City of Bristol
Firehouse 3 Building
Committee

INFORMATION TO ACCESS
THIS MEETING

The special Fire Station 3 Building Committee meeting will be held on Thursday, August 8th, 2024, at 6:00 pm. in Meeting Room 1-4 of City Hall, 111 N Main Street Bristol, CT.

AGENDA

1. Call to Order
2. Public Participation
3. Approval of Minutes
    a. June 5, 2024 Minutes
4. New Business
    a. Review estimates and construction design and take any action necessary.
5. Old Business
6. Adjournment

PER ORDER OF THE CHAIRPERSON

Fire House 3 Building Committee SPECIAL Meeting
June 5, 2024

A Regular Meeting of the Board of Fire Commissioners was held on Wednesday, June 5, 2024 at 6:00 p.m., in Meeting Room 1-4 of City Hall, 111 N Main Street Bristol, CT

Present: Chairman Sean Moore, Committee Member Raymond Rogozinski, Committee Member David Maikowski, Council Member Sebastian Panioto, Fire Chief Hart, Fire Captain Craig Henderson, and Architect Christopher Nardi.
Absent: Committee Member John Lodovico and Purchasing Agent Roger Rousseau

1. **CALL TO ORDER**
    a. The meeting was called to order by Chairman Moore at 6:00 p.m.

2. **PUBLIC PARTICIPATION**
    a. None.

3. **APPROVAL OF THE MEETING MINUTES**
    a. On motion of Committee Member Rogozinski and seconded by Committee Member Miakowski it was unanimously voted: To approve the April 24, 2024 Meeting Minutes. Following a voice vote in which there was no opposition, the Chairperson declared the motion carried.

4. **ARCHITECT UPDATE**
    a. Architect Christopher Nardi spoke with the committee regarding the cost estimate coming in higher than anticipated. Discussion followed regarding alternative ideas and materials to lower costs. A cost saving consensus was achieved on matters of not epoxying all floor surfaces, reducing the roofline over hang, and eliminating the glass windows on the back side of the upper rear bay. Other ideas being considered are bi-fold vs traditional garage doors, reduction of the height of the building, removal of signage above bay doors, and reeducation of furniture, fixtures, and equipment.
    b. Architect Nardi updated the committee that the Traffic Impact Statement was approved.

5. **OLD BUSINESS**
    a. All old business items were discussed during the Architect's Update.

6. **NEW BUSINESS**

a. Committee Member Rogozinski and Purchasing Agent Rousseau spoke with Downs Construction and plan to meet with Architect Chris Nardi.
b. On motion of Committee Member Rogozinski and seconded by Council Member Panioto it was unanimously voted: To cancel June 26th regular meeting, and schedule for July 17th. The motion was then amended to add, if the new estimate is not back by July 17th to push it back and hold a special meeting when it is.

7. ADJOURN

a. On motion on Chief Hart and seconded by Captain Henderson, was unanimously voted: To adjourn at 7:03 p.m.

Recording Secretary:____Sara Bianchi_______

City of Bristol New Firehouse No.3

CD Documents Estimate

Date: Wednesday, July 31, 2024

Basis Of Estimate

Basis of Estimate

Introduction

PACS has been engaged by the Silver Petrucelli to provide a Cost Estimate for:

Estimate is based on the following documents provided by Silver Petrucelli & Associates

- **23-017_Bristol Fire #3 100% Construction Documentsby Silver Petrucelli dated July 5, 2024, 112pp**
- **Specification Sections Architectural, Civil, Electrical, Fire Protection, Food Service, Gzeotechnical, ID, Mechanical, Plumbing issued July 08, 2024 by Silver Petrucelli**
- **Revised Geotechnical Engineering Report - Fire Station No. 3, Bristol, CT by DTE Consulting dated April 2024 35pp**

Quantities and Methodology

- The cost estimate is based on the measurement of quantities wherever possible.
- Where actual measurements are not used, parametric measurements are used in conjunction with previous but similar project benchmarks.
- PACS uses a wide range of standard measurement and quantifying methods that are common practice in the construction industry today.

Basis of Pricing

a) The construction costs shown in this estimate represent the fair market value and are not intended to be a prediction of the lowest bid.

b) The costs include: labor, material, equipment and the subcontractors overhead and profit. (Subcontractor's Mark Up)

c) The cost of labor is based on local Prevailing wage rates for all trades.

d) The construction rates used are based in "today's dollar" and an escalation allowance is included in the Estimate summary.

e) Our pricing assumes competitive bidding on all elements of the construction work, assuming a minimum of three competitive bidders for all general contractors, subcontractors, materials and

f) It is typical in our experience that if fewer bids are received or solicited, prices can be expected to be higher due to lack of competition.

g) The subcontractor's mark ups include their own overhead, including the cost in the field as well as profit.

h) PACS has priced this taking into account current market conditions, competition between trades and the cost fluctuations in the construction industry.

i) Estimate assumes no Phasing required..

j) Proposal is based on construction being performed on regular hours.

Design and Pricing Contingency

A Design and Pricing Contingency is used as a budgetary tool that allows for scope and detail not defined during the design stage. As the design becomes more defined as the project passes through the design stages, the Design and Pricing Contingency decreases as more scope and detail is now being shown in the documents and is therefore reflected in the cost estimate as actual trade cost. The Design and Pricing Contingency is reduced to zero at 100% Bid Documents.

Escalation

As outlined above the estimate is calculated using rates that are "today's dollar" and reflect the cost of the project as if it was to bid on the date of issue. Due to construction projects having long design phases and long construction schedules, its is imperative to project the construction cost further ahead into the future to the point at which it is bid out. It is common practice to escalate the cost estimate to the mid point of construction to accommodate for economic inflation. This percentage accounts for this increase.

Construction Contingency

PACS advise that a Construction Contingency is carried for unforeseen project conditions and field changes. Typically we see this in the range of 3% to 5% dependent on the scope of the project.

Basis Of Estimate

Probable Cost

It is important for the Owner and Design team to carefully review this cost estimate including all line item descriptions, clarifications, exclusions, unit prices, assumptions, allowances, mark ups and contingencies to ensure the estimate reflects the scope of the project.

PACS has produced the cost estimate based on the widely practiced methods of cost estimating and aims to reflect the fair market value of the construction project. Our aim is to be not the highest or the lowest in the range of bids but to use our experience and expertise in the construction industry to provide the client with a degree of confidence that the project will be close to our calculated estimate.

Exclusions

This cost estimate excludes the following:

- Premiums for working in inaccessible or partially accessible spaces during construction
- Surplus Stock and Spares
- Premiums for restrictive and uncompetitive bidding
- Premiums for non-standard work times
- Work beyond the project limits
- CT Sales Tax - Assumes Exempt
- Wellpoints - Assumes open trench pumping only
- Rock or Unsuitable soils remediation
- Hazardous, Contaminated or Polluted soils
- AV Equipment / Technology Budget
- Utility Costs - Electric, Gas, Water (assumes by Owner)

Risks to the Cost Estimate

Items that may affect the cost estimate, the list as follows but not limited:

- Changes to the design subsequent to the issue of the documents stated above which this estimate is based on
- Non Competitive Bid restrictions and the sole sourcing of products/materials from specific vendors
- Restrictive technical specifications that produce and non competitive environment
- Changes to the project schedule that delay the project and therefore have impact on cost
- Incomplete and poorly coordinated documentation
- Access restrictions, unidentified out of hours work policies and phasing restrictions
- Restrictive technical specifications that produce a non competitive environment
- Unforeseen and unknown Site conditions

City of Bristol New Firehouse No.3

CD Documents Estimate 7/31/2024

Trade			Cost		Cost / SF
01 50 00	Temporary Facilities and Controls	$	39,470	$	4.50
03 30 00	Cast-In-Place Concrete	$	258,815	$	29.51
04 20 00	Unit Masonry	$	391,464	$	44.63
05 12 00	Structural Steel	$	445,833	$	50.83
05 40 00	Cold Formed Metal Framing	$	126,384	$	14.41
05 50 00	Metal Fabrications	$	66,800	$	7.62
06 10 00	Rough Carpentry	$	143,196	$	16.33
06 20 00	Finish Carpentry	$	149,948	$	17.10
07 21 00	Thermal Insulation	$	42,780	$	4.88
07 25 00	Air & Vapor Barriers	$	39,998	$	4.56
07 50 00	Roofing	$	253,926	$	28.95
07 92 00	Joint Sealants	$	12,500	$	1.43
08 10 00	Doors and Frames	$	48,715	$	5.55
08 30 00	Specialty Doors	$	243,950	$	27.81
08 41 00	Entrances & Storefront	$	181,630	$	20.71
08 71 00	Door Hardware	$	38,400	$	4.38
08 80 00	Glass & Glazing	$	1,650	$	0.19
09 21 00	Gypsum Board Assemblies	$	108,631	$	12.39
09 30 00	Tile	$	18,364	$	2.09
09 51 00	Acoustical Ceiling	$	30,462	$	3.47
09 61 10	Vapor Mitigation	$	5,112	$	0.58
09 65 00	Resilient Flooring	$	38,720	$	4.41
09 67 00	Resinous Flooring	$	4,384	$	0.50
09 68 00	Carpet	$	5,999	$	0.68
09 91 00	Painting & Wallcoverings	$	74,942	$	8.54
10 14 00	Signage & Graphics	$	22,750	$	2.59
10 26 00	Wall & Door Protection	$	4,370	$	0.50
10 28 00	Toilet Accessories	$	11,080	$	1.26
10 41 00	Emergency Access Cabinets	$	610	$	0.07
10 44 00	Fire Protection Specialties	$	2,085	$	0.24

Trade			Cost		Cost / SF
10 51 00	Lockers	$	30,330	$	3.46
11 40 00	Foodservice Equipment	$	45,963	$	5.24
11 52 00	Audio-Visual Equipment	$	2,500	$	0.29
11 90 00	Miscellaneous Equipment	$	60,280	$	6.87
12 20 00	Window Treatment	$	15,065	$	1.72
21 00 00	Fire Protection	$	84,640	$	9.65
22 00 00	Plumbing	$	307,577	$	35.07
23 00 00	HVAC	$	677,919	$	77.29
26 00 00	Electrical	$	734,766	$	83.77
33 00 00	Sitework	$	1,192,815	$	136.00
TOTAL DIRECT COST		**$**	**5,971,772**		**$680.85**

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CD Documents Estimate 7/31/2024

Trade			Cost	Cost / SF	
TOTAL DIRECT COST (FROM PREVIOUS PAGE)		$	5,971,772	$680.85	
Design & Estimating Contingency	0.00%	$	-		#
Escalation - @ 6% Annually	0.00%	$	-		#
General Conditions- (11 mos @ 50,000 / Month)	$ 550000	$	550,000		#
Preconstruction - Assumes None		$	-		
GC Insurances	0.85%	$	55,435		#
Building Permit		$	50,000		#
GC Surety Bond	0.78%	$	46,580		#
GC Fee	3.00%	$	179,153		#
TOTAL CONSTRUCTION COST (DIRECT & INDIRECT COSTS)		$	6,852,940	$781.32	
Bonding & Legal fees to Town	$ 10000	$	10,000		
A&E Fees / Professional Services	$ 307800	$	307,800		
Commissioning agent	$ 38000	$	38,000		
Owners Representative	$ 200000	$	200,000		
Builders Risk Insurance - Town	$ 40000	$	40,000		
Testing & Inspections	$ 20000	$	20,000		
Moving & Relocation costs	Excluded				
FF&E (Furniture Fixtures and Equipment)	$ 300000	$	300,000		
State Permit 0.26%	$ 7768740	$	20,199		
A/V Systems - Assumes in FF&E	Excluded				
Artwork - By Owner	Excluded				
Utility Connection fees allowance	$ 25000	$	25,000		
Land Acquisition	$ 554,000.00	$	554,000		
Owners Contingency:	% 5.00%	$	390,697		
TOTAL CONSTRUCTION & SOFT COSTS		$	8,758,635	$998.59	

Base Estimate

	Element / Description	Quantity	Unit	Unit Rate ($)	Extension ($)	Subtotal ($)
01 50 00	**Temporary Facilities and Controls**					
	Temporary Site Services - GC Bid (minimal)	8,771	SF	$ 4.50	$ 39,470	
	Subtotal Temporary Facilities and Controls					$ 39,470
02 11 00	**Contaminated Soil Excavation & Disposal**					
	Exluded		< Excluded >			
	Subtotal Contaminated Soil Excavation & Disposal					$ -
02 12 00	**Transportation/Disposal of Contaminated Materials**					
	Exluded		< Excluded >			
	Subtotal Transportation/Disposal of Contaminated Materials					$ -
02 80 00	**Hazardous Abatement**					
	Exluded		< Excluded >			
	Subtotal Hazardous Abatement					$ -
02 41 16	**Building Demolition**					
	Assumes not required		< N/A >			
	Subtotal Building Demolition					$ -
02 41 19	**Selective Demolition**					
	Assumes not required		< N/A >			
	Subtotal Selective Demolition					$ -
03 30 00	**Cast-In-Place Concrete**					
	Continuous footings	42.00	CYD	$ 645.00	$ 27,090	
	Column Footings	56.00	CYD	$ 695.00	$ 38,920	
	Haunch slab footings		< N/A >			
	Frostwall Foundations with Brick Ledge	81.00	CYD	$ 865.00	$ 70,065	
	Piers & Pilasters	7.00	CYD	$ 1,175.00	$ 8,225	
	Stair pan infill		< N/A >			
	Slab on Grade 5"	5,350	SF	$ 10.25	$ 54,838	
	Slab on Grade 7" reinforced & Sloped in Aparatus Bay	3,153	SF	$ 17.50	$ 55,178	
	Slab on Deck		< N/A >			
	Self leveling underlayment		< N/A >			
	Concrete mechanical equipment pads	120	sf	$ 22.50	$ 2,700	
	Concrete curb @ Decon Wash area	8	lf	$ 225.00	$ 1,800	
	Concrete Locker basses		< N/A >			
	Subtotal Cast-In-Place Concrete					$ 258,815
04 20 00	**Unit Masonry**					
	<u>Envelope</u>					
	Envelope CMU Backup - 8"	1,997	SF	$ 29.00	$ 57,913	
	Envelope CMU Bond Beam	320	SF	$ 60.00	$ 19,200	
	Brick Veneer	4,341	SF	$ 43.00	$ 186,663	
	Cast Stone veneer band	525	SF	$ 55.00	$ 28,875	
	<u>Interior</u>					
	Interior CMU Partition 1A - 8"	3,176	SF	$ 29.50	$ 93,692	
	Interior CMU Partition 1B - 8"	38	SF	$ 29.50	$ 1,121	
	Interior CMU Partition 1C - 4"	160	SF	$ 25.00	$ 4,000	
	Subtotal Unit Masonry					$ 391,464
05 12 00	**Structural Steel**					
	Structural Steel - Beams & Columns and Braced Frames per drawings	54.70	TON	$ 4,750.00	$ 259,825	
	Structural Steel Misc angles, Plates, Lintels, bracing - 20%	10.94	TON	$ 4,750.00	$ 51,965	
	Galvanized Steel premium - exposed	1.00	LS	$ 25,000.00	$ 25,000	
	Metal Decking @ Composite deck		< N/A >			
	Metal Decking @ Roof Systems - 1.5 B deck	5,601.00	SF	$ 6.75	$ 37,807	
	Metal Decking @ Roof Systems - 5.5 Acoustical deck	3,827.00	SF	$ 13.95	$ 53,387	
	Column Base Plates, AB. Grouting	30.00	EA	$ 595.00	$ 17,850	
	Subtotal Structural Steel					$ 445,833
05 40 00	**Cold Formed Metal Framing**					
	Roof Truss Vertical Framing CFMF	2,252	SF	$ 13.95	$ 31,415	
	Envelope CFMF Backup @ 14'	3,542	SF	$ 13.95	$ 49,411	
	CFMF Channel Rafters	2,682	LF	$ 12.25	$ 32,855	
	Soffit framing systems	1,037	SF	$ 12.25	$ 12,703	
	Subtotal Cold Formed Metal Framing					$ 126,384
05 50 00	**Metal Fabrications**					
	Misc Metals - Roof Screening and Supports - Assumes not required		< Not required >			
	Misc Metals - Relieving Angles - Assumes none required		< Not required >			
	Beam Pocket Imbeds	24	EA	$ 325.00	$ 7,800	
	Duct supports @ Roof and Attic	1	LS	$ 5,000.00	$ 5,000	
	Equipment support rails	1	LS	$ 3,500.00	$ 3,500	
	Roof Access Ladder	14	VLF	$ 225.00	$ 3,150	
	Misc Metals - Aparatus Door Frames	6	EA	$ 4,500.00	$ 27,000	
	Misc Metals - Fitted Bollards 12" Concrete filled	14	EA	$ 1,275.00	$ 17,850	
	Misc Metals - Axe Sculpture	1	LS	$ 2,500.00	$ 2,500	
	Subtotal Metal Fabrications					$ 66,800
06 10 00	**Rough Carpentry**					
	Window Blocking @ Windows	1,214	LF	$ 13.95	$ 16,935	
	Roof Blocking	1,054	LF	$ 18.50	$ 19,499	
	Naillboard (uninsulated) @ Asphalt pitched roof	3,255	SF	$ 8.95	$ 29,132	
	5/8" Plywood in Attic Space floor	2,301	SF	$ 8.65	$ 19,904	
	1/2" Plywood in Attic Space walls and ceilings		< Removed >			
	1/2" Plywood Sheathing @ CFMF Envelope	6,867	SF	$ 6.95	$ 47,726	
	Inwall and OnWall blocking - Interior	1	LS	$ 2,500.00	$ 2,500	
	Exterior blocking - Trims	1	LS	$ 7,500.00	$ 7,500	
	Subtotal Rough Carpentry					$ 143,196

Base Estimate

	Element / Description	Quantity	Unit	Unit Rate ($)	Extension ($)	Subtotal ($)
06 20 00	**Finish Carpentry**					
	Exterior Finish Carpentry					
	Sloped roof facia - PVC 12"	234	LF	$ 13.67	$ 3,199	
	Sloped roof trip @ Facia PVC 4"	221	LF	$ 7.35	$ 1,624	
	Azek or similar PVC Siding	1,482	SF	$ 28.00	$ 41,496	
	Azek or similar PVC Soffit systems	1,286	SF	$ 24.00	$ 30,864	
	Interirior Finish Carpentry & Millwork					
	Kitchen base cabinets - Island	12	LF	$ 825.00	$ 9,900	
	Kitchen base cabinets Deep with PLAM Tpps	16	LF	$ 575.00	$ 9,200	
	Stainless tops	91	SF	$ 155.00	$ 14,105	
	PLAM upper Cabinets	17	LF	$ 295.00	$ 5,015	
	PLAM upper Cabinet fillers	27	LF	$ 150.00	$ 4,050	
	PLAM Full height Pantry	4	LF	$ 795.00	$ 3,180	
	Workroom counter Stainless Surface with RAKKS supports - wide HD	19	LF	$ 345.00	$ 6,555	
	Watchroom counter Solid Surface with RAKKS supports	18	LF	$ 295.00	$ 5,310	
	Pantry Storage Shelving X6	16	LF	$ 210.00	$ 3,360	
	Interior window sills - Solid surface eased edge	186	LF	$ 65.00	$ 12,090	
	Personnel Bunk Wardrobe Units	< In FF&E >				
	Subtotal Finish Carpentry					$ 149,948
07 10 00	**Damp / Waterproofing**					
	Waterproofing & Drainage Board	< Included in Civil Structural E&B >				
	Subtotal Damp / Waterproofing					$ -
07 21 00	**Thermal Insulation**					
	Insulation @ Exterior	3,542	SF	$ 6.45	$ 22,846	
	Insulation @ Attic 5"	2,393	SF	$ 8.33	$ 19,934	
	Subtotal Thermal Insulation					$ 42,780
07 25 00	**Air & Vapor Barriers**					
	AVB @ Envelope	5,714	SF	$ 7.00	$ 39,998	
	Subtotal Air & Vapor Barriers					$ 39,998
07 40 00	**Metal Siding Panels & Soffits -**					
	See Finish Carpentry	< See finish Carpentry >				
	Subtotal Metal Siding Panels & Soffits -					$ -
07 50 00	**Roofing**					
	EPDM Roof on Tapered Insulation	6,931	SF	$ 29.50	$ 204,465	
	EPDM Roof walk pads	50	EA	$ 81.25	$ 4,063	
	Roof curbs and Dunnage flashing & Penetrations	1	LS	$ 3,500.00	$ 3,500	
	Asphalt Shingles on Ice & Water Shield	3,255	SF	$ 9.25	$ 30,109	
	Gutters - Aluminum	235	LF	$ 39.00	$ 9,165	
	Leaders - Aluminum	75	LF	$ 35.00	$ 2,625	
	Subtotal Roofing					$ 253,926
07 81 00	**Applied Fireproofing**					
	Assumes not required	< Not included >				
	Subtotal Applied Fireproofing					$ -
07 84 00	**Pentration Firestopping**					
	In Trades					
	Subtotal Pentration Firestopping					$ -
07 92 00	**Joint Sealants**					
	Caulking & Sealants	1	LS	$ 12,500.00	$ 12,500	
	Subtotal Joint Sealants					$ 12,500
07 95 00	**Expansion Control**					
	Expansion systems - Assumes not required	< Not included >				
	Subtotal Expansion Control					$ -
08 10 00	**Doors & Frames**					
	Frame A - HM3070	27	EA	$ 450.00	$ 12,150	
	Frame A - HM6070	3	EA	$ 595.00	$ 1,785	
	Door leaf 3070 HM	33	EA	$ 365.00	$ 12,045	
	Premium Rating	5	EA	$ 550.00	$ 2,750	
	Premium 1/2 lite	1	EA	$ 575.00	$ 575	
	Door hardware premium - Electrified Locksets	3	EA	$ 2,750.00	$ 8,250	
	Install frame	30	EA	$ 220.00	$ 6,600	
	Install Door leaf	38	EA	$ 120.00	$ 4,560	
	Subtotal Doors & Frames					$ 48,715
08 30 00	**Specialty Doors**					
	Door Engineering FF300 Doors 14x14 with operators	3	EA	$ 46,400.00	$ 139,200	
	14' x14' Clopay Model EX904U HD with operators installed	3	EA	$ 32,000.00	$ 96,000	
	Roof Hatch with Safety Railings	1	EA	$ 3,250.00	$ 3,250	
	Roof access to Pitched Attic Space - DF&H	2	EA	$ 2,750.00	$ 5,500	
	Subtotal Specialty Doors					$ 243,950
08 41 00	**Entrances & Storefront**					
	Exterior Aluminum Glazed Storefront Doors and Hardware - Installed	8	EA	$ 4,250.00	$ 34,000	
	Storefront Systems - Glazed openings -	1,519	SF	$ 95.00	$ 144,305	
	Storefront Systems - Glazed openings - Added mullions - eliminate framing	35	SF	$ 95.00	$ 3,325	
	Subtotal Entrances & Storefront					$ 181,630
08 44 00	**Metal Framed Curtainwall**					
	Curtainwall Systems -	< N/A >				
	Subtotal Metal Framed Curtainwall					$ -
08 50 00	**Windows**					
	See Storefronts	< N/A >				
	Subtotal Windows					$ -
08 71 00	**Door Hardware**					
	Hardware set / leaf - Passage (installed)	38	EA	$ 900.00	$ 34,200	
	Hardware Set / Leaf - Egress (installed) - premium	6	EA	$ 700.00	$ 4,200	
	Access Control Head end Equipment	< In Technology >				
	Subtotal Door Hardware					$ 38,400
08 80 00	**Glass & Glazing**					
	Interior Borrowed Lites - Sidelites	30	SF	$ 55.00	$ 1,650	
	Skylights - None Identified	< N/A >				
	Full height mirror @ Fitness - None identified	< Not included >				
	Full height mirror @ Bunk rooms and Bathrooms	< Not included >				

Base Estimate

	Element / Description	Quantity	Unit	Unit Rate ($)	Extension ($)	Subtotal ($)
	Subtotal Glass & Glazing					$ 1,650
08 90 00	**Louvers & Vents**					
	None identified	< Included in Mechanical>				
	Subtotal Louvers & Vents					$ -
09 21 00	**Gypsum Board Assemblies**					
	Wall Type 2A	675	SF	$ 7.95	$ 5,366	
	Wall Type 2B	5,006	SF	$ 10.45	$ 52,313	
	Wall Type 2C	1,940	SF	$ 13.25	$ 25,705	
	Gyp @ Envelope walls	3,906	SF	$ 3.45	$ 13,476	
	Gyp ceilings - suspended	-	SF	$ 18.00	$ -	
	Gyp soffits and Ceiling transitions	1,095	SF	$ 10.75	$ 11,771	
	Subtotal Gypsum Board Assemblies					$ 108,631
09 30 00	**Tile**					
	PF-1- Toilets 24x24	237	SF	$ 21.00	$ 4,977	
	PFT-1 Base	148	LF	$ 12.25	$ 1,813	
	Ceramic wall tile - per finish schedule	643	SF	$ 18.00	$ 11,574	
	Subtotal Tile					$ 18,364
09 51 00	**Acoustical Ceiling**					
	Ceilings - ACT 2x2 Ultima	3,520	SF	$ 7.10	$ 24,992	
	Ceilings - ACT 2x2 Healthzone	585	SF	$ 9.35	$ 5,470	
	Subtotal Acoustical Ceiling					$ 30,462
09 64 00	**Wood Flooring**					
	None identified		< N/A >			
	Subtotal Wood Flooring					$ -
09 61 10	**Vapor Mitigation**					
	Topical Moisture Mitigation- High Performance Glues	3,098	SF	$ 1.65	$ 5,112	
	Subtotal Vapor Mitigation					$ 5,112
09 65 00	**Resilient Flooring**					
	Resilient LVT	1,610	SF	$ 7.65	$ 12,317	
	Safety sheet floor	116	SF	$ 13.10	$ 1,520	
	RAF - Rubber Athletic Floor	515	SF	$ 17.65	$ 9,090	
	Rubber Stair Treads and risers		< Not included >			
	SC-1 Sealed concrete	4,120	SF	$ 1.65	$ 6,798	
	Resilient Base RB-1 / RB-2	1,102	LF	$ 3.45	$ 3,802	
	Integral Base @ Safety floor	141	LF	$ 11.00	$ 1,551	
	Transition Strips	1	LS	$ 750.00	$ 750	
	Floor Prep - Resilient	2,241	SF	$ 1.10	$ 2,465	
	Attic Stock Flooring 10% Materials	10%	LS	$ 4,284	$ 428	
	Subtotal Resilient Flooring					$ 38,720
09 66 00	**Terrazzo**					
	None identified		< N/A >			
	Subtotal Terrazzo					$ -
09 67 00	**Resinous Flooring**					
	EPX1 -	180	SF	$ 19.65	$ 3,537	
	EPX1 - EPX-2 flooring / patterns Apparatus Bay		< Removed >			
	EPX Base integral	77	SF	$ 11.00	$ 847	
	Subtotal Resinous Flooring					$ 4,384
09 68 00	**Carpet**					
	Carpet Tile	857	SF	$ 6.25	$ 5,356	
	Carpet Tile floor prep	857	SF	$ 0.75	$ 643	
	Subtotal Carpet					$ 5,999
09 80 00	**Acoustical Treatment**					
	None identified		< N/A >			
	Subtotal Acoustical Treatment					$ -
09 91 00	**Painting & Wallcoverings**					
	Painting - walls & Ceilings - Gyp	19,568	SF	$ 0.78	$ 15,263	
	Painting - walls CMU including block-fill - Epoxy Paint	8,494	SF	$ 4.65	$ 39,497	
	Painting - Exposed Structure & Decking - Epoxy	4,005	SF	$ 3.45	$ 13,817	
	Painting Exterior trims and siding		< N/A >			
	Paint Doors and Frames	38	EA	$ 80.00	$ 3,040	
	Vinyl Wallcoverings		< N/A >			
	Digital Wallcoverings	190	SF	$ 17.50	$ 3,325	
	Subtotal Painting & Wallcoverings					$ 74,942
10 11 00	**Visual Display Surfaces**					
	Wallboard & Tackboards allowance		< N/A >			
	Display Cabinet	1	LS	$ 3,000.00	$ 3,000	
	Subtotal Visual Display Surfaces					$ 3,000
10 14 00	**Signage & Graphics**					
	Signage - Interior Wayfingding	1	LS	$ 1,250.00	$ 1,250	
	Signage - Interior ADA / Rooms	35	EA	$ 95.00	$ 3,325	
	Signage -Exterior Building Pin Letters 12" (removed over front entry)	62	EA	$ 225.00	$ 13,950	
	Signage -Exterior Building Pin Letters 36"	1	EA	$ 725.00	$ 725	
	Signage -Exterior Fire Rescue Sign	1	EA	$ 3,500.00	$ 3,500	
	Subtotal Signage & Graphics					$ 22,750
10 21 13	**Toilet Compartments**					
	None identified		< N/A >			
	Subtotal Toilet Compartments					$ -
10 21 23	**Cubicle Curtain & Track**					
	None identified		< N/A >			
	Subtotal Cubicle Curtain & Track					$ -
10 22 00	**Operable Partitions**					
	None identified		< N/A >			
	Subtotal Operable Partitions					$ -
10 26 00	**Wall & Door Protection**					
	FRP Paneling @ Custodial	200	SF	$ 9.35	$ 1,870	
	Corner Guards - Allowance	1	LS	$ 2,500.00	$ 2,500	
	Subtotal Wall & Door Protection					$ 4,370

Base Estimate

	Element / Description	Quantity	Unit	Unit Rate ($)	Extension ($)	Subtotal ($)
10 28 00	**Toilet Accessories**					
	TR Accessories - Grab Bars set (3)	2	EA	$ 365.00	$ 730	
	TR Accessories - Lav Guard	4	EA	$ 295.00	$ 1,180	
	TR Accessories - Shower seat	1	EA	$ 965.00	$ 965	
	TR Accessories - Shower curtain & rod assy	4	EA	$ 395.00	$ 1,580	
	TR Accessories - Shower bench floor mounted	8	LF	$ 225.00	$ 1,800	
	TR Accessories - Soap dispensers	7	EA	$ 95.00	$ 665	
	TR Accessories - PT Dispenser	6	EA	$ 95.00	$ 570	
	TR Accessories - Mirrors	4	EA	$ 345.00	$ 1,380	
	TR Accessories - Coat hooks	10	EA	$ 35.00	$ 350	
	TR Accessories - Custodial	1	EA	$ 310.00	$ 310	
	TP Dispensers	4	EA	$ 65.00	$ 260	
	Baby changing stations	< None identified >				
	Accessory Installation	43	EA	$ 30.00	$ 1,290	
	Subtotal Toilet Accessories					$ 11,080
10 41 00	**Emergency Access Cabinets**					
	Knox Box	1	LS	$ 610.00	$ 610	
	Subtotal Emergency Access Cabinets					$ 610
10 44 00	**Fire Protection Specialties**					
	FE Cabinets and Extinguishers - Qty assumed	3	EA	$ 695.00	$ 2,085	
	Subtotal Fire Protection Specialties					$ 2,085
10 51 00	**Lockers**					
	24" wide open access Metal Lockers - 6' high x24" deep with accessories	32	EA	$ 650.00	$ 20,800	
	Lockers shipping and distribution	1	LS	$ 4,250.00	$ 4,250	
	Gear lockers - installation	32	EA	$ 165.00	$ 5,280	
	Subtotal Lockers					$ 30,330
11 13 00	**Loading Dock Equipment**					
	None identified		< N/A >			
	Subtotal Loading Dock Equipment					$ -
11 30 00	**Residential Appliances**					
	Dryer - residential		< FF&E >			
	Washer - residential		< FF&E >			
	Washer - Commercial @ Gear wash room		< FF&E >			
	Extractor- Commercial @ Gear wash room		< FF&E >			
	Subtotal Residential Appliances					$ -
11 40 00	**Foodservice Equipment**					
	Food Lockers		< N/A >			
	6 burner range with 24" Griddle (2 ovens) - Southbend S80-DD	1	LS	$ 8,976.00	$ 8,976	
	Drop in Sink Single	1	LS	$ 977.00	$ 977	
	Drop in Sink - Dual with drain boards	1	LS	$ 2,822.00	$ 2,822	
	Reach in Refrigerator	1	LS	$ 11,375.00	$ 11,375	
	Reach in Refrigerator	1	LS	$ 8,582.00	$ 8,582	
	Reach in Freezer True TR-38 FRZ	1	LS	$ 4,750.00	$ 4,750	
	Under Counter Refrigerator	1	LS	$ 3,109.00	$ 3,109	
	Under Counter Dishwasher	1	LS	$ 1,180.00	$ 1,180	
	Pot Filler T&S Brass	1	LS	$ 325.00	$ 325	
	Coffee Maker Curtiss AL3GPT	1	LS	$ 788.00	$ 788	
	Trash Chute	1	LS	$ 225.00	$ 225	
	Microwave Waring WMQ-120	1	LS	$ 1,604.00	$ 1,604	
	Commercial Toaster HATCO TQ-10	1	LS	$ 1,250.00	$ 1,250	
	Range hood with Ansul System - Installed	< In Mechanical >				
	Subtotal Foodservice Equipment					$ 45,963
11 52 00	**Audio-Visual Equipment**					
	IT Data Rack with Switches (Cable & terminations in Electrical / Security)	1	LS	$ 2,500.00	$ 2,500	
	Large Format Projection Systems - Not included		< N/A >			
	Video Conferencing System - Not included	< By Owner >				
	Radio / Dispatch Systems - Not included	< By Owner >				
	Subtotal Audio-Visual Equipment					$ 2,500
11 66 00	**Athletic Equipment**					
	None identified	< By Owner >				
						$ -
11 90 00	**Miscellaneous Equipment**					
	Magnegrip Apparatus Vehicle Exhaust System - 3 bays 60'	1	LS	$ 58,330.00	$ 58,330	
	Vehicle Exhaust Modification	6	EA	$ 325.00	$ 1,950	
	Gear wash SS Table with integral basins	< Removed >				
	Gear wash Track & Curtain @ Basin	< Removed >				
	Gear hanger rod @ Gear wash room	< Removed >				
	Defibrillator cabinet		< N/A >			
	Subtotal Miscellaneous Equipment					$ 60,280
12 20 00	**Window Treatment**					
	Mechoshade - Manual light filtering	898	SF	$ 9.10	$ 8,172	
	Mechoshade - Mechoshade Blackout	384	SF	$ 17.95	$ 6,893	
	Subtotal Window Treatment					$ 15,065
12 48 13	**Entrance Mats**					
	Walk off Mats	220	SF	$ 17.95	$ 3,949	
	Subtotal Entrance Mats					$ 3,949
12 52 00	**Furnishings - Movable**					
	Beds		< FF&E >			
	Desk and Chair		< FF&E >			
	Subtotal Furnishings - Movable					$ -
13 00 00	**Special Construction**					
	N/A		< N/A >			
	Subtotal Special Construction					$ -
14 20 00	**Conveying**					
	Elevators / lifts - Not required		< N/A >			
	Subtotal Conveying					$ -

Base Estimate

	Element / Description	Quantity	Unit	Unit Rate ($)	Extension ($)	Subtotal ($)
21 00 00	Fire Protection	8,771	SF	9.65		
	RPDA Discharge (Drain / test)	1	LS	$ 1,750.00	$ 1,750	
	Fire Sprinkler Riser assembly	1	LF	$ 12,500.00	$ 12,500	
	2-3" Branch	805	LF	$ 38.00	$ 30,590	
	4" Mains	188	LF	$ 55.00	$ 10,340	
	Dropped Sidewall heads @ Doors	9	EA	$ 225.00	$ 2,025	
	Dry Sidewall heads	2	EA	$ 310.00	$ 620	
	FD Connection	1	EA	$ 2,125.00	$ 2,125	
	Recessed heads	63	EA	$ 265.00	$ 16,695	
	Upright heads	41	EA	$ 195.00	$ 7,995	
	Fire Pump -Assumes not required		< Excluded >			
	Subtotal Fire Protection					$ 84,640
22 00 00	Plumbing					
		8,771	SF	35.07		
	DOM Connection with BFP & valve assy	1	LS	$ 3,625.00	$ 3,625	
	Domestic water booster pump - Assumes not required		<NIC>			
	Gas Meter / riser assy	1	LS	$ 2,210.00	$ 2,210	
	Gas Emergency Shut-off	1	LS	$ 1,500.00	$ 1,500	
	Gas Grill Regulator and connections	1	LS	$ 500.00	$ 500	
	Pipe Gas AG 0.75"	22	LF	$ 26.00	$ 572	
	Pipe Gas AG 1"	70	LF	$ 34.00	$ 2,380	
	Pipe Gas AG 2"	269	LF	$ 52.00	$ 13,988	
	Pipe Gas Buried 0.75" to Grills	28	LF	$ 37.00	$ 1,036	
	Pipe Gas Buried 2" to generator	69	LF	$ 65.00	$ 4,485	
	Water heater -	1	LS	$ 12,500.00	$ 12,500	
	Water heater - Intake & Exhaust Flue	32	LF	$ 38.00	$ 1,216	
	PET-1 - Expansion Tank	1	EA	$ 1,850.00	$ 1,850	
	Air Separator	1	EA	$ 1,975.00	$ 1,975	
	2-1/2" Reduced Backflow Preventer	1	EA	$ 1,725.00	$ 1,725	
	Hot water tempering valve 140 / 110	1	LS	$ 3,500.00	$ 3,500	
	Hot water recirculation system with pump and controls	1	LS	$ 3,750.00	$ 3,750	
	Balancing vales for HWR	8	EA	$ 125.00	$ 1,000	
	Domestic water booster pump - Assume not required		<NIC>			
	Domestic Water 3"	198	LF	$ 51.00	$ 10,098	
	Domestic Water 2"	236	LF	$ 45.00	$ 10,620	
	Domestic Water 1.25"	-	LF	$ 27.00	$ -	
	Domestic Water 1.0"	257	LF	$ 23.00	$ 5,911	
	Domestic Water 0.75" & 0.5"	431	LF	$ 17.00	$ 7,327	
	Domestic Water 0.75" & 0.5" Underslab	40	LF	$ 45.00	$ 1,800	
	Pipe insulation - blended cost	1,122	LS	$ 7.25	$ 8,135	
	Sanitary 3" PVC	147	LF	$ 26.00	$ 3,822	
	Sanitary 4" PVC	340	LF	$ 32.00	$ 10,880	
	Sanitary 6" PVC	287	LF	$ 44.00	$ 12,628	
	Sanitary Vent piping - PVC	160	LF	$ 28.00	$ 4,480	
	Sanitary CO	7	EA	$ 375.00	$ 2,625	
	T&B for underslab sanitary	531	LF	$ 25.00	$ 13,275	
	Storm Drains - Combination Overflow	9	EA	$ 1,225.00	$ 11,025	
	Storm Overflow cows tongue	4	EA	$ 565.00	$ 2,260	
	Storm 4" CIP	251	LF	$ 54.00	$ 13,554	
	Storm 6" CIP	178	LF	$ 67.00	$ 11,926	
	Condensate Drains	528	LF	$ 22.00	$ 11,616	
	Fixture - ADA Dual water cooler Bottle filler Elkay EZH2O	1	EA	$ 2,150.00	$ 2,150	
	Fixture - Custodial basin and Hydrants	1	EA	$ 795.00	$ 795	
	Fixture - FP Hose Bib	4	EA	$ 310.00	$ 1,240	
	Fixture - Floor drain with trap primer	4	EA	$ 1,225.00	$ 4,900	
	Fixture - Floor drain Kitchen		< Removed >			
	Fixture - S1 Sink	1	EA	$ 2,425.00	$ 2,425	
	Fixture - KS-1 - Kitchen		< In Food Service Equip >			
	Fixture - KS-2 - Kitchen		< In Food Service Equip >			
	Fixture - EWC-1a	1	EA	$ 3,750.00	$ 3,750	
	Fixture - Eyewash	1	EA	$ 1,725.00	$ 1,725	
	Fixture - Sink and faucet - TR wall hung vitreous	4	EA	$ 1,100.00	$ 4,400	
	Fixture - Wall Hydrant	6	EA	$ 225.00	$ 1,350	
	Fixture - Water Closet	4	EA	$ 1,675.00	$ 6,700	
	Fixture - Faucet deck mount kitchen sinks sinks	2	EA	$ 225.00	$ 450	
	Fixture - Faucet / Sprayer @ Gear wash sinks		< Removed >			
	Fixture - Shower Assembly and Shower valves	4	EA	$ 3,375.00	$ 13,500	
	Fixture - Gear Wash Basin and Valve / Sprayer Assembly		< Removed >			
	Fixture Carriers	8	EA	$ 425.00	$ 3,400	
	Fixture Rough-in	27	EA	$ 275.00	$ 7,425	
	Compressor AC-1 Champion VRV5-6 installed		< By Owner >			
	Pipe - compressed Air	285	LF	$ 24.00	$ 6,840	
	AJ Air Connection	6	EA	$ 235.00	$ 1,410	
	Temperature Maintenance Cable and controller	1	LS	$ 6,500.00	$ 6,500	
	Apparatus Trench Drains - Prefab with H20 Grates	140	LF	$ 195.00	$ 27,300	
	Fixture Rough-in & Connections - Kitchen	3	LS	$ 375.00	$ 1,125	
	Fixture Rough-in & Connections - Water heaters	1	LS	$ 750.00	$ 750	
	Other Plumbing Systems (includes Subcontractor Mgmt, Submittals, testing, Temp svcs)	8,771	SF	$ 1.10	$ 9,648	
	Subtotal Plumbing					$ 307,577
23 00 00	HVAC					
		8,771	SF	77.29		
	Major Equipment					
	VRF Systems	20.0	TON	$ 5,390.00	$ 107,800	
	VRF Refrigerant Pipe w/ Insulation	1,326.0	LF	$ 45.00	$ 59,670	
	VRF Refrigerant Pipe w/ Insulation to CU	132.6	LF	$ 75.00	$ 9,945	
	VRF Controllers	3.0	EA	$ 6,500.00	$ 19,500	
	Condensate Pumps - Diamond	19.0	EA	$ 285.00	$ 5,415	
	DOAS / ERV	1	LS	$ 59,162.25	$ 59,162	
	Mini Split HVAC System - IT Room 1 ton	1	TON	$ 7,500.00	$ 7,500	
	EF--1 & EF-2 Electrical & Mechanical	1,425	CFM	$ 4.95	$ 7,054	
	EF--3 & EF-4 Sprinkler & Work Room	300	CFM	$ 7.95	$ 2,385	
	EF-5 - Exhaust Fan with CO Sensors @ Apparatus Bays	2,400	CFM	$ 4.95	$ 11,880	
	EF--6 - Exhaust Fan with CO Sensors @ Apparatus Bays	180	CFM	$ 7.95	$ 1,431	
	EF--8 & EF-9 Gear locker - Exhaust Fan with CO Sensors @ Apparatus Bays	200	CFM	$ 7.95	$ 1,590	
	EF-7 - Exhaust Fan Decon	175	CFM	$ 7.95	$ 1,391	
	EF-10 - Exhaust Fan Drier booster	150	CFM	$ 4.95	$ 743	
	EF-11 - Exhaust Fan SCBA	1,980	CFM	$ 4.95	$ 9,801	
	TEF-1		< Included in Magnegrip $ >			
	SF-1 - Supply Fan		< Removed >			

Base Estimate

	Element / Description	Quantity	Unit	Unit Rate ($)	Extension ($)	Subtotal ($)
	SF-2 - Supply Fan		< Removed >			
	DF-1&2 Destratification Fan	2	EA	$ 3,125.00	$ 6,250	
	Motorized Ventilation Louver ILO SF-1 / SF-2	1	LS	$ 3,500.00	$ 3,500	
	KMUA-1	1	LS	$ 22,850.00	$ 22,850	
	KEF-1 - Exhaust Fan	1,250	CFM	$ 6.45	$ 8,063	
	Gas fired unit heaters	4	EA	$ 3,150.00	$ 12,600	
	EWH Electric Wall Heaters	3	EA	$ 2,750.00	$ 8,250	
	EUH Electric Unit Heaters	2	EA	$ 2,250.00	$ 4,500	
	Kitchen Hood with Ansul System	1	LS	$ 12,500.00	$ 12,500	
	Distribution Systems					
	16 Gauge Sched 40 Grease Duct (Welded)	1	LS	$ 7,500.00	$ 7,500	
	Stainless Steel Duct (Dishwasher Exhaust)		< N/A >			
	Ductwork Galvanized	6,407	LBS	$ 17.00	$ 108,919	
	Insulation					
	Duct Wrap Insulation	6,707	SF	$ 6.15	$ 41,248	
	Duct Fire Wrap	1	LS	$ 5,500.00	$ 5,500	
	Registers	38	EA	$ 140.00	$ 5,320	
	Supply / Return Sound Attenuators	2	LS	$ 2,500.00	$ 5,000	
	Volume Dampers	38	EA	$ 110.00	$ 4,180	
	Misc. Duct Accessories / connections	1	LS	$ 5,500.00	$ 5,500	
	Flues for GFUH	4	EA	$ 1,250.00	$ 5,000	
	Exterior Louvers	1	LS	$ 3,750.00	$ 3,750	
	Vehicle CO Detection controls	1	LS	$ 3,500.00	$ 3,500	
	Controls and Instrumentation - Assumes Factory Controls with minimal DDC for local access	8,771	SF	$ 5.45	$ 47,802	
	Systems Testing & Balancing	8,771	SF	$ 0.65	$ 5,701	
	Other HVAC Systems & Equipment					
	Coordination & Management	1	LS	$ 25,000.00	$ 23,750	
	Seismic Restraints / Bracing	1	LS	$ 1,500.00	$ 1,425	
	Coring & Patching / Firestopping	1	LS	$ 750.00	$ 713	
	Hoisting & Rigging / Floor Loading	1	LS	$ 2,500.00	$ 2,375	
	Shop Drawings & Submittals	1	LS	$ 1,850.00	$ 1,758	
	BIM Coordination & Mgmt		< N/A >			
	Record Drawings / as builts	1	LS	$ 3,500.00	$ 3,325	
	Equipment Start up and Inspection	1	LS	$ 7,500.00	$ 7,125	
	Access panels - furnish only	1	LS	$ 1,500.00	$ 1,425	
	Commissioning	1	LS	$ 3,500.00	$ 3,325	
	Subtotal HVAC					**$ 677,919**
26 00 00	**Electrical**					
		8,771	SF	83.77		
	Normal Power Distribution					
	MCB 800A / CT Cab	1	EA	$ 17,500.00	$ 17,500	
	SB-1 800A 120/208	1	EA	$ 28,000.00	$ 28,000	
	Panel PP1 225A 60p	1	EA	$ 9,750.00	$ 9,750	
	Panel PP-2 225A 60p	1	EA	$ 9,750.00	$ 9,750	
	Panel RP-3 225A 60p	1	EA	$ 9,750.00	$ 9,750	
	Panel RP-4 400A 42p	1	EA	$ 8,225.00	$ 8,225	
	Feeders					
	Secondary feeder 800A	75	LF	$ 465.00	$ 34,875	
	400A Feeder EMT copper	200	LF	$ 161.00	$ 32,200	
	225A Feeder EMT copper	250	LF	$ 115.00	$ 28,750	
	Machine & Equipment Power					
	DOAS-1 50A 208v connect	1	EA	$ 1,825.00	$ 1,825	
	KMUA-1 30A 208v connect	1	EA	$ 1,428.14	$ 1,428	
	ERC-1 30A 208v connect	1	EA	$ 1,165.00	$ 1,165	
	EWH1-3	3	EA	$ 975.00	$ 2,925	
	EUH 1-2	2	EA	$ 1,225.00	$ 2,450	
	EF1-11	11	EA	$ 595.00	$ 6,545	
	DF1-1&2	2	EA	$ 595.00	$ 1,190	
	CU 60A 120v connect	3	EA	$ 1,295.00	$ 3,885	
	FCU 20 A Circuit & Connection	20	EA	$ 425.00	$ 8,500	
	VRF Control Boxes	3	EA	$ 795.00	$ 2,385	
	Equipment connection Washing Machine 100A	2	EA	$ 725.00	$ 1,450	
	Equipment connection Dryer	2	EA	$ 845.00	$ 1,690	
	Equipment connection Door operator	6	EA	$ 1,125.00	$ 6,750	
	Chord reel hard wired	4	EA	$ 1,250.00	$ 5,000	
	Equipment - DECON Room	2	EA	$ 525.00	$ 1,050	
	Equipment -Antennae Ground in Conduit 75'	1	EA	$ 1,250.00	$ 1,250	
	Equipment -Conduit roof to watch room	1	EA	$ 800.00	$ 800	
	Equipment connection Plymovent system	6	EA	$ 795.00	$ 4,770	
	Fire pump connection		< N/A >			
	KEF-1 Kitchen exhaust fan 1-1/2HP 480v connect	1	EA	$ 1,250.00	$ 1,250	
	Kitchen Equipment & Hood controls connections	1	LS	$ 3,750.00	$ 3,750	
	Floor boxes and outlets		< N/A >			
	Equipment Power branch wiring	8,771	LS	$ 1.65	$ 14,472	
	Emergency Power and Distribution					
	Generator and 800A ATS -150 KW Natural Gas	1	LS	$ 150,000.00	$ 150,000	
	PV Readiness					
	Conduit to roof	1	LS	$ 2,750.00	$ 2,750	
	General Power					
	Device Branch					
	Equipment Disconnect	13	EA	$ 525.00	$ 6,825	
	Equipment Disconnect WP	21	EA	$ 735.00	$ 15,435	
	Recept Double Duplex	12	EA	$ 142.00	$ 1,704	
	Recept Duplex	70	EA	$ 96.00	$ 6,720	
	Recept Duplex GFI	66	EA	$ 135.00	$ 8,910	
	Recept Duplex GFI WP	19	EA	$ 165.00	$ 3,135	
	Recept Duplex WP	25	EA	$ 112.00	$ 2,800	
	Recept Emergency Power Off	1	EA	$ 650.00	$ 650	
	Conduits & Conductors	8,771	SF	$ 1.71	$ 14,998	
	Lighting and Branch					
	Lighting					
	A1, A2, A3 Fixture 2x2 Troffer DayBrite 2TG-20L-840-2-FS-12F-UNV-DIM	47	EA	$ 175.00	$ 8,225	
	B1 Fixture - 6" round recessed fixtures	28	EA	$ 195.00	$ 5,460	
	B2 Exterior 6" round recessed fixtures	6	EA	$ 225.00	$ 1,350	
	C1 Fixture - Pendant 8' @ Aparatus bay	16	EA	$ 445.00	$ 7,120	
	D1 Fixture - Surface mount 4'	20	EA	$ 225.00	$ 4,500	
	D2 Fixture - surface moount 8'	3	EA	$ 345.00	$ 1,035	

Base Estimate

	Element / Description	Quantity	Unit	Unit Rate ($)	Extension ($)	Subtotal ($)
	E1 Fixture	3	EA	$ 265.00	$ 795	
	E2 Fixture	5	EA	$ 215.00	$ 1,075	
	E3 Fixture	3	EA	$ 215.00	$ 645	
	W1 Exterior wall packs	3	EA	$ 450.00	$ 1,350	
	Fixture installation troffer	47	EA	$ 128.00	$ 6,016	
	Fixture installation Surface 4'	20	EA	$ 152.00	$ 3,040	
	Fixture installation Surface 8'	3	EA	$ 183.00	$ 549	
	Fixture installation Pendant 8' aparatus bay	16	EA	$ 310.00	$ 4,960	
	Fixture installation Recessed	34	EA	$ 145.00	$ 4,930	
	Fixture installation Sconce	3	EA	$ 125.00	$ 375	
	Fixture installation Emergency Exit	11	EA	$ 165.00	$ 1,815	
	Lighting Device Branch & Controls	8,771	SF	$ 3.95	$ 34,645	
	Sensor OC	19	EA	Included		
	Switch $	21	EA	Included		
	Switch $3K	3	EA	Included		
	Switch D	15	EA	Included		
	Switch OC	9	EA	Included		
	Lightning and Power Specialties					
	Building & service grounding	1	LS	$ 4,500.00	$ 4,500	
	Lighting protection	< N/A >				
	Miscellaneous Systems					
	Temporary power and lights	8,771	LS	$ 0.65	$ 5,701	
	Subcontractor site office & storage	1	LS	$ 5,000.00	$ 5,000	
	Subcontractor lifts & scaffolding	1	LS	$ 2,500.00	$ 2,500	
	BIM Coordination	< N/A >				
	Bond excluded	< N/A >				
	Testing and Commissioning					
	Testing and commissioning	1	LS	$ 5,000.00	$ 5,000	
	Communications					
	Telephone and Communications Systems	< Assumes by Owner >				
	Telecomm Backbone raceways	1	LS	$ 3,500.00	$ 3,500	
	Telecomm Box & 1-1/4" EMT wall sleeve	1	LS	$ 1,250.00	$ 1,250	
	Telecom box and riser	19	EA	$ 225.00	$ 4,275	
	2V/2D CAT 6 cable /termination & testing	33	EA	$ 395.00	$ 13,035	
	WAP 2D CAT 6 cable /termination & testing	10	EA	$ 265.00	$ 2,650	
	IDF Closet fit up	1	EA	$ 7,500.00	$ 7,500	
	Av System					
	Local Sound Systems	1	EA	$ 10,000.00	$ 10,000	
	Public Address Systems					
	Public Address Systems - Head end	1	EA	$ 23,150.00	$ 23,150	
	Speakers	34	EA	$ 225.00	$ 7,650	
	Television Mount	8	EA	$ 300.00	$ 2,400	
	Safety & Security					
	Security Access Control					
	Control panels ,licenses and programming allowance	< Assumes by Owner >				
	Access control door roughing & devices	1	LS	$ 7,500.00	$ 7,500	
	Door bell / buzzer	1	EA	$ 1,250.00	$ 1,250	
	[CR] Card reader raceway, device & wire	4	EA	$ 3,500.00	$ 14,000	
	[DC] Door contact	7	EA	$ 795.00	$ 5,565	
	Surveilance Systyem					
	Head end equipment, Monitors, Avigilon Licencing, Programming	1	LS	$ 5,500.00	$ 5,500	
	Cameras Avigilon - includiung mounting, cabling and connections	7	EA	$ 1,350.00	$ 9,450	
	Fire Alarm System					
	Equipment ,devices and programming	1	LS	$ 3,250.00	$ 3,250	
	F/A Addressable control panel	1	EA	$ 1,725.00	$ 1,725	
	FA-CFA	5	EA	$ 925.00	$ 4,625	
	FA-Heat	8	EA	$ 196.00	$ 1,568	
	FA-Horn Strobe	9	EA	$ 240.00	$ 2,160	
	FA-Horn Strobe WP	4	EA	$ 365.00	$ 1,460	
	FA-Pull	7	EA	$ 239.00	$ 1,673	
	FA-Smoke	31	EA	$ 385.00	$ 11,935	
	F/A Tamper switch & monitor module	2	EA	$ 378.90	$ 758	
	F/A Flow switch & monitor module	1	EA	$ 377.18	$ 377	
	F/A Pressure switch & monitor module	2	EA	$ 355.29	$ 711	
	F/A SLC/NAC 3/4" EMT & loop circuits	260	LF	$ 10.00	$ 2,599	
	F/A 14/4 FPLP/MC cable	725	LF	$ 4.31	$ 3,127	
	F/A 16/2 FPLP/MC cable	700	LF	$ 3.26	$ 2,280	
	Subtotal Electrical					**$ 734,766**
33 00 00	**Sitework**					
	Sitework from PACS Site estimate	1	LS	$ 1,192,815.48	$ 1,192,815	
						$ 1,192,815

	Quantity	Unit	Unit Price	Extended Total	
City of Bristol New Firehouse No.3					$ 1,192,815
					Wednesday, July 31, 2024
Temporary Site Security Fencing					8,080.75
6' CLF, panels	975	lf	5.69	5,547.75	
24' Double drive gate	1	ea	900.00	900.00	
Privacy mesh	300	lf	1.61	483.00	
Temp. signage as needed	1	ls	1,150.00	1,150.00	
Surveying & Layout for Sitework					13,650.00
Surveying LS	1	ls	12,500.00	12,500.00	
Red line as-builts	1	ls	1,150.00	1,150.00	
A-2 As-Built survey - Excluded		ls	-	-	
Winter Conditions - Excluded			-	-	-
Erosion Control					28,927.87
Construction entrance	1	ea	2,750.00	2,750.00	
Staked hay bales	144	ea	13.00	1,872.00	
Dewatering - open pumping only	60	hrs	153.90	9,234.00	
Dust control	10	hrs	124.89	1,248.90	
Inlet protection	12	ea	157.32	1,887.84	
Silt fence, 36" tall	557	lf	4.04	2,250.28	
Pump water filter bag (15' x 15')	3	ea	745.96	2,237.88	
Sweeping (truck)	10	hrs	124.89	1,248.90	
Temp. sediment basin	< Removed >			-	
Temp swales / earth dikes	< Removed >			-	
Mulch on temp swayle	< Removed >			-	
Temp. outlet structure w/ riser	< Removed >			-	
Overflow spillway / checkdams - Stone	< Removed >			-	
E&S Inspection & reports	40	hrs	90.00	3,600.00	
Furnish 20 gallon oil spill kit	1	ea	146.57	146.57	
Removal of E&S measures	1	ls	1,653.02	1,653.02	
Site Demolition					22,664.54
Clearing & Grubbing / Selective tree removals	1	ls	7,500.00	7,500.00	
Remove fencing	250	lf	5.65	1,412.50	
Sawcut Asphalt	683	lf	9.18	6,269.94	
Strip & load asphalt	59	cy	47.31	2,800.05	
Export asphalt	59	cy	20.12	1,190.81	
Strip & load concrete - small area, sidewalk (backhoe & handwork)	27	cy	45.73	1,226.58	
Export concrete	27	cy	20.12	539.66	
Dumpsters	2	ea	862.50	1,725.00	
Building Demolition - Not Required (See Selective)					-
			-	-	
Earthwork -					33,754.55
Strip & Stockpile topsoil for processing	933	cy	6.35	5,924.55	
Export excess topsoil (load & Haul)	< Assumes balanced >			-	
Unsuitable Soils / removal and replacement per Geotech	< Excluded >			-	
Mass Earthwork Cuts to fills	2,200	cy	12.65	27,830.00	
Mass Earthwork Import & Place	< Assumes balanced >			-	
Segmental Block Retaining Walls - Assumes not required					-
			-	-	
Structural Excavation					129,136.50
Foundation Structural Earthwork	9,430	sf	7.95	74,968.50	
Furnish rigid insulation 4' x 8' x 2"	3,904	sf	4.45	17,372.80	
Footing Drains w/ Crushed Stone & Fabric	488	lf	43.65	21,301.20	
Furnish vertical drain board	2,440	sf	6.35	15,494.00	
Work Inside Existing Building			-	-	-
Storm Drainage					258,305.16
Test pits in street prior to construction - Assumes no street connection	2	ea	1,750.00	3,500.00	
Traffic control	80	hrs	86.25	6,900.00	
6" HDPE Storm drains (2-4vf)	90	lf	40.22	3,619.80	
8" HDPE Storm drains (2-4vf)	91	lf	43.57	3,964.87	
12" HDPE (4-6vf)	485	lf	50.52	24,502.20	
15" HDPE (4-6vf)	35	lf	70.14	2,454.90	
24" HDPE (4-6vf)	10	lf	87.68	876.80	
12" RCP (10-12vf)	223	lf	78.72	17,554.56	
15" RCP (10-12vf)	< Removed >			-	
Yard drains (2-4vf)	4	ea	2,123.89	8,495.56	
Catch basin w/ 4' sump (6-8vf)	5	ea	3,436.68	17,183.40	
Manhole 4' diameter (10-12vf)	1	ea	3,173.18	3,173.18	
Tie into existing structure in street	1	ea	2,250.00	2,250.00	
Tie into stub at building	2	ea	382.25	764.50	
Stone bedding	48	cy	31.86	1,538.84	
Sand cover	131	cy	26.51	3,480.47	
Detention System -			-	-	
Outlet Control Structure	1	ea	8,234.42	8,234.42	
Water quality structure Barracuda	1	ea	18,195.00	18,195.00	
Detention System - Excavate to bottom of stone in Mass EW				-	
Crushed stone bottom - in place	100	cy	52.00	5,200.00	
Crushed stone Sides - in place	107	cy	52.00	5,546.67	
Retain it structures 3' delivered	40	ea	1,295.00	51,800.00	
Retain it inspection risers	4	ea	395.00	1,580.00	
F&I Liner	4,000	sf	9.65	38,600.00	
Install Structures	24	hrs	907.00	21,768.00	
4" HDPE Underdrain system in Stone bedding	100	lf	40.22	4,022.00	
Install Inspection manholes	4	ea	775.00	3,100.00	

PACS llc

Pan American Consulting Services

City of Bristol New Firehouse No.3

	Quantity	Unit	Unit Price	Extended Total	$ 1,192,815
					Wednesday, July 31, 2024
Sanitary Sewer					**47,239.03**
Tie in in street	1	ea	6,468.84	6,468.84	
Traffic control	12	hrs	86.25	1,035.00	
Temp pavement patch	30	sy	46.00	1,380.00	
Core into existing manhole	< Removed >			-	
4" PVC SDR-35 (6-8vf)	16	lf	38.76	620.16	
6" PVC SDR-35 (8-10vf)	225	lf	46.28	10,413.00	
Cleanouts	2	ea	955.67	1,911.34	
Wye in Street - Connect to Main	1	ls	2,000.00	2,000.00	
Manhole over existing Sanitary in street	< Removed >			-	
~~Decontamination storage tank Pipes, Level controls~~	<Removed >			-	
Oil / water separator 1000 gallon	1	ea	5,394.83	5,394.83	
Tie into stub at building	2	ea	382.25	764.50	
Stone bedding	19	cy	34.00	637.31	
Sand cover	37	cy	26.51	993.83	
Export excess material	56	cy	23.00	1,293.37	
Testing (vacuum)	2	ls	1,412.85	2,825.70	
Water System - New Fire & DOM Water Service					**57,874.87**
Test pits in street prior to construction	2	ea	1,617.21	3,234.42	
Traffic control	16	hrs	86.25	1,380.00	
Temp pavement patch	2	sy	46.00	92.00	
8" x 6" Wet-tap in Road	2	ea	5,325.00	10,650.00	
Traffic control	20	hrs	86.25	1,725.00	
Temp pavement patch	20	sy	46.00	920.00	
Meter vault	< Excluded >			-	
4" DIP CL54	140	lf	61.01	8,541.40	
6" DIP CL54	135	lf	77.07	10,404.45	
4" Gate valve	1	ea	1,146.95	1,146.95	
6" Gate valve	1	ea	1,312.63	1,312.63	
6" Post indicator valve	1	ea	2,867.52	2,867.52	
4" Bends	3	ea	458.72	1,376.16	
6" Bends	3	ea	516.07	1,548.21	
6" x 4" Reducer	1	ea	471.46	471.46	
~~Fire Water Storage Assembly~~					
~~Excavate for Tank Foundation~~	<Removed >			-	
~~Tank Hold down slab Assumes 12" thick for~~	<Removed >			-	
~~Tank Cover slab~~	<Removed >			-	
~~Tank, Manway, collars, Sump, hold down straps, turnbuckles, deadman anchors delivered~~	<Removed >			-	
~~Installation of tank, anchors, straps, plumbing~~	<Removed >			-	
~~Backfill tank with stone~~	<Removed >			-	
~~Pumping - Open pumping watertable~~	<Removed >			-	
~~Hydrants - Practice Hydrant~~	<Removed >			-	
Thrust blocks	6	ea	354.65	2,127.90	
Stub 4" DIP inside building from 5' away, stub AFF & flanged cap	1	ea	2,639.36	2,639.36	
Stub 6" DIP inside building from 5' away, stub AFF & flanged cap	1	ea	2,602.40	2,602.40	
Stone bedding	21	cy	34.00	727.22	
Sand cover	43	cy	26.51	1,134.04	
Export excess material	64	cy	19.36	1,242.27	
Testing (bacteria & pressure tests)	1	ls	1,731.48	1,731.48	
Gas Service E/B					**7,195.59**
Gas service -				-	
Traffic control	16	hrs	86.25	1,380.00	
Temp pavement patch	20	sy	46.00	920.00	
Permanent pavement restoration		sy	115.00	-	
E/B for Gas service	228	lf	9.49	2,163.72	
Sand bedding	41	cy	26.51	1,074.54	
Export excess material	41	cy	13.75	557.33	
Provide Gas Service to Grill locations	50	lf	22.00	1,100.00	
Site Electric					**66,865.77**
Locate existing service on-site	1	ea	592.89	592.89	
E/B Primary ductbank	249	lf	11.86	2,953.14	
Primary Conduits	498	lf	20.00	9,960.00	
Sand bedding	22	cy	26.51	586.75	
Concrete encasement (free pour)	5	cy	209.58	1,117.76	
#4 Rebar for ductbank	240	lf	0.92	220.80	
E/B Secondary ductbank	70	lf	11.86	830.20	
Secondary Conduits	280	lf	20.00	5,600.00	
Sand bedding	6	cy	26.51	164.95	
E/B Generator UG Feed	60	lf	11.86	711.60	
Generator Conduits	60	lf	60.00	3,600.00	
Sand bedding	5	cy	26.50	141.33	
E/B EV Charger	< Removed >			-	
EV Charger Conduit`s	< Removed >			-	
Sand bedding	< Removed >			-	
Quartzite pull boxes	< Removed >			-	
E/B Other conduits (Telecom)	300	lf	11.86	3,558.00	
Telecom Conduit`s	900	lf	20.00	18,000.00	
Sand bedding	22	cy	26.51	586.75	
Concrete encasement (free pour)	5	cy	209.58	1,117.76	
#4 Rebar for ductbank	240	lf	0.92	220.80	
Transformer pad & Grounding	1	ls	4,275.00	4,275.00	
Generator pad & Grounding	1	ls	6,750.00	6,750.00	
Electric handhole	1	ls	1,426.82	1,426.82	
Pole riser	1	ls	1,662.30	1,662.30	
Load & Export excess material	66	cy	28.00	1,861.69	
Eversource Pole relocation #2379 - Assumes by Utility Company		< Excluded >		-	

					$ 1,192,815
City of Bristol New Firehouse No.3					
	Quantity	**Unit**			**Wednesday, July 31, 2024**
			Unit Price	**Extended Total**	
Site Lighting					**79,486.96**
Concrete pole bases (6-8vf bury)	12	ea	1,082.19	12,986.28	
E/B for Conduits	1,079	lf	11.86	12,796.94	
Site Lighting conduits & Conductors	1,079	lf	12.95	13,973.05	
Sand bedding	48	cy	26.51	1,271.30	
Export excess material	48	cy	13.75	659.39	
Site light poles, fixtures S1	2	ea	2,650.00	5,300.00	
Site light poles, fixtures S2	7	ea	2,950.00	20,650.00	
Site light poles, fixtures S3	3	ea	2,725.00	8,175.00	
Flagpole light fixtures G1	3	ea	1,225.00	3,675.00	
Curbing					**32,928.00**
Cast-in-place concrete curb	1,029	lf	32.00	32,928.00	
Concrete Sidewalks & Pavers					**42,242.29**
Form subgrade	422	sy	4.74	2,001.33	
6" Base material	84	cy	34.75	2,934.44	
Fine grade	422	sy	4.74	2,001.33	
E/B Monolithic curb	194	lf	4.54	880.76	
5" Concrete sidewalks w/ wire	3,800	sf	8.45	32,110.00	
Monolithic curb	194	lf	11.93	2,314.42	
Detectable warning surfaces - tiles	< Removed >			-	
Concrete Site Stairs - None identified					-
Paved Surfaces					**207,519.82**
Standard Duty			-	-	
Form subgrade	1,321	sy	1.03	1,360.86	
6" Subbase	264	cy	38.00	10,041.29	
6" Process Base	264	cy	48.00	12,683.73	
Fine grade	1,321	sy	1.15	1,519.41	
Prime coat	1,321	sy	1.15	1,519.41	
1.5" Binder	116	ton	160.00	18,497.11	
Tack coat	1,321	sy	0.58	766.31	
1.5" Surface	116	ton	165.00	19,075.15	
Heavy Duty			-	-	
Form subgrade	845	sy	1.03	870.81	
6" Subbase	169	cy	38.00	6,425.38	
6" Process Base	169	cy	48.00	8,116.27	
Fine grade	845	sy	1.15	972.26	
Prime coat	845	sy	1.15	972.26	
2.5" Binder	123	ton	160.00	19,695.47	
Tack coat	845	sy	0.58	490.36	
1.5" Surface	74	ton	165.00	12,206.10	
Heavy Duty Concrete Apron @ Building			-	-	
Form subgrade	142	sy	1.03	146.72	
Geotextile fabric	1,410	sf	0.30	423.06	
10" Base	47	cy	56.00	2,658.96	
Fine grade	142	sy	1.15	163.81	
8" Reinforced Concrete Apron with 2x Rebar mats T&B	1,282	sf	22.50	28,845.00	
Heavy Duty Concrete Apron @ road			-	-	
Form subgrade	49	sy	1.03	50.93	
Geotextile fabric	490	sf	0.30	146.85	
10" Base	16	cy	56.00	922.96	
Fine grade	49	sy	1.15	56.86	
8" Reinforced Concrete Apron with 2x Rebar mats T&B	445	sf	22.50	10,012.50	
Pavement patching - Temp and permanent @ street for utility connections	418	sy	117.00	48,880.00	
Site Signage					**3,750.00**
Site Signage Allowance	1	ls	3,750.00	3,750.00	
Landscaping					**102,813.77**
Plantings					
Desiduous Trees	4	ea	1,500.00	6,000.00	
Evergreen Trees	56	ea	975.00	54,600.00	
Shrubs	36	ea	265.00	9,540.00	
Annuals, Perrentials & Grasses	52	ea	65.00	3,380.00	
Plantings mix & Mulch (18")	113	cy	95.00	10,754.00	
Stone mulch - river cobble	18	cy	65.00	1,161.33	
Weed barrier fabric / Mirafi root barrier	1,250	sf	0.96	1,200.00	
Steel edging	202	lf	6.90	1,393.80	
Topsoil Screen stockpiled (assume 70% useable)	482	cy	6.00	2,889.60	
Load & Export screening spoils (Assumes clean)	144	cy	23.00	3,323.04	
Move and place screened topsoil	482	CY	9.00	4,338.00	
Seeding	21,675	sf	0.08	1,734.00	
Maintenance	1	ls	1,500.00	1,500.00	
Watering	1	ls	1,000.00	1,000.00	
Fence & Guiderail					**36,975.00**
6' Ornamental metal fence	< Removed >			-	
8' Screen fence @ Generator	120	lf	135.00	16,200.00	
6' Ornamental Man Gate - 5' swing	< Removed >			-	
8' Dual Swing Gate - 8' swing	1	ea	4,500.00	4,500.00	
8' Ornamental fence augured footings	21	ea	775.00	16,275.00	
Bollards					**6,755.00**
8" Steel bollards	7	ea	965.00	6,755.00	
Site Furnishings					**6,650.00**
Furnish materials			-	-	
Flagpole and base	1	ls	4,500.00	4,500.00	
Shipping	1	ls	2,150.00	2,150.00	
End of Estimate					