

ODOT
DESIGN BUILD
SCOPE OF SERVICES

PID: 117522 State Project Number: 500324

County: MOE Route: TR2001 Section: 0.13

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1 PROJECT IDENTIFICATION & GENERAL INFORMATION

Table 1-1: Project Identification

PID	117522
State Project Number	500324
County-Route-Section	MOE-TR2001-0.13
Local Route Name (if applicable)	WEHR ROAD
Highway Functional Classification & Federal Aid System	LOCAL ROAD - RURAL

1.1 Design Designation

The DBT shall use the design designations for each of the facilities below various design elements as specified within the Scope of Services.

Table 1-2: Design Designation

Location:	TR2001
Current ADT:	<400 (2022)
Design Year ADT:	<400 (2042)
Design Hourly Volume:	NOT AVAILABLE
Directional Distribution:	50%
Trucks:	NOT AVAILABLE
Design Speed:	45 MPH
Legal Speed:	55 MPH/Not Posted
Design Functional Classification:	LOCAL ROAD - RURAL
NHS Project:	NO

1.2 Existing Plans and Project Information

Available information related to the Project is available in the Document Inventory shown in Table 1-3. 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.

Appendices to the Scope of Services are listed in the Document Inventory and posted on the FTP site.

<https://ftp.dot.state.oh.us/pub/Districts/D10/>

Table 1-3: Document Inventory

Appendix #	Appendix Title	Contractual/Reference Designation
A	TR2001-0.13 Geotechnical Profile	Contractual
B	TR2001-0.13 Structure Foundation Exploration Report	Contractual
C	Environmental Document	Contractual
D	Right of Way Status Matrix	Contractual
E	Conceptual Plans	Contractual

1.3 Railroad Coordination

NOT APPLICABLE

1.4 Airway/Highway Clearance

NOT APPLICABLE

2 PRE-BID MEETING

The Department has determined that a pre-bid meeting will not be offered for the Project.

3 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 4 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.

4 DESIGNER

Each Offeror shall name the Designer and all design 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 must list relevant prequalification categories for the Designer and each design sub-consultants 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:

<https://www.dot.state.oh.us/Divisions/Engineering/Consultant/Pages/firm-preq-list.aspx>

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

NON-COMPLEX ROADWAY DESIGN

LEVEL 1 BRIDGE DESIGN

GEOTECHNICAL ENGINEERING SERVICES

GEOTECHNICAL TESTING LABORATORY*

GEOTECHNICAL FIELD EXPLORATION SERVICES*

GEOTECHNICAL INSPECTION SERVICES*

*ONLY NECESSARY IF ADDITIONAL EXPLORATION IS PERFORMED.

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:

- (1) HDR, 9999 Carver Road, Suite 210, Blue Ash, Ohio 45242 - Geotechnical Task Order
- (2) ADR & Associates, LTD., 88 West Church Street, Newark, Ohio 43055 - General Engineering Tasks

5 SCOPE OF WORK

Project Description:	Construction of a single-span structure immediately upstream of the existing structure, leaving the existing structure in place to maintain traffic during construction. Upon completion of the new structure, removal of the existing single span timber deck/steel beam structure, including abutments, located at TR2001-0.13. Maintenance of the existing roadway during construction, as well as any associated approach work outline in this document is also included.
Completion Date:	10/15/2024
Warranties:	NONE

The approximate Project Limits for each applicable roadway are provided in Table 5-1.

Table 5-1: Approximate Project Limits

Roadway Name	Begin	End
MOE-TR2001	0.10	0.16

Work Limits shall be determined by the DBT.

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 Contract Documents to fulfill the intent of the Contract.

6 FIELD OFFICE

A FIELD OFFICE IS NOT REQUIRED FOR THIS PROJECT.

7 GENERAL PROVISIONS FOR THE WORK

7.1 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 date of original advertisement, 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 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
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 Permits Manual
Design Mapping Specifications
CADD Engineering Standards Manual
Geotechnical Bulletins

7.2 CADD files supplied by the DBT

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 standards and necessary downloads 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 7.1 (Governing Regulations).

7.3 Pre-Award Conference

Within 7 days following Bid opening, the apparent successful DBT shall attend a mandatory pre-award conference. This confidential meeting will be held with the Office of Contract Sales in the Division of Construction Management 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 DBT’s Bid Items, and general design approach and design concepts for the Work. Other Department representatives familiar with the Project may attend.

While not required, the DBT may prepare general engineering information to be presented to the Office of Contract Sales to help explain design concepts and quantities. This information will be used only by the Office of Contract Sales 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 Documents, or acceptance or validation of any design concept or assumed quantities of Work.

7.4 Partnering Agreement

The DBT is required to enter into a partnering agreement with the Department that is:

- Facilitated
- Self-Facilitated

A partnering 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.

7.5 Communication

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

District’s Project Manager’s Name:	Eric Reed, P.E.
Phone number:	740-568-3951
E-mail:	Eric.Reed@dot.ohio.gov

District’s Project Engineer’s Name:	District Project Engineer will be named at the Pre-Design Meeting.
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At the Pre-Design Meeting, the DBT shall name a Project Manager who will act as a liaison between the DBT and the Department.

7.5.1 Task Force Design Meetings

- Required
- Not Applicable

7.6 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.

7.7 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 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 Manual. The DBT shall forward copies of all notification letters distributed to ODOT's Project Manager.

Any subsequent claims for compensation due to damages incurred while said activities were performed will be negotiated between the DBT and the affected property owners with final approval from ODOT's 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 ODOT's 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.

8 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.

8.1 NEPA & Environmental Commitments

The DBT shall perform all environmental commitments as described *in Appendix C Environmental Document for TR2001-0.13*, unless otherwise specified in the Contract Documents.

The following notes must be included in the design plans and adhered to during construction:

No Asbestos or Asbestos Below Regulatory Limits

A certified asbestos hazard evaluation specialist surveyed the bridge structure scheduled for demolition and/or rehabilitation; the survey determined that no asbestos is present on the bridge structure.

ODOT shall provide a copy of the Ohio Environmental Protection Agency Notification of Demolition and Renovation form, partially completed, and signed by the bridge owner, to the successful bidder. The contractor shall complete the form and submit it to one of the addresses below at least ten (10) working days prior to the start of any demolition and/or renovation.

Asbestos Program
Ohio EPA, DAPC
P.O. Box 1049
Columbus, OH 43216-1049

OR

Asbestos Program
Ohio EPA, DAPC
50 W. Town St. Suite 700
Columbus, OH 43215

The contractor shall provide a copy of the completed form to the engineer at least ten (10) working days prior to the start of any demolition and/or renovation. The form shall include: 1) The contractors name and address 2) the scheduled dates for the start and completion of the bridge removal and 3) a description of the planned demolition work and the method(s) to be used. Copies of the OEPA form and bridge inspection report are available for review at the ODOT District 10 Office, 338 Muskingum Drive Marietta, OH 45850.

Basis for Payment - The contractor shall furnish all fees, labor, and material necessary to complete and submit the OEPA Notification Form. Payment for this work shall be included in Item 202-portions of structure removed, as per plan.

ENDANGERED BAT HABITAT REMOVAL

THE 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.

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.

8.2 Environmental Permits

The DBT shall:

1. Be aware of all applicable environmental permits related to the Work.
2. Coordinate with the Department and prepare applications and other relevant information necessary to obtain all environmental permits required to perform the Work.
3. Comply with all conditions imposed by environmental permits in design and construction.
4. Notify the Department regarding any failure to comply with conditions of the environmental permits.
5. Maintain and update environmental permits to ensure they are in effect during the Work.
6. Coordinate with the Department and submit any documents regarding updates required for environmental approvals to the Department for coordination with the regulatory agency.

If the DBT modifies elements of the Conceptual Design used as the basis for obtaining a permit, the DBT accepts all responsibility for associated cost and schedule impacts resulting

from the permit modification process and accepts the risk that the regulatory agency may not approve the proposed permit modification.

At no time shall the DBT coordinate environmental permitting issues directly with the regulatory agencies, unless directed to do so by the Department. The DBT shall not commence with Work covered by environmental permits until the applicable permits approval are obtained from the regulatory agencies.

The DBT shall acquire required noise permits and/or variances from the local jurisdiction.

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.

8.3 Temporary Sediment and Erosion Control

The DBT shall be responsible for designing and implementing all temporary sediment and erosion controls in accordance with SS 832 and the Ohio NPDES general permit for storm water discharges from construction activities (NPDES Permit). For information about OEPA's NPDES Permit requirements, see:

https://epa.ohio.gov/dsw/permits/GP_ConstructionSiteStormWater.

The DBT shall submit information to the Department for development of the Notice of Intent for the NPDES Permit, including the total acreage of earth disturbing activities for both off project and on project work. The DBT shall assume that approval from OEPA will require a minimum of 31 days following submittal to the ODOT Project Manager. Earth disturbing activity is not permitted prior to approval of coverage under the NPDES Permit.

For projects that require an NOI, the DBT must develop a Storm Water Pollution Prevention Plan in accordance with SS832 and the NPDES Permit. The DBT shall not initiate any earth disturbing activity until the SWPPP is approved.

The DBT shall be compensated for furnishing and installing items related to temporary sediment and erosion control requirements. The Department will compensate the DBT through an encumbered amount included in the Proposal as a non-bid reference number. The Proposal specifies the unit prices for the temporary sediment and erosion control items. Payments for temporary sediment and erosion control items that exceed the encumbered amount will be made through an Extra Work Change Order using the specified unit prices. The specified unit prices are fixed for the Contract Documents and may not be negotiated or adjusted for inflation or claimed changed condition.

All costs associated with the work to development, design, revisions, modifications, amendments and submittals of the Storm Water Pollution Prevention Plan is considered incidental to the Project. All costs associated with the work to perform Storm Water Pollution Prevention Inspections and all work associated with NPDES required inspections, monthly inspections, and reporting is considered incidental to the Project. All costs associated with providing and maintaining the required CPESC and CESSWI personnel, conducting the NPDES required inspections utilizing the SWPPPTrack inspection software application and support engineering services are incidental to the Project. All costs

associated with the Storm Water Pollution Prevention Inspection Software includes all costs for the SWPPPTrack inspection software and services and is incidental to the Project.

All temporary erosion control items shall be removed before the project is accepted. Removed materials shall become the property of the DBT and shall be disposed of in accordance with the appropriate C&MS specifications.

8.4 Regulated Materials

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 and response plan that will address the proper storage and management of all fuels, oils, and chemicals being stored and/or used on the project and the actions to be taken if a release occurs on the project including notifying reportable releases and spills to the National Response Center and Ohio EPA Spill Hotline. The DBT is to address the project's known areas of regulated materials in their health and safety plan. The DBT is to take reasonable actions to prevent the general public from accessing the regulated materials areas to prevent an exposure and/or a release of the 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 spill prevention and response plan, as well as all appropriate regulations.

8.4.1 Asbestos

The following note will need to be included in the plans:

A certified asbestos hazard evaluation specialist surveyed the bridge structure scheduled for demolition and/or rehabilitation; the survey determined that no asbestos is present on the bridge structure.

ODOT shall provide a copy of the Ohio Environmental Protection Agency Notification of Demolition and Renovation form, partially completed, and signed by the bridge owner, to the successful bidder. The contractor shall complete the form and submit it to one of the addresses below at least ten (10) working days prior to the start of any demolition and/or renovation.

Asbestos Program

Ohio EPA, DAPC

P.O. Box 1049

Columbus, OH 43216-1049

OR

Asbestos Program

Ohio EPA, DAPC

50 W. Town St. Suite 700

Columbus, OH 43215

The contractor shall provide a copy of the completed form to the engineer at least ten (10) working days prior to the start of any demolition and/or renovation. The form shall include: 1) The contractor's name and address 2) the scheduled dates for the start and completion of the bridge removal and 3) a description of the planned demolition work and the method(s) to be used. Copies of the OEPA form and bridge inspection report are available for review at the ODOT District 10 Office, 338 Muskingum Drive Marietta, OH 45850.

Basis for Payment - The contractor shall furnish all fees, labor, and material necessary to complete and submit the OEPA Notification Form. Payment for this work shall be included in Item 202-portions of structure removed, as per plan.

9 RIGHT OF WAY (ROW)

The DBT shall perform all necessary construction work for the project within the Project Right of Way (ROW).

The DBT shall locate existing right of way lines 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). The DBT shall 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 stakes and flags throughout the duration of the Project.

The DBT shall identify all right of way encroachments on the construction plans with the Interim Design submission. ODOT's Project Manager will be responsible for clearing all encroachments on Federal-aid projects in accordance with standard encroachment removal.

The status of each parcel that is currently in the acquisition process is indicated in Appendix D (Right-of-Way Status Matrix). Additional requirements and information for specific parcels are included in the Right-of-Way Status Matrix. The DBT will be provided access to each parcel as the parcel is cleared. The Department will provide written notification to the DBT of the availability of each required parcel and notify the DBT of any access restrictions that may be applicable. The DBT shall not be allowed access to any parcel until written notification is provided by the Department.

The Department will provide an update to the Right of Way Status Matrix at the time of NTP. In addition, the Department will provide the DBT with monthly reports regarding the status of the acquisition process for parcels for which access was not provided at the time of NTP.

9.1 Temporary Easements

None Required

10 UTILITIES

10.1 Existing Utilities

The District Utility Coordinator, in coordination with the registered underground utility protection services, Oil and Gas Producers Underground Protection Service (OGPUPS), and other utility owners that are non-members of any utility protection services, has determined that the utilities identified in Table 10-1 are located in the area of the Project.

List all known utilities on the Project site in Table 10-1.

Table 10-1: Utility Contacts and Status

Utility Owner	Utility Contact	Relocation Status
Windstream Western Reserve, Inc. 245 N. Main St. Hudson, OH 44236	John McDowell John.Mcdowell@windstream.com	Utility will relocate areas of conflict prior to construction commencement.
American Electric Power 47687 National Rd. W St. Clairsville, OH 43950	Chad Hastings (740)695-7808 cahastings@AEP.com	Utility will relocate areas of conflict prior to construction commencement.

10.2 Utility Coordination Responsibilities

The DBT shall coordinate all utility adjustments for construction activities on the Project.

As soon as it is feasible, the DBT shall stake the existing ROW (and new ROW, if additional ROW has been acquired) in the field and shall perform clearing and grubbing within that ROW in accordance with the Contract Documents to facilitate utility relocation. The DBT shall maintain and update ROW stakes as needed throughout the Project Limits for the duration of the Project.

The DBT shall design the project and perform construction work in a manner that minimizes the scope and extent of utility conflicts and adjustments. The DBT shall not design or construct the Work in a way that precludes legal occupancy of the highway right-of-way by the adjusted utility. The DBT shall minimize potential delays and coordinate efficient adjustments of utilities.

The DBT shall copy the ODOT 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 Interim Design submission 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 included in the Project without Department approval. The Department will not compensate for betterments or other ineligible utility work. The DBT shall coordinate determination of eligibility through the District Utility Coordinator.

10.3 Subsurface Utilities Engineering (SUE)

Subsurface Utility Engineering Required: Yes No

11 MAINTENANCE OF TRAFFIC (MOT)

11.1 General

The DBT shall be responsible for designing, providing, and maintaining safe and effective traffic control 24 hours a day for the duration of the Project. The DBT shall furnish, install, maintain and remove all traffic control devices. The DBT shall implement Maintenance of Traffic (MOT) in a manner that minimizes both construction duration and impact to the traveling public.

The DBT shall provide written notice to the Department fourteen (14) days in advance of modifications in MOT or traffic patterns, including modifications to the following:

1. MOT configuration
2. Access
3. Schedule
4. Duration

The DBT shall furnish temporary MOT devices compliant with the AASHTO Manual for Assessing Safety Hardware (MASH), as applicable.

The DBT shall construct the proposed structure immediately upstream of the existing structure, and maintain traffic along the existing alignment of the public roadway. No detour is permitted or allowable. Once the proposed structure and approaches are installed, and traffic can safely be re-routed along the proposed road alignment, the DBT shall provide traffic control to complete the re-routing of traffic. Once all traffic is safely re-routed, the

DBT shall demolish and remove the existing structure, as well as complete the remaining work items as detailed in the scope of work. At no time may traffic be delayed more than 15 minutes by traffic control devices.

11.2 MOT Requirements

The DBT shall be design and implement the MOT in accordance with the requirements referenced in Table 11-1.

Table 11-1: MOT Requirements

Requirement	Detailed Requirement Information
Minimum number of lanes in each direction to remain open during construction	One-lane to be maintained along the exiting alignment of TR2001 and across the existing structure for the duration of construction of the new structure.
Minimum lane width	12 feet
Maximum duration of detour	No Detour duration is allowable
Restrictions on lane closures during special events (sports events, fairs, concerts, etc.)	Not Applicable
Restriction related to hospitals, fire and police, schools, etc.	Not Applicable

11.3 Haul Routes

In addition to the requirements of C&MS 105.13, the Progress Schedule shall account for 30 Days for the Department to secure approval for haul routes.

11.4 Traffic Engineering Manual Notes

The DBT shall design and implement the MOT in accordance with the following TEM notes:

ITEM 614, MAINTAINING TRAFFIC

THIS ITEM SHALL CONSIST OF MAINTENANCE OF TRAFFIC ON EXISTING ROADWAYS IN ACCORDANCE WITH THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS, CURRENT EDITION, LATEST REVISION, THE SPECIFICATIONS AND THE FOLLOWING:

PRIOR TO OPENING TO TRAFFIC EACH LANE SHALL BE IN A SAFE, PASSABLE CONDITION. ALL TRANSVERSE JOINTS SHALL EXTEND ACROSS THE FULL LANE AND SHOULDER WIDTH AND EACH LANE SHALL BE FREE FROM UNEVEN LONGITUDINAL JOINTS. THE CONTRACTOR SHALL PROVIDE ASPHALT WEDGES FOR TRANSVERSE JOINTS WHEREVER THERE ARE PAVEMENT ELEVATION DIFFERENCES.

THE CONTRACTOR SHALL MAINTAIN ACCESS TO ALL ADJACENT DRIVEWAYS, WITHIN THE PROJECT AREA, AT ALL TIMES. WHEN PROPOSED WORK REQUIRES DISTURBANCE OF THE EXISTING DRIVE, THE CONTRACTOR SHALL PROVIDE TEMPORARY ACCESS TO THE DRIVE. THE CONTRACTOR SHALL PROVIDE, ERECT, MAINTAIN AND SUBSEQUENTLY REMOVE ALL FLAGS, BARRICADES, SIGNS, SIGN SUPPORTS, AND FURNISH AND MAINTAIN ALL FLAGGERS, WATCHERS AND INCIDENTALS RELATED THERETO, AS DETAILED IN THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.

A MINIMUM OF ONE LANE OF TRAFFIC IN EACH DIRECTION SHALL BE MAINTAINED AT ALL TIMES. NO DETOUR IS ALLOWABLE. A DISINCENTIVE SHALL BE ASSESSED IN THE AMOUNT OF \$450 PER DAY FOR EACH CALENDAR DAY THE ROADWAY IS CLOSED TO TRAFFIC.

ITEM 614, MAINTAINING TRAFFIC (ESTIMATED QUANTITIES)

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY FOR USE AS DETERMINED BY THE ENGINEER FOR THE MAINTENANCE OF TRAFFIC.

ITEM 410, TRAFFIC COMPACTED SURFACE, TYPE C 35 CU. YD.

ITEM 614, MAINTAINING TRAFFIC (SIGNS AND BARRICADES)

THE CONTRACTOR SHALL PROVIDE, ERECT AND MAINTAIN SIGNS AND SIGN SUPPORTS, AS DETAILED IN THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, AND TYPE III BARRICADES OF THE TYPE AND LOCATION AS FOLLOWS:

AT BOTH ENDS OF THE PROJECT LIMITS ALONG TOWNSHIP ROAD 2001

ALL WORK AT THE PROPOSED STRUCTURE AND ALL ASSOCIATED ROADWAY WORK WILL BE COMPLETED UNDER TRAFFIC. THE EXISTING STRUCTURE MAY NOT BE REMOVED OR DISTURBED UNTIL SUCH TIME THAT TRAFFIC CAN SAFELY BE RE-ROUTED ACROSS THE NEW STRUCTURE AND ROADWAY ALIGNMENT. ALL WORK AND TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH CMS 614 AND OTHER APPLICABLE PORTIONS OF THE SPECIFICATIONS, AS WELL AS THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. PAYMENT FOR ALL LABOR, EQUIPMENT, AND MATERIALS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614, MAINTAINING TRAFFIC, UNLESS SEPERATELY ITEMIZED IN THE PLAN.

12 SURVEY

A. ODOT Survey Responsibilities

1. The Department survey crews and/or LPA will provide the following survey information, listed below:

2. Centerline control and benchmarks
3. Beginning and ending centerline points for the project
4. At least two benchmarks for the project (the datum used was that which the project was originally laid out by)
5. Critical points such as P.C., P.I., P.T., T.S., C.S.
6. 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 ODOT's 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, North (y) coordinate, East (x) coordinate, elevation and point ID.

For the proposed new roadway alignment, the DBT shall install all new centerline monuments, monument assemblies, and reference monuments, as required, in accordance C&MS 623 and the ODOT Real Estate Policies and Procedures manuals. If applicable, the DBT shall set ROW monuments for parcels being acquired for the Project Right of Way. Monuments on Department-maintained facilities shall be furnished and installed in accordance with Department standards.

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 current registration, recognized by the Ohio State Board of Registration for Professional Engineers and Surveyors. Costs associated with monument replacement caused by DBT disturbance 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 PAVEMENT

All existing pavement within the limits of the final proposed profile shall be removed and replaced based on the final proposed roadway and shoulder unless it is specifically stated in this section that the pavement at a particular location at a site may be salvaged and resurfaced. If the DBT’s work causes damage deeper than the surface of the existing pavement that will be resurfaced, the damaged areas shall be repaired per Item 253 at no additional cost to the project but before resurfacing. Pavement build ups are:

Aggregate Full Depth Buildup:

- 6” Item 304, Aggregate Base
- 6” Item 304, No. 1 & No. 2 Aggregate, As Per Plan
- Item 204, Subgrade Compaction & Proof Roll

<u>BRIDGE</u>	<u>Preliminary Profile Limits</u>	<u>Pavement Type</u>
MOE-TR2001-0.13	Sta.11+41 to Sta.14+05	Aggregate

14 ROADWAY

Number of Lanes: 2

Lane Width: Tapers from existing to 7’-0” (up and down station of bridge)

Graded Shoulder: Tapers from existing to 2’-0” (up and down station of bridge)

The DBT shall prepare detailed design plans that follow the proposed alignment of the roadway as shown in Appendix E and meet the following criteria:

- a. Results in all work staying within the current and proposed Permanent Right of Way as shown in Appendix E.
- b. Conforms to all Governing Specifications and Standards as outlined in this

document.

- c. Provides termini for the final proposed profiles that are not closer than 25-feet inside the proposed profile limits listed in Section 13.

The design plans for submittal to ODOT shall include cross sections at a maximum interval of 25 feet, as well as cross sections at locations of abrupt changes in elevation, width, etc..

All waste material must be removed from the project site and disposed of in accordance with standard ODOT requirements.

The proposed structure shall approximately follow the new horizontal alignment and vertical profile in accordance with the plan shown in Appendix E.

14.1 Design Exceptions

There are no previously approved design exceptions for this project. The DBT shall notify ODOT regarding any design features that are believed to not meet the minimum design criteria and require a design exception, as outlined in this document and in the Guidelines for Geometric Design of Low-Volume Roads (AASHTO publication, 2nd Edition 2019).

The DBT shall develop a design which does not require approval of additional design exceptions.

15 DRAINAGE

The DBT shall prepare detailed design plans that alter the existing drainage features only as necessary to allow for the roadway and structure relocation. The existing drainage features that are not impacted by this relocation shall be perpetuated. Any adjustments to the existing drainage system or installation of new drainage structures shall meet the requirements of the Location and Design Manual, and all applicable ODOT standards. All publicly-owned drainage features that are altered must remain within the current and/or proposed permanent Right of Way limits.

The existing 12-inch Corrugated Plastic Pipe outlet located at the Southwest corner of the existing structure shall be relocated, to accommodate the road re-alignment. Any junction, connection, or angle created in the existing 12-inch Pipe to allow relocation, shall include a clean-out manhole, to be used for future maintenance and access. The relocated outlet of this pipe shall include a headwall, per ODOT standards.

The existing drainage ditch located along the Southeast side of Township Road 2001 and discharge outlet at the Southeast corner of the existing structure, shall be relocated to accommodate the road re-alignment.

Post-construction storm water Best Management Practices (BMP) are required, per the Location and Design Manual, Volume 2.

The DBT shall evaluate, design and install new drainage items within the Project Limits with the exception that existing Drainage facilities not impacted by construction can be retained and not replaced.

Preliminary Hydraulics will be provided to the DBT, by the Department, prior to Notice to Proceed. The Department shall determine if a flood hazard evaluation is necessary, and the DBT is responsible for certifying the hydraulics for the structure. The DBT shall be responsible for acquiring all necessary permits, including FEMA Coordination and approval, if needed, for floodplain impacts, as well as for certifying the structure opening.

16 LANDSCAPING

Landscaping Required: Yes No

The DBT shall permanently grade and seed all impacted areas.

17 STRUCTURES

17.1 Existing Structures Identification

Structure Identification: *MOE-TR2001-00.13*

Structure File Number: *5630290*

Feature Intersection: *Seneca Fork*

17.2 General Requirements

1:1 slopes may be provided on the face of turnback wingwalls. All rock channel protection placed steeper than 2:1 slope shall be grouted. Any earthen slopes steeper than 2:1 shall be reinforced type soil slopes using a geogrid material and per ODOT Supplemental Specification 863. No slope shall be steeper than 1:1. Any slope requiring a steeper grade shall be supported by a retaining structure or wingwall, per ODOT standards.

17.3 Design and Construction Requirements of Structure

Str: MOE-TR2001-00.13

Existing Structure Data:

Overall Length:	36'-0"
Width o/o:	13'-0"
Design Loading:	HS20
Type:	Steel Girder with Timber Deck
Spans:	1
Date Built:	Unknown

Alignment & Profile

Alignment: Follow Existing
 Relocated: Per ODOT Per DBT

Profile: Follow Existing
 Relocate: Per ODOT Per DBT
 Feathered (Adjustment): Per ODOT Per DBT

Span Configuration: Per Original

Span Lengths: Per ODOT Per DBT
 Variable

Transverse Sections

Roadway Width: 16'

Railing: Yes No Type: MGS guardrail with and anchor assembly at each end

Fence: Yes No Height/Type:

Sidewalks: Yes No Width:

Investigate the need for Prefabricated Structure: Yes No

Investigate the need for Retaining Walls: Yes No

All Shop Drawings shall comply with Item 501.

Initial foundation investigation will be provided by the Department.

The DBT shall determine the need for additional subsurface investigations necessary to complete the Project. Geotechnical explorations shall be performed and documented in accordance with the Specifications for Geotechnical Explorations.

Remove the Existing Structure (including substructure, guardrail and wingwalls. Construct a new structure immediately upstream of the existing structure, including substructure, guardrail and wingwalls (as needed).

The horizontal alignment of the new structure shall approximately follow the proposed alignment shown in Appendix E and meet the following criteria:

- a. Results in all work staying within the current and proposed Permanent Right of Way
- b. Conforms to all Governing Specifications and Standards as outlined in this document.

The vertical alignment of the new structure shall meet the following criteria:

- a. Results in all work staying within the current and proposed Permanent Right of Way
- b. Conforms to all Governing Specifications and Standards as outlined in this document.
- c. Provides termini for the final proposed profiles that are not closer than 25-feet inside the proposed profile limits listed in Section 13.
- d. The DBT shall demonstrate (through hydraulic analysis per the ODOT Bridge Design Manual and Location and Design Manual) that the proposed structure provides no increase in 100-year storm upstream water surface elevation. The proposed structure shall not decrease the hydraulic opening from existing.

Type

The following are prohibited from being used on this project:

- fracture critical details/structures
- trusses
- weathering steel
- multi-cell or side-by-side box culverts or pipes
- permanent timber elements
- decks that consist of asphalt concrete on metal stay-in-place forms
- beam or member shapes not shown in ODOT standards
- pre-cast substructure units or members

The proposed structure shall be design to follow the Structure Loading Requirements in the Bridge Design Manual Section 303.

Bridge Load ratings shall be performed as per the Bridge Design Manual, Section 900. The DBT shall submit the final bridge load ratings with the Final Design Review Submission or before.

This project DOES NOT require the use of approach slabs. However, low strength mortar backfill (per ODOT CMS 613) shall be placed behind the proposed abutments, below the proposed approach road surface, and above a line that extends at a 1:1 slope from the bottom of the abutment to an elevation below the proposed road pavement repair depth detailed in Section 13.

Superstructure

The DBT shall remove the existing superstructure, including timber deck and provide a new superstructure immediately upstream, as outlined below.

The DBT shall determine the appropriate span length for the design and preparation of the detailed construction plans for the construction of the proposed structure, at the approximate location shown in Appendix E. The span length selected shall not be less than 45 feet and the structure shall be single-span. The bridge width shall not be less than 16 feet.

The skew of the proposed structure shall not be excessive in nature and shall be justified by the need to match the proposed roadway re-alignment and channel configurations.

No utilities shall be placed on the bridge.

For beam bridges, elastomeric bearings must be provided.

Bridge Railing is required and it shall be in compliance with ODOT Bridge Design Manual, Section 309., with a minimum clear distance between face/face of rail no less than 14-feet. The bridge railing shall terminate at all four corners of the bridge by transitioning to ODOT standard MGS guardrail with an anchor assembly at the end of each run. LON calculations are not required since the purpose of the MGS guardrail is to provide terminations for the bridge railing.

Substructure

The DBT shall remove the existing substructure, including wingwalls/adjacent retaining walls and provide a new substructure at the approximate location shown in Appendix E and as outlined below.

The DBT shall determine the appropriate dimensions and depths for the design and preparation of the detailed construction of the proposed structure. The substructure design must be in compliance with the recommendations included in the Structure Foundation Exploration Report (Appendix B), and be composed of driven or cast-in-place foundations.

A minimum of 5 support piles must be used in each abutment.

17.4 Noise Barrier

Noise Barrier Construction Required: Yes No

18 TRAFFIC CONTROL

18.1 Pavement Markings and Delineators

The DBT shall perform Work related to pavement markings and delineators in accordance with Section 7.1 and the following sections.

- A. Pavement Marking Requirements and Locations
- B. Raised Pavement Markers: Yes No.
- C. Delineators: Yes No.
- D. Barrier Reflectors: Yes No.
- E. Object Markers: Yes No.

All object markers shall conform to Item 630, Sign, Flat Sheet.

Locations and requirements: *Provide an OM3 marker at each of the four bridge corners*

18.2 Signing

The DBT shall perform Work related to signs in accordance with Section 7.1 and the following sections.

18.2.1 Flat Sheet Signs

- A. Flat Sheet Sign work required: Yes No.

1. Redesign and 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: *No Exceptions*
2. The following signs shall be removed and returned to the County Engineer:

Bridge Weight limit signs (1)

Removed flat sheet signs shall become the property of the County.

18.2.2 Extrusheet Signs

1. Extrusheet Sign Work Required: Yes No.

18.2.3 Ground Mounted Post Supports

- A. Replace: Yes No.
 1. Redesign and 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 DBT.

18.2.4 Ground Mounted Beam Supports

- A. Ground Mounted Beam required: Yes No.
- B. Overhead Supports: Yes No.

18.3 Intelligent Transportation Systems (ITS)

- A. ITS Work Required: Yes No

19 PROJECT SCHEDULE REQUIREMENTS

The DBT shall develop and maintain a project schedule in accordance with the selected note:

CM&S 108.03 A. Progress Schedule

20 PLAN SUBMITTALS AND REVIEW REQUIREMENTS

20.1 Plan Components

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

1. Real Estate Policies and Procedures Manual Section 3100.
Note: 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 subsummaries 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.

20.2 Quality Control

The DBT is responsible for the professional quality, technical accuracy and adherence to the Governing Regulations listed in Section 7.1 (Governing Regulations) 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 Contract 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 7.1 (Governing Regulations) 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.

20.3 Buildable Units

Buildable Units (BUs) 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 (Section [21.9](#)), Final (Section [21.10](#)), Released for Construction Plans (Section [21.11](#)) 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.

20.4 Comment Resolution Process

This section establishes transmittal processes and interaction between the Department and the DBT during submittal reviews in addition to the requirements found within the Scope of Services and other Contract Documents. The process can be modified upon mutual agreement between the DBT and the Department with the intention of meeting the requirements of the Contract or specific submission needs. This process may be revised by mutual agreement of both parties.

Specific identified procedures may be amended, revised, eliminated, or added to address project specific needs or mutual party understanding.

This process shall utilize electronic transmittals for all design submissions unless otherwise specified in the Scope of Services. Plan and design submissions shall be in PDF format, Microsoft Excel, Microsoft Word, or other document types as mutually agreed and appropriate to and for the submission.

Submissions should generally conform to the Scope of Service and other specification included in the Contract Documents, as appropriate, with variations as mutually agreed.

The Department shall establish a file transfer website (typically, an ODOT Project SharePoint, ProjectWise site, or other appropriate file transfer and storage site), with controlled and controllable access, for uploading design submissions and subsequent transmittal of design review comments.

Project specific process details shall be discussed at the Pre-Design Meeting. These details include the responsible contacts (Department and DBT), file server location/IP address, known required persons needing access, and login requirements.

A. Procedure

The Department will grant access to an identified DBT representative who will have authority and responsibility to create Buildable Unit Submission (BUS) folders and other folders within the transfer website. Each folder shall be logically named. Within each BUS folder, additional folders representing each stage of review (i.e. Interim/Final/Construction) will be created. If mutually agreeable, the DBT may perform this role if management by the DBT facilitates submissions.

With each Buildable Unit with each Design Submission, the DBT shall include a transmittal sheet describing the BUS, the BUS stage (Interim/Final/Construction), the contractual review response date (from the Department as well as any other third-party reviewer, if applicable), critical assumptions made for the BUS impacting subsequent BUS submissions, and any information which could facilitate review.

The DBT shall develop and utilize a Comment Resolution Spreadsheet (CRS) for each Buildable Unit with each Design Submission (Interim, Final, Construction) for use in logging and tracking review comments. The DBT shall provide a blank CRS to the Department and other third-party reviewers at Interim Design Submission. The Department and applicable reviewing agencies shall review for Contract requirements. The Department will utilize the CRS document to centralize all Department employee Buildable Unit Design Submission comments.

Department review comments will primarily focus on compliancy with the Contract Documents. The Department will refrain from making excessive preferential and formatting comments. Reviewer preferential comments shall be marked "Preference" within the CRS. While formatting comments do not need responded to, the Department reserves it's right to reject a submission which, in its judgement, is not reasonably following required ODOT CADD standards.

An updated copy of the CRS shall be provided to all reviewers at the Final Submission. With the Final Submission on the transmittal page, the DBT shall identify major design revisions and design approaches made between Interim and Final Submission being outside the course of typical design progression and were not made to address Interim Review comments. The updated copy shall include all comments received at Interim submittal along with the DBT's written disposition of all Non-Compliant comments made during formal Interim design submittals. The Department and other appropriate third-party reviewing agencies will review the DBT's formal disposition to Interim Submittal review comments as well as revised plans to respond to previous comments. The Department will include any additional comments based on the Final Design Submittal review within the CRS.

The DBT shall clearly identify if an ODOT Interim review comment responded with an "Accept" by the DBT is not being corrected within a Final submission. If an "Accept" comment is not being addressed, the DBT shall clearly describe the intended resolution for the RFC submission. The Department may require additional information before the Construction Plan submission, or may request a Comment Resolution meeting (or phone call if appropriate) to understand the DBT's design direction. The DBT shall memorialize the time of the Comment Resolution Meeting within the CRS submitted with the Construction Plans.

In the event the DBT believes that any review comment, or direction issued by the Department or other third-party review, require a change to a Contract, the DBT shall first contact the Department for clarification and shall, within 10 days of receipt of the comments or direction, provide written notice to the District Project Manager and Project Engineer concerning the reasons why the DBT believes the scope has been changed.

The DBT is not required to comment nor respond to ODOT identified Preference comments.

For comments considered substantial to the Department or the DBT, the DBT shall schedule a Comment Resolution Meeting with the Department to discuss.

1. The Department shall notify the DBT, either within the CRS or other notice, if the Department requires a Comment Resolution Meeting.
2. The DBT shall notify the Department within seven days of any “Non-Compliant” comments they intend to “Dismiss” or “Resolve”. The DBT shall schedule a Comment Resolution Meeting prior to the next stage submittal.
3. For less substantial comments and as agreed by the Department and the DBT, a comment resolution conference call may be sufficient.

The DBT shall obtain Department concurrence with the “Non-Compliant” comment dismissal and this concurrence shall be documented on the CRS.

The DBT shall resolve all outstanding issues and comments from the Final Submittal (or other outstanding comments) and prepare a full set of Design Documents stamped “Checked and Ready for Released for Construction” (RFC). The Department’s expectation is that no revisions shall be made except for those required to address Final review comments. In the event that other revisions are required unrelated to review comments, the DBT shall notify the Department and coordinate revisions for concurrence.

The Department shall review to ensure all comments from final reviews have been resolved or “Closed” to the satisfaction of the Department. There is no formal review period for Construction submission.

The DBT has the responsibility for ensuring the RFC meets all contract requirements. If upon Department review it is determined that it is questionable as to whether comments received from the Department or other agencies have been resolved or addressed appropriately, the DBT shall stop construction of the portion of the Buildable Unit in question, consult with the commenter to resolve such comments. The DBT shall document resolution of the comment within the CRS.

The DBT continues to be liable for design accuracy regardless of ODOT review.

B. General Third-Party Requirements

A “Third-Party”, in regard to the Design-Build Comment Resolution process, is any overseeing agency with oversight and design approval authority of relevant portions of the design as identified in the Contract.

Other third-party reviewers may not utilize the CRS.

It is the DBT’s responsibility to reasonably add all third-party markups and comments received; the DBT shall consolidate third-party comments into the CRS corresponding to each Buildable Unit and save on the ODOT Project SharePoint site. Any plan markups shall also be scanned by the DBT and included on SharePoint within the appropriate BUS folder.

The DBT shall address all third-party review comments. All third-party review comments shall be, initially, considered as a “Non-compliant” comment type, as identified below.

With ODOT’s concurrence, the DBT may subsequently identify comments as potentially a “Preference” or “Recommendation”. The DBT shall obtain Department concurrence with the “Non-Compliant” comment dismissal and this concurrence shall be documented on the CRS.

C. Comment Resolution Spreadsheet

Minimum requirements of the CRS along with information on content is included below. The DBT may modify format or include additional information with Department concurrence.

Reviewer	
Comment ID No	Consecutive listing
Document	Submittals may include multiple components including plans, reports, calculations, etc. This column will list which item the comment is on.
Page	Page reference/location comment refers to
Comment type	<p>Either “Non-compliant”, “Preference”, or “Recommendation”.</p> <p>Non-compliant - elements that do not meet requirements of the Contract.</p> <p>Preference - elements which depict the owner’s preferred design method or result but are not required by the Contract.</p> <p>Recommendation - a general noted item intended to make the designer aware of potential troublesome design methods.</p>
Contract Section	If Comment Type is Non-compliant to the Contract, the reviewer shall include the Contract Document of the requirement that is non-compliant (for example, Scope Section 8.2, L&D Volume 1, BDM, etc)
Reviewer Note	A Reviewer Note is optional but is recommended to ensure the designer understands the intent to the comment made. Reviewer shall note if a Comment Resolution Meeting or discussion is desired.
Reviewer Agency	Representing Agency
Reviewer Name	Name of reviewer
DBT Response	
Resolution Code (Approve, Dismiss, or Resolve)	Accept - DBT agrees with the comment and addressed the comments

	Dismiss - DBT disagrees with the comment based on comment no longer applying because the design has changed, reviewer error, or other reasons. Resolve - DBT needs additional clarification and/or coordination to address the comment accordingly. Comment may also reflect a change to the Contract Documents which will require additional discussion and direction by the Department due to the financial/schedule impacts.
DBT Comment/Disposition	The DBT shall provide a more detailed response to the comment as necessary. Response shall note if a Comment Resolution Meeting or discussion is desired.
Reviewer Response	
Status	Open - the submittal did not address the original comment made. Closed - the submittal or disposition addresses the original comment. The DBT shall schedule a comment resolution meeting with the Department to discuss any comments from previous submittals that remain "Open" according to the reviewer. The DBT and the Department will also discuss whether review comments are in conformance with the Contract Document requirements or preferential comments. For less substantial comments and as agreed by the Department and the DBT, a comment resolution conference call may be sufficient.
Reviewer Name	Name of reviewer
Date Closed	Date that the reviewer responded to the comment.
Comments	Provide a more detailed response clarifying why comment remains "Open" or other information

20.5 Document Management

The DBT shall create and maintain a BUS Log sheet to facilitate submission tracking. The BUS Log shall identify the name of the Buildable Unit, brief description of the BUS, Interim Design submission date, Interim Submission review comments transmittal date, Final Submission date, Final Submission comments transmittal date, Released for Construction date, and a BUS Comments field. The BUS Comments field shall note any necessary resubmissions, dates of Comment Resolution meetings with noted submission stages, Over-the-Shoulder meeting dates resulting in design adjustments, or any other needed summarized data to help understand the BUS process. The BUS Log Sheet may be modified as necessary to facilitate review. The BUS Log shall be maintained in the master project folder, or in a location mutual agreeable and accessible to the DBT and the Department.

The DBT shall create a folder for each BU on the Department’s Project SharePoint Site. Each BU folder shall have an “Interim”, “Final”, and “RFC” folder. All Design Documents (plans, calculations, reports, etc) submitted at each phase (Final, Interim, RFC) shall be uploaded by the DBT to the Project SharePoint Site. An updated CRS at each submittal shall be included in each folder with the latest including all comments “closed”. Meeting minutes from comment resolution meetings or over-the-shoulder reviews shall be prepared by the DBT and also saved to SharePoint.

20.6 Optional Pre-submission Meeting

The DBT may request a Pre-submission Meeting to be held prior to, or concurrent with, the submission of a Buildable Unit. The intention of the Pre-submission meeting is an opportunity for the DBT to explain design intent to facilitate owner review. Formal assembly and submittal of drawings or other documents will not be required, but the DBT is encouraged to provide informal submittals to facilitate reviews.

20.7 Optional Over-the-Shoulder Reviews

The DBT or the Department may request “Over-The-Shoulder” (OTS) review of designs at any time in the design process. The OTS is an informal review of a partial design during development. This may include in-progress drawings, calculations, sketches, design concepts, proposed specifications, or any other document used or created during the design. They are to facilitate communication and the design process. These can be in the form of a phone call, meeting, correspondence, or any other means of information sharing between the DBT and the Department.

An Over-the-Shoulder review may be necessary to discuss direction on potential design changes. An OTS may be requested during any period in the design development. Appropriate third-party agencies, as well as the DBT and Department, may also participate in these meetings. The DBT or the Department may include the decision or direction given in an OTS within the applicable CRS submission.

The OTS reviews shall not replace the formal Interim and Final Review. Likewise, the Department may also request an OTS review during any stage of design to facilitate review or design development.

20.8 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.

20.9 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.

Unless indicated below, the Department will have 10 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.

Submittal	Adjusted Review Time
Monroe County Engineer	10 Work Days

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 review.

Plan Review Distribution Table: The DBT shall supply an electronic version (in PDF format) along with half size (11" x 17") paper prints simultaneously to the parties indicated below, except that **each affected utility company shall receive one full size (22"x34") plans.**

	Number of half size Sets
ODOT District Production	PDF format (emailed or mailed CD/DVD)
ODOT District Construction	PDF format (emailed or mailed CD/DVD)
ODOT Central Office, Division of Highway Operations	PDF format (emailed or mailed CD/DVD)

Monroe County Engineer	PDF format (emailed or mailed CD/DVD)
Each affected utility or railroad company	2

20.10 FINAL DESIGN 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 10 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.

Submittal	Adjusted Review Time
Monroe County Engineer	10 Work Days

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 Review Distribution Table: The DBT shall supply an electronic version (in PDF format) along with half size (11" x 17") paper prints simultaneously to the parties indicated below except that each affected utility company shall receive one full size (22"x34") plans:

	Number of half size Sets
ODOT District Production	PDF format (emailed or mailed CD/DVD)
ODOT District Construction	PDF format (emailed or mailed CD/DVD)
ODOT Central Office, Division of Highway Operations	PDF format (emailed or mailed CD/DVD)

Monroe County Engineer	PDF format (emailed or mailed CD/DVD)
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20.11 Released for Construction Plans

After the review comments for the Final Design 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 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 Design 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 delivered to each party on the Plan Distribution Table below.

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.

Plans Distribution Table: The DBT shall supply an electronic version (in PDF format) along with full size (22" x 34") and/or half size (11" x 17") paper prints of each plan submission simultaneously to the parties indicated below:

	# of Full Sets	# of Half Sets
ODOT District Production	1	2
ODOT District Construction	2	2
ODOT Central Office, Division of Highway Operations		
ODOT Central Office, Division of Construction Management		
Monroe County Engineer	1	1
Each affected utility or railroad company	1	

20.12 Railroad Submittals

NOT APPLICABLE

20.13 Plan Distribution Addresses

Ohio Department of Transportation, District 10.
338 Muskingum Drive
Marietta, Ohio 45750
Attn: Eric Reed
Eric.Reed@dot.ohio.gov

Ohio Department of Transportation Central Office
Division of Highway Management
1980 West Broad Street
Columbus, Ohio 43223
Attn: Jeff Peyton
Jeff.Peyton@dot.ohio.gov

Ohio Department of Transportation Central Office
Division of Construction Management
1980 West Broad Street
Columbus, Ohio 43223

Ohio Department of Transportation Central Office
Office of Environmental Services
1980 West Broad Street
Columbus, Ohio 43223

Monroe County Engineer
47134 Moore Ridge Road
Woodsfield, Ohio 43793
Attn: Amy Zwick
azwick@monroecountyengineer.com

Utility Companies
(As shown in section 12)

20.14 Plan Revisions

Plan Revisions are DBT requested, ODOT directed, or condition necessary changes to the Released for Construction plans which materially modifies the design intent, materially revises the Plan to an extent which would require revised design calculations, materially revises plan dimensions or plan depictions, or otherwise would modify the Released for Construction plans in a manner which a competent engineer would identify as a necessary design re-evaluation.

Plan Revisions are required to follow Interim, Final, and Released for Construction review processes. Plan Revision review timeframes and review breadth shall be dependent and commensurable the identifiable impacts of the Plan Revision, as agreed by the DBT and ODOT.

20.15 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 Released for Construction Plans. 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.

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 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.