Post-Sandy Redevelopment of Washington Village

October 25, 2016

Joe Canas, P.E., LEED AP, CFM



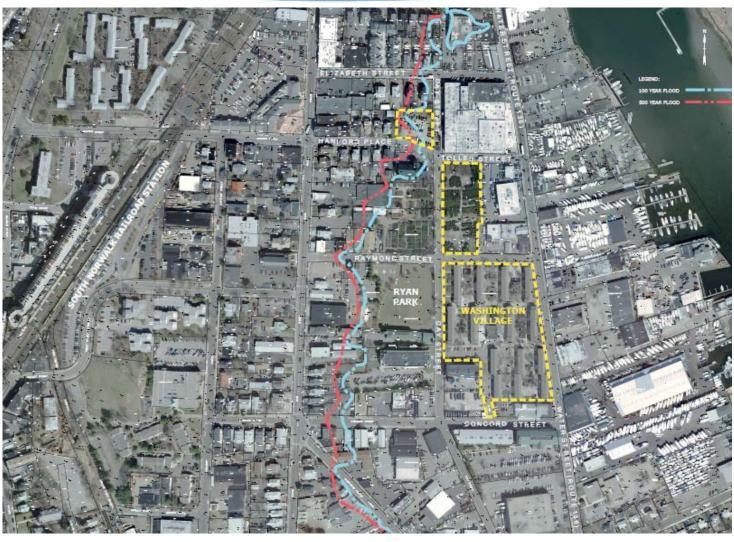
Existing Conditions

- Constructed in 1940
- Oldest public housing project in Connecticut
- 136 housing units
- Adjacent to public park
- Within walking distance of train station
- Area subject to localized flooding





Existing Conditions



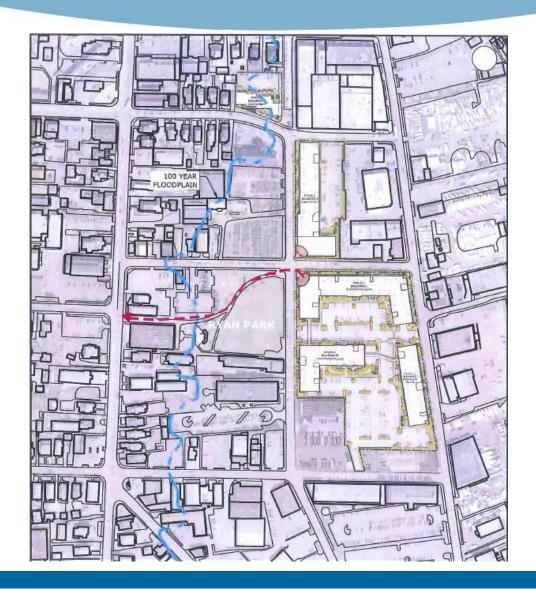
Proposed Conditions

- Redevelop Washington Village and adjacent lots
- **273 proposed units**
 - 136 subsidized units
 - 137 market rate

■ Park improvements planned for separate project



Proposed Conditions



Superstorm Sandy

- Many units flooded by as much as 4 to 5 feet of water
- Norwalk Housing Authority received \$ 30 million
 Community Development Block Grant from HUD
- Trinity Financial selected developer





Floodplain Management Certification

 CGS 25-68 requires any state agency proposing an action within a floodplain obtain a Floodplain Management Certification from the Department of Energy and Environmental Protection



 Must demonstrate compliance with National Flood Insurance Program requirements and State floodplain management regulations



Floodplain Management Strategies

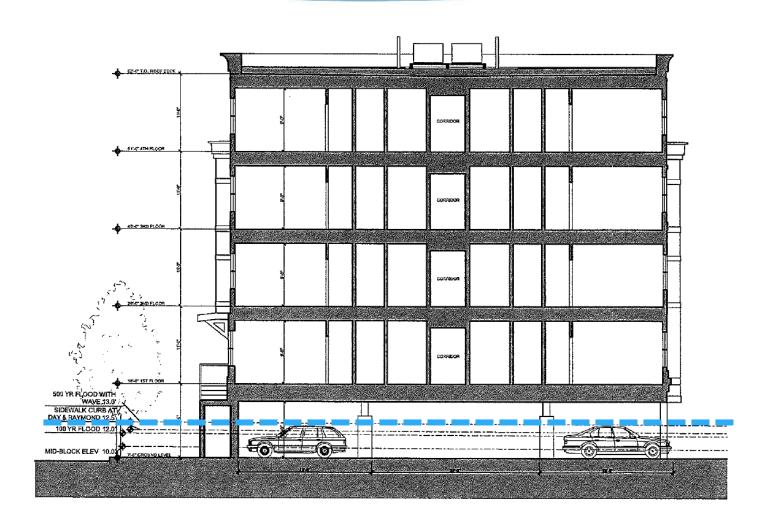
Requirement

 CT Dept. of Housing considers public housing to be a critical activity, therefore must be designed for the 500year flood

Strategy

- Parking was placed at grade beneath the building, and the residential units placed on the floor above
- Lobby and elevators to be floodproofed to 500-year plus 1'

Floodplain Management Strategies





500-Year Coastal Elevation?

- Flood Insurance Studies only publish the 100-year coastal flood elevation
- **FEMA technical guidance:**
 - 500 year elevation = 1.25 x 100 year elevation
 - (or conduct detailed study)
- 500-year using FEMA guidance: 15 NAVD88





Floodplain Management Strategies

Requirement

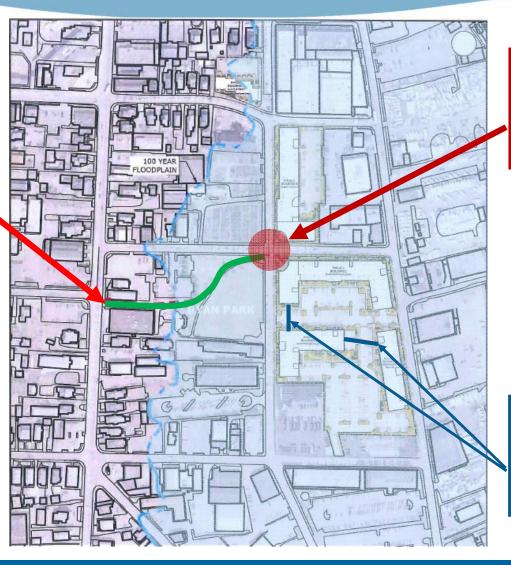
 CT DEEP policy requires "dry access" from the site to contiguous dry land

Strategy

- Elevated bridges between units
- Infrastructure improvements, elevation of Raymond and Day intersection
- Berm across Ryan
 Park

Floodplain Management Strategies

Berm across Ryan Park @ El. 12.1



Raise Intersection of Raymond & Day to El. 12.1

Elevated
Bridges
Connecting
Buildings

Tighe&Bond

Localized Flooding Strategies

- Installed tide gate on local drainage
- "Stacking" the impervious coverage allowed for more pervious coverage on the site
- **Other LID retrofits**
 - Porous pavement
 - Rain gardens





Executive Order 13690

- Federal Flood Risk Management Standard, effective January 2015
- Applies to federally funded actions
- Choose one of three compliance paths
 - Build two feet above the 100-year flood elevation for standard projects, three feet above for critical projects
 - Build to the 500-year flood elevation
 - Use best-available, actionable climate science



Intensity of Development

- CGS 25-68d does not allow FM Certifications for projects that increase the intensity of development in the floodplain.
- Agency may ask for an exemption
- Exemption was required for this project because we were going from 136 to 273 units



Floodplain Management Exemption

Must demonstrate the project meets four criteria:

- Project is in the public interest
- Project complies with the National Flood Insurance Program requirements
- Owner is aware of the increased flood insurance premiums
- Demonstrate that project will not cause harm or injury to persons or property

Floodplain Management Exemption

Safeguards to prevent injury to persons or property

- Dry access
- Prepared detailed flood contingency plan
- Coordination with CityEmergency Operations Plan
- Document how cars would be moved off site and parked in City Garages





Floodplain Management Exemption

- Tentative decision to approve Exemption granted by CTDEEP on August 26, 2014
- 30 day appeal period
- Friends of Ryan Park submitted appeal on September 25, 2014
 - 200 signatures obtained, 25 required



Misinformation!

Dry Access





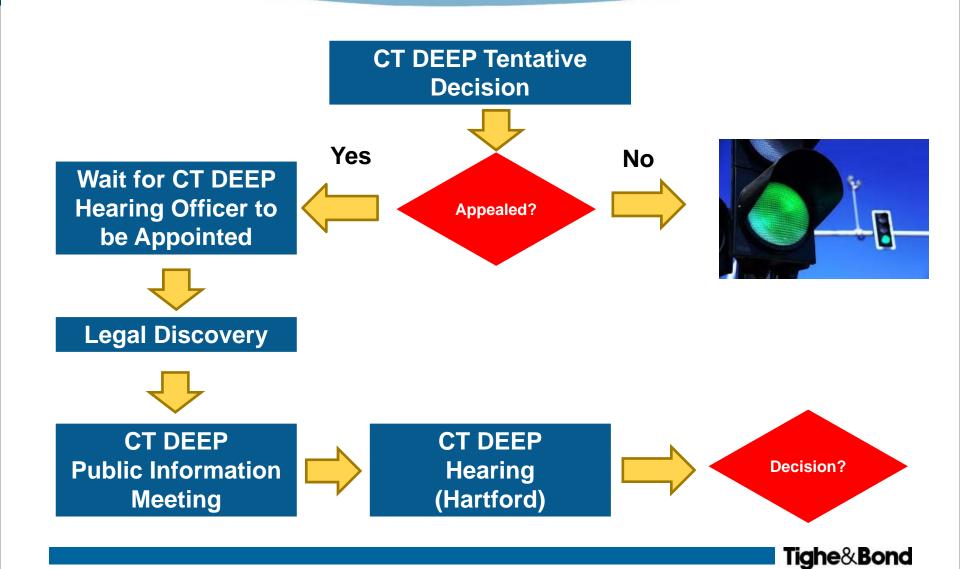
Misinformation!

Ryan Park Butterfly Garden





CTDEEP Appeal Process



CTDEEP Public Information Session

- South Norwalk Community Center
- Site walk before information session
- Project team introduced the project
- Members of public allowed to speak, limited to three minutes each





CT DEEP Hearing

- **CT DEEP, Hartford**
- Two sessions: December 18, 2014 and January 6, 2015

Support

- CT DEEP Staff
- CT Dept. of Housing
- Norwalk Redevelopment Agency
- Norwalk Housing Authority + Attorneys
- Trinity Financial + Attorneys
- Tighe & Bond

Opposition

 Friends of Ryan Park (selfrepresenting)

CT DEEP Hearing

■ April 30, 2015 CT DEEP Hearing Officer rules in favor of Department of Housing

NHA director: Friends' appeal of DEEP decision imperils \$30M grant

■ June 23, 2015 Friends of Ryan Park files appeal

Norwalk Council pressuring Duleep on road block to Washington Village

 Hearing officer didn't consider alternatives Duleep urges state to protect Ryan Park murals, trees, from 'malicious' Norwalk

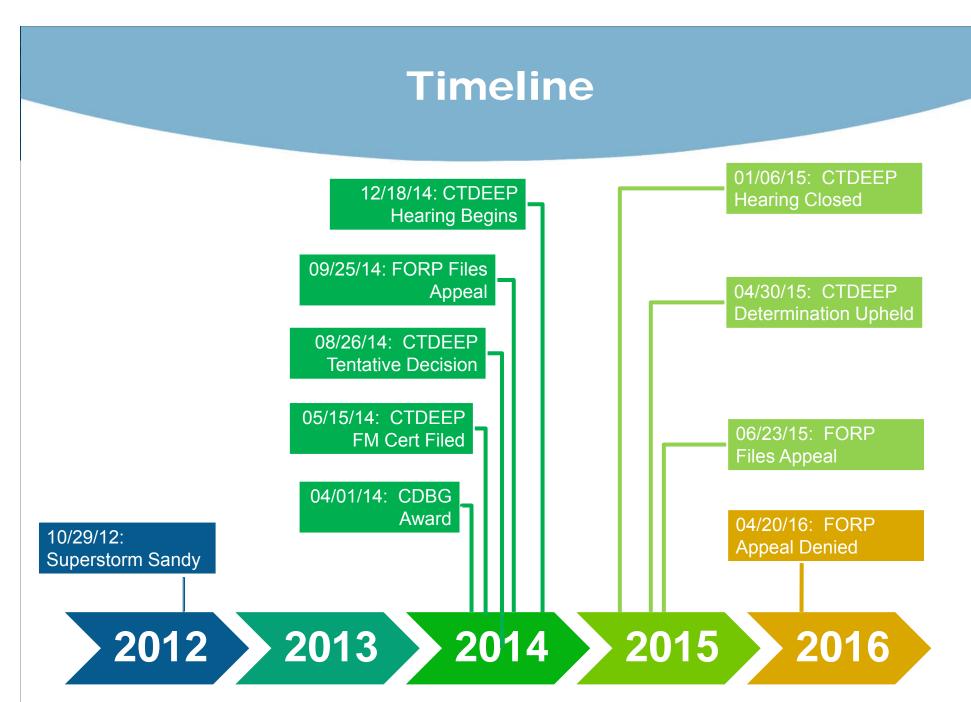
■ April 20, 2016 Connecticut Superior Court dismisses appeal

Norwalk lawyer threatens Duleep attorney with treble damages for 'vexatious litigation'

■ 20 day appeal period passes without incident

Testimony: Duleep worried 'politician' may have targeted her for Ryan Park 'hit'

Tighe&Bond



Tighe&Bond

Now What?

- Construction documents under way for site and offsite roadway improvements
- City has awarded Master Plan design services for Ryan Park
- FORP "improvements" relocated by Parks Dept. to FORP's President's front yard



Questions?



Joseph Canas, PE, LEED AP, CFM Project Manager Tighe & Bond, Inc. 1000 Bridgeport Avenue Shelton, CT 06484