Historical Context

The City Center Utilities Relocation (CCUR) contract was conceived following the cancellation of the City Center Guideway & Stations (CCGS) Design-Build (DB) procurement in August 2017. At that time, the CCGS procurement was inclusive of the design and construction activities to relocate utilities in City Center to make way for the construction of the guideway and stations. As with all DB procurements, designs were incomplete and left to the contractor for development and completion.

The CCGS procurement was cancelled primarily due to lack of funding, as the Special Session of the State Legislature to develop a gap funding plan for the Project was not completed until September, 2017 with the signing into law of Act 1, followed by action by the City Council and the Mayor to authorize the collection of additional GET (and TAT) funds for the Project. Also, two of the three bidders on CCGS dropped out of the procurement for various reasons. With the cancellation of the CCGS contract, and facing a re-procurement of several months, HART Staff contemplated the formation of a new contract to commence work on utility relocation as soon as possible, following the successful implementation of advanced utility relocation work in the airport area. From this, the concept of the CCUR contract was developed.

HART had already been working for some time on “Cost-to-Cure” activities in City Center which involves acquisition of needed properties, “re-facing” of some structures and other preparatory work along the right-of-way. HART also carried out several tasks to identify the locations of underground utilities, including exploratory drilling and sonar “pinging.”

Given that utility relocation plans, designs and quantities of utilities along the City Center corridor had not yet been fully developed, HART adopted the contract model known as “Indefinite Delivery, Indefinite Quantity, or “IDIQ” as a contract model that could allow the utility relocation work to commence without these needed elements being fully developed. The contract was structured with a series of “task orders” which would be let in piecemeal fashion to the chosen contractor, who would only start work when issued a task order and, if any obstacles were identified, the work could stop without claims and proceed on other work on other task orders. In this way, risks associated with underground work could be mitigated, claims and change orders would be avoided, and the Contractor would only be paid for work completed and not for delays.

The CCUR procurement resulted in a contract award to Nan, Inc. in May 2018 and an initial set of task orders were established with Nan starting actual construction work in September, 2018.

At the same time, HART Staff initiated a “Tiger Team” to dig deeper into design requirements for the utility relocation with a specific goal of finding work scope that could be eliminated and thereby saving
cost. The Tiger Team was able to find certain scope reductions, but others had to be rejected due to implications on follow-on work as well as impacts in other areas which would not be acceptable to third party utility providers as well as to the FTA.

By February, 2019, while the IDIQ CCUR contract did allow work to start in City Center which otherwise would have not happened, HART identified that an accelerated execution plan was needed as the IDIQ contract was not able to produce work fast enough given the constraints of the third party utilities, City permits limited to night work only, and limited road space in which to work. By May 2019, HART had identified that a pace of 60 feet per day would be necessary to meet budget and schedule requirements, necessitating the need for City permits allowing 24 hour construction activities, as well as the necessity of providing more road space to Contractors via the implementation of controlled lanes on Dillingham Blvd with one lane open in each direction at all times. In the meantime, designs continued to progress to the 90+ percent point allowing the establishment of controlled access in Area 1A with such access still pending in Areas 1B and 1C.

**CCUR Estimate at Completion (EAC)**

With the initiation of the accelerated Execution Plan for CCUR, HART ED-CEO Andrew Robbins commissioned HART Staff to begin work on a comprehensive review of both schedule and budget for CCUR. The schedule identification was very important not only to confirm how it would fit into the overall schedule for the entire Rail Project, but also to allow the communication of key access dates to the follow-on CCGS (P3) contractor. This work is now completed and supports the overall Rail Project program goals.

Attention was then turned toward developing a comprehensive “Independent Cost Estimate, or “ICE”” to identify estimated costs at completion to be used to manage the CCUR program. The ICE will then be used to establish, develop and track key performance metrics, to develop cost mitigation strategies, and to negotiate needed contract provisions.

A “bottoms-up” quantity and production-based estimate utilizing the latest CCUR execution plan was developed based on two methodologies, “Option 1”, continuing with the current “CCUR#1” contract with Nan, Inc., and “Option 2,” an alternate delivery approach by introducing a “CCUR#2” contract based on public procurement and inclusive of the fact that designs have now progressed to allow for more precise price bidding.

**Results**

1. The ICE performed based on “Option 1” results in a current “Snapshot” EAC of $640 million total for CCUR vs. the current CCUR#1 contract of “not to exceed” $400 million.
2. The ICE performed based on “Option 2” results in a current “Snapshot” EAC of $540 million total for CCUR vs. the current CCUR#1 contract of “not to exceed” $400 million.
HART Staff has identified the major cost drivers that identify areas where costs are higher than originally anticipated which provides a basis for further examination and cost mitigation. The cost drivers include dewatering and jet grouting, scope based on time and materials, maintenance of traffic control and extensive undergrounding of 138KV circuits due to HECO maintenance separation requirements.

**Project Budget Implications**

The additional CCUR investment required is between $135 million and $235 million with a mean of $185 million.

Following a comprehensive review of the Project’s contingencies, the HART Project Controls team has been able to identify between $130 million and $150 million (with a mean of $140 million) of allocated contingency on other projects that can be freed up based on strategies and successes over the past several months including:

a. Consolidated claims settlement with Kiewit on West Side Guideway contracts
b. Consolidated claims settlement with Nan, Inc. for six West Side stations
c. Consolidated claims settlement with Hawaiian Dredging (pending Board approval) for three West Side stations
d. Settlement of major delay claim with Hitachi Rail

Additionally, the Project Controls team has identified another $100 million to $150 million of allocated contingency that may be freed up in the coming months based on initiatives currently underway.

The current unallocated contingency totals $88 million.

Therefore a conservative approach prior to knowing the results of the CCGS (P3) procurement, and also considering the uncertainties created by the COVID-19 situation, is to maintain the current allocated contingencies for other projects as well as to maintain the current unallocated Project contingency level.

This approach results in a forecasted EAC of $8.210B, which is still within the Recovery Plan values. As described earlier, the opportunity still exists to drive project costs down and thereby lowering EAC back toward the targeted Project budget of $8.165B.

**Conclusion**

Additional requirements on CCUR require additional investment of budget to accomplish the tasks needed to relocate utilities in order to conform to City and third-party utility requirements, and to support the follow-on CCGS schedule and work. A strategy inclusive of procuring a second major
contractor for the work based on designs and quantities that have progressed since the award of the CCUR #1 contract affords the opportunity to reduce the increased level of investment. Free contingency resulting from project successes in other areas provides a significant offset of these additional costs without diminishing contingency in other areas, and allowing the overall Project budget to stay within the Recovery Plan limits.
City Center Utilities Relocation (CCUR) Cost Estimate Update

May 14, 2020
CCUR History

- August 4, 2015 - HART issues a Request for Proposal (RFP) for the solicitation of the City Center Guideway and Stations (CCGS) Design-Build contract. The solicitation includes the relocation of utilities throughout the alignment similar to that included in the Airport Guideway and Stations (AGS) solicitation.

- In parallel, other major work is progressing
  - August 2015 - HDCC initiates work on FHSG.
  - October 2015 - Nan Inc. initiates work on WOSG.
  - April 2016 - Nan Inc. initiates work on KHSG.
  - July 2016 - AGS contract, which HART issued the RFP in 2014, is awarded to STG for $875 million.
    - “Cost to Cure” (Preparatory work along the right-of-way) proceeds

- August 24, 2017 - HART cancels the solicitation for the CCGS DB contract due funding shortfall and 2 of 3 contractor teams dropping out of the procurement.
CCUR History

- September 2017 – Following the Legislative Special Session, City Council votes for an extension of the GET surcharge to December 2030 (and addition of TAT) which Mayor signs into law. HART submits a Revised Recovery Plan to the FTA.

- September 2017 – In an effort to initiate work on the City Center area, HART uses Lessons Learned as it did in performing utility relocation work prior to the AGS contract, to initiate dry utility work in Area 1A on Dillingham Boulevard by HART’s On-Call contractor and determines that an advanced utility contract can allow commencement of work while CCGS is re-procured.
  - An “Indefinite Design – Indefinite Quantity” or :“IDIQ” methodology was chosen as designs were incomplete and full quantities had not been established.
CCUR History

- May 2018 - CCUR kick off for the IDIQ contract with an NTP issued to Nan, Inc. on May 25, 2018. HART provides first set of task orders for wet utilities to Nan Inc.

- August 2018 – Tiger Team is formed, consisting of HART, Nan, Inc., all consultants and contractors and Third Parties to identify possible areas to delete scope from CCUR to control costs.

- September 2018 – Wet utility work begins on Dillingham Boulevard in Area 1A.
December 2018 to February 2019 – Tiger Team provides several deletion scenarios to HART management for approval to include, but not limited to:

- Keeping 138kV overhead diamond head of Kapalama Canal (Not accepted)
- Shifting guideway mauka for a portion on Dillingham Blvd (Not accepted)
- Deletion of utility relocations on Pohukaina St. (Accepted)
- Elimination of relocation work for existing 42-in. waterline (Accepted)
- Modify guideway column structures from center to straddle bent configurations to avoid utility relocation and delete roadway scope, (Accepted) and
- Other various proposals to delete scope.
CCUR History

- February - May 2019 - HART initiates a study to accelerate the work and begins a feasibility study on alternate construction methodologies and consultation with third parties (utilities.)
  - Determined that pace needs to be 60 feet per day of trenching
  - Determined that 24/7 access needed to improve productivity, maintain traffic control and accelerate work – required amended Traffic Management & Traffic Control plans and associated City permits
  - Determined that improved design/drawing review process with third parties needed
  - Determined that increased road space needed
  - Designs need to progress toward completion

- September 2019 – FTA Approves Recovery Plan
CCUR Estimate at Completion (EAC)

**Purpose:** Use the Independent Cost Estimate (ICE) approach to develop an estimate at completion to be used as the measuring stick to manage the CCUR project.

- Establish, track and project performance metrics
- Cost mitigation vision
- Negotiation strategies

**Approach:** Bottoms up, Quantity and production-based estimate utilizing the most recent designs.

- Current Snapshot EAC
- Alternate Delivery EAC
CCUR EAC – Current Snapshot Approach

- Estimate at completion of “old” assumptions and execution plan
  - Detailed quantity takeoff on most recent plan sets (constantly evolving)
  - “As-bid” current procurement assumptions including contractual unit prices, maintenance of traffic, production, etc.
  - Includes conservative dollars for lump sum items or prices that have yet to be negotiated

- Current Snapshot EAC = Approx. $640 Million total
CCUR EAC – Alternate Delivery Approach

- Estimate at completion utilizing CCUR II procurement strategies
  - Use of 90% + completed designs
  - Detailed quantity takeoff on most recent plan sets (constantly evolving)
  - Opinion of probable costs estimated with current construction industry market conditions
  - Assumes CCUR I contract finishes appropriate work and CCUR II contractor performs remaining work

- Alternate Delivery Approach EAC = Approx. $540 Million total
Major Cost Item Variances from CCUR I

- Dewatering/Jet Grouting Allowance - $75M
- Time & Materials - $40M
- Maintenance of Traffic Control - $25M
- Asphalt Patching for Dry Utilities - $20M
- Kapalama Utility Bridges - $20M
- 138kv Undergrounding - $20M
- Traffic Signals and ITS - $12M
- Overtime Premium - $12M
- Protect/Encase 42” Water Main - $10M
- Street Lighting - $4M
Current Snapshot Rail Project EAC

Additional CCUR Investment $135 - $235 mill
Free Contingency due to other project strategies $130-$150 mill
Unallocated Contingency $88 mill
Other Allocated Contingency opportunities $100-$150 mill

A conservative approach prior to award of CCGS, is to forecast an overall project EAC of $8.210 billion, and thereby maintaining the current allocated contingencies for other projects and the current unallocated Project contingency

The Project budget continues to be forecast below the Recovery Plan values.
Next Steps

➢ CCUR Improvement Strategies
  – No intention to add budget to CCUR#1
  – Implement CCUR II to drive the Alternate Strategy approach
  – Re-negotiate unit prices and allowances
  – “War Room”

➢ Performance Metrics
  – Roll-out quantity based performance metrics
  – Establish a baseline, maintain schedule and report projections

➢ Monitor design progress and refine estimate
  – Revise and report as appropriate
  – Informed design decisions
  – Cost benefit analysis to proposed work