



Project Purpose and Need Statement

US 30 Corridor Improvements ECMS Project #E03289

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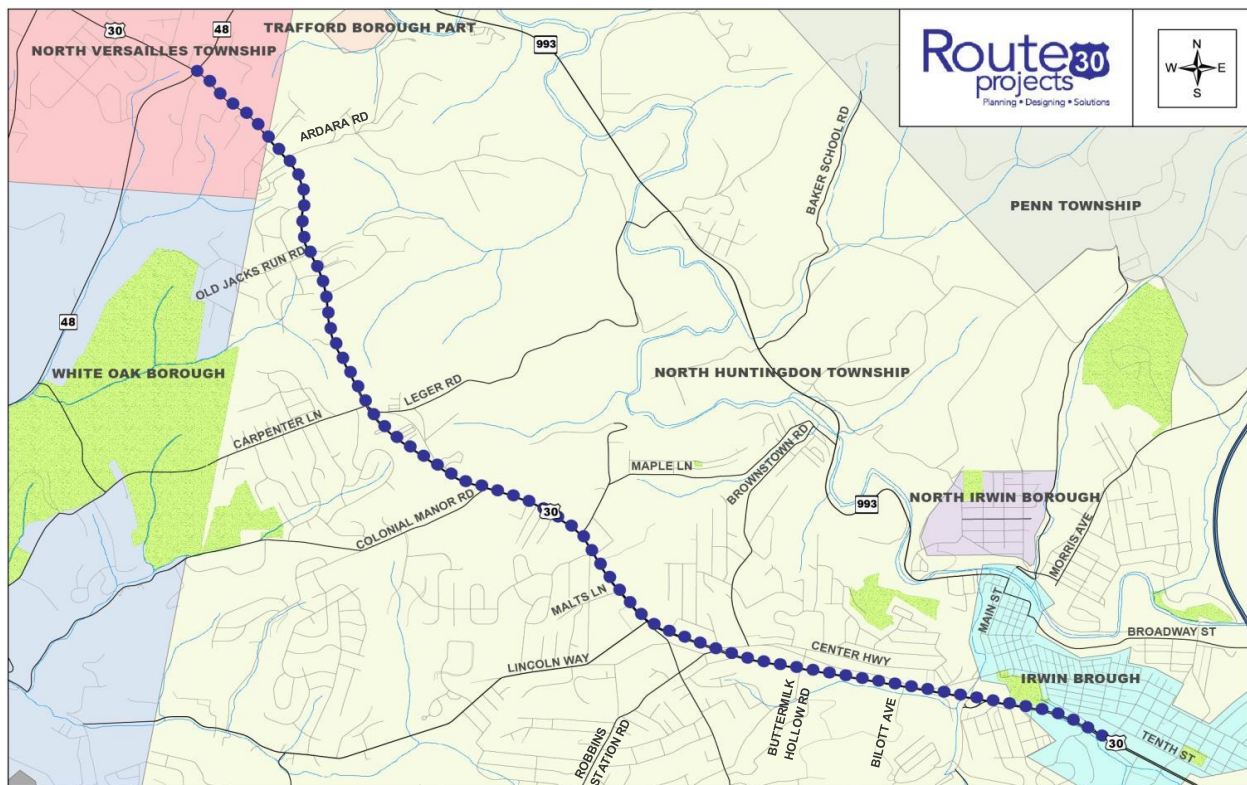
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Introduction

The Pennsylvania Department of Transportation (PennDOT), Engineering District 12-0, is analyzing an approximate six-mile portion of US Route 30 from 10th Street in Irwin Borough, Westmoreland County (PennDOT District 12-0) to its intersection with SR 48 in North Versailles Township, Allegheny County (PennDOT District 11-0). The majority of the project corridor is located in North Huntingdon Township, Westmoreland County (*Exhibit 1*). This analysis is being conducted in an effort to modernize the existing corridor in the area to improve upon existing safety conditions as well as alleviate existing and future congestion problems in the project area. This report specifically documents and summarizes the formal purpose and need statement for the project.

Exhibit 1: Project Location Map



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US 30 in the project corridor is classified as a Principal Arterial/Other Highway with a roadway typology of Regional Arterial/Suburban Corridor and projected traffic volumes of up to 31,100 vehicles daily (*Exhibit 2*). Over 80% of the 6-mile project corridor generally operates as a 4-lane section with 2 travel lanes in each direction and no turn lanes (*Exhibit 3*). Limited stretches of 5-lane section, which incorporate a center turn lane, exist for approximately ¾-mile from Malts Lane east to Robbins Station Road, and in the vicinity of 10th Street at the eastern limit of the project. The existing speed limit in the project corridor is generally posted at 40 miles per hour.

Exhibit 2: Highway/Traffic Classification and Design Volume Summary

Highway Classification		
Federal Functional Classification	Principal Arterial/Other Highways	
Roadway Typology	Regional Arterial, Suburban Corridor	
Traffic Design Volumes	West of Lincoln Way	East of Lincoln Way
AADT (2015 Base Year)	20,800	26,800
AADT (2025 Opening Year)	22,200	28,200
AADT (2045 Design Year)	25,100	31,100
K	10.5%	11.0%
DHV	2,650	3,400
Truck %	4%	4%
Directional Distribution	51%	53%

Source: Route 30 Projects Highway Deficiency and Design Criteria Report

Exhibit 3: Route 30 Typical Four-Lane Section



Location: Route 30 looking west toward Colonial Manor Road



Location: Route 30 looking east near Buttermilk Hollow Rd

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Project Purpose

The overall purpose of the project is to **modernize the US 30 corridor infrastructure, thereby improving the safety, mobility, and economic vitality of the corridor.** The US 30 corridor was initially constructed in 1937 and displays facility deficiencies that do not meet current PennDOT design standards.

The primary purposes of the project are to improve:

- **Safety conditions** for the traveling public.
- **Operational deficiencies** to enhance mobility through the corridor.
- **Facility and infrastructure deficiencies** to provide a reliable and sustainable facility.
- **Community and economic development constraints** that prevent the corridor from aligning with Westmoreland County's future economic development plans and local community interests, including providing and updating multimodal (pedestrian, bicycle, transit) infrastructure.

Project Need

The current US 30 Corridor being investigated as a part of this project was constructed in 1937 and displays numerous roadway features that need to be upgraded to comply with current PennDOT design standards. The following outlines the deficiencies identified in various reports generated or research conducted related to this project.

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Safety Conditions

Vehicular Crash Patterns

A safety study was conducted for the project with the results presented in the *US 30 Corridor Safety Study Report* (Safety Report). Below are some key issues that were discussed in the Safety Report.

- There were 422 crashes in the project area between 2010 and 2014. Rear end and angle crash types comprised over 77% of all intersection crashes and almost 63% of all segment crashes. The proportion of rear end crashes, specifically, was almost double the comparable statewide average for crash type proportions, near 42% in the corridor versus 22% statewide.
- There were 2 fatalities along the corridor, though with no related trend or pattern. Injury crashes and Property Damage Only crashes comprised around 45% and 55% of the crash total, respectively, which is generally consistent with statewide proportions. Of the crashes involving injuries, Moderate and Major injury crashes comprised approximately 28% of the injury totals, compared to just under 19% for the comparable statewide proportion. Minor injuries (43%) and Unknown Severity (28%) were each slightly lower than comparable statewide proportions.
- Crash assessments based on crash rate analysis identified three segments throughout the corridor with crash rates that exceeded the comparable statewide average crash rate of 2.33 crashes per million vehicle miles (MVM) travelled. The specific segments encompassed US 30 near SR 48 (2.51 crashes per MVM), US 30 near Colonial Manor Road (3.34 crashes per MVM), and US 30 near Robbins Station Road (2.58 crashes per MVM).
- Crash assessments based on the Highway Safety Manual (HSM) methodologies suggested one segment and three intersections throughout the corridor that showed positive potential for safety improvement. The specific segment encompassed US 30 from approximately Shrader Lane to Malts Lane, while the three specific intersections matched those that were encompassed in the crash rate analyses, including US 30 at SR 48, US 30 at Colonial Manor Road, and US 30 at Robbins Station Road.
- Driver error was cited in 94% of all US 30 crashes, with the most common errors relating to speed (e.g. Speeding, Too Fast for Conditions, Failure to Maintain Proper Speed, Sudden Slowing/Stopping) or judgement (e.g. Proceeding without Clearance, Careless Lane Change, Improper or Careless Turns, Improper Entrance to the Highway, Tailgating).
- There were 11 specific crash clusters reviewed at key locations throughout the corridor. Of these, at least half of the locations did not have left-turn lanes along US 30 or were observed to have inadequate storage length where turn lanes were present (i.e. queue spillback from the turn bay was observed). These conditions, coupled with the rear end and angle crash type and driver error statistics noted above, as well as anecdotal evidence from numerous stakeholder and public outreach and survey comments, imply that turning movements off of or onto US 30 are a key safety concern.

Driver error has been documented as the most common reason for crashes within the project area. Common driver errors in the project area include travelling too fast for conditions, “proceeding without clearance, careless lane change, improper or careless turns, and improper entrance to the highway”. It is noted that these types of crashes may be attributed to the “high number of intersections and driveways along the corridor...combined with high traffic volumes and congested traffic conditions.” Furthermore, many of the driveways and intersections in the Route 30 Corridor are un-signalized. An on-line public survey was conducted for the project as a part of the Traffic Report to gather input on the roadway system from the travelling public which utilizes this section of Route 30. According to the survey, one of the top three concerns in the project corridor included crash and safety concerns (15% of all respondents).

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Drainage and Infrastructure Related Safety Issues

Based on details from a separate *Highway Deficiency and Design Criteria Report* (HD&DC Report) developed for the project, other safety issues may pertain to various existing drainage and infrastructure or roadway deficiencies. The HD&DC Report stated, for example, that drainage issues within the corridor are of “major concern”, including:

- Numerous stormwater ponding locations increase potential risk and delay for vehicles traveling the corridor.
- Excessive stormwater spread, due in part to stormwater ponding, leads to stormwater encroachment into vehicular travel lanes, which presents hydroplaning issues.
- Numerous open top inlets and exposed headwalls along the shoulders of this corridor are unprotected, which creates a hazard should a vehicle leave the travel way.
- Stormwater erosion has caused various inlet and drainage pipes to become exposed. Furthermore, stormwater erosion along slopes, both above and below the corridor, is present at many locations along the corridor.

Concerns with drainage issues related to safety in the corridor were also mentioned by attendees at the public advisory committee meetings and public meetings held for the project. Ponding on the roadway and subsequent hydroplaning of vehicles travelling in the area during rain events was one particular concern voiced at these meetings.

Other infrastructure or roadway related safety issues include driveway entrances and side road intersections that lack sufficient sight distance for entry to the roadway. Additionally, falling rock has been observed in portions of the corridor.

Operational Deficiencies

Intersection Level of Service Failures

Roadway congestion has been identified as a significant issue associated with the Route 30 corridor. The *Traffic Report for Base and No-Build Conditions* (Traffic Report) prepared for the project was developed to evaluate Base Year 2015 traffic conditions and Future Year 2045 No-Build traffic conditions within the study area. A few of the studies completed for development of the Traffic Report relative to congestion are summarized below.

Several signalized intersections within the study area were modeled and analyzed to determine Level of Service (LOS) for these intersections on the Route 30 corridor along with three other signalized intersections near Route 30 which are affected by traffic along the corridor. A total of 11 different intersections were modeled for the Traffic Report. The study software was calibrated with data collected in the field to analyze the weekday AM and PM and Saturday midday peak periods. The results of this analysis determined that there will be a degradation in LOS at 9 of the 11 intersections evaluated between the Base Year 2015 and the Future Year 2045 No-Build scenario. The following lists those intersections which were determined to operate at unacceptable levels (LOS E/F) for the Base Year 2015:

- The Route 30 and SR 48 intersection was determined to operate at an LOS E during the AM and Saturday midday peaks and at a LOS F during the PM peak period.
- The Route 30 and Robins Station Road/Lincoln Highway intersection was determined to operate at a LOS E during the PM peak period.
- The other intersections modeled and analyzed for the project were determined to operate acceptably (LOS A, B, C, or D) for the Base Year 2015.

The results of traffic model simulation for the Future No-Build traffic operations displayed a LOS degradation at nine (9) of the project area intersections and are listed as follows:

- The Route 30 and SR 48 intersection degraded to operate at an LOS F during each of the peak periods evaluated (AM Peak, PM Peak, and Saturday Midday Peak).
- The Route 30 and Carpenter Lane/Leger Road intersection degraded to operate at a LOS F during the PM Peak period.
- The Route 30 and Malts Lane intersection degraded to operate at a LOS E during the PM Peak period.
- The Route 30 and Lincoln Way intersection degraded to operate at a LOS E during the PM Peak period.
- The Route 30 and Robins Station Road/Lincoln Highway intersection degraded to operate at a LOS E during the AM Peak and Saturday Midday Peak periods and at a LOS F during the PM Peak period.
- The Lincoln Way and Bethel Road/Maus Drive intersection degraded to operate at a LOS F during the PM Peak period.
- The Robbins Station Road and Clay Pike intersection degraded to operate at a LOS F during the PM Peak period.

To summarize, five (5) of the intersections demonstrated a degradation to an unacceptable level (LOS E/F) during at least one of the peak periods evaluated. Three of the four intersections that experienced cycle failures were those that displayed an unacceptable LOS for the Base Year 2015 during at least one of the peak periods evaluated. All of the intersections that experienced cycle failures were those that displayed an unacceptable LOS for the Future Year 2045 No-Build during at least one of the peak periods evaluated.

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Excessive Queuing

Queuing Studies were conducted at several intersections throughout the project corridor. This study determined that there are four (4) intersections where problems associated with queuing were observed. The queuing problems equated to cycle failures in these locations. Cycle failures “occur when a vehicle arrives during a red indication and waits through an entire green phase without passing through the intersection.” The intersections where this situation was identified include:

- Route 30 and SR 48 (all side-street and left-turn movements periodically throughout the day);
- Route 30 and Carpenter Lane/Leger Road (westbound lefts during the PM peak period);
- Route 30 and Lincoln Way (northbound rights during the PM peak period); and
- Route 30 and Robbins Station Road/Center Highway (northbound through-movements during the PM peak period).

Excessive queuing and queue spillback contribute to congestion and safety concerns at multiple locations in the corridor. Additional information regarding specific locations and problems associated with excessive queuing and queue spillback are discussed under the Congestion Conditions section.

Corridor Travel and Access Deficiencies

An analysis of vehicular travel times through the project corridor was conducted as a part of the Traffic Report implementing the Base Year 2015 travel times and Future Year 2045 No-Build travel times. Actual travel times along US 30 of 10-13 minutes under 2015 Base conditions, or 10-21 minutes under 2045 No-Build conditions, exceed the theoretical travel time of just under 8 minutes at the posted speed limit with no stops. Travel delays under 2045 No-Build conditions are projected to increase as much as 30% (3 additional minutes) westbound during the AM peak period, 40% (4 additional minutes) westbound during the PM peak period, and 65% (8 additional minutes) eastbound during the PM peak period.

Travel time reliability along US 30 will degrade substantially under 2045 No-Build conditions. Variations in travel time under 2015 Base conditions (10-13 minutes) reflect a 3 minute difference between peaks, whereas variations in travel time under 2045 No-Build conditions (10-21 minutes) reflect more than a 10 minute difference between peaks, as well as a reduction in average network speeds of as much as 40% during the 2045 PM peak.

A gap study was also completed as a part of the Traffic Report prepared for the project. The gap study included four locations in the project corridor listed below:

- Route 30 and Ardara Road
- Route 30 and Bilott Avenue
- Route 30 and Skellytown Road
- Route 30 and Toddler Town Drive

The Highway Capacity Manual (HCM) 2010 methodology describes that 35.0 seconds of waiting is unacceptable for an intersection without a traffic signal. This equates to 58% of a minute. Therefore, a percentage of acceptable gap of less than 42% will most likely result in an unacceptable operation. Measured gap data indicates that for turning maneuvers onto or off US 30, acceptable gaps in traffic were not consistently available for at least 42% of the time – the project’s minimum established threshold for acceptable operations – at any of the four locations that were observed during the AM and PM peak periods. Acceptable gaps for left-turns from the side-streets onto US 30, in particular, were only available for as little as 7% (at Bilott Road) to 33% (at Ardara Road) of the observed peak periods.

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Acceptable gaps for left-turns off US 30 were likewise not available at the Bilott Road and Skellytown Road observation sites during the PM peak period, and only marginally available at the Ardara Road site. Coupled with many locations along the corridor that do not have a protected left-turn lane, turning vehicles must often stop and queue in the left through-travel (passing) lane while waiting for a gap in traffic. Such conditions increase the turning vehicles' exposure and risk while stopped, introduce additional travel delay and unexpected slowing/stopping or lane-changes for through-traffic, and increase the likelihood that drivers will force their turning maneuver more aggressively (i.e. accepting less than their typical acceptable gap).

An on-line public survey was conducted as part of the project's public outreach effort and received over 900 responses. For survey purposes, the corridor was divided into 18 key locations; and respondents were asked to rate (1) the ability to safely enter/exit the destinations and (2) the overall traffic congestion at each location. Survey results identified the top three concerns in the project corridor as left turn issues (27% of all respondents), congestion/queuing (16% of all respondents), and crash and safety concerns (15% of all respondents). Left Turn Issues were also leading or amongst the top three concerns at 14 of the 18 key locations explored by the survey.

SPC Congestion Management Process (CMP) – Corridor #89

The Route 30 Corridor is part of Corridor #89 identified by the Southwestern Pennsylvania Commission (SPC) Congestion Management Process.¹ The CMP is a program that regional planning commissions, such as SPC, are required to maintain per federal transportation laws to address and manage traffic congestion. SPC data and reports for this corridor identify a total of seven (7) "Nodes" within Corridor 89. Five of these nodes are intersections within the Route 30 Project Corridor and are listed below:

- Route 30 and SR 48 intersection;
- Route 30 and Old Jacks Run Road intersection;
- Route 30 and Colonial Manor Road intersection;
- Route 30 and Robbins Station Road intersection; and
- Route 30 and Fairwood Drive/10th Street intersection.

Data gathered from 2014 and utilized for development of the SPC CMP efforts indicates that actual travel time throughout the corridor exceeds the expected travel times at the posted speed limits. According to the SPC data, eastbound traffic flow between the Route 48 to Old Jacks Run Road nodes, the Robbins Station Road to Fairwood Drive/10th Street nodes, and westbound traffic from the Colonial Manor Road to Old Jacks Run Road nodes, traffic is moving near the expected travel times for the posted speed limit in these sections. Travel time throughout the other sections of the corridor exceed the expected travel times for the posted speed limits.

Congestion Conditions Summary

It has been documented that roadway congestion is a significant issue associated with the Route 30 corridor. Studies conducted for the Traffic Report relative to congestion included Queuing Studies, LOS evaluations of several intersections within the corridor, corridor travel times, and Gap Studies.

Queuing problems identified in the corridor equate to cycle failures at several intersections through the corridor. As described previously, cycle failures "occur when a vehicle arrives during a red indication and waits through an entire green phase without passing through the intersection." Cycle failures were observed at four intersections

¹ SPC Congestion Management Corridors: Allegheny and Westmoreland Counties; Corridor 89: US 30 (N. Versailles - Turnpike); see http://www.spcregion.org/trans_cong_detail.asp?CorridorNumber=89

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within the corridor. The excessive queuing and queue spillback contribute to congestion and safety concerns at multiple locations. Spillback from the Robbins Station Road intersection, in particular, impacts upstream and side-street operations to the west on US 30 past Malts Lane, to the south on Lincoln Way past Bethel Road, to the south on Robbins Station Road past Clay Pike, and to the north along Center Highway. Turn lane queues also exceed available storage lengths and impact through-traffic in at least two locations including US 30 at SR 48 (all approaches) and US 30 at Lincoln Way (westbound lefts and northbound rights).

Intersection LOS evaluations were conducted for 11 different intersections in the Traffic Report. The LOS was determined for these intersections using the Base Year 2015 operations and the Future Year 2045 No-Build operations. Data collected was used to analyze the weekday AM and PM and Saturday midday peak periods. Operation at unacceptable levels (LOS E/F) were observed at two intersections under the Base Year 2015. Analysis conducted for the project determined that a degradation in LOS will occur at 9 of the 11 intersections under the Future Year 2045 No-Build scenario. Additional information regarding LOS evaluations can be found in [the Intersection Level of Service Failures and Excessive Queuing section](#) discussed previously in this document.

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Facility and Infrastructure Deficiencies

The project's HD&DC Report outlines facility features that do not meet current PennDOT design standards. Primary deficiencies include roadway design deficiencies, drainage issues, pavement issues and other general roadway issues.

Roadway Design Summary/Deficiencies

Existing roadway shoulders observed within the corridor varied in width from non-existent to 9.5 feet; while existing lanes varied in width from 10.5 feet to 12 feet. Per recommended PennDOT criteria (Design Manual 2), roadway shoulder widths should be between 8 feet and 12 feet, and required lane widths should be 11 feet to 12 feet. There are no sidewalks present in the project area, however recommended PennDOT criteria calls for 5 foot to 6 foot wide sidewalks. Various other geometrical features of the roadway throughout the corridor do not meet current PennDOT criteria and will be evaluated during preliminary engineering.

Drainage Issues

According to the HD&DC Report, drainage issues within the corridor are of "major concern". Ponding, erosion, clogged inlets, obsolete inlets/headwall systems, exposed pipes, low points, and heavy run-off areas have all been identified as prominent drainage issues. The following drainage issues are listed in the HD&DC Report:

- Inadequate inlet spacing and placement (per PennDOT's Drainage Manual).
- Numerous open top inlets and exposed headwalls along the shoulders of this corridor are obsolete and present safety concerns.
- Uncollected stormwater runoff allows stormwater from the corridor to enter residential and commercial property.
- Areas of undocumented removal/backfilling of existing drainage pipe and ditches are problematic.

Drainage issues within the corridor were also brought to the attention of the project team during public advisory committee meetings and public meetings held for the project. At these meetings, the public discussed drainage problems throughout the corridor. The drainage problems discussed at these meetings were described by the public as causing travel concerns due to ponding on the roadway during rain events. These drainage problems have also been described to be causing erosive conditions on the downslope areas of the landscape in the project area.

Pavement Issues

Pavement issues observed within the corridor include cracking, spalling, potholes, and pitting. According to PennDOT's Pavement History website, the existing concrete base layer was installed in 1937. PennDOT's Pavement Policy Manual states that concrete pavement older than 55 years should be reconstructed. The existing concrete base layer has been in place for 79 years.

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PennDOT pavement data for International Roughness Index (IRI) is generally an expression of the pavement smoothness or “rideability” of the roadway. IRI data from PennDOT District 12 and PennDOT MPMS IQ² indicates that of the 24 roadway segments within the US 30 project limits (12 segments in each direction), the majority of IRI ratings are in the Poor/Fair range, including 2 Poor, 15 Fair, 6 Good, and 1 Excellent segments, with resurfacing years from 2006 to 2011.

PennDOT pavement data for Overall Pavement Index (OPI) is generally an expression of the existing pavement conditions or performance based on a combination of IRI roughness indices and pavement distress indices for cracking, edge deterioration, rutting, or similar conditions. OPI data from PennDOT District 12 and PennDOT MPMS IQ indicates that a majority of OPI ratings are in the Poor/Fair range, including 2 Poor, 12 Fair, and 10 Good segments, based on pavement condition observations mostly from 2016.

Other General Roadway Issues

Other general roadway issues throughout the US 30 corridor include the following:

- There are numerous Clear Zone Concept concerns along the corridor (see HD&DC Report for details).
- There are numerous driveway entrances and side road intersections that lack sufficient horizontal sight distance for entry to the roadway.
- There are four (4) signalized intersections that have at least one skewed leg.
- Falling rock has been observed within the corridor.

² *Multimodal Project Mapping System Interactive Query*; see http://www.dot7.state.pa.us/MPMS_IQ/Mapping#

Community and Economic Development Constraints

Future Economic Development Constraints

Westmoreland County has identified an “Urban/Suburban Development Triangle” in the Westmoreland County Comprehensive Plan where growth within the county has been historically concentrated. As described in the County Comprehensive Plan, the county aims to direct future development within this triangle. The Route 30 Corridor Project is centrally located within this triangle travelling in a general east – west direction.

The County Comprehensive Plan includes a section on the transportation network in the county. The County Comprehensive Plan identifies US 30 as a “transportation spine” for the county as it is a heavily travelled corridor which supports development as it is not a limited access highway. As described previously, this corridor is centrally located within the “Urban/Suburban Development Triangle” identified in the County Comprehensive Plan. It is further described that the US 30 corridor is the primary area of congestion in the county and is a major problem. The problem area for congestion on US 30 is described from the Allegheny County line east through Latrobe. This area includes the Route 30 Corridor project area. It is further described in the County Comprehensive Plan that the roadway layout combined with dense commercial development contributes to the congestion in the project corridor. It is also described that widening of the US 30 corridor may be problematic due to topographical constraints in the area along with existing developed properties in close proximity to the roadway. The final statement regarding congestion in the County Comprehensive Plan reads “If increasing the capacity of the road is not a feasible option, then reducing congestion must be the goal.”

Review of North Huntingdon Township’s Planning and Zoning reports indicated that there were 85 new residential home building permits issued in 2015. Through April of 2016, 23 new residential home building permits have been issued. These additional homes in the township may further add to congestion issues in the project area.

For these reasons, it is expected that traffic volumes throughout the Route 30 Corridor will increase. This would result in additional congestion within the corridor under a No-Build scenario. Furthermore, it is forecasted in the Traffic Report that the overall travel time through the project corridor will increase from an average of 10 to 13 minutes during the Base Year 2015 to 10 to 21 minutes for the Future Year 2045 under no-build conditions. This in turn, may result in additional congestion and safety concerns through the corridor. As noted in the Safety Report, rear end and angle crashes may be attributed to the “high number of intersections and driveways along the corridor...combined with high traffic volumes and congested traffic conditions.”

Inadequate Multimodal Infrastructure and Community Connectivity

No sidewalks or bicycle lanes are present along the project corridor, though pedestrian activity was periodically observed. Much of the corridor includes development that could regularly attract non-vehicular traffic that serves potential access between retail, restaurant, or local businesses and nearby residential communities or schools.

No marked bus stops or related pedestrian connections are present along US 30, though advertised Westmoreland Transit stops include US 30 westbound at four locations (Hamilton Road, Colonial Manor Road, Magnus Lane, and Woodside Drive) and US 30 eastbound at three locations (Woodside Drive, Old Jack’s Run Road, and Bethel Road).

One park and ride lot serving Westmoreland Transit Routes 1F, 3F, 4, and 4S is located in the project corridor near US 30 at Carpenter Lane. The approximately 300-space lot exceeds 90% utilization on average with approximately 40 bus trips daily. Bus drop-offs in the PM peak were noted to cause short-term traffic surges and introduce localized congestion and access concerns for the US 30 at Carpenter Lane intersection.

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PA On Track, the 2016 Pennsylvania Long Range Transportation Plan (LRTP), identifies the importance of public transportation as a key factor in the transportation network, and the state has historically been committed to funding services and operations for public transportation. The LRTP also highlights Pennsylvania’s aging population trend, noting that “by 2040, the state’s share of population age 65 and older is expected to increase from 16 percent today to over 23 percent”. It further notes that “this demographic group is typically more dependent on bicycling, walking, and public transportation.” Coupled with an under age 18 demographic, which may have similar dependencies, a substantial portion of the total population will continue to become more dependent on multimodal transportation options. As the demographic make-up of areas in and around the US 30 project corridor were found to be similar to statewide trends, this potential dependency likewise holds true within the immediate project area. Versus overall population, demographic details³ for Pennsylvania, Westmoreland County, and North Huntingdon Township include the following:

- Pennsylvania: 21.3% under age 18 16.3% age 65 and older *(total 37.6%)*
- Westmoreland County: 19.1% under age 18 20.1% age 65 and older *(total 39.2%)*
- North Huntingdon Township: 21.3% under age 18 18.4% age 65 and older *(total 39.7%)*

During the public advisory committee meeting and the public meeting held for the project, representatives from the Borough of Irwin described that the downtown area or Irwin is somewhat cut-off from through traffic on Route 30. In order to access the downtown area travelling on US 30 from the east, traffic must travel on 10th Street and Chestnut Street. The existing land use along these streets is residential. Representatives from the Borough requested a better access route which would allow traffic into Irwin without travelling through residential neighborhoods.

³ Compiled based on data from the U.S. Census Bureau, 2011-2015 American Community Survey 5-Year Estimates, www.census.gov/.

Potential Corridor/Project Segmentation

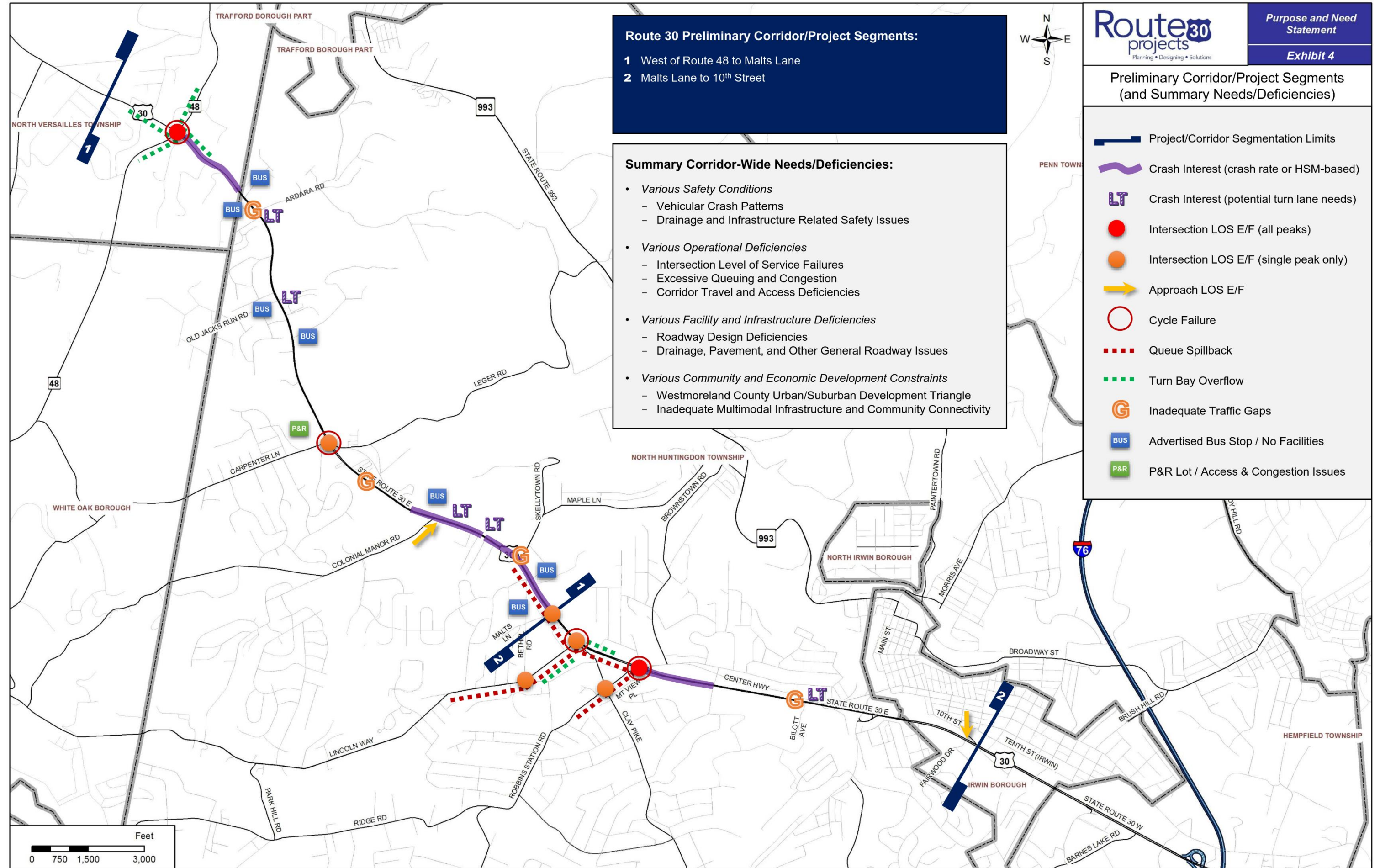
Based on the technical and outreach components of the US 30 Corridor Projects study to-date, the project team has developed an initial set of potential corridor/project segments for consideration relative to future project study, design, funding, and/or construction efforts. This segmentation considers the findings of relevant safety, traffic, highway, infrastructure, and environmental analyses for the Base and Future No-Build conditions, coupled with insights from the project's advisory committee, stakeholder committee, and general public meetings, as well as direct guidance from PennDOT District 12-0. While the corridor/project segmentation may evolve throughout future phases of this study, an initial set of possibilities that provide logical termini and independent utility are shown in *Exhibit 4*, which includes the following:

- Route 30 Projects Segment 1: West of Route 48 to Malts Lane⁴
- Route 30 Projects Segment 2: Malts Lane to 10th Street

It was generally determined that the overall Purpose & Need Statement described by this document is equally valid for each of the above segments. However, the individual segments encompass different focal points that may require different analysis or design treatments moving forward. The degree to which specific needs apply may also vary slightly by segment, though all needs are generally relevant throughout the overall corridor.

⁴ Pending the development of improvement alternatives, it is anticipated that a logical western terminus for Segment 1 may need to extend west of the US 30 and Route 48 intersection (as has been listed here) to incorporate the eastbound intersection approach at Route 48. Reasonable limits could extend, for example, approximately 2000' west to Leuhm Avenue, or 800' west to Dix Drive.

Exhibit 4: Route 30 Preliminary Corridor/Project Segments (and Summary Needs/Deficiencies)



Route 30 Preliminary Corridor/Project Segments:

- 1 West of Route 48 to Malts Lane
- 2 Malts Lane to 10th Street

- Summary Corridor-Wide Needs/Deficiencies:**
- *Various Safety Conditions*
 - Vehicular Crash Patterns
 - Drainage and Infrastructure Related Safety Issues
 - *Various Operational Deficiencies*
 - Intersection Level of Service Failures
 - Excessive Queuing and Congestion
 - Corridor Travel and Access Deficiencies
 - *Various Facility and Infrastructure Deficiencies*
 - Roadway Design Deficiencies
 - Drainage, Pavement, and Other General Roadway Issues
 - *Various Community and Economic Development Constraints*
 - Westmoreland County Urban/Suburban Development Triangle
 - Inadequate Multimodal Infrastructure and Community Connectivity

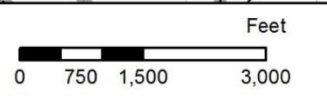
Route 30
projects
Planning • Designing • Solutions

Purpose and Need Statement

Exhibit 4

Preliminary Corridor/Project Segments (and Summary Needs/Deficiencies)

- Project/Corridor Segmentation Limits
- Crash Interest (crash rate or HSM-based)
- Crash Interest (potential turn lane needs)
- Intersection LOS E/F (all peaks)
- Intersection LOS E/F (single peak only)
- Approach LOS E/F
- Cycle Failure
- Queue Spillback
- Turn Bay Overflow
- Inadequate Traffic Gaps
- Advertised Bus Stop / No Facilities
- P&R Lot / Access & Congestion Issues



References

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