

**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

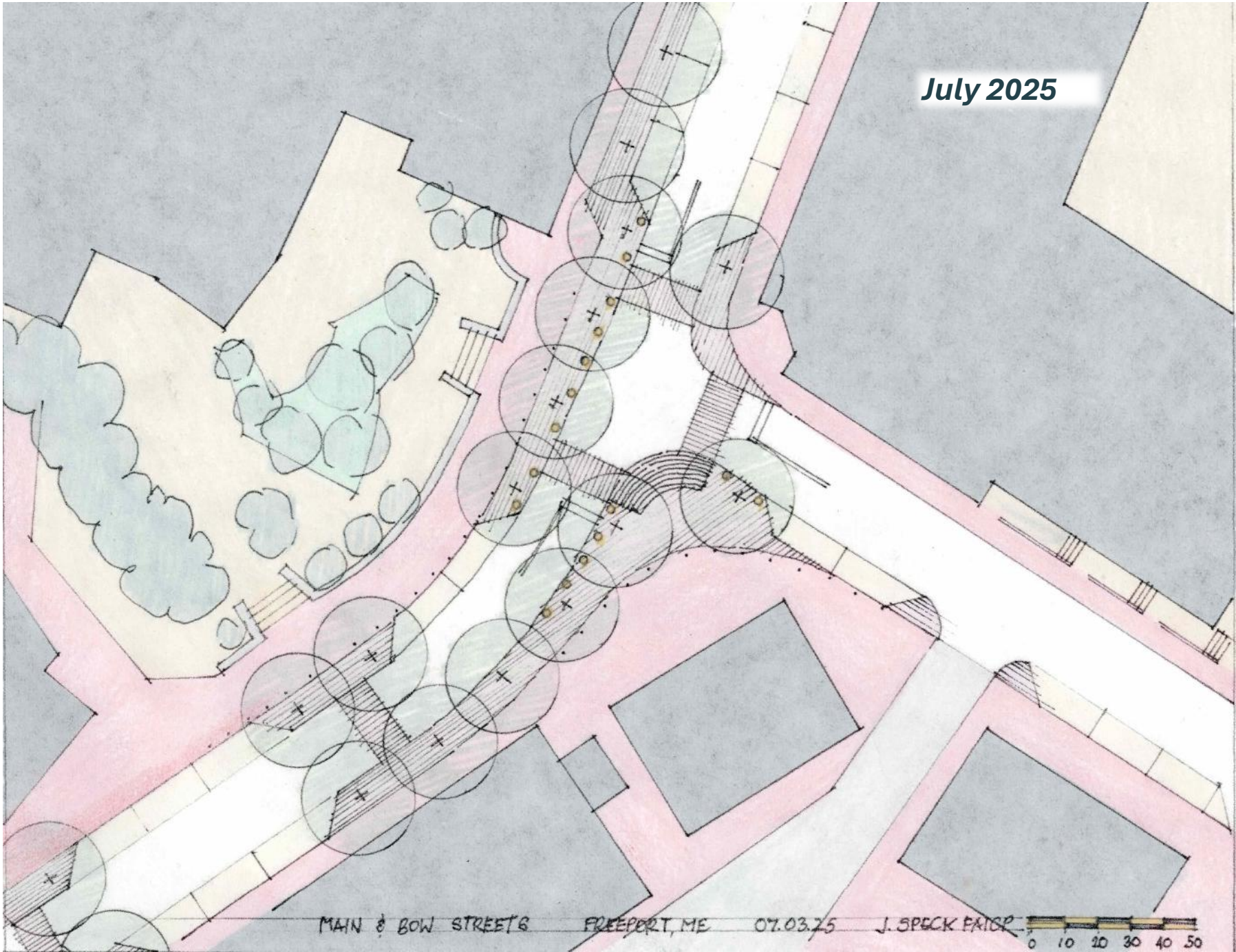


Bow & Main

The Vision



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The Test

Fall 2025
Trial Project

All-Way Stop



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.

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	1) Number of pedestrian crossings
	2) Number of vehicles making a left hand turn
	3) Instances of 2 vehicle queue
	4) Instances of 3 vehicle queue
	5) Instances of 4 vehicle queue
	6) Instances of 5 vehicles or more

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

Pre-Trial Data: Traffic Interruptions

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

Pre-Trial Data: Car Queues

Time Slot	Avg Vehicle Queues per 15 minute interval				
	2 Car	3 Car	4 Car	5 Car	Total
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

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***

Pre-Trial Data Summary

Time Slot	Avg Traffic Interruptions / 15 min interval			Avg Vehicle Queue / 15 min interval				Avg Traffic Interruptions / Queue			
	Pedestrian Cross Event	L-hand 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

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.