

**FREEPORT VILLAGE
CORRIDOR INITIATIVE**

Main & Bow Intersection Trial Project PRE-INSTALLATION BASELINE DATA TO ASSESS IMPACTS & OUTCOMES

**Complete Streets Committee
September 9, 2025**

Background & Current Status

- Downtown Vision Catalyst Site Priority . . .
 - Ongoing discussions since 2022
- VCI Preliminary Recommendation by consulting team
- Trial Project Endorsed by Complete Streets Committee on July 8
- Trial Project Endorsed by Town Council on July 15 and August 5th
- Trial Approved by MaineDOT in mid-August



Bow & Main Intersection Trial Qualified Design Team

Stantec

- Traffic Engineers & Planners selected via RFP
- **Have determined that Project is Feasible & Worth Testing**

Speck Dempsey

- Placemaking and Village Design

MaineDOT

- Charged with managing safe and reliable corridor

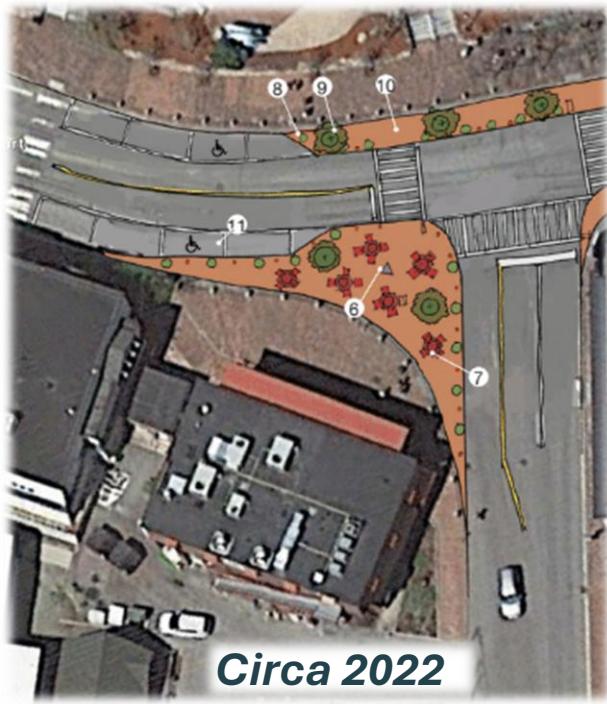
Town Staff

- Local experts focused on public safety & positive outcomes

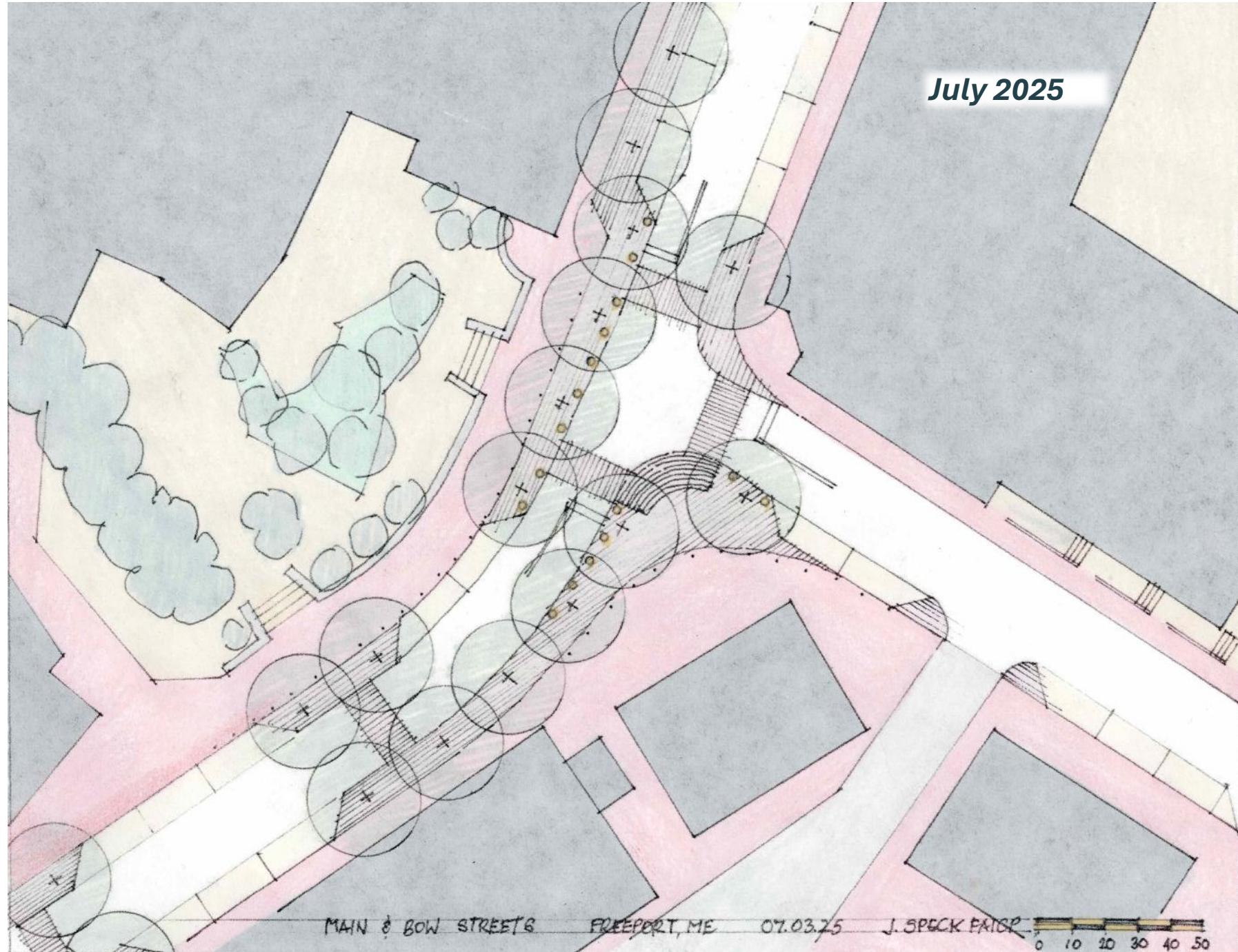


Bow & Main

The Vision



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The Test

Fall 2025

Trial Project



Key Data Points to Understand Trial Performance

Does an all-way stop work for traffic flow?

To answer this question, Town staff gathered pre-trial baseline data in late August with a primary focus on car queues.

Car queue refers to the number of cars that are backed up in a line at the intersection, and the frequency of short queues of 2 cars to 3 cars, or longer queues of 4 to 5 cars.



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Bow & Main Intersection Trial

Pre-Trial Data Collection Methodology

| | |
|---------------------------|--|
| Duration per Count | 45 minutes total |
| | 15 minutes each observing 1) Bow St; 2) Rte 1 Northbound; 3) Rte 1 Southbound |
| Data Collected | <ol style="list-style-type: none">1) Number of pedestrian crossings2) Number of vehicles making a left hand turn3) Instances of 2 vehicle queue4) Instances of 3 vehicle queue5) Instances of 4 vehicle queue6) Instances of 5 vehicles or more |



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Pre-Trial Data Count Times & Frequency

11am: 4 Counts ~ August 25th to August 28th

2pm: 4 Counts ~ August 18th to August 21st

3pm: 7 Counts ~ August 18th to August 28th

High School release at 2:20pm to 2:50pm

- September 3rd
- September 4th
- September 8th



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Pre-Trial Data: Traffic Interruptions

| Time Slot | Avg Traffic Interruptions / 15-minute interval | | | Total |
|------------------|---|--------------------|--|--------------|
| | Pedestrian Cross Event | L-hand Turn | | |
| 11am | 17.9 | 19.0 | | 36.9 |
| 2pm | 29.1 | 16.3 | | 45.4 |
| 3pm* | 27.1 | 17.1 | | 44.2 |



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Pre-Trial Data: Car Queues

| Time Slot | Avg Vehicle Queues per 15 minute interval | | | | | Total |
|-----------|---|-------|-------|-------|--|-------|
| | 2 Car | 3 Car | 4 Car | 5 Car | | |
| 11am | 3.0 | 1.3 | 0.5 | 0.3 | | 5.1 |
| 2pm | 4.5 | 2.8 | 1.8 | 0.5 | | 9.6 |
| 3pm* | 5.4 | 2.6 | 1.1 | 0.5 | | 9.6 |



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Pre-Trial Data Collection Methodology

| Time Slot | Avg Traffic Interruptions / Queue | | | |
|-----------|-----------------------------------|-------|-------|-------|
| | 2 Car | 3 Car | 4 Car | 5 Car |
| 11am | 2.4 | 18.4 | 49.2 | 98.3 |
| 2pm | 3.0 | 10.7 | 17.3 | 30.3 |
| 3pm* | 5.5 | 11.3 | 26.9 | 61.9 |

*****Traffic Interruption refers to pedestrian crossing or vehicle left hand turn***



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Pre-Trial Data Summary

| Time Slot | Avg Traffic Interruptions / 15 min interval | | | Avg Vehicle Queue / 15 min interval | | | | Avg Traffic Interruptions / Queue | | | | | |
|-----------|---|--------|-------------|-------------------------------------|-------|-------|-------|-----------------------------------|-------|-------|-------|-------|-------|
| | Pedestrian | L-hand | Cross Event | Turn | Total | 2 Car | 3 Car | 4 Car | 5 Car | 2 Car | 3 Car | 4 Car | 5 Car |
| 11am | 17.9 | 19 | 36.9 | | | 3.0 | 1.3 | 0.5 | 0.3 | 2.4 | 18.4 | 49.2 | 98.3 |
| 2pm | 29.1 | 16.3 | 45.4 | | | 4.5 | 2.8 | 1.8 | 0.5 | 3.0 | 10.7 | 17.3 | 30.3 |
| 3pm* | 27.1 | 17.1 | 44.2 | | | 5.4 | 2.6 | 1.1 | 0.5 | 5.5 | 11.3 | 26.9 | 61.9 |



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Pre-Trial ~ High School Release Observations

There is a 15 to 20-minute interval from approximately 2:25 PM to 2:45 PM where the northbound lane of US Route 1 becomes gridlocked.

The gridlock occurs only in the northbound lane, though northbound congestion can cause smaller queues to form in the turning lanes on southbound US-1 and Bow Street as well. This interval of heavy traffic appears to be caused by a combination of regular 2:00-3:00 PM traffic flows, an influx of personal vehicle traffic leaving the Freeport High School after classes let out, and several school buses from the High School also entering the northbound lane in the same period.

This result was first observed on September 3, 2025, at 2:25PM, and was verified by additional observations during the same time period on September 4 and September 8, 2025, at 2:30 PM, to confirm that it was not a one-time event. In all three instances, the intersection resumed normal flow by now later than 2:45 PM.

Next Steps to Assess Main & Bow Test

Repeat the Counts to determine “apples to apples” comparison of traffic queues and frequency for the all-way stop trial compared to traffic queues and frequency under current conditions without the all way stop.