



**CITY OF GREENFIELD**

**Invitation for Bid #IFB24-20  
Construction of Bocce Courts**

**Documents Available: Wednesday, March 13, 2024**

**Site Visit: Monday, March, 18, 2024 at 10:00 AM**

**Questions Due: Wednesday, March 20, 2024 by 2:00 PM**

**Answers Available: Monday, March 25, 2024 by 10:00 AM**

**Bid Due Date: Thursday, March 28, 2024 by 1:00 PM**

**Submit To:**

City of Greenfield  
Recreation Department  
20 Sanderson Street  
Greenfield, MA 01301

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## ADVERTISEMENT FOR BIDDERS

The City of Greenfield is soliciting bids for construction of two adjacent 13' X 60' Bocce Courts located at Gerrett Street near Beacon Park on Parcel of the 79-7-0 and ADA parking spaces on Parcel 79-6-0.

The work consists of: construction of two new bocce courts facility including various site work, concrete sidewalks and viewing areas, drainage, landscaping, water fountains, creation of parking lot and site amenities/features as per plans and specifications. In addition two ADA parking spaces one on Beacon Street near baseball field and one along Sanderson Street near tennis courts. This project has a tight construction schedule and must be completed by June 30, 2024.

Plans, specifications, and bid forms will be emailed upon request by contacting [christy.moore@greenfield-ma.gov](mailto:christy.moore@greenfield-ma.gov) or by downloading them from the City's Procurement Department's webpage at [https://greenfield-ma.gov/departments/procurement/current\\_bid\\_opportunities.php](https://greenfield-ma.gov/departments/procurement/current_bid_opportunities.php) to be included on the Projects Plan Holder's List, interested parties can contact [christy.moore@greenfield-ma.gov](mailto:christy.moore@greenfield-ma.gov) or by calling 413-772-1553. Bidding/contract documents will be available Wednesday, March, 13, 2024 by 10:00 AM.

A site visit is scheduled for Monday, March 18, 2024 at 10:00AM at Gerrett Street near Beacon Park parcel 79-7-0.

Sealed Bids addressed to the City of Greenfield, Recreation Department, 20 Sanderson Street, Greenfield, Massachusetts 01301 and endorsed "IFB 24-20 Greenfield Construction of Bocce Courts" will be accepted until 1:00 PM on Thursday, March 28, 2024, at which time said bids will be publicly opened and read aloud in the second floor Back Meeting Room. Electronic bids will not be accepted as primary form of bid submission.

The Bid Security from the Contractor in the form of cash, certified check, treasurer's check, or cashier's check, drawn upon a responsible bank in the Commonwealth of Massachusetts or a bid bond in the amount of five percent (5%) of the bid shall be made payable to the City of Greenfield, Massachusetts and shall be enclosed with the bid.

A 100% Performance Bond and 100% Payment Bond will be required of the successful bidder.

Attention is called to the following:

- A. Bids for this project are subject to the provisions of the Massachusetts General Laws Chapter 30, Section 39M, as amended.
- B. Wages are subject to Massachusetts minimum wage rates as per M.G.L. Chapter 149, Section 26 to 27H inclusive.
- C. All pertinent regulations ordinances and statutes of the City of Greenfield and the State of Massachusetts will be rigidly enforced.

- D. The successful bidder must comply with Chapter 151B as amended, of the Massachusetts General Laws and with the provisions of Executive Order No. 74, as amended by Executive Order No. 116 dated May 1, 1975 pertaining to Equal Opportunity Anti-Discrimination and Affirmative Action.

The responsible and responsive bidder offering the lowest price shall be awarded the project, subject to the availability of funding. The City of Greenfield reserves the right to reject any or all bids or to waive any informality in the bidding.

The Contract/Bid awarding authority is:

City of Greenfield  
14 Court Square  
Greenfield, Massachusetts, 01301

## **INFORMATION FOR BIDDERS**

## INFORMATION FOR BIDDERS

### 1.1 **Location/Work to be Done:**

The City of Greenfield is soliciting bids for construction of two bocce courts including various site work, sidewalks and parking areas located on Parcel 79-7-0 and ADA Parking spaces on Parcel 79-6-0.

The Contractor shall furnish all labor, services, materials, equipment, plant, machinery, apparatus, appliances, tools, supplies, and all other items necessary to do all the work required for the completion of the Work, as specified.

The Work to be done and paid for shall not be limited to the extent mentioned or described, but shall include all incidental work necessary or customarily done for the completion of the Work.

- 1.2 **Questions Regarding Drawings and Documents.** In general, no answers will be given to prospective bidders in reply to an oral question if the question involves an interpretation of the intent or meaning of the Drawings or other Contract Documents, or the equality or use of products or methods other than those designated or described on the drawings or in the specifications. Any information given to bidders other than by means of the Drawings and other Contract Documents, including Addenda, as described below, is given informally, for information and the convenience of the bidder only and is not guaranteed. The bidder agrees that such information shall not be used as the basis of nor shall the giving of any such information entitle the bidder to assert any claim or demand against the owner or the engineer on account thereof.

To receive consideration, such questions shall be submitted in writing to the City at least 7 days before the established date for receipt of bids. Question should be submitted in writing to [christy.moore@greenfield-ma.gov](mailto:christy.moore@greenfield-ma.gov) and should be received on Wednesday, March 20, 2024 by 2:00 PM. If the question involves the equality or use of products or methods it must be accompanied by drawings, specifications or other data in sufficient detail to enable the City to determine the equality or suitability of the product or method. In general, the City will neither approve nor disapprove particular products prior to the opening of Bids; such products will be considered when offered by the Contractor for incorporation into the Work.

The City will set forth as Addenda, which shall become a part of the Contract Documents, such questions received as above provided as in its sole judgment are appropriate or necessary and its decision regarding each. At least three days prior to the receipt of Bids, the City will send a copy of these Addenda to those prospective bidders known to have taken out sets of the Drawings and other Contract Documents. Answers in the form of addenda will be posted on the City's website

[https://greenfield-ma.gov/departments/procurement/current\\_bid\\_opportunities.php](https://greenfield-ma.gov/departments/procurement/current_bid_opportunities.php)

Monday, March 25, 2024 by 10:00 AM.

The Contractor agrees to use the products and methods designated or described in the Specifications as amended by the Addenda.

- 1.3 **Bidders to Investigate**. Bidders are required to submit their Bids upon the following express conditions which shall apply to and be deemed a part of every Bid received.

Bidders must satisfy themselves by personal examinations of the site of the work and by such other means as they may wish, as to the actual conditions there existing, the character and requirements of the Work, the difficulties attendant upon its execution, and the accuracy of all estimated quantities stated in the Bid.

Site Visit is scheduled for Monday, March 18, 2024 at 10:00 AM located at Gerrett Street near Beacon Park on Parcel 79-7-0.

- 1.4 **Information not Guaranteed**. All information given on the Drawings or in the Contract Documents relating to sub-surface and other conditions, natural phenomena, existing pipes and other structures is from the best sources at present available to the City. All such information is furnished only for the information and convenience of bidders and is not guaranteed.

It is agreed and understood that the City does not warrant or guarantee that the subsurface or other conditions, natural phenomena, existing pipes or other structures encountered during construction, will be the same as those indicated on the Drawings or in the other Contract Documents.

It is agreed further and understood that no bidder or contractor shall use or be entitled to use any of the information made available to them or obtained in any examination made by them in any manner as a basis of or ground for any claim or demand against the City, arising from or by reason of any variance which may exist between the information made available and the actual subsurface or other conditions, natural phenomena, existing pipes or other structures actually encountered during the construction work, except as may otherwise be expressly provided for in the Contract Documents.

- 1.5 **Submitting Bids.** All Bids must be upon the blank form for Bid annexed hereto, state the proposed price of each item of the Work, both in words and in figures, and be signed by the Bidder with its business address and place of residence. The Bid Security shall be enclosed with the Bid.

Bidders shall submit their Bids with all of the Contract Documents listed in the Bid Submission Checklist, including all pages correctly assembled.

Each bid shall be submitted to the City in a sealed envelope. On the outside of the envelope shall be written the bidder's name and address and the name of and description of the project for which the Bid is submitted.

If forwarded by mail, the sealed envelope containing the Bid and marked as directed above, must be enclosed in another envelope addressed to the City.

- 1.6 **Time for Completion.** The successful bidder may begin work upon receipt of the Notice to Proceed and will be required to substantially complete the Work by **June 30, 2024**.

- 1.7 **Withdrawal of Bids.** Except as hereinafter in this subsection otherwise expressly provided, once a Bid is submitted and received by the City for consideration and comparison with other bids similarly submitted, the bidder agrees that it may not and will not withdraw it within 30 (thirty) consecutive calendar days after the actual date of the opening of Bids.

Upon proper written request and identifications, Bids may be withdrawn as follows:

1. At any time prior to the designated time for the opening of Bids.
2. Provided the Bid has not therefore been accepted by the City at any time subsequent to the expiration of the period during which the bidder has agreed not to withdraw its Bid. Unless a Bid is withdrawn as provided above, the Bidder agrees that it shall be deemed open for acceptance until the City notifies a Bidder in writing that the submitted Bid is rejected or that the City does not intend to accept it. Notice of acceptance of a Bid shall not constitute rejection of any Bid.

- 1.8 **Ability and Experience of Bidder.** No award will be made to any Bidder who cannot satisfy the City that it has sufficient ability and experience in this class of work and sufficient capital and plant to enable it to prosecute and complete the Work successfully within the time named. The City decision or judgment on these matters shall be final, conclusive, and binding.



The Bidder must provide a list of municipal projects that their firm has shown a successful relationship with the client during the construction of the project and project references. Provide a list of completed projects that are similar in size and scope of this project.

The City may make such investigations as it deems necessary, and the Bidder shall furnish to the City, under oath if so required, all such information, and data for this purpose as the City may request.

- 1.9 **Bids.** The City may reject Bids which in its sole judgment are either incomplete, conditional, obscure or not responsive or which contain additions not called for, erasures not properly initialed, alterations, or similar irregularities, or the City may waive such omissions, conditions or irregularities.
- 1.10 **Right to Reject Bids.** The City reserves the right to reject any or all Bids, or alternative bid items should the City deem it to be in the public interest to do so.
- 1.11 **Execution of Agreement.** The Bidder whose bid is accepted will be required and agrees to duly execute the AGREEMENT, after notification that the AGREEMENT is ready for signature.
- 1.12 **Insurance Certificates.** The Contractor will not be permitted to start any construction work until it has submitted certificates covering all insurance called for, and has obtained approval in writing of such certificates from the City.

Before starting, and until completion of the guarantee period, the Contractor shall procure, deposit, and maintain with the City, insurance satisfactory to the City as follows:

- A. Workmen's Compensation and Employer's Liability Insurance as required by the Workmen's Compensation Laws of the Commonwealth of Massachusetts.
- B. Comprehensive Commercial Liability Insurance covering Bodily Injury and Property Damage (Broad Form) as follows:

Limits of Liability*	\$1,000,000 each occurrence
	\$2,000,000 aggregate

\* or \$1,000,000 single limit combined Bodily Injury and Property Damage.

The Comprehensive Commercial Liability Policy shall provide insurance for the Contractor for Bodily Injury and Property Damage to third persons arising out of:

1. Work performed by the Contractor itself with its own employees, called “premises operations.”
  2. Work performed by its subcontractors, called “sublet work” or Independent Contractors (this is referred to as Contractor’s Protective Liability).
  3. The Contractor’s liability assumed under this contract, called “Hold Harmless” clauses or indemnity agreement. (This is referred to as Contractual Liability Insurance).
  4. Products liability coverage covering the completed building or installation or products furnished. (This is called Products Liability Insurance for the manufacturer and Complete Operations Liability Insurance for the Contractor).
  5. If any work is to be performed below the surface of the ground, the coverage shall be extended to include protection against property damage caused by explosion (including blasting), collapse of structures and damage to underground pipes and utilities. (This is known as “XCU” coverage).
- C. Comprehensive Automobile Liability Insurance covering Bodily Injury and Property Damage, as follows:

Limits of Liability

Bodily Injury	\$500,000 each person \$1,000,000 each accident
Property Damage	\$1,000,000 each accident

\* or \$500,000 single limit combined Bodily Injury and Property Damage.

This insurance is to apply with respect to all owned or hired vehicles of the Contractor and non-ownership protection for all employees of the Contractor engaged in the performance of this contract.

- D. All policies shall be so written that the City will be notified of cancellation or restrictive amendment at least 30 days prior to the effective date of such cancellation or amendment. Certificates from the insurance carrier stating the limits of liability and expiration date shall be filed in triplicate with the City before operations are begun. Such certificates not only shall name the types of policy provided, but also shall refer specifically to this Contract\* and article and the above paragraphs in accordance with which insurance is being furnished and shall state that such insurance is as required by such paragraphs of this Contract and shall be sufficiently comprehensive as to permit

the owner to determine that the required insurance coverage has been provided without the necessity of examining the individual insurance policies.

If the initial insurance expires prior to completion of the Work, renewal certificates shall be furnished by the date of expiration.

\* If blanket coverage is furnished, this particular Contract need not be referred to.

- E. The Contractor shall require each of its sub-contractors to procure and maintain until the completion of that sub-contractor's work, insurance of the types and to the limits specified in paragraphs A to C, inclusive, above. It shall be the responsibility of the Contractor to insure that all its sub-contractors comply with all of the insurance requirements contained herein relating to such sub-contractors.

No insurances required or furnished hereunder shall, in any way, relieve the Contractor of, or diminish any of its responsibilities, obligations and liabilities under the Contract.

- 1.13 **Comparison of Bids.** Bids will be compared on the basis of lump-sum prices stated on the Bid Form.

In the event that there is a discrepancy in the Bid between the lump-sum prices written in words and figures, the prices written in words shall govern.

The City agrees to examine and consider each Bid submitted in consideration of the Bidder's agreements, as hereinabove set forth and as set forth in the BID.

- 1.14 **Bid Security.** The Bid Security from the contractor in the form of cash, certified check or treasurer's or cashier's check drawn upon a responsible bank in the Commonwealth of Massachusetts or a bid bond in the amount of five percent (5%) of the bid shall be made payable to the City of Greenfield, Massachusetts and shall be enclosed with the bid.

The bid bond will be held by the City as security for the fulfillment the bidder's agreements as hereinabove set forth and as set forth in the BID. Should the bidder fail to fulfill such agreements, its bid check shall become the property of the City as liquidated damages; otherwise, the bid check shall be returned to the bidder as hereinafter provided.

Bid checks will be returned to all except the three lowest bidders within three days, Sundays and legal holidays excluded, after the owner and the accepted bidder have executed the AGREEMENT. In the event that the AGREEMENT has not been executed by both the accepted bidder and the owner within 30 consecutive calendar days after the opening of bids, the bid check will be returned promptly upon demand of any bidder who has not been notified of the acceptance of its bid.

None of the three lowest bids shall be deemed rejected, notwithstanding acceptance of any bid, until the AGREEMENT has been executed by both the City and the accepted bidder.

The bid deposit must be enclosed in the sealed envelope containing the bid.

1.15 All questions relative to the specifications shall be directed to:

Christy Moore  
20 Sanderson Street, Greenfield MA 01301  
413.772.1553  
[christy.moore@greenfield-ma.gov](mailto:christy.moore@greenfield-ma.gov)

1.16 **Disputes.** In the event of any dispute as to any of the terms and conditions of this contract, it shall be determined in accord with the laws of the Commonwealth of Massachusetts and the Courts of the Commonwealth of Massachusetts shall have exclusive jurisdiction of the same.

1.17 **Minimum Wage Rates.** In the employment of mechanics, teamsters, chauffeurs, and laborers in the construction of the public work projects, the Minimum Wage rates shall be paid as issued by the Commissioner of Labor and Industries of Massachusetts, in accordance with Sections 26 and 27 of Chapter 149, of the General Laws, as amended, and as included in Appendix A.

1.18 **Equal Employment Opportunity Anti-Discrimination and Affirmative Action.** The successful bidder must comply with Chapter 151B as amended, of the Massachusetts General Laws and with the provisions of Executive Order No. 74, as amended by Executive Order No. 116 dated May 1, 1975 pertaining to Equal Opportunity Anti-Discrimination and Affirmative Action.

1.19 **Notice to Proceed and Pre-Construction Conference.** A written Notice to Proceed shall be issued to the Contractor after receipt of proof of required insurance. No work shall be performed by the Contractor until it has received the Notice to Proceed.

Prior to the start of construction, the Contractor, all subcontractors, the project manager, and the owner shall attend a pre-construction conference. The conference will serve to acquaint the participants with the general plan of contract administration and requirements under which the construction operation is to proceed.

The date, time, and place of the conference will be furnished to the Contractor by the project manager.

- 1.20 **Bonds.** A Performance Bond and Labor and Material (Payment) Bond are required in the full amount of the contract. Payment and Performance Bonds shall be for 100% of the contract price. The Bonding Company shall be acceptable to the Awarding Authority.
- 1.21 **Work Within a Public Property.** As a point of information, all of the work to be undertaken is located within the confines of an unsecured public property, and as such is subject to acts of vandalism. The City will not pay for any damage to the Contractor's equipment or material. The Contractor shall take all means and measures necessary to protect the public, work in progress, work completed, and all furnishings, materials and equipment stored at the site through the completion of the project. The repair or replacement of work in place or in progress shall be the sole responsibility of the Contractor and shall be accomplished at no cost to the City.
- 1.22 **The Successful Bidder Guarantees.** Products against defective material or workmanship and to repair or replace any damages or marring occasioned in transit. To furnish adequate protection from damage for all work and to repair damages of any kind for which Contractor's workpeople are responsible, to the building or equipment, to their own work, or to the work of other successful bidders. That all deliveries of materials shall be equal to any accepted bid sample. Any merchandise provided under the contract that is or becomes defective during the guarantee period shall be replaced by the successful bidder free of charge with the specific understanding that all replacements shall carry the same guarantee as the original equipment (one year from the date of acceptance by the City). The Successful Bidder shall make any replacement immediately upon receiving notice from the Department Head from the City or the Purchasing Agent.

**FORMS FOR BID**

## **Bid Submission Checklist for all Bidders**

1. \_\_\_\_\_ **5% Bid Bond**
  
2. \_\_\_\_\_ **Bid Form**
  
3. \_\_\_\_\_ **Non-collusion/Tax Compliance Certification**
  
4. \_\_\_\_\_ **Debarment Statement**
  
5. \_\_\_\_\_ **Contractor's Certification**
  
6. \_\_\_\_\_ **Sub-Contractor's Certification**
  
7. \_\_\_\_\_ **OSHA Training Certification**
  
8. \_\_\_\_\_ **Reference Project Description Forms**
  
9. \_\_\_\_\_ **Personnel Qualification Form**

\_\_\_\_\_  
**Bidder's Name**

## BID FORM

To the City of Greenfield, Massachusetts, (hereinafter called the "Owner") acting through its Procurement Department, duly authorized therefore, who act solely for said City and without personal liability to themselves:

The undersigned \_\_\_\_\_, as bidder, declares that the only persons or parties interested in this bid as principals are those named herein; that the bidder has carefully examined the proposed form of Bid and the Specifications (and amendments thereto); and they bid and agree, if this bid is accepted, that the bidder will furnish all materials and labor necessary for the completion of the Work as specified in the Bid, in the manner and time therein prescribed and according to the requirements of Owner as herein set forth.

The Bidder agrees that the Owner will have thirty (30) consecutive days from date of opening to accept the bid, except as described in the specifications, the unit(s) at the price, therein. The Bidder also understands that the Owner reserves the right to accept or reject any or all bids and to waive any informalities in the Bids if it is in the Owner's interest to do so. The Advertisement for Bidders, Information for Bidders, Specifications and Bid Form attached thereto, shall become a contract upon the receipt by the Bidder of written acceptance of this bid by the Owner.

The Bidder will include a breakdown of the following pricing that will be equal to the Lump Sum Price list below:

Site Preparation: is \$\*\* \_\_\_\_\_.  
\_\_\_\_\_.(in words)

Bocce Courts & Hardscape Construction: is \$\*\* \_\_\_\_\_.  
\_\_\_\_\_.(in words)

Paving: is \$\*\* \_\_\_\_\_.  
\_\_\_\_\_.(in words)

Landscaping and Site Amenities: is \$\*\* \_\_\_\_\_.  
\_\_\_\_\_.(in words)

The Bidder will take in full payment, therefore, the following Lump Sum price:



The Lump Sum Price for the bid, derived as described in the INFORMATION FOR BIDDERS under the heading "Comparison of Bids," is \$\*\* \_\_\_\_\_.  
\_\_\_\_\_. (in words)

**Alternates:** This bid includes Alternates as follows:

Add Alternate No. 1: One additional van accessible handicap parking space and additional concrete walkway approximate (18 sy): is \$\*\* \_\_\_\_\_.  
\_\_\_\_\_. (in words)

The undersigned agrees that for extra work, if any, performed in accordance with the terms and provisions of the annexed form of AGREEMENT, bidder will accept compensation as stipulated therein in full payment for such extra work.

As provided in the INFORMATION FOR BIDDERS, the bidder hereby agrees that they will not withdraw this BID within 30 consecutive calendar days after the actual date of the opening of BIDS and that, if the City shall accept this BID, the bidder will duly execute and acknowledge the AGREEMENT and furnish, duly executed and acknowledged, the required CONTRACT BONDS within ten (10) days after notification that the AGREEMENT and other Contract Documents are ready for signature.

Should the bidder fail to fulfill any of the agreements as hereinabove set forth, the City shall have the right to retain as liquidated damages the amount of the bid check which shall become the City's property.

This BID includes Addenda number \*\*\* \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_.

\*\* Bidder must fill in this blank

\*\*\* To be filled in by Bidder if Addenda are issued.

The Bidder, by submittal of this BID, agrees with the Owner that the amount of the bid security deposited with this BID fairly and reasonably represents the amount of damages the Owner will suffer due to the failure of the Bidder to fulfill the agreement as above provided.

The Bidder hereby certifies they shall comply with the minority manpower ration and specific action steps contained in the STATE REQUIREMENTS under Massachusetts Equal Employment Program, including the minority contractor compliance. Prior to the award of the Contract, the Contractor must submit a Contractor's Certification of Compliance. The Contractor receiving the award of the Contract shall be required to obtain from each of its Sub-Contractors and submit to the contracting or administering agency prior to the performance of any work under said Contract

a certification by said Sub-Contractor, regardless of tier, that it will comply with the minority manpower ratio and specific affirmative action steps contained in the Massachusetts Equal Employment Program.

(SEAL)

By \_\_\_\_\_  
(Signature and title of authorized representative)

\_\_\_\_\_  
(Business Address)

\_\_\_\_\_  
(City & State)

Date \_\_\_\_\_

The Bidder is a corporation incorporated in the State (or Commonwealth) of \_\_\_\_\_  
\_\_\_\_\_  
(Bidder must add and delete, as necessary, to make this sentence read correctly).

(Note: If the Bidder is a corporation, affix corporate seal and give below the names of its president, treasurer, and general manager, if any; if a partnership, give full names and residential addresses of all partners, and if an individual, give residential address if different from business address.)

**CERTIFICATE OF NON-COLLUSION**

The undersigned certifies under penalties of perjury that this bid has been made and submitted in good faith and without collusion or fraud with any other person. As used in this certification, the word "person" shall mean any natural person, business, partnership, corporation, union, committee, club, or other organization, entity, or group of individuals.

\_\_\_\_\_  
Signature of individual submitting bid

\_\_\_\_\_  
Name of Business

**TAX COMPLIANCE CERTIFICATION**

Pursuant to M.G.L. Ch. 62C, Sec. 49A, I certify under the penalties of perjury that I, to the best of my knowledge and belief, am in compliance with all laws of the Commonwealth of Massachusetts relating to taxes, reporting of employees and contractors, and withholding and remitting child support.

\_\_\_\_\_  
Signature of individual submitting bid

\_\_\_\_\_  
Name of business

**DEBARMENT STATEMENT**  
**(to be used for any public construction project)**

Any person or corporation that fails to date, sign with original signature, and submit the following statement shall not be awarded this contract.

DEBARMENT (Chapter 550, Acts of 1991)

The undersigned certifies under penalties of perjury that the said undersigned is not presently debarred from doing public construction work in the Commonwealth of Massachusetts under the provisions of Section 29F of Chapter 29 of the General Laws, or any other applicable debarment provisions of any other Chapter of the General Laws, or any Rule or Regulation promulgated thereunder.

DATE: \_\_\_\_\_

\_\_\_\_\_  
Typed or Printed Name of Person Signing

\_\_\_\_\_  
Authorized Official's Signature

\_\_\_\_\_  
Company or Corporation

A. **Contractor's Certification**                      Name of Project \_\_\_\_\_

A contractor will not be eligible for award of a contract unless such contractor has submitted the following certification, which is deemed a part of the resulting contract:

**CONTRACTOR'S CERTIFICATION**

\_\_\_\_\_ certified that:

1. it tends to use the following listed construction trades in the work under the contract \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

and

- 2. will comply with the minority manpower ration and specific affirmative action steps required by law, and
- 3. will obtain from each of its Sub-Contractors and submit to the contracting or administering agency prior to the award of any Sub-Contract under this contract the Sub-Contractor certification required by these bid conditions.

\_\_\_\_\_  
Signature of authorized representative  
of Contractor.

**B. Sub-Contractor's Certification**

Name of Project \_\_\_\_\_

Prior to the award of any sub-contract, regardless of tier, the prospective sub-contractor must execute and submit to the prime contractor the following certification, which will be deemed a part of the resulting sub-contract:

**SUB-CONTRACTOR'S CERTIFICATION**

\_\_\_\_\_ certifies that:

- 1. it tends to use the following listed construction trades in the work under the sub-contract \_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

and;

- 2. will comply with the minority manpower ration and specific affirmative action steps required by law; and
- 3. will obtain from each of the sub-contractors prior to the award of any sub-contract under this sub-contractor certification required by these bid conditions.

\_\_\_\_\_  
Signature of Authorized Representative

In order to ensure that the said sub-contractor's certification becomes a part of all sub-contractors under the prime contract, no sub-contract shall be executed until an authorized representative of the City agency (or agencies) administering this project has determined, in writing, that the said certification has been incorporated in such sub-contract, regardless of tier. Any sub-contract executed without such written approval shall be void.

**OSHA TRAINING CERTIFICATION**

Pursuant to M.G.L. Ch. 30, Sec. 39S(A), I certify under the penalties of perjury to the following:

- (1) that I am able to furnish labor that can work in harmony with all other elements of labor employed or to be employed at the work;
- (2) that all employees to be employed at the worksite will have successfully completed a course in construction safety and health approved by the United States Occupational Safety and Health Administration that is at least 10 hours in duration at the time the employee begins work and who shall furnish documentation of successful completion of said course with the first certified payroll report for each employee; and
- (3) that all employees to be employed in the work subject to this contract have successfully completed a course in construction safety and health approved by the United States Occupational Safety and Health Administration that is at least 10 hours in duration.

\_\_\_\_\_  
(Signature of authorized representative of Bidder)

\_\_\_\_\_  
(Name of authorized representative of Bidder)

\_\_\_\_\_  
(Name of business)

**REFERENCE PROJECT DESCRIPTION FORM**

*The Bidder must submit one completed form for each reference project. A minimum of five reference projects, each completed within the last 5 years, must be provided.*

<b>Project Name</b>		<b>Project Size (Square Feet)</b>	<b>Date Completed</b>
<b>Project Address</b>	<b>Project City, State, Country</b>		<b>Project Owner</b>
<b>Owner's Representative</b>	<b>Contact Phone Number</b>		<b>Contact E-Mail</b>
<b>Description of Project</b>			
<b>Technical Summary of Work Performed</b>			
<b>Experience working with the similar municipal park projects.</b>			



**PERSONNEL QUALIFICATION FORM**

*The Bidder must identify each individual proposed to work as either Foreman, Alternate Foreman, and/or Project Field Superintendent/Supervisor by filling out the form below. A minimum of one Superintendent/Supervisor must be provided. Use additional forms if needed.*

<b>Foreman, Alternate Foreman, Superintendent/Supervisor, Individual's Name</b>		<b>Company</b>	
<b>Project Name &amp; Location</b>	<b>Date Completed</b>	<b>Project Owner Contact Name</b>	<b>Contact's Telephone or E-mail</b>
<b>Summary of Individual's Role/Responsibilities for Project</b>			

<b>Foreman, Alternate Foreman, Superintendent/Supervisor, Individual's Name</b>		<b>Company</b>	
<b>Project Name &amp; Location</b>	<b>Date Completed</b>	<b>Project Owner Contact Name</b>	<b>Contact's Telephone or E-mail</b>
<b>Summary of Individual's Role/Responsibilities for Project</b>			

<b>Foreman, Alternate Foreman, Superintendent/Supervisor, Individual's Name</b>		<b>Company</b>	
<b>Project Name &amp; Location</b>	<b>Date Completed</b>	<b>Project Owner Contact Name</b>	<b>Contact's Telephone or E-mail</b>
<b>Summary of Individual's Role/Responsibilities for Project</b>			

## **AGREEMENT**

**AGREEMENT FOR CONTRACT**  
**IFB 24-20 Greenfield Construction of Bocce Courts**

**THIS AGREEMENT**, executed this \_\_\_\_\_ day of \_\_\_\_\_  
in the year Two Thousand and Twenty-Four.

(herein referred to as the "AGREEMENT"), by and between the City of Greenfield, Massachusetts, acting by and through its Procurement Department, duly authorized therefore, which acts solely for said City and without personal liability to itself, party of the first part, and \_\_\_\_\_ party of the second part.

WITNESSETH, that the parties to these presents, each in consideration of the undertakings, promises, and agreements on the part of the other herein contained, have undertaken, promised and agreed and do hereby undertake, promise, and agree, the party of the first part for itself, its successors and assigns, and the party of the second part for itself and its heirs, executors, administrators, successors and assigns, as follows:

The Contractor agrees to furnish all equipment, machinery, tools and labor, to furnish and deliver all materials required to be furnished and delivered in and about the improvement and to do and perform all work in accordance with the specifications, plans and conditions made a part hereof, and in strict conformity with the provisions herein contained. All said Plans, Specifications, General Requirements, Special Provisions, Addenda, and Bid are hereby specifically made a part of this Contract as fully and to the same effect as if the same had been set forth at length herein.

The Contract Documents consist of the following:

1. This Agreement
2. Bidding/Contract Documents IFB 24-20 Construction of Bocce Courts, inclusive
3. Drawings consisting of a cover sheet and sheets numbered \_\_\_\_\_ through \_\_\_\_\_ inclusive, with each sheet bearing the following general title:
4. Contractor's Bid
5. Add Alternate Bid
6. Addenda (numbers \_\_\_\_\_ to \_\_\_\_\_ inclusive)

In consideration of the foregoing premises, the Owner shall pay and the Contractor shall receive the prices stipulated in the BID made a part hereof as full compensation for everything furnished and done by the Contractor under this Contract; including all work required, but not shown on the plans for the items herein mentioned, and for all loss or damage arising out of the nature of the work aforesaid, or from the action of the elements, or from any delay or from any unforeseen obstruction or difficulty encountered in the prosecution of the Work, and for all risks of every description connected with the Work, and for all expenses incurred by or in consequence of the suspension or discontinuance of the Work as herein specified, and for well and faithfully completing the Work, and the whole thereof, as herein provided, such price or prices as are set out in the accompanying bid, and for all work required, for which there is no item in the bid, such compensation as is provided for in the aforesaid specification.

The Contractor's original bid price for this project is \_\_\_\_\_.

**AGREEMENT FOR CONTRACT**  
**IFB 24-20 Greenfield Construction of Bocce Courts**

IN WITNESS WHEREOF, the Owner has caused this instrument to be signed and its corporate seal to be hereto affixed in its behalf, and the Contractor has caused this instrument to be signed in its behalf.

FOR THE OWNER,

\_\_\_\_\_

By the \_\_\_\_\_

\_\_\_\_\_

FOR THE CONTRACTOR,

Witness: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

By the \_\_\_\_\_

\_\_\_\_\_

(If a corporation, attach to each signed Agreement a notarized copy of the corporate vote authorizing the signatory to sign this Agreement.)

Approved as to Appropriation:

\_\_\_\_\_

City Accountant

**Certificate of Acknowledgment of Contractor if a Corporation**

**For AGREEMENT**

State of \_\_\_\_\_ )

SS:

County of \_\_\_\_\_ )

On this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_,

before me personally came \_\_\_\_\_

to me known, who being by me duly sworn, did depose and say as follows:

That they reside at \_\_\_\_\_

and is the \_\_\_\_\_

of \_\_\_\_\_

the corporation described in and which executed the foregoing instrument; that the person knows the corporate seal of said corporation; that the seal affixed to the foregoing instrument is such corporate seal and it was so affixed by order of the Board of Directors of said corporation; and that by the like order they signed thereto their name and official designation.

\_\_\_\_\_  
Notary Public (Seal)

My commission expires: \_\_\_\_\_

**NOTICE TO PROCEED**

Date: \_\_\_\_\_

Project: Greenfield Construction of Bocce Courts

Owner: City of Greenfield, MA

Owner's Contract No.: IFB 24-20

Contract: IFB 24-20 Greenfield Construction of Bocce Courts

Contractor:

Contractor's Address:

You are notified that the Contract Times under the above Contract will commence to run on:\_\_\_\_\_. On or before that date, you are to start performing your obligations under the Contract Documents. The date of Substantial Completion is June 30, 2024.

Before you may start any Work at the Site, Paragraph 1.12 of the Information for Bidders provides that you must deliver to the Owner (with copies to Engineer and other identified additional insured and loss payees) certificates of insurance which Contractor is required to purchase and maintain in accordance with the Contract Documents.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Owner

Given by:

Authorized Signature

Title

Date

Copy to Engineer

Copy to Recreation Director

## **BONDS**

**PERFORMANCE BOND**

(NOTE: This Bond is issued simultaneously with the attached Labor and Materials Bond in favor of the Owner.)

KNOW ALL PERSONS BY THESE PRESENTS:

That we, \_\_\_\_\_  
\_\_\_\_\_  
(an individual, a partnership, a corporation)

duly organized under the Laws of the State (or Commonwealth) of \_\_\_\_\_,

and having a usual place of business at \_\_\_\_\_, as

Principal, and \_\_\_\_\_, a corporation duly  
organized under the Laws of the State (or Commonwealth) of \_\_\_\_\_, and

having a usual place of business at \_\_\_\_\_,

as Surety, are holden and stand firmly bound and obligated unto the City of Greenfield,  
Massachusetts, as obligee, in the sum of \_\_\_\_\_,

lawful money of the United States of America to and for the true payment whereof we bind  
ourselves and, each of us, our heirs, executors, administrators, successors, and assigns, jointly and  
severally, firmly by these presents.

WHEREAS, the Principal, by means of a written AGREEMENT (which together with the Contract  
Documents in said AGREEMENT referred to are collectively sometimes referred to as the  
"Contract") dated \_\_\_\_\_.

Has entered into a contract with the said obligee for \_\_\_\_\_  
\_\_\_\_\_

a copy of which AGREEMENT is attached hereto and by reference made a part hereof.

NOW THEREFORE, THE CONDITION of this obligation is such that if the Principal shall well  
and truly keep and fully and faithfully perform all of the terms and conditions of said  
AGREEMENT and of the "Contract Documents" referred to in said AGREEMENT (which  
collectively are hereinafter and in said AGREEMENT sometimes referred to as the  
"Contract") and all modifications thereof on the Principal's part to be performed, this  
obligation shall be void; otherwise it shall remain in full force and effect.



Whenever the said Principal shall be, and declared by the City to be in default under the said Contract, the City having performed the City's obligations thereunder, the Surety, for value received, shall promptly remedy the default, or, at the option of the City, shall promptly

- (a) Complete the said AGREEMENT and/or Contract in accordance with its terms and conditions, or
- (b) Obtain a bid or bids for submission to and the approval of the City for completing the said AGREEMENT and/or Contract and any modifications thereof in accordance with the terms and condition thereof, and upon determination by the City and the Surety of the lowest responsible and acceptable bidder, arrange for a contract between such bidder and the City, and make available to the City as the Work progresses (even though there should be a default or a succession of defaults under the contract or contracts of completion arranged under this paragraph) sufficient funds to pay the cost of completion less a sum that shall be equal to the difference between the Contract price as fixed and provided in said AGREEMENT and/or Contract price as fixed and provided thereof to be paid thereunder to the Principal and the amount previously paid by the City to and/or for the account of and/or chargeable against the Principal, but not exceeding (including other costs and damages for which the Surety may be liable hereunder) the amount set forth in the first paragraph hereof.

The Surety, for value received, agrees further that no changes in, omissions from, or alteration, modifications or additions to the terms and provisions of said AGREEMENT, and/or Contract or the Work to be performed thereunder, and that no extensions of time given or changes made in the manner or time of making payments thereunder, shall in any way affect the Surety's obligations on this Bond, and the Surety hereby waives notice of any such changes, omissions, alteration, modification, additions or extensions.

IN WITNESS WHEREOF, we have hereunto set our hands and seals to \_\_\_\_\_  
counterparts of this Bond, this \_\_\_\_\_ day of \_\_\_\_\_  
in the year Two Thousand and Twenty-Four.

\_\_\_\_\_(Seal)  
Principal

\_\_\_\_\_(Seal)  
Principal

\_\_\_\_\_(Seal)  
Principal

\_\_\_\_\_(Seal)  
Surety

\_\_\_\_\_(Seal)  
Surety

\_\_\_\_\_(Seal)  
Surety

(NOTE: If the Principal (Contractor) is a partnership, the Bond should be signed by each of the partners.

If the Principal (Contractor) is a corporation, the Bond should be signed in its correct corporate name by its duly authorized officers.

If this Bond is signed on behalf of the Surety by an attorney-in-fact, there should be attached to it a duly certified copy of the power of attorney showing the persons authority to sign such Bonds.

There should be executed an appropriate number of counterparts of the Bond corresponding to the number of counterparts of the AGREEMENT.)

**LABOR AND MATERIALS (PAYMENT) BOND**

(NOTE: This Bond is issued simultaneously with the attached Performance Bond in favor of the Owner.)

KNOW ALL PERSONS BY THESE PRESENTS:

That we, \_\_\_\_\_

\_\_\_\_\_  
(an individual, a partnership, a corporation)

duly organized under the Laws of the State (or Commonwealth) of \_\_\_\_\_,

and having a usual place of business at \_\_\_\_\_, as

Principal, and \_\_\_\_\_, a corporation duly  
organized under the Laws of the State (or Commonwealth) of \_\_\_\_\_, and

having a usual place of business at \_\_\_\_\_,

as Surety, are holden and stand firmly bound and obligated unto the City of Greenfield,  
Massachusetts, as obligee, in the sum of \_\_\_\_\_,

lawful money of the United States of America to and for the true payment whereof we bind  
ourselves and, each of us, our heirs, executors, administrators, successors, and assigns, jointly and  
severally, firmly by these presents.

WHEREAS, the Principal, by means of a written AGREEMENT (which together with the Contract Documents in said AGREEMENT referred to are collectively sometimes referred to as the "Contract") dated \_\_\_\_\_.

Has entered into a contract with the said obligee for \_\_\_\_\_

\_\_\_\_\_

a copy of which AGREEMENT is attached hereto and by reference made a part hereof.

NOW, THEREFORE, THE CONDITION of this obligation is such that if the Principal shall promptly make payments to all claimants as hereinafter defined, for all labor performed or furnished and for all materials and equipment furnished for or used or in connection with the Work called for by said AGREEMENT and/or Contract and any modifications thereof, including lumber used, but not incorporated in said Work, and for the rental or hire of vehicles, tools and other appliances and equipment furnished for or used in connection with said Work, this obligation shall be void; otherwise it shall remain in full force and effect, subject, however, to the following conditions:

1. A claimant is defined as one having a direct contract with the Principal or with a subcontractor of the Principal for labor, materials, and/or equipment used or reasonably required for use in the performance of the said Work, labor and materials, being construed to include that part of water, gas, power, light, heat, oil, gasoline, telephone service or rental of equipment directly applicable to the said AGREEMENT and/or Contract and any modifications thereof.
2. The above named Principal and Surety hereby jointly and severally agree with the City that every claimant as herein defined, who has not been paid in full before the expiration of a period of ninety (90) days after the date on which the last of such claimant's work or labor was done or performed, or materials or equipment were furnished by such claimant, may sue on this bond for the use of such claimant, prosecute the suit to final judgment for such sum or sums as may be justly due claimant, and have execution thereon. The City shall not be liable for the payment of any costs or expenses of any such suit.
3. No suit or action shall be commenced hereunder by a claimant,
  - (a) Unless claimant, other than one having a direct contract with the Principal, shall have given written notice to any two of the following: The Principal, the City or the Surety above named, within ninety (90) days after such claimant did or performed the last of the work or labor, or furnished the last of the materials or equipment for which said claim is made, stating with substantial accuracy the amount claimed and the name of the party to whom the materials or equipment were furnished, or for whom the work or labor was done or performed. Such notice shall be served by mailing the same by registered mail or certified mail, postage prepaid, in an envelope addressed to the Principal, City, or Surety at any place where an office is regularly maintained for the transaction of business, or served in the state in which the said Work is located, save that such service need not be made by a public officer;

- (b) After the expiration of one (1) year following the date on which the Principal ceased work on said AGREEMENT and/or Contract and any modifications thereof, it being understood, however, that if any limitation shall be deemed to be amended so as to be equal to the minimum period of limitation permitted by such law.
- (c) Other than in a state court of competent jurisdiction in and for the county or other political subdivision of the state in which the said Work, or any part thereof, is situated, or in the United States District Court for the district in which the said Work, or any part thereof, is situated, and not elsewhere.

4. The amount of this bond shall be reduced by and to the extent of any payment or payments made in good faith hereunder, inclusive of the payment by Surety of mechanics liens which may be filed of record against said AGREEMENT and/or Contract or said Work, whether or not claim for the amount of such lien be presented under and against this bond.

The Surety, for value received, agrees further that no changes in, omissions from, or alterations, modifications or additions to the terms and provisions of said AGREEMENT and/or Contract or the Work to be performed thereunder, and that no extensions of time given or changes made in the manner or time of making payments thereunder, shall in any way affect the Surety's obligations on this Bond, and the Surety hereby waives notice of any such changes, omissions, alterations, modifications, additions or extensions.

IN WITNESS WHEREOF, we have hereunto set our hands and seals to \_\_\_\_\_  
 counterparts of this Bond, this \_\_\_\_\_ day of \_\_\_\_\_  
 in the year Two Thousand and Twenty-Four.

\_\_\_\_\_  
 Principal (Seal)

\_\_\_\_\_  
 Principal (Seal)

\_\_\_\_\_  
 Principal (Seal)

\_\_\_\_\_ (Seal)  
Surety

\_\_\_\_\_ (Seal)  
Surety

\_\_\_\_\_ (Seal)  
Surety

(NOTE: If the Principal (Contractor) is a partnership, the Bond should be signed by each of the partners.

If the Principal (Contractor) is a corporation, the Bond should be signed in its correct corporate name by its duly authorized officers.

If this Bond is signed on behalf of the Surety by an attorney-in-fact, there should be attached to it a duly certified copy of the power of attorney showing the persons authority to sign such Bonds.

There should be executed an appropriate number of counterparts of the Bond corresponding to the number of counterparts of the AGREEMENT.)

**Certificate of Acknowledgment of Contractor if a Corporation**

**For CONTRACT BONDS**

State of \_\_\_\_\_ )

SS:

County of \_\_\_\_\_ )

On this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_,

before me personally came \_\_\_\_\_

to me known, who being by me duly sworn, did depose and say as follows:

That they reside at \_\_\_\_\_

and is the \_\_\_\_\_

of \_\_\_\_\_

the corporation described in and which executed the foregoing instrument; that they know the corporate seal of said corporation; that the seal affixed to the foregoing instrument is such corporate seal and it was so affixed by order of the Board of Directors of said corporation; and that by the like order they signed thereto their name and official designation.

\_\_\_\_\_  
Notary Public (Seal)

My commission expires: \_\_\_\_\_

## **SPECIAL CONDITIONS**



## SPECIAL CONDITIONS

### TITLE

- 1.1 Construction Warning Signs
- 1.2 Traffic Control
- 1.3 Access to Property
- 1.4 Conflict or Inconsistency
- 1.5 Percentage of Progress Payments to be Retained
- 1.6 Waste Reduction/Energy Efficiency

1.1 **Construction Warning Signs.** All construction warning signs shall be erected in accordance with the Manual on Uniform Traffic Control Devices for Streets and Highways. All construction warning signs shall be erected and maintained by the Contractor at their own expense.

1.2 **Traffic Control.** For control of moderate traffic, the Contractor shall provide an adequate number of traffic control officers employed at their own expense.

Whenever and wherever, in the opinion of the Owner, traffic is sufficiently congested or public safety is endangered, the Contractor shall be responsible for furnishing uniformed special officers to direct traffic and to keep traffic off the highway area affected by construction operations. Such officers shall be in addition to the security, required under other provisions of the Contract. **The Owner shall be responsible for payment of all uniformed special officers. The Contractor shall be responsible for scheduling all uniformed special officers with the Greenfield Police Dispatch at 413-773-5411 a minimum of 24 hours in advance. When scheduling, the Contractor shall inform Police Dispatch that they are working on behalf of the City of Greenfield Procurement Department (Bocce Court Construction) and all invoices shall be sent to the Recreation Department, Attn: Christy Moore, 20 Sanderson St, Greenfield MA, 01301. A minimum 4 hour notice is required to cancel a scheduled detail.**

The employment or presence of traffic flaggers, special officers, or police shall, in no way, relieve the Contractor of any responsibility or liability, which is his under the terms of the Contract.

1.3 **Access to Property.** The Contractor shall maintain access to all properties whether over sidewalks or driveways through the use of ramps, bridges, or steel plating. Bridging is required for all properties where handicap accessibility must be maintained.

Temporary handicap ramps shall be constructed according to the Commonwealth of Massachusetts Architectural Barrier Board Regulations 521 CMR.

1.4 **Conflict or Inconsistency.** If there be any conflict or inconsistency between the provisions of the SPECIAL CONDITIONS and the provisions of the other Contract Documents, the provision of the SPECIAL CONDITIONS shall prevail. If there be any

conflict or inconsistency between the provisions of the AGREEMENT and the provisions of any of the Contract Documents other than the SPECIAL CONDITIONS, the provisions of the AGREEMENT shall prevail.

- 1.5 **Percentage of Progress Payments to be Retained.** The percentage of value to be retained under that Subsection of the GENERAL CONDITIONS, entitled “Progress Estimates,” shall be **5 percent**.
  
- 1.6 **Waste Reduction/Energy Efficiency.** The City of Greenfield has a commitment to resource and energy conservation and the pursuit of renewable energy options. Greenfield was one of the first communities in the Commonwealth to be designated a “Green Community”. As part of this contract, the Contractor will provide a plan to reduce waste and conserve energy. This written plan will be provided as part of the contract.

## **GENERAL CONDITIONS**

**GENERAL CONDITIONS**

**TITLE**

1.1 Definitions.....

1.2 Obligations and Liability of Contractor.....

1.3 Planning and Progress Schedules.....

1.4 Supervision of Work.....

1.5 Patents.....

1.6 Electrical Energy.....

1.7 Compliance with Laws.....

1.8 Provisions Required by Law Deemed Inserted.....

1.9 Permits.....

1.10 Not to Sublet or Assign.....

1.11 Delay by City.....

1.12 Time for Completion.....

1.13 Liquidated Damages.....

1.14 Employ Sufficient Labor and Equipment.....

1.15 Handling and Distribution.....

1.16 Occupying Private Land.....

1.17 Interference With and Protection of Streets.....

1.18 Safety.....

1.19 Sanitary Regulations.....

1.20 Intoxicating Liquors.....

1.21 Access to Work.....

1.22 Examination of Work.....

1.23 Defective Work, Etc.....

1.24 Precautions During Adverse Weather.....

1.25 Right to Materials.....

1.26 Changes.....

1.27 Extra Work.....

1.28 Extension of Time on Account of Extra Work.....

1.29 Changes Not to Affect Bonds.....

1.30 Claims for Damages.....

1.31 Abandonment of Work or Other Default.....

1.32 Prices for Work.....

1.33 Formal Acceptance.....

1.34 Progress Estimates.....

1.35 Partial Acceptance.....

1.36 Final Estimate and Payment.....

1.37 Liens.....

1.38 Claims.....

1.39 No Waiver.....

1.40 Liability of City.....

1.41 Guarantee.....

1.42 Cleaning Up.....

1.43 Legal Address of Contractor.....

1.44 Modification of Termination.....

1.1 **Definitions.** Wherever the words hereinafter defined or pronouns used in their stead occur in the Contract Documents, they shall have the following meanings:

The word "Owner" shall mean the City of Greenfield.

The word "Contractor" shall mean the party of the second part above designated.

The word "Specifications" when used herein shall be deemed to refer to both the General and Technical Specifications.

The words "herein", "hereinafter", hereunder" and words of like import shall be deemed to refer to the Contract Documents.

1.2 **Obligations and Liability of Contractor.** The Contractor shall do all the work and perform and furnish all the labor, services, materials, equipment, plant, machinery, apparatus, appliances, tools, supplies and all other things (except as otherwise expressly provided herein) necessary and as herein specified for the proper performance and completion of the Work in the manner and within the time hereinafter specified, in strict accordance with the Specifications and other Contract Documents, in conformity with the directions and to the satisfaction of the City, and at the prices herein agreed upon.

All parts of the Work and all fixtures, equipment, apparatus and other items indicated in the Specifications and all work and material usual and necessary to make the Work complete in all its parts, including all incidental work necessary to make it complete and satisfactory and ready for use and operation, whether or not they are mentioned in the Specifications, shall be furnished and executed the same as if they were called for by the Specifications.

The Contractor shall conduct its work so as to interfere as little as possible with private business and public travel. Wherever and whenever necessary or required, the Contractor shall maintain fences, furnish security, maintain lights, and take such other precautions as may be necessary to protect life and property.

The Contractor shall indemnify and save harmless the City and its officers, agents, servants, and employees from and against any and all claims, demands, suits, proceedings liabilities, judgments, awards, losses, damages, costs and expenses, including attorney's fees, on account of bodily injury, sickness, disease or death sustained by any person or persons or injury or damage to or destruction of any property, directly or indirectly arising out of, relating to or in connection with the Work, whether or not due or claimed to be due in whole or in part to the active, passive or concurrent negligence or fault of the Contractor, its officers, agents, servants or employees, any of its subcontractors, the City or any of its respective officers, agents, servants or employees and/or any other person or persons, and whether or not such

claims, demands, suits or proceedings are just, unjust, groundless, false or fraudulent; and the Contractor shall and does hereby assume and agrees to pay for the defense of all such claims, demands, suits and proceedings.

The Contractor shall have complete responsibility for the Work and the protection thereof, and for preventing injuries to persons and damage to the Work and property and utilities on or about the Work, until final completion and final acceptance thereof. The Contractor shall, in no way, be relieved of its responsibility by any right of the City to give permission or directions relating to any part of the Work, by any such permission or directions given, or by failure of the City to give such permission or directions. The Contractor shall bear all costs, expenses, losses and damages on account of the quantity or character of the Work or the nature of the land (including but not limited to subsurface conditions) in or under or on which the Work is done being different from those indicated or shown in the Contract Documents or from what was estimated or expected, or on account of the weather, elements, or other causes.

The Contractor shall conduct its operations so as not to damage existing structures or work installed either by it or by other contractors. In case of any such damage resulting from its operations, the Contractor shall repair and make good as new the damaged portions at its own expense with the consent of the damaged party. In the event that consent is not given, the Contractor shall continue to be liable for the damage caused.

The Contractor shall be as fully responsible to the City for the acts and omissions of its subcontractors, their officers, agents, servants and employees as it is for its own acts and omissions and those of its officers, agents, servants and employees.

Should the Contractor sustain any loss, damage or delay through any act or omission of any other contractor or any subcontractor of any such other contractor, the Contractor shall have no claim against the City therefore, other than for any extension of time, but shall have recourse solely to such other contractor or subcontractor.

If any other contractor or any subcontractor of any such other contractor shall suffer or claim to have suffered loss, damage or delay by reason of the acts or omissions of the Contractor or of any of its subcontractors, the Contractor agrees to assume the defense against any such claim and to reimburse such other contractor or subcontractor for such loss or damage. The Contractor agrees to and does hereby indemnify and save harmless the City from and against any and all claims by such other contractors or subcontractors alleging such loss, damage or delay and from and against any and all claims, demands, suits, proceedings, liabilities, judgments, awards, losses, damages, costs and expenses, including attorneys' fees, arising out of, relating to or resulting from such claims.

The Contractor shall promptly pay all federal, state and local taxes which may be assessed against it in connection with the Work or its operations under the AGREEMENT and/or the other Contract Documents, including but not limited to, taxes attributable to the purchase of material and equipment, to the performance of services, and the employment of persons in the prosecution of the Work.

- 1.3 **Planning and Progress Schedules.** The Contractor shall submit to and for the approval of the Engineer, a detailed schedule of operations. The schedule shall show the proposed methods of construction and sequence of work and the time the Contractor proposes to complete the various items of work within the time specified in the Contract. No work shall begin until the Progress Schedule is approved by the Engineer.

If the Contractor's operations are materially affected by changes in the plans or in the quantity of the Work or if it has failed to comply with the submitted and approved schedule, the Contractor shall submit a revised schedule if requested by the Engineer within seven days after the date of the Engineer's request. This revised schedule shall show how the Contractor proposes to prosecute the balance of the Work, so as to complete the Work within the time specified in the Contract.

- 1.4 **Supervision of Work.** The Contractor shall be solely responsible for supervision of the Work, shall give the Work the constant attention necessary to ensure the expeditious and orderly progress thereof, and shall cooperate with the City in every possible way.

At all times, the Contractor shall have as its agent on the Work a competent superintendent capable of reading and thoroughly understanding the Specifications, with full authority to execute the directions of the City, without delay, and to supply promptly such labor, services, materials, equipment, plant, apparatus, appliances, tools, supplies and other items as may be required. Such superintendent shall not be removed from the Work without the prior written consent of the City. If, in the opinion of the City, the superintendent or any successor proves incompetent, the Contractor shall replace the superintendant with another person approved by the City; such approval, however, shall, in no way, relieve or diminish the Contractor's responsibility for the supervision of the Work.

Whenever the Contractor or its agent or superintendent is not present on any part of the Work where it may be necessary to give directions or instructions with respect to such Work, such directions or instructions may be given by the City to, and shall be received and obeyed by the foreman or any other person in charge of the particular work involved.

- 1.5 **Patents.** The Contractor shall indemnify and save harmless the City and all persons acting for or on behalf of the City from all claims and liability of any nature or kind, and all damages, costs and expenses, including attorneys' fees, arising from or occasioned by any infringement or alleged infringement of any patents or patent rights on any invention, process, material, equipment, article or apparatus, or any part thereof, furnished and installed by the Contractor, or arising from or occasioned by the use or manufacture thereof, including their use by the City.

- 1.6 **Electrical Energy.** The Contractor shall make all necessary applications and arrangements and pay all fees and charges for electrical energy for power and light necessary for the proper completion of the Work and during its entire progress. The Contractor shall provide and pay for all temporary wiring, switches, connections and meters.

The Contractor shall provide sufficient lighting so that all work may be done in a sufficient manner for workers when there is not sufficient daylight.

- 1.7 **Compliance with Laws.** The Contractor shall keep itself fully informed of all existing and future federal, state and local laws, ordinances, rules, and regulations affecting those engaged or employed on the Work, the material and equipment used in the Work or the conduct of the Work, and of all orders, decrees and other requirements of bodies or tribunals having any jurisdiction or authority over the same. If any discrepancy or inconsistency is discovered in the Specifications or other Contract Documents in relation to any such law, ordinance, rule, regulation, order, decree, or other requirement, the Contractor shall forthwith report the same to the City in writing. The Contractor shall, at all times, observe and comply with, and cause all its agents, servants, employees and subcontractors to observe and comply with all such existing and future laws, ordinances, rules, regulations, orders, decrees and other requirements, and it shall protect, indemnify and save harmless the City, its officers, agents, servants and employees, from and against any and all claims, demands, suits, proceedings, liabilities, judgments, penalties, losses, damages, costs and expenses, including attorneys' fees, arising from or based upon any violation or claimed violation of any such law, ordinance, rule, regulation, order, decree or other requirement, whether committed by the Contractor or any of its agents, servants, employees or subcontractors.
- 1.8 **Provisions Required by Law Deemed Inserted.** Each and every provision of law and clause required by law to be inserted in the Contract shall be deemed to be inserted herein, and the Contract shall be read and enforced as though they were included herein. If through mistake or otherwise any such provision is not inserted, or is not correctly inserted, then upon the application of either party the Contract shall forthwith be physically amended to make such insertion.
- 1.9 **Permits.** The Contractor shall, at its own expense, take out and maintain all necessary permits from the county, municipal, or other public authorities; shall give all notices required by law; and shall post all bonds and pay all fees and charges incident to the due and lawful prosecution of the Work.
- 1.10 **Not to Sublet or Assign.** The Contractor shall constantly give its personal attention to the faithful prosecution of the Work, shall keep the same under its personal control, shall not assign the Contract or sublet the Work or any part thereof without the previous written consent of the City, and shall not assign any of the monies payable under the Contract, or its claim thereto, unless by and with the like written consent of the City and the surety on the contract bonds. Any assignment or subletting in violation hereof shall be void and unenforceable.
- 1.11 **Delay by City.** The City may delay the beginning of the Work or any part thereof if the necessary lands or rights of way for such work shall not have been obtained. The Contractor shall have no claim for additional compensation or damages on account of such delay, but shall be entitled only to an extension of time as hereinafter provided.



- 1.12 **Time for Completion.** The rate of progress shall be such that the Work shall be performed and completed in accordance with the Contract before the expiration of the time limit stipulated under INFORMATION FOR BIDDERS, except as otherwise expressly provided herein.

It is agreed that the rate of progress herein required has been purposely made low enough to allow for the ordinary and foreseeable delays incident to work of this character. No extension of time will be given for ordinary or foreseeable delays, inclement weather, or accidents, and the occurrence of such will not relieve the Contractor from the necessity of maintaining this rate of progress and completing the Work within the stipulated time limit.

If delays are caused by acts of God, acts of Government, unavoidable strikes, extra work, or other causes or contingencies clearly beyond the control or responsibility of the Contractor, the Contractor may be entitled to additional time to perform and complete the Work, provided that the Contractor shall, within ten (10) days from the beginning of such delay notify the City, in writing, of the cause and particulars of the delay. Upon receipt of such notification, the City shall review and evaluate the cause and extent of the delay. If, under the terms of the AGREEMENT, the delay is properly excusable, the City will, in writing, appropriately extend the time for completion of the Work. The Contractor agrees that it shall not have or assert any claim for nor shall it be entitled to any additional compensation or damages on account of such delays.

- 1.13 **Liquidated Damages.** In case the Contractor fails to complete the Work satisfactorily on or before the date of completion fixed herein or as duly extended as hereinbefore provided, the Contractor agrees that the City shall deduct from the payments due the Contractor each month, the sum of five hundred (\$500) dollars for each calendar day of delay. If the payments due the Contractor are less than the amount of such liquidated damages, said damages shall be deducted from any such monies due or to become due the Contractor, and, in case such damages shall exceed the amount of all monies due or to become due the Contractor, the Contractor or its surety shall pay the balance to the Owner.
- 1.14 **Employ Sufficient Labor and Equipment.** If, in the sole judgment of the City, the Contractor is not employing sufficient labor, plant, equipment or other means to complete the Work within the time specified, the City may, after giving written notice, require the Contractor to employ such additional labor, plant, equipment and other means as the City deems necessary to enable the Work to progress properly.
- 1.15 **Handling and Distribution.** The Contractor shall handle, haul, and distribute all materials on the different portions of the Work, as necessary or required; shall provide suitable and adequate storage room for materials and equipment during the progress of the Work, and be responsible for the protection, loss of, or damage to materials and equipment furnished by it, until the final completion and acceptance of the Work.
- 1.16 **Occupying Private Land.** The Contractor shall not (except after written consent from the proper parties) enter or occupy with men, tools, materials, or equipment, any land

outside the rights-of-way or property of the Owner. A copy of the written consent shall be given to the Engineer.

- 1.17 **Interference With and Protection of Streets.** The Contractor shall not close or obstruct any portion of a street, road, or private way without obtaining permits from the proper authorities. If any street, road or private way shall be rendered unsafe by the Contractor's operations, it shall make such repairs or provide such temporary ways or guards as shall be acceptable to the City.

Streets, roads, private ways, and walks not closed shall be maintained passable and safe by the Contractor, who shall assume and have full responsibility for the adequacy and safety of provisions made therefore.

The Contractor shall, at least 24 hours in advance, notify the Police and Fire Departments, in writing, with a copy to the Procurement Department, if the closure of a street or road is necessary. The Contractor shall cooperate with the Police Department in the establishment of alternate routes and shall provide adequate detour signs, plainly marked and well lighted, in order to minimize confusion.

- 1.18 **Safety.** The Contractor shall take all necessary precautions and provide all necessary safeguards to prevent personal injury and property damage. The Contractor shall provide protection for all persons including but not limited to its employees and employees of other contractors or subcontractors; members of the public; and employees, agents, and representatives of the City, and regulatory agencies that may be on or about the Work. The Contractor shall provide protection for all public and private property including but not limited to structures, pipes and utilities, above and below ground.

The Contractor shall provide and maintain all necessary safety equipment such as fences, barriers, signs, lights, walkways, guards and fire prevention and firefighting equipment and shall take such other action as is required to fulfill its obligations under this subsection.

The Contractor shall comply with all applicable federal, state and local laws, ordinances, rules and regulations and lawful orders of all authorities having jurisdiction for the safety of persons and protection of property.

The Contractor shall designate a responsible member of its organization at the site whose duty shall be the prevention of accidents. This responsible person shall have the authority to take immediate action to correct unsafe or hazardous conditions and to enforce safety precautions and programs.

- 1.19 **Sanitary Regulations.** The Contractor shall provide adequate sanitary facilities for the use of those employed on the Work. Such facilities shall be made available when the first employees arrive on the site of the Work, shall be properly secluded from public observation, and shall be constructed and maintained during the progress of the Work

in suitable numbers and at such points and in such manner as may be required or approved.

The Contractor shall maintain the sanitary facilities in a satisfactory and sanitary condition at all times and shall enforce their use. The Contractor shall rigorously prohibit the committing of nuisances on the site of the Work, on the lands of the Owner, or on adjacent property.

The City shall have the right to inspect such facilities at all times to determine whether or not they are being properly and adequately maintained.

- 1.20 **Intoxicating Liquors.** The Contractor shall not sell and shall neither permit nor suffer the introduction or use of intoxicating liquors upon or about the Work.
- 1.21 **Access to Work.** The City and its officers, agents, servants and employees may at all times and for any and all purposes, enter upon the Work and the site thereof and the premises used by the Contractor, and the Contractor shall at all times provide safe and proper facilities therefore.
- 1.22 **Examination of the Work.** The City shall be furnished by the Contractor with every reasonable facility for examining and inspecting the Work and for ascertaining that the Work is being performed in accordance with the requirements and intent of the Contract, even to the extent of requiring the uncovering or taking down portions of finished work by the Contractor.

Should the work thus uncovered or taken down prove satisfactory, the cost of uncovering or taking down and the replacement thereof shall be considered as extra work unless the original work was done in violation of the Contract in point in time or in the absence of the Engineer or their inspector and without the Engineers written authorization, in which case said cost shall be borne by the Contractor. Should the work uncovered or taken down prove unsatisfactory, said cost shall likewise be borne by the Contractor.

Examination or inspection of the Work shall not relieve the Contractor of any of its obligations to perform and complete the Work as required by the Contract.

- 1.23 **Defective Work, Etc.** Until acceptance and during the applicable guarantee period thereafter, the Contractor shall promptly, without charge, repair, correct or replace work, equipment, materials, apparatus or parts thereof which are defective, damaged or unsuitable or which in any way fail to comply with or be in strict accordance with the provisions and requirements of the Contract or applicable guarantee and shall pay to the City all resulting costs, expenses, losses or damages suffered by the City.

If any material, equipment, apparatus or other items brought upon the site for use or incorporation in the Work, or selected for the same, is rejected by the City as unsuitable or not in conformity with the Specifications or any of the other Contract Documents, the Contractor shall forthwith remove such materials, equipment, apparatus and other

items from the site of the Work and shall at its own cost and expense make good and replace the same.

- 1.24 **Precautions During Adverse Weather.** During adverse weather and against the possibility thereof, the Contractor shall take all necessary precautions so that the Work may be properly done, and satisfactory in all respects.
- 1.25 **Right to Materials.** Nothing in the Contract shall be construed as vesting in the Contractor any right of property in the materials, equipment, apparatus and other items furnished after they have been installed or incorporated in or attached or affixed to the Work or the site, but all such materials, equipment, apparatus and other items shall, upon being so installed, incorporated, attached or affixed, become the property of the City. Nothing in this subsection shall relieve the Contractor of its duty to protect and maintain all such materials, equipment, apparatus and other items.
- 1.26 **Changes.** The City may make changes in the Work and in the Specifications therefore by making alterations therein, additions thereto or omissions therefrom. All work resulting from such changes shall be performed and furnished under and pursuant to the terms and conditions of the Contract. If such changes result in an increase or decrease in the work to be done hereunder, or increase or decrease the quantities thereof, adjustment in compensation shall be made to the lump sum price as stipulated in the Contract for such work.

Except in an emergency endangering life or property, no change shall be made unless in pursuance of a written order from the City authorizing the change, and no claim for additional compensation shall be valid unless the change is so ordered.

The Contractor agrees that it shall neither have or assert any claim for or be entitled to any additional compensation for damages or for loss of anticipated profits on work that is eliminated.

- 1.27 **Extra Work.** The Contractor shall perform any extra work (work in connection with the Contract but not provided for herein) when and as ordered in writing by the City, at the unit prices stipulated in the Contract for such work or, if none are so stipulated, either (a) at the price agreed upon before such work is commenced and named in the written order for such work, or (b) if the City so elects, for the actual cost of such work, as determined by the Contractor and approved by the City, plus a percentage of such cost, as set forth below. No extra work shall be paid for unless specifically ordered as such in writing by the City.

The cost of extra work done under (b) above shall include the actual cost to the Contractor of materials used and equipment installed, common and skilled labor, and foremen, and the fair rental of all machinery and equipment used on the extra work for the period of such use.

At the request of the City, the Contractor shall furnish itemized statement of the cost of the extra work ordered as above and give the City access to all records, accounts, bills and vouchers and correspondence relating thereto.

The Contractor may include in the cost of extra work the amounts of additional premiums, if any, (other than premiums on bonds) paid on the required insurance on account of such extra work, of Social Security or other direct assessments upon the Contractor's payroll by federal or other properly authorized public agencies, and of other approved assessments when such assessments are not normally included in payments made by the Contractor directly to its employees, but in fact, are, and are customarily recognized as, part of the cost of doing work.

The fair rental of all machinery and equipment shall be based upon the most recent edition of "Compilation of Rental Rates for Construction Equipment", published by the Associated Equipment Distributors, or a similar publication approved by the City. Rental for machinery or equipment shall be based upon an appropriate fraction of the approved monthly rate schedule. If said extra work requires the use of machinery or equipment not already on the site of the Work, the cost of transportation, not exceeding a distance of 100 miles, of such machinery or equipment to and from the Work shall be added to the fair monthly rate; provided however, that this shall not apply to machinery or equipment already required to be furnished under the terms of the Contract.

The Contractor shall not include in the cost of extra work any cost or rental of small tools, building, or any portion of the time of the Contractor, its superintendent, or its office and engineering staff.

To the cost of extra work done by the Contractor's own forces under (b) above (determined as stated above), the Contractor shall add 15 percent to cover its overhead, use of capital, the premium on the bonds as assessed upon the amount of this extra work, and profit.

In the case of extra work done under (b) above by a subcontractor, the subcontractor shall compute, as above, its cost for the extra work, to which it shall add 15 percent as in the case of the Contractor, and the Contractor shall be allowed an additional 15 percent of the subcontractor's cost for the extra work to cover the costs of the Contractor's overhead, use of capital, the premium on the bonds as assessed upon the amount of this extra work, and profit. Said subcontractor's cost must be reasonable and approved by the City.

If extra work is done under (b) above, the Contractor and/or subcontractor shall keep daily records of such extra work. The daily record shall include the names of persons employed, the nature of the work performed, and hours worked, materials and equipment incorporated, and machinery or equipment used, if any, in the prosecution of such extra work. This daily record, to constitute verification that the work was done, must be signed both by the Contractor's authorized representative and by the City. A separate daily record shall be submitted for each extra work order.

- 1.28 **Extension of Time on Account of Extra Work.** When extra work is ordered near the completion of the Contract or at any time during the progress of the Work which unavoidably increases the time for the completion of the Work, an extension of time shall be granted as hereinbefore provided.
- 1.29 **Changes Not to Affect Bonds.** It is distinctly agreed and understood that any changes made in the Work or the drawings or specifications therefore (whether such changes increase or decrease the amount thereof or the time required for its performance) or any changes in the manner or time of payments made by the City to the Contractor, or any other modifications of the Contract, shall in no way annul, release, diminish or affect the liability of the surety on the contract bonds given by the Contractor, it being the intent hereof that notwithstanding such changes the liability of the surety on said bonds continue and remain in full force and effect.
- 1.30 **Claims for Damages.** If the Contractor makes claim to any damages alleged to have been sustained by breach of contract or otherwise, it shall, within ten (10) days after occurrence of the alleged breach or within ten (10) days after such damages are alleged to have been sustained, whichever date is earlier, file with the City a written, itemized statement in triplicate of the details of the alleged breach and the details and amount of the alleged damages. The Contractor agrees that unless such statement is made and filed as so required, its claim for damages shall be deemed waived, invalid and unenforceable, and that it shall not be entitled to any compensation for any such alleged damages.
- 1.31 **Abandonment of Work or Other Default.** If the Work shall be abandoned, or any part thereof shall be sublet without previous written consent of the City, or the Contract or any monies payable hereunder shall be assigned otherwise than as herein specified, that the conditions herein specified as to rate of progress are not being complied with, or that the Work or any part thereof is being unnecessarily or unreasonably delayed, or that the Contractor has violated or is in default under any of the provisions of the Contract, or if the Contractor becomes bankrupt or insolvent or goes or is put into liquidation or dissolution, either voluntarily or involuntarily, or petitions for an arrangement or reorganization under the Bankruptcy Act, or makes a general assignment for the benefit of creditors or otherwise acknowledges insolvency, the happening of any of which shall be and constitute a default under the Contract, the City may notify the Contractor in writing, with a copy of such notice mailed to the surety, to discontinue all work or any part thereof; thereupon the Contractor shall discontinue such work or such part thereof as the City may designate; and the City may, upon giving such notice by contract or otherwise as it may determine, complete the Work or such part thereof and charge the entire cost and expense of so completing the Work or such part thereof to the Contractor. In addition to the said entire cost and expense of completing the work, the City shall be entitled to reimbursement from the Contractor and the Contractor agrees to pay to the City any losses, damages, costs and expenses, including attorney's fees, sustained or incurred by the City by reason of any of the foregoing causes. For the purposes of such completion, the City may, for itself, or for any contractors employed by the City, take possession of and use or cause to be used

any and all materials, equipment, plant, machinery, appliances, tools, supplies and such other items of every description that may be found or located at the site of the Work.

All costs, expenses, losses, damages, attorney's fees and any and all other charges incurred by the City under this subsection shall be charged against the Contractor and deducted and/or paid by the City out of the monies due or payable or to become due or payable under the Contract to the Contractor; in computing the amounts chargeable to the Contractor, the City shall not be held to a basis of the lowest prices for which the completion of the Work or any part thereof might have been accomplished, but all sums actually paid or obligated therefore to effect its prompt completion shall be charged to and against the account of the Contractor. In case the costs, expenses, losses, damages, attorney's fees and other charges together with all payments therefore made to or for the account of the Contractor if the Work had been properly performed and completed by the Contractor, the Contractor shall be entitled to receive the difference, and, in case such costs, expenses, losses, damages, attorney's fees and other charges, together with all payments therefore made to or for the account of the Contractor, shall exceed the said sum, the Contractor shall pay the amount of the excess to the City.

- 1.32 **Prices for Work.** The City shall pay and the Contractor shall receive the prices stipulated in the BID made a part hereof as full compensation for everything performed and furnished and for all risks and obligations undertaken by the Contractor under and as required by the Contract.
- 1.33 **Formal Acceptance.** Fixing of the date of completion and acceptance of the Work or a specified part thereof shall only be effective when accomplished by a writing specifically so stating and signed by the City.
- 1.34 **Progress Estimates.** Once a month, except as hereinafter provided, the City shall make an estimate in writing of the total amount and value of the work done to the first of the month by the Contractor. The City shall retain 5 percent of such estimated value, as part security for fulfillment of the Contract by the Contractor and shall deduct from the balance of all previous payments made to the Contractor, all sums chargeable against the Contractor and all sums to be retained under the provisions of the Contract. The City shall pay monthly to the Contractor the balance not deducted and/or retained as aforesaid, except that payment may be withheld at any time, if in the judgment of the City, the work is not proceeding in accordance with the Contract. If the City deems it expedient to do so, it may cause estimates and payments to be made more frequently than once in each month. No progress estimate or payment need be made when in the judgment of the City, the total value of the Work done since the last estimate amounts to less than \$5,000.

Estimates of lump-sum items shall be based on a schedule dividing each such item into its appropriate component part, together with a quantity and a unit price for each part so that the sum of the products of prices and quantities will equal the contract price for the item. This schedule shall be submitted by Contractor for and must have the approval of the City before the first estimate becomes due.

If the City determines that the progress of the Work will be benefited by the delivery to the site of certain materials and equipment, when available, in advance of actual requirement therefore and if such materials and equipment are delivered and properly stored and protected, the cost to the Contractor or subcontractor as established by invoices or other suitable vouchers satisfactory to the City, less the retained percentages as above provided, may be included in the progress estimates; provided always that there be duly executed and delivered by the Contractor to the City at the same time a Bill of Sale in form satisfactory to the City, transferring and assigning to the City full ownership and title to such materials or equipment.

- 1.35 **Partial Acceptance.** The City may at any time, in a written order to the Contractor (1) declare that it intends to use a specified part of the Work which, in its opinion, is sufficiently complete, in accordance with the Contract Documents, to permit its use; (2) enclose a tentative list of items remaining to be completed or corrected, and (3) fix the date of acceptance of that specified part of the Work.

Within 45 days after acceptance under this subsection, the City shall make an estimate, in writing, of the amount and value of the part of the Work, so accepted and shall pay said amount to the Contractor after deducting therefrom all previous payments, all charges against the Contractor as provided for hereunder, and all amounts to be retained under the provisions of the Contract, said payment to be made at the time of the next monthly progress estimate.

Acceptance by the City under this sub-section shall not relieve the Contractor of any obligations under the Contract Documents except to the extent agreed upon in writing between the City and the Contractor.

The City shall have the right to exclude the Contractor from any part of the Work which has been accepted, but the City will allow the Contractor reasonable access thereto to complete or correct items on the tentative list.

- 1.36 **Final Estimate and Payment.** As soon as practicable (but not more than sixty-five (65) days) after final completion of the Work, the City shall make a final estimate, in writing, of the quantity of work done under the Contract and the amount earned by the Contractor.

The City shall pay to the Contractor the entire amount found to be earned and due hereunder after deducting therefrom all previous payments, all charges against the Contractor as provided for hereunder, and all amounts to be retained under the provisions of the Contract. Except as in this sub-section otherwise provided such payment shall be made not later than fifteen (15) days after, but in no event before, the expiration of the time within which claims for labor performed or materials or equipment furnished must be filed under the applicable Lien Law, or, if such time is not specified by law, the expiration of thirty (30) days after the completion of the Engineer's final estimate. All quantities shown on progress estimates and all prior payments shall be subject to correction in the final estimate and payment.



- 1.37 **Liens.** If, at any time, any notices of lien are filed for labor performed or materials or equipment manufactured, furnished, or delivered to or for the Work, the Contractor shall, at its own cost and expense, promptly discharge, remove or otherwise dispose of the same, and until such discharge, removal or disposition, the City shall have the right to retain from any monies payable hereunder an amount which, in its sole judgment, it deems necessary to satisfy such liens and pay the costs and expenses, including attorneys' fees, of defending any actions brought to enforce the same, or incurred in connection therewith or by reason thereof.
- 1.38 **Claims.** If, at any time, there be any evidence of any claims for which the Contractor is or may be liable or responsible hereunder, the Contractor shall promptly settle or otherwise dispose of the same, and until such claims are settled or disposed of, the City may retain from any monies which would otherwise be payable hereunder so much thereof as, in its sole judgment, it may deem necessary to settle or otherwise dispose of such claims and to pay the costs and expenses, including attorneys' fees, of defending any actions brought to enforce such claims, or incurred in connection therewith or by reason thereof.
- 1.39 **No Waiver.** Neither the inspection by the City, nor any order, measurement, approval, determination, decision of certificate by the City for the payment of money; nor any payment for or use, occupancy, possession or acceptance of the whole or any part of the work by the City, nor any extension of time, nor any other act or omission of the City shall constitute or be deemed to be an acceptance of any defective or improper work, materials, or equipment nor operate as a waiver of any requirement or provision of the Contract, nor of any remedy, power or right of or herein reserved to the City, nor of any right to damages for breach of contract. Any and all rights and/or remedies provided for in the Contract are intended and shall be construed to be cumulative; and, in addition to each and every other right and remedy provided for herein or by law, the City shall be entitled as of right to a writ of injunction against any breach or threatened breach of the Contract by the Contractor, by its sub-contractors or by any other person or persons.
- 1.40 **Liability of City.** No person, firm or corporation, other than the Contractor, who signed the Contract as such, shall have any interest herein or right hereunder. No claim shall be made or be valid either against the City or any agent of the City and neither the City nor any agent of the City shall be liable for or be held to pay any money, except as herein provided. The acceptance by the Contractor of the payment as fixed in the final estimate shall operate as and shall be a full and complete release of the City and of every agent of the City of and from any and all claims, demands, damages and liabilities of, by or to the Contractor for anything done or furnished for or arising out of or relating to or by reason of the Work or for or on account of any act or neglect of the City or of any agent of the City or of any other person, arising out of, relating to or by reason of the Work, except the claim against the City for the unpaid balance, if any there be, of the amounts retained as herein provided.

- 1.41 **Guarantee.** The Contractor guarantees that the Work and services to be performed under the Contract, and all workmanship, materials and equipment performed, furnished, used or installed in the construction of the same, shall be free from defects and flaws, and shall be performed and furnished in strict accordance with the drawings, specifications, and other contract documents, that the strength of all parts of all manufactured equipment shall be adequate and as specified and that the performance test requirements of the Contract shall be fulfilled. This guarantee shall be for a period of (1) year from and after the date of completion and acceptance of the Work.
- 1.42 **Cleaning Up.** The Contractor, at all times, shall keep the site of the Work free from rubbish and debris caused by its operations under the Contract. When the Work has been completed, the Contractor shall remove from the site of the Work all of its plant, machinery, tools, construction equipment, temporary work and surplus materials so as to leave the Work and the site clean and ready for use.
- 1.43 **Legal Address of Contractor.** The Contractor's business address and its office at or near the site of the Work are both hereby designated as places to which communications in a postpaid wrapper directed to the Contractor's business address in a post office box regularly maintained by the Post Office Department or the delivery at either designated address of any letter, notice, or other communication by mail or otherwise shall be deemed sufficient service thereof upon the Contractor, and the date of such service shall be the date of receipt. The first named address may be changed at any time by an instrument, in writing, executed and acknowledged by the Contractor and delivered to the City. Service of any notice, letter or other communication upon the Contractor personally shall likewise be deemed sufficient service.
- 1.44 **Modification of Termination.** Except as otherwise expressly provided herein, the Contract may not be modified except in writing signed by the parties hereto.

## **TECHNICAL SPECIFICATION**

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## SECTION 01-015

### PROJECT PROCEDURES

#### PART 1- GENERAL

##### 1.01 GENERAL REQUIREMENTS

- A. Include General Conditions and applicable parts of Division I as part of this Section.
- B. Examine all other Sections of the Specifications for requirements which affect work of this Section whether or not such work is specifically mentioned in this Section.
- C. Coordinate work with trades affecting, or affected by work of this Section. Cooperate with such trades to assure the steady progress of all work under the Contract.

##### 1.02 RELATED WORK UNDER OTHER SECTIONS

- A. Section 01-025 - Schedule of Values
- B. Section 01-040 - Project Coordination
- C. Section 01-200 - Project Meetings
- D. Section 01-300 - Submittals
- E. Section 01-500 - Temporary Facilities
- F. Section 01-700 - Closeout Procedures

#### PART 2- PROJECT PROCEDURES

##### 2.01 CONDUCT OF WORK

- A. Provide continuous, lawful, safe, adequate and convenient access to site. Access to site shall generally be via existing roadways and paved surfaces which Contractor shall maintain and restore to original condition. Contractor shall construct and maintain in good usable condition temporary roads and appurtenances as required, and when no longer required, remove temporary construction and restore such areas to their original condition.
- B. Do not inhibit free access to the existing buildings unless authorized by the Owner as required for safe continued operation and activities. Do not store materials or route traffic so as to cause hazard to office personnel in connection with access to buildings.
- C. Reference Documents: Throughout the Specifications, reference is made to standard specifications and other documents, which by such reference are made a part of the Project Specifications. Whenever a standard specification is incorporated into the Project Specifications, the Contractor shall maintain an up-to-date copy of such specification at the job site while all such work is in progress.

2.02 **CONTRACTOR'S USE OF PREMISES**

- A. Confine operations at the site to areas permitted by laws, by-laws, permits and contract limit lines.
- B. Parking of Contractor's vehicles and subcontractors will be allowed only where designated at the pre-construction meeting.
- C. Do not unreasonably encumber the site with materials or equipment.
- D. Do not permit materials and fabricated work to be stacked on, or be transported over, floor and roof construction in such a manner as to stress any construction beyond the designed live loads. Assume full responsibility for protection and safekeeping of products stored on premises. Obtain and pay for use of additional storage premises. Obtain and pay for use of additional storage or work areas needed for operations. Limit use of site to work and storage.
- E. Do not store foamed polystyrene, polyurethane or like materials within the building. Storage of such materials outside the building shall be with proper precautionary measures taken against fire.
- F. Contractor shall be responsible for adequate site drainage during the entire construction period and shall use any appropriate temporary means which does not adversely affect construction progress or abutting property.
- G. Contractor shall take all necessary safety precautions and maintain an adequate level of fire protection at all times.

2.03 **EXISTING UTILITIES**

- A. Immediately repair any active existing utility lines (cables, conduit, ducts, and piping), damaged during the course of construction, except where such lines are to be abandoned. Protect and maintain such active existing utilities in use, until relocation of same has been completed or utilities have been cut, capped, or prepared for new service connections, as applicable. Perform such repair and protection work at no additional cost to the Owner.
- B. If any existing active utility not indicated on the Drawings is unintentionally damaged, and such utility is to remain, immediately repair the damage and restore the utility to its original integrity. Reimbursement of cost for performing such repair will be made by an adjustment in the Contract Price at rates determined by the City.

- C. Any adjustment as outlined above shall be based on the assumption that the Contractor has performed in a prudent manner at the time such damage occurred. If extra expense is incurred in protecting and maintaining any utility line not shown on the Drawings, an adjustment in the Contract Price will be made.
- D. The Owner will cooperate and assist the Contractor in locating and identifying underground utilities. Contractor shall cooperate and participate in "Dig Safe" programs, notifying proper authorities before proceeding.
- E. If it becomes necessary to interrupt power, water line or other utilities to either existing office building, notify Owner at least four (4) days in advance. Schedule such interruptions before or after office hours or at such other times as will minimize disruption and inconvenience to Owner.

2.04 **ACCIDENT PREVENTION**

- A. Comply with all Federal, State, and municipal recommendations and requirements for safety and accident prevention, those of the Associated General Contractors of America and the American National Standards Institute (ANSI Standard A10.2). Conduct regular, frequent inspections of the site for compliance with safety regulations.
- B. The Owner is not responsible for providing a safe working place for the Contractor, or their employees, or any individual responsible to them for the Work.

2.05 **WELDING AND CUTTING**

- A. Where electric or gas welding or cutting work is done above or within ten (10) feet of combustible material or above space that may be occupied by persons, use interposed shields of incombustible material to protect against fire damage or injury due to sparks and hot metal.
- B. Place tanks supplying gases for gas welding or cutting at no greater distance from the work than is necessary for safety, securely fastened and maintained in an upright position where practicable. Such tanks, when stored for use, shall be remote from any combustible material and free from exposure to the rays of the sun or high temperatures.
- C. Maintain suitable fire extinguishing equipment near all welding and cutting operations. When operations cease for the noon hour or at the end of the day, thoroughly wet down the surroundings adjacent to welding and cutting operations.

- D. Station a worker equipped with suitable fire extinguishing equipment near welding and cutting operations to see that sparks do not lodge in floor cracks or pass through floor or wall openings or ledge in any combustible material. Keep the workman at the source of work which offers special hazards for thirty (30) minutes after the job is completed to make sure that smoldering fires have not been started.
- E. Place a qualified electrician in charge of installing and repairing electric and arc welding equipment.

2.06 **NOISE CONTROL**

- A. Develop and maintain a noise-abatement program and enforce strict discipline over all personnel to keep noise to a minimum.
- B. Execute construction work by methods and by use of equipment which will reduce excess noise and which will provide minimum interference with on-going office activities.
  - 1. Employ construction methods and equipment which will produce the minimum amount of noise.
  - 2. Equip air compressors with silencers, and power equipment with mufflers.

2.07 **DUST CONTROL**

- A. Maintain the construction site, stockpiles, access, detour, and haul roads, staging and parking area used for the Work, free of dust which would cause a hazard or a nuisance to those at the site or adjacent sites.
- B. Provide positive methods and apply dust control materials to minimize raising dust from construction operations, and provide positive means to prevent airborne dust from dispersing into the atmosphere.
- C. Furnish, erect, and maintain for the duration of the Work period, temporary fire-retardant dustproof coverings as required to prevent the spread of dust beyond the immediate area where work is being performed.
- D. These provisions do not supersede any specific requirements for methods of construction or applicable general conditions set forth elsewhere in the Contract with regard to performance obligations of the Contractor.

2.08 **DEBRIS CONTROL AND REMOVAL OF RUBBISH**



- A. Ensure that each employee engaged upon the Work bears the full responsibility for cleaning up during and immediately upon completion of their work, and removes all rubbish, waste, tools, equipment, and appurtenances caused by and used in the execution of their work; but this shall in no way be construed to relieve the Contractor of the primary responsibility for maintaining the site clean and free of debris, leaving all work in a clean and proper condition satisfactory to the Owner.
- B. Immediately after unpacking, all packing materials, case lumber, excelsior, wrapping or other rubbish, flammable and otherwise, shall be collected and removed from the premises.
- C. Initiate and maintain a specific program to prevent the accumulation of debris at the construction site, storage and parking areas, or along access roads and haul routes:
  - 1. Provide containers for deposit of debris and schedule periodic collection and disposal of debris as specified in the CLOSEOUT PROCEDURES Section.
  - 2. Prohibit overloading of trucks to prevent spillage on access and haul routes.

#### 2.09 **POLLUTION CONTROL**

- A. Provide methods, means and facilities required to prevent contamination of soil, water or atmosphere by the discharge of noxious substances from construction operations.
- B. Provide equipment and personnel, perform emergency measures required to contain any spillages, and to remove contaminated earth off site and replace with suitable uncontaminated compacted fill and topsoil.
- C. Take special measures to prevent harmful substances from entering public waters. Prevent disposal of wastes, effluents, chemicals, or other such substances adjacent to streams or in sanitary or storm sewers.
- D. Provide systems for control of atmospheric pollutants. Prevent toxic concentrations of chemicals. Prevent harmful dispersal of pollutants into the atmosphere.
- E. No smoking is permitted on the site.

#### 2.10 **CONSTRUCTION DOCUMENTS**

- A. The Contractor shall be entitled to receive, without additional charge, one (1) complete set of the Contract Documents, including Drawings and Specifications, for use during the construction period.

#### 2.11 **CONTRACT CONDITIONS**

- A. This Contract is subject to applicable State and local laws and all amendments thereto. Where any requirements contained herein do not conform to statutes governing the work of this Contract, the statutes shall govern.

- B. The Owner is not responsible for providing a safe working place for the Contractor, or their employees, or any individual responsible to them for the Work.
  
- C. Each and every provision of law and clause required by law to be inserted in this Contract shall be deemed to be inserted herein and the Contract shall be read and enforced as though it were included herein, and if, through mistake or otherwise, any such provision is not inserted, or is not correctly inserted, then upon application of either party the Contract shall forthwith be physically amended to make such insertion or correction.

**END OF SECTION**

**SECTION 01-018  
SCHEDULES AND TIMES**

**PART 1 -GENERAL**

**1.01 GENERAL REQUIREMENTS**

- A. Include General Conditions and applicable parts of Division I as part of this Section.
- B. Examine all other Sections of the Specifications for requirements which affect work of this Section whether or not such work is specifically mentioned in this Section.
- C. Coordinate work with trades affecting, or affected by work of this Section. Cooperate with such trades to assure the steady progress of all work under the Contract.

**1.02 RELATED WORK UNDER OTHER SECTIONS**

- A. Section 01-015 - Project Procedures
- B. Section 01-025 - Schedule of Values
- C. Section 01-040 - Project Coordination
- D. Section 01-200 - Project Meetings
- E. Section 01-700 - Closeout Procedures

**PART 2 - SCHEDULES AND TIMES**

**2.01 CONSTRUCTION COMPLETION TIME**

- A. Work may begin upon receipt of the Notice To Proceed, and shall be substantially complete on or before 60 calendar days from the date listed in the Notice To Proceed.

**END OF SECTION**

**SECTION 01-025  
SCHEDULE OF VALUES**

**PART I - GENERAL**

**1.01 GENERAL REQUIREMENTS**

- A. Include General Conditions and applicable parts of Division I as part of this Section.
- B. Examine all other Sections of the Specifications for requirements which affect work under this Section whether or not such work is specifically mentioned in this Section.
- C. Coordinate work with that of all other trades affecting, or affected by work of this Section. Cooperate with such trades to assure the steady progress of all work under the Contract.

**1.02 RELATED WORK UNDER OTHER SECTIONS**

- A. Section 01-015 - Project Procedures
- B. Section 01-018 - Schedules and Times (except as specified herein)
- C. Section 01-040 - Project Coordination
- D. Section 01-300 - Submittals (except as specified herein)
- E. Section 01-700 - Closeout Procedures

**PART 2 - SCHEDULES OF VALUES**

**2.01 SCHEDULE INFORMATION REQUIRED**

- A. Submit Schedule of Values in accordance with requirements of the General Conditions and as further specified herein.
- B. In preparing the Schedule, each subdivision or classification of the Work shall be identified by code number referring to each individual Section (or Sub-Section where applicable) of the Specifications.
- C. The Schedule of Values shall be arranged in vertical columns identified with titles, including Names of Items; Original Amounts, Percent Completed to Date; Previous Payments; Current Requests; and Balance Not Yet Requested. A summary of the total amount due to date and the amount of the five percent retained shall be included in the statement which shall be signed by the General Contractor. A separate sheet shall be included with each requisition showing status of work covered by approved Change Orders. The schedule shall be revised if later found by the Owner to be inaccurate.
- D. Submit to the Owner with schedule of values and on a monthly basis such schedules

of quantities and costs, progress schedules, payrolls, reports, estimates, records, and other data as the Owner may request concerning work performed or to be performed under this Contract.

**2.02 SCHEDULE REQUIREMENTS**

- A. Submit to the Owner two (2) copies of Schedule of Values within 10 days of receipt of notice to proceed.
- B. Upon request by the Owner, support values given with data that will substantiate their correctness.
- C. Submit quantities of designated materials for materials stored on which payment is expected to be made.
- D. Use Schedule of Values only as basis for Contractor's Application for Payment.

**2.03 FORM OF SUBMITTAL**

- A. Submit written Schedule of Values on 8-1/2 by 11 inch white paper.
- B. Use Table of Contents of the Project Manual as basis for format for listing costs of work for Sections under Division 2 through 16 and identify each line item with number and title of Section.

**2.04 PREPARING SCHEDULES OF VALUES**

- A. Itemize separate line item cost for each of the following general cost items:
  - 1. Performance and Payment Bonds
  - 2. Field Supervision and Layout
  - 3. Temporary Construction Facilities and Controls
- B. Itemize separate line item cost for work required by each Section of the Specifications. Sections shall be further subdivided into separate line items under each Section.
- C. Break down installed costs into:
  - 1. Delivered cost of product
  - 2. Total installed cost, with overhead and profit.
- D. For each line item which has installed value of more than \$20,000.00, break down costs to list major products or operations under each item.
- E. Make sum of total costs of all items listed in schedule equal to total Contract Sum.

**END OF SECTION**

**SECTION 01-040**  
**PROJECT COORDINATION**

**PART I - GENERAL**

1.01 **GENERAL REQUIREMENTS**

- A. Include General Conditions and applicable parts of Division I as part of this Section.
- B. Examine all other Sections of the Specifications for requirements which affect work of this Section whether or not such work is specifically mentioned in this Section.
- C. Coordinate work with trades affecting, or affected by work of this section. Cooperate with such trades to assure the steady progress of all work under the Contract.

1.02 **RELATED WORK UNDER OTHER SECTIONS**

- A. Section 01-015 - Project Procedures
- B. Section 01-018 - Schedules and Times
- C. Section 01-025 - Schedule of Values
- D. Section 01-200 - Project Meetings
- E. Section 01-500 - Temporary Facilities
- F. Section 01-700 - Closeout Procedures

**PART2- PROJECT COORDINATION**

2.01 **COORDINATION**

- A. The Contractor shall be responsible for the proper fitting of all work and the coordination of the operations of all trades, material and equipment engaged upon the Work.
- B. The Contractor shall give their personal supervision to the Work or have a competent superintendent on the work at all times during the progress of the Work, with the authority to act for the Contractor. The Contractor shall also provide an adequate staff for the proper coordination and expediting of the Work.
- C. The General Contractor shall be in charge of the entire Work and shall be responsible for the prompt coordination of all trades, including contractor's own forces and contractor's various subcontractors, as well as the Owner's separate contractors, if they are on the job during the Contractor's operations, and shall become fully familiar with all work required under the Contract.

- D. Care shall be given to the proper scheduling, delivery, and installation of items to be built into rough construction which will affect the latter portions of the work, such as anchors, pipe sleeves, inserts, conduit pipes, lugs, clips, brackets, braces, hangers, bolts, miscellaneous metal, and similar items. These items are not necessarily specified under the trade Section under which they are to be installed. The Contractor shall ascertain that all are properly installed in their correct locations at the proper time, so as to prevent cutting and patching of finished work.
- E. Changes in design locations which may be necessary in the routing of pipes and ducts, or in the location of any mechanical, electrical or other equipment, shall be anticipated and made prior to installation. Additional compensation will not be allowed for costs incurred as a result of the Contractor's failure to anticipate the necessity for such changes.
- F. There shall be no change or variation in ceiling height, wall layout, shaft, chase, furring or other dimensions shown on Drawings without the specific written approval of the Owner.
- G. The Contractor's responsibility for the coordination of all work under the Contract shall be complete, and shall extend to all modifications in the Work, whether or not such modifications entail a change in the Contract Price. Where the Contract Documents allow an optional material or method of performing a portion of the Work, or where the Contractor is ultimately allowed or directed to perform a part of the Work using a substitute material or method, the Contractor shall provide all other coordination and additional work that such change necessitates, without any additional cost to the Owner.

**END OF SECTION**

**SECTION 01-045  
CUTTING AND PATCHING**

**PART 1 - GENERAL**

1.01 **GENERAL REQUIREMENTS**

- A. Include General Conditions and applicable parts of Division I as part of this Section.
- B. Examine all other Sections of the Specifications for requirements which will affect work under this Section whether or not such work is specifically mentioned in this Section.
- C. Coordinate work with that of all other trades affecting, or affected by work of this Section. Cooperate with such trades to assure the steady progress of all work under the Contract.

1.02 **SUMMARY**

- A. Provide cutting and patching work, complying with project requirements for tying into pavement.

**PART 2 - PRODUCTS**

2.01 **MATERIALS**

- A. Match existing materials for cutting and patching work with new materials.

**PART 3 - EXECUTION**

3.01 **INSTALLATION**

- A. Inspect conditions prior to work to identify scope and type of work required. Notify Owner of work requiring interruption to building services or Owner's operations. Conform to project requirements listed above.
- B. Perform work with workers skilled in the trades involved. Prepare sample area of each type of work involved for approval.
- C. Clean work area and areas affected by cutting and patching operations.

**END OF SECTION**



**SECTION 01-100  
PROCEDURES, CONTROLS, AND PAYMENTS**

**PART 1 - GENERAL**

**1.01 GENERAL REQUIREMENTS**

- A. Include General Conditions and applicable parts of Division I as part of this Section.
- B. Examine all other Sections of the Specifications for requirements which affect work under this Section whether or not such work is specifically mentioned in this Section.
- C. Coordinate work with that of all other trades affecting, or affected by work of this Section. Cooperate with such trades to assure the steady progress of all work under the Contract.

**1.02 SUMMARY**

- A. Provide coordination of work.
  - 1. Provide a full-time project supervisor. Select an individual as supervisor and maintain that same individual in the position throughout the construction term, unless a change is approved in writing by the Owner.
  - 2. Attend a preconstruction conference.
  - 3. Attend monthly meetings and arrange for attendance by the major subcontractors, distribute minutes prepared by the Owner.
  - 4. Other meetings.
- B. Change Orders:
  - 1. Coordinate the Change Directive and Change Order process.
  - 2. Prepare Change Orders and implement Change Directives and all changes in the work in connection with the work by the General Contractor and by the General Contractor's subcontractors. Prepare Change Orders on AIA Document G701.
- C. Coordinate the Submittals process (Section 01-300). Review submittals for compliance with the Contract Documents. Coordinate with progress schedule.
- D. Submit schedule of values.
- E. Submit schedule of required tests (payment and responsibility).
- F. Perform surveys:
  - 1. Laying out the work and verifying locations during construction.
- G. Submit Application for Payment procedures:
  - 1. Use AIA form G702, latest edition.
  - 2. Retainage shall be 5% and held up to 60 days after substantial completion.

- H. Perform quality control during installation.
- I. Perform cutting and patching as provided under Section 01045.
- J. Clean and protect the work.
- K. Obtain and pay for all required permits and pay all required tie-ins and inspection fees and also including all local building and Labor and Industry permits.

**END OF SECTION**

**SECTION 01-200  
PROJECT MEETINGS**

**PART 1 - GENERAL**

1.01 **GENERAL REQUIREMENTS**

- A. Include General Conditions and applicable parts of Division I as part of this Section.
- B. Examine all other Sections of the Specifications for requirements which affect work of this Section whether or not such work is specifically mentioned in this Section.
- C. Coordinate work with trades affecting, or affected by work of this section. Cooperate with such trades to assure the steady progress of all work under the Contract.

1.02 **RELATED WORK UNDER OTHER SECTIONS**

- A. Section 01-015 - Project Procedures
- B. Section 01-025 - Schedules and Times
- C. Section 01-500 - Temporary Facilities
- D. Section 01-700 - Closeout Procedures

**PART 2 - PROJECT MEETINGS**

2.01 **ORGANIZATIONAL MEETINGS**

- A. The Owner will schedule pre-construction organizational meetings, periodic project meetings, specially called meetings, throughout the progress of the Work, and post-construction meetings. All such meetings shall be attended by the representatives of the Contractor and, when requested, Subcontractors.
- B. Immediately following award of contract, the Owner will call one or more preliminary organizational meetings, during which detailed procedures will be worked out for submission and review of shop drawings and samples, format and extent of the progress schedule and schedule of values, format and methods for progress payment requisitions, channels of communication between Owner's and Contractor's personnel, and other routines to be followed during construction.

2.02 **PROJECT MEETINGS**

- A. The Contractor shall meet regularly with the Owner at the site of the Work at least once a month during the course of the Contract for the purposes of progress review, coordination of shop drawing schedules, sample submittals, and other items of work requiring such coordination. The dates of such meetings shall be as mutually agreed upon between the Contractor and the Owner. Meetings shall be held more frequently if required by the Owner. Contractor shall require subcontractors to attend such meetings if requested by the Owner.

- B. The Contractor or the Owner shall take minutes of such meetings and distribute copies to all concerned.
- C. Contractor's and Subcontractors' representatives attending such meetings shall be the job superintendent or other responsible party. Such representatives shall be empowered to make, at these meetings, definite decisions binding upon their respective employers regarding all matters pertaining to work under this Contract.
- D. The Contractor shall furnish the Owner, in writing, the names, addresses, and telephone numbers of Contractor's and principal Subcontractors' personnel to be contacted in the event of an out-of-hours emergency at the building site. The Contractor shall also maintain a similar list readily visible from the outside of the field office.

**END OF SECTION**

**SECTION 01-300  
SUBMITTALS**

**PART I - GENERAL**

**1.01 GENERAL REQUIREMENTS**

- A. Include General Conditions and applicable parts of Division I as part of this Section.
- B. Examine all other Sections of the Specifications for requirements which affect work of this Section whether or not such work is specifically mentioned in this Section.
- C. Coordinate work with trades affecting, or affected by work of this section. Cooperate with such trades to assure the steady progress of all work under the Contract.

**1.02 RELATED WORK UNDER OTHER SECTIONS**

- A. Section 01-015 - Project Procedures
- B. Section 01-018 - Schedules and Times
- C. Section 01-025 - Schedule of Values
- D. Section 01-200 - Project Meetings
- E. Section 01-500 - Temporary Facilities
- F. Section 01-700 - Closeout Procedures

**PART 2 - SUBMITTALS**

**2.01 SUBMISSION SCHEDULE**

- A. Within 5 calendar days after signing the Contract, prepare and submit for the Owner's approval a schedule of Shop Drawings, Product Data and Samples required to be submitted for the Work. The schedule shall indicate by trade the date by which final approval of each item must be obtained, and shall be revised as required by conditions of work, subject to the Owner's approval.
- B. The Owner's review, including Consultant's review period, will not exceed 21 days from the established date of each submission indicated on the "Schedule of Shop Drawings, Product Data and Samples" plus additional time, if any, for distribution by the Contractor and receipt of submissions by the Owner. Contractor shall strictly adhere to the established schedule dates.
- C. Each submittal shall be made sufficiently in advance of the time required for furnishing and delivering to the site the specific item of items required in order
- D. to allow proper examination and review of such Submittals, but in no event shall it be made later than 20 days prior to the time for incorporation of the item into the Work, except that if the item in question is to be incorporated in the work prior to the expiration of 20 calendar days from the time of execution of the Contract, the aforesaid written notice shall be submitted to the Owner immediately following the

execution of the Contract.

- E. No item, material, article, system or piece of equipment requiring approval of the Owner shall be ordered or installed until such approval has been obtained.

## 2.02 **SHOP DRAWING SUBMITTAL**

- A. Submission of Shop Drawings shall comply with all requirements of General and Supplementary General Conditions as further specified in this Section.
- B. To receive consideration by the Owner, Shop Drawings shall be accompanied by a letter of transmittal and each Drawing shall contain the following information on the title block:
  1. Project identification.
  2. Contractor's name.
  3. Date of preparation of submission, and of revision if applicable.
  4. Shop Drawing number and title of item the Drawing refers to.
  5. Architect's Drawing numbers and specification paragraph number used as a reference in preparing Shop Drawings.
  6. Name of person or firm preparing Drawings.
  7. Statement of stamp of approval by the Contractor, signifying that the Contractor has seen and examined the Drawing and that requirements of the General Conditions have been complied with.
- C. Shop Drawings related to various units comprising a proposed assembly shall be submitted simultaneously so that such units may be checked individually and as an assembly.
- D. All Shop Drawings shall be submitted directly to the Owner through the Contractor. Drawings submitted directly from the Subcontractors, manufacturers or vendors, or directly to the Owner, will be returned to the Contractor without action.
- E. Catalog Sheets: For standard manufactured items, submit six (6) copies of manufacturer's catalog sheets with illustrated cuts of the items to be furnished, scale capacities, and other pertinent information, accompanied by an appropriate transmittal form with specific reference to the applicable paragraph in the Specifications. Rejected copies shall be resubmitted in the same manner until approval is obtained. Indicate clearly on such printed matter which of several items is being submitted for approval.
- F. For all other Shop Drawings, submit four {4} black line prints. Print copies shall be made by the Contractor after their stamp and their comments or corrections, if any, have been affixed to the transparency.

- G. Each drawing, transparency and print shall have a clear space approximately 80 square inches as an additional border on the right side or bottom for stamps and Architect's documents.

2.03 **ACTION ON SHOP DRAWINGS**

- A. The Owner will annotate the black line print and apply a stamp and check one of the actions, namely;
  - 1. Approved
  - 2. Approved as Noted
  - 3. Rejected
  - 4. Do Not Resubmit
  - 5. Resubmit
  
- B. Corrections or comments made on the Shop Drawings during this review shall not relieve Contractor from compliance with requirements of the Contract Drawings and specifications. This check is only for review of general conformance with the design concept of and general compliance with the information given in the Contract Documents. The Contractor is responsible for:
  - 1. Confirming and correlating all quantities and dimensions, fabrication processes and techniques of construction;
  - 2. Coordinating their work with that of all other trades; and
  - 3. Performing their work in a safe and satisfactory manner.
  
- C. For drawings marked "Rejected," or "Revise and Resubmit" the Owner will have prints made from the Black Line Print at the Contractor's expense. Such prints shall be used for record purposes and for comparison with subsequent resubmissions. One will be retained by the Owner, one furnished to the applicable consultants, if any, and the Black Line Print returned to the Contractor. Such procedures shall be followed until the Shop Drawing is marked "Furnish as Corrected," or "Reviewed as required by the Construction Contract Documents and approved, but only for conformance to the design concept of the work, and subject to further limitations and requirements contained in the Contract Documents."
  
- D. Drawings marked "Approved as Noted" shall be treated in the same manner as Drawings marked "Reviewed as required by the Construction Contract

- E. Documents and requirements contained in the Contract Documents." The Owner's comment shall be considered part of the original Drawings. Should the Contractor disagree with such comments, the Contractor shall so notify the Owner in writing within fourteen (14) days after receipt of such Drawings and before commencing work on the items in question. Failing this, the Contractor shall be deemed to have accepted full responsibility for implementing such contingents at no additional cost to the Owner.
- F. Black Line Prints for all Drawings marked "Approved as Noted" or "Reviewed as required by the Construction Contract Documents..." will be returned to the General Contractor.
- G. Before the Black Line Print is returned by the Architect with the stamp "Reviewed as required by the Construction Contract documents." or "Approved as Noted," the Contractor will have made at the Contractor's expense, four (4) prints of the corrected original for the Owner's use.
- H. Contractor shall open and maintain an account at an approved printing establishment convenient to the Owner's or Architect's office where shop drawing prints required under this paragraph can be made. Printer shall bill required prints directly to Contractor. Architect will furnish copies of print orders on request.

#### 2.04 **SHOP DRAWING CONDITIONS**

- A. If catalog cuts of standard manufactured items show different types, options, finishes, performance requirements, or other variations, those features that the Contractor proposes to furnish shall be clearly circled or otherwise indicated, and all irrelevant diagrams, notes, or other information deleted or canceled. If any variations from the catalog description are proposed or required, such variations shall be clearly note on the cut by the Contractor. Catalog cuts or wiring diagrams will not be acceptable.
- B. Shop Drawings shall clearly indicate all details, sectional views, arrangements, working and erection dimensions, kinds and quality of materials and their finishes, and other information necessary for proper checking and for fabrication and installation of the items, and shall include all information required for making connections to other work.
- C. If any information on previously submitted Shop Drawings, aside from notations made by the Architect is revised in any way, such revision shall be circled or otherwise graphically brought to the Architect's attention. If approved Drawings are subsequently revised, they shall be resubmitted to the Architect with all revisions clearly marked for the Architect's attention. Whenever drawings are revised, the latest revisions shall be circled or otherwise indicated to distinguish them clearly from all previous revisions (and from the information on the original drawing).



- D. Should the Architect in checking Shop Drawings make changes which the Contractor deems will increase the Contract Price, the Contractor shall so inform the Architect in writing within fourteen (14) days following receipt of the checked Shop Drawings and prior to starting fabrication of the item or items. Failing this, the Contractor shall be deemed to have waived all claims for extra compensation for the work involved.
- E. Notes or other information on the Shop Drawings, labels, transmittals or other items submitted which are contrary to provisions of the Contract Documents shall be deemed to be addressed to the applicable Contractor, Subcontractor, suppliers or other parties involved, and shall have no force or effect with respect to this Contract, even through the Shop Drawing or Sample involved is approved by the Architect. In particular the terms "By Others," "N.I.C.," or words of similar meaning and import on submissions shall not be deemed to imply that the referenced items are to be omitted from this Contract.
- F. The Contractor shall be responsible for obtaining and distributing copies of approved Shop Drawings to their subcontractors and material suppliers needing such information, at no additional cost to the Owner.
- G. The Contractor shall assume full liability for delay attributed to insufficient time for delivery and/or installation of material or performance of the work when approval of pertinent Shop Drawings is withheld due to failure of the Contractor to submit, revise, or resubmit Shop Drawings in adequate time to allow the Architect reasonable time, not to exceed twenty-one (21) days, for normal checking and processing of each submission and resubmission. The Architect will not be limited to twenty-one (21) days when the Shop Drawing schedule has not been submitted or is not current.

**END OF SECTION**

**SECTION 01-500**  
**TEMPORARY FACILITIES**

**PART I - GENERAL**

**1.01 GENERAL REQUIREMENTS**

- A. Include General Conditions and applicable parts of Division I as part of this Section.
- B. Examine all other Sections of the Specifications for requirements which affect work of this Section whether or not such work is specifically mentioned in this Section.
- C. Coordinate work with trades affecting, or affected by work of this section. Cooperate with such trades to assure the steady progress of all work under the Contract.

**1.02 RELATED WORK UNDER OTHER SECTIONS**

- A. Section 01-015 - Project Procedures
- B. Section 01-018 - Schedules and Times
- C. Section 01-040 - Project Coordination
- D. Section 01-200 - Project Meetings
- E. Section 01-700 - Closeout Procedures

**PART 2 - TEMPORARY FACILITIES**

**2.01 TEMPORARY FACILITIES AND SERVICES**

- A. Contractor shall be responsible for arranging and providing temporary facilities and general services at each site as specified herein and as otherwise required for proper and expeditious prosecution of work. Except as otherwise specified, the Contractor shall pay costs for all temporary facilities and general services until Final Acceptance of the Work and shall remove same at completion of the Work.
- B. All such services and facilities shall comply with applicable Federal, State and local regulations.
- C. Contractor shall make all connections to existing services and sources of supply, shall provide all necessary installations, labor, materials, and equipment, in a manner subject to the approval of the Owner, shall remove temporary installations and conditions when no longer required, and shall restore the services and sources of supply to proper operating condition as approved by the Owner.
- D. Discontinuance of any temporary service prior to the completion of any portions of the Work shall not render the Owner liable for any additional cost resulting there from.
- E. Should a change in location of any temporary equipment be necessary in order for the

Work to progress properly, Contractor shall remove and relocate such equipment as required without additional cost to the Owner.

2.02 **PROTECTION OF WORK, PROPERTY AND THE PUBLIC**

- A. Furnish, erect, and maintain, until such time as removal is approved by the Owner, temporary fencing and barricades to the extent recommended by OSHA and as otherwise required for the protection of life and property during operations under the Contract.
- B. Construct barricades and protective facilities in accordance with local and State regulations. Furnish and install all signs, lights, reflectors, and all such protection facilities as may be required.
- C. Contractor shall save the Owner harmless from all claims arising from the use of public streets, sidewalks, and adjoining premises for construction purposes.
- D. Keep all access roads and walks clear of debris, materials, construction plant and equipment during building operation. Repair streets, drives, curbs, sidewalks, fences, poles and the like where disturbed in building operation and leave them in as good condition after completion of the work as before operations started.
- E. Protect all planting, landscaping, trees and site improvements to remain.
- F. The Contractor shall be responsible for the maintenance of construction barriers and traffic barriers in order to maintain traffic around the Work with the maximum of safety and practical convenience to such traffic during the life of the Contract, and whether or not work has been suspended temporarily. The Contractor shall take all precautions for preventing injuries to persons or damage to property on or about the Work.
- G. Work shall be carried on and barriers erected in such a manner as to provide safe passage at all times for public travel and with least obstruction to traffic. The Contractor shall provide and maintain at his own expense in a safe and passable condition such temporary bypasses created by the barriers as may be necessary to accommodate both pedestrian and vehicular traffic.
- H. Whenever gale or high winds are forecast, take proper measures to secure all loose material, equipment or other items which could blow about and be damaged or cause damage to other work. No such loose items shall be left unsecured at end of working day. Particular attention shall be taken with scaffolding and items placed or stored on roofs or within the structure prior to being enclosed.
- I. Remove all snow and ice which may impede the work, damage the finishes or materials, be detrimental to workmen, or impede trucking, delivery, or moving of materials at the job site, or prevent adequate draining of the site or adjoining area.

- J. Be responsible for all breakage of glass from the time construction operations commence in each portion of the project until each portion of the project is occupied by the Owner. Unless glass has been broken by the Owner or their representatives, or by other separate prime contractors, the cost of glass replacement shall be borne by Contractor.

### 2.03 **SECURITY OF THE WORK**

- A. The Contractor, at their discretion, shall be responsible for providing any and all security precautions necessary to insure adequate protection of their and the Owner's interests.
- B. Take all required measures to protect the work at all times against fire, storm, theft, vandalism and other losses.
- C. The Contractor shall be wholly responsible for patrolling and protecting the work under construction and the materials stored on the site; and shall reimburse the Owner for any losses, damages or injury not compensated by insurance, except those directly caused by the Owner, its agents or its employees.
- D. The Contractor shall rebuild, repair, restore and make good all damages to any portion of the Work occasioned by any of the above causes before the completion and written acceptance of the completed Work, and shall bear the expense thereof.
- E. Should the Contractor fail to take prompt action whenever conditions make it necessary, the Owner may make emergency repairs or cause the same to be made, with the stipulation that the costs for such repairs shall be charged against the Contractor and deducted from monies due to them.

### 2.04 **WATER CONTROL**

- A. Take over the responsibility for site drainage in work area upon entering the premises and maintain such drainage during the life of this Contract in a manner approved by the Owner and so as not to adversely affect the adjacent areas.
- B. During the progress of the Work, provide and maintain all required pumps, suction and discharge lines, and power in sufficient number and capacity to deep all excavations, pits, trenches, foundations, and the entire property area free from accumulation of water from any source whatsoever, at all times, and under any and all circumstances and contingencies that may arise.

**END OF SECTION**

**SECTION 01-700  
CLOSEOUT PROCEDURES**

**PART I - GENERAL**

**1.01 GENERAL REQUIREMENTS**

- A. Include General Conditions and applicable parts of Division I as part of this Section.
- B. Examine all other Sections of the Specifications for requirements which affect work of this Section whether or not such work is specifically mentioned in this Section.
- C. Coordinate work with trades affecting, or affected by work of this section. Cooperate with such trades to assure the steady progress of all work under the Contract.

**1.02 RELATED WORK UNDER OTHER SECTIONS**

- A. Section 01-015 - Project Procedures
- B. Section 01-018 - Schedules and Times
- C. Section 01-200 - Project Meetings
- D. Section 01-200 - Temporary Facilities

**PART 2 - CONTRACT CLOSEOUT**

**2.01 CLEANING**

- A. Execute cleaning during progress of work and at completion of the work, as required by General Conditions and as herein specified.
- B. Maintain premises and public properties free from accumulations of waste, debris and rubbish caused by operation. At completion of work, remove waste materials, rubbish, tools, equipment, machinery and surplus materials, and clean all exposed surfaces; leave project clean and ready for occupancy.
- C. Cleaning shall include all surfaces, interior and exterior in which or to which the Contractor has had access.

**2.02 SAFETY AND DISPOSAL REQUIREMENTS**

- A. Standards: Maintain project in accordance with State Building Code and local ordinances.
- B. Hazards Control: Store volatile wastes in covered metal containers and remove from premises. Prevent accumulation of wastes which create hazardous conditions. Provide adequate ventilation during use of volatile and noxious substances.
- C. Disposal: Conduct cleaning and disposal operations to comply with local ordinances and anti-pollution laws. Do not burn or bury rubbish and waste materials on project

site. Do not dispose of hazardous wastes such as mineral spirits, oil, or paint thinner in storm or sanitary drains. Do not dispose of wastes into streams or waterways.

### 2.03 **CLEANING MATERIALS**

- A. Use only those materials which will not create hazards to health or property and which will not damage surfaces.
- B. Use only those cleaning materials and methods recommended by manufacturer of surface materials and methods recommended by manufacturer of surface material to be cleaned.
- C. Use cleaning materials only on surfaces recommended by cleaning material manufacturer.

### 2.04 **CLEANING DURING CONSTRUCTION**

- A. Execute cleaning to ensure that the building, the site, and adjacent properties are maintained free from accumulations or waste materials and rubbish and windblown debris, resulting from construction operations.
- B. Provide on-site containers for collection of waste materials, debris and rubbish.
- C. Remove waste materials, debris and rubbish from the site periodically and dispose of at legal areas off site.

### 2.05 **DUST CONTROL**

- A. Wet down dry materials and rubbish to lay dust and prevent blowing dust.

### 2.06 **FINAL CLEANING**

- A. Before final inspection, thoroughly clean the site.
- B. Employ experienced workers for cleaning operations.
- C. Remove all construction facilities, debris, and rubbish from the Owner's property and legally dispose of same beyond site limits.

### 2.07 **WARRANTIES AND BONDS**

- A. Compile specified warranties and bonds for the school, review to verify compliance with Contract Documents, and submit to the Owner.
- B. Assemble two original signed copies of warranties, bonds and service and maintenance contracts executed by Officers of each of the respective manufacturers, suppliers and subcontractors.

- C. Neatly type table of Contents in orderly sequence. Provide complete information for each item:
  - 1. Product or work item identification.
  - 2. Manufacturing or supplying firm with name of principal, address and telephone number.
  - 3. Scope of work and of warranty provided.
  - 4. Date of beginning of warranty, bond or service and maintenance contract. Commence upon date of Substantial Completion.
  - 5. Duration of warranty, bond or service maintenance contract (in no case less than one (1) year).
  - 6. Information for Owner's personnel:
    - a) Proper procedure in case of failure.
    - b) Instances which might affect validity of warranty or bond.
  - 7. Contractor, name of responsible principal, address and telephone number.
  
- D. Form of Submittals: Prepare in duplicate packets and in the following format:
  - 1. Size: 8-1/2 inch by 11 inch. Punch sheets for 3-ring binder. Fold larger sheets to fit into binders.
  - 2. Cover: Identify each packet with typed or printed title "WARRANTIES AND BONDS." List Title of Project, Date and Name of Contractor.
  - 3. Binders: Commercial quality, three-ring, with durable and cleanable plastic covers.
  
- E. Time of Submittals:
  - 1. For equipment or component parts of equipment put into service during progress of construction, submit documents within ten (10) days after inspection and acceptance. Otherwise, make submittals before Date of Substantial Completion.
  - 2. For items of work where acceptance is delayed materially beyond the Date of Substantial Completion, provide updated submittal within ten days after acceptance, listing the date of acceptance as the start of the warranty period.
  
- F. Submittals Required: Submit warranties, bonds, service and maintenance contracts as specified in the respective Sections of the Specifications.

## 2.08 **CLOSEOUT REQUIREMENTS**

- A. Punch List: When the Contractor submits a complete list of items to be completed or corrected and the Owner receives the list, the Owner will make an inspection to determine whether the work or designated portion is substantially complete. The

contractor shall submit a schedule indicating when each item will be completed.

- B. If the Owner determines that the Contractor's list is not complete the Owner will notify the Contractor and the Contractor will provide a complete list before the Owner will complete their inspection.
- C. If the Owner's inspection discloses any item whether or not included on the contractor's list, which is not in accordance with the requirements of the Contract Documents the Owner will add the item to the list and will issue a punch list of items to be completed or corrected before final payment will be made. Such punch list shall not be construed as all-inclusive of the work which the Contractor will be required to perform before final payments.
- D. Substantial Completion: Owner will prepare and issue a Certificate of Substantial Completion, AIA G704, complete with signatures of Owner and Contractor, accompanied by list of items to be completed or corrected, as verified and amended by the Owner. Owner will not issue Certificates of Substantial Completion until the items below have been completed and submitted.

#### 2.09 **INSPECTION**

- A. Contractor shall submit written certification that:
  - 1. Contract Documents have been reviewed.
  - 2. Project has been inspected for compliance with Contract Documents.
  - 3. Work has been completed in accordance with Contract Documents.
  - 4. Equipment and systems have been tested in presence of Owner's Representative and are operational.
  - 5. Project is completed, and ready for inspection.
- B. Owner will begin inspection within seven (7) days after receipt of certification.
- C. Should the Owner consider the Work is substantially complete in accordance with requirements of Contract Documents, the Owner shall request the Contractor to make Project Closeout submittals.
- D. Should the Owner consider that work is not substantially complete:
  - 1. The Owner shall notify Contractor, in writing, stating reasons.
  - 2. Contractor shall take immediate steps to remedy the stated deficiencies, and send second written notice to the Owner certifying that Work is complete.
  - 3. Owner will re-inspect the Work.



## 2.10 **SUBMITTALS FOR SUBSTANTIAL COMPLETION**

- A. Contractor shall submit:
  - 1. Project Record Documents.
  - 2. Operating and Maintenance Data.
  - 3. Guarantees and warranties.
  - 4. Evidence of compliance with requirements of governing authorities.
  - 5. Punch list with schedule.
  
- B. Submit Certificate of Insurance for products and completed operations.

## 2.11 **FINAL INSPECTION**

- A. When the Contractor has completed or corrected all of the items on the Punch list, the Contractor shall submit written certification that the items on the Punch List have been completed and corrected and shall indicate beside each item the date when the item was completed or corrected and in the case of items completed by subcontractors or sub-subcontractors the name of the Subcontractor or Sub-subcontractor. The Owner will begin inspection within seven (7) days after receipt of certification.
  
- B. If the Owner's inspection discloses items which have not been completed or corrected, the Owner shall notify the Contractor and the Contractor shall pay the cost of additional inspections which are required as a result of the Contractor's failure to complete the Punch List items.
  
- C. It is intended that the Owner will make one (1) inspection of completed items following the issuance of the Punch List. The Contractor may request additional inspections at Contractor's expense.

## 2.12 **FINAL SUBMITTALS**

- A. Contractor's Affidavit of Payment of Debts and Claims, AIA G706.
  
- B. Contractor's Affidavit of Release of Liens, AIA G706A, with:
  - 1. Consent of Surety to Final Payment: AIA G707
  - 2. Contractor's release or waiver of Liens.
  - 3. Separate releases or waivers of liens for subcontractors, suppliers, and others with lien rights against property of Owner, together with list of those parties.
  
- C. All submittals shall be duly executed before delivery to the Owner.

## 2.13 **FINAL APPLICATION AND CERTIFICATE FOR PAYMENT**

- A. Contractor shall submit final application in accordance with requirements of General and Supplementary Conditions.

- B. Owner will issue final certificate in accordance with provisions of Conditions of the Contract.
- C. Prior to issuance of the Certificate for Final Payments by the Owner, all requirements contained in this Paragraph entitled "Closeout Requirements" and other requirements of the Conditions of the Contract shall be executed, received and approved by the Owner.

**END OF SECTION**

**SECTION 02-100**  
**SITE DEMOLITION, CLEARING & GRUBBING**

**PART 1 - GENERAL**

1.01 **CONTRACT PROVISIONS INCORPORATED BY REFERENCE**

- A. The General Provisions of the Contract, including the General and Supplementary Conditions and Division 1, apply to the work specified in this Section.

1.02 **SECTION INCLUDES**

- A. Demolition, clearing and grubbing required for this work includes, but is not necessarily limited to removal and off-site disposal of the following:
1. Pavement
  2. Vegetation (trees and shrubs)
  3. Debris and rubble within project
- B. Constructing temporary barriers around trees designated to remain.
- C. Definitions
1. The term 'site demolition, clearing and grubbing', as used herein, includes the removal and off-site disposal of all existing objects (except for those objects designated to remain) within the project area, plus such other work as is described in this Section of these Specifications.

1.03 **RELATED WORK DESCRIBED ELSEWHERE**

- A. Excavating, Filling and Grading Section 02-200

1.04 **QUALITY ASSURANCE**

- A. Qualifications
1. Provide at least one person who shall be present at all times during tree clearing and grubbing operations and who shall be thoroughly familiar with the types of trees involved and who shall direct the trimming of roots and limbs where required.
  2. Provide at least one person who shall be present at all times during demolition operations and who shall be thoroughly familiar with the procedures involved and who shall direct and coordinate the operation and ensure coordination with the applicable utility agencies.
- B. Codes and Standards
1. Perform demolition and clearing work in accordance with applicable rules,

regulations, codes and ordinances of Local, State and Federal Authorities, and in accordance with the requirements of Public Utility Corporations having jurisdiction over the work. Obtain and pay for all necessary permits, licenses and certificates and give all notices as required during the performance of the demolition work.

1.05 **JOB CONDITIONS**

A. Dust and Mud Control

1. Use all means necessary to prevent the spread of dust and mud during performance of the work of the Section; thoroughly moisten all surfaces as required to prevent dust being a nuisance to the public, neighbors and concurrent performance of other work on the site.

B. Burning

1. On-site burning will not be permitted.

C. Protection

1. Use all means necessary to protect existing objects designated to remain and, in the event of damage, immediately make all repairs and replacements necessary to the approval of the Owner, at no additional cost to the Owner. When work occurs within the root structure of an existing tree designated to remain, such work shall be carried out by hand with no machinery allowed that may damage the root structure of the tree.

D. Provide, erect and maintain all catch platforms, lights, barriers, weather protection, warning signs, and all other items as required for the proper protection of the workmen engaged in demolition operations, public and adjacent construction.

E. Provide adequate fire protection in accordance with local Fire Department requirements.

F. Do not close or obstruct street or sidewalks without the proper permit. Conduct operations with minimum traffic interference.

G. Protect all public and private property adjacent to and on the job site including platforms, vents, utility lines, streets, sidewalks, light standards, hydrants, street signs, mail boxes and fire alarm boxes. Make all repairs necessitated by reason of, or in the course of, operations under this Contract to the complete satisfaction of the Owner of the damaged property.

## **PART 2 - PRODUCTS**

### **2.01 TEMPORARY BARRICADES**

- A. Unless otherwise specifically approved by the Owner, use only new and solid lumber of utility grade or better to construct temporary barricades around the objects designated to remain.

### **2.02 PRUNING PAINT**

- A. Use only a pruning paint specially formulated for horizontal application to cut or damaged plant tissue and approved by the Owner for this work.

### **2.03 EXPLOSIVES**

- A. Do not use explosives in this work.

### **2.04 OTHER MATERIALS**

- A. All other materials, not specifically described, but required for proper completion of the work of this Section, shall be as selected by the Contractor, subject to approval of the Owner.

## **PART 3 - EXECUTION**

### **3.01 PREPARATION**

- A. Notification
  - 1. Notify the Owner at least two full working days prior to commencing the work of this Section.
  - 2. Notify Dig-Safe for utility identification (1-800-322-4844) Record locations on Project Record Documents from Dig-Safe field location markings.
- B. Site Inspection
  - 1. Prior to all work of this Section, carefully inspect the entire site and all objects designated to be removed and to be preserved.
  - 2. Locate all existing trees to remain and mark with survey tape.
- C. Clarification
  - 1. The drawings do not purport to show all objects existing on the site.
  - 2. Before commencing the work of this Section, verify with the Owner all objects to be removed and all objects to be preserved.
- D. Scheduling

1. Schedule all work in a careful manner with all necessary consideration for neighbors and the public. Before commencing any work, submit for review a schedule showing the commencement, the order and the completion dates for the various parts of this work.
  2. Avoid interference with, use of, and passage to and from, adjacent buildings and facilities.
  3. Work shall be properly coordinated with the work of other trades. Other trades shall be consulted in advance so that proper provisions may be made for installation of their work and so that the work of this Section may be properly finished and connected to the work of other trades.
- E. Disconnection of Utilities
1. Before starting site operations, disconnect or arrange for disconnection of all utility services designated to be removed or that require temporary discontinuance for the duration of the work, as shown in the drawings, performing all such work in accordance with the requirements of the utility company or agency involved.
- F. Protection Utilities
1. Preserve, in operating condition, all active utilities traversing the site and not designated to be disconnected.
- G. Provide adequate fire protection in accordance with local Fire Department requirements.
- H. Do not close or obstruct street or sidewalks without the proper permit. Conduct operations with minimum traffic interference.

### 3.02 **DEMOLITION**

- A. Saw cutting shall be conducted in locations which are designated on the plans so that pavement to remain shall have a finished edge. Cutting shall be done in a neat, straight line. The equipment for cutting pavement shall consist of a cutting machine comprised of a suitable motor, driving a circular cutter, with control devices, and mounted on a sturdy frame, supported by rubber tire wheels.
- B. Demolition shall be done as efficiently and rapidly as possible, with no undue accumulations of rubbish or debris. Refuse shall be hauled away by the Contractor, with route of travel to and from point of dumping kept clear and free during periods of use.
- C. Take precautions to guard against movement, settlement or collapse of any

surrounding construction designated to remain and be liable for any such movement, settlement or collapse.

3.03 **CLEARING AND GRUBBING - GENERAL**

- A. Most vegetation will be cut and cleared prior to the start of construction. Contractor shall confirm any remaining trees to be removed with Owner.
- B. Remove from the site all brush, rubbish, pavement, concrete designated to be removed.

3.04 **REMOVAL OF DEBRIS**

- A. Remove all debris from the site and leave the site in a neat and orderly condition to the approval of the Owner. Debris shall consist of stumps, roots and rocks not in compliance with the criteria for fill (Ref. Section 02200). This debris shall be disposed of by the Contractor in an approved dumping site in compliance with local codes and the Wetlands Protection Act.

**END OF SECTION**

**SECTION 02-150  
EROSION AND SEDIMENT CONTROL**

**PART 1- GENERAL**

**1.01 CONTRACT PROVISIONS INCORPORATED BY REFERENCE**

- A. The General Provisions of the Contract, including the General and Supplementary Conditions and Division 1, apply to the work specified in this Section.

**1.02 ITEMS REQUIRED BUT NOT SPECIFIED**

- A. If an item or material of this trade is indicated in the Drawings but not specifically listed in this Section, provide such item or material at a standard of quality equal to the standard established for the balance of the Work specified, in accordance with the Owner's interpretation.

**1.03 EXECUTION, CORRELATION AND INTENT**

- A. In case of an inconsistency between Drawings and Specifications, or within either Document not clarified by addendum, the better quality or greater quantity of Work shall be provided, in accordance with the Owner's interpretation.

**1.04 DESCRIPTION OF WORK**

- A. Provide all equipment and materials, and do all work necessary to construct a complete erosion and sediment control program for minimizing erosion and sediment control provisions detailed on the Drawings and specified herein are the minimum requirements for an erosion control program. The Contractor shall provide additional erosion sediment control materials and methods as required to affect the erosion and siltation control principles specified herein.
- B. Erosion control and maintenance program, shall include, but not be limited to, installation and maintenance of silt fences, straw bale check dams, and installation schedules of erosion control structures.
- C. Related work specified elsewhere
  - 1. Clearing and Grubbing                      Section 02-100
  - 2. Excavating, Filling, and Grading        Section 02-200

**1.05 REFERENCED STANDARDS**



- A. American Association of State Highway and Transportation Officials (AASHTO):  
Standard Specifications for Highways and Bridges
- B. Commonwealth of Massachusetts Department of Transportation (MassDOT) Standard  
Specifications for Highways and Bridges

1.06 **SUBMITTALS**

- A. Proposed methods, materials to be employed, and schedule for effecting erosion and siltation control and preventing erosion damage shall be submitted for approval.

Submittals shall include:

- 1. List of proposed material including manufacturer's product data.
- 2. Schedule of erosion control program indicating specific dates for implementing programs in each major area of work.

- B. The following samples shall be submitted:

<u>Sample</u>	<u>Size</u>
Silt fence fabric	12 X 12 in.

- C. Seed mixture for temporary seed cover shall be submitted for approval of the Owner.

- D. All submittals shall follow the Provisions of Section 01300-Submittals.

1.07 **EROSION CONTROL PRINCIPLES**

- A. The following erosion control principles shall apply to the land grading and construction phases:

- 1. Stripping of vegetation, grading, or other soil disturbance shall be done in a manner which will minimize soil erosion.
- 2. Whenever feasible, natural vegetation shall be retained and protected.
- 3. Extent of area that is exposed and free of vegetation and duration of its exposure shall be kept within practical limits.
- 4. Temporary seeding, mulching, or other suitable stabilization measures shall be used to protect exposed critical areas during prolonged construction or other land disturbances.
- 5. Drainage provisions shall accommodate increased runoff resulting from modifications of soil and surface conditions during and after development or disturbance. Such provisions shall be in addition to existing requirements.
- 6. Sediment shall be retained on-site.
- 7. Erosion control devices shall be installed as early as possible in the construction sequence prior to start of clearing and grubbing operations and excavation work.

- B. Cut and fill slopes and stockpiled materials shall be protected to prevent erosion. Slopes shall be protected with permanent erosion protection when erosion exposure period is expected to be greater than or equal to six months and temporary erosion protection when erosion exposure period is expected to be less than six months.
  - 1. Permanent erosion protection shall be accomplished by seeding with grass and covering with an erosion protection material, as appropriate for prevailing conditions.
  - 2. Temporary erosion protection shall be accomplished by covering with an erosion protection material, as appropriate for prevailing conditions.
  - 3. Except where specified slope is indicated on Drawings, fill slopes shall be limited to a grade of 2:1 (horizontal: vertical), cut slopes shall be limited to a grade of 2:1.

#### 1.08 **EMERGENCY OPERATION PROCEDURES**

- A. The Contractor shall have on-call at all times capable, responsible representatives who, when authorized, will mobilize the necessary personnel, materials, and equipment, and otherwise provide the required action when notified of any impending emergency situation.
- B. The Contractor shall supply a telephone number to the Owner with which the Contractor may be contacted in the evenings and on weekends. The Contractor shall prepare a 24- hour "duty roster" for this purpose and submit it in writing to the Owner.

### **PART 2 - PRODUCTS**

#### 2.01 **SILT FENCE**

- A. Silt fence shall be "Envirofence" pre-assembled silt fence structure, manufactured by Mirafi, Inc., Charlotte, NC, or approved equal.
  - 1. Each package shall include oak post, industrial polypropylene netting, Mirafi 100 sediment control fabric, metal coupler and instructions.
  - 2. Overall length of each fence section shall be minimum 100 ft.; fabric width minimum of 3 ft., post length minimum of 4 ft. - 6 in.; and post spacing maximum of 8 ft.
  - 3. Posts shall be tapered for ease of installation and beveled at top to resist splitting.

#### 2.02 **STRAW BALES**

- A. Straw bales for construction of straw bale check dam and catch basin filter dam shall be new, firm wire or nylon-bound livestock feed-grade.

**2.03 CRUSHED STONE**

- A. Crushed stone for straw bale check dam, catch basin filter dam and sediment pond riser pipe filters shall conform to MassDOT Specifications Section M2.01.3

**2.04 FILTER FABRIC**

- A. Filter fabric for catch basin filter dam shall be Mirafi 140N drainage fabric, manufactured by Mirafi, Inc., Charlotte, NC, or approved equal.

**2.05 TEMPORARY SEED COVER**

- A. Seed mixture for temporary cover by hydro-seeding application shall conform to the following:

<u>Quantity Per 1000</u>	<u>Sq ft coverage</u>	<u>Material</u>
	27-1/2 lb	Wood Fiber
	4 lb	Mulch Seed
	½ lb	Annual Ryegrass
	22 lb	10-6-4 Fertilizer
	69 gal	Water

1. Wood fiber mulch shall conform to MassDOT Specifications Section MG.04.4, "Wood Fiber Mulch".
2. Seed shall conform to MassDOT Specifications Section 6.03.01, "Erosion Seed".

**PART 3 - EXECUTION**

**3.01 TEMPORARY SEED COVER**

- A. Grass seed shall be spread by mechanical spreader at a rate of 4.0 lb./1000 sq. ft.
- B. Following seeding, area shall be tightly raked to mingle seed with the top 1/8 to 1/4 inch of soil. Areas shall then be smoothed and rolled.
- C. Following rolling, entire shall be watered until equivalent of a 2-inch depth of water shall have been applied to entire seeded surface, at a rate that will not dislodge seed. Water shall be repeated thereafter as frequently as required to prevent drying of surface, until grass attains an average height of 1 1/2 inches.
- D. At the Contractor's option, seed may be spread by the hydro-seeding methods,

utilizing power equipment commonly used for that purpose. Seed and mulch shall be mixed and applied to achieve application quantities specified herein for the conventional seeding method, with mulch applied at the rate of 2700 lb. dry weight of mulch per acre.

- E. A mulching machine, acceptable to the Owner, shall be equipped to eject the thoroughly wet mulch material at a uniform rate to provide the mulch coverage specified. Other provisions specified above for conventional seeding shall apply to hydro seeding.
  - 1. If the results of hydro-seeding application are unsatisfactory, the mixture and/or application rate and methods shall be modified to achieve the required results.
  - 2. After the grass has appeared, all areas and parts of areas which fail to show a uniform stand of grass, for any reason whatsoever, shall be re-seeded and such areas and parts of areas seeded repeatedly until all areas are covered with a satisfactory growth of grass.

### 3.02 **SILT FENCE**

- A. Silt fencing shall be placed around existing drainage channels and at the no-cut and no fill lines before commencement of any earthwork. Silt fencing shall be installed prior to all up gradient earthwork.
- B. Silt fence shall be installed around the stockpiled topsoil and other aggregate material.

### 3.03 **STRAW BALE DAM**

- A. Bales shall be placed in a row with ends tightly abutting the adjacent bales. Each bale shall be embedded in the soil a minimum of 4 inches. Bales shall be securely anchored in place by stakes or re-bars driven through the bales. The first stake in each bale shall be angled toward the previously laid bale to force the bales together.

### 3.04 **MAINTENANCE AND REMOVAL OF EROSION CONTROL DEVICES**

- A. The Contractor shall inspect the effectiveness and condition of the erosion control devices during storm events, after each rainfall of one-inch magnitude or greater, prior to weekends, and prior to any forecasted storm events.
- B. Wetland areas, watercourses, and drainage swales adjacent to construction activities shall be monitored twice each month for evidence of silt intrusion and other adverse environmental impacts, which shall be corrected immediately upon discovery.
- C. Culverts and drainage ditches shall be kept clean and clear of obstructions during

construction period.

1. Cleaning: Sediment build-up at silt fencing and straw bale structures shall be removed when the sediment accumulation is 1/2 the design height. Sediment basin shall be cleaned when the sediment accumulates to one foot of depth.
2. The Contractor shall repair or replace damaged erosion control devices immediately, and, in no case, more than four hours after observing such deficiencies, and as directed by the Owner.
3. The Contractor shall be prepared to implement interim drainage controls and erosion control measures as may be necessary during the course of construction, and as directed by the Owner.
4. The Contractor shall make available on-site, equipment, materials and labor necessary to effect emergency erosion control and drainage improvements within four hours of any impending emergency situation.
5. The Contractor shall comply with recommendations of the Owner to make repairs or supplement erosion control procedures during the course of construction.
6. If the sequencing of operations, condition of erosion control devices, and turbidity level of runoff are unsatisfactory, the Owner will direct the Contractor to cease work and order the Contractor to make corrections within 24 hours, at no expense to the Owner.
7. The Contractor shall make a final inspection, clean all cross culverts and sweep off roadways as approved by the Owner before Contract closeout.
8. Condition of erosion control device shall be checked twice each month or more frequently as required. Damaged and/or deteriorated items shall be replaced. Erosion control devices shall be maintained in place and in effective condition.
9. Straw bales shall be inspected frequently and maintained or replaced as required to maintain both their effectiveness and essentially their original condition. Underside of bales shall be in close contact with the earth below at all times, as required to prevent water from washing beneath bales.

10. Sediment deposits shall be disposed of off-site, in a location and manner that will not cause sediment nuisance elsewhere.

D. Removal of Erosion Control Devices

1. Erosion control devices shall be maintained until all disturbed earth has been paved or vegetated, at which time they shall be removed. After removal, areas disturbed by these devices shall be re-graded and seeded.
2. Erosion protection material shall be kept securely anchored until acceptance of completed slope or entire Project, whichever is later.

E. A failure by the contractor to comply with provisions of the General Permit for Storm Water Discharges from Construction Activities in a timely manner shall not constitute grounds for an extension of the contract period.

**END OF SECTION**

**SECTION 02-200**  
**EXCAVATING, FILLING AND GRADING**

**PART 1 - GENERAL**

**1.01 CONTRACT PROVISIONS INCORPORATED BY REFERENCE**

- A. The General Provisions of the Contract, including the General and Supplementary Conditions and Division 1, apply to the work specified in this Section.

**1.02 SECTION INCLUDES:**

- A. Excavating, filling and grading required for this work includes, but is not necessarily limited to the following:
1. Stripping and stockpiling topsoil
  2. Protection
  3. Excavation:
    - a) General excavation to lines and grades indicated, including but not limited to excavation for the walkways, fencing and dog play structure
    - b) Excavation and backfill of utilities.
  4. General exterior rough grading, cutting and filling as required.
  5. Filling and backfilling as required including furnishing of any extra material required, including compaction.
  6. Compacted gravel for pavement areas and footings.
  7. Disposal of excess or unsuitable material.
  8. Dewatering and control of water, as required, for construction purposes.

**1.03 RELATED WORK DESCRIBED ELSEWHERE**

- |   |                |
|---|----------------|
| A. Site Demolition, Clearing and Grubbing | Section 02-100 |
| B. Bituminous Concrete Pavement           | Section 02-600 |
| C. Seeding                                | Section 02-850 |
| D. Cast-in Place Concrete                 | Section 02-980 |

**1.04 JOB CONDITIONS**

- A. Dust Control
1. Use all means necessary to control dust on and near the work and on and near all off-site borrow areas, if such dust is caused by the Contractor's operations during performance of the work or if resulting from the condition in which the Contractor leaves the site.
  2. Thoroughly moisten all surfaces as required to prevent dust being a nuisance to the public, neighbors and concurrent performance or other work on the site.

- B. Protection
1. Use all means necessary to protect materials of this Section before, during and after installation and to protect all objects designated to remain.
  2. Excavation, sidewalks, trenches, etc., shall be kept properly fenced and guarded. Lights shall be provided and maintained wherever and whenever necessary.
  3. Shoring
  4. Do all shoring, bracing, etc., necessary to support soil adjoining the excavation. The same shall be removed when directed. Provide steel sheeting as required to protect foundation of existing building.
  5. In the event of damage, immediately make all repairs and replacements necessary to the approval of the Owner at no additional cost to the Owner.
  6. Provide traffic control and police protection where required.

1.05 **QUALITY ASSURANCE**

- A. Compaction Control
- B. Wherever a percentage of compaction for backfill is indicated or specified, it shall be the in-place density divided by the maximum density and multiplied by 100.
- C. The maximum density shall be the density at optimum moisture as determined by ASTM Standard Methods of Test for Moisture - Density Relations of Soil Using 10-lb. Rammer and 18-inch Drop, Designation D1557-78. Where all of the material passes a No. 4 sieve, Method A shall be used, and where material is retained on the No. 4 sieve, Method D shall be used.
- D. Where Method D is used, the maximum density shall be corrected if some of the material is larger than 3/4 inch. The corrected maximum density shall be determined by the following formula:

$$D = \frac{P \times D_p + 0.90 \times D_t}{100 + C}$$

Where:

D = Corrected maximum density

Pc= Percent of material retained on the 3/4 inch sieve



- Pf= Percent of material passing the 3/4 inch sieve+
- Df = Maximum density of material passing the 3/4 inch sieve
- Dt = Bulk specific gravity of material retained on the 3/4 inch sieve  
multiplied by 62.4

- E. The in-place density shall be determined in accordance with ASTM Standard Method of Test for Density of Soil in Place by the Sand Cone Method, Designation D1556-64.
- F. All materials used on-site are subject to the approval of the Owner and unsuitable materials shall be removed from the site.

#### 1.06 **MATERIAL TESTING**

- A. Test of backfill materials as delivered will be performed at the discretion of the Owner. Materials in question may not be used, pending test results. Remove rejected material and replace with new, approved material. Test to be performed: **sieve analysis**
- B. Cooperate with the laboratory in obtaining field samples of in-place, bank-run, borrow or stockpiled materials. Samples should be obtained by laboratory personnel from various suppliers, but other individuals may obtain and deliver samples if approved by the Owner.
- C. The Contractor shall bear cost of all testing of materials

### **PART 2 - PRODUCTS**

#### 2.01 **FILL MATERIAL, GENERAL**

- A. Approval Required. All fill material shall be subject to the approval of the Owner.
- B. Notification. For approval of imported fill material, notify the Owner at least four working days in advance of intention to import material; designate the proposed borrow area, and permit the Owner to sample, as necessary, from the borrow area for the purpose of making acceptance tests to prove the quality of the material. Fill material from on site may be used on another, if considered acceptable by the Owner.

#### 2.02 **ON-SITE FILL MATERIAL**

On-site fill shall be well graded, natural inorganic soil, approved by the Owner and meeting the following requirements:

- A. It shall be free of organic or other weak or compressible materials, of frozen materials, and of stones larger than six inches maximum dimensions.

- B. It shall be of such nature and character that it can be compacted to the specified densities in a reasonable length of time.
- C. It shall be free from highly plastic clays, from all materials subject to decay, decomposition, or dissolution and from cinders or other material which will corrode piping or other metal.
- D. It shall have a maximum dry density of not less than 100 lbs. per cubic foot.

**2.03 IMPORTED FILL MATERIAL**

- A. All imported fill material shall meet the requirements of Article 2.02, and shall, in addition, be predominately granular with a maximum particle size of 3 inches and a plasticity index of 12 or less.

**2.04 TRENCH BACKFILL**

- A. All on-site fill material used for trench and structural backfill shall meet the requirements of Article 2.02.

**2.05 DENSE-GRADED CRUSHED STONE (Sub-base)**

- A. Granular base under all areas receiving bituminous concrete paving or gravel paving shall be a sub base material combining crusher-run coarse aggregates of crushed stone and fine aggregates of natural sand or stone screenings uniformly premixed with a predetermined quantity of water meeting the requirements of Article M2.01.7
- B. The composite material shall be free from clay, loam or other plastic material, and shall meet the following grading requirements:

<u>Sieve Designation</u>	<u>Percent Passing</u>
2 inch	100
1 1/2 inch	70-100
3/4 inch	50-85
No.4	30-55
No. 50	8-24
No. 200	3-10

**2.06 STRUCTURAL FILL**

- A. Structural fill shall be Type C Gravel borrow in accordance with MassDOT, Section M.103.0. It shall be graded as follows and have no stones larger than two (2) inches. Structural fill shall be used exclusively as backfill under all slabs, roadways, footings, or any load bearing component where additional material is required to reach desired grades.

<u>Sieve Size</u>	<u>Percent Passing</u>
<b>3"</b>	100
1/2"	<b>50-85</b>
No.4	<b>40-75</b>
No. 50	<b>8-28</b>
No. 200	<b>0-8</b>

- B. It shall be free of organic material, loam, snow, ice frozen soil and other objectionable material.
- C. When both structural fill and gravel borrow are used on same site, they shall be the same material from the same source.

**2.07 SAND- GRAVEL**

- A. Sand-Gravel shall consist of durable sand and gravel and shall be free from ice and snow, roots, sod, rubbish and other deleterious or organic matter. Sand-Gravel shall conform to the following gradation requirements:

<u>Sieve Size</u>	<u>Percent Passing</u>
3inch	100
1/2 inch	50-85
No.4	40- 75
No. 40	10- 35
No. 200	0-8

**2.08 CRUSHED STONE**

- A. Crushed Stone shall consist of durable crushed rock or durable crushed gravel stone and shall be free from ice and snow, clay, loam and other deleterious or organic matter. Crushed Stone shall conform to the following gradation requirements:

<u>Sieve Size</u>	<u>Percent Passing</u>
1inch	100
3/4inch	90-100
1/2 inch	10-50
3/8	0- 20
#4	0-5

2.09 **RIP RAP**

- A. The stones used for Rip-Rap shall be sound, durable rock which is angular in shape as per Section M2.02.0 of the MassDOT Standard Spec. for Highways and Bridges.

2.10 **¾" TRAP ROCK GRAVEL(¾" TRG)**

- A. Processed Trap (Quarry) Rock. The composite material shall be free from clay, loam or other plastic material, and shall meet the following grading requirements:

Sieve <u>Designation</u>	Percent <u>Passing</u>
1inch	100
¾inch	90-100
½ inch	90-100
¾ inch	70-80
No.4	50-60
No. 8	30-40
No.16	20-30
No. 30	10-20
No. 50	5-10
No. 100	5-10
No.200	5-10

**PART 3.00 - EXECUTION**

3.01 **GENERAL**

- A. Prior Familiarization.
  - 1. Prior to all work of this Section, become thoroughly familiar with the site, the site conditions, and all portions of the work falling within this Section.
  
- B. The Contractor shall establish the baseline shown on the drawings and accurately lay out all improvements related thereto. All work and control points shall be preserved by a system of offsets and/or ties in order to prevent destruction. Elevations shall be established from the project benchmark shown on the Contract Plans.
  
- C. Backfilling Prior to Approvals
  - 2. Do not allow or cause any of the work performed or installed to be covered up or enclosed by work of Section prior to all required inspections, tests and approvals.
  - 3. Should any of the work be so enclosed or covered up before it has been approved, uncover all such work at no additional cost to the Owner.

4. After the uncovered work has been completely tested, inspected and approved, make all repairs and replacements necessary to restore the work to the condition in which it was found at the time of uncovering, all at no additional cost to the Owner.

D. Stripping of Topsoil

1. Any topsoil within "Limits of Work" and where excavation or filling will occur shall be stripped, cleaned of all rocks and debris and stockpiled on site for use in finish grading. Surplus topsoil shall be retained by the Owner. Stockpile surplus in area to be seeded for Owner's use elsewhere.

3.02 **FINISH ELEVATIONS AND LINES**

- A. Contractor shall be responsible for setting and establishing finish elevations and lines, to the required tolerances. Carefully preserve all data and all monuments set and, if displaced or lost, immediately replace to the approval of the Owner, at no additional cost to the Owner.

3.03 **EXCAVATING**

- A. Excavate site as shown on the drawings and cross-sections. All suitable material must be stored on site and utilized as backfill or in embankments. Surplus or unsuitable material shall be removed and disposed of off the site.
- B. Depressions Resulting from Removal of Obstructions
1. Where depressions result from, or have resulted from, the removal of surface or subsurface obstructions, open the depression to equipment working width and remove all debris and soft material as directed by the Owner.
- C. Other Areas
1. Excavate to grades shown on the drawings or described elsewhere.
  2. Where excavation grades are not shown on the drawings, excavate as required to accommodate the installation.
  3. Side slopes of excavations must not exceed the angle or repose of the material encountered; otherwise shore and brace where sloping is not possible either because of space limitations or the stability of the material excavated. Maintain sides and slopes of excavations in a safe condition until completion of backfilling by benching, shelving or bracing.
  4. If unauthorized excavation occurs beyond the limits established on the drawings, Contractor shall be responsible for the repair of the area by backfilling with approved material and compacting to 95 percent maximum density at no additional expense to the Owner.

5. If suitable bearing is not found at levels shown on Drawings, the Owner shall be notified in writing so that any adjustments in level or changes may be made immediately.

D. Over-Excavation

1. Backfill and compact all over-excavated areas as specified for fill below at no additional cost to the Owner.

- E. Perform earthwork in a manner to prevent surface water and subsurface or groundwater from flowing into excavations and to prevent water from flooding the project site and abutting streets. Do not allow water to accumulate in excavations. Remove water using dewatering methods which will prevent softening adjacent areas, undercutting footings or causing other damage. Provide and maintain pumps, sumps, suction and discharge line and other components that are necessary to convey water away from excavations.

F. Peat, Muck and Rubble Excavation

1. Excavate and remove from the site all peat, muck and rubble to the depths and widths as shown on the plans so as to completely remove the unsuitable material to firm bottom. The area is to be dewatered in order that the Owner can inspect the bottom and verify that all organic material has been removed. All backfilling shall be done with the area dewatered.

3.04 **EXCESS WATER CONTROL**

A. Unfavorable Weather

1. Do not place, fill or roll up any fill material during unfavorable weather conditions.
2. Do not resume operations until moisture content and fill density are satisfactory to the Owner.

B. Flooding

1. Provide berms or channels to prevent flooding of sub-grade; promptly remove all water collecting in depressions.

C. Softened Sub-grade

1. Where soil has been softened or eroded by flooding or placement during unfavorable weather, remove all damaged areas and re-compact as specified for fill and compaction below.

D. Dewatering

1. Provide and maintain, at all times during construction, ample means and devices with which to promptly remove and dispose of all water from every source entering the excavations or other parts of the work.
2. Dewater by means which will ensure dry excavations and the preservation of the final lines and grades of bottoms of excavations.

3.05 **FILL AND COMPACTION**

A. Filling

1. After sub-grade compaction has been approved by the Owner, spread approved fill material in layers not exceeding eight (8) inches in un-compacted thickness.

B. Moisture-Conditioning

1. Water or aerate the fill material as necessary and thoroughly mix to obtain a moisture content which will permit proper compaction.

C. Compaction - General

1. Compact each soil layer to at least the specified minimum degree; repeat compaction process until plan grade is attained.

D. Degree of Compaction Requirements

1. Pavement Area: Compact fill in pavement areas to a minimum degree of compaction of 95% using 20 ton roller.
2. Contractor responsible for compaction testing by approved testing agency. All fees for testing shall be included in the base bid price

3.06 **GRADING**

A. General

1. Except as otherwise directed by the Owner, perform all rough and finish grading required to attain the elevations indicated on the drawings. All trenches shall be backfilled so as to be flush with pervious finish grades.

B. Grading Tolerances

1. Rough Grade

Bitum. Concrete..... plus/minus 0.1 ft.

2. Finish Grade  
Coarse aggregate under concrete slabs ..... plus/minus 0.1 ft.

C. Treatment After Completion on Grading

1. After grading is completed and the Owner has finished his inspection, permit no further excavation, filling or grading, except with the approval and inspection of the Owner.
2. Use all means necessary to prevent the erosion of freshly graded areas during construction and until such time as permanent drainage and erosion control measures have been installed.

3.07 **EXCAVATING FOR FOOTING/TRENCHING**

A. General

1. Perform all trenching required for the installation of items where trenching is not specifically described in other Sections of these Specifications.
2. Make all trenches open vertical construction with sufficient width to provide free working space at both sides of the trench and around the installed item as required for caulking, joining, backfilling, and compacting.

B. Depth

1. Trench as required to provide the elevations shown on the drawings.

C. Correction of Faulty Grades

1. Where trench excavation is inadvertently carried below proper elevations, backfill with material approved by the Owner, and then compact to provide a firm and unyielding sub grade and/or foundation to the approval of Owner, at no additional cost to the Owner.

D. Trench Bracing

1. Properly support all trenches in strict accordance with all pertinent rules and regulation.
2. Brace, sheet and support trench walls in such a manner that they will be safe, that the ground alongside the excavation will not slide or settle, and that all existing improvements of every kind, whether on public or private property, will be fully protected from damage.



3. In the event of damage to such improvements, immediately make all repairs and replacements necessary to the approval of the Owner at no additional cost to the Owner.
  4. Arrange all bracing, sheeting and shoring so as to not place stress on any portion of the complete work until the general construction thereof has proceeded far enough to provide sufficient strength.
- E. Removal of Trench Bracing
1. Exercise care in the drawing and removal of sheeting, shoring, bracing and timbering to prevent collapse or caving of the excavation faces being supported.
- F. Grading and stockpiling Trenched Material
1. Control the stockpiling of trenched material in a manner to prevent water running into the excavation.
  2. Do not obstruct surface drainage, but provide means whereby storm and waste waters are diverted into existing gutters, other surface drains, or temporary drains.

### 3.08 **BACKFILL**

#### A. General

1. All backfilling shall be compacted every 6" in depth to avoid settlement. In backfilling against walls or pipelines, the backfill shall be placed and compacted on both sides at the same time to avoid undue strain.
2. Fill material within 2 feet of outside building lines shall be gravel borrow for the full depth to the footing. Fill beyond this limit may be on-site excavated material or gravel borrow.
3. Any additional material necessary to complete the backfilling shall be furnished by the Contractor.
4. Place gravel base material under concrete pads a minimum of 12" deep, compacted to 95% maximum dry density.

### 3.09 **CLEANING UP**

- A. Upon completion of the work of this Section, immediately remove all debris and excess earth materials from the site.

**END OF SECTION**

**SECTION 02-600**  
**BITUMINOUS CONCRETE PAVEMENT**

**PART 1 - GENERAL**

1.01 **SUPPLEMENTARY GENERAL CONDITIONS**

- A. The General Provisions of the Contract, including the General and Supplementary Conditions and Division 1, apply to the work specified in this Section.

1.02 **DESCRIPTION**

- A. Work by General Contractor: Bituminous concrete pavement required for this work is indicated on the drawings and includes, but is not limited to:
1. Gravel Base Courses
  2. Bituminous Concrete Pavement
  3. Bituminous Tack Coat
  4. Line Striping
- B. Related Work Described Elsewhere
1. Excavating, Filling & Grading Section 02-200

1.03 **QUALITY ASSURANCE**

- A. Qualifications of Workmen
1. Provide at least one person who shall be thoroughly trained and experienced in the skills required, be completely familiar with the design and application of the work described in this Section, be present at all times during progress of the work of this Section, and direct all work performed under this Section.
  2. For actual finishing of bituminous concrete surfaces and operation of the required equipment, use only personnel thoroughly trained and experienced in the skills required.
- B. Codes and Reference Standards
1. Reference is made to items and paragraphs of the latest revision of "Standard Specifications for Highways and Bridges" of the State of Massachusetts Department of Transportation." References in this Section to these Standard Specifications bear the prefix "MassDOT."

1.04 **PRODUCT HANDLING**

- A. Protection: Use all means necessary to protect bituminous concrete pavement materials before, during and after installation and to protect the installed work and materials of all other trades.
- B. Replacements: In the event of damage, immediately make all repairs and replacements necessary to the approval of the Owner at no additional cost to the Owner.
- C. Dust Control
  - 1. Use all means necessary to prevent the spread of dust during performance of the work of this Section.
  - 2. Thoroughly moisten all surfaces as required to prevent dust being a nuisance to the public, neighbors and concurrent performance of other work on the job site.

**PART 2 - PRODUCTS**

2.01 **DENSE GRADED CRUSHED STONE (Sub-Base)**

- A. Granular base under all areas receiving bituminous concrete paving, concrete paving or re-crushed stone dust shall be a sub base material combining crusher-run coarse aggregates of crushed stone and fine aggregates of natural sand or stone screenings uniformly premixed with a predetermined quantity of water meeting the requirements of Article M2.01.7
- B. The composite material shall be free from clay, loam or other plastic material, and shall meet the following grading requirements:

<u>Sieve Designation</u>	<u>Percent Passing</u>
2inch	100
1 1/2 inch	70-100
3/4inch	50-85
No.4	30-55
No. 50	8-24
No. 200	3-10

- C. Sampling and testing shall be in accordance with the following standard AASHTO methods: Sieve Analysis T27 Passing No. 200 Sieve T11

## 2.02 **BITUMINOUS CONCRETE PAVING**

- A. All courses of the bituminous concrete paving shall consist of Class I, Type 1-1, conforming to the requirements of Section 460, Subsection M3.II.00 of MassDOT Specifications.
  - 1. Binder or bottom course paving shall have a maximum aggregate size passing 1 in. sieve, and bitumen content=  $5 \frac{1}{2}\% \pm 1/2\%$  by weight.
  - 2. Top or wearing course paving shall have maximum aggregate size passing 1/2 in. sieve, and bitumen content=  $6 \frac{1}{2}\% \pm 1/2\%$  by weight.
  
- B. Complete job mix formula, listing quantities and pertinent ingredient properties, shall be submitted to and approved by the Owner at least two weeks before work is started.

## 2.03 **BITUMINOUS TACK COAT**

- A. Bituminous tack coat material shall conform to AASHTO M82.

## 2.04 **PAVEMENT LINE STRIPING**

- A. Thoroughly clean surface of dirt and loose material before application of sealing materials.
- B. Apply two coats of marking paint, at manufacturer's recommendation rates, with mechanical equipment. Provide uniform lines with straight edges, 4" minimum width.
- C. Provide lines, lettering, and markings shown to define parking spaces and traffic flow.
  - 1. Stencil all parking spaces noted as handicapped parking with the international symbol of access.

## 2.05 **PROTECTION**

- A. Protect newly applied coatings from damage to due to construction until manufacturer's recommended curing period is finished.

## 2.06 **CLEANING**

- A. Perform cleaning during installation of the work and upon completion of the work. Remove from site all excess materials, debris, and equipment. Repair damage resulting from coating operations.
  
- B. Sweep pavement and wash free of stains, discolorations, dirt, and other foreign material immediately prior to final acceptance.

## **PART 3 – EXECUTION**

### 3.01 **SURFACE CONDITIONS**

- A. Inspection
  - 1. Prior to all work of this Section, carefully inspect the installed work of all other trades and verify that all such work is complete to the point where this installation may properly commence.
  - 2. Verify that bituminous concrete pavement be installed in strict accordance with the original design, all pertinent codes and regulation, and all pertinent portions of the referenced standards.
  
- B. Discrepancies
  - 1. In the event of discrepancy, immediately notify the Owner.
  - 2. Do not proceed with installation in areas of discrepancy until all such discrepancies have been fully resolved.

### 3.02 **EQUIPMENT**

- A. Compacting Equipment
  - 1. All equipment for compacting shall be steel-tired power rollers having a minimum weight of 10 tons, except that hand held vibrator compactors may be used in areas not accessible to rollers where specifically approved in advance by the Owner.
  
- B. Paving Equipment
  - 2. All equipment for paving shall be spreading, self-propelled asphalt paving machine capable of maintaining line, grade and minimum surface course thickness specified, with laser grading sensors for tolerance accuracy.

### 3.03 **PLACEMENT OF GRAVEL BASE COURSE**

- A. Preparation
  - 1. After sub grade has been completed, as described in Section 02200 of these Specifications, and has been approved by the Owner, roll the surface to a smooth and uniform texture free from lumps, rock pockets, soft spots, and spongy areas.
  
- B. Placement
  - 1. Place the base course in strict accordance with the Standard Specifications.
  - 2. The base shall be constructed of two courses of gravel. The first course shall be not less than 1/2 the thickness of the base required when thoroughly compacted. The second course shall complete the thickness of base required. Compaction shall be done with a vibrator compactor.
  
- C. Compaction

1. Compact the base course to a minimum degree of compaction of 95 percent at optimum moisture content.
2. Roll the base course until entire surface is firm, dense, and free from rock pockets and mud pads; do not slurry the base course.
3. Water the base course after compaction.

### 3.04 **PLACEMENT OF BITUMINOUS CONCRETE SURFACING**

- A. Preparation: Bituminous concrete mixtures shall be laid only when surface is free of foreign matter and when the weather is not foggy or rainy, and further these operations shall be carried on only when the atmospheric temperature is not less than 40 degrees F in the shade.
- B. Placement: Bituminous concrete surfaces shall be placed in two courses with minimum thicknesses shown on the drawings. The two course placement of the new bituminous concrete surfaces shall be as follows:
  1. The binder course shall conform to State Specifications for Binder Course Bituminous Concrete in accordance with job-mix formula, and it shall be constructed in a minimum thickness shown on the drawings after compaction. The bottom course shall be parallel to the proposed grade of the finished bituminous concrete surface.
  2. The surface course shall conform to State Specifications for Top Course Bituminous Concrete in accordance with the job-mix formula, and it shall be constructed to a minimum thickness shown on the drawings after compaction. The finished surface shall conform to proposed grades.
  3. All joints at old pavement shall be sawed vertical butt joints which shall receive a light coating of asphalt emulsion a short time before paving commences, as directed by the Owner.
  4. Existing areas shall not be disturbed by utility construction.
  5. Construction methods shall conform to the Massachusetts Department of Transportation Specifications, Section 460, Class I, Bituminous Concrete Pavement, Type-I.
  6. Submission of the job-mix formula for the bituminous concrete surface course shall be the responsibility of the Contractor, and it shall be submitted to the Owner for approval 10 days prior to the pavement construction.
  7. Establishment of grades, grade control, and conformance to finished pavement surface grade tolerances required shall be the responsibility of the Contractor in accordance with the Drawings and Specifications. See below for finish tolerances.
  8. Roll the surface until a smooth and dense texture is obtained, free draining, and free from any and all birdbaths.

3.05 **FINISH TOLERANCES**

- A. Bituminous Concrete Surface: Plus or minus 0.01 feet at any point from line grade shown on the Drawings.

3.06 **REMEDIAL MEASURES**

- A. Upon direction of the Owner, cut out, and/or rework all surfaces and sub grade areas which do not meet the requirements of this Section; perform all remedial measures at no additional cost to the Owner.

3.07 **SPECIAL CONDITIONS**

- A. Work shall be properly coordinated with the work of other trades. Other trades shall be consulted in advance so that proper provisions may be made for installation of their work and so that the work of this section may be properly finished and connected to the work of other trades.

3.08 **GUARANTEE**

- A. Contractor shall guarantee all workmanship for a period of one year from the date of final acceptance.

**END OF SECTION**

**SECTION 02-800  
PLANTING**

**PART 1 - GENERAL**

1.01 **CONTRACT PROVISIONS INCORPORATED BY REFERENCE**

- A. The General Provisions of the Contract, including the General and Supplementary Conditions and Division 1, apply to the work specified in this Section.

1.02 **SECTION INCLUDES**

- A. Planting required for the Work is indicated on the Drawings and, in general, includes planting of trees and/or shrubs throughout the Work including furnishing all materials, equipment, and labor necessary for root protection, and tree guards where applicable.

1.03 **RELATED WORK**

- A. Excavating, Filling & Grading.....Section 02-200

1.04 **QUALITY ASSURANCE**

A. Qualifications of Workmen

- 1. Provide at least one person who shall be present at all times during execution of this portion of the Work, thoroughly familiar with the type of materials being installed and the best methods of their installation, and direct all work performed under this Section.

B. Standards

- 1. All plants and planting material shall meet or exceed the specifications of Federal and State laws requiring inspection for plant disease and insect control.
- 2. Quality and size shall conform to the current edition of "Horticultural Standards" for number one grade nursery stock, as adopted by the American Association of Nurserymen. Trees shall be nursery grown in New England, New York or New Jersey, whose climatic conditions are similar to the project site.
- 3. All plants shall be true to name and one of each bundle or lot shall be tagged with the name and size of the plants, in accordance with the standards of practice of the American Association of Nurserymen. In all cases, botanical names shall take precedence over common names.

1.05 **SUBMITTALS**



- A. Materials List: Thirty days before any planting materials are delivered to the job site, submit to the Owner a complete list of all plants and other items proposed to be installed:
  - 1. Include a complete data on source, size, and quality.
  - 2. Demonstrate complete conformance with the requirements of this section.
  - 3. This shall in no way be construed as permitting substitution for specific items described in the Drawings or these Specifications unless the substitution has been approved in advance by the Owner.
  
- B. Certificates
  - 1. All certificates required by law shall accompany shipments.
  - 2. Upon completion of the installation, deliver all certificates to the Owner.
  
- C. All submittals shall follow the Provisions of Section 01300-Submittals.

1.06 **PRODUCT HANDLING**

- A. Delivery and Storage
  - 1. Deliver all items to the site in their original containers with all labels intact and legible at time of Owner's inspection.
  - 2. Immediately remove from the site all plants which are not true to name and all materials which do not comply with the provisions of this Section of these Specifications.
  - 3. Use all means necessary to protect plant materials before, during and after installation and to protect the installed work and materials of all trades.
  
- B. Replacements
  - 1. In the event of damage or rejection, immediately make all repairs and replacements necessary to the approval of the Owner, at no additional cost to the Owner.
  
- C. Planting Season
  - 1. Planting shall be done within the following dates:
    - Deciduous Material:            March 1- June 15

2. If special conditions exist which may warrant a variance in the above planting dates, a written request shall be submitted to the Project Owner stating the special conditions and the proposed variance. Permission for the variance will be given if warranted in the opinion of the Owner. Variances permitted will not relieve the Contractor from liability for damages caused by planting out of season.

## **PART 2 - PRODUCTS**

### **2.01 FERTILIZER**

- A. General: All fertilizer shall be a commercial balanced 14-14-14 ratio of N-P-K fertilizer, and shall conform to the applicable State fertilizer laws. Each tree will be fertilized with slow release "Osmocote 14-14-14" which shall be applied according to manufacturer's specifications. Any fertilizer which becomes caked or otherwise damaged, making it unsuitable for use, will not be accepted.

### **2.02 SOIL AMENDMENT**

- A. All soil amendment shall be peat; a domestic product consisting of partially decomposed vegetable matter of natural occurrence. It shall be brown, clean, low in content of mineral and woody material, mildly acid and granulated or shredded, and fortified with organic nitrogen or an equal commercial soil amendment approved in advance by the Owner.

### **2.03 BARK MULCH**

- A. Shredded cedar bark mulch shall consist of a standard size, free of chunks and pieces of wood thicker than 1/4" and approved by the Owner. The mulch must be partially decomposed and dark brown in color.

### **2.04 TREE STAKES**

- A. Unless otherwise indicated on the Drawings, all tree stakes shall be spruce or fir construction grade, rough-sawn, 2" x 2" x 10' long. All exposed portions of each tree stake to be stained black.

### **2.05 PEAT MOSS**

- A. Brown; acid reaction about 4 to 5 pH; low in content of wood material and free of mineral matter harmful to plant life; water absorbing capacity, 1100 to 2000 percent; moisture content 30 percent natural, shredded or granulated.

### **2.06 WATER**

- A. Contractor shall make, at his expense, whatever arrangements may be necessary to ensure an adequate supply of water to meet the needs of this contract. He shall also furnish all necessary hose, equipment, attachments, and accessories for the adequate irrigation of lawns and planted areas as may be required to complete the work as specified.

#### 2.07 **PLANTING SOIL**

- A. The Contractor shall supply loam which shall be prepared by the Contractor so as to be free from subsoil, stumps, roots, stones over one (1) inch diameter and other extraneous materials. Materials removed shall be disposed of by the Contractor. Soil shall not be used for planting while in a frozen or muddy condition.
- B. Planting soil mix shall consist of seven parts loam and one part peat moss by volume. It shall have pH value between pH 6.0 to pH 6.5. For spring planting only, add five pounds of 14-14-14 commercial fertilizer per cubic yard of planting soil; mix thoroughly. Mix all materials at the proportions or amounts specified herein. Mixing shall be done by an approved method. Under no conditions shall mixing be done if materials are wet or in otherwise unsatisfactory condition, as determined by the Owner.

#### 2.08 **PLANT MATERIALS**

Plant materials shall be true to species and variety specified and shall be nursery grown in accordance with good horticultural practice under climatic conditions similar to those in the locality of the project for at least two years. They shall have been root-pruned within the last two years and shall be freshly dug. No heeled-in plants or plants from cold storage will be accepted.

- A. Unless specifically noted otherwise, all plants shall be of specimen quality; exceptionally heavy; and symmetrical, so trained or favored in development and appearance as to be unquestionable and outstandingly superior in form, compactness and symmetry. They shall be sound; healthy; vigorous; well-branched and densely foliated when in leaf; free of disease; insects; eggs or larvae; and shall be free from physical damage or conditions that would prevent thriving growth.
- B. Plants shall not be pruned before delivery. Trees with multiple leaders, unless specified, will be rejected. Trees with a damaged or crooked leader, abrasion of bark, sun scalds, disfiguring knots, insect damage, or cuts of limbs over 3/4" in diameter, not completely closed, will be rejected.
- C. Plants shall conform to measurements specified in the Plant Lists, except that plants larger than specified may be used if approved by the Owner. Use of such plants shall not increase the Contract price. If larger plants are approved, the root ball shall be increased in proportion to the size of the plant.

- D. Caliper measurement shall be taken on the trunk 6" above natural ground line for trees up to 4" in caliper and 12" above the natural ground line for trees over 4" in caliper. Height and spread dimensions specified refer to the main body of the plant and not from branch tip to tip. Plants shall be measured when branches are in their normal position. If a range of size is given, no plant shall be less than the minimum size, and not less than 50 percent of the plants shall be as large as the maximum size specified. Measurements specified are minimum size, acceptable after pruning where pruning is required. Plants that meet measurements but do not possess a normal balance between height and spread shall be rejected.
- E. All plants shall be labeled with correct plant name and size. Labels shall be attached securely to all plants, bundles, and containers of plant materials delivered with care that those attached directly to plants will not restrict growth.
- F. Substitutions of plant materials will not be permitted, unless authorized in writing by the Owner. If proof is submitted and substantiated in writing that any plant specified is not obtainable, a proposal will be considered for use of the nearest available size or similar variety with a corresponding adjustment of Contract price.
- G. Type of Protection to Roots
  - 1. Balled and Burlapped Plants: Plants designated "B&B" in the Plant List shall be balled and burlapped. They shall be dug with firm, natural balls of earth of sufficient diameter and depth to encompass the fibrous and feeding root system necessary for full recovery of the plant. Balls shall be firmly wrapped with burlap or similar material and bound with twine, cord, or wire mesh. Where necessary to prevent breaking or cracking of the ball during the process of planting, the ball may be secured to a platform.
  - 2. Protection After Delivery: The balls of "B&B" plants which cannot be planted immediately on delivery shall be covered with moist soil or mulch, or other protection from drying winds and sun. Bare-rooted plants shall be planted or heeled-in immediately upon delivery. All plants shall be watered as necessary until planted.

## 2.09 **INSPECTIONS**

- A. Certificates of inspection shall accompany invoices for each shipment of plants as may be required by law for transportation. File certificates with the Owner prior to acceptance of the material. Inspection by Federal or State Governments at place of growth does not preclude rejection of plants at the work site.

## 2.10 **SELECTION AND TAGGING**

- A. Plants shall be subject to inspection and approval by the Owner at their place of growth and upon delivery for conformity to specification requirements. Such approval shall not impair the right of inspection and rejection during the progress of the work. A Contractor's representative shall be present at all inspections.
- B. Written requests for inspection of plant material at their place of growth shall be submitted to the Owner at least 10 calendar days prior to digging. Written requests shall state the place of growth and quantity of plants to be inspected. The Owner may refuse inspection at this time if, in his judgment, a sufficient quantity of plants are not available for inspection.
- C. Plants identified as "selection specimen" shall be approved and tagged at their place of growth. For distant material, submit photographs for pre-inspection review.

**2.11 PLANT LABELS**

- A. Plant labels shall be durable, legible stating the correct plant name and size in weather-resistant ink or embossed process lettering.

**2.12 GUYING, STAKING, AND WRAPPING MATERIALS**

- A. Ground anchors shall be castings, stamped steel, or deadmen of wood or other material approved by the Owner. Width across top span and length, exclusive of pin from top to arrowed tip, shall conform to the following list. Assemblies for anchors shall also conform to the following list:

Tree Caliper ..... 2 - 5 inches  
 Anchor Size 4 inches  
 Type            Wire  
 Capacity      3,500 lbs.  
 Assembly     36" length; .120 diameter

Guying cable shall be five strand, 3/16" diameter steel cable. Turnbuckles shall be galvanized or dip-painted, having a 3" minimum lengthwise opening fitted with screw eyes. Eyebolts shall be galvanized, having a 1" opening fitted with screw length of 1>". Hose shall be suitable lengths of two-ply, reinforced, black rubber hose, 3/4" in diameter. Stakes for supporting trees shall be 2-1/2 inches square of round, by 8 feet sound wood, treated for one half their length with creosote or equal.

Flags to be fastened to guys shall be of sound wood about 1/2 inch by 3 inches by 12 inches with a 3/8 inch hole centered 1-1/2 inches from each end, or 1-1/2 inches by 12 inches sheet metal with corners clipped and punched both ends, painted white.

Hose to encase guy wires or wires used for fastening trees to stakes shall be new or used 2-ply reinforced rubber garden hose.

Wrapping material for tree trunks shall be standard burlap, heavy crepe paper, or other suitable material, in strips 6 to 10 inches wide.

### 2.13 **ANTI-DESICCANT**

- A. Anti-desiccant shall be an emulsion which provides a protective film over plant surfaces, permeable enough to permit transpiration. It shall be delivered in containers of the manufacturer and mixed according to the manufacturer's directions ("Wiltpruf" manufactured by Nursery Specialty Products Inc., Stubbings Road, Groton Falls, New York, or approved equal).

## **PART 3 - EXECUTION**

### 3.01 **SURFACE CONDITIONS**

- A. Inspection
  - 1. Prior to all work of this Section, carefully inspect the installed work of all other trades and verify that all such work is complete to the point where this installation may properly commence.
  - 2. Verify that planting may be completed in accordance with the original design and the referenced standards.
- B. Discrepancies
  - 1. In the event of discrepancy, immediately notify the Owner.
  - 2. Do not proceed with installation in areas of discrepancy until all such discrepancies have been fully resolved.

### 3.02 **EXCAVATION OF PLANTING AREAS**

- A. Stake out the ground locations for plants and outlines of areas to be planted and obtain approval of the Owner before excavation is begun. A minimum of 30 percent of total planting must be staked before inspection will be made.
- B. Excavate tree and shrub pits as shown on the Drawings.
- C. Separate sub-grade soils from the upper topsoil portions and remove immediately wherever encountered during planting operations.
- D. Notify the Owner in writing of all soil condition which the Contractor considers detrimental to growth of plant material. State condition and submit proposal in writing to the Owner for correcting condition.
- E. Notify the Owner in writing of all soil or drainage conditions which the Contractor considers detrimental growth of plant material.

- F. Test drainage of suspect plant beds and pits by filling with water twice in succession. Conditions permitting the retention of water in planting beds for more than 12 hours shall be brought to the attention of the Owner.
- G. If rock, underground construction work, tree roots, or obstructions are encountered in the excavation of plant pits, alternate locations may be considered by the Owner. Where location cannot be changed, as determined by the Owner, submit cost required to remove the obstructions to a depth of not less than 6" below the required pit depth. Proceed with work after approval of the Owner.

### 3.03 **PLANTING OPERATIONS**

#### A. Digging and Handling of Plant Materials to be Relocated

1. Immediately before digging, spray all plant material in full leaf with anti-desiccant, applying an adequate film over trunks, branches, twigs, and/or foliage.
2. Dig, ball and burlap ("B&B") plants with firm, natural balls of earth with diameter not less than that recommended by American standard for Nursery Stock and of sufficient depth to include the fibrous and feeding roots. Plants moved with a ball will not be accepted if the ball is cracked or broken before or during planting operation.
3. Protect plants at all times from sun or drying winds. Plants that cannot be planted immediately on delivery shall be kept in the shade, well protected with soil, wet moss, or other acceptable materials and shall be kept well watered. Plants shall not remain unplanted for longer than three days after delivery.
4. Plants shall not be bound with wire or rope at any time so as to damage the bark or break branches. Plants shall be lifted and handled from the bottom of the ball only.

#### B. Planting Trees

1. Protect plants at all times from sun or drying winds. Plants that cannot be planted immediately on delivery shall be kept in the shade, well protected with soil, wet moss, or other acceptable material and shall be kept well watered. Plants shall not remain unplanted for longer than three days after digging. Plants shall not be bound with wire or rope at any time so as to damage the bark or break branches. Plants shall be lifted and handled from the bottom of the ball only.

2. Contractor shall excavate tree well with vertical sides and bottom of excavation at proper depth for the root ball. Planting hole depth to be as shown on details.

If during excavation, utilities or other obstructions (i.e. boulders, hidden tree stumps, etc.) are found, the Contractor shall immediately stop work at that specific location and notify the City. The City will then make a decision whether to continue with work or find an alternate location. Unusable tree wells are to be immediately backfilled and compacted to their original grade. Install tree root barrier as shown on detail and backfill accordingly. Set plants at same relationship to finished grade as they bore to the ground from which they were dug. Set plant plumb and brace rigidly in position until prepared topsoil has been tamped solidly around ball and roots.

3. Cut and remove ropes, strings and wrappings from top 1/3 of ball after plant has been set. Leave balance of wrappings intact around ball. If wrapping is plastic, remove top 2/3.
4. Backfill plant pits with prepared planting soil. When plant pits have been backfilled approximately 2/3 full, water thoroughly, eliminating all air pockets. After watering, install planting soil to top of pit and repeat watering.
5. Form saucer around tree as indicated on the Drawings.
6. Finish grade planting areas to conform to grades on Drawings.
7. Mulch all pits and beds with a 4" layer of shredded bark mulch immediately after planting.
8. Immediately after planting, water all plants thoroughly.

C. Guying, Staking, Wrapping and Pruning

1. Guying shall be completed immediately after planting. Drive ground anchors into ground by manual or machine method at approximately 45-degree angle to ground plane and distributed at 120 degree intervals around trunk of tree. Anchors shall be driven to minimum vertical depth after preloading as follows:

Tree Caliper.....3 to 5 inches  
Anchor Size .....4 inches  
Minimum Dept (feet)..... 2-1/2



Preload anchors after driving until anchor turns in the ground at 90-degree angle to line of driving force. Anchor assembly will rise 2 to 6 inches during pre-loading.

Attach guying cables, turnbuckles and hose, and secure until tree is rigidly guyed. On all guys, 1/3 distance up from ground to trunk, secure white plastic flagging 1" wide x 18", ties securely.

- a) Trees 3" in caliper or greater shall be guyed using the 120-degree, three guy method, or as shown on the Drawings.
  - b) Trees less than 3" in caliper shall be staked using the 180-degree, two stake method.
  - c) Remove all wrapping and guying material at the end of guarantee period.
2. Wrap trunks of deciduous trees of 1-1/2" or more caliper with a spiral overlapping wrapping to minimum height of third branch. Wrap from bottom and tie wrapping securely in place. Remove wrapping at end of guarantee period.
  3. Prune plants only at time of planting and according to standard horticultural practice to preserve the natural character of the plant. Pruning to be done under supervision of the Owner.

Pruning and trimming shall include the following:

- a) Remove all dead wood, suckers, and broken or badly bruised branches, unless otherwise directed by the Owner. Contractor shall not cut main leader of tree.
- b) Use only clean sharp tools.
- c) Paint cuts over 3/4" diameter, covering all exposed, living tissue.

### 3.04 **INSPECTION**

- A. In addition to normal progress inspection, schedule and conduct the following formal inspections, giving the Owner at least 24 hours prior notice of readiness for inspection:
  1. Inspection of plants in containers prior to planting.
  2. Inspection of plant locations to verify compliance with the Drawings.
- B. Schedule the final inspection sufficiently in advance and in cooperation with the

Owner so that the final inspection may be conducted within 24 hours after completion of planting.

- C. Final inspection will be at the end of the maintenance period, provided that all previous deficiencies have been corrected.

### 3.05 **ACCEPTANCE**

- A. The Owner shall inspect all work for acceptance upon written request of the Contractor. The request shall be received at least 10 calendar days before the anticipated date of inspection.

Acceptance of plant material by the Owner shall be for general conformance to specified size, character, and quality and shall not relieve the Contractor of responsibility for full conformance to the contract documents, including correct species.

Upon completion and re-inspection of all repairs or renewals necessary in the judgment of the Owner, he shall certify in writing to the Contractor as to the acceptance of the work.

- B. Acceptance in Part: The work may be accepted in parts when it is deemed to be in the Owner's best interest to do so and when approval is given to the Contractor in writing to complete work in parts. Acceptance and use of such areas by the Owner shall not waive any other provisions of this Contract.

### 3.06 **WARRANTY/GUARANTEE PERIOD AND MAINTENANCE**

- A. The guarantee period for tress shall begin at the date of acceptance.
- B. All plant material shall be guaranteed by the Contractor for a period of twelve (12} months after the date of initial acceptance of each tree to be in good, healthy and flourishing condition.
- C. When work is accepted in parts, the guarantee periods extend from each of the partial acceptances to the terminal date of the last guarantee period. Thus, all guarantee periods terminate at one time.
- D. The Contractor shall replace, without cost to the Owner and as soon as possible as weather conditions permit and within a specified planting period, all dead plants and all plants not in a vigorous thriving condition, as determined by the Owner during and at the end of the guarantee period. Plants shall be free of dead or dying branches and branch tips and shall bear foliage of a normal density, size, and color. Replacements shall closely match adjacent specimens of the same species. Replacements shall be subject to all requirements stated in this Specification.
- E. This warranty shall not be deemed to cover trees or planting material damaged or

destroyed by acts of vandalism, motor vehicle accidents, or severe weather conditions beyond those customary in New England (such as hurricane force winds, tornadoes, or the like}.

- F. The guarantee of all replacement plants shall extend for an additional period of one year from the date of their acceptance after replacement. In the event that a replacement plant is not acceptable during or at the end of the said extended guarantee period, the Owner may elect subsequent replacement or credit for each item.
- G. During the warranty period, the Contractor shall be responsible for maintaining each tree in a healthy and vigorous growing condition. The Contractor shall water the tree as outlined in a tree watering plan prepared by the Contractor and approved the City. The Contractor's tree watering plan shall describe the source of the water and the equipment to be used in watering, and shall provide for each tree to receive at least 10 gallons of water every two weeks, from May 1st to August 30th. The Contractor shall also weed, prune, mulch, fertilize the trees, and take other steps necessary to ensure the long-term health of the trees, including without limitation, tightening and repairing guy wires, resetting tilted or downed trees, and adding soil and/or mulch to any tree well that has settled.

### 3.07 **CLEANUP**

- A. When any of this work is done while buildings are occupied, pavements shall be kept clear at all times, broom cleaned to prevent tracking dirt into buildings.
- B. After completion of all planting operations, dispose of all debris and excess material to the satisfaction of the Owner. All pavements shall be broomed and hosed clean.

### 3.08 **FINAL INSPECTION AND ACCEPTANCE**

- A. At the end of the guarantee period, the Owner will inspect all guaranteed work for final acceptance upon written request of the Contractor. The request shall be received at least 10 calendar days before the anticipated date for final inspection.

Upon completion and re-inspection of all repairs or renewals necessary in the judgment of the Owner at that time, he shall certify in writing to the Contractor as to the final acceptance of the Project.

**END OF SECTION**

**SECTION 02-850  
SEEDING AND SODDING**

**PART 1 - GENERAL**

**1.01 CONTRACT PROVISIONS INCORPORATED BY REFERENCE**

- A. The General Provisions of the Contract, including the General and Supplementary Conditions and Division 1, apply to the work specified in this Section.

**1.02 SECTION INCLUDES**

- A. Items required for this Work is indicated on the Drawings and, in general, includes sodding, seeding and topsoil preparation for lawn and turf areas throughout the Work.

**1.03 RELATED WORK DESCRIBED ELSEWHERE**

- A. Excavating, Filling, and Grading Section 02-200

**1.04 QUALITY ASSURANCE**

- A. Qualifications of Worker

Provide at least one person who shall be present at all times during execution of this portion of the Work, be thoroughly familiar with the type of materials being installed and the best methods for their installation, and direct all work performed under this Section.

- B. Standards

1. All seeding material shall meet or exceed the specifications of Federal and State laws requiring inspection for plant disease and insect control.
2. Quality shall conform with the current edition of "Horticultural Standards" for number one grade seed or sod, as adopted by the American Association of Nurserymen.
3. Sod Supplier Qualifications: A qualified turf grass supplier whose work and product has resulted in successful turf establishment.

**1.05 SUBMITTALS**

- A. Materials List

Within 35 days after award of Contract and before any seeding materials are delivered to the job site, submit to the Owner a complete list of all seeding and other items proposed to be installed.

1. Include complete data on source, size, and quality.
2. Demonstrate complete conformance with the requirements of this Section.
3. This shall in no way be construed as permitting substitution for specific items described in the Drawings or these Specifications unless the substitution has been approved in advance by the Owner.

B. Certificates

1. All certificates required by law shall accompany shipments.
2. Prior to installation, deliver all certificates to the Owner.

C. All submittals shall follow the Provisions of Section 01-300 - Submittals.

**1.06 PRODUCT HANDLING**

A. Delivery and Storage

1. Deliver all items to the site in their original containers with all labels intact and legible at time of Owner's inspection.
2. Immediately remove from the site all seeding materials which are not true to name and all materials which do not comply with the provisions of this Section of these Specifications.
3. Use all means necessary to protect seeding materials before, during, and after installation and to protect the installed work and materials of all other trades.

B. Replacements

1. In the event of damage or rejection, immediately make all repairs and replacements necessary to the approval of the Owner, at no additional cost to the Owner.

**1.07 PLANTING SEASON**

- A. Seeding: Fall seeding shall be done between August 15 - October 1. Spring seeding to be done from April 15 – June 1.
- B. Variance: If special conditions exist which may warrant a variance in the above planting dates, a written request shall be submitted to the Owner stating the special conditions for the proposed variance. Permission for the variance will be given if warranted in the opinion of the Owner. Regardless of the time of seeding, the Contractor shall be responsible for a full growth of grass.

**PART 2.00 - PRODUCTS**

**2.01 TOPSOIL**

- A. General: Topsoil shall be that existing on the site. The Contractor shall be responsible for spreading the existing top soil on the site. Any materials removed shall be disposed of by the Contractor.
- B. Testing: The Contractor shall take representative samples of topsoil from the site and shall submit samples to a Soil Testing Laboratory for chemical analysis, and physical analysis. The Contractor shall indicate to the testing agencies that turf is to be planted

and who the Owner is. The Contractor shall forward to the Owner two copies of analysis and recommendations of the testing agencies.

## 2.02 **FERTILIZER**

- A. General: All fertilizer shall be a commercial balanced, 10-6-4 fertilizer delivered to the site in bags labeled with the manufacturer's guaranteed analysis.
- B. Commercial Fertilizer: Commercial fertilizer shall be a complete fertilizer in which 50-70 percent of the nitrogenous elements shall be derived from organic sources; phosphate shall be derived from superphosphate containing 16-20 percent phosphoric acid or bone meal containing 25-30 percent phosphoric acid and 2-3 percent nitrogen; and potash shall be derived from muriate of potash containing 55-60 percent potash. It shall contain the following percentages by weight.

18% Nitrogen - 26% Phosphoric Acid - 12% Potash

Fertilizer shall be mixed, as specified, and delivered to the site in standard, unopened containers showing weight, guaranteed analysis, and name of manufacturer.

- C. Special Protection: If stored at the site, protect fertilizer from the elements at all times.

## 2.03 **SOIL AMENDMENTS**

- A. Biosolid organic matter: All soils within the future turf areas shall be amended with a biosolid compost. The soil shall be amended with a mix ratio of 5 parts on-site soil to 1-part compost to achieve a final mix at approximately 5.3% organic matter. The biosolid compost is available from Agresource Inc, 110 Boxford Rd. Rowley, MA 01969 • 978 388 5110; or other approved facility.
- B. Limestone:: Ground dolomitic limestone shall be an approved agricultural limestone and shall contain not less than 85 percent of total carbonates. Limestone shall be ground to such fineness that 50 percent will pass a 100 mesh sieve, and 90 percent will pass a 20 mesh sieve.

## 2.04 **SOD**

- A. Turf grass Sod shall be certified and include limitations on thatch, weeds, diseases, nematodes. Turf grass sod shall be machine cut at a uniform soil thickness of 0.5 inch {13 mm), plus or minus 0.2 inch (5 mm), at the time of cutting. Measurement for thickness shall exclude top growth and thatch. Furnish viable sod of uniform density, color, and texture that is strongly rooted and capable of vigorous growth and development when planted.
- B. Turf grass sod shall be machine cut at a uniform soil thickness of 0.5 inch {13 mm), plus or

minus 0.2 inch (5 mm), at the time of cutting. Measurement for thickness shall exclude top growth and thatch. Furnish viable sod of uniform density, color, and texture that is strongly rooted and capable of vigorous growth and development when planted.

C. Before harvesting, the turf grass shall be mowed uniformly heights

**2.05 GRASS SEED**

A. General - All grass seed shall be:

1. Free from noxious weed seeds and re-cleaned.
2. Grade A recent crop seed.
3. Treated with appropriate fungicide at time of mixing.
4. Delivered to the site in sealed containers with dealer's guaranteed analysis.

B. Cool Weather Shade Seed Mix Proportions by Weight (all seeding)

<u>Percent by Weight</u>	<u>Seed</u>	<u>Percent of Purity</u>	<u>Percent Germination</u>
20%	Blue Bluegrass	90%	75%
<b>40%</b>	Boreal Creeping Red Fescue*	85%	75%
20%	Predator Hard Fescue*	<b>98%</b>	90%
20%	Seven Seas Chewings Fescue	98%	90%

\* denotes seed mixture containing active endophytes

C. Weed seed content shall not exceed 0.25%. Wet, moldy, or otherwise damaged seed will be rejected.

**2.06 MULCH**

A. All seeded areas to be spread with hay or Straw Mulch as per MassDOT Standard Specifications Section 767.

**SECTION 3 - EXECUTION**

**3.01 SURFACE CONDITIONS**

A. Inspection

1. Prior to all work of this Section, carefully inspect the installed work of all other trades, and verify that all such work is complete to the point where this installation may properly commence.
2. Verify that seeding may be completed in accordance with the original design and the referenced standards.

B. Discrepancies

1. In the event of discrepancy, immediately notify the Owner.
2. Do not proceed with installation in areas of discrepancy until all such discrepancies have been fully resolved

### 3.02 **SEED BED PREPARATION**

- A. After the areas to be seeded have been brought to the grades specified, spread limestone at a rate of 100 pounds per 1,000 square feet.
- B. Apply the 18-26-12 fertilizer at a rate of 5 pounds per 1,000 square feet within 10 days prior to seeding. Thoroughly and evenly incorporate fertilizer and lime with the soil to a depth of 3" by disking or other approved method. In areas inaccessible to power equipment, use hand tools. Adjacent to trees and shrubs, use hand tools to avoid disturbances of the roots.
- C. The Seeding Contractor shall reconstitute the soil, as may be recommended by a soil testing agency, prior to use as planting soil. Any deficiencies in the topsoil shall be corrected by the Contractor, as recommended, at no expense to the Owner.
- D. After incorporation of fertilizer and lime into the soil, the seed bed shall be fine graded to remove all ridges and depressions and the surface cleared of all debris and of all stones one inch or more in diameter.

### 3.03 **SEEDING**

- A. Immediately before seeding, the ground shall be restored, as necessary, to a loose friable condition by dicing or other approved method to a depth of not less than 2". The surface shall be cleared of all debris and of all stones 1" or more in diameter.
- B. Seed all areas to be seeded with specified grass seed, sowing evenly with an approved mechanical seeder at the rate of 6 pounds per 1,000 square feet. Sow 3 pounds per 1,000 square feet in one direction and 3 pounds per 1,000 square feet at right angles to the first seeding. Spread seed when soil is moist. Cultipacker, or approved similar equipment, may be used to cover the seed and to firm the seed bed in one operation. In areas inaccessible to cultipacker, the seeded ground shall be lightly raked and rolled in two directions with a water ballast roller. Extreme care shall be taken during seeding and raking to insure that no change shall occur in the finished grades and that the seed is not raked from one spot to another. Hydro-seeding is an acceptable manner of seeding, providing the Contractor certifies in writing that the hydro-seed fertilizer mix is as herein specified and applied at the equivalent rate of 6 pounds per 1,000 square feet.
- C. Promptly after seeding, wet the seed bed thoroughly, keeping all areas moist throughout the germination period.



- D. Mulch shall be placed immediately after seeding. Hay that has been thoroughly fluffed shall be spread evenly and uniformly at the rate of two to three tons per acre. Lumps and thick mulch materials shall be thinned. All mulch anchor stakes, strings and matting shall be removed before final acceptance of lawns.
- E. Take whatever measures are necessary to protect the seeded area while it is germinating. These measures shall include furnishing warnings signs, barriers, and other needed measures of protection.

### 3.04 **MAINTENANCE**

- A. Maintenance shall begin immediately after seeding operations and shall continue until Final Acceptance or for a minimum of 240 days, whichever is longer.
- B. Maintenance of seed areas shall consist of watering, weeding, curing, repair of all erosion, and reseeded as necessary to establish a uniform stand of grass. Lawns shall be watered in a satisfactory manner during and immediately after planting, and not less than twice per week until final acceptance. All areas which fail to show a uniform stand of grass for any reason shall be reseeded repeatedly until a uniform stand is attained. Scattered bare spots, evenly distributed and not exceeding 8" square of any lawn area, will be allowed at the discretion of the Owner.

At the time of the first cutting, there shall be a uniform stand between 3 and 3-1/2" high, and mower blades shall be set between 2-1/2" and 3" high.

Catch shall be representative of seed specified.

### 3.05 **ACCEPTANCE**

- A. The Owner shall inspect all work for Acceptance upon written request of the Contractor. The request shall be received at least 10 calendar days before the anticipated date of inspection. Upon completion and re-inspection of all repairs or renewals necessary in the judgment of the Owner, he shall certify in writing to the Contractor as to the Acceptance of the work.

### 3.06 **ACCEPTANCE IN PART**

- A. The work may be accepted in parts when it is deemed to be in the Owner's best interest to do so and when approval is given to the Contractor in writing to complete the work in parts. Acceptance and use of such areas by the Owner shall not waive any other provisions of this Contract.

### 3.07 **CLEANUP**

- A. When any of this work is done while buildings are occupied, pavements shall be kept

clear at all times, broom cleaned to prevent tracking dirt into buildings.

- B. After completion of all planting operations, dispose of all debris and excess material to the satisfaction of the Owner. All pavements shall be broomed and hosed clean.

**3.08 FINAL INSPECTION AND ACCEPTANCE**

- A. At the end of the guarantee period, the Owner will inspect all guaranteed work for the Final Acceptance upon written request of the Contractor. The request shall be received at least 10 calendar days before the anticipated date for final inspection.
  
- B. Upon completion and re-inspection of all repairs or renewals necessary in the judgment of the Owner at that time, and shall certify in writing to the Contractor as to the Final Acceptance of the project.

**END OF SECTION**

**SECTION 02-950  
SITE IMPROVEMENTS**

**PART 1 - GENERAL**

**1.01 CONTRACT PROVISIONS INCORPORATED BY REFERENCE**

- A. The General Provisions of the Contract, including the General and Supplementary Conditions and Division 1, apply to the work specified in this Section.

**1.02 SECTION INCLUDES**

- A. Furnish all labor, materials, equipment and perform all operations necessary for completion of the work of this section as shown on the Drawings, as herein specified and as evidently required to properly complete the following items:
  - 1. Project Construction Banner
  - 2. Benches
  - 3. Trash Receptacle
  - 4. Water fountains direct bury base installs

**1.03 RELATED WORK DESCRIBED ELSEWHERE**

- A. Excavating, Filling & Grading.....Section 02-200
- B. Bituminous Concrete Paving.....Section 02-600
- C. Cast-in-place Concrete.....Section 02-980

**1.04 SUBMITTALS**

- A. Forty-five days prior to installation and before any site furnishings are delivered to the job site, submit samples, specification cuts or shop and erection drawings for all items in Section 02950 indicating materials size and weight of steel, number, location and type of connection, welding sequence and hardware.
  
- B. All submittals shall follow the Provisions of Section 01-300-Submittals.

**1.05 REFERENCES**

- A. ASTM Standards
  - 1. Massachusetts Dept. of Public Works, Standard Specifications for Highways and Bridges, (Standard Specifications).
  - 2. American Society for Testing and Materials, (ASTM).
  - 3. American Association of State Highway and Transportation Officials, (AASHTO).
  - 4. ADA: Americans with Disabilities Act.

## **PART 2 – PRODUCTS**

### **2.01 PROJECT CONSTRUCTION BANNER**

- A. The Contractor shall furnish a Project Construction Banner at the project site. The banner shall indicate local information. Information suggested include but not limited to: name of project, funding sources, client, logos, dates, and involved departments and people.
- B. Payment: The Contractor shall include the cost of furnishing and installing the banner in the total project cost.

### **2.02 BENCHES**

- A. Benches: Westport Park Bench Product #WP1-1060, 6' length for surface mounting, with backs or approved equal. Benches available from: SiteScapes: 2401 Production Dr. Roca, NE. Email: info@sitescapesonline.com, toll free: 888-331-9464  
<https://www.sitescapesonline.com/westport-park-bench-drawings.asp>
- B. These items will be directly purchased and installed by the contractor.
- C. Benches to be mounted to at-grade concrete pad/paving using anchor bolts provided. Installation shall be completed in accordance with manufacturer's instructions.

### **2.03 TRASH RECEPTACLE**

- A. Trash Receptacle Type B: McMaster-Carr 4016T5, 36 Gallon Outdoor Waste Container, Color: Green or approved equal. Available from: <http://www.mcmaster.com/#standard-garbage-cans/=xkgkvh>, or approved equal.
- B. This item will be directly purchased and installed by the contractor.
- C. Trash receptacle to be mounted to at-grade concrete pad/paving using anchor bolts provided. Installation shall be completed in accordance with manufacturer's instructions.

### **2.04 DRINKING FOUNTAIN**

- A. Purchased by owner: Drinking Fountain: Elkay Outdoor EZH20 Upper Bottle Filling Station Bi- Level Pedestal Model #LK4420BF1UEVG with LK4471LHBEVG Locking Hose Bib and Direct Bury Adaptor 9789C. Colt Plumbing: 1132 W Trindle Rd, Mechanicsburg, PA 17055. mail@coltplumbing.com Phone: 717.697.4618  
<https://www.coltplumbing.com/colt/desktop.html>
- B. These items will be directly purchased and installed by the Owner. Contractor will install direct bury bases in pads and connect new water service from existing service line to direct bury base per bid specs.


## **SECTION 3 - EXECUTION**

### **3.01 INSTALLATION**

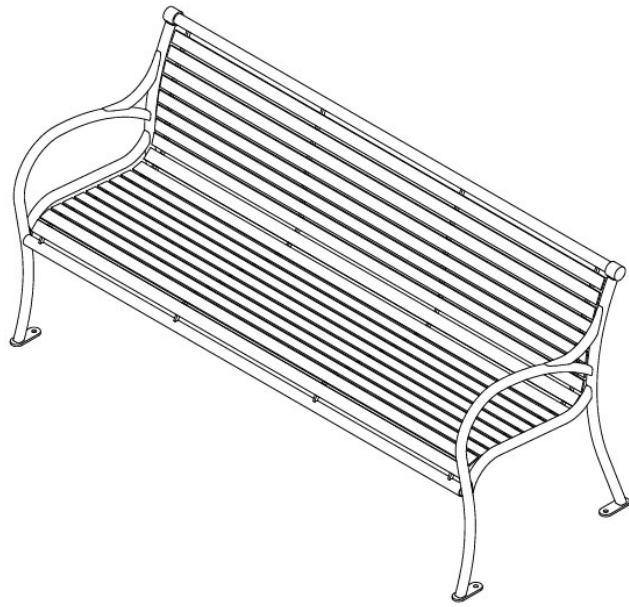
- A. General: The work related to each of the site improvement items shall be fabricated, constructed and finished in every respect in a good, workmanlike and substantial manner, to the full intent and meaning of the drawings and specifications. All parts necessary for the proper and complete execution of the work, whether the same may have been specifically mentioned or not, or indicated on the drawings, shall be done or furnished in a manner corresponding with the rest of the work as if the same were specifically herein described.
- B. The workmanship shall be first-class in every respect and neat in appearance. All work shall meet the requirements of the local codes, and other authorities having jurisdiction over the work.
- C. All excavation and backfill operations shall conform to the details shown on the drawings and the applicable provisions specified under Excavating, Filling and Grading, Section 02-200.
- D. Locate and layout all site improvements. Obtain Owner's acceptance of layout prior to installation.
- E. Locate site improvements equipment at the lines and grades shown on the Drawings and according to the specifications of the manufacturer of the equipment. All minimum dimensions shall be met. If minimum dimensions are not met by the Contractor, they shall remove and relocate any or all equipment at no additional cost to the Owner. Assemble and install equipment in accordance with manufacturer's recommendations.
- F. Install equipment in or on concrete foundations as shown and as recommended by manufacturer. Place foundation concrete and tamp for consolidation. Align posts both vertically and laterally. Hold in position during concrete placement and finishing operations. Finish surface of concrete 3" below surrounding surface of paving or finished grade, or as noted on drawings.


### **3.02 Special Conditions**

- A. Work shall be properly coordinated with the work of other trades. Other trades shall be consulted in advance so that proper provisions may be made for installation of their work and so that the work of this Section may be properly finished and connected to the work of other trades.
- B. Clean-up - Site shall be left free of all debris and in a clean, orderly manner. Repair all damage resulting from site improvements installation.

	P.O. Box 22326 Lincoln, NE 68542	PF: 402/421-9464   WEBSITE: www.sitescapesonline.com FX: 402/421-9479   E-MAIL: info@sitescapesonline.com
		INCH TOLERANCES U.O.S. FRACTION--± 1/16" ANG-----± 1°
TITLE <b>WESTPORT  BACKED BENCH</b>	PRODUCT NO. <b>WP1-1060</b>	Property of SiteScapes, Inc 2014. All rights reserved.

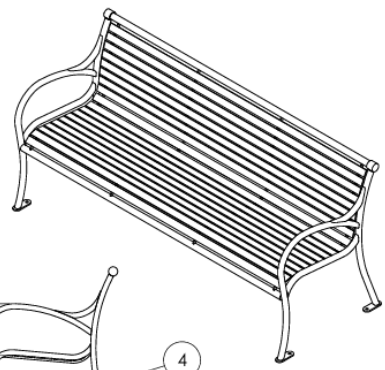
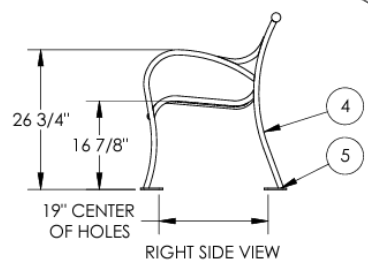
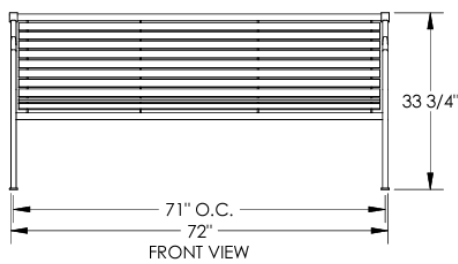
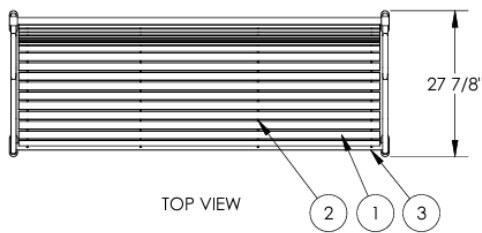
\*Available in powder coat and DuraCoat finishes



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\*Available in powder coat and DuraCoat finishes

- Materials List
- (1) Seat Straps - 1/4" x 1 1/2" Steel Flat Bar
  - (2) Support Straps - 1/4" Sheet Metal
  - (3) Support Pipes -  $\phi$  1.315" x .133" Steel Pipe
  - (4) End Units - 1" Square Steel Tubing
  - (5) Surface Mount Plates - 1/4" x 1 1/2" Stainless Steel Plate with 9/16" Mounting Hole
  - (6) Mounted with Four  $\phi$  1/2" x 4-5" Stainless Steel Anchor Bolts (Customer Supplied)



END OF SECTION

**SECTION 02-980  
CAST-IN-PLACE-CONCRETE**

**PART 1 - GENERAL**

**1.01 CONTRACT PROVISIONS INCORPORATED BY REFERENCE**

- A. The General Provisions of the Contract, including the General and Supplementary Conditions and Division 1, apply to the work specified in this Section.

**1.02 DESCRIPTION**

- A. Work Included: Cast-in-place concrete required for this Work is indicated on the Drawings and includes, but is not necessarily limited to:

1. Exterior flatwork
2. Concrete footings

- B. Related Work Described Elsewhere

1. Excavating, Filling & Grading.....Section 02-200

**1.03 QUALITY ASSURANCE**

- A. Qualifications for Workmen

1. Provide at least one person who shall be present at all times during execution of this portion of the Work, shall be thoroughly trained and experienced in placing the types of concrete specified, and shall direct all Work under this Section.
2. For finishing of exposed surfaces of the concrete, use only thoroughly trained and experienced journeymen concrete finishers.

- B. Codes and Standards

1. In addition to complying with all pertinent codes and regulations, comply with all pertinent recommendations of "Structural Concrete for Builders", publication ACI 301-66 of the American Concrete Institute.
2. Where provisions of pertinent codes and standards conflict with these Specifications, the more stringent provisions shall govern.

**1.04 SUBMITTALS**

- A. Materials List

1. Within 15 days after award of Contract and before any concrete is poured on the job site, submit to the Owner the name and address of transit-mix concrete supplier.

- B. Transit-Mix Deliver Slip
  1. Keep a record at the job site showing time and place of each pour of concrete, together with transit-mix delivery slip certifying contents of the pour.
  2. Make a record available to the Owner for his inspection upon request.
  3. Upon completion of this portion of the Work, deliver the record and the delivery slips to the Owner.

1.05 **PRODUCT HANDLING**

- A. Protection
  1. Use all means necessary to protect cast-in-place concrete materials before, during and after installation, and to protect the installed work and materials of all other trades. Contractor to make every effort to conduct concrete pours in early morning hours to allow sufficient time for hardening. Scratches and graffiti will not be approved or accepted.
  
- B. Replacements
  1. In the event of damage, immediately make all repairs and replacements necessary to the approval of the Owner and at no additional cost to the Owner.

**PART 2 - PRODUCTS**

2.01 **CONCRETE**

- A. General
  1. All concrete, unless otherwise specifically permitted by the Owner, shall be transit-mixed in accordance with ASTM C-94. Concrete for flatwork shall be Class D. Concrete for wall and footings shall be Class A. Color is subject to approval by the Owner.
  
- B. Quality
  1. All concrete shall have the following minimum compressive strengths at 28 days and shall be proportioned within the following limits:

LOCATION OF CONCRETE	EXTERIOR SLABS & SITE WORK
Min. psi@ 28 days	3000
Max. size of aggregate	3/4inch
Min. sacks of cement/CY	5.50
Max. slump in inches	4



- C. Concrete that is subject to freezing temperatures while wet shall have a water-cement ratio not exceeding six gallons per sack and shall contain entrained air.

2.02 **CEMENT**

- A. All cement shall be Portland cement conforming to ASTM C-150, Type I, and shall be the product of one manufacturer. The temperature of cement delivered to the plant shall not exceed 150 deg. F. Color shall match existing concrete.

2.03 **AGGREGATES**

- A. All aggregates shall conform to ASTM C-33-71, except as modified herein.
  
- B. When used as a fine aggregate for cement concrete, sand shall be composed essentially of clean, hard, strong, durable, and impermeable particles resistant to wear and frost, inert to cement and water, reasonably free from structurally weak grains, organic matter, loam, clay, silt, salts, mica, or other fine materials that may affect bonding of the cement paste. Sand shall be taken from a natural deposit and shall be relatively spherical in shape and shall have gritty surfaces. The sieve analysis of the sand shall show it to be well graded and conforming to the following table.

Size of Sieve	Percent by Weight Minimum	Percent Passing Maximum
<b>3/8"</b>	100	
#4	95	100
#16	55	<b>80</b>
#50	10	25
#100	2	8
#200	0	2

- C. Coarse aggregate for cement concrete shall consist of crushed rock or screened gravel and shall be composed essentially of clean, hard, strong, and impermeable particles, resistant to wear and frost, and free from deleterious amounts of organic matter, loam, clay, salts, mica, and soft, thin, elongated, laminated or disintegrated stone, and it shall be inert to water and cement.
  
- D. Where finishing of the concrete is to be done by hammering or any other method that breaks the surface of the concrete, only crushed rock shall be used for coarse aggregate.
  
- E. When tested by U.S. Standard laboratory sieves, coarse aggregate for cement concrete shall be blended from stone sizes to meet the gradation requirements for each

designation listed of variation for general application and are minimum and maximum in each case. To insure uniformity of material used on any one job or project, the range of variation may be reduced to 1/2 of the master range upon determination of the character and source of the materials that the Contractor proposes to furnish.

Designation Nominal Size Sieve Size	No. C-1 1 1/2"		No. C-2 3 3/4"		No. C-3 3/8"	
	Min.	Max.	Min.	Max.	Min.	Max.
1 1/2 inch	90	100	--	--	--	--
3/4 inch	35	60	90	100	--	--
1/2 inch	--	--	--	--	90	100
3/8 inch	10	25	20	50	30	70
<b>No. 4</b>	0	5	0	10	0	15
<b>No. 8</b>	--	--	0	5	0	5

#### 2.04 Water

A. All water shall be clean and free from deleterious matter.

#### 2.05 CONCRETE MIXES

A. Cement concrete shall be composed of specified proportions by weight of cement, aggregates, water and additives to form a homogeneous composition. Cement concrete shall be specified according to the classification defined in the following table. The classes of concrete to be used shall be designated on the plans or in the Specifications for the particular work.

##### CLASSIFICATION OF CONCRETE MIXES

Min. Class	Min. 28 Days Cement Concrete	Coarse Compressive Strength*	Maximum Aggregate Designation	Aggregate Size	%Air
A	560#/CY	3000 psi	C-1	1 1/2"	4.5
B	500#/CY	2500 psi	C-1	1 1/2"	4.5
C	440#/CY	2000 psi	C-1	1 1/2"	4.5
D	620#/CY	3000 psi	C-2	3/4"	5.0
DE	680#/CY	3500 psi	C-2	3/4"	6.0
E	720#/CY	3000 psi	C-1	3/8"	7.0
F	610#/CY	3500 psi	C-3	1 1/2"	6.0

\* As evaluated under ASTM C94-74.

- B. All mixes above used for the Work will conform to one or more of the above mixes. Prior to actual mixing, the Contractor shall submit design mixes for each mix to the Owner for approval, as mentioned on the Plans or in the Special Provisions.

**2.06 EXPANSION AND ISOLATION JOINTS**

- A. Expansion and isolation joints shall be 3/8" x 4" preformed ethylene vinyl acetate or closed cell polyethylene foam material. Hold joint filler material down a sufficient distance to allow for the installation of retainer and sealant. Refer to details on drawings and the sealant manufacturer's standard instructions.

**2.07 OTHER MATERIALS**

- A. All other materials not specifically described but required for a complete and proper installation of cast-in-place concrete shall be as selected by the Contractor, subject to the approval of the Owner.

**PART 3 - EXECUTION**

**3.01 SURFACE CONDITIONS**

**A. Inspection**

1. Prior to all Work of this Section, carefully inspect the installed work of all other trades and verify that all such work is complete to the point where this installation may properly commence.
2. Verify that all items to be embedded in concrete are in place.
3. Thoroughly wet the forms (except in freezing weather) or oil them; remove all standing water.
4. Thoroughly clean all transporting and handling equipment.

**B. Forms**

1. Side forms and transverse forms for sidewalks shall be smooth, free from warp, of sufficient strength to resist springing out of shape, of a depth to conform to the thickness of the proposed walk, and of a type satisfactory to the Owner.
2. All mortar or dirt shall be completely removed from forms that have been previously used. The forms shall be well staked and thoroughly braced and set to the established lines with their upper edge conforming to the grade of the finished walk which shall have a sufficient pitch to the edge of the walk to provide for surface drainage, as shown on the drawings, 2% cross-slope typical.

3. All forms shall be oiled before placing concrete.

C. Notification

1. Notify the Owner at least 48 hours before placing the concrete.

### 3.02 **PLACING CONCRETE**

A. Method

1. Convey concrete from mixer to place of final deposit by methods that will prevent separation and loss of materials.
2. For chuting, pumping, and pneumatically conveying concrete, use only equipment of such size and design as to ensure a practically continuous flow of concrete at the delivery end without loss or separation of materials.
3. Deposit concrete as nearly as possible in its final position to avoid segregation due to re-handling and flowing.
4. Place concrete as dry as possible consistent with good workmanship, never exceeding the maximum specified slump.

B. Rate of Placement

1. Place concrete at such a rate that concrete is at all times plastic and flows readily between bare bars.
2. When placing is started, carry it on as a continuous operation until placement of the panel or section is complete.
3. Do not pour an area at one time that cannot be finished without checking; this is particularly important during hot or dry weather.
4. Do not, in any case, pour a slab greater than 18 feet without construction joints.
5. Exterior pavement slabs shall be placed in alternating sections not exceeding 18 feet in length.

C. Compaction

1. Thoroughly consolidate all concrete by suitable means during placement, working it around all embedded fixtures and into corners of forms.
2. During placement, thoroughly compact the concrete by hand tamping and by mechanical vibration.

D. Acceptability

1. Do not use re-tempered concrete or concrete that has been contaminated by foreign materials.

### 3.03 **LEVELING AND FINISHING**

#### A. General

1. Tamp slabs with a jitterbug to depress the rock and then push float with a bull float as necessary.
2. Take care that the wet slab meets the screeds accurately and does not rise above or lower below them.
3. Carefully provide slab depressions as required for the finishes indicated on the Drawings.

#### B. Finishing

1. Unless otherwise indicated on the Drawings, make all slabs even and uniform in appearance, and where no slope is required, level within plus or minus 1/8" in 10'.
2. Score lines shall be as shown on the plans. Depth of scoring shall be 1/4 inch deep.
3. No finishing operation shall be performed while free water is present. Finishing operations shall be delayed until all bled water and water sheen has left the surface and the concrete has started to stiffen.
4. After edging and jointing operations, the surface shall be floated with a wood float. Immediately following floating, the surface shall be steel troweled.

#### C. Exterior Finishes

1. Where "broom finish" is indicated on the Drawings and where no other exterior slab finish is indicated on the Drawings, finish the exposed concrete surface by lightly combing with a medium stiff broom after troweling is complete.

### 3.04 **CURING**

- A. During the entire period the concrete is being placed, cured and hardened, the Contractor shall provide protection to the concrete from damage by underground water, rain, frost, or sun in a manner satisfactory to the Owner. An approved curing method providing full saturation and protection of the concrete against drying shall be performed for a minimum period of three days.
- B. In cold weather (below 50 deg. F), concrete placing shall be done only within properly built enclosures capable of retaining heat or without such structures if the

temperature is above 50 deg. F. The temperature within these enclosures must reach 65 deg. F before placement of concrete may begin. Only those openings required for the proper placing of concrete will be allowed in the enclosure. After the conclusion of concrete placement, the minimum temperature within the enclosure shall be 50 deg. F for a five day period and 65 deg. F for a three day period. The method of heating shall in no way cause a reduction in the available water content of the concrete.

- C. In hot and dry weather and as directed, all new concrete shall be kept shaded from the sun, shielded from the wind, kept wet with water, or protected by other approved methods to retain moisture in the concrete throughout the curing period. Manual wetting down of a particular area shall cause the area to be continually wet and not allow periods of drying to occur. Plastic roll material or impregnated paper may be utilized during the installation of the concrete, and must be thoroughly wetted at least once each day. These materials are to be placed as soon as possible upon the completion of finishing of concrete in such a fashion that the surface will not be damaged or disturbed.
- D. All curing methods employed shall be practical for the curing situation involved, and all methods shall be subject to the approval of the Owner. No curing compounds of any kind shall be permitted, unless approved by the Owner.

### 3.05 **HOT WEATHER REQUIREMENTS**

#### A. Placement

1. Do not use concrete with a placing temperature that will cause difficulty from loss of slump, flash set or cold joints.
2. Maintain a concrete temperature during placement of less than 90 deg. F.
3. Use all means necessary to avoid drying the concrete prior to finishing operations.

#### B. Protection

1. Provide and use all required rain covers, sunshades, fog sprays, and other devices to protect the concrete.
2. When rain appears imminent, all paving operations shall stop, and all available personnel shall begin placing forms against the sides of the pavement and covering the surface of the unhardened concrete with the protective covering.
3. The Contractor shall have on hand at the paving site sufficient burlap, plastic, or paper to cover at least 6,000 square feet of freshly laid pavement as a protection against sudden thundershowers or heavy downpours of rain.

4. Any part of the pavement damaged by pedestrian traffic or other causes occurring prior to its final acceptance shall be repaired or replaced by and at the expense of the Contractor, in a manner satisfactory to the Owner. The Contractor shall protect the pavement against both public traffic and the traffic caused by his own employees and agents. The pavement shall be so protected until the beam test shows a strength of at least 550 pounds per square inch or a minimum of 7 days.

### 3.06 **DEFECTIVE WORK**

#### A. Inspection

1. Immediately after forms have been removed, inspect all concrete surfaces and patch all pour joints, voids, rock pockets, and other imperfections before the concrete is thoroughly dry.
2. Do not patch until concrete has been inspected by the Owner.

#### B. Patching

##### 1. Minor Defective Areas

- a) Chip away to a depth of about one inch, leaving edges perpendicular to the surface. Wet the area to be patched and a space of at least 6" wide around it to prevent water being absorbed out of the mortar.
- b) Coat the area to be patched with a cement wash consisting of neat cement and a solution of one part "Konset", or equal approved by the Owner, to four parts water; apply patching mortar immediately.
- c) Patching mortar shall consist of one part cement to three parts water to a consistency as dry as is possible within the requirements of handling and placing; thoroughly compact the mortar by ramming it into place.
- d) Screed off so as to leave the patch slightly higher than surrounding surfaces; leave undisturbed for a period of 1-2 hours to permit initial shrinkage, and then perform final finishing.
- e) Finish the patch to match adjacent surfaces and keep wet for at least seven days; provide and install all required protective coverings.

2. Major Defective Areas

- a) If the defects are serious or affect the strength of the structure or if patching does not satisfactorily restore the quality and appearance of the surface, the Owner may require the concrete to be removed and replaced, completely in accordance with the provisions of this Section, at no additional cost to the Owner.

3.07 **COMPENSATION**

- A. Measurement -- All work relating to paving and surfacing as described in this Section and on the Contract Drawings shall be measured complete-in-place. In addition to the paving and surfacing items, related work including excavation, grading, gravel base course and compaction shall be paid for in this Section.

**END OF SECTION**



APPENDIX A

MASSACHUSETTS WAGE RATES



MAURA HEALEY  
Governor

KIM DRISCOLL  
Lt. Governor

THE COMMONWEALTH OF MASSACHUSETTS  
EXECUTIVE OFFICE OF LABOR AND WORKFORCE DEVELOPMENT  
DEPARTMENT OF LABOR STANDARDS

Prevailing Wage Rates

As determined by the Director under the provisions of the  
Massachusetts General Laws, Chapter 149, Sections 26 to 27H

LAUREN JONES  
Secretary

MICHAEL FLANAGAN  
Director

**Awarding Authority:** City of Greenfield Recreation Department

**Contract Number:**

**City/Town:** GREENFIELD

**Description of Work:** Construction of two adjacent 13' x 60' bocce courts including various site work, concrete sidewalks and viewing areas, drainage, landscaping, creation of parking lot/space and site amenities per plan.

**Job Location:** 97 Gerrett Street

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**Information about Prevailing Wage Schedules for Awarding Authorities and Contractors**

- **The wage rates will remain in effect for the duration of the project, except in the case of multi-year public construction projects. For construction projects lasting longer than one year, awarding authorities must request an updated wage schedule no later than two weeks before the anniversary of the date the contract was executed by the awarding authority and the general contractor.** For multi-year CM AT RISK projects, the awarding authority must request an annual update no later than two weeks before the anniversary date, determined as the earlier of: (a) the execution date of the GMP Amendment, or (b) the execution date of the first amendment to permit procurement of construction services. The annual update requirement is not applicable to 27F "rental of equipment" contracts. **The updated wage schedule must be provided to all contractors, including general and sub-contractors, working on the construction project.**
- This wage schedule applies only to the specific project referenced at the top of this page and uniquely identified by the "Wage Request Number" on all pages of this schedule.
- An Awarding Authority must request an updated wage schedule if it has not opened bids or selected a contractor within 90 days of the date of issuance of the wage schedule. For CM AT RISK projects (bid pursuant to G.L. c.149A), the earlier of: (a) the execution date of the GMP Amendment, or (b) the bid for the first construction scope of work must be within 90-days of the wage schedule issuance date.
- The wage schedule shall be incorporated in any advertisement or call for bids for the project as required by M.G.L. c. 149, § 27. The wage schedule shall be made a part of the contract awarded for the project. The wage schedule must be posted in a conspicuous place at the work site for the life of the project in accordance with M.G.L. c. 149 § 27. The wages listed on the wage schedule must be paid to employees performing construction work on the project whether they are employed by the prime contractor, a filed sub-bidder, or a sub-contractor.
- Apprentices working on the project are required to be registered with the Massachusetts Division of Apprentice Standards (DAS). Apprentices must keep their apprentice identification card on their persons during all work hours on the project. An apprentice registered with DAS may be paid the lower apprentice wage rate at the applicable step as provided on the prevailing wage schedule. **Any apprentice not registered with DAS regardless of whether they are registered with another federal, state, local, or private agency must be paid the journeyworker's rate.**
- Every contractor or subcontractor working on the construction project must submit weekly payroll reports and a Statement of Compliance directly to the awarding authority by mail or email and keep them on file for three years. Each weekly payroll report must contain: the employee's name, address, occupational classification, hours worked, and wages paid. Do not submit weekly payroll reports to DLS. For a sample payroll reporting form go to <http://www.mass.gov/dols/pw>.
- Contractors with questions about the wage rates or classifications included on the wage schedule have an affirmative obligation to inquire with DLS at (617) 626-6953.
- Contractors must obtain the wage schedules from awarding authorities. Failure of a contractor or subcontractor to pay the prevailing wage rates listed on the wage schedule to all employees who perform construction work on the project is a violation of the law and subjects the contractor or subcontractor to civil and criminal penalties.
- Employees not receiving the prevailing wage rate set forth on the wage schedule may file a complaint with the Fair Labor Division of the office of the Attorney General at (617) 727-3465.

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
<b>Construction</b>						
(2 AXLE) DRIVER - EQUIPMENT <i>TEAMSTERS JOINT COUNCIL NO. 10 ZONE B</i>	01/01/2024	\$38.95	\$15.07	\$18.67	\$0.00	\$72.69
	06/01/2024	\$39.95	\$15.07	\$18.67	\$0.00	\$73.69
	12/01/2024	\$39.95	\$15.07	\$20.17	\$0.00	\$75.19
	01/01/2025	\$39.95	\$15.57	\$20.17	\$0.00	\$75.69
	06/01/2025	\$40.95	\$15.57	\$20.17	\$0.00	\$76.69
	12/01/2025	\$40.95	\$15.57	\$21.78	\$0.00	\$78.30
	01/01/2026	\$40.95	\$16.17	\$21.78	\$0.00	\$78.90
	06/01/2026	\$41.95	\$16.17	\$21.78	\$0.00	\$79.90
	12/01/2026	\$41.95	\$16.17	\$23.52	\$0.00	\$81.64
	01/01/2027	\$41.95	\$16.77	\$23.52	\$0.00	\$82.24
(3 AXLE) DRIVER - EQUIPMENT <i>TEAMSTERS JOINT COUNCIL NO. 10 ZONE B</i>	01/01/2024	\$39.02	\$15.07	\$18.67	\$0.00	\$72.76
	06/01/2024	\$40.02	\$15.07	\$18.67	\$0.00	\$73.76
	12/01/2024	\$40.02	\$15.07	\$20.17	\$0.00	\$75.26
	01/01/2025	\$40.02	\$15.57	\$20.17	\$0.00	\$75.76
	06/01/2025	\$41.02	\$15.57	\$20.17	\$0.00	\$76.76
	12/01/2025	\$41.02	\$15.57	\$21.78	\$0.00	\$78.37
	01/01/2026	\$41.02	\$16.17	\$21.78	\$0.00	\$78.97
	06/01/2026	\$42.02	\$16.17	\$21.78	\$0.00	\$79.97
	12/01/2026	\$42.02	\$16.17	\$23.52	\$0.00	\$81.71
	01/01/2027	\$42.02	\$16.77	\$23.52	\$0.00	\$82.31
(4 & 5 AXLE) DRIVER - EQUIPMENT <i>TEAMSTERS JOINT COUNCIL NO. 10 ZONE B</i>	01/01/2024	\$39.14	\$15.07	\$18.67	\$0.00	\$72.88
	06/01/2024	\$40.14	\$15.07	\$18.67	\$0.00	\$73.88
	12/01/2024	\$40.14	\$15.07	\$20.17	\$0.00	\$75.38
	01/01/2025	\$40.14	\$15.57	\$20.17	\$0.00	\$75.88
	06/01/2025	\$41.14	\$15.57	\$20.17	\$0.00	\$76.88
	12/01/2025	\$41.14	\$15.57	\$21.78	\$0.00	\$78.49
	01/01/2026	\$41.14	\$16.17	\$21.78	\$0.00	\$79.09
	06/01/2026	\$42.14	\$16.17	\$21.78	\$0.00	\$80.09
	12/01/2026	\$42.14	\$16.17	\$23.52	\$0.00	\$81.83
	01/01/2027	\$42.14	\$16.77	\$23.52	\$0.00	\$82.43
ADS/SUBMERSIBLE PILOT <i>PILE DRIVER LOCAL 56 (ZONE 3)</i>	08/01/2020	\$103.05	\$9.40	\$23.12	\$0.00	\$135.57
For apprentice rates see "Apprentice- PILE DRIVER"						
AIR TRACK OPERATOR <i>LABORERS - ZONE 3 (BUILDING &amp; SITE)</i>	12/01/2023	\$34.38	\$9.65	\$16.84	\$0.00	\$60.87
For apprentice rates see "Apprentice- LABORER"						
AIR TRACK OPERATOR (HEAVY & HIGHWAY) <i>LABORERS - ZONE 3 (HEAVY &amp; HIGHWAY)</i>	12/01/2023	\$34.38	\$9.65	\$14.78	\$0.00	\$58.81
	06/01/2024	\$35.58	\$9.65	\$14.78	\$0.00	\$60.01
	12/01/2024	\$36.78	\$9.65	\$14.78	\$0.00	\$61.21
	06/01/2025	\$38.03	\$9.65	\$14.78	\$0.00	\$62.46
	12/01/2025	\$39.27	\$9.65	\$14.78	\$0.00	\$63.70
	06/01/2026	\$40.57	\$9.65	\$14.78	\$0.00	\$65.00
	12/01/2026	\$41.86	\$9.65	\$14.78	\$0.00	\$66.29
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"						

<b>Classification</b>	<b>Effective Date</b>	<b>Base Wage</b>	<b>Health</b>	<b>Pension</b>	<b>Supplemental Unemployment</b>	<b>Total Rate</b>
ASBESTOS WORKER (PIPES & TANKS) <i>HEAT &amp; FROST INSULATORS LOCAL 6 (SPRINGFIELD)</i>	12/01/2023	\$36.72	\$14.50	\$10.55	\$0.00	\$61.77
	06/01/2024	\$37.62	\$14.50	\$10.55	\$0.00	\$62.67
	12/01/2024	\$38.52	\$14.50	\$10.55	\$0.00	\$63.57
	06/01/2025	\$39.42	\$14.50	\$10.55	\$0.00	\$64.47
	12/01/2025	\$40.32	\$14.50	\$10.55	\$0.00	\$65.37
ASPHALT RAKER <i>LABORERS - ZONE 3 (BUILDING &amp; SITE)</i>	12/01/2023	\$33.88	\$9.65	\$16.84	\$0.00	\$60.37
For apprentice rates see "Apprentice- LABORER"						
ASPHALT RAKER (HEAVY & HIGHWAY) <i>LABORERS - ZONE 3 (HEAVY &amp; HIGHWAY)</i>	12/01/2023	\$33.88	\$9.65	\$14.78	\$0.00	\$58.31
	06/01/2024	\$35.08	\$9.65	\$14.78	\$0.00	\$59.51
	12/01/2024	\$36.28	\$9.65	\$14.78	\$0.00	\$60.71
	06/01/2025	\$37.53	\$9.65	\$14.78	\$0.00	\$61.96
	12/01/2025	\$38.77	\$9.65	\$14.78	\$0.00	\$63.20
	06/01/2026	\$40.07	\$9.65	\$14.78	\$0.00	\$64.50
	12/01/2026	\$41.36	\$9.65	\$14.78	\$0.00	\$65.79
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"						
AUTOMATIC GRADER-EXCAVATOR (RECLAIMER) <i>OPERATING ENGINEERS LOCAL 98</i>	12/01/2023	\$39.56	\$13.78	\$15.15	\$0.00	\$68.49
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
BACKHOE/FRONT-END LOADER OPERATOR <i>OPERATING ENGINEERS LOCAL 98</i>	12/01/2023	\$39.56	\$13.78	\$15.15	\$0.00	\$68.49
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
BARCO-TYPE JUMPING TAMPER <i>LABORERS - ZONE 3 (BUILDING &amp; SITE)</i>	12/01/2023	\$33.88	\$9.65	\$16.84	\$0.00	\$60.37
For apprentice rates see "Apprentice- LABORER"						
BATCH/CEMENT PLANT - ON SITE <i>OPERATING ENGINEERS LOCAL 98</i>	12/01/2023	\$39.03	\$13.38	\$15.15	\$0.00	\$67.56
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
BLOCK PAVER, RAMMER / CURB SETTER <i>LABORERS - ZONE 3 (BUILDING &amp; SITE)</i>	12/01/2023	\$34.38	\$9.65	\$16.84	\$0.00	\$60.87
For apprentice rates see "Apprentice- LABORER"						
BLOCK PAVER, RAMMER / CURB SETTER (HEAVY & HIGHWAY) <i>LABORERS - ZONE 3 (HEAVY &amp; HIGHWAY)</i>	12/01/2023	\$34.38	\$9.65	\$14.78	\$0.00	\$58.81
	06/01/2024	\$35.58	\$9.65	\$14.78	\$0.00	\$60.01
	12/01/2024	\$36.78	\$9.65	\$14.78	\$0.00	\$61.21
	06/01/2025	\$38.03	\$9.65	\$14.78	\$0.00	\$62.46
	12/01/2025	\$39.27	\$9.65	\$14.78	\$0.00	\$63.70
	06/01/2026	\$40.57	\$9.65	\$14.78	\$0.00	\$65.00
	12/01/2026	\$41.86	\$9.65	\$14.78	\$0.00	\$66.29
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"						
BOILER MAKER <i>BOILERMAKERS LOCAL 29</i>	01/01/2024	\$48.12	\$7.07	\$20.60	\$0.00	\$75.79

**Classification**

**Effective Date    Base Wage    Health    Pension    Supplemental Unemployment    Total Rate**

**Apprentice - BOILERMAKER - Local 29**

**Effective Date - 01/01/2024**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	65	\$31.28	\$7.07	\$13.22	\$0.00	\$51.57
2	65	\$31.28	\$7.07	\$13.22	\$0.00	\$51.57
3	70	\$33.68	\$7.07	\$14.23	\$0.00	\$54.98
4	75	\$36.09	\$7.07	\$15.24	\$0.00	\$58.40
5	80	\$38.50	\$7.07	\$16.25	\$0.00	\$61.82
6	85	\$40.90	\$7.07	\$17.28	\$0.00	\$65.25
7	90	\$43.31	\$7.07	\$18.28	\$0.00	\$68.66
8	95	\$45.71	\$7.07	\$19.32	\$0.00	\$72.10

**Notes:**

**Apprentice to Journeyworker Ratio:1:4**

BRICK/STONE/ARTIFICIAL MASONRY (INCL. MASONRY WATERPROOFING)	02/01/2024	\$50.81	\$11.49	\$21.46	\$0.00	\$83.76
BRICKLAYERS LOCAL 3 (SPRINGFIELD/PITTSFIELD)	08/01/2024	\$52.06	\$11.49	\$21.46	\$0.00	\$85.01
	02/01/2025	\$53.36	\$11.49	\$21.46	\$0.00	\$86.31
	08/01/2025	\$55.51	\$11.49	\$21.46	\$0.00	\$88.46
	02/01/2026	\$56.86	\$11.49	\$21.46	\$0.00	\$89.81
	08/01/2026	\$59.06	\$11.49	\$21.46	\$0.00	\$92.01
	02/01/2027	\$60.46	\$11.49	\$21.46	\$0.00	\$93.41

**Classification**

**Effective Date    Base Wage    Health    Pension    Supplemental Unemployment    Total Rate**

**Apprentice - BRICK/PLASTER/CEMENT MASON - Local 3 Springfield/Pittsfield**

**Effective Date - 02/01/2024**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$25.41	\$11.49	\$21.46	\$0.00	\$58.36
2	60	\$30.49	\$11.49	\$21.46	\$0.00	\$63.44
3	70	\$35.57	\$11.49	\$21.46	\$0.00	\$68.52
4	80	\$40.65	\$11.49	\$21.46	\$0.00	\$73.60
5	90	\$45.73	\$11.49	\$21.46	\$0.00	\$78.68

**Effective Date - 08/01/2024**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$26.03	\$11.49	\$21.46	\$0.00	\$58.98
2	60	\$31.24	\$11.49	\$21.46	\$0.00	\$64.19
3	70	\$36.44	\$11.49	\$21.46	\$0.00	\$69.39
4	80	\$41.65	\$11.49	\$21.46	\$0.00	\$74.60
5	90	\$46.85	\$11.49	\$21.46	\$0.00	\$79.80

**Notes:**

**Apprentice to Journeyworker Ratio:1:5**

BULLDOZER/POWER SHOVEL/TREE SHREDDER /CLAM SHELL OPERATING	12/01/2023	\$39.56	\$13.78	\$15.15	\$0.00	\$68.49
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ENGINEERS LOCAL 98

For apprentice rates see "Apprentice- OPERATING ENGINEERS"

CAISSON & UNDERPINNING BOTTOM MAN LABORERS - FOUNDATION AND MARINE	12/01/2023	\$45.48	\$9.65	\$18.22	\$0.00	\$73.35
	06/01/2024	\$46.96	\$9.65	\$18.22	\$0.00	\$74.83
	12/01/2024	\$48.43	\$9.65	\$18.22	\$0.00	\$76.30
	06/01/2025	\$49.93	\$9.65	\$18.22	\$0.00	\$77.80
	12/01/2025	\$51.43	\$9.65	\$18.22	\$0.00	\$79.30
	06/01/2026	\$52.98	\$9.65	\$18.22	\$0.00	\$80.85
	12/01/2026	\$54.48	\$9.65	\$18.22	\$0.00	\$82.35

For apprentice rates see "Apprentice- LABORER"

CAISSON & UNDERPINNING LABORER LABORERS - FOUNDATION AND MARINE	12/01/2023	\$44.33	\$9.65	\$18.22	\$0.00	\$72.20
	06/01/2024	\$45.81	\$9.65	\$18.22	\$0.00	\$73.68
	12/01/2024	\$47.28	\$9.65	\$18.22	\$0.00	\$75.15
	06/01/2025	\$48.78	\$9.65	\$18.22	\$0.00	\$76.65
	12/01/2025	\$50.28	\$9.65	\$18.22	\$0.00	\$78.15
	06/01/2026	\$51.83	\$9.65	\$18.22	\$0.00	\$79.70
	12/01/2026	\$53.33	\$9.65	\$18.22	\$0.00	\$81.20

For apprentice rates see "Apprentice- LABORER"

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
CAISSON & UNDERPINNING TOP MAN <i>LABORERS - FOUNDATION AND MARINE</i>	12/01/2023	\$44.33	\$9.65	\$18.22	\$0.00	\$72.20
	06/01/2024	\$45.81	\$9.65	\$18.22	\$0.00	\$73.68
	12/01/2024	\$47.28	\$9.65	\$18.22	\$0.00	\$75.15
	06/01/2025	\$48.78	\$9.65	\$18.22	\$0.00	\$76.65
	12/01/2025	\$50.28	\$9.65	\$18.22	\$0.00	\$78.15
	06/01/2026	\$51.83	\$9.65	\$18.22	\$0.00	\$79.70
	12/01/2026	\$53.33	\$9.65	\$18.22	\$0.00	\$81.20
For apprentice rates see "Apprentice- LABORER"						
CARBIDE CORE DRILL OPERATOR <i>LABORERS - ZONE 3 (BUILDING &amp; SITE)</i>	12/01/2023	\$33.88	\$9.65	\$16.84	\$0.00	\$60.37
For apprentice rates see "Apprentice- LABORER"						
CARPENTER <i>CARPENTERS LOCAL 336 - HAMPDEN HAMPSHIRE FRANKLIN</i>	03/01/2024	\$41.41	\$7.91	\$18.15	\$0.00	\$67.47
	09/01/2024	\$42.36	\$7.91	\$18.15	\$0.00	\$68.42
	03/01/2025	\$43.26	\$7.91	\$18.15	\$0.00	\$69.32
	09/01/2025	\$44.21	\$7.91	\$18.15	\$0.00	\$70.27
	03/01/2026	\$45.11	\$7.91	\$18.15	\$0.00	\$71.17
	09/01/2026	\$46.06	\$7.91	\$18.15	\$0.00	\$72.12
	03/01/2027	\$46.96	\$7.91	\$18.15	\$0.00	\$73.02

**Apprentice - CARPENTER - Local 336 Hampden Hampshire Franklin**

**Effective Date - 03/01/2024**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	45	\$18.63	\$7.91	\$1.40	\$0.00	\$27.94
2	45	\$18.63	\$7.91	\$1.40	\$0.00	\$27.94
3	55	\$22.78	\$7.91	\$2.76	\$0.00	\$33.45
4	55	\$22.78	\$7.91	\$2.76	\$0.00	\$33.45
5	70	\$28.99	\$7.91	\$15.39	\$0.00	\$52.29
6	70	\$28.99	\$7.91	\$15.39	\$0.00	\$52.29
7	80	\$33.13	\$7.91	\$16.77	\$0.00	\$57.81
8	80	\$33.13	\$7.91	\$16.77	\$0.00	\$57.81

**Effective Date - 09/01/2024**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	45	\$19.06	\$7.91	\$1.40	\$0.00	\$28.37
2	45	\$19.06	\$7.91	\$1.40	\$0.00	\$28.37
3	55	\$23.30	\$7.91	\$2.76	\$0.00	\$33.97
4	55	\$23.30	\$7.91	\$2.76	\$0.00	\$33.97
5	70	\$29.65	\$7.91	\$15.39	\$0.00	\$52.95
6	70	\$29.65	\$7.91	\$15.39	\$0.00	\$52.95
7	80	\$33.89	\$7.91	\$16.77	\$0.00	\$58.57
8	80	\$33.89	\$7.91	\$16.77	\$0.00	\$58.57

**Notes:**

**Apprentice to Journeyworker Ratio:1:5**

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
CARPENTER WOOD FRAME <i>CARPENTERS-ZONE 3 (Wood Frame)</i>	10/01/2023	\$25.55	\$7.02	\$4.80	\$0.00	\$37.37
	10/01/2024	\$26.65	\$7.02	\$4.80	\$0.00	\$38.47
	10/01/2025	\$27.75	\$7.02	\$4.80	\$0.00	\$39.57
	10/01/2026	\$28.85	\$7.02	\$4.80	\$0.00	\$40.67

All Aspects of New Wood Frame Work

**Apprentice - CARPENTER (Wood Frame) - Zone 3**

**Effective Date - 10/01/2023**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	60	\$15.33	\$7.02	\$0.00	\$0.00	\$22.35
2	60	\$15.33	\$7.02	\$0.00	\$0.00	\$22.35
3	65	\$16.61	\$7.02	\$1.00	\$0.00	\$24.63
4	70	\$17.89	\$7.02	\$1.00	\$0.00	\$25.91
5	75	\$19.16	\$7.02	\$4.80	\$0.00	\$30.98
6	80	\$20.44	\$7.02	\$4.80	\$0.00	\$32.26
7	85	\$21.72	\$7.02	\$4.80	\$0.00	\$33.54
8	90	\$23.00	\$7.02	\$4.80	\$0.00	\$34.82

**Effective Date - 10/01/2024**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	60	\$15.99	\$7.02	\$0.00	\$0.00	\$23.01
2	60	\$15.99	\$7.02	\$0.00	\$0.00	\$23.01
3	65	\$17.32	\$7.02	\$1.00	\$0.00	\$25.34
4	70	\$18.66	\$7.02	\$1.00	\$0.00	\$26.68
5	75	\$19.99	\$7.02	\$4.80	\$0.00	\$31.81
6	80	\$21.32	\$7.02	\$4.80	\$0.00	\$33.14
7	85	\$22.65	\$7.02	\$4.80	\$0.00	\$34.47
8	90	\$23.99	\$7.02	\$4.80	\$0.00	\$35.81

**Notes:**

% Indentured After 10/1/17; 45/45/55/55/70/70/80/80  
Step 1&2 \$18.52/ 3&4 \$21.07/ 5&6 \$28.70/ 7&8 \$31.26

**Apprentice to Journeyworker Ratio:1:5**

CEMENT MASONRY/PLASTERING <i>BRICKLAYERS LOCAL 3 (SPRINGFIELD/PITTSFIELD)</i>	01/01/2024	\$44.68	\$12.90	\$18.66	\$1.25	\$77.49
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**Apprentice - CEMENT MASONRY/PLASTERING - Springfield/Pittsfield**

**Effective Date - 01/01/2024**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$22.34	\$12.90	\$15.86	\$0.00	\$51.10
2	60	\$26.81	\$12.90	\$18.66	\$1.25	\$59.62
3	65	\$29.04	\$12.90	\$18.66	\$1.25	\$61.85
4	70	\$31.28	\$12.90	\$18.66	\$1.25	\$64.09
5	75	\$33.51	\$12.90	\$18.66	\$1.25	\$66.32
6	80	\$35.74	\$12.90	\$18.66	\$1.25	\$68.55
7	90	\$40.21	\$12.90	\$18.66	\$1.25	\$73.02

**Notes:**  
Steps 3,4 are 500 hrs. All other steps are 1,000 hrs.

**Apprentice to Journeyworker Ratio:1:3**

<b>CHAIN SAW OPERATOR</b> <i>LABORERS - ZONE 3 (BUILDING &amp; SITE)</i> For apprentice rates see "Apprentice- LABORER"	12/01/2023	\$33.88	\$9.65	\$16.84	\$0.00	\$60.37
<b>COMPRESSOR OPERATOR</b> <i>OPERATING ENGINEERS LOCAL 98</i> For apprentice rates see "Apprentice- OPERATING ENGINEERS"	12/01/2023	\$39.03	\$13.38	\$15.15	\$0.00	\$67.56
<b>CRANE OPERATOR</b> <i>OPERATING ENGINEERS LOCAL 98</i> For apprentice rates see "Apprentice- OPERATING ENGINEERS"	12/01/2023	\$43.06	\$13.78	\$15.15	\$0.00	\$71.99
<b>DELEADER (BRIDGE)</b> <i>PAINTERS LOCAL 35 - ZONE 3</i>	01/01/2024	\$56.06	\$9.95	\$23.95	\$0.00	\$89.96
	07/01/2024	\$57.26	\$9.95	\$23.95	\$0.00	\$91.16
	01/01/2025	\$58.46	\$9.95	\$23.95	\$0.00	\$92.36

**Classification**

**Effective Date    Base Wage    Health    Pension    Supplemental Unemployment    Total Rate**

**Apprentice - PAINTER Local 35 - BRIDGES/TANKS**

**Effective Date - 01/01/2024**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$28.03	\$9.95	\$0.00	\$0.00	\$37.98
2	55	\$30.83	\$9.95	\$6.66	\$0.00	\$47.44
3	60	\$33.64	\$9.95	\$7.26	\$0.00	\$50.85
4	65	\$36.44	\$9.95	\$7.87	\$0.00	\$54.26
5	70	\$39.24	\$9.95	\$20.32	\$0.00	\$69.51
6	75	\$42.05	\$9.95	\$20.93	\$0.00	\$72.93
7	80	\$44.85	\$9.95	\$21.53	\$0.00	\$76.33
8	90	\$50.45	\$9.95	\$22.74	\$0.00	\$83.14

**Effective Date - 07/01/2024**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$28.63	\$9.95	\$0.00	\$0.00	\$38.58
2	55	\$31.49	\$9.95	\$6.66	\$0.00	\$48.10
3	60	\$34.36	\$9.95	\$7.26	\$0.00	\$51.57
4	65	\$37.22	\$9.95	\$7.87	\$0.00	\$55.04
5	70	\$40.08	\$9.95	\$20.32	\$0.00	\$70.35
6	75	\$42.95	\$9.95	\$20.93	\$0.00	\$73.83
7	80	\$45.81	\$9.95	\$21.53	\$0.00	\$77.29
8	90	\$51.53	\$9.95	\$22.74	\$0.00	\$84.22

**Notes:**  
Steps are 750 hrs.

**Apprentice to Journeyworker Ratio:1:1**

DEMO: ADZEMAN 12/01/2023 \$44.98 \$9.40 \$17.82 \$0.00 \$72.20  
LABORERS - ZONE 3 (BUILDING & SITE)

For apprentice rates see "Apprentice- LABORER"

DEMO: BACKHOE/LOADER/HAMMER OPERATOR 12/01/2023 \$45.48 \$9.65 \$18.07 \$0.00 \$73.20  
LABORERS - ZONE 3 (BUILDING & SITE)

For apprentice rates see "Apprentice- LABORER"

DEMO: BURNERS 12/01/2023 \$45.73 \$9.40 \$17.82 \$0.00 \$72.95  
LABORERS - ZONE 3 (BUILDING & SITE)

For apprentice rates see "Apprentice- LABORER"

DEMO: CONCRETE CUTTER/SAWYER 12/01/2023 \$45.48 \$9.65 \$18.07 \$0.00 \$73.20  
LABORERS - ZONE 3 (BUILDING & SITE)

For apprentice rates see "Apprentice- LABORER"

DEMO: JACKHAMMER OPERATOR 12/01/2023 \$45.73 \$9.40 \$17.82 \$0.00 \$72.95  
LABORERS - ZONE 3 (BUILDING & SITE)

For apprentice rates see "Apprentice- LABORER"

DEMO: WRECKING LABORER 12/01/2023 \$44.98 \$9.40 \$17.82 \$0.00 \$72.20  
LABORERS - ZONE 3 (BUILDING & SITE)

For apprentice rates see "Apprentice- LABORER"

DIVER 08/01/2020 \$68.70 \$9.40 \$23.12 \$0.00 \$101.22  
PILE DRIVER LOCAL 56 (ZONE 3)

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
For apprentice rates see "Apprentice- PILE DRIVER"						
DIVER TENDER <i>PILE DRIVER LOCAL 56 (ZONE 3)</i>	08/01/2020	\$49.07	\$9.40	\$23.12	\$0.00	\$81.59
For apprentice rates see "Apprentice- PILE DRIVER"						
DIVER TENDER (EFFLUENT) <i>PILE DRIVER LOCAL 56 (ZONE 3)</i>	08/01/2020	\$73.60	\$9.40	\$23.12	\$0.00	\$106.12
For apprentice rates see "Apprentice- PILE DRIVER"						
DIVER/SLURRY (EFFLUENT) <i>PILE DRIVER LOCAL 56 (ZONE 3)</i>	08/01/2020	\$103.05	\$9.40	\$23.12	\$0.00	\$135.57
For apprentice rates see "Apprentice- PILE DRIVER"						
DRAWBRIDGE OPERATOR (Construction) <i>DRAWBRIDGE - SEIU LOCAL 888</i>	07/01/2020	\$26.77	\$6.67	\$3.93	\$0.16	\$37.53
ELECTRICIAN (Including Core Drilling) <i>ELECTRICIANS LOCAL 7</i>	12/31/2023	\$49.01	\$12.75	\$14.61	\$0.00	\$76.37
	06/30/2024	\$50.01	\$13.00	\$14.86	\$0.00	\$77.87
	12/29/2024	\$51.06	\$13.25	\$15.06	\$0.00	\$79.37
	06/29/2025	\$52.16	\$13.50	\$15.21	\$0.00	\$80.87
	12/28/2025	\$53.26	\$13.75	\$15.36	\$0.00	\$82.37
	06/28/2026	\$54.41	\$14.00	\$15.46	\$0.00	\$83.87
	01/03/2027	\$55.56	\$14.25	\$15.56	\$0.00	\$85.37

**Apprentice - *ELECTRICIAN - Local 7***

**Effective Date - 12/31/2023**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	40	\$19.60	\$7.65	\$0.59	\$0.00	\$27.84
2	45	\$22.05	\$7.65	\$0.66	\$0.00	\$30.36
3	50	\$24.51	\$12.75	\$7.34	\$0.00	\$44.60
4	55	\$26.96	\$12.75	\$7.41	\$0.00	\$47.12
5	65	\$31.86	\$12.75	\$9.52	\$0.00	\$54.13
6	70	\$34.31	\$12.75	\$10.90	\$0.00	\$57.96

**Effective Date - 06/30/2024**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	40	\$20.00	\$7.80	\$0.60	\$0.00	\$28.40
2	45	\$22.50	\$7.80	\$0.68	\$0.00	\$30.98
3	50	\$25.01	\$13.00	\$7.40	\$0.00	\$45.41
4	55	\$27.51	\$13.00	\$7.48	\$0.00	\$47.99
5	65	\$32.51	\$13.00	\$9.64	\$0.00	\$55.15
6	70	\$35.01	\$13.00	\$11.06	\$0.00	\$59.07

**Notes:**

Steps 1-2 are 1000 hrs; Steps 3-6 are 1500 hrs.

**Apprentice to Journeyworker Ratio:2:3\*\*\*\***

ELEVATOR CONSTRUCTOR <i>ELEVATOR CONSTRUCTORS LOCAL 41</i>	01/01/2024	\$61.98	\$16.18	\$20.96	\$0.00	\$99.12
	01/01/2025	\$62.83	\$16.28	\$21.36	\$0.00	\$100.47
	01/01/2026	\$63.68	\$16.38	\$21.76	\$0.00	\$101.82
	01/01/2027	\$64.53	\$16.48	\$22.16	\$0.00	\$103.17

**Classification**

**Effective Date    Base Wage    Health    Pension    Supplemental Unemployment    Total Rate**

**Apprentice - ELEVATOR CONSTRUCTOR - Local 41**

**Effective Date - 01/01/2024**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$30.99	\$16.18	\$0.00	\$0.00	\$47.17
2	55	\$34.09	\$16.18	\$20.96	\$0.00	\$71.23
3	65	\$40.29	\$16.18	\$20.96	\$0.00	\$77.43
4	70	\$43.39	\$16.18	\$20.96	\$0.00	\$80.53
5	80	\$49.58	\$16.18	\$20.96	\$0.00	\$86.72

**Effective Date - 01/01/2025**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$31.42	\$16.28	\$0.00	\$0.00	\$47.70
2	55	\$34.56	\$16.28	\$21.36	\$0.00	\$72.20
3	65	\$40.84	\$16.28	\$21.36	\$0.00	\$78.48
4	70	\$43.98	\$16.28	\$21.36	\$0.00	\$81.62
5	80	\$50.26	\$16.28	\$21.36	\$0.00	\$87.90

**Notes:**

Steps 1-2 are 6 mos.; Steps 3-5 are 1 year

**Apprentice to Journeyworker Ratio:1:1**

ELEVATOR CONSTRUCTOR HELPER <i>ELEVATOR CONSTRUCTORS LOCAL 41</i>	01/01/2024	\$43.39	\$16.18	\$20.96	\$0.00	\$80.53
	01/01/2025	\$43.98	\$16.28	\$21.36	\$0.00	\$81.62
	01/01/2026	\$44.58	\$16.38	\$21.76	\$0.00	\$82.72
	01/01/2027	\$45.17	\$16.48	\$22.16	\$0.00	\$83.81

For apprentice rates see "Apprentice - ELEVATOR CONSTRUCTOR"

FENCE & GUARD RAIL ERECTOR (HEAVY & HIGHWAY) <i>LABORERS - ZONE 3 (HEAVY &amp; HIGHWAY)</i>	12/01/2023	\$33.88	\$9.65	\$14.78	\$0.00	\$58.31
	06/01/2024	\$35.08	\$9.65	\$14.78	\$0.00	\$59.51
	12/01/2024	\$36.28	\$9.65	\$14.78	\$0.00	\$60.71
	06/01/2025	\$37.53	\$9.65	\$14.78	\$0.00	\$61.96
	12/01/2025	\$38.77	\$9.65	\$14.78	\$0.00	\$63.20
	06/01/2026	\$40.07	\$9.65	\$14.78	\$0.00	\$64.50
	12/01/2026	\$41.36	\$9.65	\$14.78	\$0.00	\$65.79

For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"

FIELD ENG.INST/ROD-BLDG,SITE,HVY/HWY <i>OPERATING ENGINEERS LOCAL 98</i>	06/01/1999	\$18.84	\$4.80	\$4.10	\$0.00	\$27.74
FIELD ENG.PARTY CHIEF:BLDG,SITE,HVY/HWY <i>OPERATING ENGINEERS LOCAL 98</i>	06/01/1999	\$21.33	\$4.80	\$4.10	\$0.00	\$30.23
FIELD ENG.SURVEY CHIEF-BLDG,SITE,HVY/HWY <i>OPERATING ENGINEERS LOCAL 98</i>	06/01/1999	\$22.33	\$4.80	\$4.10	\$0.00	\$31.23

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
FIRE ALARM INSTALLER <i>ELECTRICIANS LOCAL 7</i>	12/31/2023	\$49.01	\$12.75	\$14.61	\$0.00	\$76.37
	06/30/2024	\$50.01	\$13.00	\$14.86	\$0.00	\$77.87
	12/29/2024	\$51.06	\$13.25	\$15.06	\$0.00	\$79.37
	06/29/2025	\$52.16	\$13.50	\$15.21	\$0.00	\$80.87
	12/28/2025	\$53.26	\$13.75	\$15.36	\$0.00	\$82.37
	06/28/2026	\$54.41	\$14.00	\$15.46	\$0.00	\$83.87
	01/03/2027	\$55.56	\$14.25	\$15.56	\$0.00	\$85.37
For apprentice rates see "Apprentice- ELECTRICIAN"						
FIRE ALARM REPAIR / MAINTENANCE <i>LOCAL 7</i> / COMMISSIONING <i>ELECTRICIANS</i>	12/31/2023	\$49.01	\$12.75	\$14.61	\$0.00	\$76.37
	06/30/2024	\$50.01	\$13.00	\$14.86	\$0.00	\$77.87
	12/29/2024	\$51.06	\$13.25	\$15.06	\$0.00	\$79.37
	06/29/2025	\$52.16	\$13.50	\$15.21	\$0.00	\$80.87
	12/28/2025	\$53.26	\$13.75	\$15.36	\$0.00	\$82.37
	06/28/2026	\$54.41	\$14.00	\$15.46	\$0.00	\$83.87
	01/03/2027	\$55.56	\$14.25	\$15.56	\$0.00	\$85.37
For apprentice rates see "Apprentice- TELECOMMUNICATIONS TECHNICIAN"						
FIREMAN <i>OPERATING ENGINEERS LOCAL 98</i>	12/01/2023	\$39.03	\$13.38	\$15.15	\$0.00	\$67.56

**Apprentice - OPERATING ENGINEERS - Local 98 Class 3**

**Effective Date - 12/01/2023**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	60	\$23.42	\$13.38	\$15.15	\$0.00	\$51.95
2	70	\$27.32	\$13.38	\$15.15	\$0.00	\$55.85
3	80	\$31.22	\$13.38	\$15.15	\$0.00	\$59.75
4	90	\$35.13	\$13.38	\$15.15	\$0.00	\$63.66

**Notes:**

Steps 1-2 are 1000 hrs.; Steps 3-4 are 2000 hrs.

**Apprentice to Journeyworker Ratio:1:6**

FLAGGER & SIGNALER (HEAVY & HIGHWAY) <i>LABORERS - ZONE 3 (HEAVY &amp; HIGHWAY)</i>	12/01/2023	\$25.48	\$9.65	\$14.66	\$0.00	\$49.79
	06/01/2024	\$26.51	\$9.65	\$14.66	\$0.00	\$50.82
	12/01/2024	\$26.51	\$9.65	\$14.66	\$0.00	\$50.82
	06/01/2025	\$27.59	\$9.65	\$14.66	\$0.00	\$51.90
	12/01/2025	\$27.59	\$9.65	\$14.66	\$0.00	\$51.90
	06/01/2026	\$28.71	\$9.65	\$14.66	\$0.00	\$53.02
	12/01/2026	\$28.71	\$9.65	\$14.66	\$0.00	\$53.02
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"						
FLOORCOVERER <i>FLOORCOVERERS LOCAL 2168 ZONE III</i>	03/01/2023	\$40.07	\$7.31	\$18.15	\$0.00	\$65.53

**Classification**

**Effective Date    Base Wage    Health    Pension    Supplemental Unemployment    Total Rate**

**Apprentice - FLOORCOVERER - Local 2168 Zone III**

**Effective Date - 03/01/2023**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$20.04	\$7.31	\$1.38	\$0.00	\$28.73
2	55	\$22.04	\$7.31	\$1.38	\$0.00	\$30.73
3	60	\$24.04	\$7.31	\$2.76	\$0.00	\$34.11
4	65	\$26.05	\$7.31	\$2.76	\$0.00	\$36.12
5	70	\$28.05	\$7.31	\$15.39	\$0.00	\$50.75
6	75	\$30.05	\$7.31	\$15.39	\$0.00	\$52.75
7	80	\$32.06	\$7.31	\$16.77	\$0.00	\$56.14
8	85	\$34.06	\$7.31	\$16.77	\$0.00	\$58.14

**Notes:** Steps are 750 hrs.  
 % After 10/1/17; 45/45/55/55/70/70/80/80 (1500hr Steps)  
 Step 1&2 \$26.72.24/ 3&4 \$32.11/ 5&6 \$50.75/ 7&8 \$56.14

**Apprentice to Journeyworker Ratio:1:1**

<b>FORK LIFT</b> <i>OPERATING ENGINEERS LOCAL 98</i>	12/01/2023	\$39.25	\$13.78	\$15.15	\$0.00	\$68.18
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For apprentice rates see "Apprentice- OPERATING ENGINEERS"

<b>GENERATORS/LIGHTING PLANTS</b> <i>OPERATING ENGINEERS LOCAL 98</i>	12/01/2023	\$35.80	\$13.78	\$15.15	\$0.00	\$64.73
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For apprentice rates see "Apprentice- OPERATING ENGINEERS"

<b>GLAZIER (GLASS PLANK/AIR BARRIER/INTERIOR SYSTEMS)</b> <i>GLAZIERS LOCAL 1333</i>	06/01/2020	\$39.18	\$10.80	\$10.45	\$0.00	\$60.43
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**Apprentice - GLAZIER - Local 1333**

**Effective Date - 06/01/2020**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$19.59	\$10.80	\$1.80	\$0.00	\$32.19
2	56	\$22.04	\$10.80	\$1.80	\$0.00	\$34.64
3	63	\$24.49	\$10.80	\$2.45	\$0.00	\$37.74
4	69	\$26.94	\$10.80	\$2.45	\$0.00	\$40.19
5	75	\$29.39	\$10.80	\$3.15	\$0.00	\$43.34
6	81	\$31.83	\$10.80	\$3.15	\$0.00	\$45.78
7	88	\$34.28	\$10.80	\$10.45	\$0.00	\$55.53
8	94	\$36.73	\$10.80	\$10.45	\$0.00	\$57.98

**Notes:**

**Apprentice to Journeyworker Ratio:1:3**

<b>GRADER/TRENCHING MACHINE/DERRICK</b> <i>OPERATING ENGINEERS LOCAL 98</i>	12/01/2023	\$39.56	\$13.78	\$15.15	\$0.00	\$68.49
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For apprentice rates see "Apprentice- OPERATING ENGINEERS"

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
HVAC (DUCTWORK) <i>SHEETMETAL WORKERS LOCAL 63</i>	01/01/2024	\$43.80	\$10.64	\$17.54	\$2.05	\$74.03
	07/01/2024	\$45.05	\$10.64	\$17.54	\$2.05	\$75.28
	01/01/2025	\$46.30	\$10.64	\$17.54	\$2.05	\$76.53
For apprentice rates see "Apprentice- SHEET METAL WORKER"						
HVAC (ELECTRICAL CONTROLS) <i>ELECTRICIANS LOCAL 7</i>	12/31/2023	\$49.01	\$12.75	\$14.61	\$0.00	\$76.37
	06/30/2024	\$50.01	\$13.00	\$14.86	\$0.00	\$77.87
	12/29/2024	\$51.06	\$13.25	\$15.06	\$0.00	\$79.37
	06/29/2025	\$52.16	\$13.50	\$15.21	\$0.00	\$80.87
	12/28/2025	\$53.26	\$13.75	\$15.36	\$0.00	\$82.37
	06/28/2026	\$54.41	\$14.00	\$15.46	\$0.00	\$83.87
	01/03/2027	\$55.56	\$14.25	\$15.56	\$0.00	\$85.37
For apprentice rates see "Apprentice- ELECTRICIAN"						
HVAC (TESTING AND BALANCING - AIR) <i>SHEETMETAL WORKERS LOCAL 63</i>	01/01/2024	\$43.80	\$10.64	\$17.54	\$2.05	\$74.03
	07/01/2024	\$45.05	\$10.64	\$17.54	\$2.05	\$75.28
	01/01/2025	\$46.30	\$10.64	\$17.54	\$2.05	\$76.53
For apprentice rates see "Apprentice- SHEET METAL WORKER"						
HVAC (TESTING AND BALANCING - WATER) <i>PLUMBERS &amp; PIPEFITTERS LOCAL 104</i>	09/17/2023	\$47.96	\$9.55	\$17.10	\$0.00	\$74.61
	03/17/2024	\$49.21	\$9.55	\$17.10	\$0.00	\$75.86
For apprentice rates see "Apprentice- PIPEFITTER" or "PLUMBER/PIPEFITTER"						
HVAC MECHANIC <i>PLUMBERS &amp; PIPEFITTERS LOCAL 104</i>	09/17/2023	\$47.96	\$9.55	\$17.10	\$0.00	\$74.61
	03/17/2024	\$49.21	\$9.55	\$17.10	\$0.00	\$75.86
For apprentice rates see "Apprentice- PIPEFITTER" or "PLUMBER/PIPEFITTER"						
HYDRAULIC DRILLS (HEAVY & HIGHWAY) <i>LABORERS - ZONE 3 (HEAVY &amp; HIGHWAY)</i>	12/01/2023	\$34.38	\$9.65	\$14.78	\$0.00	\$58.81
	06/01/2024	\$35.58	\$9.65	\$14.78	\$0.00	\$60.01
	12/01/2024	\$36.78	\$9.65	\$14.78	\$0.00	\$61.21
	06/01/2025	\$38.03	\$9.65	\$14.78	\$0.00	\$62.46
	12/01/2025	\$39.27	\$9.65	\$14.78	\$0.00	\$63.70
	06/01/2026	\$40.57	\$9.65	\$14.78	\$0.00	\$65.00
	12/01/2026	\$41.86	\$9.65	\$14.78	\$0.00	\$66.29
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"						
INSULATOR (PIPES & TANKS) <i>HEAT &amp; FROST INSULATORS LOCAL 6 (SPRINGFIELD)</i>	09/01/2023	\$42.80	\$14.75	\$19.61	\$0.00	\$77.16
	09/01/2024	\$45.54	\$14.75	\$19.61	\$0.00	\$79.90
	09/01/2025	\$48.27	\$14.75	\$19.61	\$0.00	\$82.63
	09/01/2026	\$51.01	\$14.75	\$19.61	\$0.00	\$85.37

**Classification**

**Effective Date   Base Wage   Health   Pension   Supplemental Unemployment   Total Rate**

**Apprentice - ASBESTOS INSULATOR (Pipes & Tanks) - Local 6 Springfield**

**Effective Date - 09/01/2023**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$21.40	\$14.75	\$14.32	\$0.00	\$50.47
2	60	\$25.68	\$14.75	\$15.37	\$0.00	\$55.80
3	70	\$29.96	\$14.75	\$16.43	\$0.00	\$61.14
4	80	\$34.24	\$14.75	\$17.49	\$0.00	\$66.48

**Effective Date - 09/01/2024**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$22.77	\$14.75	\$14.32	\$0.00	\$51.84
2	60	\$27.32	\$14.75	\$15.37	\$0.00	\$57.44
3	70	\$31.88	\$14.75	\$16.43	\$0.00	\$63.06
4	80	\$36.43	\$14.75	\$17.49	\$0.00	\$68.67

**Notes:**

Steps are 1 year

**Apprentice to Journeyworker Ratio:1:4**

IRONWORKER/WELDER	09/16/2023	\$39.81	\$8.25	\$22.70	\$0.00	\$70.76
IRONWORKERS LOCAL 7 (SPRINGFIELD AREA)	03/16/2024	\$40.66	\$8.25	\$22.70	\$0.00	\$71.61

**Apprentice - IRONWORKER - Local 7 Springfield**

**Effective Date - 09/16/2023**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	60	\$23.89	\$8.25	\$22.70	\$0.00	\$54.84
2	70	\$27.87	\$8.25	\$22.70	\$0.00	\$58.82
3	75	\$29.86	\$8.25	\$22.70	\$0.00	\$60.81
4	80	\$31.85	\$8.25	\$22.70	\$0.00	\$62.80
5	85	\$33.84	\$8.25	\$22.70	\$0.00	\$64.79
6	90	\$35.83	\$8.25	\$22.70	\$0.00	\$66.78

**Effective Date - 03/16/2024**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	60	\$24.40	\$8.25	\$22.70	\$0.00	\$55.35
2	70	\$28.46	\$8.25	\$22.70	\$0.00	\$59.41
3	75	\$30.50	\$8.25	\$22.70	\$0.00	\$61.45
4	80	\$32.53	\$8.25	\$22.70	\$0.00	\$63.48
5	85	\$34.56	\$8.25	\$22.70	\$0.00	\$65.51
6	90	\$36.59	\$8.25	\$22.70	\$0.00	\$67.54

**Notes:**

**Apprentice to Journeyworker Ratio:1:4**



Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
JACKHAMMER & PAVING BREAKER OPERATOR <i>LABORERS - ZONE 3 (BUILDING &amp; SITE)</i>	12/01/2023	\$33.88	\$9.65	\$16.84	\$0.00	\$60.37
For apprentice rates see "Apprentice- LABORER"						
LABORER <i>LABORERS - ZONE 3 (BUILDING &amp; SITE)</i>	12/01/2023	\$33.50	\$9.65	\$16.84	\$0.00	\$59.99

**Apprentice - LABORER - Zone 3 Building & Site**

**Effective Date - 12/01/2023**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	60	\$20.10	\$9.65	\$16.84	\$0.00	\$46.59
2	70	\$23.45	\$9.65	\$16.84	\$0.00	\$49.94
3	80	\$26.80	\$9.65	\$16.84	\$0.00	\$53.29
4	90	\$30.15	\$9.65	\$16.84	\$0.00	\$56.64

Notes:

**Apprentice to Journeyworker Ratio:1:5**

LABORER (HEAVY & HIGHWAY) <i>LABORERS - ZONE 3 (HEAVY &amp; HIGHWAY)</i>	12/01/2023	\$33.63	\$9.65	\$14.78	\$0.00	\$58.06
	06/01/2024	\$34.83	\$9.65	\$14.78	\$0.00	\$59.26
	12/01/2024	\$36.03	\$9.65	\$14.78	\$0.00	\$60.46
	06/01/2025	\$37.28	\$9.65	\$14.78	\$0.00	\$61.71
	12/01/2025	\$38.52	\$9.65	\$14.78	\$0.00	\$62.95
	06/01/2026	\$39.82	\$9.65	\$14.78	\$0.00	\$64.25
	12/01/2026	\$41.11	\$9.65	\$14.78	\$0.00	\$65.54

**Apprentice - LABORER (Heavy & Highway) - Zone 3**

**Effective Date - 12/01/2023**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	60	\$20.18	\$9.65	\$14.78	\$0.00	\$44.61
2	70	\$23.54	\$9.65	\$14.78	\$0.00	\$47.97
3	80	\$26.90	\$9.65	\$14.78	\$0.00	\$51.33
4	90	\$30.27	\$9.65	\$14.78	\$0.00	\$54.70

**Effective Date - 06/01/2024**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	60	\$20.90	\$9.65	\$14.78	\$0.00	\$45.33
2	70	\$24.38	\$9.65	\$14.78	\$0.00	\$48.81
3	80	\$27.86	\$9.65	\$14.78	\$0.00	\$52.29
4	90	\$31.35	\$9.65	\$14.78	\$0.00	\$55.78

Notes:

**Apprentice to Journeyworker Ratio:1:5**

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
LABORER: CARPENTER TENDER <i>LABORERS - ZONE 3 (BUILDING &amp; SITE)</i>	12/01/2023	\$33.50	\$9.65	\$16.84	\$0.00	\$59.99
For apprentice rates see "Apprentice- LABORER"						
LABORER: CEMENT FINISHER TENDER <i>LABORERS - ZONE 3 (BUILDING &amp; SITE)</i>	12/01/2023	\$34.13	\$9.40	\$16.59	\$0.00	\$60.12
For apprentice rates see "Apprentice- LABORER"						
LABORER: HAZARDOUS WASTE/ASBESTOS REMOVER <i>LABORERS - ZONE 3 (BUILDING &amp; SITE)</i>	12/01/2023	\$33.60	\$9.65	\$16.97	\$0.00	\$60.22
For apprentice rates see "Apprentice- LABORER"						
LABORER: MASON TENDER <i>LABORERS - ZONE 3 (BUILDING &amp; SITE)</i>	12/01/2023	\$34.63	\$9.65	\$16.84	\$0.00	\$61.12
For apprentice rates see "Apprentice- LABORER"						
LABORER: MASON TENDER (HEAVY & HIGHWAY) <i>LABORERS - ZONE 3 (HEAVY &amp; HIGHWAY)</i>	12/01/2023	\$33.88	\$9.65	\$14.78	\$0.00	\$58.31
	06/01/2024	\$35.08	\$9.65	\$14.78	\$0.00	\$59.51
	12/01/2024	\$36.28	\$9.65	\$14.78	\$0.00	\$60.71
	06/01/2025	\$37.53	\$9.65	\$14.78	\$0.00	\$61.96
	12/01/2025	\$38.77	\$9.65	\$14.78	\$0.00	\$63.20
	06/01/2026	\$40.07	\$9.65	\$14.78	\$0.00	\$64.50
	12/01/2026	\$41.36	\$9.65	\$14.78	\$0.00	\$65.79
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"						
LABORER: MULTI-TRADE TENDER <i>LABORERS - ZONE 3 (BUILDING &amp; SITE)</i>	12/01/2023	\$33.50	\$9.65	\$16.84	\$0.00	\$59.99
For apprentice rates see "Apprentice- LABORER"						
LABORER: TREE REMOVER <i>LABORERS - ZONE 3 (BUILDING &amp; SITE)</i>	12/01/2023	\$33.50	\$9.65	\$16.84	\$0.00	\$59.99
This classification applies to the removal of standing trees, and the trimming and removal of branches and limbs when related to public works construction or site clearance incidental to construction . For apprentice rates see "Apprentice- LABORER"						
LASER BEAM OPERATOR <i>LABORERS - ZONE 3 (BUILDING &amp; SITE)</i>	12/01/2023	\$33.88	\$9.65	\$16.84	\$0.00	\$60.37
For apprentice rates see "Apprentice- LABORER"						
LASER BEAM OPERATOR (HEAVY & HIGHWAY) <i>LABORERS - ZONE 3 (HEAVY &amp; HIGHWAY)</i>	12/01/2023	\$33.88	\$9.65	\$14.78	\$0.00	\$58.31
	06/01/2024	\$35.08	\$9.65	\$14.78	\$0.00	\$59.51
	12/01/2024	\$36.28	\$9.65	\$14.78	\$0.00	\$60.71
	06/01/2025	\$37.53	\$9.65	\$14.78	\$0.00	\$61.96
	12/01/2025	\$38.77	\$9.65	\$14.78	\$0.00	\$63.20
	06/01/2026	\$40.07	\$9.65	\$14.78	\$0.00	\$64.50
	12/01/2026	\$41.36	\$9.65	\$14.78	\$0.00	\$65.79
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"						
MARBLE & TILE FINISHERS <i>BRICKLAYERS LOCAL 3 (SPR/PITT) - MARBLE &amp; TILE</i>	02/01/2024	\$41.37	\$11.49	\$20.53	\$0.00	\$73.39
	08/01/2024	\$43.05	\$11.49	\$20.53	\$0.00	\$75.07
	02/01/2025	\$44.90	\$11.49	\$20.53	\$0.00	\$76.92
	08/01/2025	\$45.81	\$11.49	\$20.53	\$0.00	\$77.83
	02/01/2026	\$46.89	\$11.49	\$20.53	\$0.00	\$78.91
	08/01/2026	\$48.65	\$11.49	\$20.53	\$0.00	\$80.67
	02/01/2027	\$49.77	\$11.49	\$20.53	\$0.00	\$81.79



**Apprentice - MILLWRIGHT - Local 1121 Zone 3**

**Effective Date - 01/01/2024**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	55	\$22.66	\$10.08	\$5.36	\$0.00	\$38.10
2	65	\$26.78	\$10.08	\$6.34	\$0.00	\$43.20
3	75	\$30.90	\$10.08	\$18.78	\$0.00	\$59.76
4	85	\$35.02	\$10.08	\$19.76	\$0.00	\$64.86

**Effective Date - 01/06/2025**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	55	\$23.91	\$10.08	\$5.36	\$0.00	\$39.35
2	65	\$28.26	\$10.08	\$6.34	\$0.00	\$44.68
3	75	\$32.61	\$10.08	\$18.78	\$0.00	\$61.47
4	85	\$36.96	\$10.08	\$19.76	\$0.00	\$66.80

**Notes:** Step 1&2 Appr. indentured after 1/6/2020 receive no pension, but do receive annuity. (Step 1 \$5.72, Step 2 \$6.66)  
Steps are 2,000 hours

**Apprentice to Journeyworker Ratio:1:4**

<b>MORTAR MIXER</b> <i>LABORERS - ZONE 3 (BUILDING &amp; SITE)</i>  For apprentice rates see "Apprentice- LABORER"	12/01/2023	\$33.88	\$9.65	\$16.84	\$0.00	\$60.37
<b>OILER</b> <i>OPERATING ENGINEERS LOCAL 98</i>  For apprentice rates see "Apprentice- OPERATING ENGINEERS"	12/01/2023	\$35.02	\$13.78	\$15.15	\$0.00	\$63.95
<b>OTHER POWER DRIVEN EQUIPMENT - CLASS VI</b> <i>OPERATING ENGINEERS LOCAL 98</i>  For apprentice rates see "Apprentice- OPERATING ENGINEERS"	12/01/2023	\$32.74	\$13.78	\$15.15	\$0.00	\$61.67
<b>PAINTER (BRIDGES/TANKS)</b> <i>PAINTERS LOCAL 35 - ZONE 3</i>	01/01/2024	\$56.06	\$9.95	\$23.95	\$0.00	\$89.96
	07/01/2024	\$57.26	\$9.95	\$23.95	\$0.00	\$91.16
	01/01/2025	\$58.46	\$9.95	\$23.95	\$0.00	\$92.36

**Classification**

**Effective Date    Base Wage    Health    Pension    Supplemental Unemployment    Total Rate**

**Apprentice - PAINTER Local 35 - BRIDGES/TANKS**

**Effective Date - 01/01/2024**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$28.03	\$9.95	\$0.00	\$0.00	\$37.98
2	55	\$30.83	\$9.95	\$6.66	\$0.00	\$47.44
3	60	\$33.64	\$9.95	\$7.26	\$0.00	\$50.85
4	65	\$36.44	\$9.95	\$7.87	\$0.00	\$54.26
5	70	\$39.24	\$9.95	\$20.32	\$0.00	\$69.51
6	75	\$42.05	\$9.95	\$20.93	\$0.00	\$72.93
7	80	\$44.85	\$9.95	\$21.53	\$0.00	\$76.33
8	90	\$50.45	\$9.95	\$22.74	\$0.00	\$83.14

**Effective Date - 07/01/2024**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$28.63	\$9.95	\$0.00	\$0.00	\$38.58
2	55	\$31.49	\$9.95	\$6.66	\$0.00	\$48.10
3	60	\$34.36	\$9.95	\$7.26	\$0.00	\$51.57
4	65	\$37.22	\$9.95	\$7.87	\$0.00	\$55.04
5	70	\$40.08	\$9.95	\$20.32	\$0.00	\$70.35
6	75	\$42.95	\$9.95	\$20.93	\$0.00	\$73.83
7	80	\$45.81	\$9.95	\$21.53	\$0.00	\$77.29
8	90	\$51.53	\$9.95	\$22.74	\$0.00	\$84.22

**Notes:**

Steps are 750 hrs.

**Apprentice to Journeyworker Ratio:1:1**

PAINTER (SPRAY OR SANDBLAST, NEW) *	01/01/2024	\$38.83	\$9.65	\$19.90	\$0.00	\$68.38
* If 30% or more of surfaces to be painted are new construction, NEW paint rate shall be used. PAINTERS LOCAL 35 - ZONE 3	07/01/2024	\$40.03	\$9.65	\$19.90	\$0.00	\$69.58
	01/01/2025	\$41.23	\$9.65	\$19.90	\$0.00	\$70.78

**Classification**

**Effective Date    Base Wage    Health    Pension    Supplemental Unemployment    Total Rate**

**Apprentice - PAINTER Local 35 Zone 3 - Spray/Sandblast - New**

**Effective Date - 01/01/2024**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$19.42	\$9.95	\$0.00	\$0.00	\$29.37
2	55	\$21.36	\$9.95	\$4.43	\$0.00	\$35.74
3	60	\$23.30	\$9.95	\$4.83	\$0.00	\$38.08
4	65	\$25.24	\$9.95	\$5.23	\$0.00	\$40.42
5	70	\$27.18	\$9.95	\$17.49	\$0.00	\$54.62
6	75	\$29.12	\$9.95	\$17.89	\$0.00	\$56.96
7	80	\$31.06	\$9.95	\$18.29	\$0.00	\$59.30
8	90	\$34.95	\$9.95	\$19.10	\$0.00	\$64.00

**Effective Date - 07/01/2024**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$20.02	\$9.95	\$0.00	\$0.00	\$29.97
2	55	\$22.02	\$9.95	\$4.43	\$0.00	\$36.40
3	60	\$24.02	\$9.95	\$4.83	\$0.00	\$38.80
4	65	\$26.02	\$9.95	\$5.23	\$0.00	\$41.20
5	70	\$28.02	\$9.95	\$17.49	\$0.00	\$55.46
6	75	\$30.02	\$9.95	\$17.89	\$0.00	\$57.86
7	80	\$32.02	\$9.95	\$18.29	\$0.00	\$60.26
8	90	\$36.03	\$9.95	\$19.10	\$0.00	\$65.08

**Notes:**

Steps are 750 hrs.

**Apprentice to Journeyworker Ratio:1:1**

PAINTER (SPRAY OR SANDBLAST, REPAINT)	01/01/2024	\$36.15	\$9.95	\$19.90	\$0.00	\$66.00
PAINTERS LOCAL 35 - ZONE 3	07/01/2024	\$37.35	\$9.95	\$19.90	\$0.00	\$67.20
	01/01/2025	\$38.55	\$9.95	\$19.90	\$0.00	\$68.40

**Classification**

**Effective Date    Base Wage    Health    Pension    Supplemental Unemployment    Total Rate**

**Apprentice - PAINTER Local 35 Zone 3 - Spray/Sandblast - Repaint**

**Effective Date - 01/01/2024**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$18.08	\$9.95	\$0.00	\$0.00	\$28.03
2	55	\$19.88	\$9.95	\$4.43	\$0.00	\$34.26
3	60	\$21.69	\$9.95	\$4.83	\$0.00	\$36.47
4	65	\$23.50	\$9.95	\$5.23	\$0.00	\$38.68
5	70	\$25.31	\$9.95	\$17.49	\$0.00	\$52.75
6	75	\$27.11	\$9.95	\$17.89	\$0.00	\$54.95
7	80	\$28.92	\$9.95	\$18.29	\$0.00	\$57.16
8	90	\$32.54	\$9.95	\$19.10	\$0.00	\$61.59

**Effective Date - 07/01/2024**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$18.68	\$9.95	\$0.00	\$0.00	\$28.63
2	55	\$20.54	\$9.95	\$4.43	\$0.00	\$34.92
3	60	\$22.41	\$9.95	\$4.83	\$0.00	\$37.19
4	65	\$24.28	\$9.95	\$5.23	\$0.00	\$39.46
5	70	\$26.15	\$9.95	\$17.49	\$0.00	\$53.59
6	75	\$28.01	\$9.95	\$17.89	\$0.00	\$55.85
7	80	\$29.88	\$9.95	\$18.29	\$0.00	\$58.12
8	90	\$33.62	\$9.95	\$19.10	\$0.00	\$62.67

**Notes:**  
Steps are 750 hrs.

**Apprentice to Journeyworker Ratio:1:1**

PAINTER / TAPER (BRUSH, NEW) *	01/01/2024	\$37.43	\$9.95	\$19.90	\$0.00	\$67.28
* If 30% or more of surfaces to be painted are new construction, NEW paint rate shall be used. PAINTERS LOCAL 35 - ZONE 3	07/01/2024	\$38.63	\$9.95	\$19.90	\$0.00	\$68.48
	01/01/2025	\$39.83	\$9.95	\$19.90	\$0.00	\$69.68

**Classification**

**Effective Date    Base Wage    Health    Pension    Supplemental Unemployment    Total Rate**

**Apprentice - PAINTER - Local 35 Zone 3 - BRUSH NEW**

**Effective Date - 01/01/2024**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$18.72	\$9.95	\$0.00	\$0.00	\$28.67
2	55	\$20.59	\$9.95	\$4.43	\$0.00	\$34.97
3	60	\$22.46	\$9.95	\$4.83	\$0.00	\$37.24
4	65	\$24.33	\$9.95	\$5.23	\$0.00	\$39.51
5	70	\$26.20	\$9.95	\$17.49	\$0.00	\$53.64
6	75	\$28.07	\$9.95	\$17.89	\$0.00	\$55.91
7	80	\$29.94	\$9.95	\$18.29	\$0.00	\$58.18
8	90	\$33.69	\$9.95	\$19.10	\$0.00	\$62.74

**Effective Date - 07/01/2024**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$19.32	\$9.95	\$0.00	\$0.00	\$29.27
2	55	\$21.25	\$9.95	\$4.43	\$0.00	\$35.63
3	60	\$23.18	\$9.95	\$4.83	\$0.00	\$37.96
4	65	\$25.11	\$9.95	\$5.23	\$0.00	\$40.29
5	70	\$27.04	\$9.95	\$17.49	\$0.00	\$54.48
6	75	\$28.97	\$9.95	\$17.89	\$0.00	\$56.81
7	80	\$30.90	\$9.95	\$18.29	\$0.00	\$59.14
8	90	\$34.77	\$9.95	\$19.10	\$0.00	\$63.82

**Notes:**

Steps are 750 hrs.

**Apprentice to Journeyworker Ratio:1:1**

PAINTER / TAPER (BRUSH, REPAINT)	01/01/2024	\$34.75	\$9.95	\$19.90	\$0.00	\$64.60
PAINTERS LOCAL 35 - ZONE 3	07/01/2024	\$35.95	\$9.95	\$19.90	\$0.00	\$65.80
	01/01/2025	\$37.15	\$9.95	\$19.90	\$0.00	\$67.00



**Classification**

**Effective Date   Base Wage   Health   Pension   Supplemental Unemployment   Total Rate**

**Apprentice - PAINTER Local 35 Zone 3 - BRUSH REPAINT**

**Effective Date - 01/01/2024**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$17.38	\$9.95	\$0.00	\$0.00	\$27.33
2	55	\$19.11	\$9.95	\$4.43	\$0.00	\$33.49
3	60	\$20.85	\$9.95	\$4.83	\$0.00	\$35.63
4	65	\$22.59	\$9.95	\$5.23	\$0.00	\$37.77
5	70	\$24.33	\$9.95	\$17.49	\$0.00	\$51.77
6	75	\$26.06	\$9.95	\$17.89	\$0.00	\$53.90
7	80	\$27.80	\$9.95	\$18.29	\$0.00	\$56.04
8	90	\$31.28	\$9.95	\$19.10	\$0.00	\$60.33

**Effective Date - 07/01/2024**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$17.98	\$9.95	\$0.00	\$0.00	\$27.93
2	55	\$19.77	\$9.95	\$4.43	\$0.00	\$34.15
3	60	\$21.57	\$9.95	\$4.83	\$0.00	\$36.35
4	65	\$23.37	\$9.95	\$5.23	\$0.00	\$38.55
5	70	\$25.17	\$9.95	\$17.49	\$0.00	\$52.61
6	75	\$26.96	\$9.95	\$17.89	\$0.00	\$54.80
7	80	\$28.76	\$9.95	\$18.29	\$0.00	\$57.00
8	90	\$32.36	\$9.95	\$19.10	\$0.00	\$61.41

**Notes:**

Steps are 750 hrs.

**Apprentice to Journeyworker Ratio:1:1**

PAINTER TRAFFIC MARKINGS (HEAVY/HIGHWAY)	12/01/2023	\$33.63	\$9.65	\$14.78	\$0.00	\$58.06
LABORERS - ZONE 3 (HEAVY & HIGHWAY)	06/01/2024	\$34.83	\$9.65	\$14.78	\$0.00	\$59.26
	12/01/2024	\$36.03	\$9.65	\$14.78	\$0.00	\$60.46
	06/01/2025	\$37.28	\$9.65	\$14.78	\$0.00	\$61.71
	12/01/2025	\$38.52	\$9.65	\$14.78	\$0.00	\$62.95
	06/01/2026	\$39.82	\$9.65	\$14.78	\$0.00	\$64.25
	12/01/2026	\$41.11	\$9.65	\$14.78	\$0.00	\$65.54

For apprentice rates see "Apprentice- LABORER (Heavy and Highway)

PANEL & PICKUP TRUCKS DRIVER	01/01/2024	\$38.78	\$15.07	\$18.67	\$0.00	\$72.52
TEAMSTERS JOINT COUNCIL NO. 10 ZONE B	06/01/2024	\$39.78	\$15.07	\$18.67	\$0.00	\$73.52
	12/01/2024	\$39.78	\$15.07	\$20.17	\$0.00	\$75.02
	01/01/2025	\$39.78	\$15.57	\$20.17	\$0.00	\$75.52
	06/01/2025	\$40.78	\$15.57	\$20.17	\$0.00	\$76.52
	12/01/2025	\$40.78	\$15.57	\$21.78	\$0.00	\$78.13
	01/01/2026	\$40.78	\$16.17	\$21.78	\$0.00	\$78.73
	06/01/2026	\$41.78	\$16.17	\$21.78	\$0.00	\$79.73
	12/01/2026	\$41.78	\$16.17	\$23.52	\$0.00	\$81.47
	01/01/2027	\$41.78	\$16.77	\$23.52	\$0.00	\$82.07

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
PIER AND DOCK CONSTRUCTOR (UNDERPINNING AND DECK) <i>PILE DRIVER LOCAL 56 (ZONE 3)</i> For apprentice rates see "Apprentice- PILE DRIVER"	08/01/2020	\$43.53	\$9.40	\$23.12	\$0.00	\$76.05
PILE DRIVER <i>PILE DRIVER LOCAL 56 (ZONE 3)</i>	08/01/2020	\$43.53	\$9.40	\$23.12	\$0.00	\$76.05

**Apprentice - PILE DRIVER - Local 56 Zone 3**

**Effective Date - 08/01/2020**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00

**Notes:** Apprentice wages shall be no less than the following Steps;  
(Same as set in Zone 1)  
1\$57.06/2\$61.96/3\$66.87/4\$69.32/5\$71.78/6\$71.78/7\$76.68/8\$76.68

**Apprentice to Journeyworker Ratio:1:5**

PIPELAYER <i>LABORERS - ZONE 3 (BUILDING &amp; SITE)</i> For apprentice rates see "Apprentice- LABORER"	12/01/2023	\$33.88	\$9.65	\$16.84	\$0.00	\$60.37
PIPELAYER (HEAVY & HIGHWAY) <i>LABORERS - ZONE 3 (HEAVY &amp; HIGHWAY)</i>	12/01/2023	\$33.88	\$9.65	\$14.78	\$0.00	\$58.31
	06/01/2024	\$35.08	\$9.65	\$14.78	\$0.00	\$59.51
	12/01/2024	\$36.28	\$9.65	\$14.78	\$0.00	\$60.71
	06/01/2025	\$37.53	\$9.65	\$14.78	\$0.00	\$61.96
	12/01/2025	\$38.77	\$9.65	\$14.78	\$0.00	\$63.20
	06/01/2026	\$40.07	\$9.65	\$14.78	\$0.00	\$64.50
	12/01/2026	\$41.36	\$9.65	\$14.78	\$0.00	\$65.79
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)						
PLUMBER & PIPEFITTER <i>PLUMBERS &amp; PIPEFITTERS LOCAL 104</i>	09/17/2023	\$47.96	\$9.55	\$17.10	\$0.00	\$74.61
	03/17/2024	\$49.21	\$9.55	\$17.10	\$0.00	\$75.86

**Classification**

**Effective Date    Base Wage    Health    Pension    Supplemental Unemployment    Total Rate**

**Apprentice - PLUMBER/PIPEFITTER - Local 104**

**Effective Date - 09/17/2023**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	45	\$21.58	\$9.55	\$10.10	\$0.00	\$41.23
2	50	\$23.98	\$9.55	\$10.10	\$0.00	\$43.63
3	55	\$26.38	\$9.55	\$10.10	\$0.00	\$46.03
4	60	\$28.78	\$9.55	\$10.10	\$0.00	\$48.43
5	65	\$31.17	\$9.55	\$10.10	\$0.00	\$50.82
6	70	\$33.57	\$9.55	\$10.10	\$0.00	\$53.22
7	75	\$35.97	\$9.55	\$10.10	\$0.00	\$55.62
8	80	\$38.37	\$9.55	\$10.10	\$0.00	\$58.02
9	80	\$38.37	\$9.55	\$17.10	\$0.00	\$65.02
10	80	\$38.37	\$9.55	\$17.10	\$0.00	\$65.02

**Effective Date - 03/17/2024**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	45	\$22.14	\$9.55	\$10.10	\$0.00	\$41.79
2	50	\$24.61	\$9.55	\$10.10	\$0.00	\$44.26
3	55	\$27.07	\$9.55	\$10.10	\$0.00	\$46.72
4	60	\$29.53	\$9.55	\$10.10	\$0.00	\$49.18
5	65	\$31.99	\$9.55	\$10.10	\$0.00	\$51.64
6	70	\$34.45	\$9.55	\$10.10	\$0.00	\$54.10
7	75	\$36.91	\$9.55	\$10.10	\$0.00	\$56.56
8	80	\$39.37	\$9.55	\$10.10	\$0.00	\$59.02
9	80	\$39.37	\$9.55	\$17.10	\$0.00	\$66.02
10	80	\$39.37	\$9.55	\$17.10	\$0.00	\$66.02

**Notes: \*\*1:1,2:5,3:9,4:12**

**Apprentice to Journeyworker Ratio:\*\***

PNEUMATIC CONTROLS (TEMP.) PLUMBERS & PIPEFITTERS LOCAL 104	09/17/2023	\$47.96	\$9.55	\$17.10	\$0.00	\$74.61
	03/17/2024	\$49.21	\$9.55	\$17.10	\$0.00	\$75.86

For apprentice rates see "Apprentice- PIPEFITTER" or "PLUMBER/PIPEFITTER"

PNEUMATIC DRILL/TOOL OPERATOR (HEAVY & HIGHWAY)	12/01/2023	\$33.88	\$9.65	\$14.78	\$0.00	\$58.31
LABORERS - ZONE 3 (HEAVY & HIGHWAY)	06/01/2024	\$35.08	\$9.65	\$14.78	\$0.00	\$59.51
	12/01/2024	\$36.28	\$9.65	\$14.78	\$0.00	\$60.71
	06/01/2025	\$37.53	\$9.65	\$14.78	\$0.00	\$61.96
	12/01/2025	\$38.77	\$9.65	\$14.78	\$0.00	\$63.20
	06/01/2026	\$40.07	\$9.65	\$14.78	\$0.00	\$64.50
	12/01/2026	\$41.36	\$9.65	\$14.78	\$0.00	\$65.79

For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"

POWDERMAN & BLASTER LABORERS - ZONE 3 (BUILDING & SITE)	12/01/2023	\$35.13	\$9.40	\$16.59	\$0.00	\$61.12
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For apprentice rates see "Apprentice- LABORER"

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
POWDERMAN & BLASTER (HEAVY & HIGHWAY) <i>LABORERS - ZONE 3 (HEAVY &amp; HIGHWAY)</i>	12/01/2023	\$34.63	\$9.65	\$14.78	\$0.00	\$59.06
	06/01/2024	\$35.83	\$9.65	\$14.78	\$0.00	\$60.26
	12/01/2024	\$37.03	\$9.65	\$14.78	\$0.00	\$61.46
	06/01/2025	\$38.28	\$9.65	\$14.78	\$0.00	\$62.71
	12/01/2025	\$39.52	\$9.65	\$14.78	\$0.00	\$63.95
	06/01/2026	\$40.82	\$9.65	\$14.78	\$0.00	\$65.25
	12/01/2026	\$42.11	\$9.65	\$14.78	\$0.00	\$66.54
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)						
PUMP OPERATOR (CONCRETE) <i>OPERATING ENGINEERS LOCAL 98</i>	12/01/2023	\$39.56	\$13.78	\$15.15	\$0.00	\$68.49
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
PUMP OPERATOR (DEWATERING, OTHER) <i>OPERATING ENGINEERS LOCAL 98</i>	12/01/2023	\$39.03	\$13.38	\$15.15	\$0.00	\$67.56
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
READY-MIX CONCRETE DRIVER <i>TEAMSTERS 404 - Construction Service (Northampton)</i>	05/01/2020	\$22.44	\$11.07	\$6.50	\$0.00	\$40.01
RIDE-ON MOTORIZED BUGGY OPERATOR <i>LABORERS - ZONE 3 (BUILDING &amp; SITE)</i>	12/01/2023	\$33.88	\$9.65	\$16.84	\$0.00	\$60.37
For apprentice rates see "Apprentice- LABORER"						
ROLLER OPERATOR <i>OPERATING ENGINEERS LOCAL 98</i>	12/01/2023	\$38.42	\$13.78	\$15.15	\$0.00	\$67.35
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
ROOFER (Coal tar pitch) <i>ROOFERS LOCAL 248</i>	07/16/2023	\$38.91	\$10.35	\$18.00	\$0.00	\$67.26
For apprentice rates see "Apprentice- ROOFER"						
ROOFER (Inc.Roofing Waterproofing &Roofing Damproofg) <i>ROOFERS LOCAL 248</i>	07/16/2023	\$38.41	\$10.35	\$18.00	\$0.00	\$66.76

**Apprentice - ROOFER - Local 248**

**Effective Date - 07/16/2023**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	60	\$23.05	\$10.35	\$0.00	\$0.00	\$33.40
2	65	\$24.97	\$10.35	\$18.00	\$0.00	\$53.32
3	70	\$26.89	\$10.35	\$18.00	\$0.00	\$55.24
4	75	\$28.81	\$10.35	\$18.00	\$0.00	\$57.16
5	80	\$30.73	\$10.35	\$18.00	\$0.00	\$59.08
6	85	\$32.65	\$10.35	\$18.00	\$0.00	\$61.00
7	90	\$34.57	\$10.35	\$18.00	\$0.00	\$62.92
8	95	\$36.49	\$10.35	\$18.00	\$0.00	\$64.84

**Notes:**

Steps are 750 hrs.Roofing(Tear Off)1:1; Same as above

**Apprentice to Journeyworker Ratio:1:3**

ROOFER SLATE / TILE / PRECAST CONCRETE <i>ROOFERS LOCAL 248</i>	07/16/2023	\$38.91	\$10.35	\$18.00	\$0.00	\$67.26
For apprentice rates see "Apprentice- ROOFER"						

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
SCRAPER <i>OPERATING ENGINEERS LOCAL 98</i>	12/01/2023	\$39.03	\$13.38	\$15.15	\$0.00	\$67.56
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
SELF-POWERED ROLLERS AND COMPACTORS (TAMPERS) <i>OPERATING ENGINEERS LOCAL 98</i>	12/01/2023	\$38.42	\$13.78	\$15.15	\$0.00	\$67.35
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
SELF-PROPELLED POWER BROOM <i>OPERATING ENGINEERS LOCAL 98</i>	12/01/2023	\$35.80	\$13.78	\$15.15	\$0.00	\$64.73
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
SHEETMETAL WORKER <i>SHEETMETAL WORKERS LOCAL 63</i>	01/01/2024	\$43.80	\$10.64	\$17.54	\$2.05	\$74.03
	07/01/2024	\$45.05	\$10.64	\$17.54	\$2.05	\$75.28
	01/01/2025	\$46.30	\$10.64	\$17.54	\$2.05	\$76.53

**Apprentice - SHEET METAL WORKER - Local 63**

**Effective Date - 01/01/2024**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	45	\$19.71	\$4.79	\$4.76	\$0.92	\$30.18
2	50	\$21.90	\$5.32	\$5.29	\$1.03	\$33.54
3	55	\$24.09	\$5.85	\$5.82	\$1.13	\$36.89
4	60	\$26.28	\$6.38	\$6.35	\$1.23	\$40.24
5	65	\$28.47	\$6.92	\$6.88	\$1.33	\$43.60
6	70	\$30.66	\$7.45	\$7.41	\$1.44	\$46.96
7	75	\$32.85	\$7.98	\$7.94	\$1.54	\$50.31
8	80	\$35.04	\$8.51	\$15.42	\$1.64	\$60.61
9	85	\$37.23	\$9.04	\$15.95	\$1.74	\$63.96
10	90	\$39.42	\$9.58	\$16.48	\$1.85	\$67.33

**Effective Date - 07/01/2024**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	45	\$20.27	\$4.79	\$4.76	\$0.92	\$30.74
2	50	\$22.53	\$5.32	\$5.29	\$1.03	\$34.17
3	55	\$24.78	\$5.85	\$5.82	\$1.13	\$37.58
4	60	\$27.03	\$6.38	\$6.35	\$1.23	\$40.99
5	65	\$29.28	\$6.92	\$6.88	\$1.33	\$44.41
6	70	\$31.54	\$7.45	\$7.41	\$1.44	\$47.84
7	75	\$33.79	\$7.98	\$7.94	\$1.54	\$51.25
8	80	\$36.04	\$8.51	\$15.42	\$1.64	\$61.61
9	85	\$38.29	\$9.04	\$15.95	\$1.74	\$65.02
10	90	\$40.55	\$9.58	\$16.48	\$1.85	\$68.46

Notes:

Apprentice to Journeyworker Ratio:1:3

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
SPECIALIZED EARTH MOVING EQUIP < 35 TONS <i>TEAMSTERS JOINT COUNCIL NO. 10 ZONE B</i>	01/01/2024	\$39.24	\$15.07	\$18.67	\$0.00	\$72.98
	06/01/2024	\$40.24	\$15.07	\$18.67	\$0.00	\$73.98
	12/01/2024	\$40.24	\$15.07	\$20.17	\$0.00	\$75.48
	01/01/2025	\$40.24	\$15.57	\$20.17	\$0.00	\$75.98
	06/01/2025	\$41.24	\$15.57	\$20.17	\$0.00	\$76.98
	12/01/2025	\$41.24	\$15.57	\$21.78	\$0.00	\$78.59
	01/01/2026	\$41.24	\$16.17	\$21.78	\$0.00	\$79.19
	06/01/2026	\$42.24	\$16.17	\$21.78	\$0.00	\$80.19
	12/01/2026	\$42.24	\$16.17	\$23.52	\$0.00	\$81.93
	01/01/2027	\$42.24	\$16.77	\$23.52	\$0.00	\$82.53
SPECIALIZED EARTH MOVING EQUIP > 35 TONS <i>TEAMSTERS JOINT COUNCIL NO. 10 ZONE B</i>	01/01/2024	\$39.53	\$15.07	\$18.67	\$0.00	\$73.27
	06/01/2024	\$40.53	\$15.07	\$18.67	\$0.00	\$74.27
	12/01/2024	\$40.53	\$15.07	\$20.17	\$0.00	\$75.77
	01/01/2025	\$40.53	\$15.57	\$20.17	\$0.00	\$76.27
	06/01/2025	\$41.53	\$15.57	\$20.17	\$0.00	\$77.27
	12/01/2025	\$41.53	\$15.57	\$21.78	\$0.00	\$78.88
	01/01/2026	\$41.53	\$16.17	\$21.78	\$0.00	\$79.48
	06/01/2026	\$42.53	\$16.17	\$21.78	\$0.00	\$80.48
	12/01/2026	\$42.53	\$16.17	\$23.52	\$0.00	\$82.22
	01/01/2027	\$42.53	\$16.77	\$23.52	\$0.00	\$82.82
SPRINKLER FITTER <i>SPRINKLER FITTERS LOCAL 669</i>	04/01/2023	\$47.43	\$11.45	\$16.61	\$0.00	\$75.49

**Apprentice - *SPRINKLER FITTER - Local 669***

**Effective Date - 04/01/2023**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	45	\$21.34	\$8.22	\$0.00	\$0.00	\$29.56
2	50	\$23.72	\$8.22	\$0.00	\$0.00	\$31.94
3	55	\$26.09	\$11.45	\$7.20	\$0.00	\$44.74
4	60	\$28.46	\$11.45	\$8.35	\$0.00	\$48.26
5	65	\$30.83	\$11.45	\$8.35	\$0.00	\$50.63
6	70	\$33.20	\$11.45	\$8.60	\$0.00	\$53.25
7	75	\$35.57	\$11.45	\$8.60	\$0.00	\$55.62
8	80	\$37.94	\$11.45	\$8.60	\$0.00	\$57.99
9	85	\$40.32	\$11.45	\$8.60	\$0.00	\$60.37
10	90	\$42.69	\$11.45	\$8.60	\$0.00	\$62.74

**Notes:**

**Apprentice to Journeyworker Ratio:1:1**

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
TELECOMMUNICATION TECHNICIAN <i>ELECTRICIANS LOCAL 7</i>	12/31/2023	\$49.01	\$12.75	\$14.61	\$0.00	\$76.37
	06/30/2024	\$50.01	\$13.00	\$14.86	\$0.00	\$77.87
	12/29/2024	\$51.06	\$13.25	\$15.06	\$0.00	\$79.37
	06/29/2025	\$52.16	\$13.50	\$15.21	\$0.00	\$80.87
	12/28/2025	\$53.26	\$13.75	\$15.36	\$0.00	\$82.37
	06/28/2026	\$54.41	\$14.00	\$15.46	\$0.00	\$83.87
	01/03/2027	\$55.56	\$14.25	\$15.56	\$0.00	\$85.37

**Apprentice - TELECOMMUNICATION TECHNICIAN - Local 7**

**Effective Date - 12/31/2023**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	40	\$19.60	\$7.05	\$0.59	\$0.00	\$27.24
2	45	\$22.05	\$7.05	\$0.66	\$0.00	\$29.76
3	50	\$24.51	\$12.75	\$7.34	\$0.00	\$44.60
4	55	\$26.96	\$12.75	\$7.41	\$0.00	\$47.12
5	65	\$31.86	\$12.75	\$9.52	\$0.00	\$54.13
6	70	\$34.31	\$12.75	\$10.90	\$0.00	\$57.96

**Effective Date - 06/30/2024**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	40	\$20.00	\$7.20	\$0.60	\$0.00	\$27.80
2	45	\$22.50	\$7.20	\$0.68	\$0.00	\$30.38
3	50	\$25.01	\$13.00	\$7.40	\$0.00	\$45.41
4	55	\$27.51	\$13.00	\$7.48	\$0.00	\$47.99
5	65	\$32.51	\$13.00	\$9.64	\$0.00	\$55.15
6	70	\$35.01	\$13.00	\$11.06	\$0.00	\$59.07

**Notes:**

Steps are 800 hours

**Apprentice to Journeyworker Ratio:1:1**

TERRAZZO FINISHERS <i>BRICKLAYERS LOCAL 3 (SPR/PITT) - MARBLE &amp; TILE</i>	02/01/2024	\$61.34	\$11.49	\$23.59	\$0.00	\$96.42
	08/01/2024	\$63.44	\$11.49	\$23.59	\$0.00	\$98.52
	02/01/2025	\$64.74	\$11.49	\$23.59	\$0.00	\$99.82
	08/01/2025	\$66.89	\$11.49	\$23.59	\$0.00	\$101.97
	02/10/2026	\$68.24	\$11.49	\$23.59	\$0.00	\$103.32
	08/01/2026	\$70.44	\$11.49	\$23.59	\$0.00	\$105.52
	02/01/2027	\$71.84	\$11.49	\$23.59	\$0.00	\$106.92

**Classification**

**Effective Date    Base Wage    Health    Pension    Supplemental Unemployment    Total Rate**

**Apprentice - TERRAZZO FINISHER-Local 3 Marble/Tile (Spr/Ptt)**

**Effective Date - 02/01/2024**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$30.67	\$11.49	\$23.59	\$0.00	\$65.75
2	60	\$36.80	\$11.49	\$23.59	\$0.00	\$71.88
3	70	\$42.94	\$11.49	\$23.59	\$0.00	\$78.02
4	80	\$49.07	\$11.49	\$23.59	\$0.00	\$84.15
5	90	\$55.21	\$11.49	\$23.59	\$0.00	\$90.29

**Effective Date - 08/01/2024**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$31.72	\$11.49	\$23.59	\$0.00	\$66.80
2	60	\$38.06	\$11.49	\$23.59	\$0.00	\$73.14
3	70	\$44.41	\$11.49	\$23.59	\$0.00	\$79.49
4	80	\$50.75	\$11.49	\$23.59	\$0.00	\$85.83
5	90	\$57.10	\$11.49	\$23.59	\$0.00	\$92.18

**Notes:**

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**Apprentice to Journeyworker Ratio:1:5**

TERRAZZO MECHANIC	02/01/2024	\$62.42	\$11.49	\$23.56	\$0.00	\$97.47
BRICKLAYERS LOCAL 3 (SPR/PITT) - MARBLE & TILE	08/01/2024	\$64.52	\$11.49	\$23.56	\$0.00	\$99.57
	02/01/2025	\$65.82	\$11.49	\$23.56	\$0.00	\$100.87
	08/01/2025	\$67.97	\$11.49	\$23.56	\$0.00	\$103.02
	02/01/2026	\$69.32	\$11.49	\$23.56	\$0.00	\$104.37
	08/01/2026	\$71.52	\$11.49	\$23.56	\$0.00	\$106.57
	02/01/2027	\$72.92	\$11.49	\$23.56	\$0.00	\$107.97



**Classification**

**Effective Date    Base Wage    Health    Pension    Supplemental Unemployment    Total Rate**

**Apprentice - TERRAZZO MECH - Local 3 Marble/Tile (Spr/Pitt)**

**Effective Date - 02/01/2024**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$31.21	\$11.49	\$23.56	\$0.00	\$66.26
2	60	\$37.45	\$11.49	\$23.56	\$0.00	\$72.50
3	70	\$43.69	\$11.49	\$23.56	\$0.00	\$78.74
4	80	\$49.94	\$11.49	\$23.56	\$0.00	\$84.99
5	90	\$56.18	\$11.49	\$23.56	\$0.00	\$91.23

**Effective Date - 08/01/2024**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$32.26	\$11.49	\$23.56	\$0.00	\$67.31
2	60	\$38.71	\$11.49	\$23.56	\$0.00	\$73.76
3	70	\$45.16	\$11.49	\$23.56	\$0.00	\$80.21
4	80	\$51.62	\$11.49	\$23.56	\$0.00	\$86.67
5	90	\$58.07	\$11.49	\$23.56	\$0.00	\$93.12

**Notes:**

**Apprentice to Journeyworker Ratio:1:5**

<b>TEST BORING DRILLER</b> <i>LABORERS - FOUNDATION AND MARINE</i>	12/01/2023	\$48.33	\$9.65	\$18.22	\$0.00	\$76.20
	06/01/2024	\$49.81	\$9.65	\$18.22	\$0.00	\$77.68
	12/01/2024	\$51.28	\$9.65	\$18.22	\$0.00	\$79.15
	06/01/2025	\$52.78	\$9.65	\$18.22	\$0.00	\$80.65
	12/01/2025	\$54.28	\$9.65	\$18.22	\$0.00	\$82.15
	06/01/2026	\$55.83	\$9.65	\$18.22	\$0.00	\$83.70
	12/01/2026	\$57.33	\$9.65	\$18.22	\$0.00	\$85.20

For apprentice rates see "Apprentice- LABORER"

<b>TEST BORING DRILLER HELPER</b> <i>LABORERS - FOUNDATION AND MARINE</i>	12/01/2023	\$44.45	\$9.65	\$18.22	\$0.00	\$72.32
	06/01/2024	\$45.93	\$9.65	\$18.22	\$0.00	\$73.80
	12/01/2024	\$47.40	\$9.65	\$18.22	\$0.00	\$75.27
	06/01/2025	\$48.90	\$9.65	\$18.22	\$0.00	\$76.77
	12/01/2025	\$50.40	\$9.65	\$18.22	\$0.00	\$78.27
	06/01/2026	\$51.95	\$9.65	\$18.22	\$0.00	\$79.82
	12/01/2026	\$53.45	\$9.65	\$18.22	\$0.00	\$81.32

For apprentice rates see "Apprentice- LABORER"

<b>TEST BORING LABORER</b> <i>LABORERS - FOUNDATION AND MARINE</i>	12/01/2023	\$44.33	\$9.65	\$18.22	\$0.00	\$72.20
	06/01/2024	\$45.81	\$9.65	\$18.22	\$0.00	\$73.68
	12/01/2024	\$47.28	\$9.65	\$18.22	\$0.00	\$75.15
	06/01/2025	\$48.78	\$9.65	\$18.22	\$0.00	\$76.65
	12/01/2025	\$50.28	\$9.65	\$18.22	\$0.00	\$78.15
	06/01/2026	\$51.83	\$9.65	\$18.22	\$0.00	\$79.70
	12/01/2026	\$53.33	\$9.65	\$18.22	\$0.00	\$81.20

For apprentice rates see "Apprentice- LABORER"

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
TRACTORS <i>OPERATING ENGINEERS LOCAL 98</i>	12/01/2023	\$38.42	\$13.78	\$15.15	\$0.00	\$67.35
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
TRAILERS FOR EARTH MOVING EQUIPMENT <i>TEAMSTERS JOINT COUNCIL NO. 10 ZONE B</i>	01/01/2024	\$39.82	\$15.07	\$18.67	\$0.00	\$73.56
	06/01/2024	\$40.82	\$15.07	\$18.67	\$0.00	\$74.56
	12/01/2024	\$40.82	\$15.07	\$20.17	\$0.00	\$76.06
	01/01/2025	\$40.82	\$15.57	\$20.17	\$0.00	\$76.56
	06/01/2025	\$41.82	\$15.57	\$20.17	\$0.00	\$77.56
	12/01/2025	\$41.82	\$15.57	\$21.78	\$0.00	\$79.17
	01/01/2026	\$41.82	\$16.17	\$21.78	\$0.00	\$79.77
	06/01/2026	\$42.82	\$16.17	\$21.78	\$0.00	\$80.77
	12/01/2026	\$42.82	\$16.17	\$23.52	\$0.00	\$82.51
	01/01/2027	\$42.82	\$16.77	\$23.52	\$0.00	\$83.11
TUNNEL WORK - COMPRESSED AIR <i>LABORERS (COMPRESSED AIR)</i>	12/01/2023	\$56.56	\$9.65	\$18.67	\$0.00	\$84.88
	06/01/2024	\$58.04	\$9.65	\$18.67	\$0.00	\$86.36
	12/01/2024	\$59.51	\$9.65	\$18.67	\$0.00	\$87.83
	06/01/2025	\$61.01	\$9.65	\$18.67	\$0.00	\$89.33
	12/01/2025	\$62.51	\$9.65	\$18.67	\$0.00	\$90.83
	06/01/2026	\$64.06	\$9.65	\$18.67	\$0.00	\$92.38
	12/01/2026	\$65.56	\$9.65	\$18.67	\$0.00	\$93.88
For apprentice rates see "Apprentice- LABORER"						
TUNNEL WORK - COMPRESSED AIR (HAZ. WASTE) <i>LABORERS (COMPRESSED AIR)</i>	12/01/2023	\$58.56	\$9.65	\$18.67	\$0.00	\$86.88
	06/01/2024	\$60.04	\$9.65	\$18.67	\$0.00	\$88.36
	12/01/2024	\$61.51	\$9.65	\$18.67	\$0.00	\$89.83
	06/01/2025	\$63.01	\$9.65	\$18.67	\$0.00	\$91.33
	12/01/2025	\$64.51	\$9.65	\$18.67	\$0.00	\$92.83
	06/01/2026	\$66.06	\$9.65	\$18.67	\$0.00	\$94.38
	12/01/2026	\$67.56	\$9.65	\$18.67	\$0.00	\$95.88
For apprentice rates see "Apprentice- LABORER"						
TUNNEL WORK - FREE AIR <i>LABORERS (FREE AIR TUNNEL)</i>	12/01/2023	\$48.63	\$9.65	\$18.67	\$0.00	\$76.95
	06/01/2024	\$50.11	\$9.65	\$18.67	\$0.00	\$78.43
	12/01/2024	\$51.58	\$9.65	\$18.67	\$0.00	\$79.90
	06/01/2025	\$53.08	\$9.65	\$18.67	\$0.00	\$81.40
	12/01/2025	\$54.58	\$9.65	\$18.67	\$0.00	\$82.90
	06/01/2026	\$56.13	\$9.65	\$18.67	\$0.00	\$84.45
	12/01/2026	\$57.63	\$9.65	\$18.67	\$0.00	\$85.95
For apprentice rates see "Apprentice- LABORER"						
TUNNEL WORK - FREE AIR (HAZ. WASTE) <i>LABORERS (FREE AIR TUNNEL)</i>	12/01/2023	\$50.63	\$9.65	\$18.67	\$0.00	\$78.95
	06/01/2024	\$52.11	\$9.65	\$18.67	\$0.00	\$80.43
	12/01/2024	\$53.58	\$9.65	\$18.67	\$0.00	\$81.90
	06/01/2025	\$55.08	\$9.65	\$18.67	\$0.00	\$83.40
	12/01/2025	\$56.58	\$9.65	\$18.67	\$0.00	\$84.90
	06/01/2026	\$58.13	\$9.65	\$18.67	\$0.00	\$86.45
	12/01/2026	\$59.63	\$9.65	\$18.67	\$0.00	\$87.95
For apprentice rates see "Apprentice- LABORER"						

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
VAC-HAUL <i>TEAMSTERS JOINT COUNCIL NO. 10 ZONE B</i>	01/01/2024	\$39.24	\$15.07	\$18.67	\$0.00	\$72.98
	06/01/2024	\$40.24	\$15.07	\$18.67	\$0.00	\$73.98
	12/01/2024	\$40.24	\$15.07	\$20.17	\$0.00	\$75.48
	01/01/2025	\$40.24	\$15.57	\$20.17	\$0.00	\$75.98
	06/01/2025	\$41.24	\$15.57	\$20.17	\$0.00	\$76.98
	12/01/2025	\$41.24	\$15.57	\$21.78	\$0.00	\$78.59
	01/01/2026	\$41.24	\$16.17	\$21.78	\$0.00	\$79.19
	06/01/2026	\$42.24	\$16.17	\$21.78	\$0.00	\$80.19
	12/01/2026	\$42.24	\$16.17	\$23.52	\$0.00	\$81.93
	01/01/2027	\$42.24	\$16.77	\$23.52	\$0.00	\$82.53
WAGON DRILL OPERATOR <i>LABORERS - ZONE 3 (BUILDING &amp; SITE)</i>	12/01/2023	\$34.38	\$9.40	\$16.59	\$0.00	\$60.37
For apprentice rates see "Apprentice- LABORER"						
WAGON DRILL OPERATOR (HEAVY & HIGHWAY) <i>LABORERS - ZONE 3 (HEAVY &amp; HIGHWAY)</i>	12/01/2023	\$33.88	\$9.65	\$14.78	\$0.00	\$58.31
	06/01/2024	\$35.08	\$9.65	\$14.78	\$0.00	\$59.51
	12/01/2024	\$36.28	\$9.65	\$14.78	\$0.00	\$60.71
	06/01/2025	\$37.53	\$9.65	\$14.78	\$0.00	\$61.96
	12/01/2025	\$38.77	\$9.65	\$14.78	\$0.00	\$63.20
	06/01/2026	\$40.07	\$9.65	\$14.78	\$0.00	\$64.50
	12/01/2026	\$41.36	\$9.65	\$14.78	\$0.00	\$65.79
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"						
WATER METER INSTALLER <i>PLUMBERS &amp; PIPEFITTERS LOCAL 104</i>	09/17/2023	\$47.96	\$9.55	\$17.10	\$0.00	\$74.61
	03/17/2024	\$49.21	\$9.55	\$17.10	\$0.00	\$75.86
For apprentice rates see "Apprentice- PLUMBER/PIPEFITTER" or "PLUMBER/GASFITTER"						

**Additional Apprentice Information:**

Minimum wage rates for apprentices employed on public works projects are listed above as a percentage of the pre-determined hourly wage rate established by the Commissioner under the provisions of the M.G.L. c. 149, ss. 26-27D. Apprentice ratios are established by the Division of Apprenticeship Training pursuant to M.G.L. c. 23, ss. 11E-11L.

All apprentices must be registered with the Division of Apprenticeship Training in accordance with M.G.L. c. 23, ss. 11E-11L.

All steps are six months (1000 hours.)

Ratios are expressed in allowable number of apprentices to journeymen or fraction thereof, unless otherwise specified.

\*\* Multiple ratios are listed in the comment field.

\*\*\* APP to JM; 1:1, 2:2, 2:3, 3:4, 4:4, 4:5, 4:6, 5:7, 6:7, 6:8, 6:9, 7:10, 8:10, 8:11, 8:12, 9:13, 10:13, 10:14, etc.

\*\*\*\* APP to JM; 1:1, 1:2, 2:3, 2:4, 3:5, 4:6, 4:7, 5:8, 6:9, 6:10, 7:11, 8:12, 8:13, 9:14, 10:15, 10:16, etc.

APPENDIX B  
CONTRACT DRAWINGS

# BEACON FIELD BOCCE COURT CONSTRUCTION AND WATER FOUNTAIN UPGRADES

GREENFIELD, MA



**Greenfield Department of Public Works Engineering**

189 Wells Street  
Greenfield, MA 01301  
Phone: (413) 772-1528



LOCUS N.T.S.

CONTRACT #:

MAYOR  
VIRGINIA DESORGHER

DIRECTOR OF PUBLIC WORKS  
MARLO WARNER

SHEET	DRAWING
G1	COVER
C1-C6	DESIGN
D1-D2	DETAILS

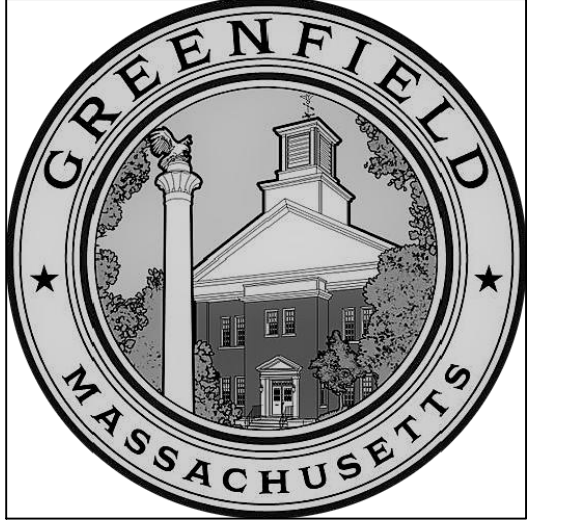
DATE	COMMENTS	REV. #

COVER

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G1

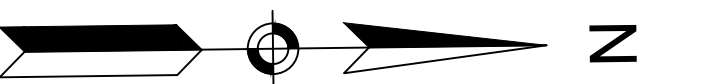
Designed by:	IH	Date:	11/22/2023	SHEET: 1 OF 9
Drawn by:	IH			
Checked by:	CM			



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REV. #	COMMENTS	DATE



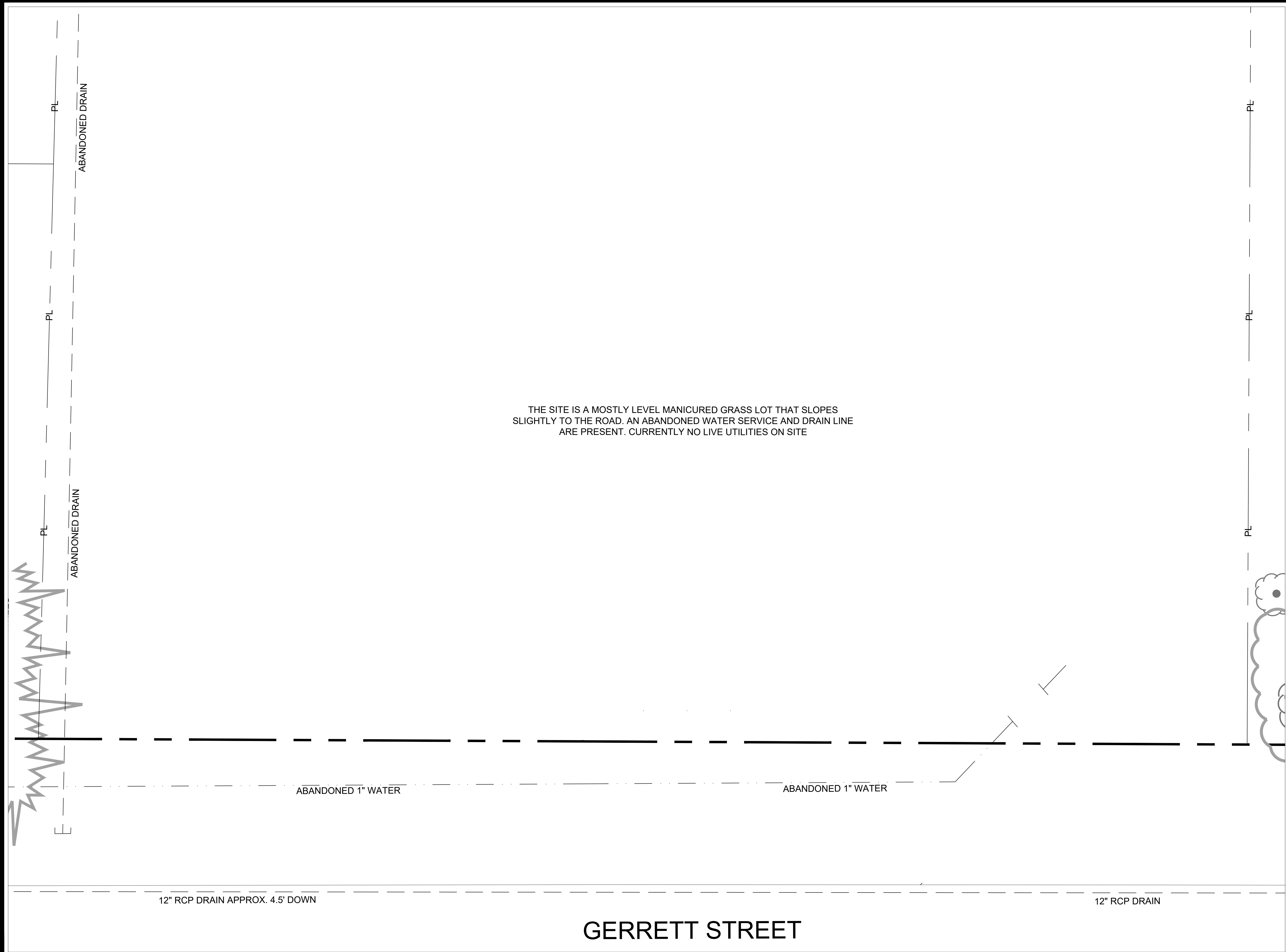
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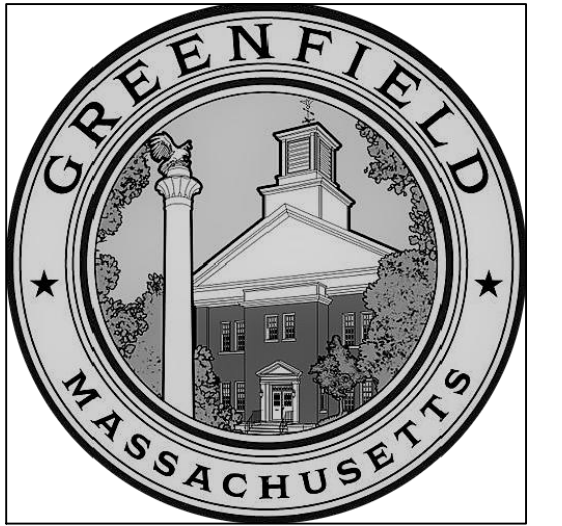
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EXISTING CONDITIONS

**C1**

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Checked by:	CM			





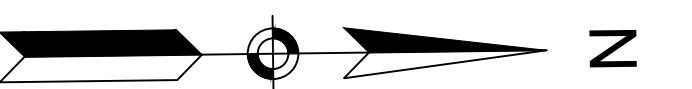
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DATE

COMMENTS

REV. #



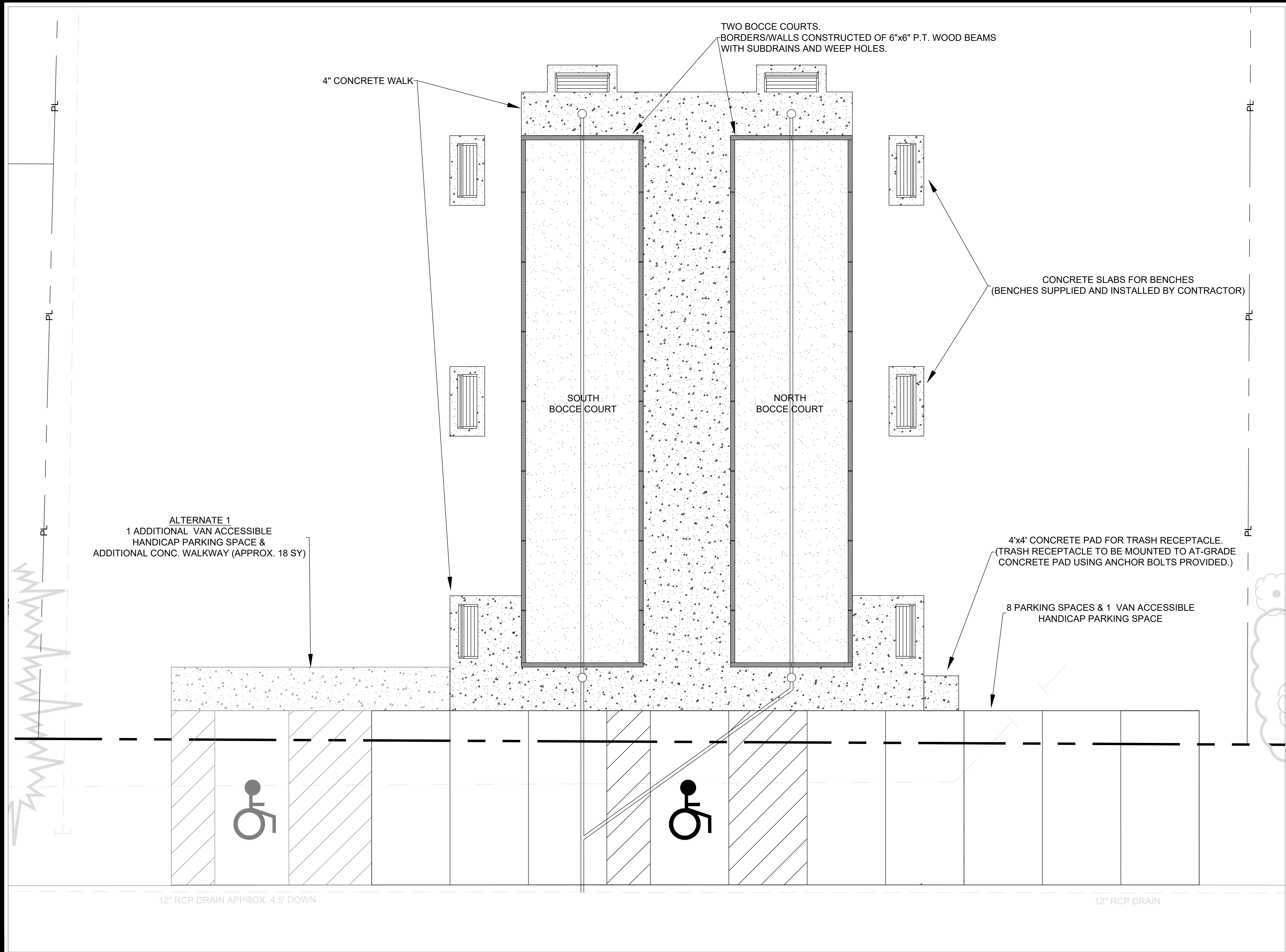
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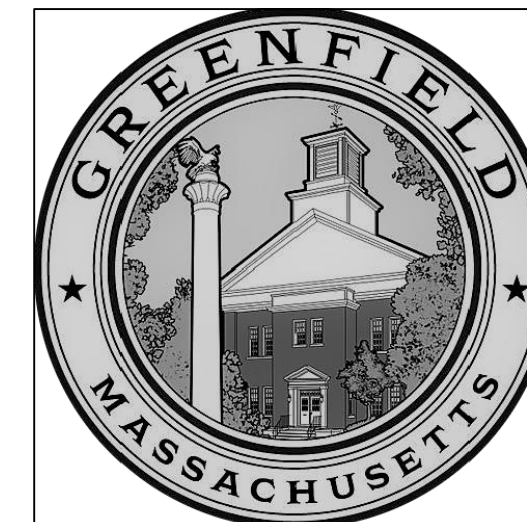
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**SITE PLAN:  
PROPOSED BOCCE COURT  
WITH PARKING**

**C2**

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Checked by:	CM			





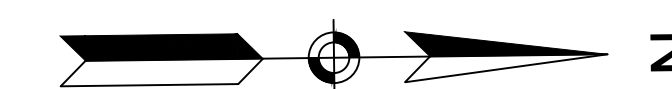
**Greenfield Department of  
Public Works  
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DATE

COMMENTS

REV.  
#



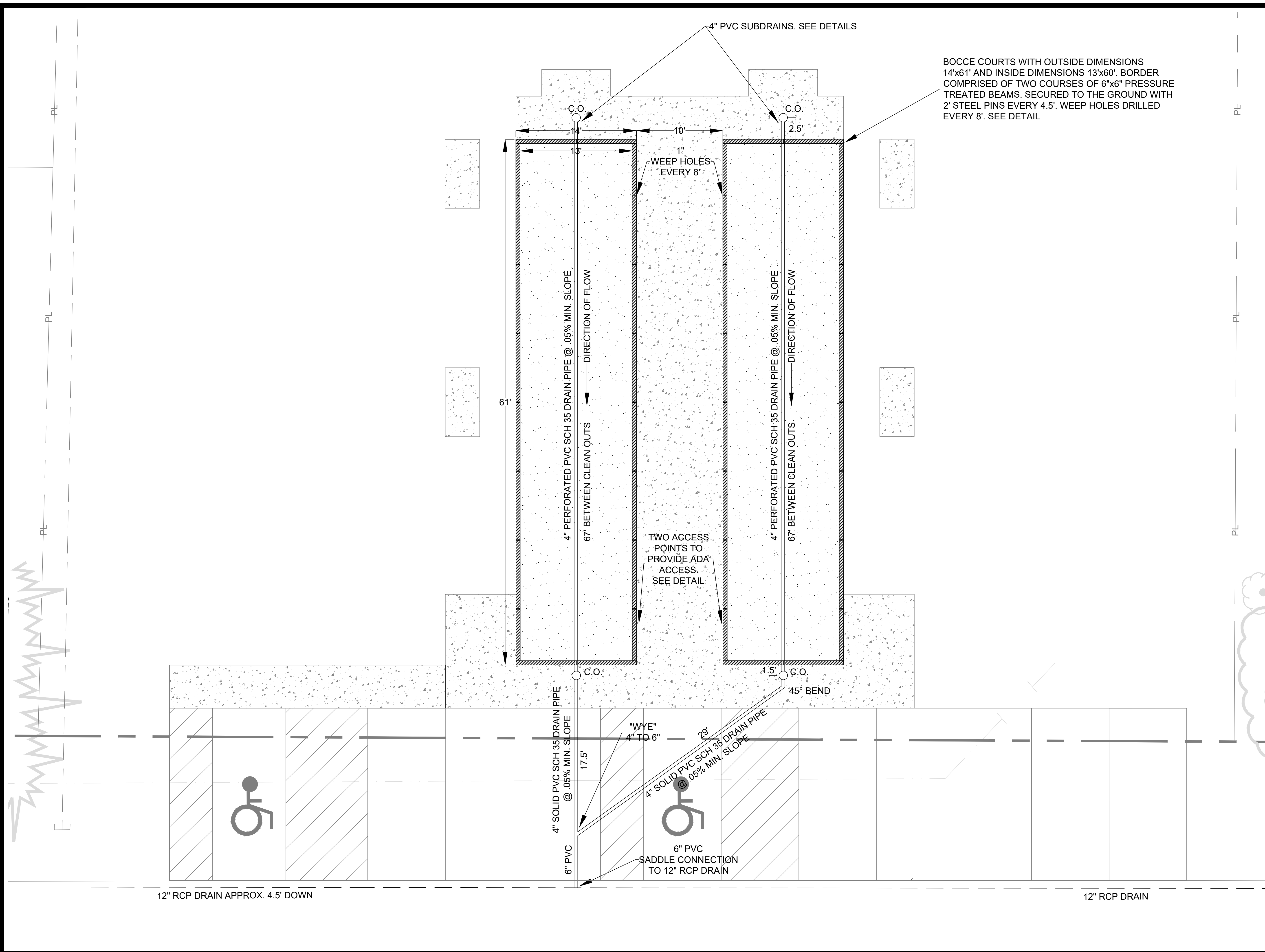
Scale 1:5

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**BOCCE COURT  
AND SUBDRAIN  
CONSTRUCTION**

**C3**

Designed by:	IH	Date:	11/22/2023	SHEET: 4 OF 9
Drawn by:	IH			
Checked by:	CM			



BOCCE COURTS WITH OUTSIDE DIMENSIONS 14'x61' AND INSIDE DIMENSIONS 13'x60'. BORDER COMPRISED OF TWO COURSES OF 6"x6" PRESSURE TREATED BEAMS. SECURED TO THE GROUND WITH 2" STEEL PINS EVERY 4.5'. WEEP HOLES DRILLED EVERY 8'. SEE DETAIL

4" PVC SUBDRAINS. SEE DETAILS

1" WEEP HOLES EVERY 8'

TWO ACCESS POINTS TO PROVIDE ADA ACCESS. SEE DETAIL

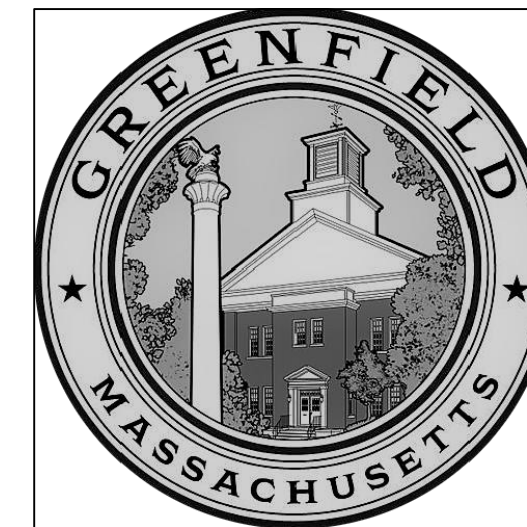
"WYE" 4" TO 6"

6" PVC SADDLE CONNECTION TO 12" RCP DRAIN

12" RCP DRAIN APPROX. 4.5' DOWN

12" RCP DRAIN

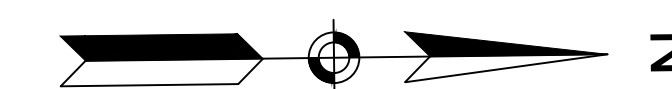




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DATE	COMMENTS	REV. #



Scale 1:5

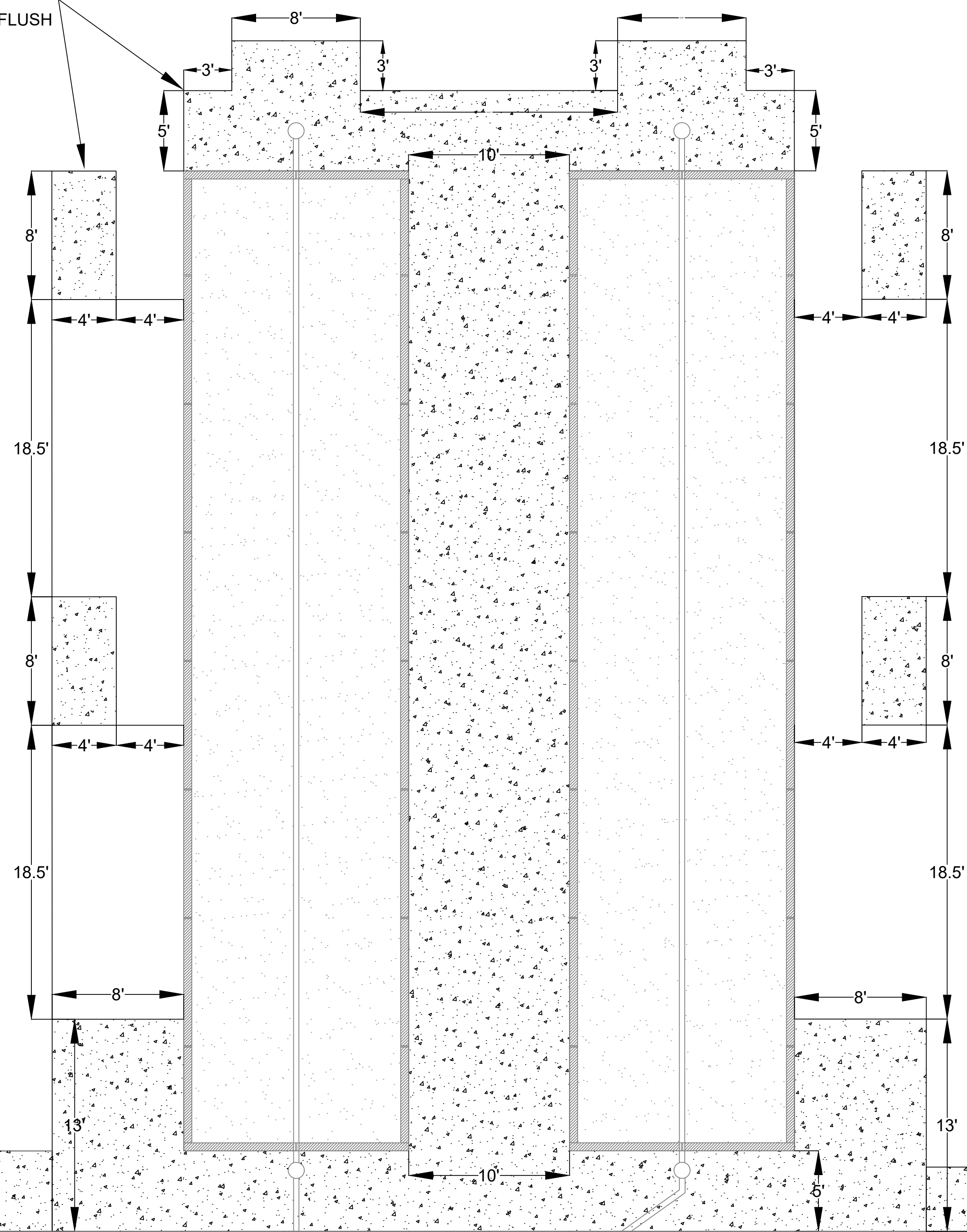
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**BOCCE COURT  
CONCRETE WALK AND  
BENCH SLABS**

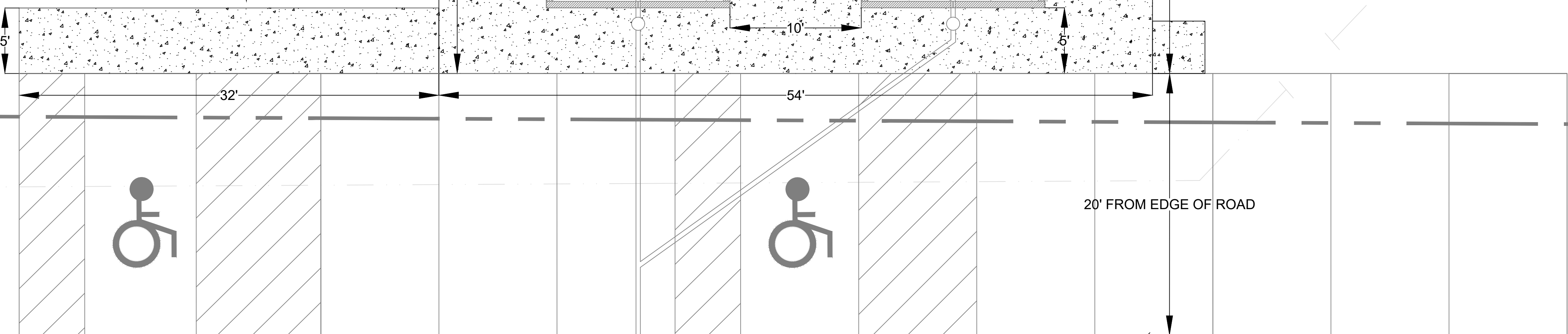
**C4**

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Checked by:	CM			

CONCRETE BENCH PADS  
AND WALKWAYS ARE TO BE 4" THICK  
WITH 6" OF GRAVEL SUB-BASE.  
TOP OF WALKS AND SLABS ARE TO BE FLUSH  
WITH THE GROUND SURFACE

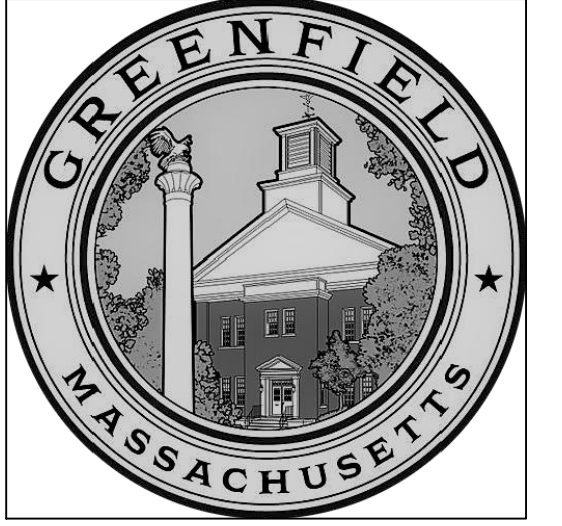


ALTERNATE 1  
ADDITIONAL 5'x32' CONC. WALKWAY (APPROX. 18 SY)



12" RCP DRAIN APPROX. 4.5' DOWN

12" RCP DRAIN



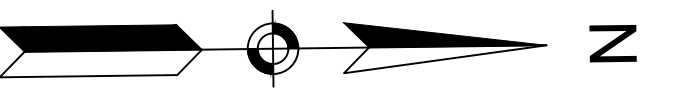
**Greenfield Department of  
Public Works  
Engineering**

189 Wells Street  
Greenfield, MA 01301  
Phone: (413) 772-1528

DATE

COMMENTS

REV.  
#



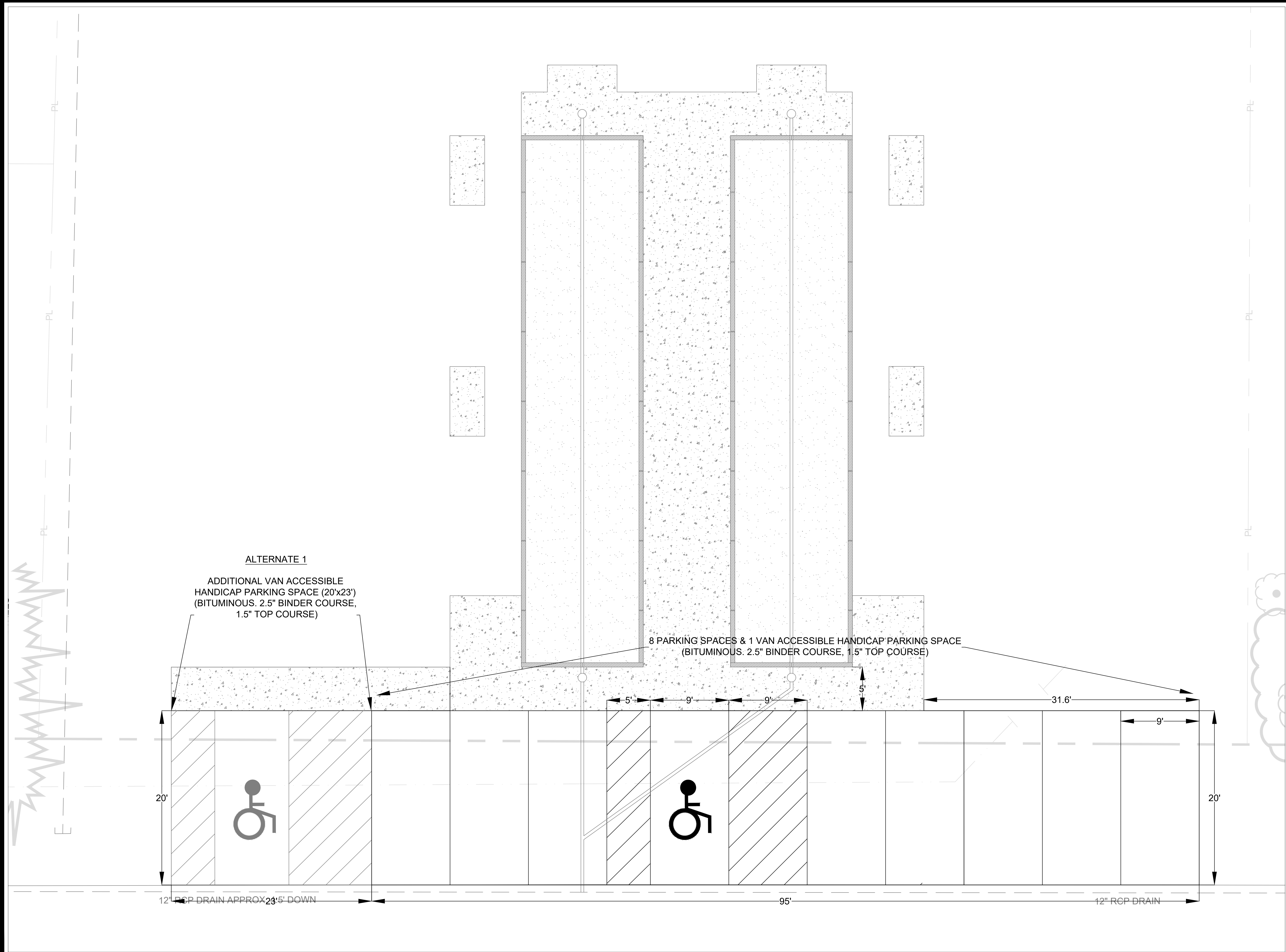
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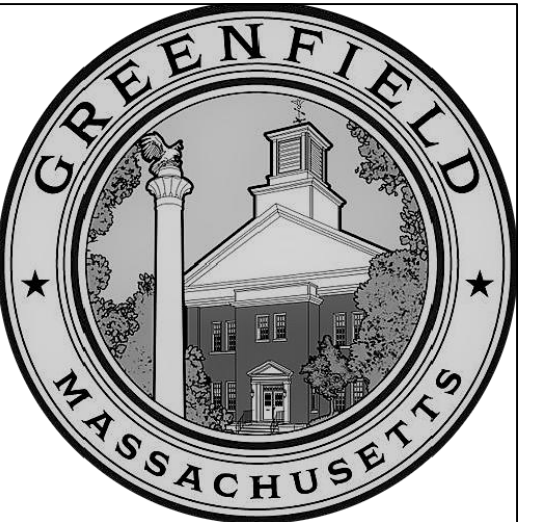
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**BOCCE COURT  
BITUMINOUS PARKING**

**C5**

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Drawn by:	IH			
Checked by:	CM			

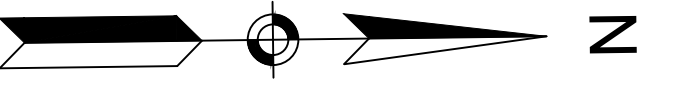




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REV. #	DATE	COMMENTS



Scale 1:5

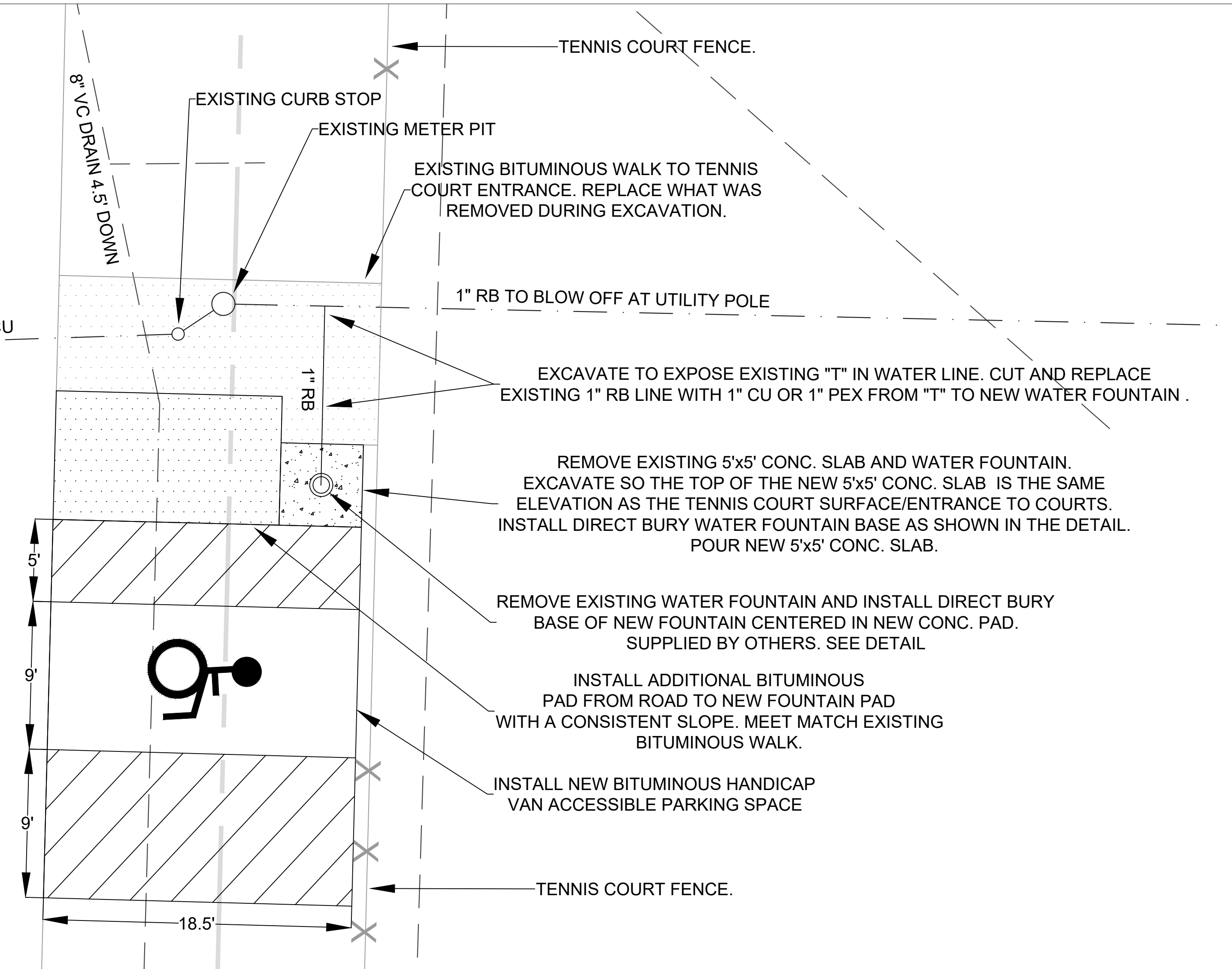
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**BEACON FIELD WATER  
FOUNTAINS AND PARKING**

**C6**

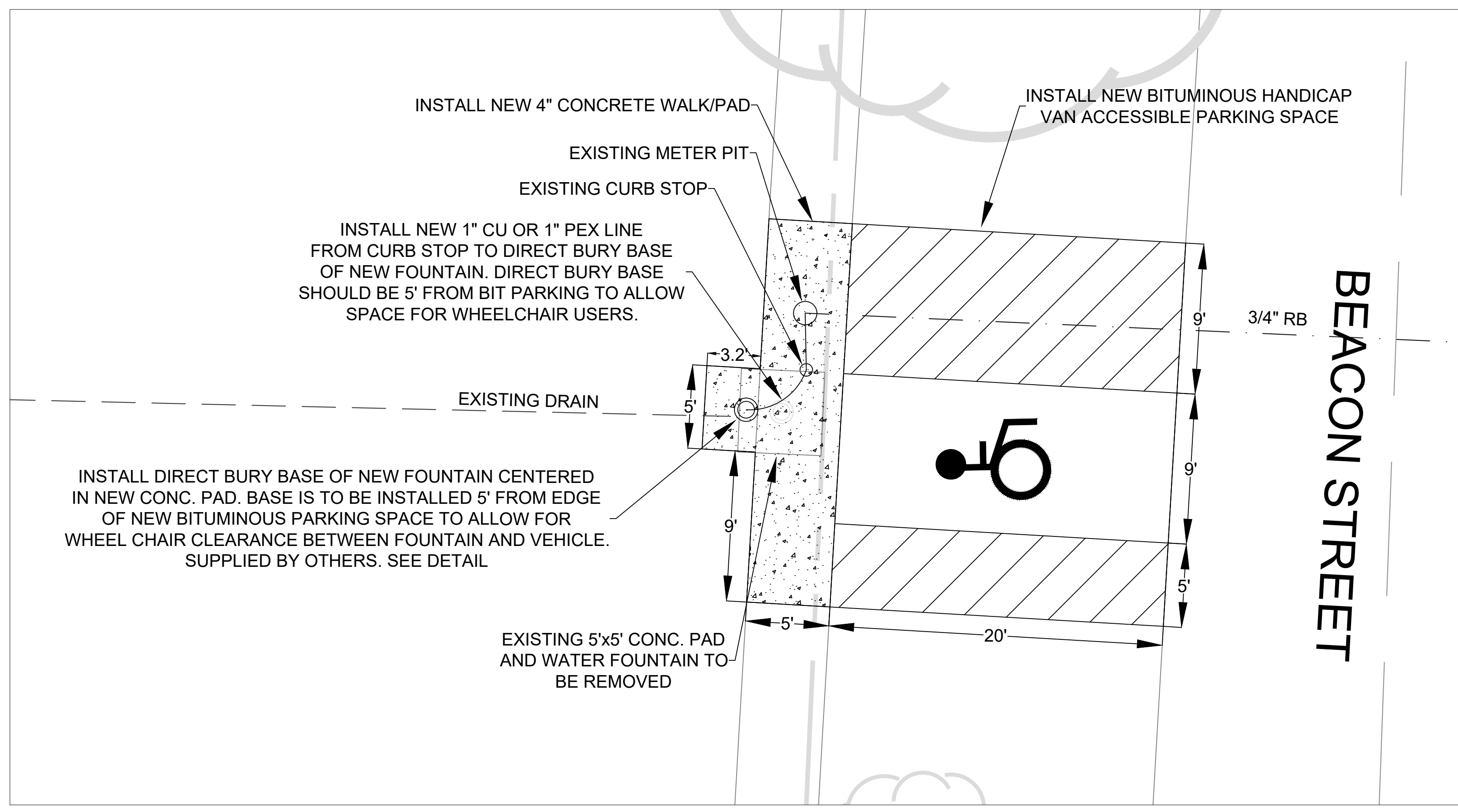
Designed by:	IH	Date:	11/22/2023	SHEET: 7 OF 9
Drawn by:	IH			
Checked by:	CM			

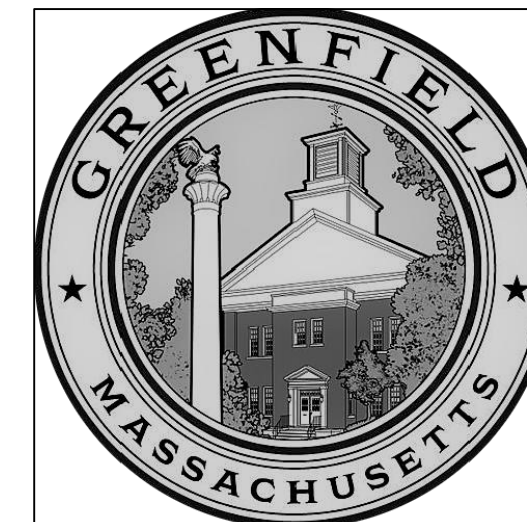
SANDERSON STREET



24

BEACON STREET

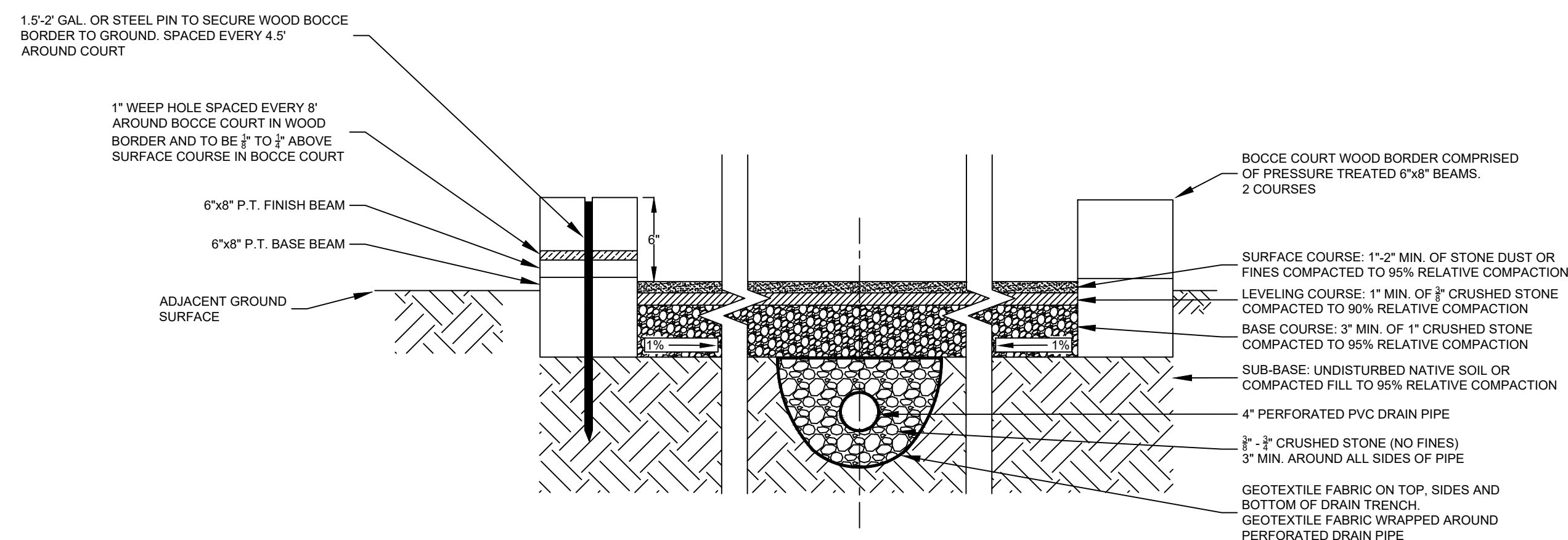




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**BOCCE COURT AND SUBDRAIN DETAIL**  
NOT TO SCALE



**BOCCE COURT NOTES**

**SUB-BASE:** THE SUB-BASE SHOULD BE CLEARED OF ALL ORGANIC MATTER. ALL TOP SOIL SHOULD BE REMOVED AS WELL. THE AREA SHOULD THEN BE COMPACTED.

**BASE COURSE:** THE BASE COURSE SHOULD BE CONSTRUCTED OF 1" HARD, ANGULAR CRUSHED STONE INSTALLED OVER THE CLEARED AND COMPACTED SUB-BASE. THIS LAYER SHOULD BE A MINIMUM OF 3" IN DEPTH AFTER COMPACTION. THE BASE OF WHICH SHOULD BE SLOPED 1% TOWARD THE CENTER LINE OF THE COURT. THE TOP OF THIS COURSE SHOULD BE PLACED LEVEL SO THAT THE FINISHED ELEVATIONS DO NOT VARY MORE THAN 3/8" IN 10' WHEN MEASURED IN ANY DIRECTION.

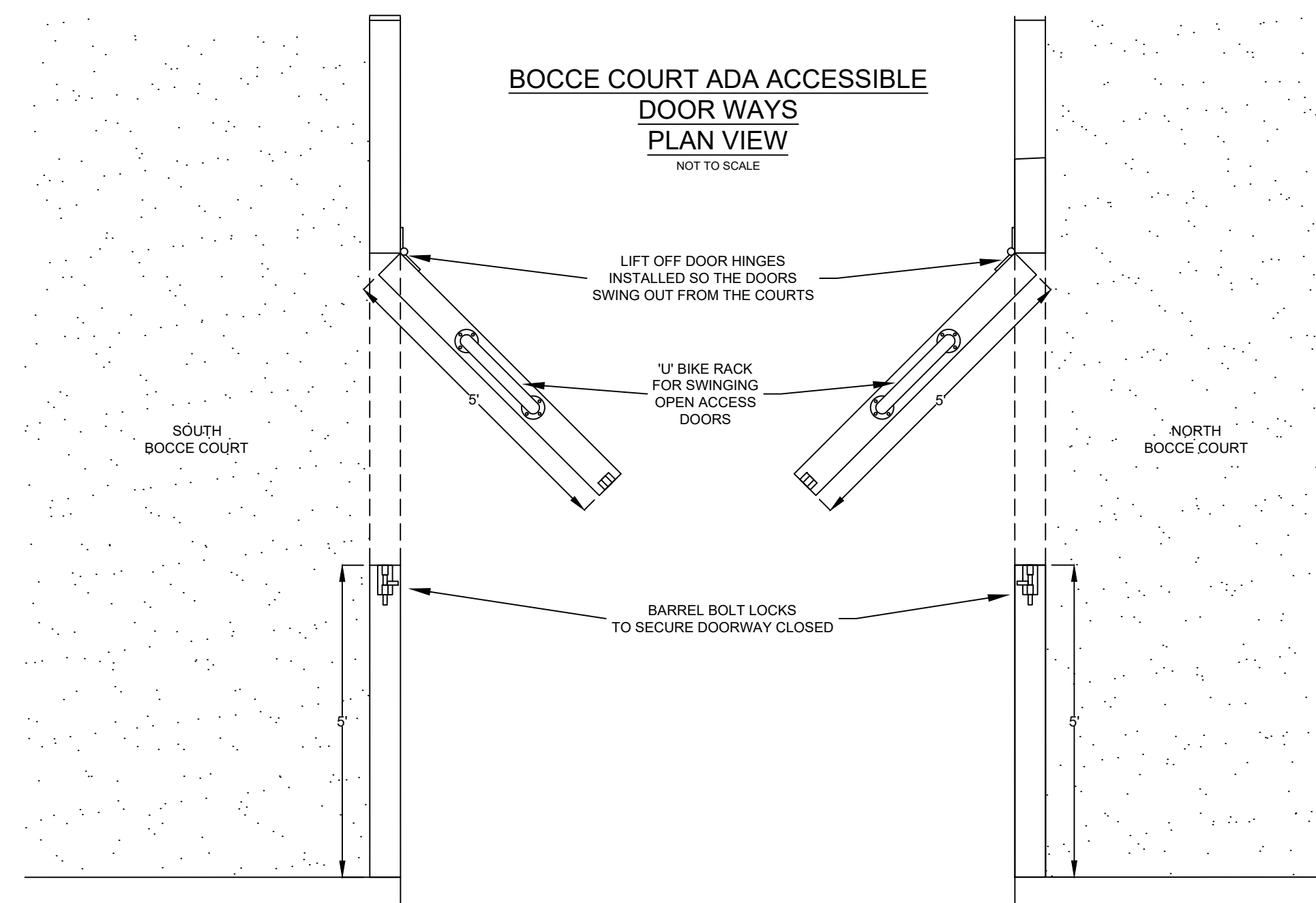
**LEVELING COURSE:** THE LEVELING COURSE SHOULD BE CONSTRUCTED OF 3/8" CRUSHED STONE INSTALLED DIRECTLY ON TOP OF THE BASE COURSE. THIS LAYER SHOULD BE A MINIMUM OF 1" THICK AFTER COMPACTION AND BE PLACED LEVEL SO THAT THE FINISHED ELEVATIONS DO NOT VARY MORE THAN 3/8" IN 10' WHEN MEASURED IN ANY DIRECTION.

**SURFACE COURSE:** THE SURFACE COURSE SHOULD BE CONSTRUCTED OF 1"-2" OF A CRUSHED METABASALT, IGNEOUS ROCK (STONE DUST OR FINES). THIS LAYER SHOULD BE PLACED LEVEL SO THAT THE FINISHED ELEVATIONS WILL NOT VARY MORE THAN 3/8" IN 10' WHEN MEASURED IN ANY DIRECTION. THE SURFACE SHOULD BE LAID FLAT AND LEVEL. THEN IT SHOULD BE THOROUGHLY WATERED TO ITS FULL DEPTH AND COMPACTED WITH A 400 TO 1200 LB. ROLLER UNTIL DESIRED FIRMNESS IS ACHIEVED.

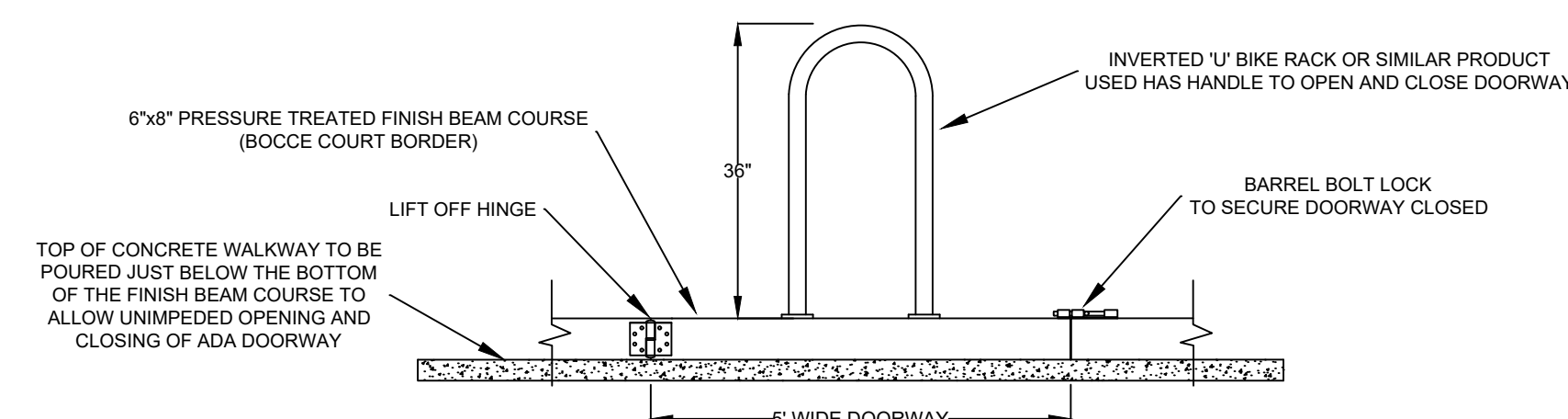
**PERIMETER CURBING:** THE PERIMETER OF THE COURT IS SURROUNDED BY A NON-MOVEABLE, PERMANENT CURBING. THE FINISHED ELEVATION OF THE TOP OF THE CURBING SHOULD BE 6" ABOVE THE FINISHED PLAYING SURFACE. THE CURBING IS TO BE CONSTRUCTED OF 6"x6" PRESSURE TREATED WOOD BEAMS AND ANCHORED TO THE GROUND WITH 2" METAL PINS SO THAT NO MOVEMENT TAKES PLACE WHEN STRUCK WITH A THROWN, ROLLED BOCCE BALL.

**DRAINAGE:** IN ADDITION TO THE SUBDRAIN SYSTEM BENEATH THE COURTS, DRILL A SERIES OF WEEP HOLES. THESE HOLES SHOULD BE PLACED 1/8" TO 3/4" ABOVE THE FINISHED PLAYING SURFACE AND SHOULD 1" IN DIAMETER. WEEP HOLES SHOULD BE PLACED EVERY 8' AROUND THE ENTIRE PERIMETER OF THE CURBING.

**BOCCE COURT ADA ACCESSIBLE  
DOORWAYS  
PLAN VIEW**  
NOT TO SCALE



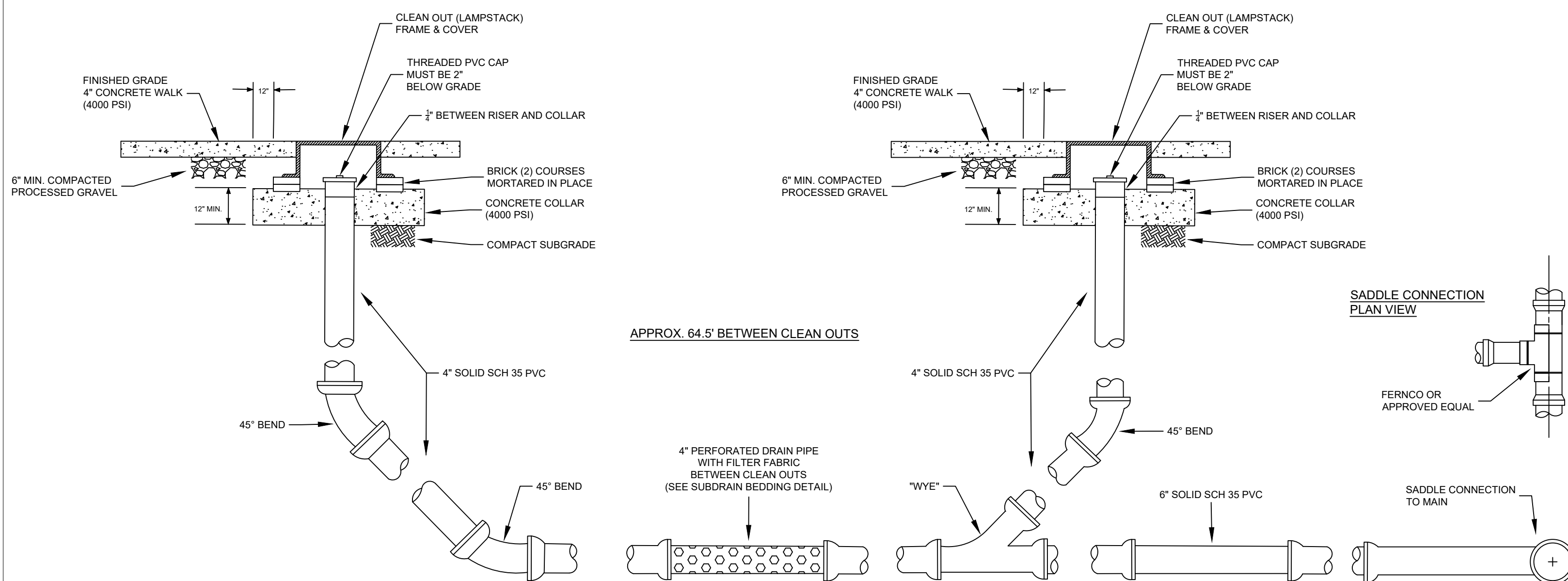
**PROFILE VIEW**  
NOT TO SCALE



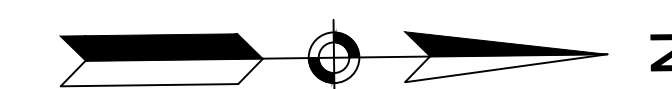
**CLEANOUT AND SUBDRAIN DETAIL**  
NOT TO SCALE

WEST END OF SUBDRAIN

EAST END OF SUBDRAIN



DATE				
COMMENTS				
REV. #				



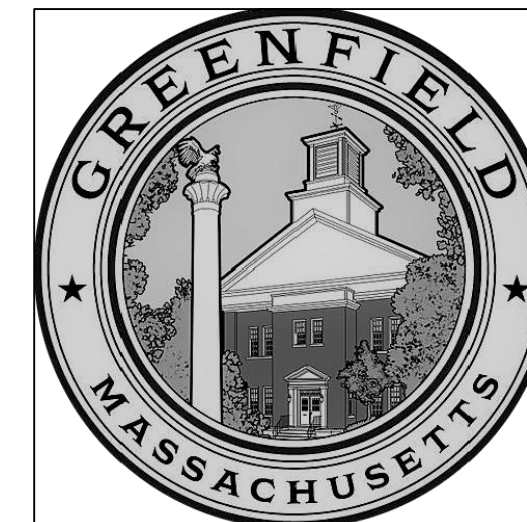
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**BOCCE COURT &  
SUBDRAIN DETAILS**

**D1**

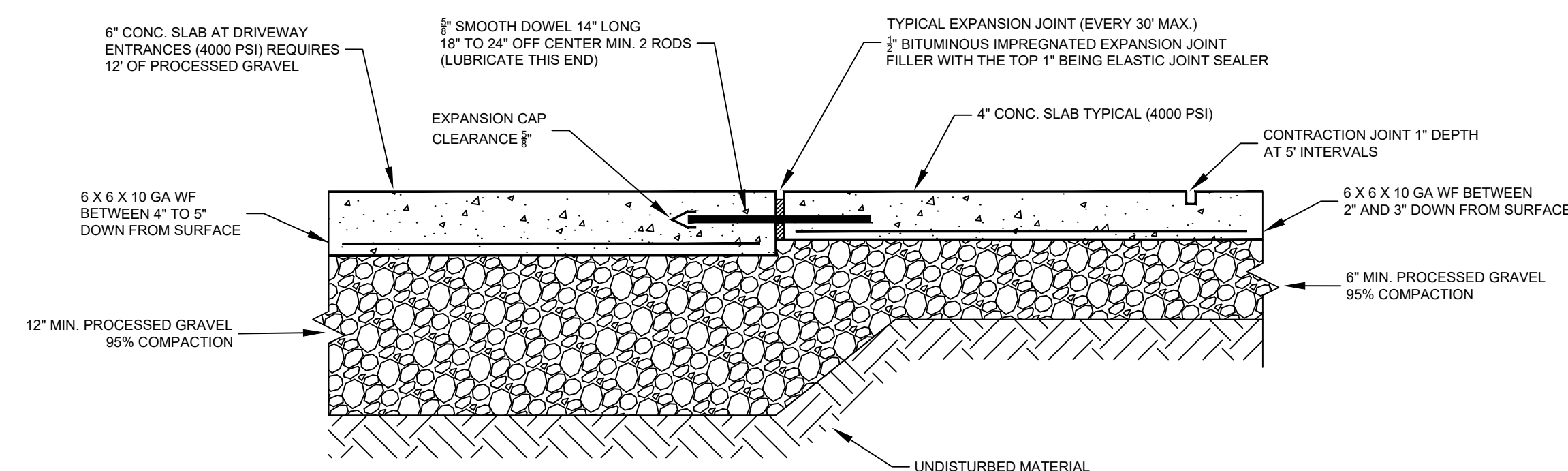
Designed by:	IH	Date:	10/13/2023	SHEET:
Drawn by:	IH			8 OF 9
Checked by:	CM			



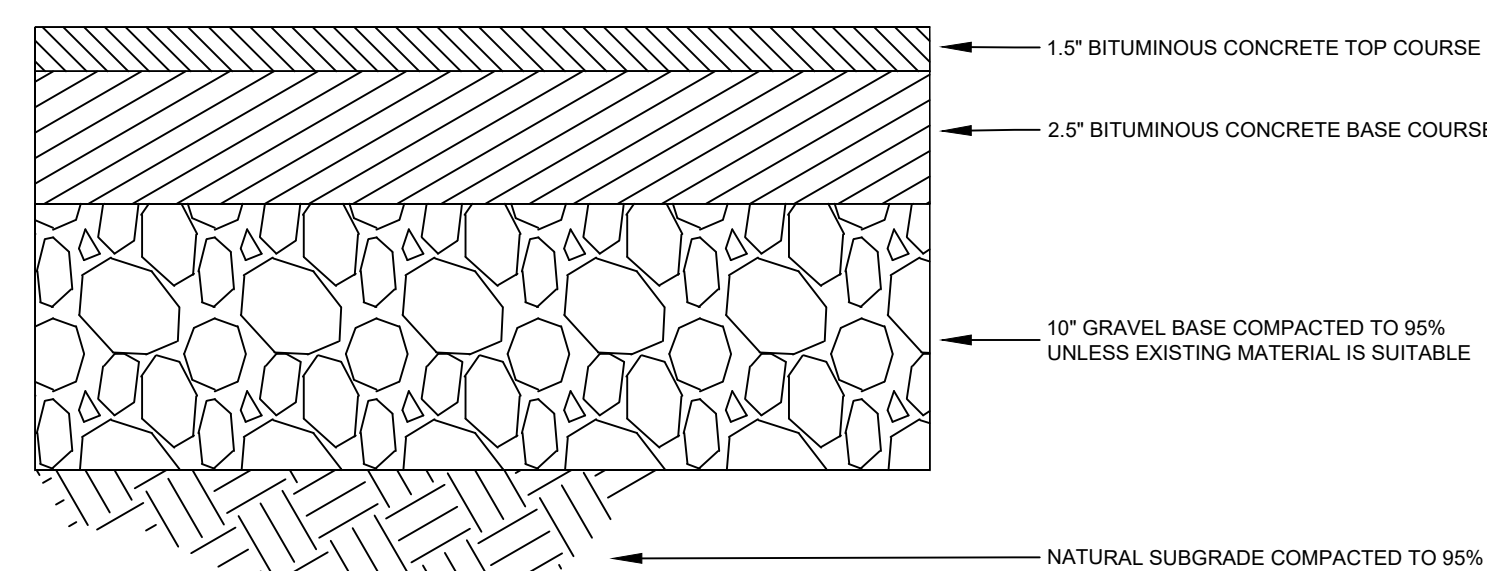
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Engineering**

189 Wells Street  
Greenfield, MA 01301  
Phone: (413) 772-1528

**TYPICAL CONC. SIDEWALK DETAIL**  
NOT TO SCALE



**PARKING LOT PAVEMENT SECTION**  
NOT TO SCALE



**SIDEWALK NOTES**

ALL THE FORMS, STEEL PLACEMENT, CONCRETE MIX, CONCRETE TESTS, AND CONCRETE WORK SHALL BE SUBJECT TO INSPECTION AND APPROVAL BY THE ENGINEER SUPERINTENDENT OR HIS/HER REPRESENTATIVE.

EXPANSION JOINTS SHALL BE INSTALLED AS SHOWN AT INTERVALS NOT TO EXCEED 30' AND WHERE THE CONCRETE WORK ABUTS ANY RIGID SURFACES. EXPANSION JOINT MATERIAL SHALL BE BITUMINOUS PREFORMED EXPANSION JOINT FILLER (CONFORMING TO ASTM D994-71) SET 1" BELOW THE SURFACE WITH JOINT SEALING COMPOUND OF THE POLYURETHANE TYPE (CONFORMING TO ASTM CLASS 25 SUCH AS SIKAFLEX 1A OR SONNEBORN NP1) SEALING THE NP1".

ALL SIDEWALKS ARE TO BE PITCHED AT A SLOPE OF 1.25% MAX. TOWARDS THE STREET AND POSITIVELY DRAIN TO THE STREET.

BROOM FINISH ALL WALKS UNLESS OTHERWISE DIRECTED.

6" CONCRETE SIDEWALKS AND HANDICAP RAMPS REQUIRES 9" OF PROCESSED GRAVEL BASE.

6" CONCRETE WALKS AT DRIVEWAY ENTRANCE REQUIRES 12" OF PROCESSED GRAVEL BASE.

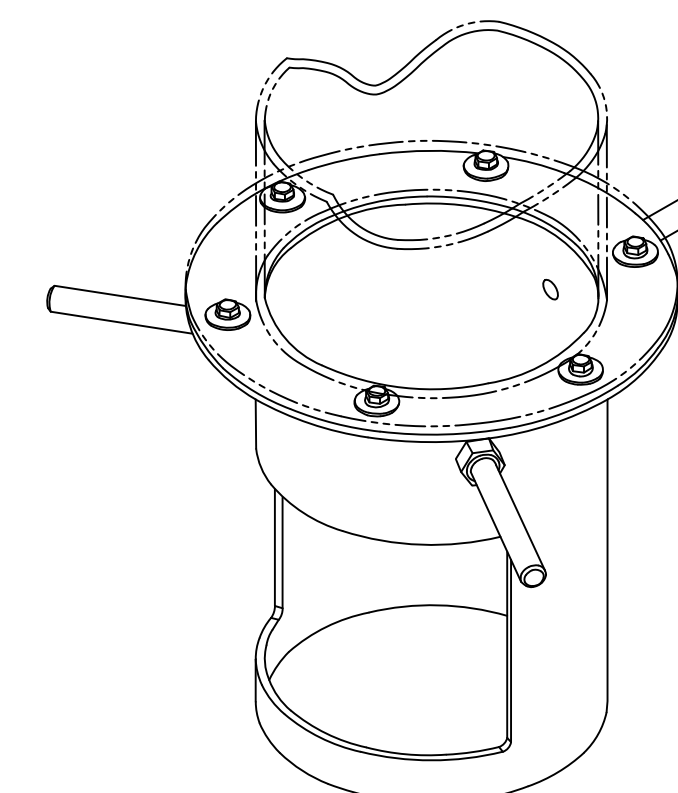
4" CONCRETE SIDEWALKS REQUIRES 6" OF PROCESSED GRAVEL BASE.

ALL SIDEWALKS PLACED ABUTTING A WALL REQUIRE EXPANSION FELT.

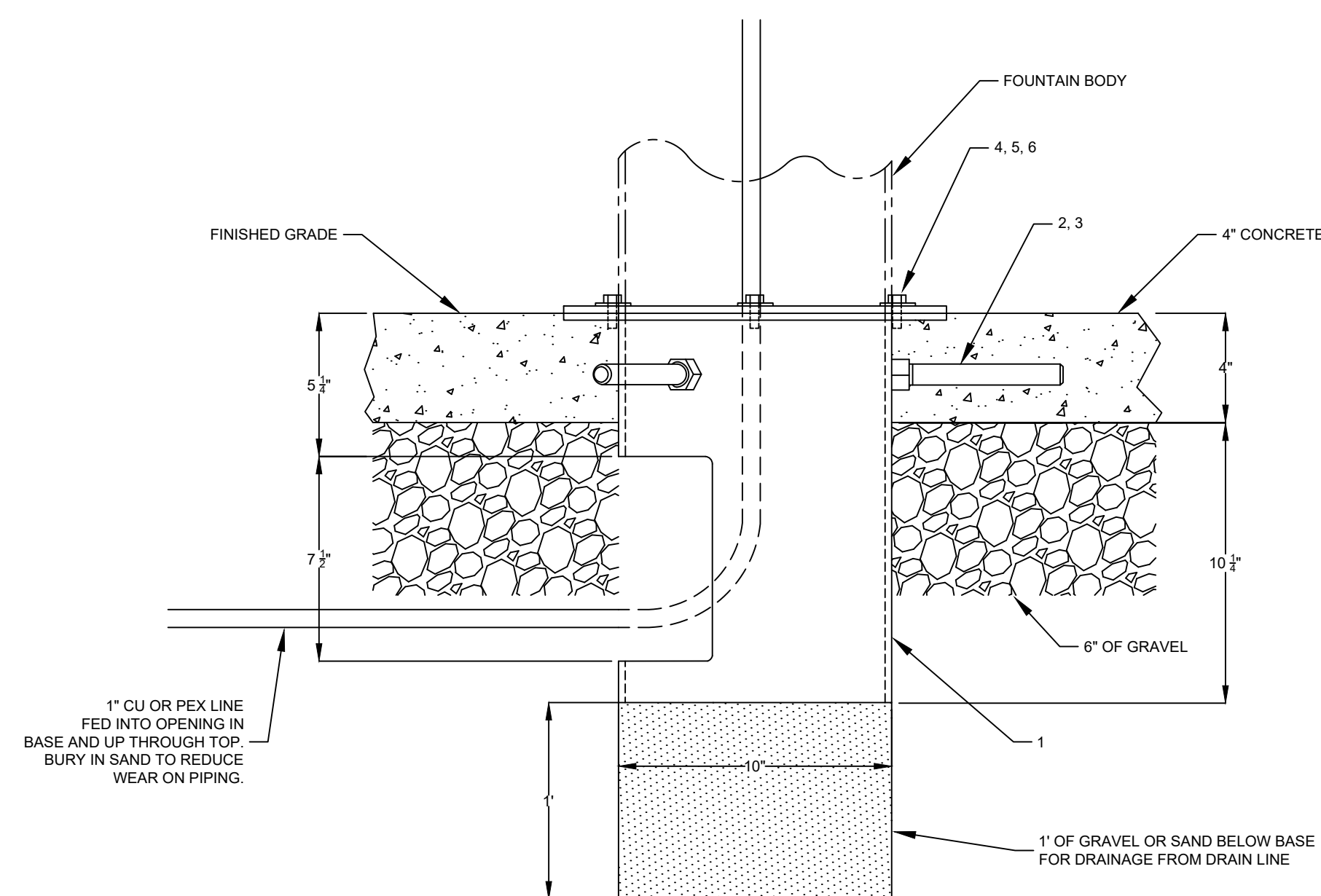
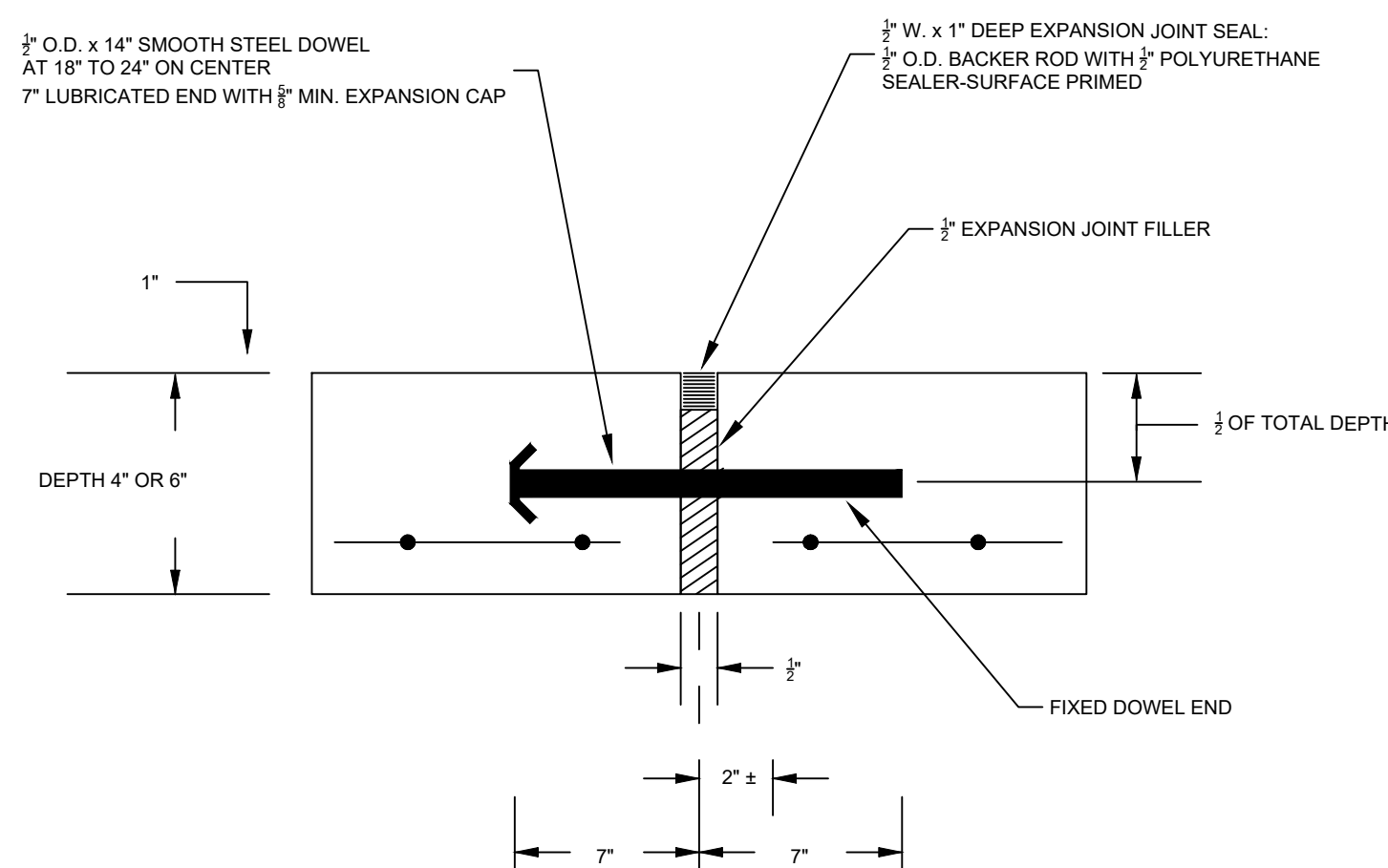
**DIRECT BURY FOUNTAIN BASE DETAIL**  
NOT TO SCALE

**INSTALLATION INSTRUCTIONS**

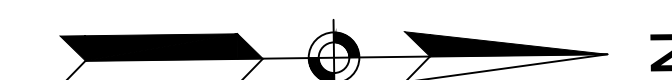
1. THREAD NUTS (ITEM 3) ONTO RODS (ITEM 2) (ONE NUT PER ROD).
2. THREAD RODS INTO ADAPTER CYLINDER (ITEM 1) AND TIGHTEN NUTS AGAINST CYLINDER SECURELY.
3. PLACE WASHERS (ITEM 6) ONTO BOLTS (ITEM 4) (ONE WASHER PER BOLT). THREAD BOLTS ALL THE WAY IN.
4. SECURE ADAPTER INTO CONCRETE FORMS AS PER STANDARD PRACTICE AND AS SHOWN BELOW. BE SURE TO ALIGN ADAPTER FOR PROPER LOCATION OF WATER INLET LINE AND REQUIRED FOUNTAIN ALIGNMENT.
5. INSTALL WATER LINE FROM SOURCE AND FEED IN AND UP THE DIRECT BURY BASE.
6. AFTER SUFFICIENT CURE OF CONCRETE, REMOVE FLANGE BOLTS AND WASHERS.
7. FOUNTAIN WILL BE INSTALLED BY OTHERS.



**SIDEWALK EXPANSION JOINT DETAIL**  
30' INTERVALS  
NOT TO SCALE



DATE				
COMMENTS				
REV. #				



NOT TO SCALE

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**CONCRETE, BITUMINOUS,  
& FOUNTAIN DETAILS**

**D2**

Designed by:	IH	Date:	11/22/2023	SHEET:
Drawn by:	IH			9 OF 9
Checked by:	CM			