



GORRILL
PALMER

An LJB Engineering Company



Starting a GIS/Asset Management Program

Start Small but Think Big

October 9, 2025



Introductions

- Ryan Barnes, PE CPESC
 - Project Manager
 - Former Town Engineer
 - Secretary MCAPWA
 - Firsthand experience in planning, budgeting, and implementing municipal capital plans





Introductions



Civil/Site Design
Municipal
Transportation



Fall Protection/Safety
GIS/Asset Management
Rail
Survey
Structural
Water Resource



What Does GIS Look Like to You?

- Street Map with E911
- Parcel Mapping
- Zoning
- Planned Project
- Utilities
- Citizen Engagement

Getting Started





How to Get Started?

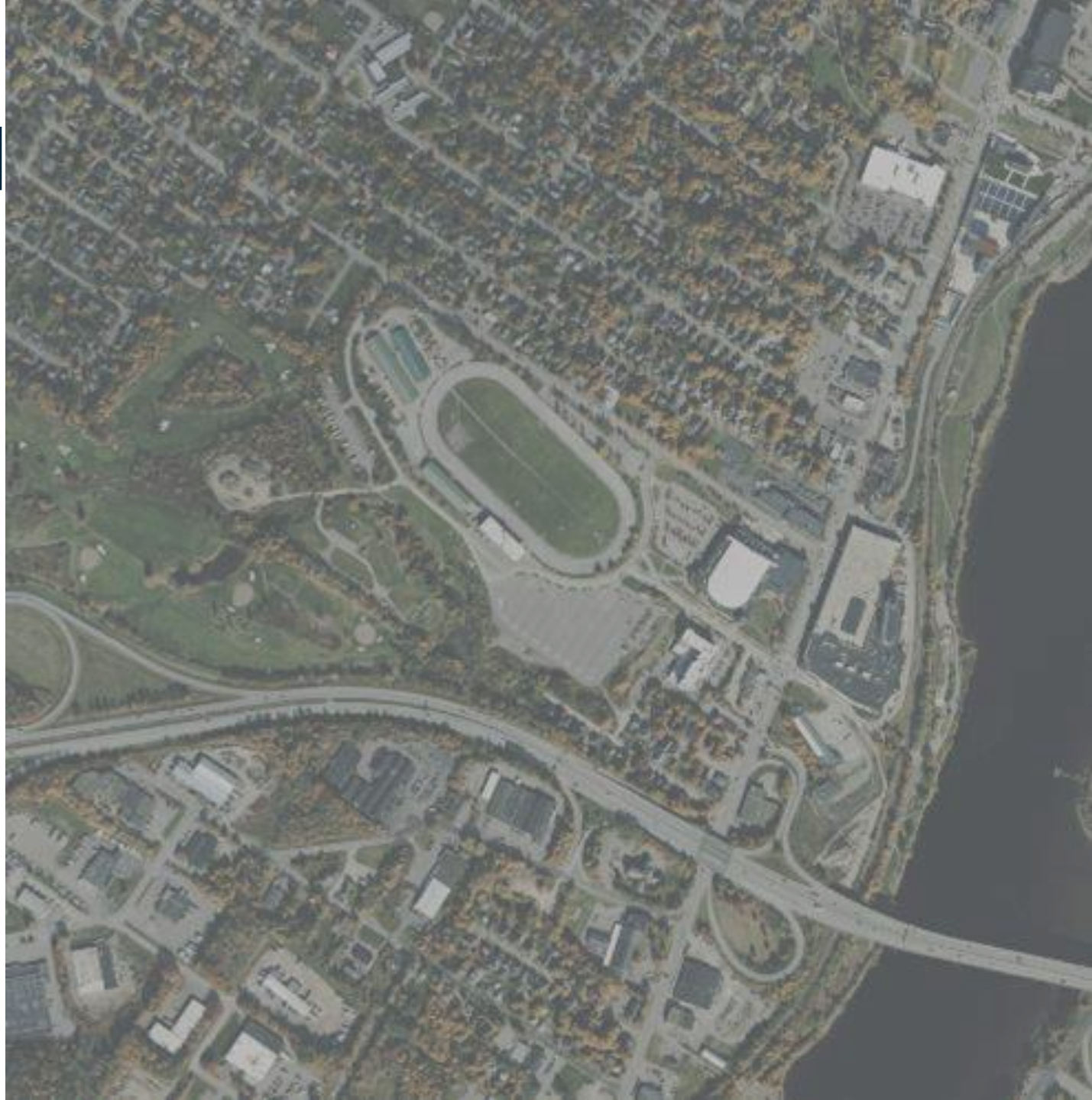
- ArcGIS Online
 - \$700/year for One Creator License
 - Minimum needed to have an account

 - Esri Basemaps
 - Stored in Esri's Cloud Environment
 - 500 GB Data Storage
 - Credit Based Data Storage
 - » 1,000 credits for \$120
 - » 500 credits included with Creator license



Getting Started

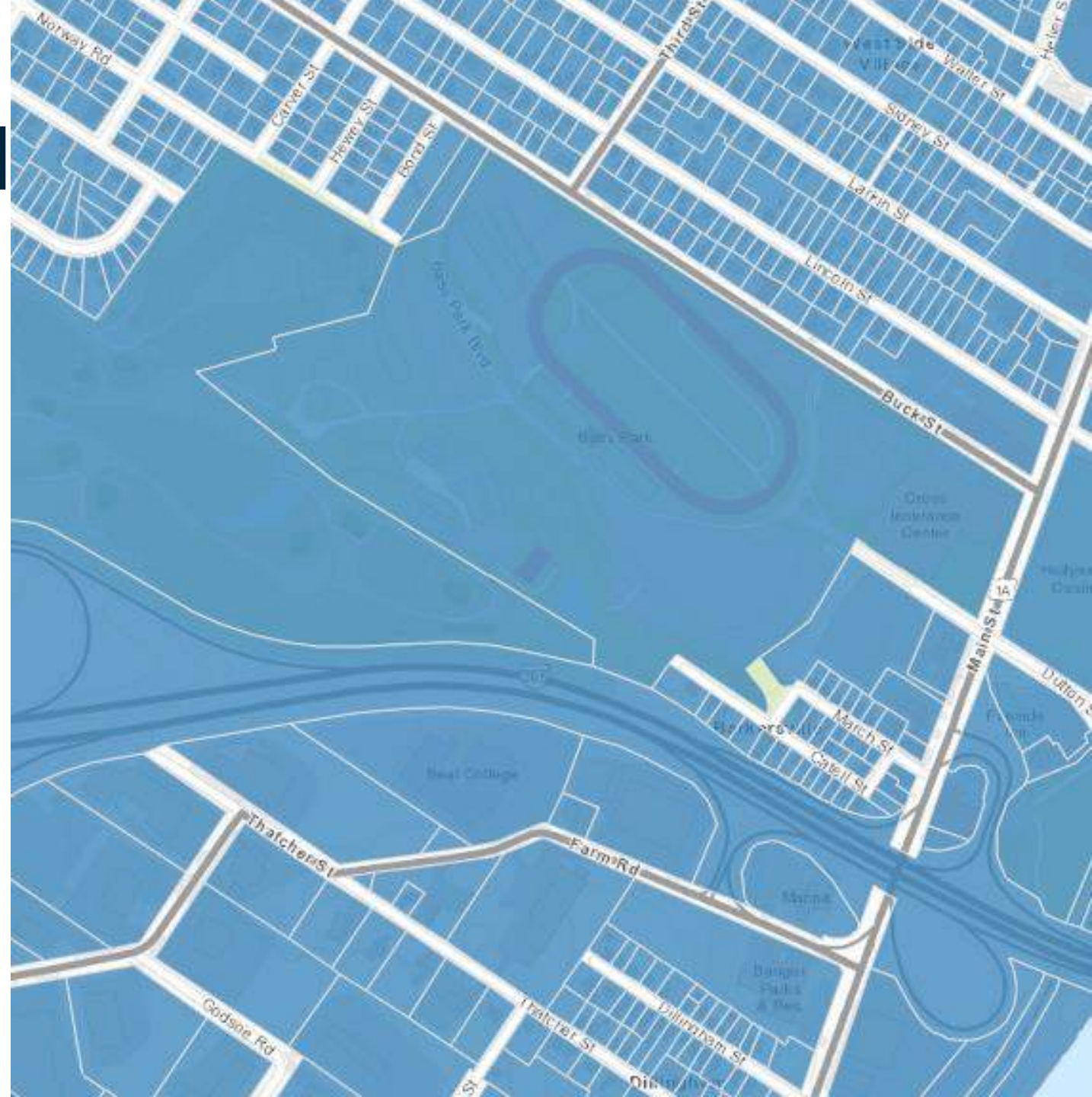
- Maine GeoLibrary
 - Aerial Imagery





Getting Started

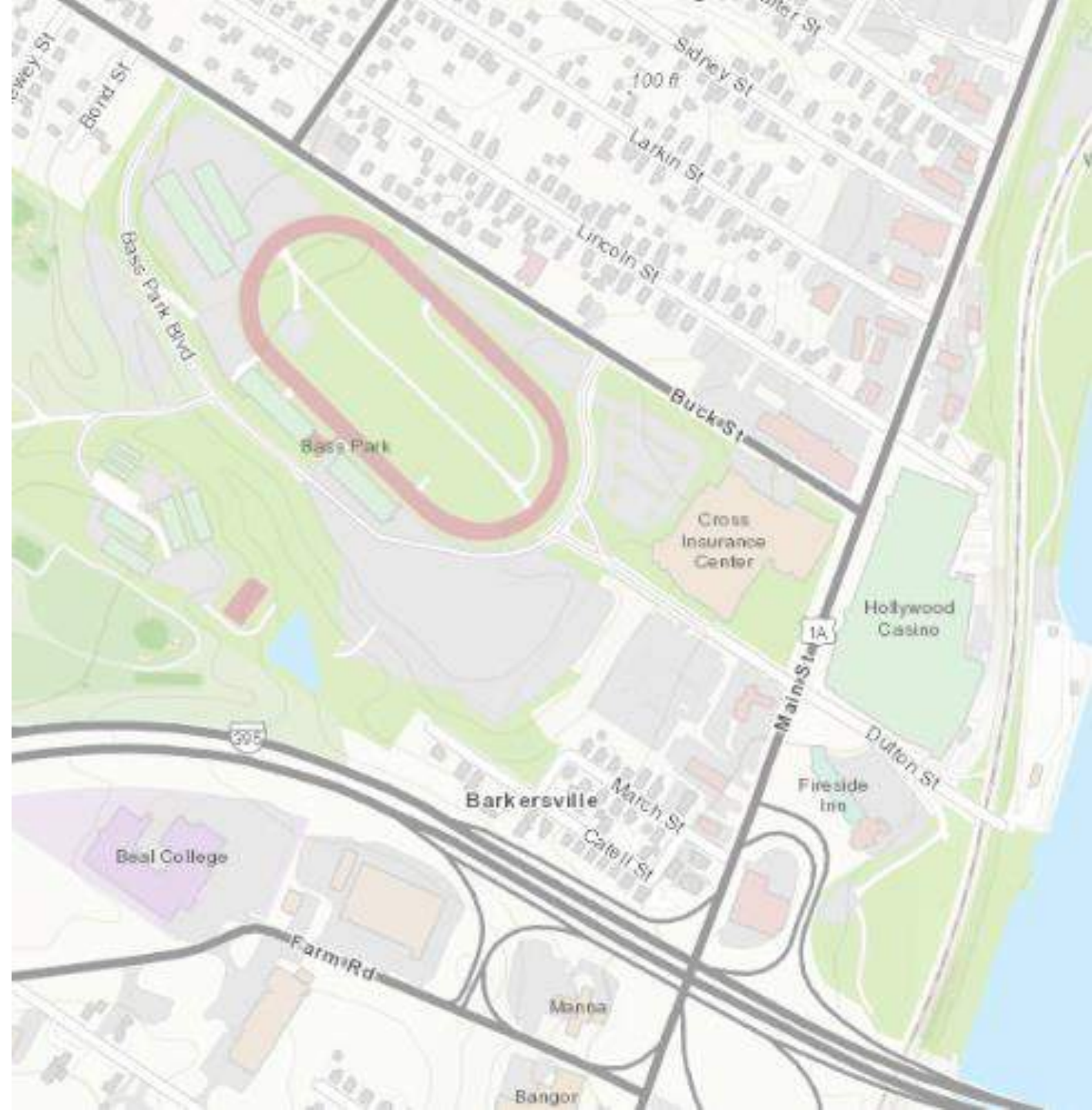
- Maine GeoLibrary
 - Parcels





Getting Started

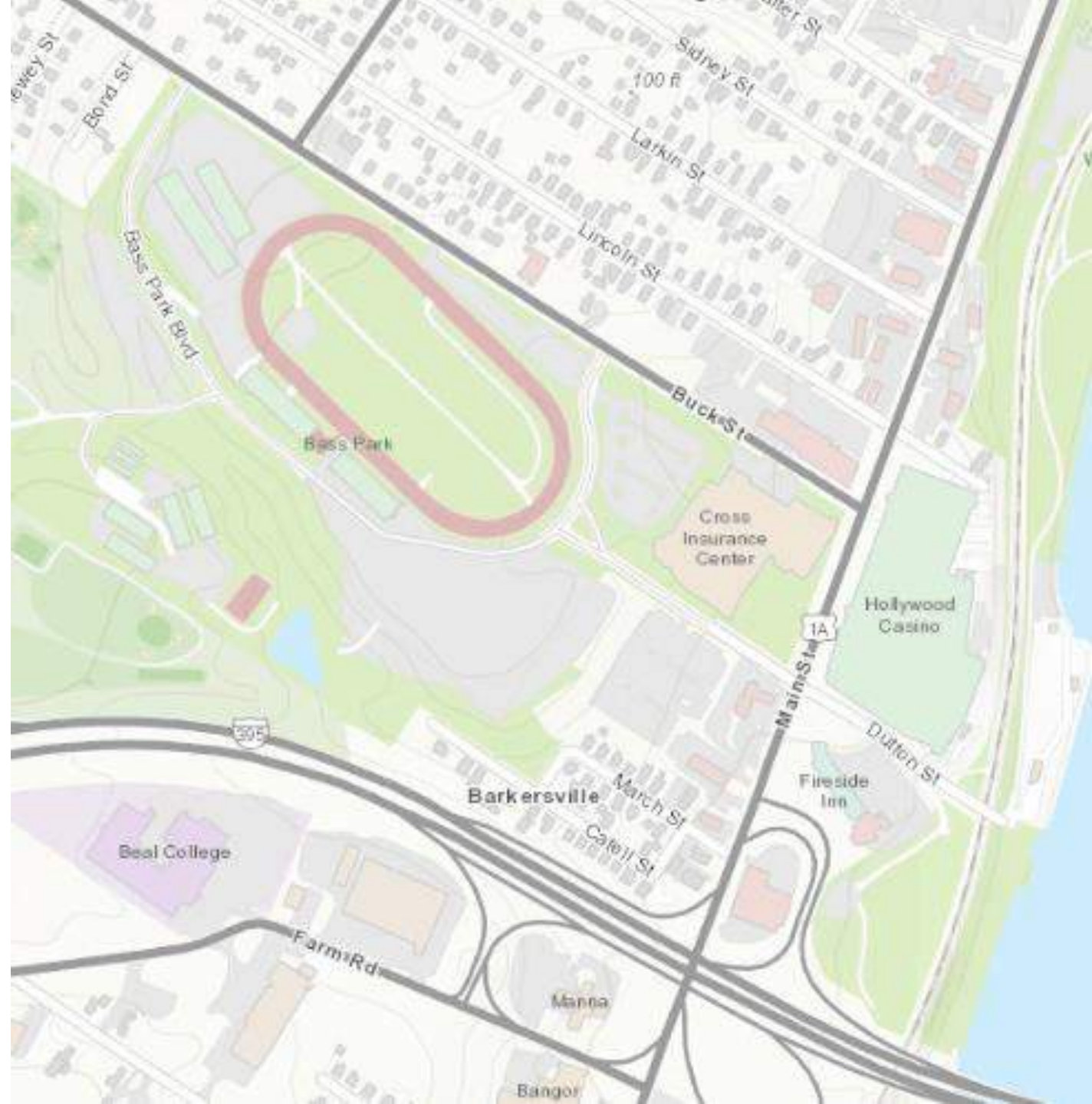
- Maine GeoLibrary
 - Roadways





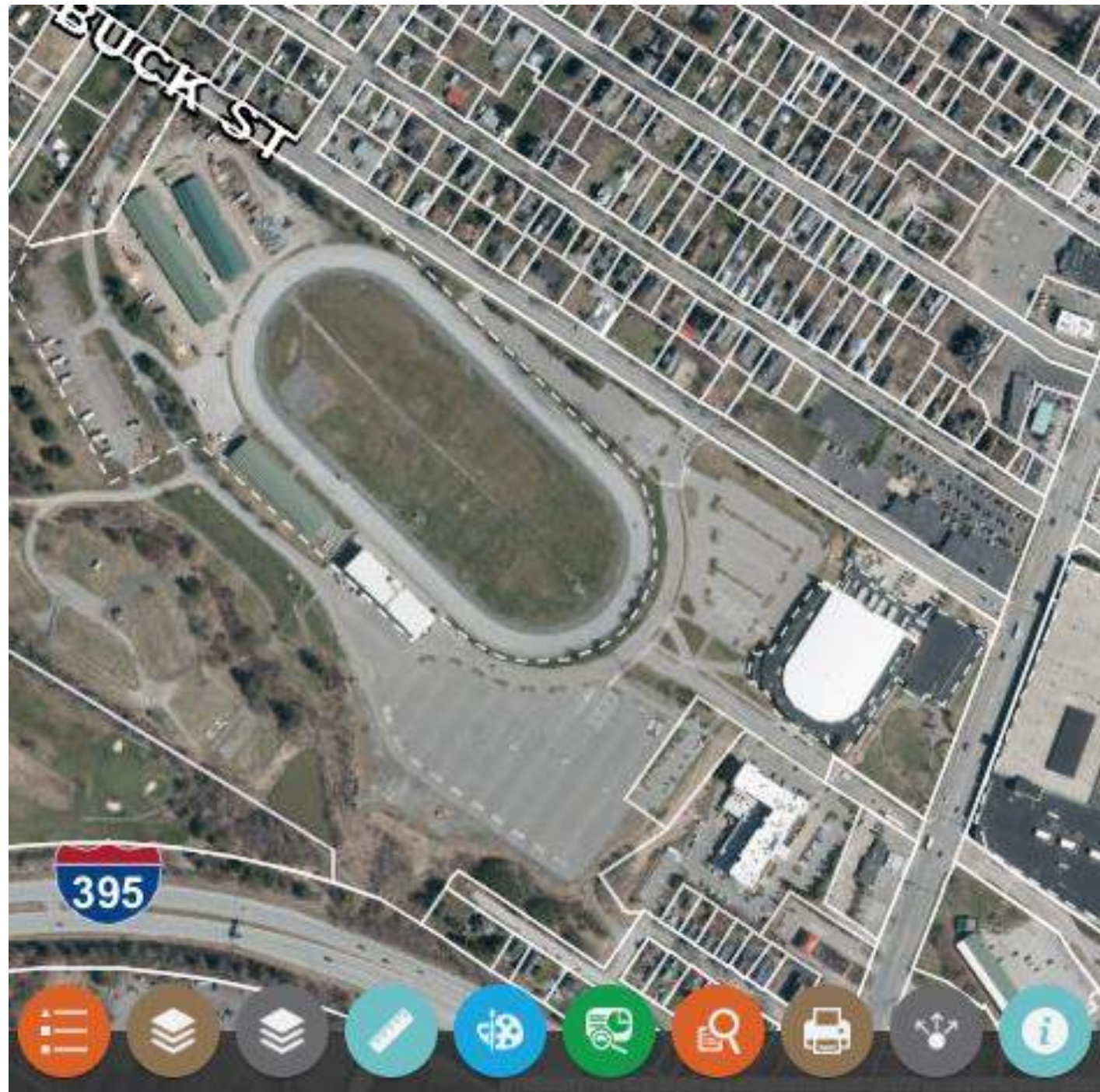
Getting Started

- Maine GeoLibrary
 - Contours





Getting Started



Managing Your Assets



Managing Your Assets

- Pavement Management



Manual Approach



AI Approach



Managing Your Assets

- Pavement Management
 - Age
 - Condition
 - Recommended Treatment
 - Budget

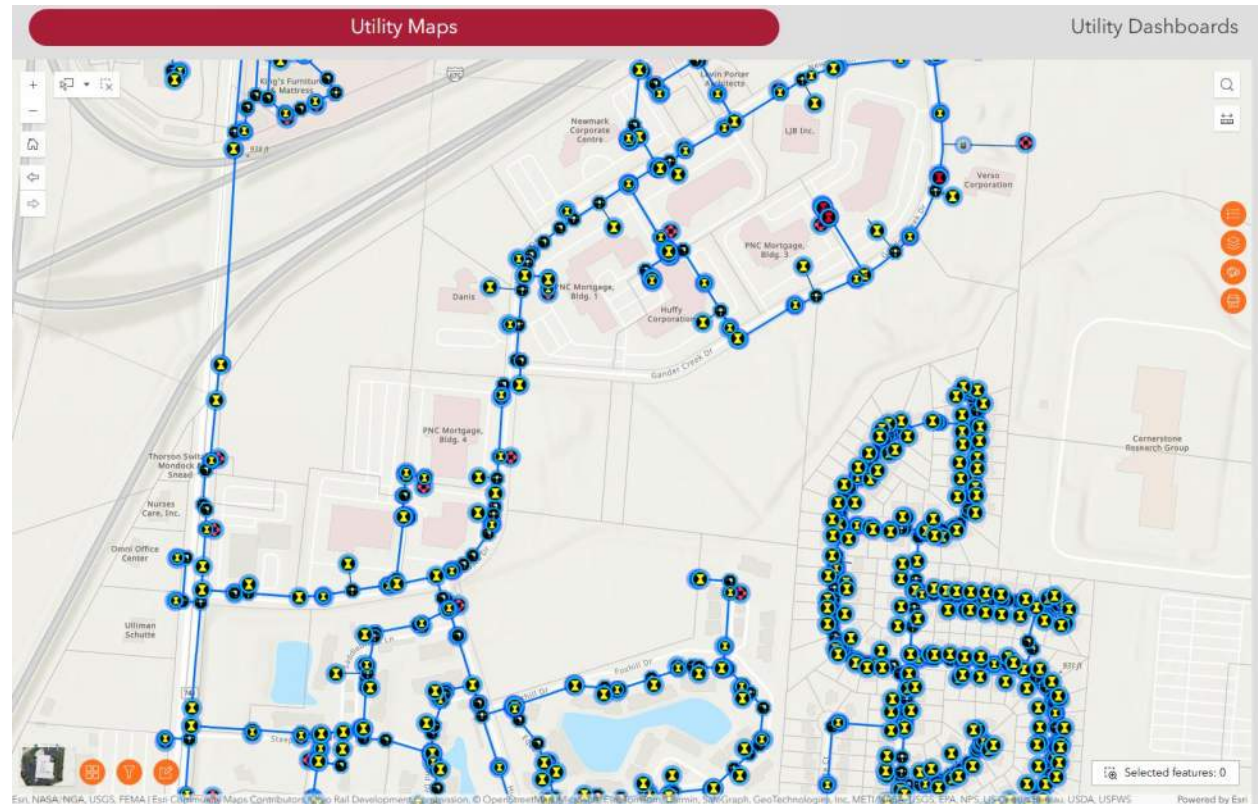
**In Most Communities
Pavement is your most
costly asset**





Managing Your Assets

- Sewer/Stormdrain Infrastructure
 - Age
 - Condition Assessment
 - Repair Schedule
 - Cleaning Schedule
 - **FOG Concerns**
 - **Frequent Backups**





Managing Your Assets

- Water Infrastructure
 - Age
 - Condition Assessment
 - Repair Schedule
 - Cleaning Schedule
 - **Emergency Repairs**
 - **Frozen Services**





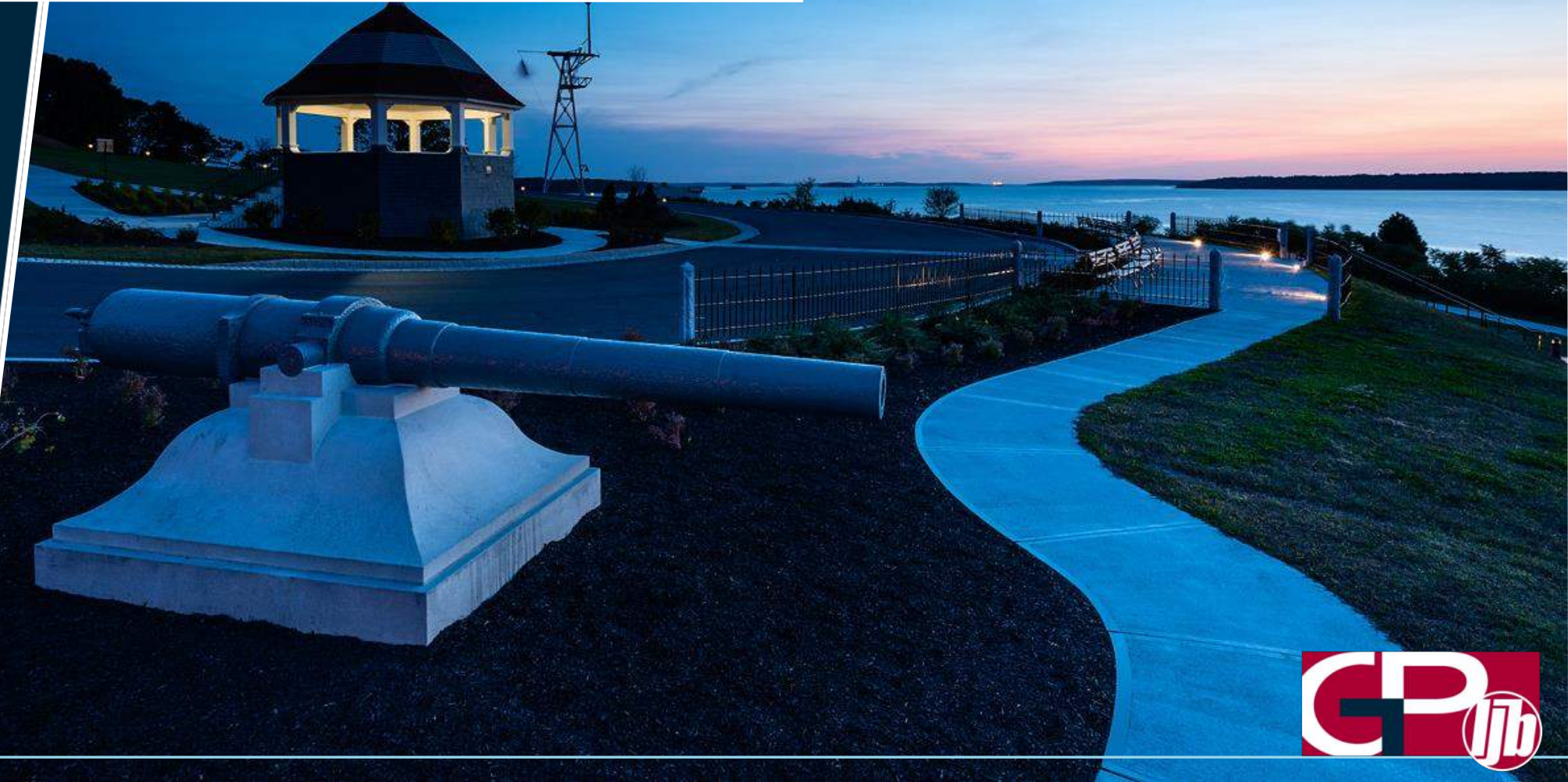
Managing Your Assets

- Other Infrastructure
 - Traffic Signals
 - Street Lights
 - Utility Poles
 - Signs
 - Pavement Markings
 - Buildings



Municipal Wide Solutions

Not Everything Has to be Public





Municipal Wide Solutions

- Assessing
 - Property Cards
 - Photographs
 - Building Permits

(1 of 2)

Sublot: 1

515 Main St

General Info
 Real Estate Tax Number: 10253
 Map and Lot Number: 026-001
 Acres: 0

FY26 Tax Card

Address Number on Parcel
 515 Main St

Owner Info
 Bangor City Of/cic
 Attn Bass Park 515 Main Street
 Bangor Me 04401

[Zoom to](#) ...

Map Lot 026-001 Account 10253 Location 515 MAIN ST **Bangor 2026 Commitment Archive**

Card 1 Of 3 7/16/2025

Occupancy Code	123 Auditorium	129 Convention Center
No. of Dwelling Units	0	0
Building Class/Quality	1 Structural Steel	1 Structural Steel
1.Steel	1.Low Cost	3 Good
2.Rein Conc	2.Average	
3.Masonry	3.Good	
4.Wood Frm	4.Excellent	
5.Rigid Frm		
Grade Factor	1.00	1.00
Exterior Walls	1 Brick/Stone	1 Brick/Stone
1.Br/St	6.Compos	
2.C Block	7.A/Vinyl	
3.Concrete	8.Steel	
4.Wood	9.Other	
5.Stucco/E		
Stories/Height	1 72	1 23
Ground Floor Area	34,056	64,264
Perimeter Units/FI	496	1893
Heating/Cooling	26 HVAC = w/c air + vent	26 HVAC = w/c air + vent
11.Elec BB	19.Wal/FI	
12.Elec Wa	20.HeatCoo	
13.FWA	21.Package	
14.HW	22.W/C Air	
15.Space	23.H/C Wat	
16.Steam w	24.HeatPum	
17.Steam N	25.Indiv H	
18.Vent	26.HWAC	
Year Built	2013	2013
Year Remodeled	0	0
Condition	4 Average	4 Average
1.Poor	6.Good	
2.Fair	7.Very Good	
3.Below Ave	8.Excellent	
4.Average	9.Same	
5.Above Ave		
Physical % Good	0	0
Functional % Good	100	100
Economic % Good		100



Entrance Code

1.Interior	6.Reviewed
2.Refusal	7.
3.Informed	8.
4.Vacant	9.
5.Est	

Information Code

1.Owner	6.Other
2.Relative	7.Ext./St
3.Tenant	8.
4.Agent	9.
5.Estimate	

Date Inspected 6/07/2013

Additions, Outbuildings & Improvements								1.6251 CLAIM FIL
Type	Year	Units	Grade	Cond	Phys.	Funct.	Sound Value	
600 Elevator	2013	3	0 0	0	0	0 %	0 %	2.
320 Sprinkler -	2013	1862	0 0	0	0	0 %	0 %	3.
635 Elev	2013	350	0 0	0	0	0 %	0 %	4.
631 Escalator 4'Wid	2013	1	0 0	0	0	0 %	0 %	5.
300 Asph Paving	2014	1414	0 0	0	50	0 %	0 %	6.
						%	%	21.Open Mason Por
						%	%	22.Endl Mason Por
						%	%	23.Masonry Garage
						%	%	24.Masonry Shed
						%	%	25.Masonry Bay Wi
						%	%	26.15Ma Overhang
						%	%	27.1/25 Brick Add
						%	%	28.Unfinished Att
						%	%	29.Finished Attic





Municipal Wide Solutions

- City Clerk
 - Business Licenses
 - Dog Licenses

License No.: _____ Date: _____ License Fee: _____
 Expiration Date of Current License: _____ Public Notice Fee: _____
 License Type: _____ Total Due: _____

Business Name:			
Physical Address:			
Mailing Address:			
Telephone:		Email Address:	

Owner:			
Mailing Address:			
Telephone:			
Contacts:			
Mailing Address:			
Telephone:		Email Address:	

I hereby certify that this business is in compliance with all state and local laws and ordinances. City of Bangor Code, Chapter 85, §§ 1 to 85-11.

Applicant's Signature: _____
(ALL FEES SUBMITTED SHALL BE RETAINED BY THE CITY CLERK REGARDLESS OF WHETHER SAID LICENSE OR PERMIT IS ISSUED)

Please Fill Out The Appropriate Information Below:

Amusement Devices: How Many _____

Carnival: 1 to 5 rides 6 rides and over Circus: Indoor Outdoor

Flammable Liquid: Type: _____ Storage # of Gallons _____

Innkeeper: Under 10 Rooms Over 10 Rooms

Lunch Wagon: License Plate # _____ Make/Year of Vehicle _____ (LWY/Make)
 Up to 3 days Up to 3 Months Over 3 Months Up to 1 Year

Dates for 3 Day or 3 Month Lunch Wagon License: _____ Location or Event: _____

Theater: Seating Capacity _____

Mobile Home Park: <100 Lots 100-199 Lots 200-299 Lots 300 +

Social Amusement License: Describe Entertainment: _____

Victualer's License: No Tables < 2,000 Sq. Ft. > 2,000 Sq. Ft. Attach Copy of State License.

Please Attach: Completed Annual Grease Trap Maintenance Log, including % of solids & grease in trap. If maintained by a third party, please include invoices.

Beers, Jukebox/Metal Recycling, Liquor Licenses and Special Amusement Licenses require City Council Approval

The undersigned being the Municipal Officers of the City of Bangor, Maine, hereby certify that we have given Public Notice in this application and have held a Public Hearing and hereby approve said application.

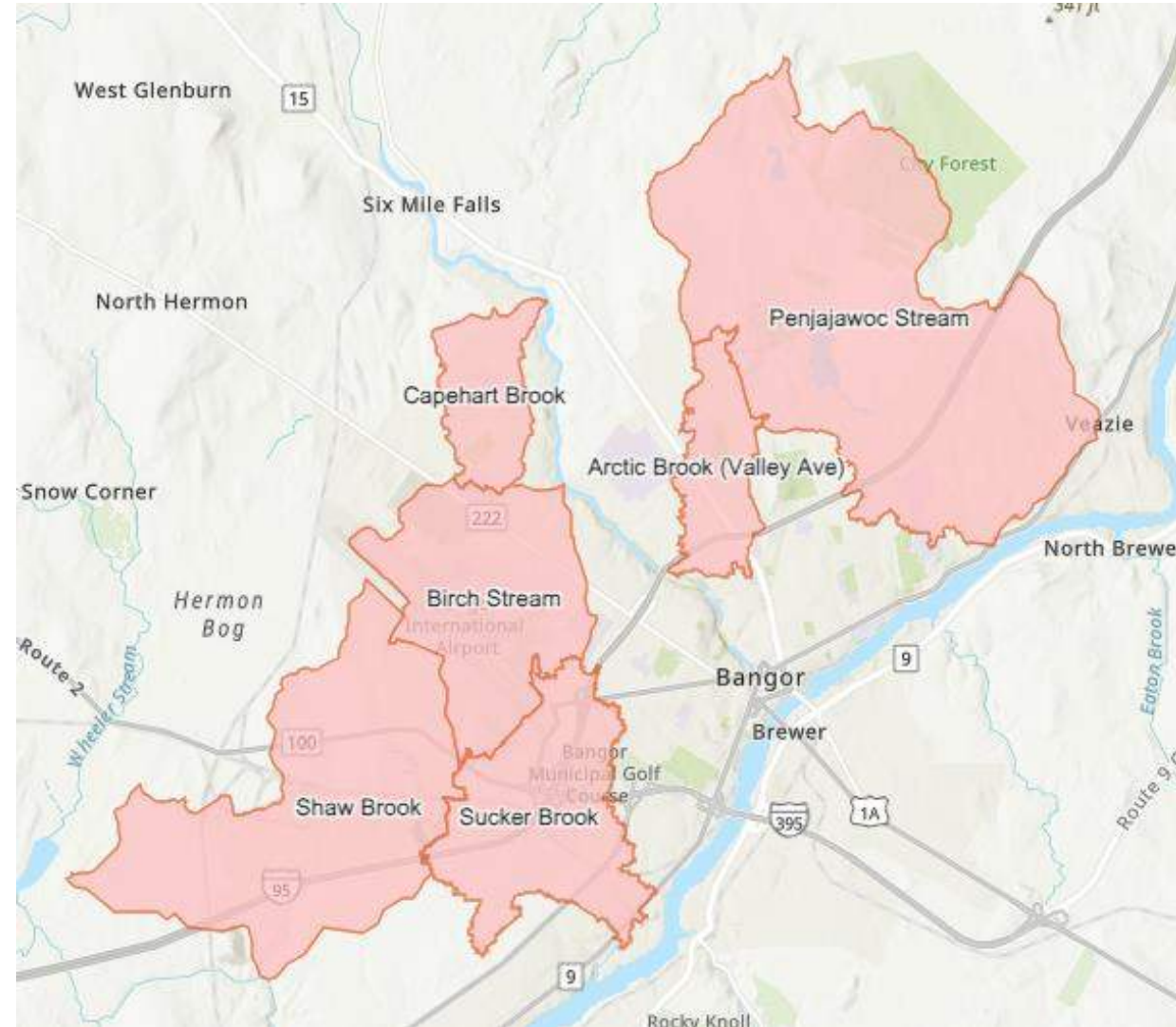


Municipal Wide Solutions

- Planning and Codes
 - NWI Wetlands
 - Watersheds
 - Urban Impaired Streams
 - Steep Slopes
 - FEMA Mapping

- Zoning/Overlay Districts
- Planning Board Applications
- Building Permits

- Abutter Lists/Notifications





Engineering

- Entrance Permits
- Excavation Permits
- Easements
- Street Acceptance

DRIVEWAY PERMIT REQUEST

Print, Sign, & Submit to Engineering Department
WITH A COPY OF LOCATION MAP

REQUEST MUST BE SUBMITTED PRIOR TO ISSUANCE OF BUILDING PERMIT

Requestor Information:

Requestor: _____
 Mail To: _____

Owner Information:

Owner: _____
 Address: _____

Phone: _____
 Email: _____

Request Date: _____

Map & Lot: _____

Location of Proposed Driveway: _____

DRIVEWAY LOCATION DETAILS	
Driveway To Serve? (Business, Commercial, Residence)	<input type="text"/>
Is there existing curb along gutter line?	<input type="text"/>
Type of Existing Curb? (Concrete, Granite, Other)	<input type="text"/>
Is lot a corner lot?	<input type="text"/>
Will grade of existing sidewalk be changed?	<input type="text"/>
Will location or grade of any drainage structure be changed?	<input type="text"/>
Will any City trees have to be removed?	<input type="text"/>
If City trees have to be removed, how many?	<input type="text"/>
Frontage of property?	<input type="text"/>
Type of surface to be used? (Gravel, Pavement, Other)	<input type="text"/>
Number of driveways requested?	<input type="text"/>
Width of proposed driveway(s)?	<input type="text"/>

Applicant Signature: _____

* If required by the City Engineer, the applicant shall submit a plot plan of the property showing dimensions of the lot, location and dimensions of the driveways, street lines, sidewalk lines and gutter or curb lines.

* All Work shall be done in accordance with the regulations governing curb cuts and service driveways under the Code of the City of Bangor, Chapter 271, Article VIII. A copy is located on page 2.

For Office Use Only:

Map & Lot:
Permit #

Approved By: _____

All Permits Are Issued Under City Controlled Numbering & Require Authorized City Engineer Signature OR Authorized Designer



Public Works

- Citizen Engagement
- Planned Work
- Past Projects
- Snowplow Routes
- Sweeping Routes
- Facilities





Questions?



**GORRILL
PALMER**

An LJB Engineering Company



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- c** (207) 671-8426

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