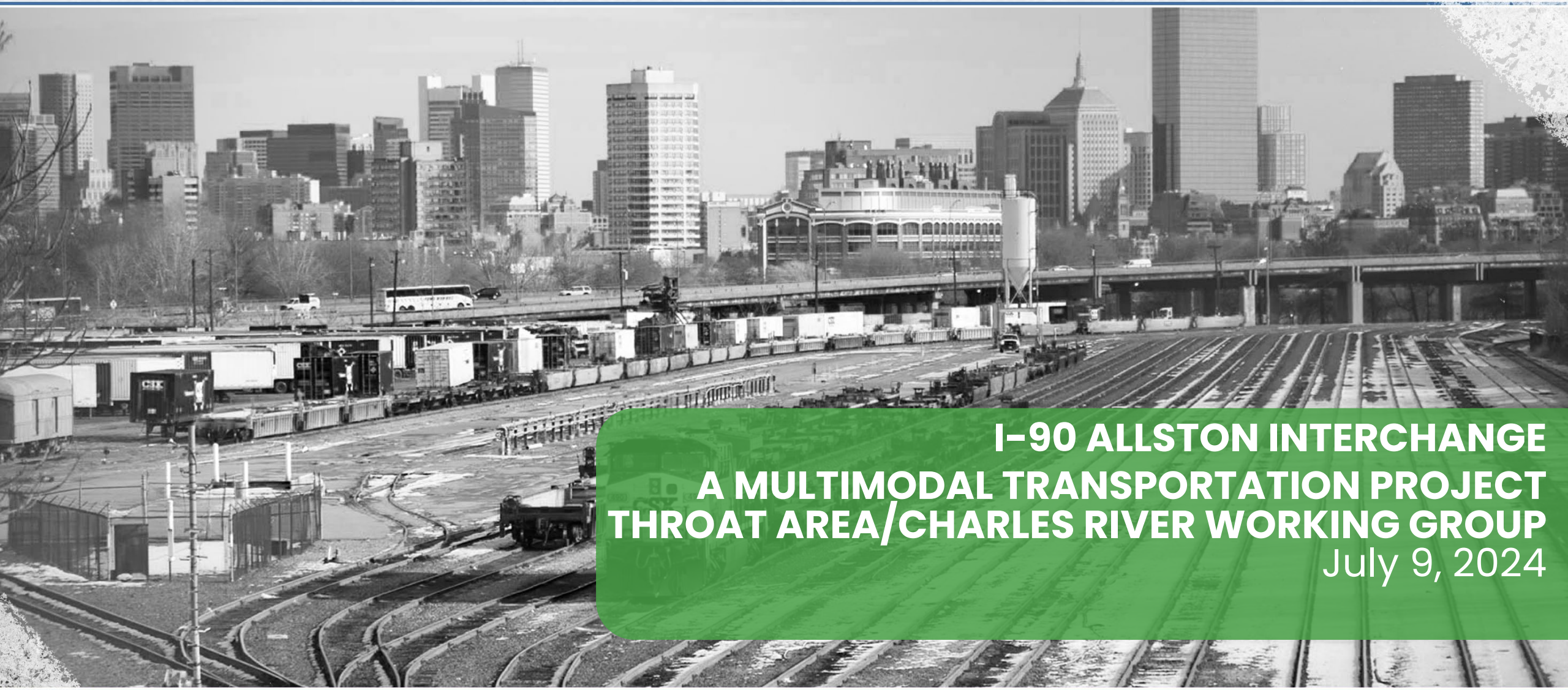


I-90 ALLSTON INTERCHANGE
A MULTIMODAL TRANSPORTATION PROJECT
THROAT AREA/CHARLES RIVER WORKING GROUP

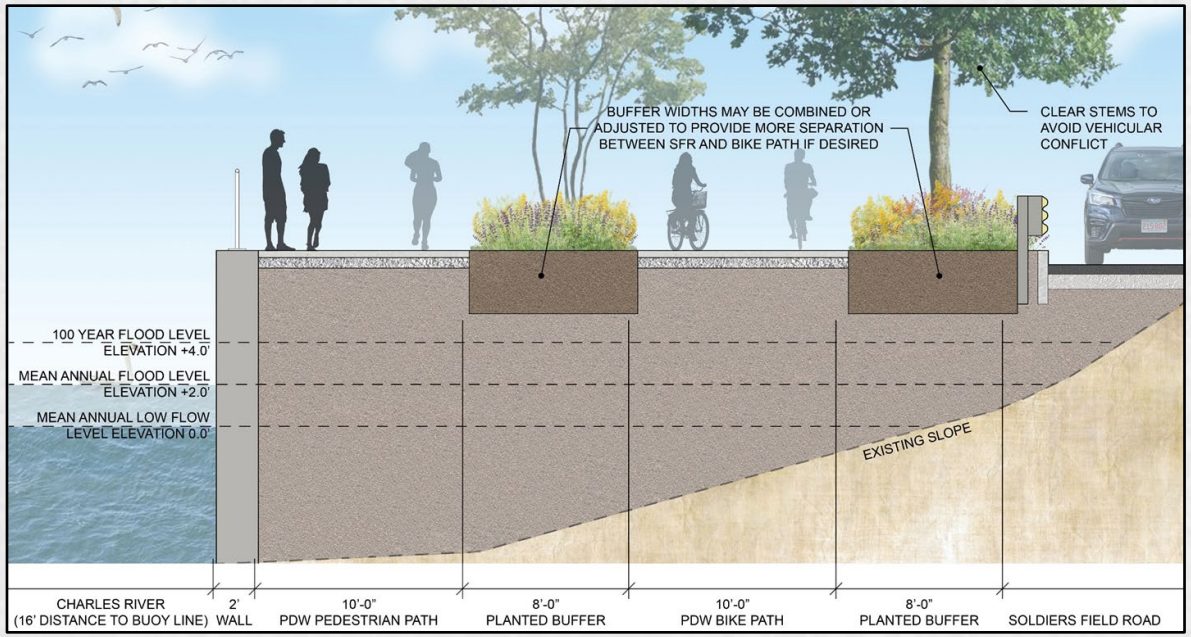
July 9, 2024

Project Overview: Shoreline Types

4,370 LF OF SHORELINE

- Shoreline treatment varies for project extents
- Opportunity for planted edge at appropriate locations
- Where required, hardened edge proposed (similar to other existing edge treatments on the Charles River)

Option 1 - What We Heard



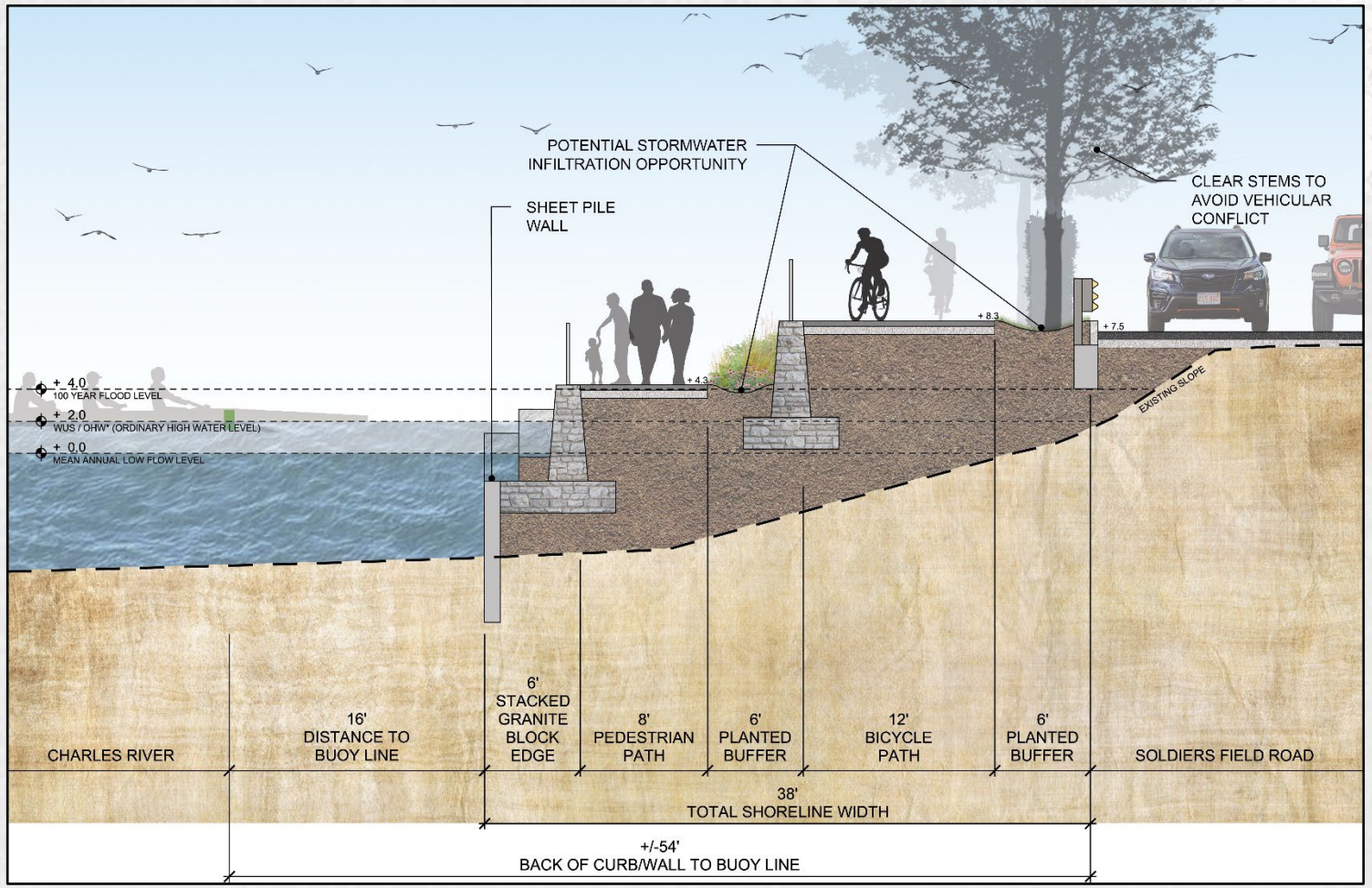
WHAT WE HEARD

- Vertical Wall
  - creates significant wave deflection concerns *(River Users)*
  - provides no opportunities for river user respite or rescue *(River Users)*
  - provides little to no ecological value *(River Users & Permitting Agencies)*
- Significant river impact due to maximized fill *(Permitting Agencies)*
- Provides most easily maintained shoreline treatment *(DCR)*
- Allows for healthy and maintainable planting buffers at path edges *(DCR)*
- Road traffic will be loud and uninviting *(River Users)*

MODIFICATION OPPORTUNITIES

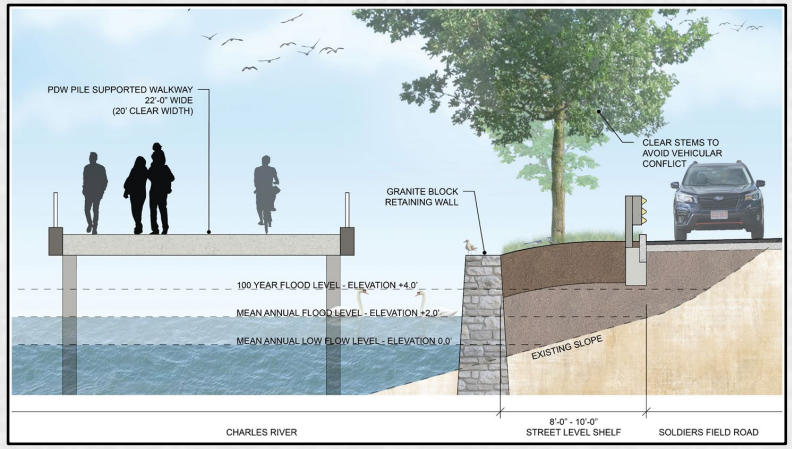
- Explore option to improve river's edge treatment to reduce wave deflection and provide areas of respite
- To maintain ease of maintenance access, unlikely to be able to provide a planted river's edge without increasing volume of river fill (which is already maximized).
- Consider opportunities to reduce traffic noise

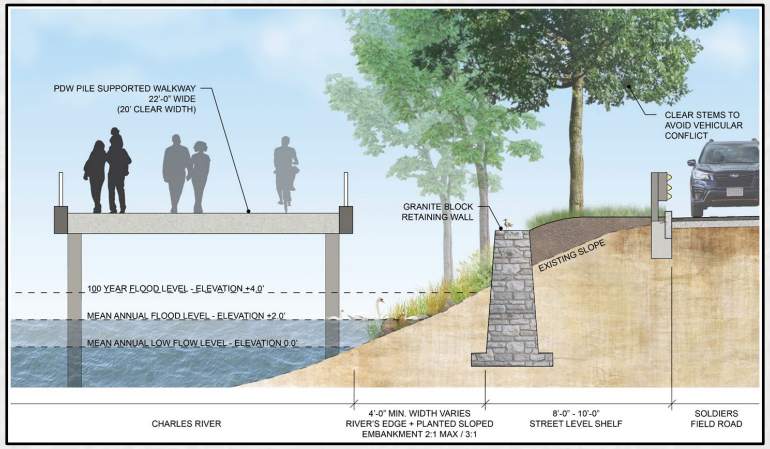
Option 1 Modifications

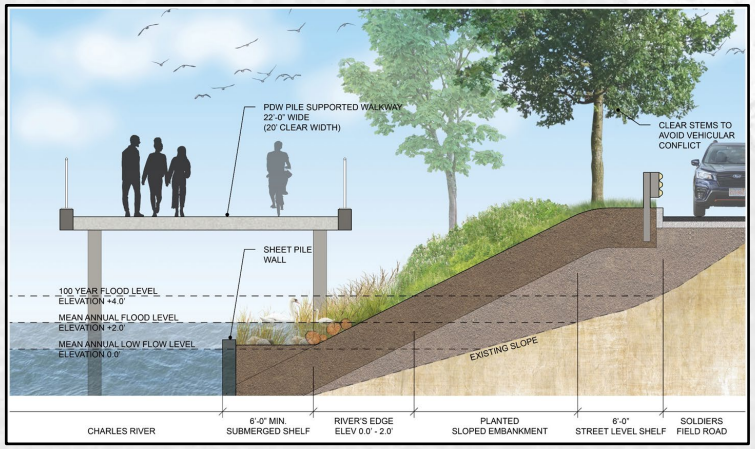


- Separated Pedestrian and Bicycle paths, at different elevations
- Stepped block wall at water's edge for reduced wave deflection
- Identify opportunities for planting and infiltration
- Requires a reduction of landscape buffers

Option 2 - What We Heard







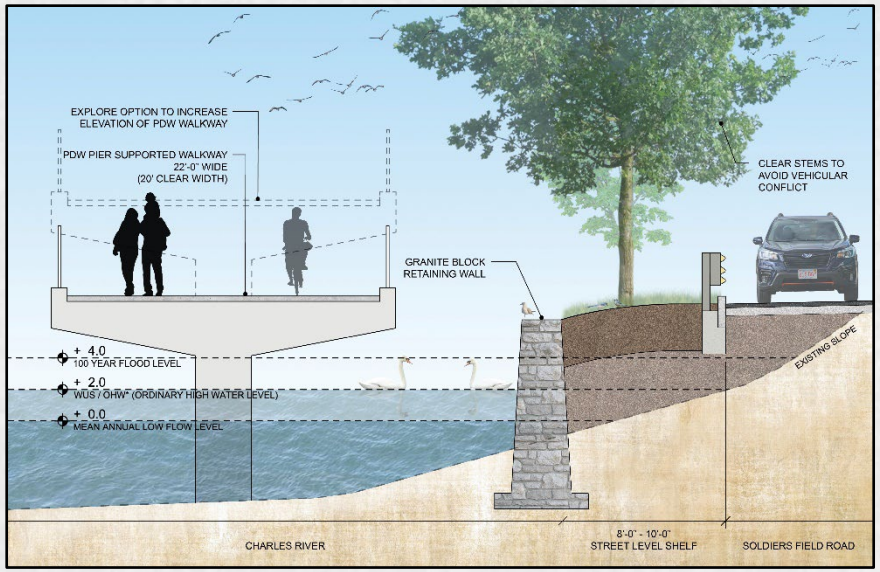
WHAT WE HEARD

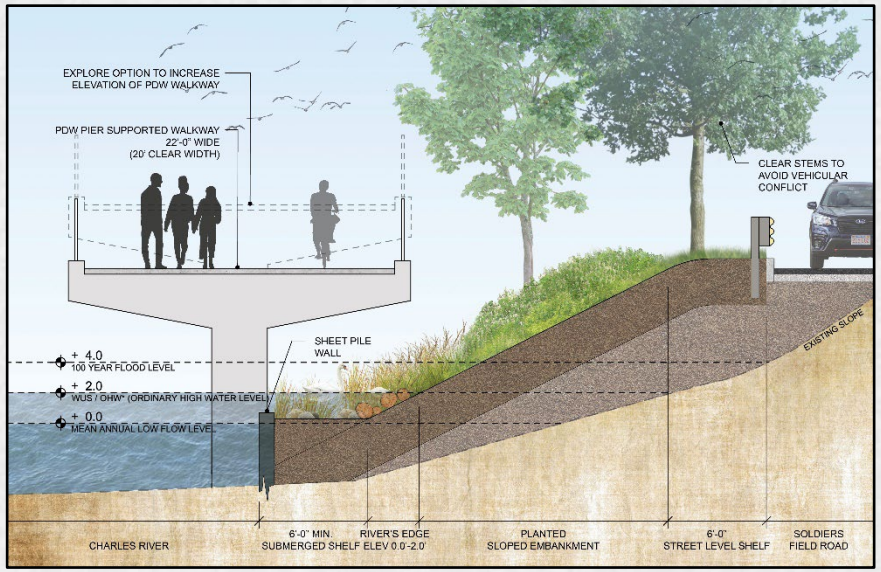
- Raised Walkway in river reduces usable water sheet and presents a safety issue for river users (i.e. navigation obstacle and head height concern) *(River Users)*
- Raised Walkway inhibits access to shoreline from watersheet *(River Users & DCR)*
- While the planted shoreline is desirable, it is limited in length and narrow *(River Users)*
- Challenging planting environment on north facing slope *(River Users & DCR)*
- Significant river impact due to fill *(Permitting Agencies)*
- Shoreline is inaccessible for maintenance purposes *(DCR)*
- Planted terraces and range of conditions are difficult to maintain *(DCR)*
- Pile Supported Walkway is difficult to maintain and plow *(DCR)*
- Safety concerns if disconnected from land *(River Users)*
- Potentially improve parkway experience *(MassDOT & DCR)*

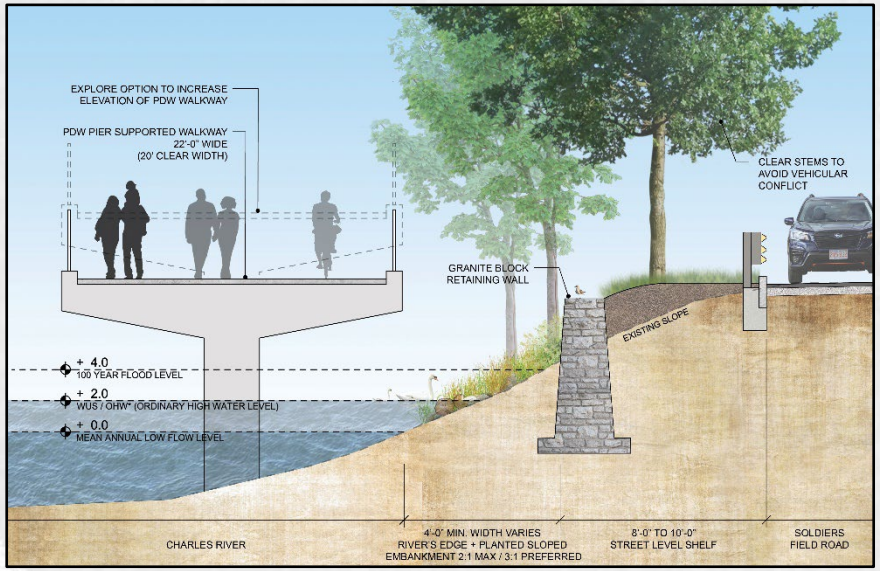
MODIFICATION OPPORTUNITIES

- Explore option to increase height of walkway to reduce head height concerns
- Reduce number of pile supports to lessen conflicts on water sheet (i.e. explore a mono pier type structure)
- Even if raised, conflicts at landing points remain
- Unlikely to be able to improve DCR's maintenance access concerns

Option 2 Modifications

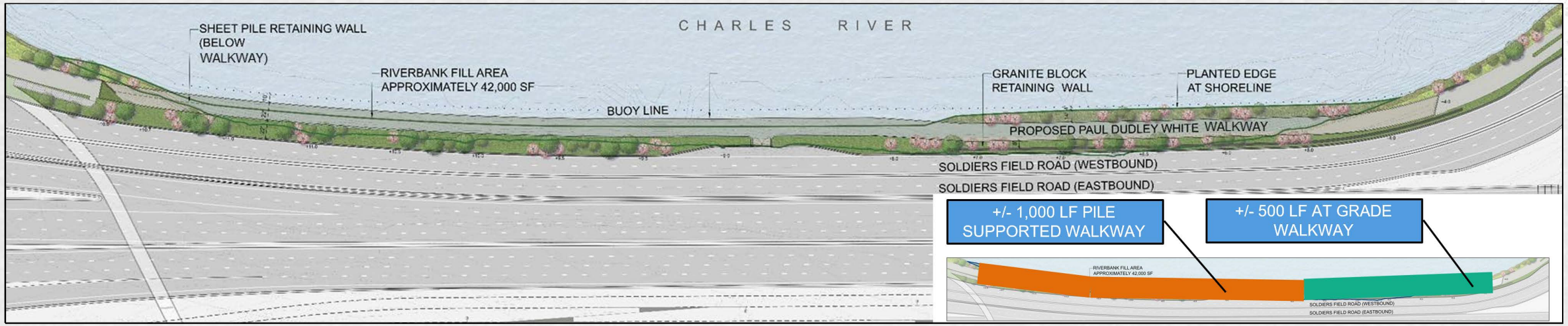






- Explores opportunity for a single pier walkway structure to reduce river impacts
- Considering opportunities to raise the walkway where feasible to limit head height concerns

Option 3 - What We Heard

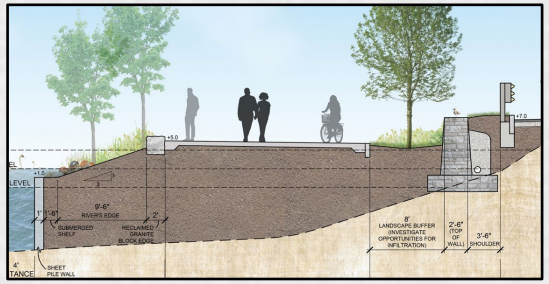


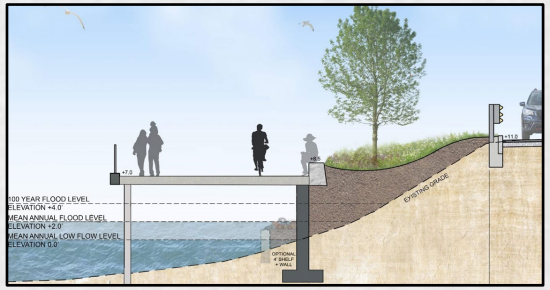
WHAT WE HEARD

- Consider opportunities to expand locations of shoreline to improve river user's ability to pull up along land *(MassDOT & River Users)*
- Provides some ecological value but not extensive *(River Users)*
- Number of different planting conditions for at-grade portion could be reduced to improve ease of maintenance *(DCR)*
- Raised Walkway presents same challenges as other options *(River Users & DCR)*
- Significant river impact due to maximized fill *(Permitting Agencies)*
- Potentially provides some desirable stormwater infiltration opportunities *(DCR & Permitting Agencies)*
- Road traffic might be loud and uninviting at some locations *(River Users)*

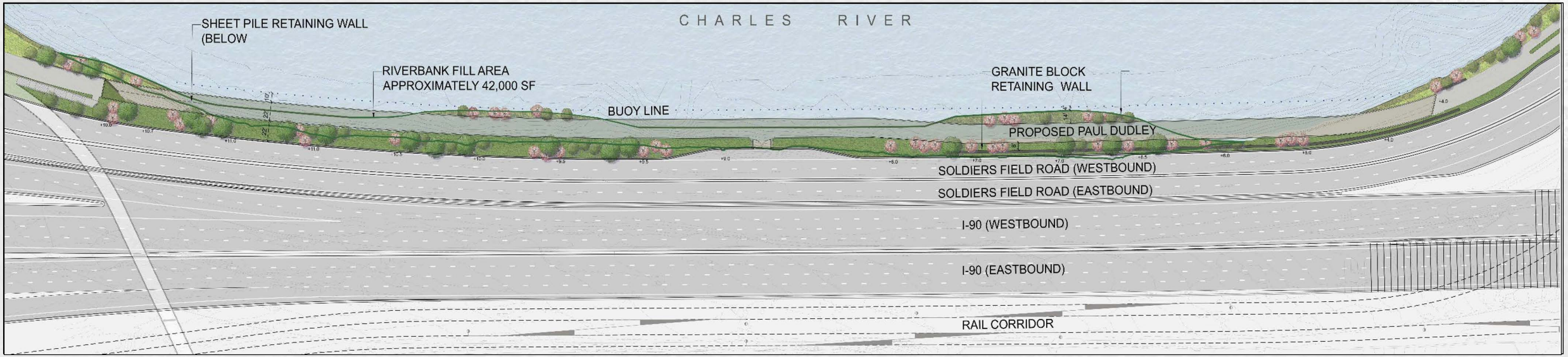
MODIFICATION OPPORTUNITIES

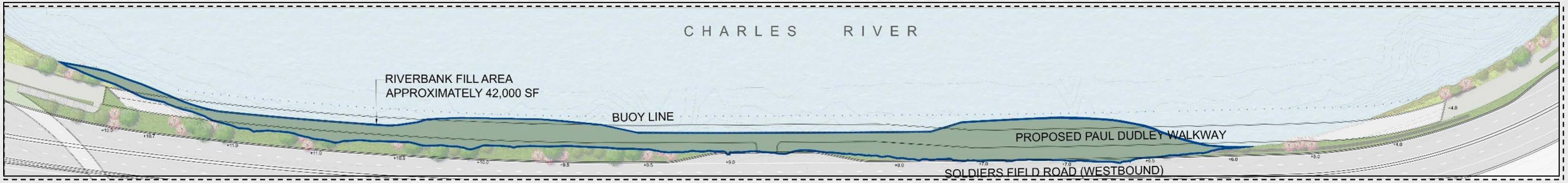
- Explore options to better distribute locations of planted shoreline to improve river user's experience
- Cannot increase planted shoreline length without increasing river fill.
- Potential to reduce number of different planting conditions to improve ease of maintenance
- Explore opportunities to reduce wave deflection
- Consider opportunities to reduce traffic noise



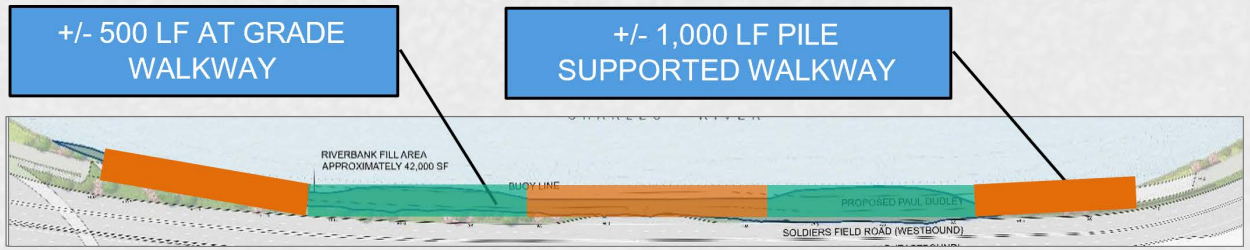


Option 3 Modifications

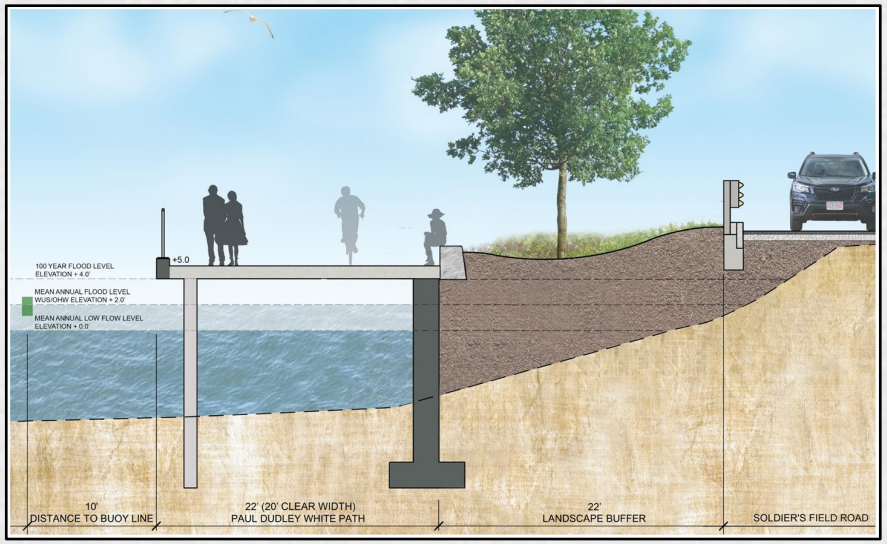




- Provides two areas of shoreline fill and three segments of raised walkway
- Two shoreline fill locations evenly distributes river user refuge areas through the Throat Area



Option 4 - What We Heard



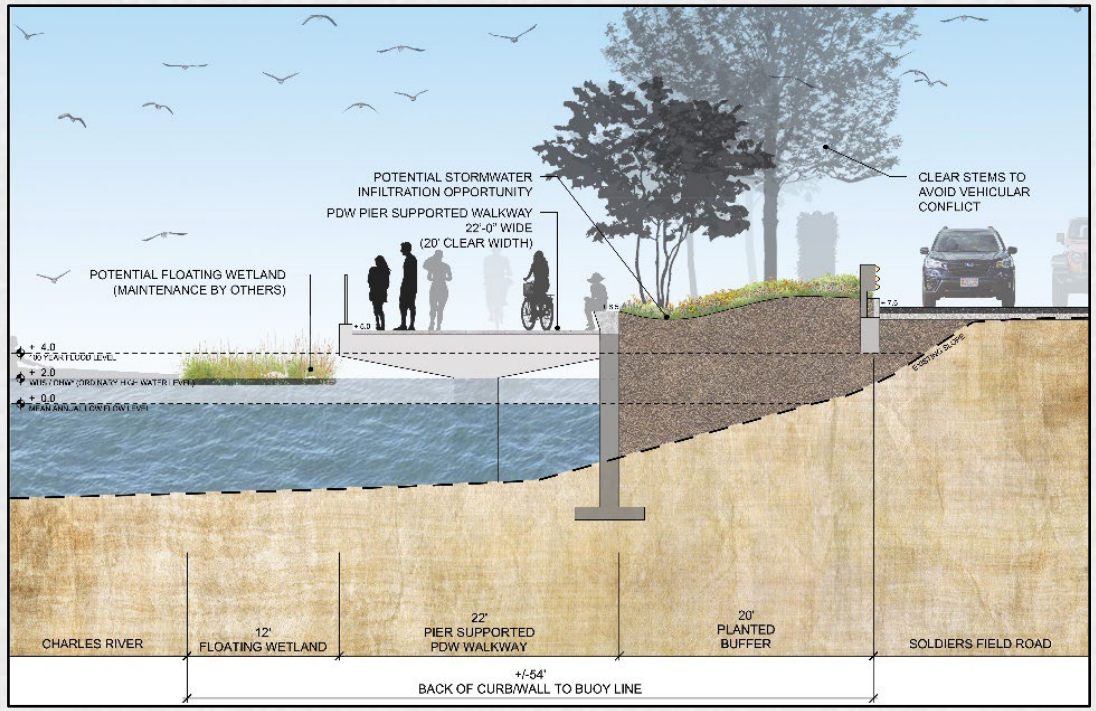
WHAT WE HEARD

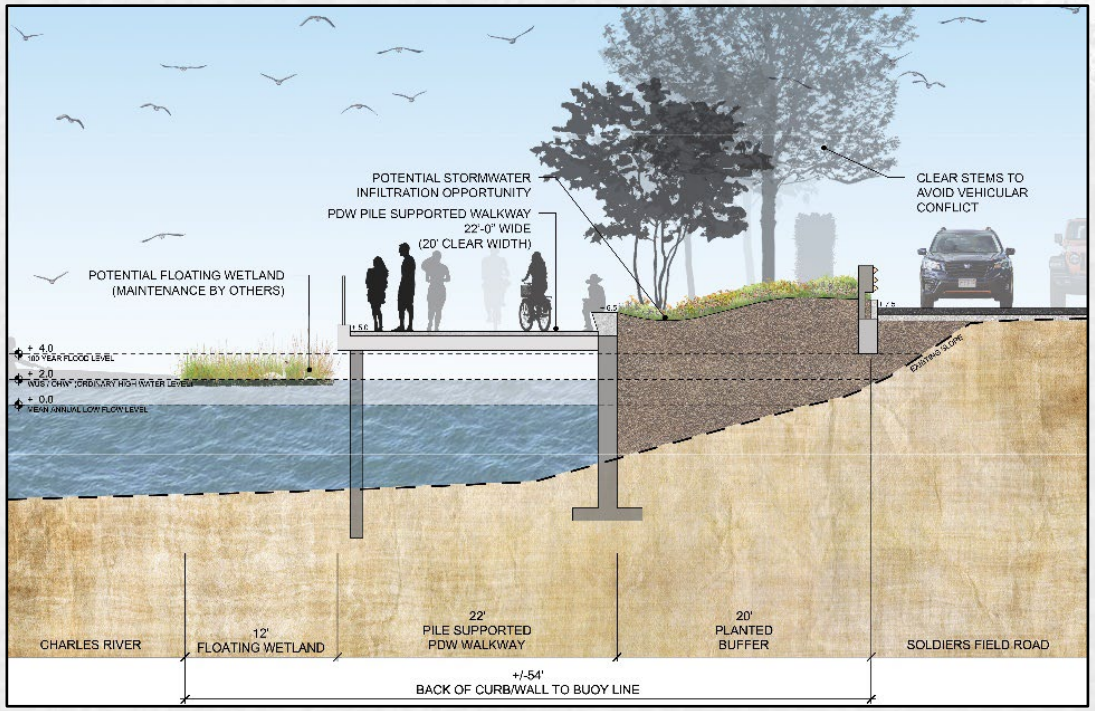
- Vertical Wall
  - creates significant wave deflection concerns *(River Users)*
  - provides no opportunities for river user respite or rescue *(River Users)*
  - provides little to no ecological value *(River Users & Permitting Agencies)*
- Raised Walkway in river reduces usable water sheet and presents a safety issue for river users (i.e. navigation obstacle and head height concern) *(River Users)*
- Reduced river fill is desirable *(Permitting Agencies)*
- Provides a more easily maintained planting area and walkway *(DCR)*
- Potentially provides some desirable stormwater infiltration opportunities *(DCR & Permitting Agencies)*
- Provides minimal ecological benefit at river's edge *(River Users and Permitting Agencies)*
- Road traffic will be loud and uninviting *(River Users)*

MODIFICATION OPPORTUNITIES

- Explore option to improve river's edge treatment to reduce wave deflection and provide areas of respite
- Reduce number of pile supports to lessen conflicts on water sheet (i.e. explore a mono pier type structure)
- This option includes a walkway structure fixed to land (as opposed to Option 2) to promote utility/drainage design efficiency. Raising walkway could be explored however
- Even if raised, conflicts at landing points remain
- Consider opportunities to reduce traffic noise

Option 4 Modifications





- Alternative explores the use of a single pier supported structure to reduce river fill impacts
- Explore potential for floating wetlands for improved interest, habitat, water quality, and possibility to reduce wave deflection
- If used, potential floating wetlands to be maintained by others