

MPO Required Scope of Work

US 36 Relocation/Water Street Extension Planning Study, .08 miles west of SR 9/SR 67 @ Water Street Intersection to Bridge over Spring Branch

General Scope: This project will study the options to address traffic and pedestrian safety at the SR 9/SR 67 @ Water Street Intersection and explore the extension of Water Street and potential relocation of a portion of US 36 between the North Junction of US 36 @ SR 9/SR 67 and the Bridge over Spring Branch to approximately .16 miles north to intersect with Water Street as well as the associated internal transportation network of an undeveloped area of the Town of Pendleton and connections to existing road and pedestrian infrastructure adjacent to the project area.

Purpose & Need: The purpose of this project is to assess the safety, operations, and mobility impacts of the North Junction of US 36 @ SR 9/SR 67 proximity to SR 38/State Street @ SR 9/SR 67. US 36 @ SR 9/SR 67 contribute to **congestion** and loading issues during peak hours and the unsignalized intersection at Water Street @ SR 9/SR 67 causes traffic and pedestrian/bicycle **safety** issues from east-west traffic movements across SR 9/SR 67. East-west movement between Water Street and US 36 is anticipated to significantly increase once SR 9/SR 67 expands to a 4 lane corridor with access management, as well as increased traffic volumes from rapid development adjacent to the project area. Finally, the access management project along US 36/SR 9/SR 67 from State Street/SR 38 to Water Street is anticipated to impact unsafe behavior like u-turns at Water Street, potentially resulting in concentrated crash issues at the intersection.

Proposed Options to be Studied

1. Proposed new terrain, limited access corridor project to extend Water Street to a connection with existing US 36 near the US 36 Bridge over Spring Branch with 10 ft. wide asphalt multi-use trail (shared-use paths) along both sides of the corridor. *(to be built at INDOT US Route Standards per INDOT Design Manual & MPO Scoping Standards)*
2. Proposed improvement of the SR 9/SR 67 @ Water Street Intersection, including considerations between signalized intersection or 2-lane roundabout. *(to be built at INDOT US Route Standards per INDOT Design Manual & MPO Scoping Standards)*
3. Proposed internal transportation network for proposed and future development in the context of the proposed new terrain, limited access corridor and the proposed intersection improvement projects, roughly bounded between existing US 36 to the south, existing Mercer Lane to the north, existing SR 9/SR 67 to the west, and Spring Branch Creek, a Madison County Regulated Drain, to the east. *(to be built at Town of Pendleton development, road, and sidewalk standards per local UDO, ROW Dedication, & Access Management Ordinances)*
4. Proposed pedestrian connectivity improvements along existing Water Street and throughout the proposed development and redevelopment areas, including the existing US 36 Corridor. *(to be built at MPO Standard Scoping Standards – 6 ft. wide sidewalks with 6 ft. wide pedestrian buffer)*
5. Proposed relocation and vacation of existing US 36 at its junction with SR 9/SR 67 to a location .17 miles north to the SR 9/SR 67 Intersection @ Water Street and then west to the existing US 36 Bridge @ Spring Branch. *(to be traded with approximate 0.5 mile segment of the existing US 36 Corridor with a new terrain roadway, built to INDOT US Route Standards, with conversion of old US 36 Signalized Intersection to RIRO with median extensions)*

6. Proposed improvements to SR 9/SR 67 north of existing north junction of US 36 to extend medians from south to the new proposed intersection improvement at Water Street and north to SR 9/SR 67 Bridge @ Fall Creek and possibly to the intersection of Huntsville Road. *(to be built at MPO Scoping Standards, but to match existing design of medians from North Junction of US 36 to Angle Road/Lick Creek Pike/Madison Avenue along the US 36/SR 9/SR 67 Corridor, which may require road expansion/additional asphalt, which must occur east of the existing travel lanes to avoid or encroach upon any area within or directly adjacent to Jimmies Dairy Bar, a NR Eligible Property and thus, a 4F Property.)*
7. All Proposed Improvements should be consider the following:
 - a. Anderson MPO Complete Street Standards
 - b. Pendleton Access Management Ordinance
 - c. Pendleton Thoroughfare Plan (Functional Classification, Cross-Section Standards)
 - d. Pendleton ROW Dedication Ordinance
 - e. Pendleton UDO (Development & Zoning)
 - f. PROWAG Standards (ADA Compliance)
 - g. FHWA MUTCD Manual (Signage Compliance)
 - h. INDOT Design Manual (Geometry, Construction, & Engineering)
 - i. INDOT Driveway Permitting Manual(s)/Procedures (TIS Standards, Access Management Guidelines, Other Forms & Requirements)

Deliverables

1. Planning Study document that includes a synopsis of all items considered, as well as all deliverables specifically listed or completed as part of the project.
2. Completion of Traffic Impact Study (TIS) for SR 9/SR 67 @ Water Street Intersection and an INDOT Driveway Permit Application to prepare for approvals prior to consideration of programming project design and construction. *(#9 & #10 could be combined if allowable per INDOT Driveway Permitting Process)*
3. Completion of Traffic Impact Study (TIS) for Intersection of proposed New Terrain Corridor & existing US 36 near the US 36 Bridge @ Spring Branch and an INDOT Driveway Permit Application to prepare for approvals prior to consideration of programming project design and construction. *(#9 & #10 could be combined if allowable per INDOT Driveway Permitting Process)*
4. Site Master Plan for the development and internal transportation network of an area roughly bounded by existing US 36 to the south, existing Mercer Lane to the north, existing SR 9/SR 67 to the west, and Spring Branch Creek, a Madison County Regulated Drain, to the east centered around a single, limited access corridor connecting SR 9/SR 67 @ Water Street & US 36 @ Spring Branch. *(Please Note: Limited Access means that access to the corridor from the north or south should be right in, right out [RIRO] or built as a roundabout. A signalized intersection may be considered but should be a significant distance away from the intersection with Water Street and/or existing US 36 near the US 36 Bridge @ Spring Branch.)*
5. Alternatives Analysis of the proposed new terrain, limited access corridor project (#1 above) in coordination with other factors (#2 and #3 above). *(Please Note: Because this is a new terrain corridor, an expanded Alternatives Analysis (AA) with more than one alternative should be pursued and should be usable for inclusion in a formal NEPA Document at a later date.)*

6. Completion of a Feasibility Study for the relocation of existing US 36 Corridor and its junction with SR 9/SR 67 to junction with SR 9/SR 67 at a new location.
7. Completion of other documents, studies, and correspondence crucial to determining recommended solutions and next steps for inclusion in this planning study, including but not limited to Wetland Delineation Reports, Waters of the US (WOTUS) Reports, Regulated Drain Improvement Plans, or Construction in a Floodplain Permits.
8. Completion of Extensive Public Participation Process including:
 - a. Community Workshop or Charette
 - b. Public Presentation @ Public Meetings
 - c. Public Comment Opportunities – Online, Town Hall, Public Library
 - d. Project Steering Committee - 10-15 members of the public, MPO staff, INDOT District staff, INDOT Central Office staff, local business owners, local elected officials, LPA staff, first responders, and South Madison School Corporation
 - e. Final Presentation to the INDOT – Findings & Next Steps
 - f. Final Presentation to the Public – Findings & Next Steps

IMPORTANT: *While the project should be pursued with the assumption that the new terrain corridor is also a potential option to reroute approximately 0.5 mile of the existing US 36 Corridor, there is no confirmation from INDOT at this time. Additionally, to allow for full consideration of this option, INDOT is interested in the exploration of adjacent local roadways, if any, between existing and proposed US 36 Corridors and any connections from the north, if any, as part of the preferred alternative chosen as this will be important to any final determination to consider a formal reroute/redesignation. To ensure these areas are included for consideration, an expanded Project Area, Construction Area, or in terms of Section 106, Area of Potential Effect (APE) should be used whenever necessary for analysis.)*

MPO Scoping Standards – New Terrain Corridor

Corridor – The corridor will include one travel lane in each direction with dedicated left turn lanes at signalized intersections and should follow the required standards of a US Route as defined by INDOT, the INDOT Design Manual, or INDOT Driveway Permitting. (*Please Note: Per INDOT, it is suggested that because of the presence of wetlands/potential unconsolidated soils that significant geotechnical evaluation should be considered.*)

Access Management – The corridor will include a 16-foot wide median (includes 2 ft on each side for curb & gutter) that includes a mixture of grass lawn, plantings, and trees that adhere to all INDOT requirements to ensure sight visibility. All roadways that access the corridor should adhere to the *Pendleton Access Management & Control Ordinance*. Pedestrian refuge islands should be incorporated into the median whenever a pedestrian crossing is present.

Buffer - All trail or sidewalk segments will be constructed to maintain a minimum of a 6' buffer between the nearest edge of pavement along the adjacent primary roadway and the nearest edge of pavement of the trail. Where prevailing speeds are above 35 mph & a buffer of 6' cannot be maintained because of excessive cost and/or the need for design flexibility on the project, a barrier (wood, concrete, metal guardrail, or similar) will be constructed to separate the trail segment from the primary roadway.

Crossing(s) (sidewalk & trail) - Where trail segments cross the primary public roadway and prevailing speeds exceed 35 mph, enhanced crossing signage, such as Rapid-Rectangular Flashing Beacons (RRFB), Pedestrian Hybrid Beacons (PHB), or similar will be installed along with high visibility crosswalk markings (continental, zebra, or ladder). Pedestrian-Actuated Signals must be installed at all four (4) crossings of the intersection and include crossings in all directions, whether or not Bicycle & Pedestrian infrastructure exists currently.

Signage – Pedestrian and Bicycle signage as required by the MUTCD Manual and per PROWAG (Public Rights-of-Way Accessibility Guidelines) will also be installed throughout the project. Wayfinding signage, mileage markers, trail markers, and directional trail signage will also be installed throughout the project.

Lighting – Pedestrian-oriented lighting, especially at all pedestrian crossings over/under any public roadway or alleyway, will also be installed throughout the entirety of the project corridor via approval of an INDOT Lighting Plan.

ADA & PROWAG - The proposed project will be constructed to maintain ADA Accessibility and continuous pedestrian and bicycle connectivity to achieve standards prescribed in PROWAG (Public Rights-of-Way Accessibility Guidelines). Perpendicular Curb Ramp Pairs will be used unless acquisition of additional right-of-way (ROW) is required and a structure (especially historic) directly abuts the project area and demolition is the only alternate option.

Amenities – The proposed project will also include a minimum of one (1) **pedestrian rest area** (benches) and may also include one (1) **bicycle rack** and one (1) **trash receptacle** to be installed along the project corridor.

Data Collection – The proposed project will also include at a minimum the installation of permanent and continuous bicycle pedestrian counting equipment at one (1) **location**. Where a bicycle and/or pedestrian facility is being installed on both sides of a corridor, parallel counting equipment should be installed. The type of selected equipment should consider the context of the location, i.e. isolated trail systems are likely to use equipment such as a paired passive infrared post and inductive loop, while

sidewalks in an urban context are likely to use equipment such as cameras for detection. Equipment should offer the ability for real-time data updates via Bluetooth or similar connections.

MPO Scoping Standards – Intersection Improvement

Intersection – The intersection will be signalized or a roundabout and will consider all necessary approaches, dedicated left turning lanes, and connection of extended and proposed medians into the intersection. The proposed phase will also provide improvements to the signalized intersection for pedestrians, bicycles, and vehicles per an approved INDOT Driveway Permit, which will require the completion of a Traffic Impact Study (TIS). Additionally, it will extend the existing sidewalk along the north side of Water Street to the intersection.

Access Management – The corridor will continue the median along US 36/SR 9/SR 67 south of Water Street from both the northern and southern approaches to the intersection. The median will include a mixture of grass lawn, plantings, and trees that adhere to all INDOT requirements to ensure sight visibility. All roadways that access the corridor should adhere to the *Pendleton Access Management & Control Ordinance*. Pedestrian refuge islands should be incorporated into the median whenever a pedestrian crossing is present.

Buffer - All trail or sidewalk segments will be constructed to maintain a minimum of a 6' buffer between the nearest edge of pavement along the adjacent primary roadway and the nearest edge of pavement of the trail. Where prevailing speeds are above 35 mph & a buffer of 6' cannot be maintained because of excessive cost and/or the need for design flexibility on the project, a barrier (wood, concrete, metal guardrail, or similar) will be constructed to separate the trail segment from the primary roadway.

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Amenities – The proposed project may include *pedestrian rest area* (benches), *bicycle racks*, and *trash receptacles* to be installed at or near intersections.