

Synthesis of Regulations and Laws Pertaining to Roadway/Rail Line Intersections on Ohio's Local Transportation System



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Unless otherwise indicated, the opinions herein are those of the authors and do not necessarily reflect the views of Ohio's Research Initiatives for Locals (ORIL) or the Ohio Department of Transportation (ODOT). This report provides an overview of the regulatory and legal framework as it is understood from a review of current legal and regulatory documentation. While CPCS makes efforts to validate and rectify any discrepancies, CPCS cannot warrant the accuracy of third-party data or assertions.			
16. Abstract			
This report examines the current federal, state, and local powers related to grade crossing regulation and property/right-of-way ownership in Ohio, including law principles involving conflicting interests in real property. The report also includes a synthesis of the regulatory gaps and provides recommendations regarding bridging those gaps through new legislations and improved negotiation procedures.			
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The CPCS Team acknowledges and is thankful for the input of those stakeholders consulted, as well as the guidance and the input of the project's Technical Advisory Committee members.

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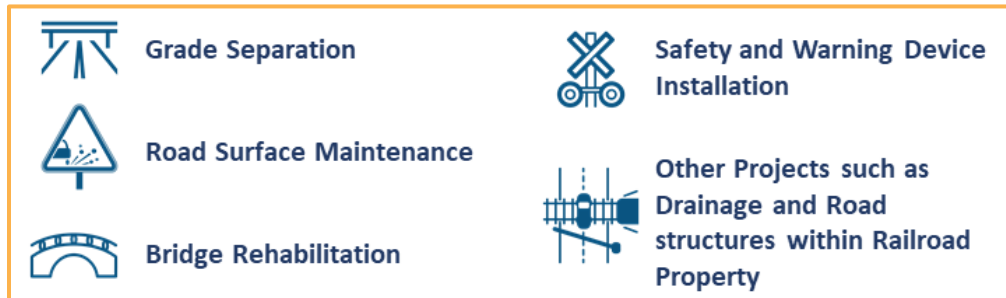
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Acronyms / Abbreviations

CFR	Code of Federal Regulations
FAST	Fixing America's Surface Transportation
FHWA	Federal Highway Administration
FRA	Federal Railroad Administration
FRSA	Federal Railroad Safety Act
FY	Fiscal Year
ICCTA	Interstate Commerce Commission Termination Act
LRT	Light Rail Transit
MUTCD	Manual on Uniform Traffic Control Devices
NTSB	National Transportation Safety Board
ODOT	Ohio Department of Transportation
ORC	Ohio Revised Code
ORDC	Ohio Rail Development Commission
ORIL	Ohio's Research Initiative for Locals
OMUTCD	Ohio Manual on Uniform Traffic Control Devices
PUCO	Public Utilities Commission of Ohio
ROW	Right of Way
STB	Surface Transportation Board
STBG	Surface Transportation Block Grant
TAC	Technical Advisory Committee
TTC	Temporary Traffic Control
US	United States
USC	United States Code

1 | Problem Statement

Local Public Agencies (LPAs) from across Ohio (state, municipal, county, township, etc.) are involved in roadway-rail crossing projects and, therefore, frequently interact with railroads. The scale and type of project at a crossing can significantly impact the kind of interaction and the coordination between the road authorities and the railroads. However, the interactions frequently relate to the following:



LPAs and railroads have different interests at the crossings and are each granted responsibilities and authorities at the crossings by way of federal and state regulations. For the most part, existing regulations tend to benefit railroads and often leave LPAs in challenging situations with respect to meeting their financial and/or construction mandates on completing construction projects in a timely manner.

Federal laws fulfill rail safety requirements and set out appropriate responsibilities related to engineering and operational safety. States may adopt laws and regulations and issue orders that are compatible with and more stringent than those of the federal government to eliminate local hazards, as long as the laws do not unreasonably burden interstate commerce.

Yet, due to the complex web of federal and state laws and regulations, the work of LPAs and railroads at roadway-railway intersections are frequently stymied by a lack of clear understanding of the respective jurisdiction of each entity and by other institutional differences. Common legal and regulatory interpretation issues in Ohio include lack of understanding of railroad responsibilities for coordination with local authorities for temporarily disruption of vehicular road traffic at crossings, requirements of railroads regarding effective cooperation with local road authorities, and legal obligations of road authorities and railroads regarding right-of-way.

There are ambiguities with respect to understanding the legal obligations of road authorities and railroads regarding right-of-way.

On the institutional side, the most significant issue, according to consultations with LPAs, is that railroads are not required to respond to the local governments on an efficient schedule. Railroad agreement processes are established according to the railroad's corporate structure and prioritize company-wide financial, legal, and operational strategies ahead of community needs. In other words, state and local road agencies and railroads approach roadway-railroad crossing issues from different perspectives and priorities.

There are several major reasons for the longer-than-desired processing time by the railroads to advance grade crossing projects, including:

- Relatively high staff turnover in some railroad companies; the individuals who manage railroad interactions with local and state authorities tend to change frequently, creating disconnects in the working relationships that would allow all parties to work together constructively.
- Major reduction in staff and personnel as North American railroads transition to Precision Scheduled Railroad operations (e.g., running fewer, longer trains, point-to-point), and other cost-cutting measures.

Regardless of the causality of the issues and agreement concerns, both public road authorities and railroads agree on the need for improvements in the agreement processes. **One way to improve coordination is to document the respective legal and regulatory powers more clearly, hence, the development of the present report to help ODOT**

The objective of this study is to synthesize the underlying laws and regulations governing roadway-railway intersections. This work may allow the State of Ohio and Ohio LPAs to know how to address these challenging situations through regulatory changes and other means.



Roadway Rail Crossing Definition

The area where a roadway and a railroad (or light rail transit line) intersect at the same level, is known as an at-grade roadway-rail crossing (also called a “crossing” in this report). Rail tracks, roadway, and traffic control devices for traffic traversing are included in the crossing area. The Code of Federal Regulation 49 CFR § 218.93 defines a roadway-rail grade crossing as:

“...an at-grade crossing where a public highway, road, street, or private roadway, including associated sidewalks and pathways, crosses one or more railroad tracks at grade, and is identified by a U.S. DOT National Highway-Rail Grade Crossing Inventory Number, or is marked by crossbucks, stop signs, or other appropriate signage indicating the presence of an at-grade crossing.”

2 | Research Background

2.1 Project Objective

Under agreement #33503 to Ohio’s Research Initiative for Locals (ORIL), CPCS was approved to conduct this research for inclusion in the FY 2019 SP&R2 work program by the Ohio Department of Transportation (ODOT) Executive Leadership and the Federal Highway Administration (FHWA).

The overarching goal of this research is to provide clarification to local officials as to the extent of the authority of each entity at all roadway/rail line intersections.

The objective is to synthesize and summarize current federal and state regulations/laws pertaining to this issue in a manner that is concise and understandable to local transportation professionals who manage Local Public Agency (LPA) matters related to roadway/rail line intersections.

2.2 Project Structure

The project was developed in five broad tasks, as set out in the following figure. After the project's inception (Task 0), the team focused on a review of the literature and legal documents relevant to rail crossing projects and agreement processes (Task 1), which resulted in the submission of the first working paper.

Next, the project team conducted a detailed synthesis of the rail crossing regulatory framework in Ohio (Task 2) and submitted the results to the project’s Technical Advisory Committee (TAC) to lay the groundwork for the identification of regulatory gaps and best practices as set out in Task 3.

The **project’s TAC** consists of subject matter experts from Ohio’s local and state agencies providing support and technical oversight to the project team. Specifically, **the project team interviewed TAC members** to gain a better understanding of the current road-rail authority agreement processes and local regulatory challenges.

Figure 2-1: Project Tasks



Analysis results shed light on the following crossing-related regulatory areas:

- Delineation of authority over railroads,
- Maintenance, inspection and testing standards of track infrastructure and protection at crossings,
- Safety assessments and improvements at crossings,
- Authorities and responsibilities at private crossings,
- Railroad responsibilities for road traffic at crossings,
- Railroad responsibilities to cooperate with state and local authorities.

This present document incorporates all the previously-submitted working papers as well as feedback and comments provided by the TAC into a final report and associated Executive Summary (Tasks 4 and 5). The report includes synthesis and summary of the findings and provides recommendations for addressing regulatory gaps and issues in Ohio.

2.3 Review of the Literature

The following summarizes the key takeaways from our detailed review of the federal, state, and local regulations pertaining to railroad-highways crossings. A complete literature review is included in Appendix A.

Inspection, Testing, and Maintenance of Crossings

- **Inspection, testing, and maintenance of crossing protection** is the responsibility of the railroad in accordance with 49 CFR 234. **Maintenance of vehicle and pedestrian crossing surfaces** is also the responsibility of the railroad in accordance with ORC 4955.20.
- **The Federal Railroad Administration (FRA)** has broad powers to prescribe regulations and issue orders for these and every area of railroad safety. 49 CFR Part 212 (State Safety Participation Regulations) sets out the standards and procedures for **state participation in investigation and surveillance to monitor railroad compliance** to Federal railroad safety laws and regulations. The FRA and state inspections are to determine the extent to which the railroads have fulfilled their obligations with respect to inspection, maintenance, training, and supervision.
- **State power and jurisdiction to supervise and regulate railroads** are vested by the **Public Utilities Commission (PUC)** by way of Ohio Revised Code (ORC) Chapter 4905.04. ORC 4955 (Tracks, Crossing) grants **authority to municipal corporations or townships** to direct railroads to fix crossings and to remove vegetation to provide adequate sightlines for railroads.

Responsibilities for Ensuring Crossing Safety

- 23 CFR 148 defines the **Highway Safety Improvement Program** and includes railway-highway grade crossing safety improvements as being eligible projects. It delegates the responsibility to the **states to identify safety problems and to create a program for addressing them** through project investments and planning strategies. It also requires that states to develop State Strategic Highway Safety Plans, which are comprehensive plans based on safety data and consultations that identify and analyze highway safety problems and opportunities (including at crossings) and prioritize improvements based on safety data analysis.
- Section **103** of the **Rail Safety Improvement Act of 2008** requires railroads to develop and submit to the FRA for approval of their **Rail Safety Risk Reduction Programs (RRP)**. The RRP must include a **Technology Implementation Plan (TIP)** which is a ten-year plan that describes the railroad's plan for development, adoption, implementation, maintenance, and use of current, new or novel technologies on its system to reduce safety risks identified under the RRP including grade crossing technology.
- FHWA's Highway-Rail Grade Crossing Handbook provides guidance on grade crossing safety treatments.

Process for Improving Safety at Crossings

- 23 CFR 148 defines the **Highway Safety Improvement Program** and includes railway-highway grade crossing safety improvements as being eligible projects. It delegates the responsibility to the **states to identify safety problems and to create a program for addressing them** through project investments and planning strategies. It also required states to develop the State Strategic Highway Safety Plan, which is a comprehensive plan, based on safety data.

3 | Overview of Ohio's Legal and Regulatory Framework on Road-Rail Crossings

3.1 Background

This chapter summarizes the desk study of the legal framework and issues within Ohio regarding decision-making authority for physical changes or closures at the crossings in the State of Ohio.

A combination of federal, state, and local laws addresses road-rail crossings and sets out appropriate responsibilities, most of which relate to engineering and operational safety.

This synthesis assumes that the existing provisions found in Titles 49 and 55 of the Ohio Revised Code (ORC) with respect to road-rail crossings are valid and not pre-empted by federal law.¹

3.2 Local Public Road Authority Responsibilities Regarding Road-Rail Crossings

3.2.1 Relationship between 49 ORC and 55 ORC

The ORC divides the provisions pertaining to road-rail crossings between Title 49 and Title 55. The legislative history, rather than strict logic, seems to dictate where each provision is to be found:

- A number of chapters in ORC Title 49 (*Public Utilities*) govern road-rail crossings. The most important of these are [Chapter 4907](#) (*Public Utilities Commission - Railroad Powers*); [Chapter 4955](#) (*Tracks; Crossings*); [Chapter 4957](#) (*Elimination of Crossings*); and [Chapter 4959](#) (*Right of Way Drainage and Fences*).

¹ This is not necessarily the case for all these provisions however. While States have traditionally enjoyed considerable powers in regulating road-rail crossings on the basis of their traditional police powers to protect public health and safety (see *Erie R.R. v. Bd. of Pub. Util. Comm'rs*, [254 U.S. 394, 410](#)), they can only do so as "long as the application of such laws or regulations has only a remote or incidental effect on rail transportation." In other words, such a law "must address state concerns generally, without targeting the operation of the railroad industry." See *State of Kansas v. Burlington Northern Santa Fe Railway Company* ([Kan. Ct. App., 2018](#)). For example, ORC §5589.21 and §5589.211 makes it an offence for a railroad to obstruct "a public street, road, or highway, by permitting a railroad car, locomotive, or other obstruction to remain upon or across it for longer than five minutes." A US District Court has already ruled that: "Ohio's blocked-crossing statute, O.R.C. § 5589.21 is preempted by the Interstate Commerce Commission Termination Act of 1995, 49 U.S.C. § 10101, et seq.: see [CSX Transp., Inc. v. Williams](#) (April 28, 2017).

- The provisions in **Chapter 4907** relating to road-rail crossings apply to all public crossings of railroads at grade, whether on the state, county, or township highways or on streets or ways within municipal corporations.
 - The provisions in **Chapter 4955** are of mixed application: some are applicable to all crossings, while others are solely applicable to crossings on public roads under the jurisdiction of a board of township trustees or of that of the legislative authority of a municipal corporation.
 - Under **Chapter 4957**, there is also a mix of crossings under different jurisdictions: in this case, those under the legislative authority of a municipal corporation and those under the board of county commissioners of a county.
 - Finally, **Chapter 4959** contains two provisions on crossings and, while these two provisions apply to all road-rail crossings (state, county, municipality/township), their focus is on farmland crossings and the protection of cattle.
- Three chapters in ORC Title 55 (*Roads - Highways – Bridges*) also contain provisions relating to road-rail crossings: [Chapter 5523](#) (*Grade Crossings*), [Chapter 5561](#) (*County Road Grade Crossings*), and [Chapter 5589](#) (*Offences relating to Highways*).
 - The provisions in **Chapter 5523** deal with at-grade crossing elimination, through various means, of grade crossings on roads or highways of the state highway system;² the authority involved here is the Ohio Director of Transportation (ODOT);
 - **Chapter 5561** provisions also deal with the elimination of grade crossings by permitting counties to raise or lower the grade of any state or intercounty highway above or below the tracks of a railroad and by being able to require a railroad to raise or lower the grade of its tracks, above or below any state or intercounty highway; the authority involved here is the relevant board of county commissioners; and
 - Finally, **Chapter 5589** contains two sections (§5589.21 and §5589.211), making it an offense for a railroad to obstruct “a public street, road, or highway, by permitting a railroad car, locomotive, or other obstruction to remain upon or across it for longer than five minutes.” Unlike the preceding two chapters, all public streets, roads, or highways are covered under Chapter 5589, in addition to roads or highways of the state highway system or state or intercounty highways. However, as noted earlier, this anti-blocking legislation has been found to be preempted by federal law: see [CSX Transp., Inc. v. Williams](#) (April 28, 2017).

This said, the relevant provisions on road-rail crossings as they relate to LPAs are found in ORC Title 49. Subject to some exceptions related to funding,³ these LPAs, in conjunction with the Public Utilities Commission of Ohio (PUCO), have various powers and duties with respect to road-rail crossings which will be discussed under the

² See ORC [§ 5511.01](#) for the definition of the “state highway system”. The State Highway System consists of all highways designated as state routes, U.S. Numbered Routes, and Interstate Routes: see [here](#).

³ When Federal funds or programs are at play, reference must be had to 49 CFR [§646.210](#) (*Classification of Projects and Railroad Share of the Cost*) and 49 CFR [§646.212](#) (*Federal Share*) with respect to the allocation of costs for the highway-railroad crossing.

following headings: a) Grade Crossings; b) Protection and Warning Signals; c) Elimination of Grade Crossings through Grade Separation; and d) Elimination of Grade Crossings through Grade Separation.⁴

Grade Crossings

ORC [§4955.20](#) (*Highway Crossings and Sidewalks - Maintenance and Repair*) mandates “companies operating a railroad in this state [to] build and keep in repair good and sufficient crossings over or approaches to such railroad, its tracks, sidetracks, and switches, at all points where any public highway, street, lane, avenue, alley, road, or pike is intersected by such railroad, its tracks, sidetracks, or switches”;⁵ LPAs⁶ having “power to fix and determine the kind and extent, and the time and manner of constructing, crossings and approaches.” The cost of constructing, repairing, and maintaining the crossing is borne by the railroad.⁷

Protection and Warning Signals

ORC [§4955.33](#) (*Crossbuck Signs*) requires that railroads “erect crossbuck signing at positions at each such crossing that are in accordance with the department of transportation manual for uniform traffic control devices, adopted under section 4511.09 of the Revised Code,⁸ to give notice of the proximity of the railroad and warn persons to be on the lookout for the locomotive.”

ORC [§4907.47](#) (*Installing Crossing Signals*). Once a road-rail crossing is in existence, PUCO is authorized to order a railroad to install and maintain a gate, an automatic alarm bell, or any other mechanical device at any grade crossing if it deems the grade crossing dangerous and hazardous.⁹ In that event, the cost of installing any such

⁴ For purpose of comparison we have looked at the law in Michigan as it relates to these same four matters/headings. The relevant provisions are set out in Appendix B.

⁵ There is a provision similar to the first part of ORC §4955.20 to be found at [§4959.03](#) (*Cattle Guards and Crossings*) to the effect that: “Before operating a railroad, the company or person having control or management of such railroad shall maintain at every point where a public road, street, lane, or highway used by the public crosses such railroad, safe and sufficient crossings ...”

⁶ Specifically, the legislative authority of a municipal corporation for a municipal corporation and the board of township trustees for non-municipal corporations.

⁷ See ORC [§4955.20](#) (last sentence) (“Such crossings, approaches, and sidewalks shall be constructed, repaired, and maintained by the railroad companies as so ordered”) and 49 ORC [§4955.21](#):

“The officers having charge of a public highway, street, or alley intersected by a railroad shall serve a written notice upon the nearest station agent or section foreman having charge of that portion of the railroad where such intersection occurs that the crossing, approach, or sidewalk described in section 4955.20 of the Revised Code must be built or repaired, setting forth its kind and extent and the time and manner of constructing it, as ordered by the legislative authority of the municipal corporation or board of township trustees. A railroad company so notified must comply with such notice within a period of thirty days after receiving it. On failure to do so, the board or legislative authority may cause such crossing, approach, or sidewalk to be constructed or repaired as ordered, and recover the cost of so doing with interest in a civil action against the railroad company in the name of the board or municipal corporation.”

⁸ ORC [§4511.09](#) (*Manual for uniform system of traffic control devices*) provides that:

“The department of transportation shall adopt a manual for a uniform system of traffic control devices, including signs denoting names of streets and highways, for use upon any street, highway, bikeway, or private road open to public travel within this state. Such uniform system shall correlate with, and so far as possible conform to, the system approved by the federal highway administration.”

⁹ PUCO designates the crossings as “dangerous and hazardous” according to the results of applying a formula, which PUCO develops based on “sound highway engineering practice for determining the probability of accident at each such crossing and may include in the formula factors representing volume of vehicular traffic, volume of train traffic, history of previous accidents, train type and speed, limitations of view, intersection angle, number of tracks, highway alignment, and such other special factors and conditions as are in its opinion relevant”; [ORC §4907.471](#)

device is allocated between the railroad and the public “in any proportion [PUCO] determines proper that is consistent with any applicable Federal requirements, after giving due consideration to the factors listed in division (B) of [§4907.47]”.¹⁰ The share of the costs apportioned to the public can benefit from both state¹¹ and federal¹² assistance (See also [§4907.52](#) - *Safety Devices at Grade Crossings*, and [§4907.53](#) - *Hearing as to Necessity of Safety Devices*, which encompass safety devices in addition to the road-rail crossings. It is therefore not clear how ORC §4907.47 and ORC §§4907.52-4907.53 work together.

Elimination of Grade Crossings through Grade Separation

ORC, [Chapter 4957](#) (*Elimination of Crossings*) contains a number of provisions dealing with the alteration or improvement of existing grade crossings under the jurisdiction of municipal corporations or counties (e.g., the making of ways, crossings, or viaducts, above or below the railroad tracks, and the raising or lowering of the grades of the railroad tracks and sidetracks), including the cost of making those alterations and improvements. Such cost is borne unless otherwise agreed upon, eighty-five percent by the municipal corporation and fifteen percent by the railroad.¹³

Of note is ORC [§4957.10](#) (*Powers as to Grades above or below Railroad Tracks*), which provides that any municipal corporation may raise or lower, or cause to be raised or lowered, the grade of any street or way owned by it, either within or without its municipal limits, above or below railroad tracks, and may require any railroad company operating a railroad across such streets or ways to raise or lower the grade of its tracks and may construct ways or crossings above the tracks of any railroad, or require the railroad company to construct ways or crossings that are to be passed under its tracks.

This provision is repeated two more times at ORC Title 55, but this time in favor, respectively, of the Ohio Director of Transportation ([§5523.01](#)) and of the boards of county commissioners ([§5561.01](#)) for the roads and highways under their jurisdiction.

As with a municipal corporation, a county under ORC §5561.01 (*Road Grade Above or Below Railroad Tracks*):

may raise or lower the grade of any state or intercounty highway above or below the tracks of railroads
.... and require any railroad company operating a railroad in such county ... to raise or lower the grade

¹⁰ Division (B) of §4907.47 reads in part as follows:

“In assigning the cost of any such device the [public utilities] commission shall consider factors of volume of vehicular traffic, volume of train traffic, train type and speed, limitations of view and the causes thereof, savings, if any, which will inure to the railroad as the result of the installation, benefits to the public resulting from the reduction of hazard at the crossing, the probable cost of the installation, the future cost to the railroad of maintaining any such device, and any other special factors and conditions that the commission considers relevant. The commission may accept a railroad's agreement to maintain the installation as being its share of the cost for the protection.”

¹¹ ORC [§4907.472](#) establishes the Grade Crossing Protection Fund for the State of Ohio. Additional details can be found [here](#) at p. 7.

¹² As to the details of the Federal Railway-Highway Crossings (Section 130) Program, see [here](#). The Ohio Rail Development Commission (ORDC) (49 ORC, [Chapter 4981](#): Rail Development Commission) administers Federal funds on behalf of the Ohio Department of Transportation (ODOT) that are utilized for railroad safety improvement projects: see [here](#) at p. 6.

¹³ See ORC [§ 4957.18](#) (*Apportionment of Cost between Municipal Corporation and Railroad*): “The cost of constructing a crossing improvement authorized, including the making of ways, crossings, or viaducts, above or below the railroad tracks, and the raising or lowering of the grades of the railroad tracks and sidetracks for such distance as is required by such municipal corporation and made necessary by such improvement, together with the cost of land or property purchased or appropriated, and damages to owners of abutting or other property, shall be borne, unless otherwise agreed upon, eighty-five per cent by the municipal corporation and fifteen per cent by such railroad company.”

of its tracks, above or below any state or intercounty highway, and may construct ways or crossing for such highway above the tracks of any railroad ..., or require the railroad company ... to construct ways or crossings, therefore that are to be passed under its tracks.

The remaining chapters deal with a number of conditions that must be met by the county before it can exercise power conferred to it under ORC §5561.01.

Closing of Existing Crossings

Mandatory closing of crossings is permitted under ORC 49.

ORC [§4907.474](#) (*Closing Crossings to Vehicular Traffic*) allows PUCO to order the closure of an existing road-rail crossing to vehicular or pedestrian traffic based on “whether there is a demonstrable need for such crossing to exist.” The section lists the factors which need to be considered by PUCO. Before ordering the closure of the crossing, PUCO also needs “to hold a public hearing on the issue of the possible closing of the crossing to vehicular traffic, or to pedestrian traffic, or both, and invite comments on the closing and the effects the closing would have on the vehicular and pedestrian traffic patterns within the municipal corporation.” The cost of the closure is paid by the railroad (subject to the municipal corporation paying the costs of PUCO’s investigation as to whether or not the crossing should be closed if the municipal corporation requests such an investigation).

In addition, Title 49 contains another provision [§4907.475](#) (*Closing Rural Crossings*), similar in substance to ORC §4907.474, with respect to the closing of rural crossings (i.e., crossings outside the limits of a municipal corporation).

3.3 Public Utilities Commission Responsibilities Regarding Road-Rail Crossings

ORC [§4901.02](#) (*Public Utilities Commission of Ohio*) establishes PUCO. Pursuant to [§4905.04](#) (*Power to regulate public utilities and railroads*) PUCO is vested:

with the power and jurisdiction to supervise and regulate public utilities and railroads (...) and to promulgate and enforce all orders relating to the protection, welfare, and safety of railroad employees and the traveling public, including the apportionment between railroads and the state and its political subdivisions of the cost of constructing protective devices at railroad grade crossings.

The above is a general provision. Reference must also be made to the individual provisions discussed above to get a clearer idea of PUCO’s role and powers with respect to road-rail crossings: (Mostly if the relevant provision falls within ORC [Chapter 4907](#) (*Public Utilities Commission – Railroad Powers*) (i.e., §§4907.01 - 4907.99) then PUCO will have a role to play; otherwise, it does not).

Protection and Warning Signals	
ORC §4907.47 (<i>Installing Crossing Signals</i>)	PUCO can order the installation of protective devices at a crossing after a hearing as to the necessity for such devices. It can also assign the cost of installing and maintaining the protective devices between the public and the railroad. “Any person owning or operating a railroad and neglecting or refusing to erect or maintain such gate, automatic alarm bell, or other mechanical devices, or to maintain such flagman, when required by [PUCO] pursuant to [ORC §4955.33] ..., and after PUCO] has issued an appropriate order finding that the public funds will be made available with respect to any protective device it has ordered

	installed, shall forfeit to the state, for every such neglect or refusal, one thousand dollars, and in addition, shall forfeit one thousand dollars for each day such neglect or refusal continues.” ¹⁴
Elimination of Grade Crossings through Grade Separation	
ORC §§ 4957.34-4957.36(Construction of bridges, viaducts, etc. over the track of a railroad)	The two LPAs involved here are municipal corporations and counties. In the event, a bridge, viaduct, overhead roadway, footbridge, wire, etc. require to be built to eliminate a grade crossing, plans and specifications for such works will need to be filed with PUCO, which shall also issue its permit for the work to go ahead.
ORC §5561.01 (<i>Road Grade Above or Below Railroad Tracks</i>)	The LPA involved here is the county. PUCO’s role is limited to hear appeals against an order made by ODOT under Chapter 5561.
The Closing of Existing Crossings	
ORC §4907.474 (<i>Closing Crossings to Vehicular Traffic</i>)	The order to close the road-rail crossing is made by PUCO. The municipal corporation or the railroad may appeal the order to Ohio’s Supreme Court.
ORC §4907.475 (<i>Closing Rural Crossings</i>)	The order to close the road-rail crossing is made by PUCO. The county or the railroad may appeal the order to Ohio’s Supreme Court.

Source: CPCS review of Ohio Revised Code 49.

3.4 Crossing Agreements

Ohio’s railroads and the state and local highway agencies have interacted on roadway-rail crossing issues for decades. These interactions are often related to the need by the highway agency, railroad, or both to complete capital projects or maintenance. The majority of agreements established between road authorities and railroads in Ohio are concerning at grade crossing resurfacing, bridge construction, rehabilitation or widening, or at grade crossing widening projects.

Ohio’s roadway projects include items such as pavement resurfacing, roadway improvement and/or widening, or new bridge construction, which mainly require coordination between the road agency and the railroad regarding temporary ROW entry permits. Such agreements generally include the following clauses:¹⁵

- Specifications of the scope of work and the planned maintenance or construction schedule,
- Condition of using the railroad premises at the crossing location,
- Road authorities’ responsibilities regarding compensation for harm or loss,
- Environmental obligations, liabilities, and responsibilities,

¹⁴ Mr. Randy Noe, Assistant Vice President Regulatory Affairs at the Norfolk Southern Corporation, testifying against Ohio House Bill 186 (*Regards rail yard safety, train operations, and road obstruction*) before the House Transportation and Public Safety Committee on December 10, 2019 indicated, making express reference to O.R.C. § 4907.47, that states like Ohio can regulate grade crossing warning devices, deciding the types of devices appropriate for highway rail grade crossings given traffic levels, sight distances, and other factors. http://search-prod.lis.state.oh.us/cm_pub_api/api/unwrap/chamber/133rd_ga/ready_for_publication/committee_docs/cmte_h_transportation_1/testimony/cmte_h_transportation_1_2019-12-10-1100_1097/noe_hb186_opponentpt2.pdf

¹⁵ CPCS analysis of Ohio’s crossing agreement samples, reviewed February 2020.

- Insurance policies, and
- Cost-sharing mechanisms, including taxes and remedies.

Agreements also include clauses that protect the railroads' rights to ensure the safety and sustainability of their operations. Provisions concerning roadway authorities' responsibilities regarding plan changes, corrective measures, and termination rights requested by the railroads may also be included in the agreements.

Other general clauses include assignment of successors for parties involved, third-party beneficiary provisions, amendment requirements, plan approval processes, and special provisions (as per additional forms and documents typically attached to an agreement).

Temporary ROW entry agreements between LPAs and/or the LPAs contractors and railroads start upon the date of mutual execution and expire when the crossing project is completed, or in some cases by the end of the calendar year (whichever first occurs).

4 | Identification of Ohio's Regulatory and Knowledge Gaps

4.1 Key Regulatory and Knowledge Gaps

Synthesis of the laws, regulations, and consultations with the state and local road authorities show that the three most significant sources of LPAs' frustrations in dealing with the railroads are:

- Gaps in state regulations: redundancy, contradiction, and confusion over ORC 49 and 55, and need to update financial penalties.
- Railroads temporarily removing a crossing from service without prior notice to the LPA (and thus no appropriate measures put in place to manage traffic);
- Railroads not effectively cooperating with an LPA on LPA work that will interfere with rail traffic but offers no benefit to the railroad (It should be noted that the underlying reason for requiring railroad involvement is safety).¹⁶

This chapter elaborates on these gaps, focusing on closing crossings and LPA-railroad cooperation. Chapter 5 contains recommendations on closing all gaps.

4.2 Requirements of Railroads when Temporarily Closing a Crossing

4.2.1 Our understanding of circumstances

Consultations with TAC members indicated that railroads would close a crossing to change rail (or similar maintenance) without informing the LPA. This results in an inconvenience to the traveling public (and possibly a safety risk), which could have been avoided if the LPA was advised in advance and appropriate measures put in place to inform public and detour traffic.

4.2.2 Relevant State Regulations

There are no regulations in the Ohio Revised Code requiring railroads to advise local roadway authorities of planned/anticipated at-grade crossing closures, and/or to coordinate activities with State or local highway authorities when temporarily stopping the flow of vehicular traffic at a crossing.

4.2.3 Manual on Uniform Traffic Control Devices (MUTCD)¹⁷

23 CFR § 655.603 adopts the Manual on Uniform Traffic Control Devices (MUTCD) as the national standard for all traffic control devices installed on any street, highway, or bicycle trail open to public travel. 23 CFR § 655.603

¹⁶ Overpasses or underpasses have a significant impact on safety, and therefore, cooperating in processing plans and agreements for them benefits railroads.

¹⁷ We reference the MUTCD, however, in Ohio, the prevailing manual is the Ohio Manual on Uniform Traffic Control Devices (OMUTCD). Sections 6 and 8 (which are the focus of this discussion) are the same for both manuals.

also states that traffic control devices on all streets, highways, bikeways, and private roads open to public travel in each state shall be in substantial conformance with standards issued or endorsed by the Federal Highway Administrator.

Chapter 6 of the MUTCD pertains to temporary traffic control on public roads, including at crossings, and Chapter 8 pertains to traffic control for the railroad and light rail transit grade crossings. Key abstracts from each chapter are included below.

Chapter 6 provides very specific guidance on when temporary traffic control (TTC) is required and how it is to be implemented. Key abstracts are, as follows:

- **Section 6A.01 states that** “when the normal function of the roadway, or a private road open to public travel, is suspended, **TTC (temporary traffic control) planning provides for continuity of the movement** of a motor vehicle, bicycle, and pedestrian traffic (including accessible passage); transit operations; and access (and accessibility) to property and utilities.”
- **Section 6B.01 states that** “**road user and worker safety and accessibility in TTC zones should be an integral and high-priority element of every project from planning through design and construction.** Similarly, maintenance and utility work should be planned and conducted with the safety and accessibility of all motorists, bicyclists, pedestrians (including those with disabilities), and workers being considered at all times. If the TTC zone includes a grade crossing, early coordination with the railroad company or light rail transit agency should take place.” The section goes on to state that road user movements are to be inhibited as little as practical and that before any detour or temporary route is put in place, all necessary signs shall be in place.
- **Section 6G.18 pertains to work in the vicinity of a grade crossing.** It states that “when grade crossings exist either within or in the vicinity of a TTC zone, lane restrictions, flagging, or other operations shall not create conditions where vehicles can be queued across the tracks. If the queuing of vehicles across the tracks cannot be avoided, a uniformed law enforcement officer or flagger shall be provided at the crossing to prevent vehicles from stopping on the tracks, even if automatic warning devices are in place.”¹⁸

Chapter 8 pertains to traffic control for the railroad and light rail transit (LRT) grade crossings. Key abstracts from Part 8 are, as follows:

- Section 8A.01 states the function of traffic control for grade crossings is “**to promote safety and provide effective operation of rail and/or LRT and highway traffic at grade crossings.**”
- Section 8A.08 concerns temporary traffic control zones at grade crossings. It states that
 - “Temporary traffic control planning provides for continuity of operations (such as the movement of traffic, pedestrians and bicycles, transit operations, and access to property/utilities) when the **normal function of a roadway at a grade crossing is suspended because of temporary traffic control operations.**”

¹⁸ According to the “Scope of Railroad Project, and Maintenance and Ownership of Project Improvement” clause included in typical agreements between LPAs and railroads in Ohio, flagging and superintendence of projects on rail facilities is responsibility of railroad but costs of such activities are reimbursable as part of force account estimate. For more information see agreement examples provided in Appendix C.

- “When a grade crossing exists either within or in the vicinity of a temporary traffic control zone, lane restrictions, flagging (see Chapter 6E), or other operations, shall not be performed in a manner that would cause highway vehicles to stop on the railroad or LRT tracks unless a flagger or uniformed law enforcement officer is provided at the grade crossing to minimize the possibility of highway vehicles stopping on the tracks, even if automatic warning devices are in place” and
- **Temporary traffic control operations should minimize the inconvenience, delay, and crash potential to affected traffic. Prior notice should be given to affected public or private agencies, emergency services, businesses, railroad or LRT companies, and road users before the free movement of road users or rail traffic is infringed upon or blocked.**
- Temporary traffic control zone activities should not be permitted to extensively prolong the closing of the grade crossing.

During the course of the research, the project team raised the question of whether Sections 6 and 8 apply to railroads when they perform work on crossings that temporarily impact the flow of vehicles or pedestrians. More broadly, do 23 CFR § 655.603 and the Manual on Uniform Traffic Control Devices (MUTCD) apply to railroads at crossings? If yes, then railroads are to comply with the requirements of Part 6 (more specifically section 6G.18) and Section 8A.08 when working on a crossing that impacts vehicles or pedestrian traffic flow.

The project team subsequently consulted with the FRA and AASHTO on this, and have reviewed regulations in other states to determine if this has been dealt with in a direct manner. Lastly, the team reviewed public crossing agreements used in Ohio to determine whether this has been addressed in any of these agreements. In the following subsections, each of these addressed.

The MUTCD (and the OMUTCD) includes provisions as to how road and pedestrian traffic are being dealt with when flows are inhibited in any way, including at road-rail crossings.

4.2.4 Consultations with FHWA, FRA, and AASHTO

Federal Highway Administration (FHWA)

Federal Highway Administration is the administrator of 23 CFR Highway. Included within 23 CFR is Part 655, Subpart 6, which brings into being the MUTCD. The project team consulted the FHWA¹⁹ as to their views on the applicability of the MUTCD to railroads. Their response is as follows:

The MUTCD states that agencies and railroads “should” meet to plan for detours and operations during temporary traffic control activities, that prior notice “should” be given before the free movement of road users is infringed upon or blocked, and that temporary traffic control activities “should” not extensively prolong the closing. Note that these are “should” guidance statements, not “shall” binding statements.

¹⁹ Ronald J. Garczewski, Safety Engineer, FHWA – Ohio Division, February 2020.

Federal Railroad Administration's (FRA)

The Federal Railroad Administration (FRA) has broad powers to prescribe regulations and issue orders for these and every area of railroad safety. They have provided their perspective on the applicability of the MUTCD to railroads, as follows:

“The MUTCD applies to public roads and all roads open to public travel. If a railroad project impacts traffic on a public road or roadway open to public travel, they would be responsible to address it in accordance with the MUTCD or ensure the local highway agency has agreed to do so, such as through an approved agreement. Knowing that each state may have differing State laws and railroad agreements in place, it is recommended the railroads coordinate closely with the State DOT.”²⁰

American Association of State Highway and Transportation Officials (AASHTO)

American Association of State Highway and Transportation Officials (AASHTO) sets standards for the design of and construction of highways in the United States and publishes specifications, test protocols, and guidelines that are used by the industry. The association represents not only highways but air, rail, water, and public transportation.

Currently, it is the best source available related to installing or improving crossing safety features (pre-emption). FRA is taking steps to clarify MUTCD requirements and the possibility to amend some sections to make it a requirement. Right now, MUTCD works as an optional guide for the railroads as they are not “required” to follow MUTCD’s guidance, but if a railroad decides to follow specific guidelines, then they will be required to maintain it per MUTCD.²¹

Consensus Perspective: Based on responses from the three organizations, there is no clear consensus as to the interpretation of the applicability of the MUTCD to railroads at crossings.

4.2.5 Relevant Regulations in Other States

We have identified regulations of Other States that require railroads to notify local authorities when stopping traffic flow at the crossing and to follow their direction or work according to specific guidelines. A few are discussed below.

Florida

Regulations governing crossings in Florida appear to be of the most progressive in the country.

§ 335.141 (Regulation of public railroad-highway grade crossings; reduction of hazards) item 2 (d) states:

Prior to commencing the construction, rehabilitation, or maintenance of the railroad grade or highway approaches at a public railroad-highway grade crossing, the railroad company or governmental entity initiating the work shall notify the other party in order to promote the coordination of activities and to

²⁰ Brian F. Gilleran, PE, Crossing Safety & Trespass Prevention, Office of Safety Analysis Federal Railroad Administration.

²¹ FRA remarks on applicability of the MUTCD to railroads at AASHTO Council on Rail Transportation held in Washington DC on February 18-21, 2020.

ensure a safe crossing with smooth pavement transitions from the grade of the railroad to the highway approaches.

This clearly specifies the requirements of railroads when completing work at a crossing that impacts the flow of road traffic.

Georgia

Georgia has regulations requiring railroads to follow governing authority written notice for maintenance at crossings.

§ 32-6-190 (Duty to maintain grade crossings) states:

*Any railroad whose track or tracks cross a public road at grade shall have a duty to maintain such grade crossings in such condition as to **permit the safe and reasonable passage of public traffic**. Such duty of maintenance shall include that portion of the public road lying between the track or tracks and for two feet beyond the ends of the crossties on each side and extending four feet beyond the traveled way or flush with the edge of a paved shoulder, whichever is greater, of such crossing.*

§ 32-6-202 (Procedure to obtain maintenance of grade separation structures, protective devices, and grade crossings), item (a) (1) states:

*Whenever any maintenance of a grade separation structure, protective devices, or a grade crossing is necessary for the safe and reasonable passage of public traffic and such maintenance is the responsibility of a railroad under this part, the department in respect to the state highway system, the governing authority of the county in respect to its county road system, or the governing authority of the municipality in respect to its municipal street system may give **written notice to the railroad of the necessity of such maintenance and order the railroad to comply with the maintenance requirements of this part**. Such order shall be in writing and, as applicable, shall include the United States Department of Transportation inventory number and railroad milepost number, as well as the highway, street, or roadway name and number as identified on a general highway map prepared by the department. Such order shall be served upon the railroad by certified mail or statutory overnight delivery, return receipt requested.*

Louisiana

Louisiana's regulations provide the governing authority to require railroads to notify them in writing before any work is done on a crossing.

§ 33:3701. (Railroad crossings; permits; sharing cost), item A states:

*Where the tracks of a railroad cross or limit access to a state highway or a street or alley of a municipality or parish, the governing authority may require that a railroad **company notify the governing authority in writing prior to any work being done on the railroad crossing**.*

Alaska

17 AAC 15.471 (Railroad permits) item (e) states that

Whether or not a railroad facility permit is required, the railroad shall notify the department in writing not less than 15 days before any construction or major maintenance activity in an area bordering on, adjacent to, or crossing a department right-of-way.

17 AAC 15.471 (Railroad permits) also states:

(a) Upon written application, the department will, in its discretion, issue a permit authorizing the applicant to construct or install railroad facilities within a department right-of-way.

(b) No permit is required for the reconstruction of existing crossings, structures, or other facilities or for the construction of additional crossings, structures, or other facilities in areas where a railroad holds a fee title or an easement for a railroad right-of-way.

(c) An application for a railroad permit must specifically describe the proposed facility and its proposed location within the department's right-of-way. The application must include plans and specifications so that the department can evaluate the engineering design and proposed location.

Ohio could develop regulations requiring railroads to advise LPA's in advance of temporarily removing a crossing from service and to follow the LPA's protocols when doing so. It is interesting to note that the other states' regulations make no reference to the MUTCD. This may be due to the fact that the MUTCD was formally implemented in 2008, and the noted regulations pre-date this.

4.2.6 Crossing Agreements

The project team collected from ODOT and other sources a number of samples of and templates for crossing agreements used in Ohio. We have reviewed them and found that none include provisions requiring railroads to advise LPA's in advance of temporarily closing a crossing and following LPA's protocols (or that of the MUTCD) when doing so.

As crossing agreements are contractual agreements between the railroad and the LPA governing responsibilities and authorities at the crossing, the project team views these as being a suitable mechanism to stipulate railroad requirements to advise LPA's in advance of temporarily closing a crossing and following LPA's protocols (or that of the MUTCD) when doing so.

Of course, any change in the contractual provisions requires agreement by the railroad. Federal-level solutions such as new regulations and requirements included in the MUTCD can ensure railroads' collaboration with the LPAs.

4.3 Recommendations for state and LPAs to Improve Cooperation with Railroads

4.3.1 Our understanding of circumstances

Frequently, LPAs need cooperation from the railroad on a public roadway project or utility work that provides no benefit to the railroad. Coordination with the RR is required because the LPA or contractor equipment is working within the railroad's ROW, and/or in close proximity of the railroad's operating clearance envelope, which poses safety risks to those involved and could negatively impact railroad operations. This could range from railroad flagman support for an excavator working near the rail line through to the construction of new road overpass by the LPA.

Consultations with TAC members representing LPAs indicated that railroads tend to be slow in responding to requests for most Public roadway and construction projects; that frequent changes in railroad staffing at some railroads make it difficult to develop local relationships and understandings; and that the railroads in general are very slow in responding to LPA requests for assistance from the railroads on most roadway and construction projects adjacent or within the railroad's ROW.

4.3.2 Relevant Federal and State Regulations

There appear to be no Federal regulations nor any State regulations in Ohio requiring railroads to effectively cooperate with LPAs in these circumstances. In addition, the project team has not been able to find any regulations in other states stipulating this requirement of railroads.

4.3.3 Strategies for Improving the Project Agreement Process between Highway Agencies and Railroads (SHRP 2 Report S2-R16-RR-1)

As discussed in section 3.4, the State has used various types of agreements with railroads to access the railroad right-of-way (away from crossings), including right-of-entry agreements, utility agreements, and lateral encroachment agreements. As LPAs or the State willingly enter into the agreements, it is deduced that the agreements (or the terms within) are not the problem. (If the terms of the agreements are not meeting LPA's or State's requirements, clearly the solution is to change them.) As such, it seems the problem stems from the railroads' delays in entering the agreements or railroads not abiding by the terms. It is possible that at times, the type of access sought by LPAs and railroads is not covered by standards agreements, and an ad hoc approach needs to be taken.

The *Strategies for Improving the Project Agreement Process between Highway Agencies and Railroads* is a compendium of recommended practices that facilitate cooperation between railroads and LPAs on highway projects that cross or lie alongside railways. Best practices and recommended processes in the manual provide approaches to improve cooperation between the parties. However, the manual states that *"although no changes in statute or regulation are required to adopt the model processes and practices, some changes in specifications, policies, and procedures could be helpful towards facilitating greater railroad-highway cooperation and toward procedurally supporting the cooperative, partnering processes envisioned in the model processes."* Effectively, the efficacy of the strategies is contingent on railroad cooperation. Although there is a section on railroad incentives to collaborate, the project team does not see these incentives as being sufficient. As such, this report recommends that the state implement recommendations in the manual but does not envision that even that will fully address the shortcomings of railroad collaboration that have been experienced.

Chapter 5 discusses the possibility of the State of Ohio enacting regulations requiring railroad collaboration on projects that provide a public good.

The Strategies for Improving the Project Agreement Process between Highway Agencies and Railroads: Developed by TRB, this report is a source of practices and recommended processes to improve cooperation between the parties. However, success is contingent on railroad cooperation, and recommendations to garner railroad participation are not sure-fire.

5 | Recommendations for Regulatory Changes

5.1 Background

The regulatory gaps pertaining to grade crossing projects in Ohio identified in the previous chapter provide opportunities for improvement in the state laws and standard roadway-rail agreement processes. The intent of this chapter is to recommend the focus areas of such improvements. However, long-term implementation of regulatory changes and the establishment of enhanced negotiation practices calls for a systematic framework that continuously evolves and adapts according to needs on both LPA and railroad sides.

5.2 Bridging the Gaps

5.2.1 Requirements of Railroads when Temporarily Closing a Crossing

One potential approach is to introduce regulations requiring railroads to notify the applicable local public authority (LPA) before removing a crossing from service (for any reason or duration) and to abide by the requirements of Ohio Manual on Uniform Traffic Control Devices (OMUTCD) when doing so. Specifically, Ohio regulations could require railroads to implement TTC (temporary traffic control) as per Sections 6 and of the OMUTCD when undertaking maintenance, testing, or inspection activities that block or restrict vehicle or pedestrian traffic at a grade crossing for any time period.

In addition, the state and LPAs could add a provision to the standard crossing agreement clauses to ensure that the railroads will notify the road authorities prior to the start of their crossing projects. Specifically, the provision could be added to agreements for automatic protection installation on existing crossings²² and specify the timelines for railroad notice and road authority review and site inspection processes.

5.2.2 Recommendations for state and LPAs to Improve Cooperation with Railroads

The state should consider developing and executing a strategy in close coordination with LPAs to implement the tactics for improving the project agreement process between highway agencies and railroads. Many of these are embodied in the TRB report *Strategies for Improving the Project Agreement Process Between Highway Agencies and Railroads*. The key to effective implementation of this will be the engagement of the railroads operating in Ohio. In line with this, the research suggests the following recommendations:

- **Point of Contact:** enhancing the agreement negotiation process for local road authorities by providing a single state agency-level point of contact with railroads;
- **Crossing Agreement Manual:** devising a roadway-rail agreement negotiation manual to formalize clauses and provisions and to clarify roles, responsibilities, and timelines would help the LPAs to engage in negotiations with railroads at early stages of project planning. This will also help expedite the review

²² Paid for by the LPA or state.

and approval by the railroads. The development of this manual would benefit from railroad collaboration and buy-in;

- **Standard Contract Clauses:** devising a unified agreement format for all crossing-related project agreements to facilitating a faster review process by the railroads;
- **Collaboration on Routine Projects:** establishing/utilizing a crossing project prioritization framework to identify the future roadway-rail crossing projects and work with the railroads to obtain permits and negotiate required agreements for categories of crossing projects (instead of establishing individual project agreements);
- **Continuous Improvement:** establishing a platform for soliciting feedback on agreement provisions from LPAs and railroads to identify issues, and constantly working on enhancing and revising the standard contract clauses to address them.

5.2.3 Change Regulations to Remove Redundancy, Contradiction, and Confusion Over ORC 49 and 55

As mentioned earlier, the division of the current provisions concerning road-rail crossings in the ORC is probably the result of how (and when) the original provisions came about when they were initially enacted rather than a matter of strict logic when the time came to consolidate them into the ORC.

Ohio statutes contain three different sets of provisions on the elimination of grade crossings through grade separation (ORC [§4957.10](#); [Chapter 5523](#); [Chapter 5561](#)).

To streamline the existing statutes and provide greater clarity and direction, the state and LPAs might consider a complete overhaul of all existing provisions on crossings in general or, at least, road-rail crossings. Failing this, the existing provisions could at least be reviewed and consolidated afresh into a chapter of their own in Title 49. This chapter could be divided into two main parts: road-rail crossings and rail-rail crossings. This would help eliminate troublesome overlaps such as the ones noted with respect to ORC [§4907.47](#) - *Installing Crossing Signals* (road-rail crossings only); [§4907.52](#) - *Safety Devices at Grade Crossings*; and [§4907.53](#) - *Hearing as to Necessity of Safety Device* (all crossings, including road-rail crossings).

Even when considering only those provisions pertaining to road-rail crossings, there are still repetitions and overlaps (i.e., ORC [§4955.20](#) - *Highway Crossings and Sidewalks - Maintenance and Repair*, and [§4959.03](#) - *Cattle Guards and Crossings*) that should be eliminated. Some of these repetitions and overlaps are, no doubt, accidental. Other duplications are there by design, although they could be done away with as well.

Noteworthy is the fact that most fines and penalties in ORC 49 and 55 are set at 1953 dollar values (although a few of them are in 1989 and 1996 dollar values). These fines and penalties could be adjusted to reflect current dollar values.

Appendix A: Review of Laws and Regulations

Federal Laws and Regulations

The Commerce Clause and Federal Preemption

Congress' right to legislate over rail transportation, including road/rail crossings, derives from the Commerce Clause in the US Constitution.²³ This right is not limited solely to interstate rail traffic. Congress can also regulate safety on intrastate rail traffic because of its close and substantial connection to interstate traffic.²⁴

While the federal jurisdiction associated with the Commerce Clause is clear, the rules governing federal preemption (i.e., the invalidation of a state law that conflicts with federal law) are more difficult to interpret since the exact wording of the relevant federal law must be considered when determining whether there is federal pre-emption or not.

The Supremacy Clause of the US Constitution provides that "the Laws of the United States ... shall be the supreme Law of the Land ... any Thing in the Constitution or Laws of any State to the Contrary notwithstanding."²⁵ Thus where state law conflicts with or frustrates a federal law, the former must yield.

The United States Supreme Court has explained that the Supremacy Clause preempts state law in three circumstances:

- **First**, there is express preemption, whereby Congress explicitly defines the extent to which its pronouncements preempt state law. In the context of express preemption, congressional intent controls.
- **Second**, absent explicit direction from Congress, state law is preempted where it "regulates conduct in a field that Congress intended the Federal Government to occupy exclusively." Such intent may be "inferred from a `scheme of federal regulation ... so pervasive as to make reasonable the inference that Congress left no room for the States to supplement it,' or where an Act of Congress `touch[es] a field in which the federal interest is so dominant that the federal system will be assumed to preclude enforcement of state laws on the same subject.'"
- **Third**, under the doctrine of conflict preemption, state law is preempted "to the extent that it actually conflicts with federal law." The Supreme Court has determined that state laws are preempted "where it is impossible for a private party to comply with both state and federal requirements, or where state law stands as an obstacle to the accomplishment and execution of the full purposes and objectives of Congress."²⁶

²³ Article 1, Section 8, Clause 3 of the US Constitution. "The Congress shall have Power (...) To regulate Commerce with foreign Nations, and among the several states, and with the Indian Tribes."

²⁴ Southern Railway Company v. United States, [222 U.S. 20](#) (1911).

²⁵ Article VI, Clause 2 of the [U.S. Constitution](#).

²⁶ This useful summary can be found in CSX Transp., Inc. v. City of Plymouth, [92 F. Supp. 2d 643](#) (E.D. Mich. 2000).

With regard to most of the federal laws referred to in section 3.2, Congress has spoken. Thus, the analysis will concern whether or not the state law is preempted by express preemption provision found in the relevant federal law.

Key Federal Laws and Regulations

The key federal laws and regulations on rail/road crossings are summarized below.

Federal Railroad Safety Act (FRSA) of 1970

The FSRA was enacted by Congress in order “to promote safety in every area of railroad operations and reduce railroad-related accidents and incidents.”²⁷ To aid in the achievement of these goals, the FRSA specifically directs the Secretary of Transportation to study and develop solutions to safety problems posed by grade crossings.²⁸ The FRSA gives the Secretary of Transportation broad powers to “prescribe regulations and issue orders for every area of railroad safety supplementing laws and regulations in effect on October 16, 1970.”²⁹

The relevant FRSA regulations on road/rail crossing issued by the Secretary of Transportation, acting through the Federal Railroad Administration (FRA), are codified at Title 49 – Transportation: Subtitle B – Other Regulations Relating to Transportation: Chapter II - Federal Railroad Administration, Department of Transportation, of the Code of Federal Regulations (CFR). Of particular importance are:

- Part 222 - Use of locomotive horns at public highway-rail grade crossings ([§§ 222.1 – 222](#));
- Part 234 - Grade crossing safety ([§§ 234.1 – 234](#));
- Part 236 - Rules, standards, and instructions governing the installation, inspection, maintenance, and repair of signal and train control systems, devices, and appliances ([§§ 236.0 – 236](#)).

In order to promote the national uniformity of railroad regulation, Congress included an express preemption provision into the FRSA, which reads as follows:

Laws, regulations, and orders related to railroad safety shall be nationally uniform to the extent practicable. A State may adopt or continue in force a law, regulation, or order related to railroad safety until the Secretary of Transportation prescribes a regulation or issues an order covering the subject matter of the State requirement. A State may adopt or continue in force an additional or more stringent law, regulation, or order related to railroad safety when the law, regulation, or order —

- (1) is necessary to eliminate or reduce an essentially local safety hazard;
- (2) is not incompatible with a law, regulation, or order of the United States Government; and
- (3) does not unreasonably burden interstate commerce.³⁰

²⁷ 49 U.S.C. § 20101.

²⁸ 49 U.S.C. § 20134.

²⁹ 49 U.S.C. § 20103(a).

³⁰ 49 U.S.C. § 20106.

The FRSA, therefore, permits state regulation related to railroad safety only if: (1) the Secretary of Transportation has not yet regulated the subject matter of the state regulation (the first savings clause), or (2) the regulation (a) is necessary to eliminate an essentially local hazard, (b) does not conflict with federal law, and (c) does not unreasonably burden interstate commerce (the second savings clause).³¹

Mandate of the Federal Railroad Administration

The Federal Railroad Administration (FRA) develops and enforces regulations established by Title 49 of the Code of Federal Regulations that are related to safe operation of railroads. Additionally, the FRA's mandate includes developing, promoting and supporting the development of the rail sector in the U.S.

FRA also assists other agencies with the enforcement of some laws in the context of its jurisdiction. Examples include noise emissions as regulated by the EPA through the Noise Control Act, and accessibility, as required by the Department of Justice through the Americans with Disabilities Act (ADA). In both cases, other agencies develop standards and regulations and the FRA develops in-kind regulations to enforce these standards and regulations for railroads under the jurisdiction of the FRA. FRA's jurisdiction spans over the interstate railway network.

FRA publishes the Railroad-Highway Grade Crossing Handbook which provides general information on physical design characteristics and operational features of railroad-highway crossings for the efficient and safe performance of both highway and rail traffic. The Responsibilities section of the Handbook identifies the right-of-way (ROW) question as a fundamental issue of highway-rail crossings and emphasizes the need for project-specific collaboration as: "[installation, operations, and maintenance of traffic control devices at highway-rail grade crossings] requires joint responsibility in the traffic control function between the public agency and the railroad." (*Highway-Rail Crossing Handbook, 3rd Edition, July 2019*)

Interstate Commerce Commission Termination Act (ICCTA) of 1995

The ICCTA abolished the Interstate Commerce Commission, which had been established in 1883, and gave a new body - the Surface Transportation Board (STB) - jurisdiction over:

- Rail carriers and their rates, classifications, rules (including car service, interchange, and other operating rules), practices, routes, services, and facilities of such carriers; and
- Construction, acquisition, operation, abandonment, or discontinuance of spur, industrial, team, switching or sidetracks, or facilities.
- The ICCTA provides that the STB has direct oversight of state statutes regulating railroad operations and contracts between rail carriers, condemnation of railroad tracks or nearby land, and state negligence and nuisance claims. **There are state and local activities that are not preempted by the ICCTA, such as:**
 - Voluntary agreements entered into by railroad and the local jurisdictions (optional);
 - Traditional police powers over the development of railroad property to the extent that the regulations protect the public health and safety (e.g., local police have jurisdiction over railroad property);
 - Zoning regulations applied to railroad-owned land used for non-railroad purposes by a third party (e.g., a parcel of land may be developed subject to local zoning regulations);

³¹ See *CSX Transportation, Inc. v. City of Plymouth*, [283 F.3d 812](#) (6th Cir. 2002).

→ Other laws with no pertinence to transportation.

This law lets STB regulate certain aspects of interstate commerce, mentioned above. The areas of state and local regulations that are directly regulated by the STB are preempted by the ICCTA. 49 U.S.C. § 10501(b) provides that the “ICCTA preempts all state laws that may reasonably be said to have the effect of managing or governing rail transportation.”

Manual on Uniform Traffic Control Devices

Issued by the Federal Highway Administration (FHWA), the Manual on Uniform Traffic Control Devices (MUTCD) is “the national standard for all traffic control devices installed on any street, highway, or bicycle trail open to public travel.” (FHWA, [Manual on Uniform Traffic Control Devices 2009 edition](#))

Part 8 of the Manual governs Traffic Control for Railroad and Light Rail Transit Grade Crossings. It provides standards for protection devices used at highway and rail or light rail transit crossings and identifies the specific types of signs to use.

Highway Safety Act (HSA) of 1973

In 1973, Congress in 1973 enacted the HSA. The HSA, among other things, makes federal funds available to the States to improve grade crossings, in return for which the States must "conduct and systematically maintain a survey of all highways to identify those railroad crossings which may require separation, relocation, or protective devices, and establish and implement a schedule of projects for this purpose."³² Further conditions on the States' use of federal aid to improve grade crossings have been set out in regulations promulgated by the Secretary of Transportation through the Federal Highway Administration (FHWA) under FRSA and the HSA.³³

While the HSA has no explicit pre-emption clause, the US Supreme Court in *CSX Transportation, Inc. v. Easterwood*³⁴ was of the view that the pre-emption clause in the FRSA (found at 49 U.S.C. § 20106) also applies to regulations adopted by the Secretary of Transportation under the HSA.

Rail Safety Improvement Act (RSIA) of 2008

After multiple fatal rail incidents around the U.S., including two incidents that involved commuter trains in California, the U.S. Congress passed the RSIA to address the underlying causes of these incidents. Title II of the RSIA on Highway-Rail Grade Crossing and Pedestrian Safety and Trespasser Prevention includes the following:³⁵

- Improvements to sight distance at highway-rail grade crossings,
- Updating the national crossing inventory through periodic reporting of crossing information by the states to the Secretary of Transportation,
- Establishing and funding of a program to “improve awareness along railroad ROW and at highway-rail grade crossings” (Operation Lifesaver),
- Making and distributing grants and other financial support programs to assist the states in specific projects that aim to improve crossing safety,

³² 23 U.S.C. § 130(d).

³³ See 23 C.F.R. Parts 646, 655, 924 and 1204.

³⁴ [507 U.S. 658](#) (1993).

³⁵ Public Law 110–432 - Rail Safety Improvement Act of 2008.

- Incident reporting through FRA audits of class I (at least once every two years) and non-class I (at least once every five years) railroads,
- Fostering new rail and highway traffic control technology applications that mitigate crossing collisions and improve overall safety at highway-rail grade crossings.

Passenger Rail Investment and Improvement Act (PRIIA) of 2008

While this act deals mostly with Amtrak performance, appropriations for rail-related projects, and a number of research grants and studies, it requires states to develop state rail plans. Prior to PRIIA, states had no statutory role in planning and implementation for intercity passenger rail outside of occasional FRA grants.³⁶ Through the passage of this act, states are given an explicit role to oversee rail planning and implementation.

The United States Code Title 23 – Highways

Title 23 of the Code of Federal Regulations outlines the role of highways in the United States Code. Sections relevant to railroad-highway crossings include:

- **Section 130 Railway - highway crossings** which identifies the process, authorities, and responsibilities for eliminating risks at crossings. The states have the responsibility to “conduct and systematically maintain a survey” of the grade crossing conditions to prioritize investment. However, local knowledge of the crossing conditions is critical to ensure insights into the unique needs of the communities related to grade crossings.
- **Section 148 (Highway safety improvement program)** which identifies railway-highway grade crossing safety improvements as eligible projects and defines state strategic highway safety plans. According to 23 U.S.C. § 148(a)(11), consultations with the local and state highway safety authorities, county transportation officials, regional transportation planning organizations, metropolitan planning organizations, and other local safety stakeholders are required in developing the state strategic highway safety plans.

In addition, sections 109, 120, and 131 pertain to funding and cost apportionment for railway-highway grade crossing safety improvement projects, including the provisions for the Surface Transportation Program.

State of Ohio Rail Crossing Laws and Regulations

The Public Utilities Commission of Ohio (PUCO) acts as the state agency with regulatory authority over the railroads. The federally certified railroad inspectors at PUCO work in collaboration with the FRA to inspect the railroads, highway-rail crossings, and rail equipment to ensure compliance with federal and state regulations.³⁷

PUCO also administers the federal and state funding allocations to highway-rail crossing projects in partnership with the Ohio Rail Development Commission (ORDC). ORDC is a non-regulatory independent commission that supports rail safety projects in Ohio and coordinates the interactions between ODOT’s highway and rail projects.³⁸

³⁶ H.R.6003 - Passenger Rail Investment and Improvement Act of 2008. www.Congress.gov.

³⁷ Ohio Public Utilities Commission, About PUCO. Accessed January 2020.

³⁸ Ohio Public Utilities Commission, About ORDC, Accessed January 2020.

The Ohio Revised Code (ORC) is a compilation of the general laws of the state of Ohio. The ORC provides an organized collection of the text of individual statutes. Rail topics are addressed primarily in Title 49: Public Utilities, and specifically: § 4901:3 Railroads; § 4955: Tracks, Crossings; § 4981 Ohio Rail Development Commission, § 5523: Grade Crossings, and; § 5589: Offenses Relating to Highways.³⁹ The following table provides a list of ORCs relevant to highway-rail crossings.

The following table lists the ORC titles and chapters relevant to grade crossings in Ohio.

Figure 0-1: Highway-Rail Crossing State Laws

Title [49] XLIX PUBLIC UTILITIES	
Chapter 4901: PUBLIC UTILITIES COMMISSION - ORGANIZATION	
Chapter 4907: PUBLIC UTILITIES COMMISSION - RAILROAD POWERS	
§ 4907.47	Installing crossing signals.
§ 4907.471	Surveys determining the probability of an accident at a crossing.
§ 4907.472	Grade crossing protection fund.
§ 4907.474	Closing crossings to vehicular traffic.
§ 4907.475	Closing rural crossings.
§ 4907.476	Use of federal funds.
§ 4907.48	Regulation of crossing signals.
Chapter 4955: TRACKS; CROSSINGS	
§ 4955.20	Highway crossings and sidewalks - maintenance and repair.
§ 4955.22	Failure to construct or repair crossings or sidewalks - forfeiture.
§ 4955.27	Private crossing.
§ 4955.322	Immunity from liability at private crossings.
§ 4955.33	Crossbuck signs.
Chapter 4957: ELIMINATION OF CROSSINGS	
§ 4957.01	Alteration or elimination of grade or other crossings
§ 4957.05	Apportionment of cost.
§ 4957.09	Grade crossing on county line road.
§ 4957.18	Apportionment of cost between municipal corporations and railroads.
Chapter 4981: RAIL DEVELOPMENT COMMISSION	
§ 4981.01	Rail development commission definitions.
§ 4981.02	Ohio rail development commission.
§ 4981.03	Duties of rail development commission.
Title [55] LV ROADS HIGHWAYS BRIDGES	
Chapter 5523: GRADE CROSSINGS	
§ 5523.01	Elimination of grade crossings
§ 5523.02	Relocations to eliminate grade crossings

³⁹ Compilation of State Laws and Regulations Affecting Highway-Rail Grade Crossings 4th Edition, 2009, Federal Railroad Administration.

§ 5523.03	Issuance of finding and order on crossing to be abolished; hearing
§ 5523.08	Costs chargeable to the improvement - the proportion of costs.
§ 5523.17	Improvement to be kept in repair - responsibility for bridge inspection.
§ 5523.18	Costs of improvement.
§ 5523.20	Grade separation when a highway is adjacent to or near a railroad
Chapter 5531: FEDERAL COOPERATION	
§ 5531.03	Acceptance of federal funds for the elimination of grade crossings
§ 5531.09	State infrastructure bank - funds.
Chapter 5561: COUNTY ROAD GRADE CROSSINGS	
§ 5561.03	Hearing by the director of transportation.
§ 5561.04	Public hearing as to the expediency of constructing improvement.
§ 5561.06	Apportionment of cost between county and railroad - the right of action.
§ 5561.12	Cost of repairs.
§ 5561.16	Cost to be borne by the company - notification - cost.
Chapter 5589 OFFENSES RELATING TO HIGHWAYS	
§ 5589.20	Findings as to improper obstruction of railroad grade crossings by trains.
§ 5589.21	Obstruction of roads by railroads.
§ 5589.24	Fines paid to railroad grade crossing improvement funds.

Source: CPCS analysis of the US Code of Federal Regulation.

General Crossing Provisions within the Ohio Revised Code

Chapter 4511: Traffic Laws

Section §4511.09 of this chapter requires the state DOT to adopt a manual for crossing traffic control in conformity with the FHWA system presented in the MUTCD. Therefore, the standards for crossing design and use of traffic control devices roads that intersect with railroads in Ohio are established by the Ohio Manual of Uniform Traffic Control Devices (OMUTCD).⁴⁰

Chapters 4901 and 4907: PUCO's Authority

These two chapters authorize the state's designated PUCO the power to regulate utility service providers across the state, including rail and trucking companies. Chapter 4907 defines "railroads," regulations of service, and exceptions and violations.

Chapter 4955: Tracks; Crossings

The chapter includes provisions for rail track layouts at crossings and indicates the responsibilities and procedures for rail crossing construction, alteration, and abandonment/closure. The chapter also includes provisions related to private crossing permitting, construction, and parties responsible for covering their expenses.

⁴⁰ ODOT, Ohio Manual of Uniform Traffic Control Devices, 2012 Edition.

Chapter 4957: Elimination of Crossings

The provisions related to the closure and elimination of a crossing are listed under this chapter. Also, the chapter addresses crossing improvement resolutions, land acquisition procedures, and construction and maintenance cost apportionment.

Chapter 4981: Ohio Rail Development Commission

The chapter addresses the provisions and rules establishing the ORDC as an independent agency of the state of Ohio and providing the legal framework for the ORDC to: provide funding for rail improvements, hold property, administer loans/bonds/grants, and other financial assistance and fees, etc. Laws do not provide regulatory authority relating to rail/road grade crossings.

Chapter 5523: Grade Crossings

The chapter addresses explicitly the at-grade highway-rail crossing rules, including provisions for relocation, closure, and improvement of crossings, cost apportionments, improvement planning, and grade separation procedures.

Chapter 5531: Federal Cooperation

This chapter covers ODOT's agreements with the federal government regarding the acceptance of federal funds and using federal aid for transportation projects. Section 5533.03 explicitly addresses the acceptance of federal funds for grade crossing projects such as grade separation or the alteration, relocation, reconstruction, change, or maintenance of existing grade-separated crossings.

Chapter 5561: County Road Grade Crossings

The regulations included in this chapter address grade separation of rail crossings on county roads, as well as the appropriation of property and apportionment of costs of raising or lowering the roads above or below the rail tracks for improved safety.

Chapter 5589: Offenses Relating to Highways

Ohio Revised Codes § 5589.20, § 5589.21, and § 5589.211 limit the time a stopped train may block a crossing to 5 minutes. § 5589.24 requires that the funds collected from fines for violation of section 5589.21 shall be invested in improving grade crossings in counties where the violations occur. (As earlier mentioned in section 3.2.1, this Ohio anti-blocking legislation has been found to be pre-empted by federal law: see [CSX Transp., Inc. v. Williams](#) - April 28, 2017. Similar legislation in other states have similarly found to be pre-empted by federal law.)

Specific Crossing Provisions within the Ohio Revised Code

The most relevant Chapters within the ORC that pertain to roadway/rail line intersections on Ohio's local transportation is *Chapter 4955: Tracks, Crossings*. The significant sections of Chapter 4955 of the ORC are summarized below.

§ 4955.20: Highway crossings and sidewalks - maintenance and repair

This section of the ORC specifically requires railroad operators to build and maintain crossings for vehicles and pedestrians. The language states:

“Companies operating a railroad in this state shall build and keep in repair good and sufficient crossings over or approaches to such railroad, its tracks, sidetracks, and switches, at all points where any public highway, street, lane, avenue, alley, road, or pike is intersected by such railroad, its tracks, sidetracks, or

switches. Such companies shall build and keep in repair good and sufficient sidewalks on both sides of streets intersected by their railroads, the full width of the right of way owned, claimed, or occupied by them.”

Under § 4955.21, the public owner of the road may provide written notice that the crossing must be built or repaired where the railroad company must comply within 30 days, or pay fines established in § 4955.22 or thirty dollars plus 10 dollars each day the company fails to comply.

§ 4955.23: Crossings above streets

This section of the ORC requires railroad operators to construct rail bridges over roadways that have sufficient roadway clearance, support piers are placed such that they do not obstruct traffic, and are maintained in a condition so that debris or loose cargo do not fall on passing traffic below.

§ 4955.27: Private crossing

This section requires railroads (at the railroad’s expense) to provide private rail crossing to landowners that own “fifteen or more acres of land in one body through which a railroad passes” and is “situated that he cannot use a crossing in a public street, lane, road or other highway in going from his land on one side of the railroad to that on the other side without great inconvenience.”

§ 4955.33: Crossbuck signs

In accordance with the Department of Transportation Manual for Uniform Traffic Control Devices (section 4511.09 of the ORC), railroads must erect crossbuck signing at all public at-grade crossings to give warning of potential trains. As stated in the section, “A company that neglects or refuses to comply with this section is liable in damages for all injuries that occur to persons or property from such neglect or refusal.” There is no mention in the law regarding the placement of the signing inside or outside the railroad’s right of way.

§ 5523.01 Elimination of grade crossings

This section allows ODOT to build, relocate, raise, or lower roads for the purpose of eliminating one or more existing grade crossings.

§ 5523.02. Relocations to eliminate grade crossings

When it is necessary to change the location of any highway on the state system, the ODOT director of transportation may relocate or vacate the whole or any portion no longer needed. In the relocation of any such highway, the portion of the highway within the limits of the right-of-way of railroad companies participating in the cost of the improvement shall be vacated and closed to the public upon the opening of the relocated portion.

§ 5561.16 Cost to be borne by company - notification - cost.

This section stipulates that the railroad must bear the cost of at grade crossing highway construction, reconstruction, improvement, maintenance, and repair lying between the outside ends of the ties, and between the tracks, in the case of two or more tracks. Improvements are to be approved by the director of transportation for state highways, or by the county engineer, in case of county and township roads or extension thereof.

Local Regulations and Laws

Ohio is a ‘home rule’ state meaning municipalities are granted special authority through Article XVIII of the state’s constitution. These authorities include the control and use of a particular public property, the procedure

for the sale of municipal property, regulation of municipal streets, and the authority to make regulations for the municipality's general welfare, such as zoning and traffic regulations.

According to the *Federal Highway Administration Railroad-Highway Grade Crossing Handbook-Second Edition*, 2007,

“...railroads retain responsibility for the construction, reconstruction, and maintenance of the track structure and the riding surface at the highway-rail intersection.” “...their obligation for the roadway usually ends within a few inches of the outside ends [depending on the state] of the ties that support the rails and the crossing surface. **The street or highway agency has responsibility for the design, construction, and maintenance of the roadway approaches to the crossing, even though these approaches may lie within the railroad's right of way.**”⁴¹

Per handbook table 34 on responsible authorities for the closing of public crossings, Ohio's local municipalities are responsible for crossing closure operations.

The general laws of Ohio delegate authority to change or eliminate one or more highway-rail grade crossings to the **board of township trustees or the legislative authority of the municipalities**. The legislative authority of a municipal corporation or the board of county commissioners of a county, with the agreement of the board of directors of the railroad company, may alter or eliminate a grade crossing for the purpose of improving convenience or safety at a crossing.⁴²

The board of township trustees has authority over crossings and approaches outside of municipal corporations,⁴³ while the legislative authority of a municipal corporation has jurisdiction over the crossings and approaches within the municipal corporations. Both authorities have the power to “fix and determine the kind and extent, and the time and manner of constructing, crossings and approaches outside of municipal corporations.” The railroad companies shall perform construction, repair, and maintenance of the crossings “as so ordered” by the authorities.⁴⁴

Other Relevant Guidelines

Coordination with Railroads to Facilitate Acquisition of ROW ⁴⁵

Organized and conducted by the Volpe Center of the U.S. Department of Transportation, this report is prepared in accordance with the emerging national-level trends for complicated and time-consuming ROW access agreements and acquisitions. The barriers to institutional agreements and the remedial measures and strategies identified in this report show that:

- There does not appear to be a typical or unified approach for the public agencies to negotiate and establish real estate agreements with the railroads. Depending on the type and size of the projects, state and local agencies may involve permanent and temporary easements or fee acquisitions.

⁴¹ Highway-Rail Crossing Surfaces. Washington, DC: National Cooperative Highway Research Program Synthesis of Practice 250, 1997.

⁴² ORC §4955.01; and ORC §5523.01

⁴³ Except for the state and county roads.

⁴⁴ ORC §4955.20.

⁴⁵ Coordination with Railroads to Facilitate Acquisition of ROW, 2012, Prepared by the Volpe Center of the USDOT, Research and Innovative Technology Administration.

- At the state DOT level, the ROW divisions are typically responsible for negotiating acquisitions and relocation projects. Volpe found that across different state agencies, a variety of staff ranging from road and rail lawyers to district officers may take the role of negotiator in rail-related real estate transactions.
- The mechanical process of coordination and negotiation with the railroads is an issue for the majority of state and local transportation agencies. Failure to notify the railroads and collaborate with them often leads to delays and schedule changes.

Railroad Legal Issues and Resources

This National Cooperative Highway Research Program (NCHRP) report addresses public agency needs for a centralized repository of rail-related legal resources. The report includes an annotated index that leads the users to detailed summaries of statutes, regulations, laws, and case studies and example settlements. The document provides a background of the railroad-related law in many categories, including ROW, abandonment or discontinuance of service, revitalization, State laws and regulations, and quiet zones.⁴⁶

Improving the Project Agreement Process between Highway Agencies and Railroads

This report was published in 2015, as part of the Transportation Research Board's second Strategic Highway Research Program (SHRP 2) efforts to examine the causes of delay in the project agreement processes between railroad companies and highway authorities.

From the perspective of the railroad companies, the projects related to improving or maintaining highway-rail grade crossings provide little financial or operational incentives and may cause safety risks to their employees. On the other hand, the state and local road authorities focus on the public's needs and typically have a longer lead time on their hands for planning and analysis of performance metrics compared to railroads. Despite the differences in perspective and operational focus, both sides agree that the lengthy ROW appraisal and construction agreement processes can become restrictive.

This report provides an overview of the railroad's and public agencies' approaches towards crossing-related agreements and provides model agreements based on best practices that can enhance the processes and improve road authority-railroad cooperation.⁴⁷

⁴⁶ National Academies of Sciences, Engineering, and Medicine 2015. Railroad Legal Issues and Resources. Washington, DC: The National Academies Press. <https://doi.org/10.17226/22093>.

⁴⁷ National Academies of Sciences, Engineering, and Medicine 2010. Strategies for Improving the Project Agreement Process between Highway Agencies and Railroads. Washington, DC: The National Academies Press. DOI 10.17226/14438

Appendix B: Michigan Law on Road-Rail Crossings

Note: During the course of the research, the TAC and ORIL staff suggested that the project team should review peer state statutes to provide a comparison to ORC treatment of roadway-rail intersections. The team reviewed Michigan’s laws given the close parallels in geographic and operating conditions.

Michigan Compiled Laws (MCL) are divided into chapters and not titles (as in Ohio and the US Code). Originally a full chapter in the MCL (Chapter 253) was devoted to grade crossings. That chapter was repealed with the enactment of the Railroad Code of 1993. That Code is now §§ [462.101 - 462.451](#) of Chapter 462 of the MCL. The provisions relating to road-rail crossings in Michigan are found there.

Grade Crossings

The equivalent provision to ORC §4955.20 in Michigan is MCL § 462.307, which provides in part as follows:

(1) A new public street, highway, or a new nonmotorized trail shall not be constructed across the tracks of any railroad, or the new tracks of any railroad shall not be constructed across a public street, highway, or nonmotorized trail until approval is granted by the [Michigan Department of Transportation]. Upon application, the department shall investigate the location of the proposed crossing. (...)

(4) If the location of a proposed crossing is found to be necessary, feasible, and may be made reasonably safe for a crossing at grade, the department shall grant permission for the crossing. (...)

(6) The full cost of constructing a new street or highway across an existing railroad, or of a new railroad track or tracks across an existing street or highway, shall be borne by the party requesting the crossing. The following shall apply to a new or relocated grade crossing:

(a) The plans for the grade crossing shall be approved by both railroad and road authority. If there is a failure to agree, the department shall settle the points of disagreement by the terms of its order. (...)

(d) The cost of construction shall include the direct construction cost of the roadbed, track structure, grade crossing surface, pavement, traffic control devices, and drainage, including all material, labor, and services and other costs of construction.

(e) After construction, the grade crossing shall be maintained as provided in this act.⁴⁸

Protection and Warning Signals

MCL §§ 462.311 and 462.315 divide traffic control devices into passive and active traffic control devices:

- MCL §462.107(5) defines “Passive traffic control devices” to mean those types of traffic control devices, including signs, markings, and other devices, located at or in advance of grade crossings to indicate the

⁴⁸ See MCL § 462.309(3):

“The full cost of maintaining and repairing all existing crossings shall be borne by the respective parties responsible for the work as provided in this act. The cost of improving an existing crossing, where improvement is necessary, shall be borne in the same manner as provided in this act for maintenance and repair.”

presence of a crossing but which do not change aspect upon the approach or presence of a train. It is the road authority, at its own expense, that furnishes, renew, and maintain all passive traffic control devices on public streets or highways approaching grade crossings of streets and highways with railroad tracks.

- “Active traffic control devices”, as defined at MCL §462.105(1), mean those traffic control devices located at or in advance of grade crossings, activated by the approach or presence of a train, such as flashing light signals, automatic gates and similar devices, manually operated devices, and a crossing watchperson, all of which display to operators of approaching vehicles positive warning of the approach or presence of a train. Here it is the Michigan department of transportation which, by order, may prescribe active traffic control devices to warn of the approach of trains about to cross a street or highway at public railroad grade crossings consisting of signals with signs, circuitry, or crossing gates and other appurtenances as depicted in the Michigan manual of uniform traffic control devices. The cost of any installation, alteration, or modernization of active traffic control devices are borne equally by the railroad and the road authority.

Elimination of Grade Crossings through Grade Separation

MCL §462.319 provides that:

(1) The construction of a new highway/railroad grade separation structure or the total reconstruction of an existing grade separation structure shall require a written agreement between all affected railroads, the road authority, and any other parties required by law to participate in the construction or funding of the grade separation. (...)

(6) Unless otherwise agreed upon, the cost of constructing and making separation of grades, the reconstruction of existing grade separations, or the alteration of existing grade separations for increased highway or railroad facilities, computed as provided in this act, shall be borne according to the benefits received, except that projects requested by the road authority shall not exceed 15% by the affected railroad with the balance paid by the road authority, and projects requested by the railroad shall not exceed 15% by the affected road authority with the balance paid by the railroad.

The Closing of Existing Crossings

MCL § 462.307(2) provides as follows:

The [Michigan department of transportation], when it determines necessary for the safety of the public, may change the location of or abolish any existing public grade crossing after not less than 30 days' notice in the area affected by the crossing. A public hearing shall be held by the department if requested by any affected party. Within 30 days after the date of the hearing, the department may issue an order to close the existing grade crossing. Any person, local unit of government, or road authority having an interest in the abolishment of an existing grade crossing, within 30 days after the closure order of the department, may commence an action in the circuit court for the County of Ingham against the department as defendant to vacate or set aside the order.

Appendix C: Private Crossings

Definition

A *private crossing* is defined at 49 CFR [§234.40](#) to mean a highway-rail or pathway crossing that is not a public crossing. By contrast, a *public crossing* is defined in that same section, as:

a highway-rail or pathway crossing where the approaches are under the jurisdiction of and maintained by a public authority and open to public travel. All approaches must be under the jurisdiction of the public authority, and no approach may be on private property unless state law or regulation provides otherwise.

The Highway-Rail Crossing Handbook (3rd Ed.), developed by the Federal Highway Administration (FHWA) and the Federal Railroad Administration (FRA), similarly defines a **private crossing** (at p. 8) **as a location where a private highway, road, or street, including associated sidewalks or pathways, crosses one or more railroad tracks**. The *Handbook* lists, at p. 155, various typical types of private crossings, such as:

- Farm crossings that provide access between tracts of land lying on both sides of the railroad;⁴⁹
- Industrial plant crossings that provide access between plant facilities on both sides of the railroad;
- Residential access crossings over which the occupants and their invitees reach private residences from another road, frequently a public road paralleling and adjacent to the railroad ROW;
- Utility access crossings over which a utility company or public authority reach electric, sewer, water, flood control, or other facilities from another road; and
- Temporary crossings established for the duration of a private construction project or other seasonal activity.

How are private crossings established?

The construction, maintenance, and use of the private crossing is usually governed by an agreement between the landowner and the railroad.⁵⁰

The federal government has not legislated on the matter of who is entitled by law to request a private crossing over a railroad's track.⁵¹ Ohio, however, has done so at ORC §§ 4955.27, 4955.28 and 4955.29.

ORC [§4955.27](#) (*Private Crossing*) reads as follows:

⁴⁹ See also 49 CFR [§234.301](#): "Farm grade crossing means a type of highway-rail grade crossing where a private roadway used for the movement of farm motor vehicles, farm machinery, or livestock in connection with agricultural pursuits, forestry, or other land-productive purposes crosses one or more railroad tracks at grade."

⁵⁰ See Highway-Rail Crossing Handbook (3rd Ed.), at pp. 155-156. Also ORC [§4955.29](#) (*Exception*).

⁵¹ See *New Orleans v. Barrois*, [533 F.3d 321](#) (5th Cir. 2008), rejecting the railroad's argument that the private crossing at issue imposed substantial burdens on it both in terms of cost and safety and that Article 689 of the Louisiana Civil Code, the basis for the landowners' claimed right of passage over the railroad track, was preempted by Federal law, specifically the ICCTA and the FRSA.

When a person owns fifteen or more acres of land in one body through which a railroad passes, which land is so situated that he cannot use a crossing in a public street, lane, road or other highway in going from his land on one side of the railroad to that on the other side without great inconvenience, at his request the company or person operating such railroad, at the expense of such company or person shall, within four months after such request, construct a good and sufficient private crossing across such railroad and the lands occupied by the company, between the two pieces of land to enable such landowner to pass with a loaded team and over which he may go at all times when such railroad is not being used at the crossing, or so near to it as to render passing thereat dangerous.

In many instances, this legal right will not be very helpful to the landowner since, in case of refusal by the railroad to comply with the above section, the landowner can build the private crossing himself/herself but only recover a maximum amount of \$50.00 from the railroad for doing so: [§4955.28](#) (*Expense of Private Crossing - Right of Entry*). (Also it is not clear from the wording of ORC [§4955.27](#) whether a good and sufficient private crossing means just a basic grade crossing or one if need be, equipped with warning devices – this is an important distinction since the installation of warning devices at a grade crossing is typically more expensive than the construction of the grade crossing itself.)

Closure

It is unclear from the wording of ORC [§4907.475](#) (read in conjunction with ORC [§4907.474](#)) whether that section could be used to force the mandatory closure of rural private crossings if the statutory conditions are met. While ORC [§4907.475](#), as written, is not opposed to the view that PUCO could order a private crossing located outside the limits of a municipal corporation to be closed. This would lead however to the bizarre situation where PUCO could order the closing of public crossings (both inside and outside the limits of a municipal corporation)(ORC [§4907.474](#)), of private crossings outside the limits of a municipal corporation (ORC [§4907.475](#)), but not of private crossings *within* the limits of a municipal corporation.

What are the obligations of railroads and landowners at private crossings?

Construction and maintenance – Matters pertaining to the construction and maintenance of a private crossing, including the allocation of costs between the railroad and the landowner, unless otherwise dealt under ORC §§ [4955.27](#), [4955.28](#) and [4955.29](#), fall within the purview of the agreement entered into between the landowner and the railroad.

The railroad and the landowner need also to come to an agreement regarding the financing of the traffic control devices if any are needed since federal funds and state funds cannot be used for the installation of such devices at private crossings.⁵²

Safety – As explained in the [Safety of Private Highway-Rail Grade Crossings, Notice of Safety Inquiry](#), 71 Fed. Reg. 42713-42716 (DOT July 27, 2006) issued by the FRA:

In general, **private crossings are not subject to regulation at the state or federal level.** FRA's requirements for inspection, test, and maintenance of active warning devices (49 CFR part 234) apply to the railroad where an active warning has been installed, but there is no federal mandate for providing such warning. [Other FRA regulations applicable to the railroad are intended to address safety at private crossings, as well as public crossings, particularly requirements for alerting lights (49 CFR 219.125) and reflectorization of rail rolling stock (49 CFR part 224) to make trains more conspicuous.] A handful of states require that railroads place crossbucks or special signage (in some cases a stop sign and a crossbuck

⁵² See the following section.

on the same post) at private crossings. **The subject of private crossings is otherwise largely unregulated.** Accordingly, such recognized responsibilities as exist with respect to the safety of private crossings are generally the product of contracts and common law.

What authorities and responsibilities do various levels of Government have at private crossings?

Because, as shown earlier, the federal government has not legislated on private crossings, the matter falls within the purview of the police power of the state. Ohio has exercised such power through the enactment of 49 ORC §§ 4955.27, 4955.28 and 4955.29 for the type of private crossings that fall within the statutory requirements of those sections.

Who is responsible for safety at private crossings? What steps must be taken (and who is responsible) when protection is not adequate?

Generally, the **landowner and the railroad**, by way of an agreement, are responsible for ensuring safety at private crossings. Some of the agreements require that an insurance policy known as a [Railroad Protective Liability policy \(RRPL\)](#). The RRPL is basically designed to protect the railroad companies against large liability lawsuits caused by accidents at these private crossings. In practical terms, if a RRPL is in place, it can be a source for recovery in an accident case at a private rail crossing.⁵³

The enforcement of 49 ORC §4955.27 (Private Crossing) and ORC §4955.27 (Expense of Private Crossing - Right of Entry) falls on the landowner through recourse, if need be, to the courts.

What are the funding options for private crossings?

As summarized in the *Safety of Private Highway-Rail Grade Crossings; Notice of Safety Inquiry*:

Neither the federal government nor the states, with extremely few exceptions, provide financial assistance for engineering improvements at private crossings. In these few instances, funding for private crossings may be provided for specific corridor projects, most commonly the high-speed rail corridors.

The Section 130 program funds are eligible for projects at all public crossings including roadways, bike trails and pedestrian paths ([Railway-Highway Crossings \(Section 130\) Program](#)), but not private crossings (although recommendations have been made that the distinction between public and private crossings with respect to Federal funding be eliminated⁵⁴).

In Ohio, the grade crossing protection fund established under ORC [§ 4907.472](#) covers only “public highway-railway crossings at any location where a railway and a public highway intersect each other at a common grade” excluding thereby private crossings.

Finally, as a point of comparison, MCL §462.323 provides that:

(1) A farm crossing shall be constructed and maintained by the railroad at the expense of the party requesting the crossing.

⁵³ See Grossman Law Offices - [Train Accidents at Private Rail Crossings](#).

⁵⁴ *Safety of Private Highway-Rail Grade Crossings; Notice of Safety Inquiry*: “In 1999, the [National Transportation Safety Board] weighed in again on the issue of safety at private crossings in its report on a private grade crossing accident in Portage, Indiana. In this case, the NTSB recommended that the U.S. Department of Transportation “eliminate any differences between private and public highway-rail grade crossings with regard to providing funding for, or requiring the implementation of, safety improvements.””

(2) Farm crossings shall be of such width and condition as shall permit expeditious and safe passage of large farm machinery.

(3) A railroad may permit the establishment and use of other private crossings on such terms as may be negotiated between the requesting party and the railroad.

Exceptionally, on high-speed rail corridors, pursuant to MCL §462.303:

The [Michigan department of transportation], at no cost to the freight railroads or adjacent property owners, may order traffic control devices at existing farm, other private, bicycle, and pedestrian crossings of the railroad tracks of a high-speed rail corridor including signs, signals, crossing gates, movable barriers, or other devices. The department may determine the number, type, and location of signs, signals, gates, or other types of safety devices which shall conform as closely as possible with generally recognized national standards.

Appendix D: Crossing Agreement Examples

THIS AGREEMENT, dated as of the 27 day of AUGUST, 2019 is made and entered into by and between

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

BOARD OF PARK COMMISSIONERS OF THE CLEVELAND METROPOLITAN PARK DISTRICT, a political subdivision of the State of Ohio, whose mailing address is 4101 Fulton Parkway, Cleveland, Ohio 44144 (hereinafter called "LICENSEE").

RECITALS

WHEREAS, LICENSEE, at its own cost and expense, has found it necessary to construct the Wendy Park Pedestrian Bridge over tracks of RAILWAY (the "Facilities"), in the vicinity of RAILWAY Milepost CD-182.51, at or near Cleveland, Cuyahoga County, Ohio (the "Premises"), located substantially as shown upon print of Drawing marked Exhibit A; and

WHEREAS, RAILWAY is willing to permit LICENSEE to enter upon RAILWAY's right of way for installation, construction, maintenance, operation and removal of the Facilities upon the terms and conditions of this Agreement; and in accordance with the plans and specifications attached hereto by reference upon approval of said plans, specifications or revisions by RAILWAY; 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 C.

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

I. LICENSEE'S FACILITIES

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

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

3. Construction and Maintenance of the Facilities. LICENSEE shall construct and maintain the Facilities, at its expense, in such a manner as will not interfere with the operations of RAILWAY or endanger persons or property of RAILWAY, and in accordance with (a) plans and specifications (if any) attached hereto by reference upon approval of said plans, specifications or revisions by RAILWAY and any other specifications prescribed by RAILWAY, (b) applicable governmental regulations or laws, and (c)

applicable specifications adopted by the American Railway Engineering and Maintenance of Way Association when not in conflict with plans, specifications or regulations mentioned in (a) and (b) above. LICENSEE and any and all of LICENSEE contractors entering the Premises shall fully comply with applicable roadway worker protection regulations.

4. Indemnification. To the extent permitted by applicable law, 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. To the extent permitted by applicable law, 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 B. 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 B.

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. Intentionally omitted.

12. Assumption of Risk. Unless caused by the gross negligence of RAILWAY or caused 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 forty-five (45) 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) after advanced noted to LICENSEE 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.

(c) Intentionally omitted; or

(d) Intentionally omitted.

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

thereto, the same being hereby expressly waived by LICENSEE.

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

18. Interests in Real Property

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

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

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

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

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

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

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

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

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

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

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

5. Reimbursement by LICENSEE.

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

(b) Except as otherwise provided in this Agreement, LICENSEE shall reimburse the RAILWAY for the actual cost of the work performed by it, which is estimated to be **Three Hundred Twenty-One Thousand, Three Hundred Thirty-Six Dollars and Zero Cents (\$321,336.00)**. It is agreed that progress payments will be made by LICENSEE to the RAILWAY for the total amount of work done as shown on monthly statements. LICENSEE shall pay each RAILWAY statement within forty-five (45) days of receipt. Upon receipt of the final bill, RAILWAY shall be reimbursed in such amounts as are proper and eligible for final payment, and the RAILWAY Project shall be submitted to LICENSEE for final audit.

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

III. GENERAL PROVISIONS

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

2. Limitations Upon Damages. Notwithstanding any other provision of this Agreement, RAILWAY shall not be liable for breach of this Agreement or under this Agreement for any consequential, incidental, exemplary, punitive, special, business damages or lost profits, as well as any claims for death, personal injury, and property loss and damage which occurs by reason of, or arises out of, or is incidental to the interruption in or usage of the Facilities placed upon or about the Premises by LICENSEE, including without limitation any damages under such claims that might be considered consequential, incidental, exemplary, punitive, special, business damages or lost 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 Cleveland Metroparks
4101 Fulton Parkway
Cleveland, Ohio 44144
Attention: Chief Planning and Design Officer

With a copy to

c/o Cleveland Metroparks
4101 Fulton Parkway
Cleveland, Ohio 44114
Attention: Chief Legal & Ethics Officer

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

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

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

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

7. Force Majeure. The parties agree to pursue the completion of the Railroad Project in accordance with the requirements of this Agreement. No party shall be held responsible to the other for delays caused by Force Majeure events, and such delays shall not be deemed a breach or default under this Agreement. In no event shall Force Majeure events excuse LICENSEE from its obligation to make payment to RAILWAY in accordance with this Agreement. Further the parties agree that the resolution or settlement of strikes or other labor disputes shall not be deemed to be within the control or reasonable control of the affected party. If any party is unable to complete work

assigned to it due to a condition of Force Majeure or other conditions beyond the reasonable control of said party, then said party will diligently pursue completion of the item that is delayed once said condition or conditions are no longer in effect. For purposes of this Agreement, Force Majeure events are defined as circumstances beyond a party's reasonable control that delay performance and may include, but are not limited to, acts of God, actions or decrees of governmental bodies (beyond control of the parties), acts of the public enemy, labor disputes, fires, insurrections, and floods.

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

9. Waiver of Workers Compensation Immunity. Intentionally omitted.

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, 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.

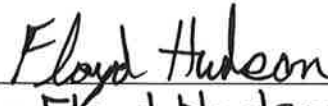
IN WITNESS WHEREOF, the parties have, through duly authorized representatives, entered into this Agreement effective the day and year first written above.

**BOARD OF PARK COMMISSIONERS
OF THE CLEVELAND
METROPOLITAN PARK**

DISTRICT, a political subdivision of the
State of Ohio

By: 
Name: Brian M. Zimmerman
Title: Chief Executive Officer
Date: 8-20-19

**NORFOLK SOUTHERN RAILWAY
COMPANY**, a Virginia corporation

By: 
Name: Floyd Hudson
Title: General Manager
Date: 8/27/19

NS File: BR0121061 (Ped Bridge)

Approved as to legal form:



Kyle G. Baker, JD
Assistant Legal Counsel

EXHIBIT A



LAITUDE: 41°29'58" LONGITUDE: 81°42'42"
SCALE IN MILES



- PORTION TO BE IMPROVED
- INTERSTATE HIGHWAY
- FEDERAL ROUTES
- STATE ROUTES
- COUNTY & TOWNSHIP ROADS
- OTHER ROADS

DESIGN DESIGNATION

DESIGN FUNCTIONAL CLASSIFICATION:
SHARED USE PATH

DESIGN EXCEPTIONS

NONE REQUIRED

UNDERGROUND UTILITIES

Contact Two Working Days Before You Dig



OHIO811, 8-1-1, or 1-800-382-2784
(Non-members must be called directly)

PLAN PREPARED BY:



KS Associates, Inc.
10000 Lakeside Blvd. 100
Shaker, OH 44335
P 440.355.1730
F 440.355.1750
www.ksoffices.com

ENGINEERS SEAL:



WENDY PARK BRIDGE
EXHIBIT
CITY OF CLEVELAND
CUYAHOGA COUNTY, OH

PROJECT DESCRIPTION

PROJECT INCLUDES A NEW PREFABRICATED THREE-SPAN PRATT TRUSS WITH TIED-ARCH TRUSS CENTERSPAN PEDESTRIAN BRIDGE LINKING THE NORTHERN TERMINUS OF THE WILLOW AVENUE BRIDGE TO THE WHISKEY ISLAND CONNECTOR TRAIL OVER THE NORFOLK SOUTHERN RAILROAD, SALT ROAD, AND WHISKEY ISLAND DRIVE. WORK INCLUDES THE SOUTH APPROACH RAMP, DRAINAGE, LIGHTING, AND RELOCATING A PORTION OF WHISKEY ISLAND DRIVE.

PROJECT EARTH DISTURBED AREA: 0.98 ACRES
ESTIMATED CONTRACTOR EARTH DISTURBED AREA: 0.25 ACRES
NOTICE OF INTENT EARTH DISTURBED AREA: 1.23 ACRES

2019 SPECIFICATIONS

THE STANDARD SPECIFICATIONS OF THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, INCLUDING SUPPLEMENTAL SPECIFICATIONS LISTED IN THE PLANS AND CHANGES LISTED IN THE PROPOSAL SHALL GOVERN THIS IMPROVEMENT.

INDEX OF SHEETS:

1	TITLE SHEET
2	SCHEMATIC PLAN
3-5	TYPICAL SECTIONS
6-8	GENERAL NOTES
9	MAINTENANCE OF TRAFFIC NOTES
10	MAINTENANCE OF TRAFFIC PLAN
11	REMOVAL PLAN - SOUTH RAMP
12-13	PLAN AND PROFILE - WENDY PARK BRIDGE
14	PLAN AND PROFILE - WHISKEY ISLAND DRIVE
15-21	CROSS SECTIONS - WENDY PARK BRIDGE
22-24	CROSS SECTIONS - WHISKEY ISLAND DRIVE
25	PAVEMENT SUPERELEVATION TABLE
26	GRADING PLAN
27	INTERSECTION DETAIL
28	STORM SEWER PROFILES
29	TRAFFIC CONTROL
30-35	LIGHTING PLANS
36-43	RETAINING WALL PLANS
44-58	STRUCTURES OVER 20' SPAN
59-61	FENCING PLANS
62-74	SOIL PROFILES
75-83	PREFABRICATED SUPERSTRUCTURE CONSTRUCTION PLANS
84-89	CONSTRUCTION ERECTION SEQUENCE

BOARD OF PARK COMMISSIONERS
DEBRA K. BERRY PRESIDENT
DAN T. MOORE VICE-PRESIDENT
BRUCE G. RINKER VICE-PRESIDENT
BRIAN M. ZIMMERMAN CHIEF EXECUTIVE OFFICER

BRIAN M. ZIMMERMAN
CHIEF EXECUTIVE OFFICER

STANDARD CONSTRUCTION DRAWINGS	CITY OF CLEVELAND STANDARD DRAWINGS	SUPPLEMENTAL SPECIFICATIONS	SPECIAL PROVISIONS
SP-1.1 1/28/2018 F-1.1 1/28/2018 MF-25.41 7/21/17 CR-1 4/14/2018		800 4/28/2018	SP 514
SP-2.1 7/17/18 F-3.1 1/28/2018 MF-101.60 1/20/17 CD-1 4/14/2018		817 10/09/2018	SP 614
SP-2.2 7/18/2018			
SP-3.1 7/18/2018 MGS-1.1 1/28/2018 MF-101.60 1/20/17 MS-HE 7/28/2018			
SP-3.2 7/18/2018 MGS-2.1 1/28/2018 IK-20.11 4/21/17			
SP-5.1 7/20/18 MGS-3.1 1/28/2018 IK-30.11 1/28/2018			
SP-11.1 7/20/18 MGS-3.2 1/28/2018 IK-30.11 1/28/2018			
SP-11.2 7/20/18 MGS-3.2 1/28/2018			
DM-4.1 7/21/17 DM-4.2 7/20/18			
DM-4.3 7/21/17 DM-4.5 7/21/17			
DM-4.4 7/21/17 DM-4.6 7/21/17			
DM-4.5 7/21/17 DM-5.1 7/21/17			
DM-4.6 7/21/17			

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

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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.

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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.

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- 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.

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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 1/2".
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

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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.

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- 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 two inches per second. 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.

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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.

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- 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

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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

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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.

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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

EXHIBIT B

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.

EXHIBIT B

- J. All operating equipment within 25' of track must halt operations when a train is passing. All other operating equipment may be halted by the flagman if the flagman views the operation to be dangerous to the passing train.
- K. All equipment, loads and cables are prohibited from touching rails.
- L. While clearing and grubbing, no vegetation will be removed from Railroad embankment with heavy equipment without specific permission from the Railroad Engineer and flagman.
- M. No equipment or materials will be parked or stored on Railroad's property unless specific authorization is granted from the Railroad Engineer.
- N. All unattended equipment that is left parked on Railroad property shall be effectively immobilized so that it cannot be moved by unauthorized persons.
- O. All cranes and boom equipment will be turned away from track after each work day or whenever unattended by an operator.
- P. Prior to performing any crane operations, the Contractor shall establish a single point of contact for the Railroad flagman to remain in communication with at all times. Person must also be in direct contact with the individual(s) directing the crane operation(s).

14. INSURANCE:

- A. In addition to any other forms of insurance or bonds required under the terms of the contract and specifications, the Prime Contractor will be required to carry insurance of the following kinds and amounts:
 - 1. a. Commercial General Liability Insurance having a combined single limit of not less than \$2,000,000 per occurrence for all loss, damage, cost and expense, including attorneys' fees, arising out of bodily injury liability and property damage liability during the policy period. Said policy shall include explosion, collapse, and underground hazard (XCU) coverage, shall be endorsed to name Railroad specified in item A.2.c. below both as the certificate holder and as an additional insured, and shall include a severability of interests provision.
 - b. Automobile Liability Insurance with a combined single limit of not less than \$1,000,000 each occurrence for injury to or death of persons and damage to or loss or destruction of property. Said policy or policies shall be endorsed to name Railroad specified in item A.2.c. below both as the certificate holder and as an additional insured and shall include a severability of interests provision.
 - 2. Railroad Protective Liability Insurance having a combined single limit of not less than \$2,000,000 each occurrence and \$6,000,000 in the aggregate applying separately to each annual period. If the project involves track over which passenger trains operate, the insurance limits required are not less than a combined single limit of \$5,000,000 each occurrence and \$10,000,000 in the aggregate applying separately to each annual period. Said policy shall provide coverage for all loss, damage or expense arising from bodily injury and property damage liability, and physical damage to property attributed to acts or omissions at the job site.

EXHIBIT B

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 are **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:

EXHIBIT B

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

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

- B. If any part of the work is sublet, similar insurance, and evidence thereof as specified in A.1 above, shall be provided by or on behalf of the subcontractor to cover its operations on Railroad’s right of way.
- C. All insurance required under the preceding subsection A shall be underwritten by insurers and be of such form and content, as may be acceptable to the Company. Prior to entry on Railroad right-of-way, the original Railroad Protective Liability Insurance Policy shall be submitted by the Prime Contractor to the Department at the address below for its review and transmittal to the Railroad. In addition, certificates of insurance evidencing the Prime Contractor’s and any subcontractors’ Commercial General Liability Insurance shall be issued to the Railroad and the Department at the addresses below, and forwarded to the Department for its review and transmittal to the Railroad. The certificates of insurance shall state that the insurance coverage will not be suspended, voided, canceled, or reduced in coverage or limits without (30) days advance written notice to Railroad and the Department. No work will be permitted by Railroad on its right-of-way until it has reviewed and approved the evidence of insurance required herein.

SPONSOR:

RAILROAD:

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

- D. The insurance required herein shall in no way serve to limit the liability of Sponsor or its Contractors under the terms of this agreement.
- E. Insurance Submission Procedures
 - 1. Railroad will only accept initial insurance submissions via US Mail or Overnight carrier to the address noted in C above. Railroad will NOT accept initial insurance submissions via email or faxes. **Please provide point of contact information with the submission including a phone number and email address.**

EXHIBIT B

- 2. Railroad requires the following two (2) forms of insurance in the initial insurance submission to be submitted under a cover letter providing details of the project and contact information:
 - a. The full original or certified true countersigned copy of the railroad protective liability insurance policy in its entirety inclusive of all declarations, schedule of forms and endorsements along with the policy forms and endorsements.
 - b. The Contractor's commercial general, automobile, and workers' compensation liability insurance certificate of liability insurance evidencing a combined single limit of a minimum of \$2M per occurrence of general and \$1M per occurrence of automobile liability insurance naming Norfolk Southern Railway Company, Three Commercial Place, Norfolk, VA 23510 as the certificate holder and as an additional insured on both the general and automobile liability insurance policy.
- 3. It should be noted that the Railroad does not accept notation of Railroad Protective insurance on a certificate of liability insurance form or Binders as Railroad must have the full original countersigned policy. Further, please note that mere receipt of the policy is not the only issue but review for compliance. Due to the number of projects system-wide, it typically takes a minimum of 30-45 days for the Railroad to review.

15. FAILURE TO COMPLY:

- A. In the event the Contractor violates or fails to comply with any of the requirements of these Special Provisions:
 - 1. The Railroad Engineer may require that the Contractor vacate Railroad property.
 - 2. The Sponsor's Engineer may withhold all monies due the Contractor on monthly statements.
- B. Any such orders shall remain in effect until the Contractor has remedied the situation to the satisfaction of the Railroad Engineer and the Sponsor's Engineer.

16. PAYMENT FOR COST OF COMPLIANCE:

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

17. PROJECT INFORMATION

- A. Date: August 16, 2019
- B. NS File No.: BR0121061 (Ped Bridge)
- C. NS Milepost: CD-182.51
- D. Sponsor's Project No.: _____

EXHIBIT B

CONTRACTOR WORKING ON BEHALF OF PROJECT SPONSOR
COSTS REIMBURSED BY PROJECT SPONSOR
NS FILE: BR0121061

**NORFOLK SOUTHERN
CONTRACTOR RIGHT OF ENTRY AGREEMENT**

WHEREAS, _____ ("Principal") has requested that Norfolk Southern Railway Company ("Company") permit Principal to be on or about Company's premises and/or facilities at or in the vicinity of Company Milepost CD-182.51 at or near Cleveland, Cuyahoga County, Ohio (the "Premises") for the sole purpose of constructing the Wendy Park Pedestrian Bridge, on behalf of Cleveland Metropolitan Park District (the "Project Sponsor") during the period _____, 20____, to _____, 20____ (the "Right of Entry").

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

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

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

Principal agrees:

- (i) that Licensees' access to the Premises shall be limited to the Designated Property and that Principal shall be liable and fully responsible for all actions of Licensees while on the Premises pursuant to the Right of Entry;
- (ii) that Licensees shall (a) be subject to Company's direction when upon the Premises, and (b) be subject to Company's removal from the Premises, in Company's sole discretion, due to negligence, misconduct, unsafe actions, breach of this agreement or the failure to act respectfully, responsibly, professionally, and/or in a manner consistent with Company's desire to minimize risk and maintain its property with maximum security and minimum distractions or disruptions or for any other lawful reason;
- (iii) that Licensees shall perform all work with such care, diligence and cooperation with Company personnel as to reasonably avoid accidents, damage or harm to persons or property and delays or interference with the operations of any Company's facilities and in accordance with Company's "Special Provisions for Protection of Railway Interest", attached and incorporated herein.
- (iv) to give Company's officer signing this agreement, or his or her authorized representative, advance notification of the presence of Licensees on Designated Property in accordance with Company's "Special Provisions for Protection of Railway Interest";
- (v) to indemnify and save harmless Company, its officers, agents and employees from and against any and all claims, demands, losses, suits, judgments, costs, expenses (including without limitation reasonable attorney's fees) and liability resulting from (a) injury to or death of any person, including without limitation the Licensees, and damage to or loss of any property, including without limitation that belonging to or in the custody of Licensees (the "Licensee Property"), arising or in any manner growing out of the presence of either the Licensees or the Licensee Property, or both, on or about the Premises, regardless of

EXHIBIT B

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

- (vi) to have and keep in effect the appropriate kinds of insurance as listed in the Company's "Special Provisions for Protection of Railway Interest, with insurance companies satisfactory to Company, during the entire time Licensees or Licensee Property, or both, is on the Premises; and to provide certificates of insurance showing the foregoing coverage, as well as any endorsements or other proper documentation showing and any change or cancellations in the coverage to the Company officer signing this agreement or to his or her authorized representative;
- (vii) to reimburse Company for any costs not covered under the existing project agreement between the Company and the Project Sponsor, including any material, labor, supervisory and protective costs (including flagging) and related taxes and overhead expenses required or deemed necessary by Company because of the presence of either Licensees or Licensee Property on the Premises;
- (viii) to exercise special care and precautions to protect the Premises and equipment, machinery, rolling stock and other personal property and fixtures belonging to Company or otherwise located on the Premises (whether or not constituting Designated Property) and to avoid interference with Company's operations;
- (ix) to not create and not allow drainage conditions which would be adverse to the Premises or any surrounding areas;
- (x) to refrain from the disposal or release of any trash, waste, and hazardous, dangerous or toxic waste, materials or substances on or adjacent to the Premises and to clean up or to pay Company for the cleanup of any such released trash, waste, materials or substances; and
- (xi) to restore the Premises and surrounding areas to its original condition or to a condition satisfactory to the Company officer signing this agreement or to his or her authorized representative (ordinary wear and tear to rolling stock and equipment excepted) upon termination of Licensees' presence on the Premises.

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

EXHIBIT B

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

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

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

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

CONSTRUCTION FORCE ACCOUNT ESTIMATE

Work to be Performed By:	Norfolk Southern Railway Company
For the Account of:	Cleveland Metroparks
Project Description:	Wendy Park Pedestrian Bridge over Norfolk Southern
Location:	Cleveland, Cuyahoga County, Ohio
Project No.:	ODOT PID 104804
Milepost:	CD-182.51
File:	BR0121061
Date:	August 5, 2019

<u>SUMMARY</u>	
ITEM A - Preliminary Engineering	0
ITEM B - Construction Engineering	96,786
ITEM C - Accounting	2,347
ITEM D - Flagging Services	197,202
ITEM E - Communications Changes	25,000
ITEM F - Signal & Electrical Changes	0
ITEM G - Track Work	0
ITEM H - T-Cubed	0
GRAND TOTAL	\$ 321,336

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
		<hr/>
	NET TOTAL - ITEM A	\$ -

EXHIBIT C

ITEM B - Construction Engineering

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

Labor:	40 Hours @ \$60 / hour=	2,400
Labor Additives:		1,886
Travel Expenses:		2,500
Services by Contract Engineer:		90,000
	NET TOTAL - ITEM B	\$ 96,786

ITEM C - Administration

Agreement Construction, Review and/or Handling:		1,250
Accounting Hours (Labor):	20 Hours @ \$30 / hour=	600
Accounting Additives:		497
	NET TOTAL - ITEM C	\$ 2,347

ITEM D - Flagging Services

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

Labor:	Flagging Foreman	
	200 days @ 310.00 per day=	62,000
	(based on working 10 hours/day)	
Labor Additive:		115,202
Travel Expenses, Meals & Lodging:		
	200 days @ \$100/day=	20,000
Rental Vehicle	0 months @ \$950/month=	0
	NET TOTAL - ITEM D	\$ 197,202

ITEM E - Communications Changes

Material:		0
Labor:		0
Purchase Services:		25,000
Subsistence:		0
Additive:		0
	NET TOTAL - ITEM E	\$ 25,000

EXHIBIT C

ITEM F - Signal & Electrical Changes

Material:	0
Labor:	0
Purchase Services:	0
Other:	0
	<hr/>
NET TOTAL - ITEM F	\$ -

ITEM G - Track Work

Material:	0
Labor:	0
Additive:	0
Purchase Services:	0
	<hr/>
NET TOTAL - ITEM G	\$ -

ITEM H - T-CUBED (If involvement is required, estimate will need to be updated)

Lump Sum	\$ -
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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 (08/05/2019). 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.