Welcome to the Southeast Sussex Study Public Workshop

- This meeting is in a hybrid format (In-Person and Virtual).

- We will begin promptly at 4:00 PM.

- We will record in-person attendees using sign-in sheet. If attending virtually, please add your name to the chat box (e-mail address optional).

- The virtual meeting portion will be recorded.

- Virtual attendees will be muted by default when they enter the virtual room.
Virtual Attendees: How to ask questions

- During the session, please type all questions and comments in the Q&A box, which you can access by clicking on the icon at the bottom of your screen.

- We will pause at certain points during the presentation to answer questions. You may raise your hand to ask a question verbally by clicking Raise Hand at the bottom of your screen.

- Presenters will repeat the question and respond verbally.

- If you cannot use the Q&A or the Raise Hand function, please e-mail questions to Jennifer.Cinelli@delaware.gov at any time during or after this session.
DelDOT Mission

Excellence in Transportation.

Every Trip.
We strive to make every trip taken in Delaware safe, reliable and convenient for people and commerce.

Every Mode.
We provide safe choices for travelers in Delaware to access roads, rails, buses, airways, waterways, bike trails, and walking paths.

Every Dollar.
We seek the best value for every dollar spent for the benefit of all.

Everyone.
We engage our customers and employees with respect and courtesy as we deliver our services.
<table>
<thead>
<tr>
<th>Category</th>
<th>2022</th>
<th>2021 Year-to-Date</th>
<th>2021 Totals</th>
<th>2020 Year-to-Date</th>
<th>2020 Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fatalities</td>
<td>65</td>
<td>47</td>
<td>139</td>
<td>39</td>
<td>117</td>
</tr>
<tr>
<td>Delaware Residents</td>
<td>49</td>
<td>37</td>
<td>49</td>
<td>34</td>
<td>96</td>
</tr>
<tr>
<td>Person Types</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vehicle Occupant</td>
<td>44</td>
<td>28</td>
<td>83</td>
<td>24</td>
<td>75</td>
</tr>
<tr>
<td>Pedestrian</td>
<td>12</td>
<td>8</td>
<td>30</td>
<td>9</td>
<td>25</td>
</tr>
<tr>
<td>Bicyclist</td>
<td>1</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Motorcyclist</td>
<td>8</td>
<td>11</td>
<td>24</td>
<td>6</td>
<td>14</td>
</tr>
<tr>
<td>Crash Types</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Curve Related</td>
<td>9</td>
<td>8</td>
<td>23</td>
<td>4</td>
<td>19</td>
</tr>
<tr>
<td>Roadway Departure</td>
<td>24</td>
<td>22</td>
<td>59</td>
<td>16</td>
<td>47</td>
</tr>
<tr>
<td>Intersection Related</td>
<td>24</td>
<td>15</td>
<td>53</td>
<td>13</td>
<td>32</td>
</tr>
<tr>
<td>Median Crossover</td>
<td>3</td>
<td>2</td>
<td>7</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Wrong Way</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Work Zone</td>
<td>0</td>
<td>1</td>
<td>8</td>
<td>1</td>
<td>3</td>
</tr>
</tbody>
</table>
Agenda

• Why this Study?
  • Context/Background

• What are we finding?
  • Summary of Ongoing Technical Assessments and Findings

• What is next?
  • Overview of Next Steps
Why this study?

- Study area and vicinity growing quickly
  - Sussex County is the fastest growing county in DE
  - Summer congestion continues to be an issue
  - More year-round trips adding to non-summer peak period congestion
  - Study initiated due to HOA and legislatures bringing concerns to DelDOT

- Growing congestion leads to other issues
  - Traffic using alternative routes through neighborhoods
  - Multimodal safety concerns – focus of recent SR54 Study
  - Quality of life impacts – feedback from area residents, stakeholders and elected officials

- Need to understand and plan for required improvements
  - Based on both current and anticipated future needs
  - Understand potential for TID establishment
Study Area

Study Roadway Segments

- SR 54 (Lighthouse Road) between W. Fenwick Blvd. and Hudson Road
- SR 20 between SR 54 and Bayard Road
- Bayard Road between SR 20 and Central Avenue
- Old Mill Bridge Road between Bayard Road and SR 54

Study Roadway Intersections

- SR 54 (Lighthouse Road) and Hudson Road
- SR 54 (Lighthouse Road) and W. Line Road
- SR 54 (Lighthouse Road) and SR 20 (Signalized)
- SR 54 (Lighthouse Road) and Old Mill Bridge Road
- SR 54 (Lighthouse Road) and W. Bluewater Run
- SR 54 (Lighthouse Road) and W. Fenwick Blvd (Signalized)
- SR 20 and Tidal Road
- SR 20 and Bayard Road (Signalized)
- Bayard Road and Central Avenue
- Bayard Road and Double Bridge Road
- Bayard Road and Old Mill Bridge Road
- Old Mill Bridge Road and Herring Way
- Old Mill Bridge Road and Tidal Road
Recent SR54 Corridor Study - Context

- Focused on multimodal safety
- Study Recommendations
  - Pedestrian safety upgrades
  - Lighting between SR 20 and Bluewater Run
  - Adjust signal timings and offsets
  - Transit improvements to close gaps
  - Sidewalk/side path and Complete Street projects to close gaps
- Southeast Sussex Study will connect above safety considerations with operational improvements needs

SR 54 Corridor Study
SR 1 to SR 20/Americana Parkway in Sussex County, Delaware
May 2021

Recent and Planned Improvements

**Completed:**
- 40 mph speed limit along the entirety of Old Mill Bridge Road and additional signage for curvature approaching the bridge

**In Design:**
- Pedestrian accommodations on east leg of the signalized intersection of SR 54 and W Fenwick Blvd
- Installation of 35-mph speed limit signs on SR 54 between Madison Avenue and Old Mill Bridge Rd
- Pedestrian accommodations at signalized intersection of SR 54 at Dukes Rd
- Restripe southbound approach of SR 20 at SR 54 to include dual left-turn lanes to eastbound SR 54

**In Construction:**
- Flashing Red Arrow left-turn phasing for northbound approach of SR 1 at SR 54
Technical Assessments

- Traffic Volumes
- Speed Study
- Crash Assessment
- Intersection Performance
Traffic Counts – Compilation/Collection

- Intersection Turning Movement Counts
- Automatic Traffic Recorder (ATR) Counts
- Traffic Count Periods
  - Weekday PM Peak Period
  - Summer Saturday Mid-day Peak Period
Traffic Counts – Comparison

Current volumes in context to pre-pandemic traffic trends

Key Findings:

- Traffic volumes generally returning to pre-pandemic levels
- Traffic peak hours are slightly shifting although peak volumes are comparable
Questions?

Traffic Volumes
Existing Speed Study

- **Speed Data Collection**
  - Using ATRs along SR54 and SR20
  - Validation using actual directional travel time runs

- **Speed Study Periods**
  - Weekday PM Peak
  - Summer Saturday Mid-Day Peak

**Key Findings:**
- Generally, traffic is observed to flow through the study area at speeds slightly less than the posted speeds (no apparent speeding issues)
- Average speeds are significantly lower than speed limits on SR 54 east of SR 20 and along SR 20 southbound between Tidal Rd and SR 54 (congestion related speed drops)
Existing Conditions Speed Study

- **Hudson Rd to W. Line Rd (2.5 mi)**
  - Travel Time (sec.): 206
  - Avg. Speed (mph): 44

- **Bayard Rd to Tidal Rd (1.3 mi)**
  - Travel Time (sec.): 98
  - Avg. Speed (mph): 50

- **W. Line Rd to SR 20 (1.2 mi)**
  - Travel Time (sec.): 147
  - Avg. Speed (mph): 31

- **SR 20 To W. Fenwick Blvd (0.7 mi)**
  - Travel Time (sec.): 61
  - Avg. Speed (mph): 38

Travel Time Runs – Weekday PM Peak
Existing Conditions Speed Study

W. Line Rd to Hudson Rd (2.5 mi)
Travel Time (sec.): 200
Avg. Speed (mph): 46

SR 20 to W. Line Rd (1.2 mi)
Travel Time (sec.): 117
Avg. Speed (mph): 36

Tidal Rd to Bayard Rd (1.3 mi)
Travel Time (sec.): 96
Avg. Speed (mph): 49

SR 20 to Tidal Rd (0.1 mi)
Travel Time (sec.): 14
Avg. Speed (mph): 35

W. Fenwick Blvd to SR 20 (0.7 mi)
Travel Time (sec.): 115
Avg. Speed (mph): 21

Travel Time Runs – Weekday PM Peak
Existing Conditions Speed Study

**Hudson Rd to W. Line Rd (2.5 mi)**
- Travel Time (sec.): 194
- Avg. Speed (mph): 47

**Bayard Rd to Tidal Rd (1.3 mi)**
- Travel Time (sec.): 106
- Avg. Speed (mph): 46

**Tidal Rd to SR 20 (0.1 mi)**
- Travel Time (sec.): 51
- Avg. Speed (mph): 18

**W. Line Rd to SR 20 (1.2 mi)**
- Travel Time (sec.): 137
- Avg. Speed (mph): 33

**SR 20 To W. Fenwick Blvd (0.7 mi)**
- Travel Time (sec.): 92
- Avg. Speed (mph): 26

Travel Time Runs – Summer Saturday Mid-Day Peak
Existing Conditions Speed Study

Travel Time Runs – Summer Saturday Mid-Day Peak
Existing Conditions
Speed Study
Questions?
Recent Crash Data Summary

Data Period – 3-Year: Jan 2018 to Dec 2020

Crash Types

- 191 total crashes
- 39% hit-fixed-object/animal
- 29% angle
- 20% rear-ends

Crash Severities

- 191 total crashes
- 37 injuries
- 30% on SR 54 between Hudson & W Line
- 1 fatality

Contributing Factors

- 191 total crashes
- 25% attention, distraction, fatigue
- 21% failed to yield right of way
- 10% driving in careless/reckless manner
Recent 3-Year Crash Assessment
SR 54 Between Hudson Rd & W. Line Rd
Recent 3-Year Crash Assessment
SR 54 Between W. Line Rd & SR 20
Recent 3-Year Crash Assessment

SR 54 SR 20 & W. Fenwick Blvd
Recent 3-Year Crash Assessment
SR 20 Between Bayard Rd & SR 54

- Fatality
- Rear End
- Angle
- Hit Fixed Object / Animal
- Head On
- Other
- Sideswipe; opposite direction
- Sideswipe; same direction
- Unknown
Recent 3-Year Crash Assessment

Bayard Rd Between SR 20 & Central Ave

Fatality: +
Rear End: △
Angle: ●
Hit Fixed Object / Animal: □
Head On: ★
Other: ☆
Sideswipe; opposite direction: ◊
Sideswipe; same direction: ◊
Unknown: ▲
Recent 3-Year Crash Assessment

Old Mill Bridge Rd Between Bayard Rd & SR 54
Questions?

Crash Assessment
Existing Conditions Analysis – Level of Service

Level of Service

LOS A
- Light traffic
- Free flow speeds
- Slightly increased traffic levels
- Still free flow speeds

LOS B
- Approaching moderate congestion levels
- Speeds near free flow

LOS C
- Speeds reduced
- Lane changes restricted due to traffic

LOS D
- Congestion
- Irregular traffic flow

LOS E
- Road at capacity
- Gridlock with frequent stops

LOS F

Existing Conditions Analysis – Intersection Level of Service (LOS)

PM Weekday

Saturday
Questions?
Existing Conditions – Recap

Traffic Volumes
- Post-pandemic volumes are close to pre-pandemic levels

Speed Study
- Generally, 85th percentile observed speeds and recommended speed limits close to posted speed limits
- Lower average travel speeds approaching intersection of SR 54 and SR 20 indicate congestion hot spot

Crash Assessment
- Crash data indicate driver inattention as the predominant contributing factor; some geometric issues and peak hour congestion also contribute to crash occurrences

Intersection Performance
- Weekday PM: All study intersections currently operate at acceptable LOS
- Saturday Midday: Eleven study intersection operate at acceptable LOS while two operate at an unacceptable LOS
Next Steps

- Growth Projections
- Future Traffic Estimates
- Future Intersection Performance
- Potential Improvements Identification
Next Steps – Growth Projections
PLUS Development Review

What does it mean?

<table>
<thead>
<tr>
<th>Development Type</th>
<th>Built/Partially Built</th>
<th>Unbuilt</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residential</td>
<td>1,240 units</td>
<td>9,207 units</td>
</tr>
<tr>
<td>Commercial</td>
<td>335,370 sq ft</td>
<td>3,077,417 sq ft</td>
</tr>
</tbody>
</table>

Office of State Planning – Preliminary Land Use
https://plus.stateplanning.delaware.gov/pages/about-plus
Goal: (with your help) Develop short, medium, and long-term improvements that are going to enhance safety and operations through the study corridors and intersections.
Questions?