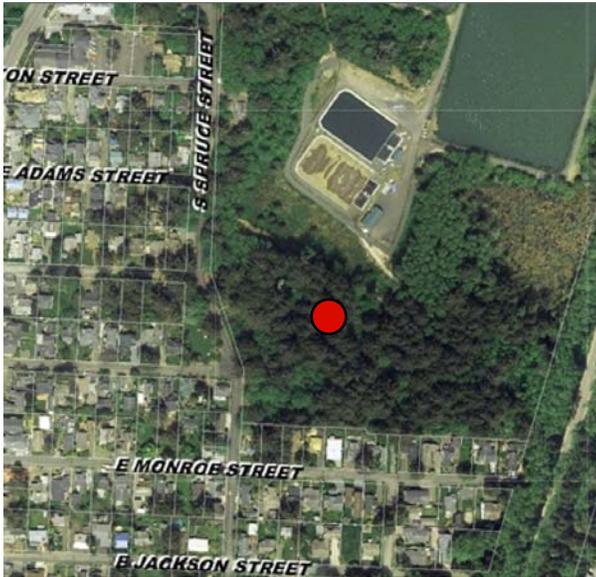


ALTERNATIVE 1

Tsunami Evacuation Tower: Sitka Spruce Forest Reserve



Positives

- Best location for a tsunami evacuation tower according to Harry Yeh study, given its proximity to downtown.
- City owned.
- Large flat site, with extensive tree cover. Structure could be hidden in the trees and built with little overall disturbance of the Reserve.
- Marine Terrace geology provides a relatively sound substrate for construction.
- Existing site elevation will permit an evacuation structure that provides protection from worst case tsunami.
- Can be designed to include survivor support supplies.

Negatives

- The City's objectives for the property would have to be modified. It is presently zoned open space.
- Siting to minimize visual impact may lessen its visibility, a key variable for a tsunami evacuation tower.
- Because it's a stand alone structure with no regular use, there may be a loss of community awareness about the structure and its purpose.
- Structure has no daily use benefit.

Estimated Cost: \$1.5 to \$2.0 Million

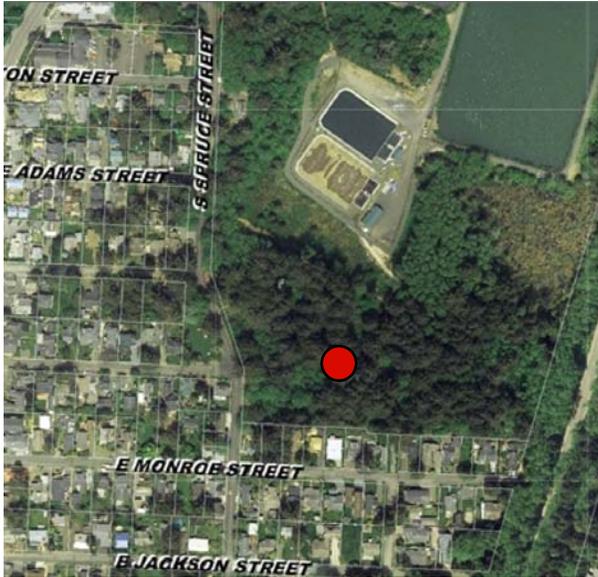
Estimated Timeline: 1 to 2 years

Objectives Addressed Downtown Evacuation
Survivor Support



ALTERNATIVE 2

Tsunami Evacuation Tower: Sitka Spruce Forest Reserve



Positives

- Best location for a tsunami evacuation tower according to Harry Yeh study, given its proximity to downtown.
- City owned.
- No physical constraint on the size of the facility that is built.
- Existing site elevation will permit an evacuation structure that provides protection from worst case tsunami.
- Marine Terrace geology provides a relatively sound substrate for construction.
- City Hall needs to be replaced eventually.
- Provides a new City Hall that is located in the core portion of town.
- Sale of existing City Hall site, commercially zoned property, could help defray the cost of development.
- Use and location would make it visible and known as a place to evacuate to.
- Could be designed to include survivor support supplies

Negatives

- The City's objectives for the property would have to be modified. Presently, the comprehensive plan and zoning code designate the site for open space.
- Unlike just an evacuation tower, the facility would be in constant use, generating moderately high to high traffic volumes in the middle of a residential area on local streets.
- Potentially serious neighborhood objection, creating an extended project approval process.

Estimated Cost: \$4 to \$4.5 Million

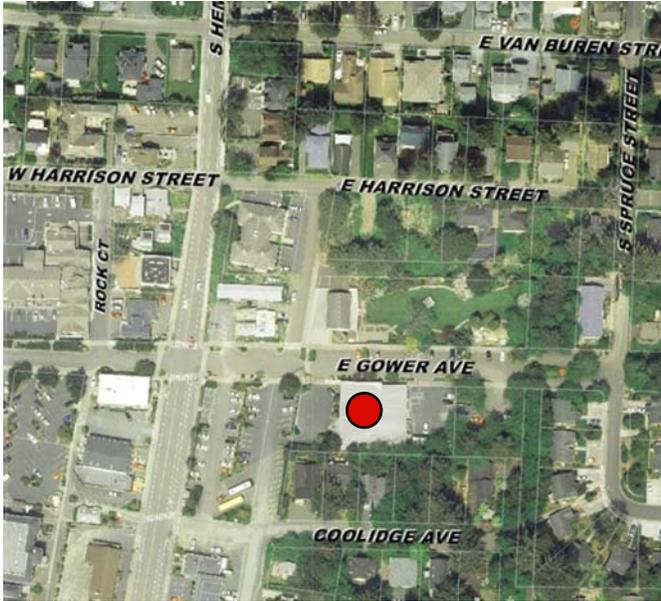
Estimated Timeline: 1 to 2 years, if no serious neighborhood objection.

Objectives Addressed: Downtown Evacuation
Survivor Support
Post Event, Long-term reconstruction



ALTERNATIVE 3

City Hall/Tsunami Evacuation: Existing City Hall Site



Positives

- City Hall needs to be replaced eventually.
- Provides a new City Hall that is located in the core portion of town, is located in an appropriately zoned area, adjacent to an arterial street.
- City owned.
- According to Harry Yeh study, provides increased survival rate from tsunami evacuation benefit.

Negatives

- Not a good location for a downtown evacuation structure.
- Located in a higher risk tsunami inundation zone. The site elevation makes it difficult to design for a maximum tsunami event.
- In certain moderate probability tsunami events evacuees would put themselves at more risk attempting to reach the structure than if they stayed in adjacent area.
- Has been discussed with mixed community acceptance.

Estimated Cost: \$4 to \$4.5 Million

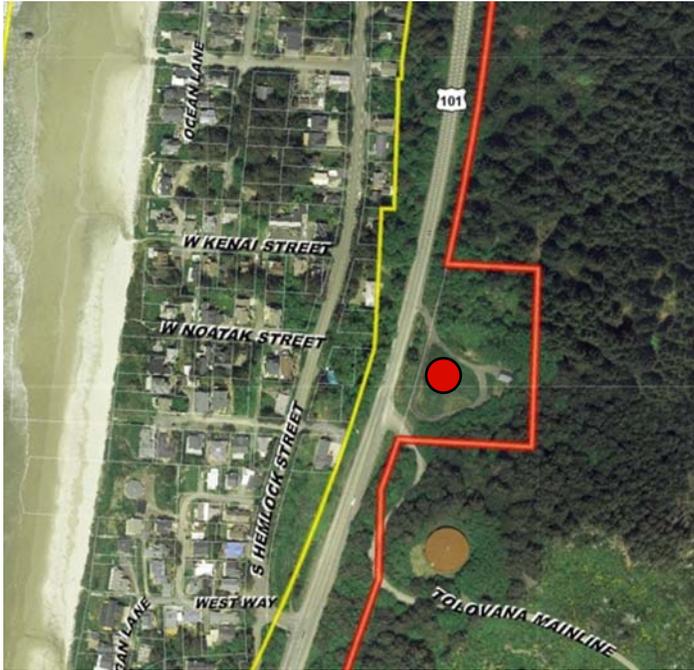
Estimated Timeline: 1 to 2 years

Objectives Addressed: Survivor Support
Post Event, Long-term reconstruction



ALTERNATIVE 4

New City Hall at Tolovana Mainline



Positives

- City Hall needs to be replaced eventually.
- Site contains adequate land to locate a City Hall outside the maximum tsunami inundation zone.
- City owned.
- Sale of existing City Hall site, commercially zoned property, could help defray the cost of development.

Negatives

- Removes City Hall from core of town, places it adjacent to US Highway 101.
- Could set the stage for development in forest land east of US Highway 101, or commercial development directly adjacent to US Highway 101.

Estimated Cost: \$2.5 Million

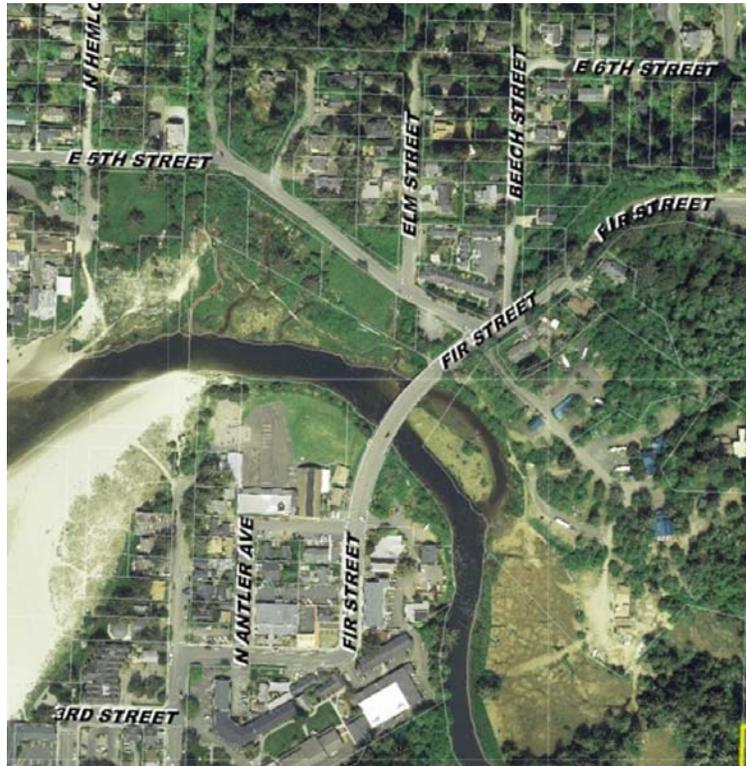
Estimated Timeline: 1 to 2 years

Objectives Addressed: Survivor Support
Post Event, Long-term reconstruction



ALTERNATIVE 5

Replace City Bridge across Ecola Creek



Positives

- Needs to be done eventually.
- More evacuation capacity than the footbridge option.-

Negatives

- Directing evacuation through the most hazardous tsunami impact area, the estuary. This is a particularly worrisome factor in a moderate tsunami where evacuees would be safe at a Washington Street, or south elevation.
- Bridge may be rendered non-functional by persons trying to evacuate by car during the earthquake.
- Given the effects of the earthquake, tsunami and post event erosion, the bridge may be nonfunctioning in either an immediate post disaster time frame, or a longer recovery time frame, resulting in a very large expenditure of money strictly for evacuation.-

Estimated Cost: \$4.7 million

Estimated Timeline: 1 to 2 years

Objectives Addressed: Downtown Evacuation
Post Event, Long-term reconstruction



ALTERNATIVE 6

Pedestrian Bridge across Ecola Creek



Positives

- Could serve as a bridge across Ecola Creek as part of the Cannon Beach Trail.
- City or School District owned land.
- Close proximity to the Cannon Beach Grade School for evacuation purposes.
- Replaceable post event, in the case of a suspension bridge.

Negatives

- Directing evacuation through the most hazardous tsunami impact area, the estuary. This is a particularly worrisome factor in a moderate tsunami where evacuees would be safe at a Washington Street elevation.

Estimated Cost : \$1 to \$1.7 Million

Estimated Timeline: 1 to 2 years

Objectives Addressed: Downtown Evacuation



ALTERNATIVE 7

Providing Survivor Support Facilities and Supplies

Positives

- City can control all elements of the program's implementation.
- Efforts are already well underway.

Estimated Cost: \$250,000 to \$500,000

Estimated Timeline: 1 years

Objectives Addressed: Survivor Support



ALTERNATIVE 8

Strengthen existing Fire Station to withstand worst case tsunami



Positives

- Utilizes a structure that was designed to be a post event command center, could act as interim City Hall.
- Appropriately located for up to 80% of tsunami inundation events, potentially could be upgraded to withstand a lower probability tsunami event.
- Potentially a low cost solution.

Negatives

- Fire station is not located outside the maximum tsunami inundation zone.

Estimated Cost: Unknown

Estimated Timeline: 1 to 2 years

Objectives Addressed: Post Event, Long-term reconstruction

