

C-R-S: DEL CR5 2.15

South Section Line and Clark Shaw Intersection

Scope Narrative

General:

County: Delaware County

PID#: 2509

Description: The Consultant's services include preparation of final construction and right of way plans for a new single-lane modern roundabout with minimal approach work.

Preliminary Plan Provided by DCEO:

DCEO will provide the selected consultant a preliminary plan with design designation, typical sections, centerline alignments and profiles, roundabout geometric details, storm sewer locations and lighting locations.

Traffic Analysis:

No traffic analysis is required for this project. No roundabout operational analysis will be required.

Survey Parameters:

Survey and base mapping should use the Ohio County Coordinate System (OCCS).

Plan Sheets:

The following plan sheets are anticipated.

<p>Title Sheet (1) Schematic Plan (1) Roundabout Geometry (1) Typical Sections (3) General Notes (3) Maintenance of Traffic Notes (2) Detour Plan (1) General Summary (2) Estimated Quantities (2) Roadway Subsummary (2) Drainage Subsummary (1) Project Site Plan (1) Plan and Profile at 20 scale (5) Reference Line Profiles (4)</p>	<p>Cross Sections at 50' Plus Driveway Profiles (16) Intersection Detail (5) Splitter Island Details (2) Driveway Subsummary (1) Storm Sewer Profiles (1) Traffic Control (6) Lighting (5) Landscape Plan (1) Right of Way Legend Sheet (1) Property Map (1) Summary of Additional ROW (1) ROW Topo Sheets at 20 scale (5) ROW Boundary Sheets at 20 scale (5)</p>
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Note: Centerline plat not required.

Cross Section Design:

Lane Width	12'
Treated Shoulder Width	2' paved (full depth)
Total Shoulder Width	8' (2' paved, 6' graded turf)
Curb Type:	Type 2 Combined at roundabout approaches
Guardrail Type	Do not use guardrail
Maximum Foreslope	4:1
Maximum Backslope	4:1

Pavement Design:

Consultant should consider widening and overlay of approaches in lieu of full depth reconstruction where no profile adjustment is needed, in order to reduce cost and simplify access to work zone residences. Planing/milling of existing asphalt is not desired due to lack of thickness of existing asphalt.

Pavement buildup for full depth sections:

- 1 ¼" Item 441, Asphalt Concrete Surface Course, Type 1 (449), PG64-22
- Item 407 Tack Coat @ 0.04 gal/sy
- 1 ¾" Item 441, Asphalt Concrete Intermediate Course, Type 2 (449), PG64-22
- Item 407 Tack Coat @ 0.075 gal/sy
- 8" Item 301, Asphalt Concrete Base
- 6" Item 304, Aggregate Base

Roadside Design:

Consultant shall give special consideration to right of way impacts of the roadside design – in particular, presence and depth of any ditches where none currently exist, and the slope and appropriateness of a ditch. Enclosed drainage using storm sewers and catch basins is expected in certain areas where roadside impacts may be costly. Do not exceed an open ditch depth of 3 feet measured vertically from the edge of pavement.

Existing leach fields are expected within the areas of proposed roadside work. Consultant shall research Delaware General Health District records and delineate leach fields.

Roundabout:

Proposed roundabout shall be a single lane. Geometric design of roundabout should generally conform to the preliminary plans provided by DCEO.

Truck apron shall be stamped and colored concrete. Central island landscaping shall generally follow the design of previous Delaware County roundabouts, with sample plans provided by DCEO.

Lighting:

Provide lighting design in general conformance with sample plans provided by DCEO. Photometric analysis not required if the spacing of poles is less than 175 feet and poles are located in the typical configuration of the sample plans provided. Lighting shall be designed in accordance with DCEO's Design Resource Page.

Traffic Control:

Provide notes per the DCEO Design Resource Page and from sample plans provided by DCEO for sign sheet and sign support material types. Specify 5-inch pavement markings for centerlines and edge lines.

Maintenance of Traffic:

A full closure with detour plan is anticipated to be the preferred MOT method for roundabout construction. Ingress and egress from work zone properties shall be maintained with traffic compacted surface where required.

Hydraulics Requirements:

Standards: Hydrologic and hydraulic analysis should be performed in accordance with ODOT L&D Volume 2.

Conduit Material Type: Culvert and storm sewer material preference should be as per the DCEO Supplement to the ODOT L&D Manual.

Geotechnical Engineering:

Soil Borings and Geotechnical Investigation: Not required

Pavement Design: The Consultant shall use the pavement design specified above.

Environmental:

If federal funding is provided in the construction phase, DCEO may direct the consultant to provide an encumbrance of funds in the fee proposal for if-authorized environmental studies and preparation of the environmental document (CE) based on ODOT requirements.

Waterway Permitting:

Jurisdictional determination has not been made for the existing unnamed stream within the project limits running east to west under South Section Line and Clark Shaw Roads. Impacts associated with culverts under South Section Line and Clark Shaw Roads are anticipated to fall within Nationwide Permit 3 limitations for replacement of existing, serviceable culvert structures.

If federal funds are used in the construction phase, the Consultant shall prepare and submit the required preconstruction notification for coverage under NWP3 or individual 401/404 permits based on coordination with ODOT. If there are no federal funds used for the project, DCEO will prepare and submit the preconstruction notification for coverage under NWP3, if required.

Utilities:

Consultant shall ensure that overhead utilities (electric and telecom) have feasible locations within new or existing public right of way to relocate poles and that overhead utilities do not conflict with proposed light poles. A preliminary layout of relocated utilities should be done during geometric layout of the roundabout and take into account proposed light pole locations. Detailed design of utilities is not required, but conceptual location of new and existing poles and above ground structures should be noted in the preliminary roundabout plan to ensure feasibility of the design.

Public Involvement:

Consultant shall prepare electronic versions of project maps showing proposed work limits and shaded right of way limits in PDF or image format. DCEO anticipates direct mailing to affected property owners and a project information web page hosted on the DCEO website. A public meeting is not anticipated; however, the Consultant shall provide a separate if-authorized fee for preparation and attendance.

Right of Way Design:

Consultant shall specify WD right of way for parcels to be acquired in the name of the Delaware County Board of Commissioners where appropriate. TMP parcels for a duration of 24 months shall be used to minimize the extent of permanent ROW where tie-in grading is required and no significant change to the grading of such areas results from the project.