

TRB Annual Meeting Value Engineering Workshop

January 23, 2006

Hurricane Case Studies

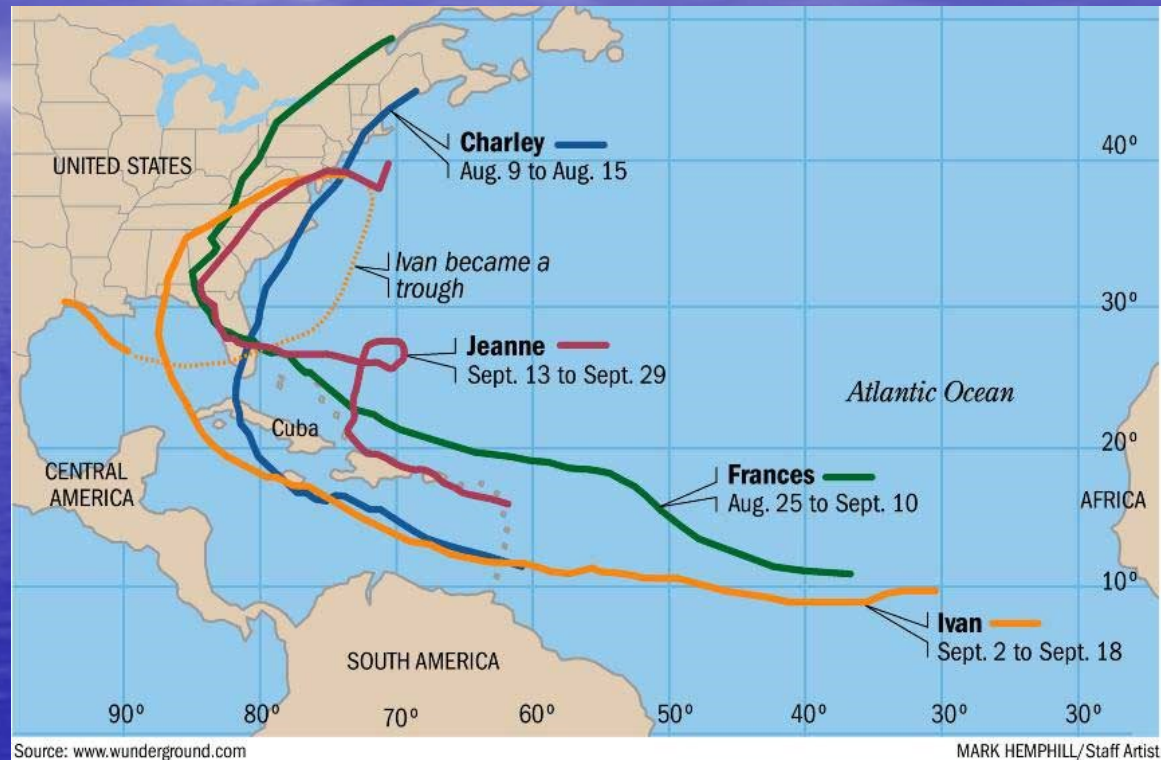
Kurt Lieblong, P.E.

Objectives

- Review Florida Landfall Hurricanes of 2004 & 2005
- Review 3 Hurricane related VE Cases Studies
- AASHTO VE Technical Committee

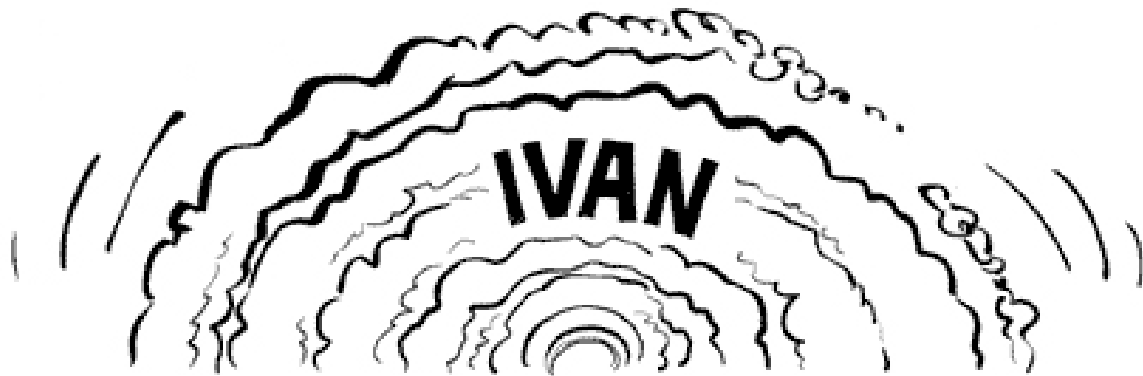
2004 Hurricane Season

- Florida Landfalls
 - Charley, Aug 13
 - Frances, Sept 5
 - Ivan, Sept 16
 - Jeanne, Sept 25

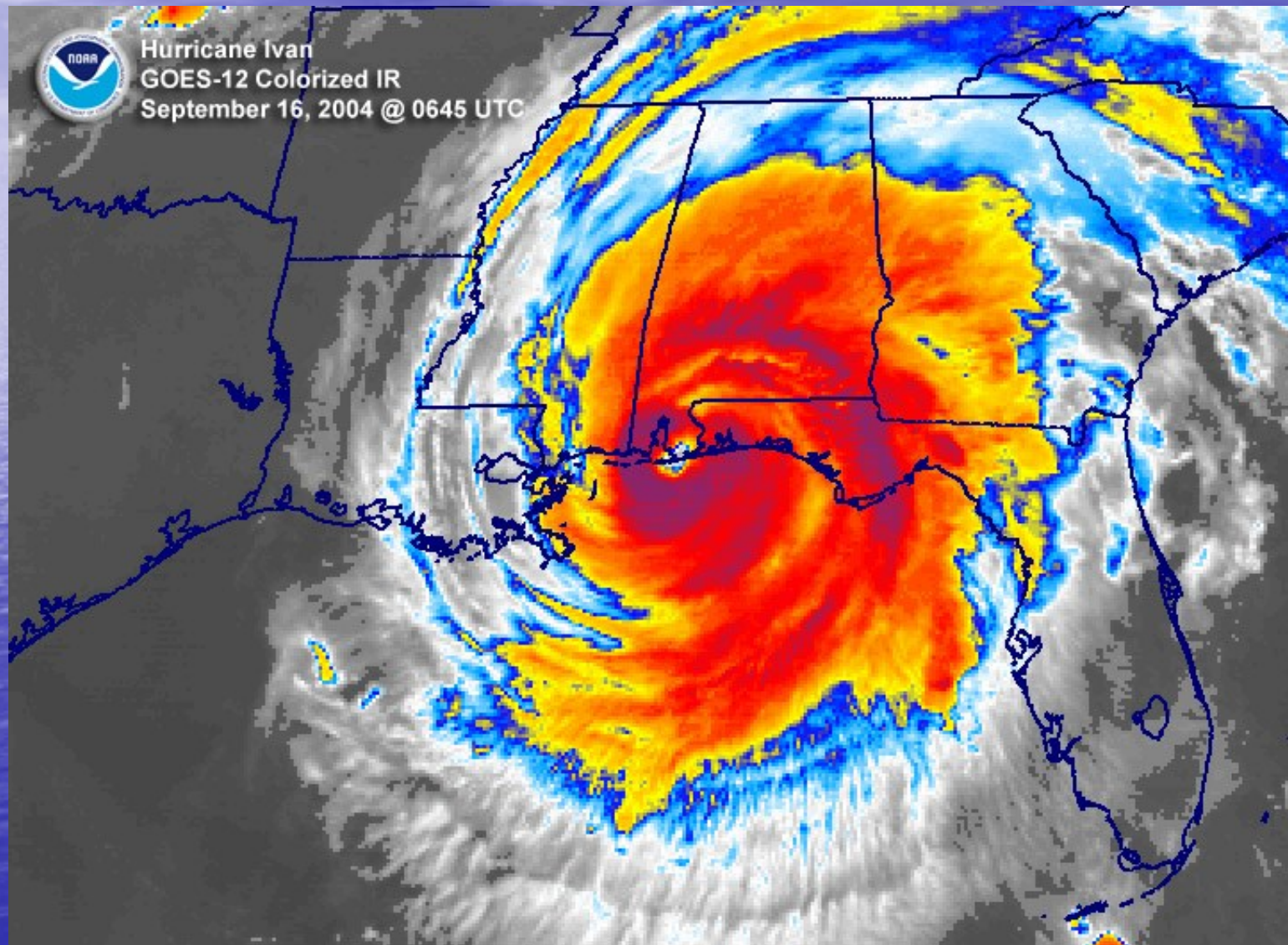




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TODAY
JIM PARKER
jparker@floridatoday.net



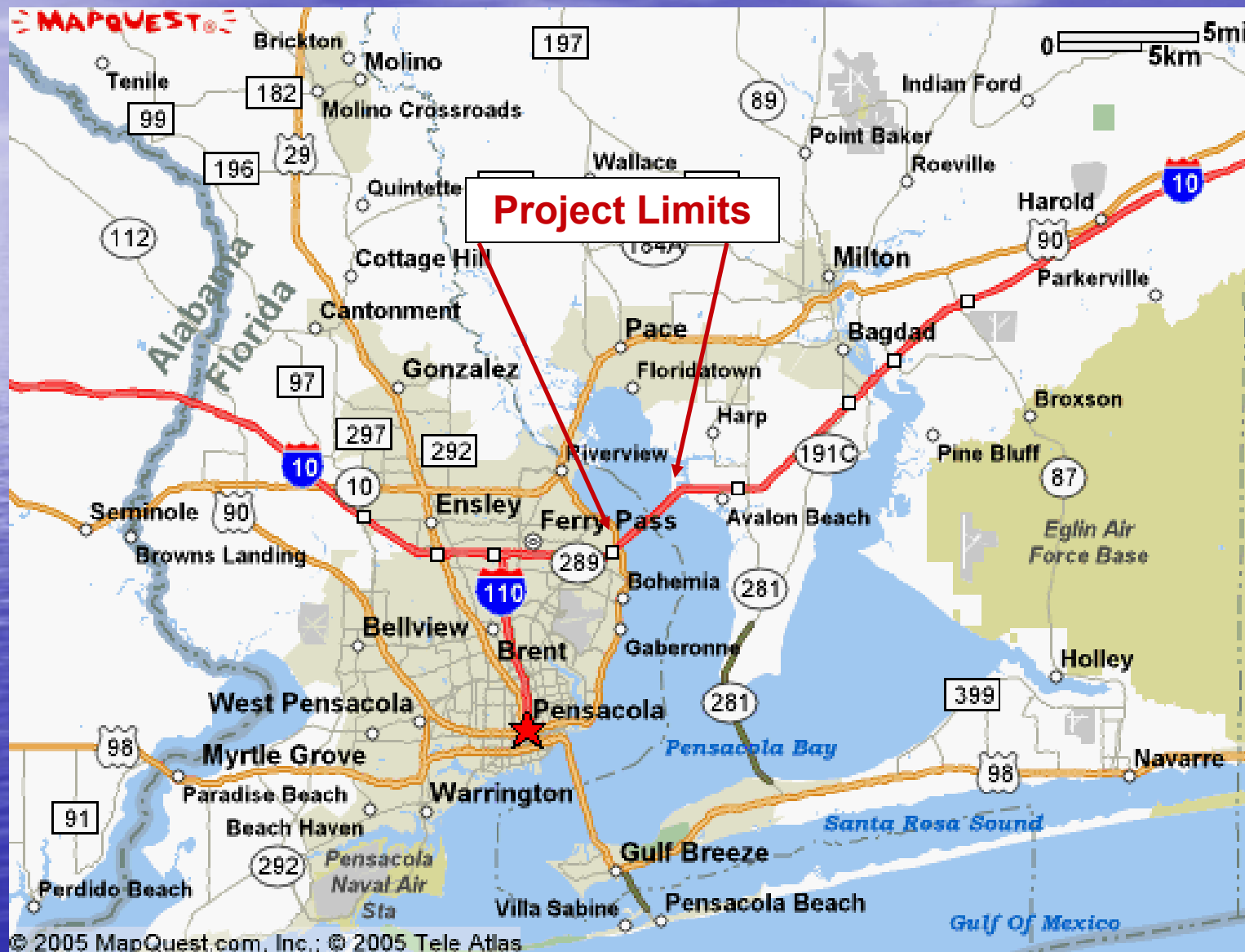
Hurricane Ivan



I-10 Escambia Bay Bridge



I-10 Escambia Bay Bridge



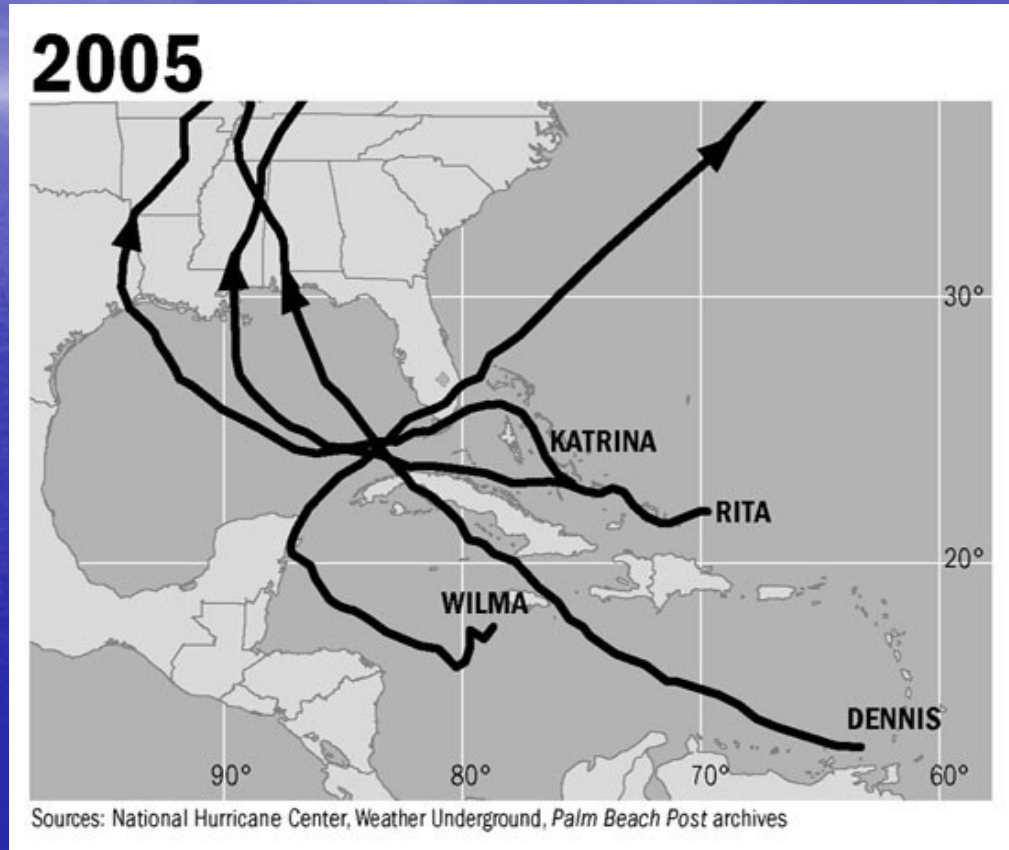
VE Study

- Replacement project
- Design/Build
- Team focused on RFP Document
- Initial estimate \$263 million

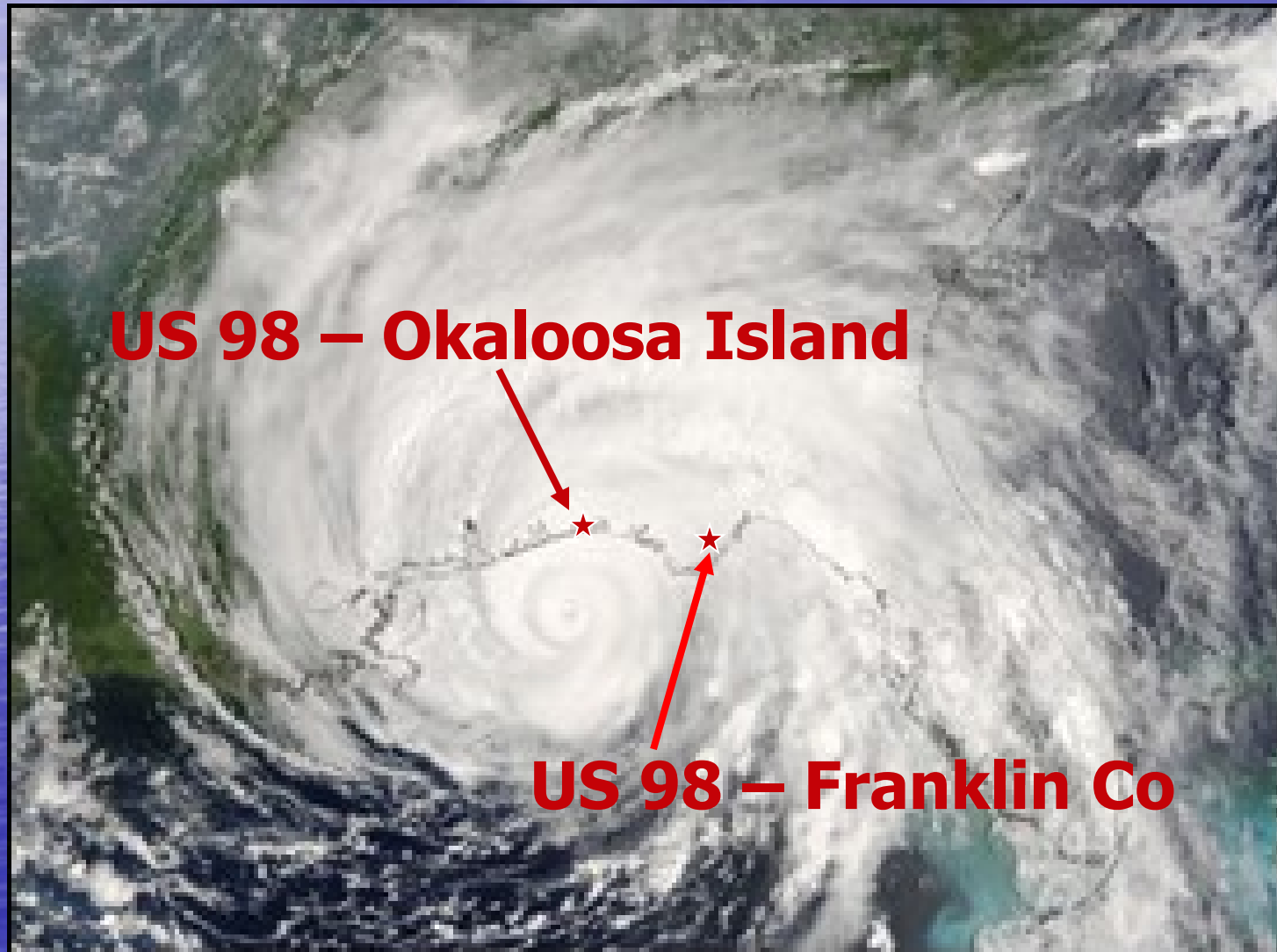
Contract awarded - \$243 million

2005 Hurricane Season

- Florida Landfalls
 - Dennis, July 10
 - Katrina, August 25
 - Wilma, October 24



Hurricane Dennis



US-98 - Franklin County



US-98 - Franklin County

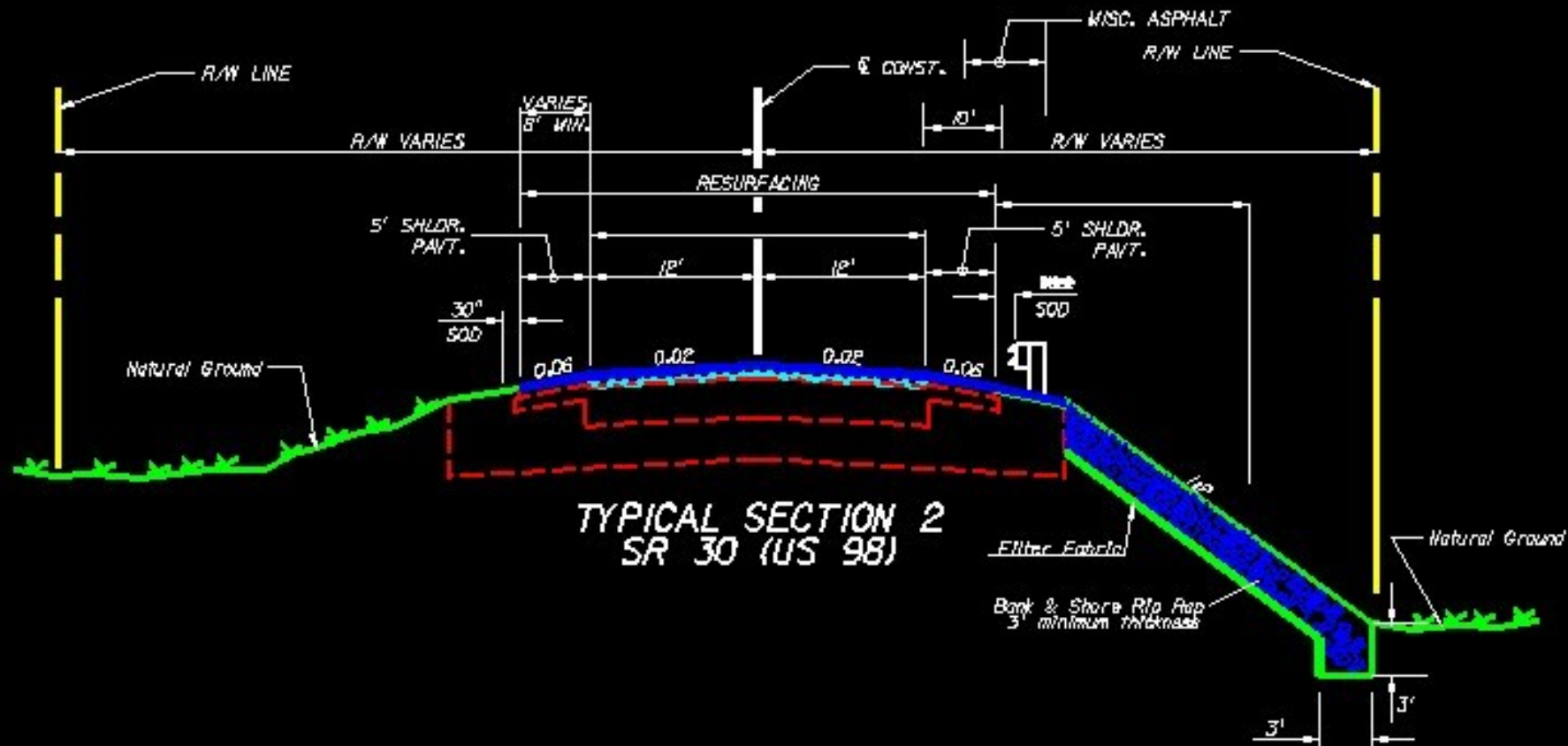


VE Study – Areas of Focus

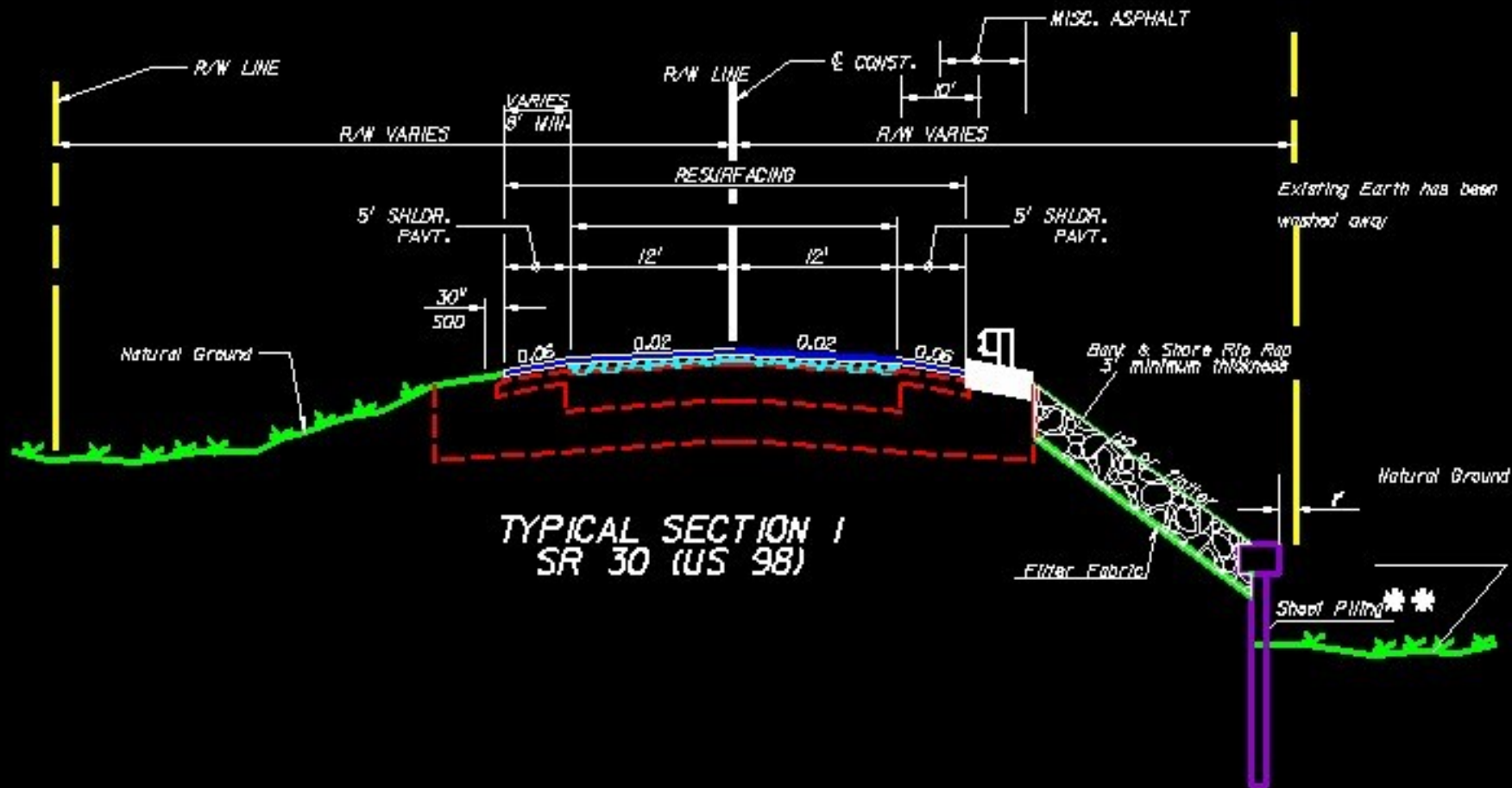
- Current Design for Permanent Restoration
 - Included Bank & Shore Rip Rap and concrete sheet piling
- Relocation Alternatives for US 98
 - Included routes through State Forrest
- Existing Design and Alignment Restoration
 - Put the road back the way it was



Project Limits



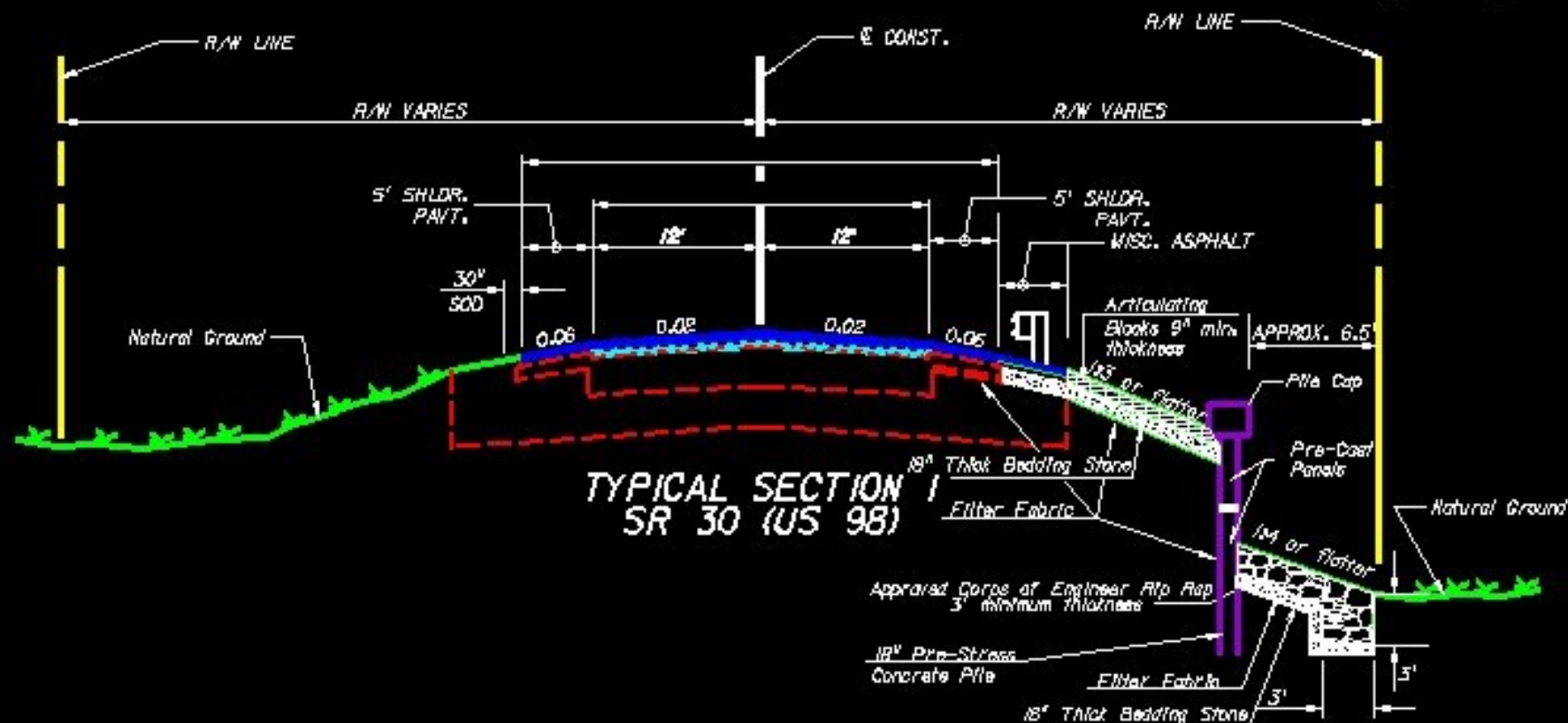
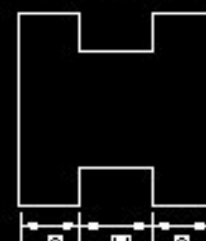
AS PROPOSED



VE ALTERNATIVE 2

SOLDIER PILE WITH ARTICULATING BLOCK SYSTEM

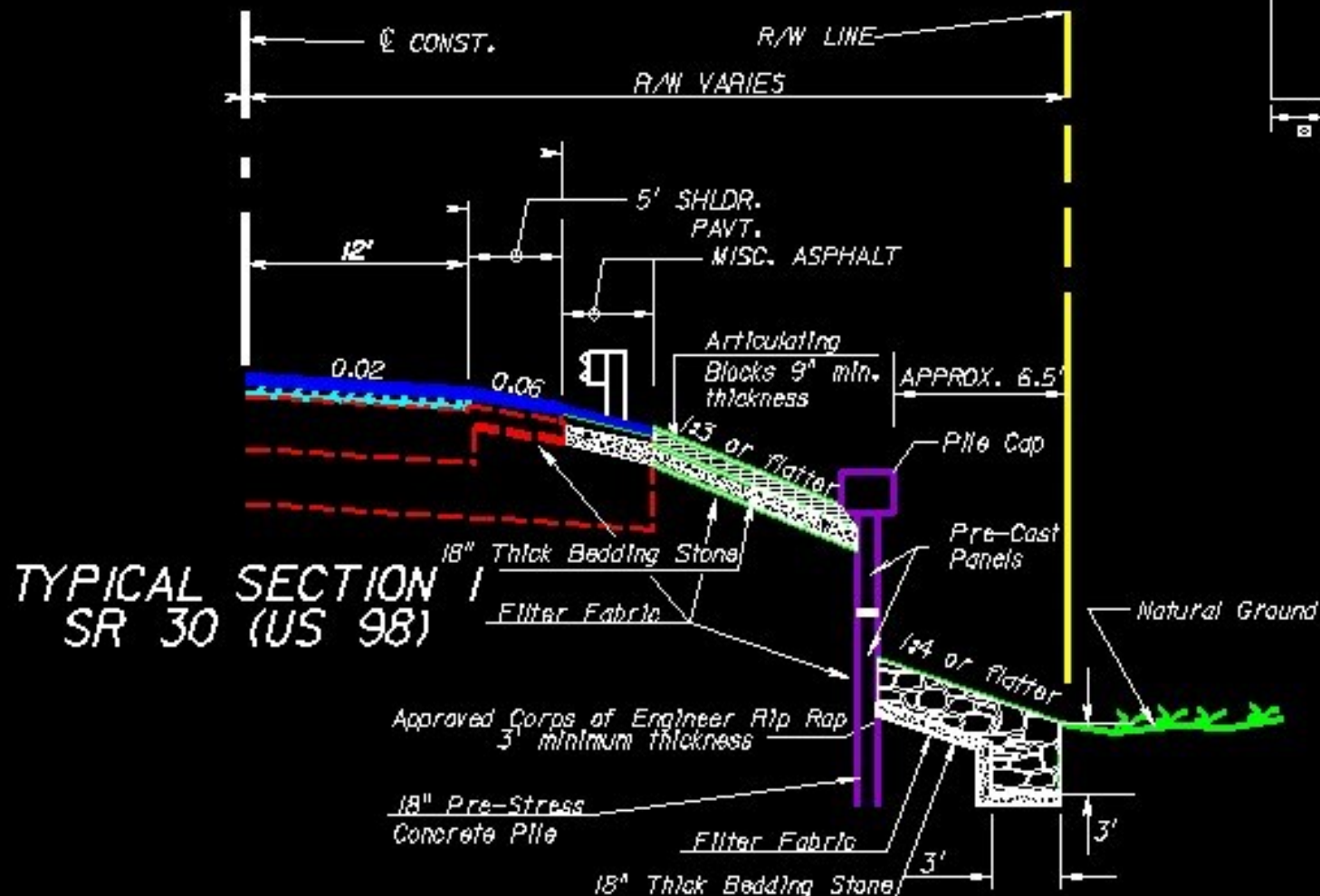
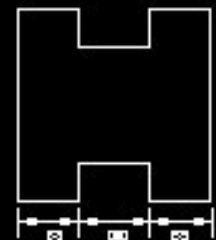
PILE
PLAN VIEW



VE ALTERNATIVE 2

SOLDIER PILE WITH ARTICULATING BLOCK SYSTEM

PILE
PLAN VIEW





VE Study Results

Initial Cost	\$119.7 million
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VE Proposed Cost	\$45.9 million
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Savings	\$73.8 million
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US 98 – Okaloosa Island



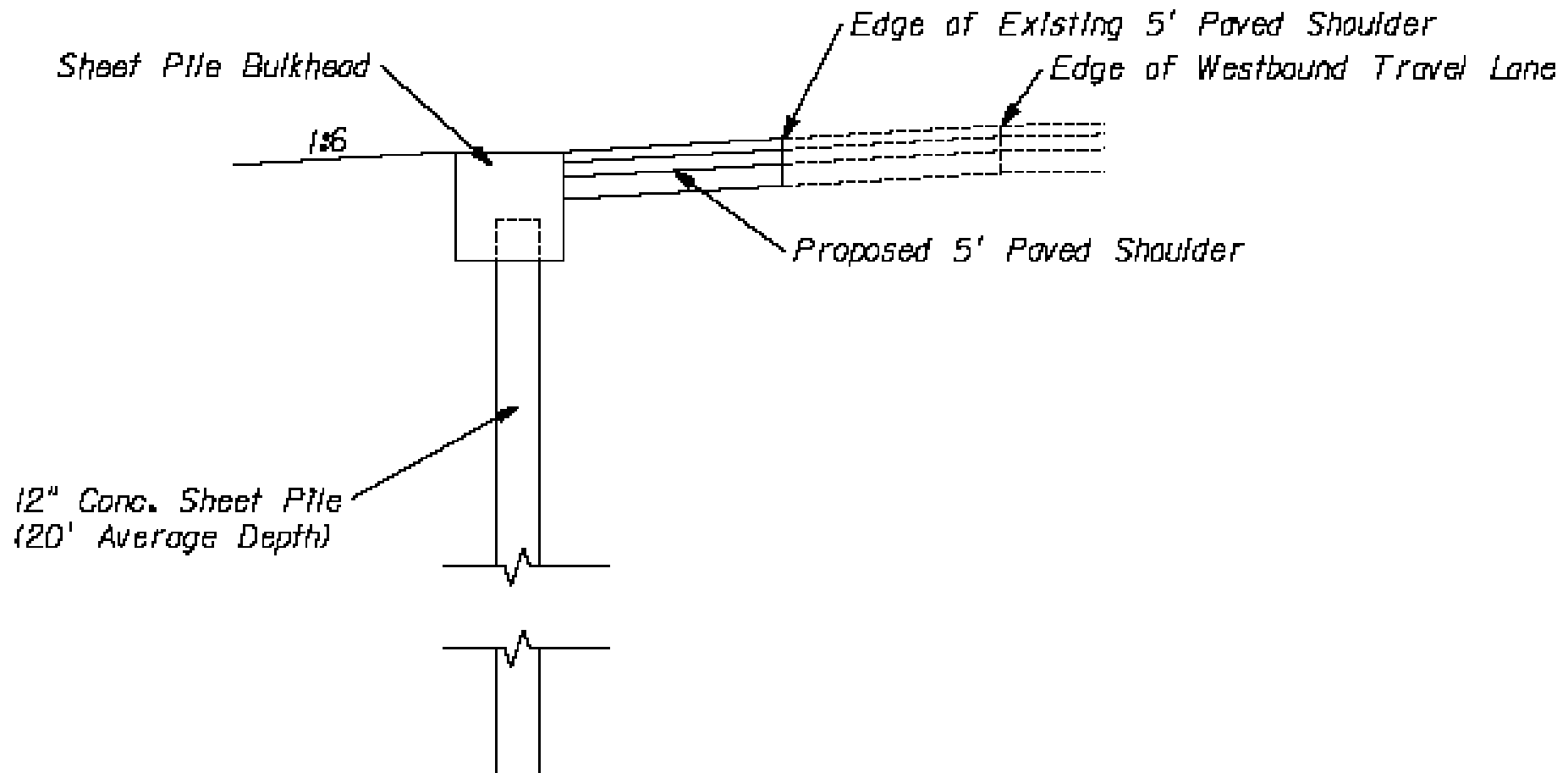
US 98 – Okaloosa Island





Project Limits

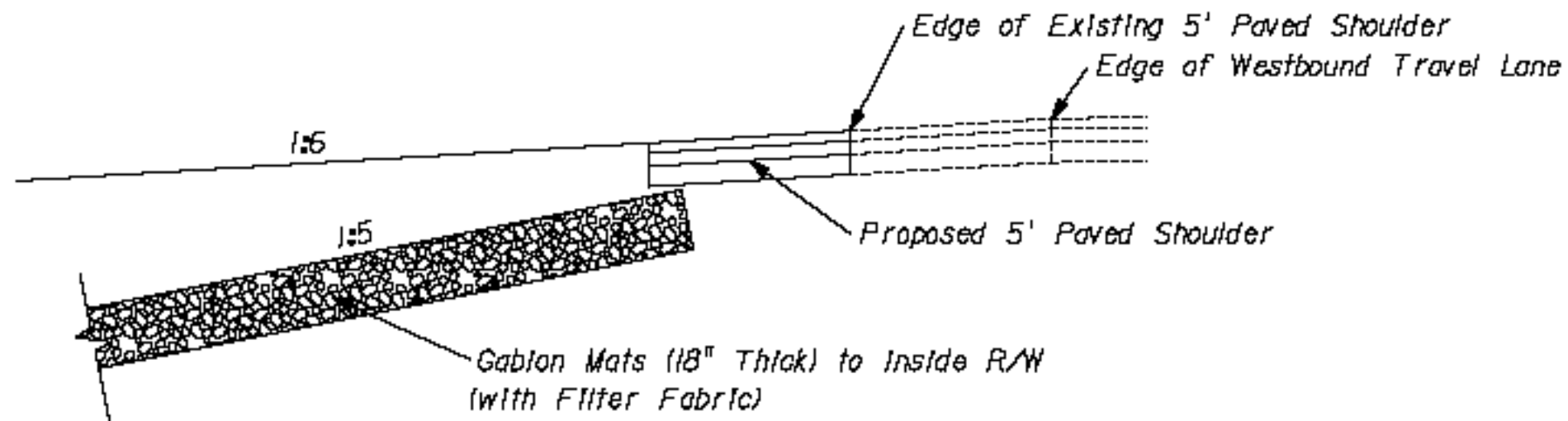
AS PROPOSED



Sta. 105+50 to Sta. 216+00



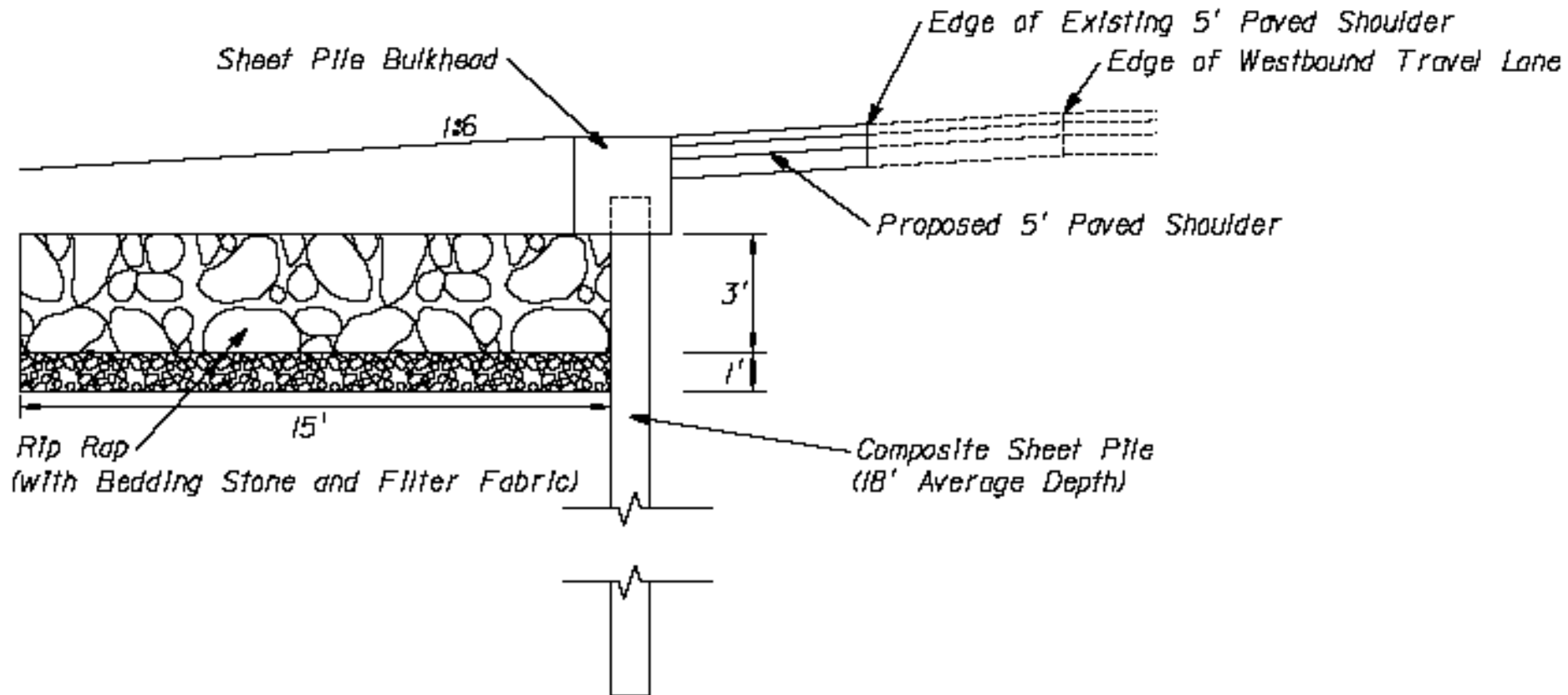
VE ALTERNATIVE #2A



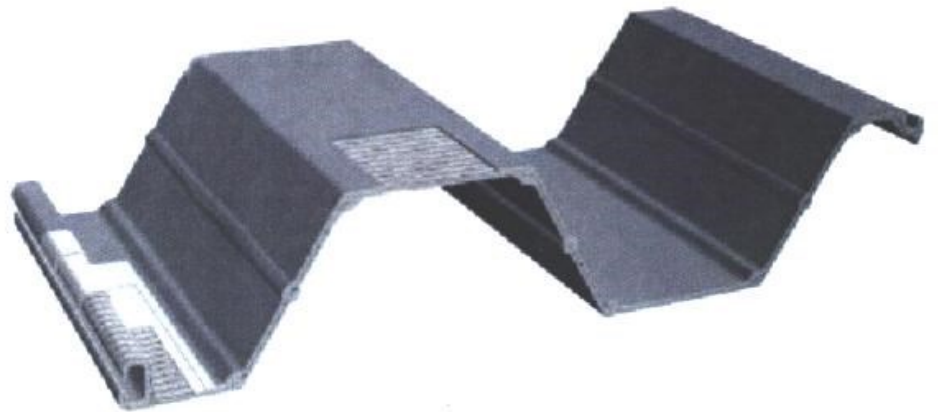
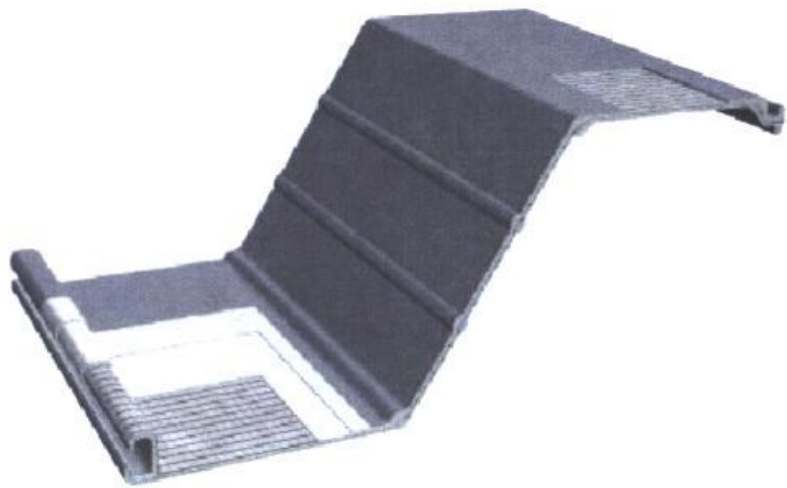
Sta. 105+50 to Sta. 216+00



VE ALTERNATIVE #4



Sta. 105+50 to Sta. 216+00





VE Study Results

Initial Cost	\$20.8 million
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Awarded Contract	\$14.3 million
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Savings	\$6.5 million
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ENOUGH WAS ENOUGH!



AASHTO VE Technical Committee

Objective:

- Assist states in the development of individual VE programs
- Ensure integrity and uniformity of VE practices
- Promote VE within all areas of transportation
- Plan & deliver a biennial transportation VE Conference

AASHTO VE Technical Committee

- Kurt Lieblong, Florida
- Ray Petrucci, Delaware
- Don Jackson, FHWA
- Tom Allen, Missouri
- Rick Jaffe, New Jersey
- Carlos Ruiz, New Mexico
- Steve Anderson, Utah
- Ron Garrett, Virginia
- Wayne Johnson, N. Carolina
- Jason Foster, West Virginia
- Steve Holmes, Ontario
- Mike McGough, AASHTO

<http://www.wsdot.wa.gov/eesc/design/aashtove/>

Questions



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