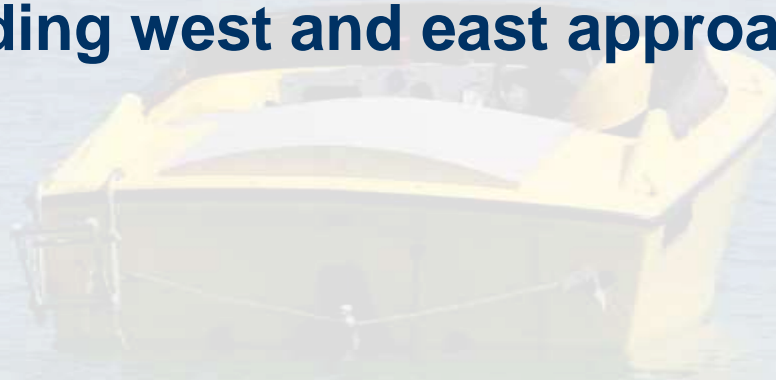


WELCOME

Public Meeting for SH-85A Horse Creek Bernice, OK

**SH-85A bridge located 3.5 miles east of SH-85,
including west and east approaches**



Randle White, PE
ODOT Division VIII Engineer

PURPOSE OF THIS MEETING

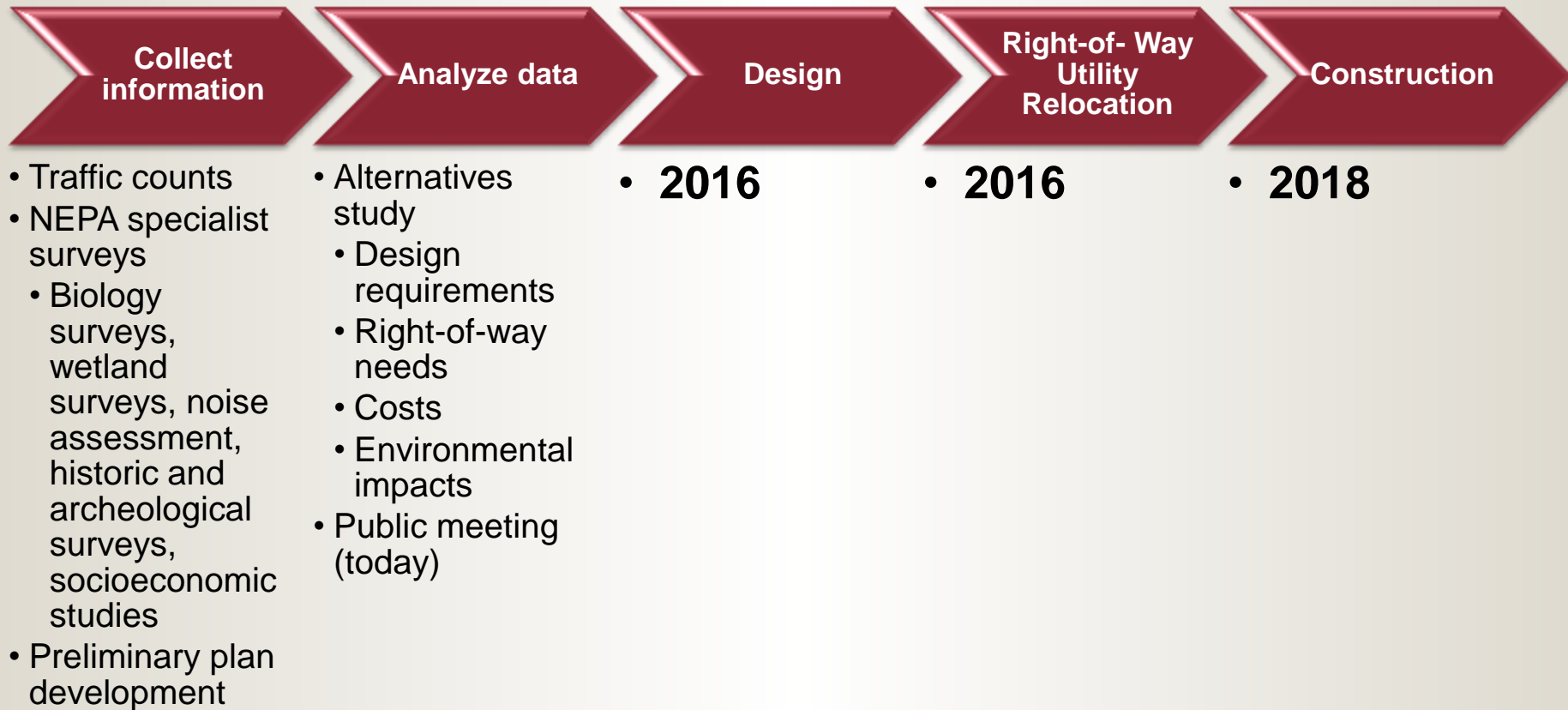
The purpose of this meeting is to inform the public about the proposed project to replace the structurally deficient bridge on SH-85A over Horse Creek and to solicit comments.



PROJECT AREA OVERVIEW



PROJECT TIMELINE



ENVIRONMENTAL INFORMATION



PURPOSE

- Complete environmental document for ODOT/FHWA approval
- Determine if significant environmental impacts can be reduced
 - By design
 - By mitigation

PROCESS

- Process includes the following:
 - Public and agency involvement
 - Public meeting
 - Solicitations
 - Coordination with USACE/GRDA
 - Studies

ENVIRONMENTAL STUDIES

- Relocations
- Parks & recreational areas
- Prime farmland
- Scenic rivers
- Noise impacts
- Wetlands & streams
- Threatened & endangered species
- Floodplains
- Hazardous waste sites
- Historic properties
- Archeological sites
- Tribal concerns
- Permitting

ENVIRONMENTAL STUDIES

- **No impacts on the following:**
 - Relocations
 - Residential and commercial
 - Noise
 - Prime farmland
 - Scenic rivers
- **Public parks and recreational areas (Section 4f & 6f)**
 - Grand Lake State Park
 - Avoided
 - Fishing Pier
 - To remain



ENVIRONMENTAL STUDIES

- Threatened & Endangered Species
 - Gray Bat, Indiana Bat, Ozark Big-Eared Bat, and Northern Long-Eared Bat
 - Suitable habitat - Note to plans for riparian vegetation and karst features avoidance



ENVIRONMENTAL STUDIES

- Threatened & Endangered Species

- No Effect Finding

- Interior Least Tern
- Ozark Cavefish
- Rabbitsfoot Mussel
- Piping Plover
- Neosho Mucket
- Arkansas Darter

- Bald Eagle

- Eagle habitat is present / survey required



ENVIRONMENTAL STUDIES

- **Floodplain**

- Majority of the project is within a floodplain
- Project will be designed to not increase base flood elevation or require flood map revisions.

- **Hazardous Waste Study**

- Low potential for hazardous waste issues

ENVIRONMENTAL STUDIES

- **Cultural Resources & Archeological Sites**
 - Coordinated with State Historic Preservation Office and Oklahoma Archeological Survey
 - No historic properties or archaeological sites affected
- **Tribal Consultation**
 - Completed (six Tribes)
 - Caddo Nation
 - Cherokee Nation
 - Osage Nation
 - Seneca-Cayuga Tribe
 - United Keetoowah Band of Cherokees
 - Wichita & Affiliated Tribes

ENVIRONMENTAL STUDIES

- Wetlands and Stream Impacts
 - Potential wetland/lake impacts
 - Individual Section 404 permit with Army Corps of Engineers
- Mitigation For Compensatory Storage
 - Fill in the flood pool
 - Fill in the conservation pool

The background of the slide features a photograph of a yellow boat with a black canopy, floating on a body of water. In the distance, there are rocky cliffs and a small white structure on a hill. A dark blue horizontal banner is positioned across the middle of the image, containing the text 'PROJECT INFORMATION / SH-85A' in white, bold, sans-serif capital letters.

PROJECT INFORMATION / SH-85A

PROJECT INFORMATION



CONCERNS

- Structurally deficient bridge
- Two-lane highway with no shoulders



AVERAGE DAILY TRAFFIC COUNT

- 3,300 vehicles per day, measured in 2014
- Estimated to be 4,600 vehicles per day by 2034



EXAMPLE OF A TYPICAL TWO-LANE ROADWAY SECTION



EXAMPLE OF A TYPICAL BRIDGE REPLACEMENT



BRIDGE OPTIONS

Rehabilitate on
existing alignment
(close road)

Replace on
existing alignment
(close road)

Replace on new
alignment (keep
road open)

BRIDGE OPTIONS

- Constraints

- Statutory – fill within the lake

- Environmental

- Impacts to the fishing pier

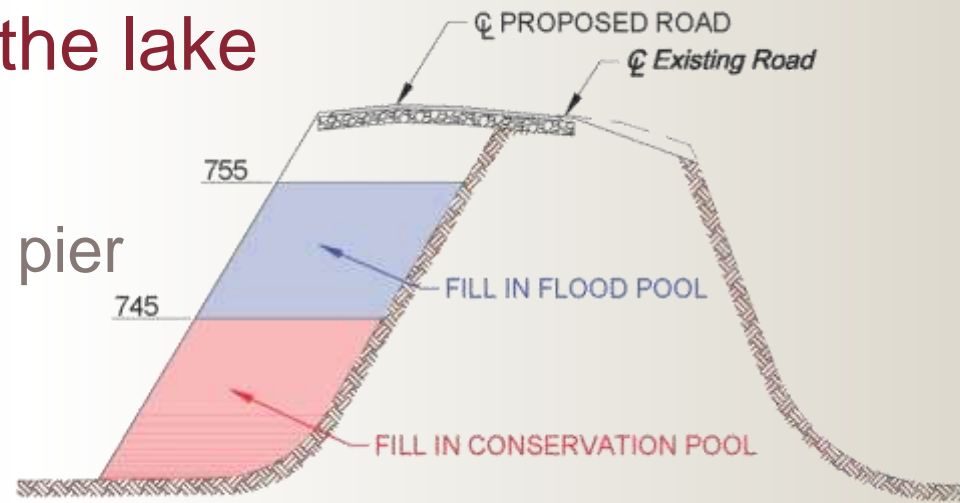
- Wetlands

- Lake habitat

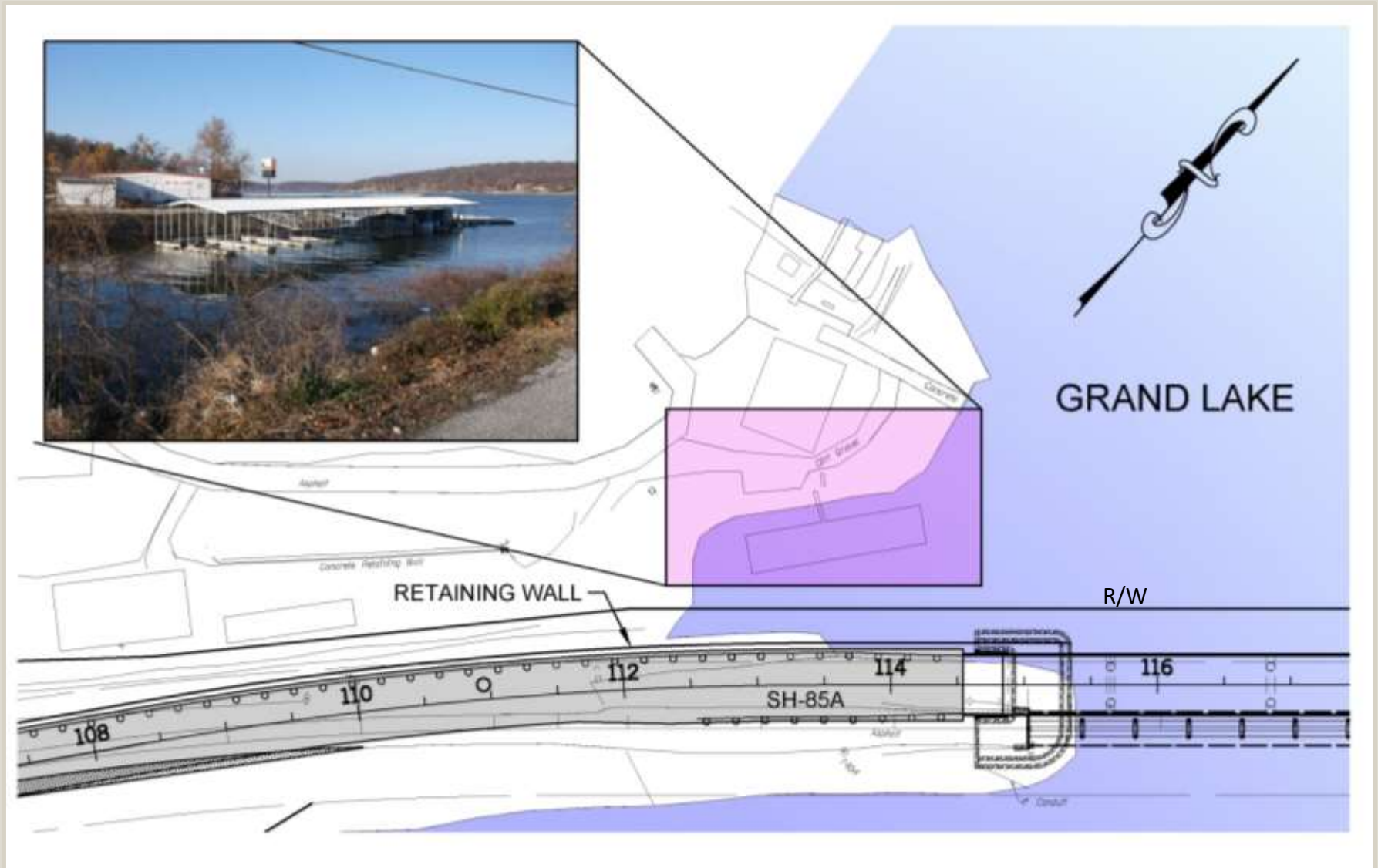
- Impacts to the local businesses

- Impacts to the state park

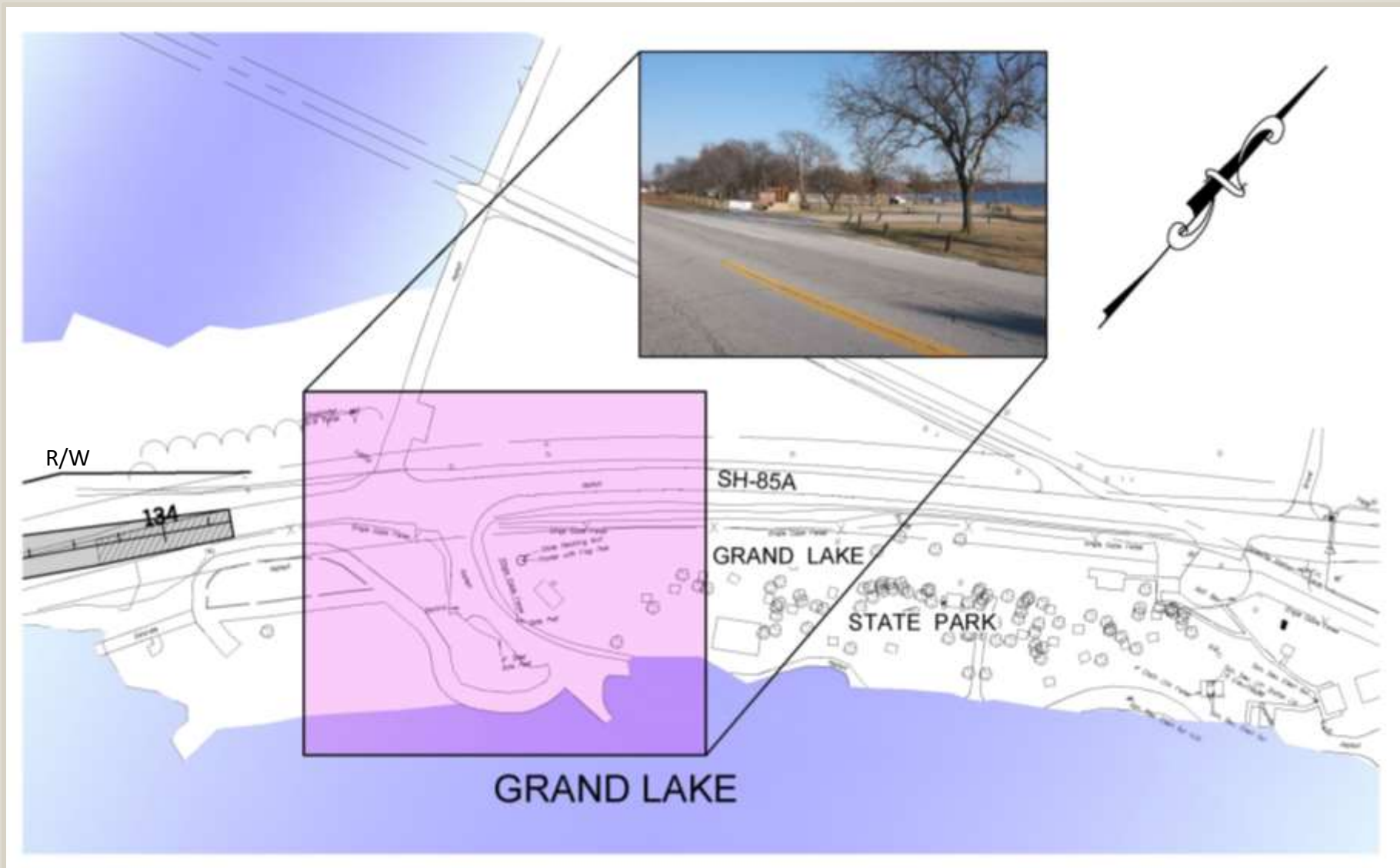
- Cost



LOCAL BUSINESSES



STATE PARK



FISHING PIER



ALTERNATIVE 1

Retaining wall – W. Causeway (north side)

Grand Lake

Section Line

Wetlands

TOE OF FILL

R/W

RETAINING WALL

Present R/W

TOE OF FILL

Present R/W

TOE OF FILL

Present R/W

Grand Lake State Park

PROPOSED BRIDGE - 44' CLEAR ROADWAY
80'-(7)120'-80' TYPE IV & TYPE J PCB SPANS

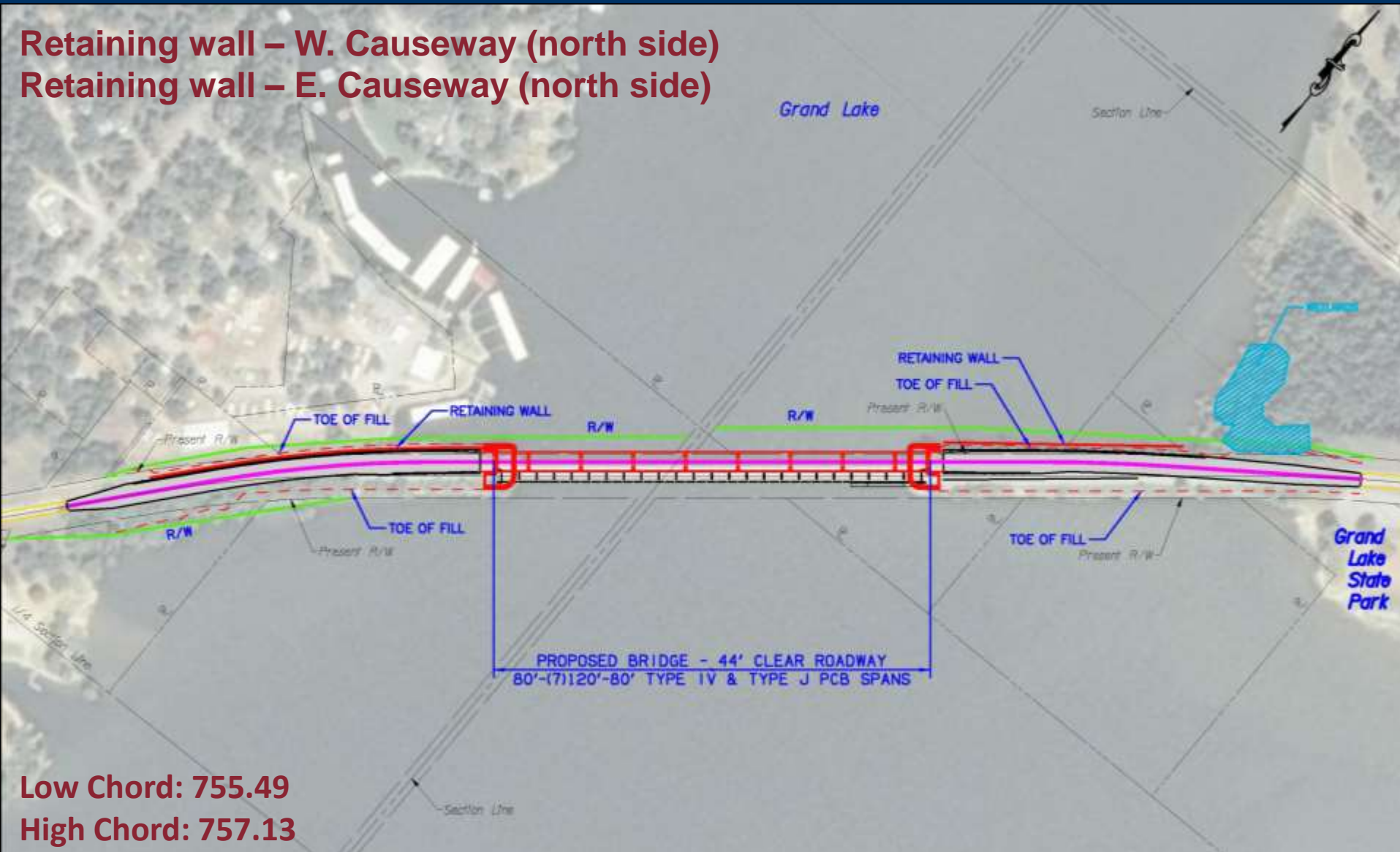
Section Line

Low Chord: 755.49
High Chord: 757.13

High Chord: 757.13

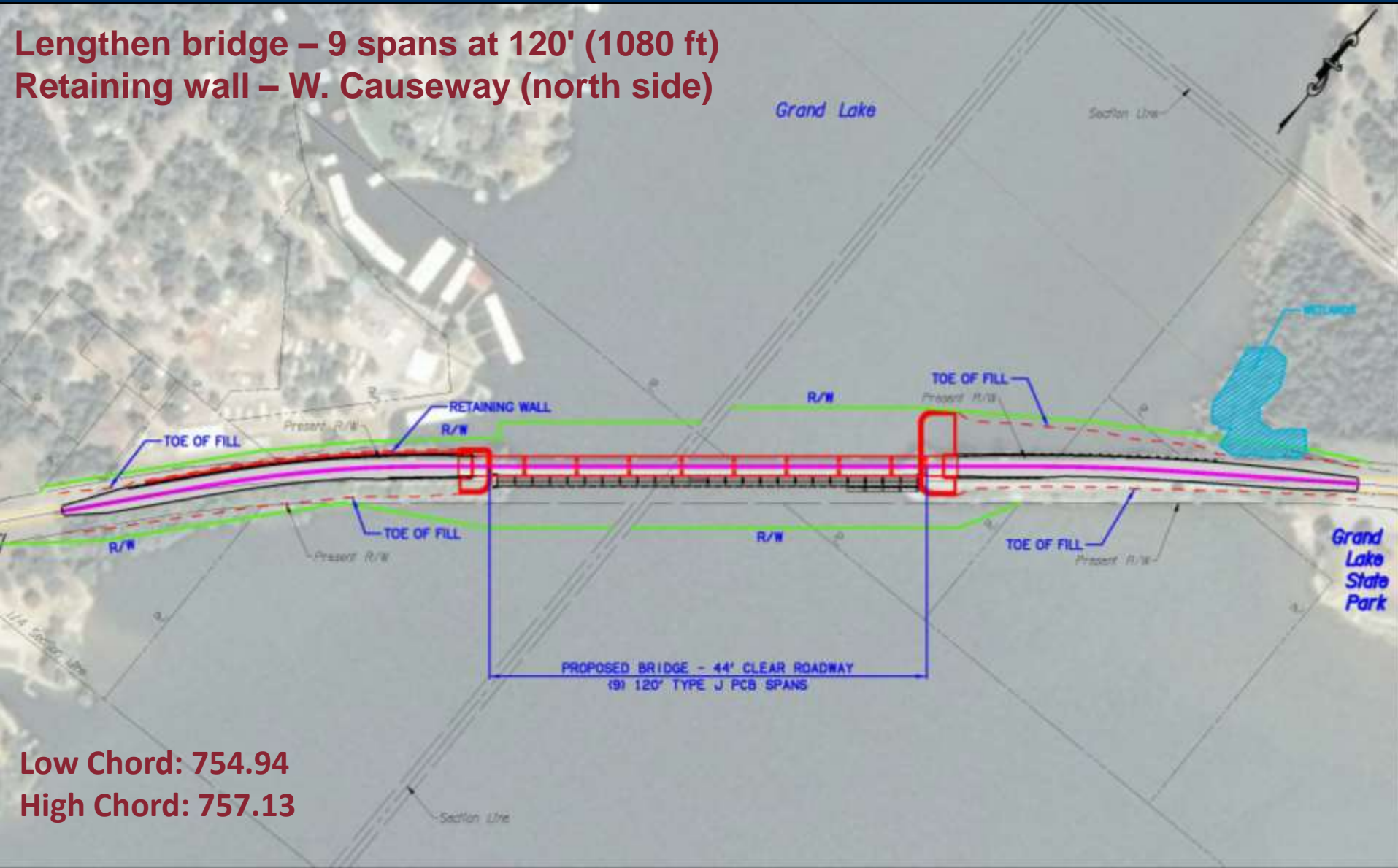
ALTERNATIVE 2

Retaining wall – W. Causeway (north side)
Retaining wall – E. Causeway (north side)



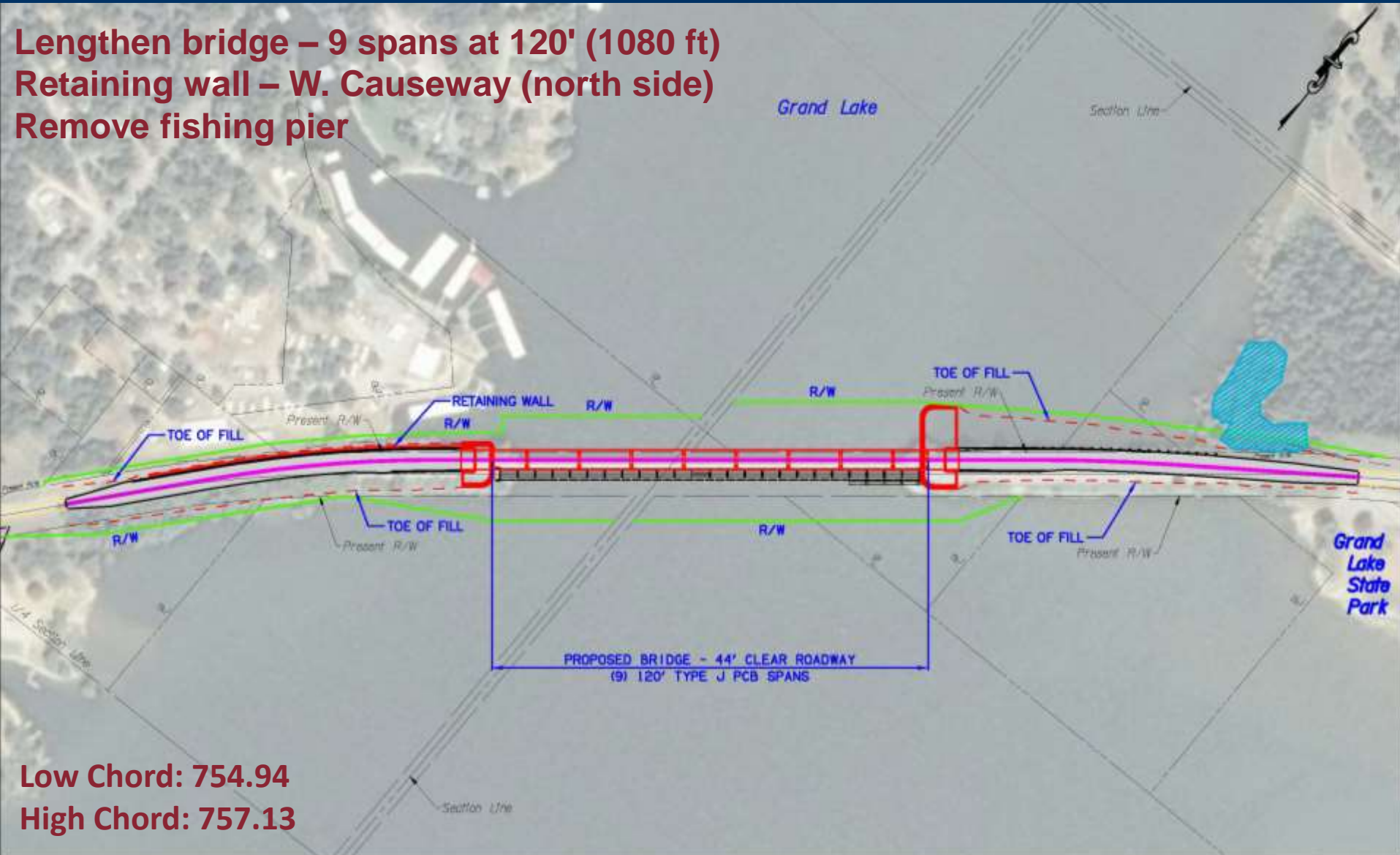
ALTERNATIVE 3

Lengthen bridge – 9 spans at 120' (1080 ft)
Retaining wall – W. Causeway (north side)



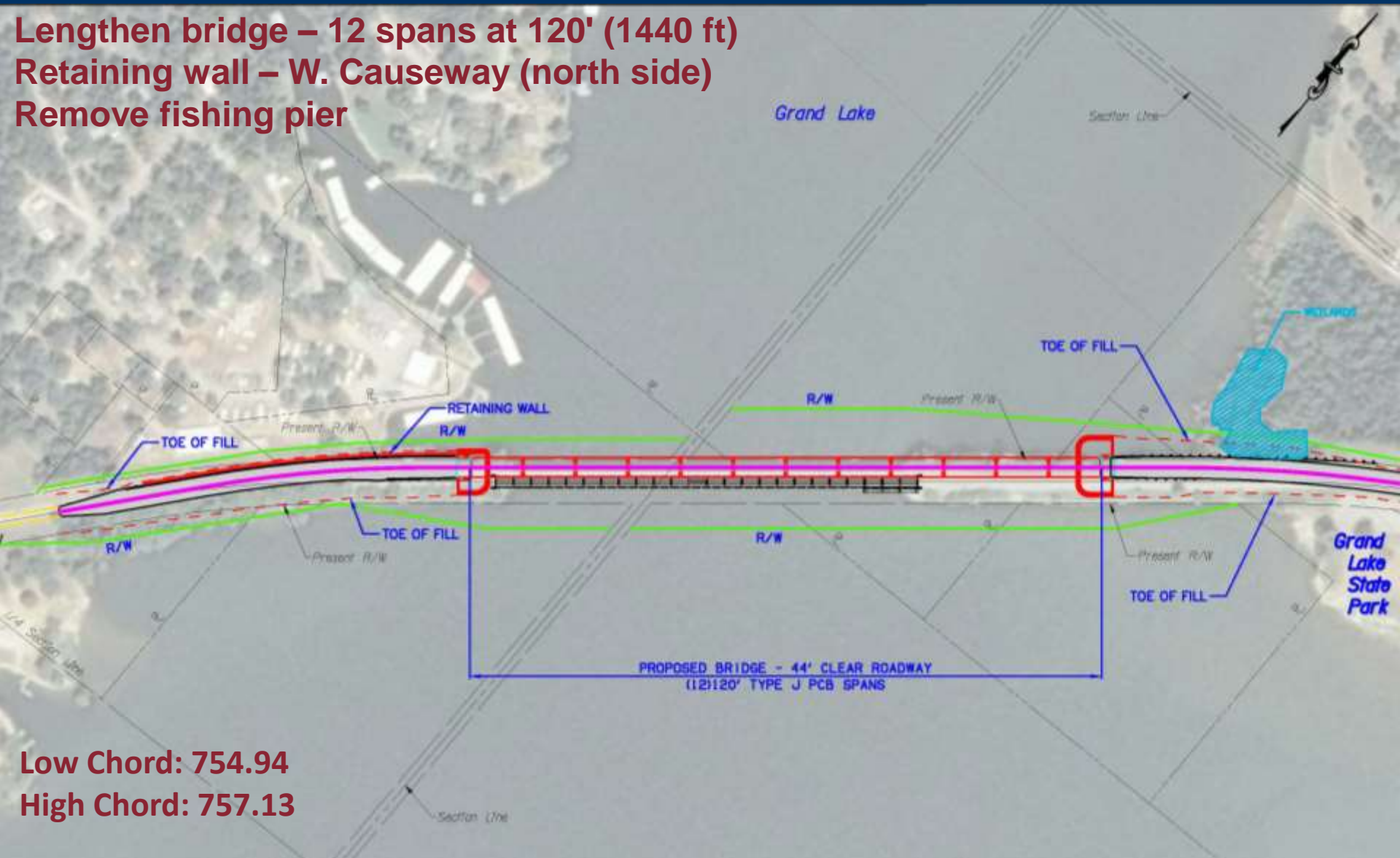
Low Chord: 754.94
High Chord: 757.13

Lengthen bridge – 9 spans at 120' (1080 ft)
Retaining wall – W. Causeway (north side)
Remove fishing pier



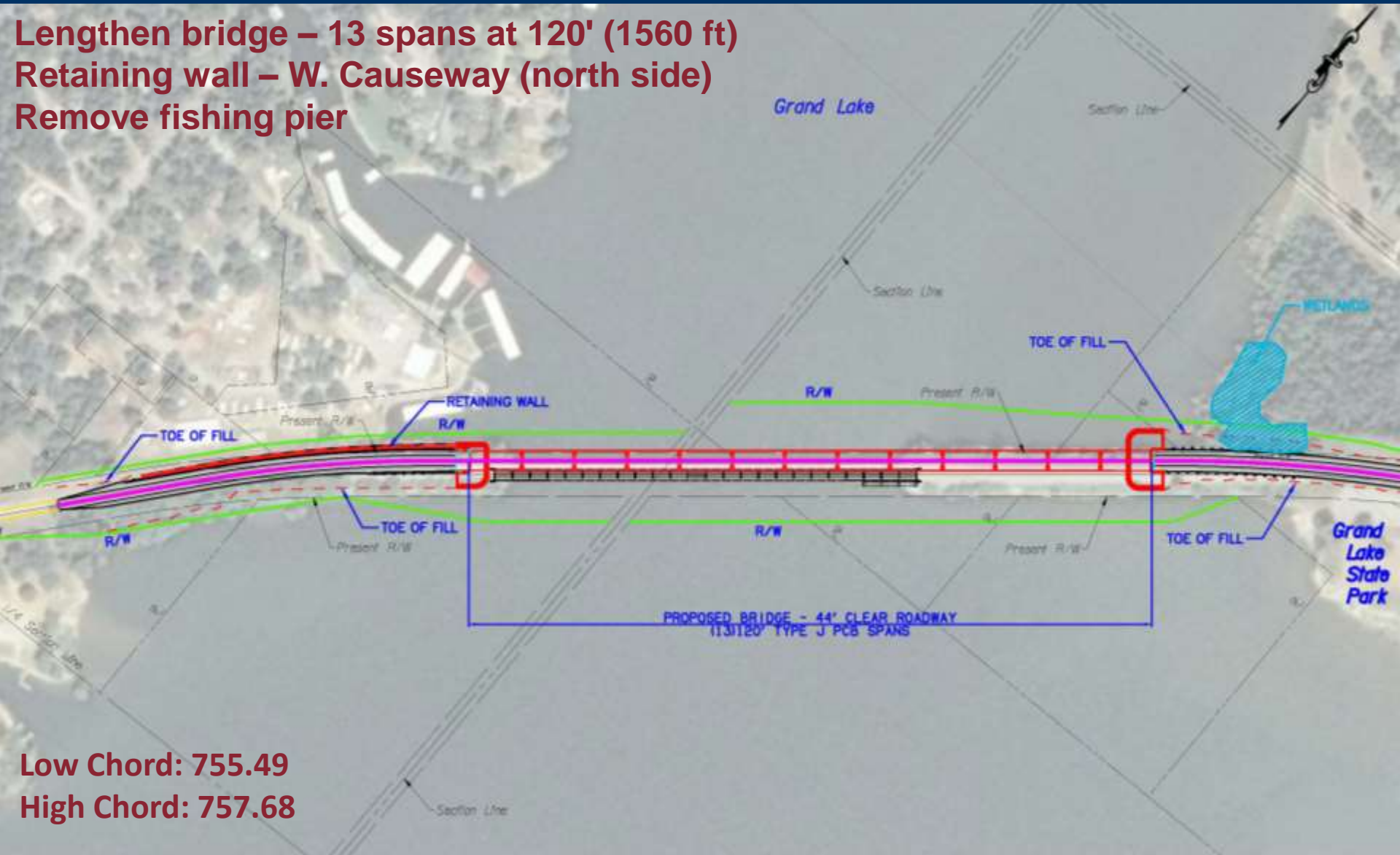
ALTERNATIVE 5

- Lengthen bridge – 12 spans at 120' (1440 ft)
- Retaining wall – W. Causeway (north side)
- Remove fishing pier



ALTERNATIVE 6

- Lengthen bridge – 13 spans at 120' (1560 ft)
- Retaining wall – W. Causeway (north side)
- Remove fishing pier



Low Chord: 755.49
High Chord: 757.68

COMPARISON OF ALTERNATIVES - IMPACTS

	Alternative 1	Alternative 2	Alternative 3	Alternative 4	Alternative 5	Alternative 6
Net Fill to Lake (overall), CY	+ 22,000	+ 10,400	+1,400	-5,000	-48,400	-53,800
Net Fill to Conservation Pool, CY	+ 7,300	+ 300	-10,800	- 16,400	- 44,300	-45,100
Net Fill to Flood Pool, CY	+ 14,700	+ 10,000	+ 12,200	+ 11,400	-4,100	-8,700
Wetlands Impacts, Ac.	0.11	0.08	0.13	0.13	0.20	0.23
Impacts to Marina	Minimal	Minimal	Currents/ waves	Currents/ waves	Currents/ waves	Currents/ waves
Removal of Fishing Pier	No	No	No	Yes	Yes	Yes
Cost	\$ 7.2 million	\$ 7.7 million	\$ 7.7 million	\$ 7.7 million	\$ 9.1 million	\$ 9.6 million

COMPARISON OF ALTERNATIVES - IMPACTS

	Alternative 1	Alternative 2	Alternative 3			
Net Fill to Lake (overall), CY	+ 22,000	+ 10,400	+1,400			
Net Fill to Conservation Pool, CY	+ 7,300	+ 300	-10,800			
Net Fill to Flood Pool, CY	+ 14,700	+ 10,000	+ 12,200			
Wetlands Impacts, Ac.	0.11	0.08	0.13			
Impacts to Marina	Minimal	Minimal	Currents/ waves			
Removal of Fishing Pier	No	No	No			
Cost	\$ 7.2 million	\$ 7.7 million	\$ 7.7 million			

COMPARISON OF ALTERNATIVES - IMPACTS

	Alternative 1	Alternative 2				
Net Fill to Lake (overall), CY	+ 22,000	+ 10,400				
Net Fill to Conservation Pool, CY	+ 7,300	+ 300				
Net Fill to Flood Pool, CY	+ 14,700	+ 10,000				
Wetlands Impacts, Ac.	0.11	0.08				
Impacts to Marina	Minimal	Minimal				
Removal of Fishing Pier	No	No				
Cost	\$ 7.2 million	\$ 7.7 million				

COMPARISON OF ALTERNATIVES - IMPACTS

		Alternative 2				
Net Fill to Lake (overall), CY		+ 10,400				
Net Fill to Conservation Pool, CY		+ 300				
Net Fill to Flood Pool, CY		+ 10,000				
Wetlands Impacts, Ac.		0.08				
Impacts to Marina		Minimal				
Removal of Fishing Pier		No				
Cost		\$ 7.7 million				

SELECTED ALTERNATIVE #2

- Replace structurally deficient bridge
 - Impact to local businesses minimized
 - Fishing pier remains
 - State park not impacted
 - Minimal impacts to wetlands and lake
- Highway reconstruction to include two 12-ft lanes with 10-ft shoulders
 - One lane traffic with signals during construction
- Total estimated project cost: *\$7.7 million*
 - Not including mitigation costs

NEXT STEPS / SH-85A



NEXT STEPS



COMMENTS

Comments are due by
February 9, 2016

- Leave your comment form here tonight
- Fill out a form online
- Email odot-environmental@odot.org
- Download form and fax to 405.522.5193
- Download form and mail to
Oklahoma Department of Transportations
Environmental Programs Division
200 NE 21st Street
Oklahoma City, OK 73015

QUESTIONS?

More information is available online:

www.odot.org/publicmeetings

