



16 March 2022  
 TO: Mayor and City Council members  
 Update on Bailey Road expansion project (additional bridge lanes over railroad tracks). Noting issue with Corps of Engineers that needs working through. Clay

# Bailey Road Expansion (Veterans Dr to Main)

Is it in Budget?		Is it on Schedule for the Current Phase per the Contract?		Community Benefit
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
<b>Project Phase?</b>				
Engineering/Design				

## Highlights:

- Phase 1 of the Bailey Road expansion, Veterans to FM1128, was substantially complete in August 2017. This phase of the project diverted a portion of Cowart’s Creek (the roadside ditch) to a new route constructed by Brazoria Drainage District #4 (Cowart’s Creek Diversion Ditch). TxDOT Environmental applied for and was granted a Categorical Exclusion for that portion of Cowarts Creek within the limits of the project. Despite this prior exclusion, the US Army Corps of Engineers (USACE) current determination for the remaining portion of Cowart’s Creek, between Wells Dr and Veterans Rd, is protected and a navigable Waters of the U.S. Freese & Nichols (FNI) has submitted a similar request for this remaining portion of Cowarts Creek and is awaiting USACE’s re-evaluation.
  - Under the current determination, any work performed within the drainage ditch would need to be 100% mitigated via purchase of stream mitigation credits, only available in the Katy Prairie Stream Bank. This purchase would require 150% of the length of original stream, since the bank is in a secondary service area, estimated at approximately \$8M.
  - Staff is working on two options:
    - A) Realign Cowart’s Creek south of the existing alignment. Requires the purchase of additional Right-of-Way south of the existing roadway where the ditch would be relocated
    - B) Pursue the Categorical Exclusion through USACE. The application has been submitted and is pending Corps’ comment
- An amendment was fully executed in December 2021 and issued to FNI for additional survey services to re-establish horizontal control, obtain spot elevations between Veterans Dr and Wells Rd on the land along the southern Bailey Rd right-of-way (ROW), and to produce cross-sections of the existing detention ponds in the southwest corner of Wells Rd and Bailey in preparation for Option A above.
- BDD4 will be sharing in the costs associated with the proposed ditch relocation by providing labor and equipment needed to excavate the 2,300 linear feet and backfill the existing ditch. This option would save the project money by not installing the underground box culvert drainage system.
- The USACE permitting requirement has delayed the project by 12 months to date.
- The budget for future expenditures shown below accounts for the cost impacts of the delayed construction schedule, as well as the cost of the potential design amendment and land acquisition needed to complete the creek relocation. This is well within the voter authorized bond amount that has been significantly reduced since approval.



**Budget Info:**

Funding Sources	Series	To Date	Future	Total Budget
General Revenue - Cash				-
Certificates of Obligation				-
Certificates of Obligation				-
General Obligation Bonds	2020	1,360,000		1,360,000
General Obligation Bonds	TBS 2022	7,000,000		7,000,000
General Obligation Bonds			5,099,000	5,099,000
W/S Revenue Bonds				-
Impact Fee - Debt				-
Other Funding Sources				-
<b>Total Funding Sources</b>		<b>8,360,000</b>	<b>5,099,000</b>	<b>13,459,000</b>

Expenditures	To Date	Future	Total
PER			-
Land		1,000,000	1,000,000
Design	1,100,851	148,284	1,249,135
Construction		9,550,000	9,550,000
Construction Management/Inspection		380,000	380,000
Construction Materials Testing		200,000	200,000
FF&E			-
<b>Total Expenditures</b>	<b>1,100,851</b>	<b>11,278,284</b>	<b>12,379,135</b>

<b>Project Contingency</b>	<b>8%</b>	<b>1,079,865</b>
<b>Project Balance</b>		<b>-</b>

**Schedule Info:**

	<i>Base Line</i>	<i>Current</i>
<i>Design Start</i>	August-19	October-19
<i>Bid Start</i>	June-21	September-22
<i>Construction Start</i>	November-22	
<i>Construction Completion</i>	November-24	

**Upcoming Work Items:**

- BDD4 has provided preliminary approval on the proposed cross-section of the proposed creek relocation, which will be submitted to USACE once survey has been finalized and all parties agree with design specifications. The plan is being developed in case the USACE does not grant a Categorical Exclusion.
- FNI and Staff will continue to meet with USACE and BDD4 to finalize design of the cross-section. Once permitted by USACE, FNI will resubmit 90% design documents for City review and approval.



If necessary, to proceed with the creek relocation, FNI has submitted a proposed amendment to revise the road alignment design and construction documents which contains 18-weeks of additional design time.

- Key changes and additional services are:
  - A short run of dual 8'x5' box culverts will tie-in to the existing headwall East of Veterans Drive to redirect flows into the relocated channel that consists of a 12-foot bottom and 4H:1V slopes.
  - Existing storm sewer outfalls along Bailey Rd will be extended further to the south to the newly relocated ditch.
  - The relocation of this channel will encroach on existing adjacent detention ponds and will require regrading as well as new drainage calculations to be computed. In addition, the H&H analysis will need to be revised and the drainage report resubmitted to BDD4.
  - Geotechnical borings, to include land clearing and grubbing to accomplish task, and lab testing of existing and proposed ROW. (Geotech has proposed 5 weeks to complete report from notice to proceed).
- Staff will delay a request for Council approval of any re-design efforts until USACE determination has been finalized.
- Once approved, the 90% submission is expected within 18-weeks. Following Staff review and comment, the 100% set will be submitted 24-weeks after amendment is executed.
- After acceptance by the Technical Review Committee, and signature of the City Engineer, the bid documents will be published at 28-weeks from issuance of amendment.
- If creek relocation is the path forward, the USACE permit approval is anticipated to take 8-14 months from submittal. Construction Phase is to begin no later than October 2023 and will reach substantial completion in March 2025.
- If the Categorical Exclusion is approved, FNI will proceed with submission of the 100% set, followed by the City's standard Technical Review Committee acceptance, bid phase and construction award process. Construction phase is anticipated for two years.

**Project Manager:** Morgan R Early

**Construction Manager:** N/A

**Designer:** Freese and Nichols, Inc.

**Contractor:** N/A

**Scope:** This project consists of widening the current two-lane roadway and railroad overpass segment between Veterans and Main (SH35) to a four-lane boulevard section to match the existing roadway cross-sections to the east and west. This 2019 Bond project will include the addition of a new above grade crossing over the railroad to achieve the desired ultimate width as required in the Thoroughfare Plan. The project will also include drainage improvements and the expansion of the current 6' wide sidewalk to a 10' wide shared-use path. These improvements will provide improved vehicular and pedestrian mobility in the east/west corridors by completing the four-lane boulevard from Main (SH35) to SH288 with adjacent shared-use path.

**Justification:** Bailey Rd is identified as a Major Thoroughfare and has been on the City's Thoroughfare plan for many years. This project will widen the final segment to the ultimate lane configuration as planned to match the existing cross sections of Bailey Rd. The project will improve traffic reliability along the corridor, and overall mobility throughout the City by completing the four-lane segment across the southern portion of the City.

**Previous Memos:** 07/25/19, 06/11/20, 11/05/20, 02/25/21



### Project Location Map:

