BILL NO. S-18-07-05

SPECIAL ORDINANCE NO. S-_____

AN ORDINANCE approving CONSTRUCTION CONTRACT FOR EDSALL AVE BRIDGE REPLACEMENT - NORFOLK SOUTHERN RAILWAY COMPANY AGREEMENT - RESOLUTION NUMBER #0272X - $316,261.00 between NORFOLK SOUTHERN RAILWAY COMPANY and the City of Fort Wayne, Indiana, in connection with the Board of Public Works.

NOW, THEREFORE, BE IT ORDAINED BY THE COMMON COUNCIL OF THE CITY OF FORT WAYNE, INDIANA:

SECTION 1. That the CONSTRUCTION CONTRACT FOR EDSALL AVE BRIDGE REPLAEMENT - NORFOLK SOUTHERN RAILWAY COMPANY AGREEMENT - RESOLUTION NUMBER #0272X by and between NORFOLK SOUTHERN RAILWAY COMPANY and the City of Fort Wayne, Indiana, in connection with the Board of Public Works, is hereby ratified, and affirmed and approved in all respects, respectfully for:

> All labor, insurance, material, equipment, tools, power, transportation, miscellaneous equipment, etc., necessary for railroad construction engineering and flagging services associated with the construction of the Edsall Ave Bridge Replacement project;

involving a total cost of THREE HUNDRED SIXTEEN THOUSAND TWO HUNDRED SIXTY-ONE AND 00/100 DOLLARS - ($316,261.00). A copy of said Contract is on file with the Office of the City Clerk and made available for public inspection, according to law.

SECTION 2. That this Ordinance shall be in full force and effect from and after its passage and any and all necessary approval by the Mayor.

Council Member

APPROVED AS TO FORM AND LEGALITY

Carol Helton, City Attorney

NS File: BR0019821

THIS AGREEMENT, dated as of the 1 day of May, 2018 is made and entered into by and between

NORFOLK SOUTHERN RAILWAY COMPANY, a Virginia corporation, whose mailing address is Three Commercial Place, Norfolk, Virginia 23510 (hereinafter called "RAILWAY"); and

CITY OF FORT WAYNE, INDIANA, an Indiana municipality, whose mailing address is _____ (hereinafter called "LICENSEE").

RECITALS

WHEREAS, LICENSEE, at its own cost and expense, has found it necessary to reconstruct the existing Edsall Avenue Overhead Bridge (the "Facilities"), in the vicinity of RAILWAY Milepost D-144.54, at or near Fort Wayne, Allen County, Indiana (the "Premises"), located substantially as shown upon print of Drawing marked Exhibit A; and

WHEREAS, RAILWAY is willing to permit LICENSEE to enter upon RAILWAY's right of way for installation, construction, maintenance, operation and removal of the Facilities upon the terms and conditions of this Agreement; and in accordance with the plans and specifications marked Exhibit B; and

WHEREAS, RAILWAY is willing, at LICENSEE's sole expense, to make modifications to RAILWAY's right of way and/or appurtenances rendered necessary by LICENSEE's installation, construction, maintenance, operation and removal of its Facilities in accordance with the force account estimate marked Exhibit D.

NOW THEREFORE, for and in consideration of the premises and mutual covenants contained in this Agreement, the parties agree as follows:

I. LICENSEE'S FACILITIES

1. Right-of-Entry. RAILWAY, insofar as its rights and title enables it to do so and subject to its rights to operate and maintain its RAILWAY and RAILWAY appurtenances along, in, and over its right-of-way, grants LICENSEE, its agents and/or contractors, without compensation, the right to enter upon the Premises, for the purpose of installation, construction, maintenance, operation and removal of the Facilities, provided that, prior to entry upon lands of RAILWAY, any agent and/or contractor of LICENSEE must execute and deliver to RAILWAY a standard contractor right-of-entry agreement in a form approved by RAILWAY in its sole discretion, together with any certificate(s) of insurance required therein. Furthermore, any crossing of RAILWAY tracks by LICENSEE or any of its agents and/or contractors must be addressed by a standard temporary crossing agreement in a form approved by RAILWAY in its sole discretion.

2. Use and Condition of the Premises. The Premises shall be used by LICENSEE only for the installation, construction, maintenance, operation and removal of the Facilities and for no other purpose without the prior written consent of RAILWAY, which consent may be withheld by RAILWAY in its sole discretion. LICENSEE accepts the Premises in their current "as is" condition, as suited for the installation and operation of the Facilities, and without the benefit of any improvements to be constructed by RAILWAY except insofar as contemplated by Section II of this Agreement.

3. Construction and Maintenance of the Facilities. LICENSEE shall construct and maintain the Facilities, at its expense, in such a manner as will not interfere with the operations of RAILWAY or endanger persons or property of RAILWAY, and in accordance with (a) plans and specifications (if any) shown on said print(s) marked as Exhibit B and any other specifications prescribed by RAILWAY, (b) applicable governmental regulations or laws, and (c) applicable specifications adopted by the American RAILWAY Engineering and Maintenance of Way Association when not in conflict with plans, specifications or regulations mentioned in (a) and

(b) above. LICENSEE and any and all of LICENSEE contractors entering the Premises shall fully comply with applicable roadway worker protection regulations.

4. Indemnification. LICENSEE hereby agrees to indemnify and save harmless RAILWAY, its officers, agents and employees, from and against any and all liability, claims, losses, damages, expenses (including attorneys' fees) or costs for personal injuries (including death) and/or property damage to whomsoever or whatsoever occurring which arises or in any manner grows out of (a) the presence of LICENSEE, its employees, agents and/or contractors on or about the Premises, regardless of whether negligence on the part of RAILWAY, its officers, agents or employees caused or contributed to said loss of life, personal injury or property loss or damage in whole or in part; (b) any allegation that RAILWAY is an employer or joint employer of a LICENSEE or is liable for related employment benefits or tax withholdings; or (c) any decision by RAILWAY to bar or exclude LICENSEE from the Premises pursuant to the terms of this Agreement.

5. Environmental Matters. LICENSEE assumes all responsibility for any environmental obligations imposed under applicable laws, regulations or ordinances relating to the installation of the Facilities and/or to any contamination of any property, water, air or groundwater arising or resulting from LICENSEE's permitted operations or uses of RAILWAY's property pursuant to this Agreement. In addition, LICENSEE shall obtain any necessary permits to install the Facilities. LICENSEE agrees to indemnify and hold harmless RAILWAY from and against any and all liability, fines, penalties, claims, demands, costs (including attorneys' fees), losses or lawsuits brought by any person, company or governmental entity relating to contamination of any property, water, air or groundwater due to the use or presence of the Facilities. It is agreed that this indemnity provision extends to any cleanup costs related to LICENSEE's activities upon RAILWAY's property and to any costs related to cleanup of the Facilities or to other property caused by the use of the Facilities.

6. Insurance.

(a) Without limiting in any manner the liabilities and obligations assumed by LICENSEE under any other provision of this Agreement, and as additional protection to RAILWAY, LICENSEE shall, at its expense, procure and maintain with insurance companies satisfactory to RAILWAY, the following insurance policies:

(i) A Commercial General Liability Insurance Policy having a combined single limit of not less than $2,000,000 per occurrence for all loss, damage, cost and expense, including attorneys' fees, arising out of bodily injury liability and property damage liability during the policy period. Said policy shall include explosion, collapse, and underground hazard (XCU) coverage, shall be endorsed to name RAILWAY as the certificate holder and as an additional insured, and shall include a severability of interests provision; and,

(ii) An original Railroad Protective Liability Insurance Policy naming RAILWAY as a named insured and having a combined single limit of not less than $2,000,000 each occurrence and $6,000,000 in the aggregate applying separately to each annual period. If the project involves track over which passenger trains operate, the insurance limits required are not less than a combined single limit of $5,000,000 each occurrence and $10,000,000 in the aggregate applying separately to each annual period.

(b) All insurance required under the preceding subsection (a) shall be underwritten by insurers and be of such form and content, as may be acceptable to RAILWAY. Prior to the commencement of installation or maintenance of the Facilities or any entry on RAILWAY's property, LICENSEE shall furnish to RAILWAY's Director Risk Management, Three Commercial Place, Norfolk, Virginia 23510-2191 (or such other representative and/or address as subsequently given by RAILWAY to LICENSEE in writing), for approval, the original policy described in subsection (a)(ii) and a certificate of insurance evidencing the existence of a policy with the coverage described in subsection (a)(i).

7. Railway Support. RAILWAY shall, at RAILWAY's option, furnish, at the sole expense of LICENSEE, labor and materials necessary, in RAILWAY's sole judgment, to support its tracks and to protect its traffic (including, without limitation, flagging) during the installation, maintenance, repair, renewal or removal of the Facilities.

8. Special Provisions for Protection of Railway Interests. In connection with the operation and maintenance of the Facilities, it is agreed that the safety of people and the safety and continuity of RAILWAY's rail operations shall be of first importance. LICENSEE shall require its employees, agents, contractors, and invitees to utilize and comply with RAILWAY's directives in this regard and shall require its contractor(s), if any, to comply with all NSR Special Provisions, attached hereto, and herein incorporated by reference, including any future amendments, as Exhibit C. As used in the NSR Special Provisions, LICENSEE is the "contractor" should LICENSEE enter onto the Premises to perform any work contemplated by this Agreement. To ensure such compliance, LICENSEE shall assign a project manager to function as a single point-of-contact for LICENSEE. Said project manager is referred to as the "Sponsor's Engineer" in Exhibit C.

9. Safety of Railway Operations. If RAILWAY becomes aware of any safety violations committed by LICENSEE, its employees, agents and/or contractors, RAILWAY shall so notify LICENSEE, and LICENSEE shall promptly correct such violation. In the event of an emergency threatening immediate danger to persons or property, RAILWAY may take corrective actions and shall notify LICENSEE promptly thereafter. LICENSEE shall reimburse RAILWAY for actual costs incurred in taking such emergency measures. RAILWAY assumes no additional responsibility for safety on the Premises for LICENSEE, its agents/or contractors by taking these corrective actions, and LICENSEE, its agents/contractors shall retain full responsibility for such safety violations.

10. Corrective Measures. If LICENSEE fails to take any corrective measures requested by RAILWAY in a timely manner, or if an emergency situation is presented which, in RAILWAY's judgment, requires immediate repairs to the Facilities, RAILWAY, at LICENSEE's expense, may undertake such corrective measures or repairs as it deems necessary or desirable.

11. Railway Changes. If RAILWAY shall make any changes, alterations or additions to the line, grade, tracks, structures, roadbed, installations, right-of-way or works of RAILWAY, or to the character, height or alignment of the Electronic Systems, at or near the Facilities, LICENSEE shall, upon thirty (30) days prior written notice from RAILWAY and at its sole expense, make such changes in the location and character of the Facilities as, in the opinion of the chief engineering officer of RAILWAY, shall be necessary or appropriate to accommodate any construction, improvements, alterations, changes or additions of RAILWAY.

12. Assumption of Risk. Unless caused solely by the negligence of RAILWAY or caused solely by the willful misconduct of RAILWAY, LICENSEE hereby assumes all risk of damage to the Facilities and LICENSEE's other property relating to its use and occupation of the Premises or business carried on the Premises and any defects to the Premises; and LICENSEE hereby declares and states that RAILWAY, its officers, directors, agents and employees shall not be responsible for any liability for such damage.

13. Liens; Taxes. LICENSEE will not permit any mechanic's liens or other liens to be placed upon the Premises, and nothing in this Agreement shall be construed as constituting the consent or request of RAILWAY, express or implied, to any person for the performance of any labor or the furnishing of any materials to the Premises, nor as giving LICENSEE any right, power or authority to contract for or permit the rendering of any services or the furnishing of any materials that could give rise to any mechanic's liens or other liens against the Premises. In addition, LICENSEE shall be liable for all taxes levied or assessed against the Facilities and any other equipment or other property placed by LICENSEE within the Premises. In the event that any such lien shall attach to the Premises or LICENSEE shall fail to pay such taxes, then, in addition to any other right or remedy available to RAILWAY, RAILWAY may, but shall not be obligated to, discharge the same. Any amount paid by RAILWAY for any of the aforesaid purposes, together with related court costs, attorneys' fees, fines and penalties, shall be paid by LICENSEE to RAILWAY within ten (10) days after RAILWAY's demand therefor.

14. Default; Remedies.

(a) The following events shall be deemed to be events of default by LICENSEE under this Agreement:

(i) LICENSEE shall fail to pay any sum of money due hereunder and such failure shall continue for a period of ten (10) days after the due date thereof;

(ii) LICENSEE shall fail to comply with any provision of this Agreement not requiring the payment of money, all of which terms, provisions and covenants shall be deemed material, and such failure shall continue for a period of thirty (30) days after written notice of such default is delivered to LICENSEE;

(iii) LICENSEE shall become insolvent or unable to pay its debts as they become due, or LICENSEE notifies RAILWAY that it anticipates either condition;

(iv) LICENSEE takes any action to, or notifies RAILWAY that LICENSEE intends to file a petition under any section or chapter of the United States Bankruptcy Code, as amended from time to time, or under any similar law or statute of the United States or any State thereof; or a petition shall be filed against LICENSEE under any such statute; or

(v) a receiver or trustee shall be appointed for LICENSEE's license interest hereunder or for all or a substantial part of the assets of LICENSEE, and such receiver or trustee is not dismissed within sixty (60) days of the appointment.

(b) Upon the occurrence of any event or events of default by LICENSEE, whether enumerated in this paragraph 14 or not, RAILWAY shall have the option to pursue any remedies available to it at law or in equity without any additional notices to LICENSEE. RAILWAY's remedies shall include, but not be limited to, the following: (i) termination of this Agreement, in which event LICENSEE shall immediately surrender the Premises to RAILWAY; (ii) entry into or upon the Premises to do whatever LICENSEE is obligated to do under the terms of this License, in which event LICENSEE shall reimburse RAILWAY on demand for any expenses which RAILWAY may incur in effecting compliance with LICENSEE's obligations under this License, but without rendering RAILWAY liable for any damages resulting to LICENSEE or the Facilities from such action; and (iii) pursuit of all other remedies available to RAILWAY at law or in equity, including, without limitation, injunctive relief of all varieties.

15. Railway Termination Right. Notwithstanding anything to the contrary in this Agreement, RAILWAY shall have the right to terminate this Agreement and the rights granted hereunder, after delivering to LICENSEE written notice of such termination no less than sixty (60) days prior to the effective date thereof, upon the occurrence of any one or more of the following events:

(a) If LICENSEE shall discontinue the use or operations of the Facilities; or

(b) If RAILWAY shall be required by any governmental authority having jurisdiction over the Premises to remove, relocate, reconstruct or discontinue operation of its railroad on or about the Premises; or

(c) If RAILWAY, in the good faith judgment of its Superintendent, shall require a change in the location or elevation of its railroad on or about the location of the Facilities or the Premises that might effectively prohibit the use or operation of the Facilities; or

(d) If RAILWAY, in the good faith judgment of its Superintendent, determines that the maintenance or use of the Facilities unduly interferes with the operation and maintenance of the facilities of RAILWAY, or with the present or future use of such property by RAILWAY, its lessees, affiliates, successors or assigns, for their respective purposes.

16. Condemnation. If the Premises or any portion thereof shall be taken or condemned in whole or in part for public purposes, or sold in lieu of condemnation, then this Agreement and the rights granted to LICENSEE hereunder shall, at the sole option of RAILWAY, forthwith cease and terminate. All compensation awarded for any taking (or sale proceeds in lieu thereof) shall be the property of RAILWAY, and LICENSEE shall have no claim thereto, the same being hereby expressly waived by LICENSEE.

17. Removal of Facilities; Survival. The Facilities are and shall remain the personal property of LICENSEE. Upon the termination of this Agreement, LICENSEE shall remove the Facilities from the Premises within thirty (30) days after the effective date thereof. In performing such removal, unless otherwise directed by RAILWAY, LICENSEE shall restore the Premises to the same condition as existed prior to the installation or placement of Facilities, reasonable wear and tear excepted. In the event LICENSEE shall fail to so remove the Facilities or restore the Premises, the Facilities shall be deemed to have been abandoned by LICENSEE, and the same shall become the property of RAILWAY for RAILWAY to use, remove, destroy or otherwise dispose of at its discretion and without responsibility for accounting to LICENSEE therefor; provided, however, in the event RAILWAY elects to remove the Facilities, RAILWAY, in addition to any other legal remedy it may have, shall have the right to recover from LICENSEE all costs incurred in connection with such removal and the restoration of the Premises. Notwithstanding anything to the contrary contained in this Agreement, the termination of this Agreement shall not relieve LICENSEE from LICENSEE's obligations accruing prior to the termination date, and such obligations shall survive any such termination of this Agreement.

18. Interests in Real Property

LICENSEE shall acquire or settle all property, property rights and all damages to property affected by the installation, construction, maintenance, and operation of the Facilities. The cost of said property, property rights and damages to property shall be borne by LICENSEE.

RAILWAY, insofar as it has the legal right so to do, shall permit LICENSEE to enter upon lands owned or operated by RAILWAY to construct and occupy its property with sufficient width to permit construction and maintenance of the Facilities. LICENSE and RAILWAY shall enter into good faith negotiations for a price to be consistent with the property interest determined by LICENSEE to be needed for the proposed improvement.

However, the price to be paid by LICENSEE to RAILWAY for said conveyances (representing the fair market value thereof plus damages, if any, to the residue) shall be as mutually agreed upon within nine (9) months from the date of occupancy by LICENSEE, and if agreement as to price is reached, an additional period of ninety (90) days shall be allowed for settlement, it being agreed however, that if no agreement as to price is reached within the aforesaid nine (9) month period, LICENSEE will within ninety (90) days thereafter institute an eminent domain proceeding authorized by law for the determination of the value of same. The provisions of this Agreement shall survive the institution of such eminent domain proceeding.

LICENSEE shall furnish the plans and descriptions for any such conveyance. It is understood, however, that the foregoing right of entry is a permissive use only, and this Section is not intended to convey or obligate RAILWAY to convey any interest in its land.

II. SCOPE OF RAILROAD PROJECT, AND MAINTENANCE AND OWNERSHIP OF PROJECT IMPROVEMENTS

1. Scope of Work. The scope of the work by RAILWAY shall include any necessary acquisition of right-of-way, permitting, design, construction, and construction-related activities including, but not limited to,

inspection, flagging, and superintendence, within and along RAILWAY property necessary to facilitate LICENSEE's installation, construction, maintenance, operation and removal of the Facilities ("Railroad Project").

2. Construction of the Railroad Project. The RAILWAY shall construct the Railroad Project in accordance with the force account estimate, attached as Exhibit D and herein incorporated by reference, including any future amendments thereto, and all applicable state and federal laws.

(a) All work performed by the RAILWAY related to the Railroad Project and consistent with the force account estimate will be deemed reimbursable project expenses, and shall be at no cost to the RAILWAY.

(b) RAILWAY shall accomplish work on the Railroad Project by the following: (i) railroad force account; (ii) existing continuing contracts at reasonable costs; (iii) contracting with the lowest responsible bidder based on appropriate solicitation; or (iv) contract without competitive bidding for minor work at reasonable costs.

3. Maintenance and Ownership of the Railroad Project. Upon completion of the Railroad Project, the RAILWAY shall own and, at its own cost and expense, maintain the Railroad Project improvements until such time as RAILWAY deems such maintenance to no longer be necessary.

4. Construction of the Railroad Project. Execution of this Agreement constitutes LICENSEE's issuance of a notice to proceed to RAILWAY with the Railroad Project ("Notice to Proceed"). RAILWAY shall make commercially reasonable efforts to commence construction on the Railroad Project as soon as possible, in RAILWAY's sole discretion, after the date of availability for RAILWAY to commence its construction activities on the Railroad Project.

5. Reimbursement by LICENSEE.

(a) RAILWAY shall furnish, or cause to be furnished, at the expense of the LICENSEE all the labor costs, overhead and indirect construction costs, materials and supplies, contracted services, transportation, equipment, and other related costs and items required to perform and complete the Railroad Project. In addition, RAILWAY shall furnish, at the expense of LICENSEE, the protection of rail traffic occasioned by or made necessary by entry by LICENSEE and/or its contractors or any subcontractor(s) pursuant to this Agreement.

(b) Except as otherwise provided in this Agreement, LICENSEE shall reimburse the RAILWAY for the actual cost of the work performed by it, which is estimated to be **Three Hundred Sixteen Thousand, Two Hundred Sixty-One Dollars and Zero Cents ($316,261.00)**. It is agreed that progress payments will be made by LICENSEE to the RAILWAY for the total amount of work done as shown on monthly statements. LICENSEE shall pay each RAILWAY statement within forty-five (45) days of receipt. Upon receipt of the final bill, RAILWAY shall be reimbursed in such amounts as are proper and eligible for final payment, and the RAILWAY Project shall be submitted to LICENSEE for final audit.

(c) Incurred Costs. The reimbursement amounts for all costs billed under this Agreement shall be subject to the applicable Federal principles and based on the full actual costs plus Approved Labor Additives. Design costs incurred by RAILWAY prior to issuance of the Notice to Proceed shall be reimbursed by LICENSEE.

III. GENERAL PROVISIONS

1. Assignment and Successors. This Agreement shall be binding upon and shall inure to the benefit of, and shall be enforceable by, the parties hereto and their respective permitted successors and assigns.

2. Limitations Upon Damages. Notwithstanding any other provision of this Agreement, RAILWAY shall not be liable for breach of this Agreement or under this Agreement for any consequential, incidental, exemplary, punitive, special, business damages or lost profits, as well as any claims for death, personal injury, and property loss and damage which occurs by reason of, or arises out of, or is incidental to the interruption in or usage of the Facilities placed upon or about the Premises by LICENSEE, including without limitation any damages under such claims that might be considered consequential, incidental, exemplary, punitive, special, business damages or loss profits.

3. Miscellaneous. All exhibits, attachments, riders and addenda referred to in this Agreement are incorporated into this Agreement and made a part hereof for all intents and purposes. Time is of the essence with regard to each provision of this Agreement. This Agreement shall be construed and interpreted in accordance with and governed by the laws of the State in which the Premises are located. Each covenant of RAILWAY and LICENSEE under this Agreement is independent of each other covenant under this Agreement. No default in performance of any covenant by a party shall excuse the other party from the performance of any other covenant.

4. Notice to Parties. Whenever any notice, statement or other communication is required under this Agreement, it shall be sent to the contact below except as otherwise provided in this Agreement or unless otherwise specifically advised.

As to LICENSEE:

_____

_____

_____

_____

As to RAILWAY:
c/o Norfolk Southern Corporation
1200 Peachtree Street, N.E.
Atlanta, Georgia 30309-3504
Attention: Public Projects Engineer

Either party may, by notice in writing, direct that future notices or demands be sent to a different address. All notices hereunder shall be deemed given upon receipt (or, if rejected, upon rejection).

5. Severability. The invalidity of any section, subsection, clause or provision of this Agreement shall not affect the validity of the remaining sections, subsections, clauses or provisions of this contract.

6. No Third Party Beneficiary. This Agreement shall be for the benefit of the parties only, and no person, firm or corporation shall acquire any rights whatsoever by virtue of this Agreement, except LICENSEE and the RAILWAY and their successors and assigns.

7. Force Majeure. The parties agree to pursue the completion of the Railroad Project in accordance with the requirements of this Agreement. No party shall be held responsible to the other for delays caused by Force Majeure events, and such delays shall not be deemed a breach or default under this Agreement. In no event shall Force Majeure events excuse LICENSEE from its obligation to make payment to RAILWAY in accordance with this Agreement. Further the parties agree that the resolution or settlement of strikes or other labor disputes shall not be deemed to be within the control or reasonable control of the affected party. If any party is unable to complete work assigned to it due to a condition of Force Majeure or other conditions beyond the reasonable control of said party, then said party will diligently pursue completion of the item that is delayed once said condition or conditions are no longer in effect. For purposes of this Agreement, Force Majeure events are defined as circumstances beyond

a party's reasonable control that delay performance and may include, but are not limited to, acts of God, actions or decrees of governmental bodies (beyond control of the parties), acts of the public enemy, labor disputes, fires, insurrections, and floods.

8. Amendment; Entire Agreement. This Agreement may be amended only in writing executed by authorized representatives of the parties hereto. No verbal change, modification, or amendment shall be effective unless in writing and signed by authorized representatives of the parties. The provisions hereof constitute the entire Agreement between the parties and supersede any verbal statement, representations, or warranties, stated or implied.

9. Waiver of Workers Compensation Immunity. In the event that all or a portion of the Premises is location in the State of Ohio, LICENSEE, with respect to the indemnification provisions contained in this Agreement, hereby expressly waives any defense or immunity granted or afforded LICENSEE pursuant to Section 35, Article II of the Ohio Constitution and Section 4123.74 of the Ohio Revised Code. In the event that all or a portion of the Premises is located in the Commonwealth of Pennsylvania, LICENSEE, with respect to the indemnification provisions contained in this Agreement, hereby expressly waives any defense or immunity granted or afforded LICENSEE pursuant to Pennsylvania Workers' Compensation Act, 77 P.S. 481.

10. Independent Contractors. The parties agree that LICENSEE and its agents and/or contractors, shall not be deemed either agents or independent contractors of RAILWAY. Except as otherwise provided by this Agreement, RAILWAY shall exercise no control whatsoever over the employment, discharge, compensation of, or services rendered by LICENSEE or its contractors. Notwithstanding the foregoing, this paragraph shall in no way affect the absolute authority of RAILWAY to temporarily prohibit LICENSEE, its agents and/or contractors, or persons not associated with LICENSEE from entering RAILWAY property, or to require the removal of any person from RAILWAY property, if RAILWAY determines, in its sole discretion, that such person is not acting in a safe manner or that actual or potential hazards in, on, or about the Railroad Project Work exist.

11. Meaning of "Railway". The word "RAILWAY" as used herein shall include any other company whose property at the aforesaid location may be leased or operated by RAILWAY. Said term also shall include RAILWAY's officers, directors, agents and employees, and any parent company, subsidiary or affiliate of RAILWAY and their respective officers, directors, agents and employees.

12. Approval of Plans. By its review and approval, if any, of the plans marked as Exhibit B, RAILWAY signifies only that the plans and improvements to be constructed in accordance with the plans satisfy the RAILWAY's requirements. RAILWAY expressly disclaims all other representations and warranties in connection with said plans, including, but not limited to, the integrity, suitability or fitness for the purposes of the LICENSEE or any other person(s) of the plans or improvements constructed in accordance with the plans.

IN WITNESS WHEREOF, the parties have, through duly authorized representatives, entered into this Agreement effective the day and year first written above.

CITY OF FORT WAYNE, INDIANA, an Indiana municipality	NORFOLK SOUTHERN RAILWAY COMPANY, a Virginia corporation
By:	By:
Name: SHAN R. GUNAWARDENA	Name:
Title: PUBLIC WORKS DIRECTOR	Title:
Date: 05/01/18	Date:

NS File:

EXHIBIT A

CITY OF FORT WAYNE
BRIDGE NO.551 PLANS

EDSALL AVE. OVER NORFOLK SOUTHERN RAILROAD
PROJECT NO. 0100416

BOARD OF PUBLIC WORKS

SHAN R. GUNAWARDENA, P.E., P.T.O.E. — CHAIR

MIKE AVILA — MEMBER

RIMAR MENON — MEMBER

ATTEST

MICHELLE FULL — CLERK

BRIDGE LENGTH:	0.013	MI.
ROADWAY LENGTH:	0.060	MI.
TOTAL LENGTH:	0.093	MI.
MAX. GRADE:	3.8	%
DESIGN SPEED:	30	MPH

Replacement of Bridge 551 carrying Edsall Avenue over Norfolk Southern Railroad. The project is located in Section 7, Township 30 North, Range 13 East, Wayne Township, Allen County, Indiana.

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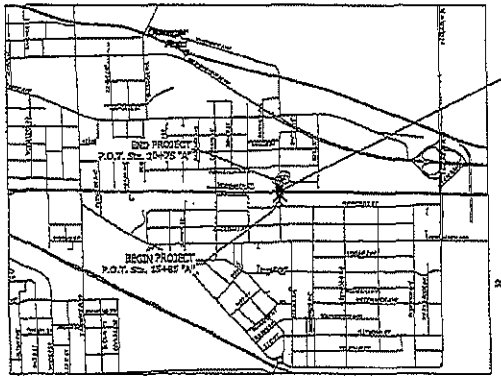


VICINITY MAP
ALLEN COUNTY

Latitude: 41°14'18"N
Longitude: 85°15'57"W

UTILITIES

CABLE:	COMCAST CABLEVISION 220 E. 10th Street ANDERSON, IN 46016 PH: (765) 643-2004 ATTN: MONTY GARNER EMAIL: [illegible]	ELECTRIC:	AEP 1314 LAFAYETTE RD. NEW HAVEN, IN 46774 PH: (260) 432-9424 ATTN: CINDY HOBLE EMAIL: [illegible]
STORM & SANITARY:	CITY OF FORT WAYNE UTILITIES 200 E. BERRY ST. SUITE 820 FORT WAYNE, IN 46802 PH: (260) 420-5214 ATTN: ANDREW SCHIPPER EMAIL: [illegible]	WATER:	CITY OF FORT WAYNE UTILITIES 200 E. BERRY ST. SUITE 820 FORT WAYNE, IN 46802 (260) 420-5214 ATTN: ANDREW SCHIPPER EMAIL: [illegible]
TELEPHONE:	FRONTIER COMMUNICATIONS 1001 W. JEFFERSON BLVD. FORT WAYNE, IN 46804 PH: (260) 456-2565 ATTN: BRYAN KOCHER EMAIL: [illegible]	FIBER OPTIC:	MCI - VERIZON 250 W. HENRY ST. INDIANAPOLIS, IN 46225 PH: (317) 865-6850 ATTN: CHRIS FOWLER EMAIL: [illegible]
GAS:	NIPSCO ENGINEERING DEPARTMENT 1515 HALE AVE. FT. WAYNE, IN 46802 PH: (260) 420-4315 ATTN: PATRICK LOFTUS EMAIL: [illegible]	TRANSMISSION:	AEP TRANSMISSION 1820 SMITHS MILL RD. NEW ALBANY, OH 43054 PH: (614) 716-2237 ATTN: JOSH ADAMS EMAIL: [illegible]

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

CAUTION
LOCATIONS OF ALL EXISTING UNDERGROUND UTILITIES SHOWN ON THIS PLAN ARE BASED UPON ABOVE GROUND EVIDENCE (including, but not limited to, manholes, hydrants, valves, and recent marks from the ground by others) AND ARE SPECULATIVE IN NATURE. THERE MAY ALSO BE OTHER EXISTING UNDERGROUND UTILITIES FOR WHICH THERE IS NO ABOVE GROUND EVIDENCE OR FOR WHICH NO ABOVE GROUND EVIDENCE WAS RECEIVED. THE EXACT LOCATIONS OF ALL EXISTING UNDERGROUND UTILITIES SHOULD BE VERIFIED BY THE CONTRACTOR PRIOR TO ANY AND ALL EXCAVATION.

INDIANA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS DATED 2010 TO BE USED WITH THESE PLANS.

FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZES PLANS WILL NOT CONFORM TO STANDARD SCALES.

TITLE, INDEX AND ESTIMATE OF QUANTITIES

RECOMMENDED FOR APPROVAL — DESIGN ENGINEER — DATE

DESIGNED: K. SHERMAN — DRAWN: J. THURMAN
CHECKED: K. SHERMAN — CHECKED: K. SHERMAN

BRIDGE NO. 551
OVER NORFOLK SOUTHERN RR
CITY OF FORT WAYNE

BRC&S

HORIZONTAL SCALE: AS NOTED — MUNICIPALITY: ALLEN CO.
VERTICAL SCALE: AS NOTED — DESIGNATION:
ALWAYS SHOWN — SHEET 1 OF 1
CONTRACT — PROJECT 0100416

EXHIBIT B

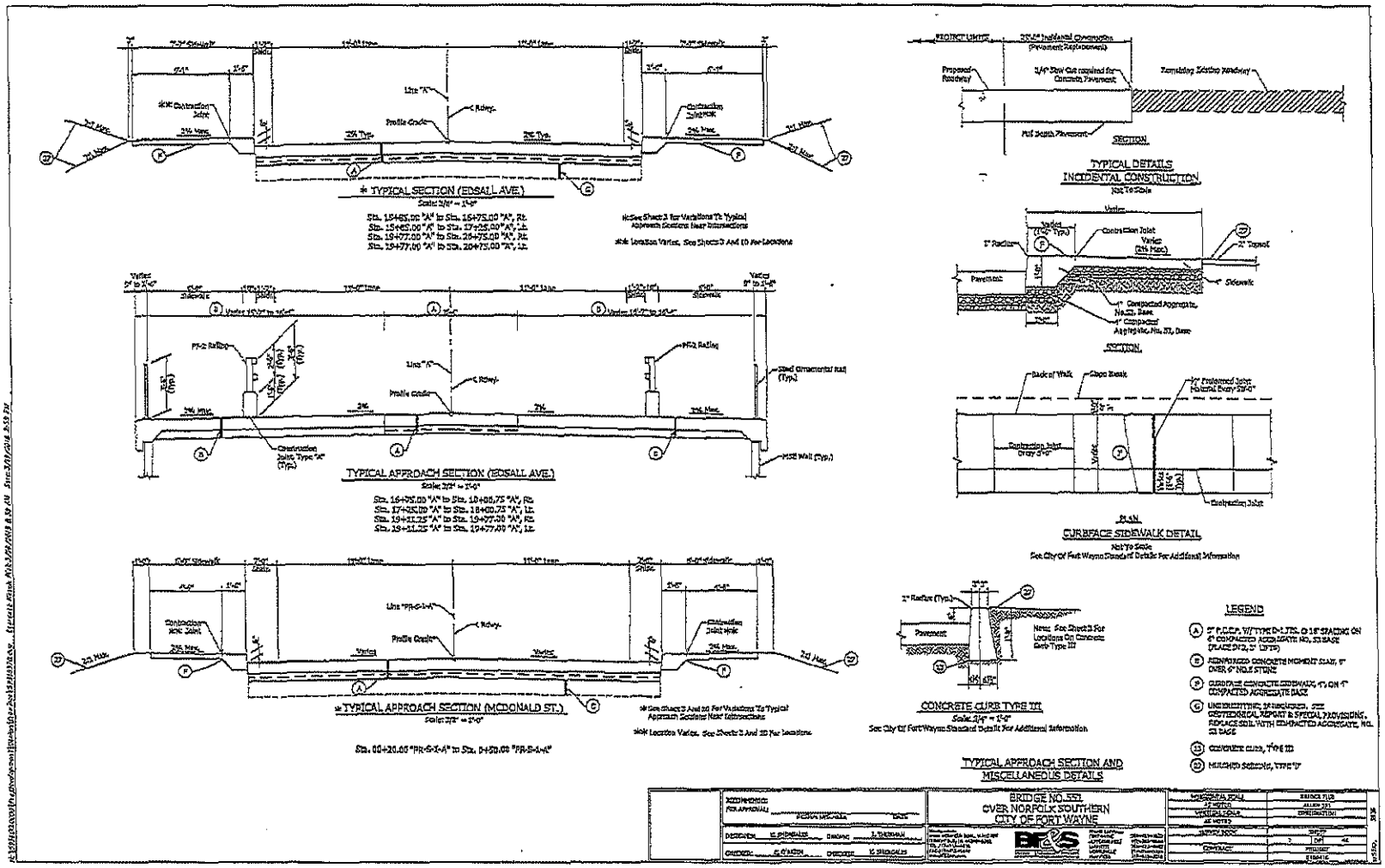
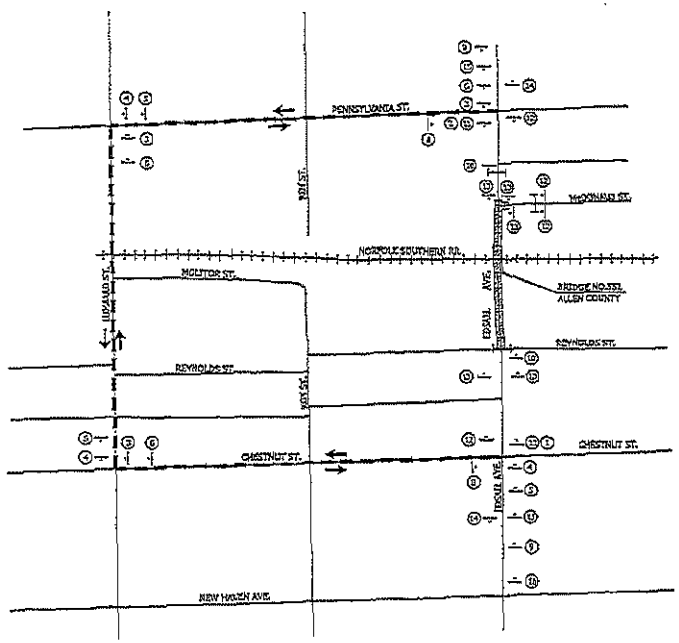

* TYPICAL SECTION (EDSALL AVE.)
Scale: 3/8" = 1'-0"
Sta. 15+65.00 "A" to Sta. 16+75.00 "A", Rt.
Sta. 15+65.00 "A" to Sta. 17+25.00 "A", Lt.
Sta. 19+77.00 "A" to Sta. 20+75.00 "A", Rt.
Sta. 19+77.00 "A" to Sta. 20+75.00 "A", Lt.
*See Sheet 3 for Variations To Typical Approach Sections Near Intersections
*Location Varies. See Sheets 3 And 10 For Locations
TYPICAL APPROACH SECTION (EDSALL AVE.)
Scale: 3/8" = 1'-0"
Sta. 16+75.00 "A" to Sta. 18+00.75 "A", Rt.
Sta. 17+25.00 "A" to Sta. 18+00.75 "A", Lt.
Sta. 19+11.25 "A" to Sta. 19+77.00 "A", Rt.
Sta. 19+11.25 "A" to Sta. 19+77.00 "A", Lt.
* TYPICAL APPROACH SECTION (MCDONALD ST.)
Scale: 3/8" = 1'-0"
*See Sheets 3 And 10 For Variations To Typical Approach Sections Near Intersections
*Location Varies. See Sheets 3 And 10 For Locations
Sta. 00+20.00 "PR-G-1-A" to Sta. 0+50.00 "PR-G-1-A"
TYPICAL DETAILS
INCIDENTAL CONSTRUCTION
Not To Scale
SECTION
SECTION
PLAN
CURBSACE SIDEWALK DETAIL
Not To Scale
See City Of Fort Wayne Standard Details For Additional Information
CONCRETE CURB TYPE III
Scale: 3/4" = 1'-0"
See City Of Fort Wayne Standard Details For Additional Information
TYPICAL APPROACH SECTION AND
MISCELLANEOUS DETAILS
LEGEND
BRIDGE NO. 551
OVER NORFOLK SOUTHERN
CITY OF FORT WAYNE

EXHIBIT B



TRAFFIC CONTROL PLAN

SIGN LEGEND				
SYMBOL	MESSAGE	NUMBER	TYPE	REQUIRED
1	ROAD CLOSED 450 FEET AHEAD LOCAL TRAFFIC ONLY	R11-2	A	*
	DETOUR	M4(4-10)(L)	B	
2	ROAD CLOSED 300 FEET AHEAD LOCAL TRAFFIC ONLY	R11-2	A	*
	DETOUR	M4(4-10)(R)	B	
3	BIKE/PEDESTRIAN DETOUR	M4-9a(R)	B	2
4	BIKE/PEDESTRIAN DETOUR	M4-9a(L)	B	2
5	DETOUR ROUTE MARKER ASSEMBLY (LEFT)			2
6	DETOUR ROUTE MARKER ASSEMBLY (RIGHT)			2
7	NOT USED			
8	DETOUR ROUTE MARKER ASSEMBLY (END DETOUR)			2
9	ROAD CLOSED AHEAD	W4(R)-3	A	2
10	STANDARD BARRICADE (TYPE III-A) (40'-0" SECTION) *			2
	ROAD CLOSURE SIGN ASSEMBLY (R11-2)			2
11	STANDARD BARRICADE (TYPE III-B) (20' SECTION)			2
	ROAD CLOSURE SIGN ASSEMBLY (R11-2)			2
12	STANDARD BARRICADE (TYPE III-B) (20' SECTION)			4
13	SIDEWALK CLOSED	R9-9	A	4
14	END CONSTRUCTION	W20-2	A	2
15	DETOUR AHEAD	W4(R)-2	A	2
16	ROAD CLOSED 700 FEET AHEAD LOCAL TRAFFIC ONLY	R11-2	A	2

* Indicates Signs to be included with Road Closure Sign Assembly.
* Total Quantity is 50'-0"

LEGEND

- DETOUR ROUTE
- AREA OF CONSTRUCTION
- TYPE III-A/III-B BARRICADE
- TRAFFIC FLOW
- CONSTRUCTION SIGN TYPE AS SHOWN

TRAFFIC MAINTENANCE DETAILS

RECOMMENDED FOR APPROVAL: _____ DESIGN ENGINEER DATE

DESIGNED: D. CHEEK DRAWN: D. CHEEK
CHECKED: K. SHERRICK CHECKED: K. SHERRICK

BRIDGE NO. 551
OVER NORFOLK SOUTHERN RR
CITY OF FORT WAYNE

BRIDGE NO. 551
ALLEN CO.
PROJECT

EXHIBIT B

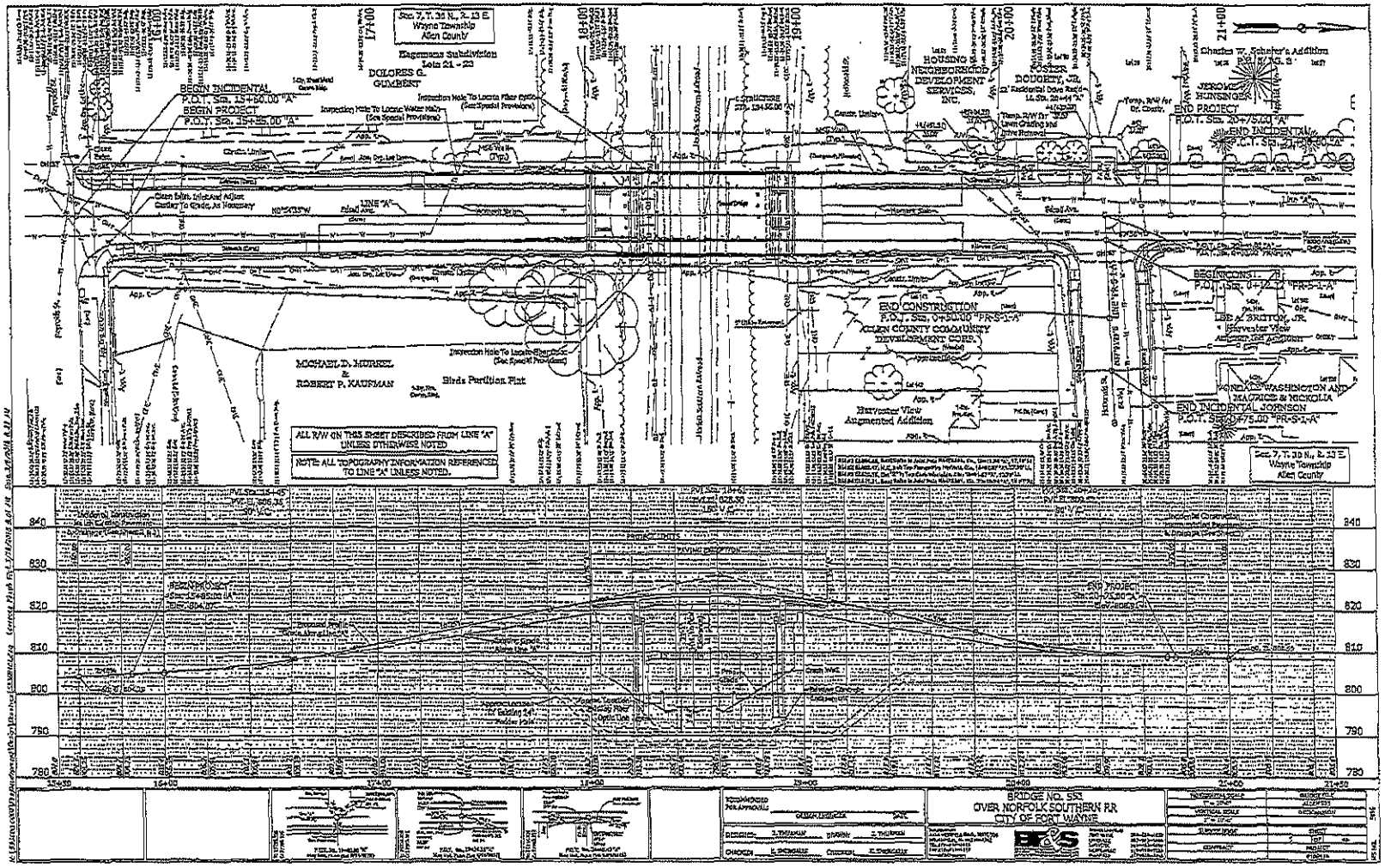

Sec. 7, T. 30 N., R. 13 E.
Wayne Township
Allen County
Hagerman Subdivision
Lots 21 - 23
DOLORES G. GUMBERT
BEGIN INCIDENTAL
P.O.T. Sta. 15+00.00 "A"
BEGIN PROJECT
P.O.T. Sta. 15+85.00 "A"
Inspection Hole To Locate Water Main (See Special Provisions)
Inspection Hole To Locate Fiber Optic (See Special Provisions)
Inspection Hole To Locate Electric (See Special Provisions)
MICHAEL D. MURREL & ROBERT P. KAUFMAN
Sirds Partition Plat
ALL R/W ON THIS SHEET DESCRIBED FROM LINE "A" UNLESS OTHERWISE NOTED
NOTE: ALL TOPOGRAPHY INFORMATION REFERENCED TO LINE "A" UNLESS NOTED.
HOUSING NEIGHBORHOOD DEVELOPMENT SERVICES, INC.
FOSTER DOUGERTY, JR.
Charles W. Schafer's Addition
JEROME HUNSINGER
END PROJECT
P.O.T. Sta. 20+75.00 "A"
END INCIDENTAL
END CONSTRUCTION
P.O.T. Sta. 0+50.00 "PR-S-1-A"
ALLEN COUNTY COMMUNITY DEVELOPMENT CORP.
Harvester View Augmented Addition
LEE A. BRITTON, JR.
Harvester View Augmented Addition
WENDY'S WASHINGTON AND MARCIE & NICKOLIA
END INCIDENTAL JOHNSON
P.O.T. Sta. 0+75.00 "PR-S-1-A"
BRIDGE NO. 557
OVER NORFOLK SOUTHERN RR
CITY OF FORT WAYNE
B&S

EXHIBIT B

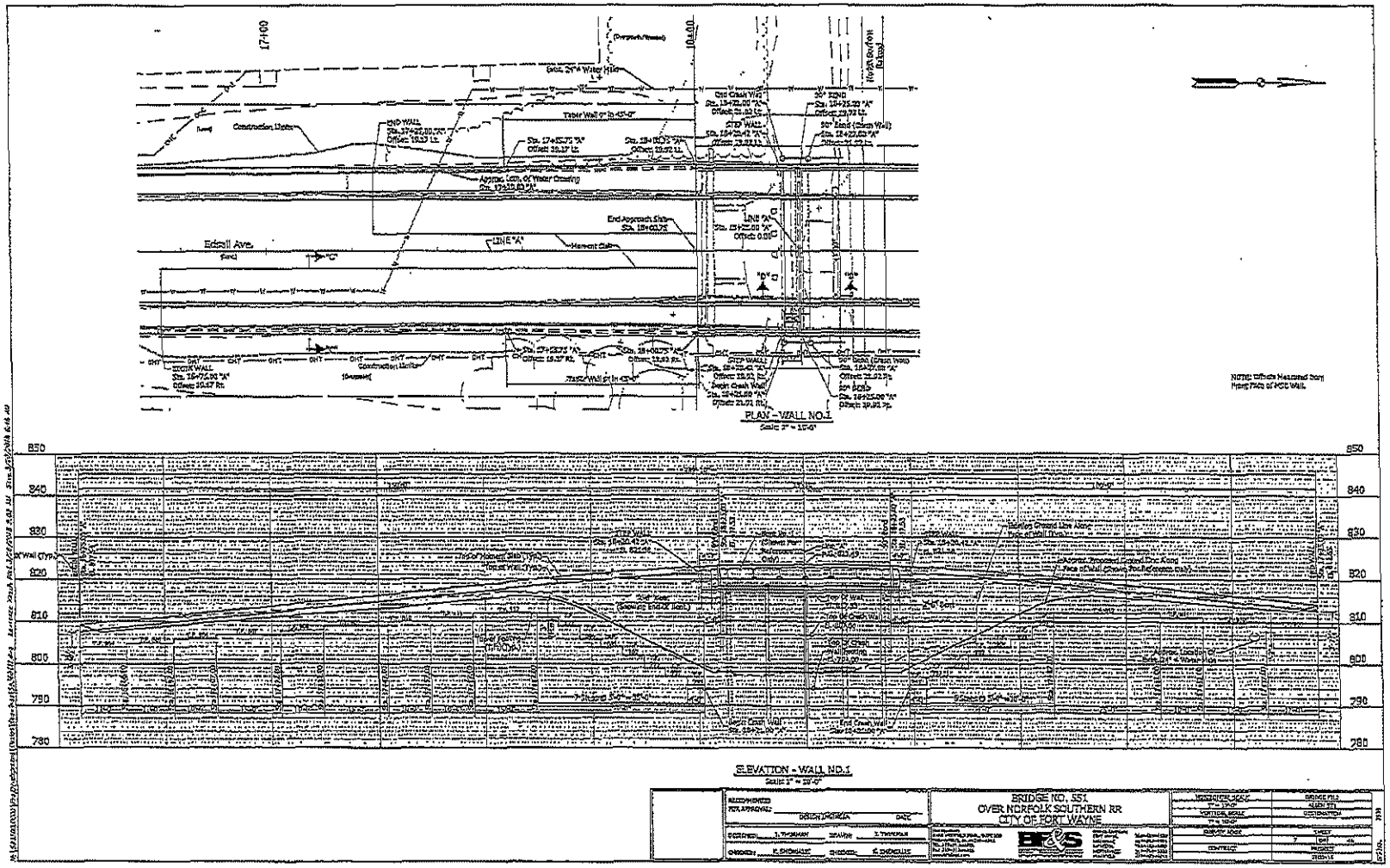
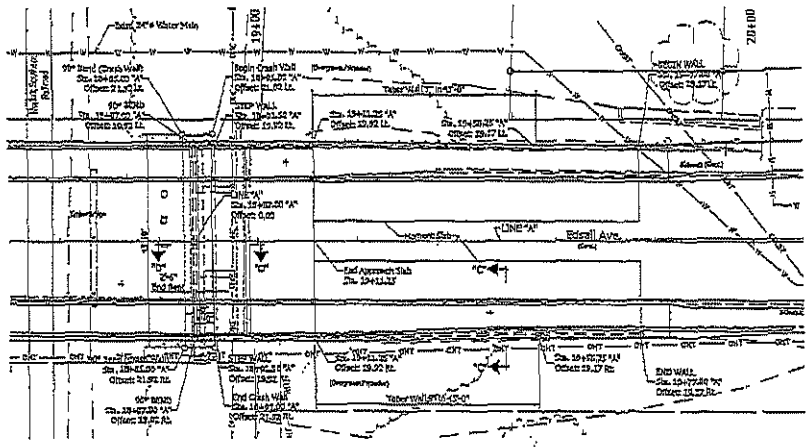
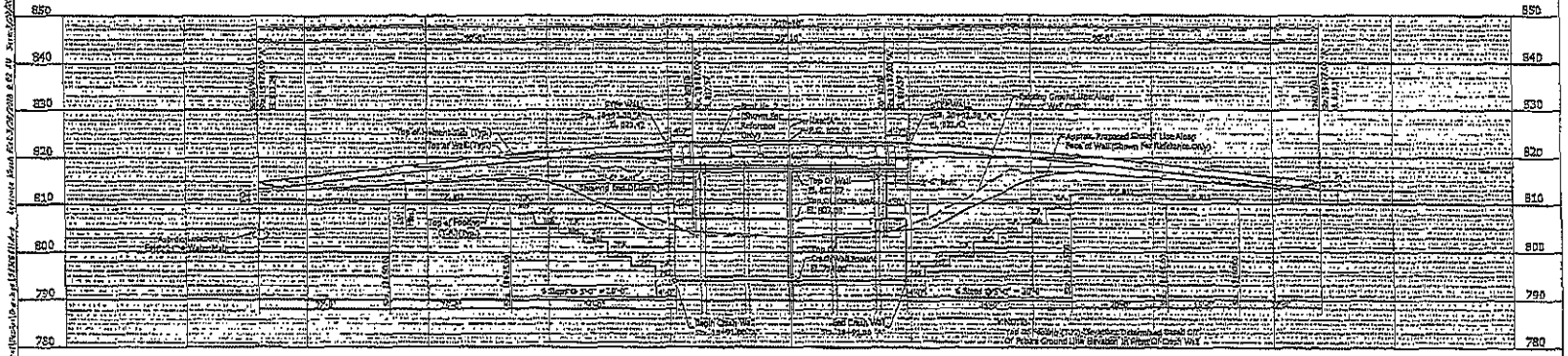

PLAN - WALL NO.1
Scale 1" = 10'-0"
ELEVATION - WALL NO.1
Scale 1" = 10'-0"
Edsall Ave.
LINE "A"
BRIDGE NO. 551
OVER NORFOLK SOUTHERN RR
CITY OF FORT WAYNE

EXHIBIT B



PLAN - WALL NO.2
Scale: 1" = 10'-0"



ELEVATION - WALL NO.2
Scale: 1" = 10'-0"

BRIDGE NO. 351
OVER NORFOLK SOUTHERN RR
CITY OF FORT WAYNE

BF&S

EXHIBIT B

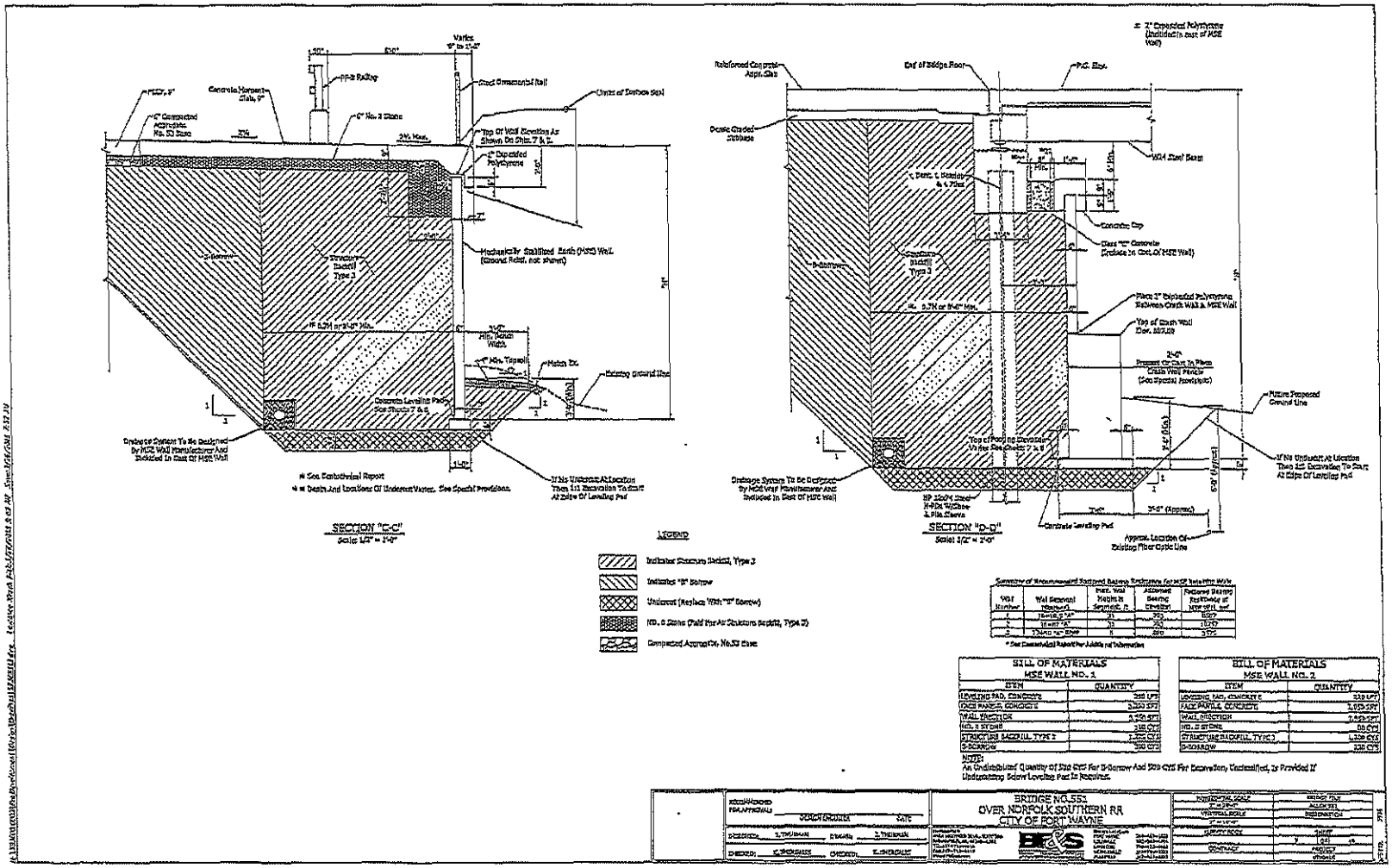
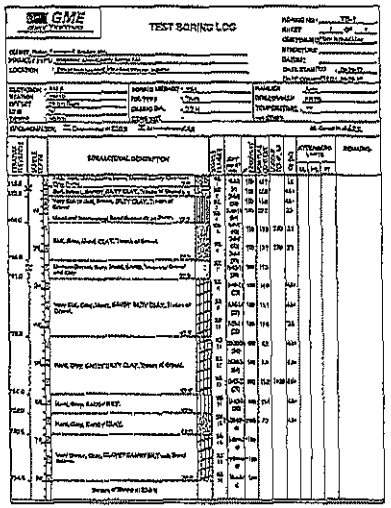
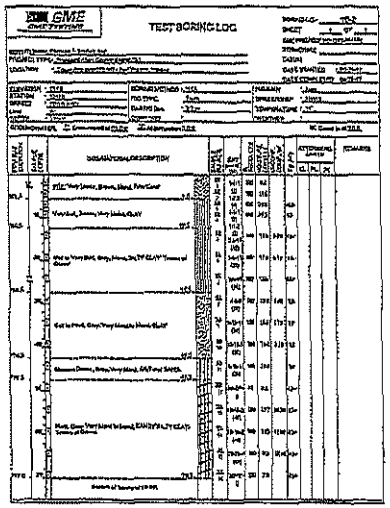
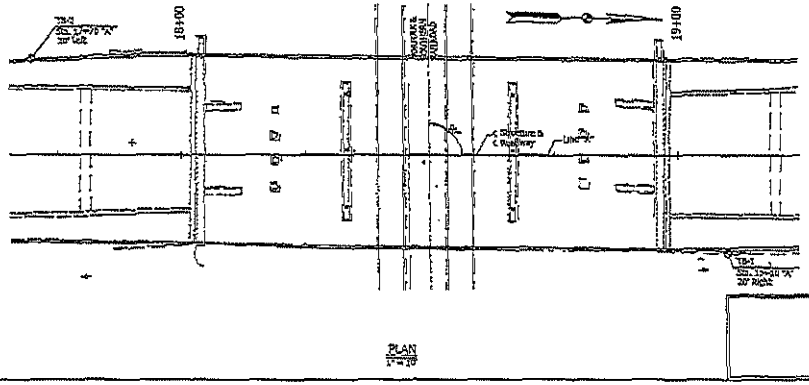

SECTION "C-C"
Scale 1/2" = 1'-0"
SECTION "D-D"
Scale 1/2" = 1'-0"
LEGEND
Indicates Structure Backfill, Type 2
Indicates "B" Borrow
Undercut (Replace With "B" Borrow)
NO. 8 Stone (Fill For Air Structure Backfill, Type 2)
Compacted Aggregate No. 53 Base
SILL OF MATERIALS
MSE WALL NO. 1
SILL OF MATERIALS
MSE WALL NO. 2
BRIDGE NO. 553
OVER NORFOLK SOUTHERN RR
CITY OF FORT WAYNE

EXHIBIT B







IDENTIFICATION	Test No. 1	Test No. 2
File Surface	NP 22+24	NP 22+24
File Sheet	Sheet 50	Sheet 50
Max. Negative Design Soil Resistance (ultimate) (Kip)	230	230
Resistance Factor (phi)	0.35	0.35
Downdrag Load (D), kips	0.0	0.0
Maximum Nominal Soil Resistance (Rn), kips	330	330
Downdrag Factor (Rnd/Rn)	0.0	0.0
Scour Zone Friction (Rs) (neg.), kips	0.0	0.0
Reduction in Shaft (Rpc)	0.0	0.0
Maximum Nominal Pile Resistance (Rndn), kips	330	330
Estimated Pile Length, ft	61	70
Estimated Pile Tip Elevation	736	728
Testing Method	Dynamic Formula PDA or Pseudo Static Analysis Eurocode 7(EN 1997)	

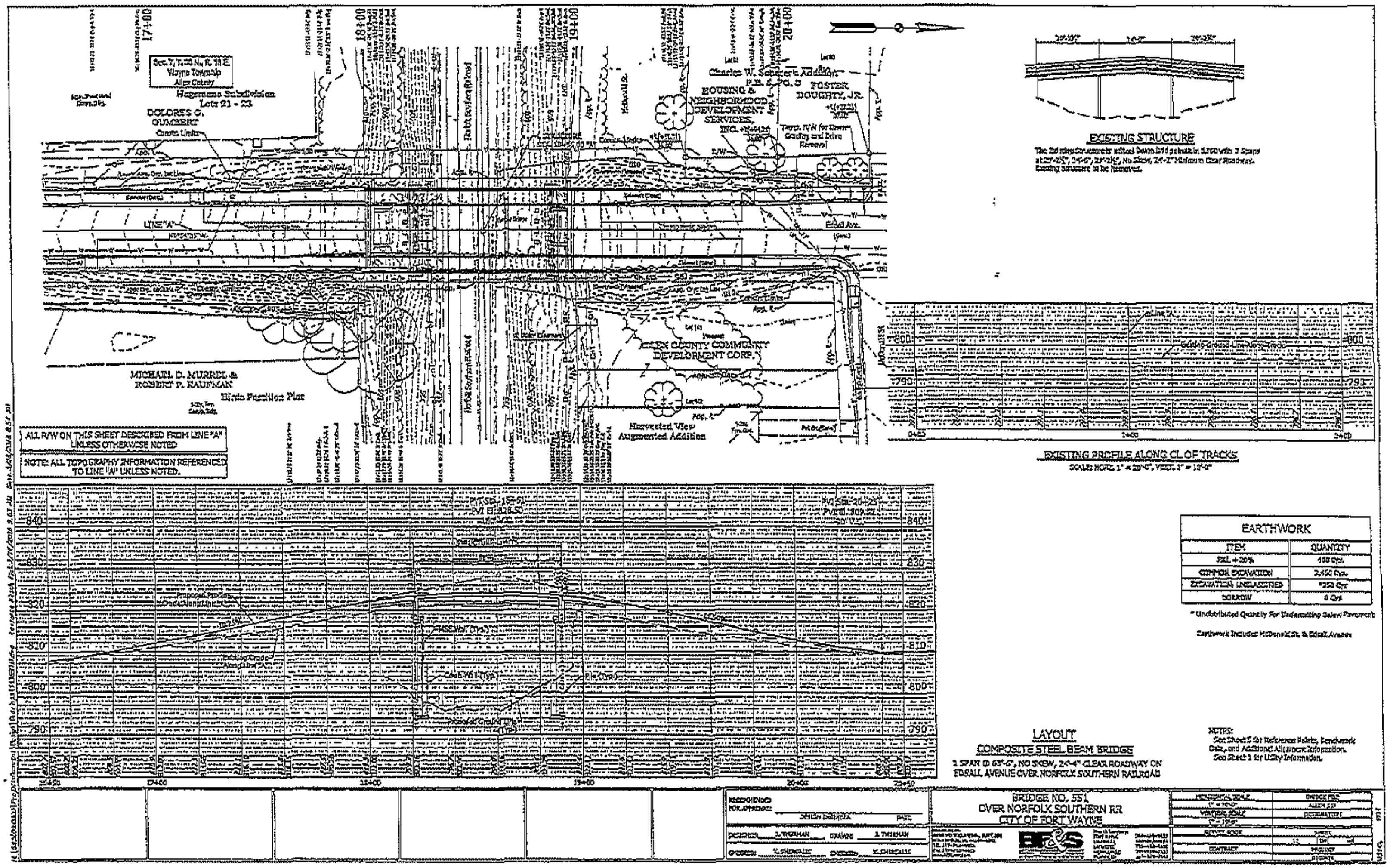
STANDARD PENETRATION TEST
Driving 2" O.D. Sampler 30" with 140# Hammer falling 30", Counts made at 6" intervals. Post 6" for testing samples.

Note:
The entire Geotechnical Report developed by GME Testing will be made available to the Contractor upon request.

SOIL BORINGS

RECOMMENDED FOR APPROVAL	BRIDGE NO. 551 OVER NORFOLK SOUTHERN RR. CITY OF FORT WAYNE
DESIGNED B. SHEETS DRAWN B. SHEETS	BRIDGE NO. 551
CHECKED K. CHEVALIER CHECKED	

EXHIBIT B



EARTHWORK	
ITEM	QUANTITY
FILL + 20%	400 Cys.
COMMON EXCAVATION	2,450 Cys.
EXCAVATION, UNCLASSIFIED	*250 Cys
BORROW	0 Cys

* Undistributed Quantity For Undercutting Subsoil Pavement

Earthwork Includes McDonald St. & Edsall Avenue

EXHIBIT B

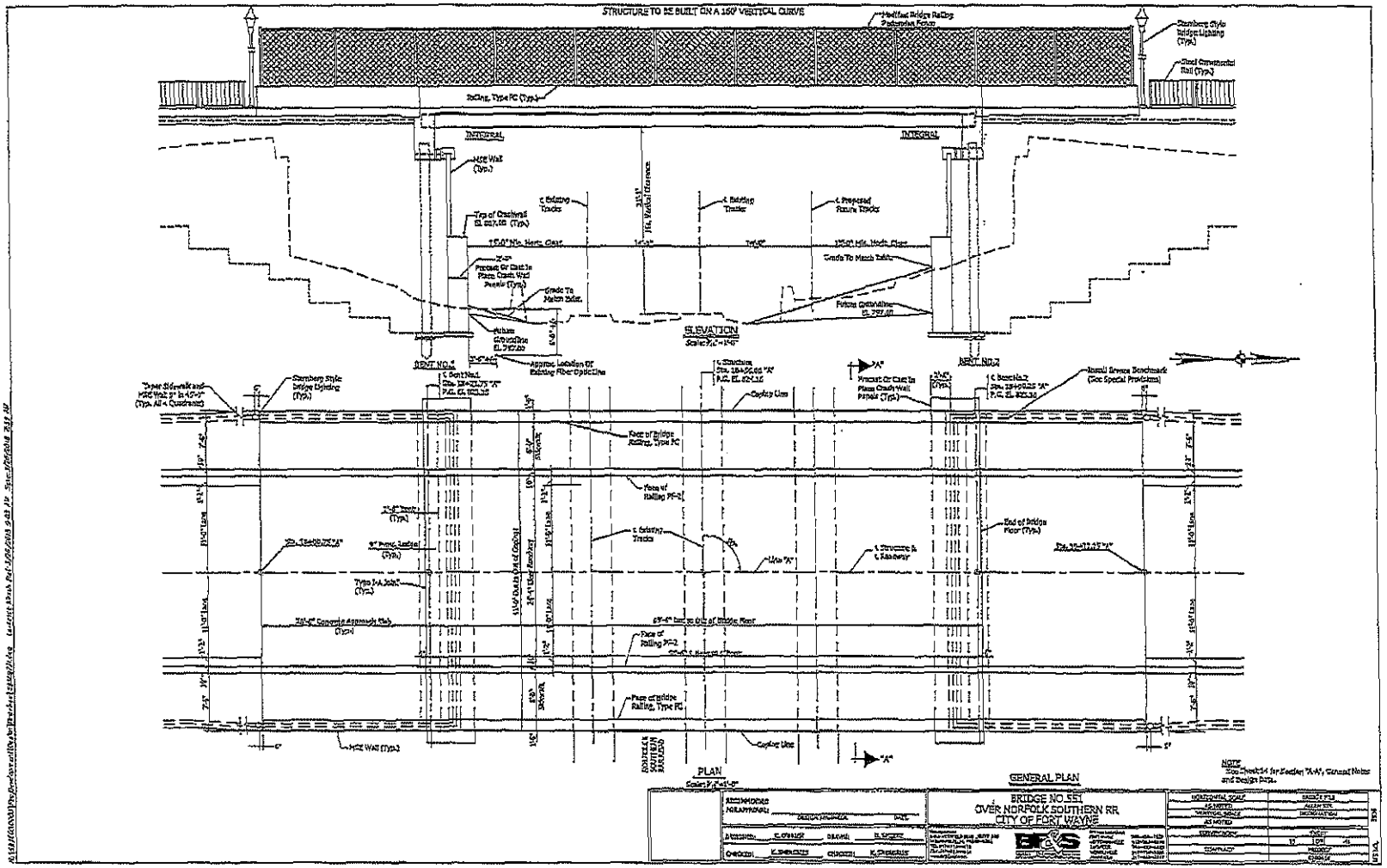
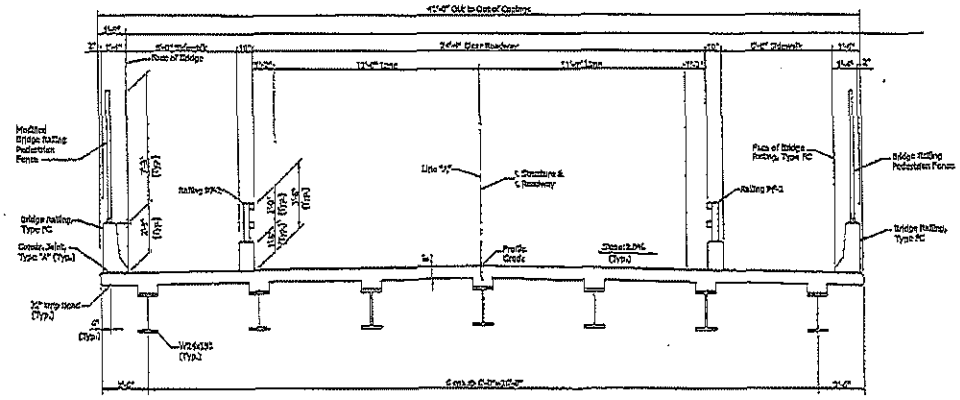

STRUCTURE TO BE BUILT ON A 160' VERTICAL CURVE
INTEGRAL
INTEGRAL
ELEVATION
PLAN
GENERAL PLAN
BRIDGE NO. 551
OVER NORFOLK SOUTHERN RR
CITY OF FORT WAYNE

EXHIBIT B



SECTION "A-A"
Scale: 3/8"=1'-0"

CONSTRUCTION LOADING

The exterior girder has been checked for strength, deflection and overturning using the construction loads shown below. Cantilever overhang brackets were assumed for support of the deck overhang over the edge of the exterior girder. The finishing machine was assumed to be supported 6 inches outside the vertical coping form. The top overhang brackets were assumed to be located 6 inches back the edge of the vertical coping form. The bottom overhang brackets were assumed to be braced against the intersection of the girder bottom flange and web.

DECK FALSEWORK LOADS: Designed for 15 psf for permanent metal stay-in-place deck forms, removable deck forms, and 2 in. exterior railings.

CONSTRUCTION LIVE LOAD: Designed for 30 psf extending 2 ft past the edge of coping and 75 plf vertical force applied at a distance of 6 inches outside the face of coping over a distance of the length of the deck with the finishing machine.

FINISHING MACHINE LOAD: 4300 lbs. distributed over 10 feet along the coping.

WIND LOAD: Designed for 70 mph horizontal wind loading in accordance with LRFD 3.8.1.

GENERAL NOTES

Present structures shall be removed. Existing Substructure To Be Removed to Lower To Elevation 774.00

Steel H-Piles shall be driven to the ultimate bearing value.

Steel H-Piles in end bents shall be driven with webs perpendicular to bent centerline.

Epoxy coated reinforcing bars shall be required in various portions of the structure as shown.

Reinforcing bars covering shall be 2-1/2" in top of approach slabs.

Reinforcing bars covering shall be 2-1/2" in top and 1" in bottom of floor slabs and 2" in all other areas unless noted.

Reinforcing bars shall be A.S.T.M. A615, Grade 60.

Concrete shall be Class C3a and 3cm, floor slab and barrier railings.

Chamfer exposed corners of concrete 1" unless noted.

Surface seal shall be required on various areas of the structure as shown. Estimated quantity = 3000 sft.

As an alternate, permanent metal deck forms may be used.

A minimum temporary vertical clearance of 23'-0" above the top of the highest rail shall be maintained at all times.

A minimum temporary horizontal clearance of 25'-0" from the centerline of track shall be maintained at all times. Additional horizontal clearance may be required in special cases to be safe for operational conditions.

Temporary support of excavation will be required if substructure or crash wall excavation falls within 14'-0" of centerline of adjacent track. See Special Provisions.

All construction work performed on, under, over or adjacent to NS property must be in accordance with the Norfolk Southern Special Provisions for Protection of Railway Interests.

The Contractor shall not, for any reason, place construction equipment on, or store, or dump waste construction materials upon the railroad's Right-of-Way.

The Contractor shall conduct his work so as to protect the Railroad's track facilities and property from damage. The Contractor shall notify the Railroad of any work by the Contractor within 25 feet of the Railroad's right-of-way for the Railroad to determine flagging needs.

If any portion of the existing railroad structure is damaged by the contractor's operations during construction, the engineer shall cease work, notify NS, and perform repairs to the satisfaction of NS at the contractor's sole expense.

The Contractor shall coordinate his work on or adjacent to railroad right-of-way with the following representatives of the Railroad:

Mr. R.W. Chambers - Public Improvements
Norfolk Southern Railway
1200 Peachtree Street, NE
Atlanta, GA 30309
Phone: (404) 529-1416
Email: BridgeChambers@norfolksouthern.com

DESIGN DATA

MATERIAL DESIGN STRENGTHS:

Class "C" Concrete — $f'c = 4,000$ psi.
Reinforcing Steel (Grade 60) — $Fy = 60,000$ psi.

LIVE LOAD:

Superstructure and substructure designed for HL-93 loading, in accordance with the AASHTO LRFD Bridge Design Specifications, 5th Edition, 2010 and its subsequent interims.

DEAD LOAD:

Actual plus 35 pounds per square foot (composite) for future wearing surface and 15 pounds per square foot (non composite) for permanent metal deck forms. Slab designed with a 2.0" wearing surface.

GENERAL PLAN

RECOMMENDED FOR APPROVAL: DESIGN ENGINEER DATE	BRIDGE NO. 554 OVER NORFOLK SOUTHERN RR CITY OF FORT WAYNE	HORIZONTAL SCALE	BRIDGE FILE
		AS NOTED	ALIGNMENT
		VERTICAL SCALE	DESIGNATION
		AS NOTED	
DESIGNED: E. CHOCKLE DRAWN: E. CHOCKLE	BF&S	SHEET ISSUE	SHEET OF
CHECKED: E. CHOCKLE CHECKED: E. CHOCKLE		CONTRACT	PROJECT
			BRIDGE

EXHIBIT B

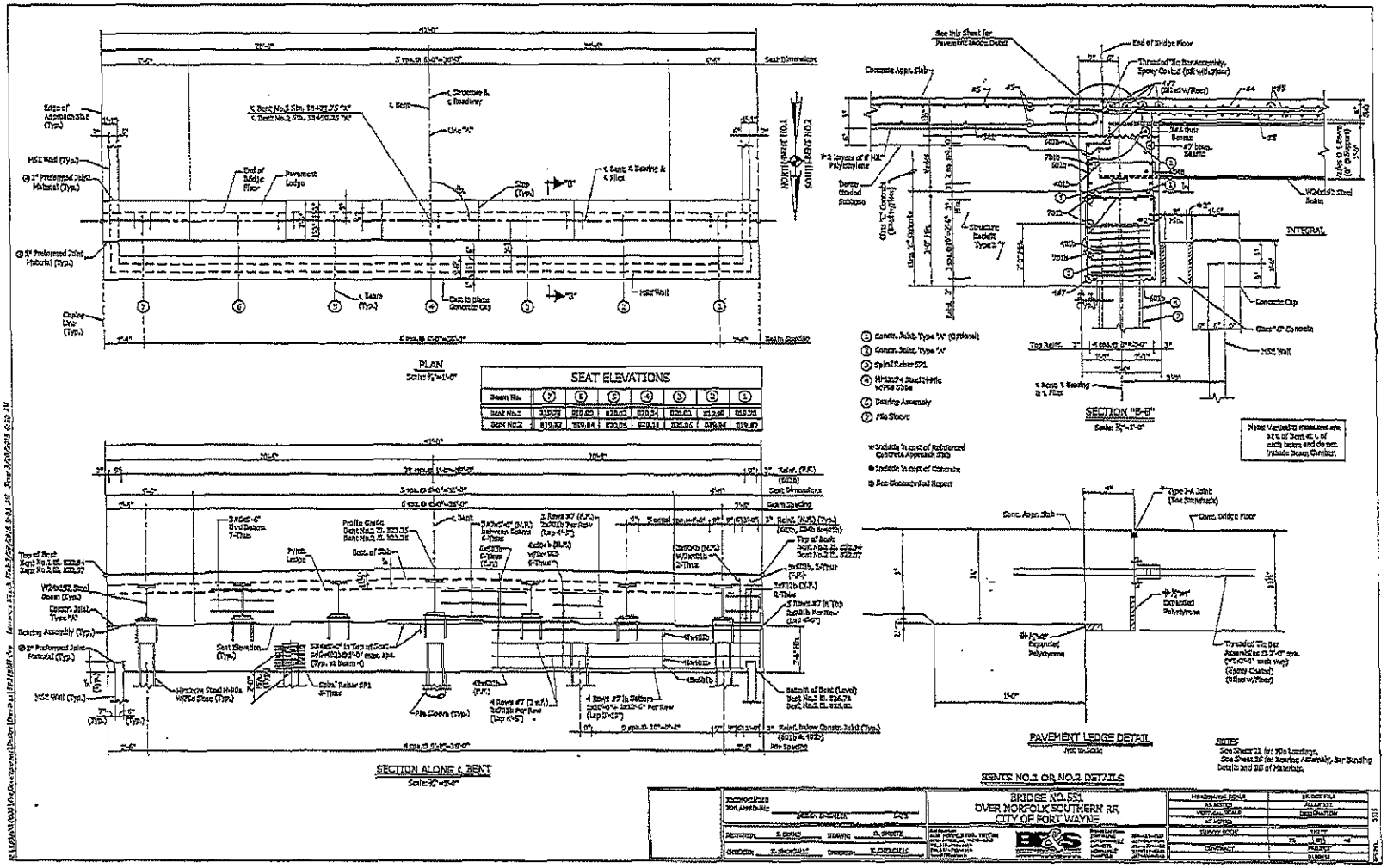
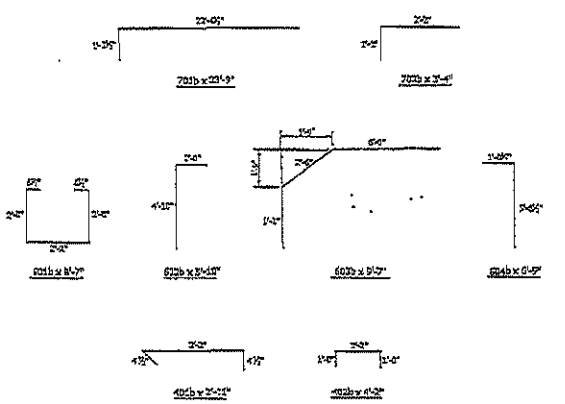

PLAN
Scale: 1/8"=1'-0"
SEAT ELEVATIONS
SECTION ALONG ℄ BENT
Scale: 1/8"=1'-0"
SECTION "B-B"
Scale: 1/8"=1'-0"
PAVEMENT LEDGE DETAIL
Not to Scale
BENTS NO.1 OR NO.2 DETAILS
BRIDGE NO.551
OVER NORFOLK SOUTHERN RR
CITY OF FORT WAYNE
NORTH ABUTMENT NO.1
SOUTH ABUTMENT NO.2
INTEGRAL
NOTES
See Sheet 21 for Pile Loadings.
See Sheet 25 for Bearing Assembly, Bar Bending Details and Bill of Materials.

EXHIBIT B



BAR BENDING DETAILS
Not to Scale

Spiral Notes

All Spirals shall be 20½" DIA. flat to flat with a 20¼" Pitch and be made from #4 Reinforcing Bar (Epoxy Coated).

Each Spiral shall have 3½ extra turns top and bottom.

Each Spiral shall be supported with 4 Spacers.

Cost of above to be included in Cost of Spirals.

Spirals shall be spliced by a policy 25½ times.

No additional payment will be made for Splices.

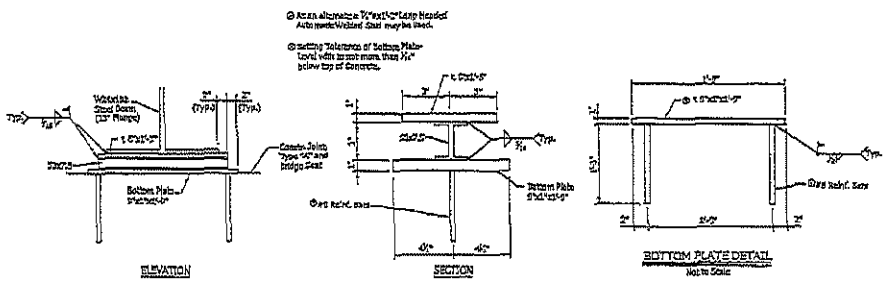
Weights shown include 3½ extra turns top and bottom.

Weights shown do not include spacers or splices.

BILL OF MATERIALS
BENT NO.1
BENT NO.2 SAME

Mark or Size	No. of Bars	Length (ft)	Weight (Lbs.)
REINFORCING BARS			
70lb	24	23'-9"	
70lb	6	3'-4"	
#7	4	35'-0"	
#7	4	32'-0"	
#7	18	3'-0"	
Total #7 (Epoxy Coated)			1700
20lb	46	8'-7"	
60lb	42	5'-10"	
60lb	42	8'-7"	
60lb	42	8'-7"	
#6	21	3'-0"	
Total #6 (Epoxy Coated)			2700
40lb	154	2'-11"	
40lb	6	4'-0"	
#4	5	5'-0"	
Total #4 (Epoxy Coated)			396
SP1	3	59'-9"	
Total #4 Spiral (Epoxy Coated)			322
Total Steel (Epoxy Coated)			4420
CONCRETE			
Class "B" in Substructure			17.3 Cyd.
MISCELLANEOUS			
14"HP14x74 Steel H-Pile @ 63" Each			369 Lft.
Steel Pile Shoe, HP12SCM			5 Each
14"HP14x74 Steel H-Pile, Indicator Production @ 72"			75 Lft.
Test Pile Indicator, Scientific			3 Each
Pile Splice			5 Each

⊕ ASTM, A615, Grade 60



ELEVATION

SECTION

BEARING ASSEMBLY
Not to Scale

BOTTOM PLATE DETAIL
Not to Scale

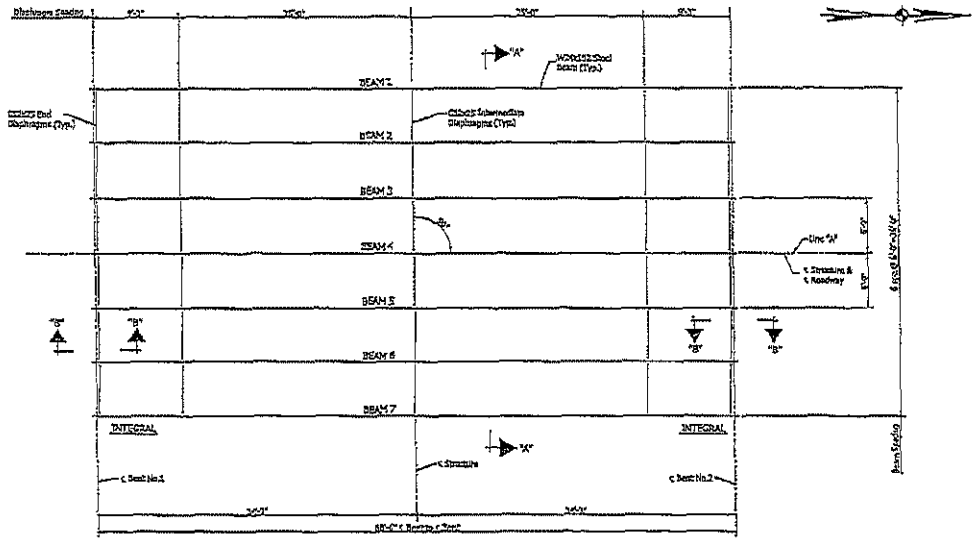
BENTS NO.1 OR NO.2 DETAILS

BRIDGE NO.551
OVER NORFOLK SOUTHERN RR
CITY OF FORT WAYNE

BRIDGE DESIGN ENGINEER
DESIGNED: D. GOLAD
DRAWN: D. SHORTS
CHECKED: T. SCHAEFER
REVIEWED: K. FRANKLIN

HORIZONTAL SCALE: AS NOTED
VERTICAL SCALE: AS NOTED
SURVEY BOOK
CONTRACT
STATE: IN
COUNTY: ALLEN
DISTRICT: NORTHEASTERN
CHECK
PROJECT
FEDERAL

EXHIBIT B



FRAMING PLAN

STRUCTURAL STEEL FABRICATION NOTES

The Steel fabricator shall furnish to the Engineer, through the Contractor, 4 sets of Working Drawings, for approval prior to fabrication of Steel.

Paint all Steel located within 4 feet of the front face of the end beam. The field of painted steel should extend 1.5 feet beyond the edge of the MOTWAD concrete cap. Do not paint top flange. Paint shall conform to Federal Color Standard 595C, Color 36945.

All Structural Steel shall be A.S.T.M. A709, Grade 50 W unpainted Weathering Steel unless otherwise noted.

All bolts shall be 7/8" ø A325 High Strength and all holes shall be 15/16" ø unless otherwise noted.

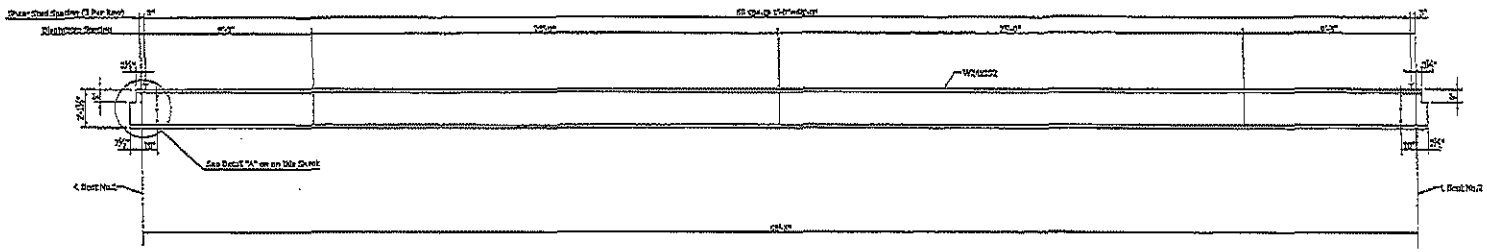
Estimated weight of Structural Steel is 94,580 pounds. The weight of high-strength bolts and SHEAR STUDS is not included in the estimated weight of Structural Steel. The cost of these items shall be included in the cost of Structural Steel.

NOTES
See Sheet 18 for Section "B-B".
See Sheet 18 for Beam Elevation, Shear Stud Details and Diagram Details.
See Sheet 19 for No Load Camber and Jacking diagram.
See Sheet 21 for Section "A-A".

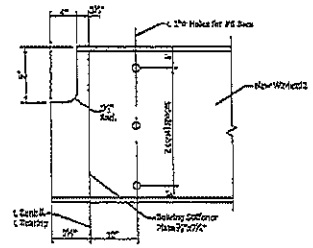
FRAMING PLAN

RECOMMENDED FOR APPROVAL: DESIGN ENGINEER DATE	BRIDGE NO.551 OVER NORFOLK SOUTHERN RR CITY OF FORT WAYNE	HORIZONTAL SCALE	SHEET TITLE
		AS NOTED	ALTERNATE
		VERTICAL SCALE	DIMENSIONS
DESIGNED S. SINGH DRAWN D. [illegible]	BF&S	AS NOTED	
CHECKED K. [illegible] CHECKED S. [illegible]		SUBMITTED	SHEET
			17 OF 21
		CONTRACT	PROJECT
			[illegible]

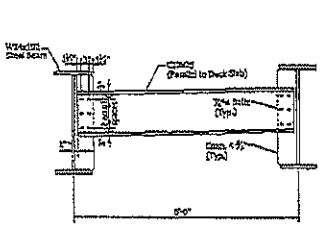
EXHIBIT B



TYPICAL BEAM ELEVATION
Not to Scale

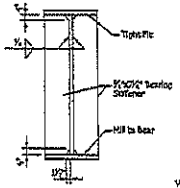


DETAIL "A"
Not to Scale



ELEVATION

END DIAPHRAGM
Not to Scale



BEARING STIFFENER
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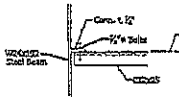
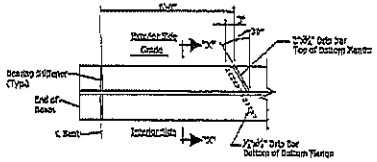
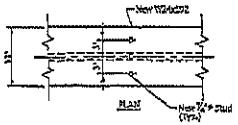


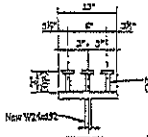
PLAN



TYPICAL DRIP BAR DETAIL AT END BENT NO.1
Not to Scale



PLAN

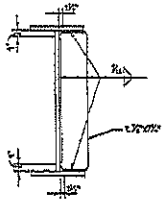


SECTION

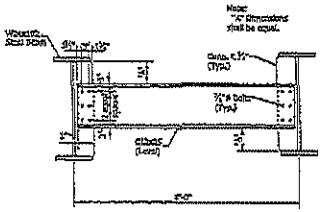
SHEAR STUD HEIGHT	
ROW	"H" INCHES
2-6	5"
7-13	6"
14-20	10"
21-49	1'-6"
50-56	10"
57-63	4"
64-69	5"

Notes:
The cost and installation of 7/8" ϕ shear studs on New Beams shall be included in the contract structural steel.
Shear Stud Connectors on Beams:
Total = 1442 Each

SHEAR STUD DETAILS
Not to Scale

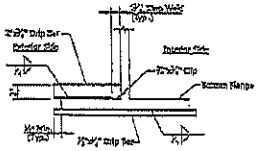


DIAPHRAGM CONNECTION PLATE
Not to Scale



ELEVATION

INTERMEDIATE DIAPHRAGM
Not to Scale



SECTION "X-X"
Not to Scale

Notes: Drip Bars shall be located on the outward faces of all exterior beams adjacent to End Bents.
Drip Bars shall be coated with dark brown coating against flange, web and filler plates.

STRUCTURAL STEEL DETAILS

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

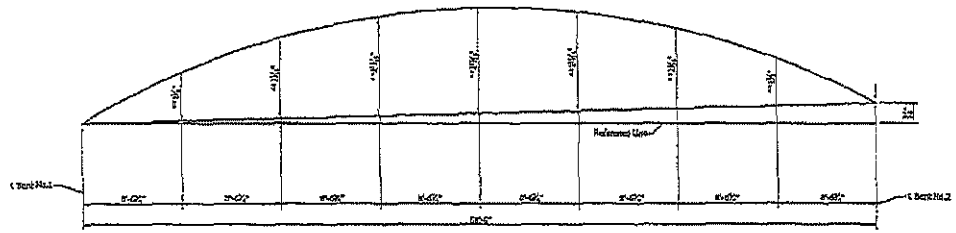
DESIGNED: G. GORDON DRAWN: D. SHEETS
CHECKED: K. ENCINOSE CHECKED: K. ENCINOSE

BRIDGE NO. 551
OVER NORFOLK SOUTHERN RR
CITY OF FORT WAYNE

BF&S

HORIZONTAL SCALE	SEE PLAN
VERTICAL SCALE	SEE PLAN
AS NOTED	
CONTRACT NO.	2007
	1 OF 1
CONTRACT	PROJECT
	0100616

EXHIBIT B



NO LOAD CAMBER AND REAMING DIAGRAM

Not to Scale

***Table of Camber							
	1/8 Pt.	1/4 Pt.	3/8 Pt.	1/2 Pt.	5/8 Pt.	3/4 Pt.	7/8 Pt.
Dead Load Steel (in)	1/4	7/16	9/16	5/8	9/16	7/16	1/4
Dead Load Concrete (in)	15/16	1 11/16	2 3/16	2 5/8	2 3/16	1 11/16	15/16
**Total Camber (in)	1 1/8	2 1/16	2 11/16	2 15/16	2 11/16	2 1/16	1 1/8
*Vertical Curve (in)	4 5/16	7 3/16	8	9 1/2	9	7 3/16	4 3/16
Camber + Haunch (in)	5 5/16	9 1/4	11 11/16	12 7/16	11 11/16	9 1/4	5 5/16

*Vertical curve correction will cover entire haunch thickness.

**Steel DL & Concrete DL will cover entire camber. Camber does not include adjustment for Vertical Curve.

***Assume interior girder camber/haunch applies to all beams.

STRUCTURAL STEEL DETAILS

RECOMMENDED FOR APPROVAL: _____ DATE

DESIGNED: C. GANTZ DRAWN: D. SHOTZ

CHECKED: T. PERGUSON CHECKED: E. GONZALEZ

BRIDGE NO.551
OVER NORFOLK SOUTHERN RR
CITY OF FORT WAYNE

BF&S

HORIZONTAL SCALE: BRIDGE PLAN
AS NOTED: DESIGN BY
VERTICAL SCALE: DRAWN BY
AS NOTED: CHECKED BY
SURVEY BOOK: SHEET
21 107 46
CONTRACT: PROJECT
DATE

EXHIBIT B

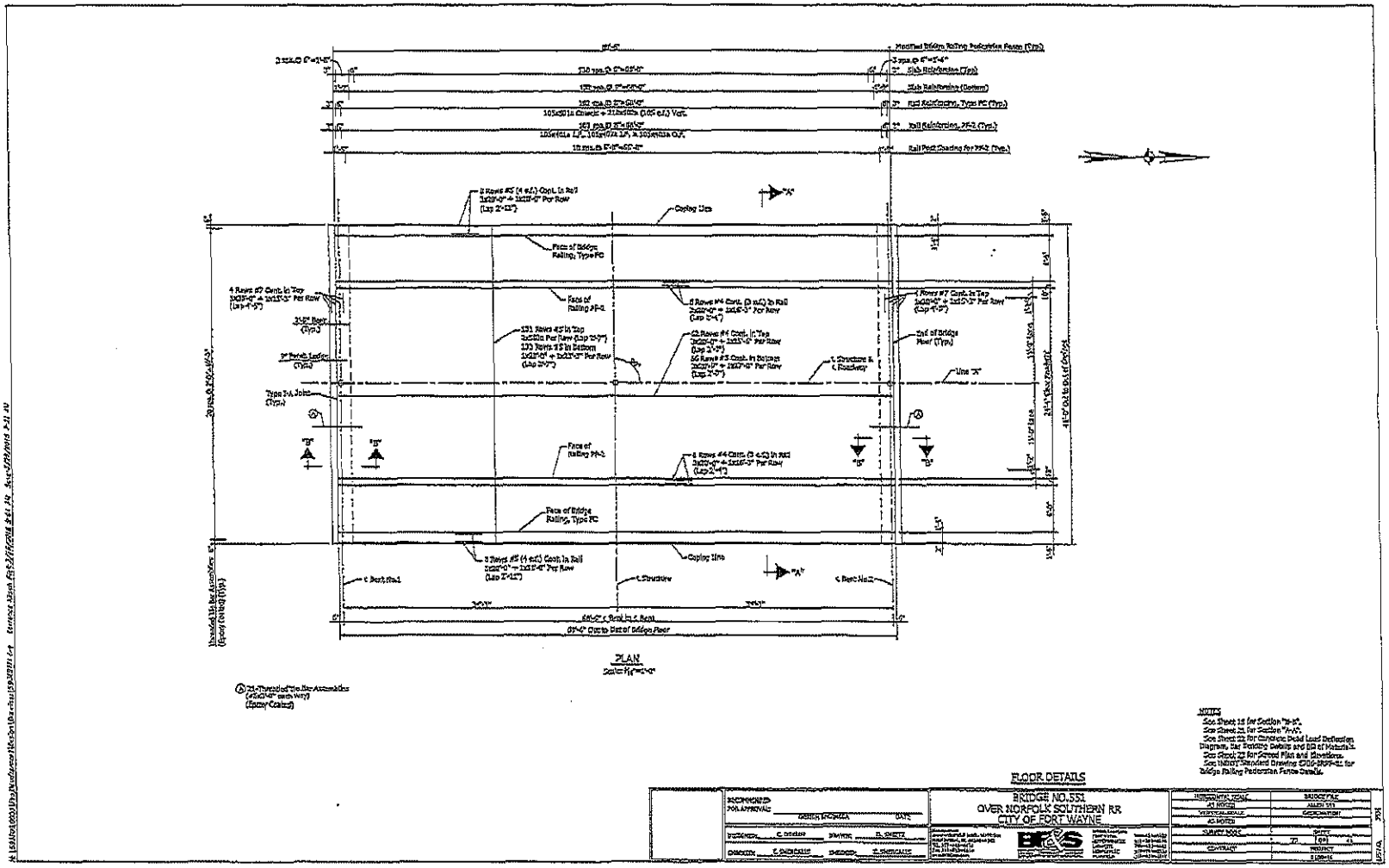

PLAN
FLOOR DETAILS
BRIDGE NO.551
OVER NORFOLK SOUTHERN RR
CITY OF FORT WAYNE
NOTES

EXHIBIT B

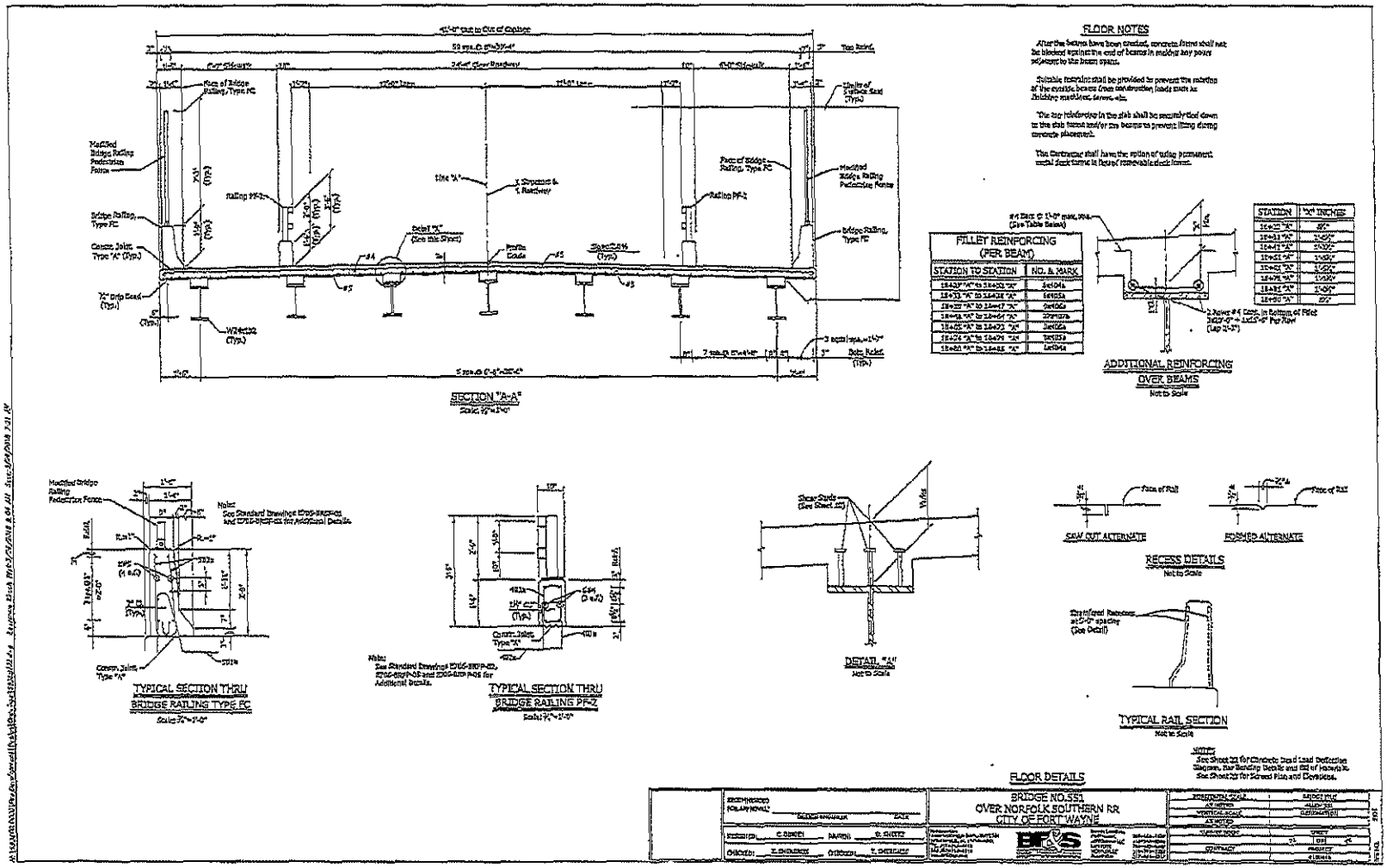
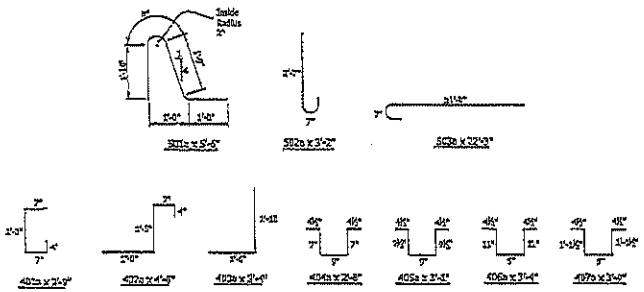
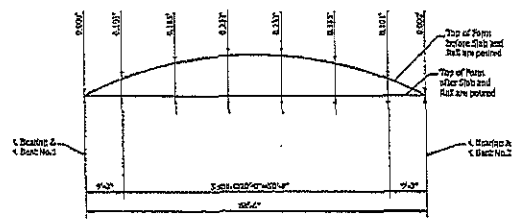

FLOOR NOTES
After the beams have been erected, concrete forms shall not be blocked against the end of beams in making any pours adjacent to the beam spans.
Suitable restraints shall be provided to prevent the rotation of the outside beams from construction loads such as building machines, forms, etc.
The top reinforcing in the slab shall be securely tied down to the slab forms and/or the beams to prevent lifting during concrete placement.
The Contractor shall have the option of using permanent metal deck forms in lieu of removable deck forms.
SECTION "A-A"
FILLET REINFORCING (PER BEAM)
STATION TO STATION
NO. & MARK
ADDITIONAL REINFORCING OVER BEAMS
Not to Scale
TYPICAL SECTION THRU BRIDGE RAILING TYPE FC
TYPICAL SECTION THRU BRIDGE RAILING PF-2
DETAIL "A"
Not to Scale
SAW CUT ALTERNATE
FORMED ALTERNATE
RECESS DETAILS
Not to Scale
TYPICAL RAIL SECTION
Not to Scale
FLOOR DETAILS
BRIDGE NO.551
OVER NORFOLK SOUTHERN RR
CITY OF FORT WAYNE

EXHIBIT B



BAR BENDING DETAILS
Not to Scale



CONCRETE DEAD LOAD DEFLECTION DIAGRAM
Not to Scale

BILL OF MATERIALS
SUPERSTRUCTURE

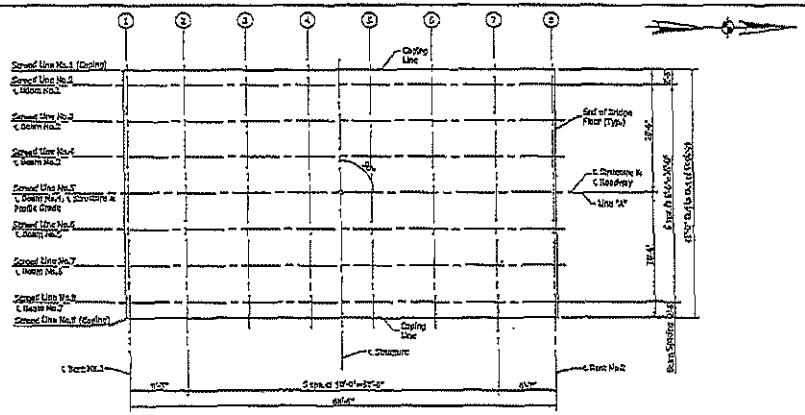
REINFORCING BARS			
Mark or Size	No. of Bars	Length (Ft.)	Weight (lbs.)
#7	8	38'-0"	
#7	8	12'-3"	
Total #7 (Epoxy Coated)			7[illegible]
501a	210	5'-6"	
502a	416	32'-3"	
502b	272	22'-3"	
#5	130	22'-3"	
#5	348	20'-4"	
#5	36	18'-6"	
#5	26	37'-0"	
Total #5 (Epoxy Coated)			29[illegible]
401a	319	3'-9"	
402a	210	4'-8"	
402b	210	3'-9"	
404a	34	2'-8"	
405a	84	3'-4"	
406a	132	3'-4"	
407a	132	3'-0"	
#4	254	35'-0"	
#4	13	10'-3"	
#4	76	12'-0"	
Total #4 (Epoxy Coated)			4[illegible]
Total Steel (Epoxy Coated)			32[illegible]
CONCRETE			
Class "C" in Superstructure			
Slab and End Bents			99.0 Cys.
Railing, Concrete, PR-2			6.5 Cys.
Railing, Concrete, PC			13.5 Cys.
MISCELLANEOUS			
Surface Seal			4400 Sq.
Threaded Tie Bar assemblies (#5x2'-6" Ea. Way) (Epoxy Coated)			42 Each
Railing, Steel, PR-2			330 Lin.
Bridge Rating Receiving Punch			133 Lin.

(E) A.S.T.M. A615 Grade 60

FLOOR DETAILS

RECOMMENDED FOR APPROVAL: BRIDGE ENGINEER DATE	BRIDGE NO. 551 OVER NORFOLK SOUTHERN RR CITY OF FORT WAYNE	HORIZONTAL SCALE	NONE PLAN
DESIGNED: C. GRIFFITH DRAWN: G. WHITTEN	B&S	ALIGNMENT	AUSTIN
CHECKED: K. SHERMUNDY CHECKED: K. SHERMUNDY		VERTICAL SCALE	INTERSECTION
		AS BUILT	
		SURVEY BOOK	SHEET 37 TOP 46
		COMPUTOR	FRESNO
			07/04/05

EXHIBIT B



SCREED PLAN

Scale: 1/8"=1'-0"

		Point:	1	2	3	4	5	6	7	8
SCREED LINE	1	Top of Coping Form	822.940	823.415	823.780	823.955	823.975	823.765	823.445	822.975
		Top of Exterior Beam								
		Top of Beam to Top of Coping								
	2	Top of Screed	822.990	823.465	823.830	824.015	824.025	823.845	823.495	823.025
		Top of Beam								
		Top of Beam to Top of Screed								
	3	Top of Screed	823.110	823.585	823.950	824.135	824.145	823.965	823.615	823.145
		Top of Beam								
		Top of Beam to Top of Screed								
	4	Top of Screed	823.230	823.705	824.070	824.255	824.265	824.085	823.735	823.265
		Top of Beam								
		Top of Beam to Top of Screed								
	5	Top of Screed	823.350	823.825	824.190	824.375	824.385	824.205	823.855	823.385
		Top of Beam								
		Top of Beam to Top of Screed								
	6	Top of Screed	823.230	823.705	824.070	824.255	824.265	824.085	823.735	823.265
		Top of Beam								
		Top of Beam to Top of Screed								
	7	Top of Screed	823.110	823.585	823.950	824.135	824.145	823.965	823.615	823.145
		Top of Beam								
		Top of Beam to Top of Screed								
	8	Top of Screed	822.990	823.465	823.830	824.015	824.025	823.845	823.495	823.025
		Top of Beam								
		Top of Beam to Top of Screed								
	9	Top of Coping Form	822.940	823.415	823.780	823.955	823.975	823.765	823.445	822.975
		Top of Exterior Beam								
		Top of Beam to Top of Coping								

SCREED NOTES

Screed elevations will be given for setting screeds and coping forms so that the slab and coping will be at the required elevations after all the concrete has been poured.

Take elevations at the screed and coping points on top of adjacent beams, subtract these elevations from the given elevation and the resulting dimensions are the heights for setting the screed or coping forms above the points. This dimension remains unchanged regardless of how much or what kind the concrete is poured.

No concrete shall be poured until the above operation is completed.

Do not set screeds or coping forms by levelling.

SCREEDS

RECOMMENDED FOR APPROVAL — SENIOR ENGINEER — DATE

DESIGNED: C. Shafer — DRAWN: D. Smith

CHECKED: C. Shafer — CHECKED: C. Shafer

BRIDGE NO. 551
OVER NORFOLK SOUTHERN RR
CITY OF FORT WAYNE

BF&S

HORIZONTAL SCALE: 1"=10'-0" — BRIDGE PLAN
AS NOTED — ALLEN CO.
VERTICAL SCALE: — STRUCTURE
AS NOTED
SUPPER BOOK — PAGE
CONTRACT — PROJECT
STRUCT.

EXHIBIT B

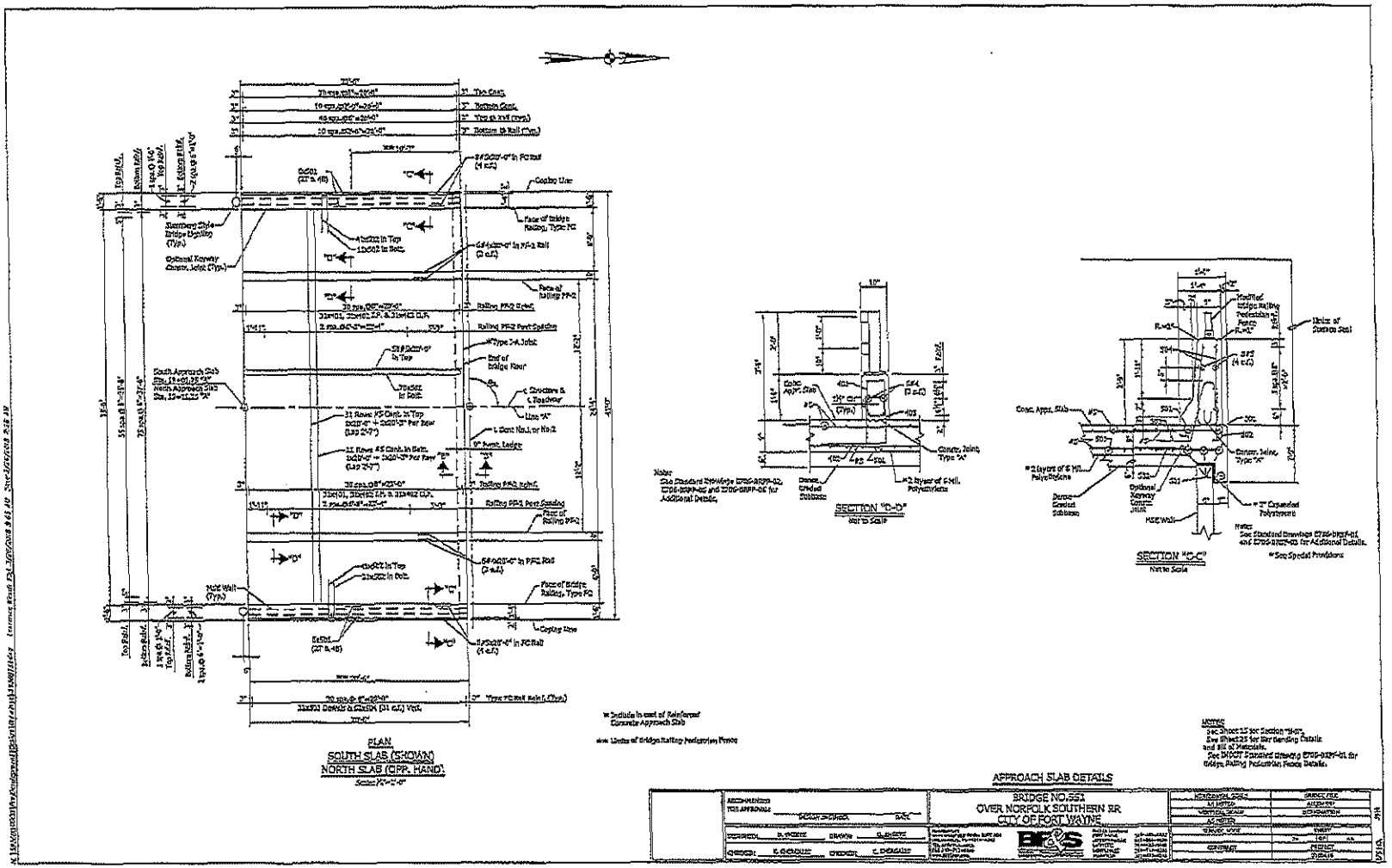

PLAN
SOUTH SLAB (SHOWN)
NORTH SLAB (OPP. HAND)
SECTION "D-D"
SECTION "C-C"
APPROACH SLAB DETAILS
BRIDGE NO.551
OVER NORFOLK SOUTHERN RR
CITY OF FORT WAYNE

EXHIBIT B

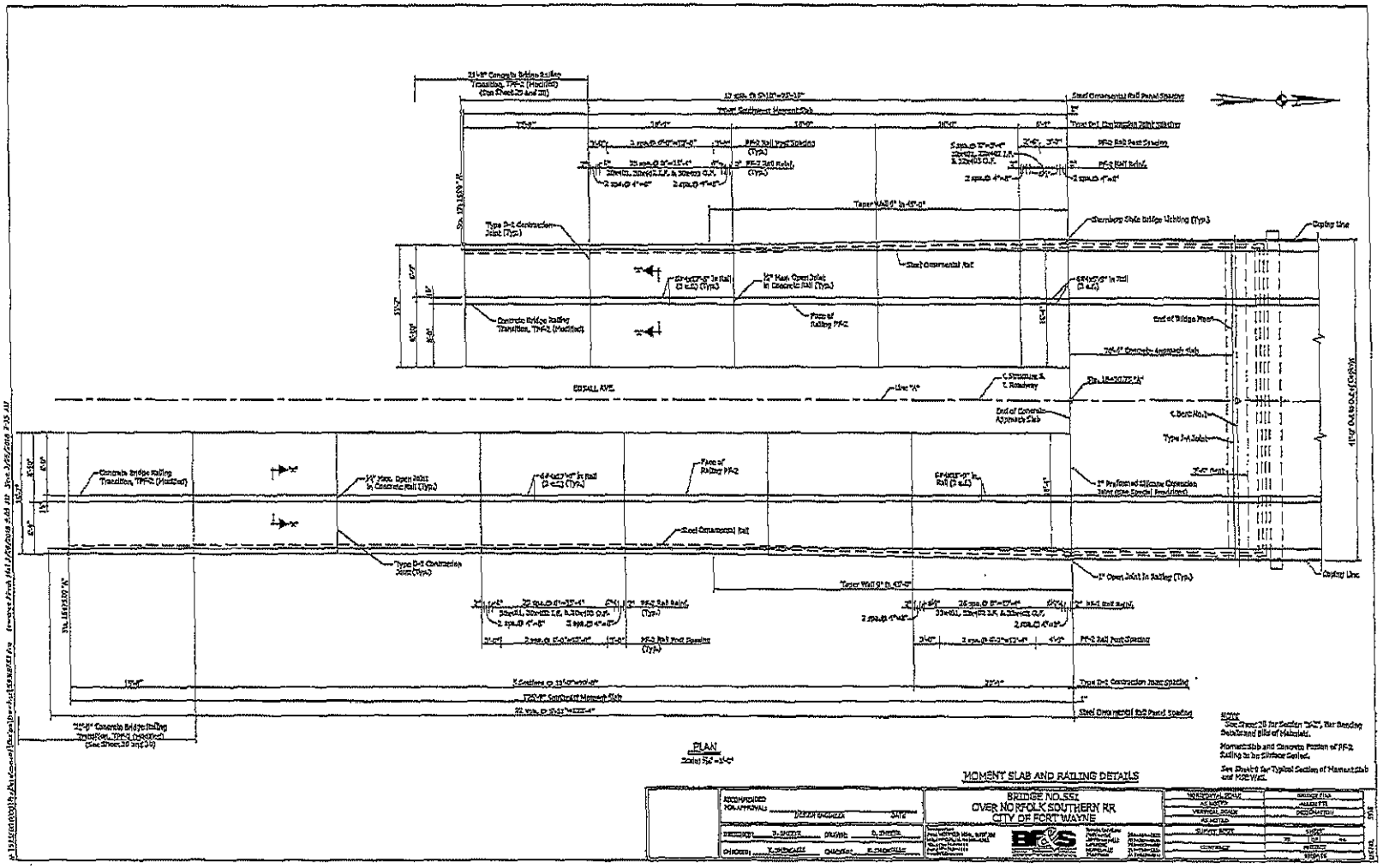

PLAN
MOMENT SLAB AND RAILING DETAILS
BRIDGE NO.551
OVER NORFOLK SOUTHERN RR
CITY OF FORT WAYNE

EXHIBIT B

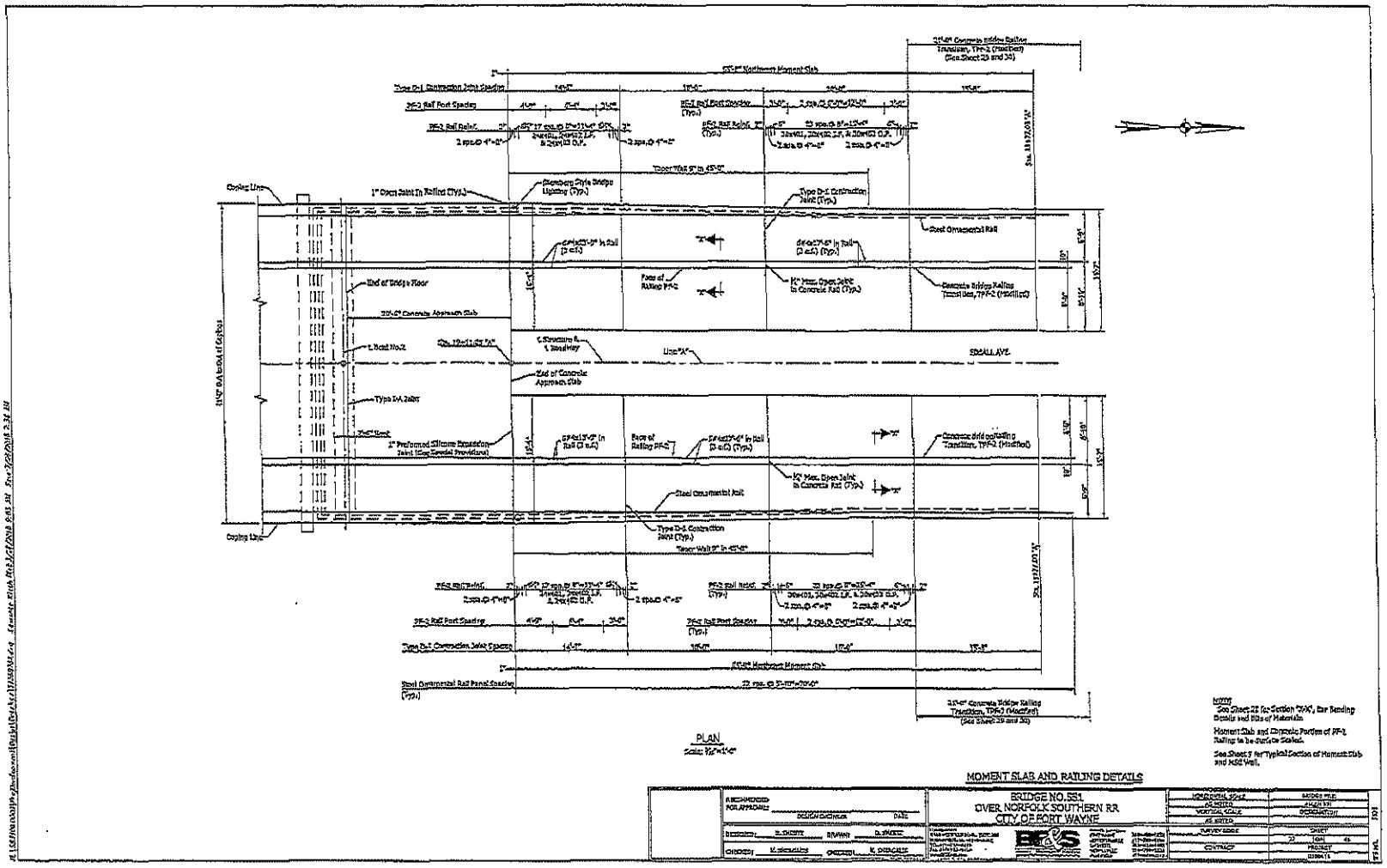
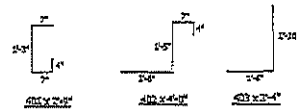
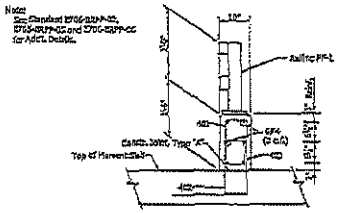

PLAN
MOMENT SLAB AND RAILING DETAILS
BRIDGE NO.551
OVER NORFOLK SOUTHERN RR
CITY OF FORT WAYNE
NOTE
See Sheet 22 for Section "A-A", Bar Bending Details and Bills of Materials.
Moment Slab and Concrete Portion of PF-2 Railing to be Surface Sealed.
See Sheet 7 for Typical Section of Moment Slab and Wall Well.
Coping Line
End of Bridge Floor
Type 1-A Joint
Steel Ornamental Rail
Concrete Bridge Railing Transition, TPF-2 (Modified)
Type D-1 Construction Joint
Steel Ornamental Rail Panel Spacing (Typ.)
SPEAL AVE.

EXHIBIT B



BAR BENDING DETAILS
Not to Scale



SECTION "X-X"
Not to Scale

BILL OF MATERIALS
SOUTHWEST MOMENT SLAB
STA. 17+25.88 "A" TO STA. 18+00.75 "A"

REINFORCING BARS			
Mark or Size	No. of Bars	Length (Ft)	Weight (Lbs)
401	102	3'-0"	
402	102	4'-0"	
403	102	3'-4"	
#4	28	17'-6"	
#4	6	5'-0"	
Total Steel (Epoxy Coated)			621
CONCRETE			
Concrete Moment Slab, 7"			134 Cyd.
Railing, Concrete, PF-2			3.2 Cyd.
MISCELLANEOUS			
Railing, Steel PF-2			33 Lft.
Surface Seal			1365 Sft.
Type D-1 Contraction Joint			55 Lft.
Steel Ornamental Railing			76 Lft.
Preformed Sliding Joint			38.5 Lft.

BILL OF MATERIALS
SOUTHEAST MOMENT SLAB
STA. 16+75.00 "A" TO STA. 18+00.75 "A"

REINFORCING BARS			
Mark or Size	No. of Bars	Length (Ft)	Weight (Lbs)
401	102	3'-0"	
402	102	4'-0"	
403	102	3'-4"	
#4	6	16'-0"	
#4	30	17'-0"	
Total Steel (Epoxy Coated)			2463
CONCRETE			
Concrete Moment Slab, 7"			320 Cyd.
Railing, Concrete, PF-2			5.1 Cyd.
MISCELLANEOUS			
Railing, Steel PF-2			122 Lft.
Surface Seal			3255 Sft.
Type D-1 Contraction Joint			110 Lft.
Steel Ornamental Railing			120 Lft.
Preformed Sliding Joint			38.5 Lft.

BILL OF MATERIALS
NORTHWEST MOMENT SLAB
STA. 19+11.25 "A" TO STA. 19+77.00 "A"

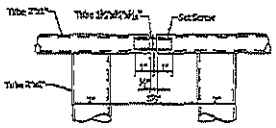
REINFORCING BARS			
Mark or Size	No. of Bars	Length (Ft)	Weight (Lbs)
401	84	3'-0"	
402	84	4'-0"	
403	84	3'-4"	
#4	12	17'-0"	
#4	6	15'-0"	
Total Steel (Epoxy Coated)			261
CONCRETE			
Concrete Moment Slab, 7"			116 Cyd.
Railing, Concrete, PF-2			2.3 Cyd.
MISCELLANEOUS			
Railing, Steel PF-2			33 Lft.
Surface Seal			1199 Sft.
Type D-1 Contraction Joint			43 Lft.
Steel Ornamental Railing			70 Lft.
Preformed Sliding Joint			38.5 Lft.

BILL OF MATERIALS
NORTHEAST MOMENT SLAB
STA. 19+11.25 "A" TO STA. 19+77.00 "A"

REINFORCING BARS			
Mark or Size	No. of Bars	Length (Ft)	Weight (Lbs)
401	84	3'-0"	
402	84	4'-0"	
403	84	3'-4"	
#4	12	17'-0"	
#4	6	15'-0"	
Total Steel (Epoxy Coated)			261
CONCRETE			
Concrete Moment Slab, 7"			116 Cyd.
Railing, Concrete, PF-2			2.3 Cyd.
MISCELLANEOUS			
Railing, Steel PF-2			33 Lft.
Surface Seal			1199 Sft.
Type D-1 Contraction Joint			43 Lft.
Steel Ornamental Railing			70 Lft.
Preformed Sliding Joint			38.5 Lft.

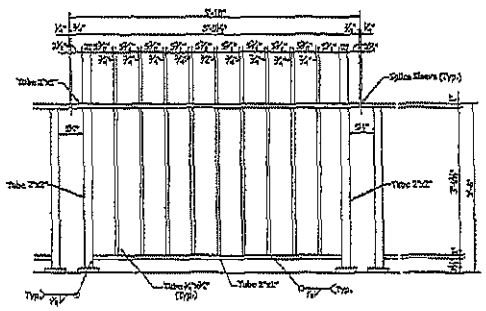
⊕ A.S.T.M. A615, Grade 60

Tubes 2"x2" shall have a Wall Thickness of 1/4"
Tubes 2"x3" shall have a Wall Thickness of 1/4"
Tubes 3"x3" shall have a Wall Thickness of 3/16"

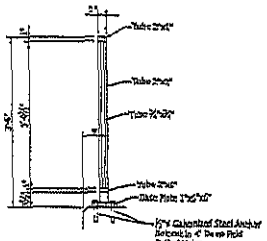


Note: Splice Sleeves nested between all Panels.

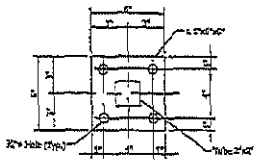
SPLICE SLEEVE DETAIL
Not to Scale



TYPICAL 5'-10" PANEL
Scale: 1"=1'-0"



TYPICAL POST SECTION
Scale: 1"=1'-0"



BASE PLATE DETAIL
Scale: 1"=1'-0"

NOTES:
All Steel Tubing and above ground hardware for the Steel Ornamental Railing shall be powder coated black. (See Special Provisions)
Steel Tubing shall be in accordance with ASTM A500, Grade B. (See Special Provisions)

MOMENT SLAB AND RAILING DETAILS

RECOMMENDED FOR APPROVAL: DESIGN ENGINEER — DATE

DESIGNED: G. SHEETS DRAWN: G. SHEETS
CHECKED: K. DONAHUE CHECKED: Y. SHEARER

BRIDGE NO. 551
OVER NORFOLK SOUTHERN RR
CITY OF FORT WAYNE

BRIDGE & STRUCTURE DIVISION
TRANSPORTATION DIVISION
FORT WAYNE, INDIANA
TEL (260) 481-6800
FAX (260) 481-6809

HORIZONTAL SCALE: NO SCALE
AS NOTED
VERTICAL SCALE: AS NOTED
SURVEY BOOK: PAGE
CONTRACT: PROJECT STATUS

EXHIBIT B

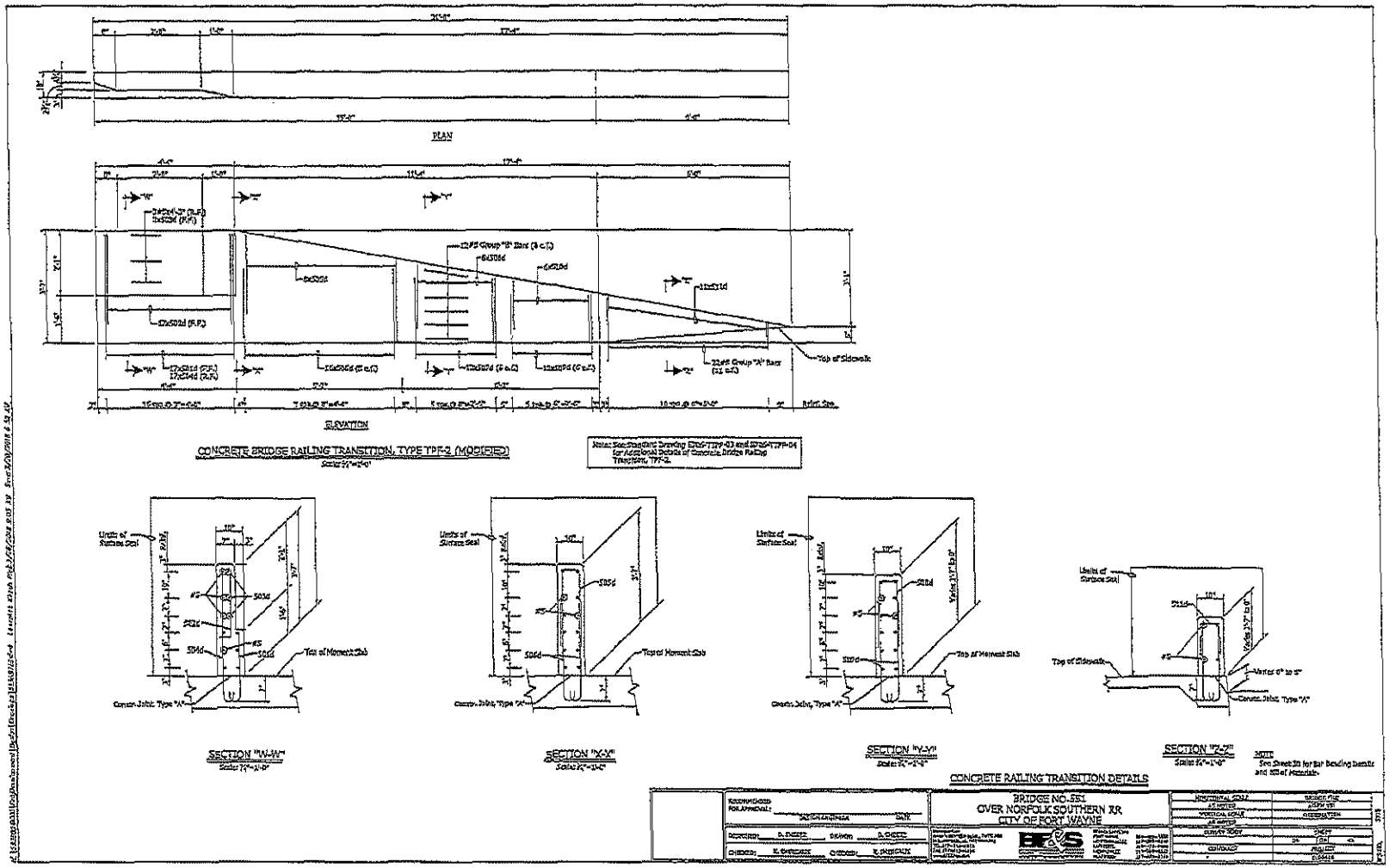
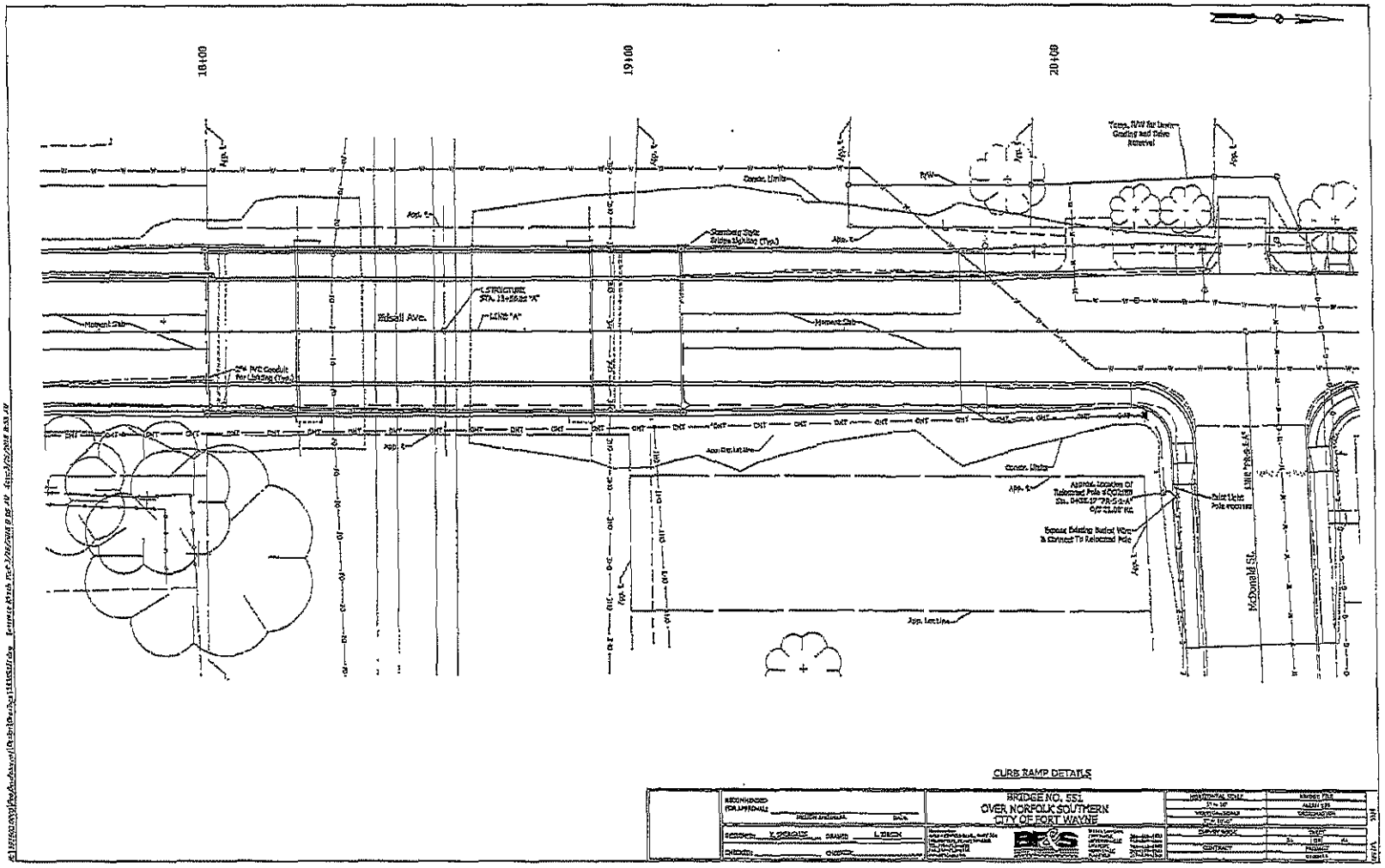

PLAN
ELEVATION
CONCRETE BRIDGE RAILING TRANSITION, TYPE TPF-2 (MODIFIED)
Note: See Standard Drawing BR6-TPF-03 and BR6-TPF-04 for Additional Details of Concrete Bridge Railing Transition, TPF-2.
SECTION "W-W"
SECTION "X-X"
SECTION "Y-Y"
SECTION "Z-Z"
Limits of Surface Seal
Top of Sidewalk
Top of Moment Slab
Tapered Moment Slab
Concrete Joint, Type "A"
NOTE
See Sheet 3b for bar bending details and BOM of Materials.
CONCRETE RAILING TRANSITION DETAILS
BRIDGE NO. 551
OVER NORFOLK SOUTHERN RR
CITY OF FORT WAYNE

EXHIBIT B



CURB RAMP DETAILS

RECOMMENDED FOR APPROVAL: PROJECT ENGINEER DATE	BRIDGE NO. 551 OVER NORFOLK SOUTHERN CITY OF FORT WAYNE	HORIZONTAL SCALE 1" = 10'
DESIGNED: K. CROSLIN DRAWN: L. BROCK	BRS	VERTICAL SCALE 1" = 10'
CHECKED: CHECKED:		SURVEY BOOK
		CONTRACT

EXHIBIT C

Special Provisions for Protection of Railway Interests

1. AUTHORITY OF RAILROAD ENGINEER AND SPONSOR ENGINEER:

Norfolk Southern Railway Company, hereinafter referred to as "Railroad", and their authorized representative shall have final authority in all matters affecting the safe maintenance of railroad traffic including the adequacy of the foundations and structures supporting the railroad tracks. For Public Projects impacting the Railroad, the Railroad's Public Projects Engineer, hereinafter referred to as "Railroad Engineer", will serve as the authorized representative of the Railroad.

The authorized representative of the Project Sponsor ("Sponsor"), hereinafter referred to as the "Sponsor's Engineer", shall have authority over all other matters as prescribed herein and in the Project Specifications.

The Sponsor's Prime Contractor, hereinafter referred to as "Contractor" shall be responsible for completing any and all work in accordance with the terms prescribed herein and in the Project Specifications. These terms and conditions are subject to change without notice, from time to time in the sole discretion of the Railroad. Contractor must request from Railroad and follow the latest version of these provisions prior to commencing work.

2. NOTICE OF STARTING WORK:

A. The Contractor shall not commence any work on railroad rights-of-way until he has complied with the following conditions:

1. Signed and received a fully executed copy of the required Norfolk Southern Contractor Right of Entry Agreement.

2. Given the Railroad written notice in electronic format to the Railroad Engineer, with copy to the Sponsor's Engineer who has been designated to be in charge of the work, at least ten days in advance of the date he proposes to begin work on Railroad rights-of-way.

3. Obtained written approval from the Railroad of Railroad Protective Liability Insurance coverage as required by paragraph 14 herein. It should be noted that the Railroad does not accept notation of Railroad Protective Insurance on a certificate of liability insurance form or Binders as Railroad must have the full original countersigned policy. Further, please note that mere receipt of the policy is not the only issue but review for compliance. Due to the number of projects system-wide, it typically takes a minimum of 30-45 days for the Railroad to review.

4. Obtained Railroad's Flagging Services as required by paragraph 7 herein.

5. Obtained written authorization from the Railroad to begin work on Railroad's rights-of-way, such authorization to include an outline of specific conditions with which he must comply.

6. Furnished a schedule for all work within the Railroad's rights-of-way as required by paragraph 7.B.1.

B. The Railroad's written authorization to proceed with the work shall include the names, addresses, and telephone numbers of the Railroad's representatives who are to be

notified as hereinafter required. Where more than one representative is designated, the area of responsibility of each representative shall be specified.

3. INTERFERENCE WITH RAILROAD OPERATIONS:

   A. The Contractor shall so arrange and conduct his work that there will be no interference with Railroad's operations, including train, signal, telephone and telegraphic services, or damage to the property of the Railroad or to poles, wires, and other facilities of tenants on the rights-of-way of the Railroad. Whenever work is liable to affect the operations or safety of trains, the method of doing such work shall first be submitted to the Railroad Engineer for approval, but such approval shall not relieve the Contractor from liability. Any work to be performed by the Contractor which requires flagging service or inspection service shall be deferred by the Contractor until the flagging service or inspection service required by the Railroad is available at the job site.

   B. Whenever work within Railroad's rights-of-way is of such a nature that impediment to Railroad's operations such as use of runaround tracks or necessity for reduced speed is unavoidable, the Contractor shall schedule and conduct his operations so that such impediment is reduced to the absolute minimum.

   C. Should conditions arising from, or in connection with the work, require that immediate and unusual provisions be made to protect operations and property of the Railroad, the Contractor shall make such provisions. If in the judgment of the Railroad Engineer, or in his absence, the Railroad's Division Engineer, such provisions is insufficient, either may require or provide such provisions as he deems necessary. In any event, such unusual provisions shall be at the Contractor's expense and without cost to the Railroad or the Sponsor.

   D. "One Call" Services do not locate buried Railroad utilities. The contractor shall contact the Railroad's representative 2 days in advance of work at those places where excavation, pile driving, or heavy loads may damage the Railroad's underground facilities. Upon request from the Contractor or Sponsor, Railroad forces will locate and paint mark or flag the Railroad's underground facilities. The Contractor shall avoid excavation or other disturbances of these facilities. If disturbance or excavation is required near a buried Railroad facility, the contractor shall coordinate with the Railroad to have the facility potholed manually with careful hand excavation. The facility shall be protected by the Contractor during the course of the disturbance under the supervision and direction of the Railroad's representative.

4. TRACK CLEARANCES:

   A. The minimum track clearances to be maintained by the Contractor during construction are shown on the Project Plans. If temporary clearances are not shown on the project plans, the following criteria shall govern the use of falsework and formwork above or adjacent to operated tracks.

      1. A minimum vertical clearance of 22'-0" above top of highest rail shall be maintained at all times.

      2. A minimum horizontal clearance of 13'-0" from centerline of tangent track or 14'-0" from centerline of curved track shall be maintained at all times. Additional horizontal clearance may be required in special cases to be safe for operating conditions. This additional clearance will be as determined by the Railroad Engineer.

3. All proposed temporary clearances which are less than those listed above must be submitted to Railroad Engineer for approval prior to construction and must also be authorized by the regulatory body of the State if less than the legally prescribed clearances.

4. The temporary clearance requirements noted above shall also apply to all other physical obstructions including, but not limited to: stockpiled materials, parked equipment, placement or driving of piles, and bracing or other construction supports.

B. Before undertaking any work within Railroad right-of-way, and before placing any obstruction over any track, the Contractor shall:

1. Notify the Railroad's representative at least 72 hours in advance of the work.

2. Receive assurance from the Railroad's representative that arrangements have been made for flagging service as may be necessary.

3. Receive permission from the Railroad's representative to proceed with the work.

4. Ascertain that the Sponsor's Engineer has received copies of notice to the Railroad and of the Railroad's response thereto.

5. CONSTRUCTION PROCEDURES:

A. General:

1. Construction work and operations by the Contractor on Railroad property shall be:

a. Subject to the inspection and approval of the Railroad Engineer or their designated Construction Engineering Representative.

b. In accordance with the Railroad's written outline of specific conditions.

c. In accordance with the Railroad's general rules, regulations and requirements including those relating to safety, fall protection and personal protective equipment.

d. In accordance with these Special Provisions.

2. Submittal Requirements

a. The Contractor shall submit all construction related correspondence and submittals electronically to the Railroad Engineer.

b. The Contractor shall allow for 30 days for the Railroad's review and response.

c. All work in the vicinity of the Railroad's property that has the potential to affect the Railroad's train operations or disturb the Railroad's Property must be submitted and approved by the Railroad prior to work being performed.

d. All submittals and calculations must be signed and sealed by a registered engineer licensed in the state of the project work.

e. All submittals shall first be approved by the Sponsor's Engineer and the Railroad Engineer, but such approval shall not relieve the Contractor from liability.

f. For all construction projects, the following submittals, but not limited to those listed below, shall be provided for review and approval when applicable:

(1) General Means and Methods
(2) Ballast Protection
(3) Construction Excavation & Shoring
(4) Pipe, Culvert, & Tunnel Installations
(5) Demolition Procedure
(6) Erection & Hoisting Procedure
(7) Debris Shielding or Containment
(8) Blasting
(9) Formwork for the bridge deck, diaphragms, overhang brackets, and protective platforms
(10) Bent Cap Falsework. A lift plan will be required if the contractor want to move the falsework over the tracks.

g. For Undergrade Bridges (Bridges carrying the Railroad) the following submittals in addition to those listed above shall be provided for review and approval:

(1) Shop Drawings
(2) Bearing Shop Drawings and Material Certifications
(3) Concrete Mix Design
(4) Structural Steel, Rebar, and/or Strand Certifications
(5) 28 day Cylinder Test for Concrete Strength
(6) Waterproofing Material Certification
(7) Test Reports for Fracture Critical Members
(8) Foundation Construction Reports

Fabrication may not begin until the Railroad has approved the required shop drawings.

h. The Contractor shall include in all submissions a detailed narrative indicating the progression of work with the anticipated timeframe to complete each task. Work will not be permitted to commence until the Contractor has provided the Railroad with a satisfactory plan that the project will be undertaken without scheduling, performance or safety related issues. Submission shall also provide a listing of the anticipated equipment to be used, the location of all equipment to be used and insure a contingency plan of action is in place should a primary piece of equipment malfunction.

B. Ballast Protection

1. The Contractor shall submit the proposed ballast protection system detailing the specific filter fabric and anchorage system to be used during all construction activities.

2. The ballast protection is to extend 25' beyond the proposed limit of work, be installed at the start of the project and be continuously maintained to prevent all contaminants from entering the ballast section of all tracks for the entire duration of the project.

C. Excavation:

1. The subgrade of an operated track shall be maintained with edge of berm at least 10'-0" from centerline of track and not more than 24-inches below top of rail. Contractor will not be required to make existing section meet this specification if substandard, in which case existing section will be maintained.

2. Additionally, the Railroad will require the installation of an OSHA approved handrail and orange construction safety fencing for all excavations of the Railroad right-of-way.

D. Excavation for Structures and Shoring Protection:

1. The Contractor will be required to take special precaution and care in connection with excavating and shoring pits, and in driving piles or sheeting for footings adjacent to tracks to provide adequate lateral support for the tracks and the loads which they carry, without disturbance of track alignment and surface, and to avoid obstructing track clearances with working equipment, tools or other material.

2. All plans and calculations for shoring shall be prepared, signed, and sealed by a Registered Professional Engineer licensed in the state of the proposed project, in accordance with Norfolk Southern's Overhead Grade Separation Design Criteria, subsection H.1.6.E-Construction Excavation (Refer to Norfolk Southern Public Projects Manual Appendix H). The Registered Professional Engineer will be responsible for the accuracy for all controlling dimensions as well as the selection of soil design values which will accurately reflect the actual field conditions.

3. The Contractor shall provide a detailed installation and removal plan of the shoring components. Any component that will be installed via the use of a crane or any other lifting device shall be subject to the guidelines outlined in section 5.G of these provisions.

4. The Contractor shall be required to survey the track(s) and Railroad embankment and provide a cross section of the proposed excavation in relation to the tracks.

5. Calculations for the proposed shoring should include deflection calculations. The maximum deflection for excavations within 18'-0" of the centerline of the nearest track shall be 3/8". For all other cases, the max deflection shall not exceed ½".

6. Additionally, the Railroad will require the installation of an OSHA approved handrail and orange construction safety fencing for all excavations of the Railroad right-of-way.

7. The front face of shoring located to the closest NS track for all shoring set-ups located in Zone 2 as shown on NS Typical Drawing No. 4 – Shoring Requirements (Appendix I) shall remain in place and be cut off 2'-0" below the final ground elevation. The remaining shoring in Zone 2 and all shoring in Zone 1 may be removed and all voids must be backfilled with flowable fill.

E. Pipe, Culvert, & Tunnel Installations

1. Pipe, Culvert, & Tunnel Installations shall be in accordance with the appropriate Norfolk Southern Design Specification as noted below:

    a. For Open Cut Method refer to Norfolk Southern Public Projects Manual Appendix H.4.6.
    b. For Jack and Bore Method refer to Norfolk Southern Public Projects Manual Appendix H.4.7.
    c. For Tunneling Method refer to Norfolk Southern Public Projects Manual Appendix H.4.8.

2. The installation methods provided are for pipes carrying storm water or open flow run-off. All other closed pipeline systems shall be installed in accordance Norfolk Southern's Pipe and Wire Program and the NSCE-8

F. Demolition Procedures

1. General

    a. Demolition plans are required for all spans over the track(s), for all spans adjacent to the track(s), if located on (or partially on) Railroad right-of-way; and in all situations where cranes will be situated on, over, or adjacent to Railroad right-of-way and within a distance of the boom length plus 15'-0" from the centerline of track.

    b. Railroad tracks and other Railroad property must be protected from damage during the procedure.

    c. A pre-demolition meeting shall be conducted with the Sponsor, the Railroad Engineer or their representative, and the key Contractor's personnel prior to the start of the demolition procedure.

    d. The Railroad Engineer or his designated representative must be present at the site during the entire demolition procedure period.

    e. Existing, obsolete, bridge piers shall be removed to a sufficient depth below grade to enable restoration of the existing/proposed track ditch, but in no case less than 2'-0" below final grade.

2. Submittal Requirements

    a. In addition to the submittal requirements outlined in Section 5.A.2 of these provisions, the Contractor shall submit the following for approval by the Railroad Engineer:

        (1) A plan showing the location of cranes, horizontally and vertically, operating radii, with delivery or disposal locations shown. The location of all tracks and other Railroad facilities as well as all obstructions such as wire lines, poles, adjacent structures, etc. must also be shown.

(2) Rating sheets showing cranes or lifting devices to be adequate for 150% of the actual weight of the pick, including all rigging components. A complete set of crane charts, including crane, counterweight, and boom nomenclature is to be submitted. Safety factors that may have been "built-in" to the crane charts are not to be considered when determining the 150% factor of safety.

(3) Plans and computations showing the weight of the pick must be submitted. Calculations shall be made from plans of the existing structure showing complete and sufficient details with supporting data for the demolition the structure. If plans do not exist, lifting weights must be calculated from field measurements. The field measurements are to be made under the supervision of the Registered Professional Engineer submitting the procedure and calculations.

(4) The Contractor shall provide a sketch of all rigging components from the crane's hook block to the beam. Catalog cuts or information sheets of all rigging components with their lifting capacities shall be provided. All rigging must be adequate for 150% of the actual weight of the pick. Safety factors that may have been "built-in" to the rating charts are not to be considered when determining the 150% factor of safety. All rigging components shall be clearly identified and tagged with their rated lifting capacities. The position of the rigging in the field shall not differ from what is shown on the final plan without prior review from the Sponsor and the Railroad.

(5) A complete demolition procedure, including the order of lifts, time required for each lift, and any repositioning or re-hitching of the crane or cranes.

(6) Design and supporting calculations for the temporary support of components, including but not limited to the stability of the superstructure during the temporary condition, temporary girder tie-downs and falsework.

3. Overhead Demolition Debris Shield

a. The demolition debris shield shall be installed prior to the demolition of the bridge deck or other relevant portions of the superstructure over the track area to catch all falling debris.

b. The demolition debris shield shall provide a minimum vertical clearance as specified in Section 4.A.1 of these provisions or maintain the existing vertical clearance if the existing clearance is less than that specified in Section 4.A.1.

c. The Contractor shall include the demolition debris shield installation/removal means and methods as part of the proposed Demolition procedure submission.

d. The Contractor shall submit the demolition debris shield design and supporting calculations for approval by the Railroad Engineer.

e. The demolition debris shield shall have a minimum design load of 50 pounds per square foot plus the weight of the equipment, debris, personnel, and other loads to be carried.

f. The Contractor shall include the proposed bridge deck removal procedure in its demolition means and methods and shall verify that the size and quantity of the demolition debris generated by the procedure does not exceed the shield design loads.

g. The Contractor shall clean the demolition debris shield daily or more frequently as dictated either by the approved design parameters or as directed by the Railroad Engineer.

4. Vertical Demolition Debris Shield

a. A vertical demolition debris shield may be required for substructure removals in close proximity to the Railroad's track and other facilities, as determined by the Railroad Engineer.

G. Erection & Hoisting Procedures

1. General

a. Erection plans are required for all spans over the track(s), for all spans adjacent to the track(s), if located on (or partially on) Railroad right-of-way; and in all situations where cranes will be situated on, over, or adjacent to Railroad right-of-way and within a distance of the boom length plus 15'-0" from the centerline of track.

b. Railroad tracks and other Railroad property must be protected from damage during the erection procedure.

c. A pre-erection meeting shall be conducted with the Sponsor, the Railroad Engineer or their representative, and the key Contractor's personnel prior to the start of the erection procedure.

d. The Railroad Engineer or his designated representative must be present at the site during the entire erection procedure period.

e. For field splices located over Railroad property, a minimum of 50% of the holes for each connection shall be filled with bolts or pins prior to releasing the crane. A minimum of 50% of the holes filled shall be filled with bolts. All bolts must be appropriately tightened. Any changes to previously approved field splice locations must be submitted to the Railroad for review and approval. Refer to Norfolk Southern's Overhead Grade Separation Design Criteria for additional splice details (Norfolk Southern Public Projects Manual Appendix H.1, Section 4.A.3.).

2. Submittal Requirements

a. In addition the submittal requirements outlined in Section 5.A.2 of these provisions, the Contractor shall submit the following for approval by the Railroad Engineer:

(1) As-built beam seat elevations - All as-built bridge seats and top of rail elevations shall be furnished to the Railroad Engineer for review and verification at least 30 days in advance of the erection, to ensure that minimum vertical clearances as approved in the plans will be achieved.

(2) A plan showing the location of cranes, horizontally and vertically, operating radii, with delivery or staging locations shown. The location of all tracks and other Railroad facilities as well as all obstructions such as wire lines, poles, adjacent structures, etc. must also be shown.

(3) Rating sheets showing cranes or lifting devices to be adequate for 150% of the actual weight of the pick, including all rigging components. A complete set of crane charts, including crane, counterweight, and boom nomenclature is to be submitted. Safety factors that may have been "built-in" to the crane charts are not to be considered when determining the 150% factor of safety.

(4) Plans and computations showing the weight of the pick must be submitted. Calculations shall be made from plans of the proposed structure showing complete and sufficient details with supporting data for the erection of the structure. If plans do not exist, lifting weights must be calculated from field measurements. The field measurements are to be made under the supervision of the Registered Professional Engineer submitting the procedure and calculations.

(5) The Contractor shall provide a sketch of all rigging components from the crane's hook block to the beam. Catalog cuts or information sheets of all rigging components with their lifting capacities shall be provided. All rigging must be adequate for 150% of the actual weight of the pick. Safety factors that may have been "built-in" to the rating charts are not to be considered when determining the 150% factor of safety. All rigging components shall be clearly identified and tagged with their rated lifting capacities. The position of the rigging in the field shall not differ from what is shown on the final plan without prior review from the Sponsor and the Railroad.

(6) A complete erection procedure, including the order of lifts, time required for each lift, and any repositioning or re-hitching of the crane or cranes.

(7) Design and supporting calculations for the temporary support of components, including but not limited to temporary girder tie-downs and falsework.

H. Blasting:

1. The Contractor shall obtain advance approval of the Railroad Engineer and the Sponsor Engineer for use of explosives on or adjacent to Railroad property. The request for permission to use explosives shall include a detailed blasting plan. If permission for use of explosives is granted, the Contractor will be required to comply with the following:

   a. Blasting shall be done with light charges under the direct supervision of a responsible officer or employee of the Contractor and a licensed blaster.

   b. Electric detonating fuses shall not be used because of the possibility of premature explosions resulting from operation of two-way radios.

   c. No blasting shall be done without the presence of the Railroad Engineer or his authorized representative. At least 72 hours advance notice to the person designated in the Railroad's notice of authorization to proceed (see paragraph 2.B) will be required to arrange for the presence of an authorized Railroad representative and such flagging as the Railroad may require.

   d. Have at the job site adequate equipment, labor and materials and allow sufficient time to clean up debris resulting from the blasting without delay to trains, as well as correcting at his expense any track misalignment or other damage to Railroad property resulting from the blasting as directed by the Railway's authorized representative. If his actions result in delay of trains, the Contractor shall bear the entire cost thereof.

   e. The blasting Contractor shall have a copy of the approved blasting plan on hand while on the site.

   f. Explosive materials or loaded holes shall not be left unattended at the blast site.

   g. A seismograph shall be placed on the track shoulder adjacent to each blast which will govern the peak particle velocity of <u>two inches per second</u>. Measurement shall also be taken on the ground adjacent to structures as designated by a qualified and independent blasting consultant. The Railroad reserves the option to direct the placement of additional seismographs at structures or other locations of concern, without regard to scaled distance.

   h. After each blast, the blasting Contractor shall provide a copy of their drill log and blast report, which includes number of holes, depth of holes, number of decks, type and pounds of explosives used per deck.

   i. The Railroad may require top of rail elevations and track centers taken before, during and after the blasting and excavation operation to check for any track misalignment resulting from the Contractor's activities.

2. The Railroad representative will:

    a. Determine approximate location of trains and advise the Contractor the appropriate amount of time available for the blasting operation and clean up.

    b. Have the authority to order discontinuance of blasting if, in his opinion, blasting is too hazardous or is not in accord with these special provisions.

3. The Contractor must hire, at no expense to the Railroad, a qualified and independent blasting consultant to oversee the use of explosives. The blasting consultant will:

    a. Review the Contractor's proposed drilling and loading patterns, and with the blasting consultant's personnel and instruments, monitor the blasting operations.

    b. Confirm that the minimum amounts of explosives are used to remove the rock.

    c. Be empowered to intercede if he concludes that the Contractor's blasting operations are endangering the Railway.

    d. Submit a letter acknowledging that he has been engaged to oversee the entire blasting operation and that he approves of the blasting plan.

    e. Furnish copies of all vibration readings to the Railroad representative immediately after each blast. The representative will sign and date the seismograph tapes after each shot to verify the readings are for that specific shot.

    f. Advise the Railroad representative as to the safety of the operation and notify him of any modifications to the blasting operation as the work progresses.

4. The request for permission to use explosives on the Railroad's Right-of-Way shall include a blasting proposal providing the following details:

    a. A drawing which shows the proposed blasting area, location of nearest hole and distance to Railway structures, all with reference to the centerline of track.

    b. Hole diameter.

    c. Hole spacing and pattern.

    d. Maximum depth of hole.

    e. Maximum number of decks per hole.

    f. Maximum pounds of explosives per hole.

    g. Maximum pounds of explosives per delay.

    h. Maximum number of holes per detonation.

i. Type of detonator and explosives to be used. (Electronic detonating devices will not be permitted). Diameter of explosives if different from hole diameter.

j. Approximate dates and time of day when the explosives are to be detonated.

k. Type of flyrock protection.

l. Type and patterns of audible warning and all clear signals to be used before and after each blast.

m. A copy of the blasting license and qualifications of the person directly in charge of the blasting operation, including their name, address and telephone number.

n. A copy of the Authority's permit granting permission to blast on the site.

o. A letter from the blasting consultant acknowledging that he has been engaged to oversee the entire blasting operation and that he approves of the blasting plan.

p. In addition to the insurance requirements outlined in Paragraph 14 of these Provisions, A certificate of insurance from the Contractor's insurer stating the amount of coverage for XCU (Explosive Collapse and Underground Hazard) insurance and that XCU insurance is in force for this project.

q. A copy of the borings and Geotechnical information or report.

I. Track Monitoring

1. At the direction of the Railroad Engineer, any activity that has the potential to disturb the Railroad track structure may require the Contractor to submit a detailed track monitoring program for approval by the Railroad Engineer.

2. The program shall specify the survey locations, the distance between the location points, and frequency of monitoring before, during, and after construction. Railroad reserves the right to modify the survey locations and monitoring frequency as necessary during the project.

3. The survey data shall be collected in accordance with the approved frequency and immediately furnished to the Railroad Engineer for analysis.

4. If any movement has occurred as determined by the Railroad Engineer, the Railroad will be immediately notified. Railroad, at its sole discretion, shall have the right to immediately require all Contractor operations to be ceased and determine what corrective action is required. Any corrective action required by the Railroad or performed by the Railroad including the monitoring of corrective action of the Contractor will be at project expense.

J. Maintenance of Railroad Facilities:

1. The Contractor will be required to maintain all ditches and drainage structures free of silt or other obstructions which may result from his operations and provide and maintain any erosion control measures as required. The Contractor will promptly

repair eroded areas within Railroad rights-of-way and repair any other damage to the property of the Railroad or its tenants.

2. If, in the course of construction, it may be necessary to block a ditch, pipe or other drainage facility, temporary pipes, ditches or other drainage facilities shall be installed to maintain adequate drainage, as approved by the Railroad Engineer. Upon completion of the work, the temporary facilities shall be removed and the permanent facilities restored.

3. All such maintenance and repair of damages due to the Contractor's operations shall be done at the Contractor's expense.

K. Storage of Materials and Equipment:

1. Materials and equipment shall not be stored where they will interfere with Railroad operations, nor on the rights-of-way of the Railroad without first having obtained permission from the Railroad Engineer, and such permission will be with the understanding that the Railroad will not be liable for damage to such material and equipment from any cause and that the Railroad Engineer may move or require the Contractor to move, at the Contractor's expense, such material and equipment.

2. All grading or construction machinery that is left parked near the track unattended by a watchman shall be effectively immobilized so that it cannot be moved by unauthorized persons. The Contractor shall protect, defend, indemnify and save Railroad, and any associated, controlled or affiliated corporation, harmless from and against all losses, costs, expenses, claim or liability for loss or damage to property or the loss of life or personal injury, arising out of or incident to the Contractor's failure to immobilize grading or construction machinery.

L. Cleanup:

1. Upon completion of the work, the Contractor shall remove from within the limits of the Railroad rights-of-way, all machinery, equipment, surplus materials, falsework, rubbish or temporary buildings of the Contractor, and leave said rights-of-way in a neat condition satisfactory to the Railroad Engineer or his authorized representative.

6. DAMAGES:

A. The Contractor shall assume all liability for any and all damages to his work, employees, servants, equipment and materials caused by Railroad traffic.

B. Any cost incurred by the Railroad for repairing damages to its property or to property of its tenants, caused by or resulting from the operations of the Contractor, shall be paid directly to the Railroad by the Contractor.

7. FLAGGING SERVICES:

A. Requirements:

1. Flagging services will not be provided until the Contractor's insurance has been reviewed & approved by the Railroad.

2. Under the terms of the agreement between the Sponsor and the Railroad, the Railroad has sole authority to determine the need for flagging required to protect its operations. In general, the requirements of such services will be whenever the Contractor's personnel or equipment are or are likely to be, working on the Railroad's right-of-way, or across, over, adjacent to, or under a track, or when such work has disturbed or is likely to disturb a Railroad structure or the Railroad roadbed or surface and alignment of any track to such extent that the movement of trains must be controlled by flagging.

3. Normally, the Railroad will assign one flagman to a project; but in some cases, more than one may be necessary, such as yard limits where three (3) flagmen may be required. However, if the Contractor works within distances that violate instructions given by the Railroad's authorized representative or performs work that has not been scheduled with the Railroad's authorized representative, a flagman or flagmen may be required full time until the project has been completed.

4. For Projects exceeding 30 days of construction, Contractor shall provide the flagmen a small work area with a desk/counter and chair within the field/site trailer, including the use of bathroom facilities, where the flagman can check in/out with the Project, as well as to the flagman's home terminal. The work area should provide access to two (2) electrical outlets for recharging radio(s), and a laptop computer; and have the ability to print off needed documentation and orders as needed at the field/site trailer. This should aid in maximizing the flagman's time and efficiency on the Project.

B. Scheduling and Notification:

1. The Contractor's work requiring Railroad flagging should be scheduled to limit the presence of a flagman at the site to a maximum of 50 hours per week. The Contractor shall receive Railroad approval of work schedules requiring a flagman's presence in excess of 40 hours per week.

2. Not later than the time that approval is initially requested to begin work on Railroad right-of-way, Contractor shall furnish to the Railroad and the Sponsor a schedule for all work required to complete the portion of the project within Railroad right-of-way and arrange for a job site meeting between the Contractor, the Sponsor, and the Railroad's authorized representative. Flagman or Flagmen may not be provided until the job site meeting has been conducted and the Contractor's work scheduled.

3. The Contractor will be required to give the Railroad representative at least 10 working days of advance written notice of intent to begin work within Railroad right-of-way in accordance with this special provision. Once begun, when such work is then suspended at any time, or for any reason, the Contractor will be required to give the Railroad representative at least 3 working days of advance notice before resuming work on Railroad right-of-way. Such notices shall include sufficient details of the proposed work to enable the Railroad representative to determine if flagging will be required. If such notice is in writing, the Contractor shall furnish the Engineer a copy; if notice is given verbally, it shall be confirmed in writing with copy to the Engineer. If flagging is required, no work shall be undertaken until the flagman, or flagmen are present at the job site. It may take up to 30 days to obtain flagging initially from the Railroad. When flagging begins, the flagman is usually assigned by the Railroad to work at the project site on a continual basis until no longer

needed and cannot be called for on a spot basis. If flagging becomes unnecessary and is suspended, it may take up to 30 days to again obtain from the Railroad. Due to Railroad labor agreements, it is necessary to give 5 working days notice before flagging service may be discontinued and responsibility for payment stopped.

4. If, after the flagman is assigned to the project site, an emergency arises that requires the flagman's presence elsewhere, then the Contractor shall delay work on Railroad right-of-way until such time as the flagman is again available. Any additional costs resulting from such delay shall be borne by the Contractor and not the Sponsor or Railroad.

C. Payment:

1. The Sponsor will be responsible for paying the Railroad directly for any and all costs of flagging which may be required to accomplish the construction.

2. The estimated cost of flagging is the current rate per day based on a 10-hour work day. This cost includes the base pay for the flagman, overhead, and includes a per diem charge for travel expenses, meals and lodging. The charge to the Sponsor by the Railroad will be the actual cost based on the rate of pay for the Railroad's employees who are available for flagging service at the time the service is required.

3. Work by a flagman in excess of 8 hours per day or 40 hours per week, but not more than 12 hours a day will result in overtime pay at 1 and 1/2 times the appropriate rate. Work by a flagman in excess of 12 hours per day will result in overtime at 2 times the appropriate rate. If work is performed on a holiday, the flagging rate is 2 and 1/2 times the normal rate.

4. Railroad work involved in preparing and handling bills will also be charged to the Sponsor. Charges to the Sponsor by the Railroad shall be in accordance with applicable provisions of Subchapter B, Part 140, Subpart I and Subchapter G, Part 646, Subpart B of the Federal-Aid Policy Guide issued by the Federal Highway Administration on December 9, 1991, including all current amendments. Flagging costs are subject to change. The above estimates of flagging costs are provided for information only and are not binding in any way.

D. Verification:

1. Railroad's flagman will electronically enter flagging time via Railroad's electronic billing system. Any complaints concerning flagging must be resolved in a timely manner. If the need for flagging is questioned, please contact the Railroad Engineer. All verbal complaints will be confirmed in writing by the Contractor within 5 working days with a copy to the Sponsor's Engineer. Address all written correspondence electronically to Railroad Engineer.

2. The Railroad flagman assigned to the project will be responsible for notifying the Sponsor Engineer upon arrival at the job site on the first day (or as soon thereafter as possible) that flagging services begin and on the last day that he performs such services for each separate period that services are provided. The Sponsor's Engineer will document such notification in the project records. When requested, the Sponsor's Engineer will also sign the flagman's diary showing daily time spent and activity at the project site.

8. HAUL ACROSS RAILROAD TRACK:

   A. Where the plans show or imply that materials of any nature must be hauled across Railroad's track, unless the plans clearly show that the Sponsor has included arrangements for such haul in its agreement with the Railroad, the Contractor will be required to make all necessary arrangements with the Railroad regarding means of transporting such materials across the Railroad's track. The Contractor or Sponsor will be required to bear all costs incidental to such crossings whether services are performed by his own forces or by Railroad personnel.

   B. No crossing may be established for use of the Contractor for transporting materials or equipment across the tracks of the Railroad unless specific authority for its installation, maintenance, necessary watching and flagging thereof and removal, until a temporary private crossing agreement has been executed between the Contractor and Railroad. The approval process for an agreement normally takes 90 days.

9. WORK FOR THE BENEFIT OF THE CONTRACTOR:

   A. All temporary or permanent changes in wire lines or other facilities which are considered necessary to the project are shown on the plans; included in the force account agreement between the Sponsor and the Railroad or will be covered by appropriate revisions to same which will be initiated and approved by the Sponsor and/or the Railroad.

   B. Should the Contractor desire any changes in addition to the above, then he shall make separate arrangements with the Railroad for same to be accomplished at the Contractor's expense.

10. COOPERATION AND DELAYS:

   A. It shall be the Contractor's responsibility to arrange a schedule with the Railroad for accomplishing stage construction involving work by the Railroad or tenants of the Railroad. In arranging his schedule he shall ascertain, from the Railroad, the lead time required for assembling crews and materials and shall make due allowance therefore.

   B. No charge or claim of the Contractor against either the Sponsor or the Railroad will be allowed for hindrance or delay on account of railroad traffic; any work done by the Railroad or other delay incident to or necessary for safe maintenance of railroad traffic or for any delays due to compliance with these special provisions.

11. TRAINMAN'S WALKWAYS:

   A. 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 trainman's use in walking along trains, extending to a line not less than 10 feet from centerline of track, shall be maintained. Any temporary impediments to walkways and track drainage encroachments or obstructions allowed during work hours while Railroad's protective service is provided shall be removed before the close of each work day. If there is any excavation near the walkway, a handrail, with 10'-0" minimum clearance from centerline of track, shall be placed and must conform to AREMA and/or FRA standards.

12. GUIDELINES FOR PERSONNEL ON RAILROAD RIGHT-OF-WAY:

   A. The Contractor and/or the Sponsor's personnel authorized to perform work on Railroad's property as specified in Section 2 above are not required to complete Norfolk Southern Roadway

Worker Protection Training; However the Contractor and the Sponsor's personnel must be familiar with Norfolk Southern's standard operating rules and guidelines, should conduct themselves accordingly, and may be removed from the property for failure to follow these guidelines.

B. All persons shall wear hard hats. Appropriate eye and hearing protection must be used. Working in shorts is prohibited. Shirts must cover shoulders, back and abdomen. Working in tennis or jogging shoes, sandals, boots with high heels, cowboy and other slip-on type boots is prohibited. Hard-sole, lace-up footwear, zippered boots or boots cinched up with straps which fit snugly about the ankle are adequate. Wearing of safety boots is strongly recommended. In the vicinity of at-grade crossings, it is strongly recommended that reflective vests be worn.

C. No one is allowed within 25' of the centerline of track without specific authorization from the flagman.

D. All persons working near track while train is passing are to lookout for dragging bands, chains and protruding or shifted cargo.

E. No one is allowed to cross tracks without specific authorization from the flagman.

F. All welders and cutting torches working within 25' of track must stop when train is passing.

G. No steel tape or chain will be allowed to cross or touch rails without permission from the Railroad.

13. GUIDELINES FOR EQUIPMENT ON RAILROAD RIGHT-OF-WAY:

A. No crane or boom equipment will be allowed to set up to work or park within boom distance plus 15' of centerline of track without specific permission from Railroad official and flagman.

B. No crane or boom equipment will be allowed to foul track or lift a load over the track without flag protection and track time.

C. All employees will stay with their machines when crane or boom equipment is pointed toward track.

D. All cranes and boom equipment under load will stop work while train is passing (including pile driving).

E. Swinging loads must be secured to prevent movement while train is passing.

F. No loads will be suspended above a moving train.

G. No equipment will be allowed within 25' of centerline of track without specific authorization of the flagman.

H. Trucks, tractors or any equipment will not touch ballast line without specific permission from Railroad official and flagman. Orange construction fencing may be required as directed.

I. No equipment or load movement within 25' or above a standing train or Railroad equipment without specific authorization of the flagman.

J. All operating equipment within 25' of track must halt operations when a train is passing. All other operating equipment may be halted by the flagman if the flagman views the operation to be dangerous to the passing train.

K. All equipment, loads and cables are prohibited from touching rails.

L. While clearing and grubbing, no vegetation will be removed from Railroad embankment with heavy equipment without specific permission from the Railroad Engineer and flagman.

M. No equipment or materials will be parked or stored on Railroad's property unless specific authorization is granted from the Railroad Engineer.

N. All unattended equipment that is left parked on Railroad property shall be effectively immobilized so that it cannot be moved by unauthorized persons.

O. All cranes and boom equipment will be turned away from track after each work day or whenever unattended by an operator.

P. Prior to performing any crane operations, the Contractor shall establish a single point of contact for the Railroad flagman to remain in communication with at all times. Person must also be in direct contact with the individual(s) directing the crane operation(s).

14. INSURANCE:

A. In addition to any other forms of insurance or bonds required under the terms of the contract and specifications, the Prime Contractor will be required to carry insurance of the following kinds and amounts:

1. a. Commercial General Liability Insurance having a combined single limit of not less than $2,000,000 per occurrence for all loss, damage, cost and expense, including attorneys' fees, arising out of bodily injury liability and property damage liability during the policy period. Said policy shall include explosion, collapse, and underground hazard (XCU) coverage, shall be endorsed to name Railroad specified in item A.2.c. below both as the certificate holder and as an additional insured, and shall include a severability of interests provision.

b. Automobile Liability Insurance with a combined single limit of not less than $1,000,000 each occurrence for injury to or death of persons and damage to or loss or destruction of property. Said policy or policies shall be endorsed to name Railroad specified in item A.2.c. below both as the certificate holder and as an additional insured and shall include a severability of interests provision.

2. Railroad Protective Liability Insurance having a combined single limit of not less than $2,000,000 each occurrence and $6,000,000 in the aggregate applying separately to each annual period. If the project involves track over which passenger trains operate, the insurance limits required are not less than a combined single limit of $5,000,000 each occurrence and $10,000,000 in the aggregate applying separately to each annual period. Said policy shall provide coverage for all loss, damage or expense arising from bodily injury and property damage liability, and physical damage to property attributed to acts or omissions at the job site.

EXHIBIT C

The standards for the Railroad Protective Liability Insurance are as follows:

a. The insurer must be rated A- or better by A.M. Best Company, Inc. **NOTE: NS does not accept from insurers Chartis (AIG or Affiliated Company including Lexington Insurance Company), Hudson Group or Liberty or Affiliated Company, American Contractors Insurance Company and Erie Insurance Company including Erie Insurance Exchange and Erie Indemnity Company.**

b. The policy must be written using one of the following combinations of Insurance Services Office ("ISO") Railroad Protective Liability Insurance Form Numbers:
   (1) CG 00 35 01 96 and CG 28 31 10 93; or
   (2) CG 00 35 07 98 and CG 28 31 07 98; or
   (3) CG 00 35 10 01; or
   (4) CG 00 35 12 04; or
   (5) CG 00 35 12 07; or
   (6) CG 00 35 04 13.

c. The named insured shall read:

   Norfolk Southern Corporation and its subsidiaries
   Three Commercial Place
   Norfolk, Virginia 23510-2191
   Attn: Risk Manager

   (NOTE: Railroad does not share coverage on RRPL with any other entity on this policy)

d. The description of operations must appear on the Declarations, must match the project description in this agreement, and must include the appropriate Sponsor project and contract identification numbers.

e. The job location must appear on the Declarations and must include the city, state, and appropriate highway name/number. **NOTE: Do not include any references to milepost, valuation station, or mile marker on the insurance policy.**

f. The name and address of the prime Contractor must appear on the Declarations.

g. The name and address of the Sponsor must be identified on the Declarations as the "Involved Governmental Authority or Other Contracting Party."

h. Endorsements/forms that rea <u>required</u> are:

   (1) Physical Damage to Property Amendment
   (2) Terrorism Risk Insurance Act (TRIA) coverage must be included

i. Other endorsements/forms that will be accepted are:

(1) Broad Form Nuclear Exclusion – Form IL 00 21
(2) 30-day Advance Notice of Non-renewal or cancellation
(3) Required State Cancellation Endorsement
(4) Quick Reference or Index Form CL/IL 240

j. Endorsements/forms that are NOT acceptable are:
(1) Any Pollution Exclusion Endorsement except CG 28 31
(2) Any Punitive or Exemplary Damages Exclusion
(3) Known Injury or Damage Exclusion form CG 00 59
(4) Any Common Policy Conditions form
(5) An Endorsement that limits or excludes Professional Liability coverage
(6) A Non-Cumulation of Liability or Pyramiding of Limits Endorsement
(7) An Endorsement that excludes TRIA coverage
(8) A Sole Agent Endorsement
(9) Any type of deductible endorsement or amendment
(10) Any other endorsement/form not specifically authorized in item no. 2.h above.

B. If any part of the work is sublet, similar insurance, and evidence thereof as specified in A.1 above, shall be provided by or on behalf of the subcontractor to cover its operations on Railroad's right of way.

C. All insurance required under the preceding subsection A shall be underwritten by insurers and be of such form and content, as may be acceptable to the Company. Prior to entry on Railroad right-of-way, the original Railroad Protective Liability Insurance Policy shall be submitted by the Prime Contractor to the Department at the address below for its review and transmittal to the Railroad. In addition, certificates of insurance evidencing the Prime Contractor's and any subcontractors' Commercial General Liability Insurance shall be issued to the Railroad and the Department at the addresses below, and forwarded to the Department for its review and transmittal to the Railroad. The certificates of insurance shall state that the insurance coverage will not be suspended, voided, canceled, or reduced in coverage or limits without (30) days advance written notice to Railroad and the Department. No work will be permitted by Railroad on its right-of-way until it has reviewed and approved the evidence of insurance required herein.

SPONSOR:	RAILROAD:
	Risk Management Norfolk Southern Railway Company Three Commercial Place Norfolk, Virginia 23510-2191

D. The insurance required herein shall in no way serve to limit the liability of Sponsor or its Contractors under the terms of this agreement.

E. Insurance Submission Procedures

1. Railroad will only accept initial insurance submissions via US Mail or Overnight carrier to the address noted in C above. Railroad will NOT accept initial insurance submissions via email or faxes. **Please provide point of contact information with the submission including a phone number and email address.**

2. Railroad requires the following two (2) forms of insurance in the initial insurance submission to be submitted under a cover letter providing details of the project and contact information:

   a. The full original or certified true countersigned copy of the railroad protective liability insurance policy in its entirely inclusive of all declarations, schedule of forms and endorsements along with the policy forms and endorsements.

   b. The Contractor's commercial general, automobile, and workers' compensation liability insurance certificate of liability insurance evidencing a combined single limit of a minimum of $2M per occurrence of general and $1M per occurrence of automobile liability insurance naming Norfolk Southern Railway Company, Three Commercial Place, Norfolk, VA 23510 as the certificate holder and as an additional insured on both the general and automobile liability insurance policy.

3. It should be noted that the Railroad does not accept notation of Railroad Protective insurance on a certificate of liability insurance form or Binders as Railroad must have the full original countersigned policy. Further, please note that mere receipt of the policy is not the only issue but review for compliance. Due to the number of projects system-wide, it typically takes a minimum of 30-45 days for the Railroad to review.

15. FAILURE TO COMPLY:

   A. In the event the Contractor violates or fails to comply with any of the requirements of these Special Provisions:

      1. The Railroad Engineer may require that the Contractor vacate Railroad property.

      2. The Sponsor's Engineer may withhold all monies due the Contractor on monthly statements.

   B. Any such orders shall remain in effect until the Contractor has remedied the situation to the satisfaction of the Railroad Engineer and the Sponsor's Engineer.

16. PAYMENT FOR COST OF COMPLIANCE:

   A. No separate payment will be made for any extra cost incurred on account of compliance with these special provisions. All such costs shall be included in prices bid for other items of the work as specified in the payment items.

17. PROJECT INFORMATION

   A. Date: April 10, 2018
   B. NS File No.: BR0019821
   C. NS Milepost: D-144.54
   D. Sponsor's Project No.: _____

EXHIBIT C

CONTRACTOR WORKING ON BEHALF OF PROJECT SPONSOR
COSTS REIMBURSED BY PROJECT SPONSOR
NS FILE: BR0019821

NORFOLK SOUTHERN
CONTRACTOR RIGHT OF ENTRY AGREEMENT

WHEREAS, _____ ("Principal") has requested that Norfolk Southern Railway Company ("Company") permit Principal to be on or about Company's premises and/or facilities at or in the vicinity of Company Milepost D-144.54 at or near Fort Wayne, Allen County, Indiana (the "Premises") for the sole purpose of reconstructing the existing Edsall Avenue overhead bridge, on behalf of _____ (the "Project Sponsor") during the period _____, 20____, to _____, 20____ (the "Right of Entry").

WHEREAS, Company is willing to grant the Right of Entry subject to the terms and conditions set forth herein.

NOW THEREFORE, in consideration of the foregoing and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, and intending to be legally bound hereby, the parties hereby agree as follows.

Company hereby grants Principal the Right of Entry. The Right of Entry shall extend to Principal and to subcontractors and other entities affiliated with Principal who are specifically approved for entry by authorized representatives of Company in writing, as well as to the officers and employees of the foregoing (collectively "Licensees"). The Right of Entry shall apply to those portions of the Premises, and to such equipment, machinery, rolling stock and other personal property and fixtures belonging to Company or otherwise located on the Premises, only to the extent specifically designated and approved in writing by authorized representatives of Company (collectively, "Designated Property").

Principal agrees:

(i) that Licensees' access to the Premises shall be limited to the Designated Property and that Principal shall be liable and fully responsible for all actions of Licensees while on the Premises pursuant to the Right of Entry;

(ii) that Licensees shall (a) be subject to Company's direction when upon the Premises, and (b) be subject to Company's removal from the Premises, in Company's sole discretion, due to negligence, misconduct, unsafe actions, breach of this agreement or the failure to act respectfully, responsibly, professionally, and/or in a manner consistent with Company's desire to minimize risk and maintain its property with maximum security and minimum distractions or disruptions or for any other lawful reason;

(iii) that Licensees shall perform all work with such care, diligence and cooperation with Company personnel as to reasonably avoid accidents, damage or harm to persons or property and delays or interference with the operations of any Company's facilities and in accordance with Company's "Special Provisions for Protection of Railway Interest", attached and incorporated herein.

(iv) to give Company's officer signing this agreement, or his or her authorized representative, advance notification of the presence of Licensees on Designated Property in accordance with Company's "Special Provisions for Protection of Railway Interest";

(v) to indemnify and save harmless Company, its officers, agents and employees from and against any and all claims, demands, losses, suits, judgments, costs, expenses (including without limitation reasonable attorney's fees) and liability resulting from (a) injury to or death of any person, including without limitation the Licensees, and damage to or loss of any property, including without limitation that belonging to or in the custody of Licensees (the "Licensee Property"), arising or in any manner growing out of the presence of either the Licensees or the Licensee Property, or both, on or about the Premises, regardless of

whether negligence on the part of Company, its officers, agents or employees caused or contributed to said loss of life, personal injury or property loss or damage in whole or in part; (b) any alleged violation of any law, statute, code, ordinance or regulation of the United States or of any state, county or municipal government (including, without limitation, those relating to air, water, noise, solid waste and other forms of environmental protection, contamination or pollution or to discrimination on any basis) that results in whole or in part, directly or indirectly, from the activities of Licensees related in any way to their presence on the Premises or from any other act or omission of Licensees contributing to such violation, regardless of whether such activities, acts or omissions are intentional or negligent, and regardless of any specification by Company without actual knowledge that it might violate any such law, statute, code, ordinance or regulation; (c) any allegation that Company is an employer or joint employer of a Licensee or is liable for related employment benefits or tax withholdings; or (d) any decision by Company to bar or exclude a Licensee from the Premises pursuant to subsection (ii)(b) above;

(vi) to have and keep in effect the appropriate kinds of insurance as listed in the Company's "Special Provisions for Protection of Railway Interest, with insurance companies satisfactory to Company, during the entire time Licensees or Licensee Property, or both, is on the Premises: and to provide certificates of insurance showing the foregoing coverage, as well as any endorsements or other proper documentation showing and any change or cancellations in the coverage to the Company officer signing this agreement or to his or her authorized representative;

(vii) to reimburse Company for any costs not covered under the existing project agreement between the Company and the Project Sponsor, including any material, labor, supervisory and protective costs (including flagging) and related taxes and overhead expenses required or deemed necessary by Company because of the presence of either Licensees or Licensee Property on the Premises;

(viii) to exercise special care and precautions to protect the Premises and equipment, machinery, rolling stock and other personal property and fixtures belonging to Company or otherwise located on the Premises (whether or not constituting Designated Property) and to avoid interference with Company's operations;

(ix) to not create and not allow drainage conditions which would be adverse to the Premises or any surrounding areas;

(x) to refrain from the disposal or release of any trash, waste, and hazardous, dangerous or toxic waste, materials or substances on or adjacent to the Premises and to clean up or to pay Company for the cleanup of any such released trash, waste, materials or substances; and

(xi) to restore the Premises and surrounding areas to its original condition or to a condition satisfactory to the Company officer signing this agreement or to his or her authorized representative (ordinary wear and tear to rolling stock and equipment excepted) upon termination of Licensees' presence on the Premises.

As a part of the consideration hereof, Principal further hereby agrees that Company shall mean not only Norfolk Southern Railway Company but also Norfolk Southern Corporation and any and all subsidiaries and affiliates of Norfolk Southern Railway Company or Norfolk Southern Corporation, and that all of Principal's indemnity commitments in this agreement in favor of Company also shall extend to and indemnify Norfolk Southern Corporation and any subsidiaries and affiliated companies of Norfolk Southern Railway Company or Norfolk Southern Corporation and its and/or their directors, officers, agents and employees.

EXHIBIT C

It is expressly understood that the indemnification obligations set forth herein cover claims by Principal's employees, agents, independent contractors and other representatives, and Principal expressly waives any defense to or immunity from such indemnification obligations and/or any subrogation rights available under any applicable state constitutional provision, laws, rules or regulations, including, without limitation, the workers' compensation laws of any state. Specifically, (i) in the event that all or a portion of the Premises is located in the State of Ohio, the following provision shall be applicable: "Principal, with respect to the indemnification provisions contained herein, hereby expressly waives any defense or immunity granted or afforded it pursuant to Section 35, Article II of the Ohio Constitution and Section 4123.74 of the Ohio Revised Code"; and (ii) in the event that all or a portion of the Premises is located in the Commonwealth of Pennsylvania, the following provision shall be applicable: "Principal, with respect to the indemnification provisions contained herein, hereby expressly waives any defense or immunity granted or afforded it pursuant to the Pennsylvania Workers' Compensation Act, 77 P.S. 481".

This agreement shall be governed by the internal laws of the Commonwealth of Virginia, without regard to otherwise applicable principles of conflicts of laws. If any of the foregoing provisions is held for any reason to be unlawful or unenforceable, the parties intend that only the specific words found to be unlawful or unenforceable be severed and deleted from this agreement and that the balance of this agreement remain a binding enforceable agreement to the fullest extent permitted by law.

This agreement may be amended only in a writing signed by authorized representatives of the parties.

_____	NORFOLK SOUTHERN RAILWAY COMPANY
Name of Principal	
By_____	By_____
Title _____	Title _____
Date _____, 20____	Date _____, 20_____

EXHIBIT D

FORCE ACCOUNT ESTIMATE

Work to be Performed By:	Norfolk Southern Railway Company
For the Account of:	City of Fort Wayne, Indiana
Project Description:	Proposed Edsall Avenue Bridge Replacement over NS
Location:	Fort Wayne, Allen County, Indiana
Project No.:	100416
Milepost:	D-144.54
File:	BR0019821
Date:	March 19, 2018

SUMMARY

ITEM A - Preliminary Engineering		0
ITEM B - Construction Engineering		61,473
ITEM C - Accounting		2,348
ITEM D - Flagging Services		252,440
ITEM E - Communications Changes		0
ITEM F - Signal & Electrical Changes		0
ITEM G - Track Work		0
ITEM H - T-Cubed		0
GRAND TOTAL	**$**	**316,261**

ITEM A - Preliminary Engineering

(Review plans and special provisions, prepare estimates, etc.)

Labor:	0 Hours @ $60 / hour=	0
Labor Additives:		0
Travel Expenses:		0
Services by Contract Engineer:		0
	NET TOTAL - ITEM A	**$ -**

EXHIBIT D

ITEM B - Construction Engineering

(Coordinate Railway construction activities,
review contractor submittals, etc.)

Labor:	80 Hours @ $60 / hour=		4,800
Labor Additives:			3,773
Travel Expenses:			3,000
Services by Contract Engineer:			49,900
	NET TOTAL - ITEM B	$	61,473

ITEM C - Administration

Agreement Construction, Review and/or Handling:			1,250
Accounting Hours (Labor):	20 Hours @ $30 / hour=		600
Accounting Additives:			498
	NET TOTAL - ITEM C	$	2,348

ITEM D - Flagging Services

(During construction on, over,
under, or adjacent to the track.)

Labor:	Flagging Foreman		
	200 days @ 390.00 per day=		78,000
	(based on working 1 shifts 12 hours/day)		
Labor Additive:			144,940
Travel Expenses, Meals & Lodging:			
	200 1 shifts a day @ $100/day=		20,000
Rental Vehicle	10 months @ $950/month=		9,500
	NET TOTAL - ITEM D	$	252,440

ITEM E - Communications Changes

Material:		0
Labor:		0
Purchase Services:		0
Subsistence:		0
Additive:		0
NET TOTAL - ITEM E	$	-

EXHIBIT D

ITEM F - Signal & Electrical Changes

Material:		0
Labor:		0
Purchase Services:		0
Other:		0
	NET TOTAL - ITEM F	$ -

ITEM G - Track Work

Material:	(see attached summary)	0
Labor:	(see attached summary)	0
Additive:	(see attached summary)	0
Purchase Services:	(see attached summary)	0
Separate Temporary Crossing Agreement & Temporary Crossing Approval Required.	**NET TOTAL - ITEM G**	$ -

ITEM H - T-CUBED
Lump Sum $ -

NOTES

1. For all groups of CONTRACT employees, the composite labor surcharge rate used in this estimate (including insurance) is 185.82%. Self Insurance - Public Liability Property Damage is estimated at 16.00%. Work will be billed at actual current audited rate in effect at the time the services are performed.

2. For all groups of NON-CONTRACT employees, the composite labor surcharge rate used in this estimate (including insurance is 78.59%. Self Insurance - Public Liability Property Damage is estimated at 16.00%. Work will be billed at actual current audited rate in effect at the time the services are performed.

3. All applicable salvage items due the Department will be made available to it at the jobsite for its disposal.

4. The Force Account Estimate is valid for one (1) year after the date of the estimate (03/19/2018). If the work is not performed within this time frame the Railway may revise the estimate to (1) include work not previously indicated as necessary and (2) reflect changes in cost to perform the force account work.

DIGEST SHEET

Department: Transportation Engineering

Resolution Number: #0272X

Title of Ordinance: Edsall Ave Bridge Replacement – Norfolk Southern Railway Company Agreement

Amount of Contract:
Original contract amount to $316,261 (MVH funded)

Description of Project (Be Specific):
Contract is between the City of Fort Wayne and the Norfolk Southern Railway Company for railroad construction engineering and flagging services associated with the construction of the Edsall Ave Bridge Replacement project between.

What Are The Implications If Not Approved:
The replacement and other improvements to the Edsall Ave bridge will not occur.

If Prior Approval Is Being Requested, Justify: N/A

Additional Comments: N/A

BOARD OF PUBLIC WORKS

Date: 5-1-18

BY: _____
Shan Gunawardena, Chair

BY: _____
Kumar Menon, Member

BY: _____
Mike Avila, Member

ATTEST: _____
Michelle Fulk, Clerk