

**Charlie Parker/Abutters
Presentation to MVC
March 24, 2016**

Presentation Outline

- **Causeway – Height of road deck**
 - **Shading**
 - **Flooding**
- **Guard rail – Height & density**
- **New skiff launch – Mitigation**

Causeway: Lower Road Deck & Railing



Objective

- Lower road deck by as much as 3'
- Lower guard rail from 4' to 2.5'

Summary of the benefits:

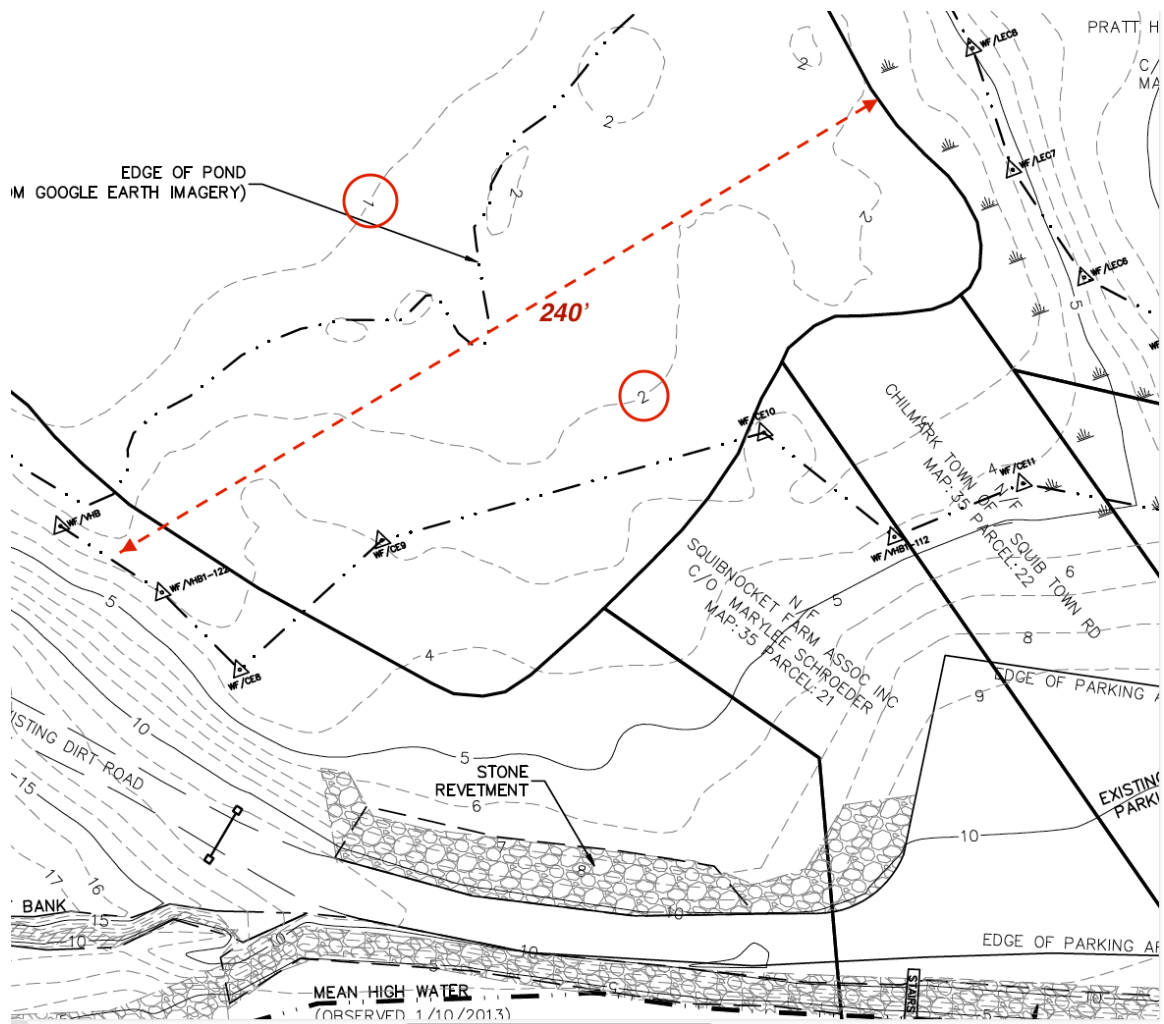
- More consistent with the rural character of the area
- Less obtrusive with less impact on abutters and beach goers

Causeway Height – History of Discussion

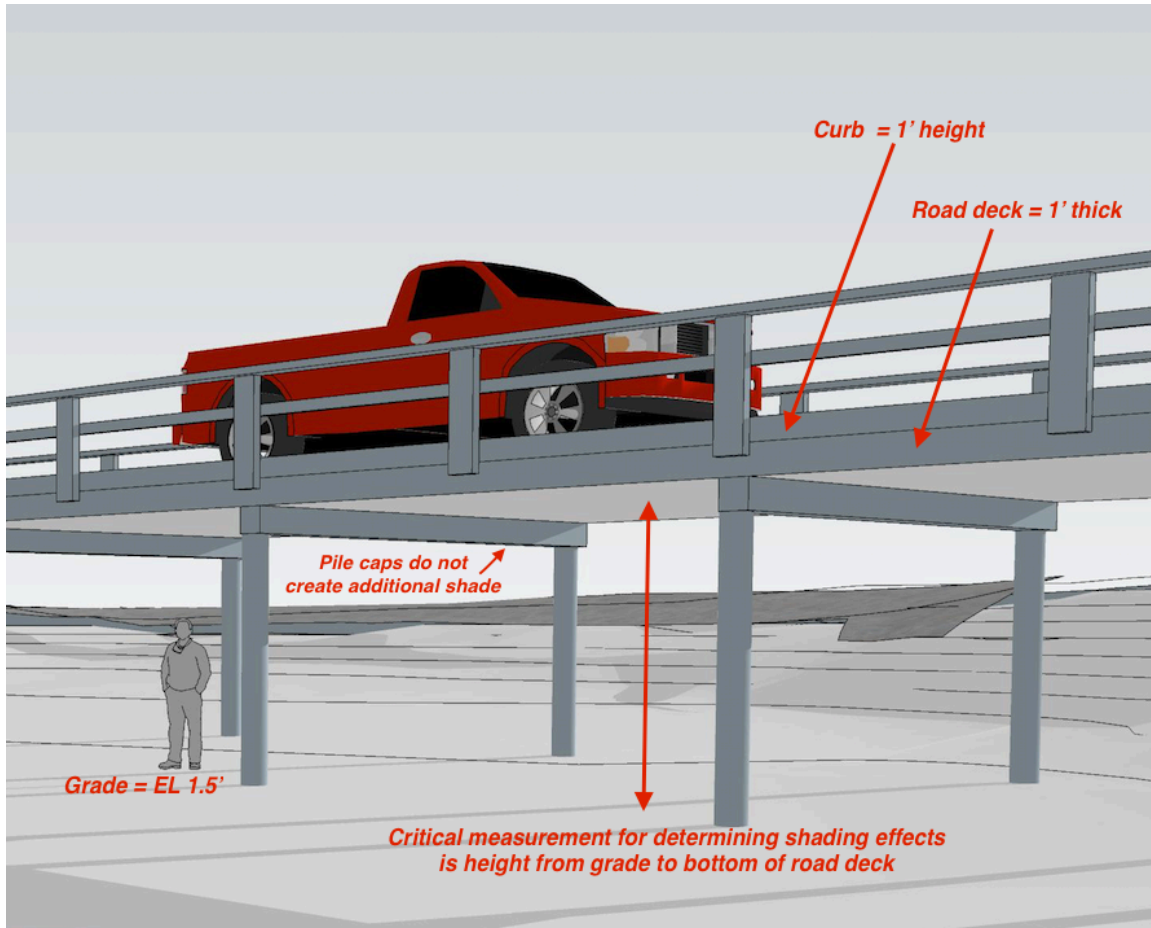


- 12/4/14 Draft Recommendation: 4' - 5' above grade
- 2015 Town Meeting: 'Everett Poole with hands in the air'

Average Clearance Across Wetland = 10.5'



Shading

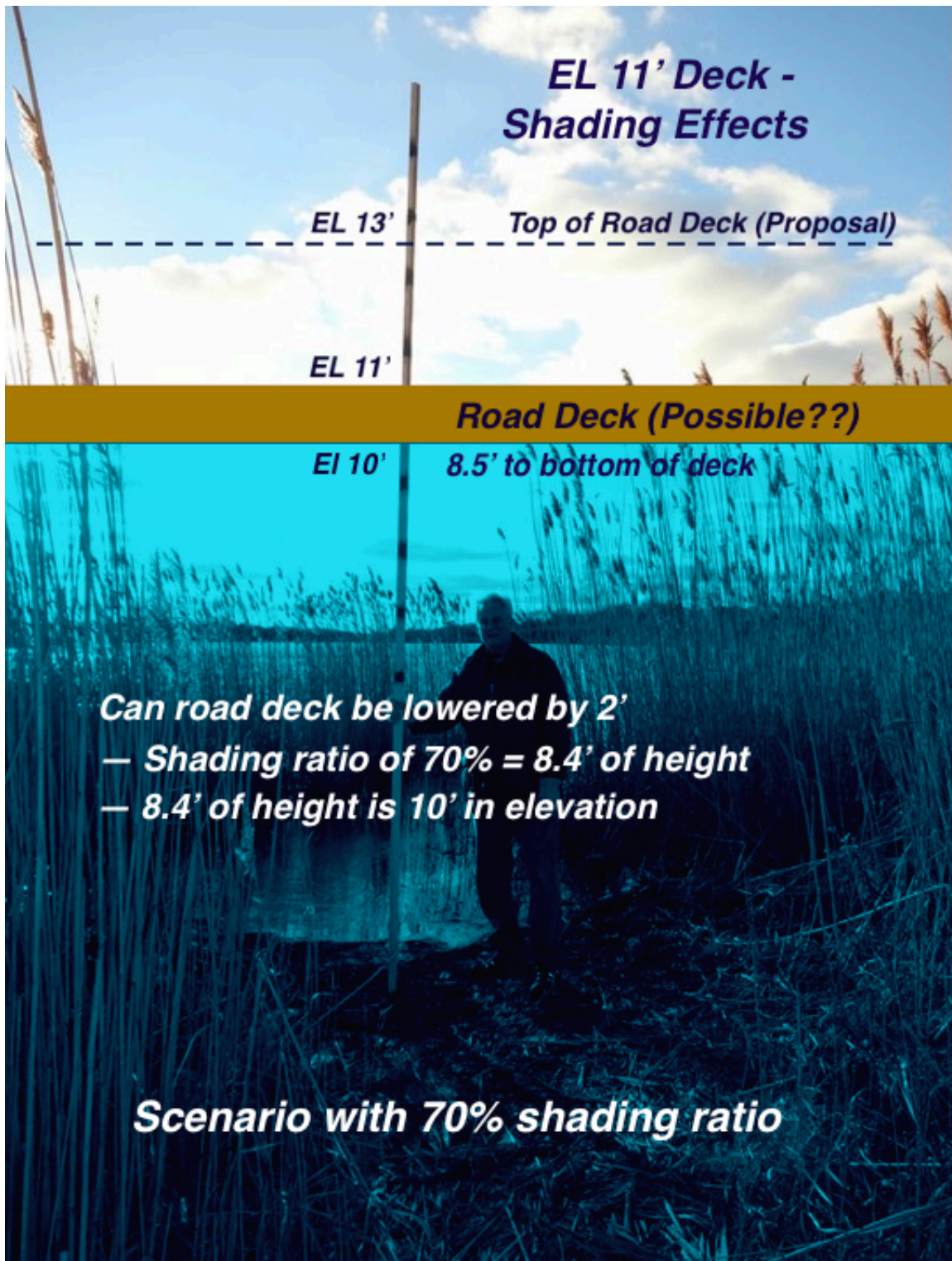


- Current proposal of 10.5' under the road deck is excessive
- 70% of causeway width from grade to bottom of road deck will mitigate shading effects:

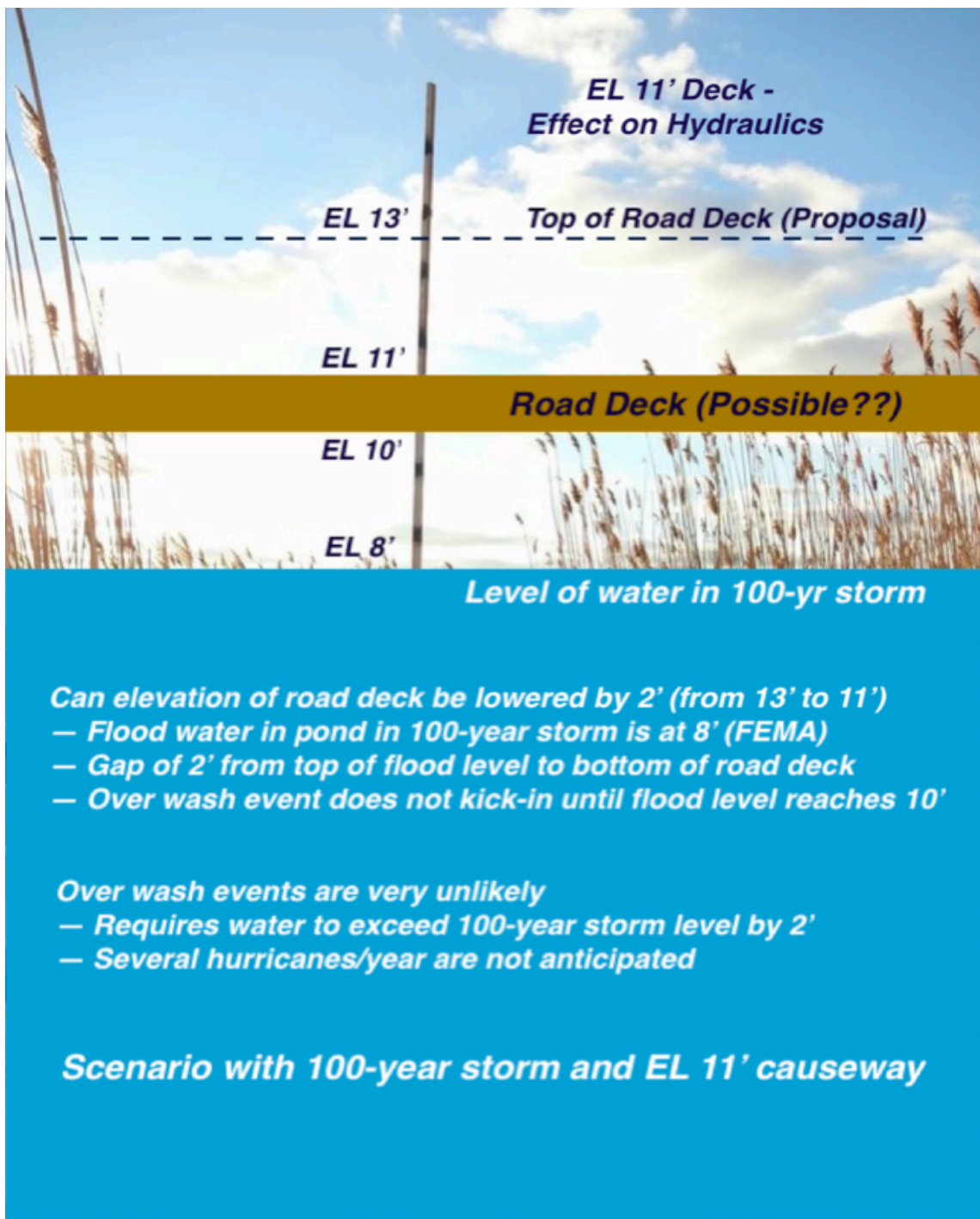
'Bridges with height/width ratio greater than 0.7, did not have a measurable effect on primary and secondary productivity.' NC study 'Effects of Shading from Bridges on Estuarine Wetlands', June 2005, page iii.

- Key measurement is from grade to the bottom of the road deck
- Using the 70% ratio, 8.4' from grade to bottom of road deck is needed to mitigate shading effect
- This allows for a reduction of least 2' in height
- Conservative because bridge is oriented from north to south

Shading Effects at 11' Elevation (vs. 13')



Flooding/Hydraulics



- Water level in pond has not exceeded 1.5' above current level since at least 1950 (records from Regen home)
- Center point of causeway is 180' from observed mean high water
- Western end-point is behind 19' glacial bank (Money Hill)

Causeway Railing

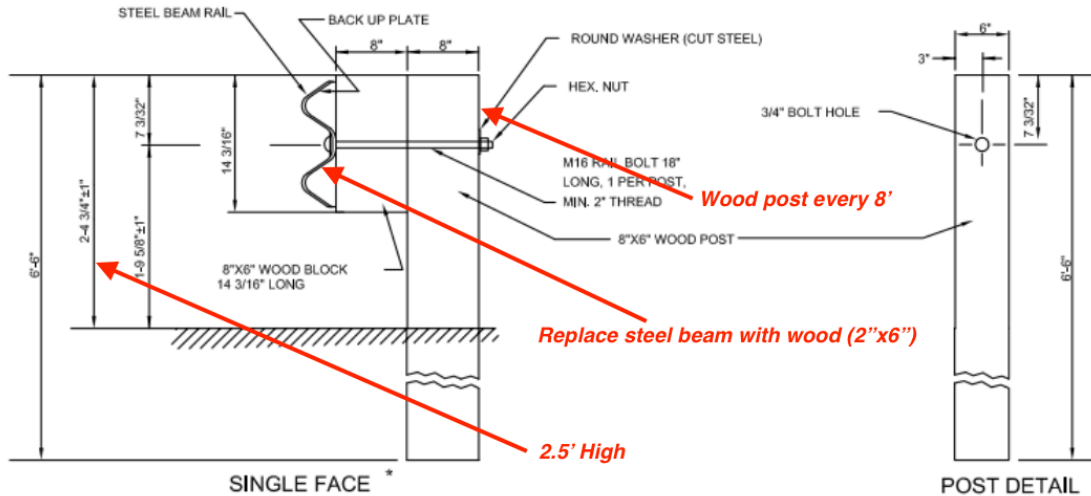


Railing on Menemsha causeway is lighter, more 'see through,' and less obtrusive.



Guard Railing Recommendation

- Guard rail suitable for vehicular traffic on country road
- 15 mph speed limit
- 2.5' high, wood, posts 8' apart, 2x6 rail.



* WHEN PLACED IN MEDIAN CHANGE TO THREE BEAM, AND CHANGE HEIGHT TO 2'-8 1/2" ± 1".

NOTES:

1. POST SPACING, APPROACH END & TRAILING ENDS ARE THE SAME AS THOSE SHOWN FOR STEEL "H" POSTS.
2. ALL NUTS, BOLTS & WASHERS ARE TO BE GALVANIZED.
3. ALL MATERIALS & DIMENSIONS OF FITTINGS NOT SHOWN ABOVE ARE TO BE SIMILAR TO THE CORRESPONDING ELEMENTS SHOWN FOR STEEL "H" POSTS.
4. TERMINAL SECTIONS FOR DOUBLE FACE & SINGLE FACE GUARD RAIL ARE SHOWN ON DRAWINGS E 401.6.0, E 401.8.0
5. ALL SPLICES ARE TO BE MADE AT POSTS.
6. FOR THE TYPE OF WOOD & WOOD TREATMENT, OTHER MATERIALS & METHODS OF CONST., SEE STANDARD SPECIFICATIONS & SPECIAL PROVISIONS.
7. FOR DETAILS OF SLOT IN BACK-UP PLATE SEE E 401.7.0 & E 401.8.0
8. BACK-UP PLATE IS PLACED BEHIND RAIL ELEMENTS AT INTERMEDIATE POSTS, i.e. NON SPLICE LOCATION.
9. STEEL POSTS ARE TO BE SUBSTITUTED AT THE SAME BID PRICE, FOR CERTAIN WOOD POSTS IN A WOOD POST RUN WHEN CEMENT CONCRETE EMBEDMENT IS REQUIRED.



STEEL BEAM HIGHWAY GUARD WITH WOOD POST

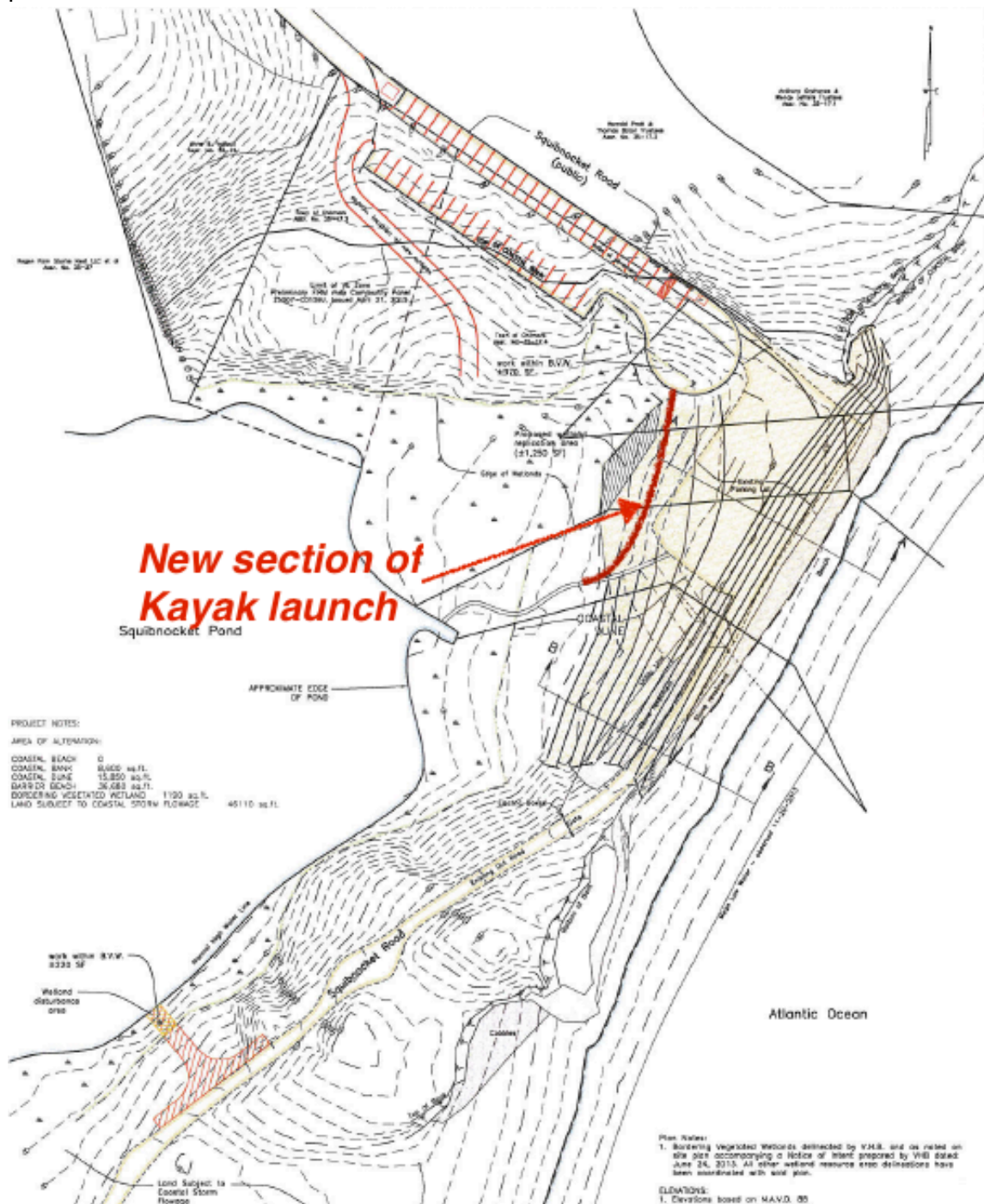
DATE OF ISSUE
JUNE 2014

DRAWING NUMBER
E 401.10.0

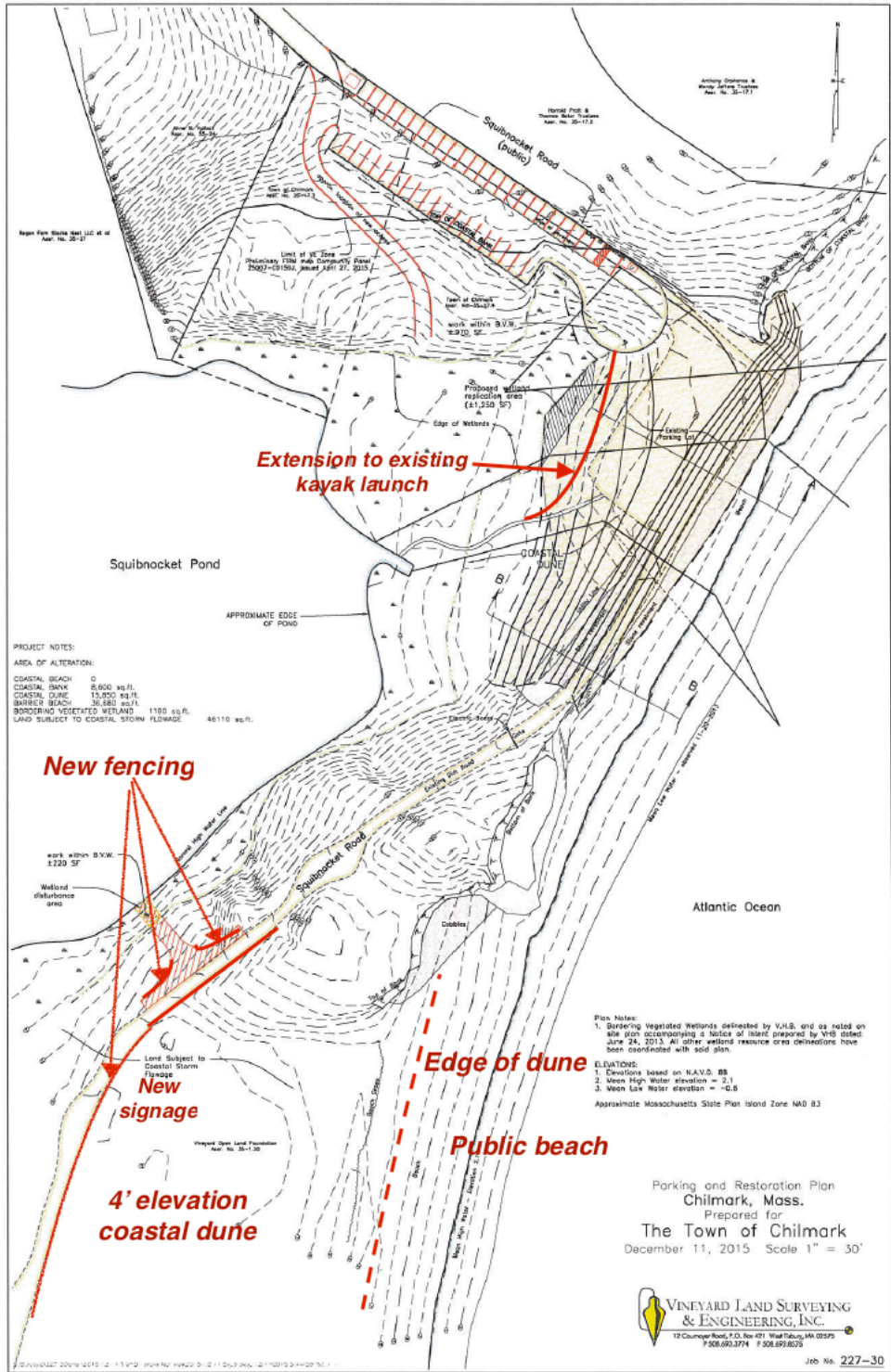
Skiff Launch

Two objectives:

- Separate kayak launch from new skiff launch area
- Mitigation for effects of additional traffic from new skiff launch
 - 'Law of unintended consequences'



Protection of Coastal Dune and Barrier Beach



- New fencing to protect coastal bank next to skiff launch
- Gate for skiff launch (similar to Aquinnah)
- Signage to prohibit people from crossing coastal dune
- Simple rope fence at edge of dune by public beach