RESOLUTION NO. R2021-212

RESOLUTION AUTHORIZING A PUBLIC IMPROVEMENTS AGREEMENT WITH THE NORFOLK SOUTHERN RAILWAY COMPANY FOR THE BRUSH COLLEGE ROAD GRADE SEPARATION PROJECT
CITY PROJECT 2009-33
SECTION 09-00933-01-BR

BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF DECATUR, ILLINOIS:

Section 1. That the Agreement presented to the Council herewith as Exhibit A and made part hereof, between the Norfolk Southern Railway Company and the City of Decatur, Illinois, be, and the same is hereby, received, placed on file and approved.

Section 2. That the Mayor and City Clerk be, and they are hereby, authorized and directed to execute said Agreement between the City of Decatur, Illinois and the Norfolk Southern Railway Company, for a fee of $600,506.

PRESENTED and ADOPTED this 15th day of November 2021.

Mayor Julie Moore Wolfe

ATTEST:

Kim Althoff, City Clerk

THIS AGREEMENT, dated as of the 16 day of November, 2021 is made and entered into by and between

NORFOLK SOUTHERN RAILWAY COMPANY, a Virginia corporation, whose mailing address is 650 West Peachtree Street NW Atlanta, GA 30308 (hereinafter called "RAILWAY"); and

THE CITY OF DECATUR, ILLINOIS, an Illinois Municipality, whose mailing address is 1 Gary K. Anderson Plaza, Decatur, Illinois 62523 (hereinafter called "LICENSEE").

RECITALS

WHEREAS, LICENSEE, at its own cost and expense, has found it necessary to close the existing Brush College Road at grade crossing (DOT# 328516E) and construct a new overhead bridge structure (the "Facilities") to carry Brush College Road over RAILWAY, in the vicinity of RAILWAY Milepost IT-43.53, at or near Decatur, Macon County, Illinois (the "Premises"), located substantially as shown upon print of Drawing marked Exhibit A; and

WHEREAS, the Illinois Commerce Commission issued an order on _____ authorizing construction of the Facilities in Docket No. _____; and

WHEREAS, pursuant to the ICC Order, RAILWAY is willing to permit the LICENSEE's contractor(s) to enter upon RAILWAYS's Premises for construction 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; and

WHEREAS, LICENSEE will eliminate the at grade crossing with active warning devices on the existing Brush College Road at the tracks of RAILWAY at RAILWAY Milepost IT-43.53; and

WHEREAS, RAILWAY is willing to participate in the cost of the construction of the new grade separation structure as hereinafter provided.

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 obtain all necessary permits or other approvals necessary for the 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 shown on 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's contractors entering the Premises shall fully comply with applicable roadway worker protection regulations. Any modification of the Facilities will require subsequent review and approval by RAILWAY which approval will be in the sole and absolute discretion of RAILWAY.

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 one hundred eighty (180) 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 15 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, upon RAILWAY's written request. LICENSEE shall remove the Facilities from the Premises within one hundred eighty days (180) 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 RAILWAY have the right 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 WORK, AND MAINTENANCE AND OWNERSHIP OF PROJECT IMPROVEMENTS

1. Scope of Work. The scope of the work by RAILWAY shall include any necessary, design, construction, and construction-related activities including, but not limited to, inspection, flagging, and superintendence, within and along RAILWAY property ("Railroad Work") necessary to facilitate LICENSEE's installation, construction, maintenance, operation and removal of the Facilities.

2. Performance of the Railroad Work. The RAILWAY shall perform the Railroad Work 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 Railroad Work performed by the RAILWAY 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 the Railroad Work 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 Work. Upon completion of the Railroad Work, the RAILWAY shall own and, at its own cost and expense, maintain any improvements constructed by RAILWAY as part of the Railroad Work until such time as RAILWAY deems such maintenance to no longer be necessary.

4. Commencement of the Railroad Work. Execution of this Agreement constitutes LICENSEE's issuance of a notice to proceed to RAILWAY to perform the Railroad Work ("Notice to Proceed"). RAILWAY shall make commercially reasonable efforts to commence the Railroad Work as soon as possible, in RAILWAY's sole discretion.

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 Work. 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 **Six Hundred Thousand, Five Hundred and Six Dollars and Zero Cents ($600,506.00)**. 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.

(d) RAILWAY Contribution. RAILWAY agrees to participate in the cost of the grade separation structure by contributing a lump sum amount of $1,000,000 as set forth in the ICC Order No. _____issued on _____. .

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:
c/o The City of Decatur, Illinois
1 Gary K. Anderson Plaza
Decatur, Illinois 62523
Attention: Director of Public Works

As to RAILWAY:
c/o Norfolk Southern Corporation
Engineering – Design & Construction
650 West Peachtree Street NW – Box 45

Atlanta, Georgia 30308
Attention: Engineer Public Improvements

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.

THE CITY OF DECATUR, ILLINOIS, an Illinois Municipality

By: _____
Name: Julie Moore Wolfe
Title: Mayor
Date: Nov. 16, 2021

NORFOLK SOUTHERN RAILWAY COMPANY, a Virginia corporation

By: _____
Name: Kraig Barner
Title: General Manager
Date: 10/20/21

NS File: BR1113299

EXHIBIT A

E Mueller Ave
N Brush College Rd
E Harrison Ave
Project Location
East Faries Parkway
East Faries Parkway
East Faries Parkw
E Logan St
N 35th St
E Olive St
N Brush College Rd
N Brush College Rd
Lakewo Ave
N
Google Earth

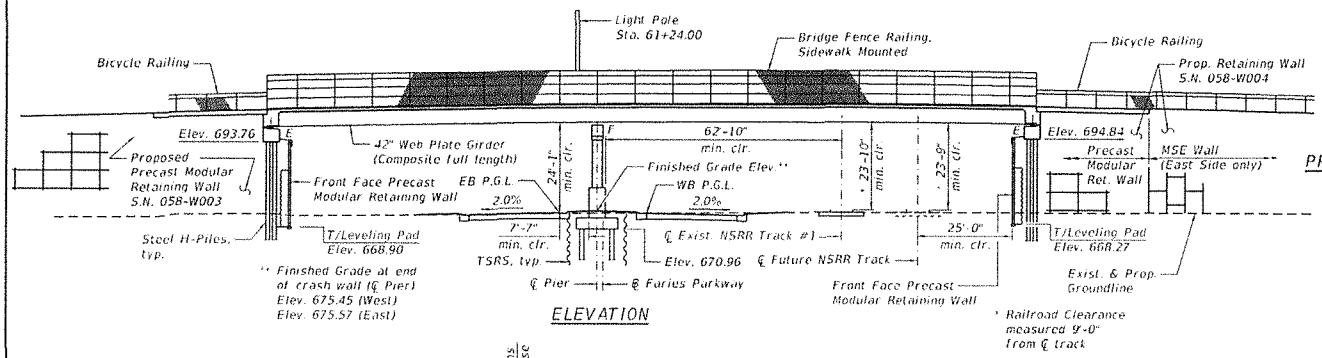
EXHIBIT B

Bench Mark: "M" in Mueller on fire hydrant at Southeast corner of Cerro Gordo St. and Brush College Road. Elev. 652.58

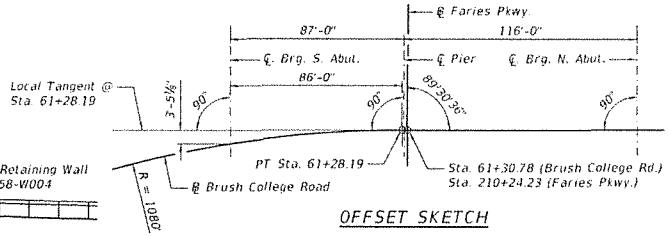
Existing Structure: None.

Brush College Road to be closed and traffic to be detoured.
Faries Parkway traffic to be mainted utilizing staged construction.

Note:
The permanent vertical and horizontal clearances to the ℄ Exist. NSRR Track #1 are shown on this sheet. The temporary clearances shall be 22'-0" minimum vertical clearance and 13'-0" minimum horizontal clearance from ℄ of existing track.



ELEVATION



OFFSET SKETCH

PROP. CURVE P BRUSH4

P.I. Sta. = 60+18.63
Δ = 11° 39' 57" (RT)
D = 5° 18' 19"
R = 1,080.00'
T = 110.33'
L = 219.89'
E = 5.62'
e = NC
T.R. = N/A
S.E. Run = N/A
P.C. Sta. = 59+08.30
P.T. Sta. = 61+28.19

DESIGN SPECIFICATIONS

2017 AASHTO LRFD Bridge Design Specifications, 8th Edition

LOADING HL-93

Allow 50#/sq. ft. for future wearing surface.

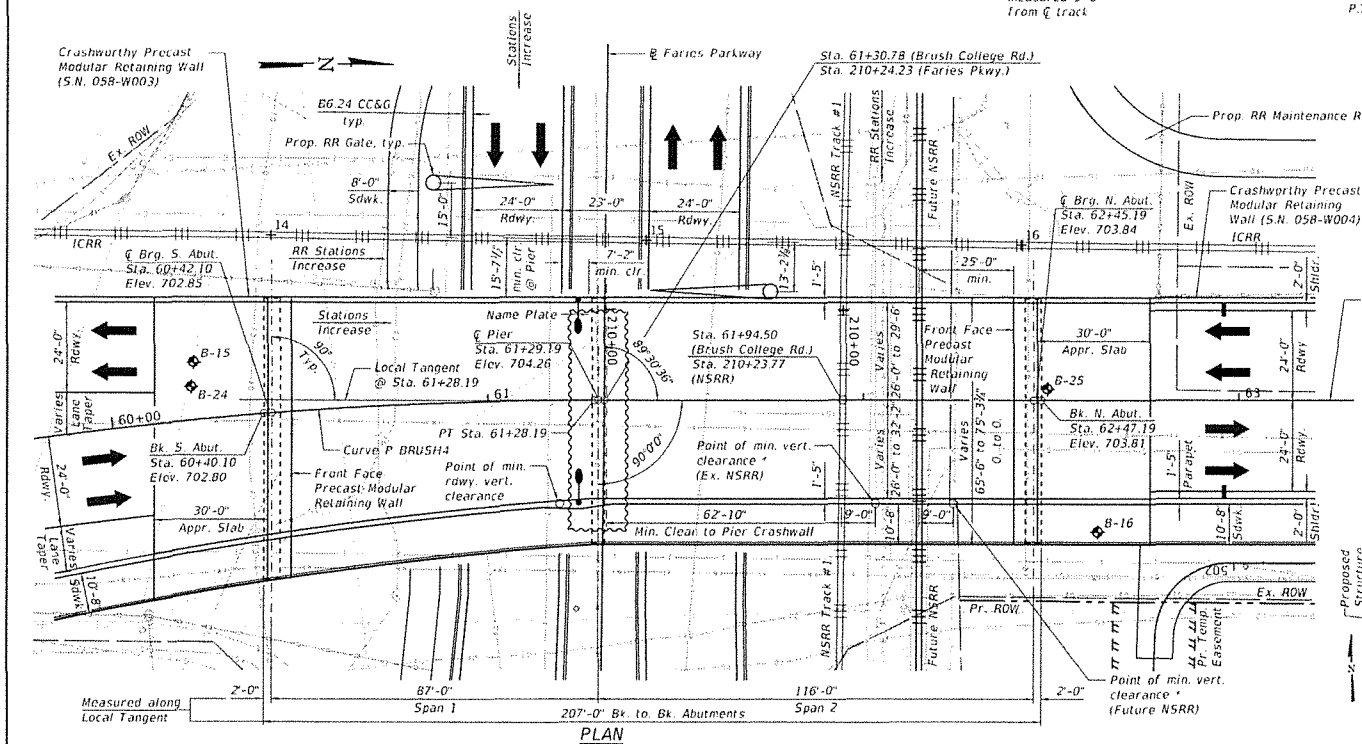
DESIGN STRESSES

FIELD UNITS

f'c = 3,500 psi
f'c = 4,000 psi (Superstructure & Appr. Slab)
fy = 60,000 psi (Reinforcement)
fy = 50,000 psi (M270 Grade 50)

SEISMIC DATA

Seismic Performance Zone (SPZ) = 2
Design Spectral Acceleration at 1.0 sec. (SD1) = 0.153g
Design Spectral Acceleration at 0.2 sec. (SDS) = 0.277g
Soil Site Class = D



PLAN

STATE OF ILLINOIS
DEMIR DABEZIC
081-007749
LICENSED STRUCTURAL ENGINEER

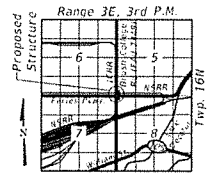
I certify that to the best of knowledge, information and belief, this bridge design is structurally adequate for the design loading shown on the plans. The design is an economical one for the style of structure and complies with requirements of the current "AASHTO LRFD Bridge Design Specifications".

Demir Dabezic 4/30/2021.

Demir Dabezic, S.E.
Expires: November 30, 2022

LEGEND

- Ex. ROW
- Ex. RR Track
- Ex. Gas Line
- Ex. Water Line
- Ex. Underground Telephone Line
- Ex. Underground Fiber Optic
- Ex. Aerial Line
- Ex. Electric
- Ex. Storm Sewer
- Ex. Sanitary Sewer
- Pr. ROW
- Pr. Temp. Easement
- Future RR Track
- Pr. Gas Line
- Pr. Water Line
- Pr. Underground Sanitary Sewer
- Pr. Storm Sewer
- Pr. Above Ground Lighting
- Pr. Drainage Inlet
- Soil Boring
- Temporary Soil Retention System (TSRS)



LOCATION SKETCH

GENERAL PLAN & ELEVATION
BRUSH COLLEGE ROAD
OVER FARIES PARKWAY
F.A.U. 7448 SECTION 09-00933-01-BR
MACON COUNTY
STA. 61+29.19
STRUCTURE NO. 058-9202

AECOM

USER NAME = mcleacorrion	DESIGNED - MCC	REVISED -
	CHECKED - DD	REVISED -
PLOT SCALE = N/A	DRAWN - MCC	REVISED -
PLOT DATE = 4/29/2021	CHECKED - DD	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SHEET NO. SF-1 OF SF-35 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7448	09-00933-01-BR	MACON	1029	671

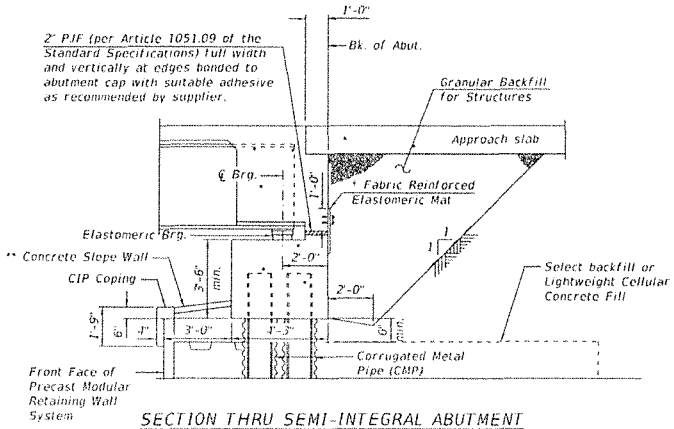
CONTRACT NO. 95693

ILLINOIS FED. AID PROJECT

EXHIBIT B

GENERAL NOTES

1. Fasteners shall be ASTM A325 Type 1, mechanically galvanized bolts (in painted areas and ASTM A325 Type 3 in unpainted areas). Bolts 7/8" Ø, holes 15/16" Ø, unless otherwise noted.
2. Calculated weight of Structural Steel
   M270 Grade 50 = 436,480 lbs
3. No field welding is permitted except as specified in the contract documents.
4. Reinforcement bars designated (E) shall be epoxy coated.
5. If the Contractor elects to use cantilever forming brackets on the exterior beams or girders, the brackets shall be placed at the same locations as required for the hardwood blocks in Article 503.06(b) of the Standard Specifications. If additional cantilever forming brackets are required, hardwood blocking shall be wedged between the exterior and first interior beam at each of these additional bracket locations.
6. Bearing seat surfaces shall be constructed or adjusted to the designated elevations within a tolerance of 1/8 inch (0.01 ft.). Adjustment shall be made either by grinding the surface or by shimming the bearings.
7. Concrete Sealer shall be applied to the designated areas of the pier.
8. The Inorganic Zinc Rich Primer / Acrylic / Acrylic Paint System shall be used on shop and field painting of new structural steel except where otherwise noted. The color of the final finish coat for all interior steel surfaces shall be gray, Munsell No. 5B 7/1. The color of the final finish coat for the exterior and bottom flange of the fascia beams shall be gray, Munsell No. 5B 7/1.
10. The elevation of the existing NSRR track top-of rail profile shall be verified before beginning construction. All discrepancies shall be brought to the attention of the Norfolk Southern Public Projects Engineer.



SECTION THRU SEMI-INTEGRAL ABUTMENT

(Horiz. dim. @ Rt. L's)

Notes:
* Fabric Reinforced Elastomeric Mat according to Section 1028 of the Standard Specifications. Fabric mat shall be 24" wide and attached full width and vertically at edges to the abutment cap with a 3/8" x 5" steel plate and 1/2" Ø studs with nuts and washers at 12" cts. Cost included with Concrete Superstructure.
** Paid for as Slope Wall 4 Inch. See Sheet SF-28 for Concrete Slope Wall details.

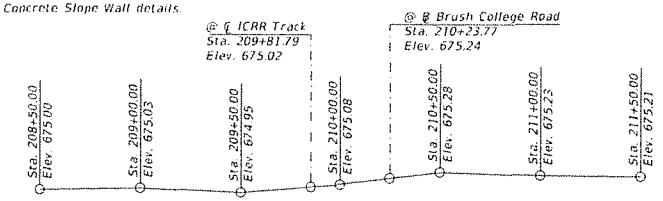
TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Structure Excavation	Cu Yd		129	129
Concrete Structures	Cu Yd		317.3	317.3
Concrete Superstructure	Cu Yd	509.2		509.2
Bridge Deck Grooving	Sq Yd	1,518		1,518
Protective Coat	Sq Yd	2,305		2,305
Concrete Superstructure (Approach Slab)	Cu Yd	199.9		199.9
Furnishing And Erecting Structural Steel	L Sum	1		1
Stud Shear Connectors	Each	6,723		6,723
Reinforcement Bars, Epoxy Coated	Pound	226,380	56,240	282,620
Mechanical Splicers	Each		112	112
Bicycle Railing	Foot	60		60
Bridge Fence Railing	Foot	205		205
Bridge Fence Railing (Sidewalk)	Foot	205		205
Parapet Railing	Foot	205		205
Slope Wall 4 Inch	Sq Yd		36	36
Furnishing Steel Piles HP14X89	Foot		4,154	4,154
Driving Piles	Foot		4,154	4,154
Test Pile Steel HP14X89	Each		3	3
Pile Shoes	Each		62	62
Name Plates	Each	1		1
Elastomeric Bearing Assembly, Type I	Each	18		18
Anchor Bolts, 3/4"	Each	36		36
Anchor Bolts, 1 1/2"	Each	18		18
Temporary Soil Retention System	Sq Ft		521	521
Granular Backfill For Structures	Cu Yd		215.6	215.6
Concrete Sealer	Sq Ft		2,635	2,635
Temporary Soil Retention System (Special)	Sq Ft		60	60

STATION 61+29.19
BUILT 20__ BY
CITY OF DECATUR
F.A.U. 7448 SEC. 09-00933-01-BR
LOADING HL-93
STRUCTURE NO. 058-9202

NAME PLATE

See Std. 515001



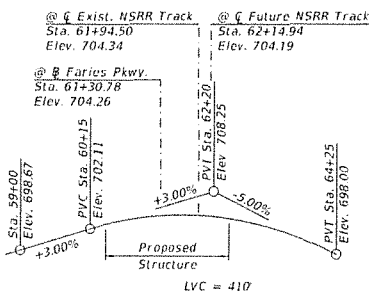
TOP OF RAIL - NSRR Track

(Looking North)

Showing existing track. (See Note 9.)
Future NSRR track profile assumed to match existing NSRR track profile and elevations.

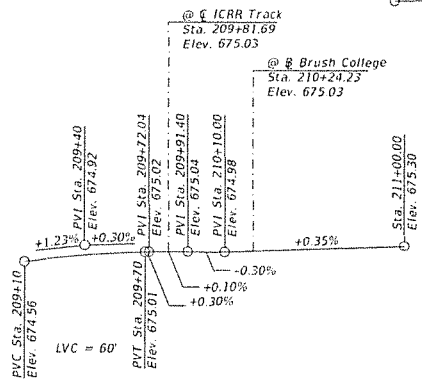
INDEX OF SHEETS

SF-1 General Plan and Elevation
SF-2 General Data
SF-3 Substructure Layout
SF-4 Top of Slab Elevations I
SF-5 Top of Slab Elevations II
SF-6 Top of Slab Elevations III
SF-7 Top of Approach Slab Elevations I
SF-8 Top of Approach Slab Elevations II
SF-9 Superstructure
SF-10 Superstructure Details I
SF-11 Superstructure Details II
SF-12 Superstructure Details III
SF-13 Concrete Parapet Slipform Option
SF-14 Diaphragm Details
SF-15 Bridge Approach Slab Details I
SF-16 Bridge Approach Slab Details II
SF-17 Bridge Fence Railing, Parapet Mounted
SF-18 Bicycle Railing
SF-19 Bridge Fence Railing, Sidewalk Mounted
SF-20 Framing Plan
SF-21 Girder Elevations
SF-22 Girder Moment & Reaction Tables
SF-23 Girder Camber Diagram
SF-24 Steel Details
SF-25 Bearing Details
SF-26 South Abutment Plan & Elevation
SF-27 North Abutment Plan & Elevation
SF-28 Abutment Details
SF-29 Pier Plan & Elevation
SF-30 Pier Details
SF-31 HP Pile Details
SF-32 Bar Splicer Assembly & Mechanical Splicer Details
SF-33 Soil Boring Logs I
SF-34 Soil Boring Logs II
SF-35 Soil Boring Logs III



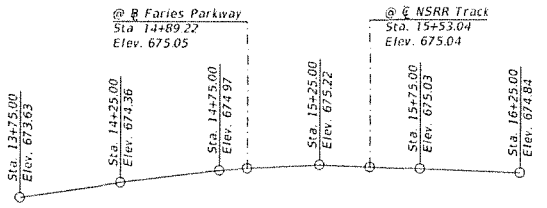
PROFILE GRADE - BRUSH COLLEGE ROAD

(Along ℄ Proposed Roadway)



PROFILE GRADE - FARIES PARKWAY

(Along ℄ Proposed Roadway)

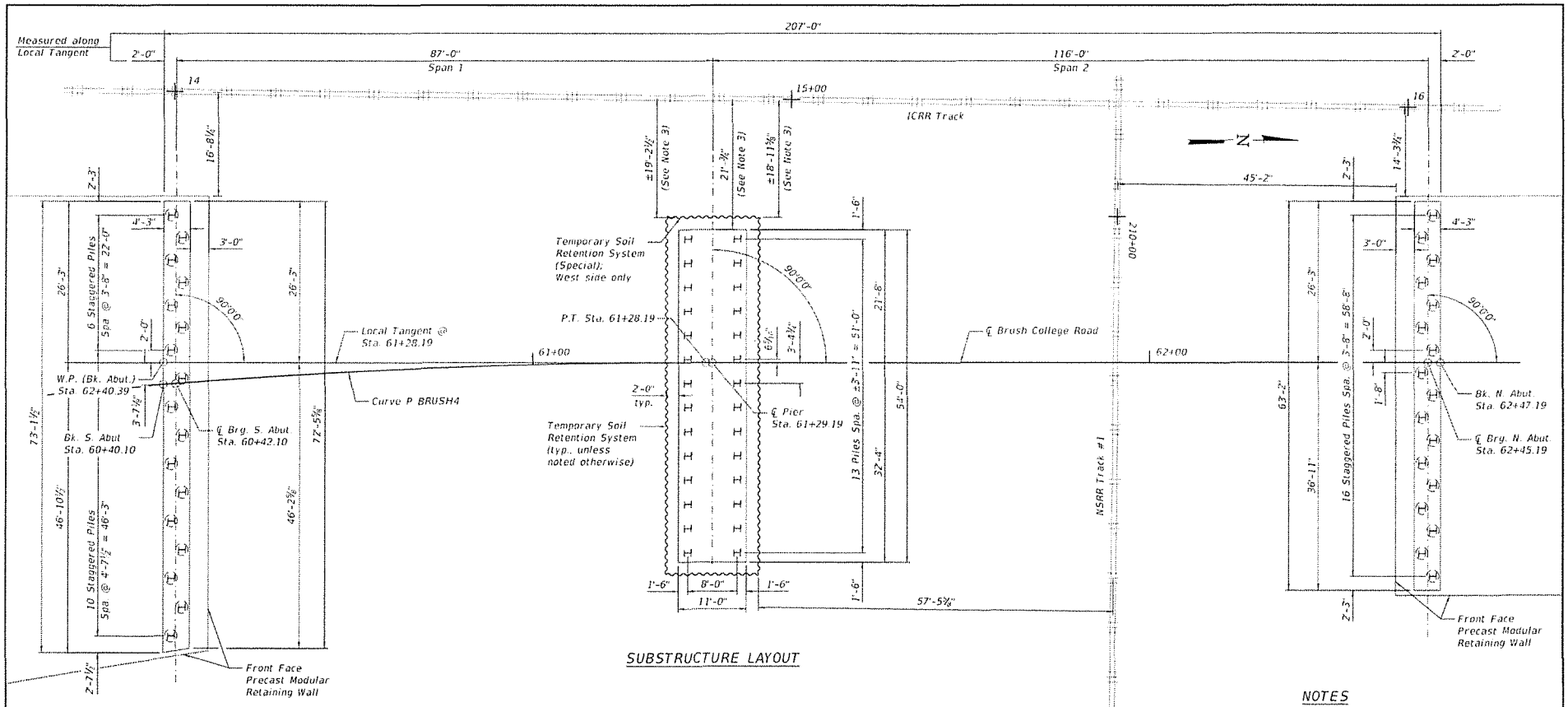


TOP OF RAIL - ICRR Track

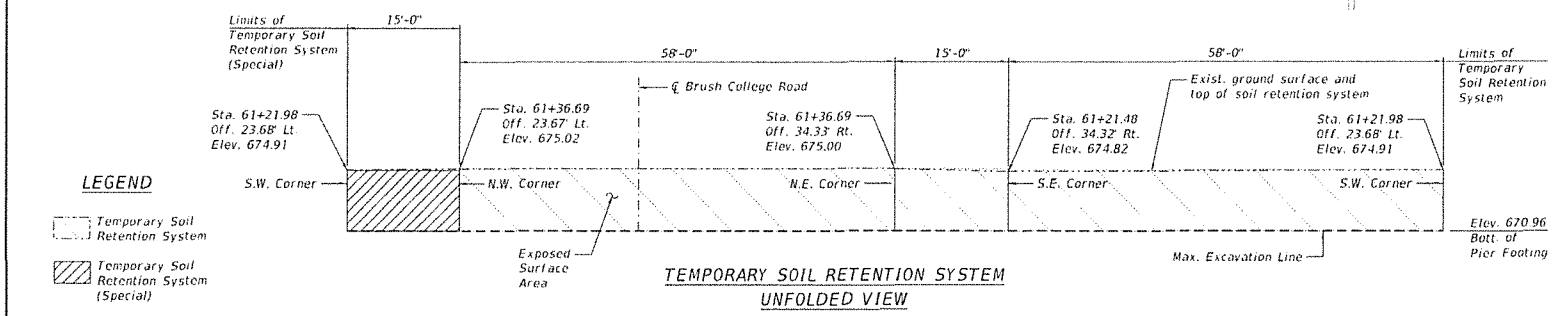
(Looking West)

AECOM	USER NAME = mercia.cocco	DESIGNED - MCC	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	GENERAL DATA STRUCTURE NO. 058-9202	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CHECKED - DD	REVISED -			7448	09-00933-01-BR	MACON	1019	672
	PLOT SCALE = 1:1.5	DRAWN - MCC	REVISED -					CONTRACT NO. 95893		
	PLOT DATE = 4/29/2021	CHECKED - DD	REVISED -		SHEET NO. SF-2 OF SF-35 SHEETS			ILLINOIS FED. RD. PROJECT		

EXHIBIT B



SUBSTRUCTURE LAYOUT



TEMPORARY SOIL RETENTION SYSTEM
UNFOLDED VIEW

LEGEND

- Temporary Soil Retention System
- Temporary Soil Retention System (Special)

NOTES

1. The Contractor is alerted to the presence of existing underground watermain to be removed prior to the construction of the bridge pier. See Water Main and Sanitary Sewer Relocation Plan for details and removal limits.
2. A cantilevered sheet piling design does not appear feasible and additional members or other retention systems may be necessary. The Contractor shall submit a temporary soil retention system design including plan details and calculations for review and acceptance by the Engineer.
3. Soil retention along west edge of pier excavation shall be paid for as Temporary Soil Retention System (Special). Dimensions are measured from ℄ of existing ICRR track to inside face of Temporary Soil Retention System (Special). See Special Provisions.

AECOM

USER NAME = MCCALLISTER	DESIGNED - MCC	REVISED -	
	CHECKED - ATB	REVISED -	
PLOT SCALE = N.T.S.	DRAWN - MCC	REVISED -	
PLOT DATE = 4/28/2021	CHECKED - ATB	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUBSTRUCTURE LAYOUT
STRUCTURE NO. 058-9202

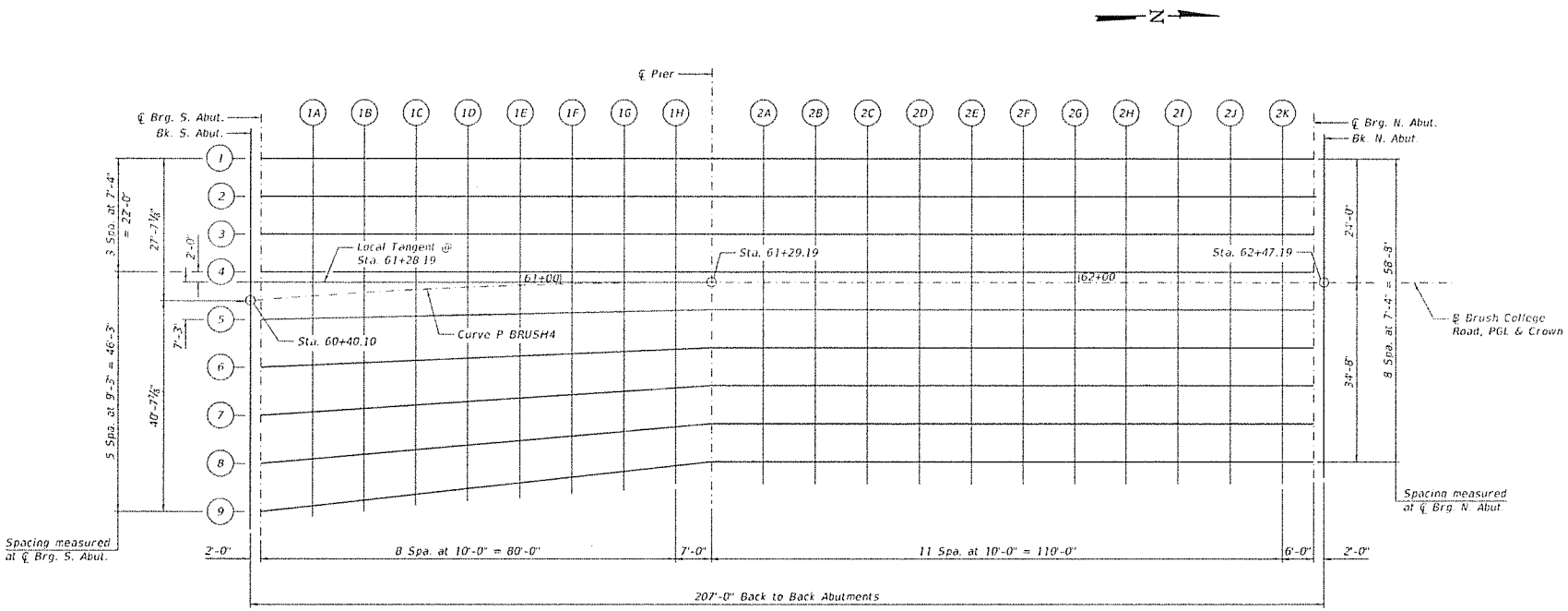
SHEET NO. SF-3 OF SF-35 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7448	09-00935-01-BR	MACON	1019	673

CONTRACT NO. 95B93

ILLINOIS FED. AID PROJECT

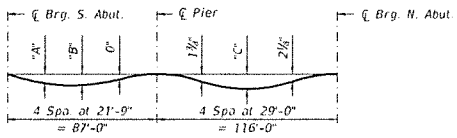
EXHIBIT B



PLAN

DEFLECTION DIAGRAM DIMENSIONS

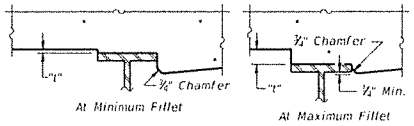
Girder	Dim. "A"	Dim. "B"	Dim. "C"
1	⅛"	¼"	2⅝"
2	⅛"	¼"	2¾"
3	⅛"	¼"	2¾"
4	⅛"	¼"	2¾"
5	½"	⅜"	2⅝"
6	½"	⅜"	2⅝"
7	½"	⅜"	2⅝"
8	½"	⅜"	2⅝"
9	½"	⅜"	2⅝"



DEAD LOAD DEFLECTION DIAGRAM

(Includes weight of concrete only.)

Note:
The above deflections are not to be used in the field if the engineer is working from the grade elevations adjusted for dead load deflections as shown on sheets SF-5 and SF-6.



To determine "t": After all structural steel has been erected, elevations of the top flanges of the beams shall be taken at intervals shown in the plan view above. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection" shown in the tables on sheets SF-5 and SF-6, minus slab thickness, equals the fillet heights "t" above top flange of beams.

FILLET HEIGHTS

AECOM	USER NAME = mckeathelor	DESIGNED - BP	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TOP OF SLAB ELEVATIONS I STRUCTURE NO. 058-9202	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CHECKED - MCC	REVISED -			7448	09-00913-01-BR	MACON	1019	674
	PLOT SCALE = N.T.S.	DRAWN - BP	REVISED -					CONTRACT NO. 95693		
	PLOT DATE = 6/28/2021	CHECKED - MCC	REVISED -		SHEET NO. SF-4 OF SF-35 SHEETS			ILLINOIS FED. AID PROJECT		

EXHIBIT B

GIRDER 1

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Bk. S. Abut.	60+42.29	-27.50	702.31	702.31
℄ Brg. S. Abut.	60+44.23	-27.34	702.36	702.36
1A	60+53.96	-26.61	702.60	702.62
1B	60+63.71	-25.97	702.82	702.86
1C	60+73.46	-25.42	703.02	703.06
1D	60+83.22	-24.96	703.20	703.24
1E	60+92.99	-24.59	703.36	703.39
1F	61+02.76	-24.31	703.50	703.51
1G	61+12.54	-24.12	703.62	703.62
1H	61+22.32	-24.02	703.72	703.72
℄ Pier	61+29.19	-24.00	703.78	703.78
2A	61+39.19	-24.00	703.85	703.86
2B	61+49.19	-24.00	703.89	703.98
2C	61+59.19	-24.00	703.92	704.06
2D	61+69.19	-24.00	703.93	704.11
2E	61+79.19	-24.00	703.92	704.14
2F	61+89.19	-24.00	703.89	704.13
2G	61+99.19	-24.00	703.84	704.08
2H	62+09.19	-24.00	703.77	703.99
2I	62+19.19	-24.00	703.68	703.86
2J	62+29.19	-24.00	703.57	703.69
2K	62+39.19	-24.00	703.44	703.49
℄ Brg. N. Abut.	62+45.19	-24.00	703.36	703.36
Bk. N. Abut.	62+47.19	-24.00	703.33	703.33

GIRDER 2

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Bk. S. Abut.	60+41.72	-20.19	702.44	702.44
℄ Brg. S. Abut.	60+43.67	-20.03	702.49	702.49
1A	60+53.47	-19.30	702.73	702.75
1B	60+63.28	-18.65	702.96	702.99
1C	60+73.09	-18.10	703.16	703.20
1D	60+82.92	-17.63	703.34	703.37
1E	60+92.75	-17.26	703.51	703.52
1F	61+02.59	-16.98	703.65	703.65
1G	61+12.44	-16.78	703.77	703.76
1H	61+22.29	-16.68	703.87	703.86
℄ Pier	61+29.19	-16.67	703.93	703.93
2A	61+39.19	-16.67	703.99	704.03
2B	61+49.19	-16.67	704.04	704.12
2C	61+59.19	-16.67	704.07	704.19
2D	61+69.19	-16.67	704.08	704.24
2E	61+79.19	-16.67	704.07	704.27
2F	61+89.19	-16.67	704.04	704.26
2G	61+99.19	-16.67	703.99	704.21
2H	62+09.19	-16.67	703.92	704.12
2I	62+19.19	-16.67	703.83	703.99
2J	62+29.19	-16.67	703.72	703.83
2K	62+39.19	-16.67	703.59	703.63
℄ Brg. N. Abut.	62+45.19	-16.67	703.51	703.51
Bk. N. Abut.	62+47.19	-16.67	703.47	703.47

GIRDER 3

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Bk. S. Abut.	60+41.14	-12.88	702.57	702.57
℄ Brg. S. Abut.	60+43.11	-12.72	702.62	702.62
1A	60+52.97	-11.98	702.87	702.89
1B	60+62.84	-11.33	703.10	703.13
1C	60+72.72	-10.77	703.30	703.34
1D	60+82.62	-10.30	703.49	703.52
1E	60+92.52	-9.93	703.65	703.67
1F	61+02.42	-9.64	703.79	703.80
1G	61+12.33	-9.45	703.91	703.91
1H	61+22.25	-9.35	704.02	704.01
℄ Pier	61+29.19	-9.33	704.07	704.07
2A	61+39.19	-9.33	704.14	704.17
2B	61+49.19	-9.33	704.19	704.26
2C	61+59.19	-9.33	704.22	704.33
2D	61+69.19	-9.33	704.22	704.38
2E	61+79.19	-9.33	704.21	704.40
2F	61+89.19	-9.33	704.18	704.39
2G	61+99.19	-9.33	704.13	704.34
2H	62+09.19	-9.33	704.06	704.25
2I	62+19.19	-9.33	703.97	704.13
2J	62+29.19	-9.33	703.87	703.97
2K	62+39.19	-9.33	703.74	703.78
℄ Brg. N. Abut.	62+45.19	-9.33	703.65	703.65
Bk. N. Abut.	62+47.19	-9.33	703.62	703.62

GIRDER 4

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Bk. S. Abut.	60+40.55	-5.57	702.70	702.70
℄ Brg. S. Abut.	60+42.53	-5.41	702.75	702.75
1A	60+52.46	-4.67	703.00	703.02
1B	60+62.40	-4.01	703.23	703.27
1C	60+72.35	-3.45	703.44	703.48
1D	60+82.31	-2.98	703.63	703.66
1E	60+92.27	-2.60	703.79	703.81
1F	61+02.25	-2.31	703.94	703.94
1G	61+12.22	-2.12	704.06	704.06
1H	61+22.21	-2.02	704.16	704.16
℄ Pier	61+29.19	-2.00	704.22	704.22
2A	61+39.19	-2.00	704.29	704.32
2B	61+49.19	-2.00	704.33	704.40
2C	61+59.19	-2.00	704.36	704.48
2D	61+69.19	-2.00	704.37	704.52
2E	61+79.19	-2.00	704.36	704.55
2F	61+89.19	-2.00	704.33	704.53
2G	61+99.19	-2.00	704.28	704.48
2H	62+09.19	-2.00	704.21	704.40
2I	62+19.19	-2.00	704.12	704.27
2J	62+29.19	-2.00	704.01	704.11
2K	62+39.19	-2.00	703.88	703.92
℄ Brg. N. Abut.	62+45.19	-2.00	703.80	703.80
Bk. N. Abut.	62+47.19	-2.00	703.77	703.77

℄ BRUSH COLLEGE ROAD, PGL & CROWN

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Bk. S. Abut.	60+40.10	0.00	702.80	702.80
℄ Brg. S. Abut.	60+42.10	0.00	702.85	702.85
1A	60+52.13	0.00	703.09	703.11
1B	60+62.15	0.00	703.31	703.34
1C	60+72.17	0.00	703.51	703.54
1D	60+82.18	0.00	703.68	703.72
1E	60+92.19	0.00	703.84	703.86
1F	61+02.19	0.00	703.98	703.99
1G	61+12.19	0.00	704.10	704.10
1H	61+22.19	0.00	704.20	704.20
℄ Pier	61+29.19	0.00	704.26	704.26
2A	61+39.19	0.00	704.33	704.36
2B	61+49.19	0.00	704.37	704.44
2C	61+59.19	0.00	704.40	704.52
2D	61+69.19	0.00	704.41	704.56
2E	61+79.19	0.00	704.40	704.59
2F	61+89.19	0.00	704.37	704.57
2G	61+99.19	0.00	704.32	704.52
2H	62+09.19	0.00	704.25	704.44
2I	62+19.19	0.00	704.16	704.31
2J	62+29.19	0.00	704.05	704.15
2K	62+39.19	0.00	703.92	703.96
℄ Brg. N. Abut.	62+45.19	0.00	703.84	703.84
Bk. N. Abut.	62+47.19	0.00	703.81	703.81

GIRDER 5

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Bk. S. Abut.	60+39.79	3.69	702.72	702.72
℄ Brg. S. Abut.	60+41.80	3.81	702.77	702.77
1A	60+51.82	4.34	703.00	703.02
1B	60+61.86	4.78	703.21	703.24
1C	60+71.90	5.13	703.40	703.44
1D	60+81.95	5.38	703.57	703.61
1E	60+92.00	5.55	703.73	703.76
1F	61+02.06	5.61	703.87	703.88
1G	61+12.11	5.59	703.99	703.99
1H	61+22.16	5.47	704.09	704.09
℄ Pier	61+29.19	5.33	704.15	704.15
2A	61+39.19	5.33	704.22	704.25
2B	61+49.19	5.33	704.27	704.33
2C	61+59.19	5.33	704.30	704.41
2D	61+69.19	5.33	704.30	704.45
2E	61+79.19	5.33	704.29	704.48
2F	61+89.19	5.33	704.26	704.46
2G	61+99.19	5.33	704.21	704.41
2H	62+09.19	5.33	704.14	704.33
2I	62+19.19	5.33	704.05	704.20
2J	62+29.19	5.33	703.95	704.05
2K	62+39.19	5.33	703.82	703.86
℄ Brg. N. Abut.	62+45.19	5.33	703.73	703.73
Bk. N. Abut.	62+47.19	5.33	703.70	703.70

Note: Offsets measured perpendicular from the ℄ of roadway

AECOM

USER NAME = mccarthychan	DESIGNED - JJP	REVISED -	
	CHECKED - MCC	REVISED -	
PLOT SCALE = N.T.S.	DRAWN - JJP	REVISED -	
PLOT DATE = 4/29/2021	CHECKED - MCC	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS II
STRUCTURE NO. 058-9202

SHEET NO. 5F-5 OF 5F-35 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7448	09-00933-01-BR	MACON	1019	675
		CONTRACT NO. 95893		
		REGION	NO.	NO. PROJECT

EXHIBIT B

GIRDER 6

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Bk. S. Abut.	60+39.02	12.95	702.52	702.52
℄ Brg. S. Abut.	60+41.05	13.03	702.57	702.57
1A	60+51.18	13.35	702.80	702.82
1B	60+61.31	13.57	703.02	703.06
1C	60+71.45	13.71	703.22	703.26
1D	60+81.59	13.74	703.40	703.44
1E	60+91.72	13.69	703.56	703.59
1F	61+01.86	13.54	703.71	703.72
1G	61+11.99	13.30	703.83	703.83
1H	61+22.12	12.96	703.94	703.94
℄ Pier	61+29.19	12.67	704.01	704.01
2A	61+39.19	12.67	704.07	704.10
2B	61+49.19	12.67	704.12	704.19
2C	61+59.19	12.67	704.15	704.26
2D	61+69.19	12.67	704.16	704.31
2E	61+79.19	12.67	704.15	704.33
2F	61+89.19	12.67	704.12	704.32
2G	61+99.19	12.67	704.07	704.27
2H	62+09.19	12.67	704.00	704.18
2I	62+19.19	12.67	703.91	704.06
2J	62+29.19	12.67	703.80	703.90
2K	62+39.19	12.67	703.67	703.71
℄ Brg. N. Abut.	62+45.19	12.67	703.59	703.59
Bk. N. Abut.	62+47.19	12.67	703.55	703.55

GIRDER 7

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Bk. S. Abut.	60+38.24	22.22	702.31	702.31
℄ Brg. S. Abut.	60+40.29	22.25	702.36	702.36
1A	60+50.52	22.35	702.61	702.63
1B	60+60.75	22.37	702.83	702.87
1C	60+70.99	22.28	703.04	703.09
1D	60+81.22	22.11	703.23	703.27
1E	60+91.44	21.83	703.40	703.43
1F	61+01.66	21.47	703.55	703.56
1G	61+11.88	21.00	703.68	703.68
1H	61+22.08	20.45	703.79	703.79
℄ Pier	61+29.19	20.00	703.86	703.86
2A	61+39.19	20.00	703.93	703.95
2B	61+49.19	20.00	703.97	704.04
2C	61+59.19	20.00	704.00	704.11
2D	61+69.19	20.00	704.01	704.16
2E	61+79.19	20.00	704.00	704.18
2F	61+89.19	20.00	703.97	704.17
2G	61+99.19	20.00	703.92	704.12
2H	62+09.19	20.00	703.85	704.04
2I	62+19.19	20.00	703.76	703.91
2J	62+29.19	20.00	703.65	703.75
2K	62+39.19	20.00	703.52	703.57
℄ Brg. N. Abut.	62+45.19	20.00	703.44	703.44
Bk. N. Abut.	62+47.19	20.00	703.41	703.41

GIRDER 8

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Bk. S. Abut.	60+37.45	31.48	702.11	702.11
℄ Brg. S. Abut.	60+39.51	31.47	702.16	702.16
1A	60+49.85	31.36	702.41	702.44
1B	60+60.19	31.16	702.66	702.71
1C	60+70.52	30.86	702.89	702.94
1D	60+80.84	30.47	703.10	703.14
1E	60+91.16	29.98	703.28	703.31
1F	61+01.46	29.39	703.44	703.46
1G	61+11.76	28.71	703.56	703.58
1H	61+22.03	27.93	703.69	703.69
℄ Pier	61+29.19	27.33	703.76	703.76
2A	61+39.19	27.33	703.83	703.86
2B	61+49.19	27.33	703.87	703.94
2C	61+59.19	27.33	703.90	704.02
2D	61+69.19	27.33	703.91	704.07
2E	61+79.19	27.33	703.90	704.09
2F	61+89.19	27.33	703.87	704.08
2G	61+99.19	27.33	703.82	704.03
2H	62+09.19	27.33	703.75	703.94
2I	62+19.19	27.33	703.66	703.82
2J	62+29.19	27.33	703.55	703.66
2K	62+39.19	27.33	703.42	703.47
℄ Brg. N. Abut.	62+45.19	27.33	703.34	703.34
Bk. N. Abut.	62+47.19	27.33	703.31	703.31

GIRDER 9

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Bk. S. Abut.	60+36.63	40.74	702.20	702.20
℄ Brg. S. Abut.	60+38.73	40.69	702.26	702.26
1A	60+49.17	40.37	702.53	702.56
1B	60+59.61	39.95	702.78	702.83
1C	60+70.04	39.44	703.01	703.06
1D	60+80.46	38.83	703.21	703.26
1E	60+90.87	38.12	703.40	703.43
1F	61+01.26	37.32	703.56	703.57
1G	61+11.64	36.42	703.69	703.69
1H	61+21.99	35.42	703.81	703.80
℄ Pier	61+29.19	34.67	703.87	703.87
2A	61+39.19	34.67	703.94	703.97
2B	61+49.19	34.67	703.98	704.06
2C	61+59.19	34.67	704.01	704.13
2D	61+69.19	34.67	704.02	704.18
2E	61+79.19	34.67	704.01	704.21
2F	61+89.19	34.67	703.98	704.20
2G	61+99.19	34.67	703.93	704.15
2H	62+09.19	34.67	703.86	704.06
2I	62+19.19	34.67	703.77	703.93
2J	62+29.19	34.67	703.66	703.77
2K	62+39.19	34.67	703.53	703.58
℄ Brg. N. Abut.	62+45.19	34.67	703.45	703.45
Bk. N. Abut.	62+47.19	34.67	703.42	703.42

Note: Offsets measured perpendicular from the ℄ of roadway.

AECOM

USER NAME = michael.chang	DESIGNED - BP	REVISED -	
	CHECKED - MCC	REVISED -	
PLOT SCALE = N/A	DRAWN - BP	REVISED -	
PLOT DATE = 4/29/2021	CHECKED - MCC	REVISED -	

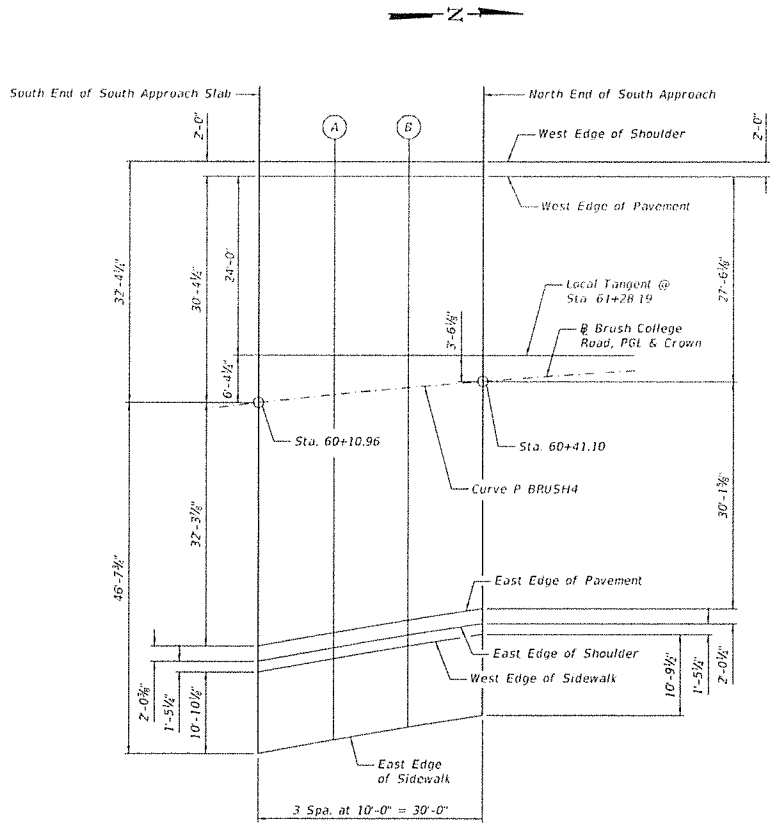
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS III
STRUCTURE NO. 058-9202

SHEET NO. SF-6 OF SF-45 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7448	09-00933-01-BR	MACON	1019	676
		CONTRACT NO. 96693		
		SUBMIT FED. AID PROJECT		

EXHIBIT B



PLAN
(South Approach)

Note:
Offsets measured perpendicular from the ℄ of Brush College Road.

WEST EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
S. End of S. Appr. Slab	60+14.37	-32.17	701.45
A	60+24.03	-31.16	701.75
B	60+33.72	-30.25	702.03
N. End of S. Appr. Slab	60+43.41	-29.42	702.30

EAST EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
S. End of S. Appr. Slab	60+07.12	34.15	701.19
A	60+17.58	33.45	701.52
B	60+28.02	32.75	701.83
N. End of S. Appr. Slab	60+38.43	32.05	702.12

WEST EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
S. End of S. Appr. Slab	60+14.16	-30.18	701.48
A	60+23.85	29.17	701.79
B	60+33.55	-28.25	702.07
N. End of S. Appr. Slab	60+43.26	-27.42	702.33

WEST EDGE OF SIDEWALK

Location	Station	Offset	Theoretical Grade Elevations
S. End of S. Appr. Slab	60+06.95	35.58	701.21
A	60+17.43	34.88	701.54
B	60+27.88	34.18	701.85
N. End of S. Appr. Slab	60+38.31	33.48	702.14

℄ BRUSH COLLEGE ROAD, PGL & CROWN

Location	Station	Offset	Theoretical Grade Elevations
S. End of S. Appr. Slab	60+10.96	0.00	701.99
A	60+21.02	0.00	702.29
B	60+31.06	0.00	702.57
N. End of S. Appr. Slab	60+41.10	0.00	702.83

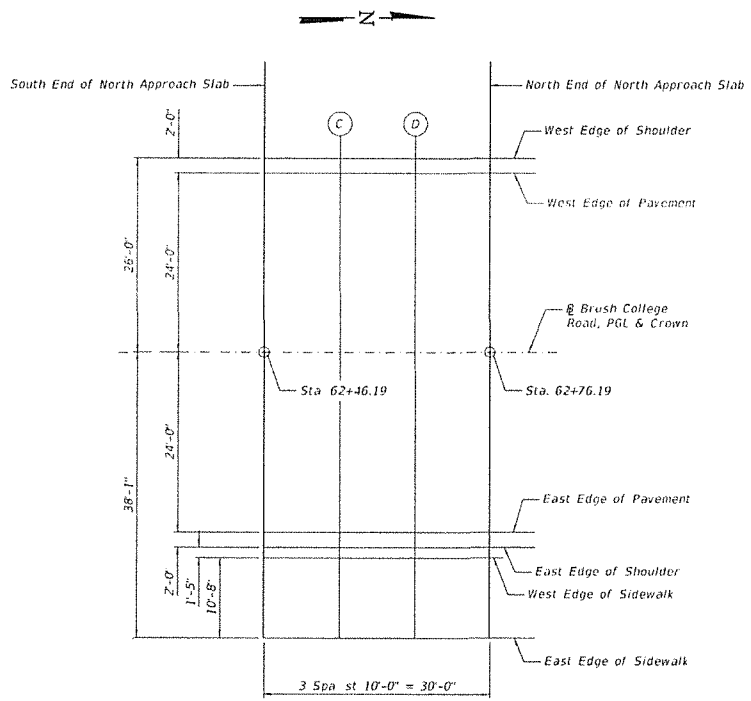
EAST EDGE OF SIDEWALK

Location	Station	Offset	Theoretical Grade Elevations
S. End of S. Appr. Slab	60+05.68	46.36	701.33
A	60+16.27	45.65	701.66
B	60+26.83	44.94	701.98
N. End of S. Appr. Slab	60+37.37	44.24	702.27

EAST EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
S. End of S. Appr. Slab	60+07.35	32.13	701.24
A	60+17.79	31.43	701.57
B	60+28.21	30.73	701.88
N. End of S. Appr. Slab	60+38.60	30.04	702.16

EXHIBIT B



PLAN
(North Approach)

Note:
Offsets measured perpendicular from the ℄ of Brush College Road.

WEST EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
S. End of N. Appr. Slab	62+46.19	-26.00	703.30
C	62+56.19	-26.00	703.14
D	62+66.19	-26.00	702.96
N. End of N. Appr. Slab	62+76.19	-26.00	702.76

EAST EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
S. End of N. Appr. Slab	62+46.19	26.00	703.30
C	62+56.19	26.00	703.14
D	62+66.19	26.00	702.96
N. End of N. Appr. Slab	62+76.19	26.00	702.76

WEST EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
S. End of N. Appr. Slab	62+46.19	-24.00	703.34
C	62+56.19	24.00	703.18
D	62+66.19	-24.00	703.00
N. End of N. Appr. Slab	62+76.19	-24.00	702.80

WEST EDGE OF SIDEWALK

Location	Station	Offset	Theoretical Grade Elevations
S. End of N. Appr. Slab	62+46.19	27.42	703.32
C	62+56.19	27.42	703.16
D	62+66.19	27.42	702.98
N. End of N. Appr. Slab	62+76.19	27.42	702.78

℄ BRUSH COLLEGE ROAD, PGL & CROWN

Location	Station	Offset	Theoretical Grade Elevations
S. End of N. Appr. Slab	62+46.19	0.00	703.82
C	62+56.19	0.00	703.66
D	62+66.19	0.00	703.48
N. End of N. Appr. Slab	62+76.19	0.00	703.28

EAST EDGE OF SIDEWALK

Location	Station	Offset	Theoretical Grade Elevations
S. End of N. Appr. Slab	62+46.19	38.08	703.48
C	62+56.19	38.08	703.32
D	62+66.19	38.08	703.14
N. End of N. Appr. Slab	62+76.19	38.08	702.94

EAST EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
S. End of N. Appr. Slab	62+46.19	24.00	703.34
C	62+56.19	24.00	703.18
D	62+66.19	24.00	703.00
N. End of N. Appr. Slab	62+76.19	24.00	702.80

AECOM

USER NAME = mcecollum	DESIGNED - JJP	REVISED -
	CHECKED - MCC	REVISED -
PLOT SCALE = N.T.S.	DRAWN - JJP	REVISED -
PLOT DATE = 4/29/2021	CHECKED - MCC	REVISED -

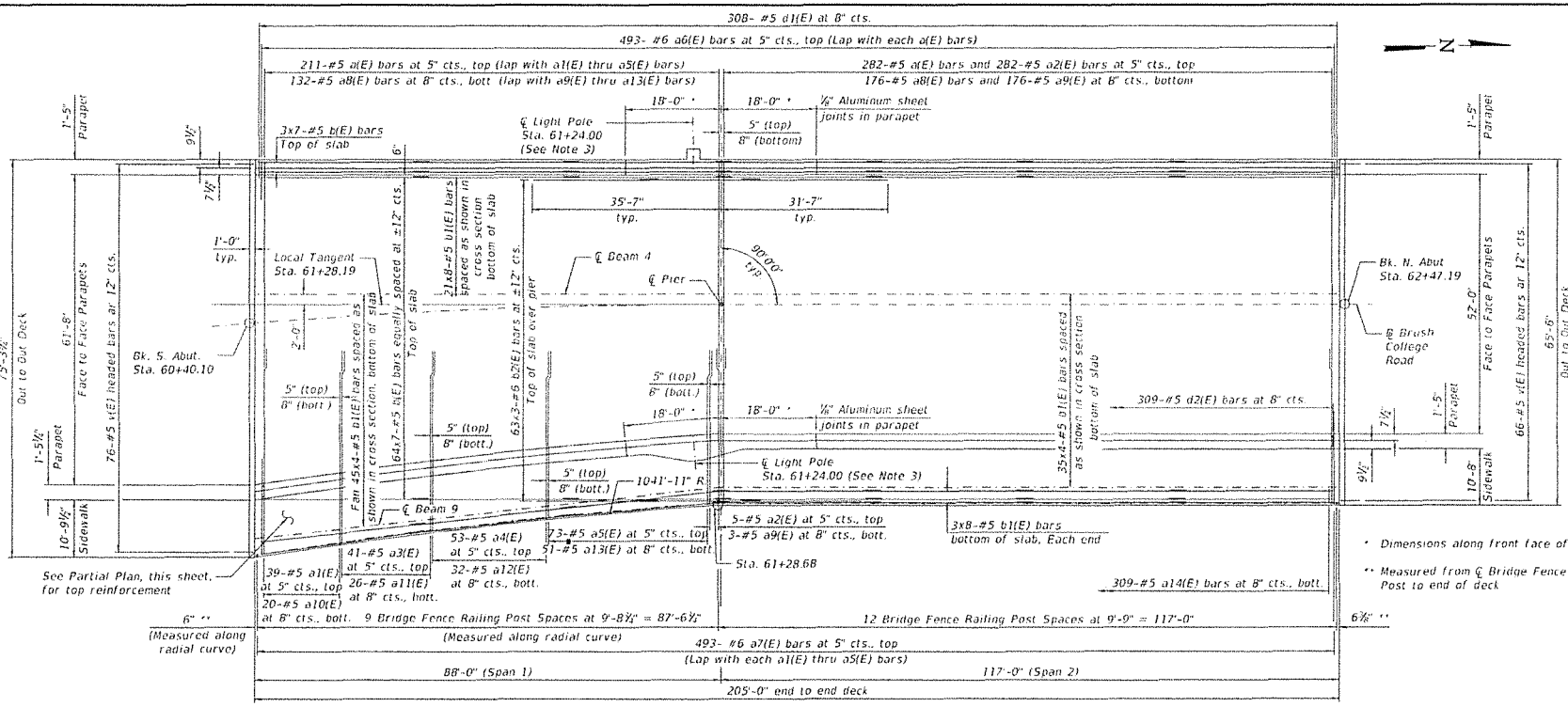
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF APPROACH SLAB ELEVATIONS II
STRUCTURE NO. 058-9202

SHEET NO. SF-8 OF SF-35 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7448	09-00933-01-BR	MACON	1019	678
		CONTRACT NO. 95B03		
		SUBMITTED FOR PROJECT		

EXHIBIT B



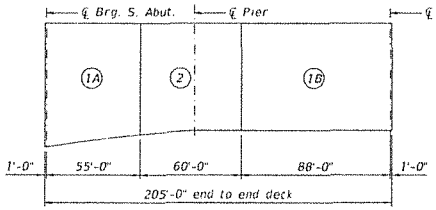
PLAN

* Dimensions along front face of parapet

** Measured from ℄ Bridge Fence Railing Post to end of deck

MINUMUM BAR LAP

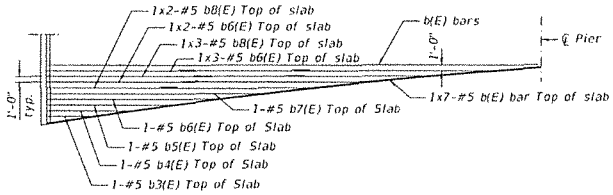
(Unless Noted Otherwise)
#5 bar = 3'-6"
#6 bar = 3'-7"



DECK POURING SEQUENCE

When the deck pour is stopped for the day at one or more of the transverse bonded construction joints in the deck pouring sequence as shown, the next pour shall not be made until both of the following are met:

1. At least 72 hours shall have elapsed from the end of the previous pour.
2. The concrete strength shall have attained a minimum flexural strength of 675 psi or a minimum compressive strength of 4000 psi.
3. Numbers within the deck pouring sequence indicate the minimum number of group pours required. Letters next to the group pour numbers indicate the order if pour groups are further subdivided into individuals pours.



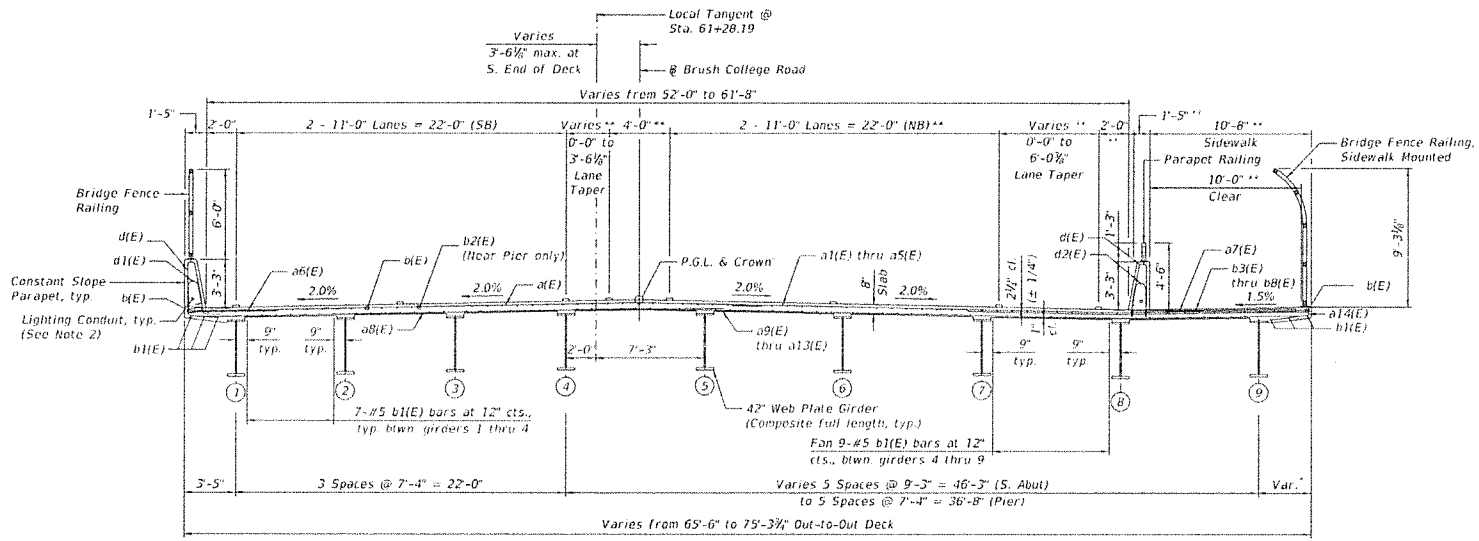
PARTIAL PLAN - TOP REINFORCEMENT

NOTES:

1. See Sheet SF-10 for deck cross section.
2. For parapet reinforcement and details, see Sheets SF-11 and SF-12.
3. For parapet mounted light pole details, see Sheet SF-12.
4. For bar details and Bill of Material, see Sheets SF-12.
5. Bars indicated thus 34x5-#5 etc. indicates 34 lines of bars with 5 lengths per line.
6. See Sheet SF-19 for sidewalk mounted bridge fence railing details along east edge of bridge deck.

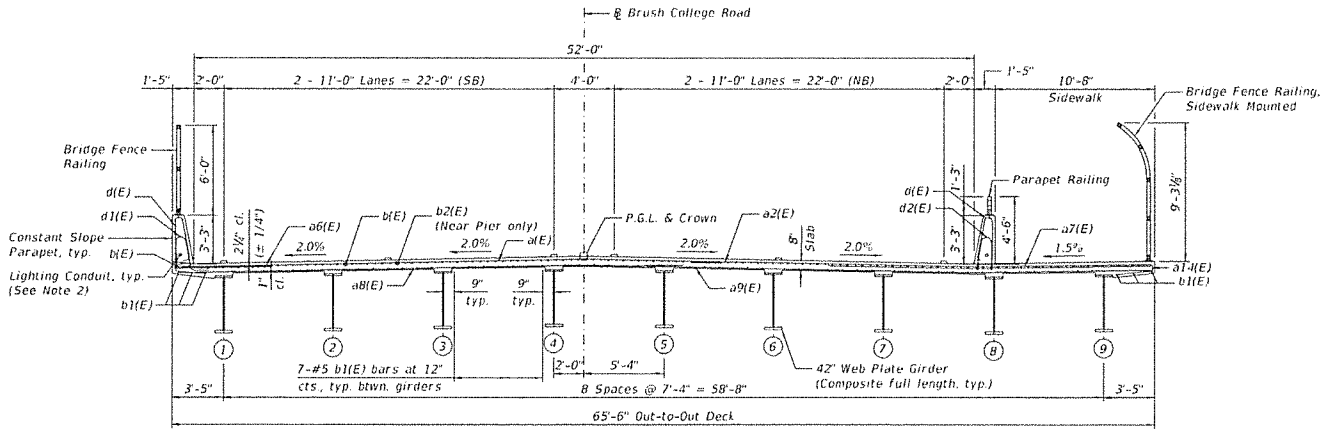
AECOM	USER NAME = Pedrick, Chris	DESIGNED - MK	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SUPERSTRUCTURE STRUCTURE NO. 058-9202	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CHECKED - DD	REVISED -			7448	06-00933-01-BR	MACON	1019	679
	PLOT SCALE = 1:1	DRAWN - MK	REVISED -					CONTRACT NO. 95893		
	PLOT DATE = 4/29/2021	CHECKED - DD	REVISED -		SHEET NO. SF-9 OF SF-35 SHEETS			ILLINOIS FED. AID PROJECT		

EXHIBIT B



CROSS SECTION

(Looking North)
Sta. 60+41.10 to Sta. 61+29.19



CROSS SECTION

(Looking North)
Sta. 61+29.19 to Sta. 62+46.19

NOTES:

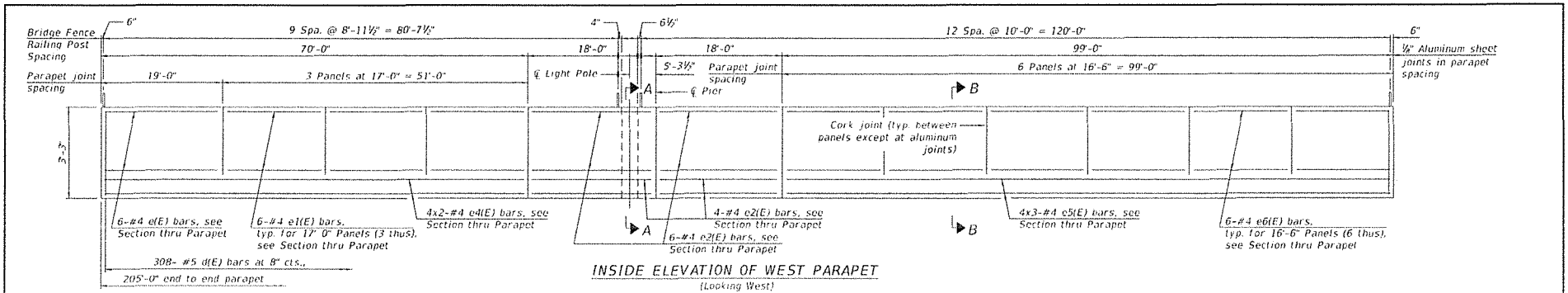
1. Dimensions shown are measured perpendicular to the Local Tangent unless otherwise noted.
2. For conduit and electrical details see Proposed Lighting Plan sheets.

* East Parapet overhand varies 2'-6" to 3'-5⅛" measured at Rt. ℄'s to ℄ Brush College Road

** Dimensions measured @ Rt. ℄'s to the ℄ Brush College Road

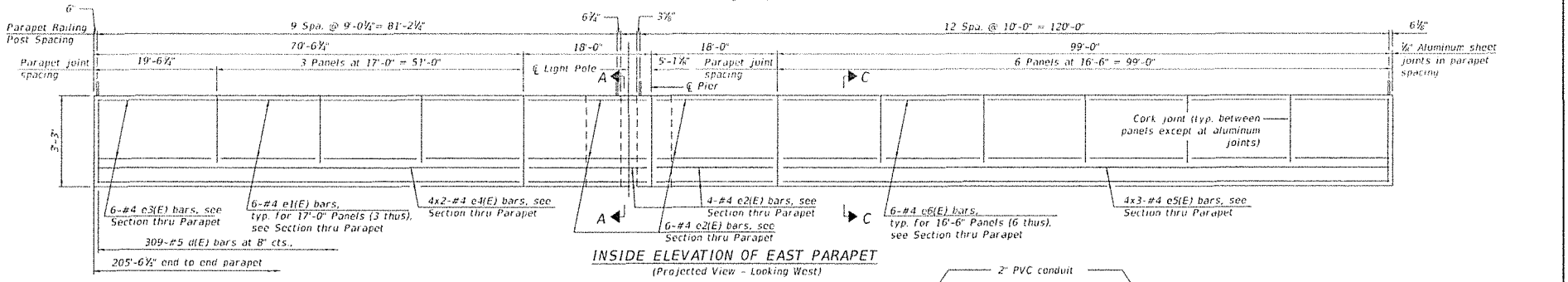
AECOM	USER NAME = mpenk+cmrsm	DESIGNED - MK	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SUPERSTRUCTURE DETAILS I STRUCTURE NO. 058-9202	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS / SHEET NO.
		CHECKED - DD	REVISED -			7448	09-00933-01-BR	MACON	1015 / FRD
	PLOT SCALE = N.T.S.	DRAWN - MK	REVISED -					CONTRACT NO. 95693	
	PLOT DATE = 6/29/2021	CHECKED - DD	REVISED -		SHEET NO. SF-10 OF SF-35 SHEETS		ILLINOIS FED. AID PROJECT		

EXHIBIT B



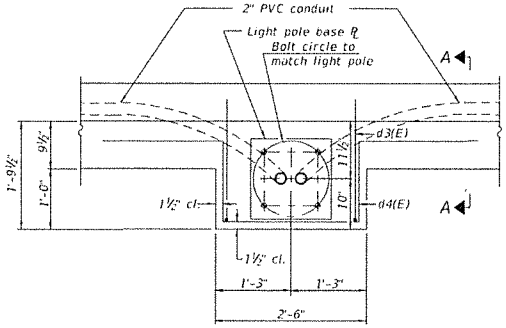
INSIDE ELEVATION OF WEST PARAPET

(Looking West)

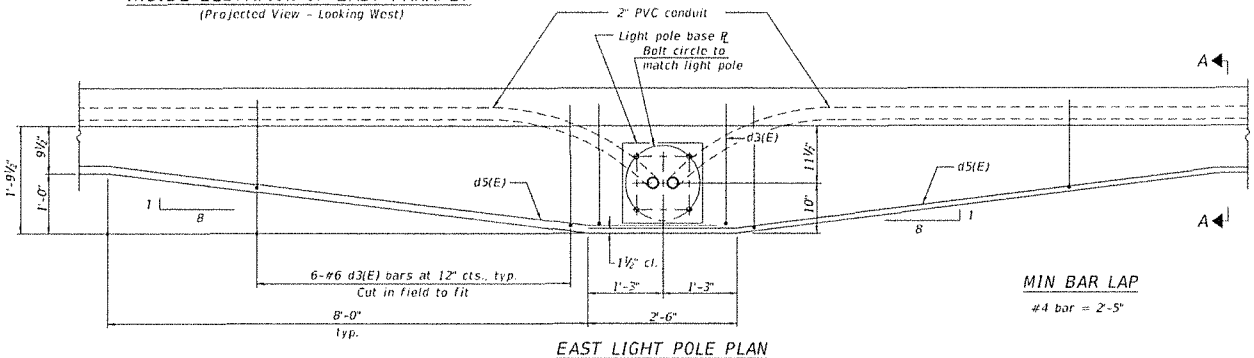


INSIDE ELEVATION OF EAST PARAPET

(Projected View - Looking West)



WEST LIGHT POLE PLAN



EAST LIGHT POLE PLAN

MIN BAR LAP

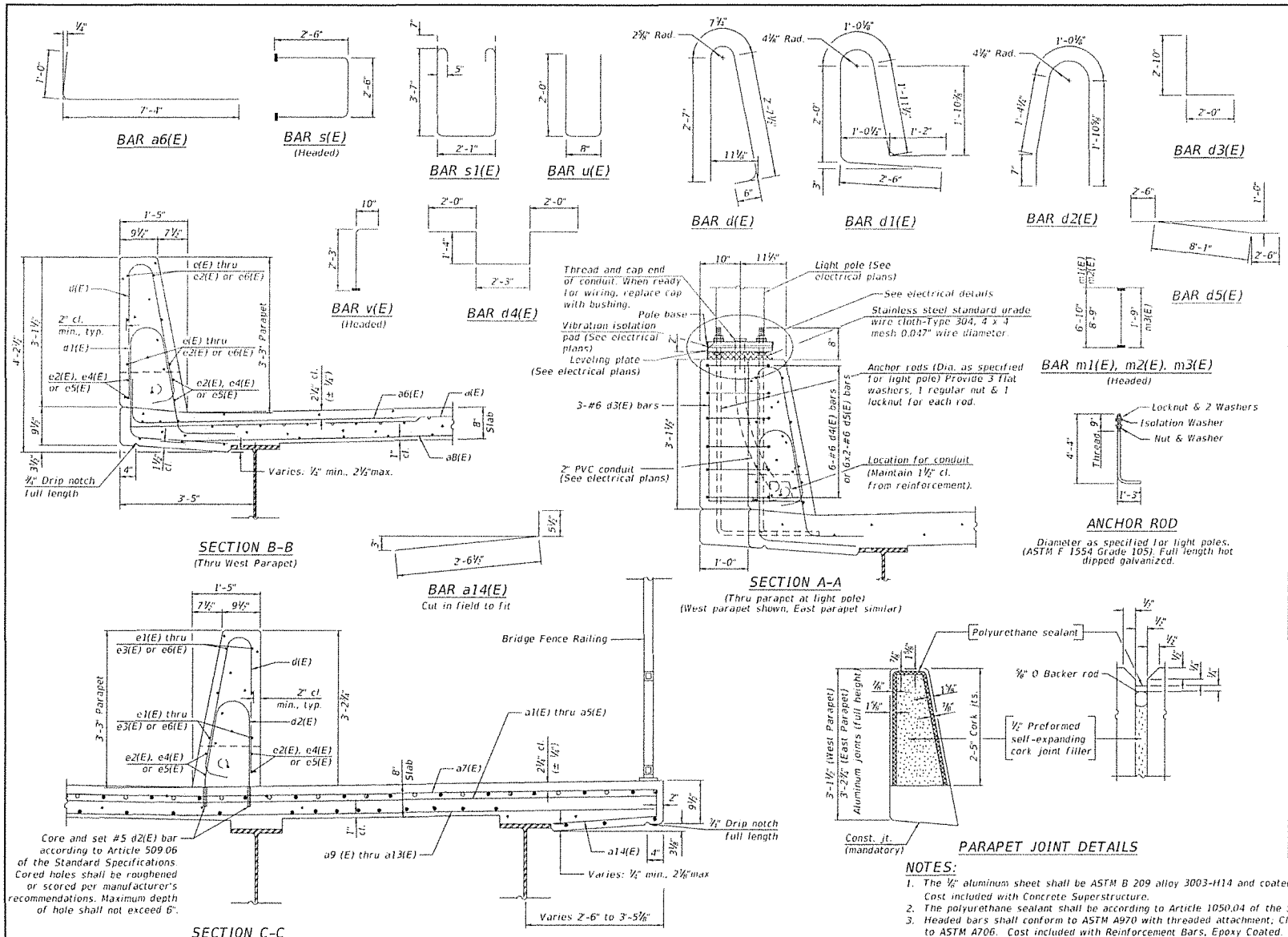
#4 bar = 2'-5"

NOTES:

1. See Sheet SF-12 for sections thru parapets.
2. Parapet joint spacing measured along inside face of parapet.
3. Bars indicted thus 4x2-#4 etc. indicates 4 lines of bars with 2 lengths per line.
4. See Sheet SF-12 for bar details and Bill of Material.
5. Railing post spacing measured along centerline of posts.
6. See Sheet SF-17 for west parapet mounted bridge fence railing details.
7. See Sheet SF-19 for east parapet mounted railing details.
8. For conduit and electrical details see Proposed Lighting Plan sheets.

AECOM	USER NAME = mkenna	DESIGNED - MK	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SUPERSTRUCTURE DETAILS II STRUCTURE NO. 058-9202	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CHECKED - DD	REVISED -			744R	09-00933-01-BR	MACON	1019	681
	PLOT SCALE = N/A S	DRAWN - MK	REVISED -					CONTRACT NO. 95893		
	PLOT DATE = 4/28/2021	CHECKED - DD	REVISED -		SHEET NO. SF-11 OF SF-35 SHEETS			ILLINOIS FED. AID PROJECT		

EXHIBIT B



SUPERSTRUCTURE BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a(E)	493	#5	40'-0"	
a1(E)	39	#5	38'-6"	
a2(E)	287	#5	28'-11"	
a3(E)	41	#5	36'-8"	
a4(E)	53	#5	34'-9"	
a5(E)	73	#5	32'-4"	
a6(E)	493	#6	8'-4"	
a7(E)	493	#6	21'-6"	
a8(E)	308	#5	35'-0"	
a9(E)	179	#5	33'-11"	
a10(E)	20	#5	43'-6"	
a11(E)	26	#5	42'-0"	
a12(E)	32	#5	40'-1"	
a13(E)	51	#5	37'-8"	
a14(E)	309	#5	3'-0"	
b(E)	476	#5	32'-4"	
b1(E)	536	#5	28'-9"	
b2(E)	189	#6	24'-10"	
b3(E)	1	#5	8'-0"	
b4(E)	1	#5	14'-11"	
b5(E)	1	#5	22'-3"	
b6(E)	6	#5	30'-1"	
b7(E)	1	#5	36'-3"	
b8(E)	5	#5	25'-4"	
d(E)	617	#5	6'-5"	
d1(E)	308	#5	8'-8"	
d2(E)	309	#5	4'-10"	
d3(E)	18	#6	4'-10"	
d4(E)	6	#6	8'-11"	
d5(E)	12	#6	13'-1"	
e(E)	6	#4	18'-8"	
e1(E)	36	#4	16'-8"	
e2(E)	40	#4	17'-8"	
e3(E)	6	#4	19'-3"	
e4(E)	16	#4	36'-4"	
e5(E)	24	#4	26'-6"	
e6(E)	72	#4	16'-2"	
m(E)	15	#6	26'-11"	
m1(E)	22	#6	6'-10"	
m2(E)	10	#6	8'-9"	
m3(E)	8	#6	1'-9"	
m4(E)	22	#6	6'-10"	
m5(E)	10	#6	8'-9"	
m6(E)	8	#6	1'-9"	
m7(E)	10	#6	33'-5"	
m8(E)	6	#4	26'-1"	
m9(E)	6	#4	22'-9"	
s(E)	130	#5	7'-6"	
s1(E)	130	#5	10'-6"	
u(E)	130	#4	4'-8"	
v(E)	142	#5	3'-1"	
Concrete Superstructure			Cu. Yd.	493.5
Bridge Deck Grooving			Sq. Yd.	1,168
Protective Coat			Sq. Yd.	1,769
Reinforcement Bars, Epoxy Coated			Lbs.	139,250

NOTES:

1. The ⅛" aluminum sheet shall be ASTM B 209 alloy 3003-H14 and coated to minimize reaction with wet concrete. Cost included with Concrete Superstructure.
2. The polyurethane sealant shall be according to Article 1050.04 of the Std. Spec. and the color shall be gray.
3. Headed bars shall conform to ASTM A970 with threaded attachment; Class HA; and reinforcement bars conforming to ASTM A706. Cost included with Reinforcement Bars, Epoxy Coated.
4. Cost of anchor rods for light pole foundation included with Concrete Superstructure.
5. For conduit and electrical details see Proposed Lighting Plan sheets.

AECOM

USER NAME = mdrea1@aecom	DESIGNED - MK	REVISED -	
	CHECKED - DD	REVISED -	
PLOT SCALE = NTS	DRAWN - MK	REVISED -	
PLOT DATE = 4/29/2021	CHECKED - DD	REVISED -	

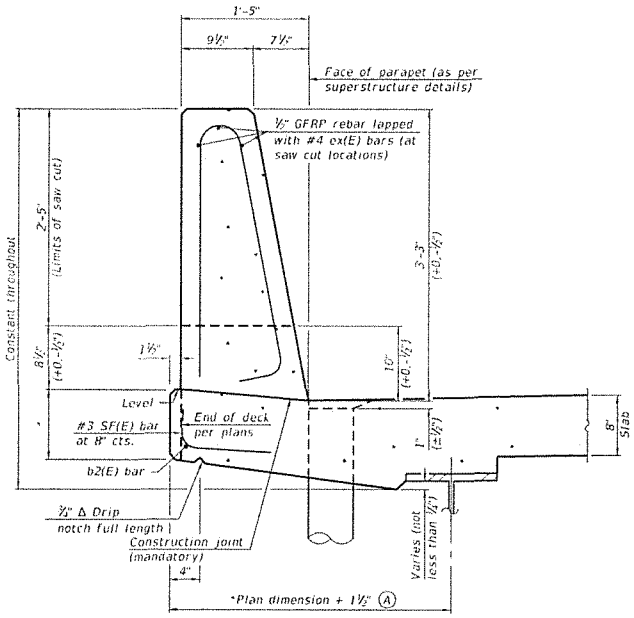
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUPERSTRUCTURE DETAILS III
STRUCTURE NO. 058-9202

SHEET NO. SF-12 OF SF-15 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7448	D6-00933-01-BR	MACON	1019	682
		CONTRACT NO. 95893		
	SUBMITTED FOR AID PROJECT			

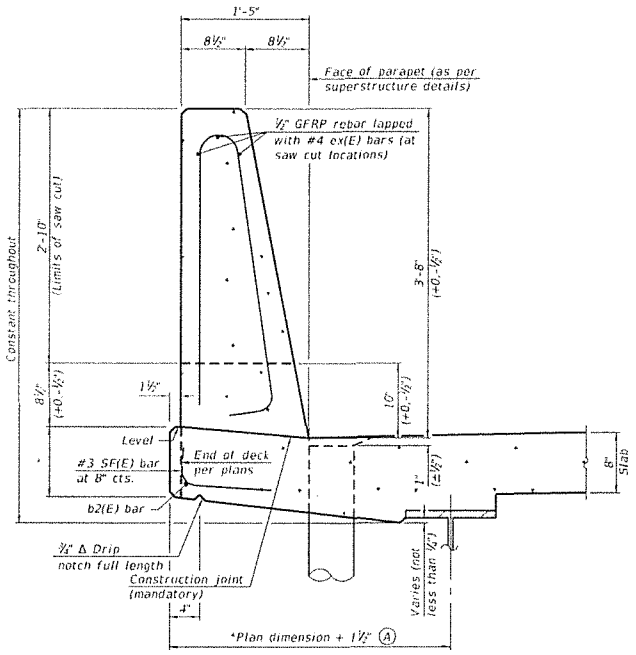
EXHIBIT B



39" CONSTANT-SLOPE PARAPET SECTION

(Showing dimensions, d(E), and ½" Ø GFRP rebar)

*See Superstructure Details.



44" CONSTANT-SLOPE PARAPET SECTION

(Showing dimensions, d(E), and ½" Ø GFRP rebar)

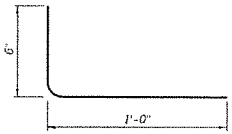
Notes:

All dimensions shall remain the same as shown on superstructure details, except dimension A which is to be revised as shown. Additional concrete needed to revise dimension A = 0.00348 cu. yds./ft. for 39" and 44" parapets.

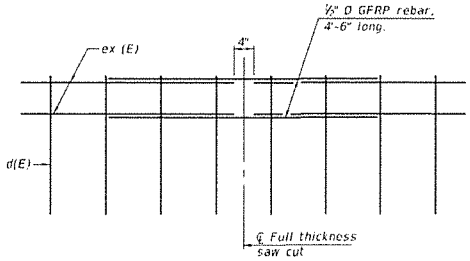
Place full depth aluminum sheets as shown on superstructure details.

Replace all cork joint filler locations with a full thickness saw cut.

Steel superstructure shown. Other superstructure types similar.



#3 (E) BAR



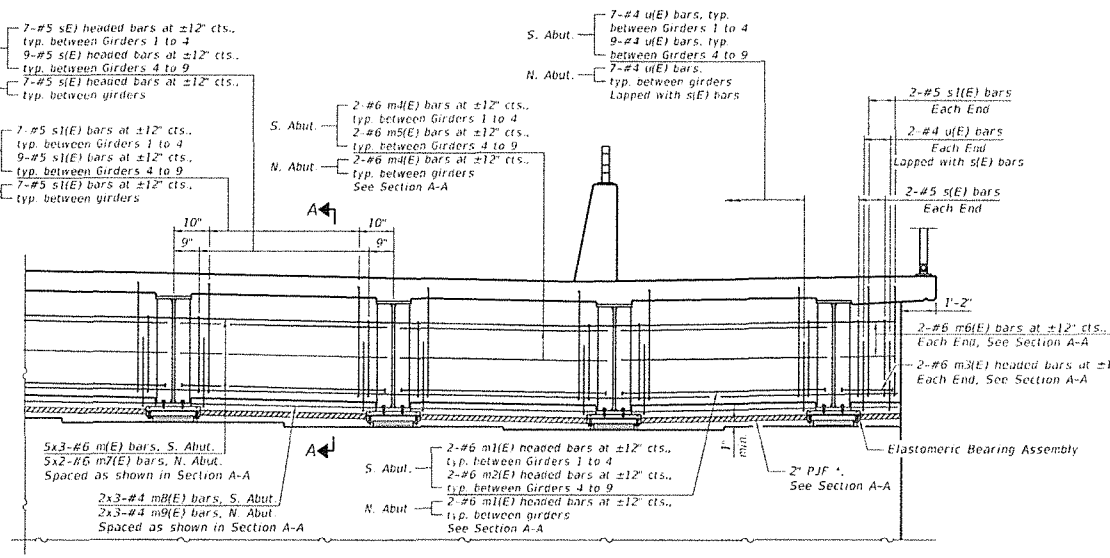
GFRP REBAR STIFFENING DETAIL

(Place as shown in parapet section at each parapet joint location.)

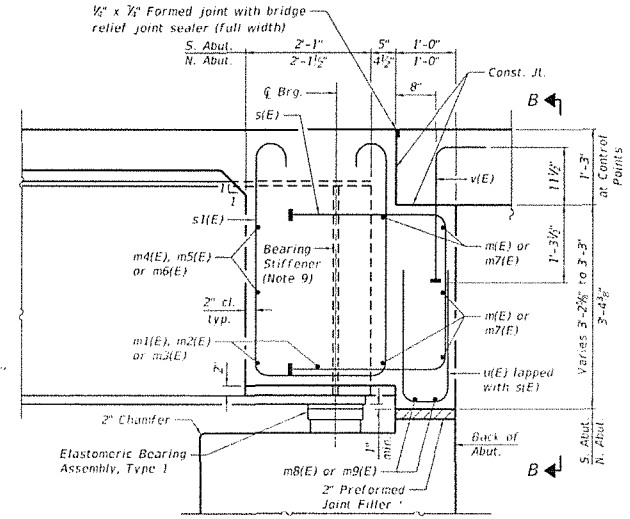
SFP 39-44 1-1-2020

AECOM	USER NAME = mcrick	DESIGNED - JP	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	CONCRETE PARAPET SLIPFORMING OPTION STRUCTURE NO. 058-9202	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CHECKED - MCC	REVISED -			7448	04-00933-01-BR	MACON	1819	683
	PLOT SCALE = N/S	DRAWN - JP	REVISED -					CONTRACT NO. 96693		
	PLOT DATE = 4/29/2021	CHECKED - MCC	REVISED -		SHEET NO. SF-33 OF SF-35 SHEETS			BRIDGE	FED. AID PROJECT	

EXHIBIT B



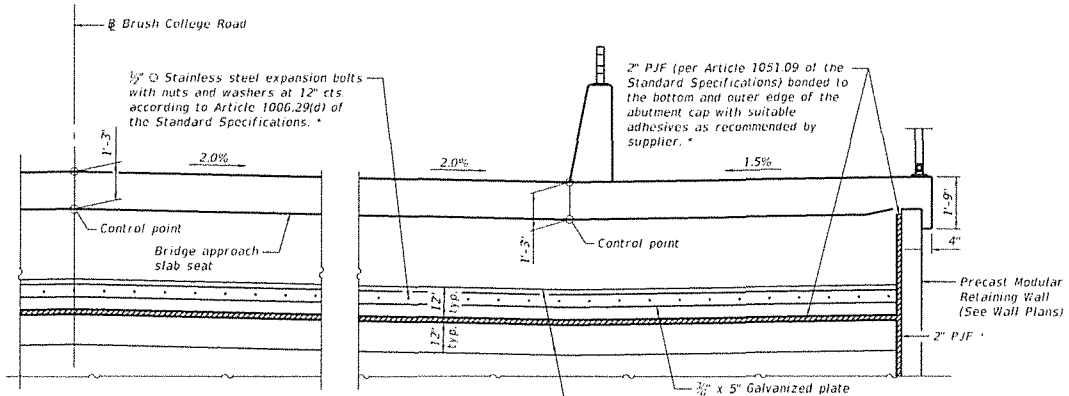
DIAPHRAGM AT ABUTMENT



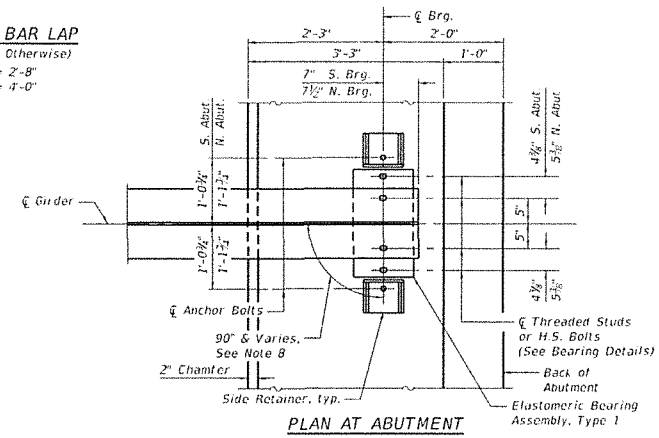
SECTION A-A

MINIMUM BAR LAP
(Unless Noted Otherwise)
#4 bar = 2'-8"
#6 bar = 4'-0"

* Cost included with Concrete Superstructure



VIEW B-B
(Looking at back of abutment)



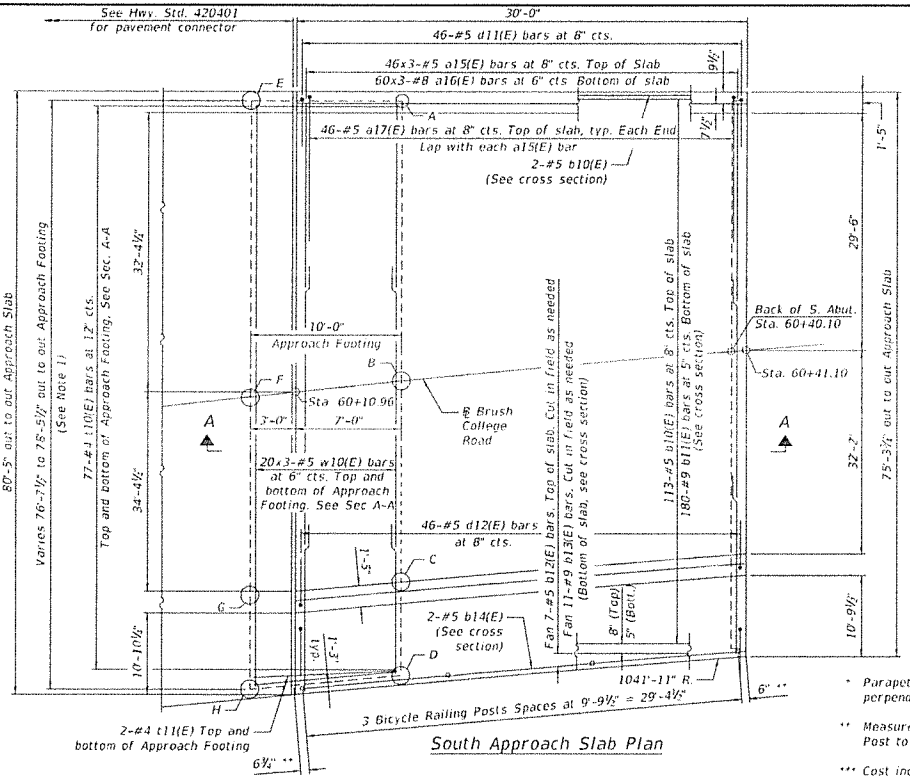
PLAN AT ABUTMENT
(Showing bottom flange of girder)

NOTES

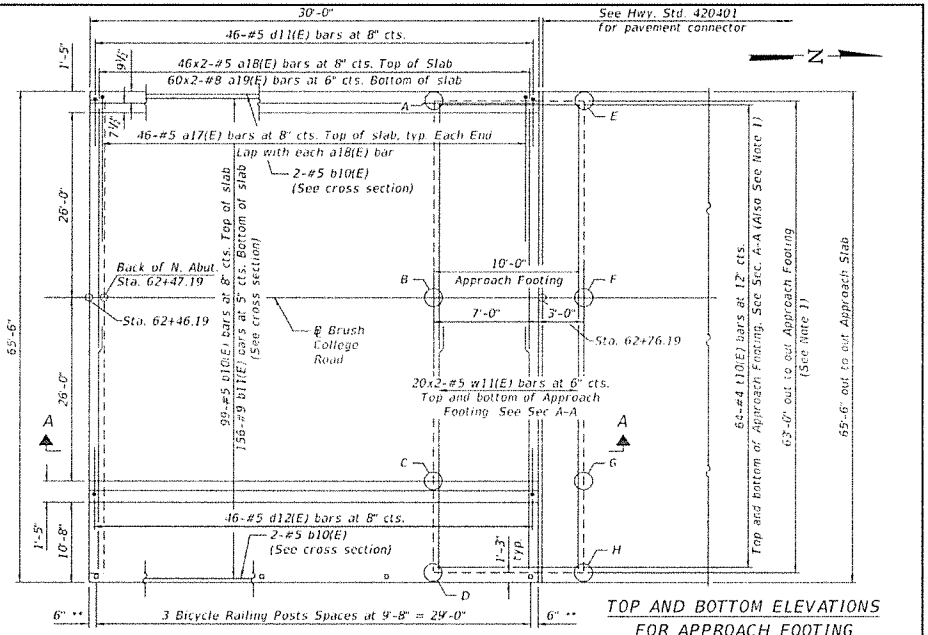
1. Reinforcement bars in diaphragm are billed with superstructure on Sheet SF-12.
2. Bars indicated thus 5x3-#6 etc. indicates 5 lines of bars with 3 lengths per line.
3. Concrete in diaphragm is included with Concrete Superstructure on Sheet SF-12.
4. For details of bars s(E), s1(E), u(E) and v(E) see Sheet SF-12.
5. The s(E), s1(E), u(E) and v(E) bars shall be placed parallel to the girders. Spacing for those bars shall be at right angles to the girders.
6. The approach slab seat shall have a constant slope determined from the control points shown.
7. For bearing details see Sheet SF-25.
8. For anchor bolt layout on abutment cap, see Sheets SF-26 & SF-27.
9. Bearing stiffeners placed at right angles to girder web.
10. Girders shall be braced for stability during erection and remain braced until deck is poured and cured.

AECOM	USER NAME = marcia.cotton	DESIGNED - MCC	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	DIAPHRAGM DETAILS STRUCTURE NO. 058-9202	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CHECKED - DD	REVISED -			7448	09-00913-01-BR	MACON	1019	684
	PLOT SCALE = N/A	DRAWN - MCC	REVISED -					CONTRACT NO. 95693		
	PLOT DATE = 4/29/2021	CHECKED - DD	REVISED -		SHEET NO. SF-14 OF SF-35 SHEETS			BUDGET FY: AD PROJECT		

EXHIBIT B



South Approach Slab Plan



North Approach Slab Plan

* Parapet dimension measured perpendicular to ℄

** Measured from ℄ Bicycle Railing Post to end of approach slab

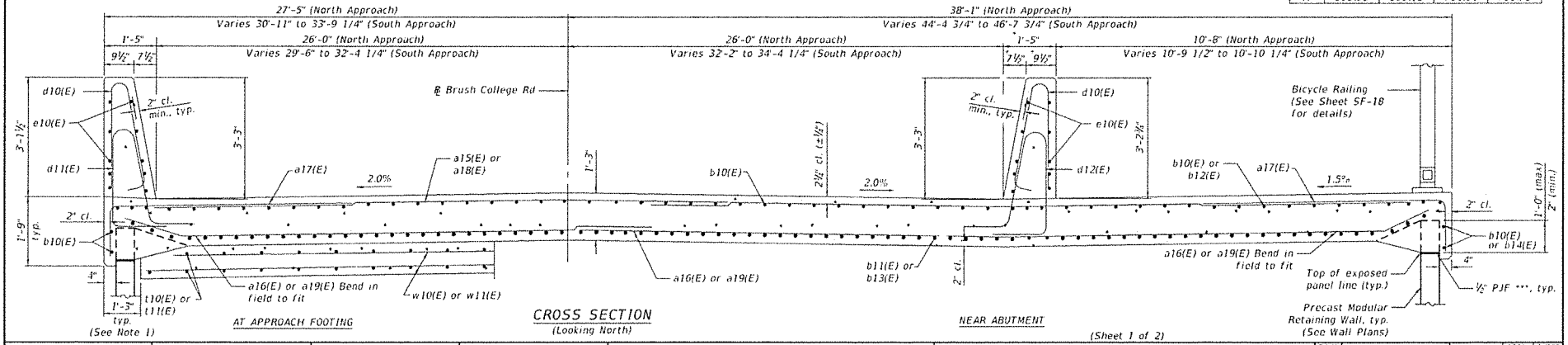
*** Cost included in Concrete Superstructure (Approach Slab)

MIN BAR LAP

#5 bar = 3'-4"
#8 bar = 4'-9"

TOP AND BOTTOM ELEVATIONS FOR APPROACH FOOTING

	South Approach		North Approach	
Point	Top	Bottom	Top	Bottom
A	700.41	699.57	701.65	700.82
B	700.95	700.12	702.17	701.34
C	700.17	699.34	701.65	700.82
D	700.30	699.46	701.82	700.98
E	700.10	699.27	701.44	700.61
F	700.65	699.82	701.97	701.13
G	699.84	699.01	701.44	700.61
H	699.96	699.13	701.61	700.78

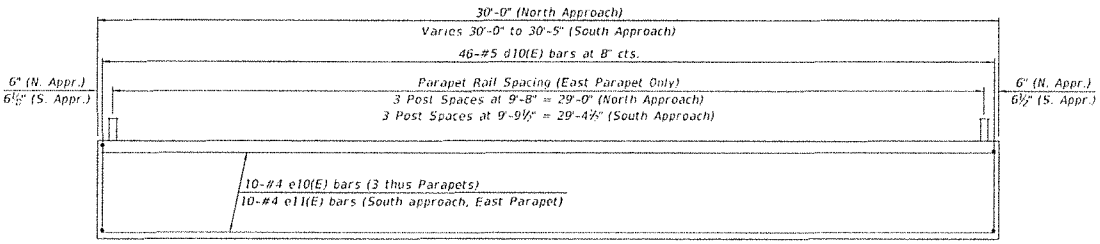


CROSS SECTION
(Looking North)

(Sheet 1 of 2)

AECOM	USER NAME = mehaus1	DESIGNED - BP	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	BRIDGE APPROACH SLAB DETAILS I STRUCTURE NO. 058-9202	FAU RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CHECKED - DD	REVISED -			7448	09-00933-01-BR	MACON	1019	685
	PLOT SCALE = N.T.S.	DRAWN - BP	REVISED -					CONTRACT NO. 95893		
	PLOT DATE = 4/28/2021	CHECKED - DD	REVISED -		SHEET NO. SF-15 OF SF-35 SHEETS			ILLINOIS FED. AID PROJECT		

EXHIBIT B

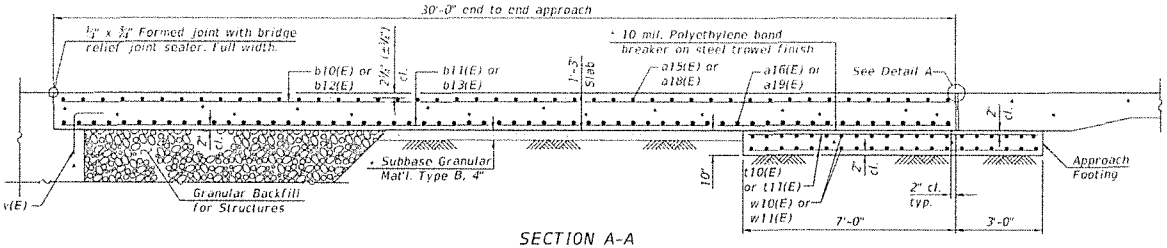


INSIDE ELEVATION OF PARAPET

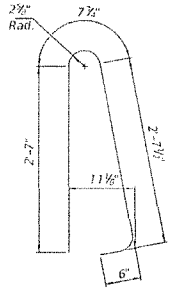
(Looking East)

NOTES:

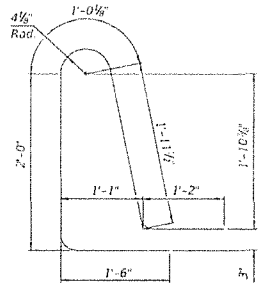
1. The joint opening shall be adjusted for temperature per Article 520.04 of the Standard Specifications. However, since this detail is for jointless structures, the length of bridge used to calculate the adjustment shall be equal to half the total bridge length plus the length of the bridge approach slab.
2. Parapet concrete shall be paid for as Concrete Superstructure.
3. Approach slab shall be paid for as Concrete Superstructure (Approach Slab).
4. Approach footing concrete shall be paid for as Concrete Structures.
5. The approach footing maximum applied service bearing pressure (Qmax) = 2.0 ksf.
6. Cost of excavation for approach footing included with Concrete Structures.
7. For Granular Backfill for Structures and drainage treatment details, see Sheet SF-2.
8. See Sheet SF-1B for parapet railing details.



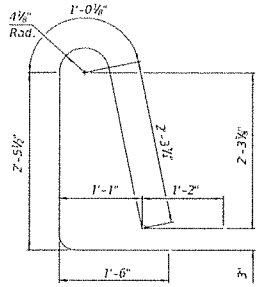
SECTION A-A



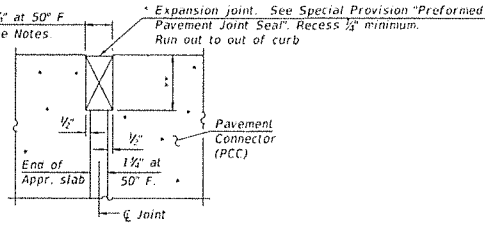
BAR d10(E)



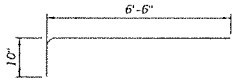
BAR d11(E)



BAR d12(E)



DETAIL A



BAR a17(E)

TWO APPROACHES
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a15(E)	138	#5	28'-1"	
a16(E)	180	#8	29'-2"	
a17(E)	184	#5	7'-4"	
a18(E)	92	#5	33'-0"	
a19(E)	120	#8	33'-11"	
b10(E)	216	#5	29'-8"	
b11(E)	336	#9	29'-8"	
b12(E)	7	#5	27'-6"	
b13(E)	11	#9	27'-0"	
b14(E)	2	#5	30'-1"	
d10(E)	184	#5	6'-5"	
d11(E)	92	#5	7'-8"	
d12(E)	92	#5	8'-6"	
e10(E)	30	#4	29'-8"	
e11(E)	10	#4	30'-1"	
t10(E)	282	#4	9'-8"	
t11(E)	4	#4	9'-10"	
w10(E)	120	#5	28'-3"	
w11(E)	80	#5	33'-0"	
Concrete Superstructure			Cu. Yd.	15.7
Concrete Superstructure (Approach Slab)			Cu. Yd.	199.9
Bridge Deck Grooving			Sq. Yd.	350
Protective Coat			Sq. Yd.	536
Concrete Structures			Cu. Yd.	43.4
Reinforcement Bars, Epoxy Coated			Pound	87,130

* Cost included with Concrete Superstructure (Approach Slab).

** Per manufacturer recommendations

(Sheet 2 of 2)

AECOM

USER NAME = Michael Pringle	DESIGNED - BP	REVISED -
	CHECKED - DD	REVISED -
PLOT SCALE = N.T.S.	DRAWN - BP	REVISED -
PLOT DATE = 9/29/2021	CHECKED - DD	REVISED -

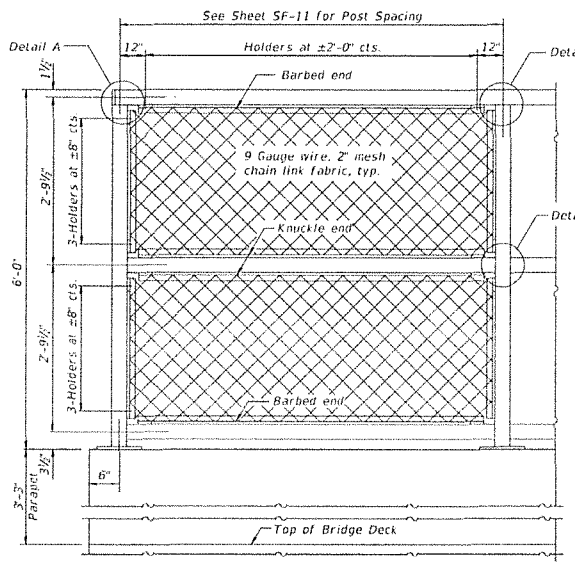
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BRIDGE APPROACH SLAB DETAILS II
STRUCTURE NO. 058-9202

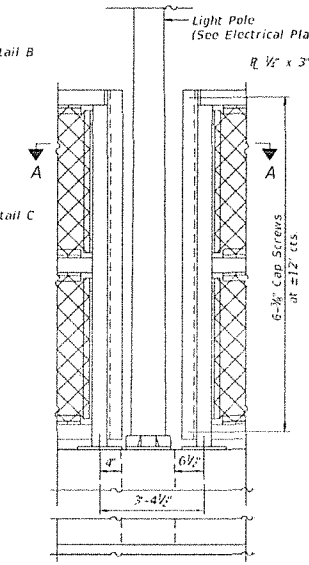
SHEET NO. SF-1G OF SF-35 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7448	09-00933-01-BR	MACON	1019	686
		CONTRACT NO. 95093		
		ILLINOIS FED. AID PROJECT		

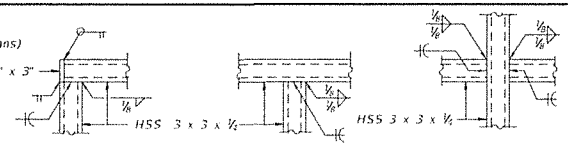
EXHIBIT B



ELEVATION
(Inside Face)

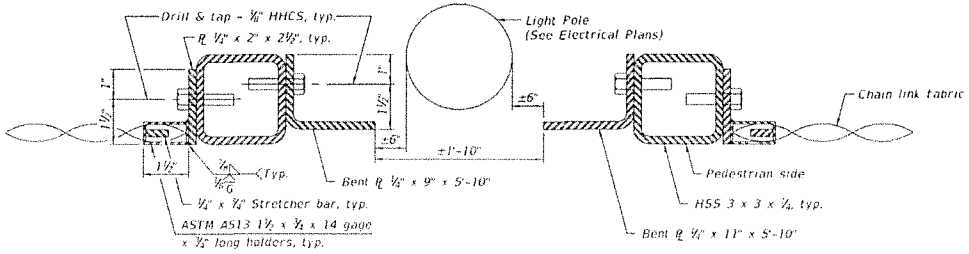


ELEVATION
(At Light Pole)

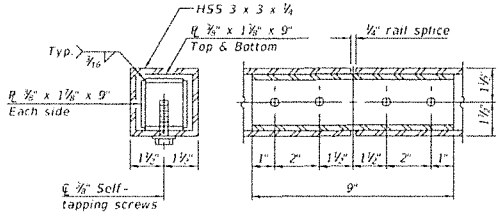


DETAIL A DETAIL B DETAIL C

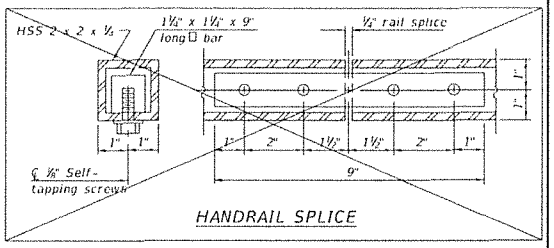
Notes.
CVN testing may be omitted for the railing.
All steel rail elements shall be galvanized according to Article 509.05 of the Standard Specifications.



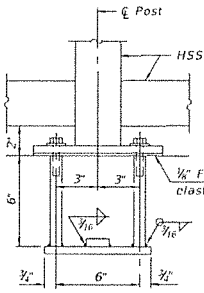
SECTION A-A

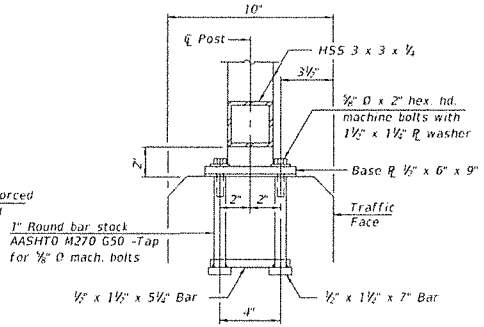


RAIL SPLICE



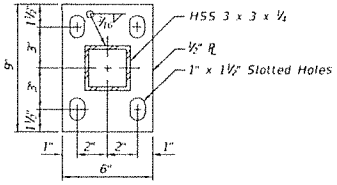
HANDRAIL SPLICE



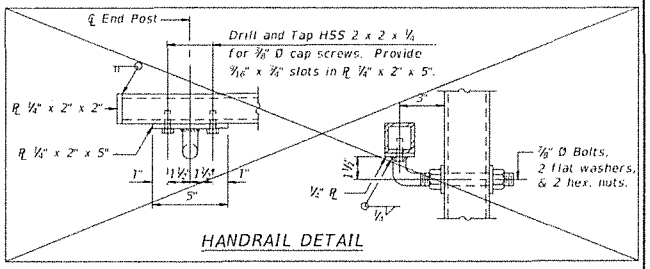


ANCHOR BOLT DETAILS

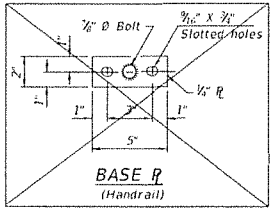
In lieu of the cast-in-place anchor device shown, the Contractor has the option of drilling and setting ⅝" Ø anchor rods according to Article 509.06 of the Standard Specifications. Embedment shall be according to the manufacturer's specifications.



BASE ℄



HANDRAIL DETAIL



BASE ℄
(Handrail)

BILL OF MATERIAL

Item	Unit	Quantity
Bridge Fence Railing	Foot	205

R-28 2-17-2017 (10'-0" Maximum Post Spacing)

AECOM

USER NAME = mccallington	DESIGNED - TIP	REVISED -
	CHECKED - MCC	REVISED -
PLOT SCALE = 0.75	DRAWN - TIP	REVISED -
PLOT DATE = 02/24/2021	CHECKED - MCC	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

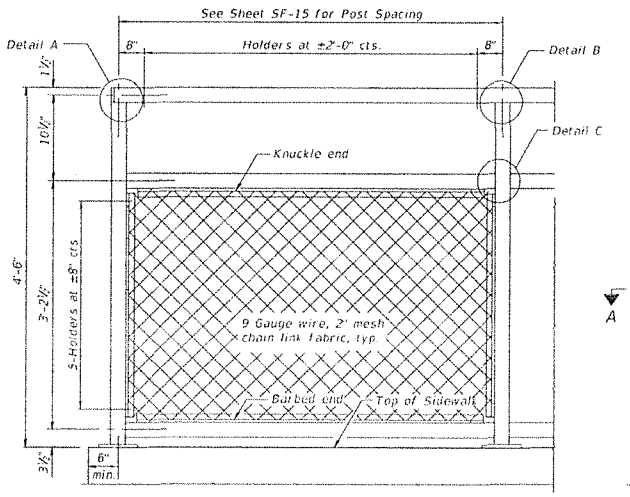
BRIDGE FENCE RAILING, PARAPET MOUNTED
STRUCTURE NO. 058-9202

SHEET NO. SF-17 OF SF-35 SHEETS

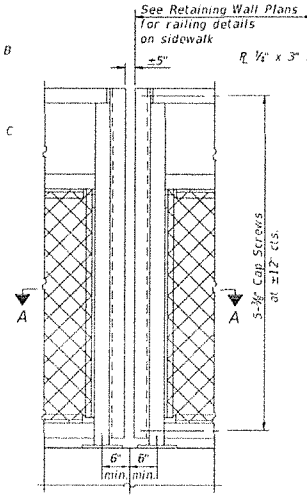
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7448	09-00933-01-BR	MACON	1039	687
		CONTRACT NO. 95E93		

BIDBOX FED. AID PROJECT

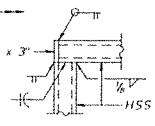
EXHIBIT B



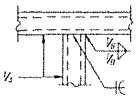
BICYCLE RAILING



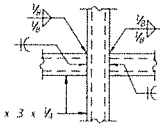
BICYCLE RAILING



DETAIL A

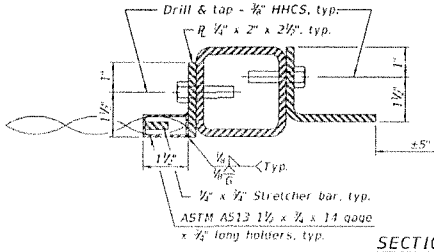


DETAIL B

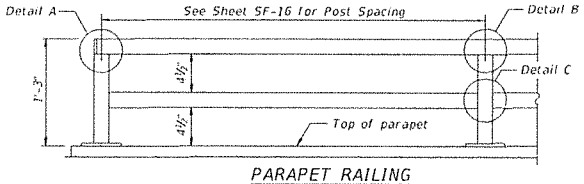


DETAIL C

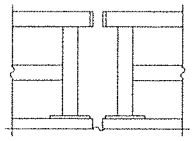
Notes:
All structural steel tubing, post and railing, for parapet railing shall be CVN tested according to 1006.34(b) of the Standard Specifications.
CVN testing may be omitted for the Bicycle Railing.
All steel rail elements shall be galvanized according to Article 509.05 of the Standard Specifications.



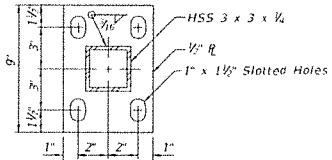
SECTION A-A



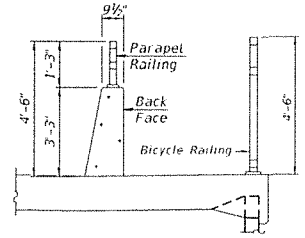
PARAPET RAILING ELEVATION
(Inside Face of Two Element Rail)



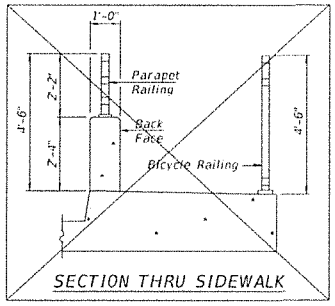
PARAPET RAILING ELEVATION AT EXPANSION JOINT
(Two Element Rail Shown - Three Element Rail Similar)



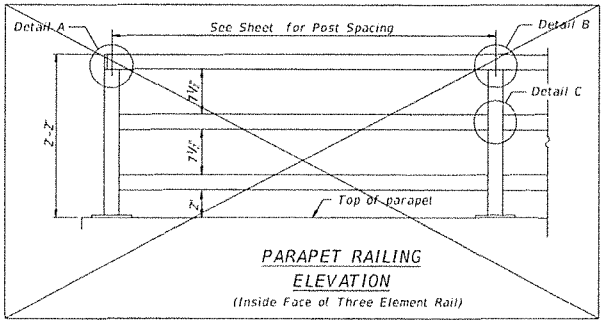
BASE PL



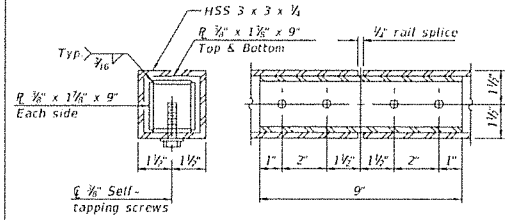
SECTION THRU APPROACH SLAB



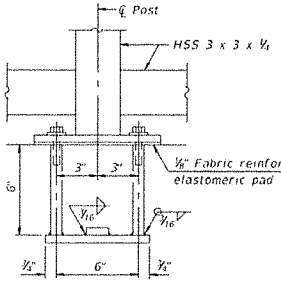
SECTION THRU SIDEWALK

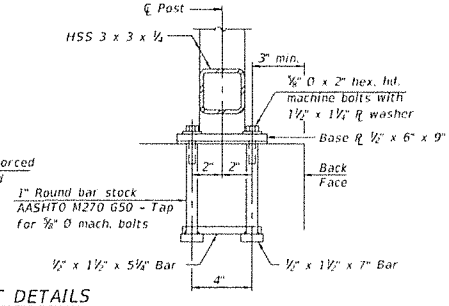


PARAPET RAILING ELEVATION
(Inside Face of Three Element Rail)



RAIL SPLICE





ANCHOR BOLT DETAILS

In lieu of the cast-in-place anchor device shown, the Contractor has the option of drilling and setting ⅝" Ø anchor rods according to Article 509.06 of the Standard Specifications. Embedment shall be according to the manufacturer's specifications.

BILL OF MATERIAL

Item	Unit	Quantity
Bicycle Railing	Foot	60
Parapet Railing	Foot	60

R-29 1-14-2019 (10'-0" Maximum Post Spacing)

AECOM

USER NAME = mercadcmgr	DESIGNED - JP	REVISED -	
	CHECKED - MCC	REVISED -	
PLOT SCALE = N.T.S.	DRAWN - JP	REVISED -	
PLOT DATE = 6/29/2021	CHECKED - MCC	REVISED -	

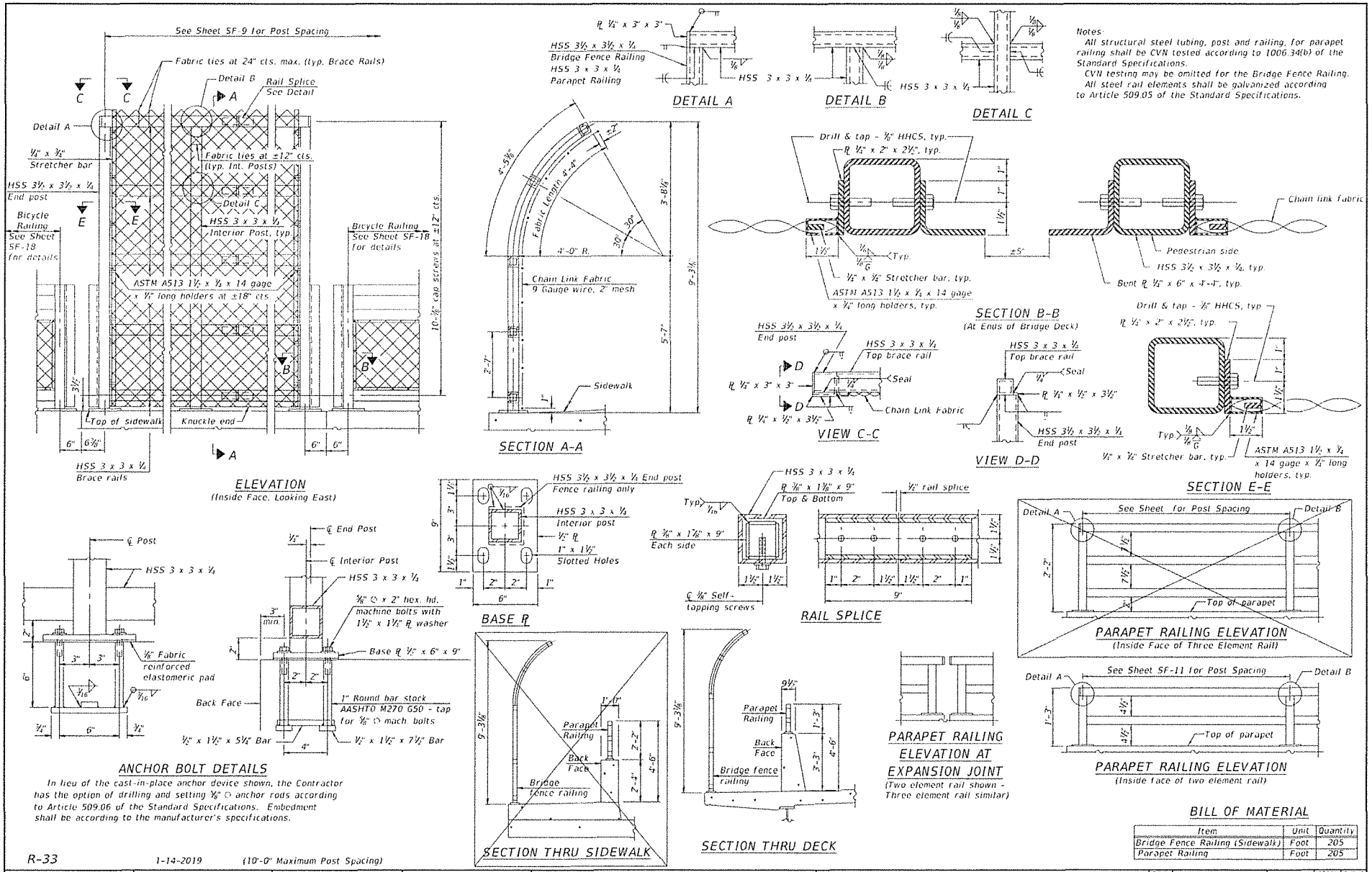
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BICYCLE RAILING
STRUCTURE NO. 058-9202

SHEET NO. SF-18 OF SF-35 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7448	09-00933-01-BR	MACON	1819	688
		CONTRACT NO. 96E93		
		ILLINOIS FED. AID PROJECT		

EXHIBIT B



BILL OF MATERIAL

Item	Unit	Quantity
Bridge Fence Railing (Sidewalk)	Foot	205
Parapet Railing	Foot	205

R-33 1-14-2019 (10'-0" Maximum Post Spacing)

AECOM

USER NAME = Patrick.Carter	DESIGNED - JJP	REVISED -	
	CHECKED - MCC	REVISED -	
PLOT SCALE = NTS	DRAWN - JJP	REVISED -	
PLOT DATE = 4/29/2021	CHECKED - MCC	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BRIDGE FENCE RAILING, SIDEWALK MOUNTED
STRUCTURE NO. 058-9202

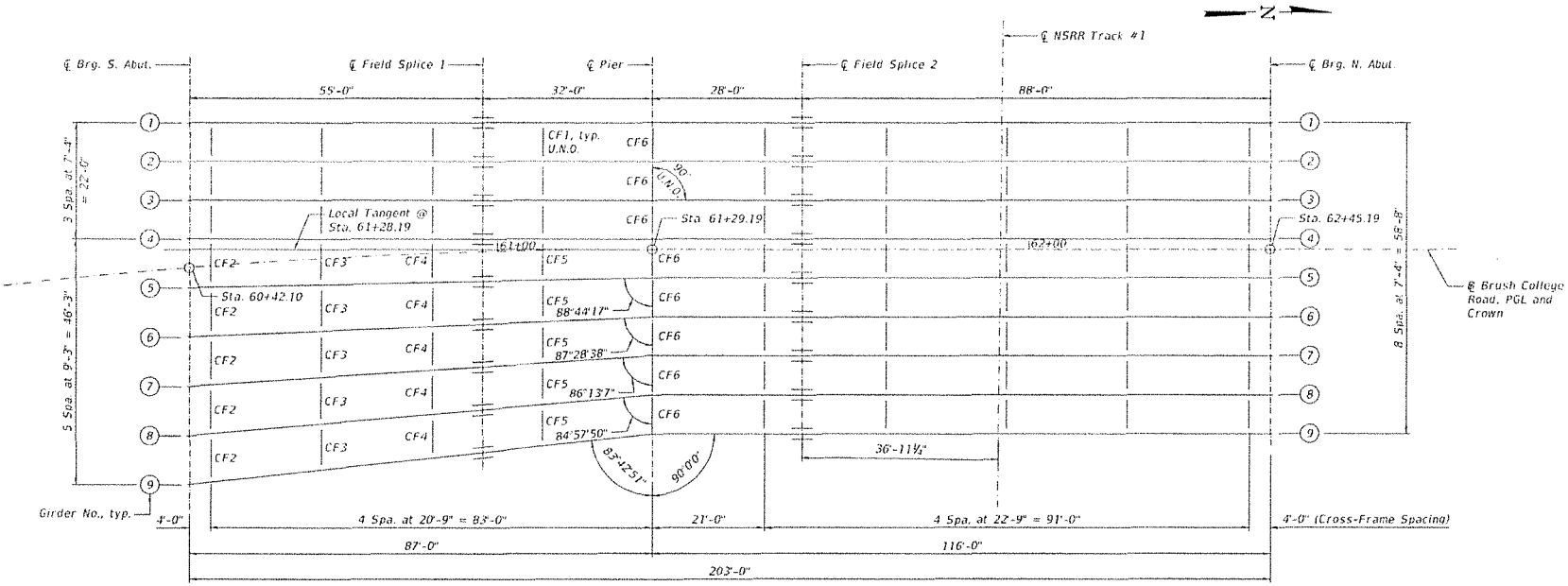
SHEET NO. SF-34 OF SF-35 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7448	09-00933-01-BR	MACON	1019	689

CONTRACT NO. 95693

ILLINOIS FED. AID PROJECT

EXHIBIT B



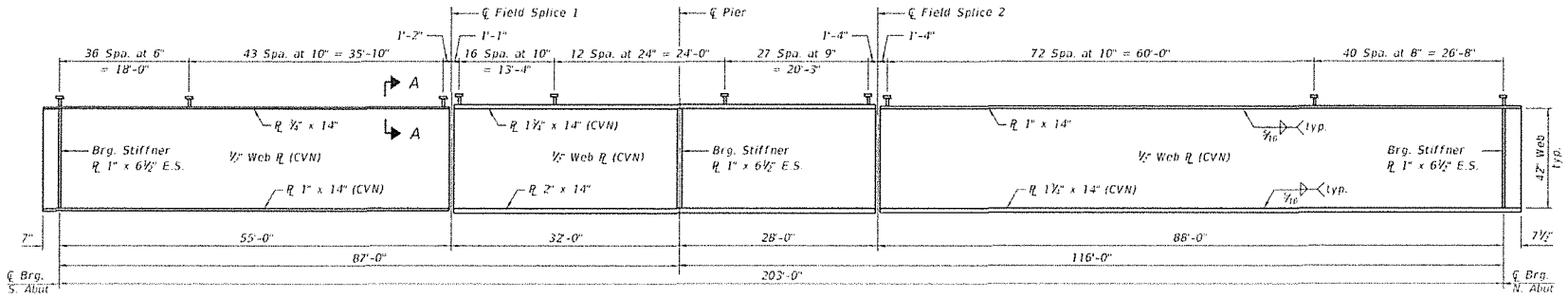
FRAMING PLAN

NOTE:

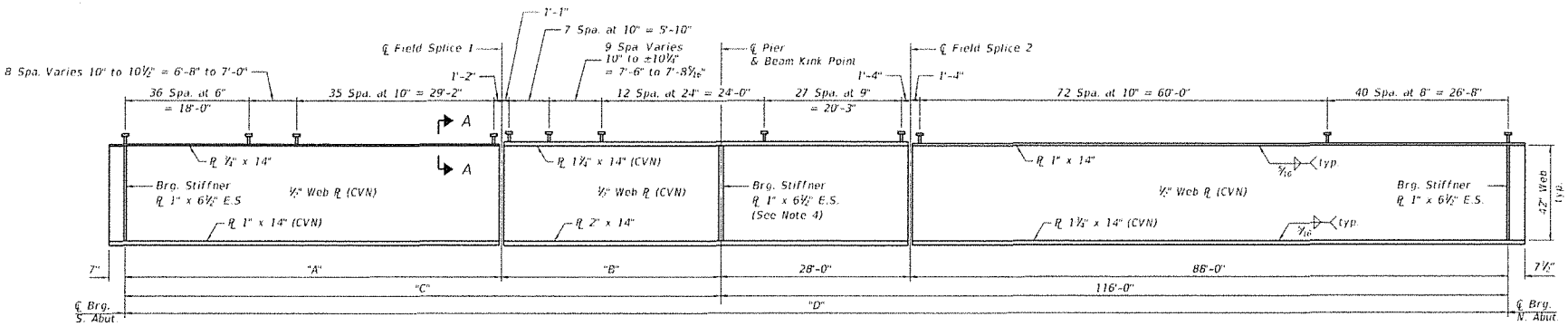
1. All structural steel shall be AASHTO M270 Grade 50.

AECOM	USER NAME = mckee.a.chase	DESIGNED - MCC	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	FRAMING PLAN STRUCTURE NO. 058-9202	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS / SHEET NO.
		CHECKED - DD	REVISED -			7448	09-00911-01-BR	MACON	1019 / 690
	PLOT SCALE = N.T.S.	DRAWN - MCC	REVISED -					CONTRACT NO. 95693	
	PLOT DATE = 6/29/2021	CHECKED - DD	REVISED -		SHEET NO. SF-20 OF SF-35 SHEETS			ILLINOIS FED. AID PROJECT	

EXHIBIT B



GIRDER ELEVATION - NO. 1 THRU 4



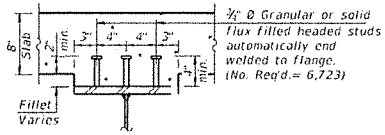
GIRDER ELEVATION - NO. 5 THRU 9

FLARED GIRDER DIMENSIONS

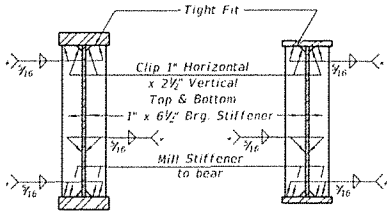
Girder	Dim. "A"	Dim. "B"	Dim. "C"	Dim. "D"
5	55'-0 1/8"	32'-0 7/16"	87'-0 9/16"	203'-0 1/4"
6	55'-0 3/8"	32'-0 3/8"	87'-1"	203'-1"
7	55'-1 7/16"	32'-0 13/16"	87'-2 1/4"	203'-2 1/4"
8	55'-2 9/16"	32'-1 1/2"	87'-4 1/16"	203'-4 7/16"
9	55'-4"	32'-2 9/16"	87'-6 9/16"	203'-6 9/16"

NOTES:

1. "CVN" denotes Charpy-V-Notch impact energy requirements, zone 2.
2. All structural steel shall be AASHTO M270 Grade 50.
3. E.S. = Each Side
4. Place bearing plate on tangent section of girder just north of beam kink point.



SECTION A-A



SECTION AT PIER

SECTION AT ABUTMENT

* Terminate ¼" (±⅛") from the end of plate intersects.

AECOM	USER NAME = mccarroll	DESIGNED - MCC	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	GIRDER ELEVATIONS STRUCTURE NO. 058-9202	FAP RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CHECKED - DD	REVISED -			744R	09-00933-01-BR	MACON	1029	691
	PLOT SCALE = N/S	DRAWN - MCC	REVISED -					CONTRACT NO. 96E93		
	PLOT DATE = 4/29/2021	CHECKED - DD	REVISED -		SHEET NO. SF-21 OF SF-35 SHEETS			ILLINOIS FED. AID PROJECT		

EXHIBIT B

EXTERIOR GIRDER MOMENT TABLE		0.4 Sp. 1	Pier	0.6 Sp. 2
Is	(in⁴)	14,229	28,291	20,362
Ic(n)	(in⁴)	39,998	-	56,253
Ic(3n)	(in⁴)	29,513	-	40,233
Ic(cr)	(in⁴)	-	33,833	-
Ss	(in³)	700	1,291	1,083
Sc(n)	(in³)	1,012	-	1,491
Sc(3n)	(in³)	928	-	1,371
Sc(cr)	(in³)	-	1,384	-
DC1	(k/')	0.91	1.00	0.95
MDC1	('k)	261	1,446	968
DC2	(k/')	0.25	0.25	0.25
MDC2	('k)	82	363	258
DW	(k/')	0.28	0.28	0.28
MDW	('k)	93	412	293
LLDF		0.576	0.581	0.554
M_{L+IM}	('k)	1,051	1,502	1,490
Mu (Strength I)	('k)	2,408	5,508	4,580
Øf Mn	('k)	5,264	-	7,041
fs DC1	(ksi)	4.5	13.4	10.7
fs DC2	(ksi)	1.1	3.1	2.3
fs DW	(ksi)	1.2	3.6	2.6
fs (L+IM)	(ksi)	12.5	13.0	12.0
fs (Service II)	(ksi)	22.9	37.1	31.1
0.95Rh Fyf	(ksi)	47.5	47.5	47.5
fs (Total)(Strength I)	(ksi)	-	48.9	-
Øf Fn	(ksi)	-	50.0	-
Vf	(k)	63.7	61.6	59.6

STRAIGHT INTERIOR GIRDER MOMENT TABLE		0.4 Sp. 1	Pier	0.6 Sp. 2
Is	(in⁴)	14,229	28,291	20,362
Ic(n)	(in⁴)	40,308	-	56,757
Ic(3n)	(in⁴)	29,836	-	40,696
Ic(cr)	(in⁴)	-	34,011	-
Ss	(in³)	700	1,291	1,083
Sc(n)	(in³)	1,014	-	1,494
Sc(3n)	(in³)	931	-	1,376
Sc(cr)	(in³)	-	1,387	-
DC1	(k/')	0.96	1.05	1.00
MDC1	('k)	276	1,522	1,018
DC2	(k/')	0.25	0.25	0.25
MDC2	('k)	82	363	258
DW	(k/')	0.37	0.37	0.37
MDW	('k)	120	532	379
LLDF		0.582	0.587	0.559
M_{L+IM}	('k)	1,062	1,517	1,505
Mu (Strength I)	('k)	2,486	5,809	4,797
Øf Mn	('k)	5,259	6,360	7,084
fs DC1	(ksi)	4.7	14.1	11.3
fs DC2	(ksi)	1.1	3.1	2.3
fs DW	(ksi)	1.5	4.6	3.3
fs (L+IM)	(ksi)	12.6	13.1	12.1
fs (Service II)	(ksi)	23.7	38.9	32.5
0.95Rh Fyf	(ksi)	47.5	47.5	47.5
fs (Total)(Strength I)	(ksi)	-	-	-
Øf Fn	(ksi)	-	-	-
Vf	(k)	58.7	56.7	54.9

FLARED INTERIOR GIRDER MOMENT TABLE		0.4 Sp. 1	Pier	0.6 Sp. 2
Is	(in⁴)	14,229	28,291	20,362
Ic(n)	(in⁴)	41,577	-	56,757
Ic(3n)	(in⁴)	31,216	-	40,696
Ic(cr)	(in⁴)	-	34,011	-
Ss	(in³)	700	1,291	1,083
Sc(n)	(in³)	1,023	-	1,494
Sc(3n)	(in³)	944	-	1,376
Sc(cr)	(in³)	-	1,387	-
DC1	(k/')	1.07	1.05	1.00
MDC1	('k)	350	1,570	999
DC2	(k/')	0.25	0.25	0.25
MDC2	('k)	82	363	259
DW	(k/')	0.42	0.37	0.37
MDW	('k)	160	548	373
LLDF		0.644	0.587	0.559
M_{L+IM}	('k)	1,181	1,515	1,502
Mu (Strength I)	('k)	2,847	5,890	4,761
Øf Mn	('k)	5,240	6,357	7,084
fs DC1	(ksi)	6.0	14.6	11.1
fs DC2	(ksi)	1.0	3.1	2.3
fs DW	(ksi)	2.0	4.7	3.3
fs (L+IM)	(ksi)	13.9	13.1	12.1
fs (Service II)	(ksi)	27.1	39.5	32.3
0.95Rh Fyf	(ksi)	47.5	47.5	47.5
fs (Total)(Strength I)	(ksi)	-	-	-
Øf Fn	(ksi)	-	-	-
Vf	(k)	65.8	56.7	54.8

EXTERIOR GIRDER REACTION TABLE		S. Abut.	Pier	N. Abut.
LLDF		0.709	0.709	0.709
OCF		1.000	-	1.000
RDC1	(k)	24.1	127.3	43.9
RDC2	(k)	6.7	32.7	11.4
RDW	(k)	7.6	37.0	12.9
R_{L}	(k)	61.4	128.4	68.4
R_{IM}	(k)	14.6	24.8	15.1
RTotal	(k)	114.4	350.3	151.6

STRAIGHT INTERIOR GIRDER REACTION TABLE		S. Abut.	Pier	N. Abut.
LLDF		0.767	0.767	0.767
OCF		1.000	-	1.000
RDC1	(k)	25.4	133.9	46.1
RDC2	(k)	6.7	32.7	11.4
RDW	(k)	9.8	47.9	16.7
R_{L}	(k)	66.4	138.9	74.0
R_{IM}	(k)	15.8	26.9	16.4
RTotal	(k)	124.1	380.3	164.6

FLARED INTERIOR GIRDER REACTION TABLE		S. Abut.	Pier	N. Abut.
LLDF		0.901	0.767	0.767
OCF		1.018	-	1.000
RDC1	(k)	30.6	137.7	45.7
RDC2	(k)	6.7	32.7	11.4
RDW	(k)	12.4	49.6	16.5
R_{L}	(k)	78.1	138.9	74.0
R_{IM}	(k)	18.5	26.9	16.4
RTotal	(k)	146.4	385.7	164.0

Is, Ss: Non-composite moment of inertia and section modulus of the steel section used for computing fs(Total-Strength I, and Service II) due to non-composite dead loads (in.⁴ and in.³)

Ic(n), Sc(n): Composite moment of inertia and section modulus of the steel and deck based upon the modular ratio, "n", used for computing fs(Total-Strength I, and Service II) in uncracked sections due to short-term composite live loads (in.⁴ and in.³).

Ic(3n), Sc(3n): Composite moment of inertia and section modulus of the steel and deck based upon 3 times the modular ratio, "3n", used for computing fs(Total-Strength I, and Service II) in uncracked sections, due to long-term composite (superimposed) dead loads (in.⁴ and in.³).

Ic(cr), Sc(cr): Composite moment of inertia and section modulus of the steel and longitudinal deck reinforcement, used for computing fs (Total-Strength I and Service II) in cracked sections, due to both short-term composite live loads and long-term composite (superimposed) dead loads (in.⁴ and in.³).

DC1: Un-factored non-composite dead load (kips/ft.).

MDC1: Un-factored moment due to non-composite dead load (kip-ft.).

DC2: Un-factored long-term composite (superimposed excluding future wearing surface) dead load (kips/ft.)

MDC2: Un-factored moment due to long-term composite (superimposed excluding future wearing surface) dead load (kip-ft.).

DW: Un-factored long-term composite (superimposed future wearing surface only) dead load (kips/ft.).

MDW: Un-factored moment due to long-term composite (superimposed future wearing surface only) dead load (kip-ft.).

M_{L+IM}: Un-factored live load moment plus dynamic load allowance (impact) (kip-ft.).

Mu (Strength I): Factored design moment (kip-ft.).
1.25 (MDC1 + MDC2) + 1.5 MDW + 1.75 M_{L+IM}

Øf Mn: Compact composite positive moment capacity computed according to Article 6.10.7.1 or non-slender negative moment capacity according to Article A6.1.1 or A6.1.2 (kip-ft).

fs DC1: Un-factored stress at edge of flange for controlling steel flange due to vertical non-composite dead loads as calculated below (ksi).
MDC1/ Ss

fs DC2: Un-factored stress at edge of flange for controlling steel flange due to vertical composite dead loads as calculated below (ksi).
MDC2/ Sc(3n) or MDC2/ Sc(cr) as applicable.

fs DW: Un-factored stress at edge of flange for controlling steel flange due to vertical composite future wearing surface loads as calculated below (ksi)
MDW/ Sc(3n) or MDW/ Sc(cr) as applicable.

fs (L+IM): Un-factored stress at edge of flange for controlling steel flange due to vertical composite live load plus impact loads as calculated below (ksi).
M_{L+IM} / Sc(n) or M_{L+IM} / Sc(cr) as applicable.

fs (Service II): Sum of stresses as computed below (ksi).
fsDC1 + fsDC2 + fsDW + 1.3 fs(L + IM)

0.95RhFyf: Composite stress capacity for Service II loading according to Article 6.10.4.2 (ksi).

fs (Total)(Strength I): Sum of stresses as computed below on non-compact section (ksi).
1.25 (fsDC1 + fsDC2) + 1.5 fsDW + 1.75 fs(L + IM)

Øf Fn: Non-Compact composite positive or negative stress capacity for Strength I loading according to Article 6.10.7 or 6.10.8 (ksi).

Vf: Maximum factored shear range in span computed according to Article 6.10.10

LLDF: Live Load Distribution Factor

OCF: Obtuse Correction Factor

AECOM

USER NAME = REGINALD.THOMP	DESIGNED - MCC	REVISED -
	CHECKED - DD	REVISED -
PLOT SCALE = N.T.S.	DRAWN - MCC	REVISED -
PLOT DATE = 4/29/2021	CHECKED - DD	REVISED -

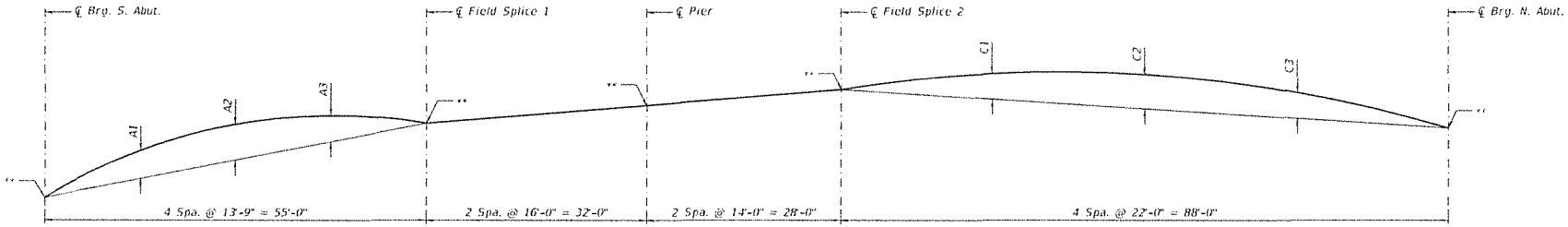
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GIRDER MOMENT & REACTION TABLES
STRUCTURE NO. 058-9202

SHEET NO. 5F-22 OF 5F-35 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7448	09-00913-01-BR	MACON	1019	692
		CONTRACT NO. 95693		
		ILLINOIS FED. AID PROJECT		

EXHIBIT B

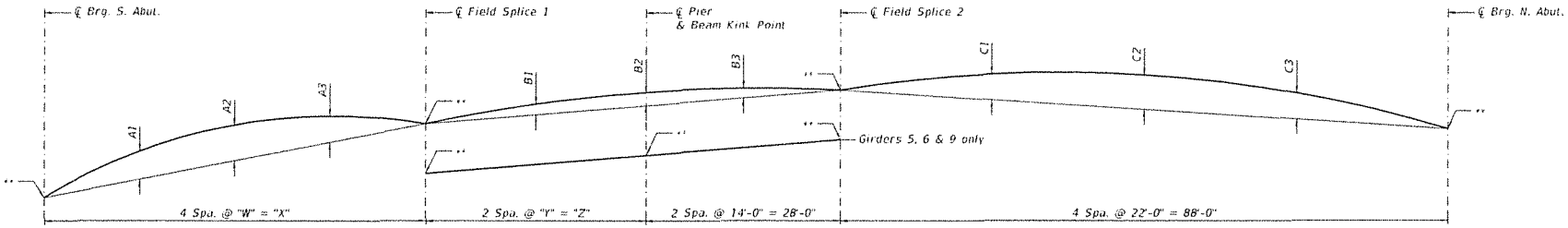


CAMBER DIAGRAM - GIRDERS 1 THRU 4

** Top of Web Elevations

CAMBER DIMENSIONS GIRDERS 1 THRU 4

Girder	A1	A2	A3	C1	C2	C3
1	1 7/8"	2 1/8"	1 1/2"	4"	5 7/8"	3 3/4"
2	1 3/4"	2"	1 1/2"	4"	5 7/8"	3 3/4"
3	1 3/4"	2"	1 1/2"	3 7/8"	5 1/4"	3 5/8"
4	1 7/8"	2 1/8"	1 1/2"	3 7/8"	5 1/8"	3 5/8"



CAMBER DIAGRAM - GIRDERS 5 THRU 9

** Top of Web Elevations

CAMBER DIMENSIONS GIRDERS 5 THRU 9

Girder	A1	A2	A3	B1	B2	B3	C1	C2	C3	"W"	"X"	"Y"	"Z"
5	1 1/2"	1 7/8"	1 3/4"	0"	0"	0"	3 7/8"	5 1/8"	3 1/4"	13'-9 1/16"	55'-0 1/8"	±16'-1/8"	32'-0 1/16"
6	1 1/2"	1 7/8"	1 3/8"	0"	0"	0"	3 7/8"	5 1/2"	3 7/8"	13'-9 3/16"	55'-0 7/8"	16'-0 3/16"	32'-0 3/8"
7	1 1/2"	1 7/8"	1 3/8"	1/2"	3/4"	1/2"	3 7/8"	5 1/2"	3 7/8"	±13'-9 3/8"	55'-1 7/16"	±16'-0 7/16"	32'-0 13/16"
8	1 1/4"	2"	1 1/2"	1/2"	3/4"	1/2"	3 7/8"	5 1/4"	3 7/8"	±13'-9 5/8"	55'-2 9/16"	16'-0 1/4"	32'-1 1/2"
9	1 3/8"	2 1/8"	1 7/8"	0"	0"	0"	4"	5 1/4"	3 3/4"	13'-10"	55'-4"	±16'-1 3/16"	32'-2 7/16"

TOP OF WEB ELEVATIONS *					
Girder	℄ Brg. S. Abut.	℄ Splice 1	℄ Pier	℄ Splice 2	℄ Brg. N. Abut.
1	701.55	702.51	702.84	703.13	702.53
2	701.68	702.65	702.98	703.27	702.67
3	701.81	702.80	703.13	703.41	702.82
4	701.94	702.94	703.27	703.56	702.97
5	701.94	702.88	703.20	703.49	702.90
6	701.73	702.72	703.05	703.34	702.75
7	701.53	702.56	702.96	703.20	702.61
8	701.33	702.45	702.86	703.10	702.51
9	701.42	702.57	702.91	703.21	702.62

* For fabrication only

AECOM

USER NAME = mcecil.rowan	DESIGNED - MCC	REVISED -	
	CHECKED - DD	REVISED -	
PLOT SCALE = N.T.S.	DRAWN - MCC	REVISED -	
PLOT DATE = 4/29/2021	CHECKED - DD	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GIRDER CAMBER DIAGRAM
STRUCTURE NO. 058-9202

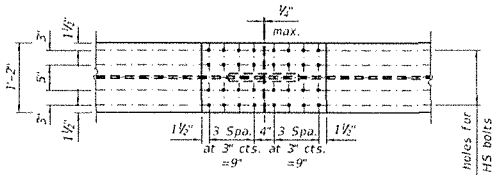
SHEET NO. SF-23 OF SF-35 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7448	09-00913-01-BR	MACON	1015	693

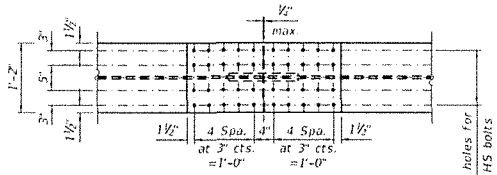
CONTRACT NO. 95B93

ILLINOIS FED. AID PROJECT

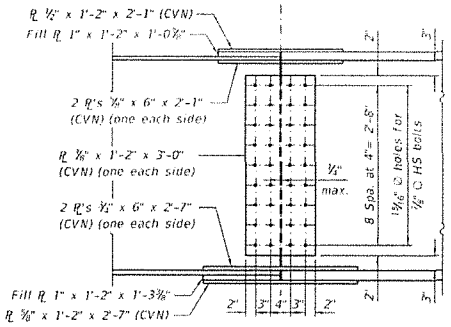
EXHIBIT B



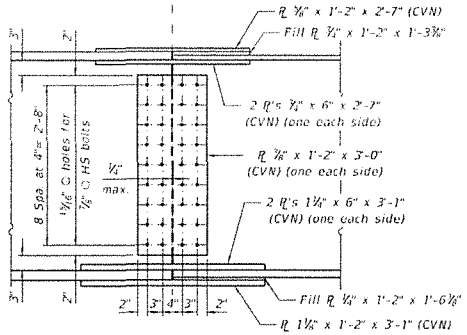
TOP FLANGE



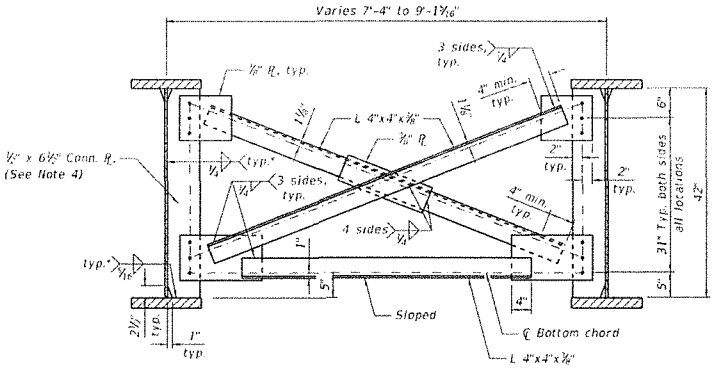
TOP FLANGE



ELEVATION



ELEVATION

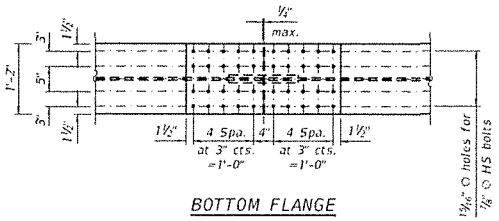


INTERIOR CROSS-FRAMES

(80 Required)

* Terminate ¼" (±⅛") from the end of plate intersects.

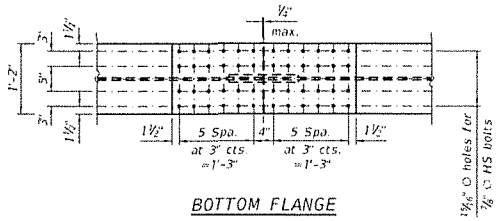
Note: Two hardened washers required for each set of oversized holes.



BOTTOM FLANGE

FIELD SPLICE 1 DETAIL

(9 Required)



BOTTOM FLANGE

FIELD SPLICE 2 DETAIL

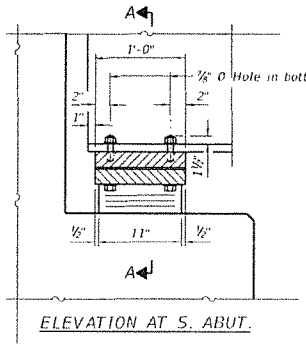
(9 Required)

NOTES:

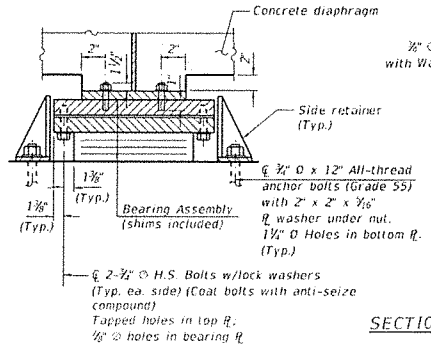
1. "CVN" denotes Charpy-V-Notch impact energy requirements, zone 2.
2. All structural steel shall be AASHTO M270 Grade 50.
3. All cross frames shall be installed as steel is erected and secured with erection pins and bolts except as otherwise noted. Individual cross frames at supports may be temporarily disconnected to install bearing anchor rods.
4. Connection plate for cross-frames CF1 thru CF5. For CF6, connect cross frame members to PL 1" x 6½" pier bearing stiffener.

AECOM	USER NAME = Patrick Fisher	DESIGNED - JP	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	STEEL DETAILS STRUCTURE NO. 058-9202	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CHECKED - DD	REVISED -			7448	09-00933-01-BR	MACON	1019	694
	PLOT SCALE = N.T.S.	DRAWN - GF	REVISED -					CONTRACT NO. 95093		
	PLOT DATE = 4/29/2021	CHECKED - DD	REVISED -		SHEET NO. SF-23 OF SF-35 SHEETS			ILLINOIS FED. AID PROJECT		

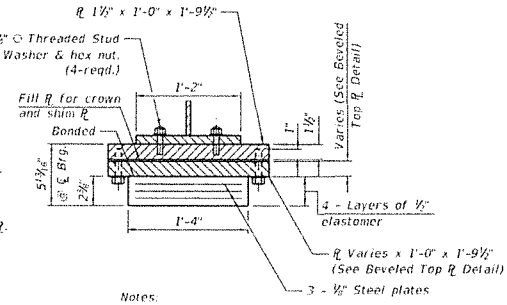
EXHIBIT B



ELEVATION AT S. ABUT.

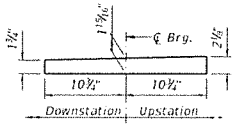


SECTION A-A

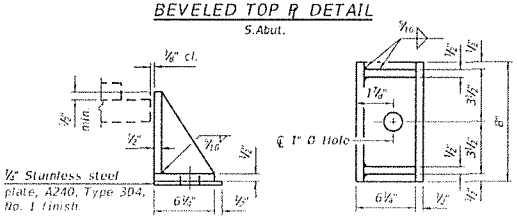


Notes:
Shim plates shall not be placed under bearing assembly.

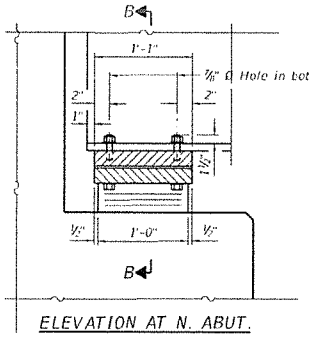
TYPE I ELASTOMERIC EXPANSION BEARING AT SOUTH ABUTMENT



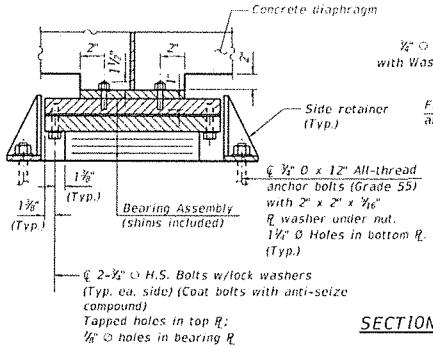
BEVELED TOP ℞ DETAIL
S.Abut.



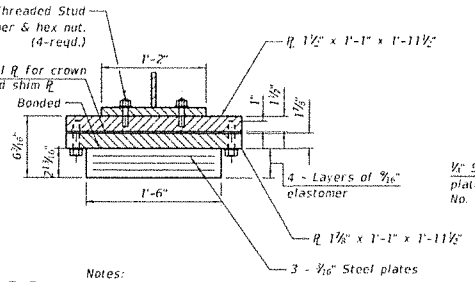
SIDE RETAINER
Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.



ELEVATION AT N. ABUT.

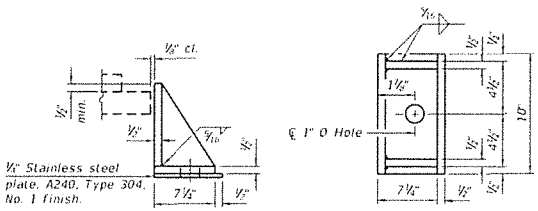


SECTION B-B



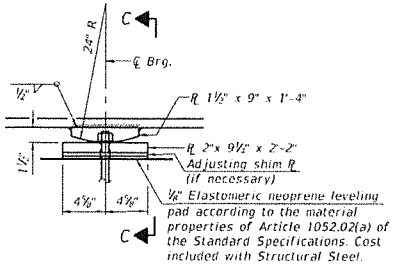
Notes:
Shim plates shall not be placed under bearing assembly.

TYPE I ELASTOMERIC EXPANSION BEARING AT NORTH ABUTMENT

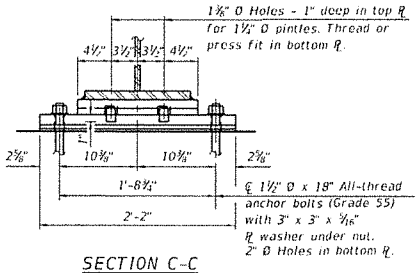


SIDE RETAINER
Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.

Notes:
The structural steel plates of the Bearing Assembly shall conform to the requirements of AASHTO M270 Grade 50.
Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternative material) of the grades and diameters specified. The corresponding specified grade of AASHTO M 314 anchor bolts may be used in lieu of ASTM F1554.
Anchor bolts shall be according to Article 521.06 of the Standard Specifications.
Side retainers and stainless steel plates shall be included in the cost of Elastomeric Bearing Assembly, Type I.
Anchor bolts and side retainers at all supports shall be installed as each member is erected unless an equivalent temporary means of lateral restraint is used.
Two ⅛ in. adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on bearing details.
Fixed Bearing Assembly included in "Furnishing and Erecting Structural Steel".

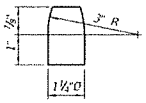


ELEVATION AT PIER



SECTION C-C

FIXED BEARING AT PIER



PINTLE

SHIM ℞ TABLE

Location	Girder	Thickness
Pier	9	½"

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly Type I	Each	18
Anchor Bolts, ¾"	Each	36
Anchor Bolts, 1½"	Each	18

1-2E-1 6-15-2019

AECOM

USER NAME = mcfeely.cadon	DESIGNED - BD	REVISED -	
	CHECKED - DD	REVISED -	
PLOT SCALE = 0.15	DRAWN - BD	REVISED -	
PLOT DATE = 4/29/2021	CHECKED - DD	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BEARING DETAILS
STRUCTURE NO. 058-9202

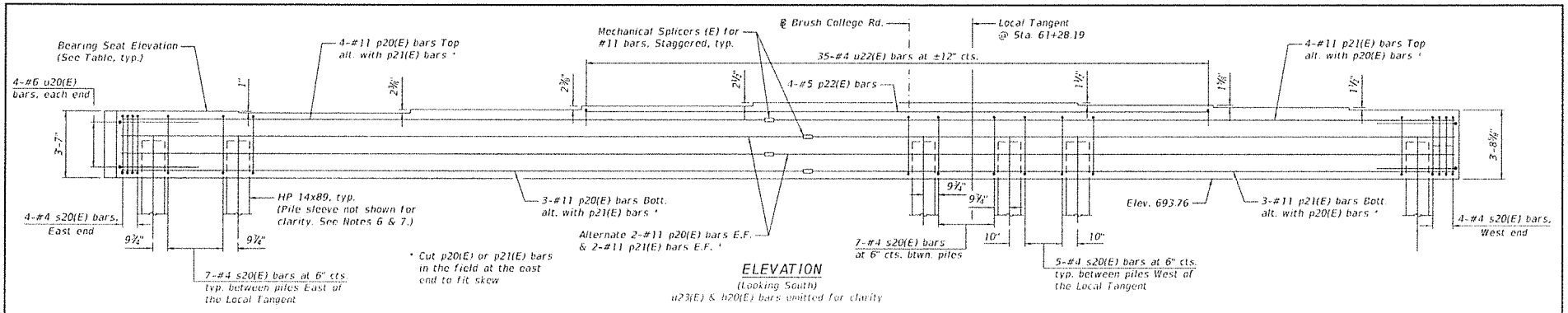
SHEET NO. SF-25 OF SF-35 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7448	09-00933-01-BR	MACON	1019	695

CONTRACT NO. 95093

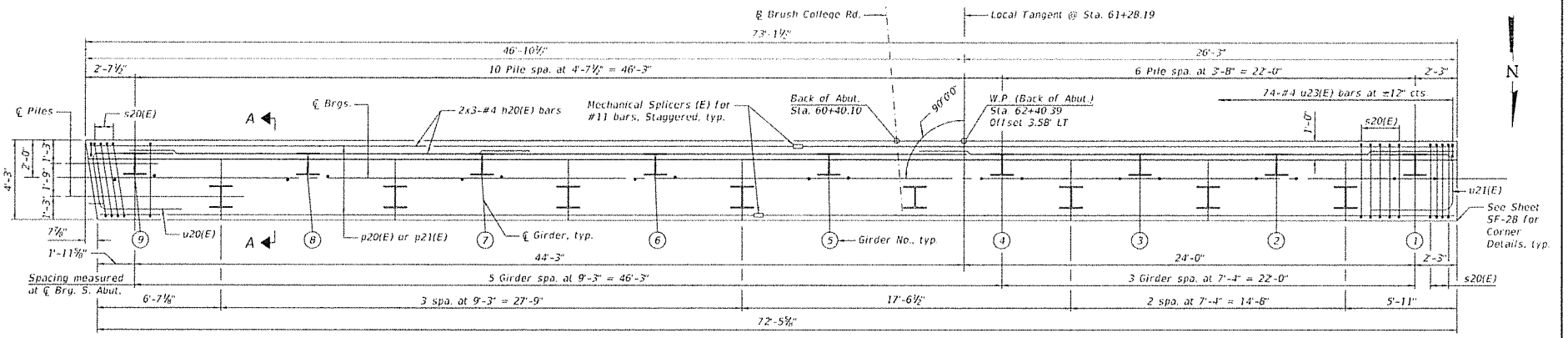
ILLINOIS FED. AID PROJECT

EXHIBIT B



ELEVATION

(Looking South)
u23(E) & h20(E) bars omitted for clarity



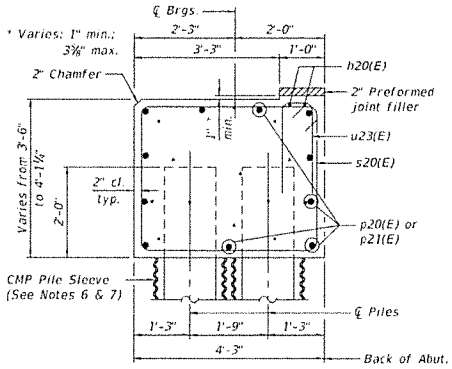
PLAN

TOP OF SEAT ELEVATION

Girder No.	Elevation
1	697.48
2	697.61
3	697.74
4	697.87
5	697.87
6	697.66
7	697.46
8	697.26
9	697.34

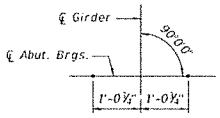
PILE DATA

Type: 14x89 w/Pile Shoes
Nominal Required Bearing: 503 kips
Factored Resistance Available: 251 kips
Est. Length: 75 ft.
No. Production Piles: 16
No. Test Piles: 1

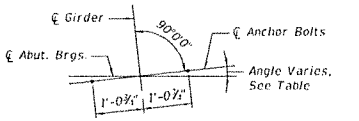


SECTION A-A

Section thru abutment;
Dimensions at right angles to abutment



GIRDERS 1 THRU 4 ANCHOR BOLT LAYOUT



GIRDERS 5 THRU 9 ANCHOR BOLT LAYOUT

Girder No.	Angle
5	1°15'43"
6	2°31'22"
7	3°46'53"
8	5°2'10"
9	6°17'9"

MINIMUM BAR LAP

(Unless Noted Otherwise)
#4 bar = 2'-11"

NOTES

1. See Sheet SF-28 for Bar Lists & Bill of Material.
2. Space reinforcements in cap to miss anchor bolts.
3. For anchor bolt details, see Sheet SF-25.
4. Pour steps monolithically with cap.
5. Bars noted thus, 2x3-#4 etc. indicates 2 lines of bars with 3 lengths per line.
6. Pile sleeve shall extend from bottom of abutment cap elevation to 1'-0" below Theoretical Top of Leveling Pad of precast modular retaining wall. Cost included in the unit cost of Furnishing Steel Piles, HP14x89.
7. For pile sleeve details, see Sheet SF-28.
8. Orient pile webs parallel to the Local Tangent.
9. For details of piles, see Sheet SF-31.
10. For details and quantity of Mechanical Splicers, see Sheet SF-32.

E.F. = Each Face

AECOM

USER NAME = REDACTED	DESIGNED - JJP	REVISED -
	CHECKED - ATB	REVISED -
PLOT SCALE = NTS	DRAWN - MCU	REVISED -
PLOT DATE = 4/29/2021	CHECKED - ATB	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOUTH ABUTMENT PLAN & ELEVATION
STRUCTURE NO. 058-9202

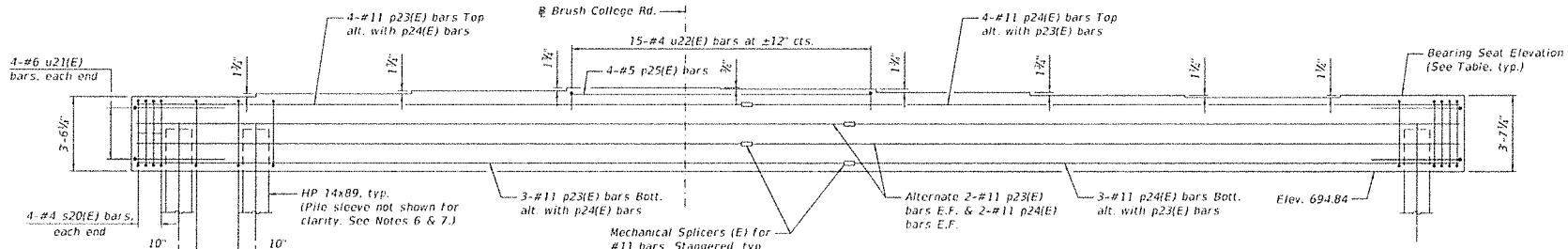
SHEET NO. SF-26 OF SF-35 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7448	09-00933-01-BR	MACON	1019	696

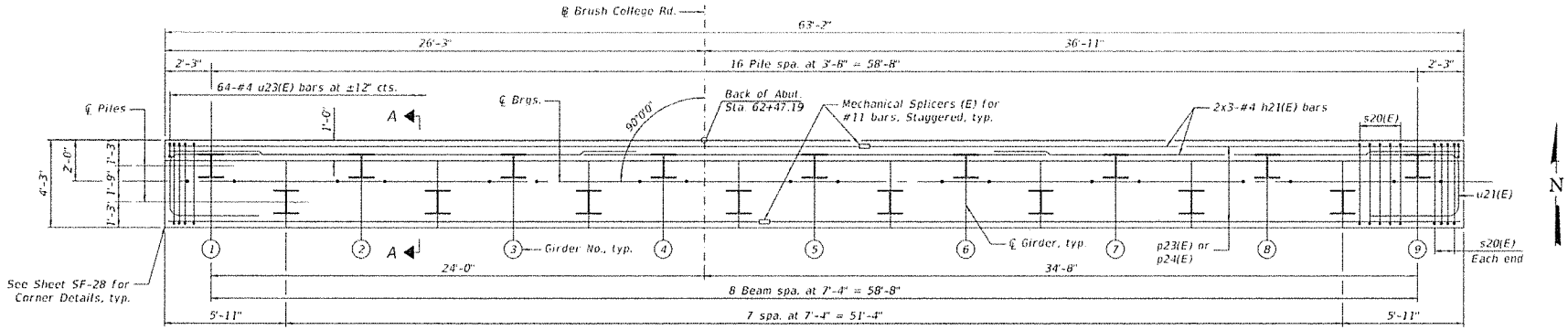
CONTRACT NO. 95B93

ILLINOIS FED. AID PROJECT

EXHIBIT B



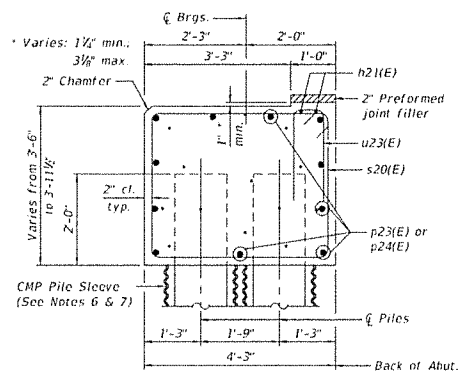
ELEVATION
(Looking North)
u23(E) & h21(E) bars omitted for clarity



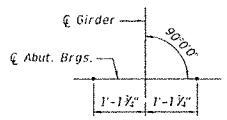
PLAN

TOP OF SEAT ELEVATION

Girder No.	Elevation
1	698.36
2	698.51
3	698.65
4	698.80
5	698.74
6	698.59
7	698.44
8	698.34
9	698.44



SECTION A-A
Section thru abutment;
Dimensions at right angles to abutment



ANCHOR BOLT LAYOUT

MINIMUM BAR LAP
(Unless Noted Otherwise)
#4 bar = 2'-11"

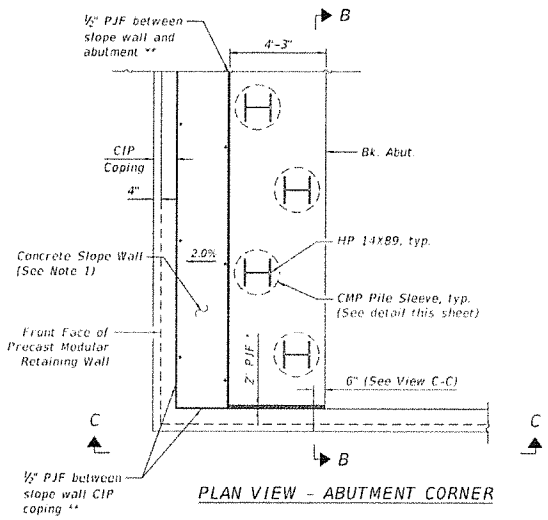
PILE DATA
Type: 14x89 w/Pile Shoes
Nominal Required Bearing: 526 kips
Factored Resistance Available 224 kips
Est. Length: 80 ft.
No. Production Piles: 16
No. Test Piles: 1

NOTES
1. See Sheet SF-28 for Bar Lists & Bill of Material.
2. Space reinforcements in cap to miss anchor bolts.
3. For anchor bolt details, see Sheet SF-25.
4. Pour steps monolithically with cap.
5. Bars noted thus, 2x3-#4 etc. indicates 2 lines of bars with 3 lengths per line.
6. Pile sleeve shall extend from bottom of abutment cap elevation to 1'-0" below Theoretical Top of Leveling Pad of precast modular retaining wall. Cost included in the unit cost of Furnishing Steel Piles, HP14x89.
7. For pile sleeve details, see Sheet SF-28.
8. Orient pile webs parallel to the ℄ Brush College Rd.
9. For details of piles, see Sheet SF-31.
10. For details and quantity of Mechanical Splicers, see Sheet SF-32.

E.F. = Each Face

AECOM	USER NAME = Patrick Crouse	DESIGNED - JP	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	NORTH ABUTMENT PLAN & ELEVATION STRUCTURE NO. 058-9202	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CHECKED - ATB	REVISED -			7448	09-00933-01-BR	MACON	1019	697
	PLOT SCALE = N/S	DRAWN - MCC	REVISED -					CONTRACT NO. 95893		
	PLOT DATE = 4/29/2021	CHECKED - ATB	REVISED -		SHEET NO. SF-27 OF SF-35 SHEETS			REGION	VOL	JOB PROJECT

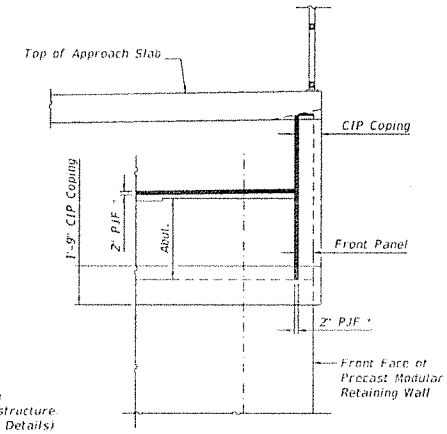
EXHIBIT B



PLAN VIEW - ABUTMENT CORNER

* Cost included in Concrete Superstructure. (See Diaphragm Details)

** Cost included in Slope Wall 4 Inch.



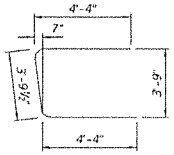
SECTION B-B

S. ABUT. BILL OF MATERIAL

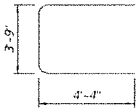
Bar	No.	Size	Length	Shape
h20(E)	6	#4	26'-3"	
p20(E)	11	#11	35'-0"	
p21(E)	11	#11	37'-10"	
p22(E)	4	#5	33'-8"	
s20(E)	108	#4	14'-11"	
u20(E)	4	#6	12'-6"	
u21(E)	4	#6	12'-5"	
u22(E)	35	#4	5'-11"	
u23(E)	74	#4	4'-8"	
Concrete Structures			Cu. Yd.	44.5
Reinforcement Bars, Epoxy Coated			Pound	6,100
Furnishing Steel Piles HP 14x89			Foot	1,200
Driving Piles			Foot	1,200
Test Pile HP14x89			Each	1
Pile Shoes			Each	17

N. ABUT. BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h21(E)	6	#4	22'-11"	
p23(E)	11	#11	29'-0"	
p24(E)	11	#11	33'-10"	
p25(E)	4	#5	14'-4"	
s20(E)	88	#4	14'-11"	
u21(E)	8	#6	12'-5"	
u22(E)	15	#4	5'-11"	
u23(E)	64	#4	4'-8"	
Concrete Structures			Cu. Yd.	37.3
Reinforcement Bars, Epoxy Coated			Pound	5,110
Furnishing Steel Piles HP 14x89			Foot	1,280
Driving Piles			Foot	1,280
Test Pile HP11x89			Each	1
Pile Shoes			Each	17



BAR u20(E)



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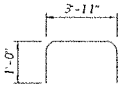

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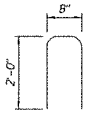

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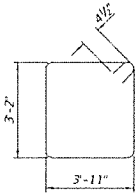
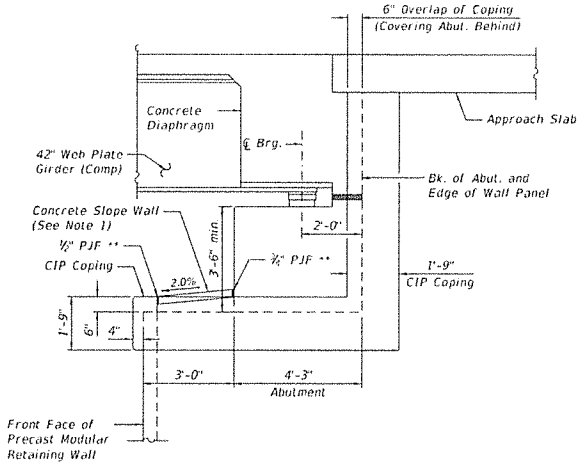
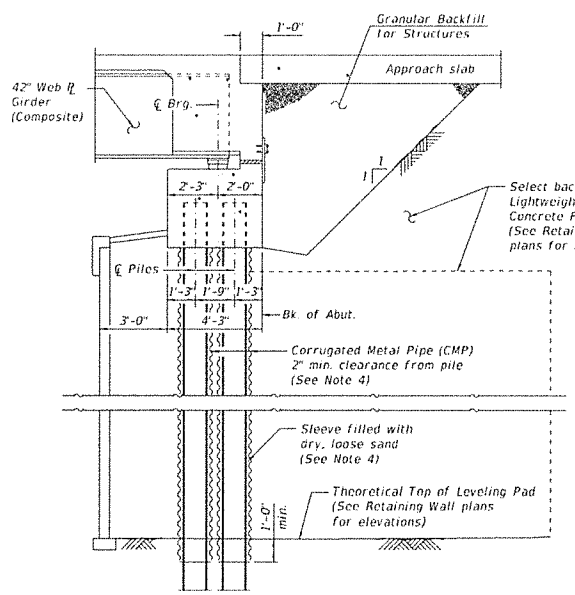


BAR s20(E)



VIEW C-C



PILE SLEEVE VERTICAL LIMITS

NOTES:

1. Slope wall shall be reinforced with welded wire fabric, 6 in. x 6 in. - W4.0 x W4.0, weighing 58 lbs. per 100 sq. ft. Cost included in Slope Wall 4 Inch pay item.
2. See Retaining Wall Plans for CIP coping details.
3. See Sheet SF-14 for diaphragm details.
4. Cost of CMP pile sleeve and filling annulus with dry, loose sand shall be included in cost of Furnishing Steel Piles, HP 14x89.
5. For details of Piles, see Sheet SF-31.
6. See Sheet SF-26 and SF-27 for pile spacing.

AECOM

USER NAME = marrico.corson	DESIGNED - JP	REVISED -	
	CHECKED - ATB	REVISED -	
PLOT SCALE = N/S	DRAWN - MCC	REVISED -	
PLOT DATE = 4/29/2021	CHECKED - ATB	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

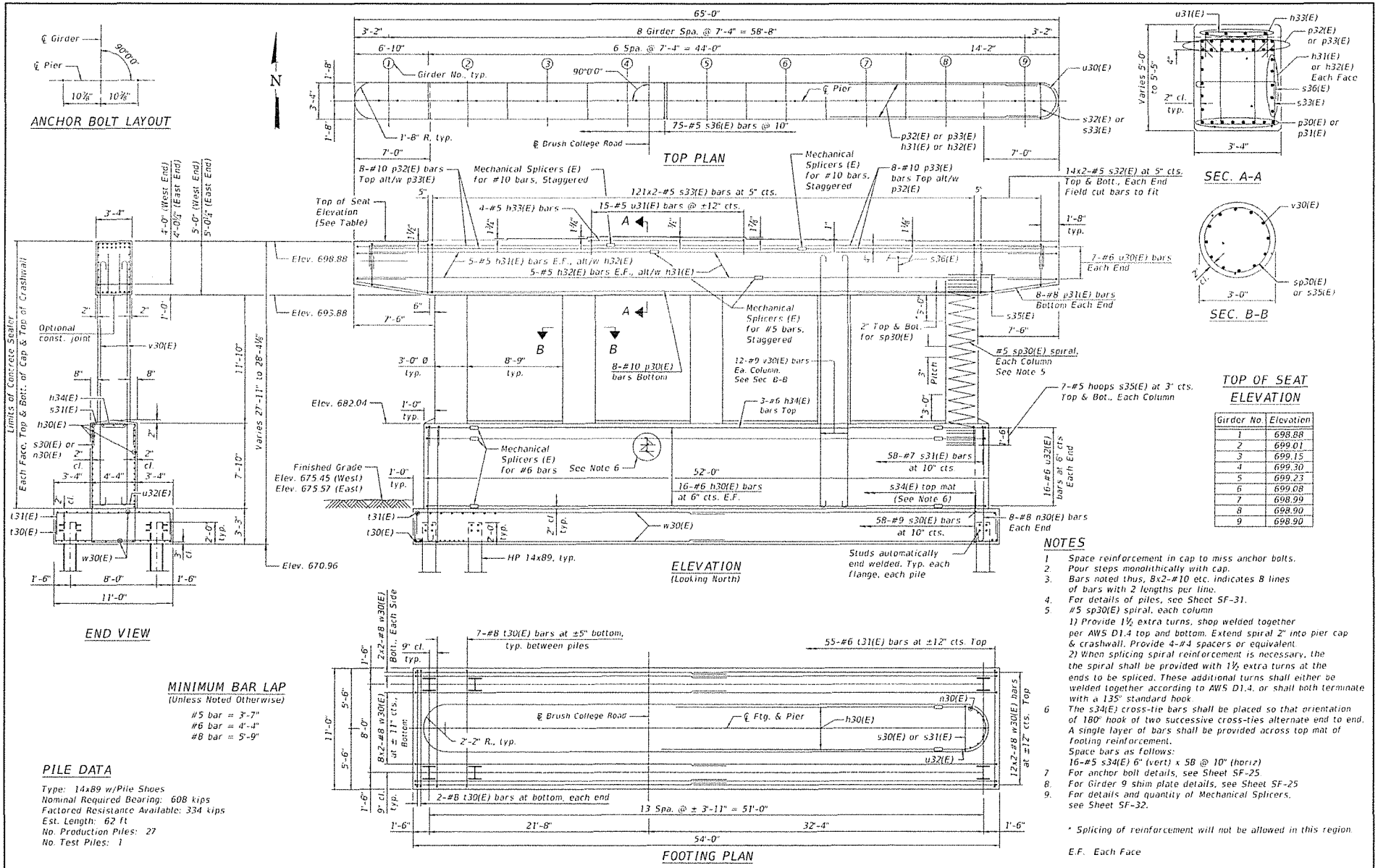
ABUTMENT DETAILS
STRUCTURE NO. 058-9202

SHEET NO. SF-28 OF SF-35 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7448	09-00933-01-BR	MACON	1014	698
		CONTRACT NO. 95693		

ILLINOIS FED. AID PROJECT

EXHIBIT B



Girder No.	Elevation
1	698.88
2	699.01
3	699.15
4	699.30
5	699.23
6	699.08
7	698.99
8	698.90
9	698.90

AECOM

USER NAME = mckee.erica	DESIGNED - JP	REVISED -	
	CHECKED - ATB	REVISED -	
PLOT SCALE = 1:1.5	DRAWN - MK	REVISED -	
PLOT DATE = 8/29/2021	CHECKED - MCC	REVISED -	

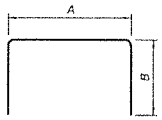
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PIER PLAN & ELEVATION
STRUCTURE NO. 058-9202

SHEET NO. SF-29 OF SF-35 SHEETS

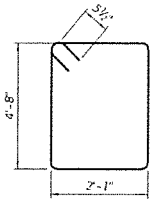
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7348	09-00933-01-BR	MACON	1019	699
		CONTRACT NO. 95E93		
		ILLINOIS FED. AID PROJECT		

EXHIBIT B

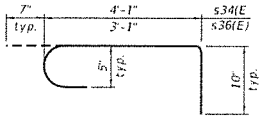


Bar	A	B
s30(E)	4'-0"	10'-5"
s31(E)	4'-0"	3'-5"
s32(E)	3'-0"	4'-2"
u31(E)	3'-0"	1'-0"
t30(E)	10'-8"	2'-0"
t31(E)	10'-8"	2'-0"

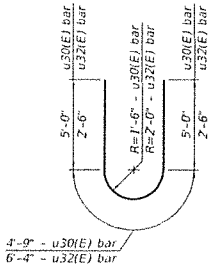
BARS s30(E), s31(E), s32(E), u31(E), t30(E) & t31(E)



BAR s33(E)



BAR s34(E)
BAR s36(E)

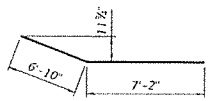


BAR u30(E)
BAR u32(E)

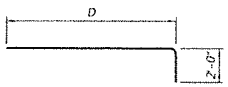
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h30(E)	32	#6	42'-8"	
h31(E)	10	#5	26'-0"	
h32(E)	10	#5	35'-8"	
h33(E)	4	#5	14'-4"	
h34(E)	3	#5	47'-4"	
n30(E)	16	#8	11'-4"	
p30(E)	8	#10	51'-0"	
p31(E)	16	#8	14'-0"	
p32(E)	16	#10	24'-0"	
p33(E)	16	#10	41'-8"	
s30(E)	58	#9	24'-10"	
s31(E)	58	#7	10'-10"	
s32(E)	112	#5	11'-4"	
s33(E)	242	#5	14'-5"	
s34(E)	928	#5	5'-6"	
s35(E)	70	#5	8'-5"	
s36(E)	75	#5	4'-6"	
sp30(E)	5	#5	12'-2"	
t30(E)	95	#8	14'-8"	
t31(E)	55	#6	14'-8"	
u30(E)	14	#6	14'-9"	
u31(E)	15	#5	5'-0"	
u32(E)	32	#6	11'-4"	
v30(E)	60	#9	25'-2"	
w30(E)	48	#8	31'-9"	
Structure Excavation		Cu. Yd.	129	
Concrete Structures		Cu. Yd.	192.1	
Reinforcement Bars, Epoxy Coated		Pound	45,030	
Concrete Sealer		Foot	2,635	
Furnishing Steel Piles HP14X89		Foot	1,674	
Driving Piles		Foot	1,674	
Test Pile Steel HP14X89		Each	1	
Pile Shoes		Each	28	

* Length is height of spiral.

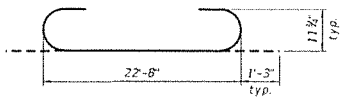


BAR p31(E)

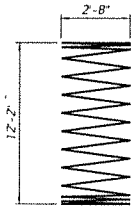


Bar	D
p32(E)	22'-0"
p33(E)	39'-8"
w30(E)	29'-9"

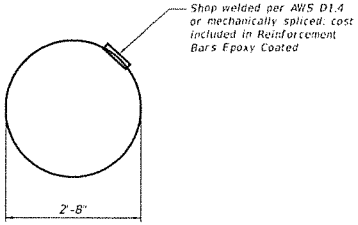
BARS p32(E), p33(E) & w30(E)



BAR v30(E)



BAR sp30(E)



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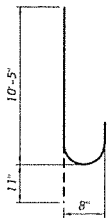


BAR n30(E)

AECOM	USER NAME = marka.theler	DESIGNED - BP	REVISED -
		CHECKED - ATB	REVISED -
	PLOT SCALE = NTS	DRAWN - MK	REVISED -
	PLOT DATE = 4/29/2021	CHECKED - ATB	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

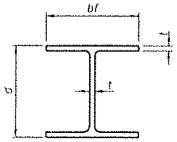
PIER DETAILS
STRUCTURE NO. 058-9202

SHEET NO. SF-30 OF SF-35 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7448	09-00933-01-BR	MACON	1014	700
		CONTRACT NO. 95693		

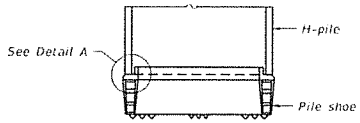
ILLINOIS FED. AID PROJECT

EXHIBIT B

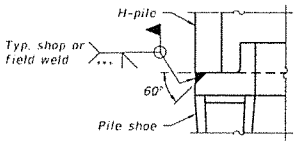


STEEL PILE TABLE

Designation	Depth d	Flange width bf	Web and Flange thickness t	Encasement diameter A
HP 14x117	14¼"	14⅞"	1 5/16"	30"
x102	14"	14¾"	1 1/16"	30"
x89	13⅞"	14¾"	⅞"	30"
x73	13¾"	14⅝"	½"	30"
HP 12x84	12¼"	12½"	1 1/16"	24"
x74	12⅛"	12⅜"	⅞"	24"
x63	12"	12⅛"	½"	24"
x53	11½"	12"	9/16"	24"
HP 10x57	10"	10¼"	9/16"	24"
x42	9⅞"	10⅛"	7/16"	24"
HP 8x36	8"	8⅛"	7/16"	18"



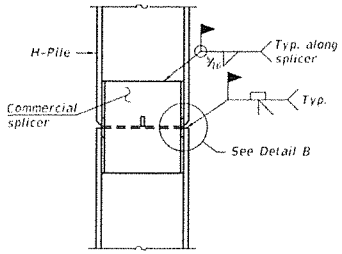
ELEVATION



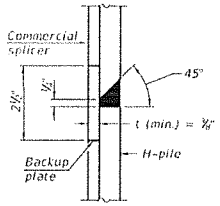
DETAIL A

SHOE ATTACHMENT

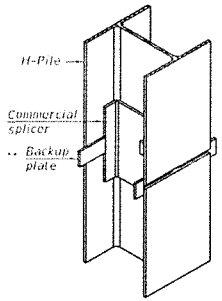
Note:
The steel H-piles shall be according to AASHTO M270 Grade 50.



ELEVATION

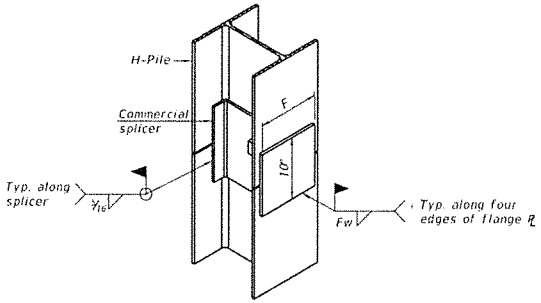


DETAIL "B"



ISOMETRIC VIEW

WELDED COMMERCIAL SPLICE



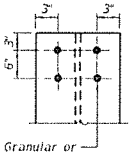
ISOMETRIC VIEW

WELDED COMMERCIAL SPLICE ALTERNATE

* Interrupt welds ¼" from end of web and/or each flange.

** Remove portions of backup plates that extend outside the flanges.

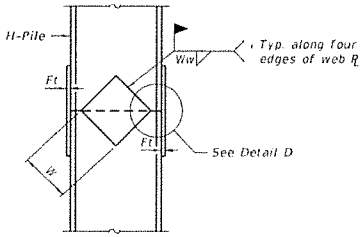
*** Weld size per pile shoe manufacturer (9/16" min.).



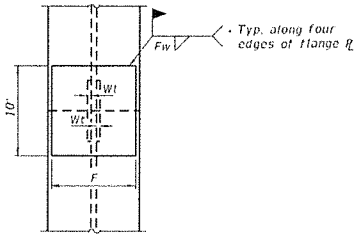
* 4 - ¾" ⊙ x 4" Granular or solid flux filled headed studs automatically end welded (Typ. each flange, each pile)

* Typical each flange, each pile. Cost included with Furnishing Piles

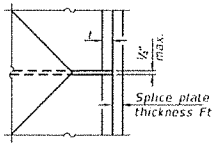
SEISMIC PIER PILE DETAIL



ELEVATION



END VIEW



DETAIL D

Designation	F	Ft	Fw	W	Wt	Ww
HP 14x117	12½"	1"	⅛"	7¾"	⅝"	½"
x102	12½"	⅞"	¾"	7¾"	⅝"	½"
x89	12½"	¾"	11/16"	7¾"	⅝"	½"
x73	12½"	⅝"	9/16"	7¾"	⅝"	½"
HP 12x84	10"	⅞"	11/16"	6½"	⅝"	½"
x74	10"	⅞"	11/16"	6½"	⅝"	½"
x63	10"	⅝"	½"	6½"	½"	⅜"
x53	10"	⅝"	½"	6½"	½"	⅜"
HP 10x57	8"	¾"	9/16"	5¼"	½"	⅜"
x42	8"	⅝"	9/16"	5¼"	½"	⅜"
HP 8x36	7"	⅝"	7/16"	4¼"	½"	⅜"

WELDED PLATE FIELD SPLICE

F-HP 1-1-2020

AECOM

USER NAME = MCCALLISTER	DESIGNED - JJP	REVISED -	
	CHECKED - MCC	REVISED -	
PLOT SCALE = N.T.S.	DRAWN - JJP	REVISED -	
PLOT DATE = 6/29/2021	CHECKED - MCC	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

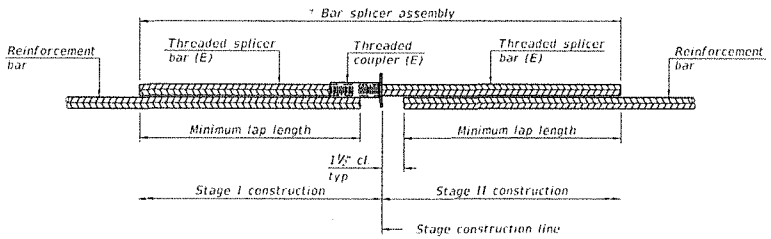
HP PILE DETAILS
STRUCTURE NO. 058-9202

SHEET NO. 5F-31 OF 5F-35 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7448	09-00913-01-BR	MACON	1019	701
		CONTRACT NO. 95E93		

REGION | FED. AID PROJECT

EXHIBIT B



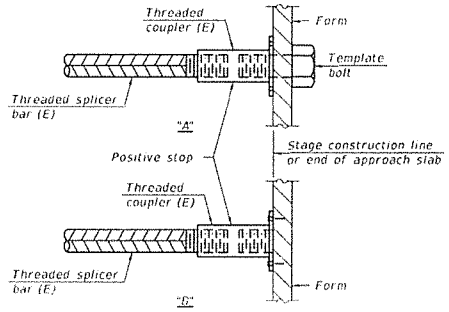
STANDARD BAR SPLICER ASSEMBLY PLAN

(All components shall be provided from one supplier)

Threaded splicer bar length = min. lap length + 1½" + thread length

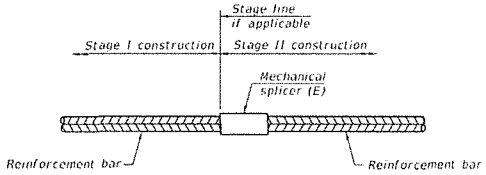
* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars

Location	Bar size	No. assemblies required	Minimum lap length



INSTALLATION AND SETTING METHODS

"A" : Set bar splicer assembly by means of a template bolt.
"B" : Set bar splicer assembly by nailing to wood forms or cementing to steel forms.
(E) : Indicates epoxy coating.



STANDARD MECHANICAL SPLICER

Location	Bar size	No. assemblies required
S. Abut.	#11	11
N. Abut.	#11	11
Pier Cap	#5	10
Pier Cap	#10	16
Pier Crashwall	#6	64

Notes:
Splicer bars shall be deformed with threaded ends and have a minimum 60 ksi yield strength.
All reinforcement shall be lapped and tied to the splicer bars.
Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars. See Section 508 of the Standard Specifications.
See approved list of bar splicer assemblies and mechanical splicers for alternatives.

BSD-1 1-1-2020

AECOM

USER NAME = REDACTED	DESIGNED - MCC	REVISED -
	CHECKED - ATB	REVISED -
PLOT SCALE = N/S	DRAWN - MCC	REVISED -
PLOT DATE = 6/29/2021	CHECKED - ATB	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BAR SPLICER ASSEMBLY & MECHANICAL BAR SPLICER DETAILS
STRUCTURE NO. 058-9202

SHEET NO. SF-32 OF SF-35 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7448	06-00933-01-BR	MACON	1019	702
		CONTRACT NO. 95B93		
		ILLINOIS FED. AID PROJECT		

EXHIBIT B

SIUS ENGINEERS, LLC
2900 N Martin Luther King Jr. Dr. Decatur, IL 62526

SOIL BORING LOG

Page 1 of 2
Project #: 313516
Date 04/01/13

ROUTE ____ DESCRIPTION BRUSH COLLEGE ROAD LOGGED BY CM
SECTION ____ LOCATION DECATUR, IL
COUNTY MACON STRUCTURE NO. ____ (Exist) ____ (Prop.) ____
BORING NO. B-15 DRILLING METHOD HOLLOW STEM HAMMER TYPE 140# SAFETY HAMMER

Station By URS
Offset By URS
Ground Surface Elev 673.881 (ft)

Surface Water Elev ____ (ft)
Groundwater Elev:
First Encounter 19.5' (ft)
Upon Completion - (ft)
After ___ Hrs. ___ (ft)

SOIL DESCRIPTION	ELEV (ft)	DEPTH (ft)	BLOWS	UCS (tsf)	MOIST (%)	SOIL DESCRIPTION	ELEV (ft)	DEPTH (ft)	BLOWS	UCS (tsf)	MOIST (%)
12" CONCRETE			4 7 8		25.4	CLAY - A-6 Gray, moist, hard, low plasticity, little sand, trace gravel			11 28		10.7
SILTY CLAY - A-6 Gray-Mottled Brown, moist, stiff, low plasticity		4	3 3 3		22.9			40	19 34 22-3		11.0
SANDY LOAM - A-2-6 Dark Brown, moist, very loose, fine-coarse sand, trace gravel		10	1 2 2		17.0						
SILTY CLAY LOAM - A-4 Brown, moist, stiff, low plasticity, little sand -very stiff			4 7 7	1.9	13.9			45	21 32 20-4	6.0	10.5
			6 6 11	3.2	13.2						
		15	19 12 14	3.7	12.5			50	32 50 10-1		
SILTY CLAY LOAM - A-6 Gray, moist, very stiff, low plasticity, little sand, trace gravel			8 11 11	3.2	12.5	SAND - A-1-a Gray, dry, very dense, fine-coarse					
SAND - A-1-b Brown, saturated, dense, fine-medium (*)free water @ 19.5'		20	12 22 12			-dense		55	13 20 18		
SANDY LOAM - A-2-6 Brown, wet, very dense, fine-coarse, trace gravel			6 22 25								
SAND - A-1-a Gray, wet, very dense, fine-coarse		25	6 32 30			-medium dense		60	5 8 12		
CLAY - A-6 Gray, moist, hard, low plasticity, little sand, trace gravel		30	13 35 25-3		13.4						
SANDY LOAM - A-2-6 Gray, moist, very dense, fine-coarse, with gravel			34 50-2					65	10 12 9		
		35	5								

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer).
The Standard Penetration Test (SPT) N Value is per (AASHTO T206)

BBS 137 (9/05)

SIUS ENGINEERS, LLC
2900 N Martin Luther King Jr. Dr. Decatur, IL 62526

SOIL BORING LOG

Page 2 of 2
Project #: 313516
Date 04/01/13

ROUTE ____ DESCRIPTION BRUSH COLLEGE ROAD LOGGED BY CM
SECTION ____ LOCATION DECATUR, IL
COUNTY MACON STRUCTURE NO. ____ (Exist) ____ (Prop.) ____
BORING NO. B-15 DRILLING METHOD HOLLOW STEM HAMMER TYPE 140# SAFETY HAMMER

Station By URS
Offset By URS
Ground Surface Elev 673.881 (ft)

Surface Water Elev ____ (ft)
Groundwater Elev:
First Encounter 19.5' (ft)
Upon Completion - (ft)
After ___ Hrs. ___ (ft)

SOIL DESCRIPTION	ELEV (ft)	DEPTH (ft)	BLOWS	UCS (tsf)	MOIST (%)	SOIL DESCRIPTION	ELEV (ft)	DEPTH (ft)	BLOWS	UCS (tsf)	MOIST (%)
CLAY - A-6 Gray, moist, hard, low plasticity, little sand trace gravel END OF BORING @ 71.0 FT.		70	19 16 25	1.7	16.7						

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer).
The Standard Penetration Test (SPT) N Value is per (AASHTO T206)

BBS 137 (9/05)

SIUS ENGINEERS, LLC
2900 N Martin Luther King Jr. Dr. Decatur, IL 62526

SOIL BORING LOG

Page 1 of 2
Project #: 313516
Date 04/12/13

ROUTE ____ DESCRIPTION BRUSH COLLEGE ROAD LOGGED BY CM,BG,CH,JM
SECTION ____ LOCATION DECATUR, IL
COUNTY MACON STRUCTURE NO. ____ (Exist) ____ (Prop.) ____
BORING NO. B-16 DRILLING METHOD HOLLOW STEM HAMMER TYPE 140# SAFETY HAMMER

Station By URS
Offset By URS
Ground Surface Elev 673.023 (ft)

Surface Water Elev ____ (ft)
Groundwater Elev:
First Encounter 26.5' (ft)
Upon Completion - (ft)
After ___ Hrs. ___ (ft)

SOIL DESCRIPTION	ELEV (ft)	DEPTH (ft)	BLOWS	UCS (tsf)	MOIST (%)	SOIL DESCRIPTION	ELEV (ft)	DEPTH (ft)	BLOWS	UCS (tsf)	MOIST (%)
18" CONCRETE			14 15 14						17 35		
SAND - A-1-b Brown, moist, medium dense, fine-medium		5						40	16 24 35-5		11.1
-very loose			2 1 1	1.7	14.0						
SILTY CLAY LOAM - A-4 Brown, moist, stiff very stiff, low plasticity, little sand, trace gravel -very stiff		10	5 8 8	4.6	13.3			45	13 14 21		10.2
			13 16 16	4.1	13.7						
		15	4 11 15	2.9	12.1			50	15 20 32	6.1	13.7
SILTY CLAY LOAM - A-6 Gray, moist, hard, low plasticity, trace gravel			13 14 17	3.6	11.6						
-very stiff		20	7 11 15	5.3	15.7			55	15 23 17		
			7 11 16	2.6	12.5	SAND - A-1-a Gray, moist, dense, fine coarse, trace gravel					
(*)free water @ 26.5'		25	2 3 13	1.0	7.6						
-hard			22 60		13.3			60	3 9 21		
-very stiff		30	2 2 24	5.6	11.3						
						-very dense		65	21 40 20-4		
-hard		35	19								

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer).
The Standard Penetration Test (SPT) N Value is per (AASHTO T206)

BBS 137 (9/05)

AECOM

USER NAME = Patricia Eshom	DESIGNED -	REVISED -
	CHECKED -	REVISED -
PLOT SCALE = N/A'S	DRAWN - EF	REVISED -
PLOT DATE = 4/29/2021	CHECKED - MCC	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOIL BORING LOGS I
STRUCTURE NO. 058-9202

SHEET NO. SF-33 OF SF-35 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7448	09-00933-01-BR	MACON	1019	703
		CONTRACT NO. 95D93		
		INDIAN PROJECT		

EXHIBIT B

SIUE ENGINEERS, LLC
2900 N. Martin Luther King Jr. Dr. Decatur, IL 62526

SOIL BORING LOG

Page 2 of 2
Project #: 313516
Date 04/12/13

ROUTE ____ DESCRIPTION BRUSH COLLEGE ROAD LOGGED BY CM,BG,CH,JM
SECTION ____ LOCATION DECATUR, IL
COUNTY MACON STRUCTURE NO. ____ (Exist) ____ (Prop.) ____
BORING NO. B-16 DRILLING METHOD HOLLOW STEM HAMMER TYPE 140# SAFETY HAMMER

Station By UBS
Offset By UBS
Ground Surface Elev. 675.023 (ft.)

Surface Water Elev ____ (ft.)
Groundwater Elev
First Encounter 26.5' (ft.)
Upon Completion ____ (ft.)
After 24hs. ____ (ft.)

SOIL DESCRIPTION	ELEV (ft.)	DEPTH (ft.)	BLOWS /6"	UCS Qu (tsf)	MOIST (%)
END OF BORING @ 71.0 FT		70	22 29 29		
		75			
		80			
		85			
		90			
		95			
		100			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer).
The Standard Penetration Test (SPT) N Value is per (AASHTO T206)

BBS 137 (9/05)

SIUE ENGINEERS, LLC
2900 N. Martin Luther King Jr. Dr. Decatur, IL 62526

SOIL BORING LOG

Page 1 of 2
Project #: 916780
Date 03/2/20

ROUTE ____ DESCRIPTION BRUSH COLLEGE ROAD LOGGED BY GC/EE
SECTION ____ LOCATION DECATUR, ILLINOIS
COUNTY MACON COUNTY STRUCTURE NO. ____ (Exist) ____ (Prop.) ____
BORING NO. B-24 DRILLING METHOD MUD ROTARY HAMMER TYPE 140# SAFETY HAMMER

Station ____
Offset ____
Ground Surface Elev. 673.694 (ft.)

Surface Water Elev ____ (ft.)
Groundwater Elev
First Encounter 666.19 (ft.)
Upon Completion ____ (ft.)
After ____ Hrs. ____ (ft.)

SOIL DESCRIPTION	ELEV (ft.)	DEPTH (ft.)	BLOWS /6"	UCS Qu (tsf)	MOIST (%)
14" CONCRETE					
SAND A-1-a Brown, moist, medium dense, fine-medium, trace gravel -loose		5	11 16 11		
-very loose-loose 1" free water 7.5'			4 4 5		
-loose		10	2 2 2		
CLAY LOAM A-6 Brown, moist, very stiff, low plasticity, with sand trace gravel		15	4 3 3	1.24	14.2
SAND A-1-a Gray, saturated, medium dense, fine-medium, trace silt		20	3 12 18		
CLAY LOAM A-6 Gray, moist, very stiff, low plasticity, with sand trace gravel -hard		25	4 11 17	3.30	11.5
-begin mud rotary drilling SAND A-1-a Gray, saturated, very dense, fine-coarse, trace gravel		30	7 9 13		
CLAY LOAM A-6 Gray, moist, hard, low plasticity, with sand trace gravel			8 11 25	5.56	10.1
			22 60-5		
			3 20 40-5		11.6
			60-4		
-stiff-very stiff		35	13 18 32	2.80	17.1
		40	4 7 9	2.66	13.7
-hard		45	9 18 12-1	7.3	11.2
		50	8 28 32-3		10.3
SAND A-1-a Gray, saturated, very dense, fine-coarse, trace gravel		55	25 27 32		
-dense		60	28 20 24		
-very dense		65	22 33 30-5		

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer).
The Standard Penetration Test (SPT) N Value is per (AASHTO T206)

BBS 137 (9/05)

SIUE ENGINEERS, LLC
2900 N. Martin Luther King Jr. Dr. Decatur, IL 62526

SOIL BORING LOG

Page 2 of 2
Project #: 916780
Date 03/2/20

ROUTE ____ DESCRIPTION BRUSH COLLEGE ROAD LOGGED BY GC/EE
SECTION ____ LOCATION DECATUR, ILLINOIS
COUNTY MACON COUNTY STRUCTURE NO. ____ (Exist) ____ (Prop.) ____
BORING NO. B-24 DRILLING METHOD MUD ROTARY HAMMER TYPE 140# SAFETY HAMMER

Station ____
Offset ____
Ground Surface Elev. 673.694 (ft.)

Surface Water Elev. ____ (ft.)
Groundwater Elev
First Encounter 666.19 (ft.)
Upon Completion ____ (ft.)
After ____ Hrs. ____ (ft.)

SOIL DESCRIPTION	ELEV (ft.)	DEPTH (ft.)	BLOWS /6"	UCS Qu (tsf)	MOIST (%)
CLAY LOAM A-6 Gray, moist, hard, low plasticity, with sand trace gravel			60-5		12.3
-dense		70	60-6		
-no recovery		105	60-4		13.9
-very dense		75	18 20 25		
-no recovery		110	60-1		
-no recovery		80	38 34 26-5		
-no recovery		115	60-3		
-no recovery		85	20 24 34		
-no recovery		120	60-2		
-Shale begins at 125.5'		90	21 25 28		
SHALE Gray, moist, very dense, low plasticity, weathered	543.694	125	60-0		
END OF BORING @ 130.0 FT.		56	34 50 16-1		9.7
		100			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer).
The Standard Penetration Test (SPT) N Value is per (AASHTO T206)

BBS 137 (9/05)

AECOM	USER NAME = mcrick	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SOIL BORING LOGS II STRUCTURE NO. 058-9202	FAU RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CHECKED -	REVISED -			7448	09-00933-01-BR	MACON	1029	704
	PLOT SCALE = N/S	DRAWN - GF	REVISED -					CONTRACT NO. 95893		
	PLOT DATE = 4/29/2021	CHECKED - MCC	REVISED -		SHEET NO. SF-34 OF SF-35 SHEETS		ILLINOIS	FED. ROAD DIST.		

EXHIBIT B

SLS ENGINEERS, LLC
2900 N. Martin Luther King Jr. Dr. Decatur, IL 62526

SOIL BORING LOG

Page 1 of 2
Project #: 916780
Date 3/11/20

ROUTE _____ DESCRIPTION BRUSH COLLEGE ROAD LOGGED BY _____
SECTION _____ LOCATION DECATUR, ILLINOIS
COUNTY MACON COUNTY STRUCTURE NO. _____ (Exist) _____ (Prop.) _____
BORING NO. B-25 DRILLING METHOD _____ HAMMER TYPE 140# SAFETY HAMMER

Station _____
Offset _____
Ground Surface Elev. 674.997 (ft.)

Surface Water Elev. _____ (ft.)
Groundwater Elev
First Encounter 658.00 (ft.)
Upon Completion _____ (ft.)
After _____ Hrs. _____ (ft.)

SOIL DESCRIPTION	ELEV (ft.)	DEPTH (ft.)	BLOWS /6"	UCS Qu (tsf)	MOIST (%)
16" CONCRETE					
SILTY CLAY A-6 Brown, very moist, very stiff, low plasticity, trace sand -shelby tube		5	7 7 12	2.0	26.5
SAND A-1-a Brown, very moist, loose, fine-medium, trace silt		10	3 3 5		19.5
CLAY LOAM A-6 Brown, moist, stiff, low plasticity, little sand, trace gravel -hard			6 6 8	1.6	14.6
			9 10 35		13.3
		15	10 26 34	4.7	15.2
(*)free water @ 17.0'			4 7 12	1.9	12.7
CLAY LOAM A-6 Gray, moist, very stiff, low plasticity, with sand, trace gravel		20	5 8 12	2.4	10.5
			7 8 16	1.1	14.0
-hard		25	18 24 25	1.4	11.6
-very stiff -2 attempts no recovery			10 12 14		
-begin mud rotary drilling -hard		30	34 60-3		

SOIL DESCRIPTION	ELEV (ft.)	DEPTH (ft.)	BLOWS /6"	UCS Qu (tsf)	MOIST (%)
		35	34 60-5		11.5
		40	30 60-6	4.6	10.4
SAND A-1-a Gray, saturated, very dense, fine-coarse, trace gravel		45	7 18 28		10.5
		50	21 25 35-6		12.9
		55	34 40 20-3		
		60	29 33 27-5		
		65	32 40 20-3		

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer).
The Standard Penetration Test (SPT) N Value is per (AASHTO T206)

BBS 137 (9/05)

SLS ENGINEERS, LLC
2900 N. Martin Luther King Jr. Dr. Decatur, IL 62526

SOIL BORING LOG

Page 2 of 2
Project #: 916780
Date 3/11/20

ROUTE _____ DESCRIPTION BRUSH COLLEGE ROAD LOGGED BY _____
SECTION _____ LOCATION DECATUR, ILLINOIS
COUNTY MACON COUNTY STRUCTURE NO. _____ (Exist) _____ (Prop.) _____
BORING NO. B-25 DRILLING METHOD _____ HAMMER TYPE 140# SAFETY HAMMER

Station _____
Offset _____
Ground Surface Elev. 674.997 (ft.)

Surface Water Elev. _____ (ft.)
Groundwater Elev.
First Encounter 658.00 (ft.)
Upon Completion _____ (ft.)
After _____ Hrs. _____ (ft.)

SOIL DESCRIPTION	ELEV (ft.)	DEPTH (ft.)	BLOWS /6"	UCS Qu (tsf)	MOIST (%)
-dense		70	34 60-6		
		75	27 29 23		
		80	33 26 24		
SAND A-3 Gray, saturated, very dense, fine		85	60-6		
		90	60-2		
		95	60-5		
		100			

SOIL DESCRIPTION	ELEV (ft.)	DEPTH (ft.)	BLOWS /6"	UCS Qu (tsf)	MOIST (%)
CLAY LOAM A-6 Gray, moist, hard, low plasticity, with sand, trace gravel			60-5		14.3
		105	60-2		9.4
		110	60-3		14.8
		115	60-2		12.4
SHALE Gray, moist, very dense, weathered		120	60-5		
		125	60-1		
END OF BORING @ 130.0 FT.	544.997	130	60-1		

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer).
The Standard Penetration Test (SPT) N Value is per (AASHTO T206)

BBS 137 (9/05)

AECOM

USER NAME = mccaa	DESIGNED -	REVISED -
	CHECKED -	REVISED -
PLOT SCALE = NTS	DRAWN - GF	REVISED -
PLOT DATE = 4/28/2021	CHECKED - MCC	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOIL BORING LOGS III
STRUCTURE NO. 058-9202

SHEET NO. SF-35 OF SF-35 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7448	09-00031-01-BR	MACON	1019	705

CONTRACT NO. 95B93

ILLINOIS FED. AID PROJECT

E. Norfolk Southern – 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.

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 **required** 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 electronic 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 Corporation and its subsidiaries
Three Commercial Place
Norfolk, Virginia 23510-2191
NSRISK3@NSCORP.COM

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 email to NSRISK3@NSCORP.COM. Railroad will NOT accept initial insurance submissions via hard copies that would be sent either US Mail or Overnight carrier or faxes as only electronic versions only are to be submitted to Railroad. **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 electronic insurance submission to NSRISK3@NSCORP.COM to be submitted under a cover letter providing details of the project and containing the contact information:

   a. The full original or certified true electronic 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 Corporation and its subsidiaries, 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 or certified true electronic 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.

EXHIBIT C

17. PROJECT INFORMATION
    A. Date: May 28, 2021
    B. NS File No.: BR1113299
    C. NS Milepost: IT-43.53
    D. Sponsor's Project No.:

EXHIBIT D

FORCE ACCOUNT ESTIMATE

Work to be Performed By:	Norfolk Southern Railway Company
For the Account of:	City of Decatur, Illinois
Project Description:	Brush College Rd. Grade Separation
Location:	Decatur, Macon County, IL
Project No.:	TBD
Milepost:	Milepost IT-43.53
File:	BR1113299
Date:	May 21, 2021

SUMMARY

ITEM A - Preliminary Engineering	0
ITEM B - Construction Engineering	219,369
ITEM C - Accounting	1,524
ITEM D - Flagging Services	121,625
ITEM E - Communications Changes	0
ITEM F - Signal & Electrical Changes	257,988
ITEM G - Track Work	0
ITEM H - T-Cubed	0
GRAND TOTAL	**$ 600,506**

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:	120 Hours @ $60 / hour=		7,200
Labor Additives:			5,658
Travel Expenses:			2,000
Services by Contract Engineer:			204,511
	NET TOTAL - ITEM B	$	219,369

ITEM C - Administration

Agreement Construction, Review and/or Handling:			1,250
Accounting Hours (Labor):	5 Hours @ $30 / hour=		150
Accounting Additives:			124
	NET TOTAL - ITEM C	$	1,524

ITEM D - Flagging Services

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

Labor:	1 Flagging Foreman		
	104 days @ 390.00 per day=		40,560
	(based on working 12 hours/day)		
Labor Additive:			75,365
Travel Expenses, Meals & Lodging:			
	0 days @ $100/day=		0
Rental Vehicle	6 months @ $950/month=		5,700
	NET TOTAL - ITEM D	$	121,625

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

	(see attached summary)	
Material:		120,000
Labor:		49,260
Purchase Services:		14,503
Other:		74,225
	NET TOTAL - ITEM F	$ 257,988

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
D&C (Lump Sum):	(see attached summary)	0
	NET TOTAL - ITEM G	$ -

ITEM H - T-CUBED

Lump Sum	(see attached summary)	$ -

NOTES

1. For all groups of CONTRACT employees, the composite labor surcharge rate used in this estimate (including insurance) is **185.81%**. 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 (05/21/2021). 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.

EXHIBIT NS

21-May-21

Detailed Estimate for Grade Crossing Warning Devices

City/State: DECATUR, IL
MilePost: IT-43.6
State Proj. No.:
S&E Proj. No.: 04.0538
Man Days: 108

Road: BRUSH COLLEGE RD.
DOT/AAR: 328516E
County: MACON
File Number: 061-04.0284

Purchases - Others		
Meals and Lodging:	$16,195.08	
Rental of Equipment:	$22,138.61	
(2 Trucks, 1 Backhoe w/ Trailer and 1 Pipe-Pusher for 18 Days)		
Construction Supervision Vehicle:	$3,386.46	
Purchases - Other Total:		$41,720.15
Material And Additives		
Material Cost:	$100,000.00	
Sales and Use Tax:	$10,000.00	
Material Handling Freight:	$10,000.00	
Material Total:		$120,000.00
Labor And Additives		
Labor Cost:	$38,124.00	
(6 man crew at $2,118.00 a day for: 18 days)		
Payroll Tax & Overheads:	$32,504.52	
Preliminary Engineering:	$14,503.02	
Construction Supervision:	$11,136.02	
Labor Total:		$96,267.56
	Project Cost:	$257,987.71
	Scrap / Salvage Credit:	$0.00
	Project Total:	**$257,988.00**

Estimated on: 21-May-21

Estimated by: uegbb

Estimate valid for 1 year from date of estimate