

**Lebanon VA Medical Center
Lebanon, PA 17042**

**Design-Build (DB) Scope of Work
Replace Steam Traps Phase 1 D-B
595-24-106**

Construction Documents Ready by	90 days after Notice to Proceed (NTP) issued
Construction Complete by	180 days after NTP issued
Contracting Officer:	Christopher McDevitt
Contracting Officers Representative (COR):	Matt Donmoyer

-- Services --

- Provide all labor, materials, tools and equipment, and the design-build services necessary for design and construction of a project described herein as well as other specific tasks as further defined by this Request for Proposal (RFP) the Design-Build Project No. 595-24-106, Replace Steam Traps Phase 1 D-B. This procurement shall provide required design completion of the aforementioned project and perform construction of completed design work. Project shall be designed and completed in accordance with VA Criteria, ASHRAE, and VA Specifications developed for the project.
- This Request for Proposal (RFP) document is intended to generally define the scope and design parameters to be included in this project. It is the responsibility of the Design-Build team to provide a complete set of approved design documents in a manner consistent with the VA guidelines, specifications, and design standards in order to complete construction within a 180-day schedule.
- Offeror shall be prepared for a 180-day schedule as indicated below in the Project Schedule. Offeror may propose an alternate schedule, in addition to the 180-day schedule, which will be reviewed by the VA. Schedules shall indicate the following:
 - The design period which shall include provisions for VA reviews.
 - Phasing plans and outage plans
 - All outages shall occur on weekends between 15 April and 15 October
 - Construction period services including:
 - Mobilization
 - Demolition
 - Procurement and installation of equipment
 - Provisions for overtime or shift work shall be included in the contract offer.
 - Equipment unloading, placing, inspection, testing, commissioning, and reports

PROVIDE:

Professional Design-Build (DB) construction services to include but not limited to:

- Site investigation – mechanical/plumbing and any other engineering services as needed.
- Contract drawings and specifications for construction.
- Construction period services for DB A/E - review of shop drawing submissions, provide recommendations regarding contractor change proposals and requests for information (RFI), DB A/E shall visit site per VA's request, add to drawings as-built conditions from contractor's record drawings; DB A/E shall respond on site within a two-hour period when requested.
- Construction and Installation services of the Steam Traps, including all Management, Supervision, Labor, Transportation, Equipment and Materials and to perform work to include demolition, general construction, alterations, mechanical and electrical work, and certain other items as required by project drawings and specifications to create a complete and useable facility.

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-- Project Scope --

GENERAL:

Provide sufficient construction documents for a project that shall replace failed steam traps at various locations throughout the Lebanon VAMC campus. Offeror shall make layout changes, calculations, and provide documentation to support their design. Replacement steam traps shall be designed and installed as per the specifications and drawings approved through the Design and Project Design Team (PDT) process.

SPECIFICS:

The project is intended to replace 93 steam traps with 87 steam traps, along with all necessary connections, unions, and piping, at various locations across the campus. A complete list of the steam traps, their sizes, locations, recommended replacement size and recommended replacement type is part of Attachment A. All new steam traps and associated components must be steel as shown in VA Specification Section 232213. Cast iron is not acceptable in this contract.

- The contractor shall also re-pipe the check valve associated with steam traps #63, 64, 65 and 66.
- The contractor shall determine the appropriate PSI rating for each replacement steam trap based on its usage. In general steam traps rate below 30 psi shall be replaced with steam traps rated 30 psi.
- The contractor shall remove and re-pipe the parallel traps at six locations in the gym, replacing them with single traps
- Cast Iron components and traps are not acceptable, contractor shall provide steel traps and components from manufacturers that meet the quality and certification standards from specification section 232213.
- All work must be completed to current codes and standards
- All work must be re-insulated
- All on-site work must be performed between 15 April and 15 October. Shutdowns shall only occur on weekends and shall require scheduling and approval by the VA. Installation will be required to occur during times that will minimize impact to the patients, staff and hospital in general, and outages shall be kept to an absolute minimum and scheduled at the convenience of the government.
- Collaboration between Design-Build team, COR and Lebanon VAMC Pipe shop will be required during the project.
- All work shall comply with the IBC, National Fire Protection Association (NFPA) 70 (National Electrical Code), 70B, 70E, 72, 99, 101, 20, 24, 25 Occupational Safety and Health Administration (OSHA) regulations and the VA Plumbing and HVAC Design manuals.
- All work must comply with OSHA and Lebanon VAMC lockout/tagout requirements
- All equipment tags must be restored on the replacement equipment and the contractor shall add an "A" to the tag number to indicate the replacement of the steam trap.
- All steam traps shall be tested, and testing logs provided to the VA.
- Design drawings shall be stamped by a Mechanical Engineer licensed in the state of Pennsylvania.

Construction shall be addressed in phases to allow operations to continue during construction to the greatest extent possible. Phasing shall be determined during the 35% design review. Phasing must work within budget and allow the VA to continue operations at minimal interference.

The DB A/E is responsible for providing certified industrial hygiene services to perform asbestos

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survey investigations, bulk sampling, development of specifications and drawings, and construction period services. All designs shall be accomplished in accordance with VA guidelines and specifications, which are available on the Internet at <http://www.cfm.va.gov/til/>. DB A/E shall pay particular attention to NFPA, BOCA, VA Handbook 7610 space criteria and VA program guide PG-18-14. SPECIAL NOTE: Be reminded that the VA guidelines are just a guide, and the project is not bound by them. If current healthcare trends dictate a different design approach is needed, we shall follow that approach.

The DB A/E shall provide professional architectural and engineering and construction services for the project and is responsible for providing all services necessary for design of this project – i.e. mechanical/plumbing, electrical, structural, etc.

The DB construction contractor shall provide all Management, Supervision, Labor, Transportation, Equipment and Materials and perform work to include demolition, general construction, alterations, mechanical and electrical work, and certain other items as required by project drawings and specifications complete the Replace Steam Traps Phase 1 Project.

-- Site Investigations --

EXPECTATION: *The DB A/E shall make site visits as necessary to survey existing conditions.*

Make site visits as required to determine existing as-built conditions affecting this project. NOTE: Information including drawings and other documentation provided to the DB A/E is used as reference only. All additional references and specifications are available in VHA's Technical Information Library at address: <http://www.cfm.va.gov/til/>. AutoCAD background drawings will be provided by the VA upon request. The DB A/E shall field verify all dimensions. The DB A/E shall field verify every aspect that relates to the project. Coordinate site visits with the Contracting Officer Representative (COR) as determined after award.

-- Project Schedule --

EXPECTATION: *Submit review packages so they are received on the noted day*

SUBMISSIONS:

Submit review packages so they are received on the noted day (calendar days after NTP) or earlier:

Initial PDT Meeting	0 days
Design Development Documents (35%)	27 days
(PDT Meeting)	41 days
Design Development Documents (100%)	62 days
(PDT Meeting)	76 days
Construction Documents	90 days
Begin Construction on or before	120 days
Complete Construction on or before	180 days

Note: The issuance of the Notice to Proceed (NTP) for design will be at the first Project Design Team (PDT) Meeting. The Design-Build Team Contractor shall be required to attend and take minutes of each PDT meeting. Minutes shall be submitted electronically to the Project Manager and Contracting Officer within three calendar days of each meeting for approval and to be added to the official contract file.

-- Design Requirements/Submissions --

EXPECTATIONS: *Submit complete review package in accordance with the following requirements and guidelines outlined in <http://www.cfm.va.gov/til/aeDesSubReq.asp> Please pay*

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specific attention to the schematic, design and construction submission requirements. As appropriate and depending upon the complexity of the design, the DB A/E may elect to delete individual submissions where not required (i.e. Do not address Site Development, Landscaping for interior renovation projects)

DELIVER:

Submit all design/bid submission packages directly to the Contracting Officer Representative on the established dates to allow the VA time to review. Include all information as follows and as outlined in the attachments for each submission. Information required for each submittal is outlined in Program Guide PG-18-15 Volume C November 2008. The manual is available at the following address:
<http://www.cfm.va.gov/til/aeDesSubReq.asp>

Area of Construction: See Attachment "A".

Design Development 35%: Attachment "B" 35% Submission Requirements

- Requirements for the 35% Design Development Documents Submission.
- Define the design elements based on the presented option and submit all information required by the PG-18-15 (35% Design Development).
- Identify Working Drawings scope within the construction budget.
- Identify all design calculations.
- Identify impact of existing asbestos.
- Develop plans and marked up specifications to meet all applicable federal and state codes/requirements, including but not limited to IBC, OSHA, DEP, EPA, NEC, NFPA 20, 24, 25, 70, 72, 99, 101, 110.
- Identify all design calculations.
- Identify all existing utilities and utilities requirements.
- Identify all potential bid deduct alternatives.
- Identify all phasing requirements for construction.
- Develop Infection Control Risk Assessment (VA EC-43)

Design Development 100%: Attachment "C" 100% Submission Requirements

- Requirements for the 100% Design Development Documents Submission.
- Address all comments from the 35% review.
- Consolidate all necessary submittals by specification section on an Excel spreadsheet. Checklist to be utilized to track/monitor submittal process.
- Revise and update cost estimate.
- Finalize all design calculations.
- Finalize all phasing requirements for construction.
- Finalize impact of existing asbestos.
- Finalize Infection Control Risk Assessment (VA EC-43)
- Address all comments from the VISN Safety & Fire Protection Review.

Construction Documents (CD): Attachment "D" Construction Documents Submission Requirements

Submit a complete set of documents of all contract requirements. The Cover Page shall be submitted for approval signatures. If necessary, update and submit until approved by the VA.

-- Construction Period Services --

Expectations: *Respond to submittals and other requests in a timely manner.*

PROVIDE:

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- Review all shop drawing submissions and provide recommendations to the VA within five calendar days upon request.
- Make site visits on requests of the VA and prepare written reports to include agreed upon changes in design as determined necessary during the construction. Visits made based on errors and omissions in design shall be at no cost to the VA.
- Participate in partial and/or final acceptance inspections as scheduled and generate punch list items for completion. The punch list shall reference the contract documents for specific deficiencies (i.e. specification section, drawing detail, etc.)
- Prepare as-built drawings on original set with DB A/E's stamp, based on record drawings that the contractor kept during construction. Transpose contractor's as-built's to AutoCAD 2007 – 2019 and in PDF form and provide a set of updated as-built's on CD within 30 days to the COR

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ATTACHMENT "A"

See attached excel spreadsheet "SOW Attachment A Steam Traps"

Current Steam Trap Installed										
Building	Location	FL	Tag	Elev	Size	Mfg	Model	Psig	Equip.	Comments
1	Service Room	B	117	5	3/4"	SO	52	25	Drip	
1	Service Room	B	119	2	1/2"	SO	52	25	Drip	
1	Service Room	B	132	4	3/4"	SO	TD52	80	Drip	
1	541 Mech Rm	5	261	2	3/4"	SO	B1H	25	Drip	
1	A Side Attic	6	248	5	3/4"	SO	FT15	20	HUH	
1	B Side Attic	6	258	6	3/4"	SO	FT30	20	HUH	
2	Basement	B	221	5	3/4"	SO	52	10	Drip	
2	Attic	4	217	4	3/4"	AG	811	10	Drip	
3	Storage in pit	B	352	-2	1/2"	SO	52	5	Drip	Condensate pump
4	Mech Rm	B	349	3	1/2"	SO	TD52	80	Drip	
5	Mech Rm	B	347	7	1/2"	SO	52	5	Drip	
6	Mech	B	83	7	3/4"	SO	FT15	5	HUH	
7	Storage 2	B	75	6	3/4"	SO	FT15	10	Drip	
7	Pipe storage	B	77	5	3/4"	SO	FT15	10	Drip	
7	Pipe storage pit	B	78	-2	3/4"	SO	TD52	80	Drip	
7	SW corner	G	SW	15	3/4"	SO	FT15	10	HUH	From landing doc
7	By machines	G	M	8	3/4"	SO	FT15	10	HUH	
10	Basement pump	B	146	5	1/2"	SO	TD52	100	Drip	
10	Tunnel entrance	B	150	1	1/2"	SO	TD52	100	Drip	
10	Boiler storage	G	143	9	3/4"	SO	B1H	40	VUH	
10	Chiller	G	154	9	1"	SO	30	40	HUH	
10	Chiller	G	158	15	1"	SO	30	40	HUH	
10	Chiller	G	159	15	3/4"	SO	30	40	HUH	
17	Service Room	B	315	4	1/2"	SO	52	25	Drip	
17	Service Room	B	318	3	1/2"	SO	52	25	Drip	
17	Crawl	B	332	4	3/4"	WM	1031	80	Drip	
17	Stairs 3 Crawl	B	333	4	1/2"	SO	TD52	80	Drip	
17	Stairs 3 Crawl	B	335	5	3/4"	SO	FT15	5	Drip	
17	Stairs 3 Crawl	B	341	2	1"	WM	FT30	20	Drip	Behind 333
17	Attic	5	282	3	1/2"	SO	52	20	Drip	

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17	Attic	5	289	1	1 1/4"	MEP	44-530	10	STS	3/4" line
17	Attic	5	294	5	3/4"	NN	FTN	25	HUH	
17	Attic	5	304	1	1/2"	SO	FT15	12	Drip	
17	Attic	5	309	5	3/4"	NN	FTN	25	HUH	
18	Service Room	B	189	5	1/2"	SO	52	25	Drip	
18	Service Room	B	190	6	3/4"	SO	FT15	25	Drip	
18	Service Room	B	193	5	3/4"	SO	FT15	5	Drip	
18	Tunnel	B	201	2	1"	SO	FT15	5	Drip	
18	Tunnel	B	202	2	1"	SO	FT15	5	Drip	
18	Tunnel	B	203	2	3/4"	SO	FT15	5	Drip	
18	Roof Access 1	1	184	3	1 1/4"	NN	FTN	25	AHU	
18	Attic A Side	5	162	4	3/4"	NN	805	25	Drip	
18	Attic A Side	5	165	3	2"	NN	FTN	25	HEX	Control valve failed
18	Attic A Side	5	166	4	3/4"	NN	805	25	Drip	
18	B Side	5	174	1	3/4"	NN	FTN	15	Drip	
19	Basement	B	16	3	1/2"	SO	52	25	Drip	
19	Basement	B	20	1	1/2"	SO	30	25	Drip	
19	Crawl	B	24	3	3/4"	SO	FT15	5	Drip	
19	Attic Mech	A	1	4	3/4"	SO	30	25	Drip	
22	Basement	B	41	3	1/2"	SO	52	15	Drip	
22	Basement	B	42	4	1/2"	SO	52	15	Drip	Insulation
22	Basement	B	49	9	3/4"	SO	FT15	5	Drip	
23	118	B	58	7	1"	AG	B4	25		
23	118	B	62	4	1/2"	AG	TVS811	80	Drip	
23	Roof access AHU 1	R	63	3	3/4"	AG	B3	25	Drip	Check Valve Piped Wrong
23	Roof access AHU 1	R	64	3	3/4"	AG	B3	25	AHU	Check Valve Piped Wrong
23	Roof access AHU 2	R	65	3	3/4"	AG	B3	25	AHU	Check Valve Piped Wrong
23	Roof access AHU 3	R	66	3	3/4"	AG	B3	25	AHU	Check Valve Piped Wrong
24	Mech	B	34	4	1/2"	SO	52	25	Drip	
24	Mech	B	37	9	1/2"	SO	52	25	Drip	
24	Gymnasium	1	S	20	1/2"	SO	52	25	VUH	2 traps parallel per VUH
24	Gymnasium	1	S	20	1/2"	SO	52	25	VUH	Remove one w/replacement

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24	Gymnasium	1	E	20	1/2"	SO	52	25	VUH	2 traps parallel per VUH
24	Gymnasium	1	E	20	1/2"	SO	52	25	VUH	Remove one w/replacement
24	Gymnasium	1	NE	20	1/2"	SO	52	25	VUH	2 traps parallel per VUH
24	Gymnasium	1	NE	20	1/2"	SO	52	25	VUH	Remove one w/replacement
24	Gymnasium	1	NE	20	1/2"	SO	52	25	Drip	under insulation
24	Gymnasium	1	N	20	1/2"	SO	52	25	VUH	2 traps parallel per VUH
24	Gymnasium	1	N	20	1/2"	SO	52	25	VUH	Remove one w/replacement
24	Gymnasium	1	N	20	1/2"	SO	52	25	Drip	under insulation
24	Gymnasium	1	N	20	3/4"	SO	30	25	ZRH	
24	Gymnasium	1	NW	20	1/2"	SO	52	25	VUH	2 traps parallel per VUH
24	Gymnasium	1	NW	20	1/2"	SO	52	25	VUH	Remove one w/replacement
24	Gymnasium	1	W	20	1/2"	SO	52	25	VUH	2 traps parallel per VUH
24	Gymnasium	1	W	20	1/2"	SO	52	25	VUH	Remove one w/replacement
24	Gymnasium	1	W	20	1/2"	SO	52	25	Drip	under insulation
24	Gymnasium	1	W	20	1/2"	SO	30	25	Drip	
24	Gymnasium	1	W	20	3/4"	SO	30	25	ZRH	
24	Outside access	1	39	2	1"	SO	30	20	Drip	
24	Outside access	1	40	6	1"	SO	30	20	Drip	
101	14 Mech Rm	G	274	4	1 1/4"	SO	FT30	20	HEX	
104	Mech Rm	B	228	1	1/2"	SO	TD52	80	Drip	
104	Mechanical Room	3	84	3	3/4"	SO	FT15	80	Drip	
104	Mechanical Room	3	86	3	1 1/4"	SO	FT15	80	Drip	On 1" pipe
104	Mechanical Room	3	87	3	1 1/4"	SO	30	25	Drip	1" pipe
104	Mechanical Room	3	96	1	3/4"	AG	811	80	Drip	
104	Mechanical Room	3	99	2	3/4"	AG	811	10	Drip	
104	Mechanical Room	3	103	5	3/4"	PEN	PT63	10	Drip	
104	Mechanical Room	3	105	3	3/4"	AG	811	10	Drip	
104	Mechanical Room	3	116	3	1 1/2"	AG	125	80	HEX	
106	Service Room	G	54	4	1"	SO	TD52	80	Drip	
136	In service room	G	69	2	3/4"	SO	30	25	Drip	
136	In service room	G	70	2	3/4"	NN	FTN	25	Drip	

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ATTACHMENT “B”

Design Development 35% Submission Requirements

Deliver the following (labeled with 35% submission) and **include** this attachment as a checklist with your submission:

- **1 Copy** of a narrative report forwarding the design develop 35% submission addressing items listed in the design requirements and any additional A/E recommendations. The report should include identifying potential bid deduct alternatives, recommended construction phasing based upon discussions with the program manager, and any design calculations or analysis.
- **3 sets** of all drawings updating all previous comments required by project and produced in AutoCAD 2007 – 2019 and in PDF form.
- **1 Copy** of updated itemized cost estimate by spec section or trade (labor, material and equipment) and also by VA criteria, NRM, Minor, BSER and BSEA.
- **1 Copy** of custom edited VA Master Specifications of sections to be used for this project and a master submittal list identifying all the submittals required to be submitted by the contractor for review.
- **1 set** of all drawings and specifications, to send for **3rd party Life Safety Review**.
- **1 copy** of drawings in AutoCAD 2007 – 2019 and in PDF form and specifications in Microsoft Word 2007 or higher on (CD)

ATTACHMENT “C”

Design Development 100% Submission Requirements

Deliver the following (labeled with 100% submission) and **include** this attachment as a checklist with your submission:

- **1 Copy** of a narrative report forwarding the design develop 100% submission addressing items listed in the design requirements and any additional A/E recommendations. The report should include identifying potential bid deduct alternatives, recommended construction phasing based upon discussions with the program manager and any design calculations or analysis.
- **2 sets** of all drawings updating all previous comments required by project produced in AutoCAD 2007 – 2019 and in PDF form.
- **1 Copy** of the proposed construction schedule.
- **1 Copy** of final itemized cost estimate by spec section or trade (labor, material and equipment) and also by VA criteria, NRM, Minor, BSER and BSEA.
- **1 Copy** of final edited VA Master Specifications of sections to be used for this project and a master submittal list identifying all the submittals required to be submitted by the contractor for review.
- **1 CD containing**
 - All drawings in AutoCAD 2007 - 2019 and in PDF form.
 - All specifications in Microsoft Word 2007 or higher on (CD)

ATTACHMENT “D”

Contract Document Submission Requirements

Expectation: *Submit complete contract documents for final review prior to Notice to Proceed for Construction. Continue to submit contract documents until all changes are incorporated by the DB A/E for final signature prior to Notice to Proceed for Construction. Upon approval duplicate copies as required.*

Deliver the following (labeled with Contract Documents Submission) and **include** this attachment as a checklist with your submission:

- **1 copy** of the Cover Sheet (AutoCAD) for final VA signatures.
- **2 sets** of all drawings updating all previous comments required by project, produced in AutoCAD 2007 – 2019 and in PDF form – **for final VA review**. If approved final sets to be submitted with signed off cover sheet.
- **1 Copy** of final project specification (bound) prepared in Microsoft Word 2007 or higher. Include a master submittal list in the specifications.
- **CD containing**
 - All drawings in AutoCAD 2007 – 2019 and in PDF form.
 - All specifications in Microsoft Word 2007 or higher.
 - Submittal Spreadsheet – identifying all the submittals required to be submitted by the contractor for review. The list shall be organized by division and specification.

Upon signature approval, provide three (3) sets of final Contract Documents (complete with VA signed Cover Sheet). Provide two (2), half (1/2) size sets of final drawings.

ATTACHMENT “E”
Contract Specifications

010000	Lebanon General Requirements
013526	Lebanon Safety Requirements
2322133	Steam and Condensate Heating Piping