

ANNUAL REPORT BY THE DESIGN BUILD EXECUTIVE COMMITTEE REGARDING THE STATUS OF THE CITY OF BALTIMORE’S DESIGN BUILD PROJECTS

As mandated by the Design Build Project Delivery Procedures approved by the Board of Estimates on November 2, 2011, the Design Build Executive Committee (“DBEC”) is required to annually report on the description, status and participation by minority and women owned businesses on all pending Design Build projects. In addition, the DBEC makes recommendations regarding policy changes or implementation measures. The DBEC submits this Annual Report for 2023 covering the three projects currently under contract and approved by the DBEC and Board of Estimates.

I. DEPARTMENT OF TRANSPORTATION CENTRAL AVENUE PROJECT TR 12317 2023

The Central Avenue Design-Build (DB) Project (“Project”) was one of Baltimore City’s Department of Transportation’s (“DOT”) first design-build projects. It was advertised on September 2, 2015, and Notice to Proceed (NTP) was issued on June 15, 2016. The Project primarily consisted of the reconstruction of Central Avenue between Lancaster Street and Baltimore Street into an urban boulevard. An integral constructed component of the Project was the extension of Central Avenue over tidal inlet waters by the construction of the new Harbor Point Connector Bridge to the Harbor Point development site.

The construction project was completed on December 22, 2022. Final documents are being prepared and finalized. The project is fully open to vehicles, pedestrians, and bicycle traffic. Remaining actions include reconciliation of the quantities, execution of several change orders, Federal and State approvals, approval of As Built plans, and resolution of final payments and retainage.

A. STATUS

The Central Avenue Project was awarded to Allan Myers MD, Inc., (“Myers”) on March 30, 2016, and the construction was completed on December 22, 2022. The original Contract bid amount was \$46,777,777.00. There are eight (8) approved Extra Work Orders (EWO) and one (1) EWO pending. The total of all EWOs is \$14,375,243.38. The final Contract amount is approximately \$61,153,020.38. The Project utilizes multiple funding sources including Federal Aid, Transportation Improvement Funds (TIF), and City Capital Improvement Funds.

B. BACKGROUND

The Project included design and construction of a new 3-span bridge connecting Central Avenue to Harbor Point. The Harbor Point Connector Bridge is approximately 260 feet in length. The total length of the roadway reconstruction on Central Avenue is approximately 3,200 feet (eight (8) city blocks). The scope of work included construction of the above referenced new three (3) span four (4) lane bridge; replacement of bridges at Lancaster, Aliceanna, and Fleet Streets, and Central Avenue;

full-depth pavement reconstruction; concrete curb/gutter and sidewalk reconstruction; construction of ADA-compliant pedestrian ramps and driveway entrances within the Project limits; dual protected bicycle lanes; roadway drainage system upgrades and improvements; new street and pedestrian lighting; new pavement marking and signing; upgrades to water, sewer, and conduit utilities; and new traffic and pedestrian signals. Access to businesses and traffic continuity was maintained during construction.

C. Minority and Women Owned Business Participation

The Project is partially federally funded, and Maryland Disadvantaged Business Enterprise (DBE) standards apply, not the City's MBE/WBE policies. Myers met their negotiated revised overall DBE goal, 26.43%, as shown on the final DBE Participation Chart can be found on the next two pages.

Allan Myers (Project 1525085)
Central Ave Streetscape and Harbor Point Connector Bridge Design-Build
City of Baltimore Contract TR12317

MBE / DBE Review Snapshot (30% Goal)

Original Bid	Plan Rev. 5	Plan Rev. 6	Delta / Change
Contact Value: Total Change Orders to Date: \$ 46,777,777.00 Revised Contract Value: \$ 46,777,777.00 MBE/WBE Req %: 30.00% Percentage Against Revised Contract Amt.: \$ 14,033,333.10 Through EWO/Change Order No.: N/A	\$ 46,777,777.00 \$ 5,492,066.20 \$ 52,269,843.20 \$ 27.25% \$ 14,242,094.49 EWO-06	\$ 46,777,777.00 \$ 14,375,243.38 \$ 61,153,020.38 \$ 26.43% \$ 16,163,157.00 EWO-09	\$ - \$ 8,883,177.18 \$ 8,883,177.18 -0.82% \$ 1,921,062.51

Plan Revision 6
 Submitted 8/4/23

Ref. No.	Subcontractor / Vendor:	Type	Previous Plan(s)			Plan Revision 6 - Submitted 8/4/23			Change from Plan Rev. 5	Basis for Revision	Documents
			Form D Value:	Orig. Bid %	Plan Rev. 5 Form D Value:	Plan 5 Rev. %	Current Form D Value	Plan 6 Rev. %			
3	Barbie's Trucking	IHA	\$ 1,200,000.00	2.57%	\$ 181,424.20	0.36%	\$ 181,424.20	\$ -		Rev. #3 Form D (unchanged)	
7	J & M Sweeping	PO	\$ 250,000.00	0.53%	\$ 100,000.00	0.20%	\$ 125,735.70	\$ 25,735.70	Updated for actual use.	Updated Form D / Agreement provided.	
8	Load Runner Trucking	IHA	\$ 1,200,000.00	2.57%	\$ 1,100,000.00	2.21%	\$ 1,075,079.75	\$ (24,920.25)	Distribution of Hauling Services	Updated Form D / Agreement provided.	
9	Machado Construction	Sub/PO	\$ 4,400,000.00	9.41%	\$ 4,112,884.69	8.25%	\$ 4,158,250.39	\$ 45,365.70	Distribution of Ready Mix / Changes	Updated Form D / Agreement provided	
10	Mohawk Bridge & Iron	Sub	\$ 700,000.00	1.50%	\$ 505,000.00	1.01%	\$ 505,000.00	\$ -	Material purchase distribution.	Rev. #5 Form D (unchanged)	
11	Nasir & Associates	PO	\$ 1,500,000.00	3.21%	\$ 1,748,029.97	3.51%	\$ 2,915,411.08	\$ 1,167,381.11		Updated Form D / Agreement provided	
12	Native Terrain	Sub	\$ 290,000.00	0.62%	\$ 250,000.00	0.50%	\$ 250,000.00	\$ -	Scope adds by City (Bike Lane Rev. etc.).	Rev. #5 Form D (unchanged)	
13	Pheless	Sub	\$ 145,000.00	0.31%	\$ 145,000.00	0.29%	\$ 393,073.87	\$ 248,073.87		Updated Form D / Agreement provided.	
14	Quarry Products	PO	\$ 93,000.00	0.20%	\$ 98,704.00	0.20%	\$ 98,704.00	\$ -		Rev. #3 Form D (unchanged)	
16	Road Safety	Sub/PO	\$ 200,000.00	0.43%	\$ 226,124.28	0.45%	\$ 291,977.59	\$ 65,853.31	Scope adds by City (Bike Lane Rev. etc.).	Updated Form D / Agreement provided	
18	Traffic Systems	Sub	\$ 2,650,000.00	5.67%	\$ 2,650,000.00	5.32%	\$ 2,381,225.29	\$ (268,774.71)	Scope deduct by City (IIS/VMS a/c/ete).	Updated Form D / Agreement provided	
19	Wilton Corporation	PO	\$ 200,000.00	0.43%	\$ 325,000.00	0.65%	\$ 333,861.59	\$ 8,861.59	Scope adds by City (Ph. 2 Conduit Rev.).	Updated Form D / Agreement provided	
20	Handon Services	Sub	\$ 100,000.00	0.20%	\$ 100,000.00	0.16%	\$ 100,000.00	\$ -		Rev. #2 Form D (unchanged)	
21	Doughboy Hauling	IHA	\$ 19,579.97	0.04%	\$ 19,579.97	0.03%	\$ 19,579.97	\$ -	Scope adds by City (Ph. 2 Conduit Rev.).	Rev. #2 Form D (unchanged)	
22	GE Frisco	PO	\$ 285,000.00	0.57%	\$ 285,000.00	0.48%	\$ 291,645.37	\$ 6,645.37		Updated Form D / Agreement provided.	
23	Hirschmugl Heine & Assoc.	TSA	\$ 4,680.00	0.01%	\$ 4,680.00	0.01%	\$ 4,680.00	\$ -		Rev. #2 Form D (unchanged)	
24	TWM Trucking	IHA	\$ 200,000.00	0.40%	\$ 200,000.00	0.40%	\$ 588,003.00	\$ 388,003.00	Distribution of Hauling Services.	Updated Form D / Agreement provided.	
25	Traffic Engineering Serv.	Sub	\$ 205,000.00	0.41%	\$ 205,000.00	0.41%	\$ 268,091.49	\$ 63,091.49	Scope adds by City (Ph. 2 Conduit Rev.).	Updated Form D / Agreement provided.	
26	Utility Imaging	TSA	\$ 16,000.00	0.03%	\$ 16,000.00	0.03%	\$ 16,000.00	\$ -		Rev. #2 Form D (unchanged)	
27	Aaron's Concrete Pumping, Inc.	N/A	\$ 14,100.14	0.03%	\$ 14,100.14	0.02%	\$ 14,100.14	\$ -		Rev. #2 Form D (unchanged)	
28	Ackerman & Boynes, LLC	PO	\$ 182,935.00	0.37%	\$ 182,935.00	0.30%	\$ 182,935.00	\$ -		Rev. #2 Form D (unchanged)	
29	Daco Construction	Sub	\$ 159,020.22	0.32%	\$ 159,020.22	0.26%	\$ 159,020.22	\$ -		Rev. #2 Form D (unchanged)	
30	Rowen Concrete	PO	\$ 75,000.00	0.15%	\$ 75,000.00	0.17%	\$ 101,391.98	\$ 26,391.98	Distribution of Ready Mix (availability).	Updated Form D / Agreement provided	
31	Sunrise Safety Services	Sub	\$ 45,000.00	0.09%	\$ 45,000.00	0.09%	\$ 101,816.47	\$ 56,816.47	Scope adds by City (Fleet St. MOT Rev.).	Updated Form D / Agreement provided.	
32	Keys Materials & Utilities	N/A	\$ 25,302.62	0.05%	\$ 25,302.62	0.04%	\$ 25,302.62	\$ -		Rev. #2 Form D (unchanged)	
33	CC's Industries LLC	PO	\$ 23,536.24	0.05%	\$ 23,536.24	0.04%	\$ 23,536.24	\$ -		Rev. #3 Form D (unchanged)	
34	Patrick Thomas Trucking	IHA	\$ 195,000.00	0.39%	\$ 195,000.00	0.35%	\$ 211,734.00	\$ 16,734.00	Distribution of Hauling Services.	Updated Form D / Agreement provided.	
35	M Lois Products	N/A	\$ 3,319.00	0.01%	\$ 3,319.00	0.01%	\$ 3,319.00	\$ -		Rev. #2 Form D (unchanged)	
36	Hiererra Concrete (Rejected Plan Rev. 2)	Ref.	\$ -	0.00%	\$ -	0.00%	\$ -	\$ -	Scope adds by City (various material items).	Void	
37	Dimensional Products, Inc.	PO	\$ 51,000.00	0.10%	\$ 51,000.00	0.10%	\$ 60,009.60	\$ 9,009.60		Updated Form D / Agreement provided.	
38	Marine Solutions, Inc.	Sub	\$ 9,560.00	0.02%	\$ 9,560.00	0.02%	\$ 9,560.00	\$ -		Rev. #3 Form D (unchanged)	
39	Taylor Creek / Rhodes	Sub	\$ 12,000.00	0.02%	\$ 12,000.00	0.18%	\$ 112,999.77	\$ 100,999.77	Scope changes by City (RET-3, delays, etc.)	Updated Form D / Agreement provided.	
40							\$ -				

II. DEPARTMENT OF TRANSPORTATION COMPREHENSIVE CONDUIT FACILITY DESIGN, MANAGEMENT, AND CONSTRUCTION SERVICES PROJECT (PMAR) TR-16020

The Comprehensive Conduit Facility Design, Management, and Construction Services Project (“Project”) is DOT’s and the City’s first Program Manager at Risk project. Due to the uniqueness of the Program Manager at Risk delivery method, DOT approached the DBEC about the possibility of structuring the Project using a Program Manager at Risk (“PMAR”) approach.

The PMAR delivery method is essentially a hybrid of the Design Build method. The DBEC concluded that given the similarity between this PMAR project and traditional design build projects that the Project should comply, to the greatest extent possible, with the Design Build Resolution of the BOE and be overseen by the DBEC. Suitability of the project for the PMAR approach was determined by several factors. During development of the Request for Proposals, DOT and the Conduit Section (now Conduit Division) determined that an expedited schedule was required because untimely project execution would result in loss of available funding. Additionally, it was determined that the nature of the work is not conducive to Design-Bid-Build; inspection, design, construction, and database population must occur concurrently lending itself to Program/Asset Management. For maintaining the conduit infrastructure, design work does not necessarily dictate construction. Instead, inspection reveals the need for design and then construction commences. The DBEC and the BOE agreed with the approach selected by DOT and DOT awarded the contract in August 2016.

The Project primarily consists of inspection of conduit manholes (i.e. the structural condition, duct occupancy, cable owner identification, etc.), design and planning of an asset security mechanism retrofitted to secure/monitor entry of conduit manholes and cable racks as needed; design, construction, excavation, modification, repair of manhole chimney top slab, manhole replacement, and conduit duct bank; construction management; data input into a GIS data collection and database editing and maintenance; financial tracking and reporting; safety retrofits and program compliance system-wide.

A. Project Status as of June 2022

- Project Awarded to KCI-CG Tri-Venture (“Tri-Venture”) on August 10, 2016. Contract Amount \$26,108,286.00 (Professional Services - \$5,841,986.00 Construction - \$20,266,300.00) per year for five (5) years, plus two, 1-year Option extensions. To date (through June of 2023), the Contract amount is \$121,513,286.00.
- Schedule Related
 - Notice to Proceed was issued on February 22, 2017.
 - The Contract was set to expire on February 20, 2022, the end of the five-year term, but the City has since exercised the two Option year extensions (the Contract allows two, one-year extensions).
 - As such, the Contract is in its seventh and final year.
- Scope Changes and Change Orders – one change order has been executed to date. However, it was processed as a no-cost or no-time extension change order.

A variety of tasks have been assigned through this contract ranging from traditional engineering design, inspection, and construction, to achieving design solutions for complicated construction tasks to efforts which support the growth of the Conduit Division on a day-to-day basis. To date, over 100 professional and construction services tasks have been assigned under the TR-16020 Contract.

Assignments under the Professional Services category generally consist of manhole engineering and structural inspections, manhole occupancy and tracing inspections, design of conduit corridor projects, asset management support services, GIS database development and maintenance, as well as Capital and Strategic Planning.

Construction Services assignments include construction of supplemental ducts for various BGE 4kV upgrades, construction of a parallel duct bank system along the North Avenue corridor, from Bentalou Street to Milton Avenue, construction of conduit improvements along Greenmount Avenue from 29th Street to East 43rd Street, clearing obstructions in conduits, along with repairing/rehabilitating/replacing electric manholes.

- Task assignments:
 - MH Reconstruction Design (Professional Services) - 11
 - Cable Tracing Inspection Tasks (Professional Services) -42
 - PW Inspector Tasks (Professional Services) - 18
 - GIS/Asset Management related tasks (Professional Services) - 26
 - Conduit Corridor Design Tasks (Professional Services) - 2
 - MH Reconstruction Tasks (Construction) - 9
 - CSR Response Tasks – (multiple tickets each task) (Construction) - 4
 - BGE 4kV Conduit Construction Tasks (Construction) – 10
 - Conduit Corridor Construction Tasks (Construction) - 2
 - Capital Improvements and Strategies Planning Consulting Task
 - MH Access Management Task

- Logistics

This Contract has been able to expeditiously address design and construction issues for the Department. Conduit improvements have been completed in advance of the North Avenue MTA project to replace our conduit system prior to the work of the MTA Streetscape projects. The work kept planned Conduit road cuts from occurring after the Streetscape project is complete. This will eliminate the maintenance and repairs the conduit system would have required. The same is true for the Greenmount Corridor project. Conduit improvements were completed ahead of the ongoing Streetscape project.

Asset Management Program support continues with formalization of business processes such as development of SOP/ Workflow (Document) Implementation Plan. The GIS Data Editing and Database team of the Tri-Venture has updated the GIS Database Administration SOP to include new procedures that ensure no user edit versions are excluded from reconcile and post processes. In parallel, the program provides Conduit IT Administrator with technical consultation and support for enterprise technology implementation (Cityworks, Salesforce,

OnBase etc.) that leverage mapping information for publishing and maintaining GIS map services.

Within this Contract, an allowance has been made for unanticipated reactive maintenance work. Reactive maintenance work consists of activities generated as a result of Service Requests received from the Conduit Maintenance Yard. These Service Requests typically consist of manhole frame and cover replacements, duct obstruction clearing, split ducting, etc. On the other hand, this Contract has also developed a proactive maintenance approach that focuses on identifying and attacking problem corridors before they result in service requests by the Conduit lessees.

Conducting proactive maintenance work requires developing criteria to rank and prioritize projects. The prioritization has been developed in a manner that optimizes existing and future Conduit Division resources. Capital drivers included in the ranking system include, but are not limited to, the condition of the asset, criticality of the damage to the asset, asset location in proximity to other projects/repairs, sociopolitical factors, estimated repair cost, and availability of resources to repair the asset.

Conduit Program logistics for strategic planning and prioritization to rehabilitate segments of the system is determined by a multitude of factors. DOT's program inspection, records research, and asset management allows for determination of the following factors:

- Duct Obstruction/Duct Availability
- Alternative Duct Route
- Benefit to planned Duct Lease Work in the area
- Impacts of Cable Owners Service Outage
- Duct Material, Age, and Service life
- Adjacent Utility Impacts on Conduit
- Opportunity for Economic Development/Sociopolitical Priority
- Other planned/ongoing projects
- Structural Assessment
- External influences

A ranking system has been established which assigns points for the criteria. This process will inform our Capital Planning strategy to prioritize many of the forecasted capital projects.

B. Minority and Women Owned Business Participation

The Project is not federally funded and as such, the City's MBE/WBE standards apply, not the State Disadvantaged Business Enterprise standards. TRI-VENTURE is fully committed to meeting the established 27% MBE and 10% WBE goal for professional services and 27% MBE and 7% goal for construction. The breakouts below reflect MBE/WBE participation from Contract award through the end of FY22 (through June 2023):

Professional Services	Billed	% Billed through June	MWBOO Contract Goal
Tri-V (KCI/CG/CI)	\$ 15,629,737.11	47.94%	n/a
MBE	\$ 9,290,800.68	28.49%	27%
WBE	\$ 3,895,533.00	11.95%	10%
Subs (Non-M/WBE)	\$ 3,789,406.21	11.62%	n/a
Total to date:	\$ 32,605,477.00		

Construction Services	Billed	% Billed through June	MWBOO Contract Goal
Tri-V (KCI/CG/CI)	\$ 34,394,122.72	45.63%	n/a
MBE	\$ 21,257,781.87	28.20%	27%
WBE	\$ 8,228,028.66	10.92%	7%
Subs (Non-M/WBE)	\$ 11,491,998.98	15.25%	n/a
Total to date:	\$ 75,371,935.23		

The TR-16020 Contract is a task-driven Contract and because of the variety of assignments issued, it has been found that additional resources have been required to meet the task assignment needs. The Tri-Venture has worked in collaboration with the City Minority and Women’s Business Opportunity Office (MWBOO) and the Conduit Division to engage subcontractors and have added to the contract subcontractors who could provide services to match assignments and fulfill goals of all involved in the program.

C. Implementation and Policy Challenges with Recommendation

As stated in previous reports, the Department has experienced many of the benefits of the D/B process. DOT recommends a work group that includes all procuring agencies with representatives from Engineering & Contract Admin., Law Department, Finance, MWBOO, and Audits to discuss lessons learned and develop recommendations for future projects. Those recommendations should come in the form of a report to be presented to the D/B committee for review and approval.

III. DEPARTMENT OF PUBLIC WORKS
BACK RIVER HEADWORKS PROJECT SC 918H

The Department of Public Works (“DPW”), Back River Headworks Improvements Project (“Headworks Project”), SC 918H, primarily entailed construction of new headworks facilities, consisting of an influent pumping station, a fine screen facility, a grit removal facility, and wet weather storage facilities. The City’s Wet Weather Program determined that the construction of the

Headworks Project was the single, most cost-effective solution to elimination of the City’s sanitary sewer overflows and to comply with the Wet Weather Consent Decree.

The Headworks Project has been delivered under the Construction Manager-at-Risk (CMAR) delivery method and is the City’s first CMAR project. The CMAR delivery method is another alternative project delivery method like Design Build. What distinguishes CMAR from DB is that CMAR has two separate contracts; one for design, the other for construction. One procurement is used to advertise both phases and only one firm is selected by the City. Following the design phase, the winning bidder and the City engage in negotiations to agree on a Guaranteed Maximum Price (“GMP”). If the parties agree on GMP then the successful firm contracts with the City for the construction phase. If GMP cannot be agreed, then the City would be free to re-advertise the construction portion of the work.

The Headworks Project was originally advertised as a traditional design-bid-build project with a 100% design having been completed prior to advertising for bids. Two bids were received, the lowest of which was \$90,000,000.00 over the budget for the project. DPW then approached the Design Build Executive Committee (“DBEC”) about the possibility of structuring the Headworks Project using a modified CMAR method.¹ DPW and the DBEC concluded that a modified CMAR delivery method had the best potential to reduce construction costs. The DBEC concluded that given the similarity between this CMAR project and traditional design build projects that the Headworks project should comply, to the greatest extent possible, with the Design Build Resolution of the Board of Estimates (“BOE”) and be overseen by the DBEC. The BOE agreed and accepted the DBEC’s recommendation to use the CMAR delivery method on January 27, 2016.

A. Project Status as of August 2023

Background Pre-Construction:

- Project was advertised on January 29, 2016 after the BOE approved the request for Proposals using the CMAR method.
- Four proposals were received on March 2, 2016
 - All proposals were found to be responsive and were evaluated
- The evaluation process followed the procedures as established in the RFP which included review based on the following criteria
 - Qualifications and approach (65%)
 - Financial capacity and proposed fees (15%)
 - Interview (20%)
- Interviews were conducted on March 15, 2016
- All scoring was reviewed and finalized by the evaluation panelists on March 15, 2016
- March 25, 2016 – Selection of preferred CMAR firm, a joint venture between Clark Construction and Ulliman Schutte, Inc. (“Clark/US”)
- March 29, 2016 – Presentation to DBEC which approved the selection of Clark/US.

¹ Modified by virtue of the fact that a 100% design existed. The design phase for the Headworks Projects, unlike traditional CMAR projects, consisted mainly of value engineering and to modify the 100% design to reduce costs.

- March 30, 2016 – DPW notified Clark/US of DPW’s intent to recommend award by the BOE to Clark/US, subject to reaching agreement on all terms and conditions and completion of all administrative procedures
- May 4, 2016 – The BOE Approved award to Clark/US.
- May 25, 2016 – CMAR firm submitted signed contract documents for processing by DPW.
- July 22, 2016 Notice to Proceed for Pre-Construction was issued.
- GMP Estimates were received:
 - November 2016.
 - January 2017.
- GMP package bids were received:
 - March 2017.
 - April 2017.
- GMP Negotiations progressed from April through May 2017.
- GMP Package and Pricing were submitted to the BOE for processing in May 2017
- GMP cost of \$429,776,789.
- BOE Approval of the GMP Package and Contract for the Headworks Construction occurred on June 28, 2017.

Construction Progress to Date:

- Construction Phase Milestones:
 - June 29, 2017 – Construction NTP
 - December 30, 2020 – Technical Compliance Milestone.
 - October 31, 2021 – Substantial Completion.
 - October 31, 2021 – City issued Conditional Acceptance.
 - October 31, 2022 – Expiration of the warranty period
- The project has met the Technical Compliance and Substantial Completion Milestones
- The City granted Conditional Acceptance, as follows:
 - Forward Flow Facilities as of August 1, 2021. The Forward Flow Facilities are principally defined as Course Screen Facility, Influent Pumping Station (excluded IPS and EQ/IPS pumps), Fine Screen Facility, Grit Blower Building, and Hydrogen Peroxide Facility.
 - The complete project, including the Equalization Facilities, was granted Conditional Acceptance on October 31, 2021. The following items were completed prior to issuance of Conditional Acceptance:
 1. Completion of HVAC balancing and commissioning
 2. Completion of modification to Coarse Screen and incorporation of modifications into the O&M manual
 3. Installation, startup, and commissioning of additional HVAC equipment for IPS pump VFD room
 4. Installation and startup of new seal water system at the Dewatering Pumping Station
 5. Completion of existing Fine Screen modification to store stop logs and associated racks
 6. Completing additional change order work defined in the Project close-out MOU signed on December 6, 2021.

7. Address all items on the punchlist, including item review and sign-off by QA. Complete outstanding punchlist walkthroughs including, but not limited to, landscaping and Willis Avenue paving
8. Submit for review and approval all final electronic O&M manuals
9. Submit for review and approval all final hard copy O&M manuals, and associated turnover transmittal submittals
10. Provide all spare parts as required by the Contract Documents and subsequent negotiation
11. Provide for review and approval all outstanding submittals
12. Completion of As-Built Drawings

The 1 year warranty period for all contractual work ended October 31, 2022.

Currently, the following activities are in progress:

1. Parts being replaced for CCTV network
2. Waiting for some HVAC replacement parts
3. Waiting for AC unit replacement parts
4. Traveling bridge grit pumps - installation pending

The Headworks Facility has been successfully in operation since December 2020. The Equalization Tanks have been utilized by the Plant for wet-weather and diurnal events. Weekly meetings are being held with the project team to discuss:

1. Odor Control Facility startup and commissioning
2. Extended warranty and maintenance.
3. Plant coordination with downstream processes
4. O&M finalization
5. Training/Staffing
6. As-Built Drawings

B. Minority and Women Owned Business Participation

The Pre-Construction phase of the project was funded by the City and Baltimore County therefore City MBE/WBE Goals of 10% and 3% respectively applied during the pre-construction process.

Pre-Construction Fee	\$3,490,000
Contractual Participation Requirements:	MBE \$349,000 10%
	WBE \$104,700 3%

Pre-Construction Phase MBE/WBE participation (completed 4/30/17):

<u>SUBCONTRACTOR</u>	<u>Amount Reported</u>	<u>Participation Reported</u>
Shah Associates	\$ 183,008	5.24%
Roane's	\$71,444	2.05%
SP Arch	\$34,848	1.0%
Native Sons	\$60,000	1.72%
Horton	\$20,800	0.6%
C. L. McCoy	\$7,000	0.20%
CMC Repro & Assoc.	\$9,310	0.27%
MBE Totals	\$386,410	11.07%
 		
<u>SUBCONTRACTOR</u>	<u>Amount Reported</u>	<u>Participation Reported</u>
Stella May	\$46,812	1.34%
Carroll	\$48,722	1.40%
Keep U Clean Jan Svc	\$4,100	0.12%
WBE Totals	\$99,634	2.85%

Construction Phase MBE/WBE Participation:

The Construction phase of the Headworks Project was funded by the state's revolving fund therefore the state's Disadvantaged Business Enterprise standards apply and not the City's MBE/WBE standards. The Construction phase of the project has the MBE and WBE State Goals of 18% and 16% respectively.

Clark/US's committed estimates for the MBE/WBE participation are 12.82% and 5.45% respectively at this time. The level of efforts expended on contacting regional and local DBE businesses has been documented and will continue to be recorded in accordance with MDE guidelines for reporting purposes.

The estimated percentages translate into the following dollar amounts to be spent with the MBE/WBE subcontractors, based on the Contract amount of \$429,776,789:

- MBE 12.18% \$52,342,515
- WBE 6.40% \$27,514,310

At this time, Clark/US has invoiced for \$422,885,437, which is approximately 98.4% of the contract amount. Based on current billing, the contract is exceeding MBE goals (13.38% of earned value

versus 12.18% committed) and slightly below the WBE goal (5.99% of earned value versus 6.40% committed). In aggregate, the contract has exceeded the combined M&WBE goal of \$79,856,825. The following MBE/WBE participation has been reported:

<u>SUBCONTRACTOR</u>	<u>MBE CONTRACT</u>		<u>Participation Reported</u>	
MBE Companies	Amount	% of total contract	Amount	% of invoiced amount
Capital Development Design, Inc.	\$1,870,402.00	0.44%	\$2,469,398.53	0.63%
EMC2, Inc.	\$75,200.00	0.02%	\$450,859.98	0.10%
Horton	\$12,500,000.00	2.91%	\$15,341,826.94	3.16%
Innovo Construction LLC	\$1,990,000.00	0.46%	\$1,901,388.65	0.50%
JD Belfield	\$60,000.00	0.01%	\$0.00	
Keep U Clean Janitorial Svc.	\$121,816.00	0.03%	\$118,408.65	0.03%
LCCI	\$330,000.00	0.08%	\$474,498.52	0.12%
NSL/Freestate	\$16,636,200.00	3.87%	\$15,716,542.61	4.02%
Weathespoon & Williams	\$592,190.00	0.14%	\$632,344.87	0.16%
Allan Myers - lower tier: Mohawk Bridge & Iron, Doughboy Hauling	\$4,333,333.00	1.01%	\$5,648,994.76	1.33%
Baseline	\$388,000.00	0.09%	\$562,712.58	0.14%
Cagley & Associates	\$18,300.00	0.00%	\$14,085.00	0.00%
Ruff Nex	\$1,698,106.00	0.40%	\$2,177,738.44	0.55%
Bulldog Construction	\$173,417.00	0.04%	\$2,182,073.15	0.53%
West Concrete			\$210,638.00	
Clark Water Sub	-	-	-\$59,242.00	0.01%
Ulliman Schutte - lower tier: Ideal, GE Frisco, TBD	\$13,754,520.00	3.20%	\$9,261,173.35	3.01%
MBE Totals	\$52,342,515	12.18%	\$56,599,970.45	14.31%
<u>SUBCONTRACTOR</u>	<u>WBE CONTRACT</u>		<u>Participation Reported</u>	
WBE Companies	Amount	% of contract amount	Amount	% of invoiced amount
A&S Refuse LLC	\$551,000.00	0.13%	\$192,280.42	0.07%
Baltimore Waterproofing	\$232,200.00	0.05%	\$130,242.00	0.03%

Regional Contracting Services LLC	\$2,853,580.00	0.66%	\$1,388,432.08	0.62%
Stella May Contracting	\$4,030,627.00	0.94%	\$4,030,627.23	1.01%
TMI Striping	\$12,279.00	0.00%	\$1,600.00	0.00%
Regional Drywall & Acoustic Panel	\$75,325.00	0.02%	\$720,529.58	N/A
Rowen Concrete	\$2,166,667.00	0.50%	\$2,608,999.82	0.65%
DN Tanks - lower tier: Jernigan's, Acorn Supply & Distributing	\$350,919.00	0.08%	\$417,500.70	0.10%
Eisenhart Steel	\$1,479,110.00	0.34%	\$1,901,997.42	0.22%
Monumental Supply	\$3,754,520.00		\$3,321,771.55	
Baseline Supply	\$388,000.00		\$562,712.58	
Construction Cleaning Services			\$86,405.55	
CMC Repro \$ Associates			\$19,949.49	
Ulliman Schutte - lower tier: J&S Valves, Robnet, Acorn Supply & Distributing, Roane's Rigging & Transfer	\$12,226,240.00	2.84%	\$9,961,591.28	3.18%
WBE Totals	\$27,514,310	6.40%	\$25,344,639.70	5.89%

C. Implementation and Policy Challenges with Recommendation

From the first three years of construction, DPW has the following recommendations for the DBEC's consideration:

- Engage and award future projects to the CMAR prior to 30% design documents to maximize their input.
- Place monetary provisions to enforce timely baseline schedule development.
- This contract used the Army Corps of Engineers specification regarding Quality Assurance/Quality Controls. The DBEC should consider modifying this specification so that it is more applicable to the Construction Industry.
- Include more details on definitions of the different funds' categories and risk ownership i.e., Owner Allowances, Constructions Contingency. and the intended use of the funds to eliminate any disagreements over which category covers what work.
- Evaluate percentage of total contract value for self-performance based on market availability.
- Evaluate cost sharing percentage of Construction Contingency to carefully balance between cost savings being incentives vs cost savings being CMAR profit margin.