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5.19.04

Douglas B. MacDonald  
Secretary of Transportation  
310 Maple Park Ave. SE  
Olympia WA 98504-7300

Dear Mr. MacDonald:

I-401-001

Thank you for your reply to my letter on proposed Elliott Bay Bridge  
Re: Alaskan Way Viaduct & Seawall Project for Seattle Washington.

As you mentioned in your letter, Tom Madden, Engineering Manager for the project discussed my proposal with me several months ago and I quote "He advised why your proposal was not feasible, including the impacts to shipping access to the piers at the south end of Elliott Bay."

Elliott Bay Bridge

The question Tom Madden ask me, " how are we going to afford it " (Elliott Bay Bridge that is ) I told him, the bridge cost is one billion dollars.

One billion dollars, if I am correct is less than 2.4 billion minimum to 4.5 billion suggested by the proposed five alternative solutions by the Washington State Department of Transportation.  
So, the bridge over Elliott Bay cost is less than the tunnel/viaduct over land cost.

The Elliott Bay Bridge should be the preferred alternative to replacing the Alaskan Way Viaduct because the bridge solution is less expensive and will cause less disruption to the city during construction, and it adds a completely new highway corridor through the city and opens up many possibilities for the use of the old Alaskan Way Viaduct property.

I-401-002

Impacts to shipping

The question of impacts to shipping access can be looked at in several different ways. Container cargo shipping belongs in an industrial area. If we remove our Terminal 45 (cargo container) shipping to another location, we can make way for a new cruise ship terminal right in the center of town only blocks from shops and sight seeing. We can remove the fill dirt of Terminal 45 and include that area for the new inner harbor of Seattle

The Port of Seattle has many options for developing container facilities in cooperation with other cities here in the Puget Sound region. Perhaps by combining operations they will find it more productive and less costly to protect there facilities and simpler to operate.

I-401-003

Seawall and Water Retention System

When we have an opportunity to make improvement to the city because of the need to replace the cities waterfront seawall to insure future stability of existing and new structures along the waterfront, why would we not consider building in a water retention system. Why not consider the possibilities of reuse an existing structure like the Alaskan Way Viaduct?

For the most part, the Alaskan Way Viaduct structure is constructed in separate 200 foot long roadway sections about 60 foot wide with 20 feet between upper and lower decks. These section could have the columns removed

**I-401-001**

Several concepts were considered that would construct a bridge over Elliott Bay as an alternative to reconstructing the viaduct in its current location. However, these concepts were screened out for several reasons:

- A bridge over Elliott Bay would restrict navigation within Elliott Bay, which would affect both the Port of Seattle's container terminal operations and the Washington State Ferry operations at Colman Dock.
- Obtaining the necessary permits for in-water bridge construction would be extremely difficult.
- The bridge concept has visual quality impacts that are not consistent with the City's existing land use and shoreline plans.

**I-401-002**

Changing container cargo shipping facilities is outside the scope of this project.

**I-401-003**

Thank you for your suggestion about using the viaduct to build a new seawall and water retention facility. New materials would be used to build the new seawall, and the old viaduct structure would be removed and not available for other uses under all the proposed build alternatives.

I-401-003

*and be turned on its side and set so the top deck roadway can be the Seawall and the space between the top deck and lower deck the water retention area. This area is approximately 60 x 20 feet per lineal foot, or 1200 cu ft / ft or = 240,000 cu ft / roadway section. Now, take the paved land area of downtown Seattle that dumps storm water directly into Puget Sound is about six sq miles of surface area, say 3838 acres. The standard storm water retention required in King County is 2000 cu ft / acre. This would require approximately 7,677,000 cu ft of storm water retention or at 75 % efficiency would require approximately 8,528 lineal feet of Alaskan Way viaduct Seawall for water retention, or 1.6 miles... and that's about what is available. Seattle can build in a state of the art Seawall/water retention system and filter all surface drainage before it enters Elliott Bay. That's what the city should do.*

*Waterfront Master Plan*

I-401-004

*If we give this new highway corridor over Elliott Bay to the State of Washington, perhaps the state will give us (the City of Seattle/King County) the old Alaskan Way Viaduct corridor. Just think what we could do.*

*If we owned the Alaskan Way Viaduct property we can turn it into a City Park. We can add Alaska Street (100 feet width) and we can build the new seawall out 100 feet into Elliott Bay for a total of 300 feet wide by two miles long "City Park"*

*A New City Park with a new City Street / Viaduct*

I-401-005

*Extending along the new city park a new city street/viaduct with the upper level a four lane city traffic with connections to the city and the Elliott Bay Bridge and below that at a mid-level, a rapid transit, bus/monorail connections to the city and at ground level connections to city ground transportation, bus and taxis and below that underground connections/tunnels to the waterfront.*

*To the water-side of City Park we can make new waterfront city blocks and provide zoning that will encourage the developed of the water resources, and water use. Zoning to encourage open space under building envelopes for views of the water from the City Park and encourage open plaza planning for public and private use and along the waterfront provide a harbor walk, a floating walkway the size of a city street except it is a walking promenade for the public to enjoy the bay views.*

*A floating street for pedestrians at water level of the inner harbor, with plaza's and movable bridges along the way for small boat traffic in and out of the new city blocks. The harbor walk and the City Park will add open spaces for the public to enjoy and use as they pass in and out of the cities new central waterfront. It will invite all of Seattle to come down to the waterfront each day, for every sunset.*

*Sincerely yours,*



*Roger Patten ALA*

Cc: David L. Dye, Urban Corridors Administrator, MS TB85-95  
Maureen Sullivan, Project Director, MS NB82-230  
Tom Madden, Engineering Manager, MS NB82-230  
Allison Ray, Environmental Coordinator, MS NB82-230  
City and County Counsel members

#### I-401-004

Under the Cut-and-Cover Tunnel and Elevated Structure Alternatives, improvements to Alaskan Way are included as project elements. For the Bored Tunnel Alternative, Alaskan Way improvements are not part of the project and will be analyzed under separate environmental documentation by the City of Seattle. In all cases, the City of Seattle owns the property located under the viaduct structure.

#### I-401-005

A system of floating public spaces and walkways would be extremely difficult to obtain permits from public resource agencies that safeguard shoreline areas along the project corridor. Because of space restrictions within the project corridor, and requirements for maintaining current capacity, separated HOV facilities will not be incorporated into the alternatives being considered.

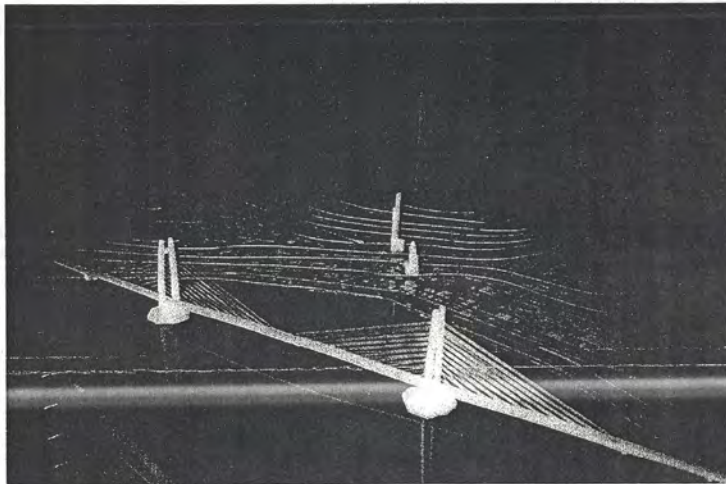
Part I of III

PROPOSED

ELLIOT BAY BRIDGE

Seattle WA

2.27.04



By

Roger Patten AIA

## Proposed Elliot Bay Bridge

Imagine a bridge built over Elliot Bay that removes the high speed traffic and noise of highway 99 away from the waterfront and returns the waterfront back to the city of Seattle for development.

Picture a cable-stayed suspension bridge with a main span of 3,450 feet for a total bridge length of 6,900 feet with approaches for a total length of two miles. It can be built within five years at a cost of about one billion dollars. The bridge would be the same length as the Alaskan Way Viaduct and replace it forever.

The bridge's main span is supported by two bridge towers that are approximately 1000 feet above sea level and support the cable stayed bridge span 240 feet above the water.

The towers will have a Viewing/Restaurant platforms at the 800 foot level for the south tower and Security facilities for the Port of Seattle and US Coast Guard at the south tower.

The bridge deck has a curved designed into it to allow for expansion and contraction of the superstructure between the approaches and will curve outward from the waterfront to afford a greater space for Seattle to have an Inner Harbor. This curved deck will also move the highway traffic a half mile off the waterfront, far enough away so you can see the vitality of the traffic but not hear it.

The curve in the bridge deck will also allow for the bridge alignment with the Battery Street Tunnel and when traveling north on the bridge the Space Needle will appear centered between the suspension cables and when traveling south (on a good day), Mt. Rainier will appear centered between the suspension cables.

The Bridge is designed to support six lanes of car/truck traffic and two monorail tracks under the bridge superstructure for a personal rapid transit (PRT) public monorail transportation service to the bridge towers and the cities new waterfront development.

The bridge towers will be mirror like, and at times their silhouettes will disappear and reappear like a mirash with reflections and shadows in the waters of Elliott Bay.

The bridge cable-stayed suspension system is a new and inventive structure and is supported by the two towers anchored approximately 220 feet below the surface of the water by means of a foundation system that will harness the unique geology of the Elliott Bay estuary and resolves the ecological impact of the bridge construction in a new and meaningful way.

The Elliott Bay Bridge will be the longest cable stayed bridge in the world and perhaps a new signature for the City of Seattle.

Some engineers believe the Alaskan Way Viaduct is too dangerous to use and should be shut down. Remember the California Northridge Earthquake of January 17, 1994 and the catastrophic events to the transportation system of L.A.

Now is the time to build!

Roger Patten AIA





