

Through

Northwestern Pennsylvania Emergency Response Group

**Venango County, Pennsylvania
As the NW PA ERG Fiduciary Agent**

REQUEST FOR PROPOSAL

For The

**Construction of a Concrete Pad for Heavy Crane
Operations (50+ Ton)
At the Specialized Search & Rescue Training Facility**

Located At
Perry Hi-Way Hose Company
501 Robinson Road East
Erie, PA 16509

Home Security Grant Program
Grant Year 2016
Project #5 Specialized Training Facility
Project # 2016-1A

Request for Proposal

This is a Request for Proposal for the provision of materials and construction of a concrete pad for heavy crane operations (50 Ton) at the Perry Hi-Way Hose Company, 501 Robinson Road East, Erie, PA 16509.

The construction of the Concrete Pad for Heavy Crane Operations (50+ Ton) will provide an area at this Specialized Search and Rescue Training Facility where heavy crane operations can be performed by search and rescue personnel training to lift, move, stack, and place various heavy materials that can be found at a structural collapse rescue operation.

The Northwest Pennsylvania Emergency Response Group (NW PA ERG) will receive proposals **until 5:00 pm (EDT) on March 2, 2018**. All proposals shall be delivered to the attention of the NW PA ERG Administrative Point of Contact to establish a contract for a contractor to perform the construction of a Concrete Pad for Heavy Crane Operations (50+ Ton), to include provision of all materials and labor for the construction. *Late proposals will not be considered.*

For information regarding this notice, interested Bidders shall contact the *NW PA ERG Point of Contact* (see Section 4.0 Point of Contact).

Administrative Point of Contact	
Diona L. Brick Administrator of Finance and Management Services County of Venango 1174 Elk Street PO Box 831 Franklin, PA 16323 P: 814-432-9503 dbrick@co.venango.pa.us	
Issue RFP:	
	January 15, 2018
Deadline for Questions:	
	February 5, 2018
Answers to Questions Posted:	
	February 19, 2018
Deadline to Submit Proposals:	
	March 2, 2018
Tentative Award Selection and Initiation of Contract Negotiation:	
	March 13, 2018

Section 1.0 Introduction and Purpose

The NW PA ERG is one of nine regional Task Forces in Pennsylvania and represents Emergency Services, Law Enforcement, Civil Officials, Health Care Organizations and others involved in disaster preparedness, response and recovery activities in the following Pennsylvania counties: Crawford, Erie, Forest and Warren, and the City of Erie.

The NW PA ERG is directed by an Executive Board and supported by committees including Communication, Emergency Management, Health and Medical, Law Enforcement, and Specialized Teams. Further, the NW PA ERG supports multiple assets ranging across the disciplines of the committees. An Executive Board Representative will coordinate with the contractor upon approval of the Executive Board and execution of the contract.

The NW PA ERG is requesting proposals from qualified and experienced professionals for procurement of materials and installation services to provide and construct a Concrete Pad for Heavy Crane Operations (50+ Ton) on the Specialized Search and Rescue Training Facility located at the Perry Hi-Way Hose Company Training Facility, 501 Robinson Road East, Erie, PA 16509.

The successful firm will provide all of the necessary materials for the Concrete Pad for Heavy Crane Operations (50+ Ton) and will construct the pad in accordance with the specifications described in Section 12.0. The contractor will provide liability insurance during the construction of this project. The installation will use the latest best practices in constructing a Concrete Pad for Heavy Crane Operations (50+ Ton). The contract will be a firm fixed price contract and the NW PA ERG Fiscal Agent; Venango County will execute the contract.

*All potential bidders must register **by email by January 29, 2018** with the NW PA ERG Point of Contact (see Section 4.0 Point of Contact). The purpose of the registration is to insure that information relating to this Request For Proposal and any changes that may occur to the same are provided to all potential bidders.*

2.0 Dates

All questions regarding this RFP must be submitted via email by February 2, 2018 to the appropriate NW PA ERG Point of Contact (*See Section 4.0.*). All questions and responses will be emailed to registered bidders February 19, 2018.

3.0 Schedule of Events

Event	Date
Issue RFP	January 15, 2018
Deadline for Questions	February 5, 2018
Answers to Questions Posted	February 19, 2018
Deadline to Submit Proposals	March 2, 2018
Tentative Award Selection and Initiation of Contract negotiation	March 13, 2018

NW PA ERG reserves the right to alter this schedule. The NW PA ERG will notify all registered bidders of any changes to the schedule of events. Bidders are expected to adhere to the Schedule of Events.

4.0 Point of Contact

The NW PA ERG Point of Contact for this Concrete Pad for Heavy Crane Operations (50+ Ton) construction project is:

<u>NW PA ERG Point of Contact</u>
Timothy L. Dunkle
NW PA Emergency Response Group
% Venango County Dept. of Public Safety 1052 Grandview Road Oil City, PA 16301 Office: (814) 677-0325 Cell: (814) 657-4253
Email: tdunkle@co.venango.pa.us

5.0 Scope of Work

The Scope of Work includes the following requirements:

- Planning for the following per attached drawings and specifications:
 1. The layout of the area for the Concrete Pad for Heavy Crane Operations (50+ Ton) per the specifications.
 2. The timely delivery of all materials needed for this project.
 3. The timely construction of the Concrete Pad for Heavy Crane Operations per the specifications.
 4. The removal and disposal of soil per the specifications.
 5. Spreading of aggregate and compaction to a compaction ratio per the specifications.
 6. Placing reinforcing bar as per specifications.
 7. Pouring concrete per specifications.
 8. Dressing the ground around the finished concrete pad to make it even with the pad 4 feet around the entire pad.
 9. Submitting an invoice with supporting prevailing wage documentation, steel certificates, material invoices, any inspection/testing results and any other documents required by this RFP.
- Provide weekly updates on the status of the project to the NW PA ERG Point of Contact.
- Construct the Concrete Pad for Heavy Crane Operations (50+ Ton) per industry standards, and attached drawings and specifications.

- Provide two (2) sets of as-built prints at the completion of the Concrete Pad for Heavy Crane Operations (50+ Ton) construction to the Northwest PA Emergency Response Group.
- Complete all work within six (6) weeks of mobilizing on site.

6.0 Deliverables

1. Construct a Concrete Pad for Heavy Crane Operations (50+ Ton) as per attached drawing(s) and specifications.
2. Produce two (2) sets of as-built drawings to the NW PA ERG when construction is completed.

7.0 Proposal Requirements

All proposals shall contain the following:

7.1 *Introduction:* The bidder should describe, in simple terms, how they propose to provide the materials and perform the construction of the Concrete Pad for Heavy Crane Operations (50+ Ton) for the NW PA ERG. Information provided should confirm that the contractor understands the work to be performed. Name and address of firm, as well as a contact person who submitted the proposal, should be included.

7.2 *Organizational & Professional Profile:* Describe your organization in terms of its history, primary business, and former or current customers. Please include:

- Ownership information
- Physical and mailing address
- Other company locations/offices, if any
- Primary contact
- Telephone number, fax number, and email address of the company's primary contact
- Name of principals and each person's duties. Include the background and experience of these employees

7.3 *Relevant Experience & Qualifications:* Bidders responding to this RFP must demonstrate their skills and outline their capabilities for the tasks involved in constructing this Concrete Pad for Heavy Crane Operations (50+ Ton).

The on-site supervisor that will be managing this project and the construction of the Concrete Pad for Heavy Crane Operations (50+ Ton) must be identified and their background shall be highlighted in detail with specific response to the issues at hand in this project. The following areas must be outlined:

- In-depth technical experience.
- Specific detail on current or past experience performing similar work within the last three years.
- The bidder must provide a detailed schedule for the construction project, and outline the hours that they will be on site.

- The bidder must describe in detail the skills of the personnel that will be performing the construction work for the Concrete Pad for Heavy Crane Operations (50+ Ton).

✱ ***The NW PA ERG must approve any proposed sub-contractor for this project.***

✱ ***All individuals participating in this project must be covered by liability, errors and omissions, and workers compensation insurance.***

7.4 *Knowledge of Concrete Pad for Heavy Crane Operations (50+ Ton) Construction:* Qualified bidders are required to be familiar with Concrete Pad for Heavy Crane Operations (50+ Ton) construction per accepted industry standards. Include a discussion which details the respondent's knowledge of the above as it relates to the requested Scope of Work.

7.5 *Work Plan:* Describe your technical approach and work plan to complete the tasks described in the RFP's Scope of Work. Provide a schedule describing how the work would be accomplished. **The start date will coincide with contract execution date. Completion date for the project will be on or before June 1, 2018.** The bidder will identify the period of completion for each item of the work plan.

7.6 *Contract Price and Budget:* Bidders shall provide a total contract price and a detailed cost proposal concerning the Work Plan. The detailed cost proposal should be tied to the Scope of Work. Cost information should include, where appropriate (but not limited to) the following:

- Project Site Plan
- Materials
- Labor
- Miscellaneous costs

✱ ***Prevailing wages must be paid to all workers on this project, since a Federal grant is funding this construction project.***

7.7 *Submission of Documentation:* Bidders must agree to provide the NW PA ERG with all supporting documentation as required by the Homeland Security Grant Program **within 30 days from the completion of the construction of the Concrete Pad for Heavy Crane Operations (50+ Ton).** Failure to provide paperwork may result in forfeiture of payment for their services by the NW PA ERG. Documents that must be provided (copies are acceptable as well) include:

- Site Plan
- Required construction permits
- Project schedule
- As-built drawings (2 sets)
- Invoices for all materials used for the project (itemized)
- Timesheets for each person working on the project
- Pay rates for each person working on the project
- Prevailing wage documentation
- Inspection certificate(s)

7.8 References: Provide at least three (3) references for projects and services comparable to those solicited that include a concise project description including scope of work, client name, phone number, and project manager. Limit this to one (1) page per reference.

7.9 Insurance: The successful bidder shall procure, maintain, and provide proof of insurance coverage for injuries to persons and/or property damage as may arise from or in conjunction with the work performed on behalf of the NW PA ERG by the contractor, his agents, representatives, employees or subcontractors. Proof of coverage as contained herein **shall be submitted fifteen (15) days prior** to the commencement of work, and such coverage shall be maintained by the Contractor for the duration of the contract period for occurrence policies. Claims made policies shall be in force or that coverage purchased for three (3) years after contract is terminated.

- **General Liability** – The preference is for liability insurance to be written on an occurrence form; if a claims made policy is provided, the term shall cover the completion of the contract and tail coverage shall be provided for a period of three years after the contract is completed or terminated.

Minimum Limits – General Liability:

\$ 3,000,000. General Aggregate Limit

\$ 3,000,000. Products & Completed Operations

\$ 3,000,000. Personal and Advertising Injury

Minimum Limits – General Liability continued:

\$ 3,000,000. Each Occurrence Limit

\$ 100,000. Fire Damage Limit

\$ 10,000. Medical Expense Limit

- **Automobile Liability**

Coverage sufficient to cover all vehicles owned, used, or hired by the Contractor, his agents, representatives, employees or subcontractors.

Minimum Limits – Automobile Liability

\$ 1,000,000. Combined Single Limit

\$ 1,000,000. Each Occurrence Limit

\$ 5,000. Medical Expense Limit

- **Worker's Compensation**

Limits as required by the Workers' Compensation Act of Pennsylvania

Statutory Limits \$ 1,000,000.

Coverage Provisions – All deductibles or self-insured retention shall appear on the certificate(s).

- NW PA ERG, Venango County, their officers/officials, employees, agents and volunteers shall be added as "additional insured" as their interests may appear. This provision does not apply to Professional Liability or Workers' Compensation/Employers' Liability.

- The contractor's insurance shall be primary over any applicable insurance or self-insurance maintained by Venango County.
- The contractor shall provide thirty (30) days written notice to Venango County before any cancellation, suspension, or void of coverage in whole or part.
- All coverage's for subcontractors of the Contractor shall be subject to all of the requirements stated herein.
- All deductibles or self-insured retention shall appear on the certificate(s) and shall be subject to approval by Venango County. At the option of Venango County, either the insurer shall reduce or eliminate such deductible or self-insured retention; or the Contractor shall be required to procure a bond guaranteeing payment of losses and related claims expenses.

Failure to comply with any reporting provisions of the policy (ies) shall not affect coverage provided the County, its officers/officials, agents, employees and volunteers

- The insurer shall agree to waive all rights of subrogation against NW PA ERG, Venango County, their officers/officials, agents, employees or volunteers for any act, omission or condition of premises, which the parties may be held liable because of negligence.
- The Contractor *shall furnish Venango County certificates of insurance* including endorsements affecting coverage. The certificates are to be signed by a person authorized by the insurance company (ies) to bind coverage on its behalf, if executed by a broker, notarized copy of authorization to bind, or certify coverage shall be attached.
- All insurance shall be placed with insurers maintaining an A.M. Best rating of no less than an A: VII. If the A.M. Best rating is less than A: VII, approval must be received from County's Risk Officer.
- All coverage designated herein shall be as broad as the Insurance Services Office (ISO) forms filed for use with the Commonwealth of Pennsylvania.

7.10 *Hold Harmless Clause:* The contractor shall, during the term of the contract including any warranty period, indemnify, defend, and hold harmless the NW PA ERG, Venango County, their officials, employees, agents, and representatives thereof from all suits, actions, or claims of any kind, including attorney's fees, brought on account of any personal injuries, damages, or violations of rights, sustained by any person or property in consequence of any neglect in safeguarding contract work or on account of any act or omission by the contractor or his employees, or sub-contractors, from any claims or amounts arising from violation of any law, bylaw, ordinance, regulation or decree. The contractor agrees that this clause shall include claims involving infringement of patent or copyright.

At no time shall the contractor permit any mechanics or similar liens to attach to the Perry Hi-Way Hose Company's premises because of labor or material furnished to the Contractor or claimed to have been furnished to the contractor, in connection with its work hereunder.

- 7.11 Indemnification: The contractor shall assume the defense of and indemnify and hold harmless NW PA ERG, Venango County, their officers, agents and employees from and against all claims, demands, actions, suits and proceeding by others and against all liability, both negligent and non-negligent, arising directly or indirectly out of the actions of the Contractor in their performance of this contract.
- 7.12 Gift Policy: This policy prohibits any official or employee from receiving a gift of any monetary value from any source doing or seeking to do business with the County or attempting to influence the judgment of an official or employee. Further, no gifts may be made for or on behalf of the County or any of its offices or departments, unless first presented to the Board of Commissioners for decline or acceptance at a public meeting. Bidders or proposers are advised that any violation of this policy may result in employee discipline, including termination. By tendering this submission, the bidder or proposer agrees to abstain from offering or giving anything of monetary value to any Venango County official, employee or member of their immediate families.
- 7.13 Non-Collusion Affidavit: The successful bidder must sign and submit a Non-Collusion Affidavit with the signed contract for the work to be performed.
- 7.14 Suspension/Debarment: The potential Contractor must certify in their proposal that it is not currently under suspension or debarment by the Commonwealth, any other state, or the federal government. If the potential Contractor cannot so certify, then it must submit along with the proposal a written explanation of why such certification cannot be made.
- 7.15 Equal Opportunity Employment: The Contractor must certify in their proposal that employment is available to all persons qualified regardless of age, race, sex, income, sexual preference, national origin, religion or disability.
- 7.16 Steel Products Procurement Act: The Contractor shall certify in their proposals that all purchases of steel products will be United States steel products where available; and will comply with the Steel Products Procurement Act.

8.0 Evaluation Criteria

Bidders will be recommended to the NW PA ERG Executive Board for acceptance based on two primary criteria; Technical Assessment and Total Cost. The evaluation elements for each criterion are noted below:

Technical Assessment – Only “Qualified Bidders” will be considered for recommendation. Qualified Bidders minimally must:

- Must have been registered with the NW PA ERG Point of Contact (see Section 4.0 Point of Contact) by January 29, 2018.
- Document a minimum of five (5) years of experience in constructing Concrete Pads for Heavy Crane Operations (50+T) or equivalent. This experience should include the documented performance of the contractor in compliance with industry standards, conformance to schedule and budget(s);
- Document a minimum of three (3) separate Concrete Pads for Heavy Crane Operations (50+T) or equivalent constructed by the bidder;
- Documentation of the education, training, and skill level of management/supervisor staff. To be a Qualified Bidder, at least one (1) manager/supervisor assigned to 40% or more of the project, should possess accepted industry standard training in installing Concrete Pads for Heavy Crane Operations (50+T) or equivalent.

Total Cost – Only prices from “Qualified Bidders” (as defined above) will be further reviewed. Prices from bidders found to not be qualified (either because of deficiencies in their Technical Assessment or from Administrative deficiencies [e.g. failure to submit the proposal on time]) will not be considered. No exceptions shall be noted on the bid form. Any questions should be processed to the NW PA ERG Point of Contact as directed in this RFP (see Section 4.0 Point of Contact).

The project will be awarded in full to the lowest qualified bidder, no exceptions.

9.0 Filing of Proposals and Deadline for Receipt

All proposals are to be provided by the close of business (5:00 pm Eastern Standard Time) on March 2, 2018 to the Administrative Contact at the address listed on page 2. Proposals should be clearly marked “NW PA ERG Crane Rescue Operations Pad Project 2016-1A”.

One (1) original and one (1) copy of the proposal to this RFP should be accompanied with an electronic copy of the written proposal in an Adobe Acrobat (*.pdf) format and a copy in MSWORD format saved on a CD or other electronic storage device.

Proposals by corporations must include a Letter of Transmittal including the name of the corporation, the State of incorporation, and the personal signature signed by an officer with the authority to bind the Bidder’s proposal.

Proposals may be either mailed or hand-delivered. Faxed or emailed proposals will not be accepted. **Proposals received after the deadline will not be accepted.**

Technical representatives and a representative from the Administrative Entity will review all proposals after the deadline date.

Any costs associated with the preparation of written and cost proposals in response to this RFP are borne by the respondent.

10.0 Award of Contract

The NW PA ERG will award the contract to the responsible bidder whose proposal is the most advantageous to the NW PA ERG considering the evaluation criteria. The NW PA ERG anticipates selection of the firm to occur by **March 13, 2018**. Because Venango County acts as the Fiscal Agent for the NW PA ERG, Venango County will award and issue the contract. Notification of the intention to award will occur around **March 16, 2018** with contract negotiation to follow.

The NW PA ERG reserves the right to reject all proposals or parts of proposals and may award Phases of the proposal based on the grant program, at its discretion. The NW PA ERG reserves the right to defer the award of any portion of the scope of work or to defer the award of the project in its entirety. If NW PA ERG rejects any or all proposals, it may solicit new proposals if a new solicitation is in NW PA ERG's best interest.

11.0 Invoicing

Invoices shall be submitted first to the **NW PA ERG Point of Contact** for review with accompanying documentation of deliverables. If the NW PA ERG Executive Board approves them, these invoices will then be forwarded to the NW PA ERG's Fiscal Agent for issuance of payment.

12.0 Engineering Review

The original specifications and drawings for this RFP have been reviewed by a professional structural engineering firm. The engineering firm has made edits to meet current industry standards and construction processes; and, the specifications and drawings listed in this RFP are true and correct.

13.0 Project Specifications

- ✱ This construction project of the Concrete Pad for Heavy Crane Operations (50+ Ton) will meet the following specifications.
 - This project shall consist of furnishing materials and constructing a Concrete Pad for Heavy Crane Operations (50+ Ton) or equivalent in accordance with the specifications and the details listed below and shown on the attached drawing(s).

- ✱ SIZE:
 - Pad – 30 feet wide x 50 feet long x 12 inches thick

 - Base – 30 feet wide x 50 feet long x 12 inches thick

- ✱ LOCATION:
 - Pad will be located to the West of the multi-story rescue tower.

 - Pad to be located as close as possible to western edge of the existing road on the training grounds.

 - Pad location to be coordinated with the Perry Hi-Way Hose Company representative, Mr. Kip Hayford.

- ✱ MATERIAL REQUIREMENTS:
 - Aggregate
 - 2B washed, crushed compacted 95%
 - 2B crushed limestone aggregate (for Pad Dressing)
 - Aggregate classification shall meet ASTM D2940 / D2940M - 15

 - Reinforcing Bar
 - Top Reinforcing Bars
 - Steel; epoxy coated
 - Grade 60 (fy = 60 ksi) ASTM A615
 - Size #6 (3/4-inch in diameter)
 - Length – 49 feet
 - Transverse Reinforcing Bars
 - Steel; epoxy coated
 - Grade 60 (fy = 60 ksi) ASTM A615
 - Size #8 (1-inch in diameter)
 - Length – 29 feet 4 inches

 - Reinforcing Bar Chairs
 - Shall meet industry standards

 - Concrete
 - f'c = 5000 psi
 - w/c = 0.45 max

- slump 4" (+/- 1")
- Saw-cut 1" deep contraction joints in a 12'-6" x 15'-0" pattern within 12 hours of placing concrete
- Comply with ACI 301 for concrete mixing, handling, placement, and testing requirements
- Comply with ACI 305 for Hot Weather Concreting
- Comply with ACI 306 for Cold Weather Concreting
- Comply with ACI 308 for Curing Concrete
- Cure concrete by moisture curing, moisture retaining cover, or curing/sealing compound

✱ **INSTALLATION REQUIREMENTS:**

○ Soil Removal -

- Remove a section of soil 30 feet wide x 50 feet long to a depth of 24 inches below existing grade.
- Dispose of removed soil.
- Compact soil to 100% density using vibrating equipment.
- Compaction of soil shall meet ASTM D698

○ Base installation -

- Place and compact 2B washed, crushed aggregate as follows
 - Place 4 inches of 2B washed, crushed aggregate.
 - Compact 2B washed, crushed aggregate using vibrating equipment.
 - Place 4 inches of 2B washed, crushed aggregate.
 - Compact 2B washed, crushed aggregate using vibrating equipment.
 - Place 4 inches of 2B washed, crushed aggregate.
 - Compact 2B washed, crushed aggregate using vibrating equipment.
 - Place equivalent amount of 2B washed, crushed aggregate to complete a total depth of 12 inches of compacted 2B washed, crushed aggregate.
 - Compacted 2B washed gravel will be 98% density to accomplish 12 inches total depth of compacted 2B washed, crushed aggregate and level with surrounding yard.
- Compaction of aggregate shall meet ASTM D698

○ Reinforcing Bar installation –

- Longitudinal reinforcing bars shall be installed as follows;
 - First and last reinforcing bar are located 9 inches from each side of the finished edge of the Pad
 - Remaining reinforcing bar are spaced 18 inches on center
 - Top reinforcing bars are located 1-1/2 inches from the finished top of the pad.
 - Bottom reinforcing bars are located 3 inches from the bottom of the pad.
 - All reinforcing bars will be supported with chairs and spaced per industry standard.
- Transversal reinforcing bars shall be installed as follows;
 - First and last reinforcing bars are located 3 inches from each end of the finished edge of the pad

- Remaining top and bottom reinforcing bars are spaced 18 inches on center.
- Top reinforcing bars are located under the top longitudinal bars.
- Bottom reinforcing bars are located on top of the bottom longitudinal bars.
- All reinforcing bars will be supported with chairs and spaced per industry standard.
- All longitudinal reinforcing bar will be tied to the transversal reinforcing bar per industry standards.

✱ Concrete installation –

- Place forms around four (4) sides for a finished dimension of 30 feet wide x 50 feet long x 12 inches thick.
- Place 5,000 pound strength concrete to a depth of 12 inches.
- Vibrate concrete per industry standards to insure that poured concrete is free of all air pockets.
- Smooth top of concrete to be level with top of forms.
- Finish top of concrete with a broom finish.

✱ Site Finishing –

- Dress an area 2 feet beyond the finished edge of the pad; all four (4) sides using 2B crushed limestone with fines to be even with the top of the finished concrete pad.
- The 2B-crushed limestone with fines shall be compacted 50% to be finished with the top of the finished concrete pad.

See attached diagrams for additional information pertaining to the approximate location of the concrete pad for heavy crane operations (50 Ton); and, the placement of reinforcing bar, base, and concrete.

Attachment 1 – Location of Concrete Pad for Heavy Crane Operations (50 Ton)

Attachment 2 – Drawing of Concrete Pad – Top View

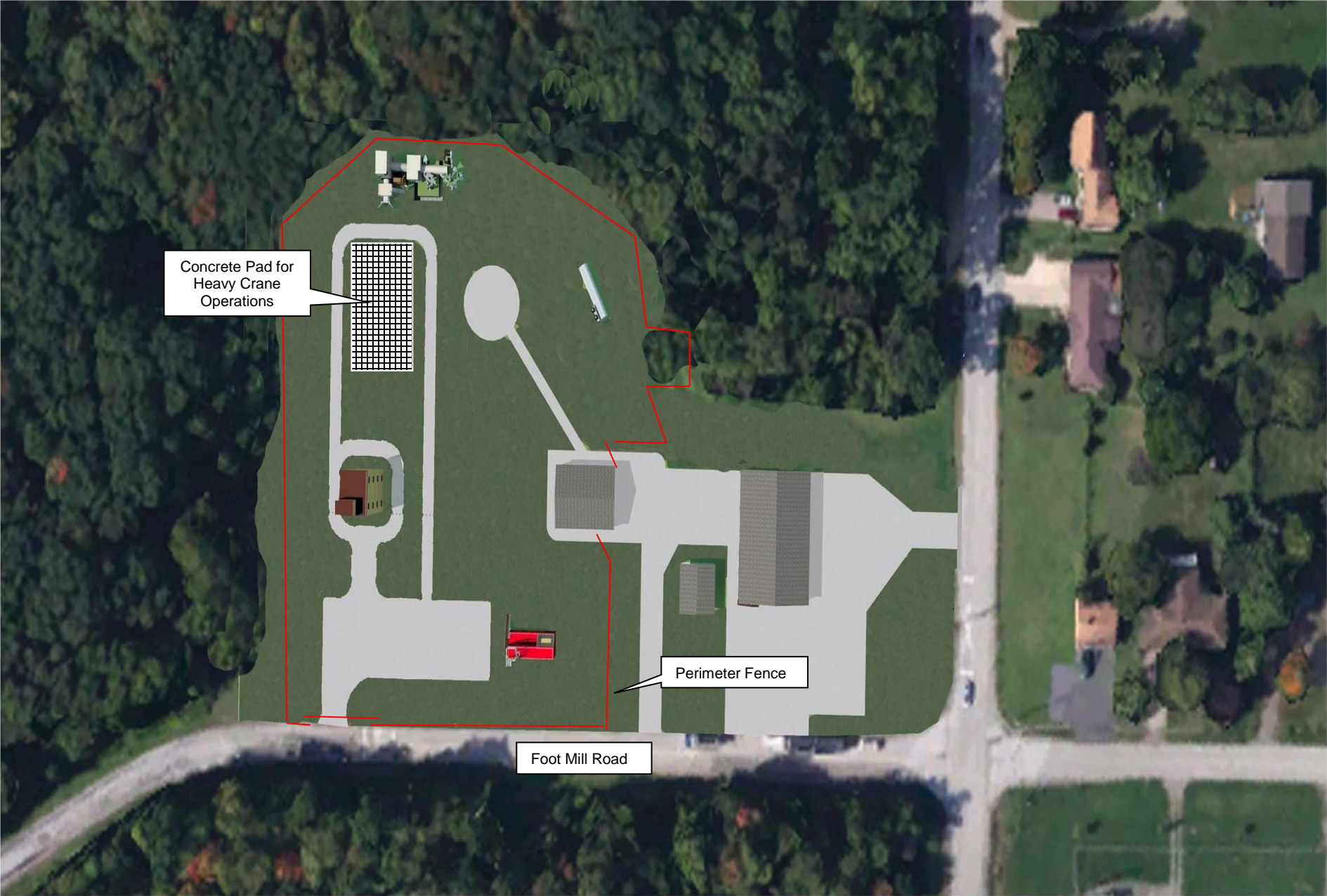
Attachment 3 – Crane Operations Pad – Side View

Attachment 4 – Crane Operations Pad – End View

Attachment 5 – Crane Operations Pad Rebar Placement – Top View

Attachment 6 – Crane Operations Pad Rebar Placement – Side and End Views

Attachment 1 - Location of Concrete Pad for Heavy Crane Operations (50 Ton)



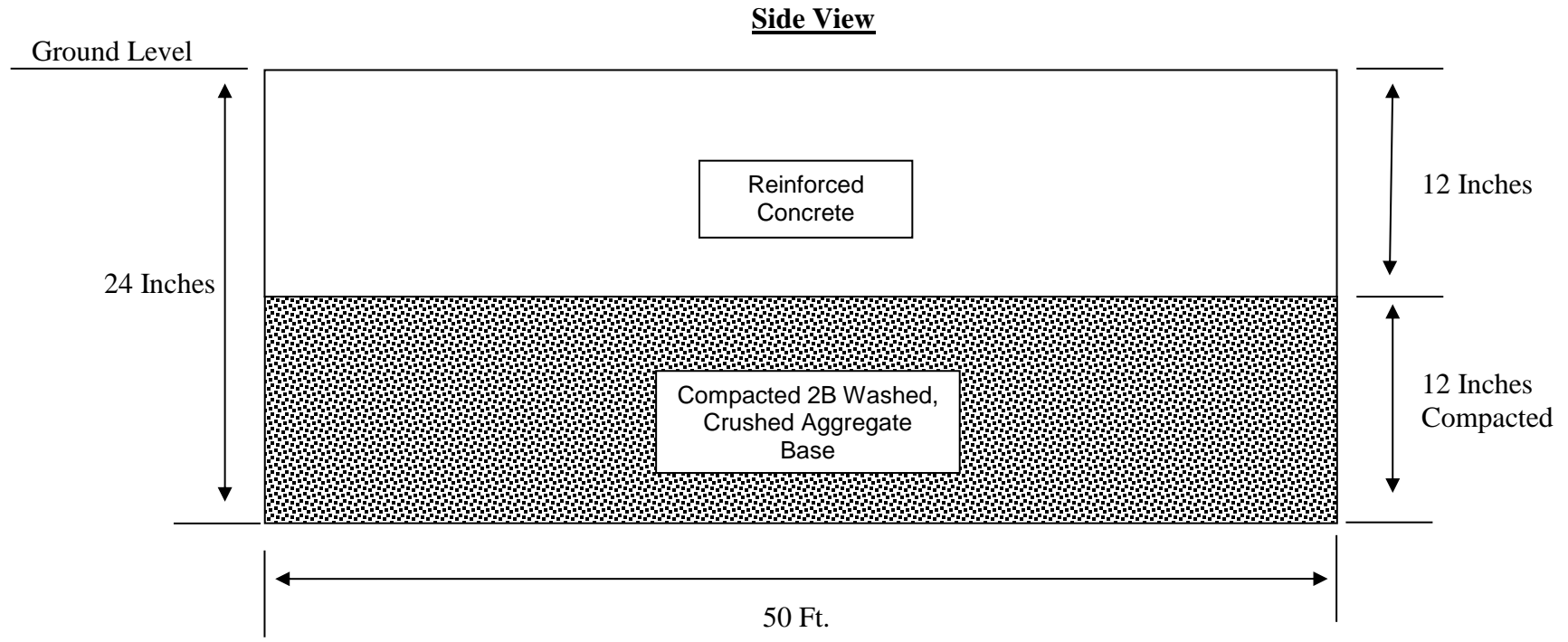
Attachment 2 – Drawing of Crane Operations Pad Top View

Top View



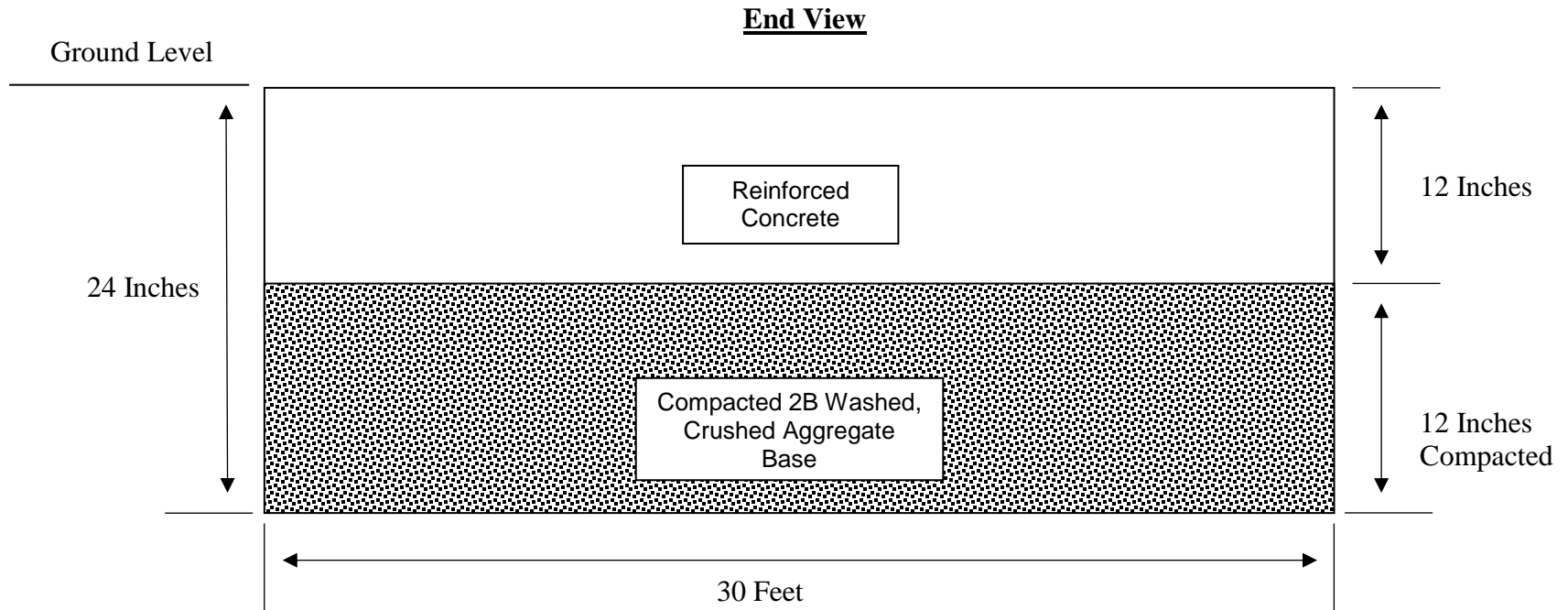
Not to Scale
1 inch \approx 8 feet

Attachment 3 – Crane Operations Pad Side Views



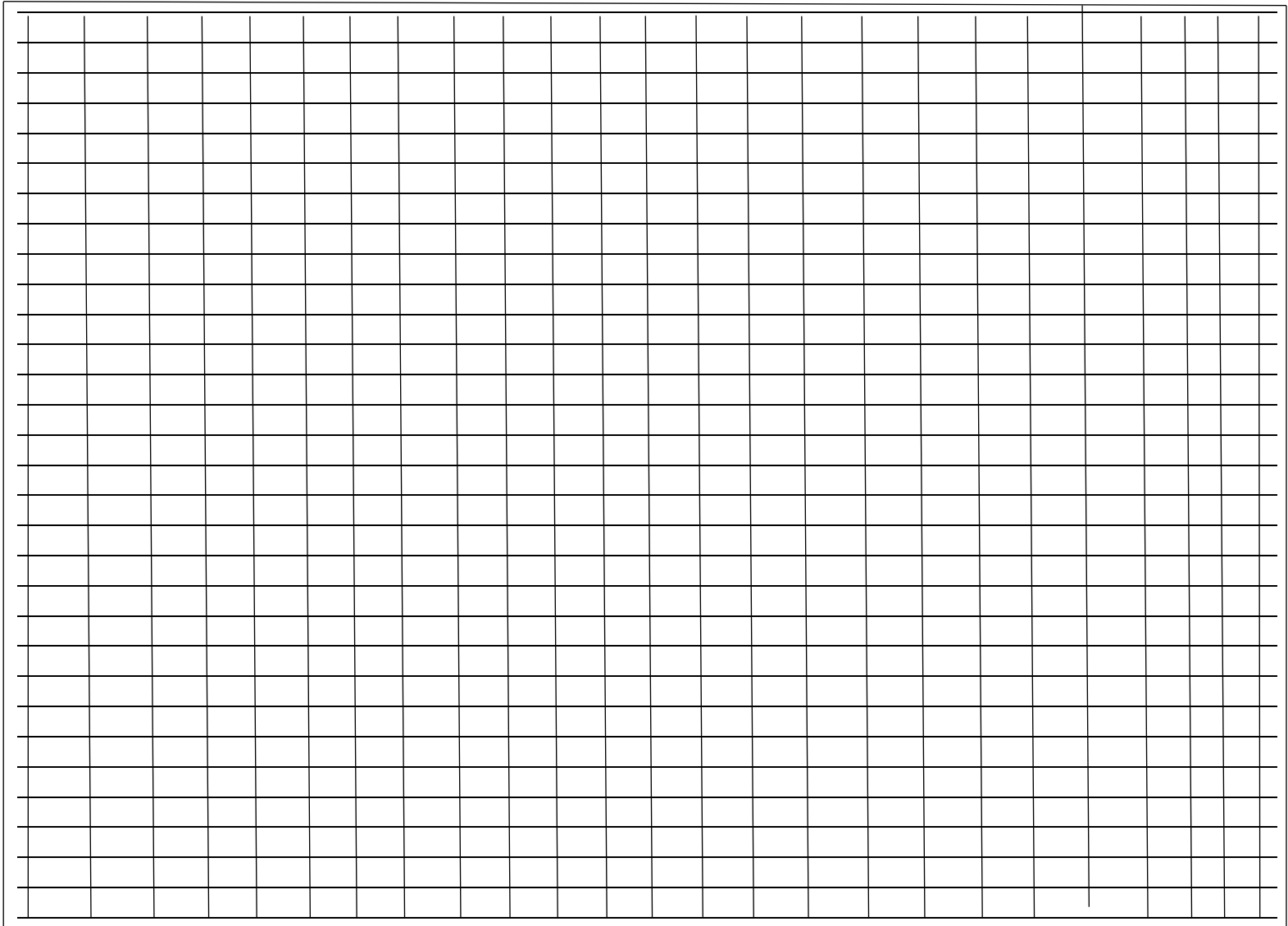
Drawings not to scale

Attachment 4 – Crane Operations Pad End View



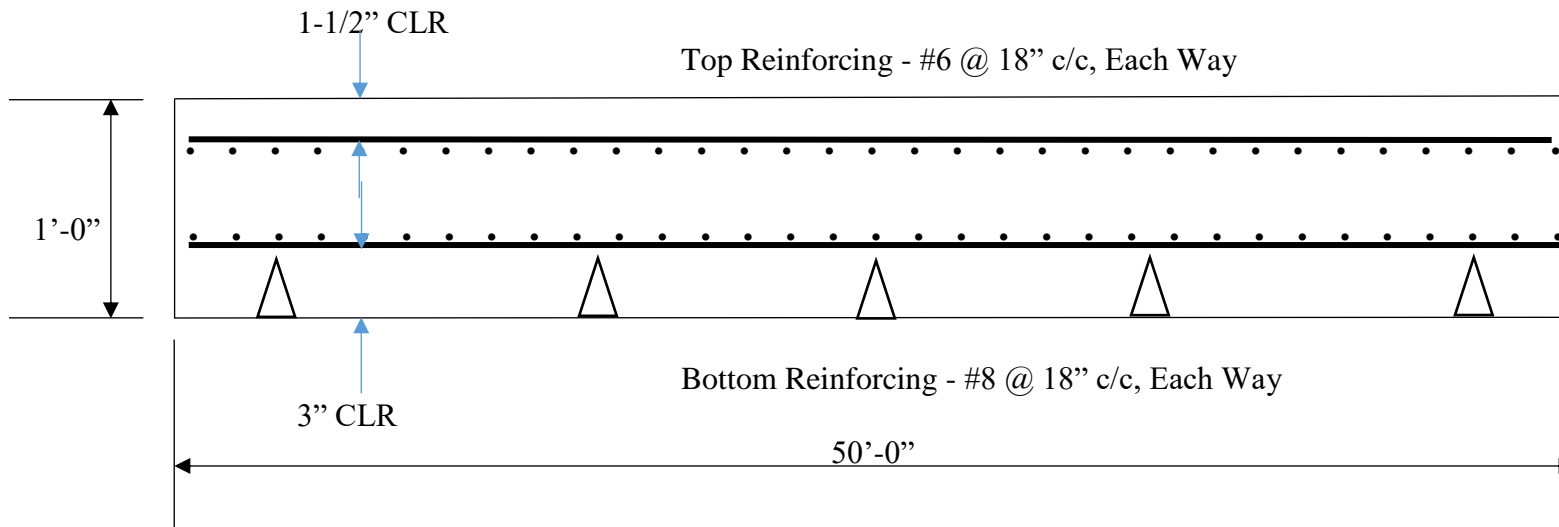
Drawings not to scale

Attachment 5 – Crane Operations Pad Rebar Layout – Top View

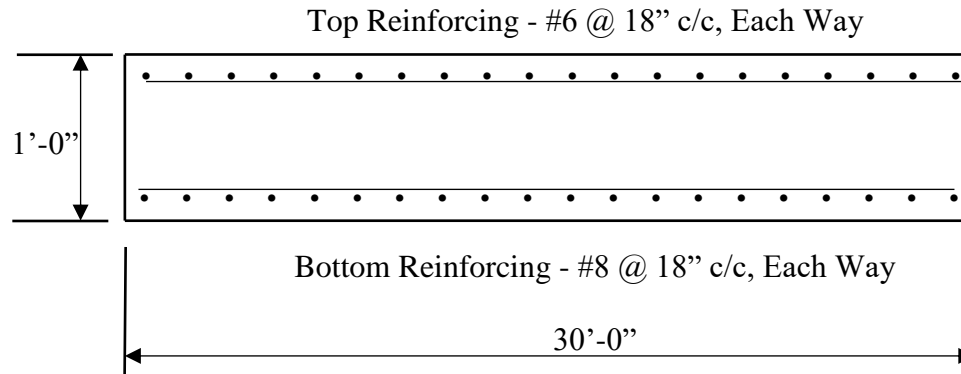


Drawings not to scale

Attachment 6 – Crane Operations Pad Rebar Layout – Side and End View



Side View



End View

Drawings not to scale