AGENDA

- Project Overview
- Guiding Objectives Review
- Interim Solution Design Overview
- Drainage Improvements
- Landscape & Aesthetic Finishes
- Community Center Protection Update
- Construction Logistics
- Schedule
- Next Steps
- Questions & Comments
PROJECT OVERVIEW

- Need for resilience
- Series of three previous meetings
  - Design requirements
  - Community input
  - Guiding Objectives
GUIDING OBJECTIVES REVIEW

- Flood risk
- Integration with landscape and built environment
- Minimize loss of field use and duration of construction
- Cost
- Schedule
### Guiding Objectives

<table>
<thead>
<tr>
<th>Guiding Objective</th>
<th>Interim Solution (DFE 12’)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flood Protection</td>
<td>Less than 10% chance of exceedance in 10 years</td>
</tr>
<tr>
<td>Integration with landscape and built environment</td>
<td>• 5.4-foot max wall height</td>
</tr>
<tr>
<td></td>
<td>• Use of existing infrastructure</td>
</tr>
<tr>
<td></td>
<td>• Steel wall on all façades</td>
</tr>
<tr>
<td>Minimize loss of field use and duration of construction</td>
<td>6’- 8’ of encroachment on field for grade beam operation total duration approx. 6 months</td>
</tr>
<tr>
<td>Cost</td>
<td>Est. $4-5M</td>
</tr>
<tr>
<td>Schedule</td>
<td>Flood Protection by: Q2 2020</td>
</tr>
</tbody>
</table>
INTERIM SOLUTION
DESIGN OVERVIEW

LEGEND
- MOVABLE FLOOD BARRIER
- INTERIM STEEL FLOOD BARRIER WITH ARCHITECTURAL TREATMENT
- CONCRETE FLOOD BARRIER WITH ARCHITECTURAL TREATMENT
- EXISTING FENCE

NOTE:
INTERIM DFE 12' (NAVD88)

SCALE: 1" = 60' - 0"
INTERIM SOLUTION
DESIGN OVERVIEW

• Level of Protection
  ▪ DFE 12’ = BFE 11’ plus 1’ (no SLR, no Freeboard)
  ▪ Max wall height is 5.4' to meet DFE and utilize existing infrastructure where feasible
  ▪ Seepage not an issue (Seepage Analysis Findings)

• Reuse Existing Fence Foundations
• 1-inch Thick Steel Plate
• Alignment Exterior to Fence
• 2 Moveable Flood Protection Devices
• Minimum height of decorative panel is 3’, maximum is 5.4’
• Design
  ▪ Painted Concrete/steel plate
  ▪ Finishes
INTERIM SOLUTION
DESIGN OVERVIEW

WARREN STREET
Corner of Murray Street and West Street
INTERIM SOLUTION
DESIGN OVERVIEW

- Standard Design Opt. to reduce lead time
- 1/2 -inch anodized aluminum
- Stainless Steel Color
Aesthetics:
• Panels step with grade change

Maintenance:
• 3” clear at the bottom of the panels to the pavement, allowing for easier removal of debris underneath
• Cover plate on top of the decorative panel to reduce the amount of debris falling between the panel and steel-plate surface
• Anti-graffiti
INTERIM SOLUTION
DRAINAGE IMPROVEMENTS

• Improved walking path drainage on West Street
• New Catch Basins
• Opportunity to assess drainage conditions
INTERIM SOLUTION
LANDSCAPE & AESTHETIC FINISHES

• Trees
  ▪ Protect what is feasible, replace what is not
    - Use of air spades to protect roots
  ▪ 8 interior trees and 2 NYC Parks Dept. trees will be impacted
  ▪ Coordination with BPCA Horticulture team

Trees in Northeast corner of Ballfields
INTERIM SOLUTION
LANDSCAPE & AESTHETIC FINISHES
INTERIM SOLUTION
LANDSCAPE & AESTHETIC FINISHES

- Vines
  - Project will replace in kind

View looking Southeast towards West Street
Construction Logistics

- Ballfields operable during construction
- Best efforts to minimize footprint of staging areas by contractor (likely to be located within parking lane on Warren Street and/or Murray Street)
- Direct load to install panels where feasible
- Temporary closure of West Street walking path, bike path to remain open
- Work from mid-point along West Street both North and South to minimize construction duration
INTERIM SOLUTION
CONSTRUCTION LOGISTICS

FIELD

20' TALL FENCE
NO VEHICLE ACCESS ZONE, MATERIAL LAYDOWN ONLY
CONSTRUCTION FENCE PLYWOOD

4 LANE ROADWAY
BICYCLE PATHWAY

INSTALL CONSTRUCTION FENCE AND CAPTURE WORK AREAS.

PHASE 0 - ENABLING WORKS
INTERIM SOLUTION
CONSTRUCTION LOGISTICS

FIELD

20' TALL FENCE

NO VEHICLE ACCESS ZONE, MATERIAL LAYDOWN ONLY

BICYCLE PATHWAY

4 LANE ROADWAY

PHASE 1 - EXCAVATION

WORK TO BE COMPLETED WITH A MINI EXCAVATOR AND HAND EXCAVATION. ANY DEBRIS TO BE REMOVED SHALL BE BROUGHT TO THE STAGING AREA FOR HAULING.
INTERIM SOLUTION
CONSTRUCTION LOGISTICS

20' TALL FENCE

NO VEHICLE ACCESS ZONE, MATERIAL LAYDOWN ONLY

FIELD

RECONFIGURED FOOTINGS

4 LANE ROADWAY

BICYCLE PATHWAY

PHASE 2 - FOUNDATIONS

CONCRETE WORK SHALL BE COMPLETED IN THIS PHASE.
INTERIM SOLUTION
CONSTRUCTION LOGISTICS

FLOOD PANELS TO BE INSTALLED SHALL BE DELIVERED TO AND STAGED ON MATERIAL LAYDOWN AREA.

PANELS CAN BE LIFTED BY EXCAVATOR TO SET THEM IN PLACE. A SMALL CHERRY PICKER MAY BE REQUIRED. TBD.

PHASE 3 - FLOOD WALL INSTALLATION
INTERIM SOLUTION
COMMUNITY CENTER PROTECTION

Options
- Façade Replacement
- Deployable System

Photo credit: hanranhan Meyers architects (hMa)
INTERIM SOLUTION
SCHEDULE

Community Outreach and Involvement

Design Development

Bidding and Permitting

Construction on the Perimeter Wall*

Project Completion

*Construction of community center flood protection TBD
The Interim Solution:

1. Protects the Ballfields & Community Center
2. Flood protection in Q2 2020!
3. Costs significantly less than other solutions
4. Integrates into Battery Park Resiliency Plan
5. Minimizes disruption to ballpark activity
6. Has less of a visual impact with a 5.4’ wall
7. Addresses drainage issues along walking path at West Street
8. Visually appealing & attractive
9. The project includes YOUR input
INTERIM SOLUTION
NEXT STEPS

• Refine Design
• 95% Design of Ballfields Steel Barrier
• Finalize Community Center Flood Protection
• Contractor RFP
Follow construction updates and sign-up for the newsletter online: https://bpca.ny.gov/nature-and-sustainability/resiliency/

Email your comments or suggestions: info.bpc@bpca.ny.gov

Follow BCPA projects on social media:
Twitter https://twitter.com/bpca_ny
Facebook https://www.facebook.com/bpca.ny
Instagram https://www.instagram.com/bpcparks/