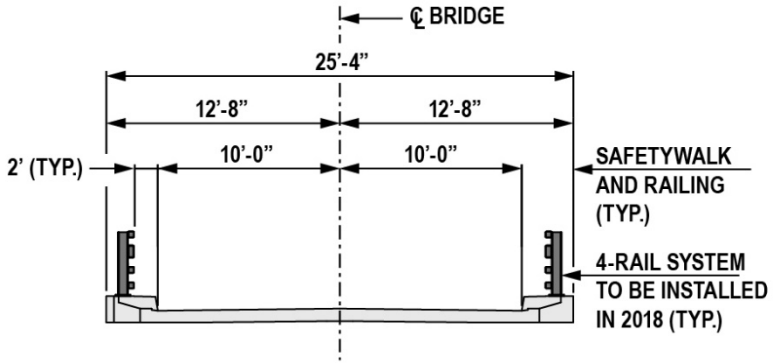
Ocean Drive (CR 619) Over Townsends Inlet Bridge Replacement Study

GPI

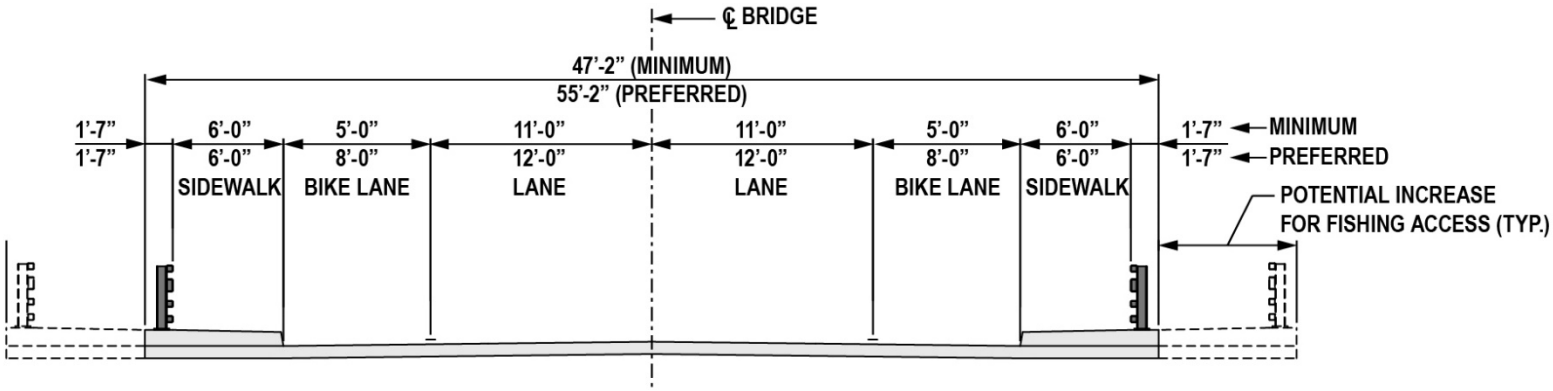
CAPE MAY COUNTY

October 19, 2017

Bridge Sections



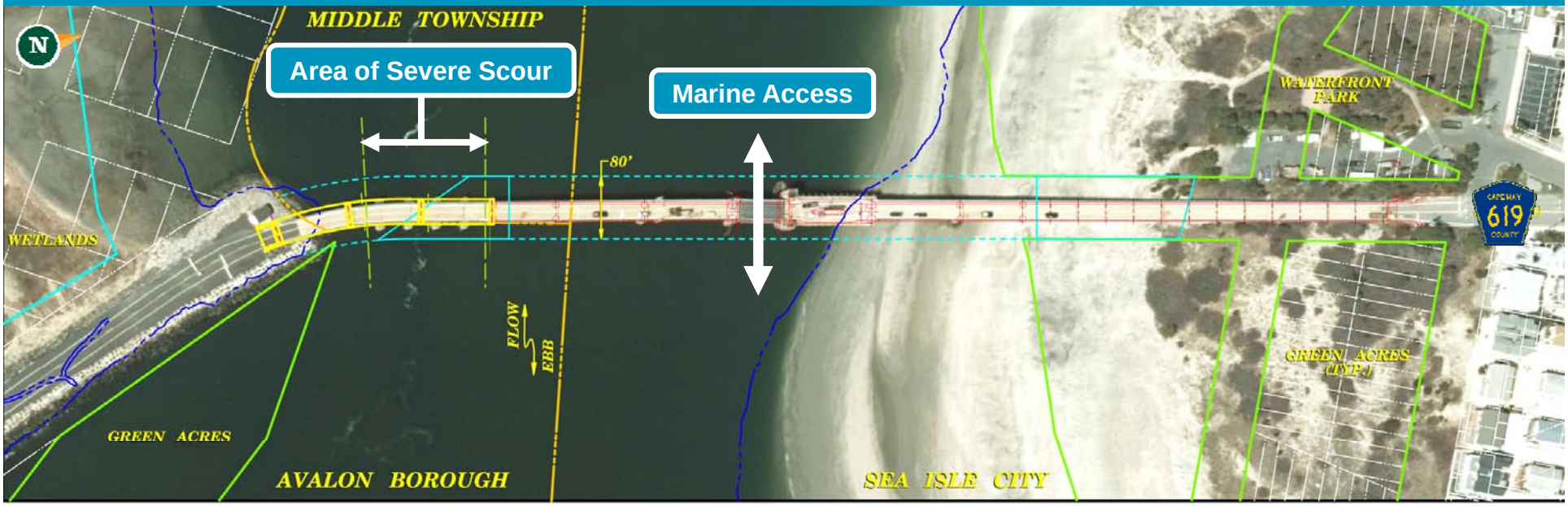
Existing

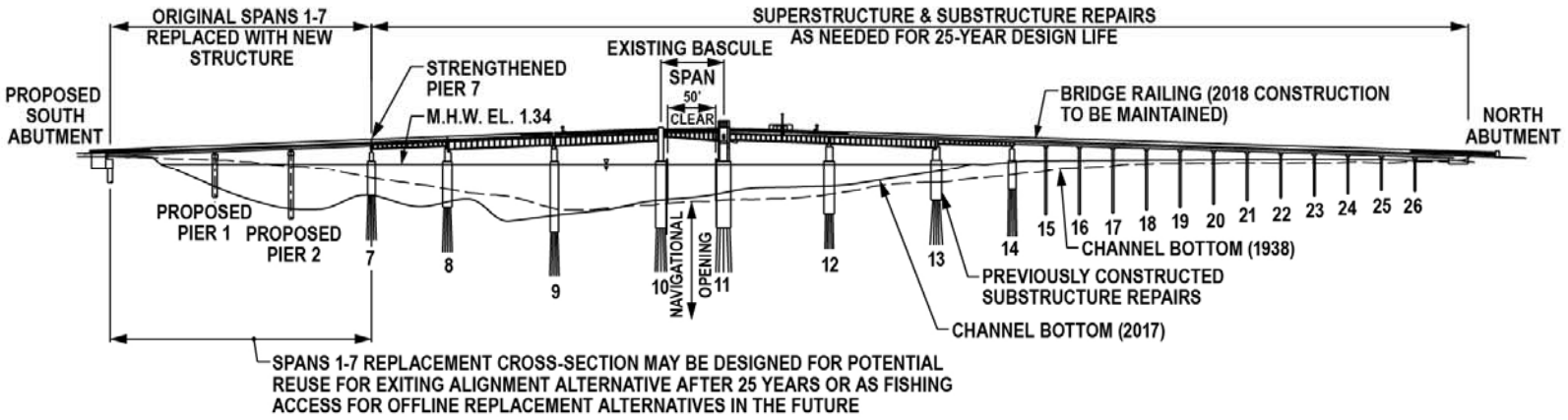


Proposed

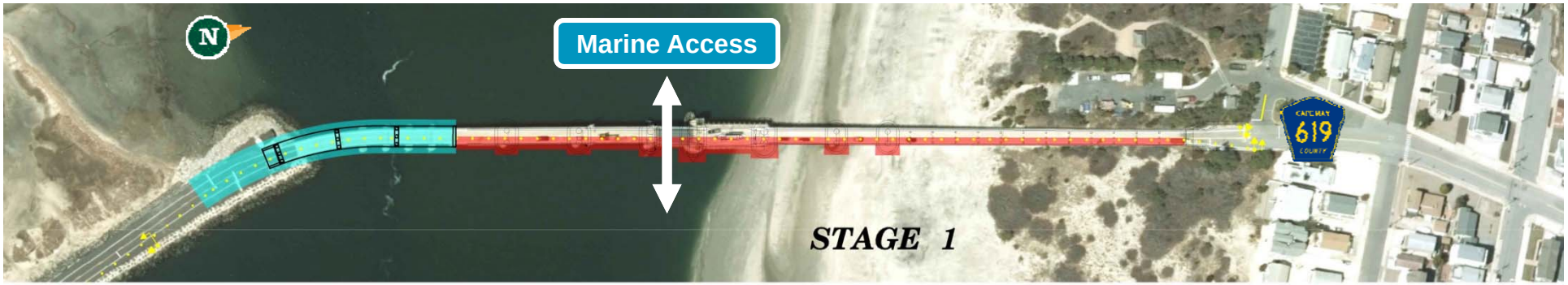
NOTE: ALTERNATIVES 2-6 SHOWN WITH THE PREFERRED BRIDGE SECTION WIDTHS.

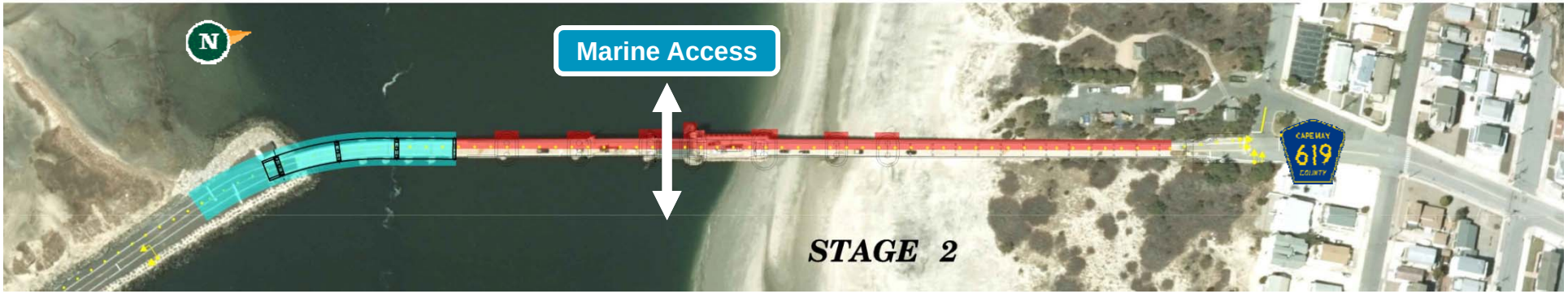
Alternative 1 - Rehabilitate Existing Structure - Plan/Elevation





Alternative 1 - Rehabilitate Existing Structure - Staging





LEGEND

PREVIOUSLY RECONSTRUCTED	TEMPORARY TRAFFIC SIGNAL
WORK AREA: Vehicular Traffic Maintained With Alternating Traffic Pattern Utilizing Temporary Traffic Signals	DRUMS, 25–FEET SPACING

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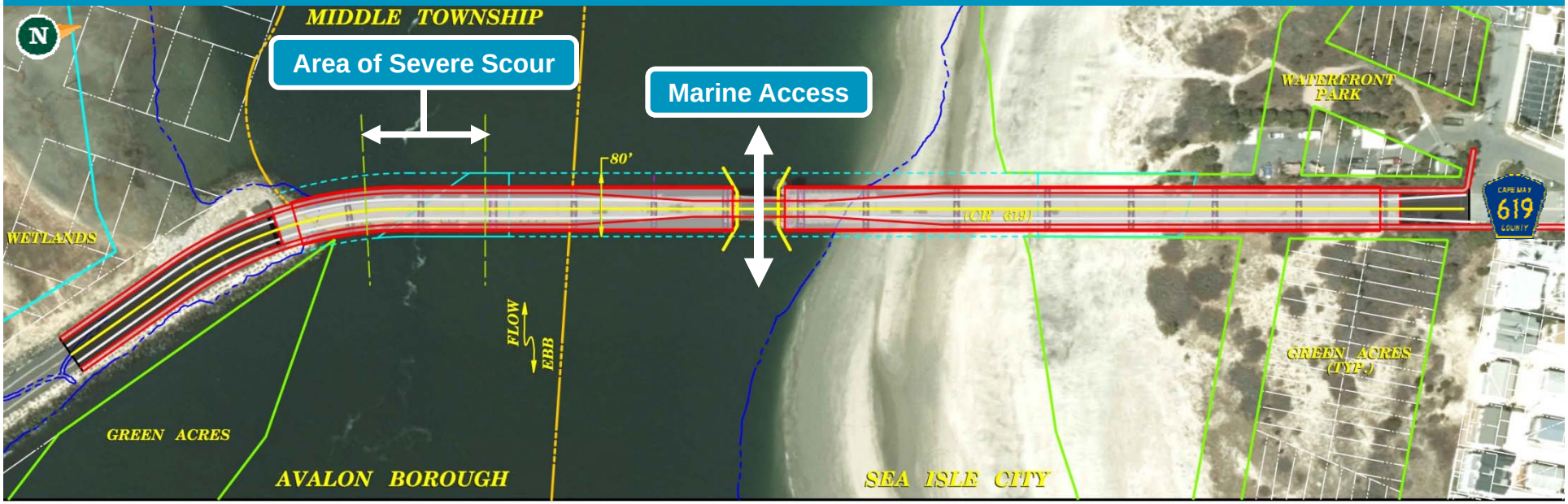
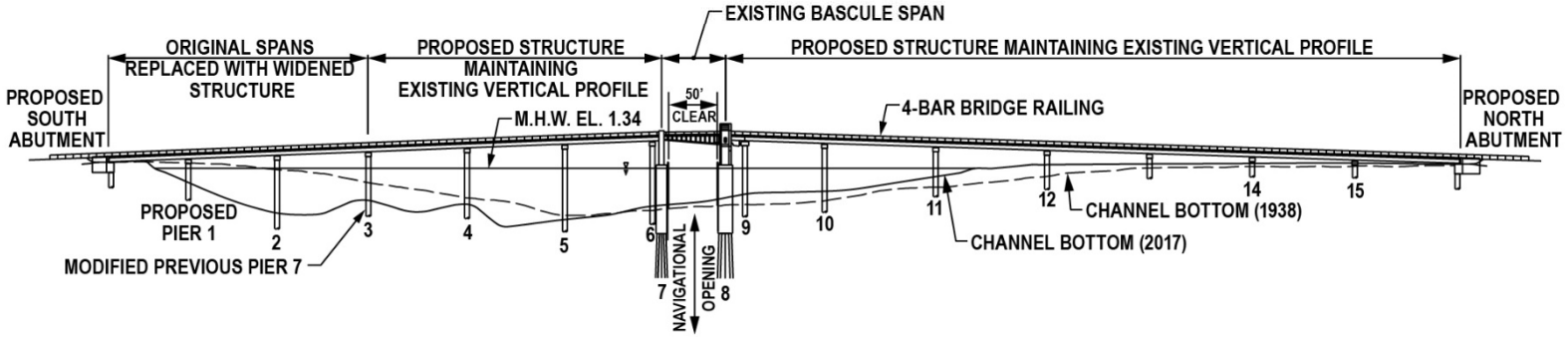
Alternative 2A - Replace Approach Spans (Maintain Existing Bascule Span) (Off-season closures) - Plan/Elevation





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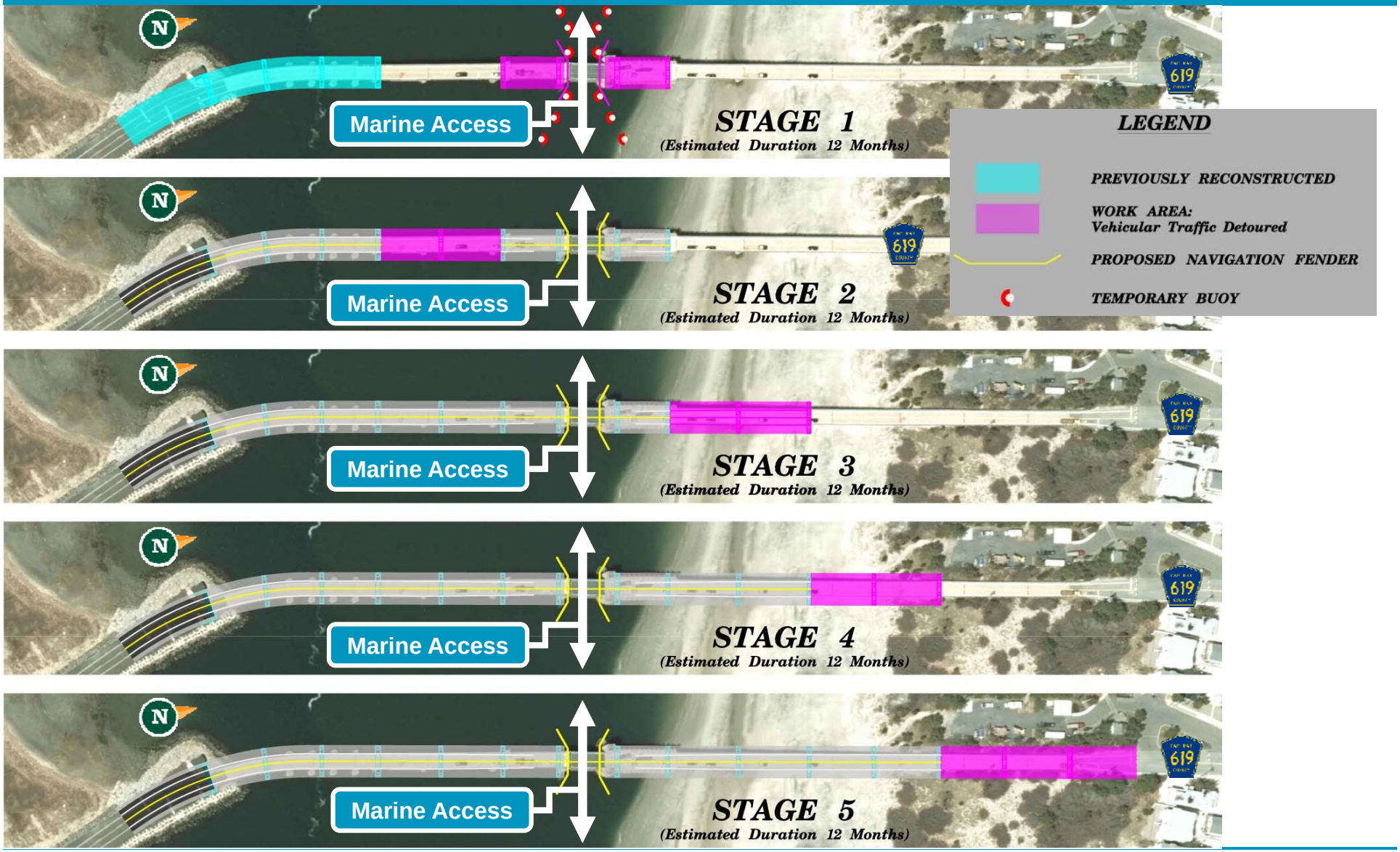

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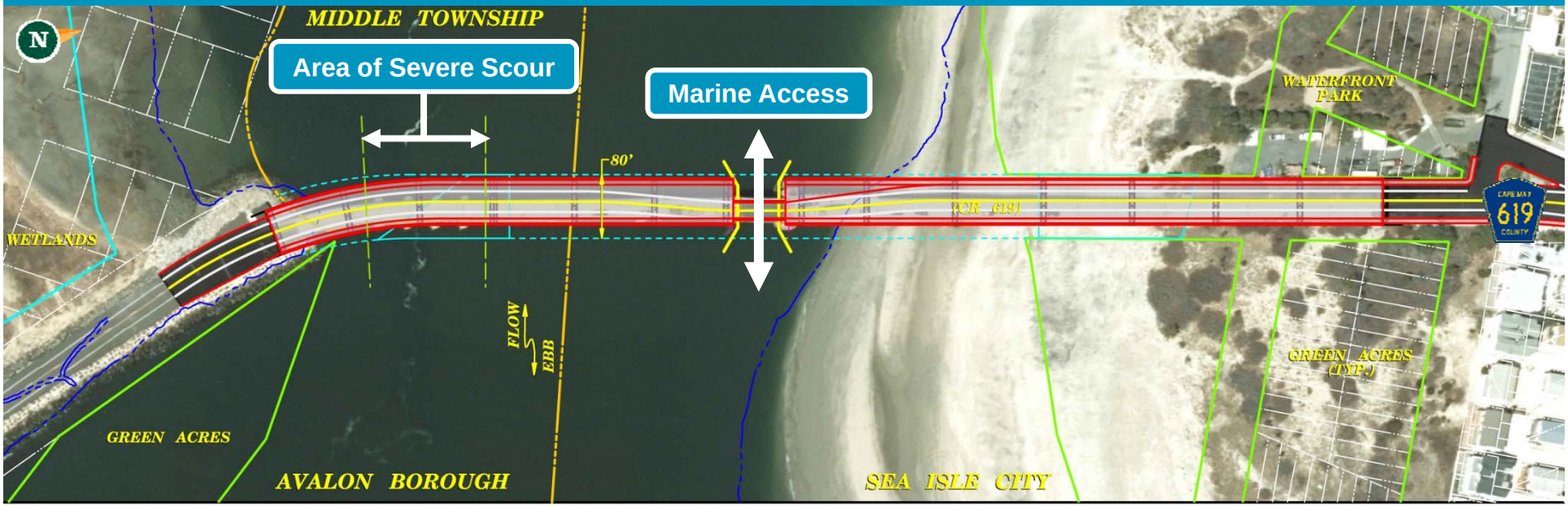
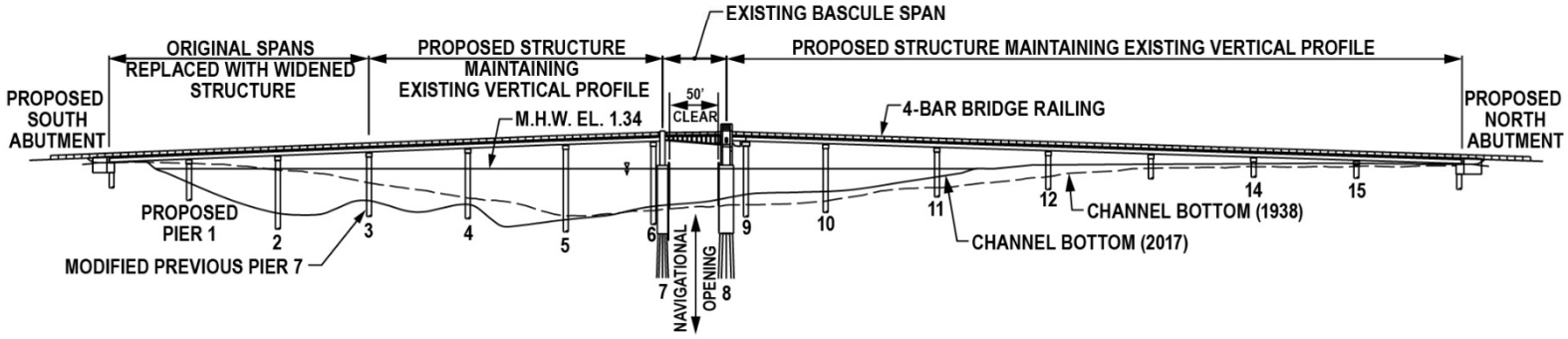
Alternative 2B - Replace Approach Spans (Maintain Existing Bascule Span) (One-Way Traffic Off Season) - Plan/Elevation





GPI

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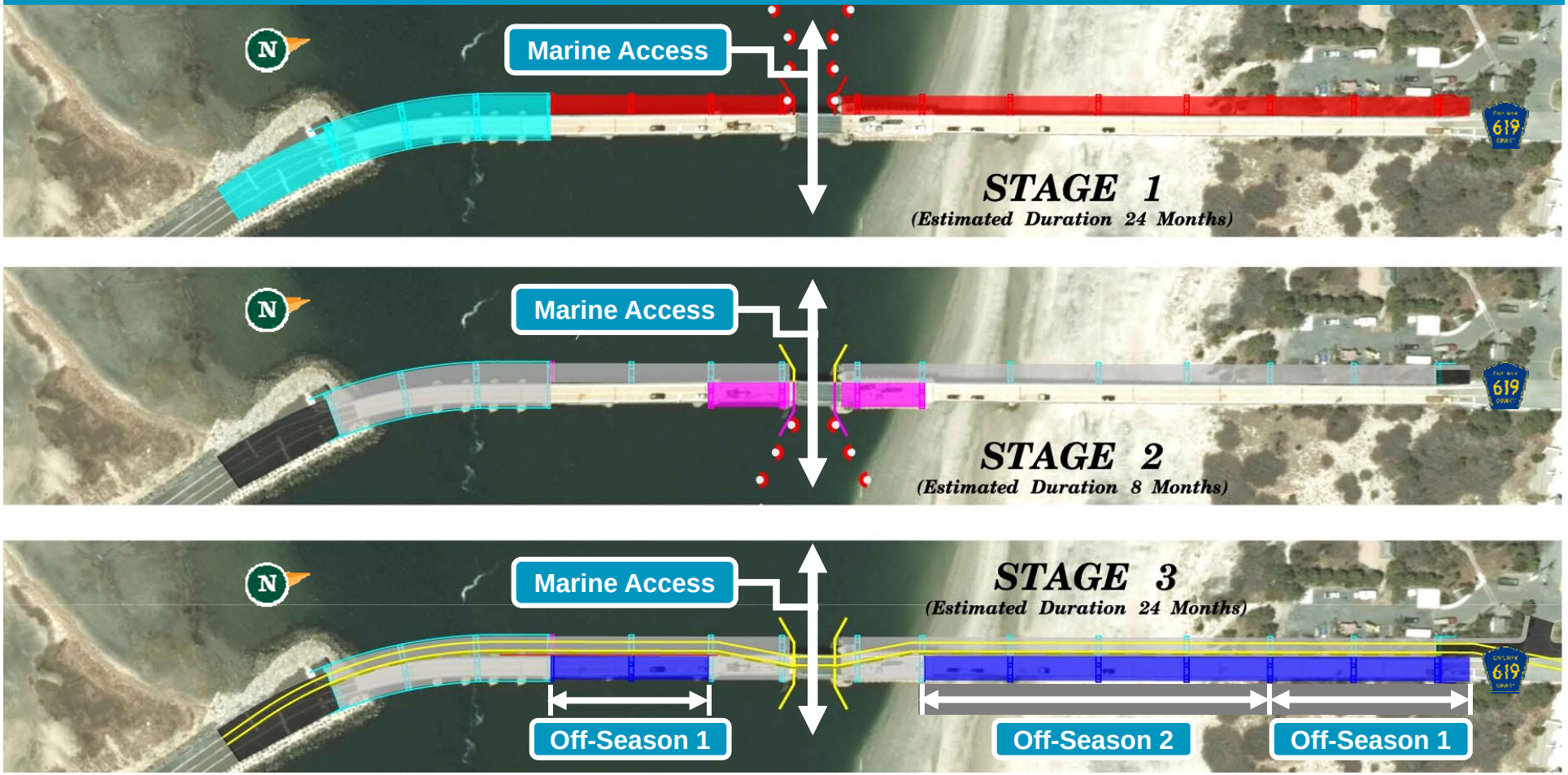
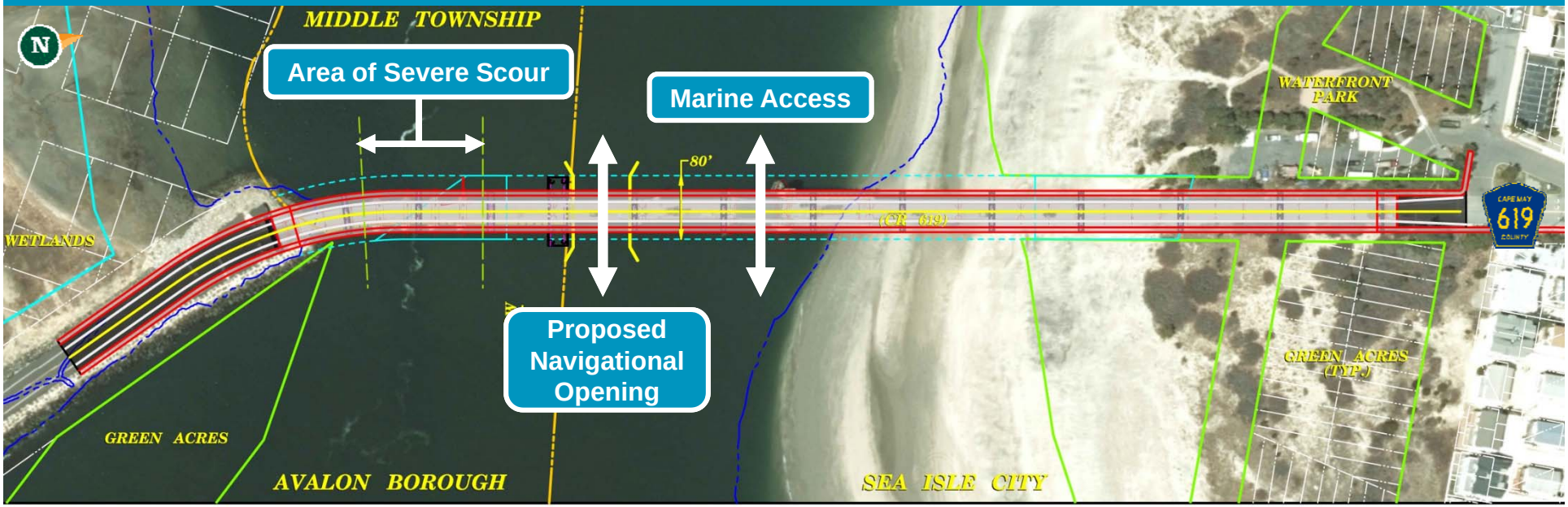
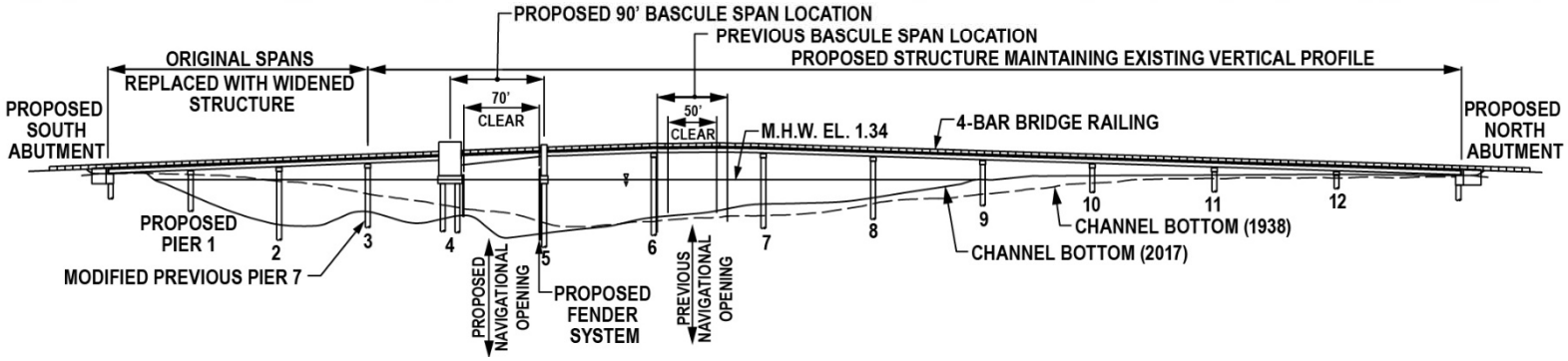


Alternative 3 - Replace on Existing Alignment (with a multi-year detour) - Plan/Elevation





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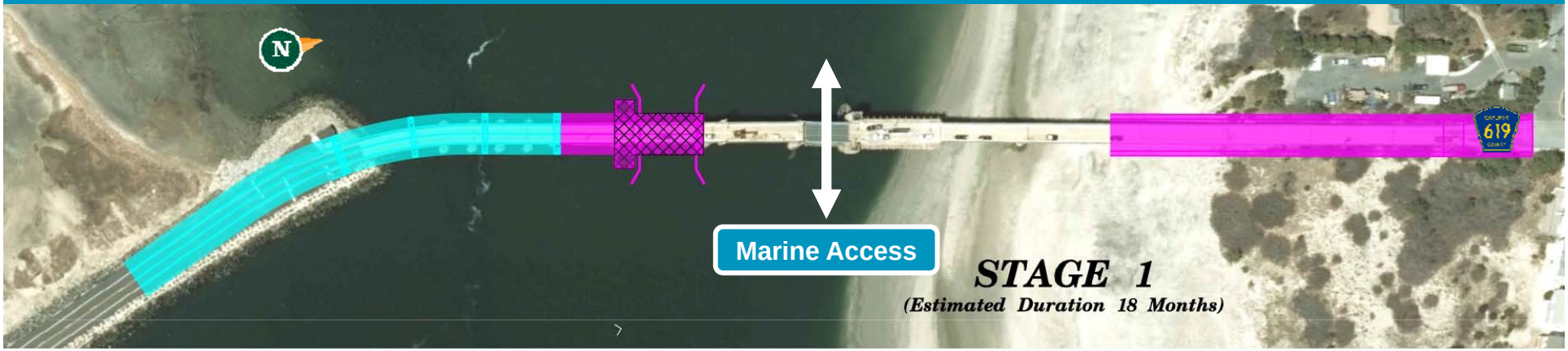

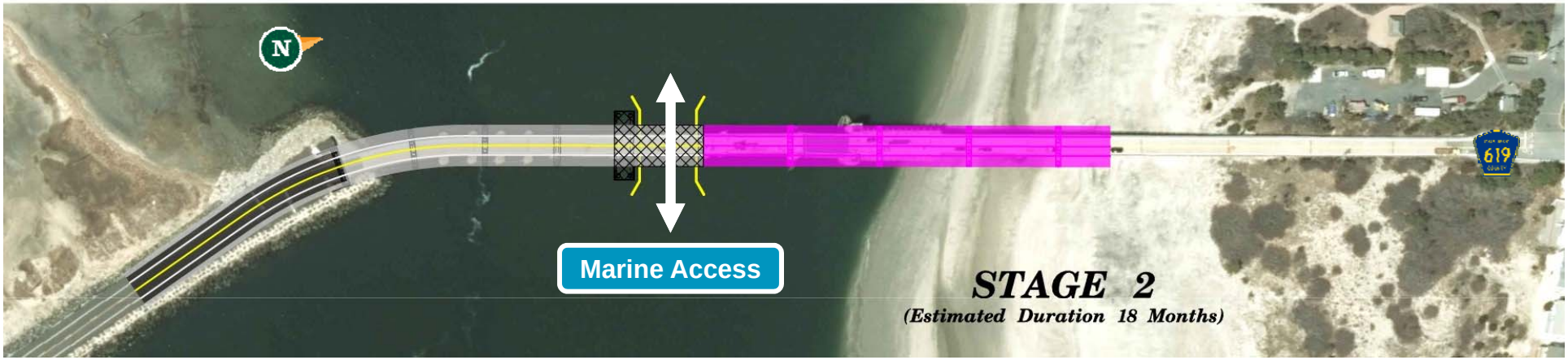

LEGEND

- PREVIOUSLY RECONSTRUCTED
- WORK AREA: Vehicular Traffic Detoured
- PROPOSED BASCULE SPAN
- PROPOSED NAVIGATION FENDER

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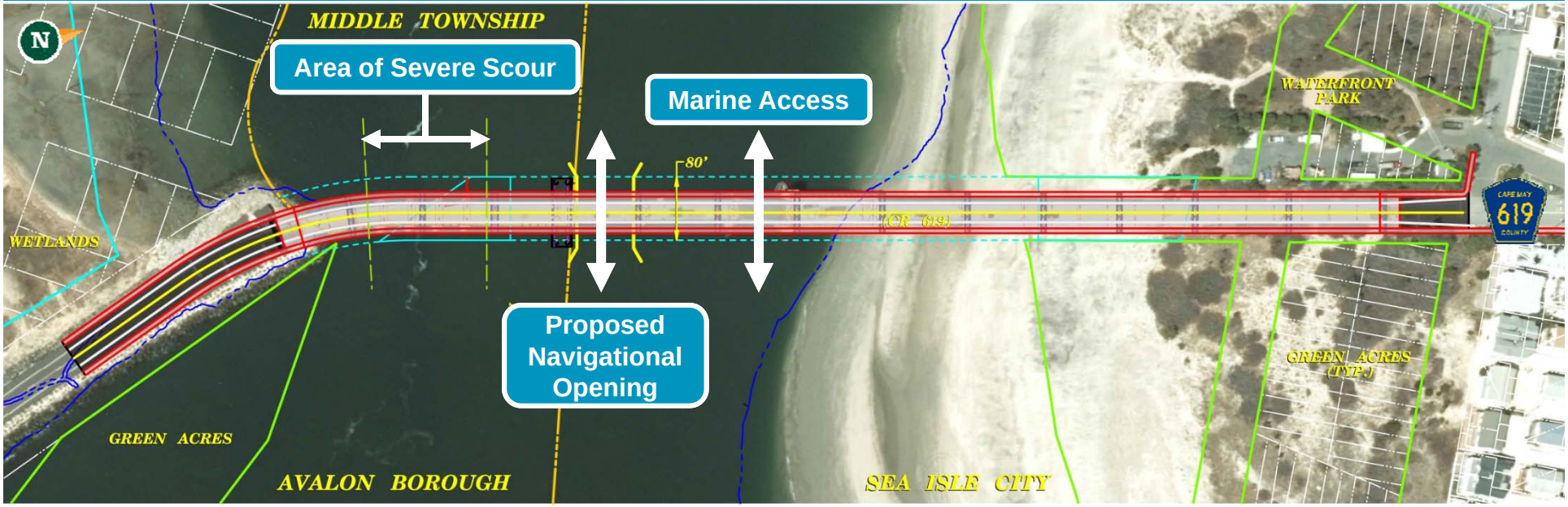
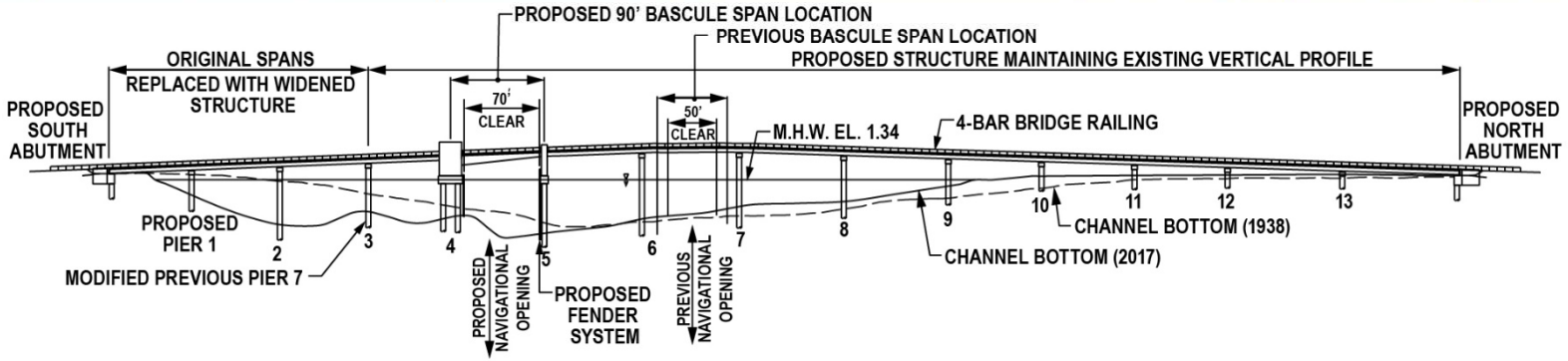
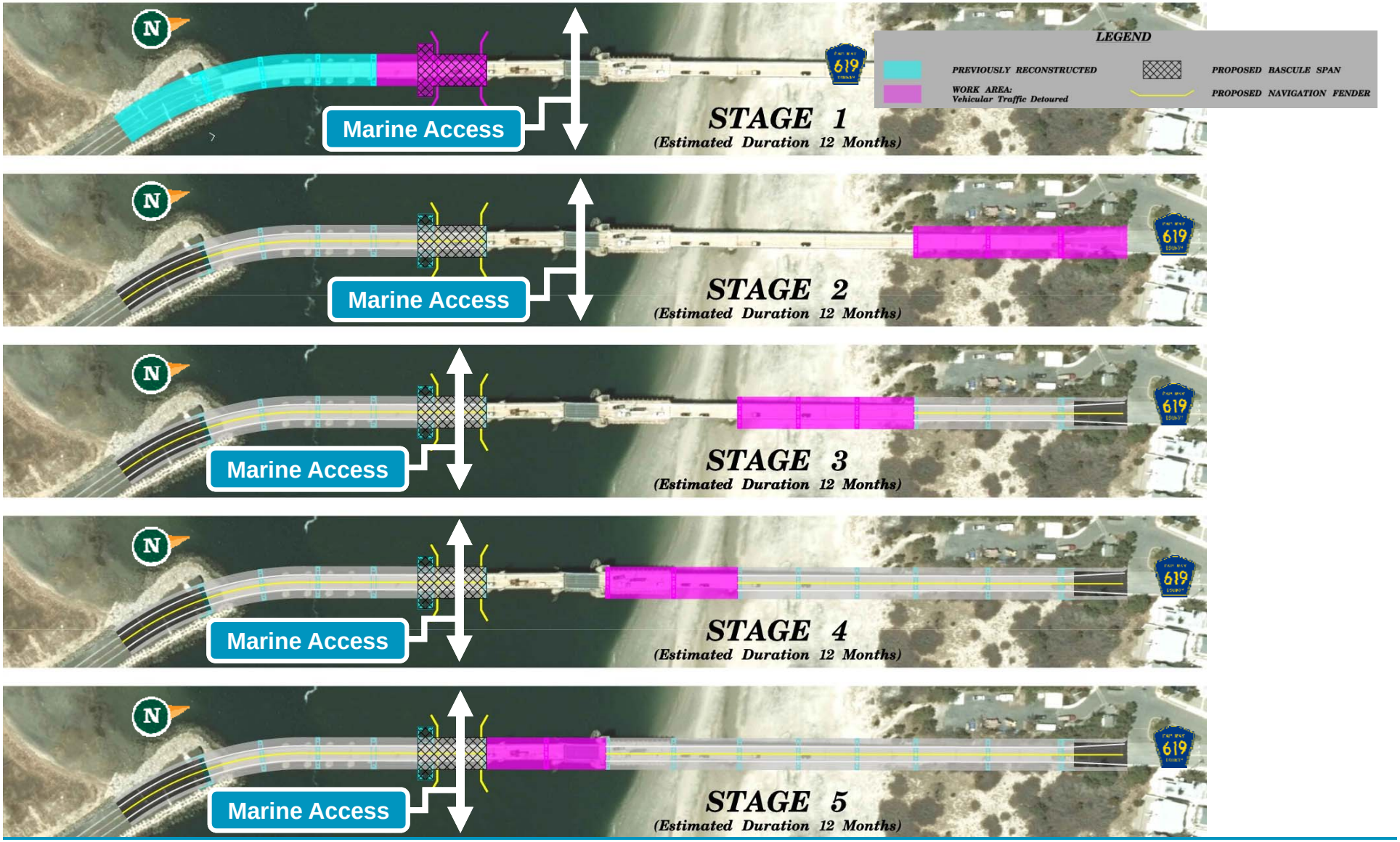
Alternative 4 - Replace on Existing Alignment (Bridge Open During the Summer) - Plan/Elevation





Alternative 4 - Replace on Existing Alignment (Bridge Open During the Summer) - Staging



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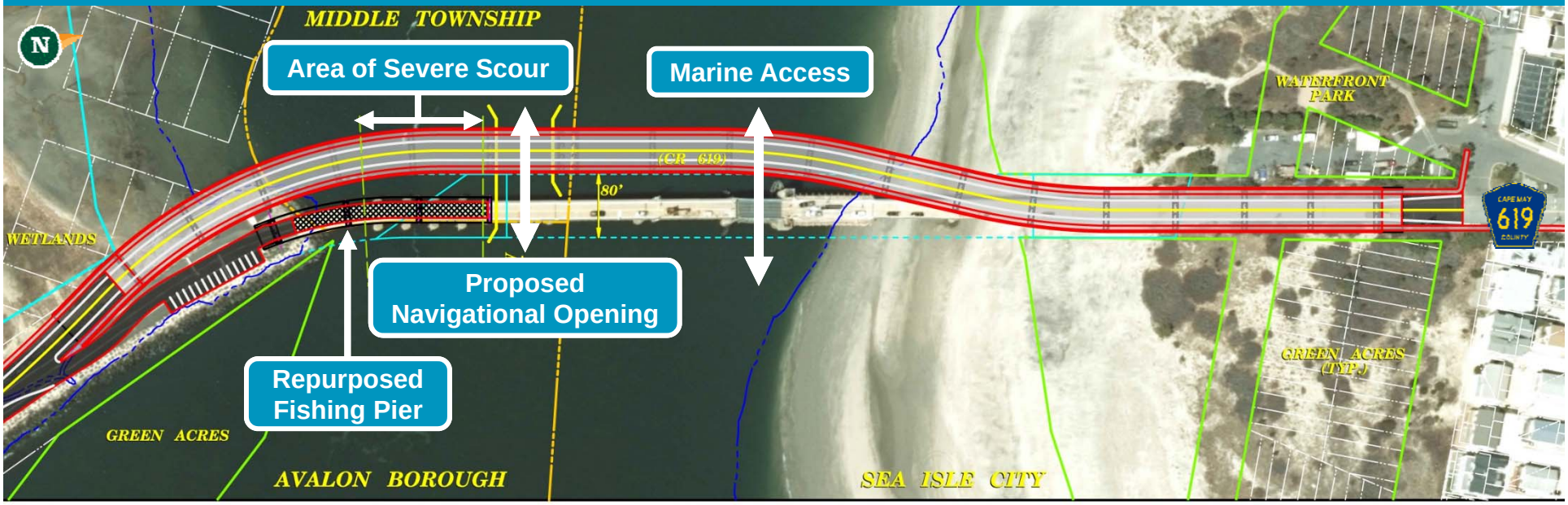
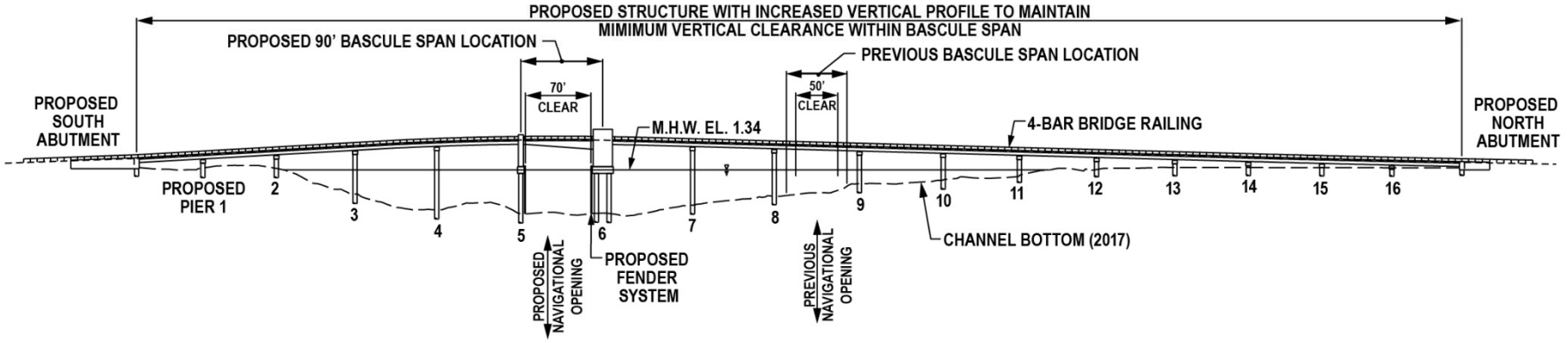
Alternative 5 - Replace along West Alignment (Hold North Abutment) - Plan/Elevation





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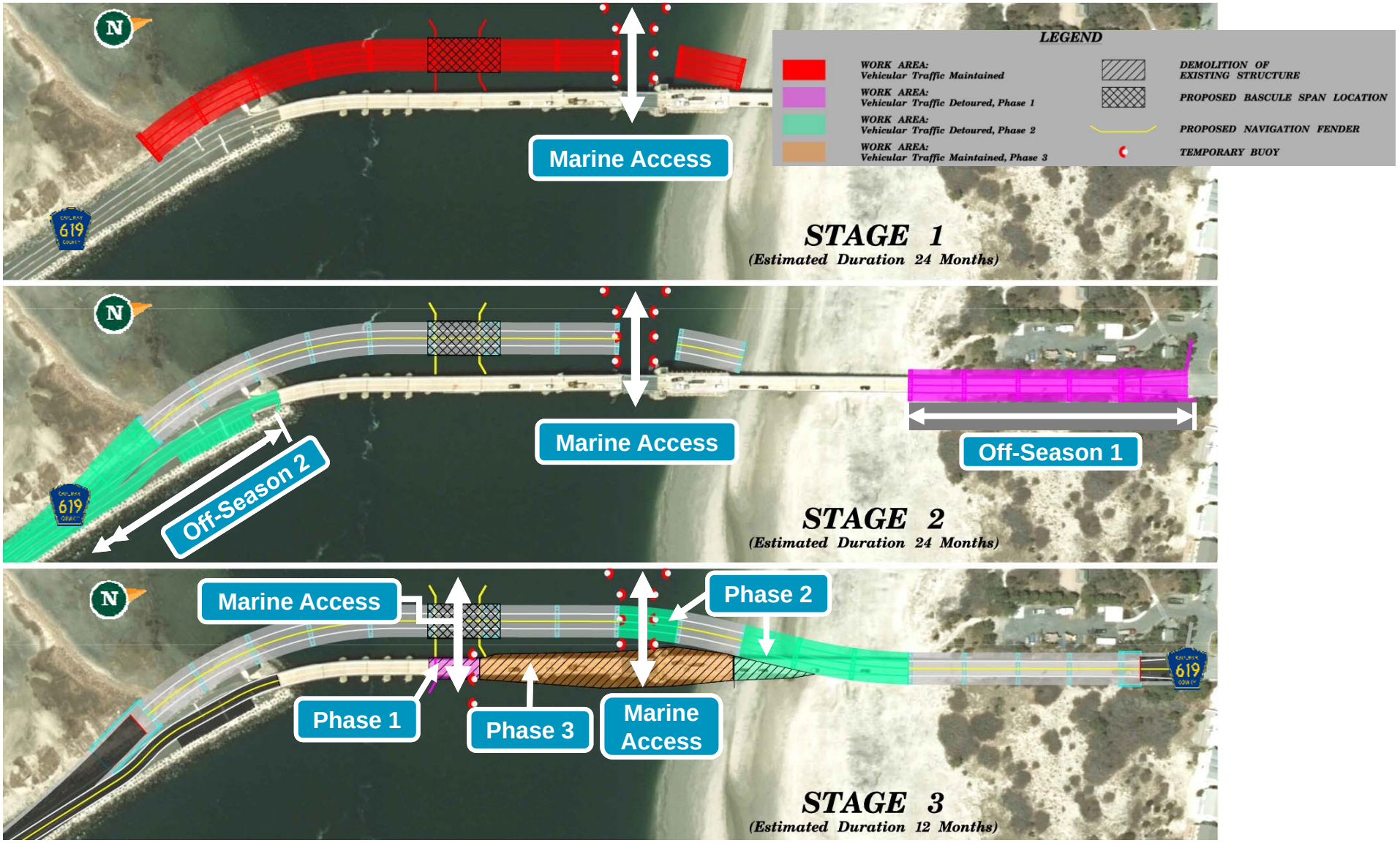
Alternative 5 - Replace along West Alignment (Hold North Abutment) - Staging



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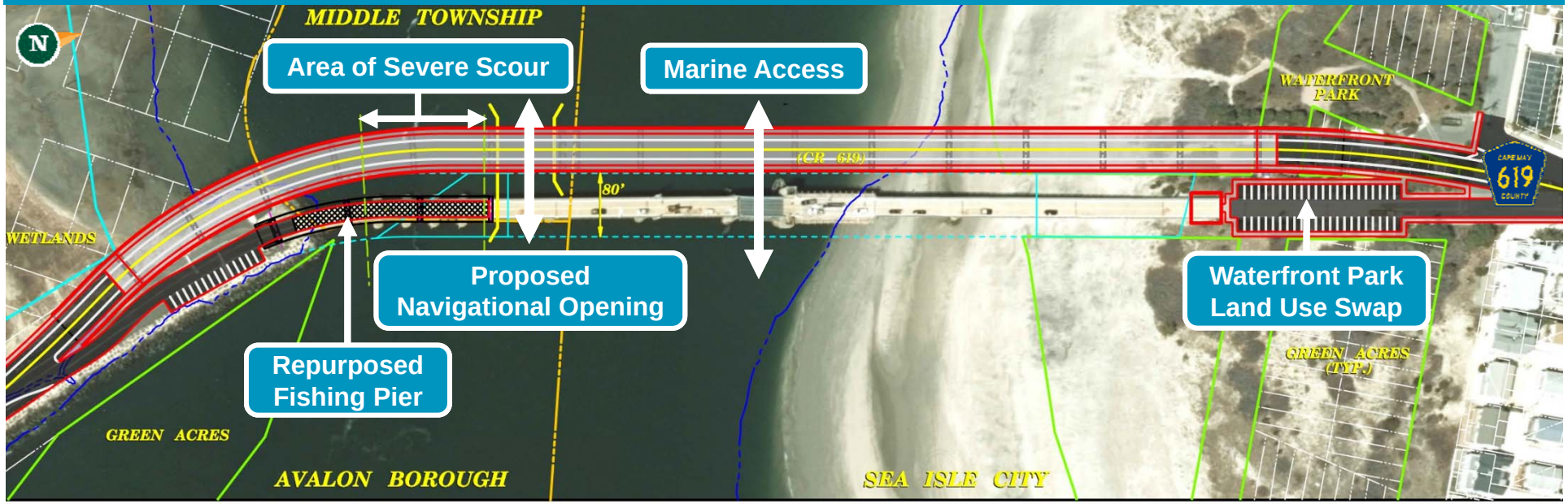
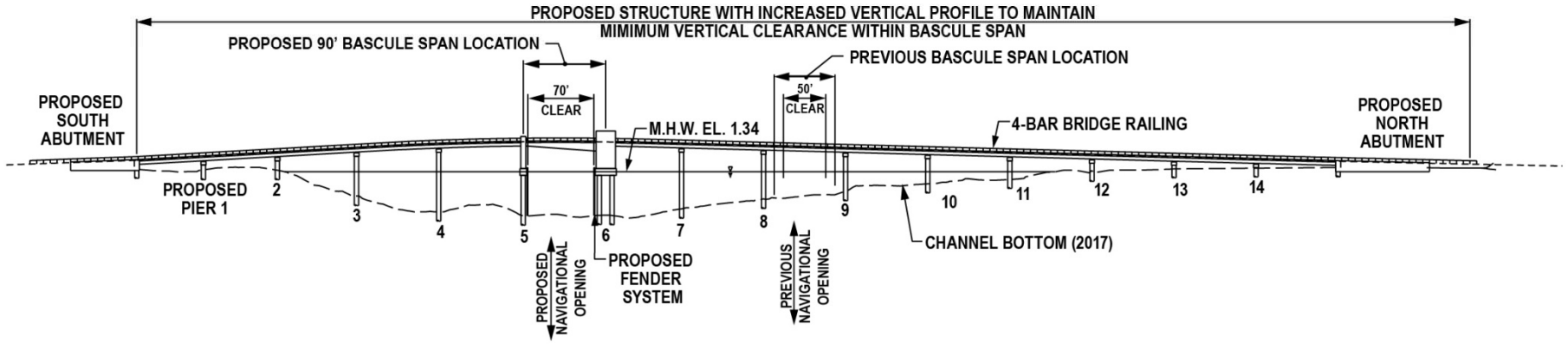
Alternative 6 - Replace along West Alignment (Meet Roberts Ave) - Plan/Elevation





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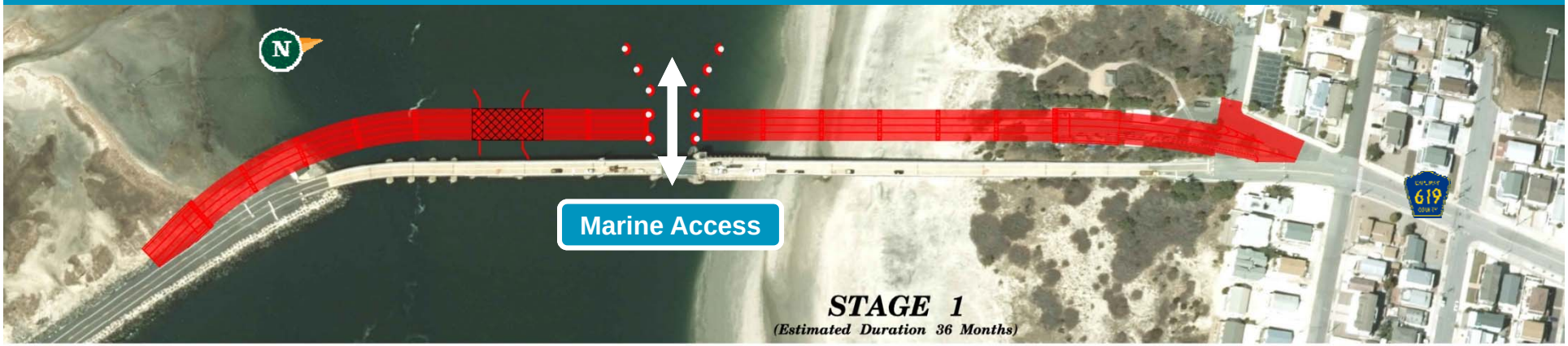

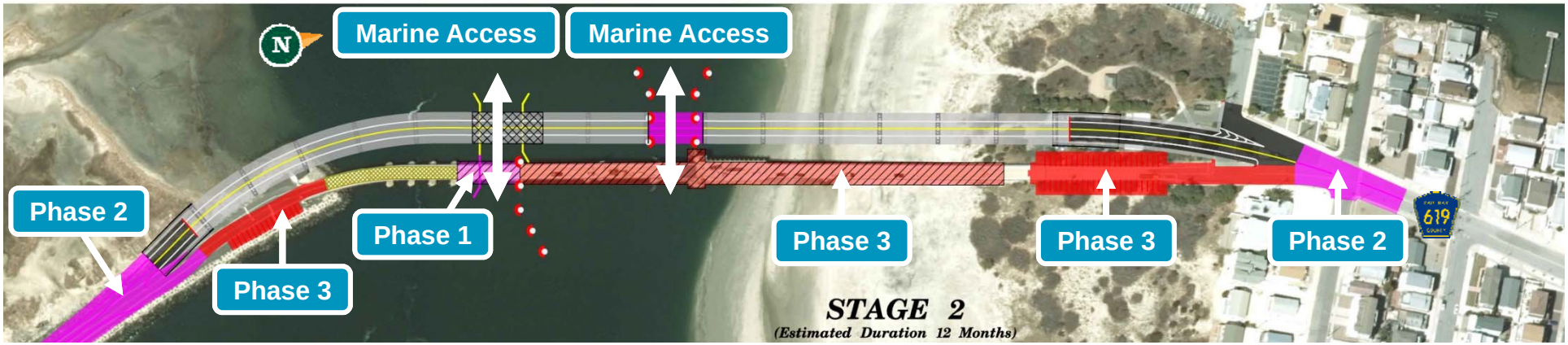

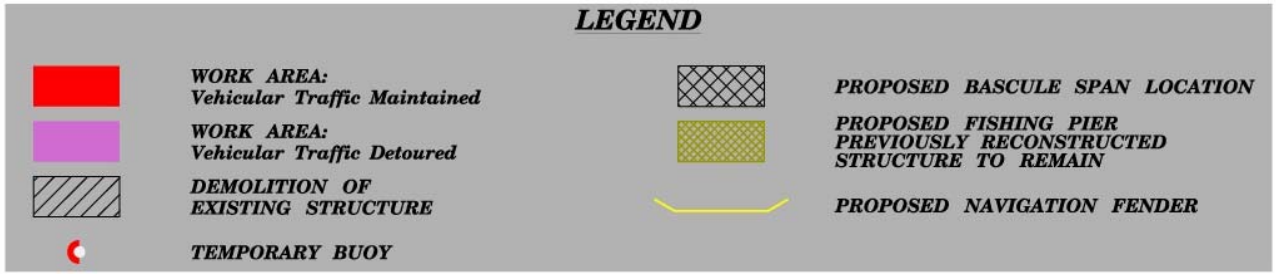

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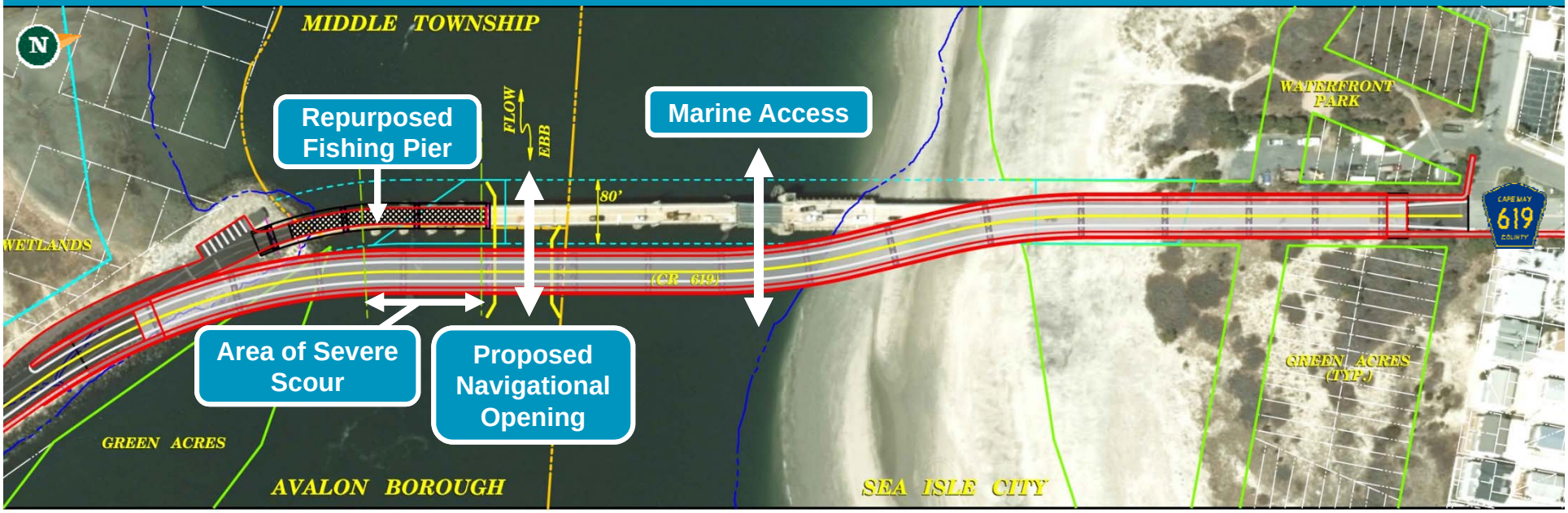
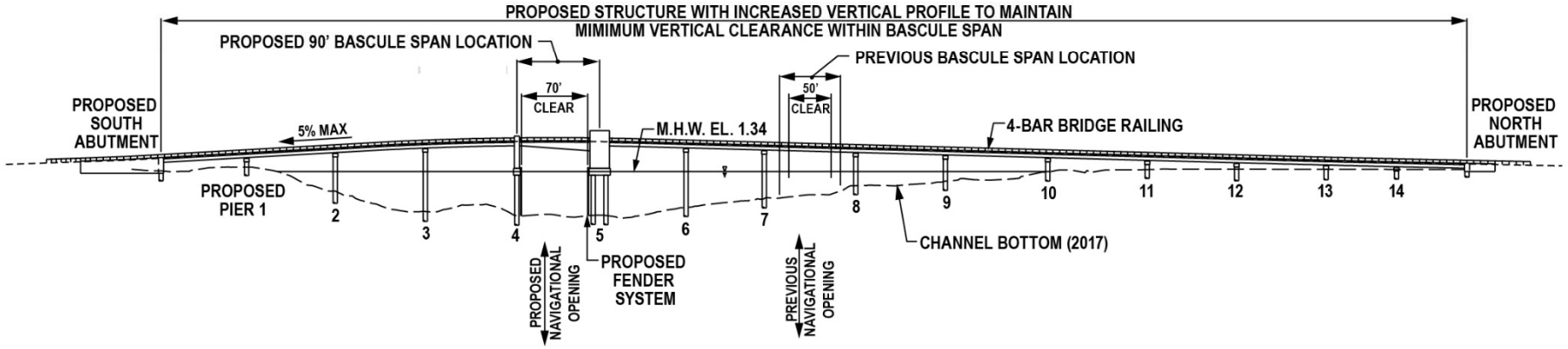
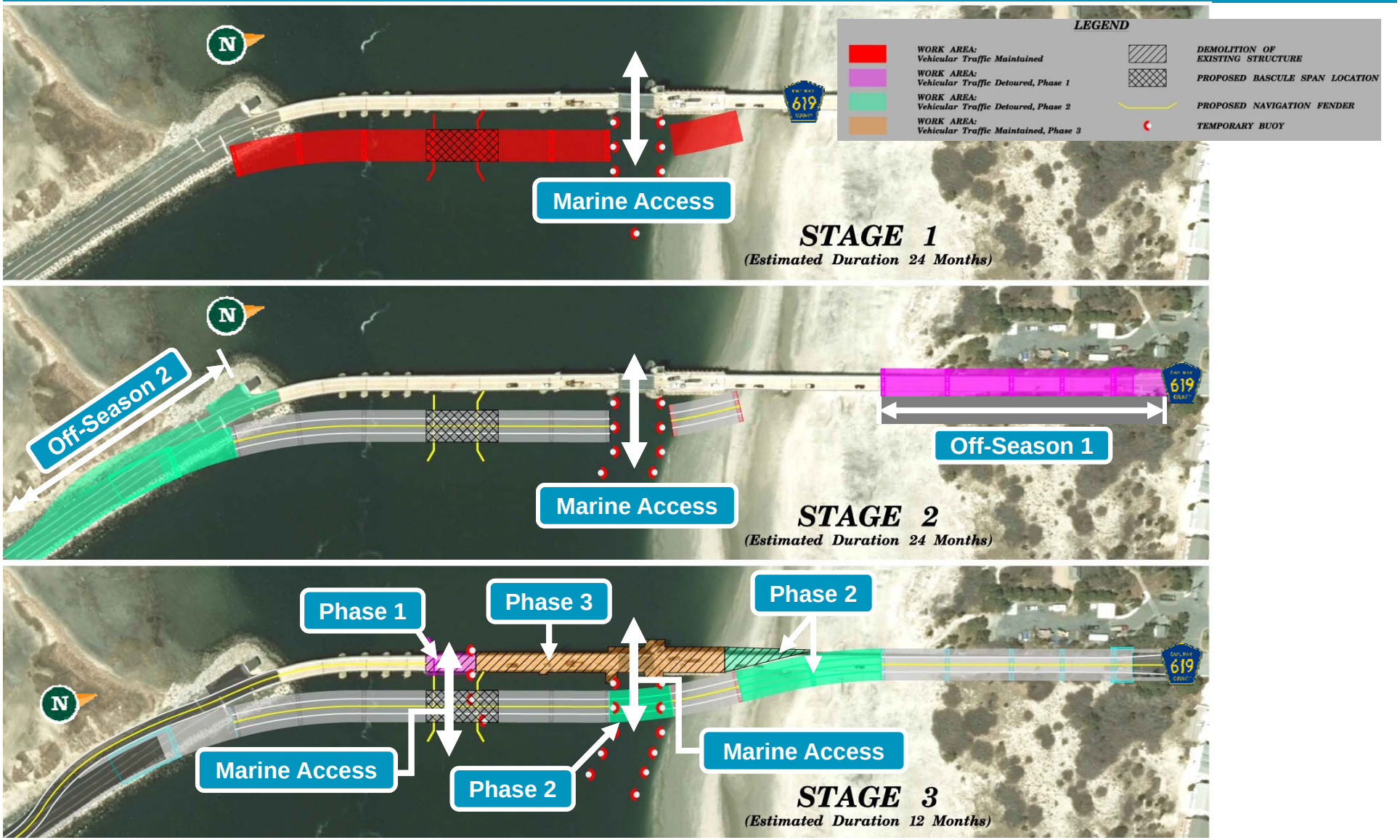
Alternative 7 - Replace along East Alignment - Plan/Elevation





Alternative 7 - Replace along East Alignment - Staging



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Alternative Analysis Matrix

	Alternative 1	Alternative 2A	Alternative 2B	Alternative 3	Alternative 4	Alternative 5	Alternative 6	Alternative 7
Service Life	25 Years	25 years bascule span 100 years approach spans		100 years				
Construction Cost (in Millions)	$15 - 20	$85-90	$120 - 125	$105 - 110	$140 - 145	$150 - 155	$145 - 150	$145 - 150
Construction Duration	3 yr	5 yr	5 yr	3 yr	5 yr	5 yr	4 yr	5 yr
Detours*	Intermittent lane closure (Alternating traffic)	5 yr off-season detours	1 yr off-season detours 2 yr off-season alt traffic	3 yr continuous detours	5 yr off-season detours	3-4 yr off-season detours	6 month off-season detours	3-4 yrs off-season detours
Bridge Live Load Capacity	Maintain existing posting - 15 tons	All vehicles HS20 + 10%		All vehicles (HL-93 & NJDOT Permit Vehicle)				

* Off-Season Detours - September to May (After Labor Day and Before Memorial Day Weekend)

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Environmental Constraints & Permits

Alternative \ Key Environmental Permits & Constraints	Alternative 1	Alternative 2A & 2B	Alternative 3	Alternative 4	Alternative 5	Alternative 6	Alternative 7
Permits & Approvals							
US Coast Guard (Navigation)	Minor	Minor	Significant	Significant	Significant	Significant	Significant
State Historic Preservation Office & Federal Section 106	Minor	Significant	Significant	Significant	Significant	Significant	Significant
NEPA	No	Significant	Significant	Significant	Significant	Significant	Significant
US Army Corps of Engineers Section 404	Significant	Significant	Significant	Significant	Significant	Significant	Significant
NJDEP Green Acres	No	Minor	Minor	Minor	Minor	Significant	Significant
NJDEP Tidelands	No	No	No	No	Significant	Significant	Significant
NJDEP Waterfront Development	Minor	Significant	Significant	Significant	No	No	No
NJDEP Flood Hazard Area	No	Significant	Significant	Significant	Significant	Significant	Significant
NJDEP CAFRA	No	No	No	No	Significant	Significant	Significant
NJDEP Stormwater Management	No	Significant	Significant	Significant	Significant	Significant	Significant
NJDEP FW/Coastal Wetlands & Open Water	Minor	Significant	Significant	Significant	Significant	Significant	Significant
Construction Restrictions							
US Fish & Wildlife In-Water Moritorum (a. fish)	No	Significant	Significant	Significant	Significant	Significant	Significant
US Fish & Wildlife Above-Water Moritorum (plover)	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown

Legend

No Involvement Minor Involvement Significant Involvement Unknown

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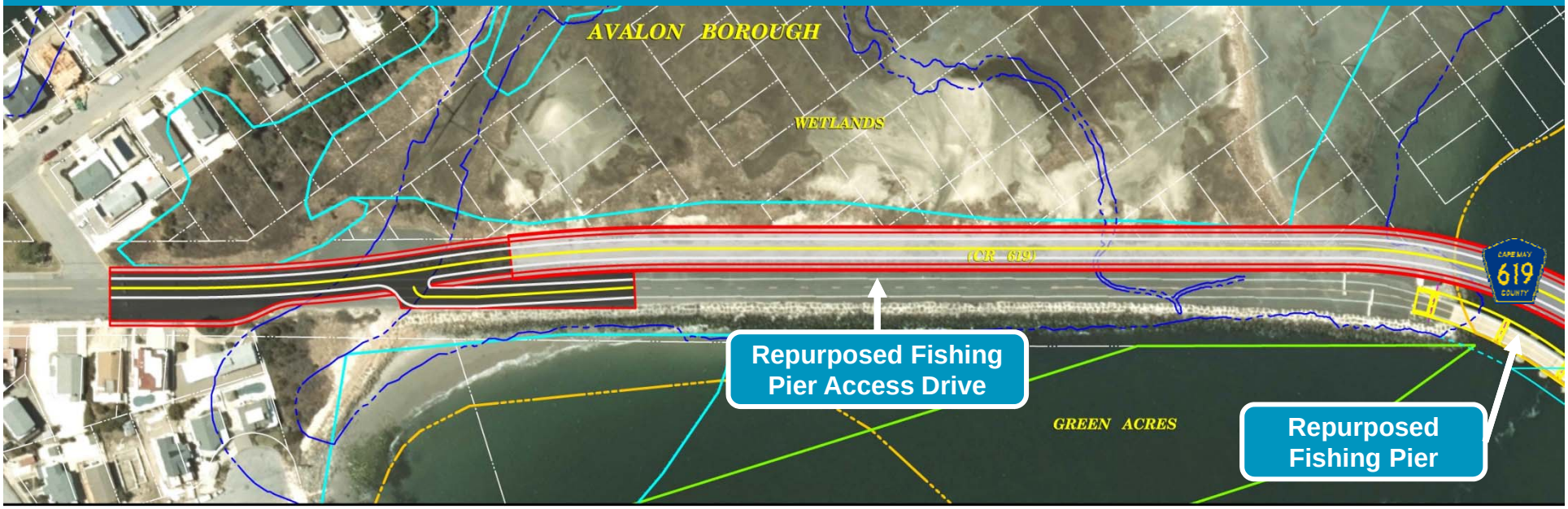
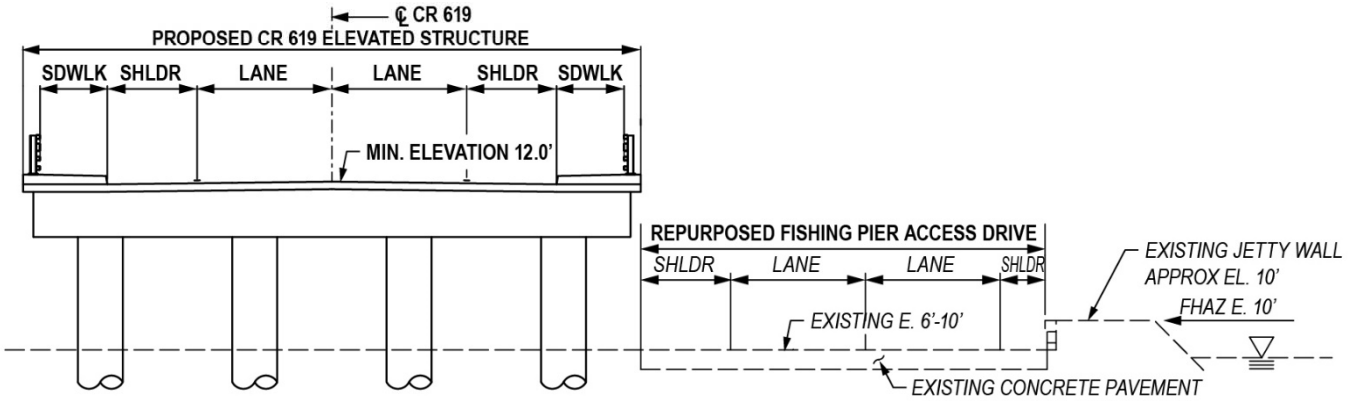
South Approach On Structure, Add-On Option Plan & Section





Proposed Southern Approach Typical Section

Thank you!
Questions?

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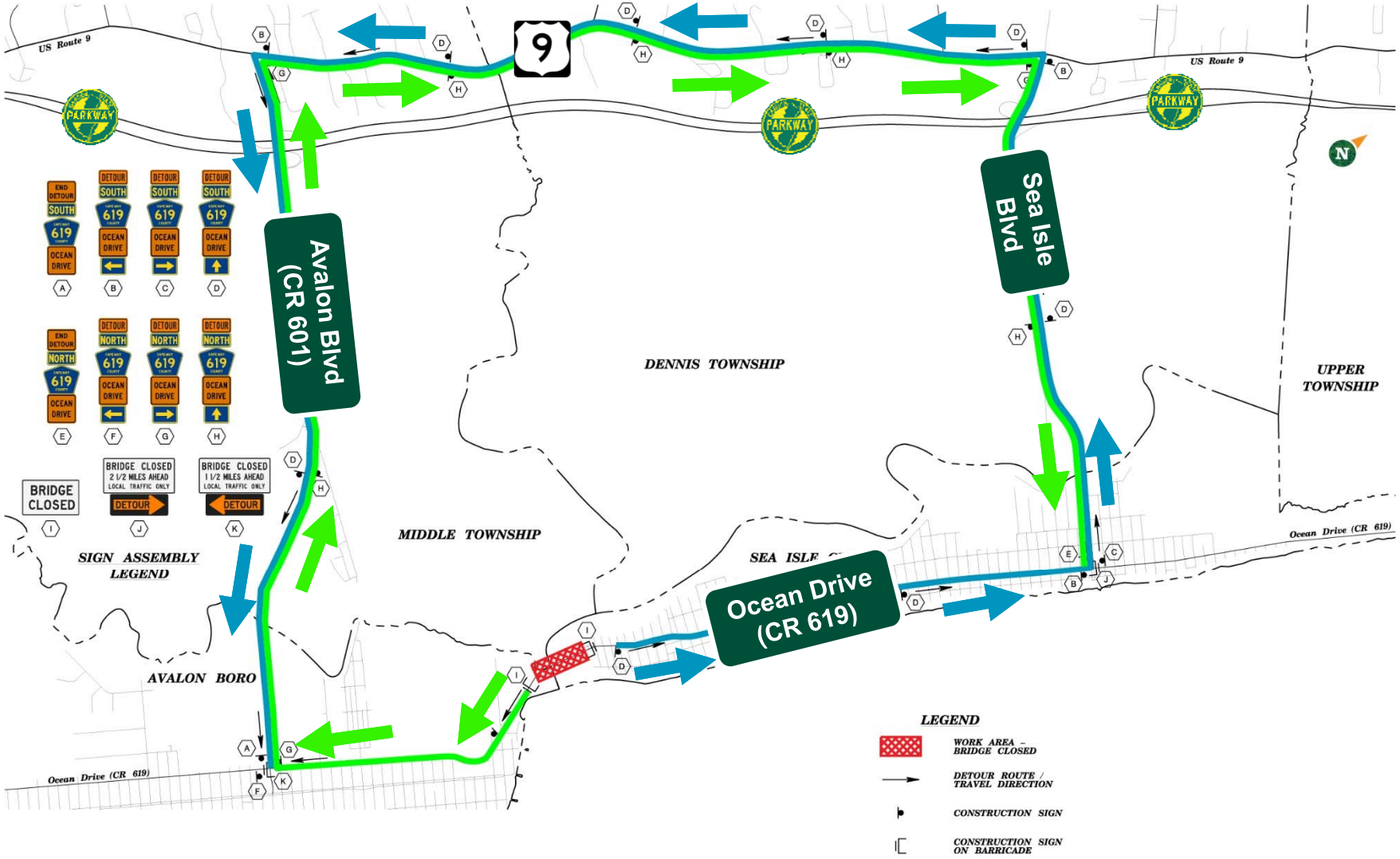
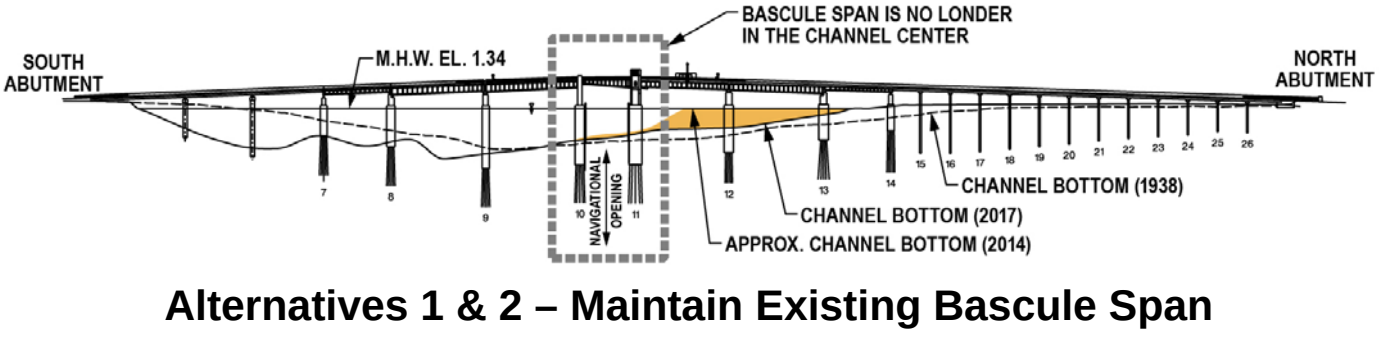
CAPE MAY COUNTY

October 19, 2017

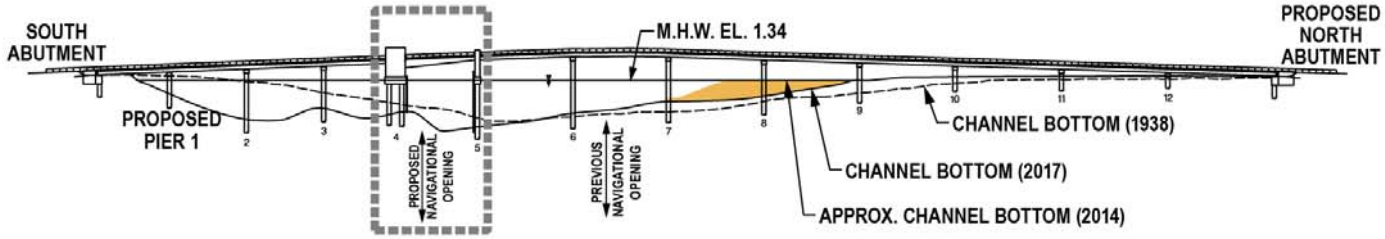
Detour Plan


US Route 9
9
PARKWAY
Avalon Blvd (CR 601)
Sea Isle Blvd
Ocean Drive (CR 619)
DENNIS TOWNSHIP
MIDDLE TOWNSHIP
SEA ISLE
UPPER TOWNSHIP
AVALON BORO
Ocean Drive (CR 619)
BRIDGE CLOSED
BRIDGE CLOSED 2 1/2 MILES AHEAD LOCAL TRAFFIC ONLY
DETOUR
BRIDGE CLOSED 1 1/2 MILES AHEAD LOCAL TRAFFIC ONLY
SIGN ASSEMBLY LEGEND
LEGEND
WORK AREA – BRIDGE CLOSED
DETOUR ROUTE / TRAVEL DIRECTION
CONSTRUCTION SIGN
CONSTRUCTION SIGN ON BARRICADE

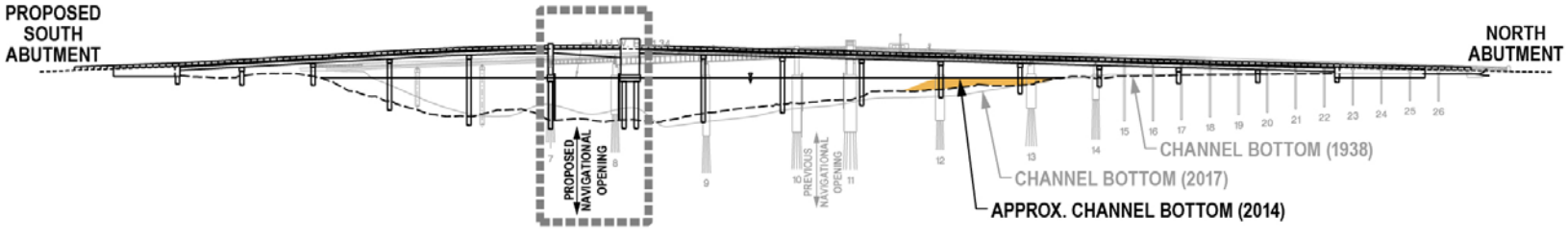
Navigational Channel Issues



Alternatives 1 & 2 – Maintain Existing Bascule Span



Alternatives 3 & 4 – Maintain Existing H/V Alignment



Alternatives 5 - 7 – H/V Alignment Shift

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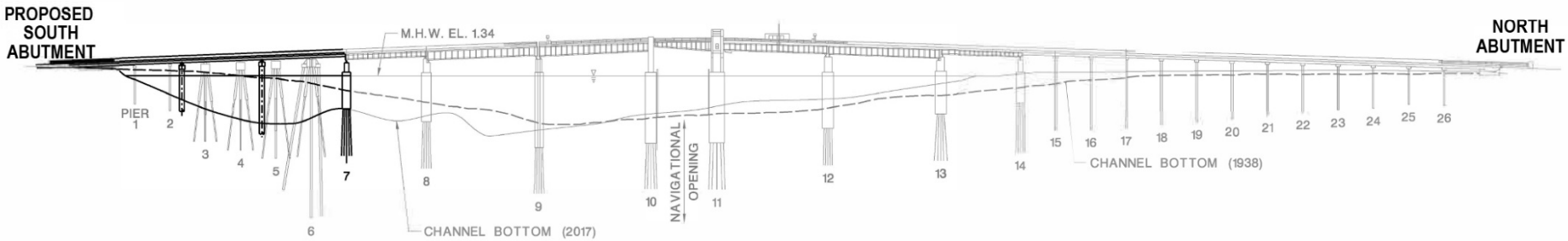
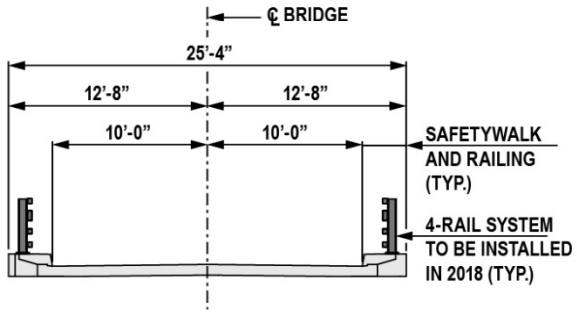
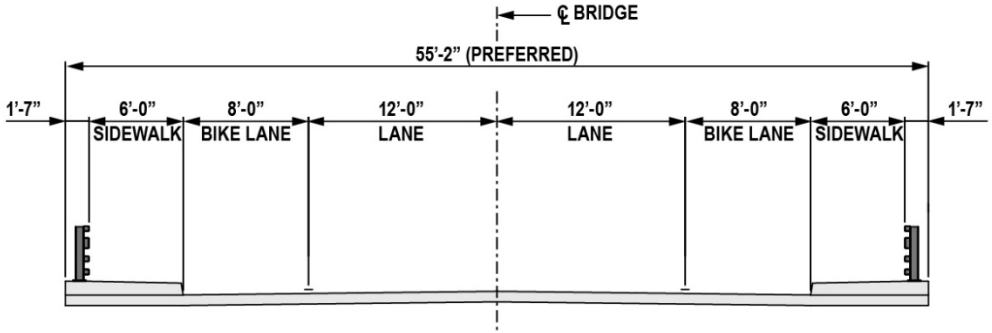
Span 1-7 Replacement Options







Alternative 1 – Rehabilitation
Replacement Spans Part of Rehabilitated Bridge

Alternative 5-7 – Replacement New Alignment
Replacement Spans Become Fishing Pier

Approximate Cost: $11 Million

Alternative 2-4 – Replacement Existing Alignment
Replacement Spans Become Part of New/Wider Structure

Approximate Cost: $17 Million

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