

BRAZOS RIVER FLOOD GATES AND COLORADO RIVER LOCKS (BRFG-CRL), TX

INLAND WATERWAYS USERS BOARD
MEETING NO. 100

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Galveston District
20 July 2023



Brazos River Crossing



Colorado River Crossing



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BRFG-CRL PROJECT – LOCAL, STATE, NATIONAL INTERESTS

- **GIWW is a high use waterway; Energy (Petro/Chemical and its derivatives)**
- **Upgrade infrastructure (constructed in the 1940s)**
- **Increase navigation industry efficiency:** Wider gate openings, realigned channels will allow wider tow/barge configurations, cross faster, eliminating/decreasing impact to navigation industry of \$10M+ per year, 2019 estimate
- **Increase safety:** Wider gate openings, realigned channels will eliminate/reduce collisions to gates significantly
- **Partnership efforts (GICA Captains involved; Briefings to local, state, federal governments; External stakeholder briefings)**
- **High Benefit-to-Cost Ratio (2.11 BRC; 0.58 CRC; 1.24 BRC & CRC; FY22 economics update @ 7% discount rate)**
- **Category # 2 project (authorized and awaiting construction funds)**



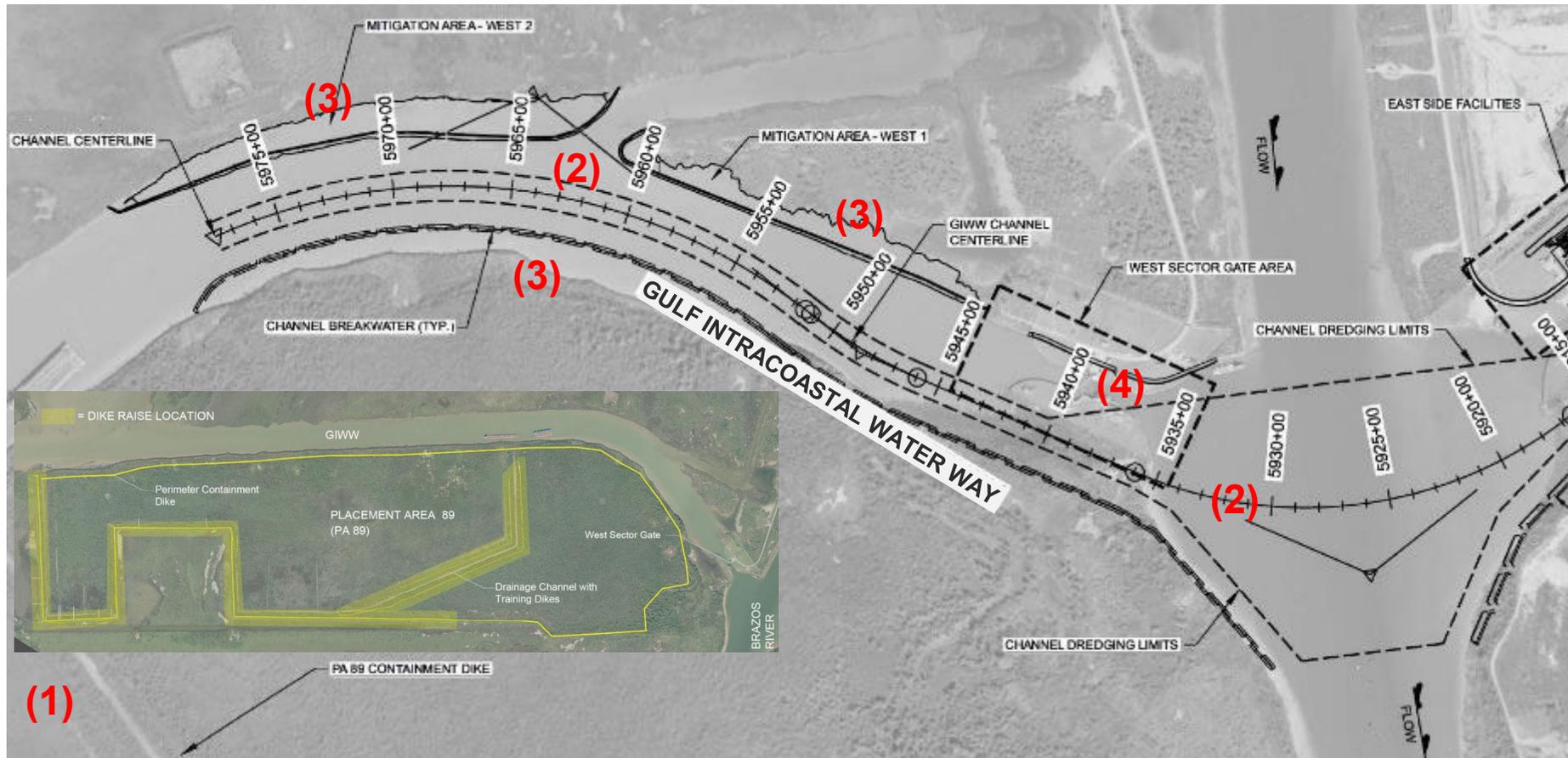
Tows must break into a single row of barges to pass narrow gates opening which creates substantial economic impacts to the industry translating into local, state, and national economic impacts.



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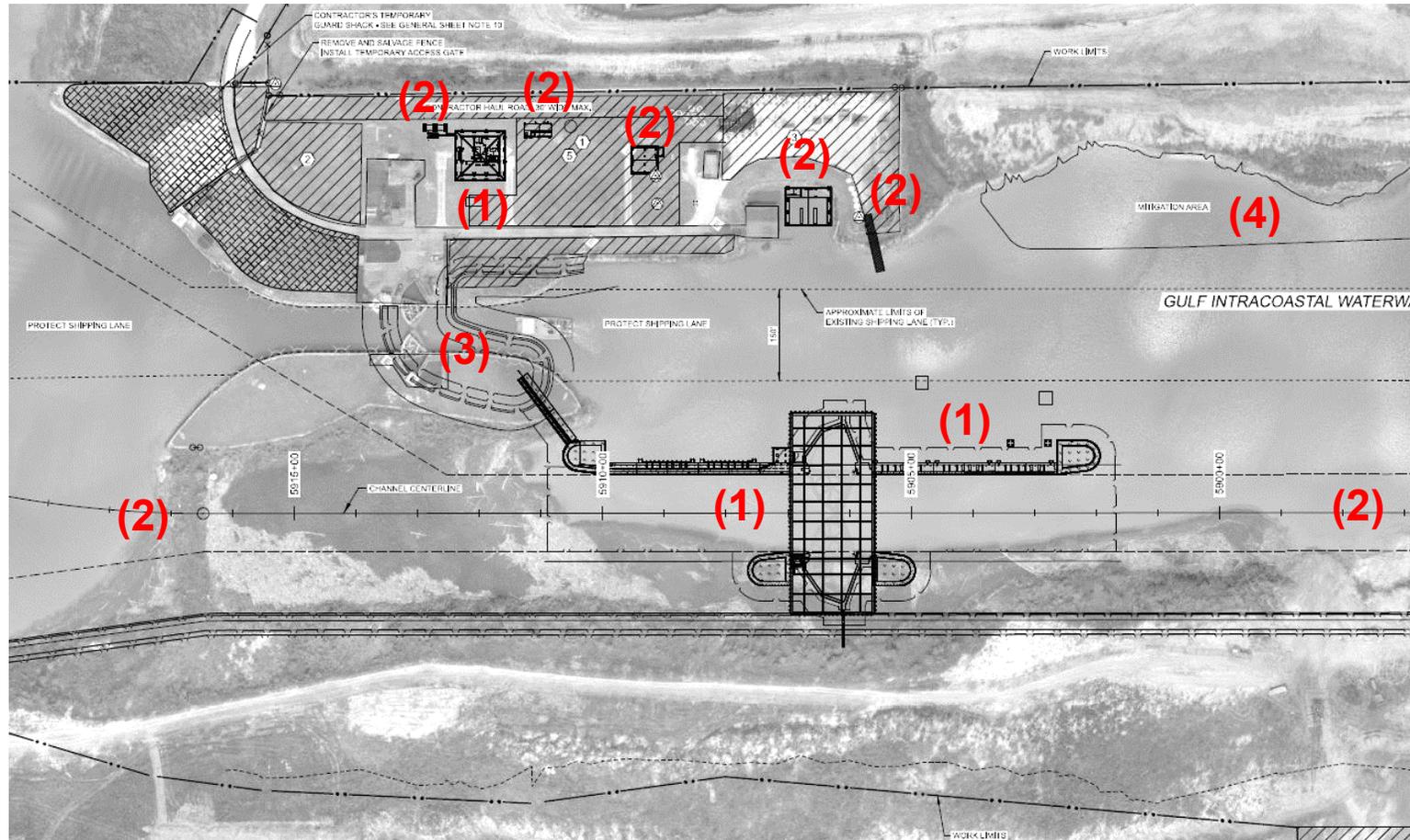
BRFG – WESTSIDE: FEATURES

- (1) PA89 Levee Raise (3 ft) and Interior Drainage Improvements
- (2) Westside New Channel and Crossing Dredging (EL -16FT)
- (3) Westside Mitigation Areas
- (4) Westside Structures Demolition



BRFG – EASTSIDE: FEATURES

- (1) Cofferdam, Sector Gate, Guide Walls, Admin Building
- (2) New Channel, Emergency Shelter, Pump House, Generator Building, Boat House and Ramp, Sector Gate Operational
- (3) Gate Removal, Access Levee, Transition Wall
- (4) Mitigation and Complete Demolitions





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BRFG: SCHEDULE AND COST ESTIMATES, AND IMPACTS/BENEFITS/RISKS

Contract	Time Estimate (Month)	Cost Estimate * (Million)	Impacts/Benefits/Risks to Navigation
1. West Side	8 – 11 Design Repackaging to Ready to Advertise (RTA)	\$1 – \$1.2	<ul style="list-style-type: none"> - Continue single row tows, with associated cost and safety impacts until both sides are completed - Reduces time to transit; realize full benefits when both sides are completed - Cost increases for East Side Contract (10% assumed; more is larger gap) - Risks for large time gap between constructions completion - Risks for extended time for smaller than anticipated benefit (efficiency, safety) to navigation industry
	29 – 40 Advertise to Construction (CONST) Complete	\$70 – \$80	
2. East Side	10 – 12 Design Repackaging to Ready to Advertise (RTA)	\$1.1 – \$1.3	
	36 – 48 Advertise to Construction (CONST) Complete	\$180 – \$198 10% Cost Escalation	
3. Current (entire facility)	44 ** Advertise to Construction Complete	\$260	<ul style="list-style-type: none"> - Realize full benefits (navigation efficiency and safety) faster than awarding smaller contracts - Avoid gaps caused by single, smaller contracts

* Construction estimates includes supervisor and administration, contingency, and other costs.

** Single contract duration estimate 39 months plus 5 advertisement

Contract	YR-1				YR-2				YR-3				YR-4				YR-5				YR-6				YR-7								
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4					
1				Repack to RTA	ADV to CONST																												
2															Repack to RTA	ADV to CONST																	
Current					ADV to CONST																												

ALTERNATIVES / OPTIONS

1. Keep a single, fully-funded contract (preferred)
2. Keep a single, partially-funded contract with use or continuing contract clause authority to fund incrementally toward completion
 - HQUSACE and ASA(CW) approvals needed
 - Fully-fund westside work first and continue funding contract for eastside feature
 - Avoid gaps caused by single, smaller contracts
3. Two smaller contracts (West Side, East Side)

NOTE: A single contract, fully-funded or incrementally-funded, will eliminate time and costs in design repackaging, reviews, certifications, and advertising actions explained previously for any future smaller fully-funded contracts. A single contract will address the two key objectives for the project (navigation safety and efficiency) sooner than separate smaller contracts.

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CLOSING

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Colorado River Locks



Brazos River Flood Gates



Tows must break into a single row of barges to pass narrow gates opening which creates substantial economic impacts to the industry (\$10M+, 2019 price level) translating into local, state, and national economic impacts.



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