

APPENDIX F

Preferred Alternative Cost Estimate

Note: archeological costs as a result of ground disturbance/excavation are not included in this estimate.

Comparison of Alternatives to Preferred Alternative
 Summary for Class C Cost Estimate
 Rev 07 Costing 08/27/2012

The following summary chart is included to help the reviewer see the breakout of costs and understand the totals vs. the ARC Class C Estimate in the following pages

	Alt 1	Alt 2	Alt 3a	Alt3b	Preferred Alternative with Reconsiderations/Design Enhancements	Notes/Comparison on Preferred Alternative
Common to All						
Site / Utilities	\$ 191,337	\$ 191,337	\$ 191,337	\$ 191,337	\$ -	included in Site Breakout below
House	\$ 349,713	\$ 349,713	\$ 349,713	\$ 349,713	\$ 349,713	
Garage	\$ 81,092	\$ 81,092	\$ 81,092	\$ 81,092	\$ 81,092	
Poultry	\$ 30,009	\$ 30,009	\$ 30,009	\$ 30,009	\$ 30,009	
VC	\$ 1,400,115	\$ 1,400,115	\$ 1,400,115	\$ 1,400,115	\$ 1,400,115	
Subtotal	\$ 2,052,266	\$ 2,052,266	\$ 2,052,266	\$ 2,052,266	\$ 1,860,929	From ARC Cost estimate for "Common to All" Placeholder added across the board based on VA Meeting
VC Geothermal	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	
Subtotal	\$ 2,102,266	\$ 2,102,266	\$ 2,102,266	\$ 2,102,266	\$ 1,910,929	
Alternative Pricing						
Site	\$ 1,181,412	\$ 1,544,596	\$ 1,525,910	\$ 1,582,199	\$ 2,400,565	included \$500,000 marked up for undergrounding
Undergrounding Elec	\$ -	\$ -	\$ 500,000	\$ -	\$ -	Includes \$250,000 Exhibits for House (marked up to +/- \$459,779)
Buildings	\$ 44,962	\$ 210,920	\$ 7,338	\$ 183,374	\$ 700,776	
Subtotal	\$ 1,226,374	\$ 1,755,516	\$ 2,033,248	\$ 1,765,573	\$ 3,101,341	From ARC Cost estimate per Alternative Summary see note above
Exhibits	\$ 250,000	\$ -	\$ -	\$ -	\$ -	
Subtotal	\$ 1,476,374	\$ 1,755,516	\$ 2,033,248	\$ 1,765,573	\$ 3,101,341	
Total Initial Cost	\$ 3,578,640	\$ 3,857,782	\$ 4,135,514	\$ 3,867,839	\$ 5,012,270	*
Life Cycle Cost	\$ 168,045	\$ 394,753	\$ 287,152	\$ 191,423		* A/E Team has been analyzing the growth between VA Alt 2 with the added Reconsiderations of +/- \$876756 and would like to have further discussions with park and NPS staff to review.
Grand Total	\$ 3,746,685	\$ 4,252,535	\$ 4,422,666	\$ 4,059,262		

COMMON TO ALL

NPS - TRUMAN FARMS
Building Improvements
House - Garage - PoultryUpdated on 21 AUG 12
Printed on: 8/27/2012 at 5:51 PM

House Summary			Building GSF	2,278
WBS Code	Description	\$/SF	Total	Total w/Burdens
A10	Foundations	29.84	67,976	125,016
A20	Basement		EXCLUDED	
B10	Superstructure	9.59	21,856	40,197
B20	Exterior Closure	1.16	2,636	4,848
B30	Roofing		EXCLUDED	
C10	Interior Construction	9.00	20,506	37,713
C20	Staircases		EXCLUDED	
C30	Interior Finishes	4.27	9,716	17,869
D10	Conveying Systems		EXCLUDED	
D20	Plumbing	4.04	9,205	16,929
D30	HVAC	5.88	13,390	24,625
D50	Electrical	6.34	14,436	26,549
E10	Equipment		EXCLUDED	
E20	Furnishings		EXCLUDED	
F10	Special Construction	12.05	27,452	50,488
F20	Selective Building Demolition		2,980	5,481
G10	Site Prep		N/A	
G20	Site Improvements		N/A	
Subtotal Direct Construction Costs		83.47	190,153	349,713
	Project Remoteness Factor	N/A	N/A	
	Federal Wage Rate Factor	w/ Unit Costs	N/A	
	State/Local Sales & Use Taxes	N/A	N/A	
	Owner's Design & Preconstruction Contingency	20.00%	38,031	
	Owner's Construction Contingency (after NTP)	5.00%	9,508	
Total Direct Construction Costs		104.34	237,691	
	Standard General Conditions (GC's Onsite Overhead)	13.00%	30,900	
Subtotal NET Construction Cost		117.91	268,591	
	GC's Profit	10.00%	26,859	
	GC's Offsite Overhead	w/Above	w/ Above	
Construction Cost w/o Bonds & Escalation		129.70	295,450	
	Performance & Payment Bond	1.50%	4,432	
	Building & Grading Permits	2.50%	7,386	
	Builder's Risk Insurance	0.75%	2,216	
	Escalation Period in Months	37	34,321	
	Material Testing	2.0%	5,909	
Total Estimated Cost of Construction		153.52	349,713	

House Detail

Estimate By: Kyle Hoiland
Date: 09-Jul-12
Reviewed By: Chris Squadra
Date: 10-Jul-12

Building GSF **2,278**

Total Cost: **\$190,153**

Uniformat II WBS Code	Description	Quantity	Unit	Cost/Unit	Total Cost	Remarks
A10	FOUNDATIONS					
A1020	Add foundation drain system	212	LF	13.75	2,915	
A1020	Demolition for Access	80	HRS	49.10	3,928	
A1020	Concrete Pump Jacking Mobilization	1	LS	10,000.00	10,000	
A1020	Stabilize Foundation from Movement - Pump Jack	80	HRS	158.00	12,640	
A1020	Stabilize Foundation from Movement - Concrete	90	CY	107.70	9,693	3,000 psi
A1020	Stabilize Foundation from Movement - Labor	160	HRS	180.00	28,800	4 person crew
SUBTOTAL FOUNDATIONS					67,976	

Uniformat II WBS Code	Description	Quantity	Unit	Cost/Unit	Total Cost	Remarks
A20	BASEMENT CONSTRUCTION					
SUBTOTAL BASEMENT CONSTRUCTION					EXCLUDED	

Uniformat II WBS Code	Description	Quantity	Unit	Cost/Unit	Total Cost	Remarks
B10	SUPERSTRUCTURE					
B2010	Replace Sill Plates in Contact with Masonry - Material	220	LF	3.84	845	
B2010	Replace Sill Plates in Contact with Masonry - Labor	40	HRS	49.10	1,964	
B2010	Replace Rim Joists that Bears on Masonry - Material	220	LF	5.09	1,120	
B2010	Replace Rim Joists that Bears on Masonry - Labor	40	HRS	49.10	1,964	
B2010	Protect wood members from decay that bear on basement slab	58	LF	2.98	173	Wrap w/ plastic
B2010	Replace porch decking with treated wood decking	340	SF	4.05	1,377	5/4 x 6" treated
B2010	Replace porch framing at dining room & west porches	176	SF	5.96	1,049	
B2010	Allow for investigation/replacement of kitchen floor framing	1	AL	500.00	500	
B2010	Strengthen roof framing over bedroom 204	297	SF	24.00	7,128	
B2010	Add attic venting at bedroom 204 & kitchen	1	EA	150.00	150	
B2010	Repair west wall finishes due to foundation movement	681	SF	4.68	3,187	Exterior only
B2010	Equipment Rental for House Jacking	1	WK	2,400.00	2,400	Exterior only
SUBTOTAL SUPERSTRUCTURE					21,856	

Uniformat II WBS Code	Description	Quantity	Unit	Cost/Unit	Total Cost	Remarks
B20	EXTERIOR CLOSURE					
B2010	Repair gutters/downspouts	1	LS	500.00	500	Repair fascia corners, reconnect downspout
B2010	Windows - add weather-stripping	14	EA	97.76	1,369	
B2010	Replace screen at west screen door	1	EA	250.00	250	
B2099	Reglaze transom at main entry door	8	SF	64.70	518	3/8" th., tempered
SUBTOTAL EXTERIOR CLOSURE					2,636	

Uniformat II WBS Code	Description	Quantity	Unit	Cost/Unit	Total Cost	Remarks
B30	ROOFING					
SUBTOTAL ROOFING					EXCLUDED	

Uniformat II WBS Code	Description	Quantity	Unit	Cost/Unit	Total Cost	Remarks
C10	INTERIOR CONSTRUCTION					
C1010	Miscellaneous Plaster Repair after Fndtn Stabilization	6,342	SF	3.23	20,506	
B2010	Repair west wall finishes due to foundation movement	w/ Above			w/ Above	

House Detail

SUBTOTAL INTERIOR CONSTRUCTION						20,506
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Uniformat II WBS Code	Description	Quantity	Unit	Cost/Unit	Total Cost	Remarks
C20	STAIRCASES					
SUBTOTAL STAIRCASES						EXCLUDED

Uniformat II WBS Code	Description	Quantity	Unit	Cost/Unit	Total Cost	Remarks
C30	INTERIOR FINISHES					
C3010	Paint plaster after foundation stabilization (60%)	3,805.20	SF	0.58	2,207	
C3010	Wall paper plaster after foundation stabilization (40%)	2,536.80	SF	2.96	7,509	
SUBTOTAL INTERIOR FINISHES						9,716

Uniformat II WBS Code	Description	Quantity	Unit	Cost/Unit	Total Cost	Remarks
D10	CONVEYING SYSTEMS					
SUBTOTAL CONVEYING SYSTEMS						EXCLUDED

Uniformat II WBS Code	Description	Quantity	Unit	Cost/Unit	Total Cost	Remarks
D20	PLUMBING					
D2010	Install a code approved backflow protection device on <e> 3/4" cold water line	1	EA	370.83	371	
D2010	Insulate cold water line	120	LF	7.78	934	Exposed lines only
D2010	Camera scope sanitary sewer line	1	LS	1,500.00	1,500	
D2010	1/2" Cold Water Pipe	20	LF	18.95	379	1/2" copper
D2010	In-line Filter for Humidifier Water	1	LS	495.00	495	
D2010	3/4" Drain Line for Humidifier	20	LF	14.55	291	3/4" copper
D2010	Install New 4" Drain @ Basement - tie to foundation drain & daylight to south	1	LS	497.89	498	
D2010	Install New 4" Sanitary Line from Basement floor drain - tie to foundation drain & daylight to south	156	LF	18.74	2,923	4" cast iron
D2010	Trenching & Backfill for New Drain Line	156	LF	7.95	1,240	
D2010	Concrete Patchback @ Basement	1	LS	575.00	575	
SUBTOTAL PLUMBING						9,205

Uniformat II WBS Code	Description	Quantity	Unit	Cost/Unit	Total Cost	Remarks
D30	HVAC					
D3010	Replace <e> supply grills at 2nd floor & wall paper wrapped diffusers	6	EA	253.00	1,518	
D3010	Provide new auto humidity control system	1	LS	4,386.63	4,387	11 lb per hour
D3010	Clean, pressure test & reseal <e> duct system	1	LS	2,798.08	2,798	
D3010	Clean <e> supply & return grills	12	HRS	25.00	300	
D3010	Add a direct outside air intake	16	LF	27.00	432	4" aluminum flex
D3010	Repair/replace <e> duct insulation	733	SF	4.74	3,474	2"th, 1.5 lb density
D3010	Provide active crawl space ventilation	2	EA	240.19	480	
SUBTOTAL HVAC						13,390

Uniformat II WBS Code	Description	Quantity	Unit	Cost/Unit	Total Cost	Remarks
D50	ELECTRICAL					
D5010	Option - Replace <e> feeders from utility panel, main service & breakers	1	LS	9,854.55	9,855	200 amp, 18 breaker, within 100' of utility
D5010	Provide power to humidity control system	1	LS	150.00	150	
D5010	Replace <e> photocell controls to exterior lights with new digital time clock	6	EA	73.00	438	
D5010	Replace <e> light pucks	10	EA	84.00	840	

House Detail

D5010	Fire alarm upgrades	2,278	SF	0.88	2,005	
D5010	Temperature Sensor & Alarm System	2	EA	190.20	380	
D5010	Reattach lightning system	16	HRS	48.00	768	
SUBTOTAL ELECTRICAL					14,436	

Uniformat II WBS Code	Description	Quantity	Unit	Cost/Unit	Total Cost	Remarks
SUBTOTAL EQUIPMENT					EXCLUDED	

Uniformat II WBS Code	Description	Quantity	Unit	Cost/Unit	Total Cost	Remarks
E20	FURNISHINGS					
SUBTOTAL FURNISHINGS					EXCLUDED	

Uniformat II WBS Code	Description	Quantity	Unit	Cost/Unit	Total Cost	Remarks
F10	SPECIAL CONSTRUCTION					
F1010	Dry Standpipe for Fire Sprinkler System	24	LF	19.27	462	Approximately 40 concealed heads Assume entire ceiling Assume entire ceiling
F1010	New Air Compressor	1	LS	1,240.68	1,241	
F1010	Install New Fire Sprinkler System	2,278	SF	6.27	14,283	
F1010	Drywall Demolition & Repair for New Fire Sprinkler System	2,278	SF	1.80	4,100	
F1010	Plaster Repair for New Fire Sprinkler System	2,278	SF	3.23	7,366	
SUBTOTAL SPECIAL CONSTRUCTION					27,452	

Uniformat II WBS Code	Description	Quantity	Unit	Cost/Unit	Total Cost	Remarks
F20	SELECTIVE BUILDING DEMOLITION					
	Perform Missouri and OSHA-required Lead Safety training for Painters/Contractors	1	LS	600.00	600	
	Sampling for Disposal (TCLP) of Removed Lead-painted Components	1	LS	500.00	500	
	Missouri Renovate Right Permit	1	LS	200.00	200	
	Safety Controls - Demolition or re-painting of Building Components with Lead-Containing Paints	1	LS	1,200.00	1,200	
	Saw-cut Concrete Floor & Remove @ Basement for New Drain Line	40	LF	12.00	480	
SUBTOTAL SELECTIVE BUILDING DEMOLITION					2,980	

TOTAL COST -					190,153	
					83	/sf

NPS - TRUMAN FARMS
House - Garage - Poultry
Building Improvements

Updated on 21 AUG 12
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Garage Summary			Building GSF	346
WBS Code	Description	\$/SF	Total	Total w/Burdens
A10	Foundations		EXCLUDED	
A20	Basement		EXCLUDED	
B10	Superstructure	123.45	42,715	77,231
B20	Exterior Closure	5.07	1,755	3,173
B30	Roofing		EXCLUDED	
C10	Interior Construction		EXCLUDED	
C20	Staircases		EXCLUDED	
C30	Interior Finishes		EXCLUDED	
D10	Conveying Systems		EXCLUDED	
D20	Plumbing		EXCLUDED	
D30	HVAC		EXCLUDED	
D50	Electrical		380	
E10	Equipment		EXCLUDED	
E20	Furnishings		EXCLUDED	
F10	Special Construction		EXCLUDED	
F20	Selective Building Demolition		EXCLUDED	
G10	Site Prep		N/A	
G20	Site Improvements		N/A	
Subtotal Direct Construction Costs		129.63	44,850	81,092
	Project Remoteness Factor	N/A	N/A	
	Federal Wage Rate Factor	w/ Unit Costs	N/A	
	State/Local Sales & Use Taxes	N/A	N/A	
	Owner's Design & Preconstruction Contingency	20.00%	8,970	
	Owner's Construction Contingency (after NTP)	5.00%	2,243	
Total Direct Construction Costs		162.03	56,063	
	Standard General Conditions (GC's Onsite Overhead)	13.00%	7,288	
Subtotal NET Construction Cost		183.10	63,351	
	GC's Profit	10.00%	6,335	
	GC's Offsite Overhead	w/Above	w/ Above	
Construction Cost w/o Bonds & Escalation		201.41	69,686	
	Performance & Payment Bond	1.50%	1,045	
	Building & Grading Permits	2.50%	1,742	
	Builder's Risk Insurance	0.75%	523	
	Escalation Period in Months	37	8,095	
	Material Testing	2.0%	w/ House	
Total Estimated Cost of Construction		234.37	81,092	

Garage Detail

Estimate By: Kyle Hoiland
Date: 09-Jul-12
Reviewed By: Chris Squadra
Date: 10-Jul-12

Building GSF **346**

Total Cost: **\$44,850**

Uniformat II WBS Code	Description	Quantity	Unit	Cost/Unit	Total Cost	Remarks
A10	FOUNDATIONS					
SUBTOTAL FOUNDATIONS						EXCLUDED

Uniformat II WBS Code	Description	Quantity	Unit	Cost/Unit	Total Cost	Remarks
A20	BASEMENT CONSTRUCTION					
SUBTOTAL BASEMENT CONSTRUCTION						EXCLUDED

Uniformat II WBS Code	Description	Quantity	Unit	Cost/Unit	Total Cost	Remarks
B10	SUPERSTRUCTURE					
B2010	Strengthen Floor Rim Joist	77	SF	5.09	392	2x6 framing reinforcement throughout
B2010	Replace Flooring with Treated Wood	346	SF	4.05	1,401	
B2010	Add Connections for Roof Anchorage (wind uplift)	346	SF	5.96	2,062	
B2010	Verify / Strengthen Wall Studs & Rim Joist	616	SF	24.00	14,784	
B2010	Strengthen All Openings Studs & Headers	w/ Above			w/ Above	
B2010	Replace South Top of Wall Plate (decayed by insects)	77	LF	3.84	296	
	Additional Decay Replacement (ALLOWANCE)	1	LS	1,000.00	1,000	
B2010	Add North/South Lateral Framing System	1	LS	22,780.00	22,780	
SUBTOTAL SUPERSTRUCTURE						

Uniformat II WBS Code	Description	Quantity	Unit	Cost/Unit	Total Cost	Remarks
B20	EXTERIOR CLOSURE					
B2010	Repair Doors/Hinges	9	EA	195.00	1,755	Garage & entry
SUBTOTAL EXTERIOR CLOSURE						1,755

Uniformat II WBS Code	Description	Quantity	Unit	Cost/Unit	Total Cost	Remarks
B30	ROOFING					
SUBTOTAL ROOFING						EXCLUDED

Uniformat II WBS Code	Description	Quantity	Unit	Cost/Unit	Total Cost	Remarks
C10	INTERIOR CONSTRUCTION					
SUBTOTAL INTERIOR CONSTRUCTION						EXCLUDED

Uniformat II WBS Code	Description	Quantity	Unit	Cost/Unit	Total Cost	Remarks
C20	STAIRCASES					
SUBTOTAL STAIRCASES						EXCLUDED

Uniformat II WBS Code	Description	Quantity	Unit	Cost/Unit	Total Cost	Remarks
C30	INTERIOR FINISHES					
SUBTOTAL INTERIOR FINISHES						EXCLUDED

Uniformat II WBS Code	Description	Quantity	Unit	Cost/Unit	Total Cost	Remarks
D10	CONVEYING SYSTEMS					
SUBTOTAL CONVEYING SYSTEMS						EXCLUDED

Garage Detail

Uniformat II WBS Code	Description	Quantity	Unit	Cost/Unit	Total Cost	Remarks
D20	PLUMBING					
SUBTOTAL PLUMBING					EXCLUDED	

Uniformat II WBS Code	Description	Quantity	Unit	Cost/Unit	Total Cost	Remarks
D30	HVAC					
SUBTOTAL HVAC					EXCLUDED	

Uniformat II WBS Code	Description	Quantity	Unit	Cost/Unit	Total Cost	Remarks
D50	ELECTRICAL					
D5010	Temperature Sensor & Alarm System	2	EA	190.20	380	
SUBTOTAL ELECTRICAL					380	

Uniformat II WBS Code	Description	Quantity	Unit	Cost/Unit	Total Cost	Remarks
E10	EQUIPMENT					
SUBTOTAL EQUIPMENT					EXCLUDED	

Uniformat II WBS Code	Description	Quantity	Unit	Cost/Unit	Total Cost	Remarks
E20	FURNISHINGS					
SUBTOTAL FURNISHINGS					EXCLUDED	

Uniformat II WBS Code	Description	Quantity	Unit	Cost/Unit	Total Cost	Remarks
F10	SPECIAL CONSTRUCTION					
F1010	Install New Fire Sprinkler System				Excluded	
SUBTOTAL SPECIAL CONSTRUCTION					EXCLUDED	

Uniformat II WBS Code	Description	Quantity	Unit	Cost/Unit	Total Cost	Remarks
F20	SELECTIVE BUILDING DEMOLITION					
SUBTOTAL SELECTIVE BUILDING DEMOLITION					EXCLUDED	

TOTAL COST -					44,850	
					130	/sf

NPS - TRUMAN FARMS
House - Garage - Poultry
Building Improvements

Updated on 17 JULY 12
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Poultry Summary

Building GSF

261

WBS Code	Description	\$/SF	Total	Total w/Burdens
A10	Foundations	25.54	6,667	12,054
A20	Basement		EXCLUDED	
B10	Superstructure	29.75	7,764	14,038
B20	Exterior Closure		EXCLUDED	
B30	Roofing	8.30	2,166	3,917
C10	Interior Construction		EXCLUDED	
C20	Staircases		EXCLUDED	
C30	Interior Finishes		EXCLUDED	
D10	Conveying Systems		EXCLUDED	
D20	Plumbing		EXCLUDED	
D30	HVAC		EXCLUDED	
D50	Electrical		EXCLUDED	
E10	Equipment		EXCLUDED	
E20	Furnishings		EXCLUDED	
F10	Special Construction		EXCLUDED	
F20	Selective Building Demolition		EXCLUDED	
G10	Site Prep		N/A	
G20	Site Improvements		N/A	
Subtotal Direct Construction Costs		63.59	16,597	30,009
	Project Remoteness Factor	N/A	N/A	
	Federal Wage Rate Factor	w/ Unit Costs	N/A	
	State/Local Sales & Use Taxes	N/A	N/A	
	Owner's Design & Preconstruction Contingency	20.00%	3,319	
	Owner's Construction Contingency (after NTP)	5.00%	830	
Total Direct Construction Costs		79.49	20,747	
	Standard General Conditions (GC's Onsite Overhead)	13.00%	2,697	
Subtotal NET Construction Cost		89.82	23,444	
	GC's Profit	10.00%	2,344	
	GC's Offsite Overhead	w/Above	w/ Above	
Construction Cost w/o Bonds & Escalation		98.81	25,788	
	Performance & Payment Bond	1.50%	387	
	Building & Grading Permits	2.50%	645	
	Builder's Risk Insurance	0.75%	193	
	Escalation Period in Months	37	2,996	
	Material Testing	2.0%	w/ House	
Total Estimated Cost of Construction		114.98	30,009	

Poultry Detail

Estimate By: Kyle Hoiland
Date: 09-Jul-12
Reviewed By: Chris Squadra
Date: 11-Jul-12

Building GSF **261**

Total Cost: **\$16,597**

Uniformat II WBS Code	Description	Quantity	Unit	Cost/Unit	Total Cost	Remarks
A10 FOUNDATIONS						
A1020	Dismantle Poultry building	32	HRS	49.10	1,571	
A1020	Demo existing slab foundation (2/3 of bldg area)	175	SF	5.16	902	
A1020	Prep grade for new foundation	1	LS	1,200.00	1,200	
A1020	Add foundation - 4" slab w/ thickened edge	7	CY	458.85	2,993	
SUBTOTAL FOUNDATIONS					6,667	

Uniformat II WBS Code	Description	Quantity	Unit	Cost/Unit	Total Cost	Remarks
A20 BASEMENT CONSTRUCTION						
SUBTOTAL BASEMENT CONSTRUCTION					EXCLUDED	

Uniformat II WBS Code	Description	Quantity	Unit	Cost/Unit	Total Cost	Remarks
B10 SUPERSTRUCTURE						
B2010	Add 2 purlins & wall support	176	LF	3.29	579	
B2010	Repair damage from tree - sheathing	261	SF	2.18	569	
B2010	Replace wall sheathing with treated	720	SF	6.76	4,870	
B2010	Anchor walls to new foundation - Metal Hold-downs	30	EA	18.74	562	
B2010	Add a lateral bracing system (nail sheathing to girts or add diagonal sheathing)	360	LF	3.29	1,184	
SUBTOTAL SUPERSTRUCTURE					7,764	

Uniformat II WBS Code	Description	Quantity	Unit	Cost/Unit	Total Cost	Remarks
B20 EXTERIOR CLOSURE						
SUBTOTAL EXTERIOR CLOSURE					EXCLUDED	

Uniformat II WBS Code	Description	Quantity	Unit	Cost/Unit	Total Cost	Remarks
B30 ROOFING						
B3010	Repair damage from tree - Corrugated Metal Roofing	261	SF	8.30	2,166	
SUBTOTAL ROOFING					2,166	

Uniformat II WBS Code	Description	Quantity	Unit	Cost/Unit	Total Cost	Remarks
C10 INTERIOR CONSTRUCTION						
SUBTOTAL INTERIOR CONSTRUCTION					EXCLUDED	

Uniformat II WBS Code	Description	Quantity	Unit	Cost/Unit	Total Cost	Remarks
C20 STAIRCASES						
SUBTOTAL STAIRCASES					EXCLUDED	

Uniformat II WBS Code	Description	Quantity	Unit	Cost/Unit	Total Cost	Remarks
C30 INTERIOR FINISHES						
SUBTOTAL INTERIOR FINISHES					EXCLUDED	

Poultry Detail

Uniformat II WBS Code	Description	Quantity	Unit	Cost/Unit	Total Cost	Remarks
D10	CONVEYING SYSTEMS					
SUBTOTAL CONVEYING SYSTEMS					EXCLUDED	

Uniformat II WBS Code	Description	Quantity	Unit	Cost/Unit	Total Cost	Remarks
D20	PLUMBING					
SUBTOTAL PLUMBING					EXCLUDED	

Uniformat II WBS Code	Description	Quantity	Unit	Cost/Unit	Total Cost	Remarks
D30	HVAC					
SUBTOTAL HVAC					EXCLUDED	

Uniformat II WBS Code	Description	Quantity	Unit	Cost/Unit	Total Cost	Remarks
D50	ELECTRICAL					
SUBTOTAL ELECTRICAL					EXCLUDED	

Uniformat II WBS Code	Description	Quantity	Unit	Cost/Unit	Total Cost	Remarks
E10	EQUIPMENT					
SUBTOTAL EQUIPMENT					EXCLUDED	

Uniformat II WBS Code	Description	Quantity	Unit	Cost/Unit	Total Cost	Remarks
E20	FURNISHINGS					
SUBTOTAL FURNISHINGS					EXCLUDED	

Uniformat II WBS Code	Description	Quantity	Unit	Cost/Unit	Total Cost	Remarks
F10	SPECIAL CONSTRUCTION					
SUBTOTAL SPECIAL CONSTRUCTION					EXCLUDED	

Uniformat II WBS Code	Description	Quantity	Unit	Cost/Unit	Total Cost	Remarks
F20	SELECTIVE BUILDING DEMOLITION					
SUBTOTAL SELECTIVE BUILDING DEMOLITION					EXCLUDED	

TOTAL COST -					16,597	
					64	/sf

**NPS - TRUMAN FARMS
Building & Site Improvements
Site - House - Garage - Poultry**

Updated on 27 AUG 12
Printed on: 8/27/2012 at 5:49 PM

Preferred Alt - Summary

Location	Description	Total	Total w/Burdens
Bldgs	Alter Porch 107	381,039	700,776
Site	Site Improvements	1,305,281	2,400,565
Subtotal Direct Construction Costs		1,686,320	3,101,341
	Project Remoteness Factor	N/A	N/A
	Federal Wage Rate Factor	w/ Unit Costs	N/A
	State/Local Sales & Use Taxes	N/A	N/A
	Owner's Design & Preconstruction Contingency	20.00%	337,264
	Owner's Construction Contingency (after NTP)	5.00%	84,316
Total Direct Construction Costs		2,107,900	
	Standard General Conditions (GC's Onsite Overhead)	13.00%	274,027
Subtotal NET Construction Cost		2,381,927	
	GC's Profit	10.00%	238,193
	GC's Offsite Overhead	w/Above	w/ Above
Construction Cost w/o Bonds & Escalation		2,620,120	
	Performance & Payment Bond	1.50%	39,302
	Building & Grading Permits	2.50%	65,503
	Builder's Risk Insurance	0.75%	19,651
	Escalation Period in Months	37	304,363
	Material Testing	2.0%	52,402
Total Estimated Cost of Construction		3,101,341	

**NPS - TRUMAN FARMS
Building & Site Improvements
Site - House - Garage - Poultry**

Updated on 21 AUG 12
Printed on: 8/27/2012 at 5:49 PM

Preferred Alternative - Bldgs

Estimate By: Kyle Hoiland
Date: 14-Aug-12
Reviewed By: Chris Squadra
Date: 15-Aug-12

Building GSF **2,278**

Total Cost: **\$381,039**

Uniformat II WBS Code	Description	Quantity	Unit	Cost/Unit	Total Cost	Remarks
A10	FOUNDATIONS					
	Porch 106					
A1020	Sonotube supports for new ramp at House Entry				Excluded	Deleted on 8/17/12
	Porch 107					
A1020	Raise Grade +/- 13" for New Ramp	1	LS	1,200.00	1,200	
A1020	SOG Prep @ Porch 107	163	SF	2.00	326	
A1020	4" th Concrete slab w/ thickened edge - Ramp @ Porch 107	6	CY	458.85	2,546	
A1020	1 5/8" Pipe Railing @ Porch 107				Excluded	Deleted on 8/21/12
	Garage					
A1020	Excavation & Regrade for New Ramp	1	LS	1,200.00	1,200	
A1020	SOG prep for New Apron	60	SF	4.00	240	
A1020	New ABA ramp at Garage (concrete)	60	SF	8.50	510	
SUBTOTAL FOUNDATIONS					6,022	

Uniformat II WBS Code	Description	Quantity	Unit	Cost/Unit	Total Cost	Remarks
A20	BASEMENT CONSTRUCTION					
SUBTOTAL BASEMENT CONSTRUCTION					EXCLUDED	

Uniformat II WBS Code	Description	Quantity	Unit	Cost/Unit	Total Cost	Remarks
B10	SUPERSTRUCTURE					
B2010	Enlarge Door Openings @ 110 & 111 - labor	32	HRS	49.10	1,571	
B2010	Enlarge Door Openings - materials	1	LS	750.00	750	
B2010	Screen Repair	63	SF	8.50	536	
B2010	Wood Wainscot Repair	75	SF	6.50	488	
B2010	Exterior Paint	298	SF	0.90	268	
B2010	New Stoop at House (wood framed w/ treated wood decking)	36	SF	12.25	441	
B2010	New Wood Railing at ADA Ramp				Excluded	Deleted on 8/21/12
B2010	New ABA Wood Landing at Garage (wood framed w/ treated wood decking)	73	SF	12.25	888	
B2010	Raise Porch Floor +/- 6"	64	SF	21.50	1,376	
B2010	Replace Porch Flooring	64	SF	9.50	608	
SUBTOTAL SUPERSTRUCTURE					6,926	

Uniformat II WBS Code	Description	Quantity	Unit	Cost/Unit	Total Cost	Remarks
B20	EXTERIOR CLOSURE					
B2010	Replace doors 110 & 111	2	EA	1,987.17	3,974	
B2010	New ABA hardware at Entry doors	2	EA	1,495.00	2,990	
B2010	New Doors at Boarded Over Openings on E & W Elevations	2	EA	1,987.17	3,974	
B2010	Door Hardware	2	EA	1,495.00	2,990	
B2010	New Wood Sash over Shingled In-fill Panel	2	EA	750.00	1,500	
SUBTOTAL EXTERIOR CLOSURE					15,429	

Uniformat II WBS Code	Description	Quantity	Unit	Cost/Unit	Total Cost	Remarks
B30	ROOFING					
SUBTOTAL ROOFING					EXCLUDED	

Preferred Alternative - Bldgs

Uniformat II WBS Code	Description	Quantity	Unit	Cost/Unit	Total Cost	Remarks
C10	INTERIOR CONSTRUCTION					
	Garage					
C1010	Install New Lever Hardware @ South Leaf	1	EA	326.00	326	
C1010	Install New Throwbolt @ North Leaf	1	EA	326.00	326	
SUBTOTAL INTERIOR CONSTRUCTION					652	

Uniformat II WBS Code	Description	Quantity	Unit	Cost/Unit	Total Cost	Remarks
C20	STAIRCASES					
SUBTOTAL STAIRCASES					EXCLUDED	

Uniformat II WBS Code	Description	Quantity	Unit	Cost/Unit	Total Cost	Remarks
C30	INTERIOR FINISHES					
	House					
C3010	Drywall Patching at new door openings	148	SF	3.23	479	
C3010	Interior Paint at new door openings	148	SF	0.58	86	
C3010	Door Casing	52	LF	4.30	224	
C3010	Interior trim paint/stain	52	LF	1.50	78	
	Garage					
C3010	Repair plaster at walls & ceilings	616	SF	3.23	1,992	
C3010	Repair floor	1	LS	500.00	500	
SUBTOTAL INTERIOR FINISHES					3,358	

Uniformat II WBS Code	Description	Quantity	Unit	Cost/Unit	Total Cost	Remarks
D10	CONVEYING SYSTEMS					
SUBTOTAL CONVEYING SYSTEMS					EXCLUDED	

Uniformat II WBS Code	Description	Quantity	Unit	Cost/Unit	Total Cost	Remarks
D20	PLUMBING					
SUBTOTAL PLUMBING					EXCLUDED	

Uniformat II WBS Code	Description	Quantity	Unit	Cost/Unit	Total Cost	Remarks
D30	HVAC					
SUBTOTAL HVAC					EXCLUDED	

Uniformat II WBS Code	Description	Quantity	Unit	Cost/Unit	Total Cost	Remarks
D50	ELECTRICAL					
	Garage					
D5010	Add electricity to Garage for egress lights & power - Subpanel	1	LS	1,800.00	1,800	
D5010	Add electricity to Garage for egress lights & power - Conduit & Wires	120	LF	12.00	1,440	
D5010	Trenching & Bedding from House to Garage	120	LF	7.00	840	
D5010	New Egress Lighting	4	EA	175.00	700	
D5010	New Outlets @ Garage	4	EA	75.00	300	
D5010	Fire Alarm Upgrades	346	SF	2.20	761	
SUBTOTAL ELECTRICAL					5,841	

Uniformat II WBS Code	Description	Quantity	Unit	Cost/Unit	Total Cost	Remarks
E10	EQUIPMENT					
SUBTOTAL EQUIPMENT					EXCLUDED	

Uniformat II WBS Code	Description	Quantity	Unit	Cost/Unit	Total Cost	Remarks
E20	FURNISHINGS					
SUBTOTAL FURNISHINGS					EXCLUDED	

**NPS - TRUMAN FARMS
 Building & Site Improvements
 Site - House - Garage - Poultry**

Updated on 21 AUG 12
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Preferred Alternative - Bldgs

Uniformat II WBS Code	Description	Quantity	Unit	Cost/Unit	Total Cost	Remarks
F10	SPECIAL CONSTRUCTION					
F1010	Exhibit Allowance @ Garage	250	SF	350.00	87,500	
F1010	Remove, Repair & Re-install Hand Water Pump	1	LS	1,339.00	1,339	
F1010	Install New Fire Sprinkler System @ Garage	346	SF	6.27	2,169	
F1010	Exhibit - Allowance	1,000	SF	250.00	250,000	
SUBTOTAL SPECIAL CONSTRUCTION					341,008	

Uniformat II WBS Code	Description	Quantity	Unit	Cost/Unit	Total Cost	Remarks
F20	SELECTIVE BUILDING DEMOLITION					
F2010	Remove (E) Concrete Walk	163	SF	8.00	1,304	
F2010	Remove (E) Wood Ramp	36	SF	5.00	180	
F2010	Remove (E) Porch Flooring	64	SF	5.00	320	
SUBTOTAL SELECTIVE BUILDING DEMOLITION					1,804	

TOTAL COST -					381,039	
					167	/sf

NPS - TRUMAN FARMS
Building & Site Improvements
Site - House - Garage - Poultry

Updated on 27 AUG 12
 Printed on: 8/27/2012 at 5:49 PM

Preferred Alternative - Site

Site GSF: **492,075**
 Total Cost: **\$1,305,281**

Estimate By: KH
 Date: 14-Aug-12
 Reviewed By: CS
 Date: 15-Aug-12

Uniformat II WBS Code	Description	Quantity	Unit	Cost/Unit	Total Cost	Remarks
G10	SITE PREPARATION					
	General Site Prep					
G1010	Mobilization	1	LS	5,000.00	5,000	
G1010	Construction Surveying & Historic Documentation	1	LS	10,000.00	10,000	
G1010	Temporary Construction Fence	500	LF	2.50	1,250	
G1010	Traffic Control in the ROW	1	LS	2,000.00	2,000	
G1010	Erosion Control	500	LF	5.00	2,500	
G1010	Tree Protection	900	LF	2.00	1,800	
	Site Demolition					
G1020	Demolish and Remove Wood Ramp	1	LS	500.00	500	
G1020	Demolish Smokehouse & Outhouse Buildings	2	EA	1,060.00	2,120	
G1020	Remove & Reset Parking Sign	1	LS	500.00	500	
G1020	Demolish and Remove Yard Lights & Flagpole	5	EA	1,500.00	7,500	
G9020	NPS Maintenance shed (move existing)	1	EA	1,309.06	1,309	
G9020	NPS Maintenance shed (conc pad; utilities)	1	EA	3,305.00	3,305	
G9020	Remove Culvert at Blue Ridge Boulevard	1	LS	3,000.00	3,000	
G1020	Remove and Dispose of Asphalt Pavement	46,400	SF	0.98	45,266	(19505 road)
G1020	Remove and Dispose of Concrete Curb and Gutter	1,455	LF	6.34	9,225	
G1020	Remove and Dispose of Concrete Pavement	1,380	SF	12.44	17,167	
G1020	Remove and Dispose of Miscellaneous Site Elements	1	LS	5,000.00	5,000	
G1020	Remove and Reset Steel Gate	N/A			N/A	
G1020	Sod Stripping	16,800	SF	0.30	5,030	
G1020	Remove & Dispose of Existing Trees (ALLOWANCE)	70	EA	630.34	44,124	
G1020	Remove & Demolish Fence on Slope	670	LF	5.00	3,350	
SUBTOTAL SITE PREPARATION		492,075	SF	0.35	169,945	

Uniformat II WBS Code	Description	Quantity	Unit	Cost/Unit	Total Cost	Remarks
G20	SITE IMPROVEMENTS					
	General Site Improvements					
G2010	Earthwork- Allowance	46,000	SF	5.00	230,000	Site, barnyard, slope
G2010	Regrade Ditch @ Blue Ridge Blvd	800	SF	5.00	4,000	

Preferred Alternative - Site

Uniformat II WBS Code	Description	Quantity	Unit	Cost/Unit	Total Cost	Remarks
	Roads, Parking & Paths					
G2020	Aggregate Base Course- Gravel Drive	17,388	SF	2.89	50,251	Orientation, 1940s /50s road, 12' wide
G2020	Crusher Fines Paving / Dirt = Barnyard	24,600	SF	6.00	147,600	
G2020	Concrete Paving (6" depth)	240	SF	7.14	1,714	
G2020	Special Finish to Concrete Paving	240	SF	3.00	720	
G2020	Crusher Fines Trails	14,400	SF	6.00	86,400	
G2020	Asphalt Patch (Roadway)	1	TON	973.00	973	
G2020	Asphalt Paving Mobilization				w/ Above	
G2020	Curb Ramp @ Driveway	1	EA	1,200.00	1,200	
G2020	Concrete Driveway - Farm Entry	600	SF	5.53	3,318	
G2020	Parking/Traffic Sign	2	EA	350.00	700	
G2020	Gate	1	LS	3,000.00	3,000	
	Landscape					
G2020	Topsoil @ 3" (includes purchase, trucking, placement)	2,630	CY	12.00	31,560	
G2020	Western Wheatgrass Seeding (incl soil prep.)	171,500	SF	0.22	38,342	
G2020	Native Seeding - Crop (incl soil prep.)	105,000	SF	0.22	23,475	
G2020	Native Seeding - Garden (incl soil prep.)	23,700	SF	0.55	13,035	
G2020	Native Seeding - Farmhouse yard (incl soil prep.)	8,000	SF	0.22	1,789	
G2020	Design Team Correction	(1)	LS	29.00	-29	
G2020	Tree buffer	44,500	SF	3.13	139,107	
G2020	Vegetation Screening (tree/shrub mix)	8,000	SF	2.78	22,240	
G2020	Deciduous Trees (2-1/2"cal.)- Maple Grove	3	EA	450.00	1,350	
G2020	Bluegrass Sod @ Maple Grove	46,000	SF	0.82	37,720	
SUBTOTAL SITE ELECTRICAL UTILITIES		492,075	SF	1.70	838,465	

Uniformat II WBS Code	Description	Quantity	Unit	Cost/Unit	Total Cost	Remarks
G30	MECHANICAL UTILITIES					
	Water System					
G2010	Test Hydrants for Adequate Pressure & Fire Flows On-Site	2	EA	2,862.50	5,725	Fire suppression
G2010	Extend Water Line to Farmhouse - 6" DIP	388	LF	49.27	19,115	
G2010	6" Backflow Preventer	1	LS	5,060.00	5,060	
G2010	Extend Water Line to Garage - 6" DIP	94	LF	49.27	4,631	Fire suppression
G2010	Relocate Fire Hydrant	1	EA	2,862.50	2,863	

Preferred Alternative - Site

Uniformat II WBS Code	Description	Quantity	Unit	Cost/Unit	Total Cost	Remarks
	Sanitary Sewer					
G2010	Drywell for for Fire Suppression	1	LS	3,915.00	3,915	
	Storm Sewer System & Drainage					
G2010	Regrade Slopes around House for Positive Drainage	2,127	SF	5.00	10,635	
G2010	Perimeter Drain System	INCLUDED w/ HOUSE			N/A	
G2010	Repair Downspouts	INCLUDED w/ HOUSE			N/A	
G2010	Regrade Slopes around Poultry for Positive Drainage	2,500	SF	5.00	12,500	
G2010	Perimeter Drain System @ Poultry	170	LF	13.75	2,338	
G2010	Replace Blue Ridge Blvd Culvert w/ 12" Class V RCP	40	LF	85.00	3,400	
G2010	12" FES	2	EA	325.00	650	
	Low Voltage					
G2010	Upgrade Telephone to NPS Standards - Allowance	1	LS	15,000.00	15,000	
SUBTOTAL SITE IMPROVEMENTS		492,075	SF	0.17	85,831	

Uniformat II WBS Code	Description	Quantity	Unit	Cost/Unit	Total Cost	Remarks
G40	ELECTRICAL UTILITIES					
	Site Electrical					
G2010	Remove Exterior Lighting & Associated Conduit & Connections	16	HRS	53.99	864	
G2010	Provide New LED Uplighting for Building Façade & Associated Conduit & Connections	8	EA	1,580.75	12,646	
G2020	Provide New LED Uplighting with Optics at Flagpole	2	EA	1,817.87	3,636	
G2020	New Digital Astronomical Clock w/ Installation	1	LS	501.87	502	
G2010	Security & Safety Lighting - Low Level w/ Optic Cut-Off (w/ conduit, connections, etc.)	12	EA	660.75	7,929	
G2020	Circulation Lighting on New Main Pedestrian Route (at orientation, spots along route)	1	LS	12,000.00	12,000	
SUBTOTAL SITE IMPROVEMENTS		492,075	SF	0.08	37,576	

Uniformat II WBS Code	Description	Quantity	Unit	Cost/Unit	Total Cost	Remarks
G90	OTHER SITE CONSTRUCTION					
	Structures					
G2010	Mark Barn - Allowance	1	AL	20,000.00	20,000	
G2010	Mark Granary / Pavilion - Allowance	1	AL	10,000.00	10,000	
	Miscellaneous					
G9020	Post & Wire Fence	660	LF	21.66	14,296	

NPS - TRUMAN FARMS
Building & Site Improvements
Site - House - Garage - Poultry

Updated on 27 AUG 12
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Preferred Alternative - Site

Uniformat II WBS Code	Description	Quantity	Unit	Cost/Unit	Total Cost	Remarks
G9020	Perimeter Fence Repair (Post & Wire)	1,160	LF	21.66	25,126	
G9020	Gate at East Edge	1	EA	3,000.00	3,000	
G9020	Perimeter Screen Fence (6' ht at south boundary)	900	LF	52.00	46,800	
G9020	Rose Arbor - Post & Wire	2	EA	250.00	500	
G9020	Kiosk	1	EA	8,000.00	8,000	
G9020	Interpretive Sign	3	EA	2,000.00	6,000	
G9020	Terrace / Gathering Area	1	AL	10,000.00	10,000	
G9020	Garden Plots (seeds/planting, soil prep., mulch, edger)	1	EA	950.00	950	
G9020	Mark non-extant building foundations	1	LS	10,000.00	10,000	
G9020	Rainbarrels at Farmhouse	2	EA	539.00	1,078	
G9020	Reset Stone Posts	5	EA	3,275.00	16,375	
G9020	Restore Water Pump	1	EA	1,339.00	1,339	
SUBTOTAL OTHER SITE CONSTRUCTION		492,075	SF	0.35	173,463	

TOTAL COST -	492,075	SF	2.65	1,305,281	
				2.65	/SF

