

Exhibit F

Grade Separations

(FOR USE IN ANY C&M AGREEMENT FOR CONSTRUCTION OF AN OVERPASS OR AN UNDERPASS INITIATED BY A PUBLIC AGENCY)

BNSF PROCESS REQUIREMENTS FOR DESIGN & CONSTRUCTION OF GRADE SEPARATION PROJECTS BY A PUBLIC AGENCY ON BNSF RIGHT OF WAY, WHICH IMPACT BNSF PROPERTY OR OPERATIONS

1.01 General:

1.01.01 The Contractor must cooperate with **BNSF RAILWAY COMPANY**, hereinafter referred to as "**Railway**" where work is over or under on or adjacent to Railway property and/or right-of-way, hereafter referred to as "Railway Property", during the construction of the new overpass for OUTER LOOP, new DOT No. 675298E, at Railroad Milepost 675.66.

1.01.02 Definitions:

- **Operationally Critical, (OC):** defined as Work that requires a submittal and acceptance by BNSF, which impacts, or could impact BNSF operations, on BNSF right-of-way or adjacent to it.
- **Acceptance:** BNSF's response to plan submittals indicating a notice to proceed with work in the field;
Disclaimer for Acceptance: *BNSF has reviewed these submittals and no exceptions are taken with regard to BNSF's ability to use or accommodate the project as intended. BNSF has not reviewed the design details or calculations for structural integrity or engineering accuracy. BNSF accepts no responsibility for errors or omissions in the design or execution of the project.
- **Inspector/Coordinator, (I/C):** A third party consultant which BNSF hires to assist in the coordination of the project on BNSF's behalf. When referenced, "I/C" refers to the I/C team consisting of I/C-I, I/C-II, and the Resident Engineer (RE). The I/C team's role is to ensure the project is constructed per accepted* plans and specifications for that portion of the project on BNSF right of way, as it affects BNSF. The I/C will monitor construction activities to ensure that improvements used by BNSF meet all requirements of BNSF, and accommodate railroad operations.

1.01.03 The following submittals and actions are required by BNSF prior to Operationally Critical, (OC) Work being performed on BNSF property or above tracks being operated by BNSF Railway:

2.01 Submittals and Actions Required During the Project Design Phase:

2.01.01 The Agency shall be the main contact for BNSF throughout the project. Agency shall be included on all correspondence relating to BNSF.

2.01.02 Required Design Submittals: (Allow for 4 weeks for BNSF to review design submittals)
Agency shall refer to the requirements of the UP/BNSF Guidelines on Grade Separation Projects when designing a grade separation which will impact BNSF Railway. Agency will be required to submit plans for BNSF review and comment. Plans shall not be labeled "final" until all comments have been addressed and BNSF has accepted* the plans.

Examples of required design submittals may be, but are not limited to:

Concept, vertical profile of Top of Rail, 30% plans and final plans

The following submittals will require a Professional Engineer, (PE) stamp:

Overpass design

Underpass design

Hydraulic study

Any non-standard design of a structure which will carry train loading

Work covered by a submittal shall not be performed in field without receiving Acceptance from BNSF.

Work windows will not exceed 6 hours, so project should be designed accordingly.

The following Disclaimer applies to BNSF acceptance of Agency design plans:

**BNSF has reviewed these submittals and no exceptions are taken with regard to BNSF's ability to use or accommodate the project as intended. BNSF has not reviewed the design details or calculations for structural integrity or engineering accuracy. BNSF accepts no responsibility for errors or omissions in the design or execution of the project.*

3.01 Submittals and Actions Required During the Construction Phase:

3.01.01 The Agency shall be the main contact for BNSF throughout the project. Agency shall be included on all correspondence relating to BNSF. **BNSF will NOT accept submittals directly from the Agency's Contractor.**

3.01.02 BNSF will hire a consultant team to perform the duties of an Inspector/Coordinator, (I/C) on behalf of BNSF for the duration of the field construction of the project. The cost of the I/C will be reimbursable to BNSF by the Agency or their Contractor.

BNSF requires the I/C team be involved in the project throughout the construction phase to represent BNSF. **The I/C has authority to remove a contractor's employee from BNSF property if that employee fails to comply with the BNSF safety policy, does not have proper PPE or otherwise ignores instructions regarding work on BNSF right-of-way. The I/C has authority to shut down work on BNSF right-of-way if the contractor works in a manner that is in violation of BNSF's safety policy or FRA regulations.**

Anytime instructions to the contractor by BNSF or the I/C are not complied with, the project may be shut down. All equipment and personnel will be removed from BNSF property until issues causing the shutdown are resolved to BNSF's satisfaction.

3.01.03 Agency must hold a pre-construction meeting with contractor and BNSF prior to work beginning on BNSF property.

The Pre-Construction meeting shall not be held until 30 days after I/C has been selected – this allows time for the I/C to become familiar with the project.

Recommend scheduling two weeks prior to construction commencing to allow for adjustment to work plans, if needed.

3.01.04 Required Construction Submittals: : (Allow for 4 weeks for BNSF to review submittals)

All submittals should flow from the Contractor to the Agency, to the I/C Consultant, to the BNSF Project Engineer, (PE), and to BNSF Structures with responses back through the same communication chain. **BNSF will not accept submittals directly from the Contractor.**

Any changes to the work governed by a submittal requires that the submittal be re-accepted* by BNSF before the work commences.

Examples of construction submittals required include but are not limited to:

Contractors Safety Action Plan, Fire Prevention Plan, Proposed Project Schedule, Demolition, Shoring, Falsework and Lifting of Materials.

The following submittals will require a Professional Engineer, (PE) stamp:

Critical Pick Plan (75% of capacity of crane, or multi-crane pick)

Lifted Material Plan (Placement or Removal) – When lift is within temporary construction clearances and when lift is within 25' of the centerline of the nearest track

Demolition Plan Temporary

Shoring Plan

Bracing Design Plan (non-standard only per DOT)

For overpasses, Agency shall submit as-built plans of the structure, including final clearance dimensions to the I/C. Vertical clearance must be measured from the Top of Rail, horizontal clearance must be measured from the nearest track centerline.

OPERATIONALLY CRITICAL WORK AND SUBMITTALS: (4 to 6 weeks review timeline) All OC work requires a submittal and acceptance* by BNSF.

- Operationally Critical (OC) submittals are those that have the potential to affect the safe operation of trains and will need to be reviewed carefully. Work must be monitored to ensure it conforms to the submitted/accepted* plan.
 - In-person safety review meetings will be required with BNSF representative, I/C, Contractor and Agency representative for all OC work and must be documented. The purpose of the meeting is to ensure all parties understand BNSF requirements and are following the applicable submittals. When a track work window is required the meeting shall occur at least 48 hours in advance of work starting.
 - **Submittals must meet the requirements of the UP Railroad - BNSF Railway Guidelines for Railroad Grade Separation Projects. Submittals must also follow the requirements outlined in BNSF Review Comment Sheets, Use of Cranes & Lifting of Materials Submittal Schedule, BNSF Guidelines for Preparation of Bridge Demolition & Removal Plan and the BNSF-UPRR Guidelines for Temporary Shoring. Some submittals are required to be sealed by a licensed professional engineer.**
- a. See Table 3-1 for Overhead Structures in UP Railroad - BNSF Railway Guidelines for Railroad Grade Separation Projects
 - b. See Table 3-2 for Underpass Structures UP Railroad - BNSF Railway Guidelines for Railroad Grade Separation Projects
 - c. Examples of OC submittals included in the above are:
 - i. Shoring (Follow BNSF-UPRR Guidelines for Temporary Shoring)
 - ii. Falsework

- iii. Demolition (Need plans for substructure and superstructure. Follow BNSF Guidelines for Preparation of Bridge Demolition & Removal Plan)
- iv. Erection (overhead and underpass structures)
- v. Construction Phasing Plans
- d. Additional OC submittals required, but not included in the Guidelines are:
 - i. All work plans that remove tracks from service (track outage windows require a detailed Gantt chart when greater than 2 hours)
 - ii. Contingency plans
 - iii. Additional OC submittals may be required on a project by project basis.

For underpasses and other railroad bridges, as required in Sections 4.11 and 4.12 of the UP Railroad - BNSF Railway Guidelines for Railroad Grade Separation Projects, a RE will be on site full-time during construction, at the cost of the project. At the discretion of the RE, as accepted by BNSF, an I/C-I or I/C-II maybe assigned for field duties where the work is not critical to ensuring the bridge is built to accepted project plans and specification.

- BNSF requires temporary and new track and railroad bridges be inspected by an FRA qualified BNSF employee prior to being placed into service. Two week advanced notice to BNSF structures department is required. For underpasses, all pile driving records are to be provided within 3-days of driving to the BNSF PE.
- Agency shall submit an as-built survey of shoo-fly final alignments. Alignments must conform to BNSF Shoo-fly procedures.

3.01.05 Prior to any work commencing on BNSF right of way:

Contractors C/C-1 or Right of Entry must be fully executed and their insurance must be approved before they can perform work on BNSF property.

Proof of Contractors insurance approval must be produced to the BNSF PE and the I/C.

3.01.06 Contractor must adhere to all other BNSF policies and procedures not specifically mentioned in this agreement.