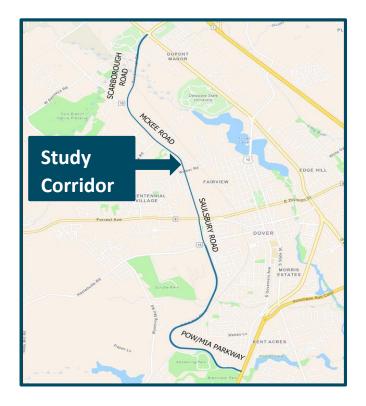
McKee/Saulsbury Road Corridor Study Final Recommendations Report



Prepared for:



Prepared by:











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Executive Summary

The McKee/Saulsbury Road Corridor Study evaluated the corridor between US13 and Scarborough Road to the north and US13 and POW-MIA Parkway to the south. The corridor connects US13 to the south via the POW-MIA Parkway to the SR1 North Dover Interchange.

The purpose and need of this study is to proactively address future capacity needs of the McKee/Saulsbury Road corridor brought about by planned and anticipated future growth and development within the study area and determine when those additional capacity improvements are needed. In addition, a goal of the project is to improve safety, operational, and non-motorized infrastructure conditions.

The corridor currently has one travel lane in each direction until the intersection with Crawford Carroll Ave which has two travel lanes in each direction up to US13. The current shoulder width varies from 10' to 13'.

McKee/Saulsbury Road is classified as a minor arterial within the study limits. The intersecting roadways: McKee Road, College Road, Walker Road, Forrest Avenue, and the west leg of W. North Street are all classified as Minor Arterials. Crawford Carroll Ave, Walker Road, and the east leg of W. North Street are classified as Major Collectors.

There are ten signalized intersections within the McKee Road/Saulsbury Road study corridor included in the traffic analysis as listed:

- 1. US13 (K002) at Scarborough Road (K294)
- 2. Scarborough Road (K294) at Crawford Carroll Ave (K294A)
- 3. Scarborough Road (K294) at McKee Road (K156)
- 4. McKee Road at College Road (K99)
- 5. McKee Road/Saulsbury Road (K156) at Walker Road (K157/K70)
- 6. Saulsbury Road (K156) at Forrest Avenue (K51)
- 7. Saulsbury Road (K156) at Gateway Boulevard
- 8. Saulsbury Road/POW-MIA Parkway (K151) at W. North Street
- 9. POW-MIA Parkway (K151) at Baden Powell Way (K151A)
- 10. POW-MIA Parkway (K151) at US13 (K024)

The corridor has an 8' to 10' wide multi-use path on the west side of the road for most of the study limits. The path switches to the east side between Ridgely Blvd and Forrest Ave. From the southern leg at the intersection with College Road to approximately 400 feet north of W. North Street, McKee Road/Saulsbury Road has an approximately 5-foot-wide sidewalk along the east side as well. The study corridor is a designated Statewide Bicycle Route with Bikeway.

DART has three existing bus transit routes within the study limits, local fixed Route 112, and Intercounty Route 302 and 303 with bus stops as listed. These bus stops are all along a multi-use path or sidewalk, but they do not meet current ADA standards.

Five-year crash data covering the period from June 1, 2017, through June 1, 2022, for the McKee/Saulsbury Road study corridor show seven hundred ten 710 reported total crashes for that period.









The majority of the crashes occurred at the intersections, with Saulsbury Road at Forrest Avenue and Saulsbury Road/POW-MIA at W. North Street, the two largest and most high-volume intersections, experiencing the most intersection crashes.

Computed crash rates of all segments on the McKee Road/Saulsbury Road corridor and for the overall corridor are higher than the crash rates for 2-lane urban minor arterials in Kent County and statewide. The Corridor wide rate is 6.40, compared to 2019 crash rate of 1.65 for Kent County and 1.44 for the State of Delaware.

Average Annual Daily Traffic (AADT) volumes were identified throughout the corridor between 2012 and 2022. A growth rate of 0.75% per annum obtained from DelDOT Planning was applied to the existing 2022 counts to obtain future turning movement volumes. For future conditions, a sensitivity analysis was performed to determine where, when, and what type of capacity improvements will be needed. The study corridor falls entirely within an Investment Level 1 area where growth is encouraged and expected. In addition, expected general background growth in traffic, as a result of proposed and committed developments were obtained from DelDOT Planning and also included in the determination of where, when and what type of improvements will be needed along the study corridor. Traffic volumes from these developments were added on to the background growth for the future year in which the development is proposed to be completed. Traffic volumes from these developments were added on to the background growth for the future year in which the development is proposed to be completed.

Levels of Service (LOS) under existing 2022 traffic conditions operate at an acceptable LOS (LOS D or better). By 2025, with traffic from committed developments added, all intersections except McKee Road at College Road would still operate at LOS D or better. The intersection of McKee Road at College Road would operate at LOS E with delay of 63.5 seconds without the developer improvements.

By 2037 all intersections, except for the intersection of McKee Road at College Road, and the intersection of McKee/Saulsbury Road at Walker Road would all operate at LOS D or better. The intersection of McKee Road at College Road would operate at LOS E with 59.1 seconds delay during the P.M. peak hour even with the westbound right-turn lane improvement in place. At this point, one additional northbound through lane would be needed to improve LOS. With the additional northbound through lane LOS would improve to C with delay of 29.1 seconds. The intersection of McKee/Saulsbury Road at Walker Road would operate at LOS E with delay of 59.4 seconds for the A.M. peak hour. Signal timing optimization would improve LOS to C with delay of 34.1 seconds.

By 2052, all intersections except for the intersection of McKee Road at College Road, and the intersection of McKee/Saulsbury Road at Walker Road, would all operate at LOS D or better with all proposed and committed developments. The intersection of McKee Road at College Road would operate at LOS E with 58.5 seconds delay and LOS F with 87.8 seconds delay for the A.M. and P.M. peak hours respectively even with the westbound right-turn lane improvement in place. At this point, one additional through lane at both the northbound and southbound approaches would be needed to improve LOS. With the additional through lanes in both directions and accompanying signal timing splits and offsets adjustment, LOS would improve to C with delay of 28.7 seconds for the A.M. peak hour. For the P.M. peak hour LOS would improve to C with delay of 27.4 seconds.









The intersection of McKee/Saulsbury Road at Walker Road would operate at LOS F with delay of 93.1 seconds and LOS D with delay of 46.3 seconds for the A.M. and P.M. peak hours respectively. One additional through lane at both the northbound and southbound approaches would be needed to improve traffic operations. With the additional through lanes in both directions and accompanying signal timing splits and offsets adjustment, LOS would improve to C with delay of 25.8 seconds for the A.M. peak hour. For the P.M. peak hour, LOS would improve to C with delay of 24.3 seconds.

Public involvement and community outreach were important components of the McKee/Saulsbury Road Corridor Study. The following provides a summary of the public involvement and outreach that occurred throughout the study:

- Community workshop 1, October 12, 2022
- Businesses Survey, March 3, 2023
- Community Workshop 2, March 9, 2023
- Public Advisory Committee (PAC), April13, 2023
- Technical Advisory Committee (TAC), April 18, 2022
- Businesses & Local Officials Meeting, April 24, 2023
- MPO Council Meeting, May3, 2023

Three conceptual alternatives, Concept Options 1, 2, and 3 were developed to address the study's identified purpose and need, and in response to input from the local community, businesses, and public officials. All three options would add capacity to the corridor by adding an additional travel lane in each direction. However, aside from the travel lanes, other elements of the configuration with each concept option varies. The following describes the details of each concept options, as well as a description of how each concept option would operate.

Concept Option 1 consists of two 12' travel lanes in each direction, and a 14' center turn lane. There would be no shoulders with this Concept Option 1. There would be a 10' multi-use path on both sides of road as part of Concept Option 1. With no shoulders, services and deliveries would have to be conducted from the right travel lane with Concept Option 1.

Concept Option 2 consists of two 12' travel lanes in each direction, but there is no center turn lane with this option. Concept Option 2 includes 8' shoulders on both sides of road. This configuration also includes a 10' multi-use path on the west side of the road, and a 5' sidewalk on the east side of the road. The multi-use path and the sidewalk would be separated from the shoulders by 4' grass buffers. With no center turn lane, services and deliveries would have to be conducted from the left travel lane with Concept Option 2.

Concept Option 3 consists of two 12' travel lanes in each direction, and a 14' center turn lane. Concept Option 3 includes 8' shoulders on both sides of road. This configuration also includes a 10' multi-use path on the west side of the road, and a 5' sidewalk on the east side of the road. The multi-use path and the sidewalk would be separated from the shoulders by 4' grass buffers.









Each of the conceptual alternatives developed meet the identified purpose and need of the study of adding capacity to the McKee/Saulsbury Road corridor. However, each concept option has advantages and disadvantages, based on the configuration of the option. Information collected at the public workshops on comment forms, as well as an on-line comment form and survey did not clearly identify a preferred alternative. Additionally, the conceptual costs of each option are comparable, and therefore should not be used as a deciding factor for a recommendation. However, one factor that did stand out is the desire for a dedicated center left-turn lane.

Therefore, it is the recommendation of this study that Options 1 and 3 are carried forward for further evaluation and refinement as part of the design phase, at which time a preferred alternative would be identified.









Introduction

The McKee/Saulsbury Road Corridor Study evaluated the corridor between US13 and Scarborough Road to the north and US13 and POW-MIA Parkway to the south. The corridor connects US13 to the south via the POW-MIA Parkway to the SR1 North Dover Interchange. It serves as the major north/south roadway within the core of west Dover. The urban nature of this corridor fosters continued growth, and it falls entirely within Investment Level 1 as defined in the Delaware Strategies for State Policies and Spending. Traffic analyses were conducted to evaluate the impacts from the POW-MIA Parkway and future growth

and development along the corridor. This included evaluation of existing and future capacity needs, transit connections and bicycle and pedestrian facilities. Conceptual improvement options were developed to reduce anticipated traffic congestion and improve safety conditions throughout the corridor and presented to the public, businesses, and public officials to solicit their input.

Study Location and Study Area

The McKee/Saulsbury Road Corridor is a twolane urban minor arterial located on the west side of the City of Dover, DE. The study area is comprised of four named roads that make up the corridor and include Scarborough Road, McKee Road, Saulsbury Road, and POW-MIA Parkway. The corridor provides a critical connection to several large businesses within west Dover including Proctor and Gamble, Kraft/Heinz, Corrugated Packaging, Hirsh Industries, PAM Rehabilitation Center, and Edgewell Personal Care Brand. The

Study
Corridor

TENNIAL
LAGE

FOR HALL

Study

Forest Ave

Forest

corridor also provides connections from surrounding residential areas to the major regional transportation network. The corridor directly connects to US13 to the north, SR1 to the north, SR8 to the west and US13 to the south. See *Figure 1*.









Purpose and Need

The purpose and need of this study is to proactively address future capacity needs of the McKee/Saulsbury Road corridor brought about by planned and anticipated future growth and development within the study area and determine when those additional capacity improvements are needed. In addition, a goal of the project is to improve safety, operational, and non-motorized infrastructure conditions. See *Figure 2*.

Existing Conditions, Proposed & Committed Development, and Future Traffic with Development

Existing Roadway Conditions

The corridor, as described above, currently has one travel lane in each direction until the intersection

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with Crawford Carroll Ave which has two travel lanes in each direction up to US13. The current shoulder width varies from 10' to 13'. From the northern study limits at Scarborough Road to approximately 500 feet south of Gemstone Blvd, Saulsbury/McKee Road has curb and gutter on the west side and open drainage on the east side, with southbound right-turn lanes at the intersections with McKee Road and Gemstone Blvd. A northbound left-turn lane exists at the McKee/ Scarborough Road intersection and a northbound bypass lane at Gemstone Blvd. From approximately 500 feet south of Gemstone Blvd to the southern study limits, McKee/Saulsbury Road has curb and gutter with closed drainage on both the west and east sides of the road, and a two-way center left turn lane for most of the corridor. Turn lanes exist at all the major intersections.

McKee/Saulsbury Road is classified as a minor arterial within the study limits. The intersecting roadways: McKee Road, College Road, Walker Road, Forrest Avenue, and the west leg of W. North Street are all classified as Minor Arterials. Crawford Carroll Ave, Walker Road, and the east leg of W. North Street are classified as Major Collectors.

There are ten signalized intersections within the McKee Road/Saulsbury Road study corridor included in the traffic analysis as listed:

- 11. US13 (K002) at Scarborough Road (K294)
- 12. Scarborough Road (K294) at Crawford Carroll Ave (K294A)
- 13. Scarborough Road (K294) at McKee Road (K156)
- 14. McKee Road at College Road (K99)
- 15. McKee Road/Saulsbury Road (K156) at Walker Road (K157/K70)









- 16. Saulsbury Road (K156) at Forrest Avenue (K51)
- 17. Saulsbury Road (K156) at Gateway Boulevard
- 18. Saulsbury Road/POW-MIA Parkway (K151) at W. North Street
- 19. POW-MIA Parkway (K151) at Baden Powell Way (K151A)
- 20. POW-MIA Parkway (K151) at US13 (K024)

Existing Bicycle, Pedestrian, and Transit Facilities

The corridor has an 8' to 10' wide multi-use path on the west side of the road for most of the study limits. The path switches to the east side between Ridgely Blvd and Forrest Ave. From the southern leg at the intersection with College Road to approximately 400 feet north of W. North Street, McKee Road/Saulsbury Road has an approximately 5-foot-wide sidewalk along the east side as well. The study corridor is a designated Statewide Bicycle Route with Bikeway.

DART has three existing bus transit routes within the study limits, local fixed Route 112, and Intercounty Route 302 and 303 with bus stops as listed. These bus stops are all along a multi-use path or sidewalk, but they do not meet current ADA standards.

DelDOT Projects within the Study Area

DelDOT has one capital project within the McKee/Saulsbury Road Corridor study limits, *HEP KC, SR8 and SR15 Intersection Improvements*. See *Figure 3* The project will add one additional lane on both the northbound and southbound legs of Saulsbury Road at the intersection with Forrest Avenue. The proposed double through lanes will extend from south of Carver Road at the northern project limits and tie into the double through lanes to and from the W. North Street intersection at the southern project limits. The roadway construction began in Summer 2022 and is estimated to end in the Summer of 2023. The project is authorized and funded in the current DelDOT Fiscal Year 2021 – Fiscal Year 2026 (FY 2021 – FY 2026) Capital Transportation Program (CTP). This improvement has been accounted for in all future year traffic analysis.



Traffic Analysis

The following is a summary of the traffic analysis conducted for the McKee/Salisbury Corridor Study. The complete traffic analyses and traffic reports can be found Dover/Kent County MPO Website.



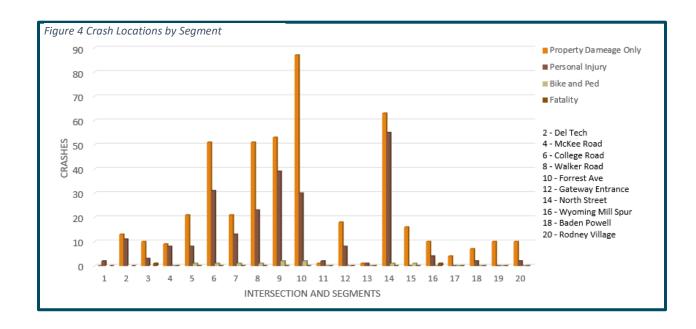






Crash History

Five-year crash data covering the period from June 1, 2017, through June 1, 2022, for the McKee/Saulsbury Road study corridor show seven hundred ten 710 reported total crashes for that period. The majority of the crashes occurred at the intersections, with Saulsbury Road at Forrest Avenue and Saulsbury Road/POW-MIA at W. North Street, the two largest and most high-volume intersections, experiencing the most intersection crashes. Vehicular crashes accounted for 456 (54.2%) property damage crashes and 242 (34.1%) personal injury crashes for the five-year period. Vehicular crashes at intersections accounted for 70.0% of all property damage crashes along the corridor and 71.9% of all injury crashes along the corridor. A total of ten (10) non-motorized personal injury crashes, approximately 1.4% of all reported crashes, occurred randomly (at intersections and along the corridor) throughout the corridor. Two crashes along the study corridor resulted in fatalities during this period, one between Del Tech and McKee Road and the other at the intersection of POW/MIA Parkway and Wyoming Mill Spur. See Figure 4 and 5.

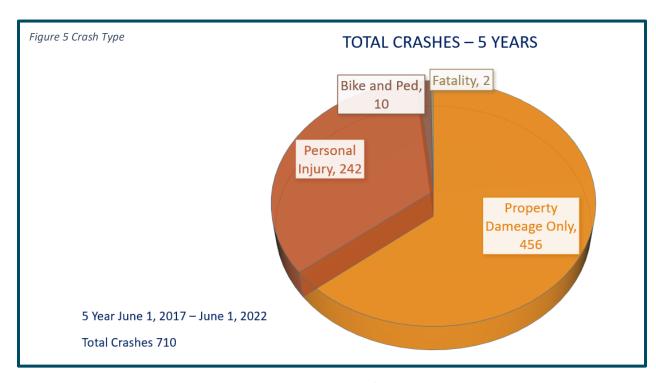












Computed crash rates of all segments on the McKee Road/Saulsbury Road corridor and for the overall corridor are higher than the crash rates for 2-lane urban minor arterials in Kent County and statewide. The Corridor wide rate is 6.40, compared to 2019 crash rate of 1.65 for Kent County and 1.44 for the State of Delaware. The following present the crash rates for each segment and how much greater they are than the county and state rates. See *Table 1*.

Road	From	То	Crash Rate (C/MVMT)	Segment Rate Kent County 2019 Rate	Segment Rate State 2019 Rate
Scarborough Road	US13	DelTech	1.21	0.94	0.83
Scarborough Road	DelTech	McKee	1.99	1.21	1.39
McKee Rd	Scarborough Rd	College Rd	3.78	2.29	2.62
McKee Rd	College Rd	Walker Rd	6.32	3.83	4.39
Saulsbury Rd	Walker Rd	Forrest Rd	5.39	3.27	3.74
Saulsbury Rd	Forrest Rd	Gateway Blvd	5.56	3.37	3.86
Saulsbury Rd	Gateway Blvd	North St	24.60	14.91	17.08
POW-MIA	W North St	Wyoming Mill Rd Spur	1.19	0.72	0.82
POW-MIA	Wyoming Mill Rd Spur	Baden Powell Way	1.35	0.82	0.92
POW-MIA	Baden Powell Way	US13	3.70	2.24	2.54

Table 1 Crash Rates by Segment Compared to State and County





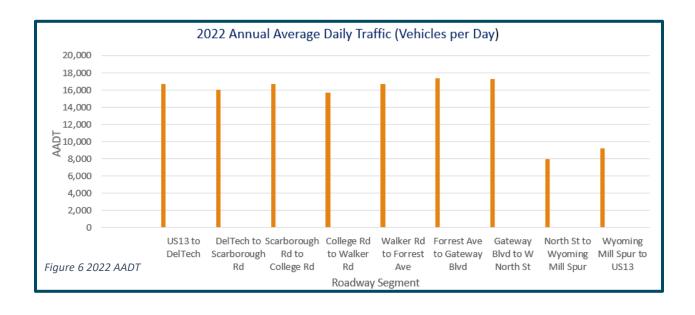




It should however be noted that the exceedingly higher crash rate for the Saulsbury Road segment between Gateway Boulevard and W. North Street, is not evidence of extraordinarily unsafe conditions along the segment. It is due to the combination of the very short segment length coupled with high number of crashes at the high-volume intersection of Saulsbury Road at W. North Street, which is part of this short segment. As this is atypical to the corridor-wide conditions, this segment is not considered as representative of the corridor.

Table 2 below shows the historic annual average traffic for the corridor. For the traffic operational analysis, A.M. and P.M. peak hour turning movement counts were obtained for the existing study intersections on regular weekdays with when the local school systems were in session between Tuesday, April 12, 2022, through Thursday April 14, 2022. See *Figure 6*.

Table 2 Historic AADT				Annual Average Daily Traffic (Vehicles per Day)					
Year	US13 to DelTech	DelTech to Scarborough Rd	Scarborough Rd to College Rd	College Rd to Walker Rd	Walker Rd to Forrest Ave	Forrest Ave to Gateway Blvd	Gateway Blvd to W North St	North St to Wyoming Mill Spur	Wyoming Mill Spur to US13
2012	14,425	14,053	15,811	16,107	24,013	17,810	16,048		
2013	14,367	13,997	15,811	16,912	25,214	18,701	15,984		
2014	14,424	14,053	16,352	17,487	26,071	19,337	16,048		
2015	14,684	14,306	17,984	19,236	28,678	21,271	16,337		
2016	14,797	14,382	18,974	20,295	30,257	22,442	16,423		
2017	16,622	14,664	22,164	21,986	32,778	24,311	16,746		
2018	16,640	16,787	32,942	22,201	32,942	24,550	16,910	7,933	8,258
2019	17,130	16,482	25,868	17,714	25,868	16,675	16,603	9,514	8,108
2020	13,618	13,103	20,565	14,083	20,565	13,257	13,199	7,564	6,446
2021	16,696	16,065	25,213	17,265	25,213	16,253	16,182	9,668	7,903
2022	16,696	16,065	16,693	15,666	16,693	17,383	17,307	7,933	9,195





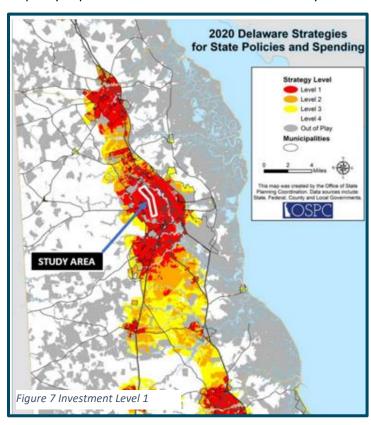






A growth rate of 0.75% pr annum obtained from DelDOT Planning was applied to the existing 2022 counts to obtain future turning movement volumes. For future conditions, a sensitivity analysis was performed to determine where, when, and what type of capacity improvements would be needed. The study corridor

falls entirely within an Investment Level 1 area where growth is encouraged and expected. See Figure 7. In addition, expected general background growth in traffic, as a result of proposed and committed developments were obtained from DelDOT Planning and also included in the determination of where, when and what type of improvements will be needed along the study corridor. Traffic volumes from these developments were added on to the background growth for the future year in which the development is proposed to be completed per the TIS or TOA where given. The proposed and committed development status are presented in Table 3.



2022 Status	Proposed Buid Year	Traffic Volume Inclusion Level	Comments/Explanation
Unbuilt	2025	100%	None
Unbuilt	2022	100%	Unbuilt as of June 2022
Built	N/A	50%	Operating at 50% Capacity. Full Capacity expected in 2023
Unbuilt	Various*	100%	None
Unbuilt	Various*	100%	None
Unbuilt	Various*	100%	None
Built	N/A	0%	Inclusive in 2022 trafffic counts
Built	N/A	0%	Inclusive in 2022 trafffic counts
Built	N/A	0%	Inclusive in 2022 trafffic counts
Unbuilt**	Various*	100%	100% as provided in TIS Studies
	Unbuilt Unbuilt Built Unbuilt Unbuilt Unbuilt Built Built Built	Unbuilt 2025 Unbuilt 2022 Built N/A Unbuilt Various* Unbuilt Various* Unbuilt Various* Built N/A Built N/A Built N/A Built N/A	2022 Status Buid Year Inclusion Level Unbuilt 2025 100% Unbuilt 2022 100% Built N/A 50% Unbuilt Various* 100% Unbuilt Various* 100% Unbuilt Various* 100% Built N/A 0% Built N/A 0% Built N/A 0% Built N/A 0%









A design year of 2052, 30 years from the time of the analysis was used for the ultimate conditions analysis. This is two (2) years beyond the current (2018) Kent County Comprehensive Plan horizon year of 2050. The initial interim future year for the sensitivity analysis, 2025, is based on the estimated full build-out year of all the proposed developments. Further sensitivity analysis accounting for all the proposed and committed developments established future year 2037 was the next point at which further capacity improvements would be triggered.

Traffic Operational Analysis

A.M. and P.M. intersection operational analysis was performed for the study corridor under existing 2022 and future year traffic conditions using Synchro/SimTraffic 11 software. Existing signal timing, coordination, and time of day (TOD) data was obtained from the DelDOT Traffic Management Center (TMC) for use in the analysis so as obtain as close to actual operating conditions as feasible.

Based on sensitivity analysis using incremental application of growth factors and addition of proposed and committed development volumes, the following alternatives were analyzed fully for inclusion of traffic operational results.

- Existing 2022 traffic conditions
- Future 2025 with all proposed & committed developments
- Future 2037 with all proposed & committed developments
- Ultimate year 2052 all proposed & committed developments

As noted previously in this report, DelDOT's *HEP KC, SR8* and *SR15* Intersection Improvements project will add one additional through lane on both the northbound and southbound legs of Saulsbury Road. The project is currently scheduled to be completed in Summer 2023. These improvements were therefore incorporated into all future year analysis.

Traffic Operational Analysis Results

Measures of effectiveness (MOE) results generated from the synchro traffic operational analyses are delay in seconds per vehicle and level of service (LOS). The LOS criteria are provided in *Table 4*. The goal is to maintain an LOS of D or better throughout the study corridor. In the cases for which improvements were needed to achieve satisfactory MOE, the type of improvement and the resulting MOE are also given below.

Table 4 Level of Service Criteria				
LOS	Signalized Delay (Seconds per Vehicle)			
Α	0 to 10			
В	>10 to 20			
С	>20 to 35			
D	>35 to 55			
E	>55 to 80			
F	>80			

Based on the operational analyses all the study corridor intersections are operating at satisfactory LOS under existing 2022 traffic conditions. Without the proposed and committed developments, that will continue to be the case in all interim future years and under Design Year 2052 conditions with the DelDOT HEP KC, SR8 and SR15 Intersection Improvements in place.



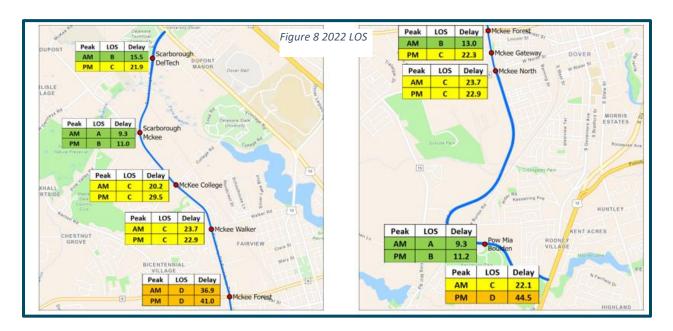






Existing 2022 Traffic Conditions

With existing 2022 traffic conditions, LOS are acceptable at all intersections as depicted in *Figure 8* below:





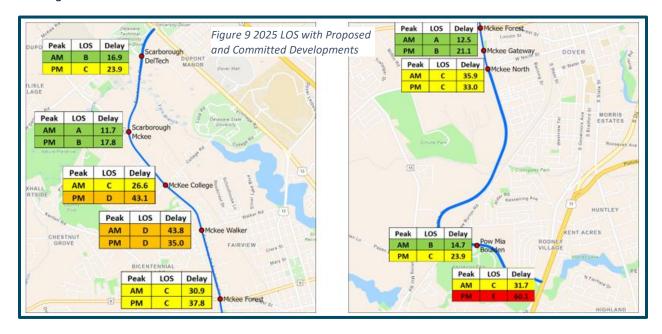






2025 with All Proposed and Committed Developments

When traffic from all the committed developments is added to the existing traffic, all intersections except McKee Road at College Road would still operate at LOS D or better. The intersection of McKee Road at College Road would operate at LOS E with delay of 63.5 seconds without the developer improvements. See *Figure 9*.



2037 with All Proposed and Committed Developments

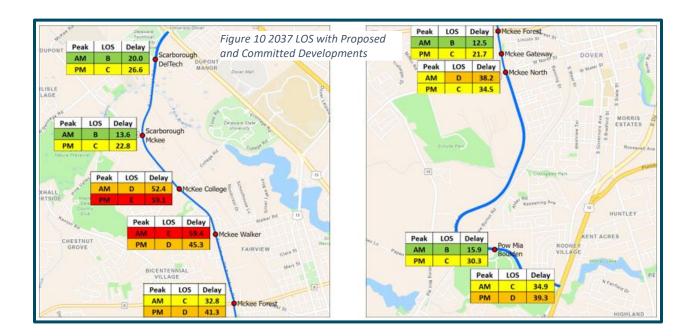
Except for the intersection of McKee Road at College Road and the intersection of McKee/Saulsbury Road at Walker Road, the other study intersections would all operate at LOS D or better for 2037 traffic conditions with all proposed and committed developments. The intersection of McKee Road at College Road would operate at LOS E with 59.1 seconds of delay during the P.M. peak hour even with the westbound right-turn lane improvement in place. At this point, one additional northbound through lane would be needed to improve LOS. Adding the additional northbound through lane would improve the LOS to LOS C with a delay of 29.1 seconds. See *Figure 10*.











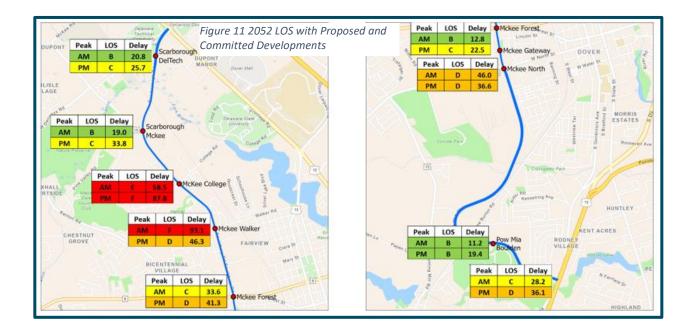
The intersection of McKee/Saulsbury Road at Walker Road would operate at LOS E with a delay of 59.4 seconds for the A.M. peak hour. Signal timing optimization would improve the LOS to LOS C with a delay of 34.1 seconds.

2052 with All Proposed and Committed Developments Except for the intersection of McKee Road at College Road and the intersection of McKee/Saulsbury Road at Walker Road, the other study intersections would all operate at LOS D or better for Design Year 2052 traffic conditions with all proposed and committed developments. The intersection of McKee Road at College Road would operate at LOS E with 58.5 seconds delay and LOS F with 87.8 seconds delay for the A.M. and P.M. peak hours respectively even with the westbound right-turn lane improvement in place. At this point, one additional through lane at both the northbound and southbound approaches would be needed to improve LOS. With the additional through lanes in both directions and accompanying signal timing splits and offsets adjustment, the LOS would improve to LOS C with a delay of 28.7 seconds for the A.M. peak hour. For the P.M. peak hour, the LOS would improve to LOS C with a delay of 27.4 seconds. See Figure 11.









The intersection of McKee/Saulsbury Road at Walker Road would operate at LOS F with a delay of 93.1 seconds and LOS D with a delay of 46.3 seconds for the A.M. and P.M. peak hours respectively. One additional through lane at both the northbound and southbound approaches would be needed to improve traffic operations. With the additional through lanes in both directions and accompanying signal timing splits and offsets adjustment, LOS would improve to LOS C with a delay of 25.8 seconds for the A.M. peak hour. For the P.M. peak hour, LOS would improve to LOS C with a delay of 24.3 seconds.

To achieve an acceptable LOS at each of the intersections throughout the study corridor, the improvements shown on *Figure 12* would be required. These improvements would be in conjunction with developer required improvements as those developments are built.











Public Involvement

Public involvement is an integral element of any successful planning study. Public involvement and community outreach were important components of the McKee/Saulsbury Road Corridor Study. Residents, the business community, as well as state and local stakeholders were engaged throughout the Study. The following provides a summary of the public involvement and outreach that occurred throughout the study and helped guide the development of conceptual improvement alternatives:

Community Workshop 1

October 12, 2022

- Virtual Via Zoom
- Study Area, Purpose & Need, Current Area DelDOT Projects and MPO Studies, Traffic Volumes, Crashes, LOS Proposed Developments & Transportation Improvements, and Visioning Exercise
- 23 Attendees
- 8 Polling Questions asked and Tabulated
- 14 Questions Asked and Answered
- 5 Post Workshop Survey Questions Asked and Tabulated
- See Appendix A for Workshop 1 Summary Report

Businesses Survey

March 3, 2023

- On-Line
- 3 Responses
- See Appendix B for On-Line Survey Results

Community Workshop 2

March 9, 2023

- Live
- Elks Lodge, Saulsbury Rd, Dover
- Study Area and Purpose & Need, Existing Typical Section,
- Concept Option 1
- Concept Option
- Concept Option 3
- Schedule & Next Steps
- 32 Attendees
- 19 Comment Forms Completed and returned at Workshop
- 1 On-Line Response to the Comment Form
- See Appendix C for Workshop 2 Summary Report

Public Advisory Committee (PAC)

April 13, 2023

Study Area and Purpose & Need









- Public Workshop 1 & 2 Summaries
- 2022 Traffic Volumes (AADT)
- Five Year Crash History (June 2017-June 2022), Crash Types, and Crash Rate Comparison of Corridor, County, and State
- Crash Clusters by Location
- 2020 Strategies for State Policies and Spending, and Per Annum Growth (per DelDOT)
- Development Activity, including Fully or Partially Built/Occupied,
 Proposed or Committed
- Concept Option 1
- Concept Option 2
- Concept Option 3
- Schedule & Next Steps

Technical Advisory Committee (TAC)

April 18, 2023

- Study Area and Purpose & Need
- Public Workshop 1 & 2 Summaries
- 2022 Traffic Volumes (AADT)
- Five Year Crash History (June 2017-June 2022), Crash Types, and Crash Rate Comparison of Corridor, County, and State
- Crash Clusters by Location
- 2020 Strategies for State Policies and Spending, and Per Annum Growth (per DelDOT)
- Development Activity, including Fully or Partially Built/Occupied, Proposed or Committed
- Concept Option
- Concept Option 2
- Concept Option 3
- Schedule & Next Steps

Businesses & Local Officials Meeting

April 24, 2023

- Study Area and Purpose & Need
- Public Workshop 1 & 2 Summaries
- 2022 Traffic Volumes (AADT)
- Five Year Crash History (June 2017-June 2022), Crash Types, and Crash Rate Comparison of Corridor, County, and State
- Crash Clusters by Location
- 2020 Strategies for State Policies and Spending, and Per Annum Growth (per DelDOT)
- Development Activity, including Fully or Partially Built/Occupied,
 Proposed or Committed
- Concept Option 1









- Concept Option 2
- Concept Option 3
- Schedule & Next Steps

MPO Council Presentation

May 3, 2023

- Study Area and Purpose & Need
- Public Workshop 1 & 2 Summaries
- 2022 Traffic Volumes (AADT)
- Five Year Crash History (June 2017-June 2022), Crash Types, and Crash Rate Comparison of Corridor, County, and State
- Crash Clusters by Location
- 2020 Strategies for State Policies and Spending, and Per Annum Growth (per DelDOT)
- Development Activity, including Fully or Partially Built/Occupied,
 Proposed or Committed
- Concept Option 1
- Concept Option 2
- Concept Option 3
- Cost Estimates
- Recommendations

Figure 13 depicts the community outreach schedule.









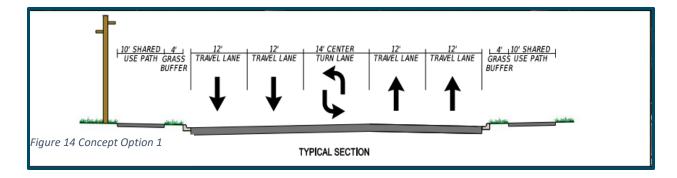


Alternatives Considered

Three conceptual alternatives Options 1, 2, and 3 were developed to address the study's identified purpose and need, and in response to input from the local community, businesses, and public officials. All three options would add capacity to the corridor by adding an additional travel lane in each direction. However, aside from the travel lanes, other elements of the configuration with each option varies. The following describes the details of each option, as well as a description of how each option will operate.

Concept Option 1

Concept Option 1 consists of two 12' travel lanes in each direction, and a 14' center turn lane. There would be no shoulders with this Option. There would be a 10' multi-use path on both sides of road as part of Option 1. See *Figure 14*.



Some of the benefits of Option 1 include:

- A dedicated left turn lane, which would allow left-turning vehicles to exit the travel lane and use
 the dedicated left turn lane to make left turns. This configuration would allow through vehicles to
 continue traveling unimpeded, while left-turning vehicles would have the refuge of a dedicated
 left-turn lane to stop if necessary, allowing on-coming traffic to clear before safely making a left
 turn.
- A multi-use path on both sides of the road which would facilitate alternative travel modes including cycling and walking. Bicyclists and pedestrians would have two dedicated paths, separated from the travel lanes by 4' grass buffers.

A disadvantage of Option 1 is the lack of shoulders. A configuration without shoulders would require services such as mail delivery, trash pick-up, delivery of goods, and the like, to be conducted from the right travel lane. This would require vehicles using the right travel lane to stop and wait for the service to be completed before proceeding, or to pass the stopped service vehicle in the left travel lane.

Concept Option 2

Concept Option 2 consists of two 12' travel lanes in each direction, but there is no center turn lane with this Option. This Option includes 8' shoulders on both sides of road. This configuration also includes a 10'

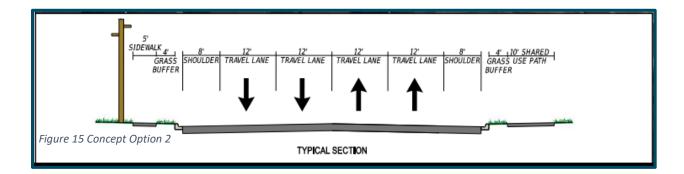








multi-use path on the west side of the road, and a 5' sidewalk on the east side of the road. The multi-use path and the sidewalk would be separated from the shoulders by a 4' grass buffer. See *Figure 15*.



Some of the advantages of Option 2 include:

- Shoulders on both sides of the road which would allow for deliveries and services to be conducted from the shoulders and would not disrupt through traffic in the travel lanes.
- A multi-use path on the west side of the road and sidewalk on the east side of the road would facilitate alternative travel modes including cycling and walking. The multi-use path on the west side, as the name suggests, would provide a dedicated path for both bicyclists and pedestrians separated from the shoulders by 4' grass buffer. The sidewalk on the east side of the road would be a separate facility for pedestrians, separated from the shoulder by a 4' grass buffer.

A disadvantage of Option 2 is the lack of a center turn lane. Without a dedicated left-turn lane, left turning vehicles would be forced to make this move from the left travel lane. If there is on-coming traffic in the opposing lanes, vehicles would have to stop in the left travel lane a wait for the on-coming traffic to clear before proceeding with a left turn. Through-vehicles traveling in the left travel lane would have to stop and wait for the for the vehicle to make the left turn before proceeding or would have to pass the stopped vehicle in the right travel lane.

Concept Option 3

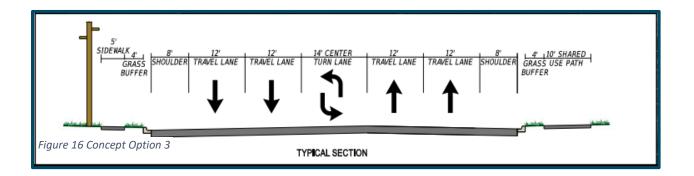
Concept Option 3 consists of two 12' travel lanes in each direction, and a 14' center turn lane. This Option includes 8' shoulders on both sides of road. This configuration also includes a 10' multi-use path on the west side of the road, and a 5' sidewalk on the east side of the road. The multi-use path and the sidewalk would be separated from the shoulders by 4' grass buffers. See *Figure 16*.











Some of the advantages of Option 3 include:

- A dedicated left turn lane, which would allow left-turning vehicles to exit the travel lane and use
 the dedicated left turn lane to make left turns. This configuration would allow through vehicles to
 continue traveling unimpeded, while left-turning vehicles would have the refuge of a dedicated
 left-turn lane to stop if necessary, allowing on-coming traffic to clear before safely making a left
 turn.
- Shoulders on both sides of the road which would allow for deliveries and services to be conducted from the shoulders and would not disrupt through traffic in the travel lanes.
- A multi-use path on the west side of the road and sidewalk on the east side of the road would facilitate alternative travel modes including cycling and walking. The multi-use path on the west side, as the name suggests, would provide a dedicated path for both bicyclists and pedestrians separated from the shoulders by a 4' grass buffer. The sidewalk on the east side of the road would be a separate facility for pedestrians, separated from the shoulder by a 4' grass buffer.

A disadvantage of this Option is that it would require the most right of way, as compared to the other two Options, to accommodate all the elements associated with this configuration.

Each of the Concepts are provided in *Appendix D* of this report.

Recommendations

Each of the conceptual alternatives developed meet the identified purpose and need of the study of adding capacity to the McKee/Saulsbury Road corridor. However, each option has advantages and disadvantages, based on the configuration of the option. Information collected at the public workshops on comment forms, as well as an on-line comment form and survey provided insight to the community's concerns, preferences, and opinions, but did not clearly identify a preferred alternative. Additionally, the conceptual costs of each option are comparable, and therefore should not be used as a deciding factor for a recommendation. However, one factor that did stand out is the desire for a dedicated center left-turn lane.









Therefore, it is the recommendation of this study that Concept Options 1 and 3 are carried forward for further evaluation and refinement as part of the design phase, at which time a preferred alternative would be identified.

Information gathered as part of community outreach identified several revisions to be considered for each of the Concepts. Since these revisions could be incorporated into either Concept Option 1 or Concept Option 3, they will be further evaluated as part of the design phase when a preferred alternative is identified. The suggested revisions include the following:

- The addition of a right turn lane and increase the intersection radii at the Clara Street Extension at Saulsbury Road to accommodate turning movements of large trucks associated with A&D Trucking, PODS Moving & Storage, Kent County Secondary ILC, Capital School District Bus Maintenance Facility, and other industrial uses in that area.
- Consideration of relocating the access opposite at Old Forge Drive and McKee Road to create a
 four-way intersection with the commercial facility with a possible traffic signal to facilitate access
 and egress to the residential community off Old Forge Drive and commercial uses on the east side
 of McKee Road.
- Consider minimizing travel lanes and the center turn lane to the DelDOT minimum for this road classification (urban minor arterial) to 11 feet to reduce required right of way. This would be in keeping with the most current DelDOT standards.

Cost Estimates

Conceptual cost estimates were developed for Concept Options 1 and 3 as the Options recommended to be carried forward for further study during the design phase. These cost estimates would have to be further refined but serve as a starting point for the costs of Options 1 and 3, relative to each other. The following provides a summary of the conceptual cost estimates for Options 1 and 3.

Concept Option 1

Total Cost	\$29,517,484
Construction	\$24,355,174
Right-of-Way	\$1,500,000
Preliminary Engineering	\$3,662,310

Concept Option 3

Total Cost	\$33,398,125
Construction	\$27,263,705
Right-of-Way	\$2,000,000
Preliminary Engineering	\$4,134,420

Complete conceptual cost estimates for Concept Options 1 and 3 are provided in *Appendix E* of this report.









Appendix A: Public Workshop 1 Summary Report











McKee/Saulsbury Rd Study Community Workshop #1 October 12, 2022 Workshop Summary Report

The first Public Workshop for the McKee/Saulsbury Road Study was held on October 12, 2022 via Zoom. The Workshop included a live presentation and was followed by a Question-and-Answer period.

The following provides a summary of the Workshop and corresponding feedback.

The Workshop hosted 23 attendees. The Workshop presentation included a review of the Study Area, Project Purpose and Need, a summary of current DelDOT projects and MPO studies in the area, current traffic volumes, crashes, and levels of service along the corridor, development activity, various level of service scenarios based on proposed developments and transportation improvements, and a visioning exercise that reviewed several improvement concepts.

Eight (8) Polling questions were asked throughout the presentation to gather information and to encourage participation from the attendees. The following information was gathered through the polls:



A Kleinfelder Company		
McKee/Saulsbury Rd Study		
12-Oct-22		
Poll Results		
Workshop Summary Results		
	Answer	Tally
	Allower	runy
1. Do you live or work in the study area?		
	Live	2
	Work	3
	Live and Work	3
	Neither	2
2. Which best describes the group you represent?		
	Area Resident	3
	Area Business	0
	Government or Agency Representative	3
	Concerned Citizen	3
3. Do you agree witht the purpose and need of this study?	Voc	
	Yes	7
	No Unsure	2
	Olisule	
4. What is your preference for shoulders?		
	No Shoulders	2
	5-Foot Shoulders	4
	8-Foot Shoulders	2
5. In your opinion right turns should be located at:		
5. In your opinion right turns should be located at:	Major intersections	1
	Major intersections and major entrances	6
	No separate right turn lanes	2
	Not sure	2
		_
6. In your opinion, bus stops should be serviced from the:		
	Travel Lane	2
	Shoulder	1
	Pull-Off	5
	Not Sure	0
7. If narrow shoulders are provided, should there be a		
shared-use path on both sides?		
	Both sides	3
	Just one side	2
	Neither	0
	Not sure	2
8. If wider shoulders are provided, where should a wider shared-use path be located?		
	Both sides	3
	Just one side	6
	Neither	0
	Unsure	0



Following the presentation, which included the eight (8) poll questions summarized above, a Questionand-Answer session was held. The following questions were asked:

- 1. Not a question but Playtex/Edgewell is entrance is on Clara Street. Would that be considered a major entrance?
- 2. When you say additional right of way, it sounds like that is a challenge. what is that challenge?
- 3. A new dedicated right turn lane from College Road to Saulsbury Road should be added. I always have to cut through the office parking lot due to being backed up. You can't get through to the turn lane if 3 cars are at the light.
- 4. Are there any plans to potentially reroute/change the routing of DE 15?
- 5. Why are the crash numbers so high on Saulsbury Road between Gateway and North Street?
- 6. What is the expected speed limit on the expanded roadway?
- 7. Very concerned about the yet to be built Royal Farms. The College Road intersection is going to be a nightmare. Will never be able to make a left turn from the store. How will this parking lot look? Entrance and exit.
- 8. Between Gateway and North Street, there are no curves and no mailboxes, so why is the crash percentage so high?
- 9. Can you speak to the north part of the roadway near Scarborough Road intersection heading south toward Dover where the left hand merges into a single lane. Will this be improved? Area near Del Tech.
- 10. Will the workshop slides be posted online?
- 11. How can bicycles be accommodated for crossing this larger, busier roadway at intersections?
- 12. There are multi-use paths on both sides of both roads of the intersection Rt 8 & 15. Can this be duplicated at crossings at Walker Road and at College Road?
- 13. Isn't the shared-use path 10 feet wide?
- 14. If mid-block crossings are not possible for bikes and peds, can it work to have multi-use paths only on one side? Seems like it can't.

The Q&A Session, as well as the entire presentation, was recorded and the responses to the questions above can be found on that recording which is posted on the Dover/Kent County MPO Website at doverkentmpo.delaware.gov.



At the completion of the Workshop and Q&A Session attendees were asked to complete a Post Workshop Survey. The results of that survey are as follows:

Are there other improvements you would like evaluated as part of this srudy?

Reply: Yes. As the roadway expands from two to four travel lanes, and as traffic volumes and speeds increase dramatically, special additional measures must be taken to accommodate pedestrians and bicyclists. Facilities must be present on both sides of the road, and intersections must be made bike and pedestrian friendly, including the approaches (right turn lanes are a hazard).

Reply: Look at implementation of Signal Agreements that are already in place - I believe there is one for the Wyoming Spur at POWMIA Parkway. I avoid going that way if heading north in mornings. Traffic does not follow posted speed on POWMIA. Also is there any 'greening' of the corridor like street trees and planted median islands - this may slow traffic. The continuous center turn lane seems excessive. Think road diet.

Reply: The intersection and access for schools (William Henry/Book T. Washington) along the study route. This will mean turning needs for buses and student/parent volumes. (I missed part of the presentation so apologies if this was covered!)

Reply: Turn lane from College Road onto Saulsbury Road heading south.

Reply: College Road between McKee and Kenton Road.

Reply: Mainly just looking into how US/DE routes are routed in the area.

2. How well do you feel tonight's workshop provided you the opportunity to share your ideas, thoughts, and concerns related to transportation and traffic circulation in the study area?

Reply: In my view, tonight's workshop did a poor job in allowing attendees to share ideas thoughts and concerns. We should have been able to pose questions as the presentation was being made, in order to better understand what was being presented. In addition, during the Q&A session at the end, there should also be a way to pose questions verbally, because typing questions is very slow in relation to the window of opportunity, and it is difficult to listen to other's questions while typing my own. In addition, the mid-presentation survey questions posed were extremely limiting, and there was no way to qualify a response. Very frustrating.

Reply: I liked the poll questions but for some of the questions my answer would differ depending on where in the corridor. Also please check in with the City of Dover Planning Office with 'developments' as Maidstone Subdivision land area is now State Park Land and also this corridor has special development design provisions under the COZ-1 (Corridor Overlay District).

Reply: It went well!

Reply: The workshop was fine, just would rather be in person.

Reply: Very open with good information.



Reply: Yes

3. Are there any other thoughts or topics regarding the content for format of tonight's workshop you would like addressed?

Reply: This roadway seems to be rapidly becoming another Route 13, which, unfortunately, serves as a barrier between neighborhoods, especially with auto speeds of 50 MPH. Is this really what we want going through the center of our community? How can we mitigate this phenomenon to keep neighborhoods connected? Can we take steps to reduce the speed limit and discourage aggressive driving? The corridor would be less congested if walking and bicycling were encouraged. Using roundabouts at the intersections would greatly reduce the number of crashes and make our community more livable.

Reply: Need to clarify the corridor and its many names. Also clarify that it is a State maintained road system meaning DelDOT controls access (entrances to properties) and how & what improvements a developer has to make (i.e. proposed Royal Farms location.)

Reply: I like when you can go back to relevant slides during Q&A.

Reply: I would actually like to be able to meet in person with maps so that the public can show areas of concern and talk with project planners. Much easier than trying to type questions back and forth.

Reply: Not at this time.

Reply: No

4. How was the video quality of the workshop?

Scale: 1 Strongly Disagree – 5 Strongly Agree

Reply: 5 (6) **Reply:** 4

5. How was the audio quality of the workshop?

Scale: 1 Strongly Disagree – 5 Strongly Agree

Reply: 5 (6) **Reply:** 4

Appendix B: On-Line Businesses Survey









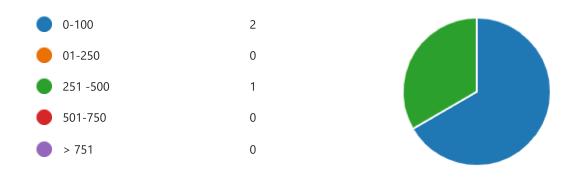
McKee/Saulsbury Road Study



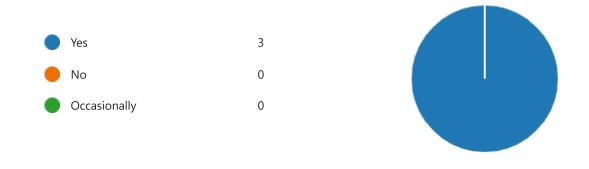
1. Which best describes your business/organization?



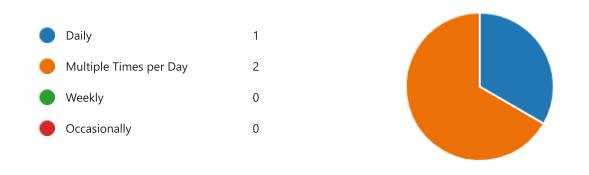
2. How many trips (either entering or exiting) does your business generate on an average day?



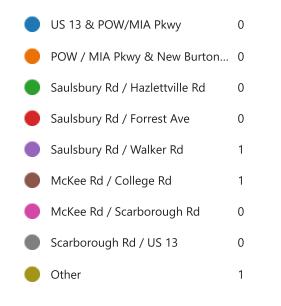
3. Does your business involve the use of heavy trucks?

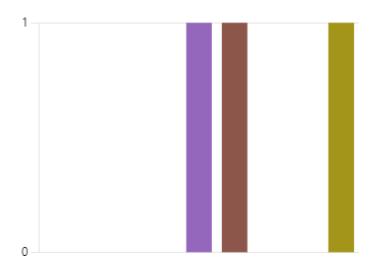


4. On average how often do your fleet/employee vehicles use the McKee/Saulsbury Road Corridor?



5. Please identify which, if any, of following intersections are problematic for your (check all that apply):





6. What is your preference for shoulders?

•	No Shoulders	0
	5-Foot Shoulders	1
•	8-Foot Shoulders	2
•	Other	0



7. In your opinion, right turns should be provided at:

- Major Intersections (Signals)
- No Separate Right Turn lanes (ri... 0

Major Intersections & Major Ent... 3



Additional Comments or Recommendations

1 responses 1 Responses

ID	Name	Responses
1	anonymous	Clara st is so narrow it makes it difficult to use it with 18 wheeler. Over 1 million sq ft of warehouse uses that entrance needs to be fixed with whatever improvements are being discussed

McKee/Saulsbury Road Corridor Study

Appendix C: Public Workshop 2 Summary Report

















McKee/Saulsbury Road Corridor Study Public Workshop 2 March 9, 2023 Workshop Summary Report

The second Public Workshop for the McKee/Saulsbury Road Corridor Study was held on March 9, 2023. The Workshop was a live event held at the Elks Lodge on Saulsbury Road in Dover from 6:00 pm to 7:30 pm. The Workshop format was a plans-display of three concepts developed to address the project needs. Existing conditions data from the first workshop was also available for review at this workshop.

The following provides a summary of the Workshop and corresponding feedback.

Thirty-two (32) people signed in at the workshop, although more appeared to be in attendance. The display boards included:

- Study Area & Purpose and Need
- Existing Typical Section
- Concept Option 1 Two 12' Travel Lanes in Each Direction, 14' Center Turn Lane, No Shoulders, 10' Path on Both Sides of Road
- Concept Option 2 Two 12' Travel Lanes in Each Direction, No Center Turn Lane, 8' Shoulders on Both Sides of Road, 10' Path on One Side of Road, 5' Shoulder on One Side of Road
- Concept Option 3 Two 12' Travel Lanes in Each Direction, 14' Center Turn Lane, 8'Shoulders on Both Sides of Road, 10' Path on One Side of Road, 5' Sidewalk on One Side of Road
- Schedule & Next Steps

Attendees were able to review the display boards and ask questions to study team members who were available throughout the workshop. Comment forms were also available with specific questions, as well as space for additional comments.

Nineteen comment forms were completed and submitted at the workshop.

In addition to those collected the night of the workshop, the comment form was also posted on-line. One additional response was collected from the on-line comment form.

The comment forms completed and returned at the workshop, as well as the response from the on-line comment form are shown below:









1.	Do you support Option 1 – Center Turn Lane, No Shoulders, Shared-Use Path on Both Sides? (A.) res
	B. No
	C. Unsure
2.	Do you support Option 2 – No Center Turn Lane, Shoulders on Both Sides, Shared-Use Path on One
	Side, Sidewalk on One Side?
	A. Yes
	(B. No
	C. Unsure
3.	Do you support Option 3 – Center Turn Lane, Shoulders on Both Sides, Shared-Use Path on One Side,
	Sidewalk on One Side?
	(A.) Yes
	B. No
	C. Unsure
4.	Is there another configuration for the corridor you prefer? If so, please describe: (please use the back of this form if you need additional space)
	NA
Ad	ditional Comments: (please use the back of this form if you need additional space)
	At S
	WIDS Suntry Boys apprendy 70 puple
Dio	ass provide your contact information to stay informed about this project.
Na	ase provide your contact information to stay informed about this project: me: NORMAN H. IFAIH NIL
	dress: 7
	ail: nhahnje a comeast inct.
Ple	ase turn-in your comment sheets at the workshop or mail/email prior to March 30, 2023 to:

James Galvin, AICP – Dover/Kent Co MPO Principal Planner

james.galvin@doverkentmpo.org - Ph: 302.387.6030

1783 Friends Way, Ste 3, Camden, DE 19934









1.	Do you support Option 1 – Center Turn Lane, No Shoulders, Shared-Use Path on Both Sides? A. Yes B. No C. Unsure
2.	Do you support Option 2 – No Center Turn Lane, Shoulders on Both Sides, Shared-Use Path on One Side, Sidewalk on One Side? A. Yes B. No C. Unsure EUKS FUNCTIONS EEKS FUNCTIONS
3.	Do you support Option 3 – Center Turn Lane, Shoulders on Both Sides, Shared-Use Path on One Side, Sidewalk on One Side? A. Yes B. No C. Unsure
4.	Is there another configuration for the corridor you prefer? If so, please describe: (please use the back of this form if you need additional space)
Ple	ditional Comments: (please use the back of this form if you need additional space) THE LODGE WADE TURK LANK WEINES DAY NIGHT - MAETINGS - UP TO LOD POPULA ase provide your contact information to stay informed about this project:
	ne: DAVE RICKARDS
Add Em	tress: EUK LODGE ail: dwrickards 2@ verizon. net
Ple	ase turn-in your comment sheets at the workshop or mail/email prior to March 30, 2023 to:

James Galvin, AICP - Dover/Kent Co MPO Principal Planner

james.galvin@doverkentmpo.org - Ph: 302.387.6030

1783 Friends Way, Ste 3, Camden, DE 19934









1.	Do you support Option 1 – Center Turn Lane, No Shoulders, Shared-Use Path on Both Sides? A. Yes
	B. No
	C. Unsure
2.	Do you support Option 2 – No Center Turn Lane, Shoulders on Both Sides, Shared-Use Path on One Side, Sidewalk on One Side? A. Yes B. No
	C. Unsure
3.	Do you support Option 3 – Center Turn Lane, Shoulders on Both Sides, Shared-Use Path on One Side, Sidewalk on One Side? A. Yes B. No C. Unsure
4.	Is there another configuration for the corridor you prefer? If so, please describe: (please use the back of this form if you need additional space)
Ad	ditional Comments: (please use the back of this form if you need additional space)
Na	ase provide your coptact information to stay informed about this project: me: Wojne Single Rd dress: 12 40 in 1 Kee Rd ail: Africa . W Sm IN O Pombeho 6 . com
	ase turn-in your comment sheets at the workshop or mail/email prior to March 30, 2023 to

Please turn-in your comment sheets at the workshop or mail/email prior to March 30, 2023 to James Galvin, AICP – Dover/Kent Co MPO Principal Planner

james.galvin@doverkentmpo.org - Ph: 302.387.6030

1783 Friends Way, Ste 3, Camden, DE 19934









 Do you support Option 1 – Center Turn Lane, N 	o Shoulders, Shared-Use Path on Both Sides?
A. Yes	
B. No	
C. Unsure	
2. Do you support Option 2 – No Center Turn Lane	, Sh <mark>oulders on Both Sides, Shared-Use Path on One</mark>
Side, Sidewalk on One Side?	908 0
A. Yes Dovel	are needs a cen
B. No C. Unsure + A.M.	Elks needs a Cen lane.
c. distre	
3. Do you support Option 3 – Center Turn Lane, Sh	oulders on Both Sides, Shared-Use Path on One Side,
Sidewalk on One Side?	
A. Yes	
B. No	
C. Unsure	
If so, please describe: (please use the back of the	
Additional Comments: (please use the back of this fo	rm if you need additional space)
3	
Please provide your contact information to stay info	med about this project:
Name:	
Address:	
Email:	
Please turn-in your comment sheets at the workshop James Galvin, AICP - Dover/Kent Co MPO Principal P james.galvin@doverkentmpo.org - Ph: 302.387.6030	lanner

1783 Friends Way, Ste 3, Camden, DE 19934









1.	Do you support Option 1 – Center Turn Lane, No Shoulders, Shared-Use Path on Both Sides?
	A. Yes
	B. No
	C. Unsure
2.	Do you support Option 2 – No Center Turn Lane, Shoulders on Both Sides, Shared-Use Path on One
	Side, Sidewalk on One Side?
	A. Yes
	B. No
	C. Unsure
3.	Do you support Option 3 – Center Turn Lane, Shoulders on Both Sides, Shared-Use Path on One Side,
	Sidewalk on One Side?
	A. Yes
	B. No
	C. Unsure
4.	Is there another configuration for the corridor you prefer? If so, please describe: (please use the back of this form if you need additional space)
Add	litional Comments: (please use the back of this form if you need additional space)
Plea	ase provide your contact information to stay informed about this project:
Nan	
Add	lress:
Ema	ail:
Plea	se turn-in your comment sheets at the workshop or mail/email prior to March 30, 2023 to:
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jam	es.galvin@doverkentmpo.org - Ph: 302.387.6030

1783 Friends Way, Ste 3, Camden, DE 19934









1.	Do you support Option 1 – Center Turn Lane, No Shoulders, Shared-Use Path on Both Sides? A. Yes
	A. Yes 7 B. No
	C. Unsure
	C. Offsure
2.	Do you support Option 2 – No Center Turn Lane, Shoulders on Both Sides, Shared-Use Path on One
	Side, Sidewalk on One Side?
	A. Yes
	B. No
	C. Unsure
2	Do you support Option 3 – Center Turn Lane, Shoulders on Both Sides, Shared-Use Path on One Side,
٥.	Sidewalk on One Side?
	A. Yes
	B. No
	C. Unsure
4.	Is there another configuration for the corridor you prefer? If so, please describe: (please use the back of this form if you need additional space)
Ad	ditional Comments: (please use the back of this form if you need additional space)
Ple	ase provide your contact information to stay informed about this project:
Na	me: Linda Conend dress: 709 Bicentennial Blud
Αd	dress: 709 BICENTE WILL BLYD
Em	ail:
01	
rie	ase turn-in your comment sheets at the workshop or mail/email prior to March 30, 2023 to:

james.galvin@doverkentmpo.org - Ph: 302.387.6030

1783 Friends Way, Ste 3, Camden, DE 19934









1. Do you support Option 1 – Center Turn Lane, No Shoulders, Shared-Use Path on Both Sides?

	A. Yes
4	B. No
	C. Unsure
2	Do you support Option 2 – No Center Turn Lane, Shoulders on Both Sides, Shared-Use Path on One
۷.	Side, Sidewalk on One Side?
	·
	A. Yes
	B No
	C. Unsure
3.	Do you support Option 3 – Center Turn Lane, Shoulders on Both Sides, Shared-Use Path on One Side,
	Sidewalk on One Side?
	A. Yes
	(B. No
	C. Unsure
	C. Offsure
4.	Is there another configuration for the corridor you prefer?
	If so, please describe: (please use the back of this form if you need additional space)
	You were Two Lunes IN EACH Direction
	and you weed Turn Lanes INTO The ELKS
	geter Spm & FOR EXAMPLE we have BINGO
Add	ditional Comments: (please use the back of this form if you need additional space)
	an web right with at least BO CARS
ماp	ase provide your contact information to stay informed about this project:
Na.	ase provide your contact information to stay informed about this project.
ivai	ne: Terry La Gier dress: 953 Lockameath Way, Doven 1991
Add	dress: 753 Lockett each
Em	ail: TALAGIER O AOV. COM
Ple	ase turn-in your comment sheets at the workshop or mail/email prior to March 30, 2023 to:

Please turn-in your comment sheets at the workshop or mail/email prior to March 30, 2023 to James Galvin, AICP – Dover/Kent Co MPO Principal Planner james.galvin@doverkentmpo.org - Ph: 302.387.6030
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http://www.doverkentmpo.org









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	A. Yes
	B. No
	C. Unsure
2.	Do you support Option 2 – No Center Turn Lane, Shoulders on Both Sides, Shared-Use Path on One
	Side, Sidewalk on One Side?
	A. Yes
	B. No
	C. Unsure
	C. Olisule
3.	Do you support Option 3 – Center Turn Lane, Shoulders on Both Sides, Shared-Use Path on One Side,
٠.	Sidewalk on One Side?
	A. Yes
	B. No
	C. Unsure
4.	Is there another configuration for the corridor you prefer?
	If so, please describe: (please use the back of this form if you need additional space)
	TRACTIC Light of whatentententing
	Course for the the constitute to set
	Care Mar 18 he one god Cool
۸d	ditional Comments: (please use the back of this form if you need additional space)
Au	artional comments. (please use the back of this form if you need additional space)
Ple	ase provide your contact information to stay informed about this project:
	me: Milliam Cl. A. R.
	me: William It Alle dress: 30 bentroud Drive, Dover, De 19904
Em	
	ail: Whhillz3 DMSU. LOM
Ple	ase turn-in your comment sheets at the workshop or mail/email prior to March 30, 2023 to:
	nes Galvin, AICP – Dover/Kent Co MPO Principal Planner
	nes.galvin@doverkentmpo.org - Ph: 302.387.6030

james.galvin@doverkentmpo.org - Ph: 302.387.6030 1783 Friends Way, Ste 3, Camden, DE 19934









1.	Do you support Option 1 – Center Turn Lane, No Shoulders, Shared-Use Path on Both Sides? A. Yes B. No C. Unsure
2.	Do you support Option 2 – No Center Turn Lane, Shoulders on Both Sides, Shared-Use Path on One Side, Sidewalk on One Side? A. Yes No C. Unsure
3.	Do you support Option 3 – Center Turn Lane, Shoulders on Both Sides, Shared-Use Path on One Side, Sidewalk on One Side? A. Yes B. No C. Unsure
4.	Is there another configuration for the corridor you prefer? If so, please describe: (please use the back of this form if you need additional space) We MUST have Meace Anes onto Sals. Mckoo Put up Flood Lights on Sals. Mckoo
Add	litional Comments: (please use the back of this form if you need additional space)
Plea Nan Add Ema	rese provide your contact information to stay informed about this project: ne: Will OAKTIME ECOM DE ress: 9 FLEEDOM DE iii: WCARFIMEN DHOL COM 302 670 0185 CELL iii: WCARFIMEN DHOL COM 302 670 0185
Plea Jam	se turn-in your comment sheets at the workshop or mail/email prior to March 30, 2023 to: es Galvin, AICP – Dover/Kent Co MPO Principal Planner

Please turn-in your comment sheets at the workshop or mail/email prior to March 30, 2023 to: James Galvin, AICP – Dover/Kent Co MPO Principal Planner
<u>james.galvin@doverkentmpo.org</u> - Ph: 302.387.6030

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1 Development O. C. A. C	
 Do you support Option 1 – Center Turn Lane, No Shoulders, Shared-Use Path on Both Sides? 	
A. Yes	
B. No	
C. Unsure	
2. Do you support Option 2 No Center (urn Lane, Shoulders on Both Sides, Shared-Use Path on One	
Side, Sidewalk on One Side?	
A. Yes	
B. No	
C. Unsure	
3. Do you support Option 3 – Center Turn Lane, Shoulders on Both Sides, Shared-Use Path on One Side,	
Sidewalk on One Side?	
A. Yes	
B. No	
C. Unsure	
4. Is there another configuration for the corridor you prefer? If so, please describe: (please use the back of this form if you need additional space)	
Additional Comments (places use the back of the first of	
Additional Comments: (please use the back of this form if you need additional space) School Buses need Center turn law to take into	
TAIN THIS	
to co:	
traffic a shoulder-break down lane is needed on both	
Sides. Possible Bus parking lot at William Henry Middle School 12/	2024
Planes provide very sentent information of the s	
Please provide your contact information to stay informed about this project:	
Name: Steve Smith	
Address:	
Email:	
Please turn-in your comment sheets at the workshop or mail/email prior to March 30, 2023 to:	
James Galvin, AICP – Dover/Kent Co MPO Principal Planner	

james.galvin@doverkentmpo.org - Ph: 302.387.6030

1783 Friends Way, Ste 3, Camden, DE 19934









1.	Do you support Option 1 – Center Turn Lane, No Shoulders, Shared-Use Path on Both Sides?
	A. Yes
	B. No
	C. Unsure
~	
2.	Do you support Option 2 – No Center Turn Lane, Shoulders on Both Sides, Shared-Use Path on One
/	Side, Sidewalk on One Side?
	A. Yes
	B. No
	C. Unsure
3.	Do you support Option 3 – Center Turn Lane, Shoulders on Both Sides, Shared-Use Path on One Side, Sidewalk on One Side?
	A. Yes
	B. No
	C. Unsure
	C. Offsure
4.	Is there another configuration for the corridor you prefer? If so, please describe: (please use the back of this form if you need additional space)
Adı	ditional Comments: (please use the back of this form if you need additional space)
Na Add	ase provide your contact information to stay informed about this project: me: Heather Hennessy dress: 28 Pin Dax Dr.
Em	ail: heatherh 67@ verizon.net

Please turn-in your comment sheets at the workshop or mail/email prior to March 30, 2023 to:

James Galvin, AICP – Dover/Kent Co MPO Principal Planner

james.galvin@doverkentmpo.org - Ph: 302.387.6030

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*-	A. Yes B. No C. Unsure ALTERNATIVE
2.	Do you support Option 2 – No Center Turn Lane, Shoulders on Both Sides, Shared-Use Path on One Side, Sidewalk on One Side? A. Yes B. No-A. Yes C. Unsure
3.	Do you support Option 3 – Center Turn Lane, Shoulders on Both Sides, Shared-Use Path on One Side, Sidewalk on One Side? A Yes ~ PRIMARY B. No C. Unsure
4.	Is there another configuration for the corridor you prefer? NO If so, please describe: (please use the back of this form if you need additional space)
Ad	ditional Comments: (please use the back of this form if you need additional space) NAL OFTIONS: THE EXIT FROM THE HAMILET AT MCKES RD AMS OLD FORGE DEVE IS ALKEADY DANGEROUS, PARTICULARLY FON LEFT TULIUS. PLASSE CONSIDER 4 WAY TO MITHERIE THE TRAFFIC FATTERN TO FAULITIE LEFT TULIUS, ESPECIALLY DURING MORNING AND AFTERNOON RUSH HOURS.
Ple Na Ad Em	rase provide your contact information to stay informed about this project: me: WILLAM C. FARLEY dress: 17 MEADON GHADEN LANE, DOVER, DE.19904 vail: MASORMUSTANG & VERIZON, NET
	ase turn-in your comment sheets at the workshop or mail/email prior to March 30, 2023 to: nes Galvin, AICP – Dover/Kent Co MPO Principal Planner

<u>james.galvin@doverkentmpo.org</u> - Ph: 302.387.6030 1783 Friends Way, Ste 3, Camden, DE 19934









1. Do you support Option 1 – Center Turn Lane, No Shoulders, Shared-Use Path on Both Sides?

	A. Yes
	B. No
	C. Unsure
2.	Do you support Option 2 – No Center Turn Lane, Shoulders on Both Sides, Shared-Use Path on One Side, Sidewalk on One Side?
	B. No
	C. Unsure
3.	Do you support Option 3 – Center Turn Lane, Shoulders on Both Sides, Shared-Use Path on One Side, Sidewalk on One Side?
	A. Yes
	B. No
	C. Unsure
4.	Is there another configuration for the corridor you prefer? If so, please describe: (please use the back of this form if you need additional space)
Ad	ditional Comments: (please use the back of this form if you need additional space)
Ple Nai Ade Em	ase provide your contact information to stay informed about this project: me: T. Anderson dress: ail: ne weapon 302@ gmail. com
Ple	ase turn-in your comment sheets at the workshop or mail/email prior to March 30, 2023 to:

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McKee/Saulsbury Road Study Public Workshop 2 March 9, 2023 Comment Form

1.	A. Yes B. No C. Unsure
2.	Do you support Option 2 – No Center Turn Lane, Shoulders on Both Sides, Shared-Use Path on One Side, Sidewalk on One Side? A. Yes B. No C. Unsure
3.	Do you support Option 3 – Center Turn Lane, Shoulders on Both Sides, Shared-Use Path on One Side, Sidewalk on One Side? A. Yes B. No C. Unsure
4.	Is there another configuration for the corridor you prefer? If so, please describe: (please use the back of this form if you need additional space)
Add	litional Comments: (please use the back of this form if you need additional space) Would like to see the bridge 4 lanes
Nan	nse provide your contact information to stay informed about this project: ne: Darin Dell ress: 310 Concord Rd Daer DE nil:
Plea Jam jam	se turn-in your comment sheets at the workshop or mail/email prior to March 30, 2023 to: es Galvin, AICP – Dover/Kent Co MPO Principal Planner es.galvin@doverkentmpo.org - Ph: 302.387.6030 B Friends Way, Ste 3, Camden, DE 19934



(A. Yes Maybe

B. No







McKee/Saulsbury Road Study Public Workshop 2 March 9, 2023 Comment Form

1. Do you support Option 1 – Center Turn Lane, No Shoulders, Shared-Use Path on Both Sides?

	C. Unsure
2.	Do you support Option 2 – No Center Turn Lane, Shoulders on Both Sides, Shared-Use Path on One Side, Sidewalk on One Side? A. Yes B. No C. Unsure
3.	Do you support Option 3 – Center Turn Lane, Shoulders on Both Sides, Shared-Use Path on One Side, Sidewalk on One Side? A. Yes B. No C. Unsure
4.	Is there another configuration for the corridor you prefer?
	If so, please describe: (please use the back of this form if you need additional space) - Believe center for move protection for turns rather than stopping in travel turnare Maybe in select areas - Ensure implementation of sign at Mckee Apts project at Emerald Pt. entrance/Gemstone Blvd. occurs at project beginning of apts.
Add	litional Comments: (please use the back of this form if you need additional space)
	- Like multimodal aspects of sidewalks and pathways.
-	- Convern about loss of tree plantings along corridor with any
	road section widening.
	- Also look at City's corridor overlay Zone (COZ-1) provisions
مام	for landscape buffers and trees 5 autsbury Rd flooding
Man	no: Dans Molsons Williams
Add	liess: Chief Dover-Planning Office - Coordinate potential plans
Ema	illi dender addrice de us
	and any rebuild of electric
Plea	ase provide your contact information to stay informed about this project: The provide your contact information to stay informed about this project: The provide your contact information to stay informed about this project: The provide your contact information to stay informed about this project: The provide your contact information to stay informed about this project: The provide your contact information to stay informed about this project: The provide your contact information to stay informed about this project: The provide your contact information to stay informed about this project: The provide your contact information to stay informed about this project: The provide your contact information to stay informed about this project: The provide your contact information to stay informed about this project: The provide your contact information to stay informed about this project: The provide your contact information to stay informed about this project: The provide your contact information to stay informed about this project: The provide your contact information to stay informed about this project: The provide your contact information to stay informed about this project: The provide your contact information to stay informed about this project: The provide your contact information to stay informed about this project: The provide your contact information to stay informed about this project: The provide your contact information to stay informed about this project: The provide your contact information to stay i
Jam	es Galvin, AICP – Dover/Kent Co MPO Principal Planner
jam	es.galvin@doverkentmpo.org - Ph: 302.387.6030
1/0	3 Friends Way, Ste 3, Camden, DE 19934 p://www.doverkentmpo.org
ntt	<u>p.//www.doverkentmpo.org</u>

-label key locations/buildings on plan maps to help viewers understand where they are in the corridor









1.	Do you support Option 1 – Center Turn Lane, No Shoulders, Shared-Use Path on Both Sides? A. Yes B. No
	C. Unsure
2.	Do you support Option 2 – No Center Turn Lane, Shoulders on Both Sides, Shared-Use Path on One Side, Sidewalk on One Side? A. Yes B. No C. Unsure Bicyclists will use east-side Bicyclists will use Path on One Side.
3.	Sidewalk on One Side? Sidewalk as a 2-way Shared-use path. They will Not ride in the road with
4.	Is there another configuration for the corridor you prefer? & will not cross at an If so, please describe: (please use the back of this form if you need additional space) (ntersection to Lower speeds - traffic coloning use the teatures.
Add	ditional Comments: (please use the back of this form if you need additional space) Many 4-lane highways have High pedestrian aleuths from mid-black crossing attempts, including Rt. B in Dover Why are there no structured planned to discourage mid-black crossing
Na Add	ase provide your contact information to stay informed about this project: me: Chris Assay dress: ail:
	ase turn-in your comment sheets at the workshop or mail/email prior to March 30, 2023 to:

James Galvin, AICP – Dover/Kent Co MPO Principal Planner

james.galvin@doverkentmpo.org - Ph: 302.387.6030

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Please use our experience with Rt. 13 in planning this road. O Bitess do not use the bite lanes on Rt. 13. A Shared-Use Path is needed on both sides of Saulsb. (Makee Road).

2) Pedastrians will attempt to cross mid-block. East

3 Rt. 13 chopped, Dover in 2.

It is a major barrier. A 4-lone
Saulsbury/Mekee Road will chop
West Aver in two. Is this what
we want to do to our community
again?

40 MpH is too high a speed limit. With 4 lanes, the traffic will be tempted decrease & drivers will be tempted to pick up speed. Where are the traffic calming features?



http://www.doverkentmpo.org







McKee/Saulsbury Road Study Public Workshop 2 March 9, 2023 Comment Form

1.	Do you support Option 1 – Center Turn Lane, No Shoulders, Shared-Use Path on Both Sides? A. Yes B. No C. Unsure
2.	Do you support Option 2 – No Center Turn Lane, Shoulders on Both Sides, Shared-Use Path on One Side, Sidewalk on One Side? A. Yes B. No C. Unsure
3.	Do you support Option 3 – Center Turn Lane, Shoulders on Both Sides, Shared-Use Path on One Side, Sidewalk on One Side? A. Yes B. No C. Unsure
4.	Is there another configuration for the corridor you prefer? If so, please describe: (please use the back of this form if you need additional space)
A 0 0	Lenter Lame Neof Fan Better Control form when Design Needs Barriers or other To control Trafic in center Lame See other side
Plea Nar Add Ema	ase provide your contact information to stay informed about this project: ne: Michael Haxton lress: 53 Forest Creek Drive Dover, DE 1990Y ail: Mhnshlife@gmail.com
Plea Jam jam	ase turn-in your comment sheets at the workshop or mail/email prior to March 30, 2023 to: les Galvin, AICP – Dover/Kent Co MPO Principal Planner es.galvin@doverkentmpo.org - Ph: 302.387.6030 3 Friends Way, Ste 3, Camden, DE 19934

2-Change correction training office

Entrance2 to match Hamlet 2nd Entrance

And put in a light.

To it will cause lots of trouble

If wot will cause lots of trouble During rush hour.

3) Why is the train Bridge 2 LANES.

Babbottle Neck city 177









1.	A. Yes B. No C. Unsure
2.	Do you support Option 2 – No Center Turn Lane, Shoulders on Both Sides, Shared-Use Path on One Side, Sidewalk on One Side? A. Yes B. No C. Unsure
3.	Do you support Option 3 – Center Turn Lane, Shoulders on Both Sides, Shared-Use Path on One Side, Sidewalk on One Side? A. Yes B. No C. Dinsure
4.	Is there another configuration for the corridor you prefer? If so, please describe: (please use the back of this form if you need additional space) See Back
Ade	ditional Comments: (please use the back of this form if you need additional space)
Na	ase provide your contact information to stay informed about this project: me: Stephen Offinger dress: ail: Stephen Offinger Colemane gov
Ple Jan	ase turn-in your comment sheets at the workshop or mail/email prior to March 30, 2023 to: nes Galvin, AICP – Dover/Kent Co MPO Principal Planner nes.galvin@doverkentmpo.org - Ph: 302.387.6030

1783 Friends Way, Ste 3, Camden, DE 19934

From DTC's perspective, shoulders are needed for safe bus pull off for our stops. If no shoulder, buses are able to stop in-lane safely but risk frusterated drivers behind it to merge into the left lane and advance, causing a higher risk of accidents. Please improve all stops allong the coprider to DelDOT M-9 spees. Most stops are against raised curb (good) with shored-use behind (good) but still have grassy area between randway and noth that makes them may compliant.

Consider concrete divider/berm in center to avoid Unecessory Utum and entrance compections. Models like Naamands Road in NCC did this with Uturns at larger communities to restrict the volume of turning movements while allowing access to single-family entrance access along the route. This may help reduce accidents,

Consider traffic lights @ Gemstone Blud (to allow access at new apartment, and Clara Ext. (for trucks in the new warehouse) with pedestrian 2/055ings. DTC has several pairs of stops on the sides of the roadway w/o available crossing to safely provide riders safe passage

Try to implement straight lanes. Some turn lanes ead quickly or stort abruptly shoulders can be utilized to allow clear turn lanes and entrances



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McKee/Saulsbury Road Study Public Workshop 2 March 9, 2023 Comment Form

1.	Do you support Option 1 - Center Turn Lane, No Shoulders, Shared-Use Path on Both Sides?
	A. Yes
	B. No
	C. Unsure
2.	Do you support Option 2 – No Center Turn Lane, Shoulders on Both Sides, Shared-Use Path on One
	Side, Sidewalk on One Side?
	(A) Yes
	B. No
	C. Unsure
3.	Do you support Option 3 – Center Turn Lane, Shoulders on Both Sides, Shared-Use Path on One Side, Sidewalk on One Side?
	A. Yes
	B. No C. Unsure
	C. Onsure
4.	s there another configuration for the corridor you prefer? If so, please describe: (please use the back of this form if you need additional space)
Ad	itional Comments: (please use the back of this form if you need additional space) ansit Concern - ensure the Shoulder is wide enrugh to have bus but of lane of travel is option 243.
pd	for individuals trying to exit side reads matrice to
Ple	se provide your contact information to stay informed about this project:
Na	11.30.0-7 111.37.3
Add	ress: Tremica Chemy Way
Em	" Hemica Cherry-wal adelaware gov
	se turn-in your comment sheets at the workshop or mail/email prior to March 30, 2023 to:
	es Galvin, AICP – Dover/Kent Co MPO Principal Planner
	es.galvin@doverkentmpo.org - Ph: 302.387.6030 3 Friends Way, Ste 3, Camden, DE 19934
1/(r inchias vvay, ste s, Calliacii, DE 19934

Consider adding teasfic light at the intersect rear approach Genestore development w anticipation of new development.

Ensure allowances you bus stops that are not ADA. Compliant to be made compliant during the project DTC whos Requested bus stops and need companion stops between State College Road and McKee Road

2

1.
Do you support Option 1 - Center Turn Lane, No Shoulders, Shared-Use Path on Both Sides

1 responses 1 Responses

ID	Name	Responses
1	anonymous	Yes

2.
Do you support Option 2 - No Center Turn Lane, Shoulders on Both Sides, Shared-Use Path on One Side, Sidewalk on One Side?

1 responses 1 Responses

ID	Name	Responses
1	anonymous	No

3.
Do you support Option 3 - Center Turn Lane, Shoulders on Both Sides, Shared-Use Path on One Side, Sidewalk on One Side?

1 responses 1 Responses

ID	Name	Responses
1	anonymous	No

4. Is there another configuration for the corridor you prefer? If so, please describe: 1 responses 1 Responses

ID	Name	Responses
1	anonymous	(This is difficult to comment on, because, as of 3/24/23, there are no graphics available to view online. Please make the graphics available online.) A full-sized, 10-foot wide multi-use path is necessary on BOTH SIDES of the road, to accommodate two-way bicycle traffic. This is because a bicyclist who is on the east side of the road, and beginning to ride from somewhere midway between the signalized intersections has no way to safely and conveniently cross the 4-lane highway to get to a one-sided MUP. Therefore, the bicyclist will be riding ON

ID	Name	Responses
		THE SIDEWALK to get where they need to go. This is not a safe or workable option.

5. Additional Comments:

1 responses 1 Responses

ID Name R

ID	Name	Responses
1	anonymous	(This is difficult to comment on, because, as of 3/24/23, there are no graphics available to view online. Please make the graphics available online.) I have a big concern about the INTERSECTIONS along this corridor. Currently both the Walker Road/Saulsbury Road intersection and the College Road/McKee Road intersection have NO FACILITIES for bicyclists who are approaching the intersections and wish to continue straight ahead and cross the intersection. Because the current roadway configuration provides for additional auto lanes, for turning, as motorists approach the intersection, the striped shoulder is completely eliminated, leaving the bicyclist to fend for themselves among the auto traffic lanes. The plans for this project should provide bike lanes THROUGH the intersections along Walker Road and College Road, regardless of which configuration option is selected for the corridor.

McKee/Saulsbury Road Corridor Study

Appendix D: Concept Options 1 and 3



















RELOCATED UTILITY BOX

TYPICAL SECTION

MCKEE ROAD & SAULSBURY ROAD CONCEPTUAL STUDY OPTION 1 - CENTER TURN LANE, NO SHOULDERS, 10' PATH ON BOTH SIDES



(40"x60")

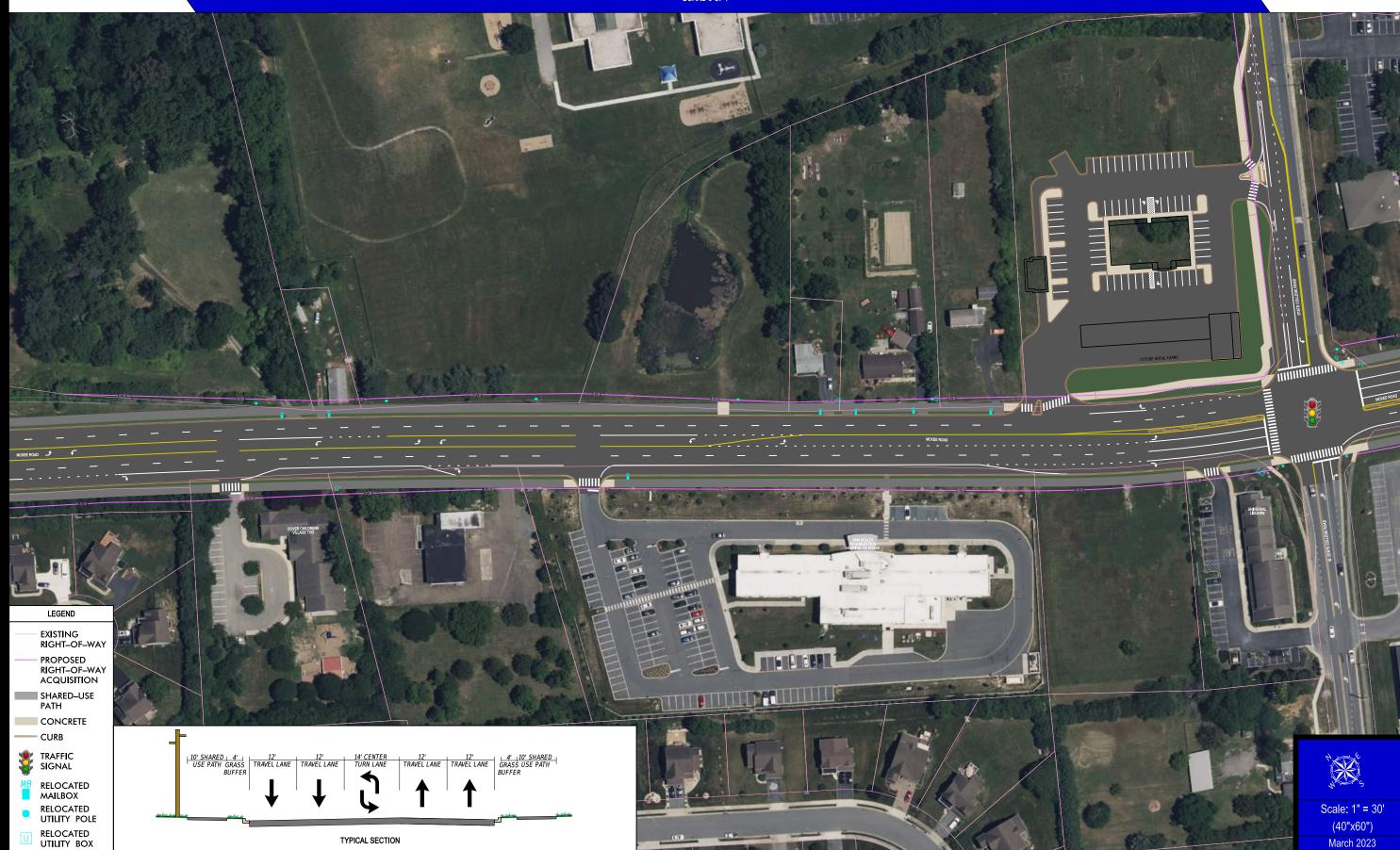
March 2023















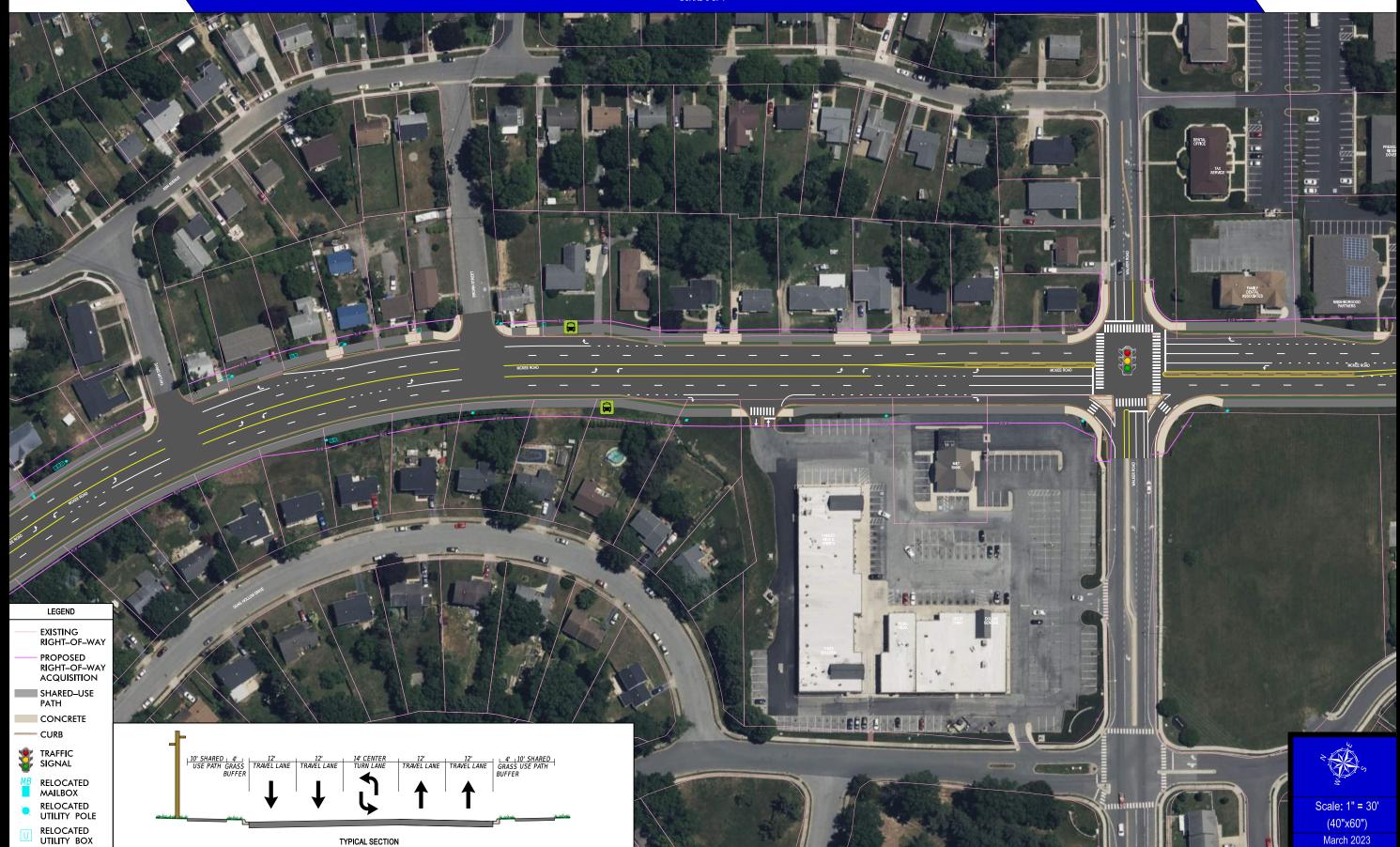






























BOARD 1 of





















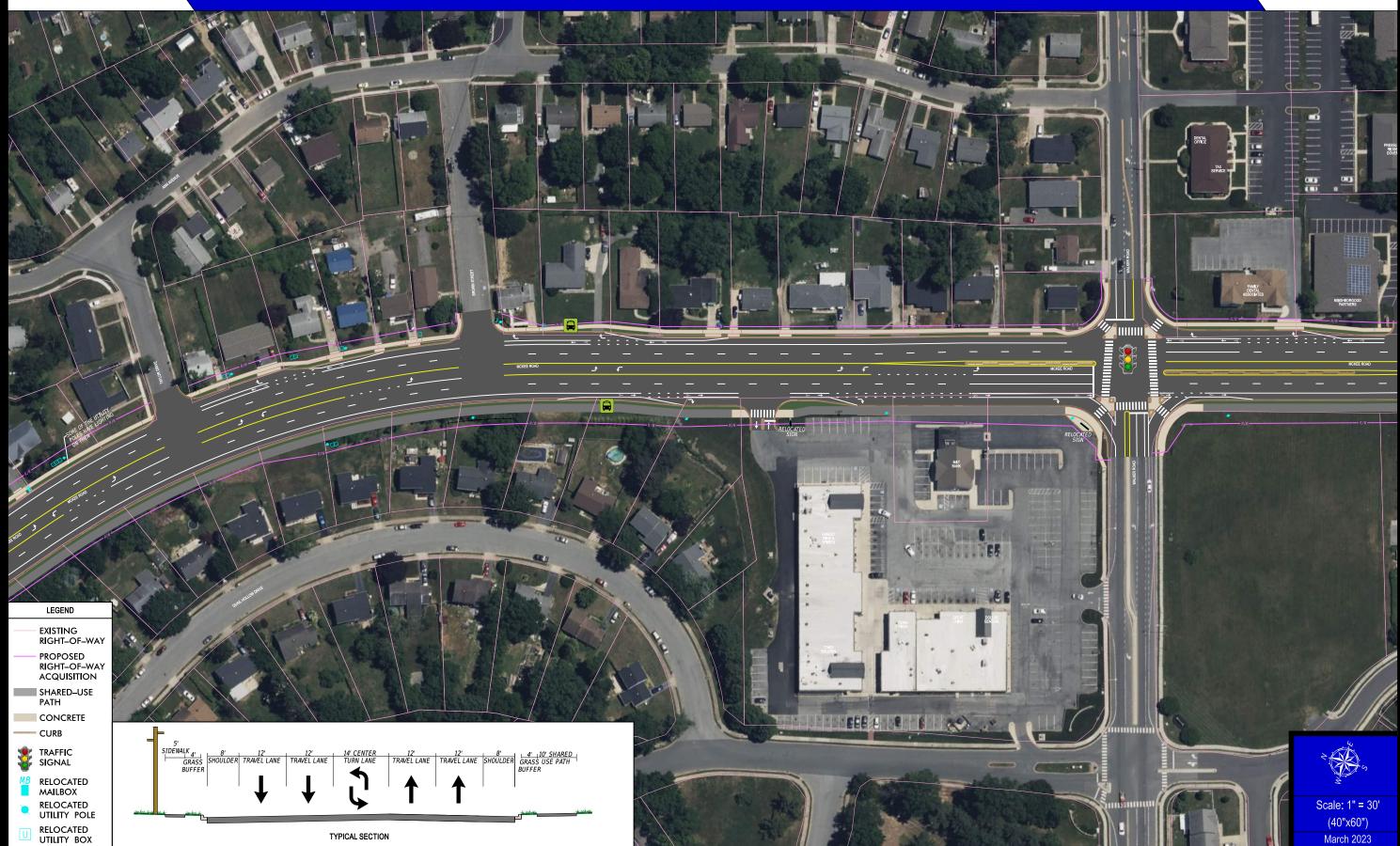














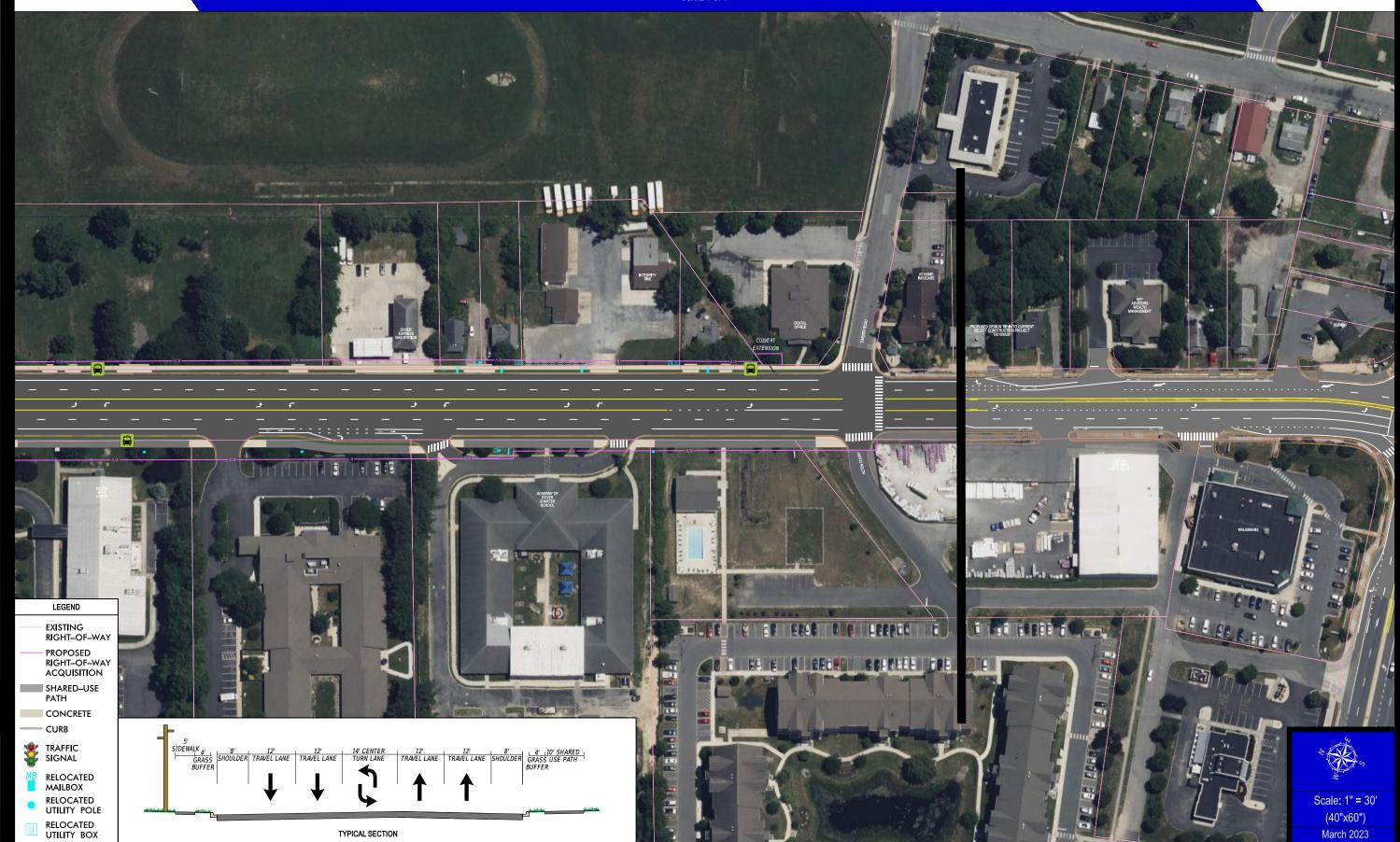












McKee/Saulsbury Road Corridor Study

Appendix E: Cost Estimates









McKee Road: Option 1 - Center Turn Lane No Shoulders

Concept							
Cost Estimate 4/13/2023							
ITEM#	TITLE	UNIT	ESTIMATE COST	UNIT QUANTITY	TOTAL		
<u>201000</u>	CLEARING AND GRUBBING	LS	\$110,000.00	1	\$110,000.00		
<u>202000</u>	EXCAVATION AND EMBANKMENT	CY	\$30.00	28,415	\$852,450.00		
<u>209006</u>	BORROW, TYPE F	CY	\$25.00	6,812	\$170,300.00		
<u>211001</u>	REMOVAL OF PORTLAND CEMENT CONCRETE PAVEMENT, CURB AND SIDEWALK	SY	\$30.00	9,540	\$286,200.00		
<u>301001</u>	GABC	CY	\$65.00	170	\$11,050.00		
<u>401046</u>	SUPERPAVE TYPE C, PG 76-22 (NON-CARBONATE STONE)	TON	\$140.00	13,628	\$1,907,920.00		
<u>401016</u>	SUPERPAVE TYPE B, PG 76-22	TON	\$125.00	7,211	\$901,375.00		
<u>401021</u>	SUPERPAVE TYPE BCBC, PG 64-22	TON	\$100.00	10,681	\$1,068,100.00		
<u>601033</u>	REINFORCED CONCRETE PIPE, 18", CLASS IV	LF	\$80.00	13,278	\$1,062,240.00		
<u>601035</u>	REINFORCED CONCRETE PIPE, 24", CLASS IV	LF	\$100.00	4,426	\$442,600.00		
<u>601041</u>	REINFORCED CONCRETE PIPE, 48", CLASS IV	LF	\$200.00	1,416	\$283,200.00		
601103	REINFORCED CONCRETE ELLIPTICAL PIPE, 24"X 38", CLASS III	LF	\$170.00	25	\$4,250.00		
<u>602004</u>	DRAINAGE INLET, 48" X 30"	EACH	\$4,000.00	75	\$300,000.00		
<u>602010</u>	DRAINAGE INLET, 72" X 48"	EACH	\$5,000.00	6	\$30,000.00		
602060	JUNCTION BOX, 48" X 30"	EACH	\$4,000.00	20	\$80,000.00		
<u>701023</u>	I.PCC CURB AND GUTTER, TYPE 3-8	LF	\$35.00	22,068	\$772,380.00		
<u>701014</u>	PCC CURB, TYPE 2	LF	\$30.00	2,591	\$77,730.00		
705002	PCC SIDEWALK, 6"	SF	\$15.00	40,235	\$603,525.00		
<u>705005</u>	PCC SIDEWALK, 8"	SF	\$17.00	4,391	\$74,647.00		
<u>707001</u>	RIPRAP, R-4	SY	\$100.00	170	\$17,000.00		
<u>727000</u>	CHAIN LINK FENCE	LF	\$50.00	596	\$29,800.00		
<u>760010</u>	PAVEMENT MILLING, BITUMINOUS CONCRETE PAVEMENT	SYIN	\$1.50	134,957	\$202,435.50		
<u>762000</u>	SAW CUTTING, BITUMINOUS CONCRETE	LF	\$1.50	2,294	\$3,441.00		

<u>601033</u>	REINFORCED CONCRETE PIPE, 18", CLASS IV	LF	\$80.00	13,278	\$1,062,240.00
<u>601035</u>	REINFORCED CONCRETE PIPE, 24", CLASS IV	LF	\$100.00	4,426	\$442,600.00
<u>601041</u>	REINFORCED CONCRETE PIPE, 48", CLASS IV	LF	\$200.00	1,416	\$283,200.00
601103	REINFORCED CONCRETE ELLIPTICAL PIPE, 24"X 38", CLASS III	LF	\$170.00	25	\$4,250.00
602004	DRAINAGE INLET, 48" X 30"	EACH	\$4,000.00	75	\$300,000.00
602010	DRAINAGE INLET, 72" X 48"	EACH	\$5,000.00	6	\$30,000.00
602060	JUNCTION BOX, 48" X 30"	EACH	\$4,000.00	20	\$80,000.00
<u>701023</u>	I.PCC CURB AND GUTTER, TYPE 3-8	LF	\$35.00	22,068	\$772,380.00
<u>701014</u>	PCC CURB, TYPE 2	LF	\$30.00	2,591	\$77,730.00
705002	PCC SIDEWALK, 6"	SF	\$15.00	40,235	\$603,525.00
<u>705005</u>	PCC SIDEWALK, 8"	SF	\$17.00	4,391	\$74,647.00
<u>707001</u>	RIPRAP, R-4	SY	\$100.00	170	\$17,000.00
<u>727000</u>	CHAIN LINK FENCE	LF	\$50.00	596	\$29,800.00
<u>760010</u>	PAVEMENT MILLING, BITUMINOUS CONCRETE PAVEMENT	SYIN	\$1.50	134,957	\$202,435.50
<u>762000</u>	SAW CUTTING, BITUMINOUS CONCRETE	LF	\$1.50	2,294	\$3,441.00
<u>762001</u>	SAW CUTTING, CONCRETE, FULL DEPTH	LF	\$3.00	1,258	\$3,774.00
<u>817002</u>	PERMANENT PAVEMENT STRIPING, SYMBOL/LEGEND, ALKYD-THERMOPLASTIC	SF	\$5.00	9,414	\$47,070.00
<u>817013</u>	PERMANENT PAVEMENT STRIPING, EPOXY RESIN PAINT, WHITE/YELLOW, 5"	LF	\$0.50	50,159	\$25,079.50
905001	SILT FENCE	LF	\$3.00	23,604	\$70,812.00
905004	INLET SEDIMENT CONTROL, DRAINAGE INLET	EACH	\$225.00	81	\$18,225.00
908004	TOPSOIL, 6" DEPTH	SY	\$10.00	19,930	\$199,300.00
908014	PERMANENT GRASS SEEDING, DRY GROUND	SY	\$1.50	45,296	\$67,944.00
908017	TEMPORARY GRASS SEEDING	SY	\$1.00	54,355	\$54,355.00
999999	BOX CULVERTS	LS	\$300,000.00	1	\$300,000.00
999999	STORMWATER MANAGEMENT POND	LS	\$150,000.00	1	\$150,000.00
999999	SIGNALS	LS	\$900,000.00	1	\$900,000.00
999999	MAINTENANCE OF TRAFFIC	LS	\$2,500,000.00	1.00	\$2,500,000.00
	Subtotal				\$13,627,203.00
763000	Initial Expense (5%)	L.S.	\$681,360.15	1	\$681,360.1
763501	Construction Engineering (2.5%)	L.S.	\$340,680.08	1	\$340,680.0
	TOTAL BASE FOR PROJECT				\$14,649,243.23
	CONSTRUCTION CONTINGENCY	25%	#2 CC2 240 04	1	#2.062.240.0
			\$3,662,310.81	1	\$3,662,310.8
	UTILITY (including lighting on ex. Poles) PLANTING	L.S.	\$1,945,000.00 \$50,000.00	1	\$1,945,000.0 \$50,000.0
	QA/QC for HMA	L.S.	\$14,770.35	1	
	Asphalt Cost Adj	L.S.	\$233,038.80	1	\$14,770.3 \$233,038.8
	CONSTRUCTION ENGINEERING - (INSPECTION, CE, ETC)	L.S.	\$3,800,810.81	1	\$3,800,810.8
	CONSTRUCTION ENGINEERING - (INSPECTION, CE, ETC)	L.3.	\$3,000,010.01	'	\$3,000,010.0
	TOTAL CONSTRUCTION COST				\$24,355,173.99
	TOTAL CONSTRUCTION COST PROJECT DEVELOPMENT	L.S.	\$1,464,920.00	1	
		L.S.	\$1,464,920.00 \$2,197,390.00	1 1	\$1,464,920.00
	PROJECT DEVELOPMENT				\$24,355,173.99 \$1,464,920.00 \$2,197,390.00 \$1,500,000.00

McKee Road: Option 3 - Center Turn Lane with Shoulders

	Concept				
	Cost Estimate 4/13/2023				
ITEM#	TITLE	UNIT	ESTIMATE COST	UNIT QUANTITY	TOTAL
<u>201000</u>	CLEARING AND GRUBBING	LS	\$110,000.00	1	\$110,000.00
202000	EXCAVATION AND EMBANKMENT	CY	\$30.00	39,124	\$1,173,720.00
<u>209006</u>	BORROW, TYPE F	CY	\$25.00	6,812	\$170,300.00
<u>211001</u>	REMOVAL OF PORTLAND CEMENT CONCRETE PAVEMENT, CURB AND SIDEWALK	SY	\$30.00	9,540	\$286,200.00
<u>301001</u>	GABC	CY	\$65.00	170	\$11,050.00
<u>401046</u>	SUPERPAVE TYPE C, PG 76-22 (NON-CARBONATE STONE)	TON	\$140.00	14,746	\$2,064,440.00
<u>401016</u>	SUPERPAVE TYPE B, PG 76-22	TON	\$125.00	10,734	\$1,341,750.00
<u>401021</u>	SUPERPAVE TYPE BCBC, PG 64-22	TON	\$100.00	15,899	\$1,589,900.00
<u>601033</u>	REINFORCED CONCRETE PIPE, 18", CLASS IV	LF	\$80.00	13,278	\$1,062,240.00
601035	REINFORCED CONCRETE PIPE, 24", CLASS IV	LF	\$100.00	4,426	\$442,600.00
601041	REINFORCED CONCRETE PIPE, 48", CLASS IV REINFORCED CONCRETE ELLIPTICAL PIPE, 24"X 38", CLASS III	LF	\$200.00	1,416	\$283,200.00
601103 602004		LF	\$170.00	20	\$3,400.00
602010	DRAINAGE INLET, 78" X 30"	EACH	\$4,000.00	75	\$300,000.00
602060	DRAINAGE INLET, 72" X 48"	EACH	\$5,000.00	6 20	\$30,000.00
701023	JUNCTION BOX, 48" X 30"	EACH	\$4,000.00		\$80,000.00
701023	I.PCC CURB AND GUTTER, TYPE 3-8 PCC CURB, TYPE 2	LF LF	\$35.00 \$30.00	22,116 2,922	\$774,060.00 \$87,660.00
705002	PCC SIDEWALK, 6"	SF	\$15.00	58,876	\$883,140.00
705005	PCC SIDEWALK, 6"	SF	\$17.00	4,896	\$83,232.00
<u>707001</u>	RIPRAP, R-4	SY	\$100.00	170	\$17,000.00
727000	CHAIN LINK FENCE	LF	\$50.00	596	\$29,800.00
760010	PAVEMENT MILLING, BITUMINOUS CONCRETE PAVEMENT	SYIN	\$1.50	134,957	\$202,435.50
762000	SAW CUTTING, BITUMINOUS CONCRETE	LF	\$1.50	2,294	\$3,441.00
762001	SAW CUTTING, CONCRETE, FULL DEPTH	LF	\$3.00	45	\$135.00
817002	PERMANENT PAVEMENT STRIPING, SYMBOL/LEGEND, ALKYD-THERMOPLASTIC	SF	\$5.00	9,414	\$47,070.00
817013	PERMANENT PAVEMENT STRIPING, EPOXY RESIN PAINT, WHITE/YELLOW, 5"	LF	\$0.50	50,159	\$25,079.50
<u>817015</u>	PREFORMED RETROREFLECTIVE THERMOPLASTIC MARKINGS, BIKE SYMBOL	EACH	\$475.00	45	\$21,375.00
<u>905001</u>	SILT FENCE	LF	\$3.00	23,604	\$70,812.00
905004	INLET SEDIMENT CONTROL, DRAINAGE INLET	EACH	\$225.00	81	\$18,225.00
908004	TOPSOIL, 6" DEPTH	SY	\$10.00	19,930	\$199,300.00
<u>908014</u>	PERMANENT GRASS SEEDING, DRY GROUND	SY	\$1.50	45,296	\$67,944.00
908017	TEMPORARY GRASS SEEDING	SY	\$1.00	54,355	\$54,355.00
<u>999999</u>	BOX CULVERTS	LS	\$300,000.00	1	\$300,000.00
999999	STORMWATER MANAGEMENT POND	LS	\$150,000.00	1	\$150,000.00
<u>999999</u>	SIGNALS	LS	\$900,000.00	1	\$900,000.00
999999	MAINTENANCE OF TRAFFIC	LS	\$2,500,000.00	1.00	\$2,500,000.00
	Subtotal				\$15,383,864.00
762000	Initial Expanse (F9/)	1.0	¢760 400 00	4	\$700.400.00
	Initial Expense (5%)	L.S.	\$769,193.20	1	\$769,193.20
763501	Construction Engineering (2.5%)	L.S.	\$384,596.60	1	\$384,596.60
	TOTAL BASE FOR PROJECT				\$16,537,653.80
	CONSTRUCTION CONTINGENCY	25%	\$4,134,413.45	1	\$4,134,413.45
	UTILITY (including lighting on ex. Poles)	L.S.	\$1,945,000.00	1	\$1,945,000.00
	PLANTING	L.S.	\$50,000.00	1	\$50,000.00
	QA/QC for HMA	L.S.	\$20,047.30		\$20,047.30
	Asphalt Cost Adj	L.S.	\$303,677.40	1	\$303,677.40
	CONSTRUCTION ENGINEERING - (INSPECTION, CE, ETC)	L.S.	\$4,272,913.45	1	\$4,272,913.45
	TOTAL CONSTRUCTION COST				\$97.000.70F.40
	PROJECT DEVELOPMENT	L.S.	\$1,653,770.00	1	\$27,263,705.40 \$1,653,770.00
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L.S.

\$2,480,650.00 \$2,000,000.00 \$2,480,650.00 \$2,000,000.00 **\$33,398,125.40**

PRELIMINARY ENGINEERING (DESIGN)
ROW COSTS

OVERALL PROJECT COST