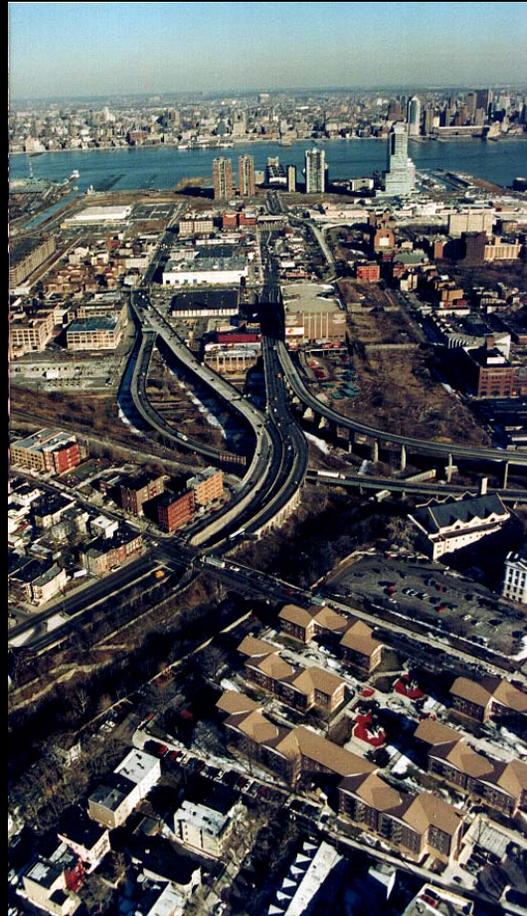


Rehabilitation of Route 139



Transportation Research Board
January 12, 2004







12th Street Viaduct

Jersey Ave. to Palisade Ave.

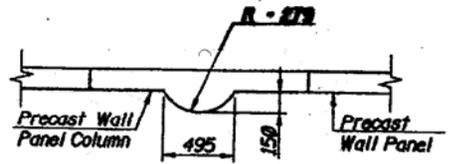
- Total Length – 1,790 ft.
- 46 Spans using 6 Structure Types
- Concrete Deck, Steel Girders and Steel Piers
- Concrete Arch Spans
- Timber Pile Foundations

Existing Viaduct Condition and Project Objectives:

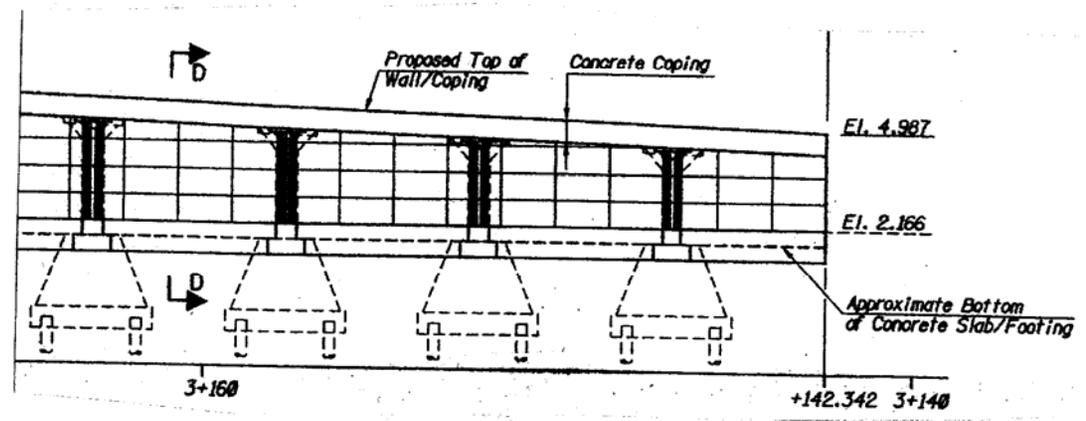
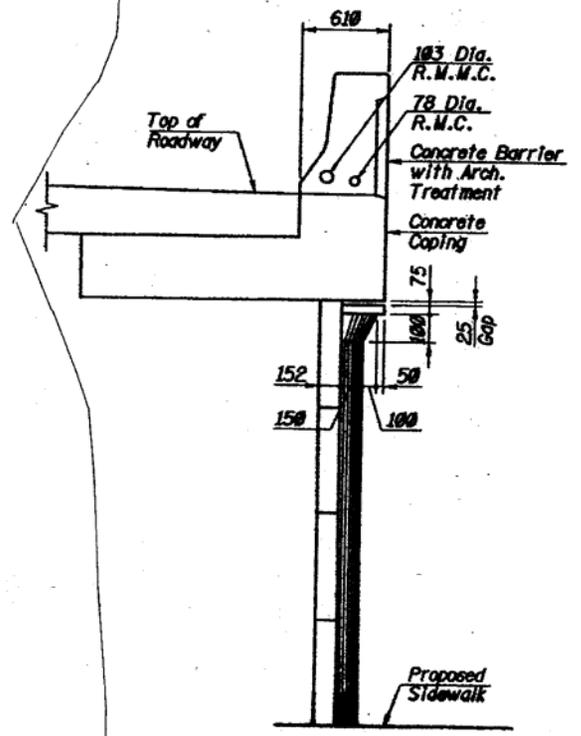
- Structurally Deficient
 - Deteriorating Deck and Concrete Encasement
 - Low Live Load Capacity
 - Seismic Vulnerability
- Project Objectives
 - Replace Deck Slabs
 - Increase Live Load Capacity to HS25
 - Seismic Retrofit
 - Remove loose and deteriorated concrete Encasement and Paint Steel
 - Replicate Original Light Fixtures and Poles
 - Provide Architectural Treatments That Replicate Original Balustrade and Concrete Columns







SECTION E-E
SCALE = 1:25



DEVELOPED ELEVATION
RETAINING WALL NO. 1 (South)
SCALE = 1:100

















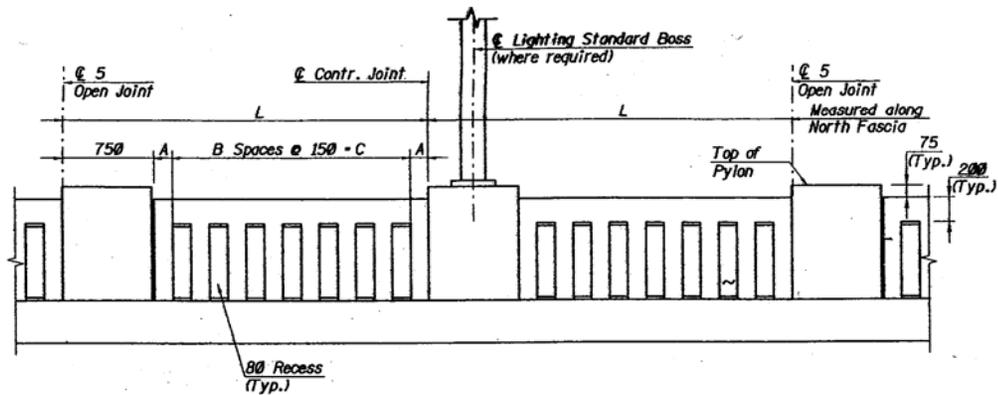








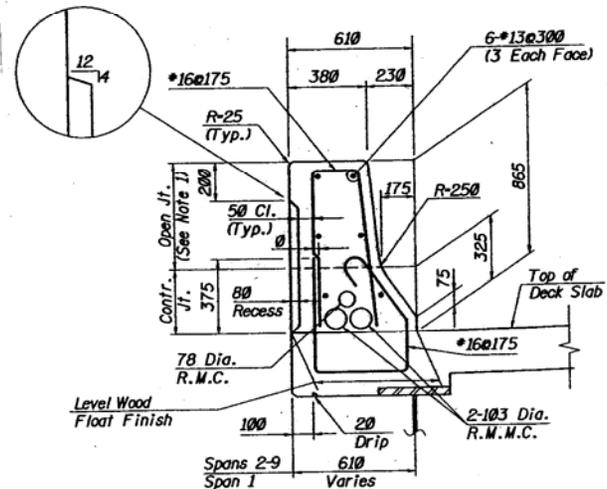




DEVELOPED FASCIA ELEVATION

FASCIA ELEVATION - TYPICAL PARAPET SECTION ON BRIDGE

SCALE 1:25



Note: Deck Reinforcement not shown for clarity.

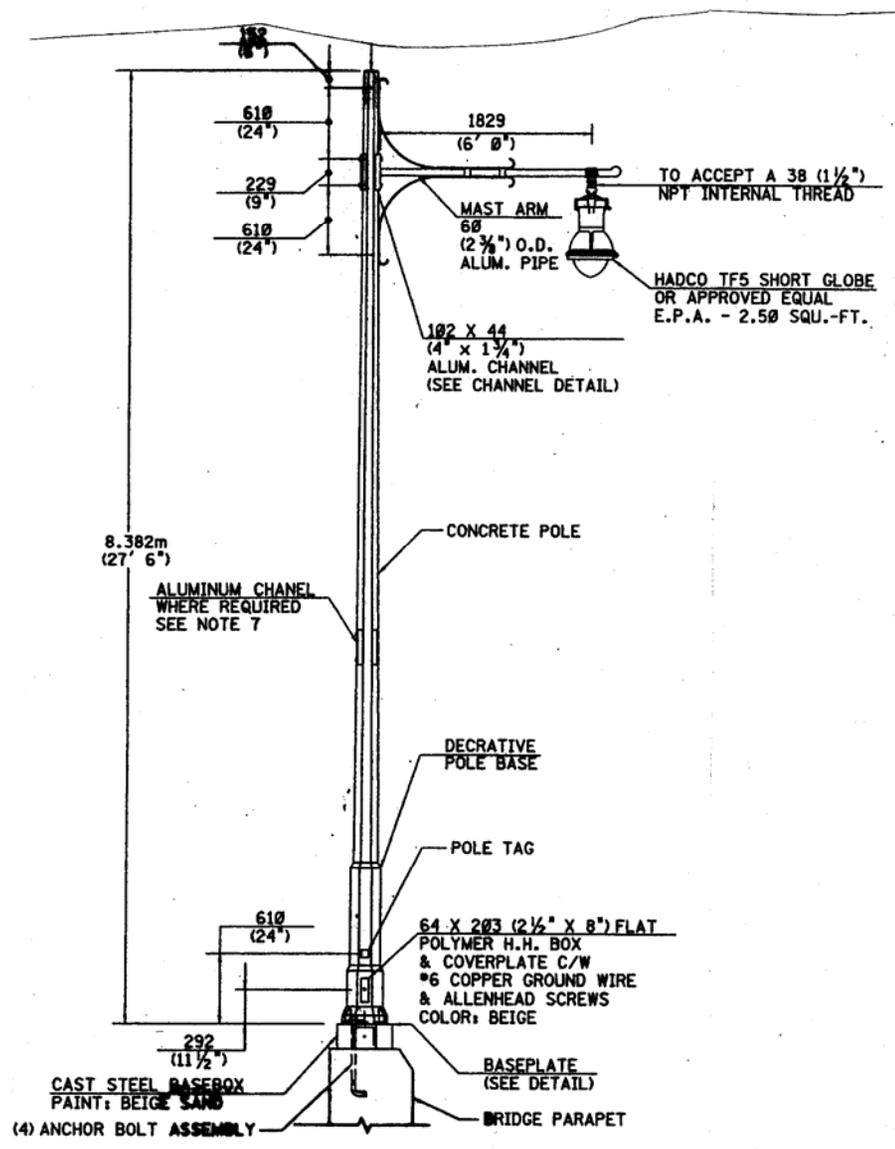
TYPICAL PARAPET DETAIL AT RECESS

SCALE 1: 15

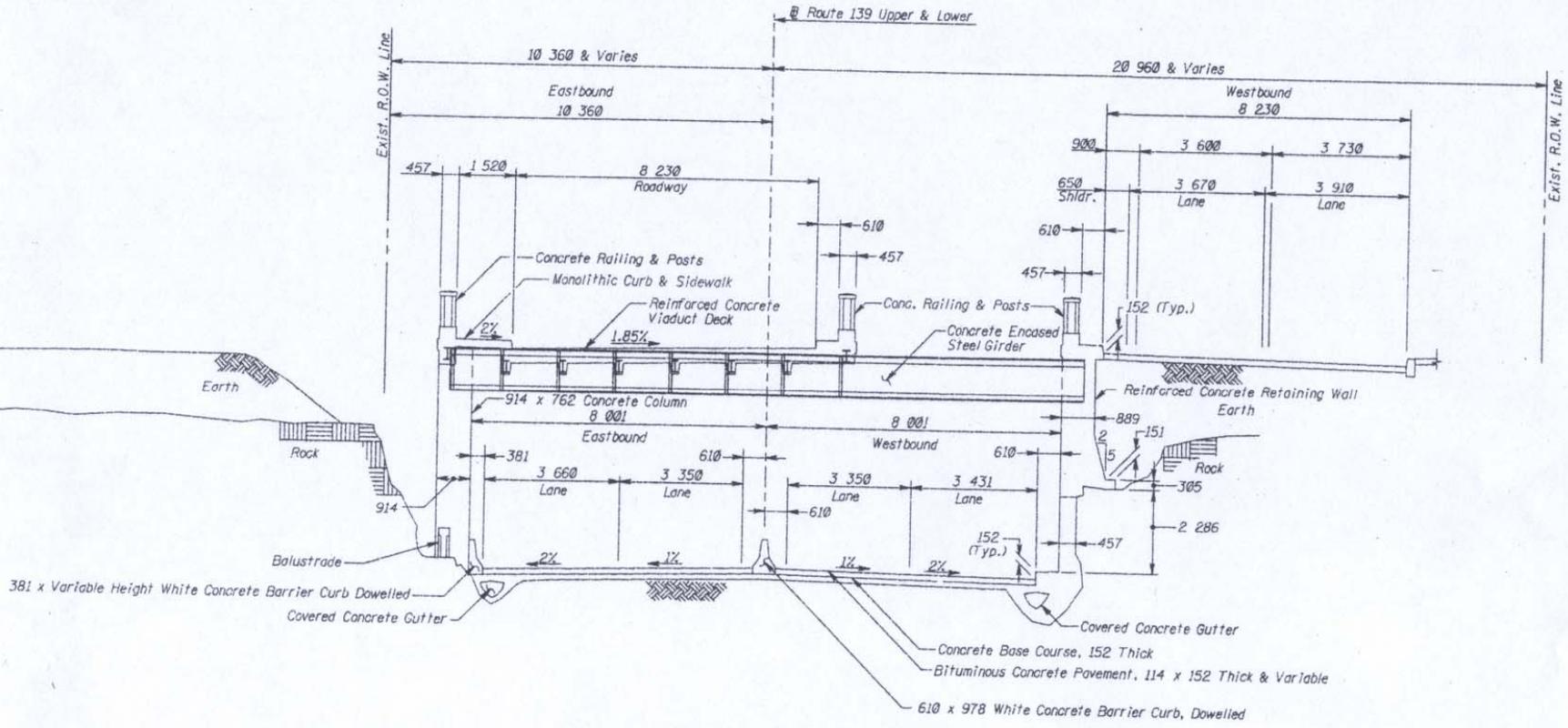




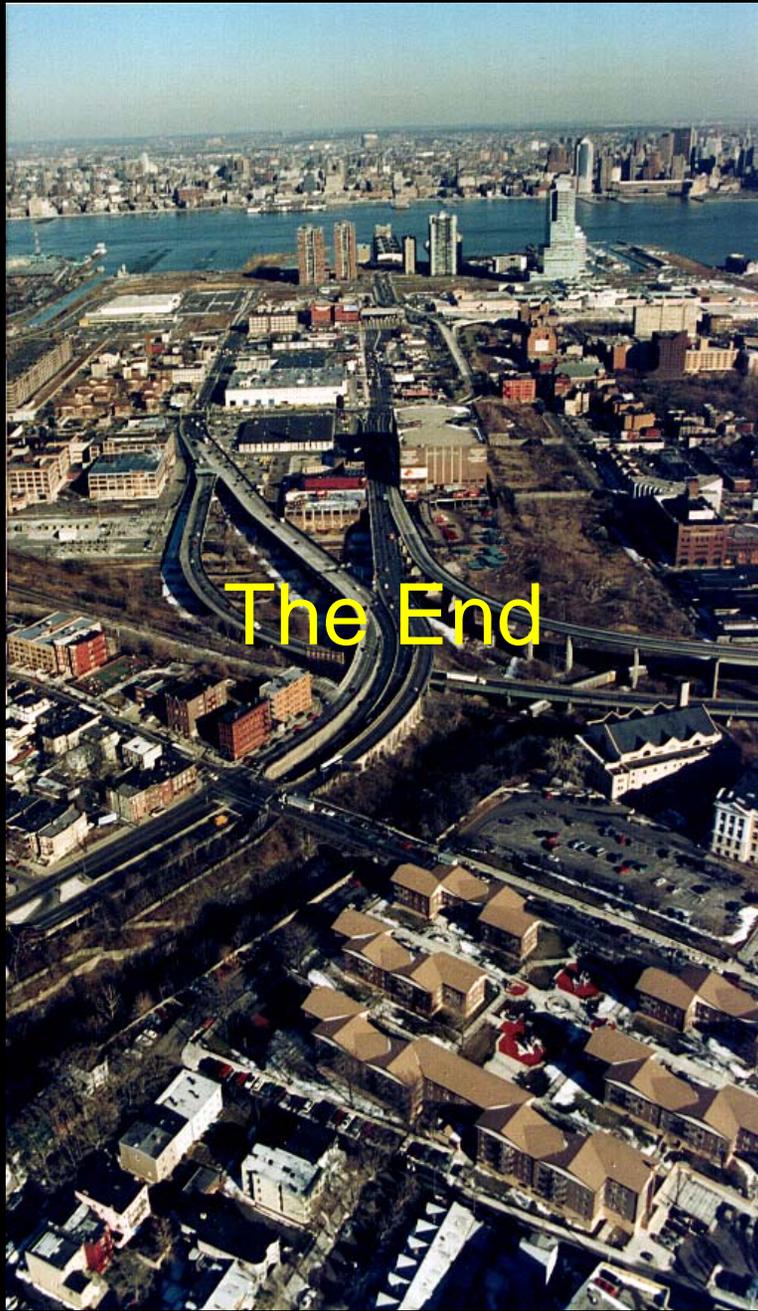








EXISTING - SECTION AT STA. 4+400
SCALE : 1:100



The End

Route 139

TRB1-04

TRB 04 Slide Presentation Captions

1. View of 12th and 14th Street Viaducts looking east
2. Route 139, Historic Hoboken Viaduct (covered roadway) adjacent to the Bergen Arches looking west
3. 12th and 14th Street Viaducts looking east
4. 12th and 14th Street Viaducts at Hoboken Avenue looking south
5. Bullet Items
6. Bullet Items
7. 12th Street Viaduct elevation drawing showing the 46 spans consisting of 6 bridge types
8. 12th Street Viaduct concrete column and deck slab spans looking south
9. 12th Street Viaduct concrete column and deck slab spans looking east from Coles Street
10. Drawing of architectural columns on the proposed wall that will retain fill under the 12th Street Viaduct east of Coles Street
11. 12th Street Viaduct steel stringer framed to steel pier
12. 12th Street Viaduct expansion pier
13. 12th Street Viaduct fixed pier brackets
14. 12th Street Viaduct girder framed to steel pier
15. 12th Street Viaduct girder/floorbeam superstructure supported on steel pier
16. 12th Street Viaduct girder/floorbeam superstructure supported on braced columns
17. Previous concrete encasement removal of the 12th Street Viaduct truss spans
18. 12th Street Viaduct truss spans after Contract 1 concrete encasement removal
19. Deteriorated and missing pier bracing to be repaired
20. 12th Street Viaduct truss spans over the Southbound Turnpike Ramp
21. West span of the 12th Street Viaduct at the abutment
22. 12th Street Viaduct west span girders encased in the abutment
23. Arch spans of the South Ramp carrying eastbound upper roadway traffic to 12th Street
24. Detail of the new parapet with architectural treatment
25. Historic photo of the South Ramp and original highway lighting fixtures
26. Photo enlargement of the original highway lighting fixture
27. Historic photo of the original highway light pole and fixture
28. Detail of new highway light pole and fixture
29. Aerial view of Contract 3 looking east from J. F. Kennedy Blvd. to Palisade Avenue
30. Existing section of Contract 3 looking west