



**Eastern Chapter
Annual Meeting
Portland, ME**

**Portland Harbor
CAD Cell
Construction
Presentation**

October 15, 2025



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INTRODUCTION OF CASHMAN

- A leading provider of dredging and marine construction services along the US Eastern Seaboard and Caribbean Basin
- Innovative dredging, marine construction, and engineering solutions that minimize the risks and cost
- Integrated solutions in the dredging and marine construction markets ranging from environmental, navigational, flood mitigation and coastal resiliency
- Implementing sustainable solutions through technology, innovation and experience to meet your dredging and marine construction needs
- Cashman has executed the construction of several Confined Aquatic Disposal Cells throughout New England
- One of the Largest Mechanical Dredging Fleets on the Eastern Seaboard
- Several dredging projects in Portland, ME area over the last 25+ years for various private & public sector clients



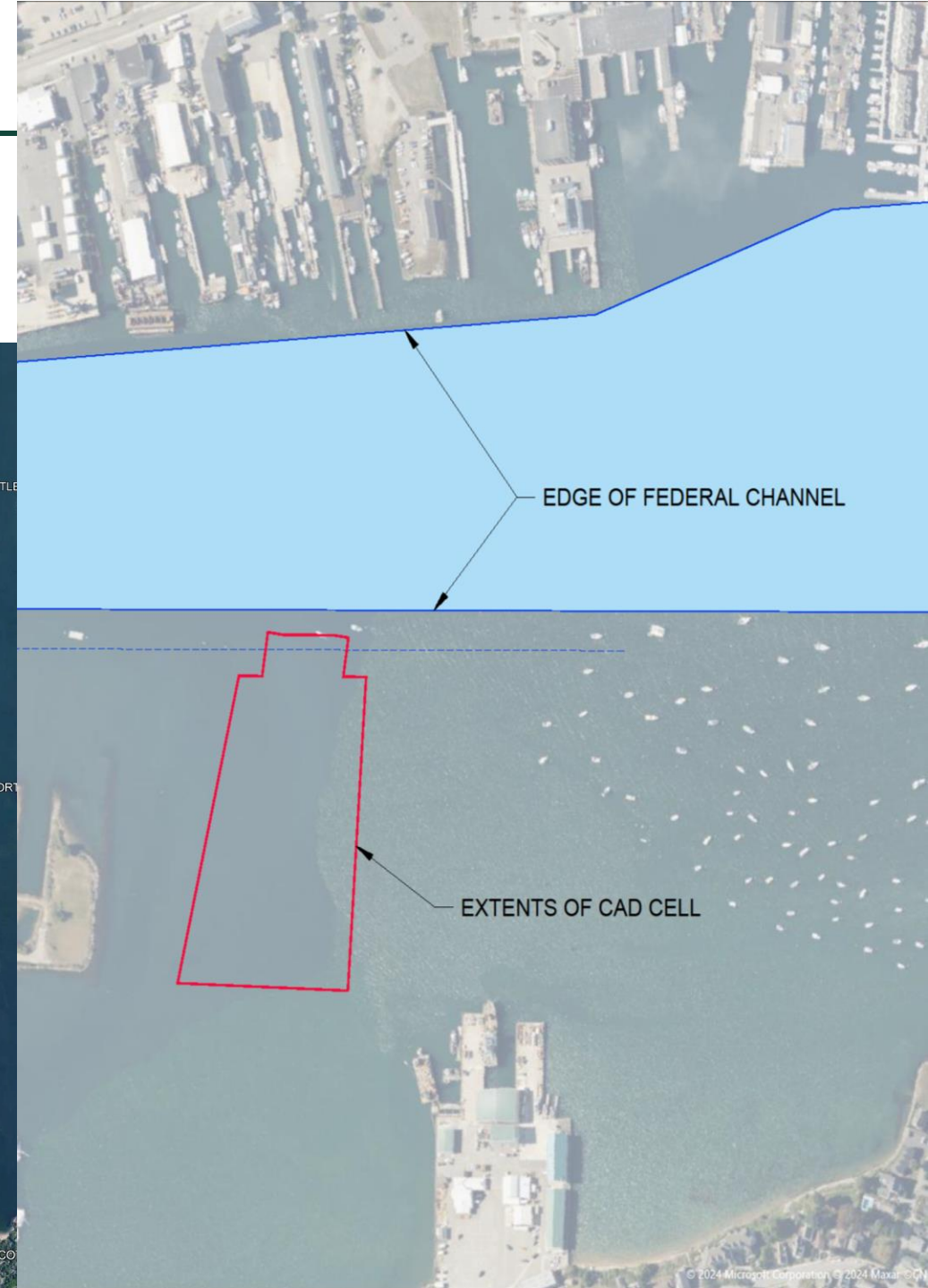
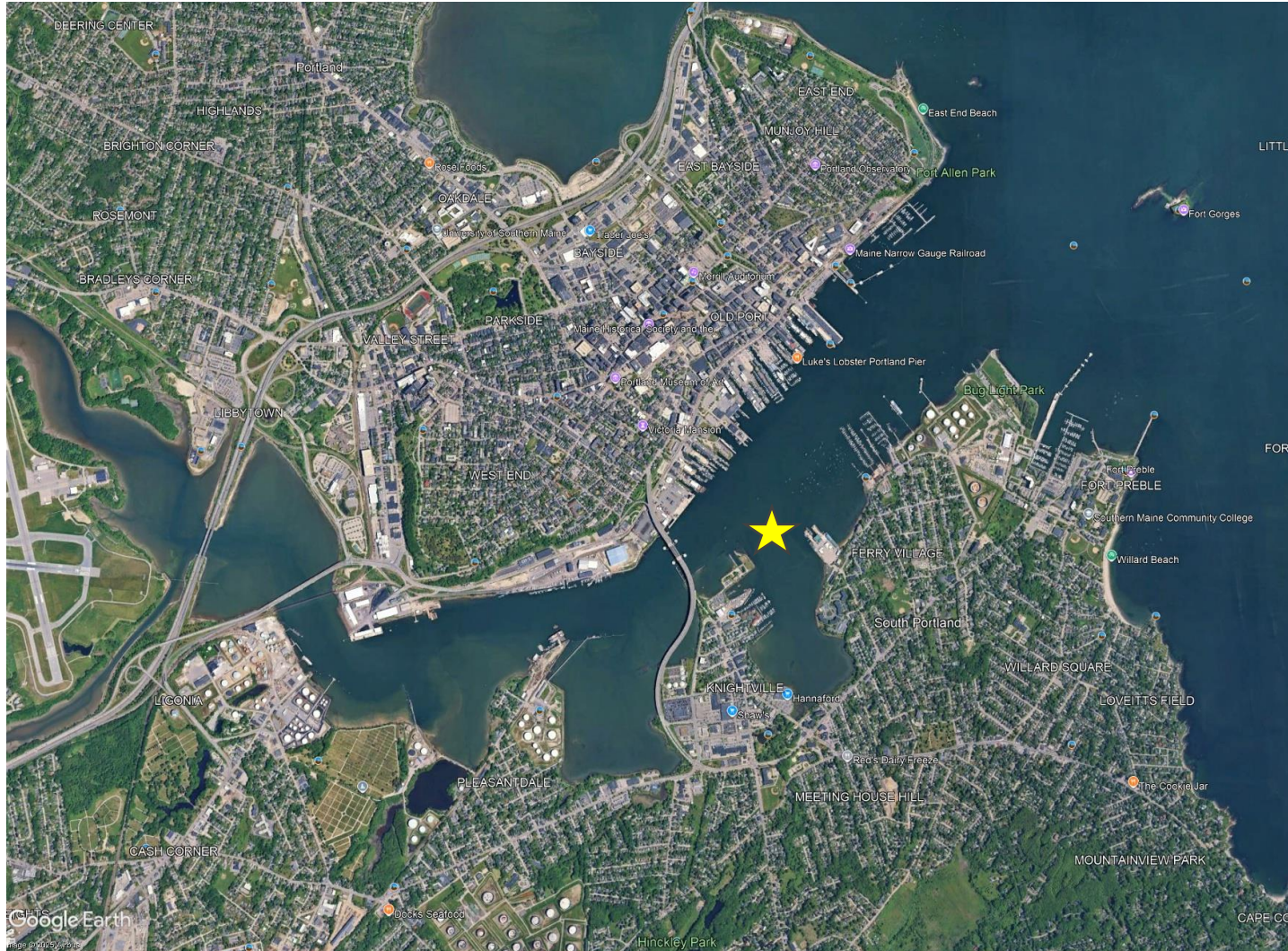
PROJECT BACKGROUND

- The working waterfront has been experiencing reduced water depths at piers and wharves due to sediment buildup
- Sediments from many areas along these piers and wharves are unsuitable for open-water disposal
- The Portland Harbor Revitalization Project established a Non-Federal Dredge Working Group to develop a solution
- Members include Maine DOT, USACE, US EPA, Cities of South Portland and Portland and USCG
- A Confined Aquatic Disposal (CAD) Cell option was identified and approved as viable solution
- A Request for Proposal was issued for the design and permitting
- Design completed – moved to RFP for CAD Cell Construction
- The CAD Cell will be capable of handling material from more than 40 marine sites with appropriate sediment types.



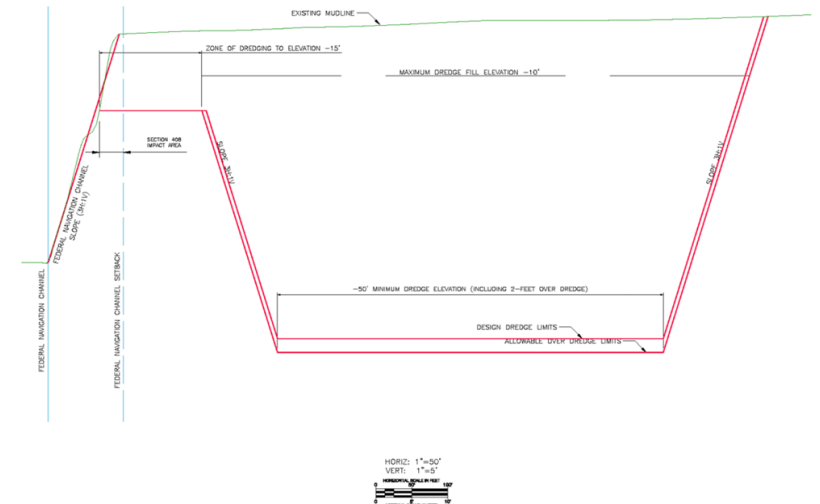
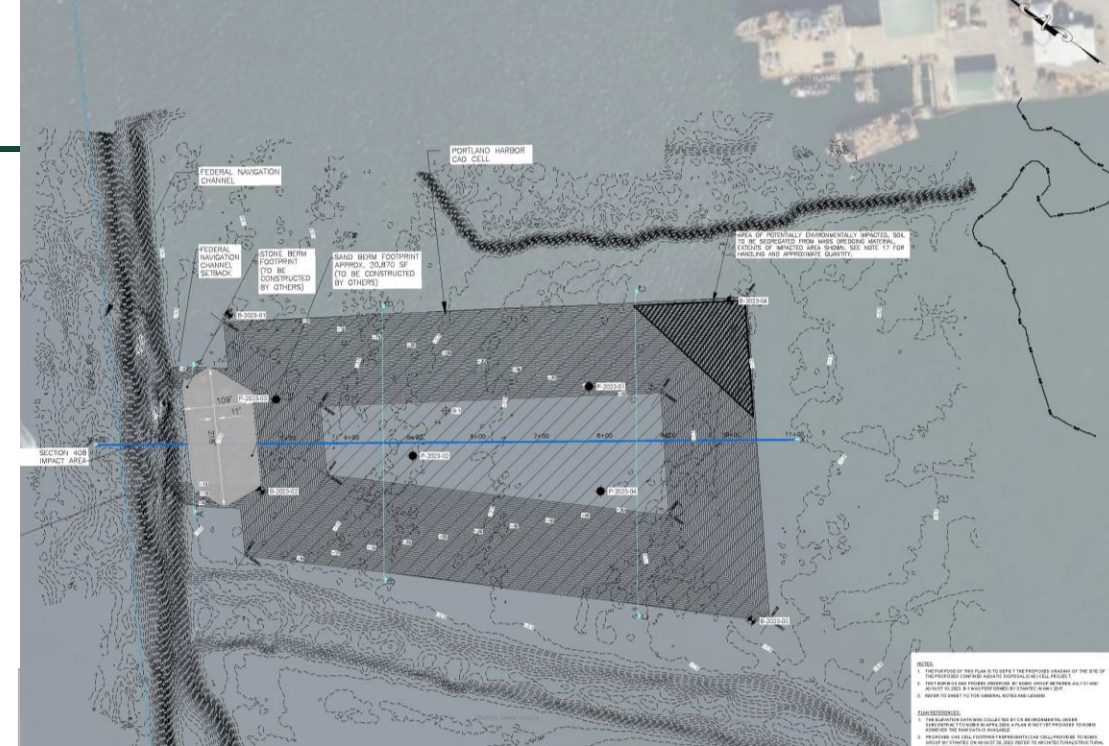
LOCATION

- Portland Harbor, Portland Maine
- Northeast Corner of USCG South Portland Facility



SCOPE & PROJECT OVERVIEW

- 8.9 Acre Confined Aquatic Disposal Cell
- 380,000 Cubic Yards Dredging Required
- Access Channel
- 3:1 Side Slopes
- Environmental Restrictions - Dredge Quality Management
- Endangered Species Monitoring
- Time of Year Restrictions
- 15' Mean Low Water Access Channel
- 50' Mean Low Water Authorized Depth Including 2' Over Depth (CAD Cell)
- 40 Days to Complete



PROJECT MANAGEMENT APPROACH

- On-Site Project Management Team
- Operational Flexibility
- Clear Lines of Communications & Communication Processes w/ Stakeholders
- Participation in Stakeholder Engagement
- Local Vendor / Supplier / Subcontractor Support & Outreach
- Public Engagement Events
- Collage and High School tours



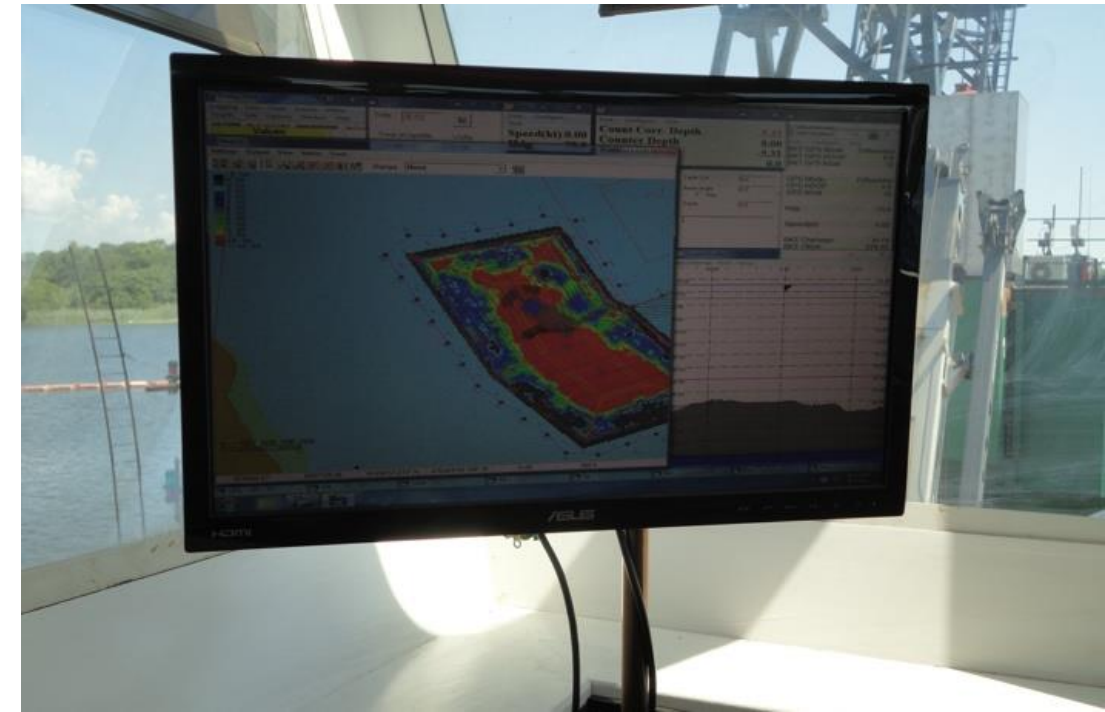
SAFETY & ENVIRONMENT

- Turbidity – Visual Only by 3rd Party
- Time of Year Restrictions (March 15 Deadline)
- Endangered Species Monitoring (Whales)
- Cold Weather Operations
- 24 x 7 Dredging & Offshore Towing Operations
- Shift Hours & Crew Rotations (2 x 12 Hour Shifts)
- Dredged Sediment Placement (4 Knot Speed Restriction for Placement)



SURVEY & ENGINEERING

- In-House Hydrographic Survey
- 3rd Party Survey Verification
- HyPak / DredgePak Survey System
- Dig-By-Color Realtime Survey Monitoring
- Geotechnical Analysis for Bucket Selection & Performance Optimization
- Daily Dredge Surveys



DREDGE PLANT

CLAMSHELL DREDGE DALE PYATT

- Diesel Electric Clamshell Dredge
- ABS All Oceans Classification
- 180' Length x 65' Width x 12' Depth
- 8.5' Operating Draft
- Medium Duty Bucket: 33 Cubic Yard Anvil (79,000 LBS)
- Heavy Duty Bucket: 26 Cubic Yard Atlas (95,000 LBS)
- Total Installed Power: 2,700 Kw
- 200,000 LB Capacity Custom Duty Cycle Dredge Crane
- 3 x 90' Spuds (2 Fixed + 1 Walking Spud)



SUPPORT EQUIPMENT

3 x Offshore Dump Scows

- Kurt Schulte & MERC Shevlin
- 5,000 CYD Capacity
- 267' Length x 54' Breadth x 23' Depth
- Eddie Carroll
- 3,000 CYD Capacity
- 250' Length x 55' Breadth x 16' Depth
- ABS All Oceans Classed & International Loadline

Crew & Survey Boats

- Cape Elizabeth - 42' Crew Boat
- Survey 2 - 25' Skully Boat
- Both w/ Hydrographic Survey System

Tugboats (Offshore Towing & Dredge Tenders)

- Patricia Jean (2,800 HP)
- Brinn Courtney (1,800 HP)
- Bankcroft 24 (1,200 HP)



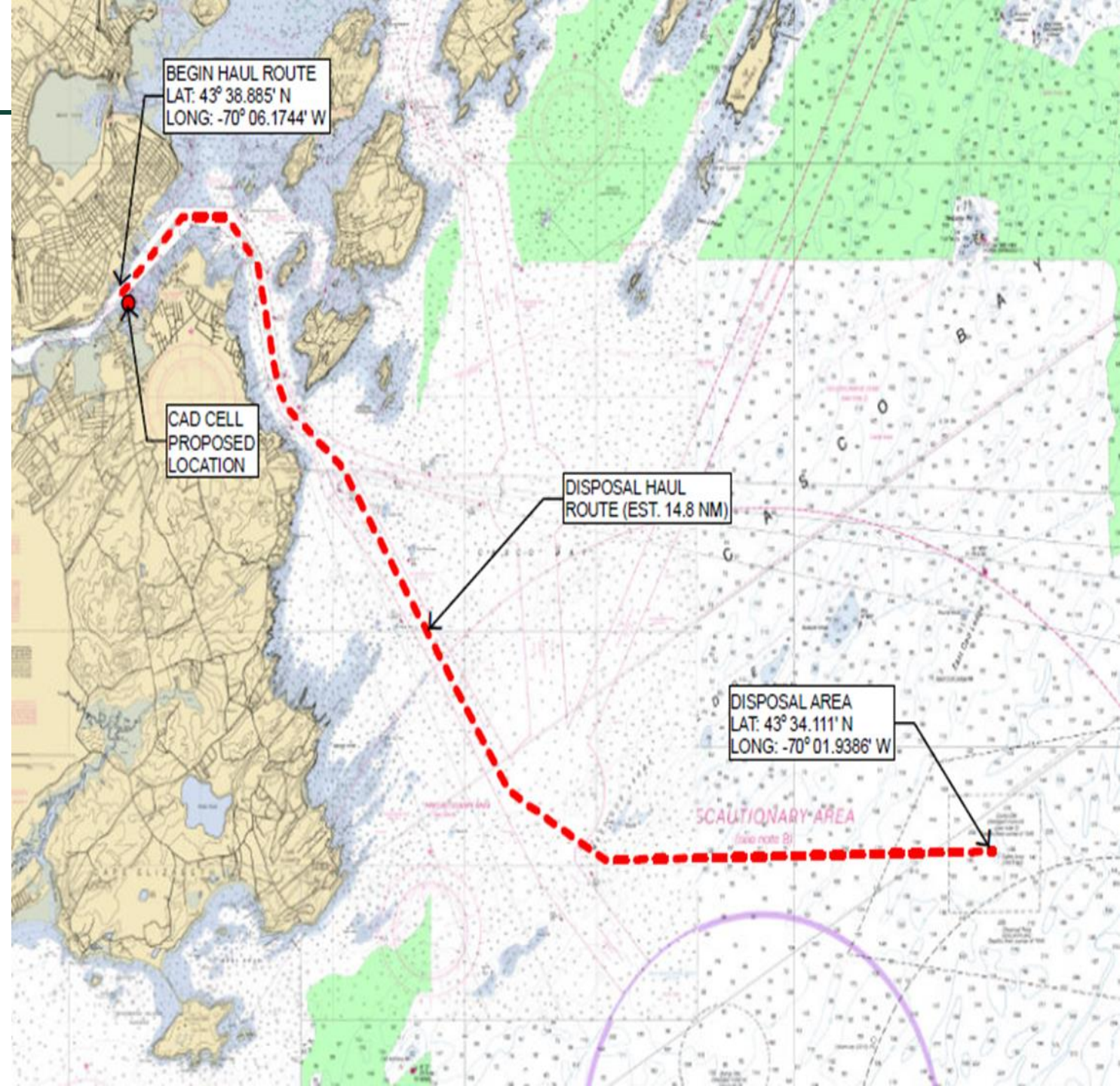
LOCAL & REGIONAL SUPPORT

- Marine Facilities & Crane Service – Bankroft & Waypoint Constructors
- Local Fuel & Provisions - Vessel Services
- Local Tugboats – Bankroft & McAllister



OFFSHORE DISPOSAL

- 14.8 Nautical Mile Haul Distance (One Way)
- 100' to 150' Water Depth @ Disposal Area
- Dedicated High-Horsepower Offshore Haul Tug
- Sediment Placement Monitored as part USACE's Dredge Quality Management "DQM" System (formerly Silent Inspector) via AISS
- Endangered Species Monitors (Whales)



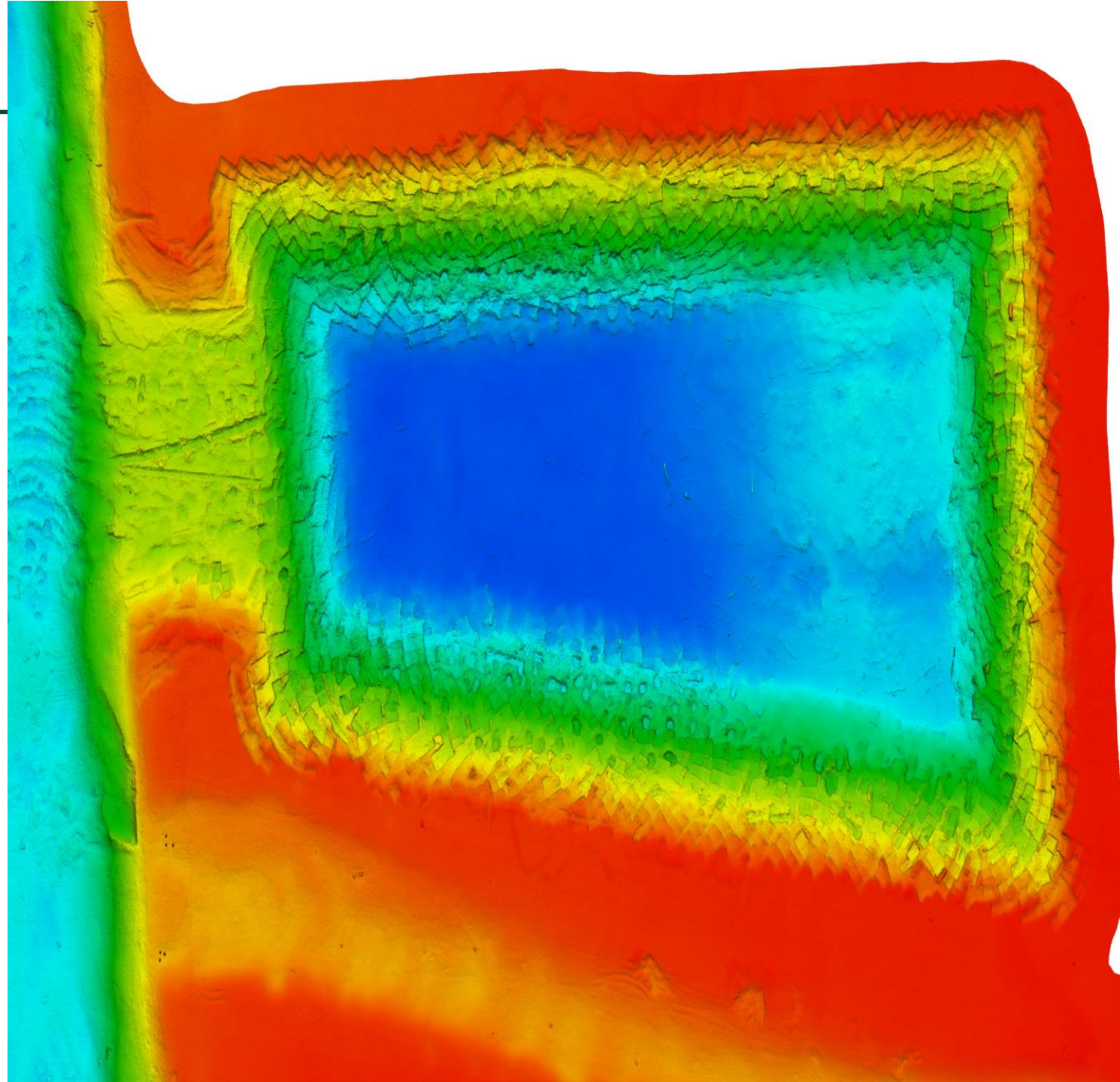
CHALLENGES & RISK MITIGATION

- Short Work Duration – High Production Dredging Spread
- Winter Weather Conditions – Training & Equipment Winterization
- Tidal Work – Initial Pilot Cuts & Light Loading w/ Entrance Channel
- Offshore Towing & Weather Impacts – Utilization of High Horsepower Towing Tugs



PROJECT PERFORMANCE

- Completed in 47 Days
- Early Completion of CAD Allowed Start of Portland Harbor Maintenance Dredging Works w/ Disposal in CAD Cell
- ZERO Safety Incidents
- ZERO Environmental Incidents
- Man Hours
- 379,870 CYD Dredged
- 142 Offshore Placement Trips (Dump Scow Runs)
- 7.5 Days of Weather Downtime
- Side Scan Survey Results from June 2025



Questions & Comments?

Mr. Michael Empey

Exec. Vice President Business Development

mempey@jaycashman.com

Mr. Nathan Carrier

Sr. Project Manager

ncarrier@jaycashman.com

