



Maryland Transportation Authority

CAPITAL COMMITTEE MEETING

THURSDAY, OCTOBER 5, 2023

2310 BROENING HIGHWAY
BALTIMORE, MARYLAND 21224

**CAPITAL COMMITTEE MONTHLY MEETING
October 5, 2023 – 9:00 AM**

This meeting will be livestreamed on the [MDTA Capital Committee Page](#)

NOTE: This is an Open Meeting being conducted via livestreaming. The public is welcomed to watch the meeting at the link listed above. *If you wish to comment on an agenda item please email your name, affiliation, and the agenda item to esogard@mdta.state.md.us no later than 3:00 p.m. on Monday, October 2, 2023. You MUST pre-register in order to comment.* Once you have pre-registered you will receive an email with all pertinent information.

AGENDA

OPEN SESSION – 9:00 a.m.

Call Meeting to Order

- | | | |
|--|----------------|---------|
| 1. <u>Approval</u> - Open Session Meeting Minutes of September 7, 2023 | Chairman | 5 mins |
| 2. <u>Approval</u> – MDTA 2021-01-B SBR Comprehensive Preliminary Engineering and Final Design Services | Sushmita Mitra | 10 mins |
| 3. <u>Approval</u> – MR-3033 On-Call Structural Repairs and Misc. Modifications | Simon Tseggai | 10 mins |
| 4. <u>Approval</u> – KB-3005 I-695 Repairs and Subgrade Rehabilitation on Sparrows Point | Brian Wolfe | 10 mins |
| 5. <u>Approval</u> – KH-3040 MD 24 NB Auxiliary Lane – MD 924 through Singer Road Intersection | Brian Wolfe | 10 mins |
| 6. <u>Update</u> – Implementing Meadows at MDTA | Julie McCarthy | 10 mins |
| 7. <u>Update</u> – CTP Process/Additions | Jennifer Stump | 10 mins |
| 8. <u>Update</u> – 2023 Updates on the Structures Inspection Program | Ruel Sabellano | 10 mins |

Vote to Adjourn Meeting

**MARYLAND TRANSPORTATION AUTHORITY
CAPITAL COMMITTEE MEETING
THURSDAY, SEPTEMBER 6, 2023
OPEN MEETING VIA LIVESTREAMING**

OPEN SESSION

MEMBERS ATTENDING: Mario J. Gangemi – Chairman
Samuel D. Snead
William H. Cox, Jr.
W. Lee Gaines

STAFF ATTENDING: Joseph Sagal
Mary O’Keefe
James Harkness
Sushmita Mitra
Tekeste Amare
Donna DiCerbo
Jeffrey Davis
Richard Jaramillo
Kimberly Millender
Simon Tseggai
Abey Tamrat
Eric Willison
Selena McKissick
Natalie Henson
Ganine Steffe
Liz Zito-Lynch

Member Gangemi called the meeting of the Maryland Transportation Authority (MDTA) Capital Committee to order at 9:00 a.m. The meeting was held via video conference and livestreamed on the MDTA Board Meeting web page.

APPROVAL – OPEN SESSION MEETING MINUTES OF JULY 6, 2023

Upon motion by Member Cox and seconded by Member Gaines, the Open Session meeting minutes of the Capital Committee’s meeting held on July 6, 2023, were unanimously approved.

APPROVAL – MR 3033 – ON-CALL STRUCTURAL REPAIRS AND MISCELLANEOUS MODIFICATIONS

Mr. Tseggai presented this request to seek a recommended approval from the Capital Committee to present MR 3033 – On-Call Structural Repairs and Miscellaneous Modifications to the full MDTA Board for award at its next scheduled meeting.

This project is a multi-award contract to provide labor, equipment, materials, etc. necessary to perform miscellaneous structural, concrete, and other types of repairs, upgrades, replacements, and new construction as directed by the Engineer. This work may be required on any portion (bridge, tunnel, highway, building and all appurtenances) of any of the MDTA's facility.

Upon motion by Member Cox and seconded by Member Gaines, the Members directed staff to re-evaluate and re-distribute the award amounts between the three recommended contractors for Contract No. MR 3033-0000 – On-Call Structural Repairs and Miscellaneous Modifications and present a revised recommendation for award to the Capital Committee at its next scheduled meeting.

There being no further business, the meeting of the MDTA Capital Committee was adjourned by consensus at 9:21 a.m. following a motion by Member Gaines and seconded by Member Snead.

The next meeting of the MDTA Capital Committee is scheduled for Thursday, October 5, 2023, at 9:00 a.m., this meeting will be virtual conducted via livestream.

APPROVED AND CONCURRED IN:

Mario J. Gangemi, Chairman



Maryland
Transportation
Authority

CAPITAL COMMITTEE PROJECT SUMMARY

Contract No. MDTA 2021-01 B SBR Comprehensive Preliminary Engineering and Final Design Services

PIN NUMBER N/A
MDTA PROJECT NUMBER MDTA 2021-01 B
CONTRACT TITLE SBR Comprehensive Preliminary Engineering and Final Design Services

PROJECT SUMMARY This project involves the award of one (1) contract to a Small Business Consultant Engineering Firm for Comprehensive Preliminary Engineering and Final Design Services for MDTA. The work shall include but not be limited to structural engineering including analysis, design and rehabilitation of small and ancillary structures, noise walls, retaining walls and buildings; highway design, traffic engineering and studies, environmental engineering, ITS/electrical, geotechnical engineering, surveys, mechanical and electrical engineering services related to bridge, highway and facility (building) projects; permitting, right-of-way support; condition inspection; project delivery; cost estimating; development of operation, warranty and maintenance plans; project and program management; planning; construction management and inspections, and "Phase V" services.

SCHEDULE

ADVERTISEMENT DATE Jun-22
ANTICIPATED NTP DATE Nov-23
DURATION/TERM Five (5) YEARS

PROTEST YES NO
 ✓

FUNDING SOURCE 100% TOLL REVENUE

PROPOSER	MDTA CONTRACT NO.	CONTRACT AMOUNT
SuYash Consulting, LLC	AE-3114	\$3,000,000
Transtech Engineering Consultants, Inc.	N/A	N/A
BVF Engineering, Inc	N/A	N/A
iCivil Inc.	N/A	N/A
Mercado Consultants, Inc.	N/A	N/A
Wilson T. Ballard Company	N/A	N/A
C.C. Johnson & Malhotra, P.C.	N/A	N/A
Tuhin Basu & Associates, Inc.	N/A	N/A
Brudis & Associates, Inc.	N/A	N/A
Delon Hampton & Associates	N/A	N/A

MBE PARTICIPATION

	ADVERTISED GOAL (%)	AE-3114 PROPOSED GOAL (%)
MBE PARTICIPATION -		
OVERALL MBE	15.00%	16.50%
AFRICAN AMERICAN	-	2.00%
ASIAN AMERICAN	-	9.50%
HISPANIC AMERICAN	-	-
WOMEN OWNED	-	5.00%
VSBE	1.00%	1.00%



CAPITAL COMMITTEE PROJECT SUMMARY

MR-3033-0000 - On-Call Structural Repairs and Miscellaneous Modifications

PIN NUMBER 2573
MDTA PROJECT NUMBER MR-3033-0000
CONTRACT TITLE On-Call Structural Repairs and Miscellaneous Modifications

PROJECT SUMMARY This project is a multi-award contract to provide labor, equipment, materials, etc. necessary to perform miscellaneous structural, concrete, and other types of repairs, upgrades, replacements, and new construction as directed by the Engineer. This work may be required on any portion (bridge, tunnel, highway, building, and all appurtenances) of any of the MDTA's facilities.

SCHEDULE			BID AMOUNT	% VARIANCE	Recommended	
			(\$)	TO EE	Award (NTE)	
	ADVERTISEMENT DATE	3/14/2023	Brawner Builders, Inc. (Brawner)	\$14,465,893.65	-51%	\$12,500,000.00
	ANTICIPATED NTP DATE	Nov-23	M. D. Miller t/a The Marksmen	\$20,341,175.10	-32%	\$9,000,000.00
	DURATION/TERM	1,460	Concrete General, Inc.	\$21,969,342.36	-26%	\$8,500,000.00

ENGINEER'S ESTIMATE (EE) \$29,963,875.00

BID PROTEST YES NO

FUNDING SOURCE 100% TOLL REVENUE

MBE PARTICIPATION -	ADVERTISED GOAL (%)	MBE PARTICIPATION			
		Brawner Builders., Inc.	M. D. Miller t/a The Marksmen	Concrete General, Inc.	
OVERALL MBE	10.00%	10.00%	10.20%	10.00%	
AFRICAN AMERICAN	-	2.00%	0.00%	0.27%	
ASIAN AMERICAN	-	0.00%	0.00%	0.03%	
HISPANIC AMERICAN	-	2.00%	0.00%	2.05%	
WOMEN OWNED	-	6.00%	10.20%	7.65%	
VSBE	1.00%	1.00%	1.00%	1.00%	



MEMORANDUM

TO: Director of Engineering, Sushmita Mitra, P.E., PTOE
FROM: Structures Project Engineer, Simon Tseggai, P.E.
SUBJECT: MR-3033-0000
**On-Call Structural Repairs and Miscellaneous Modifications –
Multi-Award Revised Bid Justification**
DATE: September 22, 2023

On May 24, 2023, three (3) bids were opened for the referenced Contract. The bid amounts were:

<u>Contractor</u>	<u>Bid Amount</u>	<u>%Variance (With Eng. Est.)</u>
Brawner Builders, Inc. (Brawner)	\$ 14,465,893.65	(51.7%)
M. D. Miller t/a The Marksmen (Marksmen)	\$ 20,341,175.10	(32.1%)
Concrete General, Inc. (Concrete General)	\$ 21,969,342.36	(26.7%)

The Engineer’s Estimate (EE) for this project is \$29,963,875.00. The apparent low bidder Brawner’s price is \$15,497,981.35 lower than the EE. The second apparent bidder Marksmen’s price is \$9,622,699.92 lower than the EE, and the third apparent bidder Concrete General’s price is \$7,994,532.64 lower than the EE. An evaluation of the three bids was performed and the following is summary of our analysis.

The bid amounts submitted by all three contractors are well below the EE. Major contributing cost differences between the EE and each of three contractors’ bids are resulting from Item 4005 (Skilled Labor) and Item 4006 (Foreman Including Light Truck). These two (2) bid items, which are the two highest quantity bid items for the entire contract, accounted for total differences from the EE of \$16.0 M from Brawner’s bid, \$8.6 M from Marksmen’s bid and \$5.6 M from Concrete General’s bid.

To determine if submitted bids are reasonable, we focused on the whole bid package for each contractor instead of individual bid items. A cost comparison was performed for a typical repair task order using the contractors’ submitted bid prices, which was then compared to the EE under this contract. Although all three contractors’ bid amounts are significantly below the EE, the actual cost difference for a typical task order assignment is minimal. The results indicate that the whole bid packages are acceptable for this Contract.

Overall, the engineer’s estimate for this contract is on the high side in comparison to historical price data of similar MDTA contracts. This is mainly in consideration of the high inflation rate of goods and services in the current market conditions. However, since this was advertised as the first multi-award structural on-call contract with no guarantee on how many contracts would be awarded, it appears to have created a highly competitive environment.

RECOMMENDATION:

Based on our reviews, I recommend accepting the bids from Brawner, Marksmen, and Concrete General. All three contractors have successful histories working for the MDTA on similar on-call contracts. In accordance with the provisions in the IFB for this multi-award contract with a total budget of \$30,000,000.00, I recommend awarding three contracts for the following Not-to-Exceed amounts:

- Brawner Builders, Inc. \$12,500,000.00
- M. D. Miller t/a The Marksmen \$9,000,000.00
- Concrete General, Inc. \$8,500,000.00

Approved:



for

Sushmita Mitra, P.E., PTOE

9/22/2023

Date

ATTACHMENTS: Bid Tabulations and Comparison

Maryland Transportation Authority

Contract Name: **On-Call Structural Repairs and Miscellaneous Modification**

Contract Number: **MR-3033-0000**

Bid Date: May 24, 2023

Bid Tabulation

Item No.	Category code	Item Description	Unit	Quantity	Engineer's Estimate		BRAUNER BUILDERS, INC. (Apparent Low Bidder)		
					Unit Price	Total	UNIT PRICE (Contractor's)	TOTAL (Contractor's)	+/- % of Est.
1001	120747	FLAGGER	HR	1,000	\$ 100.00	\$ 100,000.00	\$ 50.00	\$ 50,000.00	-50.00%
1002	110370	TYPE D ENGINEERS OFFICE	LS	1	\$ 207,000.00	\$ 207,000.00	\$ 70,000.00	\$ 70,000.00	-66.18%
1003	100000-UD	ADDITIONAL PROTECTION VEHICLE	UD	600	\$ 300.00	\$ 180,000.00	\$ 0.01	\$ 6.00	-100.00%
1004	100000-UD	TEMPORARY SINGLE LANE CLOSURE	UD	1,000	\$ 1,500.00	\$ 1,500,000.00	\$ 2,050.00	\$ 2,050,000.00	36.67%
1005	100000-UD	TEMPORARY DOUBLE LANE CLOSURE	UD	100	\$ 1,800.00	\$ 180,000.00	\$ 1,000.00	\$ 100,000.00	-44.44%
1006	100000-UD	TEMPORARY TRIPLE LANE CLOSURE	UD	30	\$ 2,250.00	\$ 67,500.00	\$ 500.00	\$ 15,000.00	-77.78%
1007	100000-UD	TEMPORARY SHOULDER CLOSURE	UD	400	\$ 750.00	\$ 300,000.00	\$ 1,950.00	\$ 780,000.00	160.00%
1008	100000-UD	TEMPORARY ENTRANCE RAMP TREATMENT	UD	50	\$ 800.00	\$ 40,000.00	\$ 100.00	\$ 5,000.00	-87.50%
1009	100000-UD	TEMPORARY EXIT RAMP TREATMENT	UD	50	\$ 800.00	\$ 40,000.00	\$ 100.00	\$ 5,000.00	-87.50%
1010	121150	PRECAST TEMPORARY 32 INCH F SHAPE CONCRETE TRAFFIC BARRIER	LF	3,000	\$ 55.00	\$ 165,000.00	\$ 0.01	\$ 30.00	-99.98%
1011	120717	REFLECTIVE BARRIER MARKERS	EA	125	\$ 25.00	\$ 3,125.00	\$ 0.01	\$ 1.25	-99.96%
1012	100000-AL	RAILROAD EXPENSES	AL	1	\$ 460,000.00	\$ 460,000.00	\$ 460,000.00	\$ 460,000.00	0.00%
1013	120750	TEMPORARY CRASH CUSHION SAND FILLED PLASTIC BARRELS FOR MOT	BBL	50	\$ 200.00	\$ 10,000.00	\$ 0.01	\$ 0.50	-100.00%
1014	120763	VERTICAL PANELS	EA	10	\$ 50.00	\$ 500.00	\$ 0.01	\$ 0.10	-99.98%
4001	400000-SF	FULL DEPTH DECK REPAIRS IN CONCRETE FILLED STEEL GRID DECK	SF	500	\$ 85.00	\$ 42,500.00	\$ 0.01	\$ 5.00	-99.99%
4002	400000-SF	TYPE III DECK REPAIRS IN REINFORCED CONCRETE DECK	SF	6,000	\$ 90.00	\$ 540,000.00	\$ 75.00	\$ 450,000.00	-16.67%
4003	400000-SF	TYPE IV DECK REPAIRS IN REINFORCED CONCRETE DECK	SF	1,200	\$ 85.00	\$ 102,000.00	\$ 0.01	\$ 12.00	-99.99%
4004	400000-SF	PARTIAL DEPTH DECK REPAIRS IN CONCRETE FILLED STEEL GRID DECK	SF	2,000	\$ 85.00	\$ 170,000.00	\$ 0.01	\$ 20.00	-99.99%
4005	400000-HR	SKILLED LABOR	HR	200,000	\$ 80.00	\$ 16,000,000.00	\$ 0.01	\$ 2,000.00	-99.99%
4006	400000-HR	FOREMAN INCLUDING LIGHT DUTY TRUCK	HR	40,000	\$ 90.00	\$ 3,600,000.00	\$ 124.00	\$ 4,960,000.00	37.78%
4007	400000-UD	BOAT CAPTAIN INCLUDING BOAT	UD	90	\$ 645.00	\$ 58,050.00	\$ 520.00	\$ 46,800.00	-19.38%
4008	400000-HR	WELDER INCLUDING LIGHT DUTY TRUCK	HR	1,700	\$ 95.00	\$ 161,500.00	\$ 70.00	\$ 119,000.00	-26.32%
4009	400000-UD	SELF-PROPELLED AERIAL LIFT (60 FT. MAXIMUM PLATFORM HEIGHT)	UD	120	\$ 500.00	\$ 60,000.00	\$ 500.00	\$ 60,000.00	0.00%
4010	400000-UD	SELF-PROPELLED AERIAL LIFT (61 TO 120 FT. MAXIMUM PLATFORM HEIGHT)	UD	150	\$ 300.00	\$ 45,000.00	\$ 0.01	\$ 1.50	-100.00%

Maryland Transportation Authority

Contract Name: **On-Call Structural Repairs and Miscellaneous Modification**

Contract Number: **MR-3033-0000**

Bid Date: May 24, 2023

Bid Tabulation

				Engineer's Estimate		BRAWNER BUILDERS, INC. (Apparent Low Bidder)			
4011	400000-UD	AIR-COMPRESSOR (160 TO 350 CFM)	UD	400	\$ 90.00	\$ 36,000.00	\$ 350.00	\$ 140,000.00	288.89%
4012	400000-UD	AIR-COMPRESSOR (351 TO 750 CFM)	UD	400	\$ 185.00	\$ 74,000.00	\$ 0.01	\$ 4.00	-99.99%
4013	400000-UD	FLATBED TRUCK (12 TO 20 FT. BED, WEIGHT OVER 1 TON)	UD	400	\$ 275.00	\$ 110,000.00	\$ 1,450.00	\$ 580,000.00	427.27%
4014	400000-UD	BUCKET TRUCK (45 FT. WORKING HEIGHT)	UD	150	\$ 600.00	\$ 90,000.00	\$ 0.01	\$ 1.50	-100.00%
4015	400000-UD	PORTABLE LIGHT TREE	UD	300	\$ 120.00	\$ 36,000.00	\$ 200.00	\$ 60,000.00	66.67%
4016	400000-UD	TRACK DOZER, 100HP-130HP, MAX. GVW OF 22,000 LBS	UD	50	\$ 850.00	\$ 42,500.00	\$ 0.01	\$ 0.50	-100.00%
4017	400000-UD	ARTICULATED RUBBER TIRE LOADER, 1.5 CY-3.5 CY	UD	50	\$ 700.00	\$ 35,000.00	\$ 0.01	\$ 0.50	-100.00%
4018	400000-UD	DOUBLE AXLE DUMP TRUCK, 10 CY-14 CY	UD	250	\$ 800.00	\$ 200,000.00	\$ 0.01	\$ 2.50	-100.00%
4019	400000-UD	TRIPLE AXLE DUMP TRUCK, 15 CY-19 CY	UD	250	\$ 900.00	\$ 225,000.00	\$ 0.01	\$ 2.50	-100.00%
4020	400000-UD	HYDRAULIC EXCAVATOR, 1.5 CY-3.5 CY	UD	50	\$ 600.00	\$ 30,000.00	\$ 0.01	\$ 0.50	-100.00%
4021	400000-UD	HYDRAULIC EXCAVATOR, UNDER 1.5 CY	UD	50	\$ 500.00	\$ 25,000.00	\$ 100.00	\$ 5,000.00	-80.00%
4022	400000-UD	TRACK LOADER, 1 C Y-2.5 CY, MIN. 140 HP	UD	60	\$ 720.00	\$ 43,200.00	\$ 0.01	\$ 0.60	-100.00%
4023	400000-UD	SKID STEER LOADER, 45 HP-75 HP	UD	200	\$ 350.00	\$ 70,000.00	\$ 0.01	\$ 2.00	-100.00%
4024	400000-UD	TRUCK-MOUNTED HYDRAULIC PLATFORM WITH OPERATOR (UP TO 59 FT REACH BELOW)	UD	140	\$ 2,800.00	\$ 392,000.00	\$ 2,200.00	\$ 308,000.00	-21.43%
4025	400000-UD	TRUCK-MOUNTED HYDRAULIC PLATFORM/BUCKET INCLUDING ARTICULATING BOOM WITH OPERATOR (UP TO 70 FT REACH BELOW BRIDGE EXTENSION)	UD	70	\$ 4,500.00	\$ 315,000.00	\$ 0.01	\$ 0.70	-100.00%
4026	400000-UD	VACUUM-SHROUDED POWER TOOL	UD	200	\$ 40.00	\$ 8,000.00	\$ 0.01	\$ 2.00	-99.98%
4027	400000-AL	MATERIALS FOR STRUCTURAL REPAIRS	AL	1	\$ 2,200,000.00	\$ 2,200,000.00	\$ 2,200,000.00	\$ 2,200,000.00	0.00%
4028	400000-AL	SPECIALIZED EQUIPMENT FOR STRUCTURAL REPAIRS	AL	1	\$ 700,000.00	\$ 700,000.00	\$ 700,000.00	\$ 700,000.00	0.00%
4029	400000-AL	SPECIALIZED SUBCONTRACTORS	AL	1	\$ 1,300,000.00	\$ 1,300,000.00	\$ 1,300,000.00	\$ 1,300,000.00	0.00%
TOTAL COST:						\$ 29,963,875.00		\$ 14,465,893.65	-51.7

Maryland Transportation Authority

Contract Name: **On-Call Structural Repairs and Miscellaneous Modification**

Contract Number: **MR-3033-0000**

Bid Date: May 24, 2023

Bid Tabulation

Item No.	Category code	Item Description	Unit	Quantity	Engineer's Estimate		M. D. MILLER COMPANY, INC (2-nd Low Bidder)		
					Unit Price	Total	UNIT PRICE (Contractor's)	TOTAL (Contractor's)	+/- % of Est.
1001	120747	FLAGGER	HR	1,000	\$ 100.00	\$ 100,000.00	\$ 50.00	\$ 50,000.00	-50.00%
1002	110370	TYPE D ENGINEERS OFFICE	LS	1	\$ 207,000.00	\$ 207,000.00	\$ 350,000.00	\$ 350,000.00	69.08%
1003	100000-UD	ADDITIONAL PROTECTION VEHICLE	UD	600	\$ 300.00	\$ 180,000.00	\$ 250.00	\$ 150,000.00	-16.67%
1004	100000-UD	TEMPORARY SINGLE LANE CLOSURE	UD	1,000	\$ 1,500.00	\$ 1,500,000.00	\$ 1,000.00	\$ 1,000,000.00	-33.33%
1005	100000-UD	TEMPORARY DOUBLE LANE CLOSURE	UD	100	\$ 1,800.00	\$ 180,000.00	\$ 1,500.00	\$ 150,000.00	-16.67%
1006	100000-UD	TEMPORARY TRIPLE LANE CLOSURE	UD	30	\$ 2,250.00	\$ 67,500.00	\$ 0.01	\$ 0.30	-100.00%
1007	100000-UD	TEMPORARY SHOULDER CLOSURE	UD	400	\$ 750.00	\$ 300,000.00	\$ 0.01	\$ 4.00	-100.00%
1008	100000-UD	TEMPORARY ENTRANCE RAMP TREATMENT	UD	50	\$ 800.00	\$ 40,000.00	\$ 0.01	\$ 0.50	-100.00%
1009	100000-UD	TEMPORARY EXIT RAMP TREATMENT	UD	50	\$ 800.00	\$ 40,000.00	\$ 0.01	\$ 0.50	-100.00%
1010	121150	PRECAST TEMPORARY 32 INCH F SHAPE CONCRETE TRAFFIC BARRIER	LF	3,000	\$ 55.00	\$ 165,000.00	\$ 50.00	\$ 150,000.00	-9.09%
1011	120717	REFLECTIVE BARRIER MARKERS	EA	125	\$ 25.00	\$ 3,125.00	\$ 10.00	\$ 1,250.00	-60.00%
1012	100000-AL	RAILROAD EXPENSES	AL	1	\$ 460,000.00	\$ 460,000.00	\$ 460,000.00	\$ 460,000.00	0.00%
1013	120750	TEMPORARY CRASH CUSHION SAND FILLED PLASTIC BARRELS FOR MOT	BBL	50	\$ 200.00	\$ 10,000.00	\$ 3,000.00	\$ 150,000.00	1400.00%
1014	120763	VERTICAL PANELS	EA	10	\$ 50.00	\$ 500.00	\$ 100.00	\$ 1,000.00	100.00%
4001	400000-SF	FULL DEPTH DECK REPAIRS IN CONCRETE FILLED STEEL GRID DECK	SF	500	\$ 85.00	\$ 42,500.00	\$ 0.01	\$ 5.00	-99.99%
4002	400000-SF	TYPE III DECK REPAIRS IN REINFORCED CONCRETE DECK	SF	6,000	\$ 90.00	\$ 540,000.00	\$ 75.00	\$ 450,000.00	-16.67%
4003	400000-SF	TYPE IV DECK REPAIRS IN REINFORCED CONCRETE DECK	SF	1,200	\$ 85.00	\$ 102,000.00	\$ 75.00	\$ 90,000.00	-11.76%
4004	400000-SF	PARTIAL DEPTH DECK REPAIRS IN CONCRETE FILLED STEEL GRID DECK	SF	2,000	\$ 85.00	\$ 170,000.00	\$ 75.00	\$ 150,000.00	-11.76%
4005	400000-HR	SKILLED LABOR	HR	200,000	\$ 80.00	\$ 16,000,000.00	\$ 55.00	\$ 11,000,000.00	-31.25%
4006	400000-HR	FOREMAN INCLUDING LIGHT DUTY TRUCK	HR	40,000	\$ 90.00	\$ 3,600,000.00	\$ 0.01	\$ 400.00	-99.99%
4007	400000-UD	BOAT CAPTAIN INCLUDING BOAT	UD	90	\$ 645.00	\$ 58,050.00	\$ 150.00	\$ 13,500.00	-76.74%
4008	400000-HR	WELDER INCLUDING LIGHT DUTY TRUCK	HR	1,700	\$ 95.00	\$ 161,500.00	\$ 150.00	\$ 255,000.00	57.89%
4009	400000-UD	SELF-PROPELLED AERIAL LIFT (60 FT. MAXIMUM PLATFORM HEIGHT)	UD	120	\$ 500.00	\$ 60,000.00	\$ 0.01	\$ 1.20	-100.00%
4010	400000-UD	SELF-PROPELLED AERIAL LIFT (61 TO 120 FT. MAXIMUM PLATFORM HEIGHT)	UD	150	\$ 300.00	\$ 45,000.00	\$ 200.00	\$ 30,000.00	-33.33%

Maryland Transportation Authority

Contract Name: **On-Call Structural Repairs and Miscellaneous Modification**

Contract Number: **MR-3033-0000**

Bid Date: May 24, 2023

Bid Tabulation

				Engineer's Estimate			M. D. MILLER COMPANY, INC (2-nd Low Bidder)		
4011	400000-UD	AIR-COMPRESSOR (160 TO 350 CFM)	UD	400	\$ 90.00	\$ 36,000.00	\$ 200.00	\$ 80,000.00	122.22%
4012	400000-UD	AIR-COMPRESSOR (351 TO 750 CFM)	UD	400	\$ 185.00	\$ 74,000.00	\$ 0.01	\$ 4.00	-99.99%
4013	400000-UD	FLATBED TRUCK (12 TO 20 FT. BED, WEIGHT OVER 1 TON)	UD	400	\$ 275.00	\$ 110,000.00	\$ 2,500.00	\$ 1,000,000.00	809.09%
4014	400000-UD	BUCKET TRUCK (45 FT. WORKING HEIGHT)	UD	150	\$ 600.00	\$ 90,000.00	\$ 0.01	\$ 1.50	-100.00%
4015	400000-UD	PORTABLE LIGHT TREE	UD	300	\$ 120.00	\$ 36,000.00	\$ 200.00	\$ 60,000.00	66.67%
4016	400000-UD	TRACK DOZER, 100HP-130HP, MAX. GVW OF 22,000 LBS	UD	50	\$ 850.00	\$ 42,500.00	\$ 0.01	\$ 0.50	-100.00%
4017	400000-UD	ARTICULATED RUBBER TIRE LOADER, 1.5 CY-3.5 CY	UD	50	\$ 700.00	\$ 35,000.00	\$ 500.00	\$ 25,000.00	-28.57%
4018	400000-UD	DOUBLE AXLE DUMP TRUCK, 10 CY-14 CY	UD	250	\$ 800.00	\$ 200,000.00	\$ 0.01	\$ 2.50	-100.00%
4019	400000-UD	TRIPLE AXLE DUMP TRUCK, 15 CY-19 CY	UD	250	\$ 900.00	\$ 225,000.00	\$ 0.01	\$ 2.50	-100.00%
4020	400000-UD	HYDRAULIC EXCAVATOR, 1.5 CY-3.5 CY	UD	50	\$ 600.00	\$ 30,000.00	\$ 1,000.00	\$ 50,000.00	66.67%
4021	400000-UD	HYDRAULIC EXCAVATOR, UNDER 1.5 CY	UD	50	\$ 500.00	\$ 25,000.00	\$ 500.00	\$ 25,000.00	0.00%
4022	400000-UD	TRACK LOADER, 1 C Y-2.5 CY, MIN. 140 HP	UD	60	\$ 720.00	\$ 43,200.00	\$ 0.01	\$ 0.60	-100.00%
4023	400000-UD	SKID STEER LOADER, 45 HP-75 HP	UD	200	\$ 350.00	\$ 70,000.00	\$ 500.00	\$ 100,000.00	42.86%
4024	400000-UD	TRUCK-MOUNTED HYDRAULIC PLATFORM WITH OPERATOR (UP TO 59 FT REACH BELOW)	UD	140	\$ 2,800.00	\$ 392,000.00	\$ 1,500.00	\$ 210,000.00	-46.43%
4025	400000-UD	TRUCK-MOUNTED HYDRAULIC PLATFORM/BUCKET INCLUDING ARTICULATING BOOM WITH OPERATOR (UP TO 70 FT REACH BELOW BRIDGE EXTENSION)	UD	70	\$ 4,500.00	\$ 315,000.00	\$ 2,000.00	\$ 140,000.00	-55.56%
4026	400000-UD	VACUUM-SHROUDED POWER TOOL	UD	200	\$ 40.00	\$ 8,000.00	\$ 0.01	\$ 2.00	-99.98%
4027	400000-AL	MATERIALS FOR STRUCTURAL REPAIRS	AL	1	\$2,200,000.00	\$ 2,200,000.00	\$ 2,200,000.00	\$ 2,200,000.00	0.00%
4028	400000-AL	SPECIALIZED EQUIPMENT FOR STRUCTURAL REPAIRS	AL	1	\$ 700,000.00	\$ 700,000.00	\$ 700,000.00	\$ 700,000.00	0.00%
4029	400000-AL	SPECIALIZED SUBCONTRACTORS	AL	1	\$1,300,000.00	\$ 1,300,000.00	\$ 1,300,000.00	\$ 1,300,000.00	0.00%
TOTAL COST:						\$ 29,963,875.00		\$ 20,341,175.10	-32.1

Maryland Transportation Authority

Contract Name: **On-Call Structural Repairs and Miscellaneous Modification**

Contract Number: **MR-3033-0000**

Bid Date: May 24, 2023

Bid Tabulation

Item No.	Category code	Item Description	Unit	Quantity	Engineer's Estimate		CONCRETE GENERAL, INC. (3-rd Low Bidder)		
					Unit Price	Total	UNIT PRICE (Contractor's)	TOTAL (Contractor's)	+/- % of Est.
1001	120747	FLAGGER	HR	1,000	\$ 100.00	\$ 100,000.00	\$ 0.01	\$ 10.00	-99.99%
1002	110370	TYPE D ENGINEERS OFFICE	LS	1	\$ 207,000.00	\$ 207,000.00	\$ 0.01	\$ 0.01	-100.00%
1003	100000-UD	ADDITIONAL PROTECTION VEHICLE	UD	600	\$ 300.00	\$ 180,000.00	\$ 0.01	\$ 6.00	-100.00%
1004	100000-UD	TEMPORARY SINGLE LANE CLOSURE	UD	1,000	\$ 1,500.00	\$ 1,500,000.00	\$ 0.01	\$ 10.00	-100.00%
1005	100000-UD	TEMPORARY DOUBLE LANE CLOSURE	UD	100	\$ 1,800.00	\$ 180,000.00	\$ 0.01	\$ 1.00	-100.00%
1006	100000-UD	TEMPORARY TRIPLE LANE CLOSURE	UD	30	\$ 2,250.00	\$ 67,500.00	\$ 0.01	\$ 0.30	-100.00%
1007	100000-UD	TEMPORARY SHOULDER CLOSURE	UD	400	\$ 750.00	\$ 300,000.00	\$ 0.01	\$ 4.00	-100.00%
1008	100000-UD	TEMPORARY ENTRANCE RAMP TREATMENT	UD	50	\$ 800.00	\$ 40,000.00	\$ 0.01	\$ 0.50	-100.00%
1009	100000-UD	TEMPORARY EXIT RAMP TREATMENT	UD	50	\$ 800.00	\$ 40,000.00	\$ 0.01	\$ 0.50	-100.00%
1010	121150	PRECAST TEMPORARY 32 INCH F SHAPE CONCRETE TRAFFIC BARRIER	LF	3,000	\$ 55.00	\$ 165,000.00	\$ 35.00	\$ 105,000.00	-36.36%
1011	120717	REFLECTIVE BARRIER MARKERS	EA	125	\$ 25.00	\$ 3,125.00	\$ 0.01	\$ 1.25	-99.96%
1012	100000-AL	RAILROAD EXPENSES	AL	1	\$ 460,000.00	\$ 460,000.00	\$ 460,000.00	\$ 460,000.00	0.00%
1013	120750	TEMPORARY CRASH CUSHION SAND FILLED PLASTIC BARRELS FOR MOT	BBL	50	\$ 200.00	\$ 10,000.00	\$ 2,510.00	\$ 125,500.00	1155.00%
1014	120763	VERTICAL PANELS	EA	10	\$ 50.00	\$ 500.00	\$ 0.01	\$ 0.10	-99.98%
4001	400000-SF	FULL DEPTH DECK REPAIRS IN CONCRETE FILLED STEEL GRID DECK	SF	500	\$ 85.00	\$ 42,500.00	\$ 80.00	\$ 40,000.00	-5.88%
4002	400000-SF	TYPE III DECK REPAIRS IN REINFORCED CONCRETE DECK	SF	6,000	\$ 90.00	\$ 540,000.00	\$ 80.00	\$ 480,000.00	-11.11%
4003	400000-SF	TYPE IV DECK REPAIRS IN REINFORCED CONCRETE DECK	SF	1,200	\$ 85.00	\$ 102,000.00	\$ 80.00	\$ 96,000.00	-5.88%
4004	400000-SF	PARTIAL DEPTH DECK REPAIRS IN CONCRETE FILLED STEEL GRID DECK	SF	2,000	\$ 85.00	\$ 170,000.00	\$ 80.00	\$ 160,000.00	-5.88%
4005	400000-HR	SKILLED LABOR	HR	200,000	\$ 80.00	\$ 16,000,000.00	\$ 70.00	\$ 14,000,000.00	-12.50%
4006	400000-HR	FOREMAN INCLUDING LIGHT DUTY TRUCK	HR	40,000	\$ 90.00	\$ 3,600,000.00	\$ 0.01	\$ 400.00	-99.99%
4007	400000-UD	BOAT CAPTAIN INCLUDING BOAT	UD	90	\$ 645.00	\$ 58,050.00	\$ 600.00	\$ 54,000.00	-6.98%
4008	400000-HR	WELDER INCLUDING LIGHT DUTY TRUCK	HR	1,700	\$ 95.00	\$ 161,500.00	\$ 110.00	\$ 187,000.00	15.79%
4009	400000-UD	SELF-PROPELLED AERIAL LIFT (60 FT. MAXIMUM PLATFORM HEIGHT)	UD	120	\$ 500.00	\$ 60,000.00	\$ 0.01	\$ 1.20	-100.00%
4010	400000-UD	SELF-PROPELLED AERIAL LIFT (61 TO 120 FT. MAXIMUM PLATFORM HEIGHT)	UD	150	\$ 300.00	\$ 45,000.00	\$ 0.01	\$ 1.50	-100.00%

Maryland Transportation Authority

Contract Name: **On-Call Structural Repairs and Miscellaneous Modification**

Contract Number: **MR-3033-0000**

Bid Date: May 24, 2023

Bid Tabulation

				Engineer's Estimate		CONCRETE GENERAL, INC. (3-rd Low Bidder)			
4011	400000-UD	AIR-COMPRESSOR (160 TO 350 CFM)	UD	400	\$ 90.00	\$ 36,000.00	\$ 200.00	\$ 80,000.00	122.22%
4012	400000-UD	AIR-COMPRESSOR (351 TO 750 CFM)	UD	400	\$ 185.00	\$ 74,000.00	\$ 0.01	\$ 4.00	-99.99%
4013	400000-UD	FLATBED TRUCK (12 TO 20 FT. BED, WEIGHT OVER 1 TON)	UD	400	\$ 275.00	\$ 110,000.00	\$ 2,100.00	\$ 840,000.00	663.64%
4014	400000-UD	BUCKET TRUCK (45 FT. WORKING HEIGHT)	UD	150	\$ 600.00	\$ 90,000.00	\$ 250.00	\$ 37,500.00	-58.33%
4015	400000-UD	PORTABLE LIGHT TREE	UD	300	\$ 120.00	\$ 36,000.00	\$ 200.00	\$ 60,000.00	66.67%
4016	400000-UD	TRACK DOZER, 100HP-130HP, MAX. GVW OF 22,000 LBS	UD	50	\$ 850.00	\$ 42,500.00	\$ 400.00	\$ 20,000.00	-52.94%
4017	400000-UD	ARTICULATED RUBBER TIRE LOADER, 1.5 CY-3.5 CY	UD	50	\$ 700.00	\$ 35,000.00	\$ 320.00	\$ 16,000.00	-54.29%
4018	400000-UD	DOUBLE AXLE DUMP TRUCK, 10 CY-14 CY	UD	250	\$ 800.00	\$ 200,000.00	\$ 1,200.00	\$ 300,000.00	50.00%
4019	400000-UD	TRIPLE AXLE DUMP TRUCK, 15 CY-19 CY	UD	250	\$ 900.00	\$ 225,000.00	\$ 250.00	\$ 62,500.00	-72.22%
4020	400000-UD	HYDRAULIC EXCAVATOR, 1.5 CY-3.5 CY	UD	50	\$ 600.00	\$ 30,000.00	\$ 640.00	\$ 32,000.00	6.67%
4021	400000-UD	HYDRAULIC EXCAVATOR, UNDER 1.5 CY	UD	50	\$ 500.00	\$ 25,000.00	\$ 520.00	\$ 26,000.00	4.00%
4022	400000-UD	TRACK LOADER, 1 C Y-2.5 CY, MIN. 140 HP	UD	60	\$ 720.00	\$ 43,200.00	\$ 240.00	\$ 14,400.00	-66.67%
4023	400000-UD	SKID STEER LOADER, 45 HP-75 HP	UD	200	\$ 350.00	\$ 70,000.00	\$ 240.00	\$ 48,000.00	-31.43%
4024	400000-UD	TRUCK-MOUNTED HYDRAULIC PLATFORM WITH OPERATOR (UP TO 59 FT REACH BELOW)	UD	140	\$ 2,800.00	\$ 392,000.00	\$ 2,500.00	\$ 350,000.00	-10.71%
4025	400000-UD	TRUCK-MOUNTED HYDRAULIC PLATFORM/BUCKET INCLUDING ARTICULATING BOOM WITH OPERATOR (UP TO 70 FT REACH BELOW BRIDGE EXTENSION)	UD	70	\$ 4,500.00	\$ 315,000.00	\$ 2,500.00	\$ 175,000.00	-44.44%
4026	400000-UD	VACUUM-SHROUDED POWER TOOL	UD	200	\$ 40.00	\$ 8,000.00	\$ 0.01	\$ 2.00	-99.98%
4027	400000-AL	MATERIALS FOR STRUCTURAL REPAIRS	AL	1	\$ 2,200,000.00	\$ 2,200,000.00	\$ 2,200,000.00	\$ 2,200,000.00	0.00%
4028	400000-AL	SPECIALIZED EQUIPMENT FOR STRUCTURAL REPAIRS	AL	1	\$ 700,000.00	\$ 700,000.00	\$ 700,000.00	\$ 700,000.00	0.00%
4029	400000-AL	SPECIALIZED SUBCONTRACTORS	AL	1	\$ 1,300,000.00	\$ 1,300,000.00	\$ 1,300,000.00	\$ 1,300,000.00	0.00%
TOTAL COST:						\$ 29,963,875.00		\$ 21,969,342.36	-26.7



Maryland
Transportation
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CAPITAL COMMITTEE PROJECT SUMMARY

KB-3005-0000 I-695 Repairs and Subgrade Rehabilitation on Sparrows Point Near Bear Creek

PIN NUMBER 2450
CONTRACT NUMBER KB-3005-0000
CONTRACT TITLE I-695 Repairs and Subgrade Rehabilitation on Sparrows Point Near Bear Creek

PROJECT SUMMARY The work to be performed under this Contract is located on I-695 on Sparrows Point near Bear Creek in Baltimore County. The scope of work includes subgrade rehabilitation due to significant settlement and deterioration of a section of roadway located just east of the MD 157 (Peninsula Expressway) underpass. The work also includes repairs to backwalls and approaches of the six bridges crossing Bear Creek, MD 157, and the Tradepoint Atlantic Railroad. The repairs and rehabilitation are needed to prevent further settlement and deterioration and to reestablish as-built conditions

SCHEDULE

ADVERTISEMENT DATE 6/6/2023
ANTICIPATED NOTICE TO PROCEED DATE Nov-23
DURATION (COMPLETION DATE) Jun-25

MBE PARTICIPATION

OVERALL MBE
AFRICAN AMERICAN
ASIAN AMERICAN
HISPANIC AMERICAN
WOMEN
NATIVE AMERICAN

VSBE

	(\$) Advertised GOAL (%)	Proposed GOAL (%)
OVERALL MBE	22.00%	22.01%
AFRICAN AMERICAN	8.00%	10.96%
ASIAN AMERICAN	-	0.00%
HISPANIC AMERICAN	-	0.00%
WOMEN	11.00%	11.05%
NATIVE AMERICAN	-	0.00%
VSBE	1.00%	1.00%

ENGINEER'S ESTIMATE (EE) \$38,016,305.25

BID RESULTS

BID AMOUNT (\$) **% VARIANCE TO EE**

BID PROTEST YES NO

FUNDING SOURCE 100.00% TOLL REVENUE

The Six-M Company, Inc.	\$33,210,000.00	-13%
Kokosing Construction Company, Inc.	\$41,090,276.45	8%
Concrete General, Inc	\$44,137,722.40	16%
Joseph B. Fay Company	\$45,117,986.67	19%



Maryland
Transportation
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CAPITAL COMMITTEE PROJECT SUMMARY

KB-3040-0000 MD 24 NB Auxiliary Lane - MD 924 through Singer Road Intersection

PIN NUMBER PRJ-0238
CONTRACT NUMBER KH-3040-0000
CONTRACT TITLE MD 24 NB Auxiliary Lane - MD 924 through Singer Road Intersection

PROJECT SUMMARY The work to be performed under this contract is located on MD 24 from MD 924 to north of Singer Road in Harford County. An auxiliary lane will be constructed with median widening on NB MD 24. The auxiliary lane will allow NB MD 24 traffic turning onto WB Singer Road to remain left of thru traffic to reduce queuing at the Singer Road intersection as part of the I-95 Northbound ETL extension project.

SCHEDULE

ADVERTISEMENT DATE 6/12/2023
ANTICIPATED NOTICE TO PROCEED DATE Dec-23
DURATION (COMPLETION DATE) Jun-25

MBE PARTICIPATION

OVERALL MBE
AFRICAN AMERICAN
ASIAN AMERICAN
HISPANIC AMERICAN
WOMEN
NATIVE AMERICAN

VSBE

	(\$) Advertised GOAL (%)	Proposed GOAL (%)
OVERALL MBE	24.00%	24.11%
AFRICAN AMERICAN	8.00%	10.00%
ASIAN AMERICAN	-	0.00%
HISPANIC AMERICAN	-	0.00%
WOMEN	11.00%	14.11%
NATIVE AMERICAN	-	0.00%
VSBE	2.00%	2.00%

ENGINEER'S ESTIMATE (EE) \$16,939,091.50

BID RESULTS

BID AMOUNT (\$) **% VARIANCE TO EE**

BID PROTEST YES NO
FUNDING SOURCE 100.00% TOLL REVENUE

Allan Myers MD, Inc	\$17,249,777.00	2%
DXI Construction, Inc	\$17,355,469.04	2%
Pessoa Construction, Inc	\$17,584,974.38	4%
Six-M Company, Inc	\$17,980,000.00	6%
Concrete General, Inc	\$18,377,776.20	8%
Brawner Builders, Inc	\$18,730,271.75	11%
Gray & Son, Inc	\$19,052,162.77	12%
Diamond Materials, LLC	\$25,418,678.70	50%
San Jose Construction Group, Inc	\$25,676,059.17	52%



Peter Mattejat & Julie McCarthy
MDTA OEC, Office of Environmental

Implementing Meadows at MDTA



Agenda

Introduction

Importance

Past Meadow Plantings

Current Plantings

Future Meadows for Mitigation



Introduction

At MDTA one of the core values is **Stewardship**. “We promote and protect the social, environmental, ethical, and financial well-being of our employees, our customers, our agency, our community and our State.”

Pollinator species are the unsung heroes of the natural world, their value to Maryland is immeasurable.





“ No more bees, no more pollination, no more plants, no more animals, no more man. ”

Albert Einstein





I-95 Bioswale Plantings

Past Meadow Plantings

Various Stream Restoration and Stormwater Facilities

- Standard meadow mixes include wildflowers
- Not always visible to public typically
 - 2-3 years for total germination of some species
 - Changes in mowing operations can cause lack of establishment

Current Plantings



HT-3012 Landsdowne

JFK Plantings



Atlantic City Expressway, NJ

Future Meadows for Mitigation

Roadside Habitat

- Roadsides offer a huge opportunity of space, needing only 10 foot widths
- Roads are linear and connections between fragments, roads become travel corridors as well as feeding sources
- Variety of plants means blooming at different times of the year to support the life cycle of pollinators

Benefits for MDTA

- Become the standard and leader for Maryland Highways
- Create an aesthetically pleasing drive for commuters and visitors they will remember and want to visit again in a major US corridor
- Work towards getting mitigation credit for habitat creation within the ROW as space becomes increasingly limited



Summary

At MDTA, we have the opportunity to create a legacy and revolutionize the way we maintain roadside habitat. We have the ability and the space to create dynamic and connecting habitats for pollinator species. Pollinator habitat creation not only provides ecological uplift for the natural world, but it also shows people who travel through this important corridor we are doing our part to help the environment while still making it aesthetically pleasing.





Thank you



Peter Mattejat

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Julie McCarthy

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MEMORANDUM

TO: MDTA Capital Committee
FROM: Assistant Capital Program Manager Jennifer Stump
SUBJECT: Consolidated Transportation Program (CTP) Process/Additions
DATE: October 5, 2023

PURPOSE OF MEMORANDUM

The purpose of the memorandum is to provide the MDTA Capital Committee with a review of the MDTA Consolidated Transportation Program (CTP) process and an update of additions to the capital program. This information will be presented to the MDTA Board on October 26, 2023.

SUMMARY

Each year the Maryland Transportation Authority (MDTA) releases the CTP. The CTP presents MDTA's ongoing and new capital projects for a six-year rolling period (the current year, the upcoming budget year, and the four succeeding planning years) for all MDTA facilities. For each Draft CTP, the current year from the prior Final CTP is removed from the program because it has been closed out and one planning year is added at the end of the program. Historically, the largest year-over-year increases are reflected in the draft CTP whereas, changes to the final CTP are generally less substantial.

After approval by the MDTA Board in June of each year, the Draft CTP is presented to local elected officials and citizens in September through November throughout Maryland for review and comment. It is then revised and submitted, after MDTA Board approval in November, as the Final CTP as part of the Governor's budget to the Maryland General Assembly in January. This process is required by statute and applies to MDTA in addition to the MDOT modes.

The projects in the CTP are separated into three programs:

1. Construction Program - Major Projects,
2. Development and Evaluation (D&E) Program - Major Projects, and
3. System Preservation - Minor Projects.

The Construction Program – Major Projects and System Preservation – Minor Projects programs include ongoing projects and those projects scheduled to begin construction within the six-year

period. The D&E Program contains those major projects which are being prepared for possible future addition to the Construction Program. Projects are moved from the D&E Program to the Construction Program as funds and resources become available, based on the merits of the projects. Currently, the Tier 2 NEPA Bay Crossing Study is the only D&E project in MDTA's CTP.

PROJECT SELECTION

MDTA's capital projects originate from a variety of sources.

- Long Range Capital Needs (LRCN)
- Inspection findings
- Regulatory compliance
- Increased capacity needs
- Local Priority Letters/Legislative Requests

The Long Range Capital Needs (LRCN) includes planned rehabilitation or replacement projects based on life cycle. The Office of Engineering and Construction (OEC), the Division of Planning and Program Development (DPPD), the Division of Operations, and other stakeholders annually review the useful life of facility components and estimate costs and timelines to rehabilitate or replace the components. The expected useful life of a component does not provide an exact rehabilitation or replacement date but gives an idea of when the MDTA should begin planning and budgeting to address it.

Inspection findings are used in tandem with life cycle estimates to confirm rehabilitation or replacement is necessary as scheduled or to expedite a project when it is needed ahead of schedule. Additionally, inspections can reveal the opportunity for smaller scale repairs that can prevent a facility or component from degrading to the point of needing replacement via a larger, more expensive design-bid-build project. These small scope repairs can be diverted to on-call contracts. On-call contracts are a critical part of the program approach to system preservation.

The remaining sources – regulatory compliance, capacity needs, and local priorities – make up a smaller proportion of the CTP. Regulatory compliance includes projects for EPA-mandated storm water management. Increased capacity needs are based on traffic forecast recommendations. Local priorities are established each year as counties are asked to submit a list of priorities for the state transportation system. Generally, these priority letters include the concurrence signatures of the legislative delegation representing that county.

The FY 2024-2029 Final CTP will reflect the addition of eight projects totaling \$9.35 million (see Attachment A). The Final CTP will also include the addition of \$360 million in the allocated reserve in the six-year CTP. The additional funding is needed to offset a double-digit rise in construction costs and increased needs related to aging infrastructure. It is anticipated that additional funding will be needed beyond the six-year CTP. The additional funding will support projects that must be funded to maintain our assets before conditions deteriorate to a point where they require more extensive and expensive rehabilitation projects. These projects address needs before they present a risk to the asset performance, and they maintain our system in a good state of repair. The needs include: full bridge replacements; bridge deck replacements & deck resurfacing; roadway resurfacing; bridge system preservation measures such as scour remediation & steel beam (superstructure) rehabilitation retrofits; other critical facility/infrastructure renovations & rehabilitations such as roof replacements & tunnel

switchgear replacement; safety needs directly affecting traveling public such as tunnel fire protection and "on call" contracts to address critical needs on structures, roadway, electrical/ITS features, drainage, & environmental features; and toll system (lane, customer service center, back office) replacement.

Funding availability to budget for identified projects is based on the MDTA's six-year financial forecast, which considers estimates of traffic and revenue (prepared annually), the operating budget and capital budget, debt service payments, the potential need for future bond sales and toll increases, and compliance with financial standards (Trust Agreement covenant, debt service coverage, unrestricted cash balance).

ATTACHMENT

Attachment A - New Projects Added to the FY 2024-2029 MDTA Capital Program

New Projects Added to the FY 2024-2029 MDTA Capital Program

Replacement of BB North Ferry Slip

Bay Bridge (Pin 2609)

\$250,000 (Engineering only)

The annual inspections program and an in-depth study revealed the need for replacement.

On-Call Facility/Building Repairs

Multi-Area (Pin 2634)

\$4,725,000

Provide labor, equipment, materials, etc. to perform repairs, upgrades, replacements, and new construction. Includes interior and exterior on campus of any MDTA facilities.

50%CAP/50%OPER

On-Call Signs, Sign Lights, and Sign Structures

Multi-Area (Pin 2630)

\$924,000 (Engineering only)

This is an on-call contract to install signs, sign lights, and sign structures, and perform miscellaneous sign repairs on all MDTA facilities. Priority 1 sign structure repairs identified through the Annual Facility Inspections will be addressed in this contract.

ICC and JFK Data Center Hardware Replacement

Multi-Area (Pin 2633)

\$2,000,000

Replacement of the Enterprise Uninterruptable Power Supply (UPS) and In-line Cooling Systems in the ICC and JFK Data Centers. The current equipment in both Data Centers has reached end of life status and needs to be replaced.

Replace Eastern Avenue Bridge Over I-895

Baltimore Harbor Tunnel (Pin 2637)

\$100,000

Initial funding is for the utility relocation needed prior to the replacement of the Eastern Avenue bridge over I-895.

BHT Facility Wide Signing Upgrades

Baltimore Harbor Tunnel (Pin 2614)

\$600,000 (Engineering only)

This project is for upgrading the existing signing along the Baltimore Harbor Tunnel facility that are past their service life.

Rehabilitation of Bearing & Misc. Repairs - I-695 Bridges over Bear Creek

Francis Scott Key Bridge (Pin 2638)

\$450,000 (Engineering only)

Evaluation and repair of bridge support bearings and other needed structural repairs.

Shoreline Restoration at FSK Police HQ

Francis Scott Key Bridge (Pin 2639)

\$300,000 (Engineering only)

The shoreline near the FSK police headquarters is eroding and needs to be stabilized. This project was going to be a task under a future on-call, but the size/scope/type of stabilization/etc. has grown in size to justify its own project.



Maryland
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Maryland Transportation Authority 2023 Updates on the Structures Inspection Program

Presented By

Ruel Sabellano, D. Eng., P.E.

Structures Engineering Manager

Office of Engineering and Construction

October 2023

Structures Inspection Program

Presentation Overview

- Overview of MDTA Structures Inspection Program
 - Purpose
 - Structures Inventory
 - Annual Inspections
 - 2023 Inspections
- 2023 Updates from Annual Inspections

Structures Inspection Program

Purpose and Goal

Purpose

- MDTA's Bridge and Tunnel Inspection Program determines whether facilities are maintained in **good repair, working order and condition**
- Performed with a mission to provide safe facilities that keep traffic moving and instill public confidence by:
 - Identifying deficiencies
 - Providing accurate reports with comprehensive data
 - Coordinating repair activities in a timely manner

Requirements

- FHWA's requirements NBIS and NTIS (by law)
- MDTA Trust Agreement Requirements
 - Independent corporations to periodically visit MDTA assets
- MDTA OEC's requirements (outlined in Edition 5 of the MDTA Facilities Inspections Manual)



Structures Inspection Program

Major Programs

Annual Inspections Program

- Routine, special and emergency inspections
- Structure & inspection data management
- Repair prioritization & coordination

Authority Structures Inspections and Repair (ASIR) Program

- MDTA's custom-built software for inspection, repair and data management

Load Rating and Hauling Permit Program

- Perform analysis to determine load capacity of bridges and issue permits
- Coordinate among MDOT SHA's OOS and MCD, Baltimore City and Haulers

Inspection Contract Management and Team Development Program

- Management of 5 inspection contracts totaling \$60M over four years
- Management of 1 SBR inspection contract totaling \$5M over four years
- Training, guideline development, and ensuring compliance

Structures Inventory

Structure Types by Numbers

Structure Type	Number
Bridges	326
Tunnels	2
Small Bridges (Culverts)	161
Sign Structures	636
High Mast Lights	353
Noisewalls	60
Retaining Walls	131
SWM Structures	45
Waterfront Structures	3
Radio Control Tower	1

Total : 1718 Assets



Structures Inventory

Bridges and Tunnels by Length and Area

Structure Type	Number	Area (1000 SF)
Bridges	326	15,490
Tunnels	2	1,087
Total	328	16,577



Signature Structures	Facility	No.	Length (mile)	Area (1000SF)
Bay Bridges	WPL	2	8	1,527
Nice/Middleton Bridge	HWN	1	1.9	247
Tydings Bridge	JFK	1	1.0	442
Hatem Bridge	TJH	1	1.5	406
Key Bridge	FSK	1	1.7	556
K-Truss Bridge	BHT	1	0.3	107
Baltimore Harbor Tunnel	BHT	1	1.45	337
Fort McHenry Tunnel	FMT	1	1.3	750
Total		9	17.2	4,405



Annual Inspection Program

Inspection Teams

MDTA Trust Agreement Requirements

- MDTA employs engineering firms within the transportation industry to perform inspections periodically.

In-House Team:

- Lillian Sidrak, PE, Structures Inspection Program Manager
- Structures Engineers: one MDTA employee & two part-time consultants

Consultant Teams:

- 6 Joint Ventures of prime consultants including 30 sub-consultants
- Over 150 Inspection Team Leaders, 60 QC Engineers and 21 Project Managers

2023 Inspections

Inspections Completed

Hands-On Inspections (HOI)

- Signature Bridges and Tunnels including the *Initial Inspection of the New HWN Middleton Bridge*
- Underground SW Structures
- Retaining Walls and Noise Walls

Risk-Based Interim Inspections (RBI)

- Workhorse Bridges
- Small Bridges (culverts)
- High Mast Lighting Structures
- Toll Plazas and Weigh Scales
- Low Level Lights and Camera Poles

Underwater Inspections

- HWN Bridge
- WPL Bridge
- Bear Creek and Curtis Creek

Hydrographic Survey

- WPL Bridge
- HWN Bridge

Visual Inspections

- Roadway & Traffic Safety Features



2023 Inspections

Providing Data and Information

Information (Data) Type

- Annual Bridge and Tunnel Inspection Data
- Annual Executive Summary Reports
- Structures Asset Data
- Transportation Asset Management Plan
- Annual MFR, Attainment Report, Insurance Renewal Cost, etc.
- Bridge Load Rating Data, Bridge Vertical Clearance Data
- Other Structures data/info

Provided To

- Federal Highway Administration (FHWA) through SHA
- Trustee
- MDOT Asset Management Work Group
- FHWA through SHA
- Multiple MDTA Divisions, etc.
- SHA MCD Maryland-One Hauling Permit Program
- As requested



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2023 Inspections

Providing Trainings and Presentations

- Completed the Biennial Inspection Team Leaders' Training in-person and virtually
- Provided audit results of inspection findings
- Provided new inspection guidelines
- Enhanced the program utilizing today's advancements in technology



2023 Inspection Updates

Inspection Findings

Bay Bridge - Overall in Satisfactory Condition

- Patches, spalls, and delaminations on the eastbound and westbound bridge decks
- Peeling paint with localized surface corrosion at superstructure elements
- Minor to moderate concrete deterioration at bridge substructure elements
 - Numerous defects were undergoing repairs at the time of inspection

Nice Bridge - Overall in Very Good Condition

- The bridge was opened to traffic in October 2022.
- An initial inspection of the bridge was performed shortly thereafter.
- No notable defects were found.

2023 Inspection Updates

Inspection Findings

Tydings Bridge - Overall in Satisfactory Condition

- Minor concrete deterioration at bridge deck
- Minor corrosion on steel bridge superstructure
- Wind shear devices replaced, along with miscellaneous structural steel repairs

Hatem Bridge - Overall in Satisfactory Condition

- Minor surface cracking on the bridge deck
- Minor to moderate corrosion on steel superstructure elements
- Isolated areas of minor to moderate cracks and spalls in the concrete substructure

2023 Inspection Updates

Inspection Findings

Key Bridge - Overall in Satisfactory Condition

- Minor concrete cracks and delamination at bridge deck
- Localized section loss due to corrosion at steel superstructure elements
- Minor concrete deterioration at bridge substructure

K-Truss Bridge - Overall in Satisfactory Condition

- Minor spalls and cracking on the bridge deck
- Isolated corrosion areas at superstructure elements
- Minor to moderate concrete deterioration at bridge substructure

2023 Inspection Updates

Inspection Findings

Baltimore Harbor Tunnel - Overall in Satisfactory Condition

- Minor surface cracks at roadway wearing surface
- Missing and/or impacted ceiling tiles
- Minor concrete deterioration at the underside of the roadway and tunnel walls
- Vent building electrical system - fair condition. Contract HT-3016 underway
- Ventilation fans have been replaced and are in very good condition
- Select pumps replaced

Fort McHenry Tunnel - Overall in Satisfactory Condition

- Tunnel roadway surfaces exhibit minor isolated areas of cracking
- Missing tunnel wall tiles at isolated locations
- Fans operational and currently under rehabilitation

Structural/Mechanical/and Electrical repairs were being performed during the time of inspection at both tunnels

2023 Inspection Updates

Inspection Findings

Sign Structures and New Gantries - Overall in Very Good Condition

- New sign structures in JFK in Cecil county to the Delaware Line were inspected
- New Toll Gantries in the FMT, TJH, FSK and WPL facilities were inspected
- Typical defects found include loose hardware

Low Level Lights (LLL) and Camera Poles - Overall in Good Condition

Inspections of the LLL were performed using a newly launched mobile application

- New LED lighting was implemented on the JFK Rest Areas and FSK facilities
- Typical defects include loose hardware, broken breakaway boxes, and some poles required removal

2023 Inspection Updates

Inspection Findings

Workhorse Bridges - Overall in Very Good to Satisfactory Condition

- New bridges - Initial Inspections performed on the Abingdon Road, Clayton Road, and Raphael Road Bridges in the JFK Facility
- Typical defects on all facility bridges include minor spalls, cracks, and steel corrosion

High Mast Lights (HML) - Overall in Good Condition

- Majority of Fort McHenry Tunnel Facility HMLs have been replaced
- Typical defects include some loose hardware and non-functional luminaires

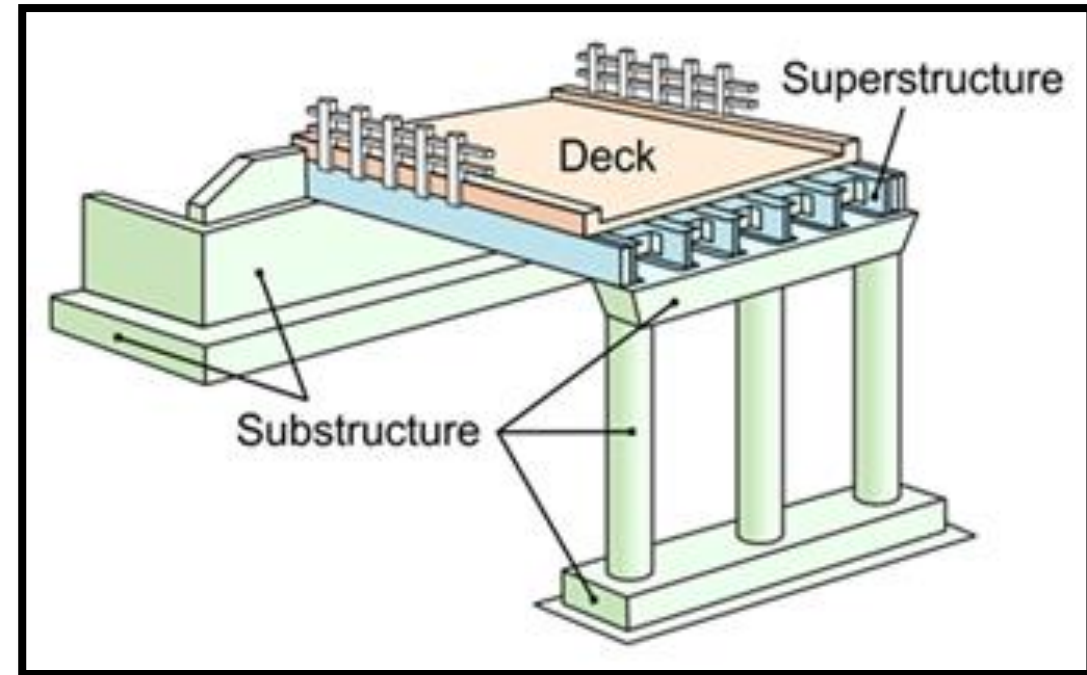
Toll Plaza, Scales - Overall in Satisfactory Condition

- AET Implemented at FSK, WPL, FMT, Perryville, and TJH Facilities
- Toll Plaza at BHT and Scales at WPL and TJH
- Some loose hardware, minor spalls and some steel corrosion

2023 Inspection Updates

Inspection Findings

- Bridge inspection reports determine condition rating data for the three major structural components of bridges:
 - Deck
 - Superstructure
 - Substructure
- The ratings determine if each component is in Excellent, Very Good, Good, Satisfactory, Fair or Poor Condition.
- These ratings are used in asset management and identification of projects.

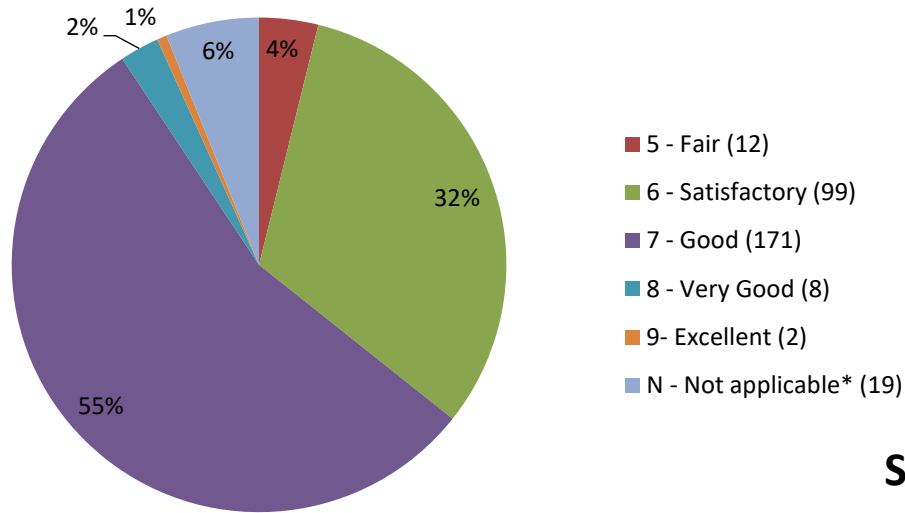


*Figure: Components of a Steel Bridge
(SSSBA, 2020)*

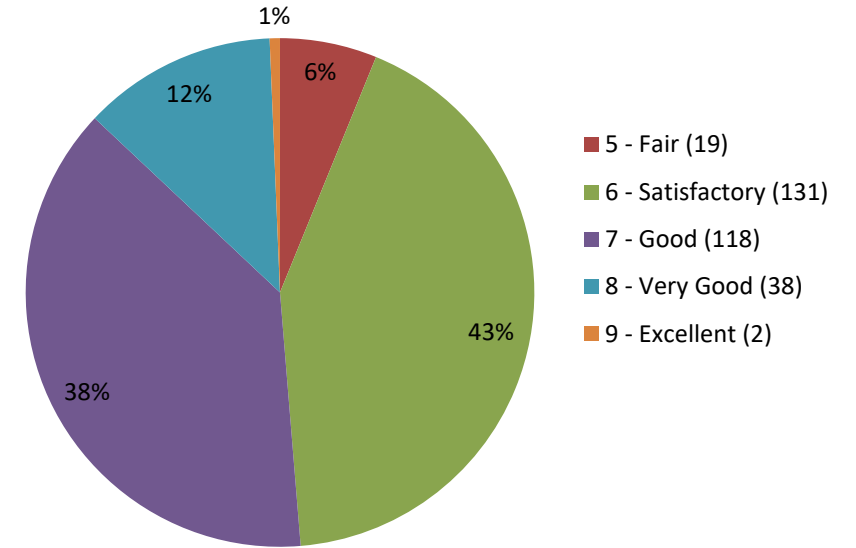
2023 Inspection Updates

Condition Ratings

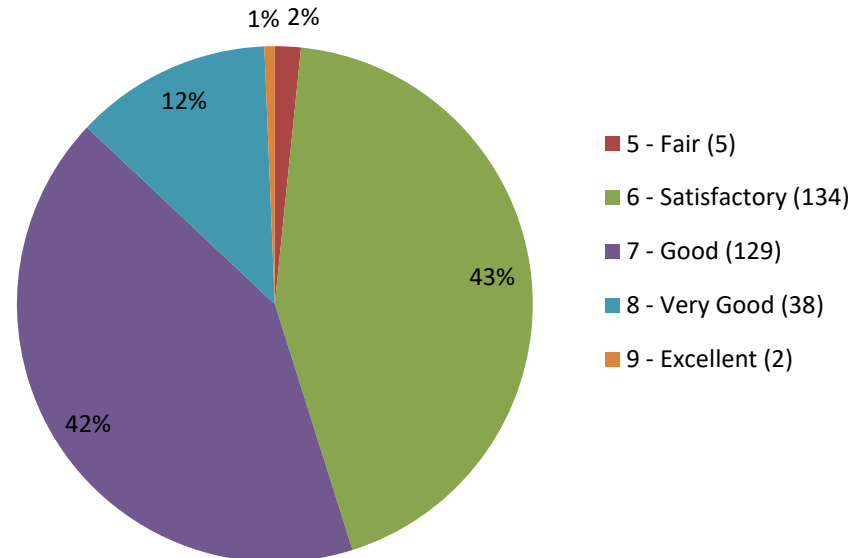
Deck Condition



Superstructure Condition



Substructure Condition



*N applies to culverts who do not have a rating for deck, superstructure, or substructure

Questions



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