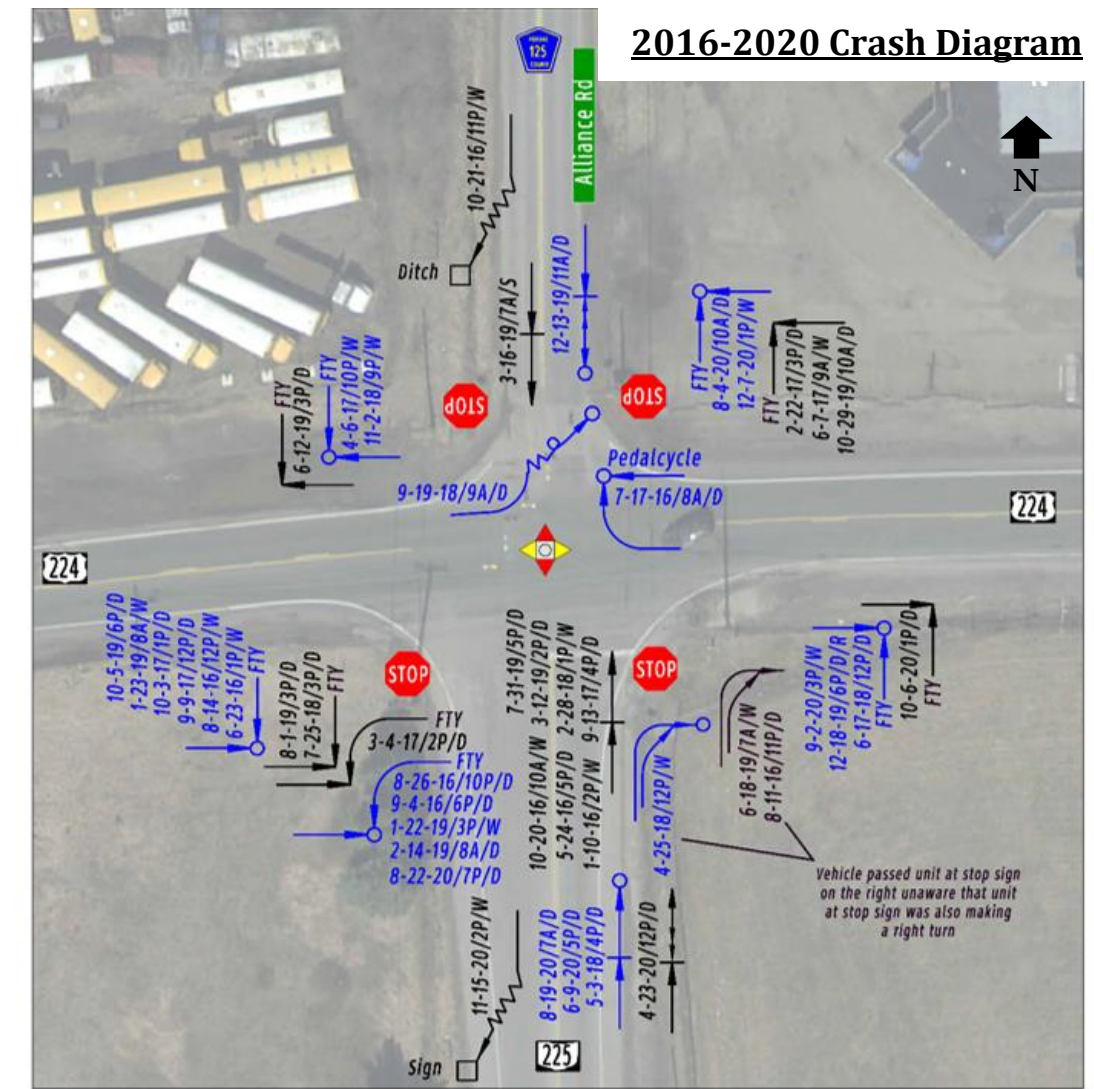
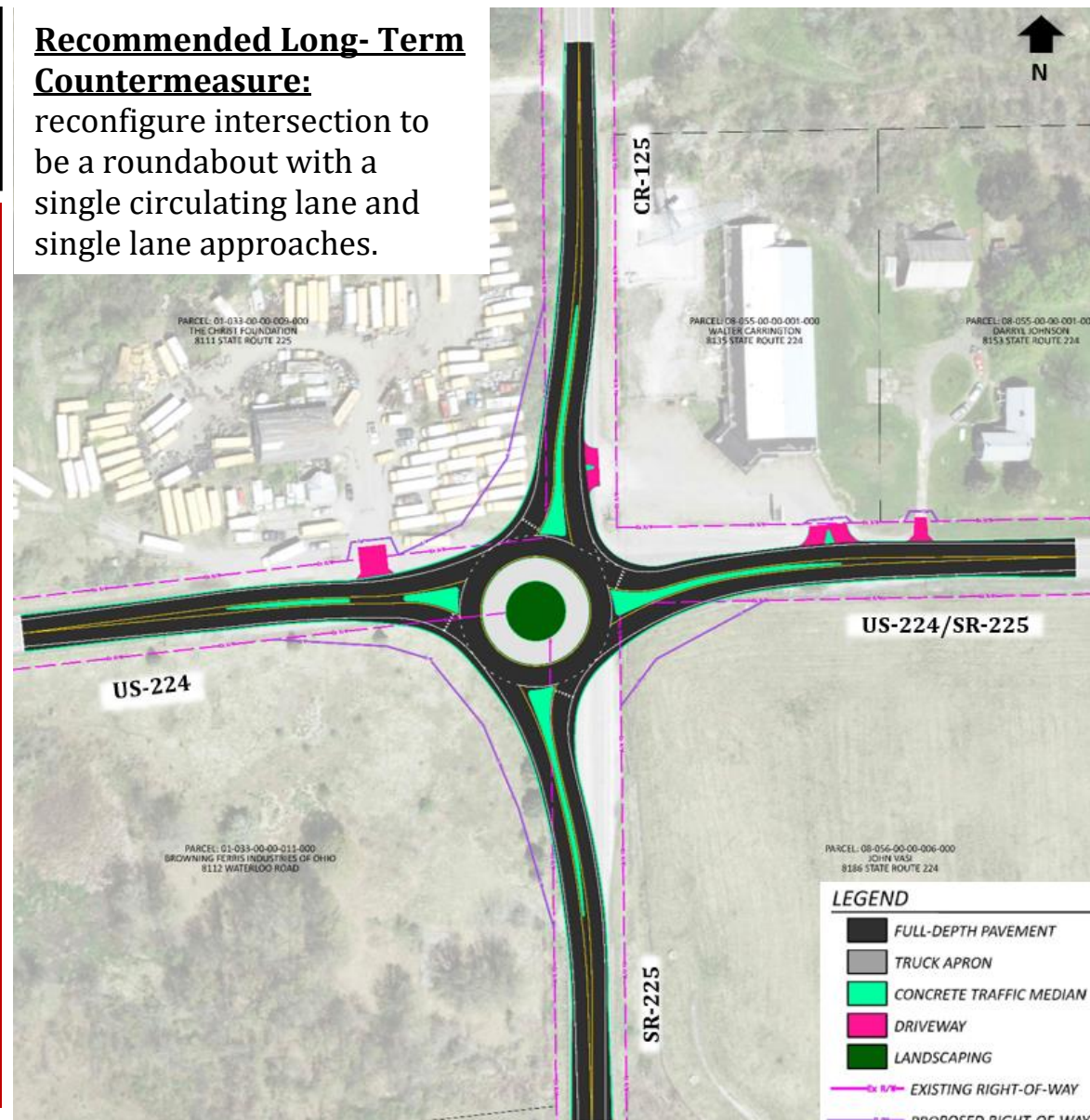


POR US-224 at SR-225 Safety Study

- Ranked #8 on the 2020 ODOT HSIP Rural Intersection list and #1 (locally and overall) on the AMATS High Crash Intersection by Community list (2018-2020).
- Existing Conditions: Two-way stop control with dual stop signs, overhead flashing beacons, and single-lane approaches.
- High volume of northbound right turning trucks and eastbound left turning trucks overlap into oncoming lanes to make their movements.
- The PM peak has LOS E with 2022 volumes, and continues to worsen to LOS F with 2027 and 2047 volumes. Due to truck over-tracking conflicts, it is expected actual operations are likely worse than the capacity analysis results being shown.
- Compared to other countermeasures considered for this intersection, a roundabout is the optimal countermeasure to reduce the failure to yield angle crashes, best improve capacity through the future, and best improve access management.

Recommended Long-Term Countermeasure: reconfigure intersection to be a roundabout with a single circulating lane and single lane approaches.



Project Phase	Safety Study	Interchange Mod. Study	PE - Environmental	PE - Detailed Design	Right of Way /Utilities	Construction	Total
Fiscal Year	2023		2026	2026	2026	2027	
Project Phase Completed	x					N/A	
Previous Safety	\$29,096.00						\$29,096.00
New Safety			\$777,200.00	\$137,200.00	\$97,900.00	\$3,666,100.00	\$4,678,400.00
Sponsor Funding							\$0.00
Total	\$29,096.00	\$0.00	\$777,200.00	\$137,200.00	\$97,900.00	\$3,666,100.00	\$4,707,496.00

Category	Scoring Value	Points Awarded	Points Possible
Ratio of Observed Fatal and Serious Injuries to Observed Total Crashes	0.09	18	30
% of the Potential for Safety Improvement to Total Expected Crashes	25.29%	20	20
Relative Severity Index	57,825.04	20	20
Equivalent Property Damage Only Index	6.50	20	20
Location Equity Measure	12.00%	2	10
Total		80	100

Net Present Value of Project	\$4,256,962.20
Net Present Value of Safety Benefits	\$3,308,631.33
Net Benefit	(\$948,330.87)
Benefit / Cost Ratio	0.78

Crash Type	Number	Percent
Angle	32	42.7%
Rear End	19	25.3%
Left Turn	10	13.3%
Fixed Object	5	6.7%
Right Turn	3	4.0%
Backing	3	4.0%
Sideswipe - Passing	1	1.3%
Pedalcycles	1	1.3%
Overturning	1	1.3%

Number of Fatal & Incapacitating Injury Crashes	-0.320
Number of Injury Crashes	-1.521
Number of Total Crashes	-3.029

FREQUENCY	CRASH SEVERITY
10 2016	21 NON - INJURY
7 2017	25 INJURY OR FATAL
7 2018	
13 2019	
9 2020	46 TOTAL

Crash Year	Number	Percent
2011	5	6.7%
2012	4	5.3%
2013	2	2.7%
2014	3	4.0%
2015	7	9.3%
2016	10	13.3%
2017	7	9.3%
2018	7	9.3%
2019	13	17.3%
2020	9	12.0%
2021	8	10.7%

Crash Severity	Number	Percent
Injury Crash	36	48.0%
Property Damage Crash	39	52.0%

