



# OHIO DEPARTMENT OF TRANSPORTATION

DISTRICT 12  
5500 TRANSPORTATION BLVD. • GARFIELD HGTS., OH 44125 • 216-581-2100

## **Supplemental Re-Evaluation** for **CUY SR 082 10.17 Widening PID 96947** **Environmental Document Level: D1**

**Approved: 8/26/2020**

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*The environmental review, consultation, and other actions required by applicable Federal environmental laws for this project are being, or have been, carried out by ODOT pursuant to 23 U.S.C. 327 and a Memorandum of Understanding dated June 6, 2018, and executed by FHWA and ODOT.*

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**Re-evaluation Level**

**Explain why a re-evaluation is needed?**

The addition of 210-feet of sidewalk outside the original study area has been added to design. The re-evaluation will only review the new area for impacts.



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**Project Type**

**Please check all of the following actions that apply (Must check at least one):**

(13) Actions described in 23 CFR 771.117 (c)(26), (c)(27), and (c)(28) that do not meet the constraints listed in 23 CFR 771.117(e). (a) Project types that exceed thresholds in Appendix A (b) Project types that exceed thresholds in Appendix B



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## General Project Information

### Project, Cost Schedule and Work Limits

<b>Environmental Document Level:</b>	D1
<b>PID:</b>	96947
<b>Project Name:</b>	CUY SR 082 10.17 Widening
<b>Project Sponsor:</b>	Broadview Heights, City of
<b>ODOT District:</b>	12
<b>Funding Source:</b>	Federal
<b>Private Funding:</b>	No
<b>Local Public Funding:</b>	Yes
<b>STIP Reference #:</b>	2016AMO1ID0011FD00
<b>The next phase of the proposed project is listed on the STIP</b>	Yes
<b>The current cost estimate is in line with existing federal procedures for Ohio STIP Amendments and Administration Modifications</b>	Yes
<b>Planning and Engineering:</b>	\$1,153,734.00
<b>Right of Way:</b>	\$1,495,645.00
<b>Construction:</b>	\$10,324,436.75
<b>Other:</b>	\$0.00
<b>An Interchange Modification/Justification/Operations Study (IMS/IJS/IOS) was completed</b>	No

### Project Description:

In August 2008, the Northeast Areawide Coordinating Agency (NOACA) released its list of roadway segments operating with the highest volume to capacity (v:c) ratios in Medina, Lorain, Cuyahoga, Geauga and Lake Counties. The roadway segment of SR 82 from Ledgemont Drive to Treeworth Boulevard was operating at a v:c ratio of 1.442, which was the eleventh highest corridor in the 5 county area. That is, the roadway was carrying 44% more cars than its theoretical maximum capacity. This same study projected this roadway to become the fourth most congested segment in the entire NOACA planning area by the year 2030.

In order to alleviate traffic congestion and related safety problems along the SR 82 corridor, locally known as Royalton Road, the cities of Broadview Heights and Brecksville have undertaken a comprehensive evaluation of the roadway, existing traffic conditions and projected future traffic patterns. This Safety and Corridor Study determined the type and extent of operation deficiencies along the roadway segment from Town Centre Drive to Ken Mar Industrial Parkway. The study also determined what improvements are needed to alleviate or minimize the operational and safety problems occurring along this corridor. This evaluation was completed in August 2013 with a submittal to the Ohio Department of Transportation (ODOT) Statewide Safety Review Team (SSRT), which resulted in a grant award of \$1.08M from ODOT for further plan development.



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The planned project in conjunction with the on-going improvements to the I-77/SR 82 interchange will alleviate traffic congestion and related safety problems. The majority of the accidents (73 out of 80 total) were rear end crashes indicative of excess congestion; these accidents involved vehicles waiting to turn left or waiting from upstream traffic to begin moving and being struck from behind by motorists unable to stop in time.

The project proposes to widen the existing 3 lane road to 5 lanes from Town Centre Drive to Ken Mar Industrial Parkway. Each end of the 6,200' long widening will tie into an existing 5 lane section, once the I-77 interchange improvement is completed later this year. The widened roadway results in 2 thru lanes plus a center two way left turn lane (CTWLTL) along the entire length of the roadway. This allows left turning traffic to move out of the thru lanes to alleviate points of congestion.

The existing traffic signals at Avery Road, Oxford Trail and Windswept Drive/Taylor Avenue and KenMar Industrial Parkway will be replaced with new signals, complete with mast arms and updated controllers. In addition, the offset tee intersections of Glenwood Trail and Market Place East with Royalton Road will be realigned to create a 4 way approach with a new traffic signal. At all signalized intersections, there will be dedicated left turn lanes on the SR 82 approaches. There will be a total of 5 new traffic signals.

Other project elements include a 5' wide sidewalk along the south side of the roadway and a 10' wide shared use path, for common utilization by bicyclists and pedestrians, along the north side. Lighting will be provided along both pedestrian pathways.

A new sidewalk was added to the plans in June 2020. This proposed sidewalk stretches south from SR 82 (E Royalton Rd) along the western side of Cherry Hill Lane for approximately 210-feet. A Re-Evaluation was initiated for the project to include the proposed sidewalk.

The storm sewer collection system will be completely replaced with the roadway widening project. These systems will be designed for water quality enhancements utilizing turf bioretention basins, three in all, collecting runoff from the roadway to infiltrate into the surrounding soils. In addition, volumetric control of the rate of runoff, also called stormwater management will be incorporated into the project via in-line detention. This would consist of oversized pipes and/or infiltration basins. The overall intent is to hold the peak rate of runoff from the widened roadway to the conditions currently occurring.

The majority of the roadway widening will occur to the north side of the existing roadway. This results in extensive utility pole and line relocations and the need from permanent right of way from every business or residence on the north side. Temporary easements for regrading of front yards and reconnections of drives is needed from every property owner on each side of the roadway. Note efforts are being taken to minimize the amount of property to be taken through the use of retaining walls in select areas. All right of way acquisition will be in accordance with the Federal Uniform Relocation Act. Once the design is completed and all needed areas of right of way are determined, the initial steps include an appraisal of the value of the raw land and any landscaping features or site improvements to be removed to accommodate the newly widened roadway and other ancillary features. It is anticipated right of way appraisal work will commence by the end of 2016.

Three lanes of traffic on SR 82 will be maintained at all times during construction. Access to commercial and residential drives may be curtailed at times of rebuilding the drives and will be coordinated with all property owners and business managers. If there are multiple drives to a residence or business, only one will be reconstructed at any one time.

Construction is scheduled for April 2019 thru September 2021. Total Construction cost is estimated at \$11,000,000, of which the City of Broadview Heights partnerships with NOACA and ODOT have contributed \$6,130,000 and \$835,000 respectively. The City will pursue separate funding sources for the traffic signals and stormwater quality features and additional local and state monies to fund the remaining portion.

**Limits of Proposed Work:**

SR-82 (East Royalton Rd) from east  
of SR-176 to Treeworth Blvd in  
Broadview Hts.

**Start (SLM):**

10.17

**End (SLM):**

11.59

**Total Work Length (Miles):**

1.42

Roadway Character



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**Roadway Character**

**Route Number: SR00082**

<b>Functional Classification:</b>	Principal Arterial - Other (Urban)
<b>Current Average Daily Traffic:</b>	38660
<b>Current Average Daily Traffic Year:</b>	2021
<b>Design Year Average Daily Traffic:</b>	42300
<b>Design Average Daily Traffic Year:</b>	2041
<b>Daily Hourly Volume:</b>	4510
<b>Truck %:</b>	4
<b>Setting:</b>	Urban
<b>Topography:</b>	Level

	<b>Existing:</b>	<b>Proposed:</b>
Design Speed (MPH):	35	35
Legal Speed (MPH):	35	35
Number of Lanes:	3	5
Type of Lanes:	1 EB, 1 WB, 1 TWLTL	2 EB, 2 WB, 1 TWLTL
Pavement Width (ft):	36	61
Shoulder Width (ft):	2	N/A
Median Width (ft):	N/A	N/A
Sidewalk Width (ft):	N/A	5

No bridge data for PIDs associated with this CE Form

**Maintenance of Traffic During Construction**

<b>A roadway, bridge or ramp closure is required</b>	Yes
<b>A temporary bridge or roadway is proposed</b>	No
<b>A detour is required for the proposed project</b>	Yes
<b>Access for local through traffic will be provided with appropriate signage</b>	Yes
<b>Provisions for through-traffic dependent businesses will be incorporated into project design</b>	Yes
<b>Provisions to accommodate any local special events or festivals will be incorporated into project design</b>	No
<b>The proposed MOT substantially impacts sensitive environmental resources</b>	No
<b>Substantial controversy is associated with the proposed MOT</b>	No



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**Coordination has been initiated and/or completed with local emergency services, schools, public institutions/facilities, etc.** Yes

**Remarks:**

Detours will be needed on Avery Road, Market Place East, and Glenwood Trail. Traffic will be maintained on the remaining side roads utilizing, at a minimum, flaggers and two-way, one-lane traffic. The intent is to maintain three lanes (one lane eastbound, one lane westbound, and a center two-way left turn lane) of traffic along SR-82. At a minimum, two lanes of traffic will be maintained on SR-82. Access to adjacent properties shall be maintained at all times during project construction. All signs utilized for the project will be placed according to the guidelines in the Ohio Manual on Uniform Traffic Control Devices and Ohio Department of Transportation specifications.

Minor, short-term, temporary impacts to police, fire, and emergency medical services may increase response times due to construction activities. In addition, temporary impacts to school bus service will occur during construction due to temporary detours or lane closures. The proposed project will not result in substantial impacts to health and educational facilities, public utilities, fire/police/emergency medical services, religious institutions, public transportation, pedestrian and/or bicycle facilities. Local emergency and transit services and schools will be notified by the City a minimum of 14-days in advance of project construction. Included in this notification will be the dates/times of any closures and proposed detours.

**Are there any Environmental Commitments?** Yes

**Right of Way and Utility Involvement**

**The project requires Permanent Right-of-Way** Yes

**The project requires Permanent Easement(s)** No

**The project requires Temporary Right-of-Way** Yes

**Number of parcels impacted by Permanent Right-of-Way:** 40

**Right of Way and Utility Involvement**

**Number of parcels impacted by Temporary Right-of-Way:** 72

**Approximate acreage of Permanent Right-of-Way needed:** 1.98

**Approximate acreage of Temporary Right-of-Way needed:** 5.15

**Electrical lines, gas lines, water lines, sewer lines, phone lines or other utilities exist in the project area** Yes

**Large scale transmission facilities are located within the project area** No

**Private utility easements are located within the project area** Yes

**The existing private utility easement will be impacted by the project** No

**Coordination with identified utilities has been initiated and/or completed** Yes

**Remarks:**



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Utility companies have been sent plans at the Feasibility Study, Stage 1, and Stage 2 submittal. GPD and the Cities of Broadview Heights and Brecksville met with utility companies on July 19, 2016. A follow up meeting is planned for August 16, 2016 for the utility companies unable to make the July 2016 meeting. All additional detailed design plans shall be submitted to all affected utility owners. Any comments received as a result of utility coordination shall be addressed prior to project construction.



## Purpose & Need

### Purpose & Need

#### Project History:

At the request of the City of Broadview Heights, in 2013 GPD Group (GPD) was tasked with completing a Safety and Corridor Study for the State Route (SR) 82 (Royalton Road) corridor. This corridor runs along SR 82 from Town Center Drive to Ken Mar Industrial Parkway, in the City of Broadview Heights, Cuyahoga County, Ohio.

The 2013 Safety and Corridor Study was requested following the August 2008 release of the Northeast Ohio Areawide Coordinating Agency's (NOACA) list of roadway segments operating with the highest volume to capacity (V/C) ratio in their region. The roadway segment of SR 82 between Ledgemont Drive and Treworth Boulevard was operating with a V/C ratio of 1.442 which is ranked the eleventh worst corridor in the NOACA region. The same study also projected this roadway segment to be the fourth most congested segment in the NOACA region in the year 2030. This roadway segment covers the majority of the SR 82 corridor investigated in the 2013 Safety and Corridor Study.

The 2013 Safety and Corridor Study was requested to determine what operational or safety deficiencies exist within the SR 82 corridor that contribute to the rankings on the NOACA Highest V/C Ratio List.

#### *Project Corridor*

The SR 82 corridor is approximately 1.25 miles in length between Town Center Drive and Ken Mar Industrial Parkway. The SR 82 / IR 77 interchange is approximately 0.5 miles east of the SR 82 corridor limits. Land use along the SR 82 corridor is a mixture of residential, light industrial, and commercial use.

Beginning near Town Center Drive and proceeding east, SR 82 is primarily a three (3) lane asphalt roadway with a two-way left-turn lane (TWLTL) that is designated as an exclusive left turn lane at the Avery Road and Oxford Trail intersections. Immediately east of Ken Mar Industrial Parkway, SR 82 widens to provide five (5) travel lanes (two in both directions with a TWLTL through the IR 77 interchange). The travel lanes on SR 82 are primarily 12 feet wide and the roadway has a typical cross-section of 36 feet within the project corridor. The section of SR 82 located within the corridor is an uncurbed section with a typical 4 foot paved shoulder and open ditch drainage. Street lighting is provided through luminaries which are mounted on bracket arms on utility poles. Except for a short section west of Ledgemont Drive, sidewalks do not exist through the project corridor. According to information obtained from the ODOT website, SR 82 is classified as an Urban Principal Arterial and has a posted speed limit of 35 miles per hour (mph) through the project corridor.

There are four (4) signalized intersections located within the SR 82 corridor which are summarized below:

#### *SR 82 / Avery Road Intersection:*

This four approach, signalized intersection utilizes a microprocessor type controller to operate as a fully-actuated signalized intersection. The signal has mast arms on all four quadrants with lighting provided on nearby utility poles. The existing signal heads have 12 inch lenses and provide a left turn arrow for the eastbound and westbound left turn movements. The westbound and eastbound left turn movements operate permitted and protected while the northbound and southbound approaches have no protected turn phases. The four (4) approaches to the intersection have the following approach lane configurations: NB Avery Road one (1) shared



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(left/thru/right) lane, SB Avery Road one (1) shared (left/thru/right) lane, WB SR 82 two (2) lanes (left, thru/right), and EB SR 82 - two (2) lanes (left, thru/right). Avery Road is classified as a local street.

*SR 82 / Oxford Trail / Market Place West Intersection:*

This four approach, signalized intersection utilizes a microprocessor type controller to operate as a fully-actuated signalized intersection. The signal has mast arms on all four quadrants with lighting provided on nearby utility poles. The existing signal heads have 12 inch lenses and provide a left turn arrow for the eastbound and westbound left turn movements. The westbound and eastbound left turn movements operate permitted and protected, while the northbound and southbound approaches have no protected turn phases. The four (4) approaches to the intersection have the following approach lane configurations: NB Oxford Trail - one (1) shared (left/thru/right) lane, SB Market Place West - one (1) shared (left/thru/right) lane, WB SR 82 - two (2) lanes (left, thru/right), and EB SR 82 - two (2) lanes (left, thru/right). Oxford Trail is classified as a local street.

*SR 82 / Taylor Avenue (Private) / Windswept Drive Intersection:*

This four approach, signalized intersection utilizes a microprocessor type controller to operate as a fully-actuated signalized intersection. The signal is a span-wire installation with poles on the northwest and southeast quadrants with lighting provided on nearby utility poles. The existing signal heads have 12 inch lenses and provide a left turn arrow for the eastbound and westbound left turn movements. The westbound and eastbound left turn movements operate permitted and protected, while the northbound and southbound have no protected turn phases. The four (4) approaches to the intersection have the following approach lane configurations: NB Windswept Drive - one (1) shared (left/thru/right) lane, SB Taylor Avenue (Private) - two (2) lanes (left, thru/right), WB SR 82 - two (2) lanes (left, thru/right), and EB SR 82 - two (2) lanes (left, thru/right). Oxford Trail is classified as a local street.

*SR 82 / Ken Mar Industrial Parkway Intersection:*

This three approach, signalized intersection utilizes a microprocessor type controller to operate as a fully-actuated signalized intersection. The signal is a span-wire installation with poles on the northwest and southeast quadrants with lighting provided on nearby utility poles. The existing signal heads have 12 inch lenses and there are no protected left turn phases on any approaches. The three (3) approaches to the intersection have the following approach lane configurations: SB Ken Mar Ind. Parkway - one (1) shared (left/thru/right) lane, WB SR 82 - one (1) lane (thru/right), and EB SR 82 - two (2) lanes (left, thru). Ken Mar Ind. Parkway is classified as a local street.

**Purpose Statement:**

The purpose of the proposed project is to:

1. Reduce Congestion, and
2. Improve Level of Service

on approximately 1.25 miles of SR 82 between Town Center Drive and Ken Mar Industrial Parkway, in the City of Broadview Heights, Cuyahoga County, Ohio, based upon a high degree of congestion and delay recorded at the signalized intersections and roadway segments throughout the corridor. These improvements are needed because traffic analyses have shown that this roadway corridor is projected to be the fourth most congested segment in the NOACA region in the year 2030.

**Need Element(s):**



### Crash Analysis

Crash data was obtained from the Ohio Department of Public Safety for the calendar years of 2010 to 2012.

A total of 80 crashes occurred over the SR 82 corridor during this time and were analyzed as part of the 2013 Safety and Corridor Study.

The 2013 Safety and Corridor Study concluded most of the crashes appeared to have been caused by congestion at a nearby traffic signal or an upstream traffic signal. Of the eighty (80) total crashes, seventy-three (73) were rear-end crashes which involved vehicles waiting for upstream traffic to begin moving and being struck from behind by motorists unable to stop in time. The existing two way left turn lane (TWLTL) along the SR 82 corridor allows motorists to avoid blocking the thru lane while waiting to turn into a driveway or unsignalized intersection; which validates the assumption that most of the crashes were caused by congestion along the SR 82 corridor and not access management issues.

### Traffic Analysis

The primary method to determine the operating conditions of any intersection, which directly relates to the crash potential in the area, is performing a capacity analysis of the intersection. Intersection capacity analyses were performed in order to determine the operating conditions experienced at the intersections in the SR 82 corridor. The quality of the operating condition experienced at an intersection is measured in terms of Level-of-Service (LOS). Levels-of-Service can range from LOS A to LOS F. LOS ratings of A, B, and C are considered to be in the acceptable range. LOS D is typically considered acceptable in urban areas (which the SR 82 corridor has been determined to be). LOS E and F are considered unacceptable with significant levels of delay experienced by vehicles. Based on criteria established by ODOT, Highway Capacity Software (HCS) is used to determine the required number of lanes and the lane assignments at intersections (i.e. the needed intersection capacity).

#### **Intersection Capacity Analyses Using ODOT Traffic Volumes**

Using traffic volumes provided by ODOT, intersection capacity analyses were performed utilizing the computer program HCS-Plus, developed by the McTrans Corporation based on the Highway Capacity Manual and the 2005 Edition of the Manual of Uniform Traffic Control Devices (MUTCD).

Table 1 summarizes the HCS Intersection Capacity Analysis and details the Levels-of-Service and delay experienced under the Opening Year 2016 and the Design Year 2036 without any improvements to the SR 82 corridor. *(Tables can be found in the Project File under Purpose and Need/Project Information/Purpose and Need Statement.docx)*

As shown in Table 1, all four (4) intersections are expected to operate with numerous movements and approaches operating at LOS D during the Opening Year 2016 without any improvements. According to the 2013 Safety and Corridor Study, this delay is primarily caused by the large number of vehicles traveling eastbound in the morning and returning westbound in the evening, which exceed the capacity of the existing single travel lane.

Also shown in Table 1, all four (4) study intersections are anticipated to operate at an overall LOS F during both peak hours in the Design Year 2036 with no improvements. There are also numerous movements and approaches operating at LOS E or F during both peak hours. According to the 2013 Safety and Corridor Study, this delay would also be primarily caused by the large number of vehicles traveling eastbound in the morning and returning westbound in the evening, which exceed the capacity of the existing single travel lane.

#### **Intersection Capacity Analyses Using NOACA Traffic Volumes**

The existing and future traffic volumes utilized in the ODOT HCS Intersection Capacity Analysis were submitted to NOACA in order to obtain their approval to utilize these volumes in the State Route 82 Safety and Corridor Study. NOACA staff provided comments which indicated they would prefer that different growth rates be utilized compared to the growth rates developed by ODOT Central Office. In addition to utilizing different



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growth rates, NOACA also requested that the raw traffic volumes be used rather than smoothing the traffic volumes between intersections.

In an effort to provide a worst-case analysis of the State Route 82 corridor, Design Year 2036 traffic volumes were developed using the NOACA growth rate so the corridor could be analyzed using these traffic volumes in conjunction with analyzing the corridor using the previously discussed ODOT traffic and growth rates.

Therefore, an additional set of capacity analyses were completed in the 2013 Safety and Corridor Study utilizing the Design Year 2036 traffic volumes produced utilizing the NOACA growth rates.

Using the traffic volumes developed with the NOACA growth factors intersection capacity analyses were performed utilizing the methodology outlined in the previous section and the results are shown in Table 2.

*(Tables can be found in the Project File under Purpose and Need/Project Information/Purpose and Need Statement.docx)*

As shown in Table 2, all four (4) intersections are anticipated to operate with multiple movements, approaches and overall intersections at a LOS E or F during both peak hours in the Design Year without any improvements.

According to the 2013 Safety and Corridor Study, this delay is primarily caused by the large number of vehicles traveling eastbound in the morning and returning westbound in the evening, which exceed the capacity of the existing single travel lane.

As demonstrated through the analysis of both the ODOT and NOACA traffic volume sets, the existing intersections along the SR 82 corridor are currently experiencing high levels of congestion and delay, and are projected to deteriorate to unacceptable levels by the design year of 2036 under either analysis scenario.

#### *HCS Arterial Level of Service*

In addition to the intersection Level of Service, the Highway Capacity Software Arterial Level-of-Service (LOS) analysis was also completed during the 2013 Safety and Corridor Study. The Arterial LOS Analysis is conducted to measure the LOS of a segment of road between two signalized intersections along a corridor. Acceptable Arterial Levels-of-Service range from LOS A to LOS D. Typically, Arterial Levels-of-Service that range from LOS E to F are considered unacceptable or undesirable, and contribute to the crash potential in the area.

#### *HCS Arterial Level of Service Using ODOT Traffic Volumes*

Table 3 summarizes the HCS Arterial LOS throughout the corridor under the Opening Year 2016 and Design Year 2036 "without improvements" scenarios. These arterial analyses were performed using the HCS analysis that utilized the traffic volumes derived from the ODOT growth factors. *(Tables can be found in the Project File under Purpose and Need/Project Information/Purpose and Need Statement.docx)*

As shown in Table 3, the Arterial is projected to function with segments operating at unacceptable LOS E under the Opening Year 2016 without improvements. Also shown in Table 3, the arterial is projected to degrade further to LOS F under the Design Year 2036 without improvements. The LOS F designation represents a completely gridlocked traffic condition. Based on the analyses completed during the 2013 Safety and Corridor Study, the entire corridor is projected to operate in a congested or gridlock state in the eastbound direction in the morning and in the westbound direction in the evening of the Design Year 2036 without improvements.

#### *HCS Arterial Level of Service Using NOACA Traffic Volumes*

The existing and future traffic volumes utilized in the ODOT HCS Arterial Level-of-Service Analysis were submitted to NOACA in order to obtain their approval to utilize these volumes in the State Route 82 Safety and Corridor Study. NOACA staff provided comments which indicated they would prefer that different growth rates be utilized compared to the growth rates developed by ODOT Central Office. In addition to utilizing different growth rates, NOACA also requested that the raw traffic volumes be used rather than smoothing the traffic volumes between intersections.



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In an effort to provide a worst-case analysis of the State Route 82 corridor, Design Year 2036 traffic volumes were developed using the NOACA growth rate so the corridor could be analyzed using these traffic volumes in conjunction with analyzing the corridor using the previously discussed ODOT traffic and growth rates.

Therefore, an additional set of capacity analyses were completed in the 2013 Safety and Corridor Study utilizing the Design Year 2036 traffic volumes produced utilizing the NOACA growth rates.

Table 4 summarizes the HCS Arterial LOS throughout the corridor under the Opening Year 2016 and Design Year 2036 "without improvements" scenarios using the HCS analysis that utilized the traffic volumes derived from the NOACA growth factors. *(Tables can be found in the Project File under Purpose and Need/Project Information/Purpose and Need Statement.docx)*

As shown in Table 4, the HCS Arterial LOS calculated using the NOACA traffic volumes nearly match the LOS calculated using the ODOT provided growth factors. In both cases, the existing corridor is expected to operate at an unacceptable LOS E or F in the Design Year 2036 without improvements. According to the 2013 Safety and Corridor Study, the existing and projected congestion, and resulting unacceptable LOS, is directly related to the large number of vehicles traveling eastbound in the morning and returning westbound in the evening, which exceed the capacity of the existing single travel lane.

**Goals and Objectives:**

Along with satisfying the Purpose and Need for the proposed project, the project attempted to limit impacts to residential properties where feasible.

**Summary Statement:**

The proposed project is intended to address the congestion and Level of Service issues on approximately 1.25 miles of SR 82 between Town Center Drive and Ken Mar Industrial Parkway. Based upon a high degree of congestion and delay, the corridor has been ranked the eleventh worst congested corridor in the NOACA region.

A Safety and Corridor Study completed in 2013 by GPD determined that existing conditions include high congestion and delay, as well as poor Level of Service, at the signalized intersections and the roadway segments along approximately 1.25 miles of SR 82 between Town Center Drive and Ken Mar Industrial Parkway. Further, the 2013 Safety and Corridor Study concluded that the congestion, delay, and Level of Service will degrade to unacceptable levels by the Design Year 2036. Based upon the conclusions in the Safety and Corridor Study, without improvements, this roadway corridor is projected to be the fourth most congested segment in the NOACA region in the year 2030.

**Logical Termini and Independent Utility:**

The logical termini for the proposed transportation improvement were originally established along approximately 1.25 miles of SR 82 between Town Center Drive and Ken Mar Industrial Parkway in the City of Broadview Heights, Cuyahoga County, Ohio. The termini were chosen based upon high congestion rates and poor Level of Service recorded along this segment of SR 82. To the west and east of these termini, SR 82 does not exhibit similar congestion rates, as these segments have adequate vehicle to capacity ratios which have contributed to lower crash potentials. However, the intersection of SR 82 / Ken Mar Industrial parkway is being improved under a separate project involving the IR 77 interchange. Therefore, the logical eastern terminus for the proposed transportation improvement is just to the west of this intersection.



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The proposed undertaking will reduce congestion and improve Level of Service along approximately 1.25 miles of SR 82 between Town Center Drive and Ken Mar Industrial Parkway. The proposed undertaking will provide these benefits even without the construction of other federally-funded transportation projects in the area, therefore it has independent utility.



## Alternatives

### Alternatives

#### Discuss No Build Alternative:

The No-Build Alternative does not address the existing congestion and delays at the signalized intersections and roadway segments along the section of SR-82 that is located within the proposed project area. Furthermore, the No-Build Alternative does not satisfy the Purpose and Need for the proposed project to reduce congestion and improve the Level of Service along SR-82 and meet current design standards. Based on existing and future conditions, with no improvement being made, the No-Build Alternative was eliminated from further consideration.

**Was a Feasibility Study completed?**

Yes

**Date Feasibility Study was approved:**

08/11/2015

**Was an Alternative Evaluation Report (AER) completed?**

No

#### Alternatives Considered

Name	Description	Reason Dismissed	Preferred Alternative
Option 1 Widen to North	This alternate maintained the south curb line, forcing all roadway widening on the north side of SR 82. The improved roadway section will be approximately 1.5 lanes south and 3.5 lanes north of the existing centerline of right of way.	This option will require significant right-of-way from the commercial and industrial properties along the north side of SR 82. The most notable right-of-way impact will be the loss of parking from The Atrium Office (3505 Royalton Road).	No



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Option 2 Widen Predominantly to North	The roadway section will be two (2) lanes south and three (3) lanes north of the existing centerline. This section is similar to the existing roadway sections at the tie-in points of the project (east of Town Centre Drive and west of Ken-Mar Industrial Parkway).	N/A	Yes
Option 3 Symmetrical Widening	The roadway section will be approximately 2.33 lanes south and 2.67 lanes north of the existing centerline of R/W. The widening is typically symmetric to the existing pavement.	This alternate has the greatest impacts to the residential properties on the south side of the SR 82 and does not provide significant reduction of right-of-way takes from the businesses on the north side of SR 82 as compared to Option 2. Since the goal was to try to limit the impacts to the residential properties, this option was eliminated from further consideration.	No

**Discuss Reasons Alternative Identified as Preferred was selected:**

The location of the SR 82 horizontal alignment in Option 2 is intended to shift the alignment of SR 82 northerly onto the commercial properties in attempt to minimize the right of way impacts to the commercial and residential properties along both sides of the roadway.



## Air

### Mobile Source Air Toxics (MSATs)

<b>Sensitive Areas are located within approximately 500' of the proposed project area</b>	Yes
<b>The proposed project is listed as a C1 in ODOT's CE Guidance and/or falls under 40 CFR 93.126</b>	No
<b>The proposed project involves adding capacity, a new interchange, relocating thru lanes significantly closer to sensitive areas, or expanding an intermodal center</b>	Yes
<b>Design Year ADT is &lt;140,000</b>	No
<b>Qualitative MSAT prepared</b>	Yes
<b>OES Concurrence Date</b>	08/14/2015
<b>OEPA Approval Date</b>	09/02/2015

#### Remarks:

A qualitative MSAT analysis report was prepared on August 5, 2015. In an Inter-Office Communication (IOC) dated September 2, 2015, the Ohio EPA stated that following their review of the document: The Ohio EPA does not have any additional comments on the MSAT Analysis Report. According to the FHWA Interim Guidance Updated on MSAT Analysis in NEPA (December 6, 2012), the project qualifies as a project of "Low Potential for Meaningful MSAT Effects."

- The Ohio EPA IOC can be found in the Project File under Air & Noise/Coordination/OEPA Comments.pdf

### Particulate Matter 2.5 (PM2.5)

<b>The proposed project is in an air quality non-attainment or maintenance area</b>	Yes
<b>The proposed project falls under 40 CFR 93.126</b>	No
<b>Design Year ADT &gt;125,000 and Design Year Diesel Truck Volume &gt;10,000</b>	No
<b>Significant increase in diesel trucks between Design Year No Build and Design Year Build</b>	No

#### Remarks:

The proposed project is located in a county that has been designated as being in maintenance for PM2.5. The project is not exempt, however, it is not considered to be of air quality concern based on an interagency review of project data and information according to 40 CFR 93.123(b)(1)(i-v) and Appendix B of the December 10 EPA Guidance (EPA-420-B-10-040) entitled "Transportation Conformity Guidance for Quantitative Hot-spot Analyses in PM2.5 and PM10 Nonattainment and Maintenance Areas".



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This information was provided to the FHWA, OEPA and USEPA in an e-mail correspondence from ODOT-OES dated August 4, 2015. The USEPA and OEPA concurred with this conclusion on August 26, 2015. The FHWA concurred with this conclusion on September 1, 2015.

- The FHWA, OEPA, & USEPA e-mail correspondence is included in the Project File under Air & Noise/Coordination/FHWA Concurrence of PM2.5 Determination.msg.

**Carbon (CO)**

**The State of Ohio is in attainment for CO at this time and no coordination or analysis is required**

**Ozone**

**The proposed project is in an Ozone non-attainment or maintenance area** Yes

**The proposed project is listed on the TIP** Yes

**Remarks:**

The proposed project is located in Cuyahoga County, an ozone maintenance area. However, because the proposed project is listed in the STIP/TIP, ozone is addressed. In addition, the proposed design concept and scope of work have not changed significantly since the Metropolitan Transportation Plan and TIP Conformity Determination per 40 CFR 93.115.

**Environmental Commitments**

**Are there any environmental commitments?** No



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## Noise

### Noise

Noise Sensitive Areas located within approximately 500' of the proposed project area	Yes
Noise Analysis conducted	Yes
ODOT Approval Date	09/14/2015
The proposed project is a Type I project	Yes
The proposed project constructs a roadway on new location	No
The proposed project significantly changes the existing roadway's horizontal or vertical alignment	No
The proposed project adds capacity (thru travel lanes)	Yes
The proposed project adds an auxiliary lane(s)	No
The proposed project negatively affects shielding of an existing roadway	No
The proposed project restripes existing pavement for an added thru lane or auxiliary lane	No
The proposed project adds or substantially alters an existing weigh station, rest stop, rideshare lot, or toll plaza	No
The proposed project causes a major change in vehicle mix	No
A design year noise impact was predicted	Yes
All noise attenuation measures were considered and are consistent with existing policy	Yes
Noise barriers proposed	No
The proposed project impacts identified NSAs	Yes

### Impacted Noise Sensitive Areas (NSAs)

NSA ID	Name	Address or Location	Qualify for barriers
18	Residence	Single-family residence west of Ledgemont Drive, north of SR-82	No
95-102	Residences	Single-family residences west of Kem Mar Industrial Parkway, south of SR-82	No

Remarks:



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A noise analysis was prepared by ASC Group, Inc. on September 11, 2015. The analysis was conducted in accordance with 23 CFR 772 (effective 7/13/2010); FHWA's Highway Traffic Noise: Analysis and Abatement Guidance dated January 2011 and ODOT's Highway Traffic Noise Analysis Manual dated April 2015.

The Noise Analysis identified noise levels that exceed FHWA noise impact thresholds at nine single-family residential buildings. These impact thresholds were predicted to be exceeded whether or not the project is built at all but two of the nine residences. Build noise levels exceed No-Build levels at Receptor 18, north of SR-82 by 1.4 dBA. At the remaining eight residences, located south of SR-82, Build levels exceed No-Build levels by no more than 0.5 dBA. These increases in noise levels are low enough that most people would be unaware of changes. Barriers were considered for all of these receptors, but barrier designs were not developed because they would not be effective given the presence of driveways for each residence. Construction noise is not expected to be a substantial issue.

Barriers were considered for all of the impacted receptors but were determined to not be reasonable for Receptor 18 (isolated receptor) and not to be technically feasible at the remaining impacted Receptors (95-102) due to issues with driveway access to the residences.

In an IOC dated September 14, 2015, the ODOT-OES stated that no further noise analysis or consideration of noise abatement is required for the project.

- The IOC can be found in the project file under Air & Noise/Coordination/OES Noise Analysis Approval.pdf

## **Environmental Commitments**

**Are there any environmental commitments?**

No



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**ESA**

**Does the project require any Permanent ROW or Easement?:** Yes

**ESA**

**ESA Screening Report was completed by District Staff** Yes

**Date when It was completed** 10/06/2015

**Date of ESA Screening IOC from OES:** 11/23/2015

**Do any sites require a Phase 1 ESA, Phase 2 ESA, or plan note according to the IOC from OES?** Yes

**Sites that require Phase 1 ESA, Phase 2 ESA, or Plan Note**

Site Name	Address	Phase 1 Required?	Phase 2 Required?	Plan Note Required?
Site A, Baker's Automotive	600 E. Royalton Road	Yes	No	No
Site G, Multiple Companies	2525 E. Royalton Road	Yes	No	No
Site H, Genesis Healthcare Skilled Nursing and Rehabilitation	2801 E. Royalton Road	Yes	No	No
Site K, CC Mitchell Appliances	3001 E. Royalton Road	Yes	No	No
Site L, Rumpke	3131 E. Royalton Road	Yes	No	No
Site M, Market Place Business Park	3201 E. Royalton Road	Yes	No	No
Site N, Market Place Business Park	3301 E. Royalton Road	Yes	No	No
Site Q, Vacant	3993 E. Royalton Road	Yes	No	No
Site S, Broadview Heating	9191 Postal Road	Yes	No	No
Norton Environmental Landfill; Royalton Road Sanitary Landfill	9100 Market Place	Yes	No	No

**Date of Phase 1 ESA IOC from OES:** 04/29/2016

**Remarks:**

GPD Group conducted an ESA Screening for the proposed project which was submitted in October 2015 in accordance with the ODOT-OES Guidance (2009). On November 23, 2015, an IOC was issued by ODOT-OES recommending a Phase I ESA for ten sites.



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- See Project File/ESA/Coordination/OES Recommendations - Screening.pdf

GPD Group conducted a Phase I ESA for the proposed project in accordance with ODOT-OES Guidance (2009). On April 29, 2016, an IOC was issued by ODOT-OES on stating that no further environmental site assessment or special material management is warranted for the project.

- See Project File/ESA/Coordination/ OES Recommendations - Phase I.pdf

GPD Group conducted a Regulated Materials Review (RMR) Screening for the proposed project in accordance with ODOT-OES Guidance (2020) for the additional sidewalk proposed in June 2020. On June 22, 2020, Mark Carpenter, D12 DEC, approved the RMR screening and agreed with the consultant that no further RMR or special material management is warranted for the project.

- See Project File/ESA/Coordination/ District Decision Document.pdf

**According to the IOC from OES does the project require any Environmental Commitments (plan notes and/or other coordination)?**

No



## Cultural Resources

### Cultural Properties Present

**Please describe all of the efforts made to identify Historic Properties (including lit review, field investigation, etc.):**

On August 7, 2015, a Section 106 Request for Review was prepared by GPD Group. The request for review provided mapping showing the proposed project area, a records check of previously recorded cultural resources located within and adjacent to the APE, a site reconnaissance, and photographic log within this report. The records check included a review of electronic data from SHPO and Buckeye Assets. Three OAI records and one OHI record were identified during the records check. (*See Cultural Resources/Project Information/Section 106 Request for Review.pdf*).

Subsequent to the Request for Review, ODOT-OES conducted a records check to identify any properties fifty years of age or older within the APE. Nine properties were identified. One of these properties is an OHI recorded property (CUY-4410-20) located at 4100 Royalton Road. None of the nine properties were considered to be significant examples of architectural design or workmanship. Further research was considered unlikely to find any association between them and people or events that are significant in history. Therefore, none of the nine properties were considered eligible for listing in the NRHP. No further History/Architecture investigations were warranted.

On June 17, 2020, a Cultural Resources Scoping Request Checklist was prepared by GPD Group for the sidewalk on Cherry Hill Lane, added to the project plans. The request for review provided mapping showing the proposed project area, and a records check of previously recorded cultural resources located within and adjacent to the APE.

The project re-evaluation received a determination of No Historic Properties Affected from ODOT OES on June 30, 2020. SHPO concurred with this determination on July 7, 2020.

**Is there an eligible or listed NRHP Historic Property in the Area of Potential Effects Pursuant to 36 CFR part 800?** No

**OES Approval/OSHPO Concurrence Date:** 07/07/2020

### Remarks:

On October 15, 2015, in accordance with Stipulation 4B of the Section 106 Programmatic Agreement, (Number 16734), Executed November 30, 2011, and in compliance with 36 CFR Section 800.4(d)(1), ODOT-OES has determined that a finding of "No Historic Properties Affected" is applicable to the proposed undertaking based on the following:



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- There are no History/Architecture properties in the APE that are eligible for listing in the National Register of Historic Places. No further History/Architecture investigations are warranted.
- The work is limited to an urban setting previously disturbed by urban development. The widening of SR-82 from three lanes to five lanes extends through an area of mixed urban development. The proposed work area has been disturbed by the existing highway, underground utilities, access roads, driveway connections, ditch closures, sewer development, and landscaping. Impacts to significant archaeological resources is unlikely and no further archaeological investigation are recommended.

*The IOC can be found in the project file under Cultural Resources/Coordination/ OES Approval - No Historic Properties Affected.pdf.*

**What is the Section 106 effect determination in the OES Transmittal?** No Historic Properties Affected

**Archaeological Resource Adverse Effect**

**History/Architecture Adverse Effect**

**Tribal Consultation**

Since no Tribe was interested in this project based on their customized preferences, no further Tribal consultation was conducted

**Environmental Commitments**

**Are there any Environmental Commitments?** No



## Ecological

### ESR

Has an ESR been completed? Yes

Date ESR was completed: 09/10/2015

### Wetlands

Are Wetlands Present? Yes

Are Any Wetlands impacted? Yes

Has a Wetland Delineation been made? Yes

Has the wetland Jurisdictional Determination been made? No

### Identified Wetlands

Wetland ID	ORAM Category	Type	Est Total Size (Acres)	Est Impact (Acres)
Wetland A	1	Non-Isolated	1.00	0.35
Wetland B	2	Non-Isolated	0.77	0.14
Wetland C	1	Non-Isolated	0.03	0.02
Wetland D	1	Isolated	0.02	0.01
Wetland E	1	Non-Isolated	0.02	N/A

Est. Total Size (Acres) of for Project: 1.84

Est. Total Impacted (Acres) of for Project: 0.52

Total Acres of Non-Isolated Wetlands impacted: 0.51

Total Acres of Isolated Wetlands impacted: 0.01

### Remarks:

A Level 1 Ecological Survey Report (ESR) was performed by GPD Group in August 2015 (revised September 2015). The report identifies five wetlands in the project study area. At the time the ESR was completed, detailed design has not been finalized for the proposed project. As a result, the impacts to wetlands was estimated based on the worst case scenario construction limits provided by the design engineers at GPD Group which projected 0.55 acres of wetland impact. Since that time, construction limits have been refined and the wetlands impacts have been reduced. Currently, the project may result in an estimated 0.52-acre of wetland impacts.

#### Wetland A:

Wetland A is a Palustrine Emergent (PEM) wetland feature located on the north side of SR-82, west of Avery Road. Wetland A abuts Stream 1, which ultimately discharges to the Cuyahoga River. The ORAM evaluation conducted during the site reconnaissance assigned an ORAM score of 23.5, classifying the wetland as a Provisional Category 1 wetland.

The project will potentially result in an estimated 0.35-acre of impact to Wetland A. These impacts are associated with filling and grading for pavement widening, culvert extension activities, and the installation of a bioretention area.



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**Wetland B:**

Wetland B is a PEM/Palustrine Forested (PFO) wetland feature located on the south side of SR-82, west of Avery Road. Wetland B abuts Stream 1, which ultimately discharges to the Cuyahoga River. The ORAM evaluation conducted during the site reconnaissance assigned an ORAM score of 30, classifying the wetland as a Provisional Category 1 or 2 gray zone wetland.

The project will potentially result in an estimated 0.14-acre of impact to Wetland B. These impacts are associated with filling and grading for pavement widening and for culvert extension activities.

**Wetland C:**

Wetland C is a PEM wetland feature located on the south side of SR-82, west of Oxford Trail. Wetland C abuts Stream 2, which ultimately discharges to the Cuyahoga River. The ORAM evaluation conducted during the site reconnaissance assigned an ORAM score of 22, classifying the wetland as a Provisional Category 1 wetland.

The project will potentially result in an estimated 0.02-acre of impact to Wetland C. These impacts are associated with filling and grading for pavement widening and for potential culvert replacement activities.

**Wetland D:**

Wetland D is a PEM/Palustrine Scrub-Shrub (PSS) wetland feature located on the north side of SR-82, west of Postal Drive. A hydrologic connection to a TNW could not be identified during the site reconnaissance for Wetland D; therefore Wetland D is considered an isolated feature. Wetland D receives its hydrology from precipitation. The ORAM evaluation conducted during the site reconnaissance assigned an ORAM score of 21, classifying the wetland as a Provisional Category 1 wetland.

The project will potentially result in an estimated 0.01-acre of impact to Wetland D. These impacts are associated with filling and grading for pavement widening.

**Wetland E:**

Wetland E is a PEM wetland feature located on the south side of SR-82, east of Windswept Drive. Wetland E abuts Pond 2, which ultimately discharges to the Cuyahoga River. The ORAM evaluation conducted during the site reconnaissance assigned an ORAM score of 25, classifying the wetland as a Provisional Category 1 wetland.

At this time, there are no proposed impacts to Wetland E.

All practical measures to avoid, minimize, and mitigate impact on wetlands, as a result of this project have been considered. The No-build alternative was dismissed because maintaining the existing roadway in its current configuration would not address the capacity and safety deficiencies of the existing roadway and does not meet the Purpose & Need of the project. Improvements that will not result in any wetland impacts have been considered, but are not practical because such avoidance would result in unique engineering, excessive right-of-way costs, and continued traffic and safety problems. In order to improve the roadway so that it best serves the project's Purpose & Need elements, unavoidable wetland impacts will result. Since wetland impacts are unavoidable, design techniques were considered which minimize the impact the project will have, while still providing an acceptable result. Given the parameters in proper design geometrics, while providing adequate level of service, there are limits to how much wetland minimization could be achieved. The preferred alternative configuration was designed to minimize the amount of impact on the wetlands to the extent possible without compromising the integrity of the proposed project.

An Eco-Exempt form was completed by GPD Group on June 17, 2020 for the re-evaluation area. This area included the proposed 210 ft sidewalk along Cherry Hill Lane. The re-evaluation project will not include permanent or temporary fills to waters of the U.S. or isolated wetlands.

**Streams & Rivers**

	<b>Present:</b>	<b>Impacted:</b>
Streams and Rivers:	Yes	Yes
National Scenic River:	No	
State Scenic River:	No	
Sec 9:	No	
Sec 10:	No	

**Impacted Streams and Rivers**



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Stream Name	Total Linear feet Impacted	QHEI	Aquatic Life Use Designation
Stream 1	390	65	Class II PHWH
Stream 2	184	50	Class II PHWH
Stream 3	0	69	Class II PHWH

**Total Linear feet Impacted:**

574

**Remarks:**

A Level 1 Ecological Survey Report (ESR) was performed by GPD Group in August 2015 (revised September 2015). The report identifies three streams in the project study area. At the time the ESR was completed, detailed design has not been finalized for the proposed project. As a result, the impacts to streams was estimated based on the worst case scenario construction limits provided by the design engineers at GPD Group which projected 798-feet of stream impacts. Since that time, construction limits have been refined to reduce impacts to streams. Currently, the project may result in an estimated 574 linear-feet of stream impacts.

**Stream 1:**

Stream 1 was determined to be a perennial, relatively permanent water. Stream 1 enters the project study area from the south. Stream 1 enters a culvert which carries the stream under SR-82 where it exits and continues north until it exits the project study area. Stream 1 ultimately discharges into the Cuyahoga River, a TNW. Stream 1 received an HHEI score of 65; provisionally classifying the stream as a Modified Class II PHWH stream.

The project will potentially result in an estimated 390 linear-feet of impacts to Stream 1. These impacts are associated with filling and grading for pavement widening. Of the 390 linear-feet, approximately 180 linear-feet are contained within an existing culvert.

**Stream 2:**

Stream 2 was determined to be a perennial, relatively permanent water. Stream 2 enters the project study area from the south and then enters a culvert which carries the stream under SR-82 and out of the project study area. Stream 2 ultimately discharges into the Cuyahoga River, a TNW. Stream 2 received an HHEI score of 50; provisionally classifying the stream as a Modified Class II PHWH stream.

The project will potentially result in an estimated 184 linear-feet of impacts to Stream 2. These impacts are associated with filling and grading for pavement widening. Of the 184 linear-feet, approximately 138 linear-feet are contained within an existing culvert.

**Stream 3:**

Stream 3 was determined to be a perennial, relatively permanent water. Stream 3 enters the project study area from the southeast before entering Pond 2 and then exiting via a catch basin. Stream 3 ultimately discharges into the Cuyahoga River, a TNW. Stream 3 received an HHEI score of 69; provisionally classifying the stream as a Modified Class II PHWH stream.

At this time, there are no impacts proposed to Stream 3.

An Eco-Exempt form was completed by GPD Group on June 17, 2020 for the re-evaluation area. This area included the proposed 210 ft sidewalk along Cherry Hill Lane. The re-evaluation project will not include permanent or temporary fills to waters of the U.S. or isolated wetlands.

**Other Surface Waters**

	Present:	Impacted:
Reservoirs:	No	
Lakes:	No	
Ponds:	Yes	No
Storm Water Management Facility:	No	
Jurisdictional Ditch:	No	



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Other (If selected please explain in remarks):	No	
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**Remarks:**

A Level 1 Ecological Survey Report (ESR) was performed by GPD Group in August 2015 (revised September 2015). The report identifies two ponds in the project study area. At the time the ESR was completed, detailed design has not been finalized for the proposed project. As a result, the impacts to ponds was estimated based on the worst case scenario construction limits provided by the design engineers at GPD Group. Since that time, construction limits have been refined. Currently, the project does not propose any pond impacts.

**Pond 1:**

Pond 1 is located on the southern side of SR-82 towards the west-central portion of the project study area. Pond 1 is an isolated feature. At this time, there are no impacts proposed to Pond 1.

**Pond 2:**

Pond 2 is located on the southern side of SR-82 towards the eastern portion of the project study area. Pond 2 drains via catch basin located just south of SR-82. Pond 2 ultimately discharges into the Cuyahoga River, a TNW. At this time, there are no impacts proposed to Pond 1.

An Eco-Exempt form was completed by GPD Group on June 17, 2020 for the re-evaluation area. This area included the proposed 210 ft sidewalk along Cherry Hill Lane. The re-evaluation project will not include permanent or temporary fills to waters of the U.S. or isolated wetlands.

**Terrestrial Habitat**

	<b>Present:</b>	<b>Impacted:</b>
Terrestrial Habitat:	Yes	Yes
Unique or high Quality:	No	

**Remarks:**

Based on a review of mapping and field investigations associated with the Level 1 ESR, approximately 10.77 acres of Developed-High Intensity (DH), 9.35 acres of Developed Open Space (DS), 0.72 acres of Open Water, 0.05 acres of Floodplain Forest (FF), 1.03 acres of Upland Forest (UF), and 0.50 acre of Marsh (MA) will be impacted. No unique or high quality terrestrial habitats were found within the project area. All of the habitats are common adjacent to the project area, and throughout Ohio. This project will not cause significant local declines in these common habitats or the plant and animal species found in these areas.

An Eco-Exempt form was completed by GPD Group on June 17, 2020 for the re-evaluation area. This area included the proposed 210 ft sidewalk along Cherry Hill Lane. The re-evaluation project will not impact any suitable habitat for federally listed or state listed species within the range of the project.

**Threatened or Endangered Species**

	<b>Present:</b>	<b>Impacted:</b>
Within the known range of a Federal Species?	Yes	No



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Federal Species/habitat found within the project area?	Yes	Yes
Within the known range of a State Species?	No	
State Species/habitat found within the project area?	No	

**Remarks:**

A Level 1 ESR was completed by GPD Group in August 2015 (revised September 2015). The project is within known range of size federally-listed species. No state listed species were identified within 1-mile of the proposed by project during the review of the ODNR-DOW's Ohio Natural Heritage Database conducted on July 24, 2015. Based on the Level 1 ESR, ODOT-OES made the following effect determination for federally-listed species:

Indiana Bat (*Myotis sodalis*) - Endangered:

Fourteen trees possessing potentially suitable bat roosting habitat may be removed for this project. The ODNR-DOW Ohio Natural Heritage Database review conducted on July 24, 2015 identified one capture record for the Indiana bat within 5 miles of the project study area. No known records of Indiana bat hibernacula within 10 miles of the project study area were returned. A plan note will be added to adhere to USFWS tree cutting restriction dates (only between September 30 and April 1). The proposed project resulted in an effect determination of "May Affect, Not Likely to Adversely Affect" for the Indiana Bat.

Northern Long-eared Bat (*Myotis septentrionalis*) - Threatened

Fourteen trees possessing potentially suitable bat roosting habitat may be removed for this project. A plan note will be added to adhere to USFWS tree cutting restriction dates (only between September 30 and April 1). The proposed project resulted in an effect determination of "May Affect, Not Likely to Adversely Affect" for the Northern Long-eared Bat.

Kirtland's Warbler (*Dendroica kirtlandii*) - Endangered

Suitable habitat for the Kirtland's Warbler was not observed with the project study area. The project will have no effect on this species.

Piping Plover (*Charadrius melodus*) - Endangered

Suitable habitat for the Piping Plover was not observed with the project study area. The project will have no effect on this species.

Red Knot (Rufa) (*Calidris canutus rufa*) - Threatened

Suitable habitat for the Red Knot (Rufa) was not observed with the project study area. The project will have no effect on this species.

Bald Eagle (*Haliaeetus leucocephalus*) - Species of Concern

Suitable habitat for the Bald Eagle was not observed with the project study area. According to information provided by ODNR-DOW on July 24, 2015, the nearest bald eagle nest is located approximately 3.5 miles to the northwest of the project study area. The project will have no effect on this species.

Based on review of the Natural Heritage Database on July 24, 2015, no records of state-listed rare or endangered species are known within a one-mile radius of the project study area.

**Agency Coordination**

	<b>Coordination Required:</b>	<b>Comments Received Date:</b>
Ohio Department of Natural Resources (ODNR):	Yes	10/27/2015
United States Fish and Wildlife Service (USFWS):	Yes	10/30/2015
Ohio Environmental Protection Agency (OEPA):	No	08/15/2016



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United States Army Corps of Engineers (USACE):	No	08/15/2016
ODNR State Scenic River:	No	
National Park Service (NPS) National Scenic River:	No	

**Remarks:**

USFWS provided the following recommendations on December 2, 2015:

Unavoidable impacts to streams and wetlands should be mitigated

Response: Project impacts that require the implementation of stream or wetland mitigation will do so in accordance with current Clean Water Act requirements as regulated by the US Army Corps of Engineers and Ohio EPA regulations (33 CFR parts 325 and 332 and 40 CFR part 230, and OAC 3745-01-54), and Ohio isolated wetland law (ORC 6111.027)

Existing riparian habitat zones should be maintained to the maximum extent possible

Response: On projects with impacts to aquatic resources, all aquatic resources indicated on the plans shall be demarcated in the field as per ODOT Supplemental Specification 832 and the applicable waterway permits special provisions prior to site disturbance. This will be done to ensure that only permitted stream and wetland impacts will occur, and that the remainder of the aquatic resources on the site will be avoided. Materials utilized in, or adjacent to, aquatic resources for temporary or permanent fill or bank protection shall consist of suitable material free from toxic contaminants in other than trace quantities. Broken asphalt is specifically excluded. Chromated Copper Arsenate (CCA), and other pressure treated lumber shall not be used in structures that are placed in aquatic resources. Furthermore, an oil spill kit will be located within 150 feet of any equipment working in a stream or wetland. The oil spill kit shall be maintained for the life of the construction contract.

Culverts should be placed to allow free movement of aquatic fauna

Response: When applicable, culverts will be installed with depressed culvert inverts to convey the bankfull discharge design in accordance with the ODOT Location and Design Manual Volume Two, Drainage Design. Depressed culvert inverts should produce a natural channel bottom within the culvert that should be continuous with the adjacent channel sections, providing a substrate that will allow for the free passage of aquatic fauna.

We recommend using native vegetation to control erosion, or, at minimum, using native vegetation in combination with riprap or similar materials

Response: Where appropriate and feasible as a mitigative technique, ODOT will consider the use of vegetated riprap and other bioengineering techniques for stream bank stabilization and/or slope repair. When applicable, native vegetation will be used in the construction of these features

Staging areas should be kept well away from these aquatic features

Response: Per ODOT Construction and Materials Specifications (107.10), the creation of staging areas, the storage of materials and equipment, and the borrowing or wasting of materials will not occur in areas labeled as environmental resource areas. Additionally, all properties to be utilized by the Contractor outside of the project right-of-way must be cleared for all environmental resource impacts prior to the beginning of work. Should the areas proposed for use by the Contractor outside the project right-of-way limits contain environmental resources all environmental clearances and permits will be obtained by the Contractor prior to the beginning of work

All disturbed areas in the project vicinity should be mulched and re-vegetated with native plant species.



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Response: Per ODOT Construction and Materials Specifications (104.04), all areas disturbed ground occupied by the Contractor in connection with the Work (with the exception of cultivated fields) will have suitable vegetative cover established by seeding and mulching according to Construction and Materials Specifications Item 659. When appropriate conditions apply, ODOT will consider the use of native grasses and wildflowers for re-vegetating disturbed areas according to Construction and Materials Specifications Item 659.09 or similar seed mixes composed of native herbs and grasses.

Clearing of all trees to be impacted by this project shall be performed only between October 1 and March 31.

Response: Tree clearing of all trees over 3" dbh that are proposed for impact from this project will be cleared only between October 1 and March 31.

For all projects that involve tree clearing: if tree clearing is to occur prior to the issuance of the 404/401 permits, that Section 7 consultation for that project must be completed and that tree clearing cannot commence until both the USACE and Ohio EPA anticipate that the permits authorizing the project as a whole are imminent

Response: Tree removal will not occur until consultation with USFWS has been completed, and waterway permits (if required) have been submitted to USACE and Ohio EPA

**On October 27, 2015, ODNR also recommended seasonal cutting of trees to avoid impacts to the Indiana bat and Northern-long eared bat.**

Response: The project will require that all trees be removed between October 1st and March 31st in order to avoid impacts to endangered bats.

**Are there any environmental commitments?**

Yes



### Other Resources

#### Farmlands

#### Farmlands

The proposed project is located within an Urbanized Area Yes

**The proposed project is located in an area that is in or committed to urban development or water storage and is therefore not subject to the Farmland Policy Protection Act (FPPA) in accordance with 7 CFR 658. No further coordination is required.**

#### Remarks:

Based on review of appropriate U.S. Geological Survey (USGS) Quadrangle Topographical mapping, the proposed project is located in an urbanized area. Furthermore, the proposed project is located in an area zoned for non-agricultural purposes and is not located in an agricultural district. Based on the scope and type of proposed project, along with the amount of right-of-way needed, the proposed project meets the criteria and conditions of the Memorandum of Understanding between the Natural Resources Conservation Service and the Ohio Department of Transportation for Projects Involving Farmlands, executed on March 15, 2016. No further coordination is required.

- See project file Other Resources/Farmland/Urbanized Area Map.pdf

Are there any environmental commitments? No

#### Drinking Water

The proposed project is wholly or partially located within the USEPA designated boundaries of a Sole Source Aquifer No

	Present:	Impacted:
The proposed project is wholly or partially located within the OEPA designated boundaries of a Source Water Protection Area	No	

Coordination with the Local Public Water Administrator is required No

	Present:	Impacted:
Residential Wells are present	No	

#### Remarks:



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A review of the OEPA-Division of Drinking and Ground Waters' Drinking Water Source Assessment online records indicated that no public water systems, Drinking Water Source Protection Areas, or other drinking water resources were located within or adjacent to the proposed project area. Furthermore, the proposed project area is not located over a federally-designated sole source aquifer. Finally, review of the ODNR-Division of Water Resources online records indicated no residential water wells were located within the construction limits of the proposed project. Therefore, the proposed project will not impact known drinking water resources and no additional coordination is required.

- OEPA mapping can be found in the Project File under Other Resources/Drinking Water/Drinking Water Resources Map.pdf

**Are there any environmental commitments?**

No



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## **Section 4(f)**

### **Section 4(f) Determination**

**Section 4(f) properties are within and/or adjacent to the proposed project area**

No

### **Identified Section 4(f) Properties**

#### **Remarks:**

Based upon review of map and property ownership records by GPD Group, all of the properties in the proposed project area are privately owned, therefore, no public parks, recreation areas, or wildlife or waterfowl refuges were identified within or adjacent to the proposed project area. Furthermore, no listed or eligible for listing NRHP properties were identified within the proposed project area. No further coordination is required.

**Are there any environmental commitments?**

No



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**Section 6(f)**

**Section 6(f) Determination**

	<b>Present:</b>	<b>Impacted:</b>
6(f) Properties:	No	

**Remarks:**

Based on a review of the National Park Service (NPS) State Listing of Land and Water Conservation Fund (LWCF) properties, no Section 6(f) properties were identified within and/or adjacent to the proposed project area. No additional coordination is required. The LWCF list can be found in the Project File under Section 6(f)/Project Information/LWCF Grant Listing.pdf

**Are there any environmental commitments?**

No



## Community Impacts

### Community Impacts

**Will the proposed action comply with the local/regional development patterns for the area?** Yes

**Remarks:**

The proposed project is consistent with local plans and is not expected to change development patterns in the area. The project is listed in the Northeast Ohio Areawide Coordinating Agency (NOACA), the Metropolitan Planning Organization for the region, FY 2016-2019 Transportation Improvement Program.

**Will the proposed action result in substantial negative impacts to community cohesion?** No

**Remarks:**

The proposed improvements will not have any negative impacts on local community cohesion. The impacts to community cohesion from the rehabilitation and the additional of the auxiliary lanes are anticipated to be minimal or nonexistent.

**Will the proposed action result in indirect or cumulative impacts?** No

**Remarks:**

The proposed project will reduce crashes, improve intersection operations, reduce vehicular delays/queues and meet roadway geometric standards. Indirect or cumulative impacts are not anticipated.

**Will the proposed action result in substantial impacts on health and educational facilities, public utilities, fire, police, emergency services, religious institutions, public transportation, pedestrian and bicycle facilities?** No

**Remarks:**

Substantial impacts will not occur to health and educational facilities, public utilities, fire, police, emergency services, religious institutions, or public transportation facilities. Emergency services and schools will be notified of any delays and closures associated with construction. A Maintenance of Traffic Plan has been developed for this project that maintains interstate access during construction. Residents of the project area may experience short-term impacts during construction; however, safety for the public utilizing this facility will be improved in the long run.

Prior to construction activities, ODOT will contact Police and Fire Departments to provide them with maintenance of traffic information as well as the schedule for construction activities.

**Will the proposed action displace residents, businesses, institutions or farms?** No

**Remarks:**



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There will be no residential, business, agricultural or institutional displacements as a result of the project.

**Are there any Environmental Commitments?**

No



## Underserved Populations

### Underserved Populations

#### Identified Underserved Populations

Census Block Group #	% Minority	% Low Income
Various	Less than 40%	Less than 40%

Are Underserved Populations located within and/or adjacent to the proposed project area?

No

#### Remarks:

A review of the U.S. Environmental Protection Agency (USEPA) EJScreen website indicated minority and low-income populations within the proposed project area are below 40%. Based on ODOT-OES Environmental Justice (EJ) Guidance, the proposed project will have no disproportionately high or adverse impacts to minority or low-income populations based on review of USEPA EJScreen Mapping. No Environmental Justice issues were raised as a result of public involvement activities conducted as part of the proposed project. Therefore, in accordance with the protections of Executive Order 12898 and FHWA Order 6640.23A, no further Environmental Justice analysis is required for the proposed project.

- Census mapping can be found in the Project File under Environmental Justice/Project Information/Census Mapping.pdf

Are there any Environmental Commitments?

No



## Public Involvement

### Public Involvement

**Please provide a summary of the Public Involvement activities that have been conducted for this project. (For example press releases, letters to affected property owners and residents, meetings, special purpose meetings, newspaper articles, etc)**

Two public involvement meetings were conducted in an open house format with the second meeting including an open microphone session. Response letters were mailed to address written comments following each PI meeting.

The first public meeting was held on Wednesday, April 20, 2016, from 6:30 p.m. to 8:30 p.m. at the Broadview Heights City Council Chambers located at 9543 Broadview Road in Broadview Heights, Ohio, 44147. On April 10, 2016, the Cities of Broadview Heights and Brecksville mailed public meeting notification letters to property owners/tenants, businesses, and public officials. A news release was issued to local media on April 14, 2016 to announce the meeting date, time, location, and purpose. As a result of the news release, the Plain Dealer online posted a news article on April 14, 2016.

The purpose of the meeting was to present the recommended alternative to the general public, residents, business/property owners and public officials, and to solicit public comments regarding the alternatives under consideration, and any potential social, economic, and/or environmental impacts associated with the proposed project. Informational materials distributed to attendees explained the purpose of the project and presented information on the recommended alternative under consideration. Exhibits depicting the recommended alternative were available for the public to view.

It was a concern that residents of Brecksville might not have attended the initial public involvement meeting due to its location in Broadview Heights, so a second public meeting was held on Tuesday, May 17, 2016, from 7:00 p.m. to 8:00 p.m. at the Ralph W. Biggs City Council Chambers, Brecksville City Hall at 9069 Brecksville Road in Brecksville, Ohio, 44141.

The meeting's purpose was to present the recommended alternative and solicit additional public comments regarding its social, economic and environmental impacts. The public meeting included a brief overview presentation by GPD Group's Project Manager, Dave Martin, followed by an open microphone public comment period for attendees requesting to speak. Informational materials distributed to attendees included an overview of the project, a summary of the completed and ongoing environmental studies and information on the recommended alternative. Exhibits displaying the recommended alternative were located throughout the facility.

On June 23, 2016, representatives from the Cities of Brecksville and Broadview Heights met with a property owner to discuss concern for trees being cleared and right-of-way acquisition for the respective property. A formal response letter was sent by the City of Brecksville to the resident following the meeting.

- All relevant public involvement documentation can be found in the Project File under Public Involvement/Project Information

**Was Public Involvement conducted in compliance with Title VI requirements?**

Yes

**Is there any substantial environmental controversy on environmental grounds?**

No

**Please summarize the Public Involvement responses received.**

The first public meeting for the proposed project was held on April 20, 2016, with an attendance of 45 people that included residents and business owners and 15 local officials. Attendees were able to view exhibits associated with project alternatives and were encouraged and given the opportunity to submit written comments at the meeting, by mail or by email. Upon closure of the public comment period on May 6, 2016, a total of 11 individuals provided public comments to the Cities of Broadview Heights and Brecksville. Comments received and responses to comments are summarized in Table 1 of the *Open House Public Involvement Meeting Summary and Responses to Comments* document (August 15, 2016). In general, written and oral comments indicated the following concerns:

- Right-of-way impacts from residential properties located south of SR-82
- Concern for the proposed shared use path located north of SR-82
- Impacts to property values
- Impacts to zoning

The letters addressing the received comments were mailed to commenters.



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- The *Open House Public Involvement Meeting Summary and Responses to Comments* from the April 20, 2016 meeting can be found in the Project File under Public Involvement/Project Information/Response to Public Comment Summary 1.pdf

A second public meeting was held on May 17, 2016, with an attendance of 20 people that included residents and business owners, and 16 local officials. Attendees were able to view exhibits associated with the recommended alternative and were encouraged and given the opportunity to submit comments at the meeting or by mail or email. In addition, 10 attendees participated in the open microphone session during the meeting that was documented by a certified Court Reporter. Upon closure of the public comment period on June 1, 2016, a total of twelve (12) individuals provided public comments to the Cities of Broadview Heights and Brecksville, including three (3) written comments and ten (10) oral comments. Response to comments, both written and verbal, are summarized in Table 1 of the *Open House Public Involvement Meeting Summary and Responses to Comments* document (August 15, 2016). In general, written and oral comments indicated the following concerns:

- Right-of-way impacts from residential properties located south of SR-82
- Concern for the proposed shared use path located north of SR-82
- Changes to zoning

Oral comments were addressed at the meeting. Letters addressing the received written comments were mailed to comments.

- The *Open House Public Involvement Meeting Summary and Responses to Comments* from the May 17, 2016 meeting can be found in the Project File under Public Involvement/Project Information/Response to Public Comment Summary 2.pdf
- Minutes from the May 17, 2016 meeting can be found in the Project File under Public Involvement/Project Information/Public Meeting Minutes 2.pdf

On June 23, 2016, representatives from the Cities of Brecksville and Broadview Heights met with a property owner to discuss concern for trees being cleared and right-of-way acquisition. A formal response letter was sent by the City of Brecksville to the resident following the meeting.

- Minutes from the June 23, 2016 meeting can be found in the Project File under Public Involvement/Project Information/Public Meeting Minutes 3.pdf

**Are there any Environmental Commitments?**

No



## Permits

### Waterway Permits

<b>Are Waterway Permits required?</b>	Yes
<b>Is the Waterway Permits Determination Complete?</b>	No
Army Corps of Engineers	
<b>Regional General Permit (RGP):</b>	No
<b>Nationwide Permit (NWP):</b>	No
<b>Section 404 Individual Permit:</b>	No
<b>Section 10 Permit:</b>	No
Ohio EPA	
<b>Section 401 Water Quality Certification:</b>	No
<b>Level 1 General Isolated Wetland Permit:</b>	Yes
<b>Level 2 Individual Isolated Wetland Permit:</b>	No
<b>Level 3 individual Isolated Wetland Permit:</b>	No
US Coast Guard	
<b>Section 9 Coordination:</b>	No
<b>Section 9 Bridge Permit:</b>	No
ODNR	
<b>Shore Structure Permit :</b>	No

### Remarks:

Waterway permits will be required due to the impacts to streams, wetlands, and ponds for the proposed transportation improvement. The appropriate permit will be decided during the Permit Determination process and will comply with all regulations deemed appropriate. Upon waterway permit verification, the waterway permit(s) conditions for the project shall be incorporated into the project construction plan as Special Provisions and the project contractor shall adhere to all waterway permit terms and conditions throughout project construction.

<b>Are there any environmental commitments?</b>	Yes
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### Storm Water Permits

<b>NPDES Construction General Permit for Stormwater (NOI):</b>	Yes
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**Watershed Specific NPDES Construction General Permit for Stormwater (NOI):**

No

**Remarks:**

The project will result in greater than 1 acre of earth-disturbing activities. A Notice of Intent will be required under the NPDES General Permit from the Ohio EPA for storm water discharges associated with construction activities.

**Are there any environmental commitments?**

Yes

**Floodplains**

**The proposed project involves encroachment within a Special Flood Hazard Area (SFHA)**

Yes

**EO 11988/NFIP Coordination and Documentation Completed**

No

**NFIP Local Floodplain Coordinator Notification Date**

07/07/2016

**Remarks:**

Based on a review of the FEMA FIRM for Cuyahoga County, Ohio, (Panel #39035C0308E and Panel #39035C0309E), the proposed project is located within the 100-year floodplain.

Executive Order (EO) 11988 requires federal actions to avoid, to the extent possible, the long and short-term adverse impacts associated with occupancy and modification of flood plains and to avoid the direct and indirect support of floodplain development whenever there is a practicable alternative. Prior to any fill being placed within a 100-year floodplain, all EO 11988 requirements must be met by completing the eight (8) steps of the decision making process established to address floodplain impacts by federal agencies or their assigned designee.

The proposed project must also demonstrate compliance with the National Flood Insurance Program (NFIP) regulations as well as any additional floodplain management standards. The project will require coordination with the local floodplain coordinator to determine the local standards, perform the analysis, review the analysis, and document that the development was constructed in compliance with the applicable floodplain management regulations.

Regarding NFIP, a notification was sent to the City of Broadview Heights' Floodplain Coordinator, Mr. Gary Yelenosky, on July 7, 2016 stating the project is located within Special Flood Hazard Area - Zone A. Mr. Yelenosky responded on August, 5, 2016 stating that an engineering analysis by a registered professional engineer will be conducted to ensure that the project will not increase flood heights for the 100-year floodway. Additionally, all project design will be done in accordance with Broadview Height regulations.

- A copy of the FEMA FIRM for the project is included in the Project File under Permits/Floodplains/FEMA FIRM.pdf.
- Copies of the coordination and response with the City of Broadview Heights' Floodplain Coordinator are included in the Project File under Permits/Floodplains/Coordination with LFA.pdf and Coordination with LFA 2.pdf
- A Summary of Floodplain impacts has been placed on the ODOT District 12 website for public review located at: [http://www.dot.state.oh.us/districts/D12/PlanningEngineering/Documents/96947\\_2016-6-20\\_Summary%20of%20Floodplain%20Impacts%20for%20CUY-82-10.17.pdf](http://www.dot.state.oh.us/districts/D12/PlanningEngineering/Documents/96947_2016-6-20_Summary%20of%20Floodplain%20Impacts%20for%20CUY-82-10.17.pdf)

**Are there any environmental commitments?**

Yes



## Landfills

**Is a 2713 Permit required?**

No

### Remarks:

An Environmental Site Assessment (ESA) Screening was conducted and a report prepared by GPD Group in October 2015. The report referenced the Ohio Licensed Solid Waste Facilities/Landfill Sites records which contain an inventory of solid waste disposal facilities and landfill sites in Ohio. The Norton Landfill/Royalton Road Sanitary Landfill was listed within the project study area for landfill and/or solid waste disposal sites.

A Phase I ESA was conducted and prepared by GPD Group in March 2016. The Norton Landfill/Royalton Road Sanitary Landfill is bounded by Chippewa Creek to the north, an unnamed tributary to Chippewa Creek to the west, and commercial and development business development to the south and east. The report found that in 1963, G&H Enterprises, Inc. acquired the property and developed the land for solid-waste disposal. Tri-Square Corporation took over ownership of the property in 1969. The Norton Construction Company operated the facility for the Tri-Square Corporation since 1969. The report noted that the landfill ceased accepting waste in 2004. Additionally, the historic "area of fill" of the landfill itself is located approximately 1,000-feet north of the proposed construction limits.

According to records reviewed at the OEPA-NEDO, a total of 23 groundwater monitoring wells have been installed throughout the years in order to continually assess groundwater conditions at the landfill. Groundwater quality within the monitoring wells has varied throughout the years; however, the poorest water quality detected has historically been within the wells along the northern boundary of the landfill, where numerous Volatile Organic Compounds (VOCs) and inorganic contaminants are typically detected. However, based on static water levels measured in each monitoring well, it has been determined with certainty that groundwater in the area flows to the north toward Chippewa Creek, away from the project study area along East Royalton Road.

As there will be no work within 300' of the limits of historic solid waste placement or former areas of hazardous waste treatment, storage, or disposal, an OEPA 2713 Permit will not be required for this project.

- A copy of the Phase I ESA for the project is included in the Project File under ESA/Reports/Phase I ESA.pdf

**Are there any environmental commitments?**

No



## **Environmental Commitments**

### **General Project Information**

1) THE CITY OF BROADVIEW HEIGHTS WILL NOTIFY THE LOCAL PUBLIC SERVICES AND COMMUNITY A MINIMUM OF FOURTEEN (14) DAYS IN ADVANCE OF PROJECT CONSTRUCTION. INCLUDED IN THE NOTIFICATION WILL BE THE PROJECTED DATES OF ANY LANE RESTRICTIONS, ROADWAY CLOSURE(S) AND DETOUR ROUTE(S).

### **Ecological**

- 1) City commits to the following SS832 to minimize impacts to existing riparian habitat zones
- 2) Impacts to streams and wetlands will be mitigated under the current Clean Water Act requirements as regulated by the US Army Corps of Engineers and Ohio EPA regulations (33 CFR parts 325 and 332 and 40 CFR part 230, and OAC 3745-01-54), and Ohio isolated wetland law (ORC 6111.027)
- 3) City commits to using native vegetation as an erosion control measure
- 4) The Project is located within the known habitat ranges of the federally listed and protected Indiana Bat and Northern Long-eared bat. No trees shall be removed under this project from April 1 through September 30. All necessary tree removal shall occur from October 1 through March 31. This requirement is necessary to avoid and minimize impacts to these species as required by the endangered species act. For the purpose of this note, a tree is defined as alive, dying, or dead woody plant, with a trunk 3 inches or greater in diameter at a height of 4.5 feet above the ground surface, and with a minimum height of 13ft.
- 5) City commits to seeding the project area with native vegetation
- 6) City commits to installing a culvert(s) with depressed inverts to produce natural channel bottom within the culvert to encourage fish passage
- 7) All consultation under Section 7(a) of the ESA will be concluded and waterway permits (if applicable) will be submitted to the appropriate agencies prior to any tree-clearing for the project.

### **Permits - Waterway Permits**

1) ALL PROJECTS INVOLVING JURISDICTIONAL WATERS OF THE UNITED STATES (STREAMS, RIVERS, NON-ISOLATED WETLANDS) AND/OR ISOLATED WETLANDS ARE SUBJECT TO REGULATION UNDER SECTIONS 404 AND 401 OF THE CLEAN WATER ACT, AND POSSIBLY OHIO EPA ISOLATED WETLAND LAW. THE CONTRACTOR SHALL NOT PERFORM ANY WORK IN AND/OR PLACE ANY FILL BELOW THE ORDINARY HIGH WATER MARK (OHWM), WHICH IS THE US ARMY CORPS OF ENGINEERS'S (USACE) JURISDICTIONAL LIMITS IN ANY JURISDICTIONAL STREAMS OR WETLANDS UNTIL THE WATERWAY PERMITS ARE AUTHORIZED BY THE US ARMY CORPS OF ENGINEERS (USACE). USACE DEFINITION OF OHWM - THE ORDINARY HIGH WATER MARK IS THE LINE ON THE SHORES ESTABLISHED BY THE FLUCTUATIONS OF WATER AND INDICATED BY PHYSICAL CHARACTERISTICS SUCH AS A CLEAR, NATURAL LINE IMPRESSED ON THE BANK; SHELVEING; CHANGES IN THE CHARACTER OF THE SOIL; DESTRUCTION OF TERRESTRIAL VEGETATION; THE PRESENCE OF LITTER AND DEBRIS; OR THE APPROPRIATE MEANS THAT CONSIDER THE CHARACTERISTICS OF THE SURROUNDING AREAS.

### **Permits - Storm Water Permits**

- 1) A Notice of Intent will be submitted to the Ohio EPA for coverage under the NPDES construction storm water permit.

### **Permits - Floodplains**



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1) A REVIEW OF THE FEDERAL EMERGENCY MANAGEMENT AGENCIES (FEMA) FLOOD INSURANCE RATE MAPS (FIRM) FOR THE PROJECT STUDY AREA INDICATES THAT THE PROPOSED TRANSPORTATION IMPROVEMENT IS LOCATED WITHIN A FLOODPLAIN. THEREFORE, THE PROPOSED PROJECT WILL REQUIRE COORDINATION WITH THE CITY OF BROADVIEW HEIGHTS' FLOODPLAIN ADMINISTRATOR PRIOR TO PROJECT CONSTRUCTION.



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**Preparers and Approvals**

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**Approvals & Electronic Signatures**

<b>Approved &amp; Electronically Signed By:</b>	<b>Approval Date:</b>
<b>Mark Carpenter (TRANS ENGR 3)</b>	8/26/2020



## **Appendix**

### **General**

Aerial Map Re-Evaluation.pdf

### **Noise**

Certified Traffic Data - 2016-2036.pdf

### **Air**

Conformity Determination Approval - PM 2.5.msg

### **Ecological**

Coordination with ODNR.pdf

### **Air**

Coordination with USEPA - PM2.5.pdf

### **Ecological**

Coordination with USFWS.pdf

### **General**

County Map Re-Evaluation.pdf

### **ESA**

District Decision Document.pdf

### **Other Resources**

Drinking Water Resources Map.pdf

### **Ecological**

Ecological Review Form - Ecologically Exempt Project.pdf

ODNR Comments.pdf

### **Air**

OEPA Approval - Qualitative MSAT.pdf

### **Cultural Resources**

OES Approval - No Historic Properties Affected (Attachments).pdf

OES Approval - No Historic Properties Affected.pdf

### **Noise**

OES Approval - Noise Analysis.pdf

### **ESA**



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OES Recommendations - Phase I.pdf

OES Recommendations - Screening.pdf

OES Recommendations 2 - Screening.pdf

**Cultural Resources**

OES Section 106 Effect Determination - Re-Evaluation.pdf

**Air and Noise**

PM2.5 map.docx

**Purpose and Need**

Purpose and Need Statement.docx

**Cultural Resources**

Records Check Re-Evaluation.pdf

Records Check.pdf

SHPO Concurrence - Re-Evaluation.pdf

**Other Resources**

Urbanized Areas Map.pdf

**Ecological**

USACE Preliminary Jurisdictional Determination.pdf

**Air**

USEPA Approval - PM2.5.pdf

**Ecological**

USFWS Comments.pdf

**General**

USGS Quadrangle Topographical Map Re-Evaluation.pdf

**Environmental Justice**

Census Mapping.pdf

**Permits**

Correspondence with Local Floodplain Administrator.pdf

FEMA FIRM.pdf

Individual NPDES Permit Application.pdf

Local Floodplain Administrator Redponse.pdf

**Public Involvement**

Magazine Article 3.pdf



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News Article 20131203.pdf

News Article 20151221.pdf

Public Comments Received 2.pdf

Public Comments Recieved 1.pdf

Public Meeting Exhibits 1.pdf

Public Meeting Minutes 2.pdf

Public Meeting Minutes 3.pdf

Public Meeting Notification Brecksville.pdf

Public Meeting Notification BroadviewHts.pdf

Public Meeting Notification.pdf

Public Meeting Sign In Sheet.pdf

Response to Public Comment Summary 1.pdf

Response to Public Comment Summary 2.pdf

Stakeholder Meeting Minutes or Notes.pdf

**Permits**

USACE Approval - Section 404.pdf