

To: Ron Bales, NEPA Specialist, INDOT Environmental Services-Policy
From: Nitin V. Timble, P.E. / A&Z Engineering, LLC
Date: 8/9/2016
Re: Des. No. 1297651, Additional Information (AI) to the Approved Environmental CE Document dated 10/01/14 – Replacement of existing Two Way Stop Intersection at Mariners Drive and Husky Trail Intersection with a Roundabout.

Additional Information Report:

This memorandum provides additional information to the approved environmental document for the Husky Trail project beginning at Mariners Drive and extending north 3,270 feet to the Warsaw City Limits. This memorandum describes the critical aspects of the environmental document and the impact of the proposed modification.

Project History:

Husky Trail extends north from Mariners Drive to Warsaw City Limits about 1200 feet south of CR 200N. Within the project limits, Husky Trail is a two lane asphalt roadway with 1 ft to 2 ft. gravel shoulders with no left turn lanes at intersections except at Mariners Drive. South end of the project has commercial and business areas such as Menards, Martins Supermarket, Northpoint Cinemas and offices. The area becomes residential and institutional further north with Kuder Estates, Canterbury House Apartments and Harrison Elementary School. There is a mixed traffic of residents, shoppers and parents dropping/picking up the students, school buses and delivery trucks. The roadway congestion and mixed traffic has contributed to 82% of accidents being rear end and right angle impact as well as running off the road. The level of service (LOS) is projected to drop from C to F in the design year 2035 with average daily traffic counts increasing from 9,810 in 2015 to estimated 11,970 in 2035.

The preferred alternate consists of adding - a flush median to provide refuge to left turning vehicles, dedicated left turn lanes at public streets, combined curb and gutter, sidewalks, curb ramps, street lighting, enclosed storm sewer system and new replacement drive approaches. The preferred alternate will increase road capacity and ensure LOS C through the year 2035 and satisfy the Purpose and Need requirements for the project. The second alternate and No Action third alternate will not meet safety and mobility requirements.

Justification for Additional Information:

Mariners Drive and Husky Trail Intersection is the terminal point of Business/Commercial zone and beginning of residential/Institutional zone going north along Husky Trail. Several types of vehicles weave in and out of this intersection. The current two-way stop intersection at this

location creates vehicle queues, longer waiting times and resulting accidents described earlier. A signalized intersection could alleviate the queuing situation. However, it creates several points of conflicts during its operation from green-amber-red signal lighting. A roundabout, allows continuous movement within the circle; promotes-reduction in speeds, opportunities to enter roundabout between vehicle gaps; reduces- conflicts and accident severity. A roundabout also improves road capacity and LOS over the other alternatives. Street lighting around the roundabout perimeter and signage will provide visibility and advance warning to the drivers. The roundabout splitter island will provide additional refuge and safety to the pedestrians and non-motorized vehicles. See Appendix A, pages A-1 and A-2

Maintenance of traffic

During the roundabout construction, the intersection at Mariners Drive and Husky Trail will be closed for a three-month period. Only emergency vehicles will be allowed to enter and exit this intersection. Other vehicles will use U.S. 30- CR 200N.- Husky Trail route as an alternate route to enter residence and institutions from the north. The closure for construction of roundabout will be timed during summer when schools are closed to minimize inconvenience to the travelling public. See Appendix A, page A-3.

Estimated Project Cost and Schedule

Engineering fee considering the additional roundabout design effort is \$437,750, with Right of Way and Construction costs at \$ 268,648 and \$3,166,895 respectively. Anticipated start of construction is February 2017.

Right-of-Way

The total right of way needed for the project is 3.636 acres which comprises of 2.726 acres and 0.91 acres of permanent and temporary right-of-way respectively. The permanent right-of-way comprises of 2.134 acres of residential, 0.244 acres of commercial and 0.348 acres of special right-of-way. The temporary right-of-way comprises of 0.305 acres of residential and 0.605 acres of special right-of-way. The roundabout construction requires 0.196 acres of the total 0.244 acres of commercial permanent right-of-way needed for the project.

Supplemental Resource Review

The right of way required for the roundabout construction falls inside the study limits of the approved CE document dated October 1, 2014 and hence no additional impacts are anticipated on ecological, cultural, section 4f /section 6f and other resources as a result of the roundabout construction. As such no re-coordination was undertaken with the regulatory agencies. See Appendix B, pages B-1 and B-2.

Air Quality & Noise

Discussions on Air Quality and Noise in the approved CE document still apply.

Community Impacts

Regarding community impacts, the roundabout will positively impact the safety of the intersection and reduce severity of vehicle accidents in the future due to reduction of vehicle speeds and the angle of contact. Pedestrian safety is enhanced due to refuge splitter islands, lighting and signage.

Public Facilities and Services

No public facilities and services will be further impacted by the roundabout construction.

Environmental Justice

Environmental Justice discussions and analysis in the approved CE document remains unchanged due to the roundabout construction.

Relocation of People, Business or Farms

No relocation of families, business or farms will be required due to the roundabout construction.

Hazardous Materials and Regulated Substances

Leaking underground storage tanks (LUST), NPDES facilities, Brownfields, Industrial waste sites are located outside the project limits and will not impact the project.

Environmental Commitments

There are no additions to the project commitments due to roundabout construction.

Additional Commitments:

The following additional commitments were identified due to roundabout addition and are firm:

- The closure of the intersection for roundabout construction shall be during school closure in summer.
- Access to emergency vehicles shall be provided through the intersection at all times during roundabout construction.

Conclusions:

The proposed project modification is minor in nature requiring very little additional right-of-way. There are no additional impacts to the environmental resources. The impacts identified in

the original CE document approved on 10/01/14 remain valid and therefore, a supplemental EIS is not warranted at this time.

INDOT Approval: _____

Date: _____

Table of Contents for Appendix Items

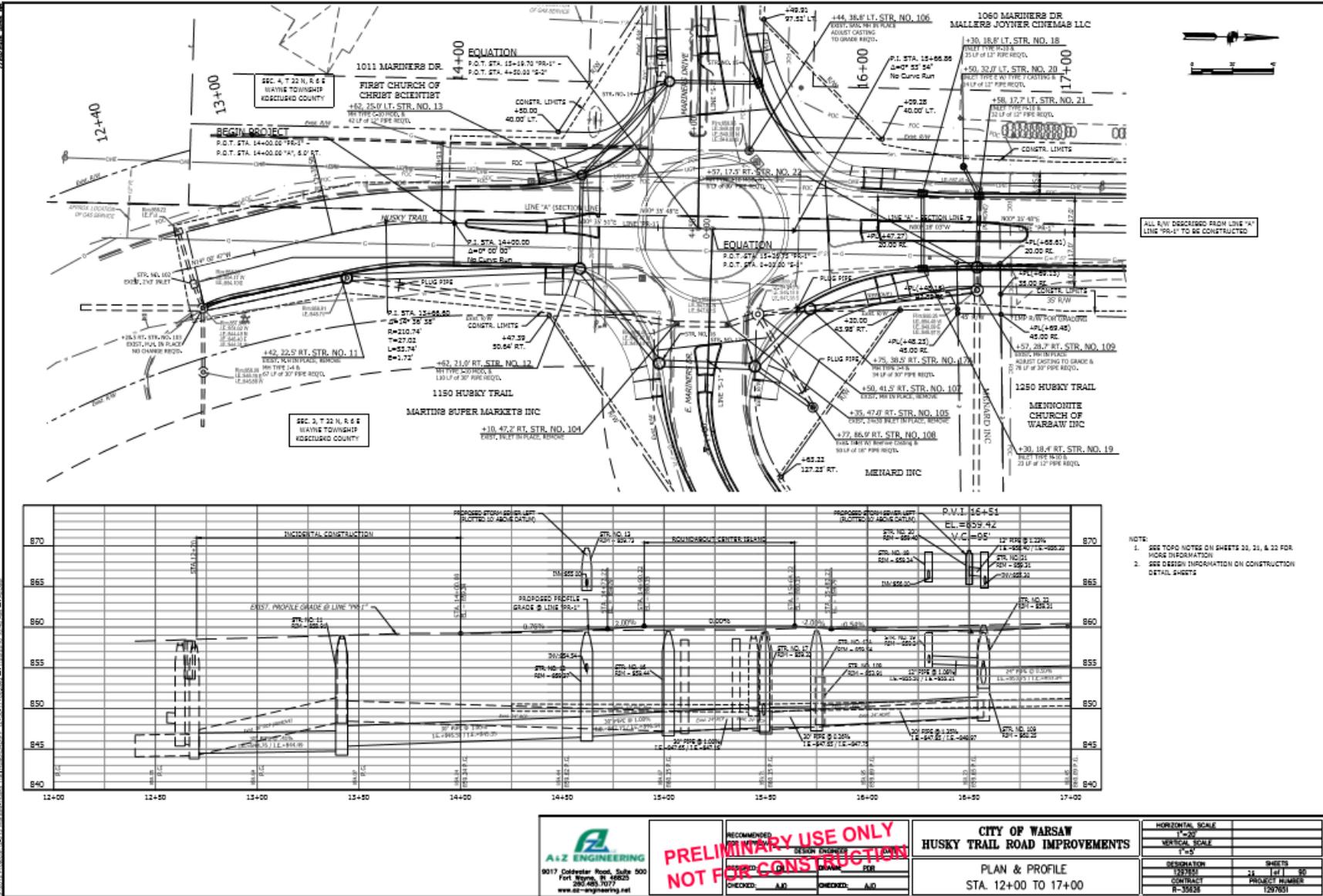
Appendix A: Graphics

- Proposed Plans A-1 thru A-4

Appendix B: Supplemental Area

- Photographs B-1
- Study Area.....B-2

APPENDIX A: GRAPHICS



ALL R/W DERIVED FROM LINE 'A' LINE '19'-11" TO BE CONSTRUCTED

- NOTE:
- SEE TOP NOTES ON SHEETS 20, 21, & 22 FOR MORE INFORMATION
 - SEE DESIGN INFORMATION ON CONSTRUCTION DETAIL SHEETS

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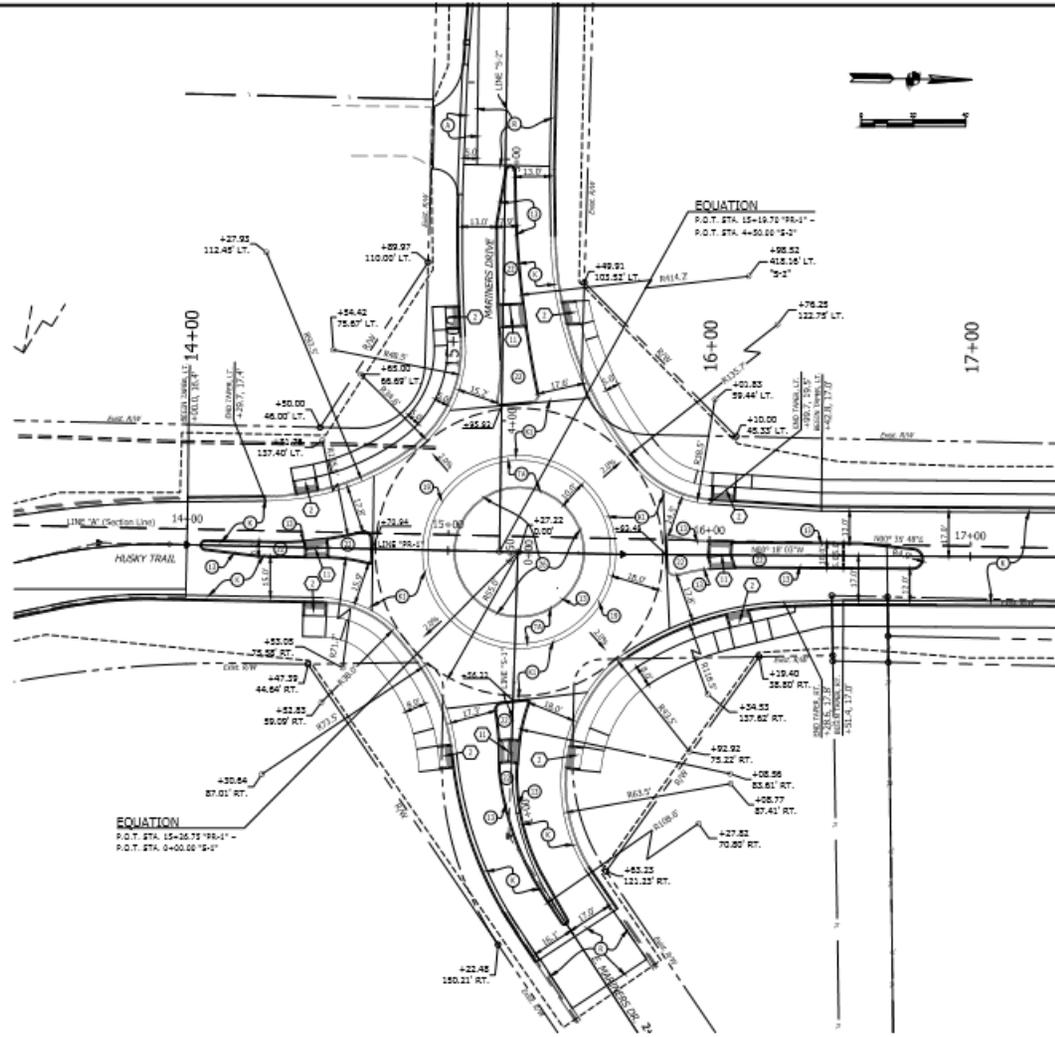
PRELIMINARY USE ONLY
NOT FOR CONSTRUCTION

RECOMMENDED DESIGN ENGINEER
 CHECKED: JAD DRAWN: JAD

CITY OF WARSAW
HUSKY TRAIL ROAD IMPROVEMENTS

PLAN & PROFILE
 STA. 12+00 TO 17+00

HORIZONTAL SCALE	1"=20'
VERTICAL SCALE	1"=5'
DESIGNATION	SHEETS
PROJECT	11 of 80
CONTRACT NUMBER	PROJECT NUMBER
R-30528	1297651



NOTE:
SEE DET. NO. 26 FOR ROUNDABOUT CURB RAMP DETAILS

- LEGEND**
- ① POCP FOR WIDENING, 6.5" ON 2.0 IN COMPACTED AGGREGATE, NO. 53 BASE ON SUBGRADE TREATMENT TYPE 10
 - ② HMA FOR MAINLINE FULL DEPTH 185 #2/0 OC/QA HMA, 3, 70, SURFACE, 0.5 mm, ON 275 #2/0 OC/QA HMA, 3, 70, INTERMEDIATE, 10.0 mm, ON 440 #2/0 OC/QA HMA, 3, 54, BASE, 25.0 mm, ON 2.0 IN COMPACTED AGGREGATE NO. 53 BASE, ON SUBGRADE TREATMENT TYPE 10
 - ③ HMA FOR ROUNDABOUT FULL DEPTH 220 #2/0 OC/QA HMA, 3, 70, SURFACE, 10.0 mm, ON 275 #2/0 OC/QA HMA, 3, 70, INTERMEDIATE, 10.0 mm, ON 715 #2/0 OC/QA HMA, 3, 54, BASE, 10.0 mm, ON 2.0 IN COMPACTED AGGREGATE NO. 53 BASE, ON SUBGRADE TREATMENT TYPE 10
 - ④ HMA FOR MAINLINE CURBSIDE 185 #2/0 OC/QA HMA, 3, 70, SURFACE, 0.5 mm, ON 275 #2/0 OC/QA HMA, 3, 70, INTERMEDIATE, 10.0 mm, ON MILLING, ASPHALT, VARIABLE DEPTH ROUNDABOUT PAVEMENT
 - ⑤ 7" OC/QA POCP W/ 0-10 JOINT (SPA, 15 FT W/ 1" DOWN BASE), ON 6" COMPACT AGGREGATE, NO. 53 BASE, ON SUBGRADE TREATMENT TYPE 10
 - ⑥ CURB, CONCRETE, 6 IN.
 - ⑦ CONCRETE CURB & GUTTER, TYPE B, MODIFIED
 - ⑧ CENTER CURB, CONCRETE, C (MODIFIED) ON 3.0 IN COMPACTED AGGREGATE, NO. 53 BASE
 - ⑨ SOODING, NURSERY
 - ⑩ PREP. CURB RAMP ADD. NON-WALKABLE SURFACE
 - ⑪ MEDIAN CUT-THROUGH WITH CURB

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RECOMMENDED FOR PRELIMINARY USE ONLY NOT FOR CONSTRUCTION

DESIGN ENGINEER: [Signature]
 CHECKED: A.K. / A.K.

CITY OF WARSAW
HUSKY TRAIL ROAD IMPROVEMENTS
 CONSTRUCTION DETAIL
 ROUNDABOUT

HORIZONTAL SCALE	1"=20'
VERTICAL SCALE	N/A
DESIGNATION	SHEETS
123785	42 of 60
CONTRACT	PROJECT NUMBER
8-12528	123785

APPENDIX B: SUPPLEMENTAL AREA

PHOTOS OF SUPPLEMENTAL AREA/HUSKY TRAIL, WARSAW



Looking west at Mariners Dr/Husky Trl Intx



Looking south at Husky Trl/Mariners Dr Intxn



Looking east at Mariners Dr/Husky Trl Intx



Looking at SW quadrant of Husky Trl/Mariners Dr Intx



Looking north at Husky Trl/Mariners Dr Intx



Looking at the SE quadrant of Husky Trl/Mariners Dr Intx



B-2

