

**PLAYGROUND IMPROVEMENTS
SHATFORD MEMORIAL PARK**



Prepared for:

The Town of New Lebanon, NY

Prepared by:

Paul S McCreary, PE
Consulting Engineer
22 Maxwell Street
Albany, NY 12208

Date: **XXXXX xx, 2025**

Owner:



NewLebanon
NEW YORK

TOWN OF NEW LEBANON

14755 Route 22

PO Box 328

New Lebanon, NY 12125

518-794-8888

Project No. **2025-0X**

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NOTICE TO BIDDERS

NOTICE IS HEREBY GIVEN that the Town of New Lebanon, NY is seeking bids for the PLAYGROUND IMPROVEMENTS SHATFORD MEMORIAL PARK project in the Town's Municipal Public Park. The Town of New Lebanon invites sealed proposals for the construction of new playground equipment, repairs to the existing playground equipment, and other related project improvements. The improvements will include, but are not limited to:

- installation of new playground equipment
- repair of existing playground equipment
- a new fall safety protection system
- a new accessible parking area
- new stone dust trails for access to the playground from other existing park trails

The bids are to be submitted and shall cover the costs directly and indirectly associated with furnishing all materials, labor and related equipment necessary for the installation and completion of the work. Take note that some items of the construction required will be performed by the Town, or, items provided by the Town to be installed/constructed by the Contractor.

This project is funded in part by a grant from the NYS Office of Parks, Recreation and Historic Preservation through Title 9 of the Environmental Protection Act of 1993. All bidders are subject to the terms of the State of New York Contract for Grants – Standard Terms and Conditions, which can be found online at <https://grantsmanagement.ny.gov/state-agency-resources>. New York State has the right to:

- Review and approve every subcontract in excess of \$100,000.
- The requirement that subcontracts contain provisions specifying (1) that work accord with the terms of the State of New York Contract for Grants, (2) that nothing in the subcontract shall impair the rights of the State under the State of New York Contract for Grants, and (3) that nothing in the subcontract, nor under the State of New York Contract for Grants creates any contractual relationship between the subcontractor and the State.
- Contractor's responsibility to submit vendor responsibility information to the State, including a
- Vendor Responsibility Questionnaire for subcontracts that equal or exceed \$100,000.
- Have the Contractor meet Non-discrimination requirements.
- Have the Contractor meet Equal Opportunity provisions, including a requirement that the following provisions be included in construction subcontracts in excess of \$25,000
- Have the Contractor meet Wages and Hours Provisions.
- Have the Contractor meet New York State business requirement.
- Have the Contractor meet Worker's Compensation and Disability Benefits Insurance coverage.

As a Municipal Project, New York State Department of Labor Prevailing Wage Rates apply. Given the limited scope for this project, it is exempt from Wicks Law as it does not require multiple trades and therefore separate trade bids. This is a General Contractor with sub-contractor(s) project. This contract has been designated Contract 2025-?? as set forth in the contract documents, including drawings and specifications.

Bids will be received by the Town Clerk of the Town of New Lebanon, NY, Town Hall, 14755 Route 22 North, New Lebanon, NY 12125. until 3:00 PM on or before **Monday, _____**.
at which time and place they will be publicly opened and read aloud, with the contract being awarded,

if acceptable, on [REDACTED], at the regular Meeting of the New Lebanon Town Board at 14755 Route 22, New Lebanon, NY 12125. That meeting typically begins at 6:00 PM.

All bid and contract documents, including specifications governing the contract, may be examined free of charge at the Town Clerk's office during the Clerk's business hours of Monday, Wednesday, Thursday, and Friday from 9:00 am to 5:00 pm. Copies of the Bid Documents may be obtained at the Town of New Lebanon Town Hall after [REDACTED].

No bid will be accepted unless a signed Certificate of Non-Collusion is submitted with the bid.

The Town of New Lebanon Town Board expressly reserves the right to waive any irregularities in, or to accept any bid, or to reject any and all bids, or to award on any or all items. No bidder may withdraw his/her bid within twenty-five (25) days after the actual date of the bid opening.

Project timeliness is important. The entire project must be 100 percent completed by [REDACTED].

General questions regarding the project shall be directed to the Town Clerk for the Town of New Lebanon. Technical questions and/or requesting a site visit prior to preparing and submitting a bid, shall be directed to the project Design Professional.

By order of the Town Board, Town of New Lebanon, New York.

By: Marcie Robertson, Town Clerk
Town of New Lebanon, NY

INSTRUCTIONS TO BIDDERS

1. Components of Bid Package

Contained herein, are the components of the bid package for the PLAYGROUND IMPROVEMENTS SHATFORD MEMORIAL PARK project in the Town's Municipal Public Park. All bidders will take notice, review and complete these components in order to offer a bid for the work.

The components are:

- Notice to Bidders
- Instructions to Bidders
- Bid Form and Bid
- Certificate of Non-Collusion by Bidder
- Contract between Owner and Contractor
- New York State Prevailing Wage Rates
- Construction Specifications
- Plans / Drawings / Details

2. Scope of Work

The Contractor will provide all required labor, materials and equipment to complete the PLAYGROUND IMPROVEMENTS SHATFORD MEMORIAL PARK project in the Town's Municipal Public Park.

The Contractor's project work shall include, but not limited to, nor in any specific order, the following:

- a) Field stakeout and construction of the trails and associated items based upon the Drawings,
- b) Excavation and fill for the playground and the associated playground trails,
- c) New fall safety protection surfacing,
- d) New accessible parking area,
- e) Repair of existing playground equipment,
- f) Installation of new playground equipment

3. Qualifications of Bidders

The law requires that contracts for public work in the State of New York be awarded to the lowest responsible bidder and will promote the public interest. In order to assist the Town in determining whether the apparent low bidder meets this standard, the Town reserves the right to

require the apparent low bidder to submit the following:

To furnish to the Town, within 5 calendar days from the date of the request, a statement containing the following:

- a) a description (including project name, location and owner) of any competitively bid project on which the bidder submitted the low bid but was not awarded a contract, within the previous three (3) years;
- b) a current detailed financial statement showing assets, liabilities and net worth, net total billings and average backlogs or uncompleted work on outstanding contracts for each of the previous three (3) years;
- c) a list of officers and principals of the bidder's legal entity, and a list of all subsidiary or affiliated companies in which the bidders's principals have any financial interest;
- d) a description of any projects which the bidder or his/her predecessors failed to complete or any litigation in which the bidder has been involved in the previous three (3) years, including a list of project names, locations and owners;
- e) a list and description of all contracts completed by the bidder within the previous three (3) years;
- f) a list of at least three (3) project references (including project names, locations, owners, contact persons and telephone numbers) which included work similar in scope, complexity, and material value as this proposed project.

4. Preparation of Bids

Prepare the bid on the official Bid Form included in this document. Fill in all blank spaces legibly. The Bid Form must contain an original signature.

The bid must be accompanied by a certified check in the sum of five percent (5%) of the amount bid, payable to the order of Town of New Lebanon, or a bond with sufficient sureties, to be approved by the Town Attorney, in such amount, conditioned that if the bid is accepted, the bidder will enter into a contract for same and will provide acceptable security, in the form of cash, certified check or performance bonds, or letters of credit, as set forth in the contract documents.

5. Contract Cost Breakdown

All bidders shall complete the Bid Sheet provided in this package. A cost breakdown is provided to assess the responsibilities of the bid and compare major cost areas of materials for each bidder.

6. Basis of Payment

The Contractor will be paid on calendar month basis in arrears upon the submission of an invoice for the work completed.

7. Insurance

Simultaneously with the execution of the contract, the Contractor shall provide, at his/her own cost and expense, proof of the following insurance to the Town, in the form of a Certificate of Insurance:

- a) Statutory Worker's Compensation coverage, in compliance with the Compensation Law of the State of New York.
- b) General Liability Insurance coverage in the comprehensive general liability form, including blanket contractual coverage for the operation of the program under the Agreement in the amount of \$1,000,000.00 each occurrence and \$2,000,000.00 General Aggregate. The Town must be listed as additional insured.
- c) Automobile liability insurance coverage for all owned, leased, or non-owned vehicles in the amount of \$1,000,000 per occurrence. This insurance shall include coverage for bodily injury and property damage. The County must be listed as an additional insured.
- d) The Town reserves the right to require special form builder's risk insurance coverage for the completed value of all construction and structures placed or constructed under this Contract, at an additional cost to Owner. The Town must be listed as an additional insured.
- e) Owner's and Contractor's protective liability in favor of the Town in the amount of \$2,000,000.

Prior to cancellation or material charge in any policy, a thirty (30) day notice shall be given to the Town Clerk by registered mail, return receipt requested, at the address listed below:

Town of New Lebanon, NY
Marcie Robertson, Town Clerk
14755 Route 22 North
PO Box 328
New Lebanon, NY 12125

Upon receipt of such notice, the Town shall have the option to cancel the agreement without further expense or liability to the Town or to require the Contractor to replace the canceled insurance policy or rectify any material change in the policy or to purchase insurance coverage itself and charge-back the Contractor, so that the insurance coverage required is maintained continuously throughout the terms of the agreement in the form and substance acceptable to the Town. Failure of the Contractor to take out or maintain, or the taking out or maintenance of any required insurance shall not relieve the Contractor from any liability under the Contract, nor shall the insurance requirements be construed to conflict with the obligations of the Contractor concerning indemnification.

All property losses shall be made payable to and adjusted with the Town.

All insurance policies referred to above shall be underwritten by companies authorized to do business in the State of New York and acceptable to the Town.

In the event that claims in excess of these amounts are filed by reason on any operations under the agreement, the amount of excess of such claims or any portion thereof, may be withheld from payment due or to become due the Contractor until such time as the Contractor shall

furnish such additional security concerning such claims as may be determined by the Town.

BID FORM AND BID

TO: The Town Board of the Town of New Lebanon, NY

In compliance with the Notice To Bidders for the PLAYGROUND IMPROVEMENTS SHATFORD MEMORIAL PARK project in the Town's Municipal Public Park,

_____ proposes and agrees as follows:
(Printed Legal Company Name)

1. To furnish all the materials and services for the PLAYGROUND IMPROVEMENTS SHATFORD MEMORIAL PARK project in accordance with the price(s) so named in this bid in a workerlike manner, in accordance with the specifications, all of which are a part of the contract hereto annexed.
2. To complete (100% completion) the work at the specified completion date.
3. To furnish the Town, within five (5) calendar days from the date of the request, if identified as the apparent low bidder and is requested by the Town, a Statement of Qualifications as described in the Instructions To Bidders.
4. To enter into a contract within ten (10) calendar days from the date of acceptance of this bid.

In compliance with the Instructions to Bidders, the undersigned declares that he/she has examined the specifications and informed himself/herself fully in regard to all conditions pertaining to the materials and services required. He/She has examined the specifications for the materials and the contract documents relating thereto, has read all addenda furnished prior to the opening of bids, and has satisfied himself/herself relative to the work to be performed.

ADDENDA:

Receipt of the following addenda (if any) is hereby acknowledged:

	Date	Signature
ADDENDUM NO. 1	_____	_____
ADDENDUM NO. 2	_____	_____
ADDENDUM NO. 3	_____	_____

The bidder proposes to perform the work required in accordance with the Contract Documents and the price(s) listed under BASE BID, below.

Dated: _____, _____ 20 _____

SIGN BID HERE: _____
(Authorized Signature) (Title)

Legal Company Name: _____

Address: _____

City, State, Zip Code: _____

Telephone Number: _____

Federal I.D. Number: _____

BASE BID

Provide all necessary labor, materials, equipment, tools, supplies, etc. required for the PLAYGROUND IMPROVEMENTS SHATFORD MEMORIAL PARK project in the Town's Municipal Public Park, in accordance with all terms, conditions, provisions and the schedule in this solicitation. The contract shall be awarded, as a result of this solicitation, and will begin from the date of award. The Base Bid includes the following items only:

- All labor, materials, equipment, tools, supplies, etc. required for the Installation of the We-Go-Round and Sway Fun Glider new playground equipment.
- All labor, materials, equipment, tools, supplies, etc. required for the construction of the installation/placement/construction for the Fall Safety Surfacing and Subbase for same.
- All labor, materials, equipment, tools, supplies, etc. required for the Repairs to the Existing Playground Equipment.
- All labor, materials, equipment, tools, supplies, etc. required for the trails associated with and to the Playground.

The Town will be performing:

- Labor, materials, equipment, tools, supplies, etc. required for Earth Excavation for the Playground Area
- Labor, materials, equipment, tools, supplies, etc. required for the Accessible Parking Area

Base Bid Breakdown And Total Base Bid

Provide the Base Bid and Breakdown as indicated below:

Playground Fall Safety Surface	\$ _____	(words)	\$ _____	(numbers)
New Playground Equipment	\$ _____	(words)	\$ _____	(numbers)
Existing Playground Equipment Repairs	\$ _____	(words)	\$ _____	(numbers)

Trails \$ _____ \$ _____
 (words) (numbers)

Total Base Bid \$ _____ \$ _____
 (words) (numbers)

ADD ALTERNATES

The project has add alternates. In addition to the Base Bid, Bids are requested/required for specified portions of the Playground Improvements. What follows are the specified items identified as Add Alternates. The bid submitted for these items shall include all labor, materials, equipment, tools, supplies, etc. required for their construction/installation.

Add Alternate #	Description	Bid
1	Sign Language Panel (a sensory board)	\$ _____
2	Optigear Panel (a sensory board)	\$ _____
3	Kaleidospin Panel (a sensory board)	\$ _____
4	Ball Maze Panel (a sensory board)	\$ _____
5	Gear Panel (a sensory board)	\$ _____
6	Flowers (musical play)	\$ _____
7	Tuned Drums (musical play)	\$ _____
8	Chill Spinner (miscellaneous)	\$ _____
9	Climb and Discover Cave (active accessible play)	\$ _____
10	Wheel Thru Arcade (active accessible play)	\$ _____

CERTIFICATE OF NON-COLLUSION BY BIDDER

Section 103-d of the General Municipal Law requires every bid or proposal made to a political subdivision, or any public department, agency or official, where competitive bidding is required by statute, rule, regulation or local law, to contain a non-collusive bidding certification.

By submission of this bid, each bidder and each person signing on behalf of any bidder certifies, and in the case of a joint bid each party thereto certifies as to its own organization, under penalty of perjury, that to the best of their knowledge and belief:

1. The prices in this bid have been arrived at independently without collusion, consultation, communication, or agreement, for the purpose of restricting competition, as to any matter relating to such prices with any other bidder or with any competitor;
2. Unless otherwise required by law, the prices which have been quoted in this bid have not been knowingly disclosed by the bidder and will not knowingly be disclosed by the bidder prior to opening, directly or indirectly, to any other bidder or any competitor; and,
3. No attempt has been made or will be made by the bidder to induce any other person, partnership or corporation to submit or not to submit a bid for the purposed of restricting competition.

(Legal Name of Firm, Person or Corporation)

(Signature, Authorized Person)

(Title)

PERFORMANCE BOND

_____ as surety ("Surety"),
(Insert Proper Name of Surety)

and _____
(Insert Proper Name of Contractor)

as principal ("Contractor"), enter into, execute this bond ("Performance Bond"), and bind
themselves in favor of _____
(Insert Proper Name of Owner)

as obligee ("Owner") in the penal sum of \$ _____
(Insert Penal Sum)

as of the _____. This Penal Sum shall be deemed
(Insert Date of Construction Contract)

increased in the same amount that the contract price increases pursuant to change orders executed
by the Owner and Contractor (see the General Conditions of Contract).

WHEREAS, the Contractor has executed a contract with the Owner of even date herewith
("Construction Contract") for construction of _____

(Insert Description and Location of the Construction Project)

and,

WHEREAS, the Owner has required the Contractor to furnish this Performance Bond containing the
terms and conditions set forth herein as a condition to executing the Construction Contract with the
Contractor:

NOW THEREFORE, the Surety and the Contractor, both jointly and severally, and for themselves,
their heirs, administrators, executors and successors agree:

1. The Construction Contract is hereby incorporated herein and by reference made a part hereof to
the same extent and effect as though it were copied verbatim herein. The Surety and the
Contractor are bound for the full performance of the Construction Contract including without
exception all of its terms and conditions, both express and implied.
2. If the Contractor is in default of the Construction Contract and the Owner, by written notice to

the Contractor and the Surety, declares the Contractor to be in default and terminates the right of the Contractor to proceed, the Surety shall thereupon promptly notify the Owner in writing as to which of the actions permitted to the Surety in Paragraph 3 it will take.

3. Upon the default and termination of the Contractor and notice to the Contractor and Surety as provided in Paragraph 2 above, the Surety shall within 30 days proceed to take one or, at its option, more than one of the following courses of action:
 - a) Proceed itself, or through others acting on its behalf, to complete full performance of the Construction Contract including, without limitation, correction of defective and nonconforming work performed by or on behalf of the Contractor. During such performance by the Surety the Owner shall pay the Surety from its own funds only such sums as would have been due and payable to the Contractor in the absence of the default and termination;
 - b) Applicable law permitting, and with the prior written consent of the Owner, obtain bids or proposals from contractors previously identified as being acceptable to the Owner, for full performance of the Construction Contract. The Surety shall furnish the Owner a copy of such bids or proposals upon receipt of same. The Surety shall promptly select, with the agreement of the Owner, the best responsive bid or proposal and shall promptly tender the contractor submitting it together with a contract for fulfillment and completion of the Construction Contract executed by the completing contractor, to the Owner for the Owner's execution. Upon execution by the Owner of the contract for fulfillment and completion of the Construction Contract, the completing contractor shall furnish to the Owner a performance bond and a separate payment bond, each in the form of those bonds previously furnished to the Owner for the project by the Contractor. Each such bond shall be in the penal sum of the (1) fixed price for completion, (2) guaranteed maximum price for completion, or (3) estimated price for completion, whichever is applicable. The Owner shall pay the completing contractor from its own funds only such sums as would have been due and payable to the Contractor under the Construction Contract as and when they would have been due and payable to the Contractor in the absence of the default and termination. To the extent that the Owner is obligated to pay the completing contractor sums which would not have then been due and payable to the Contractor under the Construction Contract, the Surety shall provide the Owner with such sums in a sufficiently timely manner that the Owner can utilize such sums in making timely payment to the completing contractor; or,
 - c) Take any and all other acts, if any, mutually agreed upon in writing by the Owner and the Surety.
4. In addition to those duties set forth hereinabove, the Surety shall promptly pay the Owner all loss, costs and expenses resulting from the Contractor's default(s), including, without limitation, fees, expenses and costs for architects, engineers, consultants, testing, surveying and attorneys, liquidated or actual damages, as applicable, for delay in completion of the Project, and fees, expenses and costs incurred at the direction, request, or as a result of the acts of omissions of the Surety.
5. In no event shall the Surety be obligated to the Owner hereunder for any sum in excess of the Penal Sum.
6. The Surety waives notice of any changes to the Construction Contract including, without limitation, changes in the contract time, the contract price, or the work to be performed. The Contractor shall furnish separate performance and payment bonds to the Owner. Each bond

shall set forth a penal sum in an amount not less than the Contract Price. Each bond furnished by the Contractor shall incorporate by reference the terms of this Contract as fully as though they were set forth verbatim in such bonds. In the event the Contract Price is adjusted by Change Order executed by the Contractor, the penal sum of both performance bond and the payment bond shall be deemed increased by like amount. The performance and payment bonds as modified for any increase furnished by the Contractor shall be in form suitable to the Owner and shall be executed by a surety, or sureties, acceptable to the Owner. (See forms attached hereto.)

7. This performance bond is provided by the Surety for the sole and exclusive benefit of the Owner and, if applicable, any dual obligee designated by rider attached hereto, together with their heirs, administrators, executors, successors or assigns. No other party, person or entity shall have any rights against the Surety hereunder.
8. Any and all notices to the Surety, the Contractor or the Owner shall be given by Certified Mail, Return Receipt Requested, to the address set forth for each party below.

Surety: _____

Contractor: _____

Owner: _____

9. Any statutory limitation, which may be contractually superseded, to the contrary notwithstanding, any action hereon may be instituted so long as the applicable statute of limitations governing the Construction Contract has not run or expired.

Contractor

Surety

(Typed Name)

Seal

(Typed Name)

Seal

By: _____
(Signature)

By: _____
(Signature)

(Printed Name, Title and Address)

(Printed Name, Title and Address)

(Date of Execution)

(Date of Execution)

NOTES:

1. Date of Bond must not be prior to date of Contract.
2. If Contractor is a Partnership all partners should execute the bond.
3. Surety Companies executing Bonds must be authorized to do business in New York State and be approved by the Owner's attorney.
4. All bonds shall be in a form acceptable in all respects to the Owner's attorney and shall be approved by the Owner's attorney.

STATE of _____)

ss:

COUNTY of _____)

On this _____ day of _____, 20____,

On the day of _____, before me, the undersigned, a Notary Public in and for said State, personally appeared _____ personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

NOTARY PUBLIC

LABOR AND MATERIAL PAYMENT BOND

The form bound in this manual should be used. No other form of payment bond may be used except with prior approval of the Owner, after review by the County's Attorney, which approval may be granted or withheld, in the Owner's discretion.

The Contractor shall furnish separate performance and payment bonds to the Owner. Each bond shall set forth a penal sum in an amount not less than the Contract Price. Each bond furnished by the Contractor shall incorporate by reference the terms of this Contract as fully as though they were set forth verbatim in such bonds. In the event the Contract Price is adjusted by Change Order executed by the Contractor, the penal sum of both performance bond and the payment bond shall be deemed increased by like amount. The performance and payment bonds as modified for any increase furnished by the Contractor shall be in form suitable to the Owner and shall be executed by a surety, or sureties, acceptable to the Owner. (See forms attached hereto.)

LABOR AND MATERIAL PAYMENT BOND

_____, as surety ("Surety"),
(Insert Proper Name of Surety)

and _____
(Insert Proper Name of Contractor)

as principal ("Contractor"), enter into, execute this bond ("Payment Bond"), and bind themselves
in favor of _____
(Insert Proper Name of Owner)

as obligee ("Owner") in the penal sum of \$ _____,
(Insert Penal Sum)

as of the _____.
(Insert Date of Construction Contract)

WHEREAS, the Contractor has executed a contract with the Owner of even date herewith
("Construction Contract") for construction of _____

(Insert Description and Location of the Construction Project)

("PROJECT"); and,

WHEREAS, the Owner has required the Contractor to furnish this Payment Bond containing the terms
and conditions set forth herein as a condition to executing the Construction Contract with the
Contractor;

NOW THEREFORE, the Surety and the Contractor, both jointly and severally, and for themselves,
their heirs, administrators, executors and successors agree:

1. The Construction Contract is hereby incorporated herein and by reference made a part hereof to
the same extent and effect as though it were copied verbatim herein. The Surety and the
Contractor are bound for the full performance of the Construction Contract including without
exception of all its terms and conditions, both express and implied, and, without limitation,
specifically including Contractor's obligation to pay for labor, materials, services and equipment
provided in connection with the Construction Contract performance;
2. For purposes of this Payment Bond, Beneficiary is defined as a person or entity who has
actually provided labor, material, equipment, services or other items for use in furtherance of

the Construction Contract, and having:

- a) a direct contract with the Contractor; or
 - b) a direct contract with a subcontractor of the Contractor; or
 - c) rights, under the laws of the jurisdiction where the Project is located, to file a lien, a claim or notice of lien, or otherwise make a claim against the Project or against funds held by the Owner, if the Project is, or were, subject to such filing.
3. The Surety shall not be obligated hereunder to a Beneficiary other than a Beneficiary having a direct contract with the Contractor unless such Beneficiary has given written notice of its claim to the Contractor and the Surety within the longer of:
- a) ninety (90) days of after such Beneficiary provided labor, material, equipment, services or other items for use in furtherance of the Construction Contract; or,
 - b) the period of time provided by the jurisdiction wherein the Project is located for (1) filing of a lien, claim of lien, notice of lien, if the Project is, or were, subject to such filing, or (2) otherwise making a claim against the Project or against funds held by the Owner; stating the amount claimed and identifying, by name and address, the person or entity to whom such labor, material, equipment, services or other items were provided.
4. In no event shall the Surety be obligated hereunder for sums in excess of the Penal Sum. The Penal Sum shall be deemed increased by any amount by which the contract price increases by virtue of change order. See Article 5 of the General Conditions of Contract.
5. Upon receipt of a claim from a Beneficiary hereunder, the Surety shall promptly, and in no event later than 30 days after receipt of such claim, respond to such claim in writing (furnishing a copy of such response to the Owner) by:
- a) making payment of all sums not in dispute; and,
 - b) stating the basis for disputing any sums not paid.
6. No action shall be commenced by a Beneficiary hereunder after the passage of the longer of one (1) year following final completion of the Construction Contract or, if this bond is provided in compliance with applicable law, any limitation period provided therein. If the limitation period contained in this Paragraph is unenforceable, it shall be deemed amended to provide the minimum period for an action against the Surety on a payment bond by a third-party beneficiary thereof.
7. Any and all notices to the Surety or the Contractor shall be given by Certified Mail,
8. Return Receipt Requested, to the address set forth for each party below:

SURETY:

CONTRACTOR:

OWNER: _____

Contractor

Surety

(Typed Name) Seal

(Typed Name) Seal

By: _____
(Signature)

By: _____
(Signature)

(Printed Name, Title and Address)

(Printed Name, Title and Address)

(Date of Execution)

(Date of Execution)

NOTES:

1. Date of Bond must not be prior to date of Contract.
2. If Contractor is a Partnership all partners should execute the bond.
3. Surety Companies executing Bonds must be authorized to do business in New York State and be approved by the Owner's attorney.
4. All bonds shall be in a form acceptable in all respects to the Owner's attorney and shall be approved by the Owner's attorney.

STATE of _____)

ss:

COUNTY of _____)

On this _____ day of _____, 20____,

On the day of _____, before me, the undersigned, a Notary Public in and for

said State, personally appeared _____ personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

NOTARY PUBLIC

Standard Form of Agreement Between Owner and Contractor

Where the basis for payment is a STIPULATED SUM

AGREEMENT made as of the _____ day of _____ in the year 2025

BETWEEN the **Owner:** _____ and the **Contractor:** _____

Town of New Lebanon, NY
14755 Route 22 (PO Box 328)
New Lebanon, NY 12125

The Project is:

PLAYGROUND IMPROVEMENTS SHATFORD PARK
Contract 2025-XXX

Partially funded by the New York State Office of Parks, Recreation and Historic Preservation's Environmental Protection Fund Grant Program - Project #238307

The Design Professional is:

Paul S. McCreary, PE, Consulting Engineer, 22 Maxwell Street, Albany, NY 12208

The Owner and Contractor agree as follows:

ARTICLE 1 - THE CONTRACT DOCUMENTS

The Contract Documents consist of this Agreement, Conditions of the Contract (General, Supplementary and other Conditions), Drawings, Specifications, Addenda issued prior to execution of this Agreement, other documents listed in this Agreement and Modifications issued after execution of this Agreement; these form the Contract, and are as fully a part of the Contract as if attached to this Agreement or repeated herein. The Contract represents the entire and integrated agreement between the parties hereto and supersedes prior negotiations, representations or agreements, either written or oral. An enumeration of the Contract Documents, other than Modifications, appears in Article 10.

ARTICLE 2 - THE WORK OF THIS CONTRACT

The Contractor shall fully execute the Work described in the Contract Documents, except to the extent specifically indicated in the Contract Documents to be the responsibility of others.

ARTICLE 3 - RELATIONSHIP OF THE PARTIES

The Contractor accepts the relationship of trust and confidence established by this Agreement and covenants with the Owner to cooperate with the Design Professional and exercise the Contractor's skill and judgment in furthering the interests of the Owner; to furnish efficient

business administration and supervision; to furnish at all times an adequate supply of workers and materials; and to perform the Work in an expeditious and economical manner consistent with the Owner's interests. The Owner agrees to furnish and approve, in a timely manner, information required by the Contractor and to make payments to the Contractor in accordance with the requirements of the Contract Documents.

ARTICLE 4 - DATE OF COMMENCEMENT AND SUBSTANTIAL COMPLETION

The date of commencement of the Work shall be the date of this Agreement.

The date of completion of the Work shall be: June 12, 2024.

The Contractor shall achieve Substantial Completion of the entire Work by May 31, 2024

ARTICLE 5 - CONTRACT SUM

5.1 The Owner shall pay the Contractor in current funds for the Contractor's performance of the Contract. The Contract Sum shall be _____ Dollars (\$_____.00), subject to additions and deductions as provided in the Contract Documents.

5.2 The Contract Sum is based upon the Base Bid plus _____ alternates.

5.3 The Alternates are: # _____, # _____, # _____, and # _____,

ARTICLE 6 - CHANGES IN THE WORK

6.1 Adjustments to the Stipulated Sum on account of changes in the Work may be determined by approved changes/modification in the field or based upon design revision and handled as a Change Order.

6.2 Changes in the Work must be initiated and/or approved by the Owner prior to proceeding with any changes.

ARTICLE 7 - PAYMENTS

7.1 PROGRESS PAYMENTS

7.1.1 Based upon Applications for Payment submitted to the Design Professional by the Contractor and Certificates for Payment issued by the Design Professional, the Owner shall make progress payments on account of the Contract Sum to the Contractor as provided below and elsewhere in the Contract Documents.

7.1.2 The period covered by each Application for Payment shall be one calendar month ending on the last day of the month.

7.1.3 Owner shall make payment to the Contractor not later than the 25th day of the following month.

7.1.4 Each Application for Payment shall be based upon the schedule of values submitted by the Contractor. The schedule of values shall allocate the entire Contract Sum among the various portions of the Work and be prepared in such form and supported

by such data to substantiate its accuracy as the Design Professional may require. This schedule, unless objected to by the Design Professional, shall be used as a basis for reviewing the Contractor's Applications for Payment.

- 7.1.5 Applications for Payment shall indicate the percentage of completion of each portion of the Work as of the end of the period covered by the Application for Payment.
- 7.1.6 A retainage of 5% will be withheld from each Application for Payment. Retainage will be paid to the Contractor upon Project Completion.

7.2 FINAL PAYMENT

- 7.2.1 Final payment, constituting the entire unpaid balance of the Contract Sum, shall be made by the Owner to the Contractor when: The Contract has been fully performed by the Contractor except for the Contractor's responsibility to correct nonconforming Work and to satisfy other requirements, if any, which necessarily survive final payment; and, A final Certificate for Payment has been issued by the Design Professional.
- 7.2.2 The Owner's final payment to the Contractor shall be made no later than 30 days after the issuance of the Design Professional's final Certificate for Payment.

ARTICLE 8 - TERMINATION OR SUSPENSION

The Contract may be terminated at any time by the Owner.

The Work may be suspended by the Owner at any time.

The Contract can only be terminated by the Contractor for reasonable and just cause as determined by the Owner.

ARTICLE 9 - MISCELLANEOUS PROVISIONS

- 9.1 Payments due and unpaid under the Contract shall bear interest from the date payment is due at the rate stated below
 - 1.5% interest rate
- 9.2 The Contractor's representative is:
 - The noted Design Professional
- 9.3 Neither the Owner's nor the Contractor's representative shall be changed without ten days written notice to the other part.

ARTICLE 10 - ENUMERATION OF CONTRACT DOCUMENTS

- 10.1 The Contract Documents, except for Modifications issued after execution of this Agreement, are enumerated as follows:
 - 10.1.1 The Agreement is this executed Standard Form of Agreement Between Owner and Contractor.

10.1.2 The General, Supplementary and other Conditions of the Contract are those contained in the Construction Bid Request.

10.1.3 The addenda, if any.

10.2 Other documents, if any, forming part of the Contract Document are as follows:

Schedule A, Construction Bid Request (attached)

Schedule B, Bid Form and Bid, and, Certificate of Non-Collusion by Bidder (attached)

Schedule C, Insurance Certificates (attached)

Schedule D, Standard Clauses for New York State Contracts, Attachment A-1 (Agency Specific Terms and Conditions), Attachment A-2 (Program Specific Terms and Conditions) and Attachment A-3 (attached)

This Agreement is entered into as of the day and year first written above and is executed in at least four (4) original copies of which one is to be delivered to the Contractor, one to the Design Professional for use in the administration of the Contract, and the remainder to the Owner.

TOWN OF NEW LEBANON

CONTRACTOR

By: _____
Tistrya Houghtling
Town Supervisor

By: _____
Project Manager/Owner

Organization

STATE OF NEW YORK)
) ss.:
COUNTY OF)

On this _____ day of _____, 2024, before me, the undersigned, a Notary Public in and for said State, personally appeared TISTRYA HOUGHTLING, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that she executed the same in her capacity, and that by her signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

Notary Public – State of New York

APPENDIX A

STANDARD CLAUSES FOR NEW YORK STATE CONTRACTS

**PLEASE RETAIN THIS DOCUMENT
FOR FUTURE REFERENCE.**

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STANDARD CLAUSES FOR NYS CONTRACTS

The parties to the attached contract, license, lease, amendment or other agreement of any kind (hereinafter, "the contract" or "this contract") agree to be bound by the following clauses which are hereby made a part of the contract (the word "Contractor" herein refers to any party other than the State, whether a contractor, licensor, licensee, lessor, lessee or any other party):

1. EXECUTORY CLAUSE. In accordance with Section 41 of the State Finance Law, the State shall have no liability under this contract to the Contractor or to anyone else beyond funds appropriated and available for this contract.

2. NON-ASSIGNMENT CLAUSE. In accordance with Section 138 of the State Finance Law, this contract may not be assigned by the Contractor or its right, title or interest therein assigned, transferred, conveyed, sublet or otherwise disposed of without the State's previous written consent, and attempts to do so are null and void. Notwithstanding the foregoing, such prior written consent of an assignment of a contract let pursuant to Article XI of the State Finance Law may be waived at the discretion of the contracting agency and with the concurrence of the State Comptroller where the original contract was subject to the State Comptroller's approval, where the assignment is due to a reorganization, merger or consolidation of the Contractor's business entity or enterprise. The State retains its right to approve an assignment and to require that any Contractor demonstrates its responsibility to do business with the State. The Contractor may, however, assign its right to receive payments without the State's prior written consent unless this contract concerns Certificates of Participation pursuant to Article 5-A of the State Finance Law.

3. COMPTROLLER'S APPROVAL. In accordance with Section 112 of the State Finance Law, if this contract exceeds \$50,000 (or \$75,000 for State University of New York or City University of New York contracts for goods, services, construction and printing, and \$150,000 for State University Health Care Facilities) or if this is an amendment for any amount to a contract which, as so amended, exceeds said statutory amount, or if, by this contract, the State agrees to give

something other than money when the value or reasonably estimated value of such consideration exceeds \$25,000, it shall not be valid, effective or binding upon the State until it has been approved by the State Comptroller and filed in his office. Comptroller's approval of contracts let by the Office of General Services, either for itself or its customer agencies by the Office of General Services Business Services Center, is required when such contracts exceed \$85,000. Comptroller's approval of contracts established as centralized contracts through the Office of General Services is required when such contracts exceed \$125,000, and when a purchase order or other procurement transaction issued under such centralized contract exceeds \$200,000.

4. WORKERS' COMPENSATION BENEFITS. In accordance with Section 142 of the State Finance Law, this contract shall be void and of no force and effect unless the Contractor shall provide and maintain coverage during the life of this contract for the benefit of such employees as are required to be covered by the provisions of the Workers' Compensation Law.

5. NON-DISCRIMINATION REQUIREMENTS. To the extent required by Article 15 of the Executive Law (also known as the Human Rights Law) and all other State and Federal statutory and constitutional non-discrimination provisions, the Contractor will not discriminate against any employee or applicant for employment, nor subject any individual to harassment, because of age, race, creed, color, national origin, citizenship or immigration status, sexual orientation, gender identity or expression, military status, sex, disability, predisposing genetic characteristics, familial status, marital status, or domestic violence victim status or because the individual has opposed any practices forbidden under the Human Rights Law or has filed a complaint, testified, or assisted in any proceeding under the Human Rights Law. Furthermore, in accordance with Section 220-e of the Labor Law, if this is a contract for the construction, alteration or repair of any public building or public work or for the manufacture, sale or distribution of materials, equipment or supplies, and to the extent that this contract shall be performed within the State

of New York, Contractor agrees that neither it nor its subcontractors shall, by reason of race, creed, color, disability, sex, or national origin: (a) discriminate in hiring against any New York State citizen who is qualified and available to perform the work; or (b) discriminate against or intimidate any employee hired for the performance of work under this contract. If this is a building service contract as defined in Section 230 of the Labor Law, then, in accordance with Section 239 thereof, Contractor agrees that neither it nor its subcontractors shall by reason of race, creed, color, national origin, age, sex or disability: (a) discriminate in hiring against any New York State citizen who is qualified and available to perform the work; or (b) discriminate against or intimidate any employee hired for the performance of work under this contract. Contractor is subject to fines of \$50.00 per person per day for any violation of Section 220-e or Section 239 as well as possible termination of this contract and forfeiture of all moneys due hereunder for a second or subsequent violation.

6. WAGE AND HOURS PROVISIONS. If this is a public work contract covered by Article 8 of the Labor Law or a building service contract covered by Article 9 thereof, neither Contractor's employees nor the employees of its subcontractors may be required or permitted to work more than the number of hours or days stated in said statutes, except as otherwise provided in the Labor Law and as set forth in prevailing wage and supplement schedules issued by the State Labor Department. Furthermore, Contractor and its subcontractors must pay at least the prevailing wage rate and pay or provide the prevailing supplements, including the premium rates for overtime pay, as determined by the State Labor Department in accordance with the Labor Law. Additionally, effective April 28, 2008, if this is a public work contract covered by Article 8 of the Labor Law, the Contractor understands and agrees that the filing of payrolls in a manner consistent with Subdivision 3-a of Section 220 of the Labor Law shall be a condition precedent to payment by the State of any State approved sums due and owing for work done upon the project.

7. NON-COLLUSIVE BIDDING CERTIFICATION. In accordance with Section 139-d of the State Finance Law, if this contract was awarded based upon the submission of bids, Contractor affirms, under penalty of perjury, that its bid was arrived at independently

and without collusion aimed at restricting competition. Contractor further affirms that, at the time Contractor submitted its bid, an authorized and responsible person executed and delivered to the State a non-collusive bidding certification on Contractor's behalf.

8. INTERNATIONAL BOYCOTT PROHIBITION. In accordance with Section 220-f of the Labor Law and Section 139-h of the State Finance Law, if this contract exceeds \$5,000, the Contractor agrees, as a material condition of the contract, that neither the Contractor nor any substantially owned or affiliated person, firm, partnership or corporation has participated, is participating, or shall participate in an international boycott in violation of the federal Export Administration Act of 1979 (50 USC App. Sections 2401 et seq.) or regulations thereunder. If such Contractor, or any of the aforesaid affiliates of Contractor, is convicted or is otherwise found to have violated said laws or regulations upon the final determination of the United States Commerce Department or any other appropriate agency of the United States subsequent to the contract's execution, such contract, amendment or modification thereto shall be rendered forfeit and void. The Contractor shall so notify the State Comptroller within five (5) business days of such conviction, determination or disposition of appeal (2 NYCRR § 105.4).

9. SET-OFF RIGHTS. The State shall have all of its common law, equitable and statutory rights of set-off. These rights shall include, but not be limited to, the State's option to withhold for the purposes of set-off any moneys due to the Contractor under this contract up to any amounts due and owing to the State with regard to this contract, any other contract with any State department or agency, including any contract for a term commencing prior to the term of this contract, plus any amounts due and owing to the State for any other reason including, without limitation, tax delinquencies, fee delinquencies or monetary penalties relative thereto. The State shall exercise its set-off rights in accordance with normal State practices including, in cases of set-off pursuant to an audit, the finalization of such audit by the State agency, its representatives, or the State Comptroller.

10. RECORDS. The Contractor shall establish and maintain complete and accurate books, records, documents, accounts and other evidence directly pertinent to performance under this contract (hereinafter, collectively, the "Records"). The Records must be kept for the balance of the calendar year in which they were made and for six (6) additional years thereafter. The State Comptroller, the Attorney General and any other person or entity authorized to conduct an examination, as well as the agency or agencies involved in this contract, shall have access to the Records during normal business hours at an office of the Contractor within the State of New York or, if no such office is available, at a mutually agreeable and reasonable venue within the State, for the term specified above for the purposes of inspection, auditing and copying. The State shall take reasonable steps to protect from public disclosure any of the Records which are exempt from disclosure under Section 87 of the Public Officers Law (the "Statute") provided that: (i) the Contractor shall timely inform an appropriate State official, in writing, that said records should not be disclosed; and (ii) said records shall be sufficiently identified; and (iii) designation of said records as exempt under the Statute is reasonable. Nothing contained herein shall diminish, or in any way adversely affect, the State's right to discovery in any pending or future litigation.

11. IDENTIFYING INFORMATION AND PRIVACY NOTIFICATION. (a) Identification Number(s). Every invoice or New York State Claim for Payment submitted to a New York State agency by a payee, for payment for the sale of goods or services or for transactions (e.g., leases, easements, licenses, etc.) related to real or personal property must include the payee's identification number. The number is any or all of the following: (i) the payee's Federal employer identification number, (ii) the payee's Federal social security number, and/or (iii) the payee's Vendor Identification Number assigned by the Statewide Financial System. Failure to include such number or numbers may delay payment. Where the payee does not have such number or numbers, the payee, on its invoice or Claim for Payment, must give the reason or reasons why the payee does not have such number or numbers.

(b) Privacy Notification. (1) The authority to request the above personal information from a seller of goods or services or a lessor of real or personal property, and the authority to maintain such information, is found in Section 5 of the State Tax Law. Disclosure of this information by the seller or lessor to the State is mandatory. The principal purpose for which the information is collected is to enable the State to identify individuals, businesses and others who have been delinquent in filing tax returns or may have understated their tax liabilities and to generally identify persons affected by the taxes administered by the Commissioner of Taxation and Finance. The information will be used for tax administration purposes and for any other purpose authorized by law. (2) The personal information is requested by the purchasing unit of the agency contracting to purchase the goods or services or lease the real or personal property covered by this contract or lease. The information is maintained in the Statewide Financial System by the Vendor Management Unit within the Bureau of State Expenditures, Office of the State Comptroller, 110 State Street, Albany, New York 12236.

12. EQUAL EMPLOYMENT OPPORTUNITIES FOR MINORITIES AND WOMEN.

In accordance with Section 312 of the Executive Law and 5 NYCRR Part 143, if this contract is: (i) a written agreement or purchase order instrument, providing for a total expenditure in excess of \$25,000.00, whereby a contracting agency is committed to expend or does expend funds in return for labor, services, supplies, equipment, materials or any combination of the foregoing, to be performed for, or rendered or furnished to the contracting agency; or (ii) a written agreement in excess of \$100,000.00 whereby a contracting agency is committed to expend or does expend funds for the acquisition, construction, demolition, replacement, major repair or renovation of real property and improvements thereon; or (iii) a written agreement in excess of \$100,000.00 whereby the owner of a State assisted housing project is committed to expend or does expend funds for the acquisition, construction, demolition, replacement, major repair or renovation of real property and improvements thereon for such project, then the following shall

apply and by signing this agreement the Contractor certifies and affirms that it is Contractor's equal employment opportunity policy that:

(a) The Contractor will not discriminate against employees or applicants for employment because of race, creed, color, national origin, sex, age, disability or marital status, shall make and document its conscientious and active efforts to employ and utilize minority group members and women in its work force on State contracts and will undertake or continue existing programs of affirmative action to ensure that minority group members and women are afforded equal employment opportunities without discrimination. Affirmative action shall mean recruitment, employment, job assignment, promotion, upgradings, demotion, transfer, layoff, or termination and rates of pay or other forms of compensation;

(b) at the request of the contracting agency, the Contractor shall request each employment agency, labor union, or authorized representative of workers with which it has a collective bargaining or other agreement or understanding, to furnish a written statement that such employment agency, labor union or representative will not discriminate on the basis of race, creed, color, national origin, sex, age, disability or marital status and that such union or representative will affirmatively cooperate in the implementation of the Contractor's obligations herein; and

(c) the Contractor shall state, in all solicitations or advertisements for employees, that, in the performance of the State contract, all qualified applicants will be afforded equal employment opportunities without discrimination because of race, creed, color, national origin, sex, age, disability or marital status.

Contractor will include the provisions of "(a), (b) and (c)" above, in every subcontract over \$25,000.00 for the construction, demolition, replacement, major repair, renovation, planning or design of real property and improvements thereon (the "Work") except where the Work is for the beneficial use of the Contractor. Section 312 does not apply to: (i) work, goods or services unrelated to this contract; or (ii) employment outside New

York State. The State shall consider compliance by a contractor or subcontractor with the requirements of any federal law concerning equal employment opportunity which effectuates the purpose of this clause. The contracting agency shall determine whether the imposition of the requirements of the provisions hereof duplicate or conflict with any such federal law and if such duplication or conflict exists, the contracting agency shall waive the applicability of Section 312 to the extent of such duplication or conflict. Contractor will comply with all duly promulgated and lawful rules and regulations of the Department of Economic Development's Division of Minority and Women's Business Development pertaining hereto.

13. CONFLICTING TERMS. In the event of a conflict between the terms of the contract (including any and all attachments thereto and amendments thereof) and the terms of this Appendix A, the terms of this Appendix A shall control.

14. GOVERNING LAW. This contract shall be governed by the laws of the State of New York except where the Federal supremacy clause requires otherwise.

15. LATE PAYMENT. Timeliness of payment and any interest to be paid to Contractor for late payment shall be governed by Article 11-A of the State Finance Law to the extent required by law.

16. NO ARBITRATION. Disputes involving this contract, including the breach or alleged breach thereof, may not be submitted to binding arbitration (except where statutorily authorized), but must, instead, be heard in a court of competent jurisdiction of the State of New York.

17. SERVICE OF PROCESS. In addition to the methods of service allowed by the State Civil Practice Law & Rules ("CPLR"), Contractor hereby consents to service of process upon it by registered or certified mail, return receipt requested. Service hereunder shall be complete upon Contractor's actual receipt of process or upon the State's receipt of the return thereof by the United States Postal Service as refused or undeliverable. Contractor must promptly notify

the State, in writing, of each and every change of address to which service of process can be made. Service by the State to the last known address shall be sufficient. Contractor will have thirty (30) calendar days after service hereunder is complete in which to respond.

18. PROHIBITION ON PURCHASE OF TROPICAL HARDWOODS. The Contractor certifies and warrants that all wood products to be used under this contract award will be in accordance with, but not limited to, the specifications and provisions of Section 165 of the State Finance Law, (Use of Tropical Hardwoods) which prohibits purchase and use of tropical hardwoods, unless specifically exempted, by the State or any governmental agency or political subdivision or public benefit corporation. Qualification for an exemption under this law will be the responsibility of the contractor to establish to meet with the approval of the State.

In addition, when any portion of this contract involving the use of woods, whether supply or installation, is to be performed by any subcontractor, the prime Contractor will indicate and certify in the submitted bid proposal that the subcontractor has been informed and is in compliance with specifications and provisions regarding use of tropical hardwoods as detailed in § 165 State Finance Law. Any such use must meet with the approval of the State; otherwise, the bid may not be considered responsive. Under bidder certifications, proof of qualification for exemption will be the responsibility of the Contractor to meet with the approval of the State.

19. MACBRIDE FAIR EMPLOYMENT PRINCIPLES. In accordance with the MacBride Fair Employment Principles (Chapter 807 of the Laws of 1992), the Contractor hereby stipulates that the Contractor either (a) has no business operations in Northern Ireland, or (b) shall take lawful steps in good faith to conduct any business operations in Northern Ireland in accordance with the MacBride Fair Employment Principles (as described in Section 165 of the New York State Finance Law), and shall permit independent monitoring of compliance with such principles.

20. OMNIBUS PROCUREMENT ACT OF 1992. It is the policy of New York State to maximize opportunities for the participation of New York State business enterprises, including minority- and women-owned business enterprises as bidders, subcontractors and suppliers on its procurement contracts.

Information on the availability of New York State subcontractors and suppliers is available from:

NYS Department of Economic
Development
Division for Small Business and
Technology Development
625 Broadway
Albany, New York 12245
Telephone: 518-292-5100

A directory of certified minority- and women-owned business enterprises is available from:

NYS Department of Economic
Development
Division of Minority and Women's
Business Development
633 Third Avenue 33rd Floor
New York, NY 10017
646-846-7364
Email: <mailto:mwbebusinessdev@esd.ny.gov>
<https://ny.newnycontracts.com/FrontEnd/searchcertifieddirectory.asp>

[com/FrontEnd/searchcertifieddirectory.asp](https://ny.newnycontracts.com/FrontEnd/searchcertifieddirectory.asp)

The Omnibus Procurement Act of 1992 (Chapter 844 of the Laws of 1992, codified in State Finance Law § 139-i and Public Authorities Law § 2879(3)(n)-(p)) requires that by signing this bid proposal or contract, as applicable, Contractors certify that whenever the total bid amount is greater than \$1 million:

(a) The Contractor has made reasonable efforts to encourage the participation of New York State Business Enterprises as suppliers and subcontractors, including certified minority- and women-owned business enterprises, on this project, and has retained the documentation of these efforts to be provided upon request to the State;

(b) The Contractor has complied with the Federal Equal Opportunity Act of 1972 (P.L. 92-261), as amended;

(c) The Contractor agrees to make reasonable efforts to provide notification to New York State residents of employment opportunities on this project through listing any such positions with the Job Service Division of the New York State Department of Labor, or providing such notification in such manner as is consistent with existing collective bargaining contracts or agreements. The Contractor agrees to document these efforts and to provide said documentation to the State upon request; and

(d) The Contractor acknowledges notice that the State may seek to obtain offset credits from foreign countries as a result of this contract and agrees to cooperate with the State in these efforts.

21. RECIPROCITY AND SANCTIONS

PROVISIONS. Bidders are hereby notified that if their principal place of business is located in a country, nation, province, state or political subdivision that penalizes New York State vendors, and if the goods or services they offer will be substantially produced or performed outside New York State, the Omnibus Procurement Act 1994 and 2000 amendments (Chapter 684 and Chapter 383, respectively, codified in State Finance Law § 165(6) and Public Authorities Law § 2879(5)) require that they be denied contracts which they would otherwise obtain. NOTE: As of May 2023, the list of discriminatory jurisdictions subject to this provision includes the states of South Carolina, Alaska, West Virginia, Wyoming, Louisiana and Hawaii.

22. COMPLIANCE WITH BREACH NOTIFICATION AND DATA SECURITY LAWS.

Contractor shall comply with the provisions of the New York State Information Security Breach and Notification Act (General Business Law §§ 899-aa and 899-bb and State Technology Law § 208).

23. COMPLIANCE WITH CONSULTANT DISCLOSURE LAW.

If this is a contract for consulting services, defined for purposes of this requirement to include analysis, evaluation, research, training, data processing, computer programming, engineering, environmental, health, and mental health services, accounting, auditing,

paralegal, legal or similar services, then, in accordance with Section 163 (4)(g) of the State Finance Law (as amended by Chapter 10 of the Laws of 2006), the Contractor shall timely, accurately and properly comply with the requirement to submit an annual employment report for the contract to the agency that awarded the contract, the Department of Civil Service and the State Comptroller.

24. PROCUREMENT LOBBYING. To the extent this agreement is a "procurement contract" as defined by State Finance Law §§ 139-j and 139-k, by signing this agreement the contractor certifies and affirms that all disclosures made in accordance with State Finance Law §§ 139-j and 139-k are complete, true and accurate. In the event such certification is found to be intentionally false or intentionally incomplete, the State may terminate the agreement by providing written notification to the Contractor in accordance with the terms of the agreement.

25. CERTIFICATION OF REGISTRATION TO COLLECT SALES AND COMPENSATING USE TAX BY CERTAIN STATE CONTRACTORS, AFFILIATES AND SUBCONTRACTORS.

To the extent this agreement is a contract as defined by Tax Law § 5-a, if the contractor fails to make the certification required by Tax Law § 5-a or if during the term of the contract, the Department of Taxation and Finance or the covered agency, as defined by Tax Law § 5-a, discovers that the certification, made under penalty of perjury, is false, then such failure to file or false certification shall be a material breach of this contract and this contract may be terminated, by providing written notification to the Contractor in accordance with the terms of the agreement, if the covered agency determines that such action is in the best interest of the State.

26. IRAN DIVESTMENT ACT. By entering into this Agreement, Contractor certifies in accordance with State Finance Law § 165-a that it is not on the "Entities Determined to be Non-Responsive Bidders/Offerers pursuant to the New York State Iran Divestment Act of 2012"

Contract Number:#

Page 8 of 9, Contract for Grants – Appendix A

January 2024

("Prohibited Entities List") posted at:
<https://ogs.ny.gov/iran-divestment-act-2012>

Contractor further certifies that it will not utilize on this Contract any subcontractor that is identified on the Prohibited Entities List. Contractor agrees that should it seek to renew or extend this Contract, it must provide the same certification at the time the Contract is renewed or extended. Contractor also agrees that any proposed Assignee of this Contract will be required to certify that it is not on the Prohibited Entities List before the contract assignment will be approved by the State.

During the term of the Contract, should the state agency receive information that a person (as defined in State Finance Law § 165-a) is in violation of the above-referenced certifications, the state agency will review such information and offer the person an opportunity to respond. If the person fails to demonstrate that it has ceased its engagement in the investment activity which is in violation of the Act within 90 days after the determination of such violation, then the state agency

shall take such action as may be appropriate and provided for by law, rule, or contract, including, but not limited to, imposing sanctions, seeking compliance, recovering damages, or declaring the Contractor in default.

The state agency reserves the right to reject any bid, request for assignment, renewal or extension for an entity that appears on the Prohibited Entities List prior to the award, assignment, renewal or extension of a contract, and to pursue a responsibility review with respect to any entity that is awarded a contract and appears on the Prohibited Entities list after contract award.

27. ADMISSIBILITY OF REPRODUCTION OF CONTRACT.

Notwithstanding the best evidence rule or any other legal principle or rule of evidence to the contrary, the Contractor acknowledges and agrees that it waives any and all objections to the admissibility into evidence at any court proceeding or to the use at any examination before trial of an electronic reproduction of this contract, in the form approved by the State Comptroller, if such approval was required, regardless of whether the original of said contract is in existence.

**ATTACHMENT A-1
AGENCY SPECIFIC TERMS AND CONDITIONS**

- A. Notice.** For purposes of notice as contained in this State of New York Contract for Grants (Contract), Standard Terms and Conditions, Section I(G):
1. The **State's designee** shall be the STATE AGENCY identified on the Face Page. Document submission and inquiries should be directed to the designated STATE AGENCY representative.
 2. The **Contractor's designee** shall be the CONTRACTOR NAME at the CONTRACTOR PRIMARY MAILING ADDRESS, as identified on the Face Page.
- B. Payment** shall be made to the NYS Vendor ID Number at the CONTRACTOR PAYMENT ADDRESS identified on the Face Page.
- C. Changes to Budget and Program Work Plan.** Changes shall not be made in the work described in Attachment C (Work Plan) or the proposed expenditure of funds as shown in Attachment B (Budget), without the prior written approval of the State. Such approval will be granted if the changes are not substantive and do not alter the scope, intent or basic elements of the contract. Changes in the Work Plan or Budget that are substantive or alter the scope, intent or basic elements of the contract, if agreed to by the State, will be implemented by an amendment that may require approval and filing with the New York Attorney General Contract Approval Unit (AG) and the Office of the State Comptroller (OSC or State Comptroller), per Section I(D) of this Contract.
- D.** It is the Contractor's responsibility, pursuant to Sections 57 and 220 (8) of the Workers' Compensation Law, to maintain for State audit and review either proof that they have **Workers' Compensation and Disability Benefits Insurance** coverage for any employees, or proof of exemption from the New York State Workers' Compensation Board. The Contractor must also obtain from any contractor or subcontractor hired to provide a service pursuant to this Contract, similar proof or waivers from the contractor or subcontractor, and must maintain such documentation on file for audit.
- E. Non-Discrimination:**
1. If the project involves development or acquisition of public facilities, the Contractor shall not limit access or discriminate in the operation of the facilities on the basis of place of residence, race, creed, color, national origin, sex, age, disability or marital status.
 2. The Contractor agrees to comply with all applicable Federal, State, and local Civil Rights and Human Rights laws with reference to equal employment opportunities and the provisions of service.
- F. Termination.** In addition to the options available to the State in the Contract, in the event the Contractor fails to comply with its terms and conditions regarding completion of the project, the State at its option may require the Contractor to bring the project to a point of educational/interpretive, historical, recreational or conservation usefulness as determined by the State.
- G.** Documents submitted to the State may be subject to disclosure under the **Freedom of Information Law**.
- H. Non-Sectarian Purposes.** The Contractor agrees that funds made available as shown in Attachment B will only be used to achieve the intended public benefit and will not be used for any sectarian purposes.

I. Archeology. In the event of any unanticipated archeological discoveries, the Contractor shall stop all work and notify the State immediately. Work shall not resume until the State determines how any previously undiscovered archeological remains will be treated. Special attention shall be given to any discovery of burials, graves, or human remains.

J. Preservation of Historic Properties. It is the public policy and in the public interest of the State to preserve New York's historical, archeological, architectural and cultural heritage. All activities under this Contract shall be reviewed under either Section 106 of the National Historic Preservation Act or Section 14.09 of the New York State Parks, Recreation and Historic Preservation Law to ensure that adverse effects or impacts on significant properties are avoided or mitigated. Any work that affects historic properties shall conform to The Secretary of the Interior's Standards for the Treatment of Historic Properties 1995, The Secretary of the Interior's Standards and Guidelines for Archeological Documentation or any other applicable Secretary of the Interior's Standards (collectively referenced as STANDARDS), which are available from the State.

K. Post-Completion Requirements. Where the project involves acquisition of equipment or acquisition of or improvement of real property, the Contractor shall be responsible for maintaining and operating the equipment, property, and/or improvements; providing public access; maintaining public signage related to the project; and seeking any required State approvals. The State shall have the right and responsibility to inspect the project and property for compliance.

L. Construction Requirements. If the Project described in this Contract includes construction, the following shall apply:

1. Contract plans, specifications, and cost estimates shall be submitted to the State for review prior to the letting of any construction contract by the Contractor. The State shall verify that the plans, specifications and cost estimates are in conformance with the work described in Attachment B and shall so notify the Contractor in writing; the State shall further verify that appropriate documents have been prepared by a professional licensed to practice in the State of New York. All plans and specifications as reviewed shall become part of this Contract, and no change or revision may be made to such plans and specifications without the express written consent of the State.
2. The Contractor shall be responsible for assuring that the project is designed and constructed in conformance with the Uniform Federal Accessibility Standards (UFAS Appendix A to 41 CFR part 101 19.6), the Americans with Disabilities Act Accessibility Guidelines (ADAAG Appendix A to 28 CFR part 36) and the New York State Uniform Fire Prevention and Building (I) (Code (parts 1219 1228 of Title 19 NYCRR). Where there are discrepancies among the sets of standards with regard to a particular design/construction requirement, the one providing for the greatest degree of accommodation for the disabled shall apply.
3. It is the Contractor's responsibility to assure that all work on the project complies with the State Environmental Quality Review Act, receives all required permits in advance, and complies with all applicable Federal, State and/or local laws including, but not limited to, zoning ordinances and building codes.

M. At the discretion of the State, an **Agreed Upon Procedure Review** may be required of the grant performed by a representative of the STATE or a certified public accountant procured by the STATE or the CONTRACTOR currently licensed by the NYS Board of Public Accountancy, in accordance with attestation standards established by the American Institute of Certified Public Accountants and in accordance with Government Auditing Standards issued by the Comptroller General of the United States of America to the satisfaction of the STATE.

- N. The State may make **periodic inspections** of the project both during its implementation and after its completion to assure compliance with this Contract. The Contractor shall allow the State unrestricted access to work during the preparation and progress of the work and provide for such access and inspection by the State in all construction contracts relating to the project.
- O. **Department of Labor Public Work Contractor Registry.** Effective December 30, 2024, all contractors and subcontractors submitting bids or performing construction work on public work projects or private projects covered by Article 8 of the Labor Law are required to register with the New York State Department of Labor under Labor Law Section 220-i. Private projects subject to Article 8 of the Labor Law include those covered by Labor Law Sections 224-a (public subsidy funded projects), 224-d (renewable energy systems), 224-e (broadband projects), 224-f (climate risk-related and energy transition projects, and roadway excavations). A Certificate of Registration with a unique registration number will be issued to the applicant electronically through the Contractor Registry portal. A digital copy of the certificate must be submitted with bid submission or bidder may be found to be non-responsive. Contractors are responsible for verifying that any subcontractors they work with are registered. Please refer to this website for information: <https://dol.ny.gov/contractor-and-subcontractor-landing>. The registration login page is found here: [Log In - Management System for Protecting Workers' Rights](#).

ATTACHMENT A-2
PROGRAM SPECIFIC TERMS AND CONDITIONS
ENVIRONMENTAL PROTECTION FUND

- A.** Funding for this project is provided pursuant to the terms of the Environmental Protection Act, Title 9 of Article 54 of the Environmental Conservation Law and governed by the Rules and Regulations set forth in 9 NYCRR Sections 439-443.
- B. Procurement:** All goods and services required for this project must be procured in a manner so as to assure the prudent and economical use of grant moneys, to facilitate the acquisition of goods and services of maximum quality at the lowest possible cost under the circumstances, and to guard against nepotism, favoritism, improvidence, extravagance, fraud and corruption.
1. If the Contractor is subject to General Municipal Law, documentation of the Contractor's compliance with the procurement and bidding requirements of General Municipal Law shall be included with the applicable request for reimbursement.
 2. If the total amount of the goods or services is less than the dollar threshold for competitive bidding, as outlined in section 103 of General Municipal Law, or if the Contractor is not subject to General Municipal Law, the Contractor must follow procurement procedures designed to achieve the purpose of this clause. Such procedures may include, but are not limited to, competitive bidding, the solicitation of three price quotes, written requests for proposals, etc. When submitting a request for reimbursement, the Contractor must include a copy of the organizational procurement policy applicable to the relevant expenditures and/or documentation of the specific procurement process used for those expenditures.
- C. Retroactive funding.** Notwithstanding the provisions of Section A (2) of the Attachment D: Payment and Reporting of this State of New York Contract for Grants ("Contract"), program regulations set forth in 9 NYCRR 440.5 (Project sponsor's match) permit retroactive reimbursement of certain expenses, when those expenses are included in the project Budget.
- D. Project Sign.** At the commencement of the work described in the Work Plan, the Contractor shall erect a sign at the project site noting the State's assistance to the project. The project sign specifications and term length for this requirement are set forth in Attachment E (Special Conditions and Requirements).
- E. Public Benefit Requirements.**
1. In order to ensure a public benefit accrues from an acquisition, development or construction project that is being funded the Contractor shall:
 - a. Afford the public reasonable access to or use of the project as specified by the State;
 - b. Include a provision that no rule or regulation of a municipality shall restrict the use of, or access to, a project by non-residents of the municipality;
 - c. Not impose a fee for use of or access to the project without the prior written approval of the State;
 - d. Own or hold by lease or maintain and operate the project as specified by the State;
 - e. Not allow operation of the project, or any portion thereof, by any other person, entity, or organization pursuant to any management agreement, license or other arrangement without first obtaining the written approval of the State;

- f. Not alter, demolish, sell, lease or otherwise convey the project, in whole or in part, or permit a change in use of the project, without the prior written approval of the State; and
 - g. Submit all plans in writing for restoration, rehabilitation, improvement, demolition or other physical change to the completed project for State approval before work commences.
2. Other public benefit requirements specific to this project, including the term length of any property restriction (e.g., preservation covenant or public access covenant) and the legal mechanism for enforcing the restriction as specified by the State are set forth in Attachment E (Special Conditions and Requirements).
 3. Parkland acquired or improved by a municipality shall not be sold, leased, exchanged or otherwise disposed of (collectively, “disposed of”) or converted to other than public park purposes without the express authority of an act of the Legislature, which shall provide for the substitution of other land of equal environmental value and fair market value and reasonably equivalent usefulness and location to those to be discontinued, sold or disposed of, and such other additional requirements as shall be required by the State.
 4. Land acquired for recreation or conservation purposes by a not-for-profit organization shall be subject to a conservation easement (see, Title 3 of Article 49 of the Environmental Conservation Law) to be held by the State. Parkland shall not be disposed of by the not-for-profit organization except to the State, a local government unit or another qualifying tax-exempt not-for-profit organization that shall be required to use it for recreation or conservation purposes. Disposal to any other entity of parkland acquired for recreation or conservation purposes by a not-for-profit corporation shall require the express authority of an act of the Legislature.

F. Planning Requirements.

1. All planning documents, plans and specifications must be accepted by the State before the Contractor awards contracts for the project or the subject property. These must be prepared by a qualified professional accepted by the State.
 2. Any documents developed under this Contract shall include recognition of funding through the Environmental Protection Fund from the Office of Parks, Recreation and Historic Preservation.
- G.** In the case that this grant involves **State-owned land**, the grant recipient shall have in place a current, approved agreement with the agency of jurisdiction that specifies compliance for the elements funded with this grant as set forth in all Attachments included as part of this Contract.

ATTACHMENT A-3

DEPARTMENT OF LABOR PUBLIC WORK CONTRACTOR REGISTRY

Department of Labor Public Work Contractor Registry. Effective December 30, 2024, all contractors and subcontractors submitting bids or performing construction work on public work projects or private projects covered by Article 8 of the Labor Law are required to register with the New York State Department of Labor under Labor Law Section 220-i. Private projects subject to Article 8 of the Labor Law include those covered by Labor Law Sections 224-a (public subsidy funded projects), 224-d (renewable energy systems), 224-e (broadband projects), 224-f (climate risk-related and energy transition projects, and roadway excavations). A Certificate of Registration with a unique registration number will be issued to the applicant electronically through the Contractor Registry portal. A digital copy of the certificate must be submitted with bid submission or bidder may be found to be non-responsive. Contractors are responsible for verifying that any subcontractors they work with are registered. Please refer to this website for information: <https://dol.ny.gov/contractor-and-subcontractor-landing>. The registration login page is found here: [Log In - Management System for Protecting Workers' Rights](#).

PREVAILING WAGE RATES

APPENDICES

Specifications

SECTION 011000

SUMMARY

PART 1 - GENERAL

1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

2 SUMMARY

- A. Section includes:
 - 1. Project Information
 - 2. Work covered by Contract Documents
 - 3. Access to site
 - 4. Coordination with occupants/owner
 - 5. Work restrictions
 - 6. Specification and drawing conventions
 - 7. Miscellaneous provisions

3 PROJECT INFORMATION

- A. Project Identification: Walking Trails Construction Throughout Shatford Park
 - 1. Project Location: Town Municipal Park, Town of New Lebanon, NY (behind the Town Hall on NY 22).
- B. Owner: Town of New Lebanon
 - 1. Owner's Representative: Paul S. McCreary, PE (518) 248-0712
- C. Engineer: Paul S. McCreary, PE, Consulting Engineer, 22 Maxwell Street, Albany, NY 12208, (518) 248-0712.

4 WORK COVERED BY CONTRACT DOCUMENTS

- A. The Work of the Project is defined by the Contract Documents and consists, generally, of the following:
 - 1. Excavation/Fill required for the playground area construction,
 - 2. Construction of playground associated trails,

3. Purchase, assembly and installation of outdoor playground equipment with safety surface,
4. Fence construction,
5. Existing tree protection,
6. Existing fence removal

B. Type of Contract

1. This is a single contract and is a lump sum price.

5 ACCESS TO THE SITE

A. A. General: Contractor's use of the premises is limited only by Owner's right to perform work or to conduct regular business at the location.

1. Driveways and Entrances: Keep access driveways and entrances serving the premises clear and available to Owner, Owner's employees, Town Park Users/Visitors and, Emergency vehicles at all times. Do not use these areas for the storage of materials or for parking.1.

6 COORDINATION WITH OCCUPANTS

A. Owner Occupancy: Owner will occupy the premises during the entire construction period, with the exception of the areas under construction. Cooperate with Owner during construction operations to minimize conflicts and facilitate Owner usage. Perform the Work so as not to interfere with Owner's operations.

1. Maintain access to existing walkways, corridors, and other adjacent occupied or used facilities. Do not obstruct walkways, corridors or other occupied or used facilities without written permission from the Owner and authorities having jurisdiction.
2. Provide not less than 72 hour notice to Owner of activities that will affect Owner's operations.
3. It is imperative that the existing security system remain functional and unaffected by the work/construction. It is the responsibility of the Contractor to protect and not affect the existing security system.3.

7 WORK RESTRICTIONS

A. Work Restrictions, General: Comply with restrictions on construction operations.

1. Comply with limitations on use of public streets and with other requirements of authorities having jurisdiction.

B. Construction Time Frame: The Contractor shall enter into a contract near the end of 2025 and the project must be started as soon as is possible in 2025 and must be

completed by June 9, 2026.

- C. On-Site Work Hours: Work shall generally be performed during normal business working hours of 7:00 am to 7:00 pm, Monday through Friday, and no work shall be performed on Town Holidays or Sundays, unless otherwise agreed to by the Owner. Work on Saturdays is allowed and at the option of the Contractor.
- D. Existing Utility Interruptions: Do not interrupt utilities serving facilities occupied by the Owner or others unless permitted under the following conditions and then only after providing temporary utility services according to requirements indicated:
 - 1. Notify Owner not less than two (2) days in advance of proposed utility interruptions.
 - 2. Obtain Owner's written permission before proceeding with utility interruption.
- E. Noise, Vibration and Odors: Coordinate operations that may result in high levels of noise, vibration, odor or other disruption with Owner.
- F. Controlled Substances: Use of tobacco products and other controlled substances on Project Site is not permitted. Smoking is not permitted within the Park.F.

8 SPECIFICATIONS AND DRAWING CONVENTIONS

- A. A. Specification Content: The Specifications use certain conventions for the style of language and the intended meaning of certain terms, works and phrases when used in particular situations. These conventions are as follows:
 - 1. Imperative mood and streamlined language are generally used in the Specifications. The words “shall”, “shall be”, or “shall comply with”, depending on the context, are implied where a colon (:) is used within a sentence or phrase.
 - 2. Specification requirements are to be performed by the Contractor unless specifically stated otherwise.
- B. Drawing Coordination: Requirements for materials and products identified on Drawings are described in detail in the Specifications. One or more of the following are used on Drawings to identify materials and products:
 - 1. Terminology: Generally, materials and products are identified by the typical generic terms used in the individual Specification Sections.
 - 2. Abbreviations: Materials and products are identified by abbreviations and scheduled on Drawings.
 - 3. Where materials are identified on drawing schedules, they are specified by manufacturer, and equipment model numbers. These are to be considered as the “specified standard” and shall serve to establish a standard to type,

dimension, quality and operational characteristics for such equipment. Alternate equipment and material may be substituted with the Owner's approval. Any additional material or work incurred as a result of using alternate equipment shall be paid for by the Contractor.

4. Keynoting: Materials and products are identified by reference keynotes referencing Specification Section numbers found in this Project Manual.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION

SECTION 011100

SAFETY

PART 1 - GENERAL

1 RELATED DOCUMENTS

- A. Summary of the Work: Section 011000.

2 SUMMARY

- A. This section requires compliance with applicable Safety codes, standards, and regulations, including but not limited to OSHA, Building Code of New York State, Fire Code of New York State, and Facility Regulations.1.1.2.B.

3 DEFINITIONS, ABBREVIATIONS

- A. OSHA: Occupational Safety and Health Administration.
- B. BCNYS: Building Code of New York State.
- C. EBCNYS: Existing Building Code of New York State.
- D. FCNYS: Fire Code of New York State.
- E. NFPA: National Fire Protection Association.
- F. NEC: NFPA 70E.

4 SUBMITTALS

- A. Provide a SITE SPECIFIC SAFETY PLAN no later than 15 days after approval of the Contract by the Comptroller. Must include cover page with appropriate project dates, competent personnel with roles/responsibilities, implementing appropriate PPE, proper work attire, hazard protection, the identification of specific hazards, the safety inspection program, a program for providing proper care for injured employees, an emergency plan, and accident reporting.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION

SECTION 015000

TEMPORARY FACILITIES AND CONTROLS

PART 1 - GENERAL

1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

2 SUMMARY

- A. Section includes requirements for temporary utilities, support facilities, and security and protection facilities.

3 USE CHARGES

- A. General: Cost or use charges for temporary facilities shall be included in the Contract Sum. Allow other entities to use temporary services and facilities without cost, including, but not limited to, Engineer, testing agencies, and authorities having jurisdiction.
- B. Water Service: There is water available near the construction site and are Owner owned. Should the Owner allow the Contractor access and use of the water service, it may be used. If not, the Contractor will be responsible for obtaining required water.
- C. Electric Power Service: There is electric power service available near the construction site and are Owner owned. Should the Owner allow the Contractor access and use of the electric power service, it may be used. If not, the Contractor will be responsible for providing temporary power for construction.

4 SUBMITTALS

- A. Site Plan: Show temporary facilities, utility hookups, staging areas, material storage areas, equipment storage areas and parking areas of construction personnel. Coordinate with Owner.

5 QUALITY ASSURANCE

- A. Electric Service: Comply with NECA, NEMA and UL standards and regulations for temporary electric service. Install service to comply with NFPA 70.
- B. Tests and Inspections: Arrange for authorities having jurisdiction to test and inspect each temporary utility before use. Obtain required certifications and permits.

6 PROJECT CONDITIONS

- A. Temporary Use of Permanent Facilities: Installer of each permanent service shall assume responsibility for operation, maintenance and protection of each permanent service during its use as a construction facility before Owner's acceptance, regardless of previously assigned responsibilities.

7 BARRIERS AND ENCLOSURES

- A. Provide barriers during performance of the Work to:
 - 1. Prevent unauthorized entry to work areas as is practical, coordinate with the Town.
 - 2. Protect existing facilities and adjacent properties from damage.

8 PROTECTION OF WORK AND EXISTING PROPERTY

- A. Protect installed Work and existing construction during performance of the Work.
- B. Provide temporary and removable protection for installed products. Control activity in immediate work area to prevent damage.
- C. Protect existing trees and plants during performance of the Work unless otherwise indicated. Box trees and plants within the grading limit lines. Do not deposit excavated materials or store building materials around trees or plants. Do not attach guy wires to trees.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION

SECTION 016500

MATERIALS AND EQUIPMENT

PART 1 - GENERAL

1 RELATED DOCUMENTS

- A. Specific requirements pertaining to materials and equipment specified elsewhere are additional to the provisions of this Section.

2 PRODUCT LABELS

- A. When materials or equipment are specified to conform to ASTM, Federal or other reference specifications, the materials delivered to the site shall bear the manufacturer's printed labels stating that the materials meet the requirements of such referenced specifications.

3 TRANSPORTATION AND HANDLING

- A. Deliver factory packaged materials and equipment in the manufacturer's original containers.
- B. Transport and handle materials and equipment in such a manner as to prevent their damage.
- C. Arrange for delivery of materials and equipment during the hours of the day established by the Director's Representative.
- D. Have workers available to receive and unload materials and equipment delivered to the site. Do not deliver, or have delivered, any materials and equipment to the site unless such forces are available.
- E. Facility personnel are not authorized to sign for receipt of Contractor's material or equipment.

4 STORAGE AND PROTECTION

- A. Neatly pile, store, protect, and secure materials and equipment in locations where directed.
- B. Protect materials and equipment subject to damage by temperature or other weather conditions.
- C. Do not store volatile liquids on site.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION

SECTION 017419

CONSTRUCTION WASTE MANAGEMENT

PART 1 - GENERAL

1 SUMMARY

- A. This Section includes requirements for Construction Waste Management (CWM), with criteria for recycling and/or salvaging demolition and construction waste generated during the project. A Construction Waste Management (CWM) Plan shall be developed for approval. The Plan shall be implemented throughout the duration of the project and shall be documented in accordance with the Submittals Article below.
- B. Shall supply the means for proper disposal, recycling, and/or salvaging job site waste. Locations for removal bins or dumpsters shall be coordinated with the Owner.

2 RELATED WORK

- A. Earthwork: Section 310000

3 PERFORMANCE REQUIREMENTS

- A. Contractor shall prepare and submit a Construction Waste Management (CWM) Plan for approval. The CWM Plan shall outline the provisions to be implemented to properly dispose of, recycle, and/or salvage demolition and construction waste generated during the project.
- B. Transport and handle materials and equipment in such a manner as to prevent their damage.
- C. Have workers available to receive and unload materials and equipment delivered to the site. Do not deliver, or have delivered, any materials and equipment to the site unless such forces are available.
- D. Only Contractor personnel are authorized to sign for receipt of Contractor's material or equipment.

4 CONTRACT CLOSEOUT SUBMITTALS

- A. Contractor shall submit a Final Waste Management Report. This submission shall compile all data for the duration of the project. The final report shall include an explanation of actual waste managed, lessons learned, and a final CWM Reporting Form. Resubmission of waste receipt is not necessary.

5 IMPLEMENTATION

- A. The Contractor shall be responsible for the provision of containers and the removal of all waste, non-returned surplus materials, and rubbish from the site in

accordance with the CWM Plan. The Contractor shall oversee and document the results of the Plan.

1. The Prime Contractor shall be responsible for ensuring their subcontractors abide by the CWM Plan.
- B. Instruction: The Contractor shall provide on-site instruction of appropriate separation, handling and recycling, salvage, reuse and return methods to be used by all parties in appropriate stages of the Project.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION

SECTION 017700

CLOSEOUT PROCEDURES

PART 1 - GENERAL

1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

2 SUMMARY

- A. Section includes administrative and procedural requirements for contract closeout, including, but not limited to the following:
 - 1. Substantial Completion procedures.
 - 2. Final Completion procedures.
 - 3. Warranties.
 - 4. Final Cleaning.
 - 5. Repair of the Work.

3 ACTION SUBMITTALS

- A. Contractor's List of Incomplete Items: Initial submittal at Substantial Completion.
- B. Certified List of Incomplete Items: Final submittal at Final Completion.

4 CLOSEOUT SUBMITTALS

- A. Certificates of Release: From authorities having jurisdiction.
- B. Certificate of Insurance: For continuing coverage.
- C. Field Report: None

5 MAINTENANCE MATERIAL SUBMITTALS

- A. Schedule Of Maintenance Items: For maintenance material submittal items specified in other Sections.

6 SUBSTANTIAL COMPLETION PROCEDURES

- A. Contractor's List of Incomplete Items: Prepare and submit a list of items to be completed and corrected (Contractor's Punch List), including the value of each item on the list and reasons why the Work is incomplete.

- B. Submittals Prior to Substantial Completion: Complete the following a minimum of ten (10) days prior to requesting inspection for determining date of Substantial Completion. List items below that are incomplete at time of request.
1. Certificates of Release: Obtain and submit releases from authorities having jurisdiction permitting Owner unrestricted use of the Work and access to services and utilities. Include occupancy permits, operating certificates, and similar releases.
 2. Submit closeout submittals specified in other Division 01 Sections, including project record documents, operation and maintenance manuals, final completion construction photographic documentation, damage or settlement surveys, property surveys, and similar record information.
 3. Submit closeout submittals specified in individual Sections, including specific warranties, workmanship bonds, maintenance service agreements, final certifications, and similar documents.
 4. Submit maintenance material submittals specified in individual Sections, including tools, spare parts, extra materials, and similar items, and deliver to location designated by Engineer. Label with manufacturer's name and model number where applicable.
 5. Submit changeover information related to Owner's occupancy, use, operation and maintenance.
- C. Procedures Prior to Substantial Completion: Complete the following a minimum of ten (10) days prior to requesting inspection for determining date of Substantial Completion. List items below that are incomplete at time of request.
1. Advise Owner of pending insurance changeover requirements.
 2. Make final changeover of permanent locks and deliver keys to Owner. Advise Owner's personnel of changeover in security provisions.
 3. Complete startup and testing of systems and equipment.
- D. Inspection: Submit a written request for inspection to determine Substantial Completion a minimum of ten (10) days prior to the date the work will be completed and ready for final inspection and tests. On receipt of request, Engineer will either proceed with inspection or notify Contractor of unfulfilled requirements. Engineer will prepare the Certificate of Substantial Completion after inspection or will notify Contractor of items, either on Contractor's list or additional items identified by engineer, that must be completed or corrected before certificate will be issued.
1. Re-inspection: Request re-inspection when the Work identified in previous inspections as incomplete is completed or corrected.
 2. Results of completed inspection will form the basis or requirements for

final inspection.

7 FINAL COMPLETION PROCEDURES

- A. Submittals Prior to Final Completion: Before requesting final inspection for determining final completion, complete the following:
 - 1. Submit a final Application for Payment.
 - 2. Certified List of Incomplete Items: Submit certified copy of Engineer's Substantial Completion inspection list of items to be completed or corrected (punch list), endorsed and dated by Engineer.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION

SECTION 033000

CAST-IN-PLACE CONCRETE

PART 1 - GENERAL

1 RELATED WORK SPECIFIED ELSEWHERE

- A. Drawings, quality, product and performance requirements, general and supplemental conditions apply as applicable to the project and project documents.
- B. Earthwork: Section 310000

2 DEFINITIONS

- A. Cementitious Materials: Portland cement alone or in combination with one or more of the following: blended hydraulic cement, fly ash and other pozzolans, ground granulated blast-furnace slag, and silica fume; subject to compliance with requirements.

3 ACTION SUBMITTALS

- A. Product Data: For each type of product indicated.
- B. Design Mixtures: For each concrete mixture. Submit alternate design mixtures when characteristics of materials, Project conditions, weather, test results, or other circumstances warrant adjustments.
 - 1. Indicate amounts of mixing water to be withheld for later addition at Project site.
- C. Steel Reinforcement Shop Drawings: Placing drawings that detail fabrication, bending, and placement. Include bar sizes, lengths, material, grade, bar schedules, stirrup spacing, bent bar diagrams, bar arrangement, splices and laps, mechanical connections, tie spacing, hoop spacing, and supports for concrete reinforcement.
- D. Formwork Shop Drawings for suspended slabs and building frame members: Prepared by or under the supervision of a qualified professional engineer detailing fabrication, assembly, and support of formwork.
 - 1. Shoring and Reshoring: Indicate proposed schedule and sequence of stripping formwork, shoring removal, and reshoring installation and removal.
- E. Construction Joint Layout: Indicate proposed construction joints required to construct the structure.
 - 1. Location of construction joints is subject to approval

4 INFORMATIONAL SUBMITTALS

- A. Qualification Data: For Installer and manufacturer.
- B. Material Certificates: For each of the following, signed by manufacturers:
 - 1. Cementitious materials.
 - 2. Admixtures.
 - 3. Form materials and form-release agents.
 - 4. Steel reinforcement and accessories.
 - 5. Waterstops.
 - 6. Curing compounds for exterior slabs.
 - 7. Bonding agents.
 - 8. Adhesives.
 - 9. Vapor retarders.
 - 10. Joint-filler strips.
- C. Material Test Reports: For the following, from a qualified testing agency, indicating compliance with requirements:
 - 1. Aggregates.
- D. Field quality-control reports

5 QUALITY ASSURANCE

- A. Installer Qualifications: A qualified installer who employs on Project personnel with a minimum of 5 years documented experience on projects of similar scope and complexity.
- B. Manufacturer Qualifications: A firm experienced in manufacturing ready-mixed concrete products and that complies with ASTM C 94/C 94M requirements for production facilities and equipment, and with current NYSDOT certification.
 - 1. Manufacturer certified according to NRMCA's "Certification of Ready Mixed Concrete Production Facilities."
- C. Testing Agency Qualifications: An independent agency, acceptable to authorities having jurisdiction, qualified according to ASTM C 1077 and ASTM E 329 for testing indicated.
 - 1. Personnel conducting field tests shall be qualified as ACI Concrete Field Testing Technician, Grade 1, according to ACI CP- 1 or an equivalent certification program.

2. Personnel performing laboratory tests shall be ACI-certified Concrete Strength Testing Technician and Concrete Laboratory Testing Technician - Grade I. Testing Agency laboratory supervisor shall be an ACI-certified Concrete Laboratory Testing Technician - Grade II.
- D. Source Limitations: Obtain each type or class of cementitious material of the same brand from the same manufacturer's plant, obtain aggregate from single source, and obtain admixtures from single source from single manufacturer.
- E. ACI Publications: Comply with the following unless modified by requirements in the Contract Documents:
1. ACI 301, "Specifications for Structural Concrete," Sections 1 through 5.
 2. ACI 117, "Specifications for Tolerances for Concrete Construction and Materials."
- F. Concrete Testing Service: Engage a qualified independent testing agency to perform material evaluation tests and to design concrete mixtures.
- 6 DELIVERY, STORAGE, AND HANDLING
- A. Steel Reinforcement: Deliver, store, and handle steel reinforcement to prevent bending and damage.
- B. Waterstops: Store waterstops under cover to protect from moisture, sunlight, dirt, oil, and other contaminants.

PART 2 - PRODUCTS

1 FORM-FACING MATERIALS

- A. Smooth-Formed Finished Concrete: Form-facing panels that will provide continuous, true, and smooth concrete surfaces. Furnish in largest practicable sizes to minimize number of joints.
1. Plywood, metal, or other approved panel materials.
 2. Exterior-grade plywood panels, suitable for concrete forms and as follows:
 - a. High-density overlay, Class 1 or better.
 - b. Medium-density overlay, Class 1 or better; mill-release agent treated and edge sealed.
 - c. Structural 1, B-B or better; mill oiled and edge sealed.
 - d. B-B (Concrete Form), Class 1 or better; mill oiled and edge sealed.
- B. Rough-Formed Finished Concrete: Plywood, lumber, metal, or another

approved material. Provide lumber dressed on at least two edges and one side for tight fit.

- C. Forms for Cylindrical Columns, Pedestals, and Supports: Metal, glass-fiber-reinforced plastic, paper, or fiber tubes that will produce surfaces with gradual or abrupt irregularities not exceeding specified formwork surface class. Provide units with sufficient wall thickness to resist plastic concrete loads without detrimental deformation.
- D. Chamfer Strips: Wood, metal, PVC, or rubber strips, 3/4 by 3/4 inch, minimum.
- E. Form-Release Agent: Commercially formulated form-release agent that will not bond with, stain, or adversely affect concrete surfaces and will not impair subsequent treatments of concrete surfaces.
 - 1. Formulate form-release agent with rust inhibitor for steel form-facing materials.
- F. Form Ties: Factory-fabricated, removable or snap-off metal or glass-fiber-reinforced plastic form ties designed to resist lateral pressure of fresh concrete on forms and to prevent spalling of concrete on removal.
 - 1. Furnish units that will leave no corrodible metal closer than 1 inch to the plane of exposed concrete surface.
 - 2. Furnish ties that, when removed, will leave holes no larger than 1 inch in diameter in concrete surface.

2 STEEL REINFORCEMENT

- A. Reinforcing Bars: ASTM A 615/A 615M, Grade 60, deformed.
- B. Plain-Steel Wire: ASTM A 82/A 82M, as drawn.
- C. Plain-Steel Welded Wire Reinforcement: ASTM A 185/A 185M, plain, fabricated from asdrawn steel wire into flat sheets.

3 REINFORCEMENT ACCESSORIES

- A. Joint Dowel Bars: ASTM A 615/A 615M, Grade 60, plain-steel bars, cut true to length with ends square and free of burrs.
- B. Bar Supports: Bolsters, chairs, spacers, and other devices for spacing, supporting, and fastening reinforcing bars and welded wire reinforcement in place. Manufacture bar supports from steel wire, plastic, or precast concrete according to CRSI's "Manual of Standard Practice," of greater compressive strength than concrete and as follows:
 - 1. For concrete surfaces exposed to view where legs of wire bar supports contact forms, use CRSI Class 1 plastic-protected steel wire or CRSI Class 2 stainless-steel bar supports.

4 CONCRETE MATERIALS

- A. Cementitious Material: Use the following cementitious materials, of the same type, brand, and source, throughout Project:
 - 1. Portland Cement: ASTM C 150, Type I Type II Type I/II, gray.
Supplement with the following:
 - a. Fly Ash: ASTM C 618, Class F.
 - b. Ground Granulated Blast-Furnace Slag: ASTM C 989, Grade 100 or 120.
- B. Silica Fume: ASTM C 1240, amorphous silica.
- C. Normal-Weight Aggregates: ASTM C 33, Class 1N coarse aggregate or better, graded. Provide aggregates from a single source.
 - 1. Maximum Coarse-Aggregate Size: See various mix designs.
 - 2. Fine Aggregate: Free of materials with deleterious reactivity to alkali in cement.
- D. Water: ASTM C 94/C 94M.

5 ADMIXTURES

- A. Air-Entraining Admixture: ASTM C 260.
- B. Chemical Admixtures: Provide admixtures certified by manufacturer to be compatible with other admixtures and that will not contribute water-soluble chloride ions exceeding those permitted in hardened concrete. Do not use calcium chloride or admixtures containing calcium chloride.
 - 1. Water-Reducing Admixture: ASTM C 494/C 494M, Type A.
 - 2. High-Range, Water-Reducing Admixture: ASTM C 494/C 494M, Type F.

6 VAPOR RETARDERS

- A. Sheet Vapor Retarder: ASTM E 1745, Class A. Include manufacturer's recommended adhesive or pressure-sensitive tape.
 - 1. Products: Subject to compliance with requirements, provide one of the following:
 - a. Fortifiber Building Systems Group; Moistop Ultra 15.
 - b. Raven Industries Inc.; Vapor Block 15.
 - c. Stego Industries, LLC; Stego Wrap 15 mil Class A.

7 CURING MATERIALS

- A. Wet Curing Cover: A rolled sheet product consisting of an impermeable layer over an absorptive layer to hold moisture against the slab.
 - 1. Products:
 - a. Ultracure.
 - b. Hydracure.
 - c. Conkure.
- B. Moisture-Retaining Cover: ASTM C 171, polyethylene film or white burlap-polyethylene sheet.
- C. Water: Potable.
- D. Clear, Waterborne, Membrane-Forming Curing Compound: ASTM C 309, Type 1, Class B, dissipating.
 - 1. Products: Subject to compliance with requirements, provide one of the following:
 - a. Euclid Chemical Company (The), an RPM company; Kurez W VOX; TAMMSCURE WB 30C.
 - b. Kaufman Products, Inc.; Thinfilm 420.
 - c. L&M Construction Chemicals, Inc.; L&M Cure R.

8 RELATED MATERIALS

- A. Expansion- and Isolation-Joint-Filler Strips: ASTM D 1751, asphalt-saturated cellulosic fiber or ASTM D 1752, cork or self-expanding cork.
- B. Bonding Agent: ASTM C 1059/C 1059M, Type II, non-redispersible, acrylic emulsion or styrene butadiene.

9 CONCRETE MIXTURES, GENERAL

- A. Prepare design mixtures for each type and strength of concrete, proportioned on the basis of laboratory trial mixture or field test data, or both, according to ACI 301.
 - 1. Use a qualified independent testing agency for preparing and reporting proposed mixture designs based on laboratory trial mixtures.
- B. Cementitious Materials: Use fly ash, pozzolan, ground granulated blast-furnace slag, and silica fume as needed to reduce the total amount of portland cement, which would otherwise be used, by not less than 20 percent.
- C. Admixtures: Use admixtures according to manufacturer's written instructions.
 - 1. Use water-reducing admixture in all concrete mix designs.

2. Use high-range water-reducing or plasticizing admixture in concrete, as required, for placement and workability.

10 CONCRETE MIXTURES FOR BUILDING ELEMENTS

- A. Footings and Foundation Walls: Proportion normal-weight concrete mixture as follows:
 1. Minimum Compressive Strength: 4000 psi at 28 days.
 2. Maximum Water-Cementitious Materials Ratio: 0.50.
 3. Maximum Slump Limit: 4 inches with addition of a water reducer; 6 inches with addition of a low dose of high-range water-reducing admixture; 8 inches for concrete with a full dose of high-range water-reducing admixture.
 4. Air Content: 5- 1/2 percent, plus or minus 1.5 percent at point of delivery.
 5. Nominal maximum aggregate size: 1- 1/2-inches.
- B. Interior Slabs-on-Grade, Suspended Slabs, and Building Frame Members: Proportion normal-weight concrete mixture as follows:
 1. Minimum Compressive Strength: 4000 psi at 28 days.
 2. Maximum Water-Cementitious Materials Ratio: 0.50.
 3. Maximum Slump Limit: 4 inches with addition of a water reducer; 6 inches with addition of a low dose of high-range water-reducing admixture; 8 inches for concrete with a full dose of high-range water-reducing admixture.
 4. Air Content: 3 percent maximum at point of delivery. Do not use an air entrainment admixture.
 5. Nominal maximum aggregate size: 1-inch.
- C. Exterior Slabs-on-Grade: Proportion normal-weight concrete mixture as follows:
 1. Minimum Compressive Strength: 4,500 psi at 28 days.
 2. Maximum Water-Cementitious Materials Ratio: 0.45.
 3. Maximum Slump Limit: 4 inches with addition of a water reducer; 6 inches with addition of a low dose of high-range water-reducing admixture; 8 inches for concrete with a full dose of high-range water-reducing admixture.
 4. Air Content: 6 percent, plus or minus 1.5 percent at point of delivery.
 5. Nominal maximum aggregate size: 1-inch.

11 FABRICATING REINFORCEMENT

- A. Fabricate steel reinforcement according to CRSI's "Manual of Standard Practice."

12 CONCRETE MIXING

- A. Ready-Mixed Concrete: Measure, batch, mix, and deliver concrete according to ASTM C 94/C 94M, and furnish batch ticket information.
 - 1. When air temperature is between 85 and 90 deg F, reduce mixing and delivery time from 1- 1/2 hours to 75 minutes; when air temperature is above 90 deg F, reduce mixing and delivery time to 60 minutes.

PART 3 - EXECUTION

1 FORMWORK

- A. Design, erect, shore, brace, and maintain formwork, according to ACI 301, to support vertical, lateral, static, and dynamic loads, and construction loads that might be applied, until structure can support such loads.
- B. Construct formwork so concrete members and structures are of size, shape, alignment, elevation, and position indicated, within tolerance limits of ACI 117.
- C. Limit concrete surface irregularities, designated by ACI 347 as abrupt or gradual, as follows:
 - 1. Class A, 1/8 inch for smooth-formed finished surfaces.
 - 2. Class B, 1/4 inch for rough-formed finished surfaces.
- D. Construct forms tight enough to prevent loss of concrete mortar.
- E. Fabricate forms for easy removal without hammering or prying against concrete surfaces. Provide crush or wrecking plates where stripping may damage cast concrete surfaces. Provide top forms for inclined surfaces steeper than 1.5 horizontal to 1 vertical.
 - 1. Do not use rust-stained steel form-facing material.
- F. Set edge forms, bulkheads, and intermediate screed strips for slabs to achieve required elevations and slopes in finished concrete surfaces. Provide and secure units to support screed strips; use strike-off templates or compacting-type screeds.
- G. Provide temporary openings for cleanouts and inspection ports where interior area of formwork is inaccessible. Close openings with panels tightly fitted to forms and securely braced to prevent loss of concrete mortar. Locate temporary openings in forms at inconspicuous locations.
- H. Chamfer exterior corners and edges of permanently exposed concrete unless noted otherwise.

- I. Form openings, chases, offsets, sinkages, keyways, reglets, blocking, screeds, and bulkheads required in the Work. Determine sizes and locations from trades providing such items.
- J. Clean forms and adjacent surfaces to receive concrete. Remove chips, wood, sawdust, dirt, and other debris just before placing concrete.
- K. Retighten forms and bracing before placing concrete, as required, to prevent mortar leaks and maintain proper alignment.
- L. Coat contact surfaces of forms with form-release agent, according to manufacturer's written instructions, before placing reinforcement.

2 EMBEDDED ITEMS

- A. Place and secure anchorage devices and other embedded items required for adjoining work that is attached to or supported by cast-in-place concrete. Use setting drawings, templates, diagrams, instructions, and directions furnished with items to be embedded.
 - 1. Install anchor rods, accurately located, to elevations required and complying with tolerances in Section 7.5 of AISC's "Code of Standard Practice for Steel Buildings and Bridges."
 - 2. Install reglets to receive waterproofing and to receive through-wall flashings in outer face of concrete frame at exterior walls, where flashing is shown at lintels, shelf angles, and other conditions.
 - 3. Install dovetail anchor slots in concrete structures as indicated.

3 REMOVING AND REUSING FORMS

- A. General: Formwork for sides of beams, walls, columns, and similar parts of the Work that does not support weight of concrete may be removed after cumulatively curing at not less than 50 deg F for 24 hours after placing concrete. Concrete has to be hard enough to not be damaged by form-removal operations and curing and protection operations need to be maintained.
 - 1. Leave formwork for beam soffits, joists, slabs, and other structural elements that supports weight of concrete in place until concrete has achieved at least 70 percent of its 28-day design compressive strength. Produce additional test cylinders for early testing.
 - 2. Remove forms only if shores have been arranged to permit removal of forms without loosening or disturbing shores.
- B. Clean and repair surfaces of forms to be reused in the Work. Split, frayed, delaminated, or otherwise damaged form-facing material will not be acceptable for exposed surfaces. Apply new form-release agent.
- C. When forms are reused, clean surfaces, remove fins and laitance, and tighten to

close joints. Align and secure joints to avoid offsets. Do not use patched forms for exposed concrete surfaces unless approved by Architect.

4 SHORES AND RESHORES

- A. Comply with ACI 318 and ACI 301 for design, installation, and removal of shoring and reshoring.
 - 1. Do not remove shoring or reshoring until measurement of slab tolerances is complete.
- B. Plan sequence of removal of shores and reshore to avoid damage to concrete. Locate and provide adequate reshoring to support construction without excessive stress or deflection.

5 VAPOR RETARDERS

- A. Sheet Vapor Retarders: Place, protect, and repair sheet vapor retarder according to ASTM E 1643 and manufacturer's written instructions.
 - 1. Lap joints 6 inches and seal with manufacturer's recommended tape and/or sealants.

6 STEEL REINFORCEMENT

- A. General: Comply with CRSI's "Manual of Standard Practice" for placing reinforcement. Do not cut or puncture vapor retarder. Repair damage and reseal vapor retarder before placing concrete.
- B. Clean reinforcement of loose rust and mill scale, earth, ice, and other foreign materials
- C. Accurately position, support, and secure reinforcement against displacement prior to placement of concrete. "Wet sticking" of reinforcement is not allowed. All reinforcement must be secured in place and inspected prior to ordering concrete delivery. Locate and support reinforcement with bar supports to maintain minimum concrete cover. Do not tack weld crossing reinforcing bars.
- D. Set wire ties with ends directed into concrete, not toward exposed concrete surfaces.
- E. Install welded wire reinforcement in longest practicable lengths on bar supports spaced to minimize sagging. Use of concrete brick supports is not allowed. Lap edges and ends of adjoining sheets at least one mesh spacing. Offset laps of adjoining sheet widths to prevent continuous laps in either direction. Lace overlaps with wire.

7 JOINTS

- A. General: Construct joints true to line with faces perpendicular to surface

plane of concrete.

- B. Construction Joints: Install so strength and appearance of concrete are not impaired, at locations indicated or as approved by Architect.
1. Place joints perpendicular to main reinforcement. Continue reinforcement across construction joints unless otherwise indicated. Do not continue reinforcement through sides of strip placements of floors and slabs.
 2. Form keyed joints as indicated. Embed keys at least 1- 1/2 inches into concrete.
 3. Locate joints for beams, slabs, joists, and girders in the middle third of spans. Offset joints in girders a minimum distance of twice the beam width from a beam-girder intersection.
 4. Locate horizontal joints in walls and columns at underside of floors, slabs, beams, and girders and at the top of footings or floor slabs.
 5. Use a bonding agent at locations where fresh concrete is placed against hardened or partially hardened concrete surfaces.
- C. Contraction Joints in Slabs-on-Grade: Form weakened-plane contraction joints, sectioning concrete into areas as indicated. Construct contraction joints for a depth equal to at least one-fourth of concrete thickness as follows:
1. Sawed Joints: Form contraction joints with early entry power saws equipped with shatterproof abrasive or diamond-rimmed blades. Cut 1/8-inch- wide joints into concrete when cutting action will not tear, abrade, or otherwise damage surface and before concrete develops random contraction cracks. Complete saw cut joints no later than 8 hours after completion of slab finishing operations.
- D. Isolation Joints in Slabs-on-Grade: After removing formwork, install joint-filler strips at slab junctions with vertical surfaces, such as column pedestals, foundation walls, grade beams, and other locations, as indicated.
1. Extend joint-filler strips full width and depth of joint, terminating flush with finished concrete surface unless otherwise indicated.
 2. Terminate full-width joint-filler strips not less than 1/2 inch or more than 1 inch below finished concrete surface where joint sealants are indicated.
 3. Install joint-filler strips in lengths as long as practicable. Where more than one length is required, lace or clip sections together.
- E. Doweled Joints: Install dowel bars and support assemblies at joints where indicated. Lubricate or asphalt coat one-half of dowel length to prevent concrete

bonding to one side of joint.

8 WATERSTOPS

- A. Self-Expanding Strip Waterstops: Install in construction joints and at other locations indicated, according to manufacturer's written instructions, adhesive bonding, mechanically fastening, and firmly pressing into place. Install in longest lengths practicable. Provide two strips of waterstop at all joints unless noted otherwise.

9 CONCRETE PLACEMENT

- A. Before placing concrete, verify that installation of formwork, reinforcement, and embedded items is complete and that required inspections have been performed.
- B. Do not add water to concrete during delivery, at Project site, or during placement unless approved by Architect. Water may only be added with the approval of the Architect and only if the amount of mix water held back at the batch plant is clearly noted on the computer generated batch plant ticket for each truck.
- C. Deposit concrete continuously in one layer or in horizontal layers of such thickness that no new concrete will be placed on concrete that has hardened enough to cause seams or planes of weakness. If a section cannot be placed continuously, provide construction joints as indicated. Deposit concrete to avoid segregation.
 - 1. Deposit concrete in horizontal layers of depth to not exceed formwork design pressures and in a manner to avoid inclined construction joints.
 - 2. Consolidate placed concrete with mechanical vibrating equipment according to ACI 301.
 - 3. Do not use vibrators to transport concrete inside forms. Insert and withdraw vibrators vertically at uniformly spaced locations to rapidly penetrate placed layer and at least 6 inches into preceding layer. Do not insert vibrators into lower layers of concrete that have begun to lose plasticity. At each insertion, limit duration of vibration to time necessary to consolidate concrete and complete embedment of reinforcement and other embedded items without causing mixture constituents to segregate.
- D. Deposit and consolidate concrete for floors and slabs in a continuous operation, within limits of construction joints, until placement of a panel or section is complete.
 - 1. Consolidate concrete during placement operations so concrete is

- thoroughly worked around reinforcement and other embedded items and into corners.
2. Maintain reinforcement in position on chairs during concrete placement.
 3. Screed slab surfaces with a straightedge and strike off to correct elevations.
 4. Slope surfaces uniformly to drains where required.
 5. Begin initial floating using bull floats or darbies to form a uniform and open-textured surface plane, before excess bleedwater appears on the surface. Do not further disturb slab surfaces before starting finishing operations.
- E. Cold-Weather Placement: Comply with ACI 306.1 and as follows. Protect concrete work from physical damage or reduced strength that could be caused by frost, freezing actions, or low temperatures.
1. When average high and low temperature is expected to fall below 40 deg F for three successive days, maintain delivered concrete mixture temperature within the temperature range required by ACI 301.
 2. Do not use frozen materials or materials containing ice or snow. Do not place concrete on frozen subgrade or on subgrade containing frozen materials.
 3. Do not use calcium chloride, salt, or other materials containing antifreeze agents or chemical accelerators unless otherwise specified and approved in mixture designs.
- F. Hot-Weather Placement: Comply with ACI 301 and as follows:
1. 1. Maintain concrete temperature below 90 deg F at time of placement. Chilled mixing water or chopped ice may be used to control temperature, provided water equivalent of ice is calculated to total amount of mixing water. Using liquid nitrogen to cool concrete is Contractor's option.
 2. Fog-spray forms, steel reinforcement, and subgrade just before placing concrete. Keep subgrade uniformly moist without standing water, soft spots, or dry areas.

10 FINISHING FORMED SURFACES

- A. Rough-Formed Finish: As-cast concrete texture imparted by form-facing material with tie holes and defects repaired and patched. Remove fins and other projections that exceed specified limits on formed-surface irregularities.
1. Apply to concrete surfaces not exposed to public view.

- B. Smooth-Formed Finish: As-cast concrete texture imparted by form-facing material, arranged in an orderly and symmetrical manner with a minimum of seams. Repair and patch tie holes and defects. Remove fins and other projections that exceed specified limits on formed-surface irregularities.
 - 1. Apply to concrete surfaces exposed to public view and to surfaces to receive a rubbed finish.
- C. Rubbed Finish: Apply the following to smooth-formed finished as-cast concrete where indicated:
 - 1. Smooth-Rubbed Finish: Not later than one day after form removal, moisten concrete surfaces and rub with carborundum brick or another abrasive until producing a uniform color and texture. Do not apply cement grout other than that created by the rubbing process.
- D. Related Unformed Surfaces: At tops of walls, horizontal offsets, and similar unformed surfaces adjacent to formed surfaces, strike off smooth and finish with a texture matching adjacent formed surfaces. Continue final surface treatment of formed surfaces uniformly across adjacent unformed surfaces unless otherwise indicated.

11 FINISHING FLOORS AND SLABS

- A. General: Comply with ACI 302.1R recommendations for screeding, restraightening, and finishing operations for concrete surfaces. Do not wet concrete surfaces.
- B. Float Finish: Consolidate surface with power-driven floats or by hand floating if area is small or inaccessible to power driven floats. Restraighten, cut down high spots, and fill low spots. Repeat float passes and restraightening until surface is left with a uniform, smooth, granular texture.
 - 1. Apply float finish to surfaces to receive trowel finish.
- C. Trowel Finish: After applying float finish, apply first troweling and consolidate concrete by hand or power-driven trowel. Continue troweling passes and restraighten until surface is free of trowel marks and uniform in texture and appearance. Grind smooth any surface defects that would telegraph through applied coatings or floor coverings.
 - 1. Apply a trowel finish to surfaces exposed to view or to be covered with resilient flooring, carpet, ceramic or quarry tile set over a cleavage membrane, paint, or another thin-film-finish coating system.
 - 2. Finish and measure surface so gap at any point between concrete surface and an unlevelled, freestanding, 10-ft.- long straightedge resting on two high spots and placed anywhere on the surface does not exceed 1/8 inch.

- D. Trowel and Fine-Broom Finish: Apply a first trowel finish to surfaces where ceramic or quarry tile is to be installed by either thickset or thin-set method. While concrete is still plastic, slightly scarify surface with a fine broom.
 - 1. Comply with flatness and levelness tolerances for trowel-finished floor surfaces.
- E. Broom Finish: Apply a broom finish to exterior concrete platforms, steps, ramps, and elsewhere as indicated.
 - 1. Immediately after float finishing, slightly roughen trafficked surface by brooming with fiber-bristle broom perpendicular to main traffic route. Coordinate required final finish with Architect before application.

12 MISCELLANEOUS CONCRETE ITEMS

- A. Filling In: Fill in holes and openings left in concrete structures after work of other trades is in place unless otherwise indicated. Mix, place, and cure concrete, as specified, to blend with in-place construction. Provide other miscellaneous concrete filling indicated or required to complete the Work.
- B. Curbs: Provide monolithic finish to interior curbs by stripping forms while concrete is still green and by steel-troweling surfaces to a hard, dense finish with corners, intersections, and terminations slightly rounded.
- C. Equipment Bases and Foundations: Provide machine and equipment bases and foundations as shown on Drawings. Set anchor bolts for machines and equipment at correct elevations, complying with diagrams or templates from manufacturer furnishing machines and equipment.

13 CONCRETE PROTECTING AND CURING

- A. General: Protect freshly placed concrete from premature drying and excessive cold or hot temperatures. Comply with ACI 306.1 for cold-weather protection and ACI 301 for hot-weather protection during curing.
- B. Formed Surfaces: Cure formed concrete surfaces, including underside of beams, supported slabs, and other similar surfaces. If forms remain during curing period, moist cure after loosening forms. If removing forms before end of curing period, continue curing for the remainder of the curing period.
- C. Unformed Surfaces: Begin curing immediately after finishing concrete. Cure unformed surfaces, including floors and slabs, concrete floor toppings, and other surfaces.
- D. Cure concrete according to ACI 308.1, by one or a combination of the following methods:
 - 1. Cure Interior Slabs by Moisture Curing Only: Do not use curing compounds on interior slabs. Keep surfaces continuously moist for not

less than seven days with the following materials:

- a. Water.
 - b. Continuous water-fog spray.
 - c. Wet curing cover (per 2.8, A, 1), water saturated, and kept continuously wet. Cover concrete surfaces and edges with 12-inch lap over adjacent absorptive covers.
2. Moisture-Retaining-Cover Curing (alternative method for exterior slabs only): Cover concrete surfaces with moisture-retaining cover for curing concrete, placed in widest practicable width, with sides and ends lapped at least 12 inches, and sealed by waterproof tape or adhesive. Cure for not less than seven days. Immediately repair any holes or tears during curing period using cover material and waterproof tape.
 3. Curing Compound (alternative method for exterior slabs only): Apply uniformly in continuous operation by power spray or roller according to manufacturer's written instructions. Recoat areas subjected to heavy rainfall within three hours after initial application. Maintain continuity of coating and repair damage during curing period.

14 JOINT FILLING

- A. Prepare, clean, and install joint filler according to manufacturer's written instructions.
 1. Defer joint filling until concrete has aged at least one month. Do not fill joints until construction traffic has permanently ceased.
- B. Remove dirt, debris, saw cuttings, curing compounds, and sealers from joints; leave contact faces of joint clean and dry.

15 CONCRETE SURFACE REPAIRS

- A. Defective Concrete: Repair and patch defective areas when approved by Architect. Remove and replace concrete that cannot be repaired and patched to Architect's approval.
- B. Patching Mortar: Mix dry-pack patching mortar, consisting of one part portland cement to two and one-half parts fine aggregate passing a No. 16 sieve, using only enough water for handling and placing.
- C. Repairing Formed Surfaces: Surface defects include color and texture irregularities, cracks, spalls, air bubbles, honeycombs, rock pockets, fins and other projections on the surface, and stains and other discolorations that cannot be removed by cleaning.
 1. Immediately after form removal, cut out honeycombs, rock pockets,

- and voids more than 1/2 inch in any dimension to solid concrete. Limit cut depth to 3/4 inch. Make edges of cuts perpendicular to concrete surface. Clean, dampen with water, and brush-coat holes and voids with bonding agent. Fill and compact with patching mortar before bonding agent has dried. Fill form-tie voids with patching mortar or cone plugs secured in place with bonding agent.
2. Repair defects on surfaces exposed to view by blending white portland cement and standard portland cement so that, when dry, patching mortar will match surrounding color. Patch a test area at inconspicuous locations to verify mixture and color match before proceeding with patching. Compact mortar in place and strike off slightly higher than surrounding surface.
 3. Repair defects on concealed formed surfaces that affect concrete's durability and structural performance as determined by Architect.
- D. Repairing Unformed Surfaces: Test unformed surfaces, such as floors and slabs, for finish and verify surface tolerances specified for each surface. Correct low and high areas. Test surfaces sloped to drain for trueness of slope and smoothness; use a sloped template.
1. Repair finished surfaces containing defects. Surface defects include spalls, popouts, honeycombs, rock pockets, crazing and cracks in excess of 0.01 inch wide or that penetrate to reinforcement or completely through unreinforced sections regardless of width, and other objectionable conditions.
 2. After concrete has cured at least 14 days, correct high areas by grinding.
 3. Correct localized low areas during or immediately after completing surface finishing operations by cutting out low areas and replacing with patching mortar. Finish repaired areas to blend into adjacent concrete.
 4. Correct other low areas scheduled to receive floor coverings with a repair underlayment. Prepare, mix, and apply repair underlayment and primer according to manufacturer's written instructions to produce a smooth, uniform, plane, and level surface. Feather edges to match adjacent floor elevations.
 5. Correct other low areas scheduled to remain exposed with a repair topping. Cut out low areas to ensure a minimum repair topping depth of 1/4 inch to match adjacent floor elevations. Prepare, mix, and apply repair topping and primer according to manufacturer's written instructions to produce a smooth, uniform, plane, and level surface.
 6. Repair defective areas, except random cracks and single holes 1 inch or less in diameter, by cutting out and replacing with fresh concrete.

Remove defective areas with clean, square cuts and expose steel reinforcement with at least a $\frac{3}{4}$ inch clearance all around. Dampen concrete surfaces in contact with patching concrete and apply bonding agent. Mix patching concrete of same materials and mixture as original concrete except without coarse aggregate. Place, compact, and finish to blend with adjacent finished concrete. Cure in same manner as adjacent concrete.

7. Repair random cracks and single holes 1 inch or less in diameter with patching mortar. Groove top of cracks and cut out holes to sound concrete and clean off dust, dirt, and loose particles. Dampen cleaned concrete surfaces and apply bonding agent. Place patching mortar before bonding agent has dried. Compact patching mortar and finish to match adjacent concrete. Keep patched area continuously moist for at least 72 hours.
- E. Perform structural repairs of concrete, subject to Architect's approval, using epoxy adhesive and patching mortar.
 - F. Repair materials and installation not specified above may be used, subject to Architect's approval.

16 FIELD QUALITY CONTROL

- A. Testing and Inspecting: Owner will engage a special inspector and qualified testing and inspecting agency to perform field tests and inspections and prepare test reports.
- B. Inspections:
 1. Steel reinforcement placement.
 2. Verification of use of required design mixture.
 3. Concrete placement, including conveying and depositing.
 4. Curing procedures and maintenance of curing temperature.
 5. Verification of concrete strength before removal of shores and forms from beams and slabs.
- C. Concrete Tests: Testing of composite samples of fresh concrete obtained according to ASTM C 172 shall be performed according to the following requirements:
 1. Testing Frequency: Obtain one composite sample for each day's pour of each concrete mixture exceeding 5 cu. yd., but less than 25 cu. yd., plus one set for each additional 50 cu. yd. or fraction thereof.
 2. Slump: ASTM C 143/C 143M; one test at point of placement for each composite sample, and for each truck delivery thereafter. Perform

additional tests when concrete consistency appears to change.

3. Air Content: ASTM C 231, pressure method, for normal-weight concrete; one test for each composite sample, but not less than one test for each day's pour of each concrete mixture.
4. Concrete Temperature: ASTM C 1064/C 1064M; one test hourly when air temperature is 40 deg F and below and when 80 deg F and above, and one test for each composite sample.
5. Compression Test Specimens: ASTM C 31/C 31M.
 - a. Cast and laboratory cure two sets of two and one set of three 4 inch x 8 inch cylinder specimens for each composite sample.
 - b. Cast and field cure two sets of two standard cylinder specimens for each composite sample. Omit field cured samples if structure can be kept above 50 deg F in a moist condition for 7 days after pour.
6. Compressive-Strength Tests: ASTM C 39/C 39M; test one set of two laboratory-cured specimens at 7 days and one set of three specimens at 28 days. Hold the final set of two specimens for subsequent breaks as directed by the engineer of record should the 28-day breaks fall below an acceptable compressive strength.
 - a. A compressive-strength test shall be the average compressive strength from a set of specimens obtained from same composite sample and tested at age indicated.
7. When strength of field-cured cylinders is less than 85 percent of companion laboratory-cured cylinders, Contractor shall evaluate operations and provide corrective procedures for protecting and curing in-place concrete.
8. Strength of each concrete mixture will be satisfactory if every average of any three consecutive compressive-strength tests equals or exceeds specified compressive strength and no compressive-strength test value falls below specified compressive strength by more than 500 psi.
9. Test results shall be reported in writing to Architect, concrete manufacturer, and Contractor within 48 hours of testing. Reports of compressive-strength tests shall contain Project identification name and number, date of concrete placement, name of concrete testing and inspecting agency, location of concrete batch in Work, design compressive strength at 28 days, concrete mixture proportions and materials, compressive breaking strength, and type of break for both 7- and 28- day tests.

10. Nondestructive Testing: Impact hammer, sonoscope, or other nondestructive device may be permitted by Architect but will not be used as sole basis for approval or rejection of concrete.
 11. Additional Tests: Testing and inspecting agency shall make additional tests of concrete when test results indicate that slump, air entrainment, compressive strengths, or other requirements have not been met, as directed by Architect. Testing and inspecting agency may conduct tests to determine adequacy of concrete by cored cylinders complying with ASTM C 42/C 42M or by other methods as directed by Architect.
 12. Additional testing and inspecting, at Contractor's expense, will be performed to determine compliance of replaced or additional work with specified requirements.
 13. Correct deficiencies in the Work that test reports and inspections indicate do not comply with the Contract Documents.
- D. Measure floor and slab flatness and levelness according to ASTM E 1155 within 24 hours of finishing.

END OF SECTION

SECTION 310000

EARTHWORK

PART 1 - GENERAL

1 RELATED WORK SPECIFIED ELSEWHERE

A. Cast-In-Place Concrete: Section 033000

2 DEFINITIONS

A. The following terms shall have the meanings ascribed to them in this Article, wherever they appear in this Section

1. Earth Excavation: The removal of all surface and subsurface material not classified as rock (as defined below).
2. Rock: Limestone, sandstone, shale, granite, and similar material in solid beds or masses in its original or stratified position which can be removed only by blasting operations, drilling, wedging, or use of pneumatic tools, and boulders with a volume greater than 1.0 cu yd. Concrete building foundations and concrete slabs, not indicated, with a volume greater than 1.0 cu yd shall be classified as rock.
 - a. Limestone, sandstone, shale, granite, and similar material in a broken or weathered condition which can be removed with an excavator or backhoe equipped with a bucket with ripping teeth or any other style bucket shall be classified as earth excavation.
 - b. Masonry building foundations, whether indicated or not, shall be classified as earth excavation.
3. Subgrade Surface: Surface upon which subbase, fill or topsoil is placed.
4. Subbase: Select granular material, blend 57 stone or subbase course Type 2 which is placed immediately beneath pavement or concrete slabs.
5. Foundation Bearing Grade: Grade/elevation at which the bottom-of-footings are constructed.
6. Maximum Density: The dry unit weight in pounds per cubic foot of the soil at "Optimum Moisture Content" when determined by ASTM D 1557 (Modified Proctor).
7. Structures: Buildings, footings, foundations, retaining walls, slabs, tanks, mechanical and electrical appurtenances, or other manmade stationary features constructed above or below the ground surface.
8. Landscaped Areas: Areas not covered by structures, walks, roads, paving,

or parking.

9. Unauthorized Excavation: The removal of material below required elevation indicated on the Drawings or beyond lateral dimensions indicated or specified without specific written direction by the Owner's Representative.
10. Grading Limit Line (Shown on Drawings): Limits of grading, excavations and filling required for the work of this contract. Unless specifically noted otherwise, the Grading Limit Line and Contract Limit Line shall be considered the same.

3 SUBMITTALS

A. Product Data

1. Filter Fabric: Manufacturer's catalog sheets, specifications, and installation instructions.
2. Fill Materials: Submit to the Owners Representative the laboratory test results for gradation, proctors and soundness tests, when required. These tests shall be performed in accordance with ASTM standards, shall be performed and signed by a certified soils laboratory, and shall be submitted as part of the original submittal.

B. Quality Control Submittals:

1. Excavation Procedure: Submit a lay out drawing or detailed outline of intended excavation procedure for the Owner's information. This submittal will not relieve the Contractor of responsibility for the successful performance of intended excavation methods.
2. Subbase Materials: Name and location of source and the DOT Source Number. If the material is not being taken from an approved DOT Source the results of the gradation and soundness tests performed by an ASTM certified soils laboratory will be required.
3. Other Aggregates: Name and location of source and soil laboratory test results.

4 PROJECT CONDITIONS

- A. Protect existing trees and plants during performance of the Work unless otherwise indicated.
- B. Discover and protect any known subsurface items from damage.
- C. Protect all utility poles and overhead lines as needed.
- D. Cold Weather Requirements:

1. Excavation: When freezing temperatures are anticipated, do not excavate to final required elevations for concrete work unless concrete can be placed immediately.
2. Backfilling: If backfill is being placed during freezing temperatures the backfilling operations shall be monitored by the Owner's Representative and the following procedures shall be followed:
 - a. Frozen ground shall be removed in its entirety from beneath and five feet beyond the area of fill placement.
 - b. The fill material placed shall consist of Selected Fill and shall be free of all frozen chunks that exceed four inches in size.
 - c. At the end of the work day, the area of fill placement shall be covered with insulated blankets, or left unprotected.
 - d. Following work day, remove the insulated blankets and/or strip the area of all frozen material as specified previously.
 - e. Upon establishing the subgrade elevations, protect the grades with insulated blankets or place additional material.

PART 2 - PRODUCTS

1 MATERIALS

- A. Select Granular Material: Stockpiled, sound, durable, sand, gravel, stone, or blends of these materials, free from organic and other deleterious materials. Comply with the gradation and material requirements specified below:

Sieve	Sieve Size Opening (mm)	% Passing
2 inch	50.8	100
¼ inch	6.35	30-65
No. 40	0.425	5-40
No. 200	0.075	0-10

1. Magnesium Sulfate Soundness Test: 20 percent maximum loss by weight after four test cycles.
2. Plasticity Index: The plasticity index of the material passing the No. 40 mesh sieve shall not exceed 5.0.
3. Elongated Particles: Not more than 30 percent, by weight, of the particles retained on a 1/2 inch sieve shall consist of flat or elongated particles. A flat or elongated particle is defined as one which has its greatest dimension more than three times its least dimension.

- B. Subbase Course Type 2: Stockpiled, crushed ledge rock or approved blast furnace slag. Comply with the gradation and material requirements specified below:

Sieve	Sieve Size Opening (mm)	% Passing
2 inch	50.8	100
1/4 inch	6.35	25-60
No. 40	0.425	5-40
No. 200	0.075	0-10

1. Magnesium Sulfate Soundness Test: 20 percent maximum loss by weight after four test cycles.
2. Plasticity Index: The plasticity index of the material passing the No. 40 mesh sieve shall not exceed 5.0.
3. Elongated Particles: Not more than 30 percent, by weight, of the particles retained on a 1/2 inch sieve shall consist of flat or elongated particles. A flat or elongated particle is defined as one which has its greatest dimension more than three times its least dimension.

- C. Select Fill: Sound, durable, sand, gravel, stone, or blends of these materials, free from organic and other deleterious materials. Comply with the gradation requirements specified below:

Sieve	Sieve Size Opening (mm)	% Passing
4 inch	101.6	100
No. 40	0.425	0-70
No. 200	0.075	0-15

- D. Suitable Material (Fill and Backfill for Landscaped Areas): Material consisting of mineral soil (inorganic), blasted or broken rock and similar materials of natural or man-made origin, including mixtures thereof. Maximum particle size shall not exceed 2/3 of the specified layer thickness prior to compaction. NOTE: Material containing cinders, industrial waste, sludge, building rubble, land fill, muck, and peat shall be considered unsuitable for fill and backfill, except topsoil and organic silt may be used as suitable material in landscaped areas provided it is placed in the top layer of the subgrade surface.

- E. Structural Fill: Well graded bank-run sand and gravel and meets the following gradation.

Sieve	Sieve Size Opening (mm)	% Passing
3 inch	75	100

No. 40	0.425	30-70
No. 200	0.075	0-15

F. Structural Fill: Well graded bank-run sand and gravel and meets the following gradation.

Sieve	Sieve Size Opening (mm)	% Passing
3 inch	75	100
No. 40	0.425	30-70
No. 200	0.075	0-15

G. Stone Dust: Material shall consist of crushed limestone. All materials furnished shall be well graded and free from unsuitable materials. All processing shall be completed at the source.

Sieve Size Opening (mm)	% Passing
¼ inch	100
No. 10	55 – 75
No. 40	20 – 40
No. 200	7 – 10

Magnesium sulfate soundness test: 20 percent maximum loss by weight after four test cycles.

Plasticity index: the plasticity index of the material passing the no. 40 mesh sieve shall not exceed 5.0.

GEOTEXTILE FABRIC:

2 Geotextile Fabric

A. Filter Fabric (GeoTextile)

1. Drainage and Erosion Control: Amoco 1199 & 2019, Mirafi 160N, Thrace-Linq 150EX, Propex Geotex 601 or equivalent.
2. Separation/Stabilization beneath pavements: Mirafi 500X, ThraceLinq GTF200, Propex Getoex 200ST or equivalent.

PART 3 - EXECUTION

1 UNDERGROUND UTILITIES

- A. Locate existing underground utilities prior to commencing excavation work.

Determine exact utility locations by hand excavated test pits. Support and protect utilities to remain in place.

- B. Do not interrupt existing utilities that are in service until temporary or new utilities are installed and operational.
- C. Utilities to remain in service: Shall be re-routed as shown on the Contract Drawings.
- D. Utilities abandoned beneath and five feet laterally beyond the structure's proposed footprint shall be removed in their entirety. Excavations required for their removal shall be backfilled and compacted as specified herein.
- E. Utilities located outside the limits specified above may be abandoned in place provided their ends are adequately plugged as described below.
 - 1. Permanently close open ends of abandoned underground utilities exposed by excavations, which extend outside the limits of the area to be excavated.
 - 2. Close open ends of metallic conduit and pipe with threaded galvanized metal caps or plastic plugs or other approved method for the type of material and size of pipe. Do not use wood plugs.
 - 3. Close open ends of concrete and masonry utilities with concrete or flow-able fill.

2 EXCAVATION

- A. Excavate earth as required for the Work.
- B. Install and maintain all erosion and sedimentation controls during all earthwork operations as specified on the Contract Drawings or as directed by local officials. If the erosion and sedimentation controls specified by the local officials are more stringent than those specified on the Contract Drawings contact the Owner's Representative.
- C. Maintain sides and slopes of excavations in a safe condition until completion of backfilling. Comply with Code of Federal Regulations Title 29 - Labor, Part 1926 (OSHA).
 - 1. Trenches: Deposit excavated material on one side of trench only. Trim banks of excavated material to prevent cave-ins and prevent material from falling or sliding into trench. Keep a clear footway between excavated material and trench edge. Maintain areas to allow free drainage of surface water.
- D. Stockpile excavated materials classified as suitable material where directed, until required for fill. Place, grade, and shape stockpiles for proper drainage as approved by the Owner's Representative.

- E. Excavation for Structures: Conform to elevations, lines, and limits indicated. Excavate to a vertical tolerance of plus or minus 1 inch. Extend excavation a sufficient lateral distance to provide clearance to execute the Work.
- F. Pipe Trenches and/or Bell and Spigot Pipe Trenches: Open only enough trench length to facilitate laying pipe sections. Unless otherwise indicated on the Drawings, excavate trenches approximately 24 inches wide plus the outside pipe diameter, equally divided on each side of pipe centerline. Cut trenches to cross section, elevation, profile, line, and grade indicated. Accurately grade and shape trench bottom for uniform bearing of pipe.
 - 1. Trench in Rock: Excavate an additional 6 inches below bottom of pipe for bed of cushion material under the piping.
- G. Conduit, Cable, Tubing and Piping (other than Bell and Spigot): Provide sufficient trench width for installation and to accommodate special backfill when specified.
- H. Open Ditches: Cut ditches to cross sections and grades indicated.
- I. Pavement: Excavate to subgrade surface elevation.
- J. Unauthorized Excavations: Unless otherwise directed, backfill unauthorized excavation under footings, foundation bases, and retaining walls with compacted select granular material without altering the required footing elevation. Elsewhere, backfill and compact unauthorized excavation as specified for authorized excavation of the same classification, unless otherwise directed by the Owner.
 - 1. Unauthorized excavations under structural Work such as footings, foundation bases, and retaining walls shall be reported immediately to the Owner before any concrete or backfilling Work commences.
- K. Notify the Owner's Representative upon completion of excavation operations. Do not proceed with the Work until the excavation is inspected and approved. Inspection of the excavation by the Owner's Site Representative will be made on 3 working days notice.

3 DEWATERING

- A. Prevent surface and subsurface water from flowing into excavations and trenches and from flooding the site and surrounding area.
- B. Do not allow water to accumulate in excavations or trenches. Remove water from all excavations immediately to prevent softening of foundation bottoms, undercutting footings, and soil changes detrimental to the stability of subgrades and foundations. Furnish and maintain pumps, sumps, suction and discharge piping systems, and other system components necessary to convey the water away from the Site.

- C. Convey water removed from excavations, and rain water, to collecting or run-off area. Cut and maintain temporary drainage ditches and provide other necessary diversions outside excavation limits for each structure. Do not use trench excavations as temporary drainage ditches.
- D. Provide temporary controls to restrict the velocity of discharged water as necessary to prevent erosion and siltation of receiving areas.

4 PLACING FILL AND BACKFILL

- A. Surface Preparation of Fill Areas: Strip topsoil, remaining vegetation, and other deleterious materials prior to placement of fill. Remove all asphalt pavement in its entirety from areas requiring the placement of fill or break up old pavements to a maximum size of four inches. Prior to placement of fill, smooth out and compact areas where wheel rutting has occurred due to stripping or earthwork operations.
- B. Excavations: Backfill as promptly as practicable, but only after approval by the Owner's Representative. Do not backfill with excavated material unless it meets the requirements of this Section.
- C. Place backfill and fill materials in layers not more than 8 inches thick in loose depth unless otherwise specified. Before compaction, moisten or aerate each layer as necessary to facilitate compaction to the required density. Do not place backfill or fill material on surfaces that are muddy, frozen, or covered with ice.
 - 1. Place fill and backfill against foundation walls, and in confined areas (such as trenches) not easily accessible by larger compaction equipment, in maximum six inch thick (loose depth) layers.
 - 2. For Open Graded Stone/Clean Stone (Item B-12, No. 1 crushed stone, No. 2 crushed stone, etc.) in access of six inches: Material must be wrapped in separation fabric.
- D. Prevent wedging action of backfill against structures by placing backfill uniformly around structure to approximately same elevation in each layer. Place backfill against walls of structures containing basements or crawl spaces only after the first floor structural members are in place.
- E. Under Pavements and Walks:
 - 1. Up to Subgrade Surface Elevation: Place selected fill when fill or backfill is required.
 - 2. Subbase Material: Place as indicated.
- F. Landscaped Areas: Place suitable material when required to complete fill or backfill areas up to subgrade surface elevation. Do not use material containing rocks over four inches in diameter within the top 12 inches of suitable material.
- G. Plastic Pipe in Trenches: Place select granular material a minimum of six inches

deep under pipe, 12 inches on both sides, and 12 inches above top of pipe. Complete balance of backfill as specified.

- H. Copper Tubing and Steel Gas Pipe in Trenches: Place cushion material a minimum of six inches deep under pipe, six inches on both sides, and 4 inches over top of pipe. Complete balance of backfill as specified.

5 COMPACTION

- A. All materials with exception of open graded stone (No. 2 Coarse aggregate, No. 1 Coarse aggregate, Item B-12, etc.):
1. Compact each layer of fill and backfill for the following area classifications to the percentage of maximum density specified below and at a moisture content suitable to obtain the required densities, but at not less than three percent drier or more than two percent wetter than the optimum content as determined by ASTM D 698 (Standard Proctor) or 1557 (Modified Proctor).
 - a. Structures (entire area within ten feet outside perimeter): 95 percent.
 - b. Concrete Slabs and Steps: 95 percent.
 - c. Fall Safety Surfacing: 95 percent
 - d. Landscaped Areas: 90 percent.
 - e. Pavements and Walks: 95 percent.
 - f. Pipes and Tunnels: 95 percent.
 - g. Pipe Bedding: 95 percent.
 2. If a compacted layer fails to meet the specified percentage of maximum density, the layer will be re-compacted and retested. If compaction cannot be achieved the material/layer will be removed and replaced. No additional material may be placed over a compacted layer until the specified density is achieved.
 3. Open graded Stone: Place material in maximum twelve inch lifts. Each lift shall be raked smooth and compacted through several passes of a walk behind vibratory roller. Compaction Testing is not required.

6 GRADING

- A. Rough Grading: Trim and grade area within the Grading Limit Line and excavations outside the limit line, required by this Contract, to a level of four inches below the finish grades indicated unless otherwise specified herein or where greater depths are indicated. Provide smooth uniform transition to adjacent areas.

- B. Finish Grading: Finish surfaces free from irregular surface changes, and as follows:
1. Grassed Areas: Finish areas to receive topsoil to within 1 inch above or below the required subgrade surface elevations.
 2. Fall Safety Surface: Place and compact subbase material and stone dust as specified. Shape surface of areas to required line, grade and cross section, with the finish surface not more than 1/4 inch above or below the required elevation.
 3. Walks and Pavements: Place and compact subbase material as specified. Shape surface of areas to required line, grade and cross section, with the finish surface not more than 1/2 inch above or below the required subbase elevation.
 4. Building Slabs: Grade subbase material smooth and even, free of voids, compacted as specified to within 1/4 inch above or below required subbase elevation.

7 RESTORATION

- A. Restore pavements, walks, curbs, lawns, and other exterior surfaces damaged during performance of the Work to match the appearance and performance of existing corresponding surfaces as closely as practicable.
- B. Topsoil and seed or sod damaged lawn areas outside the GLL and new lawn areas inside the GLL. Water as required until physical completion of the Work.

8 DISPOSAL OF EXCESS AND UNSUITABLE MATERIALS

- A. Remove from property and dispose of excess and unsuitable materials, including materials resulting from clearing and grubbing and removal of existing improvements.

9 FIELD QUALITY CONTROL

- A. Compaction Testing: Notify the Owner's Representative at least 3 working days in advance of all phases of filling and backfilling operations. Compaction testing will be performed by the Owner's Representative to ascertain the compacted density of the fill and backfill materials. Compaction testing will be performed on certain layers of the fill and backfill as determined by the Owner's Representative. If a compacted layer fails to meet the specified percentage of maximum density, the layer shall be re-compacted and will be retested. No additional material may be placed over a compacted layer until the specified density is achieved.

10 PROTECTION

- A. Protect graded areas from traffic and erosion, and keep them free of trash and debris.

END OF SECTION

SECTION 321816

PLAYGROUND SURFACING TILES

PART 1 - GENERAL

1 RELATED WORK SPECIFIED ELSEWHERE

- A. Earthwork: Section 310000

2 SUMMARY

- A. Section Includes: Rubber tile playground surfacing system.
- B. Playground surfacing tiles must be able to be installed upon a compacted gravel surface.

3 REFERENCES

A. REFERENCES

- 1. American Society for Testing and Materials (ASTM):
 - a. ASTM D412 Standard Test Methods for Vulcanized Rubber and Thermoplastic Rubbers and Thermoplastic Elastomers-Tension.
 - b. ASTM D624 Standard Test Method for Tear Strength of Conventional Vulcanized Rubber and Thermoplastic Elastomers.
 - c. ASTM D2047 Standard Test Method for Static Coefficient of Friction of Polish-Coated Floor Surfaces as Measured by the James Machine.
 - d. ASTM D2859 Standard Test Method for Flammability of Finished Textile Floor Covering Materials.
 - e. ASTM E303 Standard Test Method for Measuring Surface Frictional Properties Using the British Pendulum Tester.
 - f. ASTM F1292 Standard Specification for Impact Attenuation of Surface Systems Under and Around Playground Equipment.
 - g. ASTM F1951 Standard Specification for Determination of Accessibility of Surface Systems Under and Around Playground Equipment.

4 SYSTEM DESCRIPTION

- A. Performance Requirements: Provide a single layer rubber tile playground surfacing system which has been designed, manufactured and installed to meet the following criteria:

1. Rated for a fall height of 8 feet
2. Gmax - Less than 200.
3. Head Injury Criteria - Less than 1000.
4. Flammability (ASTM D2859) - Pass.
5. Tensile Strength (ASTM D412) - 60 psi (413 kPa).
6. Tear Resistance (ASTM D624) - 140%.
7. Water Permeability: 0.4 gal/yd²/second.
8. Accessibility: Comply with requirements of ADA and ASTM F1951.

5 SUBMITTALS

- A. General: Submit listed submittals in accordance with Conditions of the Contract.
 1. Product Data: Submit manufacturer's product data and installation instructions.
 2. Verification Samples: Submit manufacturer's standard verification samples of 9" x 9" (229 x 229 mm) minimum.
 3. Quality Assurance/Control Submittals: Submit the following:
 - a. Certificate of qualifications of the playground surfacing installer.
 4. Closeout Submittals: Submit the following:
 - a. Warranty documents specified herein.

6 QUALITY ASSURANCE

- A. Qualifications: Utilize an installer having experience with projects of similar scope and complexity.

7 DELIVERY, STORAGE & HANDLING

- A. General: Comply with all Manufacturer recommendations.
- B. Delivery: Deliver materials in manufacturer's original, unopened, undamaged containers with identification labels intact.
- C. Storage and Protection: Store materials to comply with all Manufacturer recommendations.

8 PROJECT/SITE CONDITIONS

- A. Environmental Requirements: Install surfacing system when minimum ambient temperature is 40 degrees F (1 degree C) and maximum ambient temperature is 90 degrees F (32 degrees C), or comply with Manufacturer recommendations. Do not install in steady or heavy rain.

9 WARRANTY

- A. Manufacturer's Warranty: Submit, for Owner's acceptance, manufacturer's standard warranty document executed by authorized company official. Manufacturer's warranty is in addition to, and not a limitation of, other rights Owner may have under contract documents.
- B. Warranty Period: 15 years from date of product installation completion.

PART 2 - PRODUCTS

1 PLAYGROUND SURFACING TILE SYSTEM

- A. While an equal or better product is allowed by approval of the engineer and the town, the information and basis of this specification American Floor Mats Product Recplay Rubber Playground Tile. These are 2 foot by 2 foot tiles with a rated fall height of 8 feet. Preferred color is 95% mellow greens which is a 95% color fill.

2 ACCESSORIES

- A. Provide all accessories required for the installation.

PART 3 - EXECUTION

1 MANUFACTURER'S INSTRUCTIONS

- A. Comply with the instructions and recommendations of the playground surfacing manufacturer.

2 EXAMINATION

- A. Site Verification of Conditions: Verify that substrate conditions are suitable for installation of the playground surfacing system.
- B. Do not proceed with installation until unsuitable conditions are corrected.
- C. Ensure that all conditions meet the requirements for keeping the warranty valid.

3 INSTALLATION

- A. Do not proceed with playground surfacing installation until all applicable site work, including substrate preparation, playground equipment installation and other relevant work, has been completed.
- B. Strictly comply with Manufacturer's recommended installation procedure over compacted gravel base/subbase.

4 PROTECTION

- A. Protect the installed playground surface from damage resulting from subsequent construction activity on the site.

END OF SECTION