

Tobyhanna Army Depot  
 Pennsylvania Family Housing Replacement Construction

88741A 711 14 89938 19,000

PRIMARY FACILITY				14,183
CO Grade Officer, O1-3, 4 BRs, CONUS	FA	16	523,009	(8,368)
CO Grade Officer, O1-3, 3 BRs, CONUS	FA	8	459,234	(3,674)
LT. Colonel & Major, O4-5, 4 BRs, CONUS	FA	2	615,107	(1,230)
Cybersecurity Requirements	LS	--	--	(500)
Sustainability/Energy Measures	LS	--	--	(265)
Building Information Systems	LS	--	--	(146)
SUPPORTING FACILITIES				2,888
Electric Service	LS	--	--	(418)
Water, Sewer, Gas	LS	--	--	(761)
Paving, Walks, Curbs And Gutters	LS	--	--	(661)
Storm Drainage	LS	--	--	(137)
Site Imp(131) Demo(780)	LS	--	--	(911)

ESTIMATED CONTRACT COST				17,071
CONTINGENCY (5.00%)				854
SUBTOTAL				<u>17,925</u>
SUPERVISION, INSPECTION & OVERHEAD (5.70%)				<u>1,022</u>
TOTAL REQUEST				18,947
TOTAL REQUEST (ROUNDED)				19,000
INSTALLED EQT-OTHER APPROPRIATIONS				(78)

Construct 26 Family Housing units consisting of sixteen 4-bedroom and eight 3-bedroom units for Company Grade officers and two 4-bedroom units for Field Grade officers. Project includes living areas, kitchen, bathrooms, bedrooms, storage, basement, double car garage, and private entrance. Supporting facilities include site work: all required utility systems; storm drainage; street lighting; and information systems. Heating and air conditioning will be provided by self-contained systems. Residential automatic sprinkler system will be provided. Measures in accordance with the Department of Defense DoD Minimum Antiterrorism for Buildings standards. Accessibility for individuals with disabilities will be provided in 2 quarters. Comprehensive building and furnishings related interior design services are required. Project shall comply with the Army Standard for Family Housing and UFC 4-711-01. Design and construction includes requirements of current Sustainable Design and Development Policy Update (Environmental and Energy Performance). Facilities will be designed to a minimum life of 40 years in accordance with DoD's Unified Facilities Code (UFC 1-200-02) including energy efficiencies, building envelope and integrated building systems performance. Project includes relocation and/or replacement of existing community amenities, that include picnic shelter, fire pits, and playgrounds. The 26 existing AFH units will be demolished and new AFH units will be replaced within same site limits. Demolish 6 buildings at Tobyhanna Army Depot, PA (54,464 Total SF). Air Conditioning (Estimated 52 Tons).

Tobyhanna Army Depot  
Pennsylvania

Family Housing Replacement Construction

89938

PROJECT:

Construct 26 Family Housing units for Company and Field Grade officers including neighborhood amenities and supporting infrastructure. The 26 existing AFH units will be demolished and new AFH units will re-utilize the same family housing site limits.

REQUIREMENT:

The current requirement, as outlined in the 18 June 2014 Tobyhanna Army Depot Housing Market Analysis (HMA) for on post government control housing is for a total of 28 units. Existing assets total is 28 units (26 units poor/failing and 2 units adequate). Project provides suitable Family housing with the goal of accommodating Soldier and Family members with a high-quality, safe, and healthy home that is harmonious to the community. The current requirement, as outlined in the 18 June 2014 Tobyhanna Army Depot Housing Market Analysis (HMA) for on post government control housing is for a total of 28 units. Existing assets total is 28 units (26 units poor/failing and 2 units adequate).

CURRENT SITUATION:

The current Family Housing facilities have reached the end of their useful life, and are undersized, outdated and poorly configured based on current standards expected for military family housing. Existing housing units require increasing level of maintenance (frequency and costs) due to age and deteriorating condition. The building systems require numerous updates and cannot meet current codes due to limitations with original construction configurations and materials. Units require frequent flooring replacement on first level due to sub-floor concrete slab contractions caused by severe winter climate. The interior space configuration is extremely tight and lacks adequate open areas for shared family space. Based on current standards these facilities are functionally deficient and uneconomical to repair.

IMPACT IF NOT PROVIDED:

If this project is not implemented, Tobyhanna Army Depot will continue to maintain obsolete structures with excessive maintenance costs. Poor housing reduces Soldier retention and hurts not only Soldier morale but Family support and the Soldier's ability to focus on the mission. Lack of good Soldier housing is a readiness issue.

ADDITIONAL:

This project has been coordinated with the installation physical security plan, and all physical security measures are included. All required antiterrorism protection measures are included. An economic analysis has been prepared and utilized in evaluating this project. This project is the most cost-effective method to satisfy the requirement. A parametric cost estimate based upon project engineering design was used to develop this budget estimate. Sustainable

2020 89938I R REVISION DATE: 30 AUG 2018  
Army AFH (AS OF 09/25/2018 AT 07:22:02) 09 JUN 2016  
ACF=1.09 UM=E

Tobyhanna Army Depot  
Pennsylvania

Family Housing Replacement Construction 89938

ADDITIONAL: (CONTINUED)

principles, to include Life Cycle cost-effective practices, will be integrated into the design, development, and construction of the project in accordance with Executive Order 13423, 10 USC 2802(c), and other applicable laws and Executive Orders. An economic analysis has been prepared and utilized in evaluating this project. This project is the most cost-effective method to satisfy the requirement. A parametric cost estimate based upon project engineering design was used to develop this budget estimate.

ESTIMATED CONSTRUCTION START:	MAR 2020	INDEX:	2998
ESTIMATED MIDPOINT OF CONSTRUCTION:	MAR 2021	INDEX:	3058
ESTIMATED CONSTRUCTION COMPLETION:	FEB 2022	INDEX:	3114

Tobyhanna Army Depot  
 Pennsylvania

Family Housing Replacement Construction 89938

Item	U/M	Qty	Unit Cost	Cost (\$000)
PRIMARY FACILITY.				
GENERAL.				
1.0) 71114 CO Grade Officer, 01-3, 4 BRs, CONUS	FA	16	523,009	(8,368)
1) 71114 CO Grade Officer, 01-3 4 Bedrooms, CONUS	SF	34,400	217.59	7,485
2) 71114 Full Basement	SF	17,200	51.34	883
2.0) 71114 CO Grade Officer, 01-3, 3 BRs, CONUS	FA	8	459,234	(3,674)
1) 71114 CO Grade Officer, 01-3 3 Bedrooms, CONUS	SF	14,880	221.23	3,292
2) 71114 Full Basement	SF	7,440	51.34	382
3.0) 71113 LT. Colonel & Major, 04-5, 4 BRs, CONUS	FA	2	615,107	(1,230)
1) 71113 LT. Colonel & Major, Grade 04&5 4 Bedrooms	SF	4,620	240.61	1,112
2) 71113 Full Basement	SF	2,310	51.34	119
4.0) 00000 Cybersecurity Requirements	LS	--	--	(500)
1) Cybersecurity - UMCS	LS	--	--	250
2) Cybersecurity - FLS	LS	--	--	250
5.0) 00005 Sustainability/Energy Measures	LS	--	--	(265)
1) SSD & EAct05 (2% Living Area)	LS	--	--	238
2) SSD & EAct05 (2% Basement)	LS	--	--	28
INFORMATION SYSTEMS.				
1.0) 80800 Building Information Systems	LS	--	--	(146)
SUPPORTING FACILITIES.				
Electric Service	LS	--	--	(418)
1) Wheel Loader 1.25 CY (1 hour)	EA	1	182.76	1
2) Cat 235, 2.5 CY Trenching	CY	370.52	4.39	2
3) Dump Truck, 8 CY (1 hour)	EA	3	264.42	1
4) Dry type transformer, single phase 240/480	EA	7	14,032	98
5) Wire, copper, stranded, 600 volt, 3/0, typ	LF	2,700	13.48	36
6) Electric man holes, precast, frame & cover	EA	10	15,910	159
7) Dry type transformer, 3 phase 480 V, 75 kV	EA	1	8,836.30	9
8) Trenching To 6' Dp, Inc Bkfl & Compaction	CY	294.82	31.65	9
9) 1/C #4 Copper Grd 600V DB, Wire	LF	3,058.71	5.13	16
10) 1/C #6 Copper Grd 600V DB, Wire	LF	2,092.80	3.93	8
11) 3/C #6, W/#6 Ground 600 V DB, Wire	LF	1,867.42	15.02	28

Tobyhanna Army Depot  
 Pennsylvania

Family Housing Replacement Construction

89938

	Item	U/M	Qty	Unit Cost	Cost (\$000)
12)	150W Hps Fixture	EA	10	1,391.59	14
13)	20' Brushed Aluminum Pole (Single Arm) W/B	EA	10	3,735.24	37
Water, Sewer, and Gas		LS	--	--	(761)
1)	Water-Dump Charge	CY	132.48	22.78	3
2)	Cat 235, (2.5 CY), Soil/Sand W/Boulders Tr	CY	2,309.90	4.39	10
3)	Cat 225, (1.5 CY), Soil/Sand, Trenching	CY	673.80	6.61	4
4)	910, (1.25 CY), Wheel Loader (1 hour)	EA	3	182.76	1
5)	950, (3 CY), Backfill W/Excavated Material	CY	2,426.74	4.26	10
6)	950, (3 CY), Delivered & Dumped, Backfill	CY	117.70	81.18	10
7)	Compact Soil W/Vibrating Plate	CY	2,426.74	6.76	16
8)	Compact With Pogosticks	CY	117.70	36.40	4
9)	Dump Truck, 8 CY (1 hour)	EA	10	264.62	3
10)	10", Class 150, PVC Piping	LF	2,700	49.99	135
11)	2", Class 200, PVC Piping	LF	2,000	41.74	83
12)	Sewer-Dump Charge	CY	375.59	22.78	9
13)	910, (1.25 CY), Wheel Loader (1 hour)	EA	9	182.76	2
14)	Cat 225, (1.5 CY), Soil/Sand W/Boulders Tr	CY	1,531.52	12.77	20
15)	Dump Truck, 8 CY (1 hour)	EA	29	264.62	8
16)	950, (3 CY), Backfill W/Excavated Material	CY	6,184.94	4.26	26
17)	950, (3 CY), Delivered & Dumped, Backfill	CY	140.01	81.18	11
18)	Compact Soil W/Vibrating Plate	CY	6,184.94	6.76	42
19)	Compact With Pogosticks	CY	140.01	36.40	5
20)	Precast, CIP Base, 1.22m Dia, 3.66m Deep (	EA	5	7,019.88	35
21)	PVC Pipe Sanitary, 8"	LF	1,300	23.18	30
22)	PVC Pipe Sanitary, 4"	LF	2,000	13.56	27
23)	Gas-Dump Charge	CY	159.35	22.78	4
24)	Cat 225, 1.5 CY, Soil/Sand W/Boulders Tren	CY	1,431.72	8.48	12
25)	Cat 235, 2 CY, Rock, No Haul off Or Borrow	CY	9	358.76	3
26)	910,(1.25 CY), Wheel Loader (1 hour)	EA	4	182.76	1
27)	950, (3 CY), Backfill W/Excavated Material	CY	1,216.31	4.26	5
28)	Dump Truck, (8 CY) (1 hour)	EA	12	264.62	3
29)	Compact Soil W/Vibrating Plate	CY	1,216.31	6.76	8
30)	Compact With Pogosticks	CY	158.90	36.40	6

Tobyhanna Army Depot  
 Pennsylvania

Family Housing Replacement Construction

89938

	Item	U/M	Qty	Unit Cost	Cost (\$000)
31)	Polyethylene Pipe, 1?1/2" (60 PSI)	LF	2,000	14.05	28
32)	Polyethylene, coils, 60 PSI 2", SDR 11	LF	2,700	17.20	46
33)	Gas meter, digital, threaded connection, n	EA	26	499.39	13
34)	Gas pressure regulator, screwed end, natur	EA	26	626.21	16
35)	Valves, plastic, polypropylene, ball, thre	EA	27	335.72	9
36)	Cat 225, 1.5 CY, Soil/Sand W/Boulders Tren	CY	2,623.23	12.77	33
37)	Compact With Pogosticks	CY	219.82	36.40	8
38)	Piping, water distribution, PVC, 6" AWWA C	LF	2,700	11.12	30
39)	Fire hydrants, two way, breakable, 5' dept	EA	6	3,749.59	22
40)	Gate valves, cast iron, mechanical joint,	EA	6	2,811.41	17
41)	Underground marking tape, vinyl, aluminum	LF	2,700	0.18	1
<b>Paving, Walks, Curbs, and Gutters</b>		LS	--	--	(661)
1)	Curb/Sidewalk Excav & Bkfl, 27% Haul off S	CY	389.41	34.13	13
2)	SidewalkDelivered & Dumped ? Hand, Backfil	CY	389.62	231.62	90
3)	Compact Soil W/Vibrating Plate	CY	244.44	6.76	2
4)	Compact Subgrade, 2 Lifts	CY	1,511.11	7.31	11
5)	Compact Borrowed Subgrade, 4 Lifts	CY	816.67	70.55	58
6)	Standard 101.60mm (4") Sidewalk W/Mesh, Fo	SF	19,800	7.81	155
7)	Fine Grading, Hand ? Road	SY	2,266.67	24.68	56
8)	Fine Grading (120G), 2 Passes ? Road	SY	377.78	2.42	1
9)	Fine Grading (130G), 2 Passes ? Road	SY	6,833.33	2.42	17
10)	Roadway Soil Excavation, W/Scraper, Load &	CY	2,145.78	16.40	35
11)	Compact Roadside Fill, Hand & Machine	CY	84.37	78.78	7
12)	Gravel, Delivered & Dumped	CY	1,516.66	45.55	69
13)	Roadway Rock Excav, Borrow Subgrade 8.05km	CY	816.67	33.54	27
14)	Prime Coat	SY	6,533.33	4.28	28
15)	Asphalt Wearing Course	TON	271.88	137.57	37
16)	Concrete Curb, (6" x 6")	LF	3,400	5.03	17
17)	Curb Inlet Frame Grate & Box, 525#	EA	12	3,095.18	37

Tobyhanna Army Depot  
 Pennsylvania

Family Housing Replacement Construction

89938

	Item	U/M	Qty	Unit Cost	Cost (\$000)
18)	Street Signs, Average	EA	4	141.99	1
19)	Traffic Signs & Posts, Average	EA	4	176.15	1
Storm Drainage		LS	--	--	(137)
1)	Dump Charge	CY	147.20	22.78	3
2)	Wheel Loader, 1.25 CY (1 hour)	EA	4	182.76	1
3)	Trenching, Cat 235 2.5 CY	CY	401.48	4.32	2
4)	Dump Truck, 8 CY (1 hour)	EA	11	264.62	3
5)	Backfill w/ Excavated Material	CY	283.72	4.26	1
6)	Delivered & Dumped Backfill Sand	CY	84.20	81.18	7
7)	Compact Soil with Vibrating Plate	CY	283.72	6.76	2
8)	Compact with Pogosticks	CY	84.20	36.40	3
9)	Deep Precast Area Drain with Grate	EA	1	11,694	12
10)	18" RCP, Class 3 w/ gaskets	LF	504	93.29	47
11)	18" RCP Flared End, Class 3	EA	2	117.31	1
12)	LID Measures 2%	LS	--	--	56
Site Improvements		LS	--	--	(131)
1)	Light Brush w/o Grub, Clearing	AC	4	448.39	2
2)	Clear Trees to 24" Dia with D8 Cat	EA	40	45.04	2
3)	Stump Removal with D8 Cat	EA	40	17.32	1
4)	Grubbing & Stacking, Dozer 105 hp	EA	161.33	1.88	1
5)	Grubbing & Stacking, Dozer 200 hp	EA	1,613.33	11.26	18
6)	Wheel Loader, 2 CY (1 hour)	EA	13	191.18	2
7)	Semi Dump, 20 CY (1 hour)	EA	26	211.58	6
8)	Area Preparation	AC	5.70	5,769.45	33
9)	Seeding, Hydr Spread	AC	5.70	4,729.02	27
10)	Fertilizer, Hydr Spread	AC	11.40	639.31	7
11)	Watering, 3000 gal Tank Truck	AC	45.60	545.50	25
12)	Mowing	AC	11.40	740.15	8
Demolition		LS	--	--	(780)
1)	Demolition of 6 AFH Bldgs	SF	54,464	14.33	780