

**WARREN COUNTY ENGINEERS**

**SCOPE OF SERVICES**

**1. PROJECT IDENTIFICATION**

Road Name Fields-Ertel Road (CR 1) and Columbia Road (CR 15)/Lebanon Road

Project Name Fields-Ertel Road and Columbia Road/Lebanon Road Intersection Improvement Project

**Signatures on Title Sheet:** Warren County Engineer, 3 Warren County Commissioners, Hamilton County Engineer, and Hamilton County Administrator

**2. PROJECT LIMITS**

Construct left turn lanes in each direction \_\_\_\_\_

Length Approximately Total 2500 feet (500-700 feet on each leg of the intersection)

Additional Information Install traffic signal, if warranted, and grade for sidewalks

**3. AGREEMENT BETWEEN PROFESSIONAL ENGINEER AND**

State \_\_\_\_\_ County X City \_\_\_\_\_ Other Each plan submittal must be approved by Warren County and Hamilton County before the plans may be finalized

**4. METHOD OF FINANCING**

Engineering Warren County Engineer and Hamilton County Engineer

Construction Warren County Engineer and Hamilton County Engineer

**5. WORK PHASES INCLUDED IN AGREEMENT**

Phase A – Preliminary Design (Preliminary Plans must be submitted to Warren County and Hamilton County by the Professional Engineer and approved by Warren County and Hamilton County before proceeding to Phase B)

Phase B – Final Design (Final Plans must be submitted to Warren and Hamilton County by the Professional Engineer and approved by Warren County and Hamilton County before the Professional Engineer’s contract duties are fulfilled)

6. PLAN SCALES

PLAN	1" = 20'	
PROFILE	Hor. 1" = 20'	Vert. 1" = 5'
CROSS SECTIONS	Hor. 1" = 5'	Vert. 1" = 5'

7. JOURNALIZED SPEED LIMIT

Road Name Fields – Ertel Road – 35 MPH

Road Name Columbia Road – 45 MPH

Road Name Lebanon Road – 40 MPH

8. TYPICAL SECTIONS/NUMBER OF LANES

One lane in each direction plus left turn lanes on each leg of the intersection

Left turn queue length – Engineer to make recommendation

number of lanes see above width of lanes 12 feet

9 inches of Item 301 (or Engineer to Recommend)

1.5 inches of Item 448, leveling course

1.5 inches of Item 448, surface course

           inches of Item           

Curbs: YES            NO            Report to Recommend           X          

Shoulders/Berms: YES            NO            Report to Recommend           X          

Type           

Safety Grading Criteria: YES            NO           X           Partial           

Median: YES            NO           X          

Guardrail: YES            NO           X           Type           

Anchor           

Clear Zone Grading: YES            NO           X          

Fencing: YES            NO           to be determined          

Lighting: YES            NO           X

9. ALIGNMENT

In general maintain existing alignment; modify as needed according to AASHTO Design Criteria.

10. PROFILE

In general maintain existing profile; modify as needed to meet intersection and stopping sight distance requirements according to AASHTO Design Criteria.

11. SIGNING: YES X NO

12. SIGNALS: YES X (if warranted) NO

Warrants: YES X NO

13. STRIPING: YES X NO

Type 644

14. DELINEATION

Delineators: YES NO X

RPMs: YES X NO

15. DRAINAGE

Roadway Drainage Criteria current ODOT L&D Manual or current Warren County and Hamilton County (depending on location) Stormwater regulations, whichever is most restrictive

Existing: Surface X Closed

Proposed: Surface Closed X

Flood Plain Study Required: YES NO X

(See F.H.P.M. 6-7-3-2, dated 11/15/79)

Channel Change Study Required: YES NO X

(See F.H.W.A. letter dated 7/18/74)

Flood Hazard Evaluation: YES NO X

(See F.H.P.M. 6-7-3-2, dated 11/15/79)

Risk Analysis: YES NO X

404 Exhibit Date: YES \_\_\_\_\_ NO \_\_\_\_\_ X \_\_\_\_\_

Remarks: The Professional Engineer shall determine the appropriate Post-Construction BMPs for this project

**16. BRIDGE CROSSINGS**

Number of Bridges: None

Interchanges: None

Cross Roads: None

Streams: None

Supplemental Site Plan for Streams: YES \_\_\_\_\_ NO X

Culverts: YES \_\_\_\_\_ NO X

Alternates Required: YES \_\_\_\_\_ NO X

Railroads: None

Railroad Location Plan: YES \_\_\_\_\_ NO X

Railroad Site Plan: YES \_\_\_\_\_ NO X

Pedestrian: None

Mass Transit: None

Investigate Prefabricated Structure: YES \_\_\_\_\_ NO \_\_\_\_\_

**17. BIKEWAYS: YES \_\_\_\_\_ NO X**

(Combined paved shoulder and bikeway)

Railroads: YES \_\_\_\_\_ NO X

Mass Transit: YES \_\_\_\_\_ NO X

Service Roads: YES \_\_\_\_\_ NO X

**18. RETAINING/NOISE WALLS:**

Number of Retaining Walls: None

Type of Retaining Walls: \_\_\_\_\_ Professional Engineer to Recommend \_\_\_\_\_

Noise Walls: YES \_\_\_\_\_ NO X

**19. MAINTENANCE OF TRAFFIC**

Maintenance of Traffic: \_\_\_\_\_ Professional Engineer shall make recommendation to submit to Warren County and Hamilton County.. The final MOT Plan must meet Warren County and Hamilton County's approval. It is expected that the work shall be done under traffic instead of detouring the traffic.

Maintenance of Pedestrian Traffic: YES \_\_\_\_\_ NO  X

Maintenance of Railroad Traffic: YES \_\_\_\_\_ NO  X

**20. UTILITIES:**

Water  Yes

Sanitary  Yes

Electric  Yes

Gas  Yes

Telephone  Yes

Cable TV  Yes

Others \_\_\_\_\_

Professional Engineer must contact all Utility Companies and indicate all field-located, existing utility facilities (including house connections) on the plans prior to sending a survey crew to collect all of the raw data. If any utility company fails to locate their facilities, the Professional Engineer must inform the COUNTY ENGINEERS. The COUNTY ENGINEERS will then contact the utility company about locating their facilities prior to sending a survey crew into the field to collect all of the raw data. The Professional Engineer must display the field-located locations of each utility facility on the plans. If the field-located utility facilities are not shown on the plans, the Professional Engineer will send their survey crew back out into the field and collect the field-located utility data at the Professional Engineer's expense.

Professional Engineer shall also furnish all utilities with preliminary and final plans with a copy of all letters of transmittal sent to the County Engineer. Professional Engineer to submit copies of plans to all the utility companies for preliminary coordination and copies of the final plans to the utility companies when tracings are filed with the Warren County and Hamilton County Engineers.

**21. ESTIMATED QUANTITIES:** YES \_\_\_\_\_ X \_\_\_\_\_ NO \_\_\_\_\_

Quantity Splits: YES \_\_\_\_\_ X \_\_\_\_\_ NO \_\_\_\_\_

The quantities shall be split along the County line, approximately the middle of Fields-Ertel.

22. CONSTRUCTION COST ESTIMATE: YES \_\_\_\_\_ X \_\_\_\_\_ NO \_\_\_\_\_

23. STORMWATER POLLUTION PREVENTION PLAN (SWP3):

YES \_\_\_\_\_ NO \_\_\_\_\_ To Be Determined \_\_\_\_\_ X \_\_\_\_\_

In compliance with Ohio Environmental Protection Agency Requirements: If the total land disturbed (within construction limits) minus the total existing asphalt equals 1.0 acre or more, a Stormwater Pollution Prevention Plan shall be included in the construction plans and contingency soil erosion quantities added to the general summary. Also, if the net acreage disturbed equals 1.0 acre or more, appropriate post-construction BMPs shall be included in the construction plans.

24. EXTENT OF FIELD SURVEYS: (1) Professional Engineer shall provide in proposal a “Not to Exceed unit price for the following: (A) Provide ex. R/W, proposed R/W & temp. R/W staking to establish the R/W and to aid in R/W acquisition (if authorized). (B) 2 Dedication Plats and 2 Survey Records including setting new Property Corners and Monuments in case the right-of-way is acquired in fee simple. (provide unit price per parcel – if authorized) (2) The Warren County Engineer prefers to acquire permanent R/W by perpetual easement, unless requested otherwise by the property owner. If permanent R/W is acquired by perpetual easement the work described in Item (B) will not be required. The Hamilton County Engineer prefers to clear out the title to the existing easement (PRO) and acquire the new right-of-way in fee. (3) Depict all trees and large bushes on the plans individually.

Professional Engineer

Main Road Alignment	(X)	
Main Road Profile	(X)	
Side Road Alignment	(X)	
Side Road Profile	(X)	
Aerial Control	( )	
Reference Points & Bench Marks	(X)	
State Plane Coordinates	(X)	
Alignment & Profile of Driveways	(X)	
Cross Sections	(X)	
Pavement Salvage Sections	( )	
Channel Cross Sections	( )	
Drainage Survey	(X)	
Topo Identification	(X)	
Utilities	(X)	
Pavement Cores	( )	
Geotechnical Boring Staking	( )	
Property Corners and Monuments	(X)	To be set after construction if authorized
Right-of-Way Staking	(X)	As stated in item # 24 (1) above

**25. RIGHT-OF-WAY AND EASEMENTS:**

Professional Engineer

- Property Map ( )
- Centerline Plat ( )
- Courthouse Research (X)
- Right-of-Way Plan sheets (X) Show existing and proposed rights-of-way  
On Plan Sheets (Do not need separate R/W  
Plan Sheets)
- R/W Summary ( )
- Permanent & Temporary R/W Legal Descriptions (X) (provide unit price per legal description)
- Exhibits for each Legal Description (X) (Drawings of R/W area on 8 1/2" x 11" paper  
And provide unit price per parcel)
- Dedication Plat(s) or Survey Record(s) (X) if authorized

Approximate Number of Property Owners 27-30

Remarks: County will notify residents regarding initial survey (data collection) via letter. Consultants will provide a 2 week window in which the initial survey (data collection) will be done. All permanent R/W takes shall be uniform in width if possible.

If bearings and/or distances in the proposed legal descriptions differ from the recorded deed, the proposed legal description shall include references to the existing right-of-way lines, centerline, property line etc.

**26. TRAFFIC DATA:**

State \_\_\_\_\_ County X Professional Engineer X

Remarks: Professional Engineer shall verify the traffic data and apply a to-be-determined escalator to the data to determine estimated future counts.

**27. GEOTECHNICAL/SUBSURFACE INVESTIGATION:**

State \_\_\_\_\_ County \_\_\_\_\_ No \_\_\_\_\_ Professional Engineer \_\_\_\_\_ X \_\_\_\_\_ Other \_\_\_\_\_ No \_\_\_\_\_

Remarks: Professional Engineer shall perform pavement and soil testing necessary to determine pavement design.

**28. PRIOR STUDIES:**

\_\_\_\_\_  
\_\_\_\_\_

**29. PUBLIC HEARINGS/INFORMATIONAL MEETINGS:**

Type of Hearing Required: Possible Public Meetings with Commissioner and/or Residents

Professional Engineer's Responsibility: Attend up to 3 public meetings if required

Exhibits: If required, provide a mounted schematic plan (basemap) of project to be displayed for Commissioners/Residents review