

OHIO DEPARTMENT OF TRANSPORTATION

G	Detour Determination Report	Contractual
G1	Short Term Closures of I-70	Contractual
H	Environmental Commitments	Contractual
I	Utility Conflict Example	Reference
J	Existing Survey Data	Contractual
K	Geometric Requirements	Contractual
L	Roundabout Lane Arrangements	Contractual
M	Preliminary Layout	Reference
N	RWIS Sensor Details	Contractual
O	Ramp Approach Pavement Limits	Contractual
P	Curb Location and Type Requirements	Contractual
Q	Pavement Limits	Contractual

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1.3 Railroad Coordination

Not applicable.

1.4 Airway/Highway Clearance

Not applicable.

2 PRE-BID MEETING

This meeting is to discuss and clarify all issues that the project may have. Offeror attendance at the pre-bid meeting is **NOT** mandatory.

Location: [Virtual - Microsoft Teams](#)

Date: 4/12/2022

Time: 2:00 PM

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Deleted: ODOT District 6 - 400 East William Street, Delaware, Ohio 43015 - Columbus Pike Conference Room

3 CONTRACTOR PRE-QUALIFICATION

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SR-29 SB starting at approximately STA. 540+40 will be restriped to accommodate 2 lanes entering the existing roundabout.

The proposed bridge will be one-way and carry southbound SR-29 traffic (two lanes) over I-70.

The existing adjacent bridge (MAD-29-1063, SFN 4900243) will be restriped to be one-way and carry northbound SR-29 traffic (two lanes) over I-70. The drainage system will be adjusted/changed to properly convey drainage with the addition of the new adjacent bridge. Roadside barriers, including guardrail and guardrail terminal assemblies, shall be reconstructed to address final traffic patterns.

The I-70 EB exit/entrance ramp intersection with SR-29 at the SR-29/I-70 interchange will be reconstructed into a 2-lane roundabout. The proposed roundabout shall meet the geometric requirements set forth in Appendix K and lane arrangements (and # of lanes) depicted in Appendix L. The splitter island between the bridges and roundabout will be constructed across the circulatory roadway, to restrict the "full-rotation" movement around the roundabout. Bypass lanes for I-70 EB to SR-29 SB and SR-29 NB to I-70 EB will be constructed.

SR-29 will be reconstructed and widened to four lanes (2 in each direction) from the proposed roundabout to Commerce Parkway. A two-way left turn lane shall be added from approximately STA. 577+35 to Commerce Parkway. The two-way left turn lane shall be striped off transversely starting at STA. 583+50 to Commerce Parkway, to restrict left turns onto Commerce Parkway. SR-29 NB will taper to two lanes immediately north of the unnamed tributary crossing at the SR-29/Commerce Parkway intersection. SR-29 SB will be striped as one through lane and one right-turn lane at the intersection with Commerce Parkway.

The existing southern driveway at Parcel 10 (Auditor's Parcel #08-00344.000) will be reconstructed to accommodate widening of SR-29. The northern driveway that is adjacent to Byerly Rd shall be removed. The Byerly Rd connection to SR-29 will be removed & a cul-de-sac shall be constructed

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- 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

13.1 General

The southern driveway apron at Parcel 10 shall be replaced and shall follow the asphalt buildups shown in the ODOT Location and Design Manual Volume 1, Section 805.

Saw cut lines, widening limits, and curb shown in Appendix M (Preliminary Layout) are approximate.

Portions of concrete pavement at the existing roundabout and portions of the approaches to the existing roundabout may be reused if the existing cross-slope or profile does not need changed to meet the final design. Limits for pavement that can/cannot be salvaged are graphically shown in Appendix Q. No existing pavement along SR-29 through the proposed roundabout & widening limits (from bridges to Commerce Parkway) shall be reused. Additionally, no pavement at the I-70 EB to SR-29 SB exit approach (within new pavement limits of the project) shall be reused/widened. Stationing shown for reuse limits in Appendix Q is approximate, and replacement shall be taken to the nearest transverse joint.

For any locations in which the DBT reuses existing ramp or roundabout pavement, and proposes widening of the pavement:

- Old pavement and the widening shall, at a minimum, meet at the same subgrade elevation.
- Subsurface drainage is required.
- The widening must be the same material and buildup as the mainline.
- New pavement shall be the same type as the old and shall be tied to the old concrete using Type D Longitudinal joint according to BP-2.1.
- Longitudinal joints are to be located at lane lines

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- Longitudinal joints shall not be located in the wheel path.
- A minimum 2' wide section shall be placed when widening rigid (concrete) pavement.
 - Replacement must go to the nearest transverse joint.
- A minimum 5' wide section shall be placed when widening asphalt pavement (can be a combination of new & replacement)

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Underdrains are required on SR-29 where new pavement is constructed.

Curb location and type requirements are provided in Appendix P (Contractual).

Rigid pavement shall be used from the existing & proposed bridges to the roundabout and southeast of the proposed roundabout to STA. 575+00 (West Jefferson Corp. Limit). Rigid pavement shall be used at all ramp approaches. Rigid pavement shall be used at proposed approach to the proposed bridge from the existing roundabout. Rigid pavement shall be used on all bypass lanes.

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Flexible pavement shall be used on SR-29 from STA. 575+00 to the end of the project limits. The cul-de-sac constructed at the termination of Byerly Rd shall be flexible pavement.

13.2 Subgrade Undercuts

DBT shall follow CMS 204. Contingency quantities for subgrade undercut items have been provided. The contingency quantity was calculated with the assumption that 12" deep undercuts will be required for roughly 25% of the proposed full depth pavement area. Undercuts include removal of subgrade, placement of geogrid for 10% of all undercut area and geotextile fabric for 100% of all undercut area, and granular material type B. Geogrid shall be placed in undercut areas if utility facilities are found to be near the bottom of the proposed subgrade.

13.3 Rigid Pavement Build-ups

SR 29 - Proposed Roundabout & Non-Ramp Approaches

Item 452 - 9.5" Non-Reinforced Concrete Pavement, Class QC 1P

Item 304 - 6" Aggregate Base

Tied longitudinal joints at the shoulders are required.

Pressure relief joints are required at the bridges.

Concrete Jointing Diagrams shall be provided as part of the plans.

Shoulders shall be the same material and buildup as the mainline. For the shoulders, dowels are required for the transverse joints.

Edge course design shall extend to the locations specified in Section 303.6 of the PDM.

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SR 29/I-70 Ramp Approaches (See area outlined in red in Appendix O for approximate limits)

Item 452 - 13" Non-Reinforced Concrete Pavement, Class QC 1P

Item 304 - 6" Aggregate Base

Tied longitudinal joints at the shoulders are required.

Pressure relief joints are required at the bridges.

Concrete Jointing Diagrams shall be provided as part of the plans.

Shoulders shall be the same material and buildup as the mainline. For the shoulders, dowels are required for the transverse joints.

Edge course design shall extend to the locations specified in Section 303.6 of the PDM.

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13.4 Flexible Pavement Build-ups

Mainline - SR 29

Item 442- 1.5" Asphalt Concrete Surface Course, 12.5MM, Type A, (446)

Item 442 - 2.0" Asphalt Concrete Intermediate Course, 12.5MM, Type A, (446)

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Item 301 - 6.5" Asphalt Concrete Base, PG64-22 (449) (2 lifts)

Item 407 - Non-Tracking Tack Coat (Rate per CMS Table 407.06-1) - * to be used between each lift of AC

Item 304 - 6" Aggregate Base

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Shoulder shall be the same material and buildup as mainline.

Byerly Rd Cul-De-Sac

Item 442- 1.5" Asphalt Concrete Surface Course, 12.5MM, Type A, (448)

Item 407 - Non-Tracking Tack Coat (Rate per CMS Table 407.06-1) - * to be used between each lift of AC

Item 301 - 4" Asphalt Concrete Base, PG64-22 (449)

Item 304 - 6" Aggregate Base

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14 ROADWAY

DBT shall provide cross sections in the plans at 50' and any abrupt changes.

DBT shall replace any mailboxes that are impacted by construction.

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The DBT shall evaluate the need for guardrail, design and construct to current ODOT standards. This includes evaluating existing guardrail and updating to current ODOT standards.

Shoulder and Lane widths of all slip lanes (I-70 EB to SR-29 SB, SR-29 NB to I-70 EB, and I-70 WB to SR-29 NB) shall be per the “Ramp” interchange element in Figure 303-1 in Location and Design Volume 1. The design speed is 25 mph for the I-70 EB to SR-29 SB slip lane & the SR-29 NB to I-70 EB slip lane.

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SR-29 shall be widened to two lanes in each direction from the bridges to Commerce Parkway. The taper to two lanes for SR-29 NB shall begin at approximately STA. 584+52 and end taper at 584+02. SR-29 SB shall be two lanes all the way to the Commerce Parkway intersection, striped as one through lane and one right-turn. A two-way left turn lane (12' wide) shall be added from the end of the proposed splitter island that terminates at approx. 577+35 to the intersection of Commerce Parkway. The two-way left turn lane shall be striped off transversely from 583+50 to the intersection with Commerce Parkway.

Deleted: proposed EB roundabout

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DBT shall extend the existing concrete splitter island between SR-29 NB and SB, that is located north of the existing roundabout, approximately 10'± towards the center of the roundabout, as shown in the preliminary layout (Appendix M). The inside lane of the roundabout will be reconstructed closer to the center of the roundabout through this section, and the existing truck apron will be shifted towards the center of the roundabout. The lanes will be realigned to improve the geometry of the left-turn movements from the I-70 WB exit ramp.

Pedestrian curb cuts shall be installed to accommodate pedestrians crossing all ramps and slip lanes along SR-29 at the SR-29/I-70 interchange. Curb cuts for crossing SR-29 are not required.

Splitter island material requirements:

Roundabout	Location	Material Requirement
WB (existing)	Between roundabout and bridges	Concrete
WB (existing)	Between roundabout and I-70 WB to SR-29 NB slip lane	Concrete
EB (proposed)	Between roundabout and bridges	Concrete
EB (proposed)	Between NB/SB SR-29 terminating at approx. STA 577+35	Concrete
EB (proposed)	Between roundabout and I-70 EB to SR-29 SB slip lane	Concrete
EB (proposed)	Between roundabout and SR-29 NB to I-70 EB slip lane	Grass

Minimum lane width for mainline SR-29 = 12'-0"

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Minimum shoulder width for mainline SR-29 = 4'-0"

The proposed cul-de-sac at Byerly Rd shall be designed to accommodate a school bus.

Deleted: roundabout

Each design submission (interim, final, released for construction) shall include a completed and updated copy of the Roundabout Critical Design Parameters Checklist (L&D Vol. 1 403-2) for the proposed roundabout.

Proposed roundabout shall adhere to the geometric requirements set forth in Appendix K and Appendix L. Appendix K has supplementary requirements to the ODOT Design Manuals and Guidelines listed in Section 7.1 and must be met in addition to the requirements within those Manuals and Guidelines.

The I-70 WB to SR-29 NB bypass lane shall begin the taper at approx. 541+46.67, and be full width at approx. 540+96.67. The existing left-turn length shall remain unchanged.

14.1 Design Exceptions

No design exceptions are anticipated 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.

The DBT may develop a design requiring a design exception, subject to sole discretion approval of the Department and FHWA. The DBT shall prepare any proposed design exceptions and submit to the Department for coordination with FHWA and approval. Following submittal of the complete design exception submittal, the Department will provide a response within thirty (30) days. The DBT shall accept all cost and schedule risk associated with obtaining ODOT and FHWA approval of the design exception.

14.2 Interchange Modification/Justifications Studies

The DBT shall prepare a design compliant with the Interchange Modification Study (IMS) and Addendum provided in Appendix E.

15 DRAINAGE

Post-construction storm water Best Management Practices (BMP), vegetated bio-filters shall be installed as per Appendix B. Groundwater Mitigation and Riparian Setback Mitigation as shown in Appendix B will be completed prior to award by the Department from the Big Darby Mitigation Bank.

Existing drainage conduits and structures may be reused if not impacted by construction. Existing drainage structures being reused shall be adjusted to grade.

The DBT shall analyze the existing drainage system and remove, upgrade, modify, or install new drainage structures that meet the requirements of the Location Design Manual, Volume 2.

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The permeable portion of the grass splitter island between the roundabout and SR-29 NB to I-70 EB slip lane shall be sloped to a drainage structure (Catch Basin, No. 5) to be installed within the island and shall be connected to new or existing drainage facilities.

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Drainage of the existing bridge MAD-29-1063, SFN 4900243 shall be adjusted/changed to accommodate the adjacent bridge.

The DBT shall submit a final "as-built" plan to ODOT showing in plan view and table format the stormwater BMP outfall locations, description of BMP, description of outfall and BMP unit quantity. The table shall include latitude and longitude of each stormwater BMP outfall location as well as roadway station and offset.

15.1 Permanent Erosion Control

Permanent Erosion Control shall consist of soil analysis testing, minimum 4 inches of topsoil, preparing the seed bed, placing and incorporating seed, agricultural lime, commercial fertilizer, placing mulching material, repair seeding, inter-seeding, and water. Seeding and mulching shall be applied to all areas of exposed soil between the right-of-way lines, and within the construction limits for areas outside the right-of-way lines covered by work agreement or easement. This work shall be included in the Item 659 Permanent Erosion Control lump sum.

The DBT shall seed all disturbed areas with Class 4A or Class 4B seed mixes (listed under 659.09). The DBT shall use Class 4A at locations without site distance limitations.

16 LANDSCAPING

Landscaping Required: Yes No

The DBT shall permanently grade and seed all impacted areas.

For the proposed roundabout, landscaping and grading shall be provided to denote the roundabout feature by creating a visual barrier to the straight through movement while not impacting the sight distance or view of signs. Low-growth plants or grass shall be utilized. The earth mound in the central island formed by low-growth plants/grass & grading shall be 3.5'-6.0' in height measured from the circulatory roadway surface at the curb face. Refer to Section 905.3.3 of Location & Design Manual, Volume 1.

Full compensation for this item is to include all items that create the visual barrier within the central island of the proposed roundabout, including grading and all final seeding & mulching, as well as plantings will be paid under lump sum Item 661 - Special - Landscaping.

17 STRUCTURES

17.1 Existing Bridge Requirements

Structure Identification: MAD-29-1063, SFN 4900243

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