Renderings
Foster City Levee Improvements
CIP 301-657

Presentation to Citizens
January 2017

Schaaf & Wheeler
CONSULTING CIVIL ENGINEERS
Project Constraints

- Bay trail
- Views
- Environmental impact (9 major regulatory permits)
- Available public right-of-way
- Public access to trail and Bay
- SFO glide path and ILS marker
- San Mateo Bridge
- Schedule
- Birds, mice, fish, stray cats…..
- **FEMA Accreditation**
• Earthen Levees
Project Alternatives

- Earthen Levees
- Flood Walls
Alternatives

- Earthen Levees
- Flood Walls
- Hybrid Sheet Pile Walls
Project Alternatives

- Earthen Levees
- Flood Walls
- Hybrid Sheet Pile Walls
- Horizontal Levee
Horizontal Levee Concept

- Wave Shoaling on a Mild Slope

Surging Wave

Table shelf made up of crushed shells

A large volume of water pushes up an embankment.... basically a small push of water rushing the beach. Some tidal waves act in this manner, not all are crashing waves.
## Sea Level Rise Criterion

<table>
<thead>
<tr>
<th>Time Period</th>
<th>Projection (inches)</th>
<th>Range (inches)</th>
<th>Adopted (inches)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000 – 2030</td>
<td>6±2</td>
<td>2 to 12</td>
<td>---</td>
</tr>
<tr>
<td>2000 – 2050</td>
<td>11±4</td>
<td>5 to 24</td>
<td>24</td>
</tr>
<tr>
<td>2000 – 2100</td>
<td>36±10</td>
<td>17 to 66</td>
<td>46</td>
</tr>
</tbody>
</table>

**FEMA**
- FEMA + 2050 SLR
- FEMA + 2100 SLR
View 1 (East Third Avenue)
View 1 (East Third Avenue)
View 3 (Lincoln Center)
View 3 (Lincoln Center)
View 3 (Lincoln Center)
View 4 (San Mateo Bridge)

Existing View
View 4 (San Mateo Bridge)

Land Side Wall – 2050 SLR
View 4 (San Mateo Bridge)

Land Side Wall – 2100 SLR
View 13  (Bridgeview Park)

Existing View
View 13 (Bridgeview Park)
View 5 (Sanderling Street)

Existing View
View 5  (Sanderling Street)
View 5 (Sanderling Street)

2100 SLR
View 5  (Sanderling Street)

Existing View from Second Story
View 5  (Sanderling Street)

2050 SLR from Second Story
View 5 (Sanderling Street)

2100 SLR from Second Story
View 14 (Swordfish Street)
View 14 (Swordfish Street)

2050 SLR
View 14 (Swordfish Street)

2100 SLR
View 14 (Swordfish Street)

Existing View from Second Floor
View 14 (Swordfish Street)

2050 SLR from Second Floor
View 14 (Swordfish Street)

2100 SLR from Second Floor
View 15 (Shorebird Park)
View 15 (Shorebird Park)
View 6 (Foster City Boulevard)
View 6 (Foster City Boulevard)
View 8 (Wheel House Lane)

Existing View
View 9  (Sea Cloud Park)
View 9 (Sea Cloud Park)
View 10 (Cutwater Lane)

Existing View from Second Floor
View 10 (Cutwater Lane)

2100 SLR from Second Floor
View 11  (Between Cutwater Ln and Timberland Ln)

2050 SLR
View 11 (Between Cutwater Ln and Timberland Ln)

2100 SLR
View 12 (Port Royal Park)

Existing View
View 12 (Port Royal Park)
• Resiliency
  – Adapt to Sea Level Rise over 80 years

Horizontal levees are not easily adaptable to changing sea level.
QUESTIONS?

Schaaf & Wheeler
Consulting Civil Engineers