IMPORTANT INFORMATION TO BIDDERS

It is YOUR responsibility to register with the office of Town Manager if you use the TOWN WEB SITE to download this RFP/BID. Failure to register may prevent you from receiving important addendums, changes or answers to questions submitted by other vendors regarding the specifications. The Town of Clinton assumes no responsibilities for defects and/or omissions in Bid responses due to failure to register with the Office of Town Manager.

It is strongly recommended that you E-mail the following information to mschettino@clintonct.org .

Name:	
E-mail Address:	
Phone:	
Bid Name:	
Bid Number:	

SPECIFICATIONS
FOR

BID #2023-13

Replacement of Bleachers and Scoreboard at Ethel Peters Recreation Complex

PROJECT DESCRIPTION:

Work generally consists of the removal of the existing bleachers, furnishing and installation of new bleachers and furnishing a new scoreboard.

This project will be Bid under three (3) separate contracts as follows:

Contract #1 – Site Preparation

Contract #2 – Furnish and Install ADA Compliant Bleachers

Contract #3 – Furnish New Scoreboard

TOWN MANAGER: KARL KILDUFF

PARK and RECREATION DIRECTOR: ROBERT POTTER

LEGAL NOTICE
TOWN OF CLINTON

SEALED BIDS will be received until **11:00 a.m. January 15, 2024** the Office of the Town Manager, Andrews Memorial Town Hall, 54 E. Main Street, Clinton, Conn. 06413 at which time they will be opened and read aloud for a **Replacement of Bleachers and Scoreboard at Ethel Peters Recreation Complex.** Bids received after the above date and time will be rejected. Bid Documents are available for download on the Town of Clinton website at www.clintonct.org.

The Town Manager reserves the right to reject any, or any part of, or all proposals; to waive informalities and technicalities and to accept the Bid which the Town deems to be in the best interest of the Town, whether or not it is the lowest dollar amount.

Karl Kilduff, Town Manager

PUBLISH: New Haven Register
DATE: December 27, 2023

TOWN OF CLINTON
INFORMATION TO BIDDERS

SEALED BIDS will be received at the Office of the Town Manager, Andrews Memorial Town Hall, 54 E. Main Street, Clinton, Conn. 06413 until **11:00 AM**, **January 15, 2024** at which time they will be opened and read aloud for:

Replacement of Bleachers and Scoreboard at Ethel Peters Recreation Complex

Project shall be Bid under three (3) separate contracts as follows;

Contract #1 – Site Preparation

Contract #2 – Furnish & Install ADA Compliant Bleachers

Contract #3 – Furnish New Scoreboard

Bids received after the above stated time will be rejected. Bid Documents are available for download on the Town of Clinton website at www.clintonct.org.

Certificates of Insurance in a form acceptable to Town Counsel, will be submitted by the successful bidder upon written or verbal notification that the proposal has been accepted. Required insurance must be maintained for the duration of the contract.

Terms of payment, except when specified in the proposal, will be net 45 days after receipt of approved invoice. The Town of Clinton is exempt from taxes imposed by the Federal and State Governments including the Federal Transportation Tax. Such taxes should not be included in your proposal. Where applicable, freight charges, setup charges and any other charges are to be included in the total price to the Town.

Work performance must be in conformance with all OSHA regulations and all vehicles must meet Federal and State Department of Transportation rules and regulations governing their use in Connecticut. All equipment will be maintained in a safe clean working condition as intended by the manufacturer. Violation of this provision may result in immediate termination of contract.

When applicable, the Contractor assumes responsibility to conform to all local ordinances and to obtain all necessary permits before start of work. Certificates of Insurance shall include the Town of Clinton as an additional insured for the life of the Contract.

Pursuant to Section 10-6 of the Town of Clinton Charter, the Town Manager may reject any and all bids, or waive informalities and technicalities. Bids received after the above stated time will be rejected. No bid shall be accepted from or contract awarded to any person who is in arrears to the Town of Clinton on any tax, debt, or contract.

GENERAL INFORMATION TO ALL RESPONDENTS

The first page of each BID must be clearly labeled with the proposer's name, the name of a contact person within the proposer's organization, and the proposer's mailing address, telephone number, fax number, webpage address and email address.

To be considered, a vendor must submit a complete BID that satisfies all requirements and addresses all information requested or specified in this BID.

The Town reserves the right to amend or withdraw this BID at any time prior to the deadline date for submission of proposals. If this BID is amended, the Town will notify each REGISTERED proposer in writing, via email.

When quantities are listed in these specifications they may be increased or decreased by the Town of Clinton, depending upon its actual requirements.

The Town of Clinton is an equal opportunity employer and we advise you of our intent to negotiate business only with other equal opportunity employers. All Contractors and subcontractors with whom we contract are obligated to provide equal opportunity without regard to race, creed, color, national origin, age, sex or handicap.

Bids must be submitted on proposal forms attached hereto. Bids received later than the time and date specified will not be considered.

No bid shall be accepted from, or contract awarded to any person who is in arrears to the Town of Clinton on any tax, debt, or contract.

All questions are to be submitted by email. Only questions submitted in this manner will be answered. All bidders will receive copies of questions and answers upon request.

All bid prices must include prepaid delivery, assembly and/or installation (ready for operation and/ or use) of all equipment and/or materials to the individual location(s) as designated by the Town of Clinton. All bid prices are to be submitted on the sheets provided on this bid. Quantities and pricing are to be listed in accordance with these sheets.

Bidders offering(s) under this bid must meet and be in compliance with all local, state and federal specifications, regulations and requirements pertaining to the work, materials, equipment or items requested in the bid.

The successful bidder, vendor and/or contractor must protect all property of the Town of Clinton, (i.e., all floors, furniture, grass, land, etc.) from injury or other damage. Any damage so caused must be repaired by contractor/vendor at his/her own expense.

At the completion of the work the vendor and/or contractor must remove from the premises all surplus materials and all debris created by him. He must leave the premises in a clean and

finished condition acceptable to the owner or its agents. It is the responsibility of the VENDOR to document before and after conditions.

Default - It shall be understood that a bidder supplying equipment and/or supplies will be considered to be in default if/when he/she has not delivered the item(s) within the time constraints listed in this document. Bidders providing a service and/or construction will be considered to be in default if/when they have failed to meet the completion date set forth in this document and/or they have ceased work on the project for a period of fifteen (15) working days cumulative or consecutive.

Samples that are forwarded by the bidder will be returned to the bidder at his request and at his expense. Samples not returned to the bidder will be disposed of at the discretion of the Town of Clinton or its designated representative. Large pieces of equipment submitted for evaluation and inspection are to be picked up by the bidder within thirty (30) days of bid opening date. Items not picked up within thirty (30) days of bid opening will be disposed of by the Town Clinton.

Any and all references to trade names, types, styles, models or catalogs are intended to be descriptive only and not restrictive. The intention is to indicate to bidders the type and quality of the articles and/or materials that will be satisfactory. Bids received on other makes or models with reference to other catalogs will be considered. The bidder is to clearly state in his bid exactly what he intends to furnish, and to furnish with his bid a cut or illustration or other descriptive matter that will clearly indicate and give specification as to the product he proposes to furnish. Where a bid is offered on an item other than the trade standard used in the specification the item should be identified on the bid form by entering the MAKE, TRADE NAME AND MODEL NUMBER. It is understood that any substitutes that might be offered are guaranteed by the bidder to be of equal or better quality than is requested in the bid. The item(s) offered must be equivalent as to function, basic design, type and quality of material, method of construction and any required dimensions. It shall be further understood that during original as well as subsequent shipments spot checks will be performed to insure that the items received are in fact the items offered in the bid. WHEN RECEIVED, SHOULD ITEMS/MATERIALS PROVE TO BE DIFFERENT IN ANY WAY, THE BIDDER AGREES TO THE RETURN OF THE ITEMS AND AGREES TO SUPPLY THE CORRECT ITEMS (PER BID SPECIFICATIONS) AT THE BIDDER'S EXPENSE.

Bidders are cautioned that surplus, seconds, factory rejects, close-outs or distressed items are not acceptable and shipment of substitutions, defective or shop-worn equipment will be returned for a full refund at the vendor's expense.

The quantities and/or material listed in the specifications may be increased or decreased by the Town of Clinton or its designated representative based on actual need at the time the orders are placed.

The Town of Clinton or its designated representative reserves the right to reject any proposal in whole or part offering equipment and/or materials and/or services that in his/her opinion does not meet the quality standards desired. Such decision will be considered final and not subject to further recourse by the bidder.

The Town of Clinton or its designated agent reserves the right to award or reject by item, or part thereof, groups of items, or parts thereof, or all items of the bid and to award contracts to one or more bidders submitting identical proposals as to price, to reject any and all bids in whole or in part, to waive technical defects, irregularities and omissions if, in his/her judgment the best interest of the town will be served.

The Town of Clinton specifically reserves the right to reject any and all bids until a purchase order and/or contract has been awarded, no bidder can claim any contract rights by virtue of bidding alone. Awarding of the contract means actual written notice by letter and a properly executed purchase order to the bidder or bidders that the contract has been awarded.

It is the intent to award this bid by line item; however the Town of Clinton reserves the right to award the bid in total if it is deemed by the Town of Clinton that the award in total would be in the best interest of the Town. In addition, bidders should be advised that should budgetary constraints dictate, part and/or all the items listed in this bid may be rejected. This decision(s) shall be considered final and not subject to recourse by the bidder.

WHERE A BID BOND IS REQUIRED, IT IS TO BE SUBMITTED WITH THE BID AT THE TIME OF SUBMISSION. (See page 11)

Bid Bond - shall be in the amount equivalent to ten percent (10%) of the contract made out in favor of the Town of Clinton and issued by a surety company acceptable to and approved by the Town of Clinton.

WHERE A PERFORMANCE BOND IS REQUIRED, IT IS TO BE SUBMITTED AFTER AWARD OF BID AND PRIOR TO CONTRACT EXECUTION. (See page 11)

Performance Bond - the bidder whose proposal shall be accepted shall file a performance bond and execute said contract within fifteen (15) days from the date of notification of such award. The bond furnished must be in favor of the Town of Clinton and executed by a surety company authorized to transact business in the State of Connecticut and acceptable and approved by the Town of Clinton. It shall be for not less than one hundred percent (100%) of the total contract price but in no case less than one thousand dollars ($1,000).

WHERE A PAYMENT BOND IS REQUIRED, IT IS TO BE SUBMITTED AFTER AWARD OF BID AND PRIOR TO CONTRACT EXECUTION. (See page 11)

Payment Bond - if requested by the Town of Clinton, bidder whose proposal shall be accepted shall file a payment bond and execute said contract within fifteen (15) days from the date of notification of such award. The bond furnished must be in favor of the Town of Clinton and executed by a surety company authorized to transact business in the State of Connecticut and acceptable and approved by the Town of Clinton. It shall be for not less than one hundred percent (100%) of the total contract price but in no case less than one thousand dollars ($1,000).

The Town of Clinton reserves the right to require successful bidder(s) to enter into such security arrangements as are deemed necessary to protect the Town of Clinton property and goods.

Facsimile Transmissions - Submission of this bid or any portion of this bid and/or any documents relating to the bid by means of Facsimile Transmission (fax machine) is unacceptable and will not be considered in the bid process.

The bidder agrees to obtain all work/building permit(s) as might be required. The cost of obtaining said permit(s) shall be included in the bid price(s). In addition, it shall be understood where property lines are to be considered, bidders are to verify said lines/measurements with proper Town Officials prior to commencement of work.

In connection with the execution of this bid, subsequent purchase orders and/or contracts, the seller shall not discriminate against any employee or applicant for employment because of age, race, religion, color, sex or national origin.

The successful bidder shall not employ any subcontractor to fulfill any of the duties as herein specified without express, prior written approval of the Town of Clinton or its designated representative.

Material Safety Data Sheet (MSDS) - the successful bidder must warrant that any chemicals supplied hereunder will contain appropriate warning labels, cautioning instructions and notices. In addition, any chemical products supplied in bulk and/or used in the execution of this bid and/or its content, bidder agrees to furnish as directed, sufficient copies of the products MSDS and a supply of labels and cautionary instruction notices to be used in the plant(s).

The successful bidder must warrant that he has supplied all appropriate information that he is aware of concerning any potential hazards involved in the use, handling, transportation, labeling, storage or disposal of any/all chemicals and/or materials supplied and/or used in the execution of this bid and/or its contents.

The successful bidder must warrant that he has supplied any data on the possible toxic or harmful effect the chemicals provided and/or used may have and the precautions the Town of Clinton should take to eliminate or minimize those risks.

When the State of Connecticut Prevailing Wage Rate is applicable to the bid, it is to be known by the prospective bidders that a Certified Payroll Record must be forwarded prior to any request and/ or invoice for payment(s).

Machines and/or Equipment (lockout/tag out) - In an effort to comply with OSHA's final rule on control of hazardous energy sources, vendors must warrant that any and all machines and/or equipment as is covered under this bid will be supplied and/or installed equipped with lockout/tag out devices as prescribed by OSHA.

All energy isolating devices must be designed to accept a lockout device, as required by OSHA lockout/tag out requirements, 29 C.F.R. 1910.147(C)(2)(iii). 54 Fed. Reg. 36681, 36688 (September 1, 1989). For this purpose, an "energy isolating device" is a mechanical device that physically prevents the transmission or release of energy (such as a valve), and "lockout device" is a device that uses a positive means, such as a lock, to hold an energy isolating device in the safe position and prevent the energizing of a machine or equipment.

The successful bidder shall agree that any award resulting from this bid will be extended to any/ all departments and agencies of the Town of Clinton and that the successful vendor shall invoice said Town agency and/or department separately.

The terms and contents of these general bid terms and conditions are made a part of this bid.

GENERAL SCOPE OF WORK:

The Town of Clinton is seeking BIDS for the removal and disposal of the existing bleachers and furnishing and installing new bleachers and furnishing a new scoreboard. Bid Price shall include all costs associated with this work.

Questions:

All questions will be submitted by January 10, 2024.

Only questions submitted by e-mail will be addressed. Please submit all questions to:

rpotter@clintonct.org

Copy to: mschettino@clintonct.org

Please complete all requested information in this package:

- Page 12 Exception to the Bid (must be signed even if there are no exceptions)
- Pages 13 Bid Proposal Form
- Page 14, 15 & 16 Bid Items

You are responsible to read the entire document.

BID DIRECTIONS: Bids to be considered must be presented on the sheets provided within this bid. Additional information sheets may be attached. No bidder may withdraw his bid for a period of 45 days after the opening date. Prices must hold for at least 90 days after opening.

Bid bond is required with this bid: (with submittal of bid, see Page 7)	NO
Performance bond will be required: (prior to contract execution, see page 7)	NO
Payment bond will be required: (prior to contract execution, see page 7)	NO
This is a prevailing wage project:	NO
Material samples are required with this bid:	NO
Descriptive and/or material specifications are to be submitted with your bid: Proof of insurance required: (prior to execution of contract, see page 12)	YES
References Required	NO

Other:

Insurance Requirements

Contractor shall agree to maintain in force at all times during which services are to be performed the following coverages and shall name the Town of Clinton as an Additional Insured on a primary and non-contributory basis to the Contractor's Commercial General Liability and Automobile Liability policies. **These requirements shall be clearly stated in the remarks section on the bidders Certificate of Insurance.** Insurance shall be written with Carriers approved in the State of Connecticut and with a minimum Best's Rating of A-. In addition, all Carriers are subject to approval by the Town of Clinton.

		(Minimum Limits)
General Liability:	Each Occurrence	$1,000,000
	General Aggregate	$2,000,000
	Products/Completed Operations Aggregate	$2,000,000

A Waiver of Subrogation shall be provided

Auto Liability:	Combined Single Limit	$1,000,000
	Each Accident	$1,000,000
Umbrella:	Each Occurrence	$5,000,000
(Excess Liability)	Aggregate	$5,000,000

Workers' Compensation and WC Statutory Limits		
Employers' Liability	EL Each Accident	$500,000
	EL Disease Each Employee	$500,000
	EL Disease Policy Limit	$500,000

A Certificate of Insurance: documenting the coverage listed above must be presented by your company prior to the commencing of any work or service. The Contractor or Vendor also agree to provide replacement and/or renewal certificates at least 30 days prior to the expiration of each policy.

If any policy is written on a "Claims Made" basis, the policy must be continually renewed for a minimum of two (2) years following the completion date of the work and/or service. If the claims-made policy is replaced and/or the retroactive date is changed, then the expiring policy must be endorsed to extend the reporting period for clams two (2) years from completion date.

A copy of the Declaration Pages: Will be provided to the Town.

An Additionally Insured Endorsement: A letter stating that the Town in listed as additional insured from the Insurance carrier.

Exclusions to the Policy: A statement of exclusions to all policies will be submitted prior to the award of contract.

EXCEPTIONS

No exceptions to the bid will be considered after award and acceptance by the contractor unless such exceptions are noted as part of your bid response. Please note any exceptions to the bid in your response.

We take EXCEPTION to the following specifications and/or requirements in the bid document:

We propose the following SUBSITUTION for the excepted specifications and/or regulations:

NO EXCEPTIONS ARE NOTED TO THE BID

Name (printed):	
Signature:	Date:

BID FORM

BIDDER agrees to perform all the work described in the CONTRACT DOCUMENTS for the unit prices or lump sums specified.

Proposer's Name:		Date:	
Company Name:		Phone:	
Contact Person:		Phone:	
Street Address:		Town:	
State:		ZIP Code:	
E-mail Address:		FAX:	

Operating as:

and duly licensed to performed the required work in the State of Connecticut and herein now known as the BIDDER agrees by submission of this BID, certifies, and in the case of a joint BID, each party thereto certifies as to his own organization, that this BID has been arrived at independently, without consultation, communication, or other agreement as to any matter relating to this BID with any other BIDDER or with any competitor.

Submitted by (printed):		Date:	
Signature:		Title:	

Contract #1 – Site Preparation

BID ITEMS

Item No.	Estimated Quantity	Description	Unit Price	Total Price
1.	L.S.	Sedimentation and Erosion Control, lump sum price _____ dollars and _____ cents.	$ _____	$_____
2.	L.S.	Remove and Dispose of Existing Bleachers, Lump Sum Price _____ Dollars and _____ cents.	$ _____	$ _____
3.	135 CY	Unclassified Excavation, price per cubic yard _____ dollars and _____ cents.	$ _____	$_____
4.	70 CY	Furnish and Place ¾" Broken Stone, 6" depth, price Per cubic yard _____ dollars and _____ cents.	$ _____	$_____
5.	2,515 SF	Construct Concrete Bleacher Slab, 4" depth, price square foot _____ dollars and _____ cents.	$ _____	$_____
6.	1,145 SF	Construct Concrete Walkway, 4" depth, price per square foot _____ dollars and _____ cents.	$ _____	$_____
7.	170 LF	Furnish and install 4' high Black Vinyl Clad Chain Link Fence including 4' wide Gate, price per linear Foot _____ dollars and _____ cents	$ _____	$_____

Total Price (in numbers) $_____

Total Price (in words) $_____

NOTE: THIS IS A UNIT PRICE PROJECT

The unit price for the items in the bid shall include its pro rata share of overhead and profit so that the sum of the products obtained by multiplying the quantity shown for each item by the unit price bid represents the total bid for the item. Any bid not conforming to this requirement may be rejected as informal. The special attention of all Bidders is called to this provision, for should conditions make it necessary to revise the quantities, increases or decreases thereof may be made without limit and the adjustment and compensation shall be made on the basis of the unit prices for such items.

Contract #2 - ADA Compliant Bleachers

BID ITEM

Item No.	Estimated Quantity	Description	Unit Price	Total Price
1.	L.S	Furnish and Install Bleachers as specified, Lump Sum Price _____ Dollars and _____ cents.	$ _____	$ _____

Total Price (in numbers) $_____

Total Price (in words) $_____

Contract #3 - Scoreboard Replacement

BASE BID ITEM

Item No.	Estimated Quantity	Description	Unit Price	Total Price
1.	L.S	Furnish Scoreboard as specified, Lump Sum Price _____ Dollars and _____ cents.	$ _____	$ _____

Total Price (in numbers) $_____

Total Price (in words) $_____

ALTERNATE BID ITEM

Item No.	Estimated Quantity	Description	Unit Price	Total Price
1.	L.S	Furnish and Install Scoreboard as specified, Lump Sum Price _____ Dollars and _____ cents.	$ _____	$ _____

SUBMITTING PROCEDURES

Bids may be considered INCOMPLETE if the following conditions are not met.

1. All forms must be filled out completely
2. Bid Documents must be submitted as a complete set. Do not omit any pages
3. TWO (2) complete copies of your bid proposal must be submitted.
4. Bids are DUE in the Office of Town Manager prior to the advertised deadline. It is your responsibility to use whatever means necessary to assure that they are delivered on time.
5. Bids will be submitted in a sealed envelope and clearly marked with your name, the company name and the Bid #(number)

It is suggested if you have any questions on the submittal process that you contact Mary Schettino, 860-669-9333 or mschettino@clintonct.org prior to the submittal deadline.

TECHNICAL SPECIFICATIONS INDEX

Technical Specifications

SECTION 02200 - EARTHWORK

PART 1 - GENERAL

1.01 DESCRIPTION OF WORK:

A. The extent of earthwork is shown on drawings. Work under this section also includes, but is not limited to the following:

Staking of lines and grade for site work complete.

Scraping and removing topsoil

Preparation of subgrade.

Dewatering.

Excavating, dewatering and backfilling and compaction and removal of excess and/or unsuitable materials as required for trenches for storm sewer systems.

Earth fill from on and off site, as required to meet proposed grade.

Compaction of soils.

Removal of excess and/or unsuitable materials.

B. Related Work Specified Elsewhere:

Erosion Control - Section 02201.

1.02 REFERENCE STANDARD

A. Materials and workmanship shall conform to applicable requirements of “NYSDOT” HDM.

1.03 QUALITY ASSURANCE:

A. Site Layout: Employ at Contractor’s expense a competent registered/licensed engineer or surveyor to layout the work and to establish all points, lines and grade necessary for the proper execution of the work.

1.04 DEFINITIONS:

A. Excavation consists of removal of material encountered to subgrade elevations indicated and subsequent disposal of materials removed.

B. Unauthorized excavation consists of removal of materials beyond indicated subgrade elevations or dimensions without specific direction of Engineer. Unauthorized excavation, as well as remedial work directed by Engineer, shall be at Contractor’s expense.

1. Backfill and compact unauthorized excavations as specified for authorized excavations of same classification, unless otherwise directed by Engineer.

C. Additional Excavation: When excavation has reached required subgrade elevations, notify Engineer, who will make and inspection of conditions. If Engineer determines that bearing materials at required subgrade elevations are unsuitable, continue excavation until suitable bearing material as directed by Engineer. The Contract Sum may be adjusted by an appropriate Contract Modification.

1. Removal of unsuitable material and its replacement as directed will be paid on basis of conditions of the Contract relative to changes in work.

D. Subgrade: The undisturbed earth of the compacted soil layer immediately below the sub-base or topsoil materials.

1.05 JOB CONDITIONS:

A. Site Information: Data on indicated subsurface conditions, structures, utilities, etc. are not intended as representations or warranties of accuracy or continuity between soil borings (if soil borings are provided). It is expressly understood that Owner will not be responsible for interpretations of conclusions drawn therefrom by Contractor. Data are made available for convenience of Contractor.

1. Additional test borings and other exploratory operations may be made by Contractor at no cost to the Owner.

B. Existing Utilities: Locate existing underground utilities in areas or work. If utilities are to remain in place, provide adequate means of protection during earthwork.

1. Contractor shall notify “Call Before You Dig”, telephone number 1-800-922-4455 prior to any excavation.

2. Should uncharted, or incorrectly charted, piping or other utilities be encountered during excavation, consult utility owner immediately for directions. Cooperate with Owner and utility companies in keeping respective services and facilities in operation. Contractor shall repair damaged utilities to satisfaction of utility owner at no cost to the Owner.

3. Do not interrupt existing utilities serving facilities occupied and used by Owner or others, except when permitted in writing by Engineer and then only after acceptable temporary utility services have been provided.

4. Demolish and completely remove from site existing underground utilities indicated to be removed. Coordinate with utility companies for shut-off of services if lines are active.

C. Site Protection:

1. Protection of Persons and Property:

   a. Complete surface protection of all excavations shall be provided at all times to protect workers and the general public, and shall be in accordance with all applicable regulations: Local, County, State and Federal.

   b. All surface drainage shall be diverted during construction in such a manner as to avoid damage to the site or adjacent area.

   c. Protect structures, utilities, sidewalks, pavements, and other facilities from damage caused by settlement, lateral movement, undermining, washout and other hazards created by earthwork operations.

   d. Perform excavation by hand within dripline of large trees to remain. Protect root systems from damage or dryout to the greatest extent possible. Maintain moist condition for root system and cover exposed roots with moistened burlap.

D. Use of Explosives:

1. Do not bring explosives onto site or use in work without prior written permission from authorities having jurisdiction. Contractor is solely responsible for handling, storage, and use of explosive materials when their use is permitted.

PART 2 - PRODUCTS

2.01 SOIL MATERIALS:

A. Definitions:

1. Satisfactory soil materials: defined as those complying with ASTM D2487 soil classification groups GC, GP, GM, SM, SW, and SP.

2. Unsatisfactory soil materials: defined as those complying with ASTM D2487 soil classification groups GC, SC, ML, MH, CL, CH, OL, OH, and PT.

3. Backfill and fill materials: satisfactory soil materials free of clay, rock or gravel larger than 2” in any dimension, debris, waste, frozen materials, vegetable and other deleterious matter.

4. Gravel fill: shall conform to the requirements of HDM.

B. Quality Assurance:

1. The Contractor shall submit for approval the source of all soil materials prior to use in the work. Samples from the source of material shall be taken by the laboratory. The Contractor shall not utilize any material in the work until approved by the Engineer.

PART 3 - EXECUTION

3.01 INSPECTION:

A. Examine the areas and conditions under which excavation, filling, and grading are to be performed and notify the Engineer, in writing of conditions detrimental to the proper and timely completion of the work. Do not proceed with the work until unsatisfactory conditions have been corrected in an acceptable manner.

3.02 EXCAVATION:

A. Excavation consists of removal and disposal of material encountered when establishing required finish grade elevations.

B. Excavation is unclassified, and includes excavations to subgrade elevations indicated, regardless of the character of materials and obstructions encountered.

C. Unauthorized excavation consists of removal of materials beyond indicated subgrade elevations or dimensions without specific direction of Engineer. Unauthorized excavation, as well as remedial work directed by the Engineer, shall be at Contractor's expense.

    1. Backfill and compact unauthorized excavations as specified for authorized excavations of same classification, unless otherwise directed by Engineer.

D. Additional Excavation: When excavation has reached required subgrade elevations, notify Engineer who will make an inspection of conditions.

    1. If unsuitable bearing materials are encountered at required subgrade elevations, carry excavations deeper and replace excavated material as directed by Engineer.

    2. Removal of unsuitable material and its replacement as directed will be paid on basis of Conditions of the Contract relative to changes in work.

E. Stability of Excavations: Slope sides of excavations in safe condition until completion of backfilling.

    1. Maintain sides and slopes of excavations in safe condition until completion of backfilling.

F. Shoring and Bracing: Provide materials for shoring and bracing, such as sheet piling, uprights, stringers and cross-braces, in good serviceable condition.

    1. Establish requirements for trench shoring and bracing to comply with local codes and ordinances.

    2. Maintain shoring and bracing in excavations regardless of time period excavations will be open. Carry down shoring and bracing as excavation progresses.

G. Dewatering: Prevent surface water and subsurface or ground water from flowing into excavations and from flooding project site and surrounding areas.

    1. Do not allow water to accumulate in excavations. Remove water to prevent softening of foundation bottoms, undercutting footings, and soil changes detrimental to stability of subgrades and foundations. Provide and maintain pumps, well points, suction and discharge lines, and other dewatering system components necessary to convey water away from excavations.

    2. Convey water removed from excavations and rain water to collecting or run-off areas. Establish and maintain temporary drainage ditches and other structure. Do not use trench excavations as temporary drainage ditches. Provide appropriate siltation control devices at water discharge diversion or ditches.

H. Material Storage: Stockpile satisfactory excavated materials where directed, until required for backfill or fill. Place, grade and shape stockpiles for proper drainage.

    1. Locate and retain soil materials away from edge of excavations.

2. Dispose of excess soil material and waste materials as herein specified.

I. Excavation for Pavements: Cut surface under pavements to comply with cross-sections, elevations and grades as shown.

J. Excavation for Trenches: Dig trenches to the uniform width required for particular item to be installed, sufficiently wide to provide ample working room.

1. Excavate trenches to depth indicated or required. Carry depth of trenches for piping to establish indicated flow lines and invert elevations.

2. Where rock is encountered, carry excavation 6” below required elevation and backfill with a 6” layer of coarse aggregate or gravel fill, as directed by the Engineer, prior to installation of pipe.

K. Cold Weather Protection: Protect excavation bottoms, except on rock, against freezing when atmospheric temperature is less than 35 degrees F. (degree C.).

3.03 FILL:

A. General: Place acceptable soil materials in layers to required subgrade elevations, for each area classification listed below:

1. Under grassed areas, use satisfactory excavated or borrow material.

2. Under pavements, use satisfactory excavated or borrow material.

B. Ground Surface Preparation: Remove vegetation, debris, unsatisfactory soil materials, obstructions, and deleterious materials from ground surface prior to placement of fills.

Plow, strip, or break-up sloped surfaces steeper than 1 vertical to 4 horizontal so that fill material will bond with existing surface.

1. When existing ground surface has a density less than that specified under “Compaction” for particular area classification, break-up ground surface, pulverize, moisture-condition to optimum moisture content, and compact to required depth and percentage of maximum density.

C. Placement and Compaction: Place fill materials in layers not more than 8” in loose depth for material compacted by heavy compaction equipment, and not more than 4” in loose depth for material compacted by hand operated tampers.

1. Before compaction, moisten or aerate each layer as necessary to provide optimum moisture content. Compact each layer to required percentage of maximum dry density or relatively dry density for each area classification. Do not place backfill or fill material on surfaces that are muddy, frozen, or contain frost or ice.

3.04 COMPACTION:

A. General: Control soil compaction during construction providing minimum percentage of density specified for each classification.

B. Percentage of Maximum Density Requirements: Compact soil to not less than the following percentage of maximum dry density for soils which exhibit a well-defined moisture density relationship determined in accordance with ASTM D 1557; and not less than the following

percentages of relative density; determined in accordance with ASTM D 2049, for soils which will relationship.

1. Remove and replace, or scarify and air dry, soil material that is too wet to permit compaction to specified density.

    a. Soil material that has been removed because it is too wet to permit compaction may be stockpiled or spread and allowed to dry. Assist drying by discing, harrowing or pulverizing until moisture content is reduced to a satisfactory value.

3.05 GRADING:

A. General: Uniformly grade areas within limits of grading under this section, including adjacent transition areas. Smooth finished surface within specified tolerances, compact with uniform levels or slopes between points where elevations are shown, or between such points and existing grades.

B. Pavements: Shape surface of areas under pavement to line, grade and cross-section, with finish surface not more than 1/2” above or below required subgrade elevation.

C. Compaction: After grading, compact subgrade surfaces to the depth and percentage of maximum density for each area classification.

3.06 FIELD QUALITY CONTROL:

A. Quality Control Testing During Construction: As directed by Engineer, allow testing service to inspect and approve subgrades before further construction work is performed.

1. Testing lab will perform field density tests in accordance with ASTM D 1556 (sand cone method) or ASTM D 2167 (rubber balloon method), as applicable.

3.07 MAINTENANCE:

A. Protection of Graded Areas: Protect newly graded areas from traffic and erosion. Keep free of trash and debris.

1. Repair and re-establish grades in settled, eroded, and rutted areas to specified tolerances.

B. Reconditioning Compacted Areas: Where completed compacted areas are disturbed by subsequent construction operations or adverse weather, scarify surface, re-shape, and compact to required density prior to further construction.

3.08 DISPOSAL OF EXCESS AND WASTE MATERIALS:

A. Removal to Designated Areas on Owner's Property: Stockpile acceptable excess topsoil or spread as directed by Engineer.

B. Removal from Owner's Property: Remove unacceptable excess and/or unsuitable excavated material, trash, debris and waste materials and dispose of it off the Owner's property.

Section 02201 – Erosion Control - *See Notes on Drawing SEC-01*

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SECTION 02441vc - CHAIN LINK FENCE

PART 1 - GENERAL

1.01 DESCRIPTION OF WORK

A. This work shall consist of furnishing and installing black polyvinyl chloride chain link fence and gates, at the locations and to the heights shown on the Contract Drawings.

PART 2 - PRODUCTS

2.2 MATERIALS

A. **Chain Link Fence:** All gage measurements of finished wire shall be United States Steel Wire Gage or equivalent. Tolerance for wire sizes shall be as specified in AASHTO M-181. Materials for this work shall conform to the following requirements:

1 - Fabric: Wire Fencing shall be composed of woven wire of the chain link type. It shall be not less than the height specified on the plans or in the special provisions and shall be constructed of not smaller than No. 9 gage wire. The wire shall be woven to form a continuous fabric having 2-inch mesh. The chain link fabric shall have a knuckled finish on both edges.

a. Vinyl-Coated Steel Fabric: The base metal of the fabric shall be of steel wire having a minimum tensile strength of 80,000 pounds per square inch, coated with Vinyl alloy applied at the rate of not less than 0.40 ounces per square foot of uncoated wire surface.

b. Polyvinyl chloride-coated steel fabric shall conform to the requirements of Federal Specification RR-F-00191, Type IV, and shall be the color black.

c. Vinyl Alloy Fabric shall conform to the requirements of ASTM B211, Alloy 6061 wire having a minimum tensile strength of 50,000 p.s.i.

2 - Metal Posts and Rails: Metal posts shall be straight, true to section and of sufficient length to enable the post to be encased for a depth of 2 feet 8 inches in a concrete footing which shall have a depth 3 feet below ground.

All posts, rails, braces, anchors, plates and other devices shall meet one on the following specification.

Galvanized material shall be made of steel of a standard commercial type, hot-dip galvanized with a zinc coating weighing not less than 2.0 ounces per square foot when tested in accordance with AASHTO T65 or shall be in accordance with AASHTO M181, Class 2.

The Contractor shall provide a Materials Certificate and a Certificate of Compliance in accordance with Article 1.06.07 for materials conforming to to AASHTO M181, Class 2.

All vinyl coated steel posts and rails shall conform to ASTM F669, minimum yield strength 50,000 psi, for industrial chain link fence. The posts and rails shall be manufactured by roll forming Vinyl coated steel strip and electric resistance welding into tubular form. The outside of the weld area shall be metallized with commercially pure Vinyl to thickness sufficient to provide resistance to corrosion equal to that of the remainder of the outside of the tube. The Vinyl coating weight on the outer and inner surfaces shall be a minimum of 0.75 ounces per square foot, triple spot test, 0.70 ounces per square foot, single spot test, as measured in accordance with ASTM A428.

Polyvinyl chloride-coated material shall be made of steel of a standard commercial type coated inside and outside with the same polyvinyl chloride coating as the chain link mesh or shall have all surfaces galvanized with the outside galvanized surface coated with the same polyvinyl chloride coating as the chain link mesh.

Vinyl Alloy shall conform to the requirements of Federal Specifications RR-F-00191.

3 - Fittings: These shall be malleable iron, pressed steel, or Vinyl alloy.
The fittings shall be either hot-dip galvanized, polyvinyl chloride-coated or Vinyl alloy:

a. Hot-dip galvanizing shall conform to the requirements of ASTM A 153.
b. Polyvinyl chloride-coated material shall have the same polyvinyl chloride coating as the chain link mesh.
c. Vinyl alloy shall conform to the requirements of Federal Specification RR-F-00191.

4 - Tension and Tie Wire:

a. Tension wire for steel fence shall be coil spring steel not less than 7 gage. The base material shall have a minimum tensile strength of 80,000 pounds per square inch with an aluminum coating applied applied at a rate of 0.40 oz. Per square foot of surface area. Aluminum tension wire shall not be less than 6 gage 6061-T6 or 5052-H38 Aluminum Alloy.

b. Wire clamps for fastening fabric to line posts shall not be less than 6 gauge. Tie wires or hog rings used to fasten the fabric to the top rail or tension wire shall be not less than 9 gage aluminum for aluminized or aluminum fabric fence and not less than 9 gage polyvinyl chloride coated steel wire for polyvinyl chloride fence.

B. **Chain Link Gate:** shall comply with the requirements as indicated for the chain link fence.

PART 3 - EXECUTION

3.1 - CONSTRUCTION METHODS

A. The posts shall be set true to the line and grade of the proposed fence in concrete bases or in pipe sleeves or sockets when set on walls.

B. All vertical posts shall have non-ornamental cap above top-rail sleeve. Top selvage of fence fabric shall not extend above the bottom of the top rail.

C. All fence fabric shall be fastened to all vertical posts with fabric bands spaced approximately 12 inches apart. Galvanized coil wire shall be installed at the bottom of the fence fabric.

D. Stretcher bars shall be installed at all terminals and corner posts. Stretcher bars shall be fastened to posts with standard clamps. Spacing between clamps shall be maximum of two (2) feet.

E. Foundations for terminal and corner posts shall be concrete 12 inch diameter 3 foot depth minimum. Line posts shall be 12 inch diameter 2 foot depth minimum.
Backstop posts foundations shall be 15 inch diameter, 6 foot depth.

F. Posts will be spaced at equal intervals in line of fence not further apart than 10 foot intervals.

G. Fence shall be installed with top rail and bottom tension wire.

H. Chain link fabric shall be placed on the outside face of the post, unless directed otherwise by the Engineer.

I. The chain link fabric shall be placed approximately 2 inches above ground and on a straight grade between posts.

J. The gates shall be constructed within industry standards.

3.2 METHOD OF MEASUREMENT

A. This item of work will be measured for payment as indicated on the Bid Form and accepted by the Engineer, in accordance with the limits and to the dimensions shown on the Contract Drawings or as determined by the Engineer.

3.3 BASIS OF PAYMENT

A. This work will be paid for at the contract unit price as indicated for chain link fence and gates which price shall include all materials, labor and equipment incidental thereto as measured and approved for payment by the Engineer.

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SECTION 03300 CAST-IN-PLACE CONCRETE

PART 1 GENERAL

1.01 DESCRIPTION

A. Furnish all labor, materials, tools, equipment, transportation and services to complete all concrete work.

1.02 SUBMITTAL

A. Reinforcement shop drawings shall be submitted to the Engineer for review and approval showing fabrication, bending and placement of steel reinforcing bars.

1.03 STANDARDS

A. Applicable portions of the following codes and construction standards are hereby made part of this specifications in their entirety as though fully set forth herein.

1. ACI 301-89 "Specifications for Structural Concrete for Buildings."
2. ACI 318-89 "Building Code Requirements for Reinforced Concrete " and commentary.
3. ACI 315-80 "Details and Detailing of Concrete Reinforcement."

PART 2 PRODUCTS

2.01 MATERIALS

A. Concrete shall be in accordance with ASTM C94-80 "Standard Specification for Ready-Mixed Concrete."

B. Cement: ASTM C150 TYPE I or II. Only one brand of cement shall be used, as approved by the Engineer.

C. Normal weight aggregates: ASTM C33, aggregates shall be from a single source.

D. Air entraining admixtures: ASTM C260.

E. Water-reducing and retarding: ASTM C494, and containing not more than 1% chloride ions.

2.01 MATERIALS

F. Mix water shall be clean, fresh and potable.

G. Accelerating admixture: Daraset by W.R. Grace Company.

H. Non-Shrink Grout: Embeco by Master Builders.

2.02 PROPORTIONING

A. Concrete compressive strength at 28 days: 3000 PSI.

B. Concrete proportions shall be selected in accordance with ACI 211.181.

C. All Concrete shall be air-entrained. Total air content shall be not less than 4% and not more than 8% by volume.

D. Maximum slump: 4 inches.

E. Calcium chloride shall not be used for concrete operations.

F. All admixtures shall receive prior approval by the Engineer, before use or concrete installation.

G. Concrete proportions shall be established on the basis of previous field experience or laboratory trial batches with the same materials to be employed in the work.

H. Use Accelerating admixture in all concrete placed at ambient temperatures below 50 degrees F as approved by the Engineer prior to placement.

PART 3 EXECUTION

3.01 FORMWORK

A. Forms shall result in a final structure that conforms to shapes, lines and dimensions as required by the structural design drawings and specifications.

B. Forms shall be substantial and sufficiently tight to prevent leakage of poured concrete.

C. Forms shall be properly braced or tied together to maintain position and shape, as approved by the Engineer prior to concrete placement.

D. Formwork shall conform to ACI 347.

E. Before placing the reinforcing steel or the concrete, the surface of the forms shall be covered with an acceptable form release coating material that will effectively prevent absorption of moisture, prevent bond with the concrete and not stain the concrete surfaces.

F. Excess form release coating material shall not stand in puddles in the forms nor shall come in contact with hardened concrete against which fresh concrete is to be placed or reinforcing steel.

G. Install bulkheads, boxes, etc., for openings required for piping, conduits and other equipment for other trades.

H. Clean forms just before concrete placement. Remove all chips, wood, sawdust, dirt or other debris.

I. Chamfer strips shall be placed in the corners of forms to produce beveled edges on surfaces exposed to view.

3.02 REINFORCEMENT

A. Reinforcing bars: ASTM A615 grade 60, except for column ties, which may be grade 40.

B. Reinforcement shall be maintained free from dust, mud, rust, oil or ice, immediately prior to placement of poured concrete.

C. Fabrication and placement of reinforcing steel shall be in accordance with CRSI "Manual of Standard Practice" and CRSI "Placing Reinforcing Bars."

D. Reinforcing bars shall not be welded.

E. Minimum cover on reinforcement:

1. concrete cast against earth:.....3"

2. concrete exposed to earth or weather:
   #6 and larger .....2"
   #5 and smaller .....1-1/2"

F. Splices shall be lapped 40 bar diameters and securely tied.

G. Heat shall not be used to bend reinforcing bars.

3.03 JOINTS AND EMBEDDED ITEMS

A. Anchor bolts and other embedded items shall be positioned accurately as indicated by structural drawing dimensions and supported against displacement, during concrete pouring.

B. All sleeves, inserts, anchors and embedded items required for adjoining work or for its support shall be placed prior to concrete installation.

C. All contractors whose work is related to the concrete or must be supported by it shall be given ample notice and opportunity to introduce and/or furnish embedded items before the concrete is placed.

D. Conduits and pipes of aluminum shall not be embedded in concrete.

3.04 PRODUCTION OF CONCRETE

A. Concrete shall be batched, mixed and transported in accordance with ASTM C94 and ACI 304-73.

B. Batching plant equipment and facilities shall conform to "Certification of Ready Mixed Concrete Production Facilities" of the National Ready Mixed Concrete Association.

C. Engineer approved admixtures shall be charged into the mixer as solutions and shall be measured by means of an acceptable mechanical dispensing device. The liquid shall be considered a part of the mixing water.

D. If more than one admixture is used in the concrete, they shall be added separately.

E. Ready-mixed concrete trucks shall not be loaded in excess of their rated capacity.

3.05 PLACING

A. Do not pour concrete until forms and subgrade have been thoroughly cleaned and are free of frost, mud, ice, or water immediately prior to placement.

B. Convey concrete from truck to forms as rapidly as possible by methods, which will prevent segregation or loss of ingredients. Place in forms as:

1. Nearly as practicable to its final position.

2. When placement is started, carry on as a continuous operation until the placing of a section is complete. Cold joints are not permitted.

3. Consolidate poured concrete within formwork by mechanical vibration. Do not use vibrators to transport concrete in forms.

4. No concrete shall be placed in freezing weather or when freezing weather is forecast by the National Weather Bureau to occur within 36 hours, unless Engineer approved special measures and precautions are taken to heat the water and aggregates and to protect concrete from freezing after being placed.

5. No concrete shall be placed when the temperature is greater than 90 degrees F unless engineer approved special measures are taken to cool the water and aggregate and to protect the concrete from rapid drying.

6. No concrete shall be placed during rain, sleet, or snow unless adequate protection is provided, as approved by the Engineer.

7. The maximum elapsed time between introduction of water to concrete mix and placing concrete shall be one hour.

3.06 FINISHING OF FORMED SURFACES

A. All formed surfaces exposed to view shall receive a grout rubbed finish within 24 hours of concrete placement.

B. Provisions for curing of concrete shall be in accordance with ACI 308-71.

C. In cold weather, concrete shall be protected in accordance with ACI 308-78, as approved by Engineer.

D. In hot weather, concrete shall be protected in accordance with ACI 305R-77, as approved by Engineer.

3.07 INSPECTION AND TESTING

A. All inspections and testing shall be performed by NVLAP accredited testing laboratory or a registered professional Engineer paid by the Contractor and approved by the Engineer and Building Inspector.

B. A minimum of four compression test specimens shall be made for each 50 cubic yards of concrete or not less than four for each day's placement. Two cylinders shall be tested at seven days and two at 28 as not to damage them in any way. Records shall be kept, identifying each cylinder with the locations of placement from which test cylinders were taken.

C. Slump tests and air content tests shall be performed when each set of test cylinders are cast.

D. If any concrete fails to develop the required 28 day strength, the Engineer may order core tests at the Contractor's expense, and if the concrete in place is below strength, the Engineer may order the removal and replacement of such concrete fully and entirely at the Contractor's expense, including the extra cost of the Engineer's inspections and redesign.

E. Inspection Reports: Copies of all inspection and testing reports shall be submitted to the Engineer, Contractor and Building Inspector within 10 working days of the date of inspection or test.

3. METHOD OF MEASUREMENT

A. This item of work will be measured for payment as indicated on the Bid Form and accepted by the Engineer, in accordance with the limits and to the dimensions shown on the Contract Drawings or as determined by the Engineer.

3.5 BASIS OF PAYMENT

A. This work will paid for at the unit price as indicated for Cast-in-Place Concrete which shall include all materials, labor and equipment incidental thereto as measured and approved for payment by the Engineer.

- END OF SECTION 03300 -

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Section 116843 Scoreboard - *See Specifications 0n Drawing L-04*

NOTE: Any changes to the specifications must be approved, by the Consultant, prior to the Bid Opening.

SECTION 13 34 16 - ALL ALUMINUM FRAME BLEACHER

PART 1 - GENERAL

1.1 GENERAL

A. Drawings and general provisions of the contract, including General and Supplementary Conditions and Division 1 - Specification sections, apply to work of this section.

1.2 SCOPE

A. These Specifications cover the requirements for the design, fabrication, delivery and installation of the permanent all aluminum grandstand system, including the following:

1. Concrete foundations
2. 30” Elevated Grandstand with Front Walkway
3. Aluminum treads and risers
4. Aluminum Aisle steps
5. Guardrails and handrails
6. Seating
7. Ramps, stairs, and landings
8. Grandstand finishes

1.3 RELATED SECTIONS AND DOCUMENTS

A. Concrete – Division 3

1.4 CODES AND STANDARDS

A. Perform all work in accordance with the latest editions and revisions of the following standards, which hereby become part of this section.

1. ICC 300 – Standard for Bleachers, Folding and Telescopic Seating and Grandstands
2. International Building Code, Edition 2021
3. CT Building Code Amendments
4. AWS D1.2 – Structural Welding Code – Aluminum
5. Aluminum Design Manual (ADM), 2015
6. ACI 318 - Building Code Requirements for Structural Concrete
7. The Society for Protective Coatings (SSPC)

1.5 GRANDSTAND CONTRACTOR QUALIFICATIONS

A. Manufacturer/Fabricator Qualifications:

1. Experience: Manufacturer/fabricator with not less than 10 years experience with successful production of products and systems to the specified scope of Work, with a record of successful in-service performance and completion of similar projects for a period of not less than 10 years, and with sufficient production capability, facilities, and personnel to produce required Work.

2. Approved manufacturer:

   a) Dant Clayton Corporation – Louisville, KY

B. Installer Qualifications:

1. Experience: Installer with not less than 5 years experience in performing specified scope of Work, with a record of successful in-service performance and completion of projects for a period of not less than 2 years, and with sufficient production capability, facilities, and personnel to produce required Work.
2. Manufacturer/Fabricator Acceptance: Installer shall be certified, approved, licensed, or acceptable to manufacturer/fabricator to install products.

C. Delegated Engineering Responsibility: Contractor shall employ a qualified professional engineer licensed in the state where the project is located to provide engineering for products and systems as required.

1.6 PERFORMANCE REQUIREMENTS

A. Design Loads: Engineer to withstand design loads including but not limited to gravity, wind, seismic, and erection design loads and shrinkage/thermal movements as established by authorities having jurisdiction, applicable local building codes, and as indicated.

1.	Superimposed Dead Load	6 psf
2.	Live Load	100 psf
3.	Sway Load	24 plf per row parallel to row
4.	Sway Load	10 plf per row perpendicular to row
5.	Wind Load	Design per local building code
6.	Seismic Load	Design per local building code
7.	Guardrail Loads	Design per local code

B. Grandstand System Self Weight: Self-weight of the grandstand system shall be incorporated into the project calculations for both foundations and framing.

C. Structural Drift: Limit the horizontal frame drift of the grandstand system to H/200 of the frame height under sway, wind and seismic loads.

D. Dimensional Tolerances: Engineer and detail products, systems and connections back to primary structural elements to accommodate fabrication tolerances and dimensional tolerances of framing members and adjacent construction.

1.7 SUBMITTALS

A. Approval Drawings: Submit for review detailed approval drawings as follows:

1. Drawings shall include at a minimum:

   a) All dead, live and other applicable loads used in the design.
   b) Detailed and dimensioned foundation, framing, layout, and seating plans.
   c) Foundation sizes, locations and elevations shall be shown in compliance with surrounding Work and relationships to finish grade.

d) Seating plan indicating all aisles, walkways, seating sections and exits.
e) Sections and details showing complete methods of assembly and anchorage:

i. Show riser heights and platform widths
ii. Show stair and ramp sections including railings
iii. Show overall sections showing railings systems, sightlines (when required by scope)

f) Connection details showing size, type, and grade of all plates, bearings, inserts and anchors.
g) Finishes.
h) Joint covers.

2. All approval drawings submitted shall be sealed by a professional engineer who is licensed in the state where the project is located.

3. Equipment Hung From Seating Units: No pipe, ducts or other equipment shall be hung from the seating units without written approval of the Delegated Design Engineer. Coordinate all attachment methods and fastener types with the Delegated Design Engineer to ensure they are suitable for the selected system.

B. Delegated Design Engineering Calculations: Calculations submittal for products indicated to demonstrate conformance with specified design loads, element stiffness and performance requirements including structural analysis data signed and sealed by the professional engineer responsible for their preparation licensed in the state where the project is located.

C. Qualification Data: For firms and persons specified in "Quality Assurance" to demonstrate their capabilities, experience and qualifications. Submit for record lists of completed projects with project names and addresses, names and addresses of Architects and Owners, and other information specified

1. Manufacturer qualifications
2. Professional Engineer qualifications

D. Samples for Verification: For each type of exposed material, color, finish and texture.

E. Warranty: Sample of standard warranty.

1.8 DELIVERY, STORAGE AND HANDLING

A. Delivery: Deliver grandstand components in such quantities and at such times to sufficient for construction activities to occur without delay.

B. Storage: Store components with adequate dunnage.

C. Handling: Handle and transport components in a position consistent with their shape and design to avoid excessive stresses which would cause damage.

1.9 QUALITY CONTROL BY CONTRACTOR

A. For grandstand members furnished under this Section, quality control inspection and testing shall occur during the manufacture of the components, and the components are subject to the approval of the engineered seating bowl supplier's Quality Control Manager.

B. Plant Quality Control: Provide copies of plant quality control program describing procedures for the following:

1. Overall quality control measures
2. Verifying sizes and critical dimensions of members.
3. Verifying position of plates, inserts, and other embedded items.
4. Final inspecting of products prior to shipment.

1.10 WARRANTY

A. Special Warranty: Manufacturer's standard 1-year warranty is required in which manufacturer agrees to repair finish or replace components that fail in materials or workmanship within specified warranty period.

PART 2 - PRODUCTS

2.1 PERMANENT ALL ALUMIMINUM GRANDSTAND SYSTEM COMPONENTS

A. Single Source Responsibility: Furnish each type of product from a single manufacturer/fabricator. Provide secondary materials only as recommended by manufacturer/fabricator of primary materials.

B. Basis of Design: The design for permanent all aluminum grandstand is based on a system designed and engineered by Dant Clayton.

C. Concrete Foundations and Slabs: Design of concrete foundations shall be based on an assumed 1,000 psf minimum bearing capacity and validated by the project geotechnical engineer

1. All design, detailing, fabrication and installation shall be in accordance with ACI 318.
2. Cast-in-place concrete shall have a minimum compressive strength of 4,500 psi with air entrainment of 6% +/- 1%.
3. All reinforcing steel shall be in accordance with ASTM A615 with a minimum yield strength of 60,000 psi.
4. Provide a minimum 6" thick layer of free draining compacted granular fill beneath the concrete slab.

D. Aluminum: Provide aluminum components at locations as shown on drawings, noted below and in compliance with the following:

1. All detailing, fabrication, and erection shall be in accordance with the code required edition of the Aluminum Design Manual.

E. Understructure

1. Understructure shall be fabricated from 6061-T6 alloy aluminum extrusions
2. Vertical members shall be 2 7/8" O.D. tubing
3. Horizontal braces and footrest supports shall be 3" x 2 7/8" channel.
4. Cross braces and diagonals shall be 2 ¼" x 7/8" channel
5. Handrail support shall be 2 5/8" O.D. tubing.
6. The understructure shall be assembled from the above items in an interlocking design using 7/16" x 3 ½" hot-dipped galvanized bolts
7. The structure shall be a bolted design so that in the even of accidental damage the sub-component parts may be replaced using common hand tools. Field welding for repair purposes shall not be considered

8. Aluminum angle understructure is an acceptable substitution provided 3” x 3” x ¼” aluminum angles are used for vertical and horizontal members. Smaller sizes are specifically prohibited. Understructure will be a bolted assembly. Welded connections are not allowed.

F. Decking System

1. Footboards

a) The deck planking shall be maintenance free, corrosion resistant all aluminum decking
b) Decking shall be 6063-T6 extruded aluminum with fluted surface. Extrusions shall have a minimum actual vertical support rib height of 1.75” and a nominal wall thickness of 0.080”
c) There will be no gaps between the longitudinal joints of the planking.
d) All aluminum extrusions shall be directly attached to the aluminum support structure without the use of hardware. Attachment shall be positive snap and interlock design. The use of bolt clips, bolt runners, or other friction type fastening devises are not acceptable.

G. Risers

1. The decking riser system shall be extruded aluminum; alloy 6063-T6 with a fluted surface and a wall thickness of 0.78”.
2. Fluted opening in the decking and risers system for attachment of seats, seat brackets and railing systems are not acceptable due to their tendency to collect debris and require excessive owner maintenance.

H. Seating

1. Aluminum Bench Seats:

a) Seats shall be 6063-T6 extruded aluminum with a fluted surface and a wall thickness of 0.078". Seatboards shall be a minimum of 9 1/2" wide actual, with outside legs of 1 3/4" actual vertical height and shall have two internal legs with a vertical height of 2 5/8".
b) Seatboards shall attach with one 3/8" diameter bolt and shall be designed for positive physical fastening. Bolt clips, bolt runners or other friction type fastening devices are not acceptable.

2. Handicap Seating as shown on drawings. Deviations from handicap seating design are not allowed.

I. Aisle Steps

1. Aisle step units are to be provided at all intermediate aisle locations as shown on the architectural drawings and be made from 1.75” aluminum extrusions and plate material.
2. Aisle step units shall be mounted to the stadia system with pop rivets or galvanized hardware.
3. Aisle steps will be designed to satisfy row depth with vertical closure panels at the ends of the intermediate steps. No cavity or recessed closure is allowed in area of foot travel.
4. Provide a finish and texture matching that of the stadia tread and riser system to which they are installed. See Finishes.
5. Provide stair nosing at steps and treads.

6. Shall be designed to resist loads imposed from any step mounted rails.

J. Guardrail & Handrail System

1. Chain Link Fence Guardrail System:

   a) Guardrails shall be anodized aluminum extruded channel, 3” x 2 7/8”, 6061-T6 alloy, anodized to clear 204R1
   b) The guardrail system shall be of interlocking design with positive through-bolt fastening. The top rail shall be designed to fully cover the rail support posts for a totally snag-free area and eliminate the potential of sharp edge contact with spectators.
   c) Chain link Fence shall be 2” mesh, 6 gauge black vinyl coated fabric

2. Handrail System

   a) Aluminum handrails shall be provided in all areas required by building code and as indicated on the architectural drawings at all locations of new aluminum stadia treads and risers.
   b) Handrails shall be 1 15/16" O.D. extruded aluminum pipe. Straight pipe shall be 6061-T6 aluminum alloy with minimum yield strength of 35 ksi. Bent pipe shall be 6061-T4 aluminum alloy with minimum yield strength of 21 ksi.
   c) Aisle handrails shall be two-line and feature internal fittings for both lines of rail. External fittings are not permitted.
   d) Aisle handrails shall be mounted to the aisle steps with connecting bracket or floor flange.
   e) Handrails on all ramps and stairs shall provide 1-1/2” clearance from the guardrail material and shall extend 12” past the last riser with a return. Newel posts will not interrupt handrails. Handrails will not project more than 4.5” into the width of a stair or ramp.

K. Stairs

1. Shall conform to all above pertinent criteria consistent with the component design of the grandstand.
2. Shall be self-supporting and shall not attach to or be suspended from any footboard or decking member.
3. Stairs shall be fully closed deck tread and riser.
4. Handrail will be inset from guardrail 1 ½” to 3”.

L. Ramps

1. Frames shall be 9" x 1.40 extruded aluminum mill finish channel with 3" x 1.4" extruded aluminum mill finish vertical channel columns.
2. Treads shall be 6063-T6 extruded aluminum with a fluted surface and a minimum wall thickness of .078". Minimum vertical height of treads shall be 1.75" actual.
3. Handrail will be inset from guardrail 1½” to 3”. Guardrail will not be used for handrail.
4. Guardrailing to match grandstand design unless otherwise noted.
5. Decking aluminum extrusions will run perpendicular to the direction of traffic. Deck aluminum extrusions shall interlock for additional rigidity.
6. Anti-skid tape is not allowable to correct for deviations to paragraph 4 above.

M. End Caps

1. All end caps shall be one-piece cast aluminum and shall be friction fit to the plank without the use of mechanical fasteners.

N. Hardware

1. Bolts used for field installation shall be galvanized
2. Primary connections, i.e. seat, cross-brace, handrail (rail and posts) shall be made with minimum of 3/8” diameter hardware
3. Stainless steel expansion anchors

O. Finishes

1. Aluminum:

a) Aluminum Finish Descriptions:

i. Mill Finish: natural appearance of the aluminum as it comes from the rolling mill with no further surface treatment.
ii. Anodized Finish: Anodized aluminum provided shall meet or exceed AAMA 611-14 specifications for Anodized Architectural Aluminum
iii. Powder Coat Finish: Powder coat system provided shall meet or exceed AAMA 2604 specification for Super Durable Polyester TGIC
iv. Slip Resistant Deck – SRD: Mill finish aluminum that has a sandblasted walking surface to meet the textured finish noted below
v. Stain and Slip Resistant Deck – SSRD: Powder coat and textured finish meeting the textured finish noted below, and the powder coat finish above

b) Footboards and Walkways

i. SSRD
ii. Slip Resistance of Walking Surfaces:

(1) All stadia system walking surfaces will provide an equivalent or greater Static Coefficient of Friction (SCOF) of 0.6 in all directions of travel, using ANSI/NFSI B101.1-2009 testing method by the National Floor Safety Institute.

c) Risers

i. Powder Coated

d) Seat boards

i. Anodized

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine substrates, areas and conditions with installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of the work

B. Before installation proceeds, installer shall prepare written report, endorsed by installer, listing conditions detrimental to performance of the work. This includes survey of elevations and locations of concrete foundations or pads and anchor bolts to verify compliance with the requirements of the grandstand manufacturers' specified tolerances.

C. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION

A. Install grandstand and all components according to manufacturer's written instruction and the approved shop drawings.

B. Do no field cut, drill or alter structural members without written approval from grandstand system manufacturers' engineer.

3.3 CLEANING

A. Clean all surfaces according to manufacturer's recommendations.

B. Use cleaning solutions and methods that do not damage finishes or the adjacent surfaces.

C. Mill finish aluminum surfaces are unprotected from oxidation. All mill finished aluminum will oxidize at various rates during the manufacturing, shipping, installation and usage of the grandstand as it is exposed to various weather conditions. Oxidation is natural and expected, and in no way impacts the life cycle or structural performance of the grandstand. Grandstand manufacturer is not responsible for repair, replacement or cleaning of oxidized aluminum.

D. Remove all metal burrs, sharp edges or other cutting, unsafe, conditions.

E. Touch up finishes as recommended by manufacture.

NOTE: ANY CHANGES TO THE SPECIFICATIONS MUST BE APPROVED,

BY THE CONSULTANT, PRIOR TO THE BID OPENING.

END OF SECTION

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END OF TECHNICAL SPECIFICATIONS