



North Dakota Department of Transportation

Thomas K. Sorel
Director

Doug Burgum
Governor

March 27, 2019

ADDENDUM 1 – JOB 20

TO: All prospective bidders on Project NH-4-002(118)154, Job No. 20 scheduled for the April 12, 2019 bid opening.

The following plans and request for proposal revision shall be made:

Plan Revisions:

See attached summary from Jon Ketterling, P.E. dated March 25, 2019 for an explanation.

Request for Proposal Revisions:

Remove and Replace SP 499(14) Railroad Requirements with the updated version.

This addendum is to be incorporated into the bidder's proposal for this project.

PHILLIP MURDOFF, P.E. – CONSTRUCTION SERVICES ENGINEER

80: jwj

Enclosure

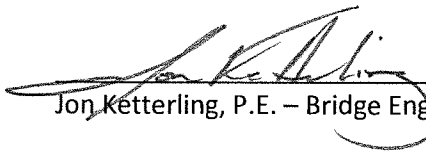
PLAN ADDENDUM SUMMARY AND APPROVAL

| Project Information | | |
|--|------------|--|
| Project: NH-4-002(118)154 | | PCN: 21399 |
| Location: Surrey BNSF Railroad Separation | | |
| Date: 3/25/2019 | | Lead Designer: Dustin Wing |
| Bid Opening Date: 04/12/2019 | | JOB#: 20 Addendum#: 1 |
| Section | Sheet | Description of Change |
| Proposal | SP 499(14) | Railroad Requirements SP: Corrected page numbering |
| 6 | 1 | Added note 430-200 |
| | | |
| | | |

APPROVAL

Should the revisions described above be processed as a plan addendum?

Yes No



 Jon Ketterling, P.E. – Bridge Engineer

3-25-19
 Date

NORTH DAKOTA DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION

RAILROAD REQUIREMENTS

Project # 4-002(118)154 – PCN 21399

This Special Provision incorporates the Construction and Maintenance Agreement (CMA) entered into, by, and between the North Dakota Department of Transportation (NDDOT) and the Burlington Northern Santa Fe (BNSF). It shall be understood that any reference to payment for flagging in the CMA, by the NDDOT to BNSF, shall be reimbursed by the Contractor as outlined in Section 107.13 G of the Standard Specifications. It shall also be understood that any requirements of the Contractor, as listed in the CMA, shall be adhered to as part of the contract documents. Therefore, bidders shall become familiar with all the provisions of the CMA and submit their bid for the construction of this Project based on a plan for construction which will meet all applicable requirements as contained in the contract documents and the CMA attached hereto.

Coordinate with the Engineer to arrange for a preconstruction meeting with NDDOT, BNSF and the Contractor.

The Contractor shall be responsible for coordinating all flagging activities with BNSF's Roadmaster. The Contractor shall submit a weekly schedule of work activities and documentation of all discussions with BNSF's Roadmaster coordinating flagging activities to the Engineer.

The "Railroad Cost Estimate" (Exhibit G) of the CMA is for information to BNSF only and is not to be used for bidding.

(CMA with BNSF attached.)

**North Dakota Department of Transportation
CONSTRUCTION AND MAINTENANCE AGREEMENT**

Project No. NH-4-002(118)154, PCN 21399

**NDDOT Bridge No. 0002-154.989 L
US Highway 2 over BNSF Railway in Surrey, ND**

This agreement is between the state of North Dakota, acting by and through its Director of Transportation, hereinafter referred to as NDDOT, whose address is 608 East Boulevard Avenue, Bismarck, North Dakota 58505-0700, and BNSF Railway Company, hereinafter referred to as the Railroad, whose address is 80 - 44th Avenue NE, Minneapolis, Minnesota 55421

WITNESSETH:

WHEREAS, NDDOT is planning to replace the existing highway overpass, NDDOT Bridge 0002-154.989 L (Project), which carries US highway 2 traffic over BNSF Railway in Surrey, North Dakota, and

WHEREAS, the parties desire the Project to be constructed in accordance with plans and specifications to be prepared by NDDOT, and

WHEREAS, in connection with the highway construction, the Project will be constructed within the existing overpass easement, and

WHEREAS, NDDOT will undertake the construction of said Project, using federal funds, the Railroad will accept the execution of NDDOT's Project upon the terms and conditions herein stated, and

NOW, THEREFORE, in consideration of the premises and the mutual dependent promises hereafter contained, the parties agree as follows:

I.

The Railroad, by signature of this agreement, accepts the proposed bridge plan as shown on Exhibit A1, attached hereto and made a part hereof.

II.

NDDOT shall submit to Railroad prior to the commencement of any work, plans and specifications of the work to be done on Railroad's right-of-way. No work shall be commenced on Railroad's right-of-way before a notice to proceed is given by Railroad's Manager, Public Projects, to NDDOT.

Nothing provided in this agreement with respect to plans and specifications shall be construed or deemed to be a ratification or an adoption by Railroad of plans and specifications as its own.

III.

NDDOT (by its contractors) and Railroad shall perform the various items of work to the satisfaction of the Railroad and in accordance with the plans and specifications as agreed to by Railroad and NDDOT:

A. WORK TO BE PERFORMED BY NDDOT OR ITS CONTRACTOR AT EXPENSE OF NDDOT.

1. Except as provided by this agreement, furnish all plans, engineering supervision (including construction surveying), labor, materials, supplies, and equipment necessary to complete the Project.
2. Remove the existing bridge and construct the new bridge, roadway and utilities as shown on the plans in Exhibit I.
3. Perform all other work, not specifically mentioned as work to be performed by the Railroad, necessary to complete the Project in accordance with the plans and specifications.
4. Coordinate all work with the Railroad's Roadmaster and designated Project Engineer. Phone number is provided in the plans.
5. Comply with Exhibit E (Non-discrimination clauses) and Railroad safety requirements as specified in Exhibit B and Exhibit C.

B. WORK TO BE PERFORMED BY RAILROAD

1. Provide flagging for the work of NDDOT or its contractor at the expense of NDDOT as estimated and attached hereto as Exhibit D and Exhibit G.
2. Furnish engineering and inspection as required in connection with the construction of the Project as estimated and attached hereto as Exhibit G.
3. The estimated cost of various items of work to be performed by Railroad under this agreement is shown on the estimate attached hereto and marked Exhibit G. All costs incurred by Railroad are subject to Federal aid and shall meet the requirements of the NDDOT.

IV.

All work to be done by NDDOT or its contractor on Railroad's right-of-way or in the vicinity of Railroad's tracks shall be done in a manner satisfactory to Railroad and shall be performed at such a time and in such manner as not to interfere unnecessarily with the movement of trains or traffic upon the tracks of Railroad. NDDOT will require its contractor to use all care and precaution necessary to avoid accident or damage to, or interference with, Railroad's tracks or trains, and to notify Railroad's engineer 30 days in advance whenever the contractor is about to perform work on or adjacent to Railroad's right of way and tracks to enable Railroad to furnish flagging and such other protective services and devices as in Railroad's judgment may be necessary to ensure safety of railroad operation. Wherever safeguarding of trains or traffic of railroad is mentioned in this agreement, it is intended to cover and include all users of Railroad's tracks having permission for such use.

NDDOT will reimburse Railroad directly for all costs incurred for flagging and other protective services/devices furnished. Bills for flagging and other protective services and devices ascertained in accordance with the provisions of 23 CFR 646-B and 23 CFR 140-1 and other pertinent instructions issued by the Federal Highway Administration, Department of Transportation, will be submitted by Railroad to NDDOT.

If Railroad enters into a contract or agreement with a contractor to perform any of the work which railroad is required to perform under the terms of this agreement by reason of the construction of NDDOT's project, Railroad, for itself, its assigns, and successors in interest, agrees that it will not discriminate in the choice of contractors and will include all non-discrimination provisions set forth in Exhibit E, attached hereto and made a part hereof.

Railroad will submit complete billing for flagging and other protective services and devices within one hundred twenty (120) days after completion of the Project. NDDOT will review all billings and pay all accepted billings within 90 days from the date the billing is received by the NDDOT.

Attached Exhibit D is a statement of conditions when flagmen and other services and devices will be furnished by Railroad, attached hereto and made a part hereof.

V.

Pre-award audits will be required by NDDOT on all contracts in excess of \$50,000, and may be required in other instances.

A commercial contractor will be audited by NDDOT to ensure compliance with applicable laws and regulations. The financial value of the contract is not a deciding factor on this type of audit.

VI.

NDDOT shall require that should the contractor in any way interfere with Railroad operations or damage property during construction operations over Railroad's tracks and right-of-way, the contractor shall stop his work to allow the Railroad to investigate and make necessary repairs at contractors' sole cost and expense. No work will proceed until authorized by the Railroad.

VII.

The Contractor, for work on or adjacent to the Railroad right-of-way, will indemnify and hold harmless the Railroad and any other railroad company occupying or using the Railroad's right-of-way or line of railroad against all loss, liability, and damage arising from activities of the Contractor, its forces or any of its subcontractors or agents, and will further provide the following insurance coverages:

- A. Before commencing any work under this agreement, Contractor must provide and maintain in effect insurance, at Contractor's expense, covering all of the work and services to be performed hereunder by the Contractor and each of its subcontractors, as described below.
 1. Worker's Compensations coverage is as required by state law. If the Contractor is not covered by the North Dakota Workers Comp Act, the Contractor shall provide employers liability policy. The certificate for this policy must contain a specific waiver of the insurance company's subrogation rights against the BNSF Railway Company.

2. Commercial general liability insurance covering liability, including but not limited to public liability, personal injury and property damage, with coverage of at least \$2,000,000 per occurrence and \$6,000,000 in the aggregate. Where explosion, collapse, or underground hazards are involved, the X, C and U exclusions in Marsh requirements. See Exhibit F concerning limited seepage, pollution, and contamination coverage.
3. Automobile liability insurance, including bodily injury and property damage, with coverage of at least \$1,000,000 combined single limit or the equivalent.
4. Contractual liability insurance covering all of the liability assumed by the Contractor under the provisions of this agreement, with coverage of at least \$2,000,000 combined single limit or the equivalent.
5. Railroad protective liability insurance stating the BNSF Railway Company is the named insured covering all of the liability assumed by the Contractor under the provisions of this agreement with coverage of at least \$5,000,000 per occurrence and \$10,000,000 in the aggregate.

All insurance shall be placed with insurance companies licensed to do business in the states in which the work is to be performed, and with current Best's Insurance Guide Ratings of A and Class X, or better.

If any work is to be performed within 50 feet of a railroad track, then insurance must provide coverage of incidents occurring within fifty (50) feet of a railroad track, and any provision to the contrary in the insurance policy must be specifically deleted.

In all cases, the certificate must specifically state that BNSF Railway Company is an additional insured.

Any coverage afforded Railroad, the Certificate Holder, as an additional insured shall apply as primary and not excess to any insurance issued in the name of the Railroad.

- B. Before commencing any work hereunder, the Contractor shall furnish to Railroad, and the Railroad will approve, Certificate of Insurance on the form prescribed by Railroad, evidencing the issuance to the Contractor of the policies of insurance providing the types of less than 30 days written notice prior to any material change, substitution or cancellation prior to normal expiration dates. Cancellation or expiration of any of said policies of insurance shall not preclude Railroad from recovery there under for any liability arising under this agreement.
- C. It is mutually understood and agreed that the purchase of insurance as herein provided shall not in any way limit the liability of the Contractor to Railroad, as herein set forth.

The following information must appear on the Certificate of Insurance to identify the project policy is issued to cover:

Project: BNSF Railway Bridge over I-94 over BNSF Railway, Jamestown, ND

Contractor:

Name:

Address:

Telephone Number:

BNSF Railway:

Railroad protective insurance may be obtained from:

MARSH
(214) 303-851

Certificate of Insurance should be sent to:

BNSF Manager of Public Projects 80 44th Avenue NE
Minneapolis MN 55421
(763) 782-3492

VIII.

The Railroad agrees to observe and comply with all applicable Federal and State laws.

IX.

Upon completion of the items of work, NDDOT shall require its Contractor to leave the Railroad right-of-way in a condition satisfactory to the Railroad.

X.

Upon completion of the Project, neither party shall do or permit anything to be done to reduce the horizontal or vertical clearances provided by plans; provided, however, that the Railroad reserves the right to make such ballast raises to its existing and future tracks as may be justified, and further reserves the right to make changes or additions to its facilities within the limit of the overpass. In the event any changes in, or additions to the tracks or other facilities of the Railroad, NDDOT, or City are made in the future, the usefulness of the overpass for the purpose of grade separation shall not be impaired.

XI.

NDDOT shall own, maintain, repair, and reconstruct, as necessary and at its own expense, the overpass bridge structure; excluding rail, ballast, ties and the railroad approaches to the bridge structure which will be owned by the Railroad. NDDOT agrees that, prior to commencement of any such work of maintenance, repair, or reconstruction; it will furnish the Railroad details of the proposed work and description of the manner in which the work is to be performed. NDDOT further agrees, with respect to such maintenance, repair, or reconstruction, that it will:

- A. Comply and cause its contractor to comply with all obligations assumed or to be assumed by NDDOT and/or its contractor in connection with the original construction of the railroad overpass and
- B. Furnish or cause its contractor to furnish to the Railroad a Right of Entry Agreement and a Railroad Protective Policy in the form and the amount then required by the Railroad, said policy to be executed by a corporation qualified in North Dakota, and
- C. Require its contractor to carry regular contractor's public liability and property damage insurance as then specified by NDDOT Spec. 107.14 or any subsequent NDDOT specification for limits equal to those then required of public contractors performing work under contract with NDDOT; and
- D. Reimburse the Railroad for all costs and expenses related to the maintenance or reconstruction of the structure incurred by the Railroad in connection with such maintenance, repair, or reconstruction.

XII.

In the event the overpass shall cease to be used for highway purposes, the NDDOT shall notify the Railroad of such abandonment, and at NDDOT's expense, remove the overpass and approaches located upon the property of the Railroad except and unless it is mutually agreed, within 120 days following NDDOT's notification of abandonment, that portions of all the overpass and approaches are to be left in place. Removal and cleaning up of the Railroad's property shall be done to the satisfaction of the Railroad.

XIII.

Other Agreements. This agreement shall supersede any and all other agreements, arrangements, or understandings between the signatory jurisdictions covering, in whole or in part, any of the matters covered in this agreement.

XVI.

This agreement shall be for the benefit of and be binding upon the parties hereto, their successors, and assigns.

EXECUTED the date last below signed.

WITNESS:

THE BNSF
RAILROAD COMPANY

Matthew A Keim
NAME (TYPE OF PRINT)

RICHARD SCOTT
OFFICERS NAME (TYPE OR PRINT)

Matthew A Keim
SIGNATURE

[Signature]
SIGNATURE

MANAGER PUBLIC PROJECTS
TITLE

03/14/2019
DATE

Executed by the North Dakota Department of Transportation, the date last signed below:

WITNESS:

NORTH DAKOTA DEPARTMENT OF
TRANSPORTATION

LAUREEN M. MARTIN
(TYPE OR PRINT)

for
the

Ronald J. Henke
DIRECTOR (TYPE OR PRINT)

[Signature]
SIGNATURE

[Signature]
SIGNATURE

3/18/19
DATE

APPROVED AS TO SUBSTANCE BY:

Jon Ketterling
BRIDGE ENGINEER (TYPE OR PRINT)

[Signature]
SIGNATURE

3/19/19
DATE

APPROVED as to execution this
15th day of March 2019
ATTORNEY GENERAL
By [Signature]
SPECIAL ASST ATTORNEY GENERAL

REQUIREMENTS FOR CONTRACTORS WORKING ON RAILROAD RIGHT-OF-WAY

The North Dakota Department of Transportation agrees to not allow their contractors to occupy or work on the railroad's right-of-way prior to signing the Road Authority's contract, which shall include the following list of conditions:

1. All permits and agreements must be in effect, required payments made and insurance certificates received and approved prior to entering railroad right-of-way.
2. Contractor's approved insurance must be in effect prior to entry onto railroad right-of-way and during entire Project.
3. No change will be made to "Construction Plans" without approval by all parties involved. Approved revised plans will be furnished to all parties prior to implementation of changes.
4. Road authority or contractor will incur all costs for track work, including flagging, etc., made necessary due to their construction operation.
5. Flagging protection is always required when equipment crosses or is working within 25 feet of center of any live track. When deemed necessary by railroad officers, a flagman may be required at all times while working on railroad right-of-way in high density rail traffic areas.
6. Crossing of any railroad tracks must be done at approved locations and must be over full depth timbers, rubber, etc. Any equipment with steel wheels, lugs or tracks, must not cross steel rails without aid or rubber tires or other approved protection.
7. All track crossing locations must be covered by a private roadway and crossing agreement.
8. Contractor must furnish details on how he will perform work that will affect existing drainage and/or possible fouling of track ballast, as well as removal of permanent or temporary overhead bridges/structures. (Structures and bridge spans over tracks must be removed intact whenever possible).
9. Absolutely no construction will be allowed within 25 feet of center or any track unless authorized by the Railroad and shown on plan approved by the Railroad. This includes any excavation, slope encroachment and driving of sheet piles.
10. No vehicles or machines shall remain unattended while on railroad right of way.
11. **IMPORTANT:** Disregarding any of these items will result in contractor's right of entry on railroad right-of-way being suspended for a minimum of 48 hours while infraction is investigated. Based on findings of the investigation, it will be determined if the contractor will be allowed to work on railroad right-of-way in the future.

12. Contractors' safety rules, including rules regarding personal safety equipment, must not conflict with the railroads safety policies or rules.
13. No employee of the Contractor, its subcontractors, agents or invitees may enter Railroad property without first having completed Railroad's Engineering Contractor Safety Orientation found on the web site www.BNSFcontractor.com. The Contractor must ensure that each of its employees, subcontractors, agents or invitees completes Railroad's Engineering Contractor Safety Orientation through internet sessions before any work is performed on the Project. Additionally, the Contractor must ensure that each and every one of its employees, subcontractors, agents or invitees possesses a card certifying completion of the Railroad Contractor Safety Orientation before entering Railroad Property. The Contractor is responsible for the cost of the Railroad Contractor Safety Orientation. The Contractor must renew the Railroad Contractor Safety Orientation annually. Further clarification can be found on the web site or from the Railroad's Representative.

CONTRACTOR'S ACKNOWLEDGMENT:

By their signature on the North Dakota Department of Transportation's contract, the contractor has agreed to abide by all the conditions listed above.

GENERAL SAFETY REQUIREMENTS FOR CONSULTANTS/CONTRACTORS

Work in the proximity of a railroad track is potentially dangerous. Employees and contract employees of consultants/contractors are governed by the following safety rules and general safety requirements while on railroad property. Consultant/contractor is responsible for enforcement of these rules and requirements. Railroad has the right to bar consultant/contractor employees and its contracted employees from working on railroad property if railroad deems such employees are unsafe workers. Consultant/contractor is also responsible for compliance with federal and state laws and any government regulations.

Safety rules cannot be all-inclusive. Workers must refrain from unsafe and improper practices, including both the violation of written rules and regulations and rules of common sense.

1. The use of alcoholic beverages, intoxicants, narcotics, or other controlled substances by employee's subject to duty or their possession or use while on duty or on railroad property is prohibited. Workers must not report for duty under the influence of any alcoholic beverage, intoxicant, narcotic, marijuana or other controlled substance, or medication, including those prescribed by a doctor, that may in any way adversely affect their alertness, coordination, reaction, response or safety.
2. Scuffling, horseplay, practical jokes and all conduct of a similar nature is prohibited.
3. All vehicle accidents resulting in damage to railroad property will be reported immediately to the railroad engineer.
4. Employees are prohibited from having firearms or other deadly weapons, including knives with a blade in excess of three inches, in their possession while on duty or on company property, except those authorized to have them in the performance of their duties or those given special permission.
5. Good housekeeping is of the utmost importance in the prevention of accidents, injuries, and fires. Clean-up will be conducted on a daily basis.
6. Tools or work materials must not be left in close proximity to tracks.
7. Throwing waste, garbage, bottles, refuse, or other such materials on railroad property or disposing of such at other than designated locations is prohibited. Each contractor will provide refuse containers at the work site and empty them on a daily basis.
8. Objects which constitute a slipping or tripping hazard must not be left in walking areas.
9. Open fires or fires in barrels are not allowed on railroad property unless appropriate permits are acquired.
10. In all cases, established route of travel in and about property must be used.

11. Railroad vehicles have an unquestioned right-of-way in all circumstances relating to work on or about the track area.
12. Workers must not wear or use anything which impairs vision or hearing. Listening to personal radios or tape players is prohibited while on duty.
13. Upon entering work site, shoes or sturdy construction and proper height to provide adequate protection and hard hats are required. Other appropriate safety equipment (glasses, goggles, gloves, side shields) must be worn when OSHA or other railroad regulations require.
14. All employees will become familiar with and be capable of recognizing railroad equipment adjacent to the tracks.
15. Walking, stepping or standing on rail or ties, or sitting on any part of track structure except in performance of duty is prohibited. NOTE: The term "track structure" means the space between the rails and within three feet outside the rails, unless otherwise specified.
16. Workers are prohibited from tampering with switches or any other railroad equipment unless it is necessary for work operation and only in the presence of an authorized railroad worker.
17. Workers must not go underneath rail cars. They must not occupy rail cars except in performance of their duty.
18. Workers must not cross tracks by crossing over between cars that are coupled together.
19. Workers must not attempt to catch onto or ride any moving railroad equipment, even though it may be moving slowly.
20. Workers must not take refuge from rain, heat, etc., under or in cars or other rail equipment.
21. Workers are warned that trains, locomotives or cars, may be expected at any time, on any track, in either direction, and that they must watch for and keep clear of such movements. Workers must take extra precaution to be on the lookout for approaching trains, especially when working in multiple track territory, when field of vision is limited, or when noisy equipment is in use. A portable air horn shall be used by a designated person to warn workers of approach trains or equipment.
22. Workers shall not work on the track, between tracks in multiple track territory, or nearer than 25 feet to the track without proper flag protection provided by railroad.

23. Any work within 25 feet of rail without consideration to height must be stopped in the clear when trains are approaching and passing. The machine operator and workers must stand back at least 25 feet from the track. If the 25-foot distance cannot be attained, workers must clear the tracks as far as possible.
24. Work in tunnels, on bridges and overpasses must be done in accordance with a safety plan agreed upon by the railroad engineer or his representative prior to beginning work in these areas. When work is being done in tunnels, specific requirements must be met and work done under the railroad's supervision.
25. Do not wave arms or objects violently except in an emergency, this is a STOP signal.
26. Workers must not make any movement toward an approaching train or operate machinery in a manner that would cause the engineer to believe that the track is going to be fouled.
27. Crossing tracks immediately in front of moving equipment is prohibited.
28. When necessary to cross any track, look both ways and keep at least 25 feet from the nearest end of stationary rail cars.
29. Machines may be operated across tracks only at established grade crossings. If it is necessary to do so at any other location, it may be done only with permission of and under the supervision of the railroad engineer or his representative on site.
30. Some rails are conductors of electrical current and are integral parts of the railroad's operating system. Devices that could shunt this electrical current must not be laid across rails. No hand or portable tools will be left on the rails at any time. Use a wooden lath to provide separation when making measurements adjacent to the tracks.
31. Machines or vehicles must not be left unattended with the engine running. If a machine is left unattended, it must be in gear with brakes set. If it is equipped with blade, pan or bucket, that must be lowered to the ground.
32. All machinery and equipment left unattended on the right-of-way must be left inoperable and secured against movement.
33. When leaving work site areas at night and over weekends, the areas must be left in a condition that will ensure that railroad employees who might be working in the area are protected from all hazards. Any pen pits or holes shall be covered securely and a physical barrier such as a fence placed around the opening.
34. Machinery or equipment shall not be stored or left temporarily near a highway grade crossing in such a manner as to interfere with the sight distances of persons approaching that crossing. Prior to beginning work, contractor, with concurrence of the railroad engineer or his representative on site, will establish a storage area.

35. Cutting or knocking down trees or moving rocks and other materials that might fall on the track structure or on communications or power lines is prohibited, unless done with the approval and supervision of the railroad engineer or his representative.
36. Workers must not create and leave any condition at the work site that would interfere with water drainage.
37. Safeguards and safety signs must be kept in place and in good condition. It is the responsibility of the contractor to provide same.
38. Each person in charge of a work party must be familiar with the mile post location of the area in which work is being performed so that in cases of emergencies the exact location may be given to railroad personnel.
39. In cases of emergency, it may be necessary for contractor's employees or agents to flag and stop approaching trains. Flagging equipment should consist of red fuses and/or red flags.
40. When emergency flagging is necessary, workers should protect against trains moving in both directions.
41. When required to perform emergency flagging, workers must understand that a great distance is required in which to stop a moving train. The flag person must be at least 1.5 miles from the point being protected in order to provide minimum distance for the engineer to stop the train.

A stop signal is given by swinging the lighted fuse or red flag at right angle to the track, but the engineer will recognize the stop signal if given violently in any manner from a point near the track. Workers, when giving a stop signal, must not stand on or within fouling distance of the track, as normally the engineer will not have the required stopping distance to stop short of the point where the signal is being given.
42. When an emergency exists or if any hazard is noticed on passing trains, the railroad engineer or his representative on site must be notified immediately.
43. High frequency radios (not CB's) shall be used by all crews for emergency communications between crews.
44. Radio transmitters must not be operated when located less than 250 feet from blasting operations.
45. When it is necessary to create a hazardous condition in performing work on or in the vicinity of a track, proper protection must be afforded in accordance with a safety plan submitted to and approved by the Railroad Engineer or his representative prior to creating the hazardous condition, as well as taking any other precautions that may be necessary to protect the condition.

46. Before excavating, it must be ascertained by the contractor if there are underground electric wires, cables, or pipe lines in the vicinity.
47. If obstructions are encountered that do not appear on drawings, the railroad crew chief must be notified before continuing excavation operations.
48. All excavations, regardless of depth, will be shored where there is any danger to track structure.
49. No excavation will be left uncovered or unprotected overnight.
50. Holes or trenches in the vicinity of the track must be covered, upgraded, and protected, when not being worked on.
51. Excavations, trenches or pits on or adjacent to public roads will be physically protected and denoted by highway barriers with flashing lights when not in use.
52. All excavations will be backfilled as soon as possible
53. All power line wires must be considered dangerous and of high voltage unless informed to the contrary by proper authority. For lines rated 50KV or below, minimum clearance between the lines and any part of the equipment or load shall be 10 feet. For lines rated over 50KV, minimum clearance between the line and any part of equipment or load shall be 10 feet plus 0.4 inches for each 1KV over 50KV. If the capacity of the line is not known, minimum clearance of 20 feet must be maintained. A person shall be designated to observe clearance of the equipment and give a timely warning for all operations where it is difficult for operator to maintain the desired clearance by visual means.
54. IN ALL CASES OF DOUBT OR UNCERTAINTY, THE SAFEST COURSE MUST BE TAKEN.

**FLAGGING REQUIREMENTS
FOR CONSTRUCTION PROJECTS ON OR ADJACENT TO PROPERTY OF
THE BURLINGTON NORTHERN AND SANTA FE RAILWAY COMPANY**

SECTION 1. PROTECTION OF RAILWAY FACILITIES AND RAILWAY FLAGGER SERVICES

(a). The Contractor shall give a minimum of at least thirty (30) working days' notice to the Railways Roadmaster at telephone 417-761-1919 in advance of when flagging services will be required to bulletin the flaggers position and shall provide five (5) working days' notice to the Roadmaster to abolish the position per union requirements.

(b). Railway flagger and protective services and devices will be required and furnished when Contractor's work activities are located over or under of and within twenty-five (25) feet measured horizontally from center line of the nearest track and when cranes or similar equipment positioned outside of 25-foot horizontally from track center line that could foul the track in the event of tip over or other catastrophic occurrence, but not limited thereto for the following conditions:

(1). When in the opinion of the Railway's representative, it is necessary to safeguard Railway's Property employees, trains, engines and facilities.

(2). When any excavation is performed below the bottom of tie elevation, if, in the opinion of Railway's representative, track or other Railway facilities may be subject to movement or settlement.

(3). When work in any way interferes with the safe operation of trains at timetable speeds.

(4). When any hazard is presented to Railway track, communications, signal, electrical, or other facilities either due to persons, materials, equipment or blasting in the vicinity.

(5). Special permission must be obtained from the Railway before moving heavy or cumbersome objects or equipment which might result in making the track impassable.

(c). Flagging services will be performed by qualified Railway flaggers. The base cost for (1) flagger is \$1,000 for an 8-hour day which includes vacation allowance, paid holidays, Railway and Unemployment Insurance, Public Liability and Property Damage Insurance, health and welfare benefits, transportation, meals, lodging and supervision, for an eight (8) hour basic day with time and one-half or double time for overtime, rest days and holidays. These rates are subject to any increases which may result from Railway Employees- Railway Management negotiations or which may be authorized by Federal authorities. State/Contractor will be billed on actual costs in effect at time work is performed.

(1). A flagging crew generally consists of one employee. However, additional personnel may be required to protect Railway Property and operations, if deemed necessary by the Railway's representative.

(2). Each time a flagger is called, the minimum period of billing shall be the eight (8) hour basic day.

(3). The cost of flagger services provided by the Railway, when deemed necessary by the Railway's representative, will be borne by the State/Contractor.

(4). The average train traffic per 24-hour period on this route is 14 trains.

NONDISCRIMINATION CLAUSES

During the performance of this contract, the Contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the Contractor) agrees as follows:

1. Compliance with Regulations: The Contractor (hereinafter includes consultants) will comply with the Acts and the Regulations relative to Non-discrimination in Federally-assisted programs of the U.S. Department of Transportation, the Federal Highway Administration, as they may be amended from time to time, which are herein incorporated by reference and made a part of this contract.
2. Non-discrimination: The Contractor, with regard to the work performed by it during the contract, will not discriminate on the grounds of race, color, or national origin in the selection and retention of subcontractors, including procurements of materials and leases of equipment. The Contractor will not participate directly or indirectly in the discrimination prohibited by the Acts and the Regulations, including employment practices when the contract covers any activity, project, or program set forth in Appendix B of 49 CFR Part 21.
3. Solicitations for Subcontracts. Including Procurements of Materials and Equipment: In all solicitations, either by competitive bidding, or negotiation made by the Contractor for work to be performed under a subcontract, including procurements of materials, or leases of equipment, each potential subcontractor or supplier will be notified by the Contractor of the Contractor's obligations under this contract and the Acts and the Regulations relative to Non-discrimination on the grounds of race, color, or national origin.
4. Information and Reports: The Contractor will provide all information and reports required by the Acts, the Regulations, and directives issued pursuant thereto and will permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the Recipient or the Federal Highway Administration to be pertinent to ascertain compliance with such Acts, Regulations, and instructions. Where any information required of a Contractor is in the exclusive possession of another who fails or refuses to furnish the information, the Contractor will so certify to the Recipient or the Federal Highway Administration as appropriate, and will set forth what efforts it has made to obtain the information.
5. Sanctions for Noncompliance: In the event of a contractor's noncompliance with the Non-discrimination provisions of this contract, the Recipient will impose such contract sanctions as it or the Federal Highway Administration may determine to be appropriate, including, but not limited to:
 - a. withholding payments to the Contractor under the contract until the Contractor complies; and/or
 - b. cancelling, terminating, or suspending a contract, in whole or in part.

6. Incorporation of Provisions: The Contractor will include the provisions of paragraphs one through six in every subcontract, including procurements of materials and leases of equipment, unless exempt by the Acts, the Regulations and directives issued pursuant thereto. The Contractor will take action with respect to any subcontract or procurement as the Recipient or the Federal Highway Administration may direct as a means of enforcing such provisions including sanctions for noncompliance. Provided, that if the Contractor becomes involved in, or is threatened with litigation by a subcontractor, or supplier because of such direction, the Contractor may request the Recipient to enter into any litigation to protect the interests of the Recipient. In addition, the Contractor may request the United States to enter into the litigation to protect the interests of the United States.

Pertinent Non-Discrimination Authorities:

- Title VI of the Civil Rights Act of 1964 (42 U.S.C. § 2000d *et seq.*, 78 stat. 252), (prohibits discrimination on the basis of race, color, national origin); and 49 CFR Part 21.
- The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, (42 U.S.C. § 4601), (prohibits unfair treatment of persons displaced or whose property has been acquired because of Federal or Federal-aid programs and projects);
- Federal-Aid Highway Act of 1973, (23 U.S.C. § 324 *et seq.*), (prohibits discrimination on the basis of sex);
- Section 504 of the Rehabilitation Act of 1973, (29 U.S.C. § 794 *et seq.*), as amended, (prohibits discrimination on the basis of disability); and 49 CFR Part 27;
- The Age Discrimination Act of 1975, as amended, (42 U.S.C. § 6101 *et seq.*), (prohibits discrimination on the basis of age);
- Airport and Airway Improvement Act of 1982, (49 USC § 471, Section 47123), as amended, (prohibits discrimination based on race, creed, color, national origin, or sex);
- The Civil Rights Restoration Act of 1987, (PL 100-209), (Broadened the scope, coverage and applicability of Title VI of the Civil Rights Act of 1964, The Age Discrimination Act of 1975 and Section 504 of the Rehabilitation Act of 1973, by expanding the definition of the terms "programs or activities" to include all of the programs or activities of the Federal-aid recipients, sub-recipients and contractors, whether such programs or activities are Federally funded or not);
- Titles II and III of the Americans with Disabilities Act, which prohibit discrimination on the basis of disability in the operation of public entities, public and private transportation systems, places of public accommodation, and certain testing entities (42 U.S.C. §§ 12131-12189) as implemented by Department of Transportation regulations at 49 C.F.R. parts 37 and 38;
- The Federal Aviation Administration's Non-discrimination statute (49 U.S.C. § 47123) (prohibits discrimination on the basis of race, color, national origin, and sex);
- Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, which ensures discrimination against minority populations by discouraging programs, policies, and activities with disproportionately high and adverse human health or environmental effects on minority and low-income populations;

- Executive Order 13166, Improving Access to Services for Persons with Limited English Proficiency, and resulting agency guidance, national origin discrimination includes discrimination because of limited English proficiency (LEP). To ensure compliance with Title VI, you must take reasonable steps to ensure that LEP persons have meaningful access to your programs (70 Fed. Reg. at 74087 to 74100);
- Title IX of the Education Amendments of 1972, as amended, which prohibits you from discriminating because of sex in education programs or activities (20 U.S.C. 1681 et seq).

**LIMITED SEEPAGE, POLLUTION AND CONTAMINATION COVERAGE
ENDORSEMENT WORDING**

In consideration of the premium charged for the policy provided by Marsh, it is understood and agreed that Exclusion f of Coverage A of this policy shall not apply to the liability of the insured resulting from seepage and/or pollution and/or contamination caused solely by:

- a. unintended fire, lightning or explosion: or
- b. a collision or overturning of a road vehicle: or
- c. a collision or overturning or derailment of a train.

Notwithstanding the foregoing it is agreed that the coverage provided by this endorsement shall not apply to:

- 1. loss of, damage to or loss of use of property directly or indirectly resulting from sub-surface operations of the insured, and/or removal of, loss of or damage to sub-surface oil, gas or any other substance;
- 2. any site or location used in whole or in part for the handling, processing, treatment, storage, disposal or dumping of any waste materials or substances;
- 3. the cost of evaluating and/or monitoring and/or controlling seeping and/or polluting and/or contaminating substances;
- 4. the cost of removing and/or nullifying and/or cleaning up seeping and/or polluting and/or contaminating substances on property at any time owned and/or leased and/or rented by the insured and/or under the control of the insured.

Notwithstanding the foregoing, Item 1 does not apply to tunnels.

If railroad protective insurance is obtained from a different insurance carrier, the preceding provisions must be incorporated into the policy.

RAILROAD COST ESTIMATE

The cost to complete the work performed by the railroad as identified in Section IIIB is as follows:

1. Flagging as per Exhibit D = estimated 150-days
2. Providing engineering and inspection as required in connection with the construction of the Project = estimated 24-week to 30-week project duration

Payment to the Railroad will be made by the NDDOT upon receipt of a request for payment from the Railroad. The request for payment shall be made to:

North Dakota Department of Transportation
Jon Ketterling, Bridge Engineer
608 East Boulevard Avenue
Bismarck ND 58501-0700

AUTHORITY FOR EXPENDITURE

| | | |
|------------------------------------|--------------------------|------------------------|
| LOCATION : SURREY | LINE SEGMENT : 34 | AFE NUMBER : |
| PLANITEM NUMBER : 228753001 | MILEPOST : 225.153 | RFA NUMBER : 5926719 |
| PROPERTY OF : BNSF RAILWAY COMPANY | DIVISION : TC | CPAR NUMBER : CB960119 |
| OPERATED BY : BNSF RAILWAY COMPANY | SUBDIVISION : KO | BUDGET YEAR : 2019 |
| JOINT FACILITY : ND DOT | TRACK TYPE : S | BUDGET CLASS : 6 |
| % BILLABLE (+/-) : 100.0 | TAX STATE : ND | REPORTING OFFICE : 718 |
| | SPONSOR : VP ENGINEERING | CENTER/ROLLUP : S3534 |

PURPOSE, JUSTIFICATION AND DESCRIPTION

FLG - TCW DIV KO SUB LS 34 MP 225.153 - DOT#102434V - 100% BILLABLE TO ND DOT - SURREY, ND DOT 102434V US 2 OVERPASS, FLAGGING FOR ROADWAY HIGHWAY RECONSTRUCTION PROJECT IN 2019, 100% BILLABLE TO NDDOT, ESTIMATED 24-30 WEEK PROJECT DURATION

PRIMARY FUNDING SOURCE IS STATE

| PLAN ITEM | LINE SEG | BEG MP | END MP | TRK NBR | BEGIN STATION | END STATION | PROJECT TYPE | BUD YEAR |
|-----------|----------|---------|---------|---------|---------------|-------------|--------------|----------|
| 228753001 | 34 | 225.153 | 225.153 | S | SURREY | SURREY | FLAGGING | 2019 |

| | CASH CAPITAL | NONCASH CAPITAL | OPERATING EXP | REMOVAL COSTS | BILLABLE | TOTALS |
|----------------|--------------|-----------------|---------------|---------------|----------------|----------------|
| LABOR COSTS | 0 | 0 | 0 | 0 | 182,772 | 182,772 |
| MATERIAL COSTS | 0 | 0 | 0 | 0 | 0 | 0 |
| OTHER COSTS | 0 | 0 | 0 | 0 | 36,953 | 36,953 |
| TOTALS | 0 | 0 | 0 | 0 | 219,725 | 219,725 |

SYSTEM MAINTENANCE AND PLANNING
 ESTIMATE REF. NUMBER: 5926719
 COSTING DATE: 03/14/2019

PRINTED ON: 03/14/2019
 ESTIMATED BY: Savard
 PRINTED BY: Savard

***** MAINTAIN PROPRIETARY CONFIDENTIALITY *****

BNSF RAILWAY COMPANY
FHPM ESTIMATE FOR
ND DOT

LOCATION SURREY

DETAILS OF ESTIMATE

PLAN ITEM: 228753001

VERSION: 1

PURPOSE, JUSTIFICATION AND DESCRIPTION

FLG - TCW DIV KO SUB LS 34 MP 225.153 - DOT#102434V - 100% BILLABLE TO ND DOT

SURREY, ND DOT 102434V US 2 OVERPASS, FLAGGING FOR ROADWAY HIGHWAY RECONSTRUCTION PROJECT IN 2019, 100% BILLABLE TO NDDOT, ESTIMATED 24-30 WEEK PROJECT DURATION

REQUESTED BY RICHARD D. SCOTT 3/7/19
PRIMARY FUNDING SOURCE IS STATE

| DESCRIPTION | QUANTITY U/M | COST | TOTAL \$ |
|----------------------------------|--------------|---------|----------|
| ***** LABOR ***** | | | |
| FLAGGING - PUBLIC CROSSING - CAP | 1800.0 MH | 58,275 | |
| PAYROLL ASSOCIATED COSTS | | 38,094 | |
| DA OVERHEADS | | 63,245 | |
| EQUIPMENT EXPENSES | | 12,960 | |
| INSURANCE EXPENSES | | 10,198 | |
| TOTAL LABOR COST | | 182,772 | 182,772 |
| ***** MATERIAL ***** | | | |
| TOTAL MATERIAL COST | | 0 | 0 |
| ***** OTHER ***** | | | |
| RENTAL VEHICLE | 150.0 DAY | 15,000 | |
| TOTAL OTHER ITEMS COST | | 15,000 | 15,000 |
| PROJECT SUBTOTAL | | | 197,772 |
| CONTINGENCIES | | | 19,777 |
| BILL PREPARATION FEE | | | 2,176 |
| GROSS PROJECT COST | | | 219,725 |
| LESS COST PAID BY BNSF | | | 0 |
| TOTAL BILLABLE COST | | | 219,725 |

AUTHORITY FOR EXPENDITURE

| | | |
|------------------------------------|--------------------------|------------------------|
| LOCATION : SURREY | LINE SEGMENT : 34 | AFE NUMBER : |
| PLANITEM NUMBER : 228753000 | MILEPOST : 225.153 | RFA NUMBER : 5926619 |
| PROPERTY OF : BNSF RAILWAY COMPANY | DIVISION : TC | CPAR NUMBER : CB960119 |
| OPERATED BY : BNSF RAILWAY COMPANY | SUBDIVISION : KO | BUDGET YEAR : 2019 |
| JOINT FACILITY : ND DOT | TRACK TYPE : S | BUDGET CLASS : 6 |
| % BILLABLE (+/-) : 100.0 | TAX STATE : ND | REPORTING OFFICE : 718 |
| | SPONSOR : VP ENGINEERING | CENTER/ROLLUP : S3534 |

PURPOSE, JUSTIFICATION AND DESCRIPTION

INSP - TCW DIV KO SUB LS 34 MP 225.153 - DOT#102434V - 100% BILLABLE TO ND DOT - SURREY, ND DOT 102434V US 2 OVERPASS OP 0034-0225.153, INSPECTOR-COORDINATOR FOR NDDOT BRIDGE RECONSTRUCTION, 100% BILLABLE TO NDDOT. ESTIMATED 24-30 WEEK PROJECT DURATION

PRIMARY FUNDING SOURCE IS STATE

| PLAN ITEM | LINE SEG | BEG MP | END MP | TRK NBR | BEGIN STATION | END STATION | PROJECT TYPE | BUD YEAR |
|-----------|----------|---------|---------|---------|---------------|-------------|-------------------------|----------|
| 228753000 | 34 | 225.153 | 225.153 | S | SURREY | SURREY | INSPECTOR / COORDINATOR | 2019 |

| | CASH CAPITAL | NONCASH CAPITAL | OPERATING EXP | REMOVAL COSTS | BILLABLE | TOTALS |
|----------------|--------------|-----------------|---------------|---------------|---------------|---------------|
| LABOR COSTS | 0 | 0 | 0 | 0 | 0 | 0 |
| MATERIAL COSTS | 0 | 0 | 0 | 0 | 0 | 0 |
| OTHER COSTS | 0 | 0 | 0 | 0 | 77,770 | 77,770 |
| TOTALS | 0 | 0 | 0 | 0 | 77,770 | 77,770 |

SYSTEM MAINTENANCE AND PLANNING
 ESTIMATE REF. NUMBER: 5926619
 COSTING DATE: 03/14/2019

PRINTED ON: 03/14/2019
 ESTIMATED BY: Savard
 PRINTED BY: Savard

EXHIBIT "H"

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:

- C. 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 a Bridge for State of North Dakota, US HWY 2 Overpass at railroad Line Segment 34, Mile Post 225.153.
- D. 1.01.02 Definitions:
1. **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.
 2. 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.
 3. **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.
- E. 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:

- F. 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.
- G. 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:

1. Overpass design
2. Underpass design
3. Hydraulic study
4. 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.*

- Submittals and Actions Required During the Construction Phase:

- H. 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.**
- I. 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.

- J. 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.

- K. 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:

1. Critical Pick Plan (75% of capacity of crane, or multi-crane pick)
2. 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
3. Demolition Plan
4. Temporary Shoring Plan
5. 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.

6. 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.
7. 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.
8. 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.**
 - See Table 3-1 for Overhead Structures in UP Railroad - BNSF Railway Guidelines for Railroad Grade Separation Projects
 - See Table 3-2 for Underpass Structures UP Railroad - BNSF Railway Guidelines for Railroad Grade Separation Projects
 - Examples of OC submittals included in the above are:
 - Shoring (Follow BNSF-UPRR Guidelines for Temporary Shoring)
 - Falsework
 - Demolition (Need plans for substructure and superstructure. Follow BNSF Guidelines for Preparation of Bridge Demolition & Removal Plan)
 - Erection (overhead and underpass structures)
 - Construction Phasing Plans
 - Additional OC submittals required, but not included in the Guidelines are:
 - All work plans that remove tracks from service (track outage windows require a detailed Gantt chart when greater than 2 hours)
 - Contingency plans
 - 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.

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

[REMAINDER OF THIS PAGE INTENTIONALLY LEFT BLANK]

23 U.S.C. 409
NDDOT Reserves All Objections

| | | | | |
|-------------|-------|------------------|-------------|-----------|
| BRIDGE CODE | STATE | PROJECT NUMBER | SECTION NO. | SHEET NO. |
| X181 | ND | NH-4-002(118)154 | 170 | 1 |

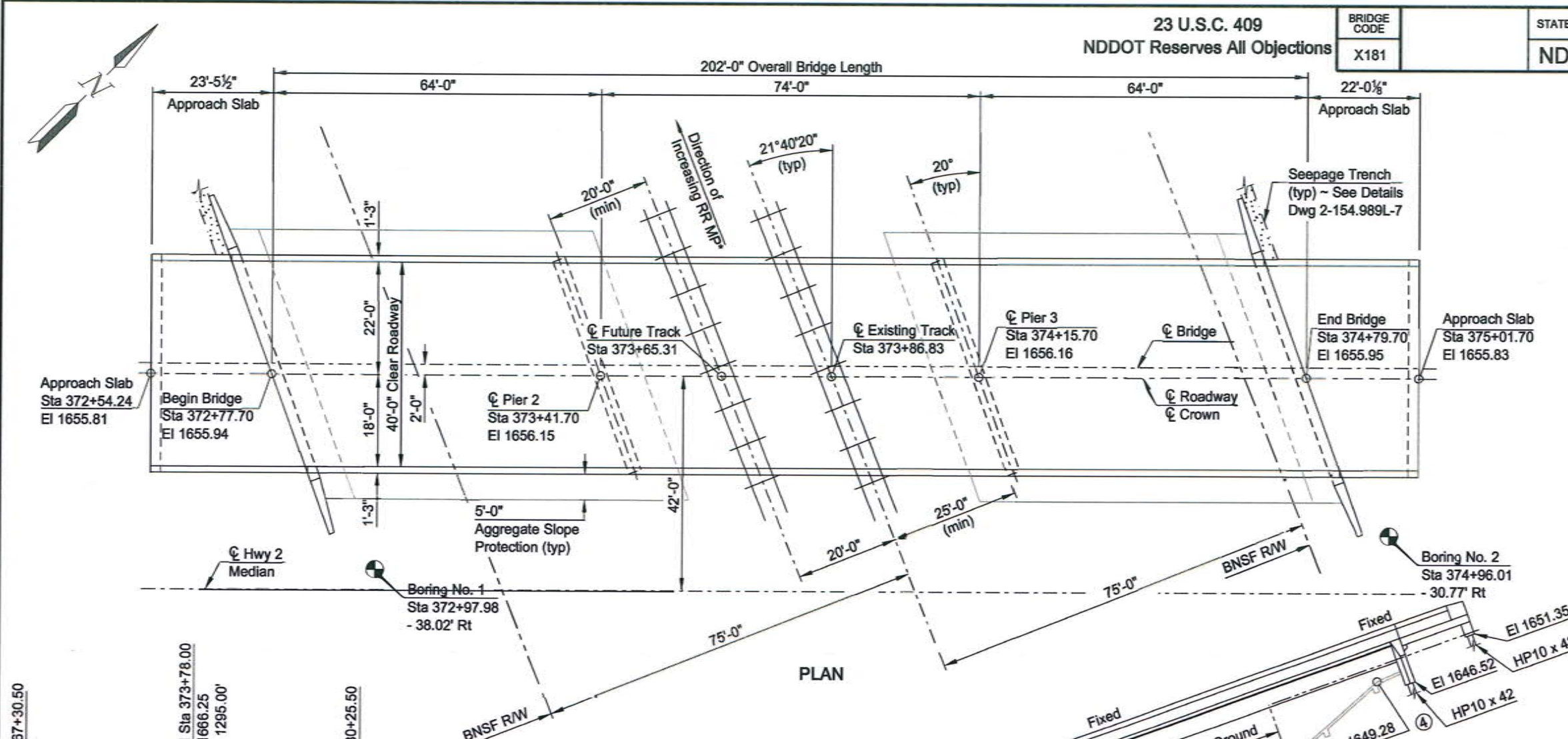
DESIGN STRENGTHS:

f_c = 3,000 psi ~ Class AE-3 Concrete
 f_c = 4,000 psi ~ Class AAE-3 Concrete
 f_c = 5,000 psi ~ Prestressed Beam Concrete
 f_c = 5,700 psi ~ Prestressed Beam Concrete
 f_y = 60,000 psi ~ Reinforcing Steel

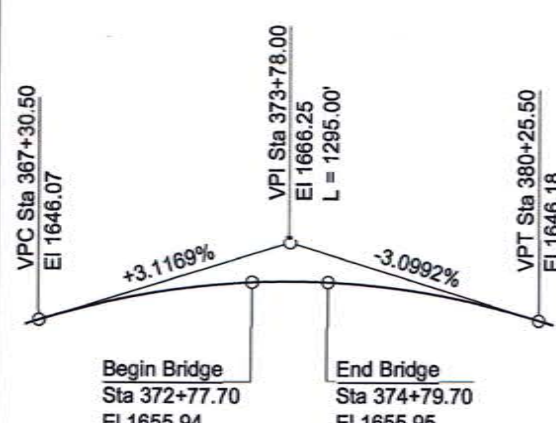
Load & Resistance Factor Design

* Nearest Railroad Station: Minot Passenger

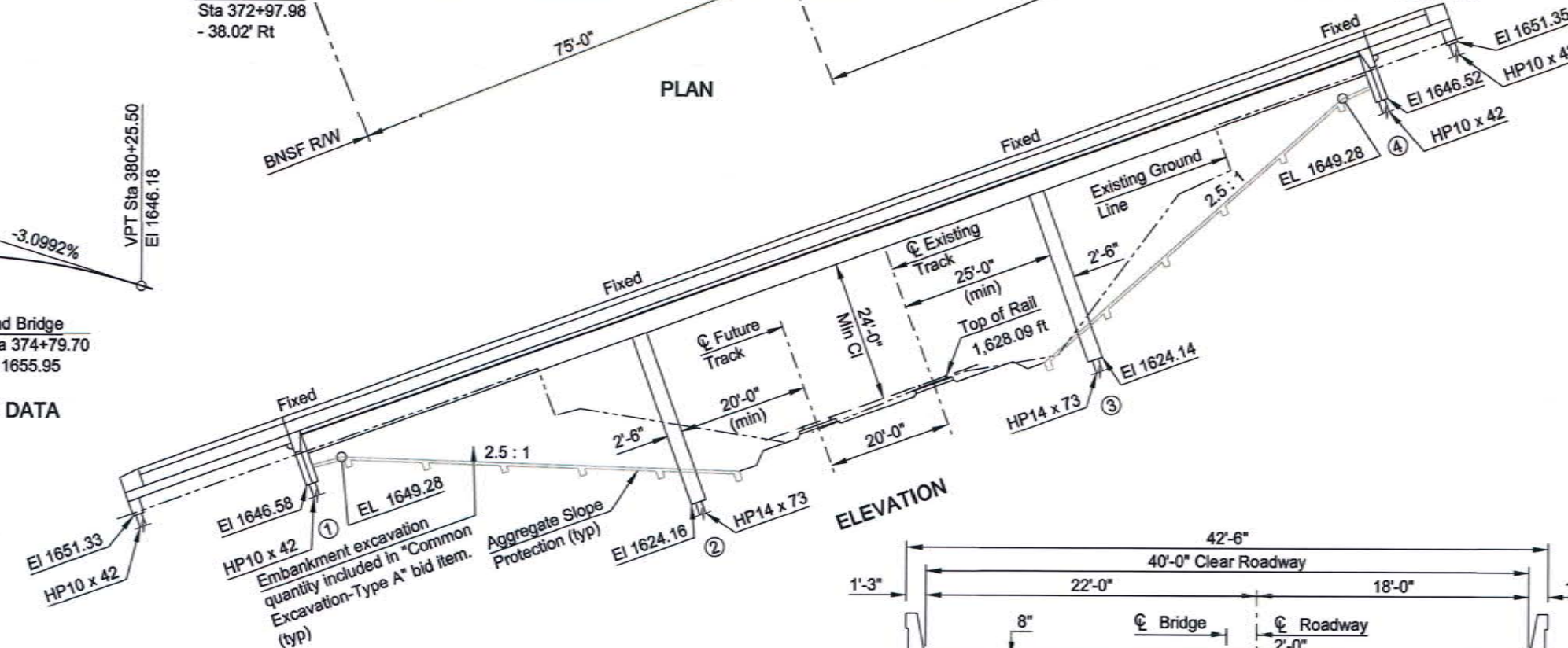
This document was originally issued and sealed by Dustin Wing, Registration Number PE 7128, on 01/29/19 and the original document is stored at the North Dakota Department of Transportation



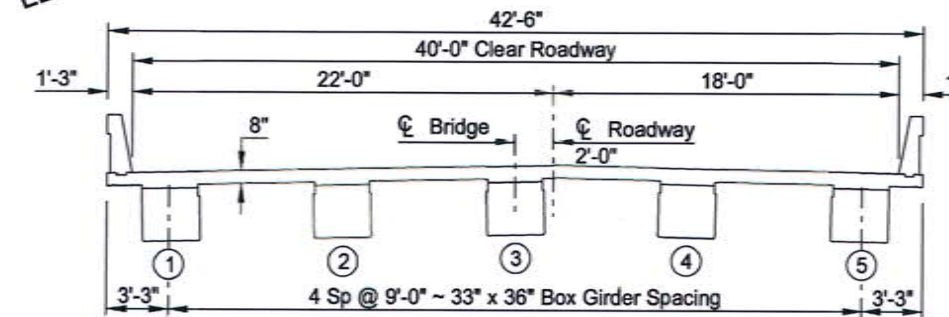
PLAN



VERTICAL CURVE DATA



ELEVATION



TYPICAL SECTION

| SURVEY CONTROL POINTS | | | |
|-----------------------|------------|--------------|-----------|
| POINT | NORTHING | EASTING | ELEVATION |
| RTK 1123 | 450,789.53 | 1,814,913.47 | 1621.80 |
| RTK 1126 | 450,783.75 | 1,815,179.13 | 1649.46 |

| SPECIAL PROVISIONS | |
|--------------------|---------------------------|
| SP 4(14) | MIGRATORY BIRD TREATY ACT |
| SP 499(14) | RAILROAD REQUIREMENTS |

| STANDARD DRAWINGS | |
|----------------------------|--|
| D-622-1, D-714-18, D-900-1 | |

| F.W.S. 15 PSF | |
|----------------------|--|
| HL-93 DESIGN LOADING | |

NORTH DAKOTA
 DEPARTMENT OF TRANSPORTATION
 BNSF RAILROAD SEPARATION
 LS 0034, MP 225.21, K O SUB
 LATITUDE 48.2337114, LONGITUDE -101.1303224
BRIDGE LAYOUT
 PROJECT: NH-4-002(118)154
 STATION: 373+78.70
 WARD COUNTY

DATE: 02/15/19
 BRIDGE ENGINEER: Jon Ketterling

| STATE | PROJECT NO. | SECTION NO. | SHEET NO. |
|-------|------------------|-------------|-----------|
| ND | NH-4-002(118)154 | 6 | 1 |

NOTES

GENERAL NOTES

- 100-P01 COORDINATION OF PROJECTS: Another project in the vicinity of this project is under contract during the 2019 construction season. This project is NH-4-002(129)150 (PCN 22339) and is located on the WB lanes of Hwy 2 on each side of this project.

- 105-P01 UTILITIES: The vertical and horizontal utility locations shown in the plans are approximate. Plan locations should not be interpreted as exact for bidding or construction purposes.

- 105-P02 UTILITIES: The contractor needs to coordinate with the local utility company when the pole at Sta.387+64-44' Lt is to be relocated to Sta. 387+64-54' Lt. The intersection will need to remain lighted during night time hours if the pole is not reset in one day.

 Contact Seth Bartholomay the local service rep in Surrey for Otter Tail Power at 701-871-1284 to coordinate. Or contact

 Dennis Huffman | Senior Area Engineer
 Otter Tail Power Company | 524 5th Ave SE | Devils Lake, ND 58301
 Office: (218) 739-8764
 Cell: (701) 351-2982
 Email: dhuffman@otpc.com

- 202-P01 REMOVAL OF AGGREGATE BASE & SURFACING: The tonnage of "Removal of Aggregate Base & Surfacing" is based on the existing typical sections shown in section 30. The tonnage includes 100% of the area of existing bituminous surfacing and the area of existing base minus 20%.

- 203-010 SHRINKAGE: 25 percent additional volume is included for shrinkage in earth embankment.

- 203-385 AVERAGE HAUL: No average haul has been computed for this project.

- 261-P01 PERMANENT FIBER ROLLS: If fiber rolls are to remain on the project, use fiber rolls that are composed of 100 percent biodegradable jute netting that has a life expectancy between 6 to 12months.

- 430-200 HMA CORING REQUIREMENTS: This note replaces the contents of the 2nd paragraph in Section 430.04 I.2.b(1), "General".

 The Engineer will designate locations for obtaining pavement cores. Under the observation of the Engineer, obtain one core at each designated location. The recorded density of each individual subplot will be the average of the cores obtained in that subplot.

- 704-200 PRECAST CONCRETE MEDIAN BARRIERS – STATE FURNISHED: Obtain 80 barriers from the Stanley Section. Return barriers to the Stanley Section.

 Some 4 inch x 4 inch boards are available at the return location. Provide any additional 4 inch x 4 inch boards necessary to stack barriers. The boards will become property of the Department. Include the cost for boards in the contract unit price for "Precast Concrete Median Barrier - State Furnished".

- 704-500 PORTABLE RUMBLE STRIPS (PRS): Use PRS made of rubber or engineered polymers.

 Install PRS that meet the following criteria:
 - Have no adhesives or fasteners required for placement;
 - Have a manufacture's speed rating that meets or exceeds the posted speed limit; and
 - Each strip in the array must weigh a minimum of 100 pounds.
 Use individual PRS constructed in one of the following manners:
 - A single piece;
 - Inter locking segments; or
 - Two pieces hinged at the midpoint. An installed array of PRS consists of a minimum of 3 individual strips.
 Move rumble strips with the flagging operation. Do not place rumble strips on horizontal curves.

 The Engineer will count and measure each array as one unit. Include the cost of providing, installing, maintaining, and relocating PRS in the unit price bid for "Portable Rumble Strips".

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