



# MEMORANDUM

TO: St. Mary's Church  
FROM: L. Chmielowski  
DATE: 3.22.24  
SUBJECT: St. Mary's Master Plan Conceptual Cost Estimate

---

The purpose of this memorandum is to provide conceptual level cost estimates for the St. Mary's Concept Master Plan.

The conceptual cost includes the earthwork to develop the buildings, roadways, and utilities as shown on the draft master plan. The following are the assumptions made for the cost estimate:

- Pavement and Sidewalks
  - 3-inches AC, 3-inches LC, 12-inches Type IIA, and 60-inches of Type II, with geotextile fabric at the bottom. Curb and gutter is also included.
- Buildings:
  - 60 inches of excavation and backfill with Type II, with geotextile fabric at bottom of hole.
- The cost does not include potential disposal cost if the contractor has to take material off-site.
- The cost estimate does not include site lighting or landscaping.
- The conceptual cost does not include design and permitting fees.

The following is a summary of the grading and utility design:

## **Grading and Earthwork:**

The property slopes from east to west at grades ranging from 10 to 20 percent. The west side of the property is flatter. Due to the existing slopes, retaining walls are expected in various locations to properly place buildings and parking lots.

Stormwater that falls on the site drains towards the wetlands near Fish Creek. Development of the property is expected to disturb approximately 7,700 sf of the wetlands. Further, the wetlands can be used as a discharge point from the property for stormwater control. Disturbance of the wetlands will likely require compensatory mitigation.

We have assumed \$85,000 per acre of disturbance for the concept cost estimate. The assumed cost is based on recent cost to purchase credits from the local land banks. It is important to note that the cost is determined by the land bank and can change at any time. Recently, the U.S. Army Corp of Engineers (USACE) has used a 6 to 1 ratio for mitigation. For example, for every acre disturbed, the cost is approximately \$510,000. The final mitigation will be unknown until a wetland permit is submitted and approved by the USACE.

It is assumed the soils on site are poor quality and excavation for the road and building footprints will be required. Clean material will be imported to create a non-frost susceptible and free-draining subgrade beneath the driveway, parking lots, sidewalks, and buildings.

**Utilities**

Each building will need a water and wastewater service. The wastewater system for the site requires a lift station to pump the effluent uphill to connect to the public wastewater system located in Cassin Drive. Building A, B, and C will drain to a central point by gravity at the bottom of the hill, then the lift station will pump the waste uphill to a segment of wastewater pipe that can drain by gravity into the public system. The lift station will have a duplex pump system but will be sized to only need one pump to operate. The two-pump setup allows the lift station to handle flows greater than the peak design flow, if needed, and allows one pump to remain on line and keep the system running when maintenance is required. Water services are planned to connect to the service line that currently serves the Thomas Center. One water service line will extend north to supply Building A and a fire hydrant. The second water service line will extend west to supply buildings B and C and two fire hydrants for each of those buildings. During design, the water and sewer service lines will need to continue to be coordinated with AWWU.

Based on the above information the estimated cost, including a 25 percent contingency is as follows:

Earthwork	\$4,100,00
Utilities	\$2,200,00
<b>Subtotal</b>	<b>\$6,300,000 (includes 25% contingency)</b>
Wetland Mitigation (0.18 acres)	\$92,000 (assumed 6:1 ratio)
Civil and Landscape Design	\$100,000
<b>TOTAL</b>	<b>\$6,500,000</b>