Matrix DESIGN GROUP

USAFA Visitor Center
Conceptual Opinion of Probable Construction Costs
Development Program "Parcel A" & Public Infrastructure
Matrix Design Group, Inc.
December 5, 2017

Section 1	Onsite Demolition, Grading and Erosion Control	Quantity	Unit	Unit Cost	Total Cost
1.a	Remove Asphalt Mat	15,131	sy	$ 7.25	$ 109,700
1.b	Remove Concrete Curb & Gutter	2,400	lf	$ 6.00	$ 14,400
1.c	Clearing & Grubbing	32	Ac	$ 2,100.00	$ 67,200
1.d	Strip 6" and Stockpile	32	Ac	$ 2,750.00	$ 88,000
1.e	Cut/Fill within 0.2'	250,000	cy	$ 4.85	$ 1,212,500
1.f	Fine Grade	8,583	sy	$ 1.50	$ 12,875
1.g	Import Fill	40,000	cy	$ -	$ -
1.h	Import Structural Fill	5,000	cy	$ 55.00	$ 275,000
1.i	Erosion Control	1	ls	$ 250,000.00	$ 250,000
1.j	Retaining Wall <5' Tall	300	lf	$ 175.00	$ 52,500
1.k	Retaining Wall 6'-10' Tall	450	lf	$ 350.00	$ 157,500
				Subtotal - Section 1	*$ 2,239,674*

Section 2	Public Roadway Infrastructure Improvements	Quantity	Unit	Unit Cost	Total Cost
2.a	4" Hot Bituminous Asphalt Roadway	6,560	ton	$ 115.00	$ 754,400
2.b	6" Median Curb (12" pan)	7,568	lf	$ 18.00	$ 136,224
2.c	8" Roadway Curb (24" Pan)	2,676	lf	$ 24.00	$ 64,224
2.d	8" Class VI Base Course	6,480	cy	$ 55.00	$ 356,400
2.e	6' Concrete Crosspan	2,700	sf	$ 9.00	$ 24,300
2.f	6' Pedestrian Sidewalk	2,676	sf	$ 5.50	$ 14,718
2.g	Handicap Access Crossing	10	ea	$ 2,500.00	$ 25,000
2.h	Roundabout concrete paving	5,025	sf	$ 18.00	$ 90,450
2.i	NorthGate Sawcut/Pavement Patch	8,000	sf	$ 24.00	$ 192,000
2.j	22' Street Lights Decorative - Dark Sky Compliant	26	ea	$ 6,500.00	$ 169,000
2.k	Pedestrian Bridge 16'x220' Vistor Center- Hotel	3,520	sf	$ 300.00	$ 1,056,000
2.l	Traffic Signage and Striping	1	ls	$ 15,000.00	$ 15,000
				Subtotal - Section 2	*$ 2,897,716*

Section 3	Public Water Main Infrastructure	Quantity	Unit	Unit Cost	Total Cost
3.a	8" PVC Water Main with Bends and Valves (Trenchin	135	lf	$ 65.00	$ 8,775
3.b	16" HDPE Water Main Loop	8,744	lf	$ 105.00	$ 918,120
3.c	36" Steel Encasement (Directional Drill CDOT ROW)	600	lf	$ 1,000.00	$ 600,000
3.d	Fire Hydrant w/ 6" Fire Lateral Assembly	15	ea	$ 5,000.00	$ 75,000
3.e	Sawcutting & Pavement Removal	2,500	sf	$ 5.00	$ 12,500
3.f	Replace Subgrade and Asphalt	2,500	sf	$ 32.50	$ 81,250
3.g	Air Release Station	3	ea	$ 12,500.00	$ 37,500
				Subtotal - Section 3	*$ 1,733,145*

Section 4	Public Sanitary Sewer Infrastructure	Quantity	Unit	Unit Cost	Total Cost
4.a	8" PVC Mainline	1,482	lf	$ 60.00	$ 88,920
4.b	4" HDPE Siphon Line Trenched	4,645	lf	$ 25.00	$ 116,125
4.c	4" HDPE Siphon Line - Bore & Jack w/ 12" Casing	300	lf	$ 300.00	$ 90,000
4.d	5' Diameter Manhole <12'	5	ea	$ 5,000.00	$ 25,000
4.e	Sewer Lift Station Duplex Pumps	1	ea	$ 1,250,000.00	$ 1,250,000
4.f	Check Valves	4	ea	$ 750.00	$ 3,000
4.g	6' Manhole with Sewer Tie-in to Gravity Main	1	ea	$ 5,000.00	$ 5,000
4.h	Sawcutting & Pavement Removal	2,950	sf	$ 5.00	$ 14,750
4.i	Replace Subgrade and Asphalt	2,950	sf	$ 32.50	$ 95,875
				Subtotal - Section 4	*$ 1,688,670*

Section 5	Public Storm Sewer Infrastructure	Quantity	Unit	Unit Cost	Total Cost
5.a	Type 1 Manhole	5	ea	$ 5,000.00	$ 25,000
5.b	10-ft CDOT Inlet	8	ea	$ 5,500.00	$ 44,000
5.c	18" RCP Pipe	1,250	lf	$ 80.00	$ 100,000
5.d	24" RCP Pipe	950	lf	$ 95.00	$ 90,250
5.e	36" RCP Pipe	775	lf	$ 125.00	$ 96,875
5.f	Water Quality/ Ex Detention Pond	2	ea	$ 350,000.00	$ 700,000
				Subtotal - Section 5	*$ 1,056,125*

General Notes:
1. Quantities are based on the Conceptual Site Design by Matrix Design Group November 2017.
2. Totals and Unit Prices are calculated in Present Worth or Present Value Dollars. Adjustments should be made for years beyond the present year, to better estimate needed capital dollars if used as a future capital improvement plan.
3. This summary of probable conceptual costs was prepared for estimating purposes only. Matrix Design Group can not be held responsible for variances from this estimate as actual costs may vary due to bid, market and economic fluctuations.
* - Soft Costs with * are adjusted for Hard Costs less GE Johnson Reduction covered in separate proposal

	Subtotal Hard Costs	$ 9,615,330
	GE Johnson Scope Reduction	$ *1,866,596*
	Total Hard Costs	$ 7,748,734
	Soft Costs	
1.5%	Survey	$ 144,229.95
8.0%	Design Engineering	$ 769,226.42
1.5%	Engineering Material Testing	$ 144,229.95
1.25%	CE/CA/CM	$ 120,191.63
12.0%	Contractor Soft Costs*	$ 929,848.11
12.5%	Landscape and Irrigation	$ 1,201,916.28
1.5%	Traffic Control	$ 144,229.95
3.0%	Escalation Costs*	$ 232,462.03
20.0%	Contingency*	$ 1,549,746.85
	Total Public Costs	$ 12,984,815.43

EUL - USAFA VISITOR CENTER

December 8, 2017

GE JOHNSON

CONCEPTUAL COST MODEL REPORT

EXECUTIVE SUMMARY

This conceptual programmatic cost model is for a proposed four-story, 29,504 nsf (36,971 gsf) facility. This structure is proposed to support relocation of the AFA Visitor Center located in Colorado Springs, Colorado.

The intent of this conceptual budget is developed in order to support the Architectural inspiration and vision communicated in the RFP response. GE Johnson Construction has had the privilege of managing the cost development process for the US Olympic Museum located in Colorado Springs. These recent budgeting efforts in turn, have provided this team with valuable systems data necessary to support the comparable vision of this project.

Factors for developing budgeting at this stage should include, but not be limited to, site location / condition, architectural inspiration and performance of interior and exterior environmental systems. It is our team's intent to continue our collaboration with Fentress Architects and the Air Force Academy to achieve a program and design representative of this cost forecast, or a mutually agreed upon target value design.

AREA / PROGRAM SUMMARY

	GBA (sf)
Museum / Welcome Center / Entry Atrium	15,638
Gift Shop	5,773
Back of House / Storage	8,093
Building - Net SF Area	**29,504**
Circulation / Mech & Elec Spaces	7,467
Building - Gross SF Area	**36,971**

PROJECT COSTS

Development Fees, Plan Review and Impact Costs	Included
Design and Engineering	Included
Escalation Contingency	Included
Special Sys. (Audio/Visual, Low Voltage & Tele/Data)	By Others
Exhibits and Graphics	By Others
Fixtures, Furnishings, Art, etc.	By Others

CONSTRUCTION SCHEDULE

Based upon 13-15 month duration
Excavation and foundations completed outside of winter months
Enclosure dry-in within Summer/ Fall months

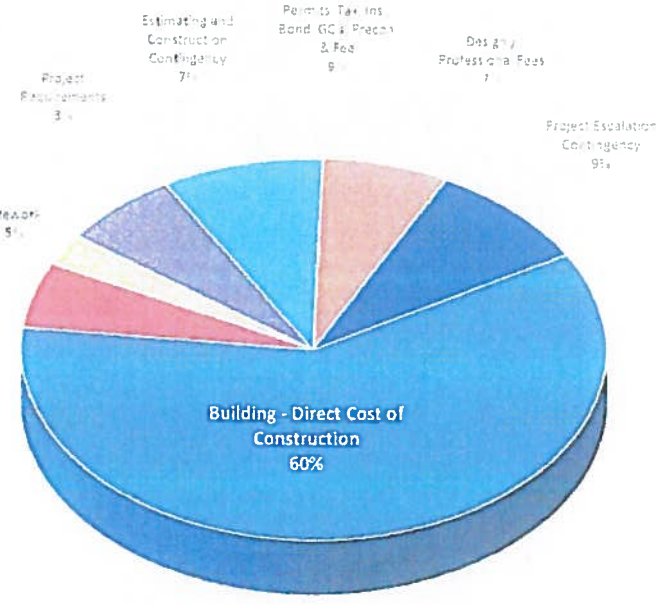
DESIGN / SCOPE ASSUMPTIONS

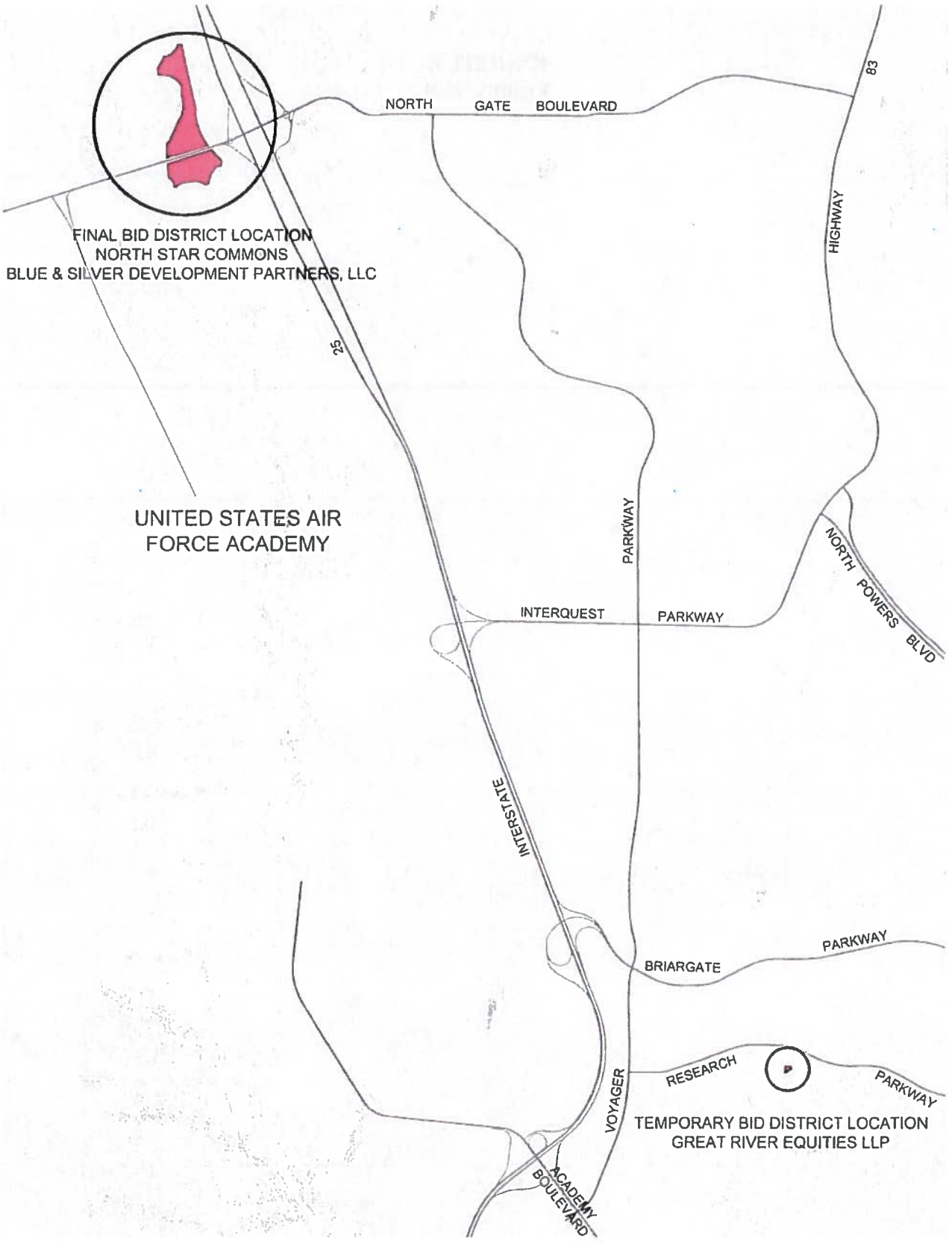
Construction Type II-B to accommodate Type Use, Occupancy Groups and Areas. II-B non-separated mixed use

SITE WORK	Reference separate Site Infrastructure budget
FOUNDATION	Shallow foundations with 5" slab-on-grade. Basement is not included.
STRUCTURE	Structural steel and braced frames. Four partial story structure with atrium for static display.
EXTERIOR	Envelope includes a combination of glass curtainwall, stone veneer panels and metal soffit & roofing. Curved elements constructed with series of straight segments.
INTERIORS	Front of House finishes to be appropriate for a Visitor Center. Back of House will have functional finishes. Majority of structure to be exposed to view.
CONVEYING	4-Stop elevator with UP escalator serving 3 Levels.
MECHANICAL	Global approach is a stand-alone system utilizing gas fired AHU's with DX Cooling (1.25cfm/sf).

CONSTRUCTION COST SUMMARY

	$/GBA	Total $
Building - Direct Cost of Construction	546	20,168,225
Project Requirements	24	905,245
Estimating and Construction Contingency	60	2,212,714
Permits, Tax, Ins., Bond, GC's, Precon & Fee	81	2,995,415
Escalation (See Below)		-
Total Building Construction		**26,281,599**
On-Site Infrastructure / Plaza / Landscape Improvements		1,866,596
Design / Professional Fees		2,365,344
Project Escalation Contingency		3,051,354
PROJECT COST SUMMARY		**33,564,893**





Vicinity Map

Enhanced Use Leasing Project
United States Air Force Academy
Colorado Springs, Colorado

JUNE 05 2018

BLUE DEVELOPMENT PARTNERS LLC

NORTH

400 0 800 1600

USAFA EUL OVERALL SITE PLAN

BLUE
DEVELOPMENT PARTNERS, LLC

USAFA EUL OVERALL SITE PLAN

U.S. AIR FORCE