ODOT

DESIGN BUILD

SCOPE OF SERVICES

PID: 100038 State Project Number: _____

County: Harrison Route: SR 151 Section: 4.85

Table of Contents:

1. Project Identification:

PID: 100038 State Project Number: _____
County: Harrison Route: SR 151 Section: 4.85
Local Route Name: Patterson Road / Boyce Dr
Highway Functional Classification & Federal Aid System: Major Collector & Federal Aid Eligible.
Structure Identification: Bridge Number: HAS-151-0485 Over: Columbus & Ohio River Rail Road
Structure File Number: 3402010

1.1 Design Designation:

The Design-Build Team (DBT) shall use the design designations for each of the facilities below various design elements as specified within the Scope of Services.

Roadway:
Location: N 40.427789625731506, W 81.19170298070485

SR 151
Current ADT: 3200
Design Year ADT: 3200
Design Hourly Volume: 320
Directional Distribution: 57%
Trucks: 13%
Design Speed: 50 MPH
Legal Speed: 50 MPH
Design Functional Classification: Major Collector

SR 212
Current ADT: 1700
Design Year ADT: 2000
Design Hourly Volume: 180
Directional Distribution: 59%
Trucks: 5%
Design Speed: 55 MPH
Legal Speed: 55 MPH
Design Functional Classification: Major Collector

Main Street
Current ADT: 320
Design Year ADT: 320
Design Hourly Volume: 30
Directional Distribution: 55%
Trucks: 2%
Design Speed: 25 MPH
Legal Speed: 25 MPH

Design Functional Classification: Minor Collector

NHS Project: Yes: _____ No: ___X___

All designs shall conform to the Terrain Type of "Rolling" as defined in L&D Vol. 1 Section 103.2.

1.2 Existing plans and Project Information:

Available information related to the Project is available in the Document Inventory shown in Table 1-1. The Document Inventory will identify whether the document is designated as "Reference Documents" or "Contractual Appendices".

Reference Documents appendices are provided for informational purposes only. The Department makes no representation or warranty as to the accuracy, adequacy, applicability, or completeness of the Reference Documents. Except to the extent set forth to the contrary in the Contract Documents, reliance upon the Reference Documents shall be at the Proposer's risk, and the Department shall have no liability or obligation as a result of the inaccuracy, inadequacy, inapplicability, or incompleteness of the Reference Documents, regardless of the contents thereof.

Contractual Appendices in the Document Inventory are considered binding obligations of the DBT. The DBT shall meet requirements identified in the Contractual Appendices and shall implement the Work in accordance with these requirements.
The Offerors (i.e. prospective Design-Build Teams) shall examine the information provided in the Document Inventory to determine if the information accurately depicts existing field conditions.

The following existing plans are considered part of the Document Inventory and are available for review at the District Office:

HAS-151-4.91 / HAS-212-0.32 (1956) – Original Construction
HAS-151-4.85 PID 15609 (2004) – Repairs and Overlay

Please contact the District Project Manager.

The plans identified in the Document Inventory are not as-built plans. All existing plans are considered Reference Documents.

In addition to the existing plans, appendices to the Scope of Services are listed in the Document Inventory and posted on the FTP site.

http://www.dot.state.oh.us/Divisions/ContractAdmin/Contracts/Pages/designfiles.aspx

Table 0-1: Document Inventory

Appendix #	Appendix Title	Contractual/Reference Designation
A	Railroad Public Project Manual	Contractual
B	Concept Plans – Stage 1 Completeness	Reference
C	Railroad Comments on Concept Plans via email	Contractual
D	Utility Location Information	Reference
E	Existing Structure Inventory and Inspection Reports	Reference
F	FEMA Website Screen Capture	Reference
G	List of Railroad Temporary Crossing Contractors	Reference
H	Official State Route Detour Map	Contractual
I	Designated Local Detour Route	Contractual
J	Asbestos Survey Report	Reference
K	Railroad Construction Agreement	Contractual
L	Geotechnical information	Reference
M	Environmental - Approved CE	Contractual
N	Environmental – Level 1 Ecological Survey	Contractual
O	Environmental – Regional General Permit	Contractual
P	Environmental – Regulated Materials Review Form	Contractual
Q	Environmental – Special Provisions	Contractual
R	Survey Control Points	Contractual

1.3 Railroad Coordination:

The rail line involved is referred to as the Panhandle Line, owned by the State of Ohio, and operated under lease by The Columbus & Ohio River Rail Road (CUOH), a subsidiary of the Genesee & Wyoming rail system.

Location information: Milepost: 81.52, AARDOT #510721H.

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Railroad Coordination, including the processing and execution of Railroad Construction Agreements, is handled through the ODOT State Rail Coordinator at Central Office. Technical coordination is handled through the ODOT District 11 Railroad Coordinator.

All planned design and construction within the Railroad Right-of-Way (RR ROW) is required to follow Genesee & Wyoming's 'Public Projects Manual', which is Appendix A. For the purpose of this Contract RR ROW refers to Harrison County Parcel ID:16000028400, owned by Ohio Rail Development Commission.

To expedite responses from the railroad or the railroad's General Engineering Consultant, the subject line of all email communication should be structured as follows:

"ODOT HAS-151-04.85 (PID 100038); CUOH Panhandle Line MP 81.52 (AARDOT #510721H – (Subject of email)"

If the DBT determines that a temporary railroad crossing is required, the DBT shall be responsible to design, obtain the agreement with the railroad, pay for all applicable fees and construct and subsequently remove it. The DBT is hereby advised that a temporary railroad crossing is not covered by the railroad construction agreement attached to this contract. A separate agreement for the temporary railroad crossing is required to be obtained by the DBT. The process to obtain the agreement shall be as outlined above and subject to the review times listed in Section 17. Temporary railroad crossings shall be constructed by one of the contractors on the pre-approved list provided by the railroad in Appendix G. No revisions to the construction completion date or increases in the detour duration will be allowed for delays associated with the temporary railroad crossing.

1.4 Airway/Highway Clearance:

The DBT shall prepare and submit the Airway/Highway Clearance Analysis in accordance with Location and Design Manual Volume 3, Section 1407.1. The DBT shall convey all relevant documentation to the Department and coordinate with the District Project Manager to obtain all necessary approvals. The DBT shall account for the required time to obtain approvals in their schedule and will not be able to start work until the approvals and documentation are received by the District Project Manager.

2 Pre-Bid Meeting:

This meeting is mandatory and will discuss and clarify all issues that the project may have.

Location: Virtually via MS Teams or other software
Date: January 25, 2022
Time: 9:00 am

To Register for the meeting, please email Raymond.Trivoli@dot.ohio.gov. Please provide the following:

- Email Address that will be joining the meeting.
- DBT firms/contractors associated with this email address.
- Point of Contact Name and Phone Number for the email address provided.

3 Addenda Process:

All questions prior to the letting date shall be directed to:
Web submittal form:
http://www.dot.state.oh.us/Divisions/ContractAdmin/Contracts/Pages/PBQs.aspx

Answers, if required, will be posted at the following location:
http://www.dot.state.oh.us/Divisions/ContractAdmin/Contracts/Construction/PrebidQs.pdf

4 Contractor Pre-Qualification:

It is required that the Bidder be a Contractor prequalified in accordance with Section 102.01 of PN 126. The Contractor or one of the subcontractors identified in the Proposal must be prequalified for all Work Type Codes included in the Proposal.

The Bidder is also required to have engaged the services of an ODOT pre-qualified Consultant (Designer) in accordance with Section 5 of the Scope of Services to constitute the DBT.

If the Contractor, Designer, and/or the sub-consultant(s) submitted do not meet all the required qualifications, the Office of Contract Sales may reject the bid.

5 Designer:

The Offeror shall name the Designer and all sub-consultant(s) in the electronic form on the following web-page prior to Bid submittal:

http://www.dot.state.oh.us/Divisions/ContractAdmin/Contracts/Pages/Scope.aspx

Each Offeror shall list relevant prequalification categories for the Designer and each sub-consultant(s) to show that the prequalification requirements listed below are satisfied. All consultant names and addresses must be the same as that on file with the Department as found on the following listing:

http://www.dot.state.oh.us/Divisions/Engineering/Consultant/Consultant/prequal-engineering.pdf

The Designer or sub-consultants of the Designer must be prequalified to perform design work associated with the following prequalification categories:

Roadway:
Non-complex Roadway Design

Bridge Design:
Level 2 Bridge Design
Level 1 Bridge Inspection

Environmental Services:
Waterway Permits
Ecological Surveys

Soils/Geotechnical Services:
Geotechnical Engineering Services
Geotechnical Testing Laboratory
Geotechnical Field Exploration Services
Geotechnical Drilling Inspection

In accordance with Section 104.011 of PN 126, design services that require prequalification may only be performed by firms that are prequalified for those services at the time of performance of the services.

Restrictions on Participation in Design-Build Contracts:
Any Consultant who provided services to the Department that have been directly utilized in this design-build Proposal or Scope of Services document will NOT be eligible to participate in this design-build contract for this project, either as a prime consultant or as a sub-consultant.

The following Consultants have been identified as being precluded from participation:

JACOBS (CH2M Hill, Inc.)
2LMN
ASC Group Inc.
Barr Engineering Incorporated
Amy Bernicken
Benesch (Alfred Benesch)
HNTB

6 Scope of Work:

Project Limits*: From SLM 4.74 To SLM 5.06
Project Length*: 0.32 MILES .
*Project and Work Length shown are approximate, the actual Project and Work Lengths shall be determined by the DBT.

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The Consultant shall provide for the engineering services, design, and preparation of detail construction plans for the construction of the proposed project.

The Contractor shall provide for the furnishing of materials, construction and completion in every detail of all the work described in the Conceptual Documents in order to fulfill the intent of the contract.

Project Description: Design and construction to replace bridge number HAS-151-0485 (SFN 3402010). Construction of the new bridge, with new piers, abutments, and foundations, including all necessary roadway, maintenance of traffic, and all other work necessary to fulfill the requirements of this contract.

Completion date: 10/31/2023
Warranties: None

7 Field Office:

Field office Type **B**, as required by Construction and Material Specification Item 619, shall be available and completely functional no later than 1 week prior to the start of construction work.

8 General Provision For The Work:

8.1 Governing Regulations:

All services, including but not limited to survey, design and construction work, performed by the DBT and all subcontractors (including sub-consultants), shall be in compliance with all applicable ODOT Manuals and Guidelines.

It will be the responsibility of the DBT to acquire and utilize the necessary ODOT manuals that apply to the design and construction work required to complete this project.

The current edition, including updates released on or before the prebid meeting date, of the following ODOT Manuals and Guidelines shall be met or exceeded in the performance of the design and construction work required to complete this project:

Bridge Design Manual
Location and Design Manuals
- Volume One - Roadway Design
- Volume Two - Drainage Design
- Volume Three - Plan Preparation

Pavement Design & Rehabilitation Manual
Specifications for Geotechnical Explorations
Survey and Mapping Manual
Construction and Material Specifications
Proposal Notes for Construction and Material Specifications
Supplemental Specifications for Construction and Material Specifications
Item Master
Manual for Abandoned Underground Mines - Inventory and Risk Assessment
Pavement Design and Rehabilitation Manual
State Highway Access Management Manual
Standard Construction Drawings
Standard Bridge Drawings
Standard Bridge Drawing Supplements
Plan Insert Sheets
Traffic Engineering Manual
Ohio Manual of Uniform Traffic Control Devices
Real Estate Administration Policies and Procedures Manual:
- Appraisal
- Acquisition Property Management
- Relocation
- ROW Plans
- Utilities
- Wireless Communication Tower Manual

Environmental Services Handbooks and Guidelines
Waterway Permit Manual
Design Mapping Specifications
CADD Engineering Standards Manual

Geotechnical Bulletins
Project Development Process Manual
Railroad Public Projects manual (See Appendix A)
ODOT Railroad Construction Agreement / Special Clauses
ASW 1.5 Bridge Welding Code

8.2 CADD Files Supplied by Consultant

The DBT shall comply with ODOT's CADD Standards, and supply files in accordance with the CADD Engineering Standards Manual for OHDOT CONNECT. All data shall be provided to the Department according to the provisions as detailed under the appropriate CADD links accessed from the Department's Division of Engineering's website. This includes, but is not limited to, the level assignments, symbols, lines and line styles that are to be used, line weights, cells, placement of text and file naming conventions.

The websites can be accessed at the following URL addresses:
https://www.dot.state.oh.us/Divisions/Engineering/CaddMapping/CADD_Services/Standards/Pages/Manuals.aspx

https://www.dot.state.oh.us/Divisions/Engineering/CaddMapping/CADD_Services/Standards/Pages/Downloads.aspx

The Department will accept CADD files through electronic media.

1. The DBT shall submit all CADD information produced in the process of plan development. All CADD information shall be submitted in the current version of MicroStation (*.dgn) format as indicated in the CADD Engineering Standards Manual for OHDOT CONNECT. The DBT shall provide a comprehensive set of complete and accurate CADD data which is compatible with ODOT's CADD systems with no additional work or modification.

2. The DBT shall submit all information produced in the process of plan development according to L&D Volume 3, Section 1500.

The DBT shall use a separate file name for each horizontal or vertical alignment. The DBT shall provide required ASCII report content in accordance with the CADD Engineering Standards Manual.

These requirements and procedures may be updated from time to time with notification provided on the ODOT Division of Engineering website. The DBT shall use ODOT cell files and ODOT seed files consistent with the version of the requirements identified in Section 8.1 (Governing Regulations).

8.3 Pre-Award Conference:

Within 7 days of after bid opening, the apparent successful DBT will attend a mandatory pre-award conference. This confidential meeting will be held with the Office of Estimating in the Division of Construction Management at ODOT Central Office (1980 W. Broad St., Columbus, OH. 43223) to discuss the DBT's bid of the Lump Sum items. The DBT shall be prepared to discuss general items of Work included within the Lump Sum bid items, approximate amounts of Work included within the Bid Item by the DBT, and general design approach and design concepts for the Work. Other ODOT representatives familiar with the Project may attend.

While not required, the DBT may prepare general engineering information to be presented to the Office of Estimating to help explain design concepts and quantities. This information will be used only by the Office of Estimating to assist in understanding the DBT's bid for award recommendation purposes.

No shared concepts, shared quantity information, discussions, comments made or shared by either party will be considered binding, a revision to the contract, or acceptance or validation of any design concept or assumed quantities of work.

8.4 Partnering Agreement:

The DBT is required to enter into a Self-Facilitated cooperative partnership agreement with the Department on this project. The objective of this agreement is the timely completion of the work and a quality product that will be a source of pride to both the Department and the DBT. Partnering will not affect the terms and conditions of the contract. The partnering agreement is a document which is solely intended to establish an environment of cooperation between the parties. The costs associated with the partnering process will be in accordance with Section 108.02 of PN 126.

8.4.a Pre-Design Meeting:

The DBT will attend a mandatory pre-design conference, per PN 126. This meeting will be held at the ODOT District 11 Headquarters, (2201 Reiser Ave SE. New Philadelphia, OH 44663) to discuss the DBT's conceptual design and introduce key project staff. The DBT at this time will name a Contractor Project Manager that will be the point of contact with the District Project Manager, District Project Engineer, Railroad and Utility Companies throughout the duration of the contract.

The DBT shall be prepared to discuss all major items of work including, but not limited to, the preliminary design for the bridge type, size, location and foundations, the roadway profile and stopping sight distance.

Comments made or shared by either party will not be considered binding, a revision to the contract, or acceptance or validation of any design concept or assumed quantities of work.

8.5 Communication:

All communication during design and construction shall be with the District Project Manager and the District Project Engineer.

District Project Manager's Name: Timothy Stillion
Phone number: 330-308-7860 Fax: 330-308-3965.
E-mail: mailto:tim.stillion@dot.ohio.gov.

The District Project Engineer shall be named at the pre-design meeting.

At the pre-design meeting, the Contractor shall name a Project Manager who will act as a liaison between the DBT and the Department**.**

8.6 Permits:

The DBT shall ensure that the Project is constructed and maintained in accordance with all requirements, regulations, and applicable permits required for the Project. This includes the permits described herein and any additional permits not specifically identified in the Contract Documents.

Unless noted otherwise in the Contract Documents, the DBT shall obtain all necessary permits and pay all charges, fees and taxes associated with these permits (e.g., city street opening permits, street crossing/equipment moving permits, water department fees, sewer permits, rail permits and fees, etc.). The DBT shall be responsible for any fines levied by regulatory agencies as a result of their construction activities or non-compliance with any permit special or general conditions.

The DBT shall obtain a permit from the State or local government having jurisdiction to perform any non-construction work within the existing Right of Way and/or limited access.

8.7 Entry On Private Property:

The DBT, acting as The Department's agent, may enter upon any lands within the State for the purpose of inspecting, surveying, leveling, digging, drilling, or doing any work deemed necessary in the execution of any survey authorized by the Director of Transportation in accordance with Section 5517.01 of the Ohio Revised Code and ODOT's Survey and Mapping Manual. Prior to performing said survey, the DBT will send notification letters indicating the date and duration of entry to the affected property owners no less than forty-eight hours nor more than 30 days prior to the date of entry for said survey in accordance with ODOT's Survey and Mapping Manual. The DBT shall forward copies of all notification letters distributed to District Project Manager.

Any subsequent claims for compensation due to damages incurred while said survey was being performed will be negotiated between the DBT and the affected property owners with final approval from District Project Manager. Crop and property damage minimization and reimbursement information, together with the crop damage reimbursement formula and Special Waiver of Damage form, will be provided to the DBT by District Project Manager.

Any subsequent entries onto private property for the purpose of obtaining additional survey or soil information prior to the submission of the bid will be made in accordance with the procedures outlined in this section.

Access onto railroad ROW is prohibited without completing a Genesee & Wyoming Right-of-Entry document, and paying any applicable fees, which can be found at: https://www.gwrr.com/real_estate/accessing_property

9 Environmental:

The DBT shall ensure that the Project is designed, constructed, and maintained in accordance with all environmental requirements, regulations, and applicable permits required for this Project.

9.1 NEPA and Environmental Commitments:

The DBT shall perform all environmental commitments as described in Table 9-1 below unless otherwise specified in the Contract Documents.

Table 9-1: Environmental Commitments:

Source	Description of Commitment
Environmental Document (C2)	Obtain all appropriate waterway permits prior to any work within the jurisdictional boundary of any waterway, including wetlands, and all Waterway Permit Special Provisions shall be adhered to during construction. See Section 9.2 for DBT requirement.
Environmental Document (C2)	Ensure impacts to the federally listed and protected Indiana bat and northern long-eared bat are avoided and minimized. See Section 9.7

The DBT shall:

1. Monitor and document Work to demonstrate compliance with environmental commitments.
2. Provide documentation of environmental commitment compliance at request of the Department.
3. Follow Department and local regulations regarding dust control, adhering to dust control measures outlined in C&MS 616.
4. Adhere to local City ordinances for vehicle idling and all current U.S. Environmental Protection Agency (EPA) air quality regulations.

If the DBT becomes aware of any failure to perform an environmental commitment, the DBT shall notify the Department immediately.

9.2 Waterway Permits:

It is required that the bidder be aware of Section 404/401 Permits/Certifications for all projects impacting "waters of the US". The level of permit, that is Nationwide versus ODOT Regional General Permit (RGP) versus Individual 404 and 401, is determined by the exact amount of impact to "waters of the US", (i.e., acreage of fill activities in a stream or wetland or linear feet of work in a stream) and in some cases the waters impacted. All individual 404 Permits require 401 Water Quality Certification. Nationwide Permits are activity specific permits used to authorize projects with minor impacts. Projects with more than minor impacts require individual review by the U.S. Army Corps of Engineers and the Ohio Environmental Protection Agency.

The DBT should be aware of the ODOT RGP and Nationwide Permits and conditions as issued for the State of Ohio and should design projects to meet the requirements of these permits to avoid the requirements for Individual 404/401 Permits if possible. The Nationwide Permits for the State of Ohio can be found at the various Corps of Engineers' web sites. The Huntington District's web site can be found at: http://www.lrh.usace.army.mil/.

Based on the Concept Plans provided in Appendix B of this scope, ODOT's Office of Environmental Services (OES) authorized Regional General Permit (RGP) Section B (Maintenance) for the subject project. Copies of the permit special provisions are included in the proposal. A copy of the RGP shall be kept at the work site at all times and made available to all contractors and subcontractors. The permit is effective starting: June 8, 2021. The permit expires: October 24, 2024.

Coordination of the waterway permits can take up to six (6) months for Individual 404 Permits. Therefore it is imperative that the DBT submit plans (i.e., plan & profile, cross-section and detail sheets for any bridges, culverts, or fill areas in waters) to the District and the Office of Environmental Services, for permit determination, no less than 90 days prior to any in stream or wetland work. The review of plans, any required coordination or the processing of permit applications must be accomplished by the Office of Environmental Services prior to the commencement of construction activities. The DBT shall be responsible for completing applications for 404 Permits and 401 Water Quality Certification, if they are required. At no time will the DBT coordinate waterway permit issues directly with the permitting agencies unless directed to do so by the Office of Environmental Services.

All Waterway Permit requirements are found in the Waterway Permits Manual.

9.3 National Pollutant Discharge Elimination System (NPDES) permit:

The DBT shall submit to the District Project Manager the total number of acres of earth disturbance activities for both off project and on project work in a timely manner. This information will be used to develop the NOI if required. The NOI will be submitted to the OEPA within 10 days after this information is received from the DBT. Approval from the OEPA takes 30 days and the District Project Manager has 10 days to file the NOI so these 40 days will be counted for in the project schedule.

All temporary erosion control is the responsibility of the Contractor even if a SWPPP is not required. Earth disturbing activity is not permitted prior to the OEPA permit approval. For projects that require an NOI, the SWPPP must be in place prior to the initiation of any earth disturbing activity. All temporary erosion control work and the SWPPP if required will be per SS832. For information about OEPA's NPDES permit requirements see http://www.epa.state.oh.us/dsw/storm/index.html.

Items used to implement the DBT's Erosion Control requirements are paid from an encumbered amount included in the proposal as a non-bid reference number. The proposal specifies the unit prices for the erosion control items. Payments for erosion control items that exceed the encumbered amount will be made by an Extra Work Change Order using the specified unit prices. The specified unit prices are fixed for the contract and may not be negotiated or adjusted for inflation or claimed changed condition.

The preparation of the SWPPP, along with all requirements of SS832 for maintenance, inspection, inspection software costs, modifying and updating the SWPPP must be performed. Pay Items 832e15000, 832e15002 and 832e15010 have been included in the proposal to address these costs.

9.4 Removal of Temporary Erosion Control Items:
All temporary erosion control items shall be removed before the project is accepted. Removed materials shall become the property of the Contractor and shall be disposed of in accordance with the appropriate C&MS specifications.

9.5 Stream Crossing Investigations (flood plain analysis):
The Consultant shall perform a detailed flood plain analysis for each waterway crossing. The analysis shall be as per the Location & Design Manual and The Bridge Design Manual and as follows: The extent of the analysis shall be from a minimum of 500' downstream, to the greater of either one bridge opening/width upstream, or to the limits of the area inundated by the 100-year event. The results of the detailed flood plain study, supporting hydraulic calculations, and recommendations shall be submitted to the District for review and comment prior to construction of the drainage structure. If the proposed crossing is located in a special flood hazard area as defined by FEMA, the detailed flood plain analysis shall be submitted concurrently to the local flood plain coordinator.

9.6 FEMA floodplain impacts:
The DBT is hereby advised that the construction limits show in the Concept Plans provided in Appendix B are in close proximity to the FEMA flood zone AE that is shown in Appendix F. It is the DBT's responsibility to inform the District if work within the FEMA flood zone is going to occur. The DBT will be required to complete all necessary floodplain coordination. The environmental clearance for this project assumes the DBT will be avoiding this FEMA flood zone. If work will be completed within the FEMA Floodzone, the DBT is hereby advised that the NEPA document for this project will need re-evaluated. Additional review and coordination time will be required between the Final Plan submission and Approved for Construction plans. The DBT shall contact the

District Project Manager before submission of plans showing work within the FEMA floodplain and adjust the project schedules accordingly. No contract extensions will be provided to complete this coordination.

9.7 Endangered Bat Habitat Removal:

This project is located within the known habitat ranges of the federally listed and protected Indiana bat and northern long-eared bat. No trees shall be removed under this project from April 1 through September 30. All necessary tree removal shall occur from October 1 through March 31. This requirement is necessary to avoid and minimize impacts to these species as required by the endangered species act. For the purposes of this note, a tree is defined as a live, dying, or dead woody plant, with a trunk three inches or greater in diameter at a height of 4.5 feet above the ground surface, and with a minimum height of 13 feet.

9.8 Regulated Materials:

A regulated materials review (RMR) Screening was completed for the project based on Appendix B (Concept Plans). The Screening determined that a RMR Assessment is warranted for the Village of Bowerston Maintenance Garage (former McClain's Service Station), located at 106 Boyce Rd if the site is impacted by the project. The Interim Design plans indicate that this property will not be impacted. The DBT shall avoid impacts to the property located at 106 Boyce Rd.

The DBT shall meet all regulatory conditions imposed with regulated materials, including hazardous materials, associated with the Project. The DBT shall characterize, collect, contain, and properly dispose of all waste generated or encountered during the Work. The DBT shall ensure that the site is properly contained during construction so that regulated materials do not migrate off-site. The DBT shall prepare and implement a Spill Prevention Control and Countermeasures (SPCC) Plan per the requirements of 40 CFR Part 112 that provides specific guidance for managing, handling, and disposing of regulated materials that may be encountered within the Right-of-Way and for protecting the health and safety of all on-site personnel and the general public.

The DBT shall be responsible for abatement, excavation and handling associated with known regulated materials.

If any unknown regulated materials are discovered through work on the Project, the DBT shall notify the Department immediately and shall follow the SPCC Plan, as well as all appropriate regulations.

9.9 Asbestos:

An asbestos survey for bridge HAS-151-0485 SFN 3402010 a continuous concrete slab structure scheduled for demolition work was conducted by a Licensed Asbestos Hazard Evaluation Specialist. A copy of the Asbestos Inspection Report for the structure is included as Appendix J. The Asbestos Inspection Report did not identify the presence of any asbestos containing materials above regulatory limits.

The DBT shall dispose any asbestos containing materials in a landfill licensed by the Ohio Department of Health and permitted by the Ohio Environmental Protection Agency - Division of Air Pollution Control to accept asbestos containing material. The removal and disposal of all asbestos containing material must comply with the Ohio Administrative Code (OAC) regulations and the National Emission Standard for Hazardous Air Pollutants (NESHAP) standard for asbestos.

The DBT shall submit a completed electronic Notification of Demolition and Renovation Form (NDRF), applicable fees, and the Asbestos Inspection Report to the OEPA at least 10 days prior to any demolition activity, renovation activity, or both. Submit the NDRF and payment along with the Asbestos Inspection Report using the OEPA eBusiness Center. Submit one electronic PDF copy and one hard copy of the NDRF to the Engineer. The Engineer will provide one copy to the District Environmental Staff.

The DBT shall submit all documentation related to the survey, abatement, transport, and disposal of asbestos containing materials to the Engineer within two weeks of completion. The Engineer will provide a copy of the documentation to the District Environmental Staff.

9.10 Construction Noise:

Activities and land use adjacent to this project may be affected by construction noise. In order to minimize any adverse construction noise impacts, do not operate power-operated construction type devices between the hours of 8:00 PM and 7:00 AM. In addition, do not operate any device in such a manner that the noise created substantially exceeds the noise customarily and necessarily attendant to the reasonable and efficient performance of such equipment.

10 Right of Way:

All necessary construction work for the project will be performed within the existing right of way and new permanent right of way to be acquired by the Department for the project. The new permanent right of way may include aerial easements over RR ROW and permanent highway easements at pier and abutment locations on existing RR ROW. The Department will acquire the permanent highway easements based on the DBT's final design. New right of way will only be acquired from the railroad property labeled as Parcel ID:16000028400 at the Harrison County Auditor's Office. The construction work can proceed in advance of the acquisition of the railroad parcels based on the Right of Entry granted by the Columbus & Ohio River Railroad Company's Agreement No. 30138 dated 07/12/2021.

Existing right of way lines will be located by the DBT based on requirements specified in Chapter 4733-37 of the Ohio Revised Administrative Code (Board Rules) governed by regulations outlined in Chapter 4733, Ohio Revised Code (Regulation Laws). It is the responsibility of the DBT to research existing right of way information from all available sources including but not limited to ODOT records, County road records, Commissioners' Journals and records of other County offices to the extent necessary to provide an accurate basis for the establishment of the existing right of way.

The DBT will stake and flag the existing right of way in the field prior to the start of construction and will maintain said stakes and flags throughout the duration of the project.

The DBT shall identify and show all right of way encroachments on the construction plans at the Interim Design Submission. The District Project Manager will be responsible for clearing all encroachments on Federal-aid projects in accordance with standard encroachment removal.

11 Utilities:

Utilities Special Provisions in addition to the Governing Regulations listed in Section 8.1 of this document and section 153.64 of the Ohio Revised Code.

11.1 Existing Utilities:

The District Utility Coordinator, in concurrence with the registered Underground Utility Protection Services- Ohio Underground Protection Service (OUPS) and other utility owners that are non-members of any utility protection services, has determined that the following utilities are located in the area of the project:

AEP OHIO POWER COMPANY
ATTN: PAUL PAXTON
777 HOPEWELL DRIVE
HEATH, OHIO 43056
614-883-6831
PTPAXTON@AEP.COM

NORTHEAST OHIO NATURAL GAS
ATTN: MARK WETZEL
9081 STATE ROUTE 250
STRASBURG, OHIO 44680
300-878-5589
MWETZEL@EGAS.NET

FRONTIER COMMUNICATIONS
ATTN: LARRY WENDELL
1121 TUSCARAWAS AVENUE, NW
NEW PHILADELPHIA, OHIO 44663
330-364-0510
LAWRENCE.W.WENDELL@FTR.COM

HORIZON NETWORK PARTNERS
ATTN: JIM LUMP
1123 GOODALE BLVD
COLUMBUS, OHIO 43212
740-703-8689
JIM.LUMP@HORIZONCONNECTS.COM

VILLAGE OF BOWERSTON
ATTN: THE HONORABLE JACQUELINE HUMPHREY
402 E. MAIN STREET
BOWERSTON OHIO 44695
740-269-9088
MAYORBOWERSTONVILLAGE@FRONTIER.COM

CHARTER COMMUNICATIONS
ATTN: RON ICKES
5520 WHIPPLE AVE NEW
NORTH CANTON, OHIO 44720
330-494-9200
RON.ICKES@CHARTER.COM

11.2 Utility Coordination Responsibilities:

As soon as it is feasible after the final plan is approved by the Department, the DBT shall stake the existing ROW (and new ROW if additional is acquired) in the field and shall perform clearing and grubbing within that ROW as required by the specifications and the

proposal documents, in order to allow utility relocation and reduce potential delays. ROW stakes shall be maintained and updated as needed throughout the project length.

The DBT shall be cognizant of the project's impact on utility facilities. In the event utility rearrangements are required, the project shall not be designed to preclude legal occupancy of the highway ROW by the rearranged utility facilities.

The DBT shall coordinate all existing utilities with construction activities on this project. The DBT shall insure that potential delays in coordination and relocation of the affected utilities are minimized. The DBT shall copy the District Project Manager and the District Utility Coordinator on all correspondence or phone calls between the DBT and each utility. This shall include the submittal of plans to each utility.

A meeting at or near the preliminary review shall be held between the DBT, the District Utility Coordinator and the utility owners to determine if any significant utility relocations can be eliminated or mitigated.

Any betterment to the utility's facility and ineligible, or unnecessary, work shall not be a part of the project's expense but the utility company's fiscal requirement. Determination of eligibility can be coordinated through the District Utility Coordinator. Payment for betterments or ineligible costs shall be made by the appropriated utility through the Department to the DBT.

The cost of all utility coordination shall be bid as a Lump Sum Item.

11.3 Subsurface Utilities Location (SUL): __X__ Yes_____ No
If marked yes, the DBT shall use a state approved subsurface utilities engineering location service to field verify all underground utilities prior to beginning of any design work and shall incorporate the results in the design.
DBT shall have the SUL perform the following Quality Levels: __A____

12 DESIGN AND CONSTRUCTION REQUIREMENTS: MAINTENANCE OF TRAFFIC (MOT)

Maintenance of Traffic (MOT) Special Provisions in addition to the Governing Regulations listed in section 8.1 of this document:

12.1 General:
All temporary MOT devices shall comply with the National Cooperative Highway Research Program (NCHRP) 350 Hardware report.

All detour routes shall be provided by the Department and signed by the DBT. The designated local detour shall also be provided by the Department.

12.2 MOT Restrictions:

Minimum number of lanes in each direction to remain open during construction: One lane in each direction except during the detour and closure of SR 151 as noted below.
Minimum lane width: 12 feet.
Maximum duration of detour: 185 consecutive calendar days .

The detour start date shall be determined in accordance with PN 129. A disincentive shall be assessed per the following Window Contract Table.

Window Contract Table
Use the following table as referred to in the Proposal:

Description of Critical Work	***Calendar Days to Complete***	***Disincentive $ per Day***	***Work Window***	
			Start	***End***
All work along SR 151 except for the surface course of Asphalt	185	$5,500	3/28/2023	9/30/2023

The DBT is hereby advised that Project TUS-250-23.46 (PID 102408) may be under construction during the duration of this contract. State Route 151 has been designated as part of the official detour route for project TUS-250-23.46. Therefore, the SR 151 detour for this contract shall not start until the TUS-250-23.46 detour is completed and US 250 is fully open to traffic. The DBT shall cooperate with the other contractor(s) in accordance with CM&S 105.08 and arrange a mutually acceptable work schedule, subject to the approval of the engineer. Any conflicts between contractors involving work schedules, detours or cooperation shall be resolved by the engineer.

The Official State Route Detour Map is provided in Appendix H.

In addition to the Official State Route Detour, a local route has been determined to be the secondary, unsigned detour route or "Designated Local Detour Route." This route has been provided in Appendix I. During the time that traffic is detoured, the Contractor shall maintain this route in a condition which is reasonably smooth and free from holes, ruts, ridges, bumps, dust and standing water. Once the Official State Route Detour is removed and traffic returned to its normal pattern, the Designated Local Detour Route shall be restored to a condition that is equivalent to that which existed prior to its use for this purpose. All such work shall be performed when, and as determined by, the Engineer.

A minimum of one lane of traffic shall be maintained along SR 212 and Main Street at all times. For durations of single lane closures of less than one day, the contractor may maintain traffic with flaggers per standard construction drawing MT-97.10 and the applicable portions of the Traffic Engineering Manual. For single lane closures longer than one day, the contractor shall maintain traffic per standard construction drawings MT-96.11, MT-96.20 and MT-96.26 and the applicable portions of the Traffic Engineering Manual.

All critical work items shall be completed to open SR 151 to unrestricted traffic. Unrestricted traffic is defined as all traffic lanes being available for use at their final design width with all markings, RPMs, and safety features installed, along with no restrictions within two (2) feet of the edge line shoulders. All roadway and bridge wearing courses shall be installed and any corrective work as per Proposal Note 555 performed prior to placement of pavement markings and RPMs.

12.3 Work Zone Speed Limit:

The DBT shall evaluate if a work zone speed reduction is warranted based on the final MOT scheme. The evaluation requirements are listed in Section 600 of the Traffic Engineering Manual.

If a work zone speed reduction is warranted, the DBT shall design and implement signing in accordance with the requirements of the Traffic Engineering Manual.

12.4 Additional Description of Required Work and Special Provisions:

The DBT will notify the District Project Engineer in accordance with TEM note 642-58 "NOTIFICATIONS OF TRAFFIC RESTRICTIONS".

Access to adjacent properties shall be maintained throughout the length of the project.

13 DESIGN AND CONSTRUCTION REQUIREMENTS: LOCATION & DESIGN

Location & Design Special Provisions in addition to the Governing Regulations listed in Section 8.1 of this document:

13.1 Survey

A. ODOT Survey Responsibilities:

The Department has provided the following survey information, listed below:

1. Centerline control and bench marks
2. Beginning and ending centerline points for the project
3. At least two bench marks for the project (the datum used was that which the project was originally laid out by)
4. Critical points such as P.C., P.I., P.T., T.S., C.S.
5. Vertical clearances for the overhead structures, to serve as a check for the existing vertical clearances

B. DBT Survey Responsibilities:

The DBT shall submit all survey data using ODOT's standard field codes and standard mapping codes. Reduced point data, in comma delimited ASCII text format, will be provided for all surveyed points. This data will include: point number, East (x) coordinate, North (y) coordinate, elevation and point ID.

The DBT shall not disturb existing monumentation. If the DBT disturbs the monumentation, then the DBT shall replace the monument, in-kind, using a Registered Surveyor, with a current registration, recognized by the Ohio State Board of Registration for Professional Engineers and Surveyors. Costs associated for this item shall be borne by the DBT. The DBT shall provide copies of all monumentation changes to the District Real Estate Administrator.

The DBT shall include all control points, provided by the Department, in the ASCII file supplied by the DBT to the Department. They should retain the original point numbers and coordinate values as assigned by the Department.

The DBT shall provide the following items prior to final acceptance of the Record-Drawing plans:

1. Copies of all field notes (written or electronic) which shall include the following information:
   a. Date
   b. Crew members
   c. Weather conditions, including temperature, barometric pressure, etc.
   d. Instrument(s) used (Serial Number)
   e. Raw observation field data
   f. Other notes as needed

2. Copies of all Deeds, Plats, Maps and other written evidence used to establish points related to the project including summaries of all parole evidence acquired as a part of the survey operation.

3. Listing of all found monumentation (Horizontal and Vertical).

4. Listing of all monumentation set as part of the project (Horizontal and Vertical) including reference ties for recovery.

5. All monumentation shall be located utilizing NAD 83 (Horizontal Data), NAVD 88 (Vertical Data).

6. Short report indicating adjustment factors and methods, signed and certified by a Registered Surveyor (State of Ohio). The Registered Surveyor (State of Ohio) shall include in the report the datum used and all associated adjustments used.

13.2 Vertical and Horizontal Alignment:

The existing horizontal for this location shall be maintained. The vertical alignments for this location must be able to meet the vertical clearance and stopping sight distance criteria as established in the L&D Manual, Volume 1, Bridge Design Manual, Railroad public works/public projects manual, or as established within this scope.

One preliminary vertical alignment has been provided for the DBT's possible use. Before using this vertical alignment, the DBT shall verify that all provisions stated above are met by this alignment.

13.3 Pavement:

Construct new travel lane and shoulder pavements on SR-151, SR-212, and Main Street with the same materials and the same thicknesses. All roadways shall be reconstructed full-depth, full-width within the project limits on SR-151, and the work limits on SR-212 and Main Street.

The surface course of asphalt shall be:
Item 441 – Asphalt Concrete Surface Course, Type 1, (446), (PG70-22M), As Per Plan (Thickness shall be 1 1/4"). The following note shall apply:
FOLLOW SPECIFICATION 703.05 EXCEPT DO NOT USE COARSE AGGREGATE FROM A SOURCE DESIGNATED "SR" OR "SRH" ACCORDING TO THE OFFICE OF MATERIAL'S MANAGEMENT (OMM) IN ANY JOB MIX FORMULA (JMF) FOR THIS ITEM.

Tack coat will be required between the base and intermediate course, as well as between the Intermediate and Surface courses.

The remainder of the asphalt concrete shall consist of:
Item 441 – Asphalt Concrete Intermediate Course, Type 2, (446) (Thickness shall be 1 3/4").
Item 301 – Asphalt Concrete Base, PG64-22 (Thickness shall be 6")
Item 304 – Aggregate Base (Thickness shall be 6")

Safety Edge treatment is required and shall be constructed per ODOT's Pavement Design Manual and Standard Construction Drawing BP-3.2.

13.4 Roadway:

A. The width of the new Full Depth Pavement and Shoulders will meet the Design Criteria established by the L&D and Pavement Design Manuals.
B. Within the project limits, provide tapers from the existing pavement and shoulder widths to the proposed widths, per the L&D Manual.
C. Install guardrail including all required Anchor and/or Terminal Assemblies per the Design Standards, except as follows: the proper Bridge Terminal Assemblies will be required on all four corners of the structure, regardless of Clear Zone requirements.
D. All intersection turning radii shall be designed to accommodate a WB-62 vehicle without crossing over the centerline or tracking wheels over the edge line.

13.5 Drainage: Yes __X__ ; No ____.

A. When submitting the Interim Design plans, the DBT shall submit a report that documents the Notice of Intent (NOI) requirements for their design. The report shall include:
    1. All NOI Earth Disturbing Area (EDA) acreages and supporting calculations.

2. A decision tree supporting the determination for need for post-construction storm water Best Management Practices (BMP).

B. If post-construction storm water BMPs are required, the DBT shall design them in accordance with the applicable portions of the Location and Design Manuals.

C. Existing drainage conduits and structures may be reused if not impacted by construction.

13.6 Design Exceptions:
Previously approved Design Exceptions: None
No design exceptions will be allowed on this project.

13.7 Interchange Modification/Justifications Studies: None, N/A

13.8 Landscape: Yes ___ ; No __X__.

13.9 Fencing: Yes __X___; No ____

13.10 Additional Description of Required Work and Special Provisions:

14 DESIGN AND CONSTRUCTION REQUIREMENTS: STRUCTURES

14.1 Existing Structures Identification:
Structure File No. 3402010
Bridge No. HAS-151-0485 Feature Intersection Genesee & Wyoming Railroad .

14.2 Design and Construction Requirements of Structure HAS-151-0485, in addition to the Governing Regulations listed in section 8.1 of this document:

Existing Structure Data:
Length: 477.25' ±
Width o/o 37.17' ± Design Loading = CF=130 (51)
Type: Continuous Concrete Slab Spans = 26'-9"± , 2 @ 32'-6"± , 2 @ 4'-6"±, 28'-0"± , 5 @ 32'-6"± , 28'-0"± , 2 @ 4'-6"± , 28'-0"± , 2 @ 32'-6" ± , 28'-0"±
Date Built: 1958

Alignment & Profile :
Alignment: Existing __X__ Relocated ____ ; By ODOT __X____ ; By DBT _____:

Profile: Existing _____ Relocated __X___ Feathered (Adjustment) .
By ODOT _____ ; By DBT __X_____:

Transverse Sections:
Minimum Roadway Width: 32' t/t parapets .

Railing Type: Parapet per ODOT Standard Drawing SBR-1-20 Height: 42" .

Fence: Yes _X_ No ___ Height/Configuration: 6' Straight per ODOT Standard Drawing VPF-1-90 .

Sidewalks: Yes ____ No _X_ Width ____.

Investigate the need for **Prefabricated Structure**: Yes ____ ; No _X_.

Investigate the need for **Retaining Walls:** Yes _X_ ; No ____

All Shop Drawings shall comply with Item 501.

Initial **foundation investigation** shall be provided by the Department in Appendix L. Note: Collection of **additional** soils information shall be the responsibility of the DBT and considered incidental to this design effort.

The DBT shall develop a durable design for the structures, based on industry standards and guidance.

Concept Plans have been included in Appendix B for reference only. They are representative of one possible design and shall not be considered as contractual nor approved. Should the DBT choose to utilize these plans, they shall be analyzed, completed, checked and submitted for Interim Design review and approval. See Section 17 for additional information on submission requirements.

Additional description of required work and special provisions:

A. Remove the existing structure and construct a new structure. No portions of the existing structure or retaining walls will be allowed to be incorporated into the final design.
B. Remove existing approach slabs and install new approach slabs with a width that matches the out-to-out dimension of the deck.
C. Remove all guardrail within the Project Limits and install new guardrail, bridge terminal assemblies and anchor assemblies.
D. The structure will require a refined analysis for the design/analysis of all structural components per AASHTO LRFD Bridge Design Specification, Section 4. A refined analysis will be required of any integral superstructure to substructure bents or straddle bents. For superstructure elements, use deformations from the refined analysis to complete the checks in BDM 309.3.8. AASHTO LRFD Table 2.5.2.6.3-1 would be optional for superstructure elements.
E. Perform Structure Load Rating, as per the Bridge Design Manual Section 900, and submit with the Final Design submission.
F. Mechanically Stabilized Earth (MSE) walls are not permitted within the existing Railroad Right-of-Way.
G. Deck
    a. All bridge decks shall be full depth cast-in-place concrete with a monolithic concrete wearing surface.
    b. The deck shall not contain any post-tensioned or prestressed elements.

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c. Barriers shall not be considered as providing resistance as part of the superstructure cross section for calculation of structural capacity.
d. Stay-In-Place (SIP) deck forms are permitted only in the span over the railroad. SIP forms are not to be used as a structural component of the bridge. The beams/girders must be designed to carry the additional load due to the SIP forms. Concrete shall completely fill the flutes of the SIP forms. Fillers shall not be used. The concrete used to fill the flutes shall be placed with the deck concrete and be the same concrete mix. The SIP forms used shall be galvanized (G260) and a minimum 20 gage panel. Designer shall calculate SIP form thickness that is required.
e. If protrusions are located where the SIP forms are located, the deck shall be conventionally formed for at least 5' around each protrusion.
f. Repair damaged galvanization on all applicable SIP forms per CM&S 711.02.
g. Intermediate deck expansion joints are not allowed.
h. The deck shall be designed so that it can be replaced in the future without temporary supports or replacement of any superstructure or substructure units.
i. Transverse deck drains are not permitted.
j. Bridge scuppers shall not outlet over railroad Right-of-Way.

H. Superstructure

a. If structural steel beams are used, the steel superstructure must be coated with metalized 100 percent zinc wire or galvanized per Construction and Material Specifications 711.02.
b. No prestressed or post-tensioned concrete box beams are permitted.
c. A composite concrete deck must be provided.
d. All beam lines must be of the same type, material, shape and size, there will be no mixing of beam types permitted. A minimum of six (6) beam lines are required.
e. No fracture critical members are permitted.
f. Items cast into prestressed concrete beams to facilitate bridge construction shall be galvanized or epoxy coated.
g. The number and spacing of beams shall be such that for future maintenance or deck replacement projects, at least one lane of traffic (including anchored portable barrier) can be maintained (14' toe of parapet to toe of anchored portable barrier) on a minimum of 3 beams.
h. The DBT shall control bridge deck and roadway drainage at the abutments with MSE wall systems to prevent drainage getting into the MSE wall soil reinforcement.
i. Vertical Clearance shall meet the railroad requirements and must accommodate both the existing track and a future track north of the existing track.

I. Substructure

a. No fracture critical members are permitted.
b. Steel abutments and pier caps (i.e. box beam, trussed, rolled beams, built up girders) are not permitted

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c. All substructures shall be Cast-In-Place reinforced concrete, pre-cast reinforced concrete or post-tensioned reinforced concrete.
d. Items cast into prestressed or post-tensioned concrete beams to facilitate bridge construction shall be galvanized or epoxy coated.
e. Piers and abutments shall be located in accordance with railroad requirements and must accommodate both the existing track and a future track north of the existing track. Crash walls shall be designed and constructed at piers and abutments, if required based on the DBT's design, for both the existing track and future track conditions.
f. All substructure units shall be sealed with non-epoxy sealer per Bridge Design Manual requirements. Sealer shall meet Federal Color #17778 (Light Neutral)

J. No permanent timber elements are permitted.
K. No truss structures nor fracture critical components are permitted.
L. No multiple cell culverts are permitted.
M. No three-sided box or arch tunnel type structures are permitted.
N. If the DBT elects to use curved or dog-legged beams, no integral or semi-integral structures will be permitted.
O. Foundations elements outside of permanent Right-of-Way are not permitted.
P. All structural concrete shall be QC/QA.

14.3 Noise Barrier – Not applicable

15 DESIGN AND CONSTRUCTION REQUIREMENTS: TRAFFIC CONTROL

15.1 Pavement Markings and Delineators Special Provisions in addition to the Governing Regulations listed in section 8.1 of this document:

A. Pavement Marking Requirements and Locations:
Use Item 646, Edge Line 6", Item 646, Center Line, and Item 642, Stop Line. For additional auxiliary markings, use Item 642.

B. Raised Pavement Markers Requirements and Locations:
Place RPMs along State Routes 151 and 212 throughout the length of the new/proposed asphalt surface course. Spacing shall be a maximum of 40' center to center. Do not place RPMs on the newly constructed bridge deck or approach slabs.

C. Delineators: Yes ___ ; No __X__.

D. Barrier Reflectors: Yes __X__ ; No ___.
All barrier reflectors shall confirm to Item 626 and shall be placed on bridge parapets, concrete barrier walls, retaining walls and guardrail, in accordance with current design standards. Guardrail blockout reflectors shall be installed on the side of the blockout away from traffic.

E. Object Markers: Yes ___ ; No __X__.

15.2 **Signing Special Provisions** in addition to the Governing Regulations listed in section 8.1 of this document:

A. Flat Sheet Signs: Yes _X_ ; No ___.

1. Replace all existing flat sheet signs with new signs, except as indicated below. This includes all signs on the mainline and interchange ramps. This also includes all STOP signs on intersecting roads. Size the signs in accordance with the OMUTCD, except as follows:
2. The following signs shall remain in place and not be replaced: N/A
3. The following signs shall be removed and not replaced: N/A
4. The following signs shall be installed where none currently exist: N/A
5. Removed flat sheet signs shall become the property of the Contractor.

B. Extrusheet Signs: Yes ___ ; No _X_.

C. Ground Mounted Post Supports: Yes _X_ ; No ___.

1. Replace all existing ground mounted post supports with new supports. New sign installations shall be on new supports. No reuse of existing ground mounted supports shall be allowed.
2. Removed ground mounted supports shall become the property of the Contractor. Except the following: N/A

D. Ground Mounted Beam Supports: Yes ___ ; No _X_.

E. Overhead Supports: Yes ___ ; No _X_.

15.3 **Lighting Special Provisions** in addition to the Governing Regulations listed in Section 8.1 of this document: None

15.4 **Traffic Signals Special Provisions** in addition to the Governing Regulations listed in Section 8.1of this document:

A. Signal Supports: Yes ___ ; No _X_.

15.5 **Intelligent Transportation Systems (ITS):** Yes____; No_X___

16 **Project Schedule Requirements:**

The current edition of Proposal Note 132, including updates released on or before the prebid meeting date, shall be met or exceeded.

17 **PLAN SUBMITTALS AND REVIEW REQUIREMENTS:**

17.1 **Plan Components:**

All plans submitted by the DBT shall be in conformance with the following ODOT manuals:

1. Real Estate Policies and Procedures Manual Section 3100. The DBT shall also identify all topographic features within the existing and proposed Right-Of-Way limits, including underground utilities.
2. Bridge Design Manual. Note: Bridge sub-summaries are required.
3. Location and Design Manual, Volume 3:
   The following sections of the Location and Design Manual, Volume 3 are **NOT** required:

1302.13	Plan Signatures
1307.2	General summary sheet
1307.4	Quantity Calculations
1310.3	Earthwork and Seeding Quantities

Units of measure are **NOT** required.
Simplified plans (section 1301.2) are **NOT** allowed.

17.2 Quality Control:

The DBT will be responsible for the professional quality, technical accuracy and adherence to the Governing Regulations listed in section 8.1 of this document, for all plan submittals required under this contract.

The DBT shall immediately notify the Department of any apparent discrepancy between the various design and construction manuals and the Conceptual Documents.

The Department shall have the discretion to dictate the level of Design review. The Department's acceptance of the design or failure to identify improper design does not, in any way, relieve the DBT of the responsibility for the quality, accuracy, or feasibility of the Design.

In the event the Department determines that any required submission is incomplete, contains inaccuracies which preclude a meaningful review, or does not adhere to the Governing Regulations listed in section 8.1 of this document, the Department will advise the DBT of the shortcomings and direct the DBT to revise and resubmit the plan. No time extension will be granted as a result of such action. The Department will schedule a review meeting or issue review comments as appropriate.

17.3 Major Design Decision:

Separate submittals for concurrence with major design decisions are required. The submittals may be required during any phase of Design. Major design decisions involve significant utility relocation, unforeseen acquisition of ROW by the Department, traffic operation or geometric decisions that involve two or more viable solutions, designs not typical nor standards not ordinarily exercised by members of the engineering profession practicing under similar conditions at the same time and locality, and any other decision that impacts the public, operation of the facility or designs which require future long term

excessive maintenance. The level of development of the submittal is dependent upon the level of detail necessary to accurately depict the major design decision.

When the DBT becomes aware of additional decisions during the design, they must advise the District Project Manager in writing.

17.4 Interim Design Review Submission:

For each Buildable Unit, the DBT shall submit the Interim Design submission for review by the Department and other third-party agencies as appropriate.

Interim Design Submission is defined as followed:

A. Maintenance of traffic, traffic signals, lighting, utilities (water, power, sanitary, etc.), and landscaping shall be developed to Stage 2 level of detail as defined the ODOT Location & Design, Volume 3.
B. Full signing plans are not required at Interim, however, all overhead signage and major ground mounted signage shall be shown on plan sheets (may be shown on pavement marking plans if signing plans are not submitted).
C. All other plan components and supplemental submittal requirements as defined as Stage 1 per the ODOT Location & Design, Volume 3.

The Department shall have 40 Work Days from receipt to review complete submissions. The following are excluded as Work Days: State Holidays, Federal Holidays, Saturdays, Sundays, the Friday after Thanksgiving, Christmas Eve, and the days between Christmas and New Year's Day. This review time must be shown on the required Progress Schedule.

Following this review, the DBT shall correct any errors, incorporate modifications, perform required investigations and make related changes to the plans and supporting documents prior to submitting the plans for Final Design Plan review.

Plan Submission: Plans will be submitted in an electronic version (in PDF format) to the District Project Manager and each Utility company. The District Project Manager will coordinate the review comments from ODOT. The DBT will coordinate review comments from the Utility Companies. A copy of all correspondence with the Utility Companies shall be submitted to the District Utility Coordinator. All submittals to the District must be sent electronically through ODOT LiquidFiles.

17.5 Final Plan Review Submission:

For each Buildable Unit the DBT shall submit the Final Design submission for review by the Department and other third-party agencies as appropriate.

The Final Design submission shall include submittal requirements as defined as Stage 3 per the ODOT Location & Design, Volume 3, however, subsummary and general summary sheets are not required. Quantity summaries shall be provided in electronic

format (Excel and PDF) prior to construction for the Department's use in establishing testing requirements.
The Department shall have 40 Work Days from receipt to review complete submissions. The following are excluded as Work Days: State Holidays, Federal Holidays, Saturdays, Sundays, the Friday after Thanksgiving, Christmas Eve, and the days between Christmas and New Year's Day. This review time must be shown on the required Progress Schedule.

Following the review the Department will return to the DBT marked plans noted 'ACCEPTED', 'ACCEPTED AS NOTED' or 'NOT ACCEPTED' as described in section 105.02 of the Construction and Material Specifications. The DBT shall correct errors, incorporate changes, perform investigations and make related changes to the plans and supporting documents prior to submitting construction plans.

Plan Submission: Plans will be submitted in an electronic version (in PDF format) to the District Project Manager and each Utility company. The District Project Manager will coordinate the review comments from ODOT. The DBT will coordinate review comments from the Utility Companies. A copy of all correspondence with the Utility Companies shall be submitted to the District Utility Coordinator. All submittals to the District must be sent electronically through ODOT LiquidFiles.

17.6 Released for Construction Plans:

After the review comments for the Final Plan review submission have been complied with, and following approval of the design documentation, the DBT shall prepare plan sets for use during construction. All review comments shall be resolved in writing by the DBT to the satisfaction of the Department, the Railroad and appropriate third party agencies before the DBT submits the construction plans. No revisions shall be made except for those revisions needed to address Final Plan review comments.

Each plan sheet shall have its last revised date noted on the sheet and clearly marked 'Released For Construction'. The 'Released For Construction' plan set shall be signed, dated and sealed by a Professional Engineer. Physical construction shall not begin until the plans marked 'Released For Construction' are submitted to the District project manager and a confirmation of acceptance is received.

No time extensions will be approved by the District Construction Engineer if the plan distribution is not completed and project delays occur as a result.

Plan Review Distribution: Plans will be submitted in an electronic version (in PDF format) to the District Project Manager and each Utility company. The District Project Manager will coordinate the review comments from ODOT. The DBT will verify the Final Review comments were addressed and provide acceptance of the RFC plans. A copy of all correspondence with the Utility Companies shall be submitted to the District Utility Coordinator. All submittals to the District must be sent electronically through ODOT LiquidFiles.

17.7 Railroad Submittals:

A. Design Submittals to Railroads

The DBT shall perform ongoing coordination of their design, and anticipated construction schedule with the railroad throughout the Project. This coordination shall include, but is not limited to, Interim and Final BU plan submittals as well as informal submittals and resubmittals, as determined by the DBT, in accordance with the Governing Regulations to ensure a design acceptable to the railroad. Upon concurrence of design with the railroad, the DBT shall submit professional engineer signed, stamped and dated RFC plans to the railroad for final review and approval. This submission shall include resolution of all comments received throughout the design process. The railroad will attempt to complete their review of BU's within the timeframes identified in the contract, however for all BU submittals, the DBT shall include at least 90 Calendar Days for railroad review for Interim, Final, and Construction Plans in the Project Progress Schedule. A copy of all correspondence with the Railroad shall be submitted to the District Project Manager.

B. Construction Submittals to Railroads

The DBT shall continue coordination with the railroad after design is complete. This coordination shall include, but is not limited to, required construction submittals in accordance with the Governing Regulations. Unless otherwise approved by the Department and railroad, the DBT shall not make construction submittals to the railroad until railroad approval of the Construction Plan BU submission. Railroad review times for these submittals are in accordance to the Rail Agreement. A copy of all correspondence with the Railroad shall be submitted to the District Project Manager.

17.8 Plan Distribution Addresses:

District Project Manager:
Ohio Department of Transportation, District 11
2201 Reiser Ave. SE
New Philadelphia, Ohio 44663
Attn: Timothy E. Stillion, P.E.
Email: mailto:tim.stillion@dot.ohio.gov

Utility Companies
(As shown in section 11) Attn: (Contact Person)

District Utility Coordinator:
Ohio Department of Transportation, District 11
2201 Reiser Ave. SE
New Philadelphia, Ohio 44663
Attn: Jeremy Cessna, P.E.
Email: mailto:jeremy.cessna@dot.ohio.gov

17.9 As-Built Construction Record-Drawing Plans

At the completion of the construction work for each respective Buildable Unit, the DBT shall provide a "Red-Line" set of drawings that clearly identify all changes made to the

Construction Documents. They may be noted by hand markup of the revisions, utilizing the Clouding command in MicroStation (or other CAD software) or the Clouding command in PDF editing software. The red-lined drawings shall have a Contractor signed verification on the title sheet indicating all field changes are being incorporated into the red-lined drawings.

Prior to Final Acceptance of the Work, the DBT shall furnish the Department formal As-Built Construction Record-Drawing plans. The DBT shall provide a general summary within the final As-Built Construction Record-Drawing plans. The formal As-Built Construction Record-Drawing shall include all red-lined changes. Red-line change shall be denoted utilizing the Clouding command in MicroStation (or other CAD software) or the Clouding command in PDF editing software. The As-Built Construction Record-Drawing shall have a signed verification on the title sheet from the Designer and the Contractor indicating that all red-lined and field changes have been incorporated into the As-Built Construction Record-Drawing.

Note: The Contractor's verification statement indicates all known field modifications made after the RFC plans where sealed by the Designer have been included in the formal Record-Drawing. The Contractor's verification statement shall be signed by the Contractor's Project Manager (or acceptable representative).

Note: The Designer's verification indicates the Designer's acknowledgement of the red-line and field changes, the presented field changes have been included within the As-Built Construction Record-Drawing and is the Designer's concurrence that these changes meet the design intent of the Contract. The Designer's verification statement shall be signed by the Lead Designer's representative.

The DBT may choose to omit the "Red-Line" submission and submit only formal As-Built Construction Record-Drawing.

As-Built Construction Record-Drawing plans shall be submitted using the following method:
PDF Images created according to the documentation on the Office of Contracts website http://www.dot.state.oh.us/DIVISIONS/CONTRACTADMIN/CONTRACTS/Pages/TIFF.aspx

In addition to the information shown on the construction plans, the Record-Drawing plans shall show the following:

1. All deviations from the original approved construction plans which result in a change of location, material, type or size of work.
2. Any utilities, pipes, wellheads, abandoned pavements, foundations or other major obstructions discovered and remaining in place which are not shown, or do not conform to locations or depths shown in the plans. Underground features shall be shown and labeled on the Record-Drawing plan in terms of station, offset and elevation.

3. The final option and specification number selected for those items which allow several material options under the specification (e.g., conduit).
4. Additional plan sheets may be needed if necessary to show work not included in the construction plans.
5. Revised load rating report for work that may alter the original approved load rating report. Revised load rating report shall conform to the BDM section 900.
6. Right-of-way lines (existing and temporary) and property lines of the adjoining properties.

Notation shall also be made of locations and the extent of use of materials, other than soil, for embankment construction (rock, broken concrete without reinforcing steel, etc.).

The Plan index shall show the plan sheets which have changes appearing on them.

Two copies of the As-Built Construction Record-Drawing plans shall be delivered to the District Project Engineer for approval upon completion of the physical work but prior to the request for final payment. After the Department has approved the As-Built Construction Record-Drawings, the associated electronic files shall be delivered to the District Capital Programs Administrator. Acceptance of these plans and delivery of the associated electronic files is required prior to the work being accepted and the final estimate approved.

The plans shall be prepared in conformance with the Location and Design Manual, Volume 3, Section 1200 - Plan Preparation.

18 BUILDABLE UNITS (BU)

Buildable Units are portions of the projects which can be designed, reviewed and built with only limited controls and assumptions coming from the design of other portions of the project. Often a Buildable Unit will be defined by a geographic area within the plan, but it may also be defined by types of work or construction stages which may require or permit similar, nearby work to be divided into separate Buildable Units. All Buildable Units shall summarize the materials required to construct that portion of the project. The summary shall include the Construction and Material Specifications Item Number, and a description of the materials to be used.

For the Interim and Final Design submittals, the DBT may break the project work into two or more separate BU which can be progressed through design and construction with minimal or known effect on each other and/or which can be dealt with sequentially such that sufficient data is available for design and review of each BU. In order that the design and construction of one BU may proceed without significant approved information from an associated BU, the DBT may develop and propose assumptions which will allow for the first BU to proceed through design and/or construction. These assumptions shall be submitted for review and comment but their accuracy and effort upon the final design are the sole responsibility of the DBT. Should error in these assumptions result in additional work, remedial work or other changes to assure an acceptable design or should they result in the need to remove work and substitute additional work, the Contractor shall be

responsible for all such costs including, removal of unacceptable materials from the site, modification, additional work, repairs, etc. as necessary to produce an acceptable result.

If the DBT elects to develop Buildable Units, the DBT shall prepare, for review by the Department, a table of Buildable Units for the project with each BU described in detail. If the table is approved, the DBT shall modify the Progress Schedule to show a separate group of activities for BU and these activities shall encompass all of the design and construction work in each BU. The Progress Schedule for design review shall be developed such that information from other dependent BUs is available at the time of submission of the BU at hand. Work activities shall be further separated in the Progress Schedule to show a meaningful completion status (i.e. separate activities comprising the placement of a bridge deck on steel beams shall describe; shoring, form building, steel placement, placement of conduit & joints, pouring concrete, forming parapets, pouring or slip forming parapets, provision of membranes, provision of wearing surfaces, curing, repair, form removal, cleaning, etc.).

The Final Review Submission and Construction Plans shall specifically be identified by the Buildable Unit code. If the design of a BU requires input information from an adjacent or related BU, the source for that information in previously approved plans shall be cited or the DBT shall provide an estimated value of the data. The input data shall also be carefully identified. In the same way any assumption, calculations or results from the stage and BU which are used as input to another BU shall be similarly identified, and where appropriate, compared back to that BU to verify previous assumptions. Should assumptions not match values calculated later, the DBT shall re-analyze all affected components and determine appropriate changes. Should those elements have already been constructed, the DBT shall recommend repairs, adjustments, modifications or replacement of the existing work as necessary to comply with the Scope of Work. All costs for re-design, re-submissions, modifications, removals, disposal of materials and new work needed to remedy the project and bring it to compliance shall be borne by the Contractor and no time extensions shall be approved for this.

For projects with railroad involvement, a separate BU shall be submitted for review that includes all work components over, under, within and adjacent to the railway that could impact or influence railroad operations. Buildable units for railroad review submissions shall not be defined by types of work, but shall be determined by the limits of railroad regions of concern. The BU shall include all work within the applicable railroad region of concern (as agreed with the railroad and DBT) and shall not be segmented partial design pieces of an entity but shall be the overall design phased submission of the entity. Subdivision of work components that impact or influence railroad operations into multiple BU's shall not be performed unless previously agreed to by the Department and railroad.