

Town of Lee
Little River Park Pavilion
Request for Proposals

You are cordially invited to submit a Proposal for the Little River Park Pavilion in accordance with the attached specifications, terms and conditions. Prospective respondents are advised to read this information over carefully prior to submitting a proposal.

Proposals must be submitted to the **Town Administrator, Town Hall, 7 Mast Road, Lee, NH 03861 no later than August 27, 2015 at 4:00 p.m.** in order to be considered. Any proposals received after the specified date and time will not be considered.

Interested parties are strongly encouraged to review the proposed site at Little River Park, which is located on North River Road; the entrance to the Park is across from Love Lane.

Questions should be directed to Julie Glover, Town Administrator – 603-659-5414 or townadministrator@leenh.org.

The Town of Lee reserves the right to select or reject any proposal that it deems to be in the best interest to accomplish the project specified. The Town reserves the right to discontinue the selection process at any time prior to the awarding of a contract. The Town reserves the right to waive defects and informalities of the proposals.

I. INTRODUCTION

The Town of Lee, New Hampshire is requesting proposals for the completion of a 30' x 60' timber frame or post and beam open pavilion with a standing seam metal roof. The design and construction are to be similar to the pavilion constructed at the Great Bay Discovery Center in Greenland NH, which was authorized by the NH Fish and Game Department. Plans and photos for that project are included in this Request for Proposal and bidders are strongly encouraged to visit that structure.

It is not the intent of this document to provide all details, specifications, etc. or to specify exact methodology. It is required that all workmanship be the best available, conform to all relevant codes, and meet or exceed typical industry standards.

PLEASE NOTE: The successful contractor may be asked to use volunteers and/or Town employees to perform some of the work and to use Town-owned or donated materials if dictated by budget considerations in order to complete the project. The Lee Recreation Commission will coordinate the volunteers. Said volunteers and/or employees will be covered under the Town's liability and/or Workers Compensation insurance.

447:16 Bond Required. – Officers, public boards, agents or other persons who contract in behalf of the state or any political subdivision thereof for the construction, repair or rebuilding of public buildings, public highways, bridges or other public works shall if said contract involves an expenditure of **\$35,000**, and may if it involves an expenditure of less amount, obtain as a condition precedent to the execution of the contract, sufficient security, by bond or otherwise, in an amount equal to at least 100 percent of the contract price, or of the estimated cost of the work if no aggregate price is agreed upon, conditioned upon the payment by the contractors and subcontractors for all labor performed or furnished, for all equipment hired, including trucks, for all material used and for fuels, lubricants, power, tools, hardware and supplies purchased by said principal and used in carrying out said contract, and for labor and parts furnished upon the order of said contractor for the repair of equipment used in carrying out said contract.

II. GENERAL REQUIREMENTS

1. Bidders must respond in writing to all requirements of this Request for Proposal. Any additional information or tasks that are felt to be relevant by the responding firm should be included together with the submittal requirements. Responses may be delivered or mailed to the address indicated.
2. The bidder is expected to examine carefully the site of the proposed work, this information and contract forms before submitting a proposal. The submission of a proposal shall be considered conclusive evidence that the bidder has made such examination and is satisfied as to the conditions to be encountered in performing the work and as to the requirements of the contract. It will be conclusive evidence that the bidder has also investigated and is satisfied with the sources of supply for all materials.
3. The intent of this Proposal is to provide for the construction and completion of the work described. The Contractor shall furnish all labor, materials, equipment, tools, transportation and supplies required to complete the work in accordance with the terms of the Contract. The Contractor shall be required to conform to the intent of the work required and specifications. No extra claims shall be allowed for portions of the work not specifically addressed in the specifications but required to produce a whole and complete project, such work will be considered subsidiary to the bid items.
4. Upon commencement of work, the Contractor shall be responsible for initiating, maintaining and supervising all safety precautions necessary to ensure the safety of employees on the site, other persons who may be affected thereby, including the public, and other property at the site or adjacent thereto. Contractor is responsible for contacting Dig Safe.
5. Before final acceptance of the work, the contractor shall remove from the site all machinery, equipment, surplus materials, rubbish, barricades and signs. All parts of the work shall be left in a neat and presentable condition. On all areas used or occupied by the contractor, regardless of the contract limits, the bidder shall clean-up all sites and storage grounds. The items prescribed herein will not be paid for separately, but shall be paid for as part of the total contract price.
6. The Contractor shall be responsible for all damage or injury to property of any character, during the prosecution of the work, resulting from any act, omission, neglect, or misconduct in his manner or method of executing the work, or at any time due to defective work or materials, and said responsibility will not be released until the project shall have been completed and accepted.

III. SCOPE OF WORK

1.1 CONTRACT DESCRIPTION

- A. Design and Coordination: The work to be completed consists of designing and preparing plans and details for a six bay timber-frame pavilion with gravel floor. The design will include site development, building layout, grading and drainage, and all aspects of building design, including: foundation, architectural, and structural components, as specified herein. The design shall be coordinated with the Town Administrator for Select Board approval. Specifications for major components of the project are provided as the basis for determining bids. In the event that all bids received exceed the budgeted amount for the project, the Town will negotiate a lower project price with the lowest Bidder by reducing project scope and, substituting lower cost materials, and/or using volunteers and/or Town employees to perform some of the work and to use Town-owned or donated materials to bring the project within budget. If the Bidder fails to reduce the negotiated price to an amount within project budget, the Town reserves the right to terminate negotiations with the Bidder and eliminate the Bidder from further

consideration. The Town will then negotiate a lower project price with the next lowest Bidder. This process will continue until a price is reached within budget or the top three Bidders are eliminated.

- B. Site work for the project will consist of designing the layout of the building at the site location indicated on the plans. The Highway Supervisor is to be consulted before beginning any site work. Site work will include erosion control and drainage, backfilling and compaction, and finish grading the building site.
- C. Foundation: The foundation work for the project will consist of the design of foundation dimensions, steel reinforcing and footing piers. Design elements will include excavation, bearing capacity, construction of reinforced concrete foundation, backfilling and construction of crushed gravel base for floor. Sequencing of construction shall be considered with other components of the project.
- D. Pavilion Construction: The pavilion shall be constructed in accordance with the Contractor prepared plans approved by the Lee Select Board. General building elements are described below.
 - 1. The pavilion shall be approximately 30' x 60', and comply with applicable federal, state and local building codes. Design features and minimum performance standards are described herein.
 - 2. Building construction shall consist of erecting a prefabricated or conventional timber frame or post and beam construction building. The foundation piers shall be cylindrical reinforced concrete, either precast or cast-in-place. The timber frame shall be similar in style to the pavilion located at the Great Bay Discovery Center in Greenland, NH. The 10/12 roof pitch shall have a clear span over the pavilion bays. The building shall have board on batten siding at the gable ends and green, standing seam metal roofing. All exposed lumber is to be stained.
 - 3. The pavilion is intended to be used for open-air assembly and dining, and therefore, thermal insulation and heating system is not required.
 - 4. The pavilion will not be required to have sprinklers, alarms, electrical, or telecommunication. Plumbing supply and waste lines will not be required.
 - 5. Add Alternate: A poured concrete slab will be included in the project as an additive alternate at the discretion of the Select Board.
- E. Proposals must include a cost for all labor, materials and other items (general conditions, contingency, etc.). Allowances for materials or installation included in the cost shall be sufficient to allow for the purchase and installation of the intended items required for the scope of the project that are of at least a mid-range quality with reasonable options for color, size, texture, etc.
Any possible exclusions or extra charge items must be specified within the bid. All applicable building codes must be adhered to and while Town of Lee permits are required, there will be no charge for same.

1.2 WORK RESTRICTIONS

- 1. All work will be done between 7:00 a.m. and 6:00 p.m., Monday to Friday.
- 2. Work areas will be cleaned at the end of each workday.

1.3 PROJECT MANAGEMENT AND COORDINATION

1. The Town Administrator and/or Highway Supervisor will oversee the project as authorized by the Select Board, with assistance from the Lee Recreation Commission. Progress meetings will occur at Project site as needed.

1.4 CONTRACTOR'S USE OF SITE AND PREMISES

1. The Contractor will be given a specific area for storing material and equipment and parking. The Contractor is responsible for security of stored items.

2. The Town will permit the use of on-site sanitary facilities.

3. The Town will permit the use of power supplied from the electrical shed.

IV. SUBMITTAL REQUIREMENTS (any missing items could result in rejection of the proposal)

1. Provide a brief description of the work to be performed
2. Provide a list of major materials to be used, including manufacturer/make/model.
3. Submit a cost proposal on the form included, to include all labor, materials and any other charges.
4. Submit an estimated time for completing the scope of work.
5. Provide contact information on any subcontractors that will be utilized and their intended scope of work.
6. Include the name of the supervisor who will be assigned to work on this project.
7. Include at least three references, including recent contact names and phone number information.
8. Please be sure to include an authorized signature. Said signature, indicates receipt of, familiarity with and understanding of, and acceptance of the specifications provided, except as otherwise noted by the respondent.

V. SELECTION

1. Vendor selection shall be based on possession of the necessary experience, organization, technical and professional qualifications, skills and facilities, project understanding, approach, ability to comply with proposed or required time of completion or performance, and possession of a satisfactory record of performance, as well as cost.

PROPOSAL FORM
TOWN OF LEE, N.H.
Little River Park Pavilion

To the Town of Lee, New Hampshire, herein called the Owner:

The undersigned, as Bidder, herein referred to as singular and masculine declares as follows:

1. All interested in the Proposal as Principals are named herein.
2. This proposal is not made jointly, or in conjunction, cooperation or collusion with any other person, firm, corporation, or other legal entity;
3. No officer, agent or employee of the Owner is directly or indirectly interested in this Proposal.
4. The undersigned has carefully examined the sites of the proposed work and fully informed and satisfied himself as to the conditions there existing, the character and requirements of the proposed work, the difficulties attendant upon its execution and the accuracy of all estimated quantities stated in this Proposal, and the undersigned has carefully read and examined the Proposal, Agreement, Specifications and other Contract Documents therein referred to and knows and understands the terms and provisions thereof;
5. The bidder will supply or perform all labor, services, material, plant, machinery, apparatus, appliances, tools, supplies and all other activities required by the Contract Documents in the manner and within the time therein set forth, and that the bidder will take in full payment therefore the following item prices, to wit:

Include a proposed project completion schedule with your proposal.

	<u>QTY</u>	<u>Unit</u>	<u>Unit Price/Total Price</u>
1. General Conditions	1	LS	\$
			<hr/> <i>Total Price in Figures</i>
2. Site Work	1	LS	\$
			<hr/> <i>Total Price in Figures</i>
3. Concrete	1	LS	\$
			<hr/> <i>Total Price in Figures</i>
4. Wood	1	LS	\$
			<hr/> <i>Total Price in Figures</i>
5. Metal Roof	1	LS	\$
			<hr/> <i>Total Price in Figures</i> <hr/>

6. Staining

1

LS

\$

Total Price in Figures

Award of Bid will be based on the Total of Items 1 through 6.

In Figures \$ _____

In Words \$ _____

Add Alternate:

Additional cost to provide a concrete slab:

\$ _____

Total Price in Figures

To Bidder: It is the intention of this contract that the items listed above describe completely and thoroughly the entirety of the work as described in the specifications. All other items required to accomplish the above items are considered to be subsidiary work, unless shown as a pay item. The undersigned agrees that for extra work, if any, performed in accordance with the terms and provisions of the Contract Documents, the bidder will accept compensation as stipulated therein.

Date _____

Company Name: _____

Print name: _____

Title: _____

Signature

Business Address: _____

Town, State, Zip Code: _____

Telephone: _____

Email: _____

The Bidder has received and acknowledged Addenda No. __ through __

All Proposals are to be submitted on this form and in a sealed envelope, plainly marked on the outside with the Bidder's name and address and the Project name as it appears at the top of the Proposal Form.

INSURANCE REQUIREMENTS

Insurance shall be in such form as will protect the Contractor from all claims and liabilities for damages for bodily injury, including accidental death, and for property damage, which may arise from operations under this contract whether such operation by himself or by anyone directly or indirectly employed by him.

AMOUNT OF INSURANCE

A) Comprehensive General Liability:

Bodily injury or Property Damage - \$1,000,000

Per occurrence and general aggregate

B) Automobile and Truck Liability:

Bodily Injury or Property Damage - \$1,000,000

Per occurrence and general aggregate

Coverage requirements can be met with excess policies. Additionally, the Contractor shall purchase and maintain the following types of insurance:

A) Full Workers Comprehensive Insurance coverage for all people employed by the Contractor to perform work on this project. This insurance shall at a minimum meet the requirements of the most current laws of the State of New Hampshire.

B) Contractual Liability Insurance coverage in the amounts specified above under Comprehensive General Liability.

C) Product and Completed Operations coverage to be included in the amounts specified above under Comprehensive General Liability.

ADDITIONAL INSURED

All liability policies (including any excess policies used to meet coverage requirements) shall include naming the Town of Lee, New Hampshire as an **Additional Insured by certificate and amendatory endorsement**. A policy endorsement (form CG2010B or equivalent) must be provided as evidence of additional insured coverage.

1) The contractor's insurance shall be primary in the event of a loss.

2) Town of Lee shall also be listed as a Certificate Holder. The Town shall be identified as follows:

Town of Lee
Attn: Town Administrator
7 Mast Rd
Lee, NH 03861

CONTRACT AGREEMENT

Lee Little River Park Pavilion

THIS AGREEMENT made as of the ____th day of _____ in the year **2015**, by and between the Town of Lee, New Hampshire (hereinafter call the Owner) and

_____ (hereinafter called the Contractor),

WITNESSETH; that the Owner and Contractor, in consideration of the mutual covenants hereinafter set forth, agree as follows:

ARTICLE I- Work - The Contractor shall perform all work as specified or indicated in the Request for Proposal for the completion of the Project. The Contractor shall provide, at his expense, all labor, materials, equipment and incidentals as may be necessary for the expeditious and proper execution of the Project.

ARTICLE II - ENGINEER - The Town Engineer shall mean the Town Administrator, and/or Owner's authorized representative, will act as engineer in connection with completion of the Project in accordance with these Contract Documents.

ARTICLE III - CONTRACT TIME - The work will commence and finish in accordance with the schedule submitted with the Proposal and accepted by the Owner.

ARTICLE IV - CONTRACT PRICE and PAYMENT- Upon final acceptance of the work and settlement of all claims, Owner shall pay the Contractor the Contract Price as shown in the Bid Proposal (or negotiated lower project price), which is \$_____; subject to additions and deductions provided for in the Contract Documents and executed by signed Change Order.

ARTICLE V – CONTRACT DOCUMENTS – The Contract Documents, which comprise the contract between Owner and Contractor, are attached hereto and made a part hereof and consist of the following:

1. This Contract Agreement
2. Request for Proposals
3. Contractor's Bid Proposal
4. Insurance Requirements
5. Any modifications, including change orders, duly delivered after execution of this Agreement.

ARTICLE VI – TERMINATION FOR DEFAULT – Should contractor at any time refuse, neglect, or otherwise fail to supply a sufficient number or amount of properly skilled workers, materials, or equipment, or fail in any respect to prosecute the work in accordance with the schedule of completion approved by Owner, or fail to perform any of its obligations set forth in the Contract, Owner may, at its election, terminate the employment of Contractor, giving notice to Contractor in writing of such election, and enter on the premises and take possession, for the purpose of completing the work included under this Agreement, of all the materials, tools and appliances belonging to Contractor, and to employ any other persons to finish the work and to provide the materials therefore at the expense of the Contractor.

ARTICLE VII – INDEMNIFICATION OF OWNER – Contractor will indemnify Owner against all suits, claims, judgments, awards, loss, cost or expense (including without limitation attorneys' fees) arising in any way out of the Contractor's negligent performance of its obligations under this Contract.

CONTRACT AGREEMENT (con't)

Lee Little River Park Pavilion

Contractor will defend all such actions with counsel satisfactory to Owner at its own expense, including attorneys' fees, and will satisfy any judgment rendered against Owner in such action.

ARTICLE VIII – PERMITS – The Contractor will secure at its own expense, all permits and consents required by law as necessary to perform the work and will give all notices and pay all fees and otherwise comply with all applicable Town, State, and Federal laws, ordinances, rules and regulations. **The fee for the Town of Lee Building permit shall be waived.**

ARTICLE IX – INSURANCE – The Contractor shall secure and maintain, until acceptance of the work, insurance with limits not less than those specified in the Request for Proposal.

ARTICLE X – MISCELLANEOUS –

A. Neither Owner nor Contractor shall, without the prior written consent of the other, assign, sublet or delegate, in whole or in part, any of its rights or obligations under any of the Contract Documents; and, specifically not assign any monies due, or to become due, without the prior written consent of Owner.

B. Owner and Contractor each binds himself, his partners, successors, assigns and legal representatives, to the other party hereto in respect to all covenants, agreements and obligations contained in the Contract Documents.

C. The Contract Documents constitute the entire Agreement between Owner and Contractor and may only be altered amended or repealed by a duly executed written instrument.

D. The laws of the State of New Hampshire shall govern this Contract without reference to the conflict of law principles thereof.

E. Venue for any dispute shall be the Strafford County Superior Court unless the parties otherwise agree.

IN WITNESS WHEREOF, the parties hereunto executed this AGREEMENT the day and year first above written.

Contractor:

BY:_____

TITLE:_____

TOWN OF LEE, N.H.

BY:_____

Julie E. Glover, Town Administrator, formally authorized to enter into this agreement by vote of the Board of Selectmen on _____.

PAVILION AT GREAT BAY DISCOVERY CENTER, GREENLAND, NH



265 WADLEIGH FALLS ROAD
LEE, NEW HAMPSHIRE 03824
PH: 603-292-5787
WWW.FARWELLENENGINEERING.COM

RECORD

OCTOBER 10, 2014

1423 -LRP

1	DATE	INITIAL SUBMISSION	TKF
NO.	DATE	DESCRIPTION	BY

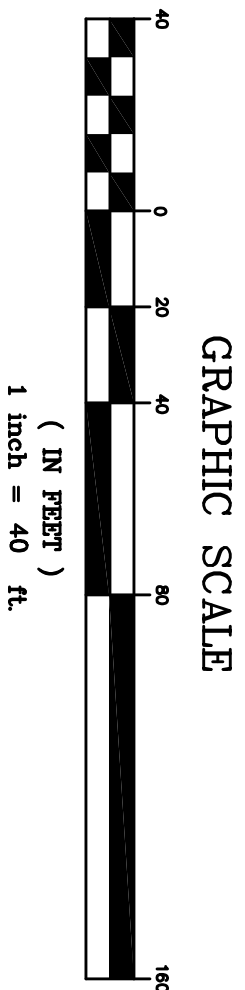
$$1'' = 40'$$

TOWN OF LEE NE

LEE, NH 03861

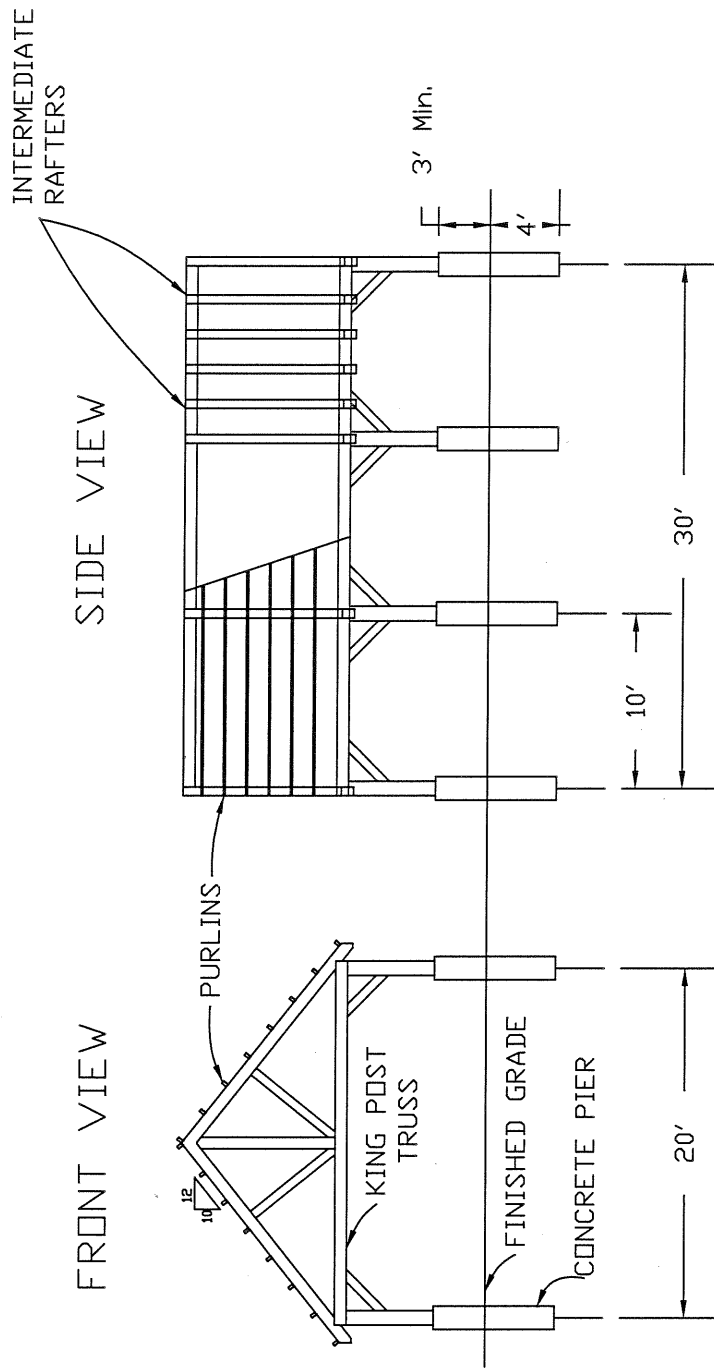
**TOWN OF LEE
LITTLE RIVER PARK**

**EXISTING
CONDITIONS**

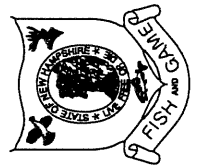


LEGEND

- NOTES:**
1. THIS PLAN IS AN EXISTING CONDITIONS PLAN AS OF OCTOBER 2014.
 2. BASE PLAN INFORMATION PROVIDED BY MSC ENGINEERS AND ATLANTIC SURETY.
 3. LOCATION OF ADDITIONAL PLAY GROUND EQUIPMENT AND UNDERGROUND UTILITY MARKINGS PERFORMED BY THIS OFFICE IN OCTOBER OF 2014.
 4. PAVEMENT MARKING PERFORMED BY TOWN ROAD AGENT.
 5. SWING AND MULTI SWING AND WALK WAY LOCATED NOVEMBER 3, 2014



NOT TO SCALE



New Hampshire Fish and Game Department
11 Hazen Dr, Concord NH 03301

EDUCATION PAVILION
STRUCTURAL SCHEMATIC
NOT TO SCALE

Great Bay National Estuarine Research Reserve
89 Depot Road Greenland NH 03840

CONSTRUCTION SPECIFICATIONS

PART 1 GENERAL

1.1 SUMMARY

- A. The intent of this project is to have a six bay pavilion building designed and constructed, including all site work and infrastructure on a site at the Little River Park. The successful Bidder will be required to coordinate the design with the Town of Lee. Construction will commence after approval of the design by the Select Board, with input from the Recreation Commission.

1.2 REFERENCES:

- A. Applicable Federal, State and local building codes
- B. Manufacturer's and supplier's technical data and recommendations

1.3 DESIGN REQUIREMENTS

- A. Location and general layout and style of the building are presented at the end of these Specifications. The sketches are presented only as a reference for general descriptions and concept of the building and infrastructure.
- B. Roof shall be designed to support a combination of loads in accordance with applicable building codes, including live load, dead load, snow, wind, etc.
- C. Foundation shall be either precast or cast-in-place reinforced concrete piers with a minimum depth of 4 feet below finished outside grade for frost protection, or applicable building code. The top of the pier shall rise 3 to 4 feet above the finished gravel floor grade. The top of all piers shall be at the same elevation. Piers shall be a minimum 16 inches in diameter and shall be designed to support the entire structure.
- D. The gravel floor shall be 4 inches fine crushed stone and be placed over 6 inches of compacted crushed gravel.
- E. Wood framing of columns, roof trusses and purlins shall use timber frame construction. The Contractor may elect to design and construct the pavilion with steel plates and angles as an alternate to timber joinery.
- F. Pressure treated members shall be used at columns. The interior of the pavilion shall have a clear span, with an 8 foot clearance from floor to bottom of trusses. Roof framing shall use trusses as necessary to carry the roof loads and the span. Purlins or intermediate timber rafters may be used to carry roof loads. Tongue and groove roof decking shall be exposed and provide a rustic appearance.
- G. The end trusses shall be covered with board on batten from ridge to bottom of truss frame. Appearance shall be similar to the adjacent conservation center.
- H. The roof shall have a waterproof membrane under the standing seam metal roof panels.

1.4 CONSTRUCTION FEATURES

A. CLEARING AND GRUBBING

1. Notify Dig Safe 1-888-344-7233 at least 72 hours prior to beginning site work operations.

B. EARTHWORK

1. This Section includes the following:
 - 1) Preparing subgrades for concrete foundation, gravel floor
 - 2) Excavating, backfilling, and compacting.
2. Soil materials:
 - a. General: Provide borrow soil materials when sufficient satisfactory soil materials are not available from excavations.
Crushed Gravel: Mixture of crushed gravel and or crushed stone meeting the gradation requirements for base course material specified in NH DOT 300, Table 1E, 304.3

Common Fill: Common fill shall be ASTM D 2487 Soil Classification Groups GW, GP, GM, GC, SW, SP, SM, and SC, or a combination of these groups, free of rock or gravel larger than 6-inch in any dimension, debris, waste, frozen material, vegetation, and other deleterious matter.
 - b. Sand: Sand shall be naturally or artificially graded mixture of natural or crushed sand meeting the gradation requirements for base course material specified in NH DOT 300, Table 1E, 304.1.

3. ACCESSORIES

- a. Detectable Warning Tape: Detectable acid- and alkali-resistant polyethylene film warning tape manufactured for marking and identifying underground utilities, 6 inches wide and 5 mils thick, continuously inscribed with a description of the utility and utilizing the appropriate APWA color.
 - b. Geotextile Separation Fabric: Manufactured of non-woven polypropylene staple fibers, Mirafi 140N or approved equal.
 - c. Geotextile Filter Fabric: Manufactured of woven fabrics of monofilament and multifilament with a maximum apparent opening size equal to a No. 40 US Sieve, a percent open area of 8 to 10 percent, and a flow rate of 70 gal/min/sq ft. To be Mirafi FW 400 or approved equal.
4. Backfill and Compaction: Place backfill and fill materials in layers not more than 8-inches in loose depth for material compacted by heavy compaction equipment, and not more than 4-inches in loose depth for material compacted by hand-operated tampers.
 - a. Fills under footings, floor slabs, – Compact soil to not less than 95 percent of maximum dry density according to ASTM D1557, Method C.
 - b. If compaction efforts are not achieving the desired results the Contractor shall modify the soils moisture content as necessary to obtain the desired results by either uniformly moistening or aerating subgrade and subsequent fill layers to adjust moisture to within 2 percent of optimum moisture content, if proof-rolling does not alleviate the condition. If necessary, remove and replace, or scarify and air dry, otherwise

satisfactory soil material that exceeds optimum moisture content by 2 percent and is too wet to compact to specified dry unit weight.

C. CAST-IN-PLACE CONCRETE

1. This Section includes cast-in-place concrete, including reinforcement, concrete materials, mix design, placement procedures, and finishes.
2. SUBMITTALS
 - a. Product Data: For each manufactured material and product indicated.
 - b. Design Mixes: For each concrete mix indicated.
 - c. Material certificates and test reports.
 - d. Comply with ACI 301, "Specification for Structural Concrete" and Standard Specifications for Road and Bridge Construction of the NH Department of Transportation
3. MATERIALS
 - a. Formwork: Furnish formwork and form accessories according to ACI 301.
 - b. Steel Reinforcement:
 - 1) Reinforcing Bars: ASTM A 615/A 615M, Grade 60, deformed.
 - 2) Plain-Steel Wire: ASTM A 82, as drawn.
 - 3) Plain-Steel Welded Wire Fabric: ASTM A 185, fabricated from as-drawn steel wire into flat sheets.
 - 4) Deformed-Steel Welded Wire Fabric: ASTM A 497, flat sheet.
 - c. Concrete Materials:
 - 1) Portland Cement: ASTM C 150, Type I or II.
 - 2) Normal-Weight Aggregate: ASTM C 33, uniformly graded, not exceeding 1-1/2-inch nominal size.
 - 3) Water: Complying with ASTM C 94.
 - 4) Synthetic Fiber: Fibrillated or monofilament polypropylene fibers engineered and designed for use in concrete, complying with ASTM C 1116, Type III, 1/2 to 1-1/2 inches long.
 - d. Admixtures:
 - 1) Air-Entraining Admixture: ASTM C 260.
 - 2) Water-Reducing Admixture: ASTM C 494, Type A.
 - e. Curing Materials:
 - 1) Absorptive Cover: AASHTO M 182, Class 2, burlap cloth made from jute or kenaf.
 - 2) Moisture-Retaining Cover: ASTM C 171, polyethylene film or white burlap-polyethylene sheet.
 - 3) Water: Potable.

D. HEAVY TIMBER CONSTRUCTION

1. WORK INCLUDED
 - a. Structural design, fabrication and installation of heavy timber beams, columns, & trusses.
 - b. Perform all work required to properly complete the heavy timber work as shown on the drawings and as specified herein. Include any and all modifications to the design that are structurally required.
 - c. Provide all labor, materials, staging, scaffolding, temporary bracing, crane, hoists, rigging, equipment, and services necessary to perform the Work of

this Section. The work includes, but is not necessarily limited to the following:

1. Timber components of every description, including beams, girts, plates, braces, ties, pegs, webs.
2. Miscellaneous hardware for heavy timber construction, including but not limited to: Plate connectors and bolts.

Truss design shall provide the required stability and resistance to gravity loads.

2. MEASUREMENTS

- a. The Contractor shall obtain and verify all measurements and conditions at the building as required for the proper installation of his work. He shall be responsible for the accuracy and fit of the various parts of his work and the proper building-in of same.

3. PROTECTION, STORAGE AND HANDLING

- a. Protect trusses and keep under cover in transit and at the job site. Stack to ensure proper ventilation and drainage. Store under cover in a well ventilated area. Trusses damaged in shipment or at the job site shall be repaired or replaced at no cost to the Owner.

5. PRODUCTS

- a. Trusses and all components for a complete installation to be supplied by the Contractor.

6. TRUSSES

- a. Timber shall be sized according to engineering requirements. Minimum size shall be 6" x 6" in all directions.
- b. Timber species shall be Douglas Fir, Select Structural, S4S Or #1 & Better Douglas Fir, S4S, FOHC or Native Hemlock/Pine, Rough Sawn or S4S.
- c. Unless otherwise noted, all timber shall be per "Standard Grading Rules for Western Lumber" by the Northeastern Lumber Manufacturers Association. Records of grade marks and certificates indicating conformance with the Specifications shall be maintained by the Contractor.
- d. Exposed edges shall have a 1/2" wide chamfer (S4S spec).

7. PEGS

- a. Peg material shall be straight grained, all heartwood, knot free, and reaction free from Birch or Oak.

8. MISCELLANEOUS HARDWARE

- a. Furnish and install all necessary hardware and metal shapes required for assembly and erection of the trusses and pier connection.
- b. All steel shapes, plates, and tubes, unless otherwise specified, shall conform to ASTM A-36, as amended to date. Steel pipe shall conform to ASTM 53, Grade B.
- c. Where welding is called for, it shall be by the electric arc process in accordance with the American Welding Society's Code for Arc and Gas Welding in Building Construction.
- d. All other steel shapes, plates, tubes, etc. shall be thoroughly cleaned and given one heavy shop coat of an approved red lead primer (black), well worked into all joints and open spaces. After erection, touch-up as required. Surfaces which are not accessible for field painting shall have one shop coat of black paint before leaving the shop.

- e. Bolts shall be zinc/galvanized with zinc/galvanized washers and nuts.
- 9. FINISH
 - a. Trusses shall be prefinished on all surfaces and joints with one coat of Polyurethane for Fir, Minwax or equal for native material.
- 10. INSTALLTION – GENERAL
 - a. Installation of trusses shall be in accordance with best trade practices.
- 11. JOINERY
 - a. Joinery shall be in the best of the early English and early American traditions, designed for strength, shrinkage, checking, and twisting.
****OPTIONAL**** Metal connections may be used as required by the structural design. All workmanship shall be of the very highest quality.
 - b. All joinery shall be accurately cut so as to make a neat, snug fit.
- 12. ERECTION
 - a. Truss components and assemblies must be checked for dimensions and anchorage accuracy before erection.
 - b. Temporary bracing and guy lines shall be provided to adequately protect all persons and property and to insure proper alignment.
 - c. Padding or non-marking slings shall be used, and corners shall be protected with blocking.
 - d. The assembled trusses shall be reasonably straight, plumb, level and square. Portions of the structure not adequately braced by design shall have temporary braces until the decking is applied.
 - e. All joints shall be reasonably tight.
 - f. All joints that require pegging shall have pegs driven until snug or flush. Pegs shall protrude 1" – 2" on both sides of truss except where they should be flush as directed above. Broken pegs shall be removed and replaced. Pegs with a mushroomed head shall be cut off below that portion
 - g. Tools used to drive or pull joints together shall not permanently mar the finished surfaces of the trusses.
- E. WOOD SIDING, DECKING AND TRIM
 - 1. This Section includes: solid wood decking, wood siding, plywood
 - 2. REFERENCES:
 - a. American Institute of Timber Construction
 - b. American Lumber Standards Committee
 - c. National Forest Products Association
 - 3. PRODUCTS
 - a. Georgia Pacific Corp.
 - b. Louisiana Pacific Corp.
 - c. Weyerhaeuser
 - d. Any reputable NH manufacturer/supplier that can meet or exceed specifications.
 - 4. SOLID WOOD DECKING
 - a. Decking species: Douglas Fir-Larch.
 - b. Moisture content: Provide wood decking with 15 percent maximum moisture content at time of dressing.
 - c. Pattern and Dressing: Square edge, sanded one side.
 - d. Dimensions: 2" x 6" tongue and groove, uniform or random length.
 - 5. SHEATHING

- a. Plywood shall be Grade CDX. Thickness of plywood shall be ½" for walls and roofs, and ¾" T&G for floors.
6. BOARD ON BATTEN SIDING AND TRIM
 - a. Board on batten siding shall be provided at both ends of the pavilion from ridge to bottom truss chord.
 - b. Stain color TBD
 - c. Fascia trim shall be provided along all outside building corners, doors and windows, eaves, rakes and gable end overhangs
 - d. Fascia shall be pine S3S KD.
7. ACCESSORIES
 - a. Sill seal
 - b. Fasteners: Galvanized steel
 - c. Truss anchors
8. INSTALLATION
 - a. All construction shall proceed in accordance with industry standard construction practices or as recommended by the manufacturer or supplier, or as directed.

F. STANDING SEAM METAL ROOF

1. SUMMARY

This section includes, but is not limited to, the following work:

- a. Supply and Install Standing Seam Roofing Panels according to specifications.
2. REFERENCES (Current editions of each apply)
 - a. Steel Association
 - i) American Institute of Steel Construction-Code of Standard Practice
 - ii) American Iron & Steel Institute-AISI Light Gauge Cold Formed Steel Structural Members
 - b. American Society of Testing Material
 - i) A-792 General Requirements for Aluminum-Zinc coated Sheet
 - ii) B-209 Aluminum Alloy Sheet and Plate
 - iii) A-446 Steel Classification
 - c. Metal Construction Association
 - i) Construction Details
 - ii) Preformed Metal Wall Guidelines

3. SUBMITTALS

- a. Manufacturer: Contractor must submit metal pan manufacturer product model number information with bid documents.
- b. Material Schedule: Submit Material Schedule for metal pans to complete installation of system, including bracketing, clips and other items to successfully install metal pans on support structure.
- c. Prior to commencement of work, submit Manufacturer's Letter of Compliance stating that all requirements of the specifications have been met or exceeded.
- d. Prior to start of construction provide letter from Manufacturer securing warranty along with installation restrictions.
- e. Submit proof of insurance prior to start of construction.

4. QUALITY ASSURANCE

- a. Provide Owner with a twenty-year manufacturer's written warranty that metal roofing pan material furnished will meet or exceed the requirements in Referenced standards as shown in this section of the specification, and will not rupture or structurally fail.
- b. Provide panel manufacturer's written warranty covering failure of the factory applied exterior finish within a period of twenty years.
- c. Warranty must be transferable to building owner and future owners.
- d. Provide completed copy of installation checklist.

5 PRODUCTS

- a. Supply all material, labor and equipment to complete:
 - i. Installation of Standing Seam Metal Roofing Pans' Support Structure
- b. ACCEPTABLE MANUFACTURERS AND INSTALLERS
 - i. Manufacturer's Qualifications: The panel manufacturer shall have been in the business as a panel manufacturer for at least 10 years.
 - ii. The installer shall have a minimum of 3 years experience with similar type products. The installer must submit a list of similar projects prior to commencement of work.
 - iii. This specification is written with the Englert PermaColor3500 panel as the basis of acceptable performance and appearance. Like products of other manufacturers may be approved providing that they meet the entire requirement specified herein. Contractors are encouraged to submit both specified product and alternatives.
 - iv. Alternate manufacturers: Drexel Metals DMC 150SL, Firestone Una-clad PVDF
- c. MATERIAL-PANEL
 - i. Base metal shall be 24 Gauge Galvalume® steel.
 - ii. Standard paint, color coated panels shall have the exterior side finished with a silicone polyester or PVDF (Kynar 500/Hylar 5000) coating system applied over Galvalume®. Surfaces shall be chemically cleaned, pretreated, primed and coated, then oven-baked to cure. Top coating system shall have a have a dry film thickness of 0.70 to 0.80 mils. Specular Gloss at 60° viewing angle shall be 24 to 40. The interior side of these panels shall be protected by wash coat of primer. Panels shall be coated prior to roll forming.
 - iii. The color of the pans shall be Englert "Forest Green", or Firestone "Dark Ivy"
 - iv. Panel width is a nominal 18"; with a minimum flat pan width between standing seam ribs of 16". Length shall meet qualifications specified in contract drawings. Panels shall be continuous from ridge to soffit. Seams will not be permitted.
 - v. Trim and flashing shall be fabricated from the same material, color and finish as the metal pans.
- d. ACCESSORIES
 - i. Underlayment shall cover entire roof surface. Acceptable product is Titanium UDL-30 or equal.
 - ii. Strap roof with 1" x 3" pressure treated furring strips or metal channels. Metal shall be compatible with standing seam roof system.

6 INSTALLATION

- a. Storage and Handling: Protections shall be provided during shipment, site storage and installation to prevent mechanical abuse, stains, discoloration and corrosion. The jobsite storage shall be in a clear dry area, out of direct contact with the ground, under cover and sloped for drainage, protected from abuse by traffic and from contamination by corrosive or staining materials. Panels shall be secured against wind to prevent becoming airborne hazards.
- b. General: Comply with panel manufacturer's written instructions and recommendations for installation, as applicable to project conditions and supporting substrate.
- c. Follow contract drawings, manufacturers recommendations and these specifications for installation procedures.
- d. Panels shall be installed over a properly aligned substructure. The roof decking may be covered with a minimum of 1/2" plywood sheathing in conformance with applicable codes. Waterproof synthetic roofing barrier shall cover entire roof. Before installation of any panel work, verify that the structure is ready to receive metal pans. Check field dimensions and alignments of the structural members to assure that the metal panel system can be installed straight and true.
- e. Completed work shall be plumb, true and free of dents. Any panels that are damaged shall be removed from the jobsite and replaced with acceptable material.
- f. All flashing and panel joints shall be caulked where required. Panels, flashings and accessories shall be installed according to manufacturer's recommendation for warranty.
- g. Upon completion of all work under this section of the specifications, the installing contractor shall leave all panel material in a clean and workman like condition and remove all excess material and equipment from the jobsite.

END OF SECTION