordance with Article 1109.03 of the Standard Specifications.

4. The Contractor shall be responsible to the UPRR for all flagging costs. Flagging costs for subcontracted work shall be the responsibility of the Contractor. Reimbursement from subcontractors to the Contractor shall be the sole responsibility of the Contractor.

5. The Contractor shall forward, to the Engineer, copies of payments made to the UPRR for flagging costs.

6. The Contracting Authority may award multiple contracts for work in the same general area. The Contractor shall try to stage work to minimize the need for railroad flaggers. In the event of multiple projects in a location, the Contractor initially requiring flagging on a daily basis shall be responsible for all flagging costs for that day.

23094.04 CONSTRUCTION AND AS-BUILT SUBMITTALS.

A. Submittals are required for construction materials and procedures as outlined below. The submittals shall include all review comments from the Engineer. All design submittals shall be stamped and signed by a Professional Engineer registered in the State of Iowa.

B. The tables below provide UPRR's minimum submittal requirements for the construction items noted. Submittal requirements are in addition to those specified elsewhere in the contract documents. The minimum review times indicated below represent UPRR's requirements only. The Contractor shall allow additional time for the UPRR's review time as stated elsewhere in the contract documents.

C. For this specification the following definitions shall apply:
- **Overpass:** when the roadway bridges over the railroad.
- **Underpass:** when the roadway crosses under the railroad.

D. Submittals will be made by the Engineer to the UPRR. Items in Table DS-23094.04-1 shall be submitted for both railroad overpass and underpass projects, as applicable. Items in Table DS-23094.04-2 shall be submitted for underpass projects only.

Prior to or during construction of underpass structures, the UPRR requires the review of drawings, reports, test data, and material data sheets to determine compliance with the specifications. Product information for items noted in Table DS-23094.04-2 shall be submitted to UPRR through the Engineer for their review and approval. The signed submittal and the Engineer's review comments will be reviewed by UPRR. Review of the submittals will not be conducted until after review by the Engineer.

Table DS-23094.04-1: Format and Minimum Time for Review

Description	Format	UPRR's Minimum Review Time
Construction Phasing Plans	.PDF	4 weeks
Erosion Control details	.PDF	4 weeks
Shoring design and details	.PDF	4 weeks
Falsework design and details	.PDF	4 weeks
Drainage design provisions	.PDF	4 weeks
Erection diagrams and sequence	.PDF	4 weeks
Demolition diagram and sequence	.PDF	4 weeks

Table DS-23094.04-2: Format

Description	Format	Notes
Construction Material Certifications	.PDF	
Test reports for Fracture Critical Members	.PDF	
Shop drawings	.PDF	Steel and Concrete members
Bearings	.PDF	For entire structures
Concrete Mix Designs	.PDF	For entire structures
Rebar & Strand certifications	.PDF	For superstructure only
28 day concrete strength	.PDF	For superstructure only
Waterproofing material certifications and installation procedure	.PDF	Waterproofing & protective boards
Structural steel certifications	.PDF	All fracture critical members & other members requiring improved notch toughness
Fabrication and Test reports	.PDF	All fracture critical members & other members requiring improved notch toughness.

Description	Format	Notes
Welding Procedures and Welder Certification	.PDF	AWS requirements
Foundation Construction Reports	.PDF	Pile driving, drilled shaft construction, bearing pressure test reports for spread footings.
Compaction testing reports for backfill at abutments	.PDF	Must meet 95% maximum dry density, Modified Proctor ASTM D 1557.

E. As-Built Records will be submitted to the UPRR within 1 year of completion of the structures. These records shall consist of the following items:

1. **Overpass Projects.**
   Electronic files of structure design drawings with as-constructed modifications shown in a reproducible electronic file format.

2. **Underpass Projects.**
   - Electronic files of structure design drawings with as-constructed modifications shown in a reproducible electronic file format.
   - Final approved copies of shop drawings for concrete and steel members.
   - Foundation Construction Reports.
   - Compaction testing reports for backfill at abutments.

23094.05 SITE INSPECTIONS BY THE UPRR.

A. Site inspections may be performed by the UPRR at significant points during construction, including but not limited to the following:
- Preconstruction meetings
- Pile driving, drilling of caissons or drilled shafts
- Reinforcement & concrete placement for railroad bridge substructure or superstructure
- Erection of precast concrete or steel bridge superstructure
- Placement of waterproofing (prior to placing ballast on bridge deck)
- Completion of the bridge structure

B. A detailed construction schedule, including the proposed temporary horizontal and vertical clearances and construction sequence for all work to be performed, shall be provided to the Engineer for submittal to the UPRR for review prior to commencement of work. This schedule shall also include the anticipated dates when the above listed events will occur. This schedule shall be updated for the above listed events as necessary, but at least monthly so that site visits may be scheduled.

23094.06 UPRR REPRESENTATIVES.

A. UPRR representatives will be provided ~~at the expense of the Contractor~~ to protect UPRR facilities, property, and movements of its trains or engines. In general, UPRR will furnish such personnel or other protective services as follows:
- When any part of any equipment is standing or being operated within 25 feet, measured horizontally, from any track on which trains may operate, or when any object is off the ground and any dimension thereof could extend inside the 25 foot limit, or when any erection or construction activities are in progress within such limits, regardless of elevation above or below track.
- For any excavation below elevation of track subgrade if, in the opinion of UPRR, track or other UPRR facilities may be subject to settlement or movement.

- During any clearing, grubbing, excavation, or grading in proximity to UPRR facilities, which, in the opinion of UPRR, may endanger UPRR facilities or operations.
- During the Contractor's operations when, in the opinion of UPRR, UPRR facilities, including, but not limited to, tracks, buildings, signals, wire lines, or pipe lines, may be endangered.

B. The Contractor shall arrange with the UPRR to provide the adequate number of flaggers ~~person~~ to accomplish the work. Payment for flagging shall be per Article DS-23094.03.

23094.07 INSURANCE.

A. Before the contract is awarded, Contractor shall submit to the Department a certificate of insurance evidencing the coverage. The certificate shall identify the insurance company firm name and address, Contractor firm name, policy period, type of policy, limits of coverage, and scope of work covered (including project number). Policies shall provide no less than 30 calendar days prior written notice to Contracting Authority and Railroad of cancellation or material change in policies. Following award of the Contract, the Contractor shall submit a certificate of insurance evidencing the foregoing coverage to the Railroad and Contracting Authority (if other than the Department), and a certified, true, and complete copy of policy or policies to the Contracting Authority and Railroad. Upon request from either the Contracting Authority or Railroad, a certified duplicate original of any required certificate or policy shall be furnished at no cost to the Contracting Authority or Railroad. The Contractor shall not begin work upon or over UPRR's ROW until the UPRR has notified the Engineer that such insurance provisions are in accordance with the contract documents. The insurance shall be kept in full force and effect during the performance of work and thereafter until the Contractor removes all tools, equipment, and material from UPRR's property and cleans the premises in a manner reasonably satisfactory to UPRR.

B. In addition to providing to UPRR the insurance binders, endorsements, and certificates described below, the Contractor shall also provide the subcontractor insurance endorsements that are described in Article DS-23094.08.

C. The Contractor shall provide the following kinds of insurance:

1. Railroad Protective Insurance.

a. The Contractor shall provide for and on behalf of the Railroad, Railroad Protective Insurance as stated in the Code of Federal Regulations, Title 23, Part 646, and any revisions thereto issued by the Federal Highway Administration for damages due to bodily injury or death of persons, and injury to or destruction of property resulting from the operations of the Contractor, subcontractors, or their agents, officers, or employees on this project.

b. Railroad Protective Liability Insurance is required if there is any construction or demolition activities. This insurance shall name only the Railway as the Insured with coverage of at least $2,000,000 per occurrence and $6,000,000 in the aggregate. The policy shall be issued on a standard ISO form CG 00 35 10 93 and include the following:

- Endorsed to include the Pollution Exclusion Amendment (ISO form CG 28 31 10 93) and on ISO form CG 28 31 10 93.
- Endorsed to include the Limited Seepage and Pollution Endorsement.
- Endorsed to include Evacuation Expense Coverage Endorsement.
- No other endorsements restricting coverage may be added.

The original policy shall be provided to the Engineer and Railway prior to performing work.

c. If available and in lieu of providing a Railroad Protective Liability Policy, the Contractor may participate in the Railroad's Blanket Railroad Protective Liability Insurance Policy available to the Contractor. The limits of coverage are the same as above.

d. Contractor shall use the website listed below to acquire Railroad train movement information for the purpose of obtaining Railroad Protective Liability Insurance:

http://safetydata.fra.dot.gov/OfficeofSafety/PublicSite/Crossing/Crossing.aspx

e. The US DOT Crossing Inventory Number will be located in the project plans. Zero trains per day will be displayed on the crossing inventory report for locations with grade separated crossings or at-grade crossings when there is less than one train per day. In these situations generating a map to find alternative crossing locations may be used to provide the number of trains per day and speed nearest the project location.

2. Commercial General Liability Insurance.

a. Commercial general liability (CGL) with a limit of not less than $5,000,000 each occurrence and an aggregate limit of not less than $10,000,000. CGL insurance shall be written on ISO occurrence form CG 00 01 12 04 (or a substitute form providing equivalent coverage).

b. The policy shall also contain the following endorsement, which shall be stated on the certificate of insurance:

- Contractual Liability Railroads ISO form CG 24 17 10 01 (or a substitute form providing equivalent coverage) showing “Union Pacific Railroad Company Property” as the Designated Job Site.
- Designated Construction Project(s) General Aggregate Limit ISO Form CG 25 03 03 97 (or a substitute form providing equivalent coverage) showing the project on the form schedule.

3. Business Automobile Coverage Insurance.

a. Business auto coverage written on ISO form CA 00 01 (or a substitute form providing equivalent liability coverage) with a combined single limit of not less $5,000,000 for each accident.

b. The policy shall contain the following endorsements, which shall be stated on the certificate of insurance:

- Coverage For Certain Operations In Connection With Railroads ISO form CA 20 70 10 01 (or a substitute form providing equivalent coverage) showing “Union Pacific Property” as the Designated Job Site.
- Motor Carrier Act Endorsement - Hazardous materials clean up (MCS-90), if required by law.

NOTE: Alternate Liability Insurance Limits: The UPRR will accept Contractor's Commercial General Liability insurance limits of at least $2,000,000 each occurrence or claim and an aggregate limit of at least $2,000,000, and will accept Business Automobile Insurance containing a combined single limit of at least $2,000,000 per occurrence or claim if the Contractor secures Railroad Protective Liability Insurance coverage with a combined single limit of $5,000,000 per occurrence with a $10,000,000 aggregate instead of the limits described in Article 1112.02, B, of the Standard Specifications.

4. Workers Compensation and Employers Liability Insurance.

a. Coverage shall include, but not limited to:

- The Contractor's statutory liability under the workers' compensation laws of the State of Iowa.
- Employers' Liability (Part B) with limits of at least $500,000 each accident, $500,000 disease policy limit, $500,000 each employee.

b. If the Contractor is self-insured, evidence of the State of Iowa’s approval and excess workers compensation coverage shall be provided. Coverage shall include liability arising out of the U. S. Longshoremen's and Harbor Workers' Act, the Jones Act, and the Outer Continental Shelf Land Act, if applicable.

c. The policy shall contain the following endorsement, which shall be stated on the certificate of insurance:

Alternate Employer endorsement ISO form WC 00 03 01 A (or a substitute form providing equivalent coverage) showing UPRR in the schedule as the alternate employer (or a substitute form providing equivalent coverage).

5. **Umbrella or Excess Insurance.**
   If the Contractor utilizes umbrella or excess policies, these policies shall "follow form" and afford no less coverage than the primary policy.

6. **Pollution Liability Insurance.**
   - **a.** Pollution liability coverage shall be written on ISO form Pollution Liability Coverage Form Designated Sites CG 00 39 12 04 (or a substitute form providing equivalent liability coverage), with limits of at least $1,000,000 per occurrence and an aggregate limit of $2,000,000.
   - **b.** If the scope of work as defined in this contract includes the disposal of any hazardous or non-hazardous materials from the job site, Contractor shall furnish to UPRR evidence of pollution legal liability insurance maintained by the disposal site operator for losses arising from the insured facility accepting the materials, with coverage in minimum amounts of $1,000,000 per loss, and an annual aggregate of $2,000,000.

D. All policy(ies) required above (except worker's compensation and employers liability shall include the UPRR as "Additional Insured" using ISO Additional Insured Endorsements CG 20 26, and CA 20 48 (or substitute forms providing equivalent coverage). The coverage provided to the UPRR as additional insured shall, to the extent provided under ISO Additional Insured Endorsement CG 20 26, and CA 20 48 provide coverage for the UPRR's negligence whether sole or partial, active or passive, and shall not be limited by Contractor's liability under the indemnity provisions contained in the specifications.

E. Punitive damages exclusion, if any, shall be deleted (and the deletion indicated on the certificate of insurance), unless the law governing prohibits all punitive damages that might arise in connection with this contract.

F. The Contractor waives all rights of recovery, and its insurers also waive all rights of subrogation of damages against Railroad and its agents, officers, directors, and employees. This waiver shall be stated on the certificate of insurance.

G. Prior to commencing the work, the Contractor shall furnish Railroad with a certificate(s) of insurance, executed by a duly authorized representative of each insurer, showing compliance with the insurance requirements in this contract.

H. All insurance policies shall be written by a reputable insurance company acceptable to the UPRR or with a current Best's Insurance Guide Rating of A- and Class VII or better, and authorized to do business in the State of Iowa.

I. The fact that insurance is obtained by the Contractor or by the UPRR on behalf of the Contractor shall not be deemed to release or diminish the liability of the Contractor, including, without limitation, liability under the indemnity provisions of this contract. Damages recoverable by the UPRR from the Contractor or any third party shall not be limited by the amount of the required insurance coverage.

23094.08 ASSIGNMENT, SUBCONTRACTING, AND INSURANCE ENDORSEMENTS.
The Contractor shall not assign or subcontract the provisions of this specification, or any interest therein, without the written consent of the Engineer. The Contractor shall be responsible for the acts and omissions of all subcontractors. Before the Contractor commences any work, they shall, except to the extent prohibited by law; (1) require each subcontractor to include the Contractor as "Additional Insured" in the subcontractor's Commercial General Liability policy and Business Automobile policies with respect to all liabilities arising out of the subcontractor's performance of work on behalf of the Contractor by

endorsing these policies with ISO Additional Insured Endorsements CG 20 26, and CA 20 48 (or substitute forms providing equivalent coverage; (2) require each subcontractor to endorse their Commercial General Liability Policy with "Contractual Liability Railroads" ISO Form CG 24 17 10 01 (or a substitute form providing equivalent coverage) for the job site; and (3) require each subcontractor to endorse their Business Automobile Policy with "Coverage For Certain Operations In Connection With Railroads" ISO Form CA 20 70 10 01 (or a substitute form providing equivalent coverage) for the job site.

23094.09 ADDITIONAL SAFETY REQUIREMENTS.

A. Personnel employed by the Contractor or subcontractors shall complete the UPRR safety training course and be registered prior to working on UPRR property. This orientation is available at: https://www.up.com/aboutup/community/safety/erailsafe/up-pat/index.htm. This course shall be completed annually.

B. The Contractor shall require its employees to be suitably dressed to perform their duties safely. The Contractor shall require workers to wear personal protective equipment as specified by UPRR rules and regulations. Protective equipment shall include, but not be limited to the following: protective headgear meeting ANSI 289.1; eye protection meeting ANSI 287.1, however additional eye protection shall be provided to meet specific job situations such as welding, grinding, burning, etc.; and hearing protection which affords enough attenuation to give protection from noise levels that will be occurring on the job site. Only waist length shirts with sleeves and trousers covering the entire leg shall be worn. Flare-legged trouser bottoms shall be tied to prevent catching.

C. Heavy equipment operating within UPRR ROW shall be equipped with audible back-up warning devices. If in the opinion of the UPRR the Contractor's equipment is unsafe for use on the UPRR's ROW, the Contractor shall remove such equipment from the UPRR ROW.

D. The Contractor shall promptly notify the UPRR of any U.S. OSHA reportable injuries occurring to any employee that arises during the work performed on the work site within UPRR ROW.

E. If at any time the Engineer or the UPRR are of the opinion that any work of the Contractor is being or is about to be done or prosecuted without due regard and precaution for safety and security, the Engineer may suspend the work until proper protective measures are adopted and provided.

23094.10 SAFETY MEASURES-PROTECTION OF OPERATIONS.
The Contractor shall perform work in a safe manner and in conformity with the following standards:

A. Explosives.
The Contractor shall not discharge any explosives on or in the vicinity of the UPRR's property without the prior consent of the UPRR, which shall not be given if, in the sole discretion of the UPRR, such discharge would be dangerous or would interfere with the UPRR's property or facilities. For the purposes hereof, the "vicinity of the UPRR's property" shall be deemed to be any place on the UPRR's property or in such close proximity to the UPRR's property that the discharge of explosives could cause injury to the UPRR's employees or other persons, or cause damage to or interference with the facilities or operations on the UPRR's property. The UPRR reserves the right to impose limitations on the transportation, handling, storage, security, and use of explosives as the UPRR, in the UPRR's sole discretion, may deem to be necessary, desirable, or appropriate. In addition to any limitations as may be specifically imposed:

1. The Contractor shall provide no less than 48 hours written notice, excluding weekends and holidays, before discharging any explosives.

2. Any explosives loaded in holes, placed or otherwise readied for discharge, they shall be discharged the same day during daylight hours, and at mutually acceptable times.

3. The Contractor, at its own expense, shall take all precautionary measures and construct all temporary shelters necessary to guard against danger of damage, destruction, or interference arising out of or connected with any blasting or any transportation, handling, storage, security, or use of explosives.

B. Obstructions to View.
Except as otherwise provided herein, the Contractor shall not cause or permit the view along the tracks of the UPRR to be obstructed, nor place any combustible material on the crossing area, nor erect any structures thereon except as allowed by the contract documents.

C. Excavation.
The Contractor shall not excavate from existing slopes nor construct new slopes which are excessive and may create hazards of slides or falling rock, impair, or endanger the clearance between existing or new slopes and the tracks of the UPRR. The Contractor shall not perform any work that may disturb the stability of any area or adversely affect the UPRR's tracks or facilities. The Contractor, at its own expense, shall install and maintain adequate shoring and cribbing for all excavation or trenching performed by them in connection with construction, maintenance, or other work. The shoring and cribbing shall be constructed and maintained with materials and in a manner approved by the UPRR to withstand all stresses likely to be encountered, including any stresses resulting from vibrations caused by the UPRR's operations in the vicinity.

D. Drainage.
The Contractor, at its expense, shall provide and maintain suitable facilities for draining the highway and its appurtenances, and shall not suffer or permit drainage water to flow or collect upon property of the UPRR that may adversely affect any of the UPRR's operations, equipment or any third parties with permitted facilities on the UPRR's ROW. The Contractor, at its own expense, shall provide adequate passageway for the waters of any streams, bodies of water, and drainage facilities (either natural or artificial, and including water from the UPRR's culverts and drainage facilities), so that said waters may not, because of any facilities or work of the Contractor, be impeded, obstructed, diverted or caused to back up, overflow or damage the property of the UPRR or any part thereof, or property of others. The Contractor shall not obstruct or interfere with existing ditches or drainage facilities.

E. Clearances.

1. The Contractor shall provide a minimum vertical clearance of 21.5 feet above top of rails and a minimum lateral clearance of 15.0 feet from centerline of track nearest temporary construction falsework.

2. Proposed changes to the specified minimum clearances shall be submitted to UPRR, through the Engineer, at least 30 calendar days in advance of the work. No work shall commence until the Engineer receives concurrence, in writing, from UPRR that approval is given and that arrangements have been made for flagging service, as may be necessary. The UPRR will have 2 weeks to respond to the request.

F. Demolition of Existing Structures.
The Contractor shall submit demolition plans to the Engineer for review and approval. The Engineer will forward to the UPRR as identified in the project agreement. Demolition shall not be undertaken until the Contractor has received the Engineer's written approval of such demolition plans. All such reviews and approvals or rejections will be completed by the Engineer within 45 calendar days of receipt from the Contractor.

23094.11 WALKWAYS.
Along the outer side of each exterior track of multiple operated track, and on each side of single operated track, an unobstructed continuous space suitable for UPRR's use in walking along trains, extending to a line not less than 12 feet from centerline of track, shall be maintained. Any temporary impediments to

walkways and track drainage encroachments or obstructions allowed during work hours while UPRR's flagging service is provided shall be removed before the close of each work day. Walkways with railings shall be constructed by Contractor over open excavations when in close proximity of track, and railings shall not be closer than 8.5 feet horizontally from center line of tangent track or 9.5 feet horizontally from centerline of curved track.

23094.12 EXCAVATIONS IN CLOSE PROXIMITY TO UPRR FACILITIES.

A. The Contractor shall take special precaution in connection with excavating and shoring. Excavations for construction of footings, piers, columns, walls, or other facilities that require shoring shall comply with the following requirements: OSHA, AREMA, and UPRR "Guidelines for Temporary Shoring".

B. The Contractor shall contact UPRR's "Call Before Your Dig" at least 48 hours prior to commencing work at 1.800.336.9193 during normal business hours (6:30 a.m. to 8:00 p.m. C.S.T., Monday through Friday, except holidays - also a 24 hour, 7 day a week number for emergency calls) to determine location of fiber optics. If a telecommunications system is buried anywhere on or near UPRR property, the Contractor shall coordinate with UPRR and the telecommunication company to arrange for relocation or other protection of the system prior to beginning any work on or near UPRR property.

23094.13 NO INTERFERENCE WITH UPRR'S OPERATION.
The Contractor shall not interfere with the constant, continuous, and uninterrupted use of the tracks, property, and facilities of the UPRR its lessees, licensees, or others, unless specifically permitted by this specification, or specifically authorized in advance by the UPRR. When not in use, the Contractor's machinery and materials shall be kept at least 50 feet from the centerline of UPRR's nearest active track, and there shall be no crossings of UPRR's tracks except at existing open public crossings or as provided by agreement.

23094.14 TRAFFIC CONTROL.
The Contractor's operations that control traffic across or around UPRR facilities shall be coordinated with and approved by the UPRR.

23094.15 INDEMNITY.

A. As used in this Article, "UPRR" includes other railroad companies using the UPRR's property at or near the location of the Contractor's work and their officers, agents, and employees; "Loss" includes loss, damage, claims, demands, actions, causes of action, penalties, costs, and expenses of whatsoever nature, including court costs and attorneys' fees, which may result from the following:
- Injury to or death of persons whomsoever (including the UPRR's officers, agents, and employees, the Contractor's officers, agents, and employees, as well as any other person); and
- Damage to or loss or destruction of property whatsoever (including Contractor property, damage to the roadbed, tracks, equipment, or other property of the UPRR, or property in its care or custody).

B. The Contractor shall indemnify, hold harmless, and defend to the extent allowed by law the UPRR from any loss which is due to or arises from any cause and is associated in whole or in part with the work, a breach of the contract or the failure to observe the health and safety provisions herein, or any activity or omission arising out of performance or nonperformance; except when caused by the sole negligence of the UPRR, or except to the extent caused by the gross negligence or willful misconduct of the UPRR.

23094.16 MAINTENANCE OF UPRR FACILITIES.
The Contractor shall maintain all ditches and drainage structures free of silt or other obstructions which

may result from its operations, promptly repair eroded areas within UPRR's ROW, and repair any other damage to UPRR property, or its tenants; at no additional cost to the UPRR.

23094.17 COMMUNICATIONS AND SIGNAL LINES.
If required, UPRR will rearrange its communications and signal lines, grade crossing warning devices, train signals and tracks, and facilities that are in use and maintained by UPRR's forces in connection with its operation at the expense of the Contracting Authority. This work will be performed by the UPRR and it is not a part of the contract.

23094.18 FIBER OPTIC CABLE SYSTEMS.

A. Fiber optic cable systems may be buried on the UPRR's property. Protection of the fiber optic cable systems is of extreme importance since any break could disrupt service to users resulting in business interruption and loss of revenue and profits. The Contractor shall contact the UPRR (1.800.336.9193 (a 24 hour number)) to determine if fiber optic cable is buried anywhere on the UPRR's Crossing Area to be used by the Contractor. If it is, the Contractor shall telephone the telecommunications company involved, arrange for a cable locator, and make arrangements for relocation or other protection of the fiber optic cable prior to beginning any work on the UPRR's Crossing Area.

B. In addition to the liability terms elsewhere in this specification, the Contractor shall indemnify and hold harmless the UPRR against and from all cost, liability, and expense whatsoever (including, without limitation, attorney's fees, court costs, and expenses) arising out of or in any way contributed to by any act or omission of the Contractor, agents, or employees, that causes or contributes to (1) any damage to or destruction of any telecommunications system on UPRR's property, and (2) any injury to or death of any person employed by or on behalf of any telecommunications company, its contractor, agents, or employees, on UPRR's property in the crossing area. The Contractor shall not have or seek recourse against UPRR for any claim or cause of action for alleged loss of profits, revenue, loss of service, or other consequential damage to a telecommunication company using UPRR's property or a customer or user of services of the fiber optic cable on UPRR's property.

23094.19 COOPERATION.
The UPRR will cooperate with the Contractor so that work may be conducted in an efficient manner, and will cooperate with the Contractor in enabling use of UPRR's ROW in performing the work.

23094.20 WAIVER OF BREACH.
The waiver by the UPRR of the breach of any condition, covenant, or specification herein contained to be kept, observed and performed by the Contractor shall in no way impair the right of the UPRR to avail itself of any subsequent breach thereof.

23094.21 UPRR OPERATIONS.

A. The Contractor shall be advised that trains or equipment are expected on any track, at any time, in either direction. Contractor shall become familiar with the train schedules in this location and structure its bid assuming intermittent track windows in this period, as defined below.

B. All railroad tracks within and adjacent to the work are active and rail traffic over these tracks shall be maintained throughout the contract. Activities may include both through moves and switching moves to local customers. Railroad traffic and operations may occur continuously throughout the day and night on these tracks and shall be maintained at all times. The Contractor shall coordinate and schedule the work so that construction activities do not interfere with UPRR operations.

C. Work windows for this contract shall be coordinated with the Engineer. Types of work windows include Conditional Work Windows and Absolute Work Windows, as defined below:

1. Conditional Work Window: A period of time that UPRR operations have priority over construction activities. When construction activities may occur on and adjacent to the railroad tracks within 25 feet of the nearest track, a UPRR flag person will be required. At the direction of the UPRR flag person, upon approach of a train, and when trains are present, the tracks shall be cleared (i.e., no construction equipment, materials, or personnel within 25 feet, or as directed by the UPRR, from the tracks). Conditional Work Windows are available for the contract.

2. Absolute Work Window: A period of time that construction activities are given priority over UPRR operations. During this time frame the designated tracks will be inactive for train movements and may be fouled by the Contractor. At the end of an Absolute Work Window the tracks or signals shall be completely operational for train operations and all UPRR, Public Utilities Commission, and Federal Railroad Administration requirements, codes, and regulations for operational tracks shall be met. In the situation where the operating tracks or signals have been affected, the UPRR will perform inspections of the work prior to placing back into service. UPRR flag persons will be required for construction activities requiring an Absolute Work Window.

3. Absolute Work Windows will not generally be granted. Any request will require a detailed explanation for UPRR review.

D. All work on UPRR's ROW shall be done at such times and in such manner so as not to interfere with or endanger the operations of UPRR. Whenever work may affect the operations or safety of trains, the method of doing such work shall first be submitted to the UPRR for approval, but such approval shall not relieve the Contractor from liability. Any work to be performed by the Contractor that requires flagging or inspection service shall be deferred until the flagging protection required by UPRR is available at the job site.

E. The Contractor shall make requests in writing for both Absolute and Conditional Work Windows, at least 2 weeks in advance of any work. The written request shall include:
- Exactly what the work entails.
- The days and hours that work will be performed.
- The exact location of work, and proximity to the tracks.
- The type of window requested and the amount of time requested.
- The designated contact person.

F. The Contractor shall provide written notice to the UPRR at least 48 hours before commencing work in connection with approved work windows when work will be performed within 25 feet of any track center line.

G. Should a condition arising from, or in connection with the work, require that immediate and unusual provisions be made to protect operations and property of UPRR, the Contractor shall make such provisions. If in the judgment of the UPRR such provisions are insufficient, the UPRR may require or provide such provisions as deemed necessary. In any event, such provisions shall be at the Contractor's expense. The UPRR or Engineer will have the right to order Contractor to temporarily cease operations in the event of an emergency or, if in the opinion of the UPRR, the Contractor's operations could endanger UPRR's operations. In the event such an order is given, Contractor shall immediately notify the Engineer of the order.

23094.22 TEMPORARY CROSSINGS.

A. At other than established public road crossings, the Contractor shall not move any equipment or materials across the UPRR's tracks until written permission has been obtained from the UPRR.

B. If the Contractor requires a temporary railroad crossing the Contractor shall arrange for the crossing installation at a mutually acceptable location at the Contractor's expense to include all

UPRR costs of installation, maintenance, removal, and track restoration. The temporary crossing shall be gated and locked at all times when not required for use by the Contractor. Flagging will always be required during use of a temporary crossing. The billing, Contractor payment provisions, and final Contractor payment requirements for crossing costs except flagging are to be covered as agreed to in a separate agreement between the Contractor and UPRR. Prior notice of need for a temporary crossing needs to allow for UPRR site review, cost estimating, securing material, and work crew scheduling and will vary. The Contractor should contact the UPRR prior to making a bid when a temporary crossing is required.

23094.23 LIMITATION OF RIGHTS GRANTED.

A. The Contract, any Temporary Easement, and Permanent Easement are all subject to the prior and continuing right and obligation of the UPRR to use and maintain its property, not inconsistent with highway purposes, including the right and power of the UPRR to construct, maintain, repair, renew, use, operate, change, modify, or relocate UPRR tracks, roadways, signal, communication, fiber optics, or other wirelines, pipelines, and other facilities upon, along, or across any or all parts of its property, all or any of which may be freely done at any time or times by the UPRR, not inconsistent with highway purposes and at UPRR's sole cost and expense.

B. The Contract, Temporary Construction Easement, and Permanent Easement, whether recorded or unrecorded, are subject to all outstanding rights (including those in favor of licensees and lessees of the UPRR's property, and others) and the right of the UPRR to renew and extend the same, and is made without covenant of title or for quiet enjoyment.

23094.24 MECHANIC'S LIENS.

The Contractor shall not permit or suffer any mechanic's or material supplier's liens of any kind or nature to be enforced against any property of the UPRR for any work performed. The Contractor shall indemnify and hold harmless the UPRR from and against any liens, claims, demands, costs or expenses of whatsoever nature in any way connected with or growing out of such work done, labor performed, or materials furnished. It is understood that this specification may be recorded in the county in which the work is to be performed and such recording shall serve as public notice that no Contractor, subcontractor, or material supplier shall file any notice of a mechanic's or material supplier's lien or permit or suffer any mechanic's lien or material supplier's lien on the property of the UPRR to the extent permitted by law.

23094.25 METHOD OF MEASUREMENT AND BASIS OF PAYMENT.

A. Railroad Protective Liability Insurance for Union Pacific Railroad Co. will be paid for as a Lump Sum bid item. This payment shall be full compensation for ~~complying with this specification~~ railroad insurance costs related to the contract. The Contractor will be paid the Lump Sum bid item price within 30 calendar days after receipt of a signed contract, provided that all necessary certificates of insurance have been submitted to the Department per Article DS-23094.07.

B. Flagging costs per Article DS-23094.03 shall be the responsibility of the Contractor and included in the price bid for Mobilization.

C. Costs for other UPRR representatives, including project management and inspection, will be paid by the Contracting Authority.