

MEMORANDUM

To: Mayor and Town Council
From: Maurice Jones, Town Manager
Mary Jane Nirdlinger, Deputy Town Manager
Dwight Bassett, Director of Economic Development and Parking Services
Amy Oland, Director of Business Management
Date: November 16, 2022
Subject: Rosemary Parking Deck Update and Project Authorization Increase

Summary

- The Rosemary Parking Deck required a change to the design due to unforeseeable underground soil conditions.
- The change to the design is a new foundation system (micropiles) that will bridge the gap between the bottom of the deck and the stable bedrock, which was substantially lower than anticipated by the site testing performed before construction.
- The new foundation system increases the project costs, and this change also impacts other, related parts of the project, including pre-cast concrete, footings and re-design costs. The change creates ripple effects due to schedule delay and price escalations in the global construction market.
- Town staff has worked with the contractor (Samet) and a third-party reviewer (Walker) to examine the change and associated costs, and to anticipate future costs for the project.
- Tonight's information is an update based on the best information available at this time, recognizing that certain elements cannot be fully known until later.
- The current estimate is for the Deck to open for operations in late October 2023.

Recommendation

Staff recommends increasing the project authorization by up to \$9 million to cover the known and anticipated cost increases. Our intent is to only release authorization for anticipated costs as they are documented, reviewed, and agreed-upon by our staff and third-party review team.

1. Background

Before Samet bid on the project, a standard geo-technical exploration of the site was conducted by SM&E, a geo-technical company. Their report, which sampled areas of the open parking lot and the perimeter of the old parking garage, concluded that bedrock was at a certain depth and that a shallow foundation on bedrock was a reasonable way to proceed.

The design team proceeded based on those assumptions and the Guaranteed Maximum Price (GMP) Bid (by Samet) for construction was based on that design.

As excavation of the site began, the areas where the testing anticipated bedrock turned out to have large boulders, which can appear to be bedrock, but are not suitable for foundation support.

Additional samples were taken, as recommended by SM&E, and a thorough profile of the subsurface rock was developed beginning in February 2022.

Based on that extensive rock profile, the contractor and design team, which includes the architectural and engineering professionals, evaluated several construction options. There was consensus in June 2022 that using a micropile foundation system was the most efficient way to build the deck, and the most cost-effective method, despite the significant increase in project cost.

Revision was expedited, and the team began soliciting cost and schedule information from sub-contractors in August 2022. Initial project commitments to the new design were begun in October 2022, with initial change-orders for the micropile materials and labor. The process of developing and reviewing cost and schedule impacts will continue through the end of the project.

The Town staff and third-party consultant (Walker) have reviewed the timeline of activities prepared by Perkins & Will (Designer) and concluded that the process for testing the sub-surface geotechnical conditions was done according to standard practices and that the design direction was reasonable, given that information. Had the design team had a thorough rock profile at the time of design and bid, the project would have been designed and bid with those conditions, and micropiles would have been the likely design direction with a higher cost.

Once the condition was known, it was clear that stopping the project or spending a prolonged period litigating the change would have most likely resulted in substantial cost increases and a delay in the construction, both of which have negative implications for the Town, as well as the other projects that are pending in our Downtown.

The current construction environment is especially challenging. Fuel costs have fluctuated, and certain materials, such as the steel casing for the micropiles and the rebar for the concrete elements of the project, have been particularly difficult to purchase due to lack of supply. Furthermore, labor costs continue to increase and specialty skills and equipment are often difficult to acquire and schedule. The combined effect of these conditions has been to drive other costs up, some of which would have happened regardless of the foundation redesign.

There was a strong consensus between staff, Samet, and Walker that moving the project ahead as quickly as responsible was a priority.

2. Financial Impacts

The financial status of the project can be grouped into two categories: known costs and allowances and exposures and fees.

Known costs

The contractor moved early in the project to solidify certain elements of the project as they were bid out, including purchasing plumbing and electrical supplies and other materials where cost increases were likely. Those materials have been stored for use.

Based on the foundation redesign, the contractor bids out elements of the redesign as they are finalized. Once they are contracted for, those costs are known to the project.

The known additional costs include:

Known Costs	
Micropile Materials	\$1,400,000
Micropile labor and equipment	\$2,048,024
Cast-in-place concrete foundation & walls (ARW)	\$1,544,000
Rock Profiling Cost associated with ASI #08	\$17,686
ASI #08 Test Digging for GeoTech observation	\$1,858
Water meter required for ASI #08 onsite grout plant	\$10,867
Actual Mass rock excavation thru June	\$108,248
Additional excavation required for ASI #08 micropile installation	\$256,500
Total	\$5,387,183

Allowances and Exposures and Fees

Allowances and Exposures are costs that are not yet known, but where we are likely to have additional costs. They are tracked by the project team and committed to only with Town approval and third-party oversight. There are also support costs for fees, insurance, bonds, and other requirements for construction.

Samet has agreed to forego their standard 4% fee for the change order, and we plan to apply the current \$391,000 project contingency to the Allowances and Exposures, although we realize that projects inevitably have unexpected additional costs during construction.

Allowance and Exposures and Fees	
Allowance and Exposures	\$2,769,471
Design Fees and oversight	\$200,000
Legal fees	\$20,000
Contractor fee 4%	-\$300,000
Bonding/Insurance/General Conditions	\$938,702
Total	\$3,628,173

Contingency

The project has approximately \$391,000 in remaining contingency and contract allowances, which will be applied to the Allowances and Exposures.

Summary of Project Cost	
Known costs	\$5,387,183
Allowances and Exposures	\$3,628,173
Contingency	-\$391,000
Project Increase	\$8,624,356

- **We recommend increasing the project authorization by \$8.63 million to cover the change to foundation and associated changes, including allowances and exposures.**
- **We also recommend giving the Town Manager the flexibility to respond to further unforeseen conditions that may arise between now and the completion of the deck by allowing an additional increase up to \$9 million, with full information sharing with the Council.** This would provide about a 5% contingency which is recommended by the project team as a standard practice to cover any foreseen conditions.

Any unused allowances, exposures, or contingency funds would be unspent and would potentially release the debt capacity for use on other Town priorities at the completion of the project.

3. Value Engineering

The Town staff, design team, and contractor reviewed the outstanding options for value-engineering on the project, but most of those changes would create higher future maintenance and operation costs, or they would have changed the signature tree panel design element, or eliminated the green wall, which was required by the process approvals. Since the savings would have been relatively small (approximately \$250,000), these were not recommended by the design team or Town staff.

We may continue to explore a material substitution for the Stainless-Steel railings, but that will not be a significant cost savings (<\$100,000).

4. Funding

The best option for the Town to handle the project increase is to cash flow the expenses for now and reimburse the additional project costs once the total is known with a future borrowing.

Other options would be to borrow additional funds now, or cash flow all costs from the debt fund. Staff would not recommend an additional borrowing until the current borrowing is fully committed, and cash flowing all costs from the debt fund would delay projects that are already moving forward.

Excess project costs can temporarily be paid from Debt Service fund balance which allows the staff time to determine actual project costs beyond the known costs and to limit a future borrowing to only what

is necessary. This strategy also expands our borrowing options to include Limited Obligation Bonds (LOBS) combined with the Municipal Services Center (MSC) issuance and installment financing.

Payoff and Debt Capacity Impacts

The Town has the capacity to absorb this change with the existing Debt Service capacity that resulted from project borrowing delays (streets and sidewalks & affordable housing bonds now planned for winter 2023 and Municipal Services Center now planned for late 2023/early 2024) and by delaying the start of new, unfunded, or previously unplanned Town projects until the debt fund can accumulate the additional debt capacity for borrowing.

Payoff impacts scenario:

- Positive annual cash flow from the deck could be pushed to FY 2029 vs FY 2023. This means that the first year that annual revenues will exceed annual expenditures is projected to be FY 2029.
- FY 2036 vs FY 2026 for positive cumulative cash flows. This means that it will be FY 2036 when the sum of all revenues from the opening of the deck less the sum of all expenditures from the first debt payment made during construction of the deck will be positive going forward. The Debt Service fund will be absorbing the cost of borrowing for the Rosemary Parking Deck until the deck is open, generating revenue, and able to repay the early year excess costs.

Debt capacity impacts scenario:

- Debt ratios (10-year payout, Debt to Assessed Value, and Debt Service to Expenditures) will be higher than policy level for 3-5 years.
- May postpone ability to finance additional projects by 3-5 years.

Revenues

Other strategies that Town staff will explore as the construction continues include reviewing the leasing and payment structures for the deck once it opens and negotiating with projects in the pipeline to assure that the revenue strategy maximizes the benefits of the project to the downtown while accelerating the payback schedule on the additional debt.

Town management and parking staff evaluated our fee structure prior to Council proceeding with the East Rosemary Parking deck. Systemic changes were made to help produce more income and make sure the enterprise fund moves toward self-sufficiency.

Changes made in recent years to parking operations:

- Removed the Parking Fee chart from the budget process so that we are on a path to market-based parking.

- Changed our monthly parking fees to 12-hour increments to improve income from these users. This also prepares us for a shared parking system when we have a balance between residential and office users.
- Committed to over-leasing our monthly parking spaces to maximize income.
- We are also collecting and sharing data to better monitor our overall parking system and to better manage the overall system.
- We are in an aggressive mode of promoting our parking system through social media, ads, and stories around our parking system. The goal is to gain better occupancy on underperforming lots and the encourage higher utilization of all parking spaces.

Conclusion

The increased costs for the project can be handled by the Town with the strategies and impacts identified above. The Deck continues to be a critical element of the overall vision for downtown Chapel Hill, and the Town has mechanisms in place to absorb the additional costs by deferring unfunded projects. Town staff will continue to explore options for revenue generation and return to Council with further recommendations as appropriate.