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March 21, 2023

Anthony E. Hilko, Maj, MI ANG  
Base Civil Engineer, Alpena CRTC  
5885 A St.  
Alpena, Michigan 49707

Re: Alpena County Regional Airport (APN)  
Rehabilitate Runway 1-19 TDR Pavement & BAK-12 Aircraft Arresting Systems – Phase 1  
North  
RS&H Project No. 1010-1976-001

Maj. Hilko:

Please find enclosed the Tabulation of Bids from the Friday, March 17, 2023, bid opening for the referenced project. One (1) contractor submitted a competitive bid proposal which was found to be responsive. M & M Excavating Co., Inc.'s (M&M Excavating) submitted bid of \$19,664,000.00 was the as-read low bid. No errors nor omissions were found in their bid.

M&M Excavating's bid was in excess of the \$16,911,550.75 Opinion of Probable Construction Cost that was compiled by RS&H Inc. (difference of \$2,752,449.25). A list of possible contributing factors to this discrepancy below:

- Project Scheduled Start – with only 60 days from bid opening to the construction notice to proceed contractors would need to quickly rearrange their entire construction season schedule to fit this project into a schedule that works with other on-going projects.
- Skilled Labor Shortage – due to a variety of factors there is a skilled labor shortage and contractors are having difficulties staffing the current amount of construction work.
- Amount of Already Awarded Construction Projects – Michigan Department of Transportation (MDOT) has let a significant amount of construction for Summer 2023. MDOT work competes for many of the same contractors that bid on airfield construction projects.
- Construction Duration/Phasing – harsh Northern Michigan winters do not allow for construction projects to be shifted to later months which typically is an option for projects in warmer climates.
- Remote Project Location – few contractors with capabilities and capacity in the local area

**The total construction cost for the project, including RS&H's Type C services (\$1,134,000.00) is \$20,798,000.00.**

Feel free to contact us with any questions or concerns.

Sincerely,  
RS&H MICHIGAN, INC.

A handwritten signature in blue ink, appearing to read "DM Joye", is positioned above the typed name.

David M. Joye, PE  
Aviation Engineer

Enc.

Cc: Smigelski, Steve – Alpena County Regional Airport  
File: 10101976001 06.00

**Alpena County Regional Airport  
Rehabilitate Runway 1-19 TDZ Pavement & BAK-12 Aircraft Arresting Systems Phase 1 North**

RS&H Michigan, Inc.  
Bid Date: March 17, 2023  
Prepared By: DMJ  
RS&H Project No. 1010-1976-002

**Bid Tabulation Summary**

BIDDER	BASE BID				TOTAL
Engineer's Estimate	\$ 16,911,550.75				\$ 16,911,550.75
M&M Excavating Co. Inc.	\$ 19,664,000.00				\$ 19,664,000.00

**Bid Tabulation Errors**

BIDDER	TABULATION ERRORS	NET EFFECT ON GRAND TOTALS
M&M Excavating Co. Inc.	None	None

**Bid Requirement Checklist**

Bid Requirement	BIDDER				
	M&M Excavating Co. Inc.				
1.) Proposal Form (P-1-3)	✓				
2.) Proposal Affidavit (P-4)	✓				
3.) Proposal Guaranty (P-5)	✓				
4.) Surety's Bond Affidavit (P-6)	✓				
5.) EEO Report Statement (P-7)	✓				
6.) Non-Collusion Affidavit (P-8)	✓				
7.) Iran Economic Sanction Act (P-9)	✓				
8.) Bidder's Qualifications (P-10-11)	✓				
9.) DBE Assurance (P-13-15)	✓				
10.) Buy American Certification (P-16-17)	✓				
11.) Certification of Tax Delinquency & Felony Convictions (P-18)	✓				
11.) Bid Schedule (P-18-31)	✓				
<b>Responsive Bid?</b>	<b>Yes</b>				

**Alpena County Regional Airport  
Rehabilitate Runway 1-19 TDZ Pavement & BAK-12 Aircraft Arresting Systems Phase 1 North**

RS&H Michigan, Inc.  
Bid Date: March 17, 2023  
Prepared By: DMJ  
RS&H Project No. 1010-1976-002

ITEM NO.	WORK ITEM DESCRIPTION	UNIT	QUANTITY	Engineer's Estimate		M&M Excavating Co. Inc.	
				UNIT PRICE	AMOUNT	UNIT PRICE	AMOUNT
G-102-11.1	Safety and Security	LSUM	1	\$ 1,500,000.00	\$ 1,500,000.00	\$ 4,744,267.50	\$ 4,744,267.50
G-102-11.2	Safety Plan Compliance Document (SPCD)	LSUM	1	\$ 25,000.00	\$ 25,000.00	\$ 10,000.00	\$ 10,000.00
C-100-14	Contractor Quality Control Program (CQCP)	LSUM	1	\$ 800,000.00	\$ 800,000.00	\$ 255,000.00	\$ 255,000.00
C-102-5.1	Installation and Removal of Silt Fence	LFT	6,000	\$ 5.00	\$ 30,000.00	\$ 4.00	\$ 24,000.00
C-102-5.2	Soil Erosion and Sedimentation Control Permitting	LSUM	1	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00
C-105-7.1	Mobilization (MAX. 10% of Bid Total)	LSUM	1	\$ 1,472,868.25	\$ 1,472,868.25	\$ 1,900,000.00	\$ 1,900,000.00
C-105-7.2	Construction and Maintenance of Haul Routes	LSUM	1	\$ 25,000.00	\$ 25,000.00	\$ 23,000.00	\$ 23,000.00
C-105-7.3	Engineer/RPR Field Office	LSUM	1	\$ 30,000.00	\$ 30,000.00	\$ 15,000.00	\$ 15,000.00
C-105-7.4	Allowance for FAA Coordination and Flight Checks	ALLOW	1	\$ 50,000.00	\$ 50,000.00	\$ 50,000.00	\$ 50,000.00
P-101-5.1	Pavement Removal - PCC on Aggregate Base	SYD	3,700	\$ 6.00	\$ 22,200.00	\$ 11.00	\$ 40,700.00
P-101-5.2	Pavement Removal - PCC on Asphalt/Concrete Base	SYD	31,300	\$ 10.00	\$ 313,000.00	\$ 11.00	\$ 344,300.00
P-101-5.3	Pavement Removal - Asphalt on Aggregate Base	SYD	15,300	\$ 4.00	\$ 61,200.00	\$ 4.00	\$ 61,200.00
P-101-5.4	Pavement Removal - Asphalt on Concrete Base	SYD	14,400	\$ 6.00	\$ 86,400.00	\$ 4.00	\$ 57,600.00
P-101-5.5	Cold Milling - Asphalt, 4-Inch Depth	SYD	3,900	\$ 2.00	\$ 7,800.00	\$ 5.00	\$ 19,500.00
P-101-5.6	Remove Cable and Conduit	LSUM	1	\$ 40,000.00	\$ 40,000.00	\$ 22,000.00	\$ 22,000.00
P-101-5.7	Remove Elevated Light, Including Base	EACH	42	\$ 225.00	\$ 9,450.00	\$ 250.00	\$ 10,500.00
P-101-5.8	Remove In-Pavement Light, Including Base	EACH	4	\$ 300.00	\$ 1,200.00	\$ 300.00	\$ 1,200.00
P-101-5.9	Remove Retroreflective Marker	EACH	3	\$ 150.00	\$ 450.00	\$ 50.00	\$ 150.00
P-101-5.10	Remove Airfield Guidance Sign, Including Foundation	EACH	17	\$ 800.00	\$ 13,600.00	\$ 1,000.00	\$ 17,000.00
P-101-5.11	Remove Electrical Junction Structure	EACH	6	\$ 200.00	\$ 1,200.00	\$ 150.00	\$ 900.00
P-101-5.12	Remove Electrical Manhole	EACH	4	\$ 1,200.00	\$ 4,800.00	\$ 1,350.00	\$ 5,400.00
P-101-5.13	Remove Drainage Pipe	LFT	1,150	\$ 50.00	\$ 57,500.00	\$ 32.00	\$ 36,800.00
P-101-5.14	Remove Drainage Structure	EACH	2	\$ 800.00	\$ 1,600.00	\$ 1,500.00	\$ 3,000.00
P-152-4.1	Unclassified Excavation	CYD	11,500	\$ 15.00	\$ 172,500.00	\$ 3.00	\$ 34,500.00
P-152-4.2	Remove Existing PCC Stockpile Material	TON	30,000	\$ 10.00	\$ 300,000.00	\$ 5.00	\$ 150,000.00
P-219-5.1	Recycled Concrete Aggregate Base Course	CYD	20,800	\$ 15.00	\$ 312,000.00	\$ 50.00	\$ 1,040,000.00
P-219-5.2	Separation Geotextile	SYD	66,100	\$ 3.00	\$ 198,300.00	\$ 2.00	\$ 132,200.00
P-307-7.1	6-Inch Cement Treated Permeable Base Course (CTPB)	SYD	33,300	\$ 22.00	\$ 732,600.00	\$ 22.00	\$ 732,600.00
P-401-8.1	Asphalt Surface Course	TON	1,300	\$ 110.00	\$ 143,000.00	\$ 110.00	\$ 143,000.00
P-403-8.1	Asphalt Mixture Surface Course	TON	6,100	\$ 105.00	\$ 640,500.00	\$ 110.00	\$ 671,000.00
P-501-8.1	16-Inch Concrete Runway/Taxiway Pavement	SYD	32,700	\$ 125.00	\$ 4,087,500.00	\$ 120.00	\$ 3,924,000.00
P-501-8.2	8-Inch Concrete Shoulder Pavement	SYD	2,600	\$ 85.00	\$ 221,000.00	\$ 130.00	\$ 338,000.00
P-603-5.1	Emulsified Asphalt Tack Coat	GAL	3,200	\$ 2.50	\$ 8,000.00	\$ 3.00	\$ 9,600.00
P-608-8.1	Asphalt Surface Treatment	SYD	0	\$ 2.00	\$ -	\$ -	\$ -
P-620-5.1	Pavement Marking, White	SFT	125,000	\$ 1.50	\$ 187,500.00	\$ 1.60	\$ 200,000.00
P-620-5.2	Pavement Marking, Yellow	SFT	22,000	\$ 2.50	\$ 55,000.00	\$ 1.60	\$ 35,200.00
P-620-5.3	Pavement Marking, Black	SFT	52,000	\$ 1.00	\$ 52,000.00	\$ 0.75	\$ 39,000.00
P-620-5.4	Surface Painted Holding Position Sign	EACH	12	\$ 850.00	\$ 10,200.00	\$ 1,500.00	\$ 18,000.00
P-620-5.5	Pavement Marking Removal	SFT	152,000	\$ 1.50	\$ 228,000.00	\$ 0.40	\$ 60,800.00
P-621-5.1	Pavement Grooving	SYD	25,000	\$ 3.00	\$ 75,000.00	\$ 3.30	\$ 82,500.00
D-705-5.1	6-Inch Perforated PVC Pipe, Including Porous Backfill and Filter Fabric	LFT	6,330	\$ 12.00	\$ 75,960.00	\$ 30.00	\$ 189,900.00
D-705-5.2	6-Inch Non-Perforated PVC Pipe	LFT	2,620	\$ 15.00	\$ 39,300.00	\$ 30.00	\$ 78,600.00
D-751-5.1	Underdrain Cleanout, Including Frame and Cover	EACH	40	\$ 1,000.00	\$ 40,000.00	\$ 2,500.00	\$ 100,000.00
D-751-5.2	Concrete Underdrain Outfall End Section	EACH	9	\$ 1,500.00	\$ 13,500.00	\$ 500.00	\$ 4,500.00
D-751-5.3	6-Foot Diameter Lift Station	EACH	2	\$ 20,000.00	\$ 40,000.00	\$ 50,000.00	\$ 100,000.00
D-751-5.4	Trench Drain	LFT	153	\$ 250.00	\$ 38,250.00	\$ 500.00	\$ 76,500.00
T-901-5.1	Seeding, Hydroseed with Fertilizer and Mulch	ACRE	28	\$ 4,000.00	\$ 112,000.00	\$ 2,800.00	\$ 78,400.00
T-905-5.1	Topsoil (Obtained On-Site or Removed from Stockpile)	CYD	7,250	\$ 10.00	\$ 72,500.00	\$ 8.00	\$ 58,000.00
T-905-5.2	Topsoil (Obtained Off-Site)	CYD	7,250	\$ 21.00	\$ 152,250.00	\$ 35.00	\$ 253,750.00
L-105-7.1	Maintenance of Airport Lighting Systems	LSUM	1	\$ 15,000.00	\$ 15,000.00	\$ 5,000.00	\$ 5,000.00
L-105-7.2	Field-Locate Existing Airfield Lighting and Signage Circuits	LSUM	1	\$ 15,000.00	\$ 15,000.00	\$ 1,500.00	\$ 1,500.00
L-105-7.3	Install Solid Steel Cover Plate with 2-inch Threaded Opening, 3/8-inch, Size B	EACH	10	\$ 500.00	\$ 5,000.00	\$ 200.00	\$ 2,000.00
L-105-7.4	Replace Runway Edge Light Fixture on Existing Base Can, Y/W to W/W, Using Owner-Furnished Fixture	EACH	23	\$ 750.00	\$ 17,250.00	\$ 400.00	\$ 9,200.00
L-105-7.5	Install Runway Edge Light Fixture on Existing Base Can, Using Owner-Furnished Fixture	EACH	12	\$ 1,500.00	\$ 18,000.00	\$ 400.00	\$ 4,800.00
L-105-7.6	Remove Temporary Threshold Light Fixture and Install Blank Lid	EACH	8	\$ 750.00	\$ 6,000.00	\$ 275.00	\$ 2,200.00
L-105-7.7	Replace Runway Distance Remaining Sign Panel	EACH	14	\$ 500.00	\$ 7,000.00	\$ 875.00	\$ 12,250.00
L-108-5.1	1/C No. 8 AWG, 5 kV, L-824, Type C, Unshielded Cable, Red Jacket, Installed in Trench, Duct Bank, or Conduit	LFT	7,950	\$ 3.00	\$ 23,850.00	\$ 2.50	\$ 19,875.00

**Alpena County Regional Airport  
Rehabilitate Runway 1-19 TDZ Pavement & BAK-12 Aircraft Arresting Systems Phase 1 North**

RS&H Michigan, Inc.  
Bid Date: March 17, 2023  
Prepared By: DMJ  
RS&H Project No. 1010-1976-002

ITEM NO.	WORK ITEM DESCRIPTION	UNIT	QUANTITY	Engineer's Estimate		M&M Excavating Co. Inc.	
				UNIT PRICE	AMOUNT	UNIT PRICE	AMOUNT
L-108-5.2	1/C No. 8 AWG, 5 kV, L-824, Type C, Unshielded Cable, Black Jacket, Installed in Trench, Duct Bank, or Conduit	LFT	3,560	\$ 2.00	\$ 7,120.00	\$ 2.50	\$ 8,900.00
L-108-5.3	1/C No. 6 AWG, Solid, Bare Copper Counterpoise Wire, Installed Above the Duct Bank or Conduit, Including Connections/Terminations	LFT	8,565	\$ 2.50	\$ 21,412.50	\$ 2.50	\$ 21,412.50
L-108-5.4	3-1/0 AWG, AL Solid Conductors (100% TR-XLPE MV-105 with 1/3 Concentric Neutral)	LFT	3,000	\$ 25.00	\$ 75,000.00	\$ 45.00	\$ 135,000.00
L-108-5.5	4-1/0 AWG, 1-#2 GND (All 600V, Type THWN-2)	LFT	175	\$ 50.00	\$ 8,750.00	\$ 35.00	\$ 6,125.00
L-110-5.1	Concrete-Encased Electrical Duct, 1-Way 2-Inch, Sch. 80 HDPE	LFT	425	\$ 80.00	\$ 34,000.00	\$ 85.00	\$ 36,125.00
L-110-5.2	Concrete-Encased Electrical Duct, 1-Way 2-Inch, Sch. 80 HDPE In Existing Pavement	LFT	110	\$ 120.00	\$ 13,200.00	\$ 175.00	\$ 19,250.00
L-110-5.3	Concrete-Encased Electrical Duct, 1-Way 3-Inch, Sch. 80 HDPE	LFT	155	\$ 90.00	\$ 13,950.00	\$ 35.00	\$ 5,425.00
L-110-5.4	Concrete-Encased Electrical Duct, 2-Way 4-Inch, Sch. 80 HDPE	LFT	200	\$ 125.00	\$ 25,000.00	\$ 65.00	\$ 13,000.00
L-110-5.5	Concrete-Encased Electrical Duct, 4-Way 4-Inch, Sch. 80 HDPE	LFT	200	\$ 175.00	\$ 35,000.00	\$ 100.00	\$ 20,000.00
L-110-5.6	Electrical Duct, 1-Way 2-Inch, Sch. 80 HDPE	LFT	7,630	\$ 8.00	\$ 61,040.00	\$ 14.00	\$ 106,820.00
L-110-5.7	Electrical Duct, 1-Way 5-Inch, Sch. 80 HDPE	LFT	2,500	\$ 35.00	\$ 87,500.00	\$ 22.00	\$ 55,000.00
L-110-5.8	Directionally Bored Electrical Duct, 1-Way 5-Inch, Sch. 80 HDPE	LFT	190	\$ 60.00	\$ 11,400.00	\$ 75.00	\$ 14,250.00
L-115-5.1	Electrical Handhole, Aircraft-Rated	EACH	4	\$ 5,500.00	\$ 22,000.00	\$ 13,250.00	\$ 53,000.00
L-115-5.2	Electrical Manhole, HS-20 Rated	EACH	3	\$ 7,500.00	\$ 22,500.00	\$ 14,000.00	\$ 42,000.00
L-115-5.3	L-867D Electrical Junction Structure, In Turf	EACH	8	\$ 1,500.00	\$ 12,000.00	\$ 1,625.00	\$ 13,000.00
L-125-5.1	L-862(L) Elevated Runway Edge Light (Owner Furnished Fixture), Including Base, In Pavement	EACH	10	\$ 3,000.00	\$ 30,000.00	\$ 3,100.00	\$ 31,000.00
L-125-5.2	L-850C(L) Flush-Mounted Runway Edge Light (Owner Furnished Fixture), Including Base, In Pavement	EACH	6	\$ 3,200.00	\$ 19,200.00	\$ 3,500.00	\$ 21,000.00
L-125-5.3	L-862E(L) Elevated Runway Threshold Light (Owner Furnished Fixture), Including Base, In Pavement	EACH	7	\$ 3,000.00	\$ 21,000.00	\$ 2,900.00	\$ 20,300.00
L-125-5.4	L-862E(L) Elevated Runway Threshold Light (Owner Furnished Fixture), Including Base, In Turf	EACH	1	\$ 2,500.00	\$ 2,500.00	\$ 2,000.00	\$ 2,000.00
L-125-5.5	L-861T(L) Elevated Taxiway Edge Light (Owner Furnished Fixture), Including Base, In Pavement	EACH	9	\$ 3,000.00	\$ 27,000.00	\$ 3,000.00	\$ 27,000.00
L-125-5.6	L-861T(L) Elevated Taxiway Edge Light (Owner Furnished Fixture), Including Base, In Turf	EACH	9	\$ 2,500.00	\$ 22,500.00	\$ 1,800.00	\$ 16,200.00
L-125-5.7	L-853 Stake Mounted Retroreflective Marker	EACH	3	\$ 500.00	\$ 1,500.00	\$ 100.00	\$ 300.00
L-125-5.8	L-858(L) Airfield Guidance Sign (Owner Furnished Sign), Size 2, 1 Module, Including Foundation	EACH	5	\$ 7,750.00	\$ 38,750.00	\$ 11,000.00	\$ 55,000.00
L-125-5.9	L-858(L) Airfield Guidance Sign (Owner Furnished Sign), Size 2, 2 Module, Including Foundation	EACH	2	\$ 9,000.00	\$ 18,000.00	\$ 12,000.00	\$ 24,000.00
L-125-5.10	L-858(L) Airfield Guidance Sign (Owner Furnished Sign), Size 2, 3 Module, Including Foundation	EACH	2	\$ 12,000.00	\$ 24,000.00	\$ 13,000.00	\$ 26,000.00
L-125-5.11	L-858B(L) Runway Distance Remaining Sign, Size 5, Including Foundation	EACH	8	\$ 8,500.00	\$ 68,000.00	\$ 9,000.00	\$ 72,000.00
L-125-5.12	L-858B(L) Aircraft Arresting System Marker Sign, Size 4, Style 3, 6.6A, Including Foundation	EACH	2	\$ 7,500.00	\$ 15,000.00	\$ 13,500.00	\$ 27,000.00
L-125-5.13	Relocate REILs to Permanent Location, on New Bases	SET	1	\$ 22,000.00	\$ 22,000.00	\$ 19,000.00	\$ 19,000.00
L-125-5.14	Relocate PAPIs to Permanent Location, on Existing Foundations	SET	1	\$ 35,000.00	\$ 35,000.00	\$ 7,000.00	\$ 7,000.00
261216-1	45KVA, 3-Phase, 208/120V Pad Mounted Transformer	EACH	1	\$ 40,000.00	\$ 40,000.00	\$ 13,500.00	\$ 13,500.00
M-005-1	Remove Existing Runway 19 BAK-12 Type H Aircraft Arresting System	LSUM	1	\$ 250,000.00	\$ 250,000.00	\$ 95,000.00	\$ 95,000.00
M-005-2	Install New Runway 19 BAK-12 Type H Aircraft Arresting System	LSUM	1	\$ 2,250,000.00	\$ 2,250,000.00	\$ 1,500,000.00	\$ 1,500,000.00
M-005-3	Allowance for ESCO Construction Representative Oversight	ALLOW	1	\$ 150,000.00	\$ 150,000.00	\$ 150,000.00	\$ 150,000.00
M-005-4	Allowance for BAK-12 Aircraft Arresting System Equipment supplied by ESCO	ALLOW	1	\$ 750,000.00	\$ 750,000.00	\$ 750,000.00	\$ 750,000.00
	<b>BID TOTAL</b>				<b>\$ 16,911,550.75</b>		<b>\$ 19,664,000.00</b>