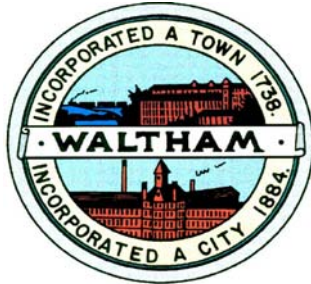


The City of Waltham



**Invites
Interested Parties
To propose the best offer and or bid
For the service or product herewith described:**

Sidewalks and Lighting Improvements, Main Street and Moody Street

The bid opening will be held: Friday April 4, 2014 at 10:00 AM

Pre Bid Briefing will be held: Thursday March 27, 2014 at 10:00 AM

(Meet at Waltham City hall 610 Main Street, Council Chambers)

Phone: 781-314-3244

Table of Contents:

- **Invitation to Bid**
- **Intent of the Project**
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Invitation to Bid

The City of Waltham

Purchasing Department

REQUEST FOR BID (RFB)

Under the rules of M.G.L. Chapter 30, Paragraph 39M, the Chief Procurement Officer of the City of Waltham Purchasing Department hereby requests sealed bids for:

Sidewalks and Lighting Improvements, Main Street and Moody Street

Price Proposals will be received at the office of the Purchasing Agent, City Hall, 610 Main Street, Waltham MA 02452, until,

Friday April 4, 2014 at 10:00AM

At which time and place the bids will be publicly opened and read.

Specifications and information available on line by visiting the Waltham Purchasing Department web site at www.city.waltham.ma.us/open-bids

BIDS MUST BE SIGNED AND ENCLOSED IN A SEALED ENVELOPE AND MARKED:

BID FOR: Sidewalks and Lighting Improvements

A 5% Bid Bond or Certified Check must accompany each bid submitted and made payable to, and become the property of the City of Waltham, if the successful bidder refuses or neglects to comply with the terms of the Contract.

If the Bidder is a corporation, state your correct corporate name and State of incorporation. If Bidder is a partnership, state names and addresses of partners. If Bidder is a trust or other legal entity, state correct names and addresses of trustees or names and address of those legally authorized to bid and enter into contracts.

EXCEPTION OR ALTERNATES TO SPECIFICATIONS, TERMS OF SALE, AND DISCOUNTS AVAILABLE, MUST BE INCLUDED IN THE BID PRIOR TO OPENING DATE.

Intent of Project

The City of Waltham is undertaking various downtown streetscape improvements consisting of new sidewalks, expanded lighting and other amenities.

The project is funded entirely with City of Waltham funds.

The areas to be improved are: Main Street from Banks Square to the overpass bridge at Linden Street, and Moody Street from Main Street to the Newton line, and the areas on Elm Street and Carter Street around the Common.

The majority of this work is to be completed at night between the hours of 10 PM and 7 AM with the exception of the residential areas in upper the Moody Street area from High St. to Newton line and on Main Street from Newton Street to the Bridge

AGREEMENT

CITY OF WALTHAM

ARTICLE 1. This agreement, made this _____ day of _____, 2014 by and between the CITY OF WALTHAM, party of the first part, hereinafter called the CITY, by its MAYOR, and

_____ hereinafter called the CONTRACTOR.

ARTICLE 2. Witnesseth, that the parties to this agreement, each in consideration of the agreement on the part of the others herein contained, do hereby agree, the CITY OF WALTHAM for itself, and said contractor for his heirs, executors, administrators and assigns as follows:

To furnish all equipment, machinery, tools and labor, to furnish and deliver all materials required to be furnished (except as otherwise specified) and deliver in and about the project and to do and perform all work in strict conformity with the provisions of this Contract and of the Notice to Bidders, bid, Project Manual, and Drawings hereto annexed. The said Notice to Bidders, bid, Project Manual, and Drawings are hereby made a part of this contract as fully and to the same effect as if the same had been set forth at length and incorporated in the contracts.

ARTICLE 3. In consideration of the foregoing promises the CITY agrees to pay and the CONTRACTOR agrees to receive as full compensation for everything furnished and done by the CONTRACTOR under this contract, including all work required by not included in the items herein mentioned, and also for all loss or damage arising out of the nature of the work aforesaid, or from the action of the elements, or from any unforeseen obstruction or difficulty encountered in the prosecution of the work, and for all expenses incurred by or in consequence of the suspension or discontinuance of the work specified, and for well and faithfully completing the work, and the whole thereof, as herein provided, such prices as are set forth in the accompanying bid.

This Agreement entered into as of the day and year first written above.

CITY OF WALTHAM, MASSACHUSETTS

FOR THE CITY

Jeannette A. McCarthy, MAYOR,
City of Waltham
Date: _____

John B. Cervone, City Solicitor
Date: _____
APPROVED AS TO FORM ONLY

Michael Chiasson, CPW Director
Date: _____

Timothy Kelly, Wires Inspector
Date: _____

Joseph Pedulla, Purchasing Agent
Date: _____

Paul Centofanti, Auditor
Date: _____

I CERTIFY THAT SUFFICIENT FUNDS
ARE AVAILABLE FOR THIS CONTRACT

FOR THE COMPANY

CONTRACTOR (Signature),
Date: _____

Company

Address

Instructions

INSTRUCTIONS FOR BIDDERS

1. **READ ALL DOCUMENTS.**

Bidders should familiarize themselves with all the documents contained herein; it is mandatory that all Bids be in compliance with all the provisions contained in said documents.

2. **FORMS AND ATTACHMENTS.**

Bids are to be completed on the forms provided ONLY and enclosed in a sealed envelope marked on the outside "BID (title)" and the name and address of bidder. Attachments submitted in addition to the Waltham Purchasing Department produced forms may not be considered.

3. **PRINTED OR TYPED RESPONSE.**

All information must be typewritten or printed in ink, including the price the bidder offers in the space as provided on the bid form.

4. **CORRECTIONS.**

Bids that are submitted containing cross outs, white outs or erasures, will be rejected. All corrections or modifications to the original bid are to be submitted in a separate envelope, properly marked on the outside, "CORRECTION/ MODIFICATION TO BID (title)" and submitted prior to the bid opening.

ALL DOCUMENTS SUBMITTED WITH YOUR RESPONSE WILL BE INCORPORATED INTO THE CONTRACT.

5. **PRICE IS ALL INCLUSIVE.**

Bid prices shall encompass everything necessary for furnishing all items, materials, supplies or services and administrative charges as specified, and in accordance with the specifications, including cost of delivery, and in the case of services, completion of same, as per specifications.

6. **PRICE DISCREPANCY.**

In the event of a discrepancy between the Unit Price and the Extension, the Unit Price shall prevail.

7. EXPLANATIONS, EXCEPTIONS

Explanations, exceptions or other information pertinent to the specifications may be made in writing and included in the same envelope with the bid.

8. BID DEPOSITS.

Bid deposits are to be made payable to the City of Waltham. In the event that the successful bidder fails to execute a Contract within (10) days of the receipt of said contract, such security shall be retained by the city as liquidated damages. Unsuccessful bidders' deposits will be returned immediately following the award to said successful bidder.

9. WITHDRAW.

A Bid may be withdrawn by written request prior to the schedule for the Bid Opening. No withdrawals are permitted after the bid opening date and time. Withdrawals after the bid opening date will cause the forfeit of the bid Deposit.

10. AWARD.

Bids will be awarded not later than (90) ninety days after the scheduled bid opening date, unless otherwise stated, in the specifications. Unless otherwise specified, bids will be evaluated on the basis of, completeness of your RFP response, responsiveness, responsibility, best price and experience.

11. AWARD CRITERIA.

Qualified and responsive proposals will be evaluated based on Price, Technical, and Compliance requirements.

12. DISCOUNTS.

Discounts for prompt payments will be considered when making awards.

13. TAX EXEMPT.

Purchases by the City of Waltham is exempt from any Federal, State or Massachusetts Municipal Sales and/or Excise Taxes.

14. SAMPLES.

The City of Waltham may require the submission of samples either before or after the awarding of a contract. Samples are to be submitted, at no charge to the City, so as to ascertain the product's suitability. If specifically stated in the Bid that samples are required, said samples must be submitted with the Bid prior to the Official Bid Opening.

Failure to submit said samples would be cause for rejection of Bid. All samples must be called for and picked up within (30) thirty days of award or said samples will be presumed abandoned and will be disposed of.

15. **ACTIVE VENDOR LIST.**

Vendors who wish to remain on the Active Bid List must either submit a Bid, No Bid, or a letter requesting same, no later than the Official Bid Opening. This is applicable to those vendors who have received the Invitation to Bid.

16. **FUNDS APPROPRIATION.**

THE CONTRACT OBLIGATION ON BEHALF OF THE CITY IS SUBJECT TO PRIOR APPROPRIATION OF MONIES FROM THE GOVERNMENTAL BODY AND AUTHORIZATION BY THE MAYOR.

17. **THE AWARDING AUTHORITY RESERVES THE RIGHT TO REJECT ANY OR ALL BIDS, OR ANY PART OF ANY BID, WHICH IN THE OPINION OF THE AWARDING AUTHORITY, IS IN THE BEST INTERESTS OF THE CITY OF WALTHAM.**

18. **THE TAX ATTESTATION CLAUSE, CERTIFICATION OF NON-COLLUSION AND THE CERTIFICATE OF VOTE AUTHORIZATION,** are required by statute and are an integral part of the Invitation for Bid and must be completed and signed by the person submitting the Bid, or by the person/persons who are officially authorized to do so. Failure to do so may disqualify the bid.

19. **STANDARD OF QUALITY.**

Where, in the specifications, one certain kind, type, catalog number, brand or manufacturer of material is named, it shall be regarded as the required standard of quality. Where two or more are named, these are presumed to be equal and the Bidder may select one or the other. If the Bidder proposes to offer a substitute as an equal, he shall so indicate on the Bid Form, the kind, type, catalog number, brand, or manufacturer of material that is offered as an equal, and describe where it differs from the specifications. Substituted items must be capable of performing all the functions and/or operational features described or indicated in the specifications. Failure to indicate the description of any substitute item on the Bid will be interpreted to mean that the Bidder will furnish the item or service as specified.

20. MODIFICATION.

No agreement, understanding, alteration or variation of the agreement, terms or provisions herein contained shall bind the parties, hereto unless made and executed in writing by the parties hereto.

21. ASSIGNMENT.

The final payment for work done under this Contract shall be made only after the Contractor has signed a statement under the penalty of perjury, certifying that he has completed the work described in the final estimate. Neither party hereto shall assign this Contract or sublet it in part or as a whole without the prior written consent of the other party hereto. The Contractor shall not assign any sum or sums due or becoming due to him hereunder without the prior written consent of the City.

22. DELIVERIES:

a) The Contractor shall pay all freight and delivery charges. The Waltham Purchasing Department does not pay for shipping and packaging expenses. Items must be delivered as stipulated in the specifications. All deliveries must be made to the inside of city buildings. Sidewalk deliveries will not be accepted. City personnel are not required to assist in the deliveries and contractors are cautioned to notify their shippers that adequate assistance must be provided at the point of delivery, when necessary.

b) All items of furniture must be delivered inside the building, set up, in place and ready for use. Deliveries are to be made between the hours of 8:30 a.m. and 3:00 p.m., Monday through Friday, except on holidays.

c) All damaged items, or items which do not comply with specifications will not be accepted and title therefore will not vest to the Waltham Purchasing Department until such items are accepted and signed for, in good order, by the receiving department.

d) The contractor must replace, without further cost to the Waltham Purchasing Department, such damaged or non-complying items before payment will be made.

23. LABELING.

All packages cartons or other containers must be clearly marked with (a) building and room destination; (b) description of contents of item number from specifications; (c) quantity; (d) City of Waltham Purchase Order Number and (e) Vendor's name and order number.

24. GUARANTEES.

Unless otherwise stipulated in the specifications, furniture, equipment and similar durable items shall be guaranteed by the contractor for a period of not less than one year from the date of delivery and acceptance by the receiving department. In addition, the manufacturer's guarantee shall be furnished. Any items provided under this contract which are or become defective during the guarantee period shall be replaced the contractor free of charge with the specific understanding that all replacements shall carry the same guarantee as the original equipment. The contractor shall make such replacement immediately upon receiving notice from the Purchasing Agent.

25. SINGLE VENDOR.

The Waltham Purchasing Department desires to award a single contract based on the Grand Total Price. However, where applicable, the City reserves the right to make multiple awards on a unit price basis if, in the opinion of the Waltham Purchasing Department, it is in the best interest of the Waltham Purchasing Department.

26. CHANGE ORDERS.

Change orders are not effective until, if, as and when signed by the Mayor and no work is to commence until the change orders are fully executed.

28. BID OPENING INCLEMENT WEATHER

If, at the time of the originally scheduled bid opening, City Hall is closed to inclement weather or another unforeseeable event, the bid opening will be extended until 2:00 PM on the next normal business day. Bids will be accepted until that date and time.

GENERAL CONDITIONS

GENERAL CONDITIONS

1. INFORMATION

All information shall come from the Office of the City Purchasing Agent. The Contractor shall inquire at this office for any information needed. Wherever the words “or equal as approved” are used, it is to be understood that the opinion of the City Purchasing Agent shall govern.

2. SUITS

The Contractor shall assume defense of and shall indemnify and hold the City and its agents harmless from all suits and claims against the City and its sub-contractors arising from the use of any invention, patent right labor or employment, or from any act of omission or neglect of the City, its agents, employees or any subcontractor in performing the work, under this contract.

3. LAWS AND REGULATIONS

The Contractor shall conform to all the applicable rules, regulations, laws and ordinances of the City of Waltham, the Commonwealth of Massachusetts, the United States of America and all agencies having jurisdiction over this contract.

4. PROTECTION OF PROPERTY

The Contractor shall take all proper precautions to protect the City’s property from damage and unnecessary inconvenience. Any City property damaged by the Contractor in carrying out the provisions of this contract shall be restored to its original condition, by and at the expense of the Contractor.

5. PROTECTION OF PERSONS

The Contractor shall take all proper precautions to protect persons from injury, unnecessary inconvenience, and shall be responsible for his failure to do so. The Contractor agrees to hold the City harmless from any and all liabilities of every nature and description, which may be suffered through bodily injury, including death, to any person, by reason of negligence of the Contractor, his agents or employees, or any subcontractor.

6. CONTRACT DURATION.

This contract is for the period required to complete the project.

7. INSURANCE

A. **WORKMAN'S COMPENSATION:** The Contractor shall provide insurance for the payment of compensation and furnishing of other benefits under Chapter 152 of the General Laws of the Commonwealth of Massachusetts to all persons to be employed under this contract, the premiums for which shall be paid by the Contractor. Contractors shall provide insurance on a primary basis and the contractor's policy shall be exhausted before resorting to other policies. The contractor's policy is the primary one not the contributory.

B. **COMPREHENSIVE GENERAL LIABILITY**

| | |
|------------------|-----------------------------|
| Bodily Injury: | \$1,000,000 Each Occurrence |
| | \$2,000,000 Aggregate |
| Property Damage: | \$1,000,000 Each Occurrence |
| | \$2,000,000 Aggregate |

C. **AUTOMOBILE (VEHICLE) LIABILITY**

| | |
|-----------------|-----------------------------|
| Bodily Injury | \$2,000,000 Each Occurrence |
| Property Damage | \$1,000,000 Aggregate |

D. **UMBRELLA POLICY**

| | |
|-------------------|-------------|
| General liability | \$2,000,000 |
|-------------------|-------------|

Your bid response must include a Certificate of Insurance with the above limits as a minimum. In addition, the Certificate of Insurance must have the following text contained in the bottom left box of the Certificate: *"The City of Waltham is a named additional insured for all insurances under the contract, excluding Automobile and Workers Compensation coverage"*. **Failure by the contractor to provide a current and updated insurance policy, during the entire duration of the contract, may result in additional legal liability.** The Certificate of Insurance must be mailed directly to:

Office of the Purchasing Agent
Purchasing Department
City of Waltham
610 Main Street
Waltham, MA 02452

8. PAYMENT BOND

The Contractor agrees to execute and deliver to the City, a Payment Bond equal to 50% of the contract value. This contract shall not be in force until said bond has been

delivered and accepted by the City. Bond to be issued by a company licensed by the Commonwealth of Massachusetts.

A LETTER FROM A SURETY COMPANY CERTIFYING THAT THE CONTRACTOR IS QUALIFIED AND CAPABLE OF OBTAINING THE ABOVE BONDS MUST BE INCLUDED WITH HIS/HERS BID.

9. PERSONNEL:

The Contractor shall employ a competent supervisor and all properly licensed personnel necessary to perform the services required in this contract. The City Purchasing Agent shall have the right to require the Contractor to remove and/or replace any of the personnel for nonperformance or for unprofessional behavior. The City Purchasing Agent may require the Contractor to submit a weekly performance record of the areas and of the work performed, on forms approved by the City Purchasing Agent. The Contractor or his supervisor shall be available to inspect such work as required by the City Purchasing Agent.

10. PREVAILING WAGES

The Contractor is required to pay the prevailing wages as determined under the provisions of Chapter 149, Sections 26 and 27D of the Massachusetts General Laws, including the submission of weekly payrolls to the awarding authority. The prevailing Wage Schedule is on line at www.city.waltham.ma.us/open-bids. The Prevailing Wage Schedule is too large to attach here

11. MATERIALS

The City or its Agent reserves the right to approve or reject any supplies, material or equipment used by the Contractor. The Contractor agrees to replace any supplies, material or equipment used by the Contractor. The Contractor agrees to replace any rejected supplies, materials or equipment, to the satisfaction of the City or its Agents.

12. TERMINATION OF CONTRACT

This contract may be terminated by the City upon deliverance to the Contractor of a five-day written notice of said termination.

13. CONTRACT OBLIGATIONS

Contract obligations on behalf of the City are subject to an annual appropriation to cover the contract obligation.

14. BIDDER EXPERIENCE EVALUATION

Each bidder shall submit with his bid, all the information relative to their experience and qualifications in performing the work required under this contract and shall have been in business for a minimum of five (5) years, in order for their bid to be considered.

15. NOT-TO-EXCEED AMOUNT

The bid amount proposed in your company's response is a "not-to- Exceed" amount unless the City makes changes, in writing, to the scope of work to be performed. The Change Order must be signed and approved by the City's Purchasing Agent, City Auditor, Law Department and the Mayor prior to the commencement of the change order work. No work is to begin until the proper approvals have been obtained. A change order will be priced at the unit price. Failure to comply with this procedure will result in the cancellation of the contract and the non-payment of services provided.

16. FINANCIAL STATEMENTS.

The City may require, within five (5) days after the bid opening, a complete and detailed Financial Statement prepared by a Certified Public Account, to determine a bidder's financial stability.

17 BREACH OF CONTRACT/ NON PERFORMANCE

If the Contractor shall provide services in a manner, which is not to the satisfaction of the City, the City may request that the Contractor refurnish services at no additional cost to the City until approved by the City. If the Contractor shall fail to provide services, which are satisfactory to the City, the City in the alternative may make any reasonable purchase or Contract to purchase services in substitution for those due from the Contractor. The City may deduct the cost of any substitute Contract for nonperformance of services together with incidental and consequential damages from the Contract price and shall withhold such damages from sums due or to become due to the Contractor. If the damages sustained by the City exceed sums due or to become due, the Contractor shall pay the difference to the City upon demand. The Contractor shall not be liable for any damages sustained by the City due to the Contractor's failure to furnish services under the terms of this Contract if such failure is in fact caused by the occurrence of a contingency the nonoccurrence of which was a basic assumption under which this Contract was made, including a state of war, embargoes, expropriation of labor strike or

any unanticipated federal, state or municipal governmental regulation of order, provided that the Contractor has notified the City in writing of such cause within seven (7) days after its occurrence.

18 RIGHT TO AUDIT

The City of Waltham has the right to review and audit documents related to this contract. This right extends to any subcontractor, supplier or other entity used by the prime contractor to fulfill the obligations under this contract.

19. CITY ORDINANCE. APPROVAL OF CONTRACTS BY MAYOR, SEC. 3-12 OF THE CITY ORDINANCES.

All contract made by any department, board or commission where the amount involved is two thousand dollars (\$2,000) or more shall be in writing, and no such contract shall be deemed to have been made or executed until the approval of the Mayor is affixed thereto. Any construction contract shall, and all other contracts may, where the contract exceed five thousand dollars (\$5,000) be required to be accompanied by a bond with sureties satisfactory to the Mayor.

20. ACTIVE REPARATION CLAIMS

Does your company or any of its Principals have an active reparation Claim with the City.

A claim is any demand by a contract for the payment of disputed invoices, payment penalties, labor disputes, interest, etc. YES _____, NO _____ (circle or check applicable).

If YES Please explain the nature of the claim, date of the claim and City Department

(Add an additional page if necessary)

Compliance

(Required Documents.)

Compliance

The compliance documents in this section must be completed, signed and returned **with your bid package.**

Purchasing Department

City of Waltham
610 Main Street
Waltham, MA 02452

Failure to submit the completed documents will cause the disqualification of the proposal.

Section Index

Check when Complete

- Non-collusion form and Tax Compliance form..... _____
- Corporation Identification Form..... _____
- Certificate of Vote Authorization..... _____
- Certificate of Insurance (showing all limits of WC &GL)..... _____
- Three (3) References..... _____
- 5% Bid Bond or Certified Check..... _____
- Debarment Certificate _____
- Prevailing Wage Certificate..... _____
- Right-to-know Law..... _____
- OSHA 10 Certificate for all Assigned Employees (MGL ch30, §39M and Ch 149) _____

Before the commencement of the Job, the contractor must provide to the above office:

- Payment Bond for 50% of the contract value and naming the City of Waltham
(Letter must be included with your response)

Your Company's Name: _____

Service or Product Bid _____

NOTE: Failure to submit any of the required documents, in this or in other sections, with your bid response package may cause the disqualification of your proposal.

NON-COLLUSION FORM AND TAX COMPLIANCE FORM

CERTIFICATE OF NON-COLLUSION

The undersigned certifies under penalties of perjury that this bid or proposal 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. The undersigned certifies that no representations made by any City officials, employees, entity, or group of individuals other than the Purchasing Agent of the City of Waltham was relied upon in the making of this bid

(Signature of person signing bid or proposal) Date

(Name of business)

TAX COMPLIANCE CERTIFICATION

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

Signature of person submitting bid or proposal Date

Name of business

NOTE

Failure to submit any of the required documents, in this or in other sections, with your bid response package may cause the disqualification of your proposal.

CERTIFICATE OF VOTE OF AUTHORIZATION

Date:

I _____, Clerk of _____ hereby certify that at a meeting of the Board of Directors of said Corporation duly held on the _____ day of _____ at which time a quorum was present and voting throughout, the following vote was duly passed and is now in full force and effect:

VOTED: That _____ (*name*) is hereby authorized, directed and empowered for the name and on behalf of this Corporation to sign, seal with the corporate seat, execute, acknowledge and deliver all contracts and other obligations of this Corporation; the execution of any such contract to be valid and binding upon this Corporation for all purposes, and that this vote shall remain in full force and effect unless and until the same has been altered, amended or revoked by a subsequent vote of such directors and a certificate of such later vote attested by the Clerk of this Corporation.

I further certify that _____ is duly elected/appointed _____ of said corporation

SIGNED:

(Corporate Seal)

Clerk of the Corporation:

Print Name: _____

COMMONWEALTH OF MASSACHUSETTS

County of _____

Date:

Then personally appeared the above named and acknowledged the foregoing instrument to be their free act and deed before me, _____

Notary Public;

My Commission expires: _____

CORPORATION IDENTIFICATION

The bidder for the information of the Awarding Authority furnishes the following information.

If a Corporation:

Incorporated in what state _____

President _____

Treasurer _____

Secretary _____

Federal ID Number _____

If a foreign (out of State) Corporation – Are you registered to do business in Massachusetts?

Yes _____, No _____

If you are selected for this work you are required under M.G.L.ch. 30S, 39L to obtain from the Secretary of State, Foreign Corp. Section, State House, Boston, a certificate stating that you Corporation is registered, and furnish said certificate to the Awarding Authority prior to the award.

If a Partnership: (Name all partners)

Name of partner _____

Residence _____

Name of partner _____

Residence _____

If an Individual:

Name _____

Residence _____

If an Individual doing business under a firm's name:

Name of Firm _____

Name of Individual _____

Business Address _____

Residence _____

Date _____

Name of Bidder _____

By _____

Signature

Title

Business Address

(POST OFFICE BOX NUMBER NOT ACCEPTABLE)

City

State

Telephone Number

Today's Date

PROVIDE THREE (3) SERVICE APPROPRIATE REFERENCES

1. Company Name:

Address:

Contact Name:

Phone #

Type of service/product provided to this Company:

Dollar value of service provided to this Company:

2. Company Name:

Address:

Contact Name:

Phone #

Type of service/product provided to this Company:

Dollar value of service provided to this Company:

3. Company Name:

Address:

Contact Name:

Phone #

Type of service/product provided to this Company:

Dollar value of service provided to this Company:

NOTE

Failure to submit any of the required documents, in this or in other sections, with your bid response package will be cause for the disqualification of your company.

**WEEKLY PAYROLL RECORDS REPORT &
STATEMENT OF COMPLIANCE**

In accordance with Massachusetts General Law c. 149, §27B, a true and accurate record must be kept of all persons employed on the public works project for which the enclosed rates have been provided, A Payroll Form has been printed on the reverse of this page and includes all the information required to be kept by law. Every contractor or subcontractor is required to keep these records and preserve them for a period of three years from the date of completion of the contract.

In addition, every contractor and subcontractor is required to submit, on a weekly basis, a copy of his or her weekly payroll records to the awarding authority. For every week in which an apprentice is employed, a photocopy of the apprentice's identification card must be attached to the payroll report. Once collected, the awarding authority is also required to preserve those reports for three years.

In addition, each such contractor, subcontractor, or public body shall furnish to the awarding authority directly, within fifteen days after completion of its portion of the work, a statement, executed by the contractor, subcontractor or public body who supervises the payment of wages, in the following form:

STATEMENT OF COMPLIANCE

_____, 200_____

I _____, _____
(Name of signatory party) (Title)

I do hereby state that I pay or supervise the payment of the persons employed by

_____ on the _____
(Contractor, subcontractor or public body) (Building or project)

and that all mechanics and apprentices, teamsters, chauffeurs and laborers employed on said project have been paid in accordance with wages determined under the provisions of sections twenty-six and twenty-seven of chapter one hundred and forty nine of the General Laws.

Signature _____, Title _____

Print _____

RIGHT TO KNOW LAW

Any vendor who receives an order or orders resulting from this invitation agrees to submit a Material Safety Data Sheet (MSDS) for each toxic or hazardous substance or mixture containing such substance, pursuant to M.G.L. c. 111F, §§8,9 and 10 and the regulations contained in 441 CMR 21.06 when deliveries are made. The vendor agrees to deliver all containers properly labeled pursuant to M.G.L. c. 111F §7 and regulations contained in 441 CMR 21.05. Failure to furnish MSDS and/or labels on each container may result in civil or criminal penalties, including bid debarment and action to prevent the vendor from selling said substances, or mixtures containing said substances within the Commonwealth. All vendors furnishing substances or mixtures subject to Chapter 111F or M.G.L. are cautioned to obtain and read the laws, rules and regulations referenced above. Copies may be obtained from the State House Bookstore, Secretary of State, State House, Room 117, Boston, MA (617) 727-2834.

Authorized Signature Indicating Compliance with the Right-to-know laws:

Signature

Date

Print Name

NOTE

Failure to submit any of the required documents, in this or in other sections, with your bid response package may cause the disqualification of your proposal.

DEBARMENT CERTIFICATION

In connection with this bid and all procurement transactions, by signature thereon, the respondent certifies that neither the company nor its principals are suspended, debarred, proposed for debarment, declared ineligible, or voluntarily excluded from the award of contracts, procurement or non procurement programs from the Commonwealth of Massachusetts, the US Federal Government and /or the City of Waltham. "Principals" means officers, directors, owners, partners and persons having primary interest, management or supervisory responsibilities with the business entity. Vendors shall provide immediate written notification to the Purchasing Agent of the City of Waltham at any time during the period of the contract of prior to the contract award if the vendor learns of any changed condition with regards to the debarment of the company or its officers. This certification is a material representation of fact upon which reliance will be placed when making the business award. If at any time it is determined that the vendor knowingly misrepresented this certification, in addition to other legal remedies available to the city of Waltham, the contract will be cancelled and the award revoked.

Company Name _____

Address _____

City _____, State _____, Zip Code _____

Phone Number (____) _____

E-Mail Address _____

Signed by Authorized Company Representative:

Print name _____

Date _____

10 HOURS OSHA TRAINING CONFIRMATION

Chapter 306 of the Acts of 2004

CONSTRUCTION PROJECTS

AN ACT RELATIVE TO THE HEALTH AND SAFETY ON PUBLIC

The undersigned hereby certifies that all employees to be employed at a worksite for construction, reconstruction, alteration, remodeling, repair, installation, demolition, maintenance or repair of any public work or any public building estimated to cost more than \$10,000.00 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 payroll report for each employee and will comply with all laws and regulations applicable to awards of subcontracts subject to section 44F.

Company Name: _____

Address: _____

Signature: _____

Title: _____

Print Name _____

Date

See Chapter 306 of the Acts of 2004

NOTE

Failure to submit any of the required documents, in this or in other sections, with your bid response package will be cause for the disqualification of your company.

SPECIFICATIONS

SCOPE OF WORK

MAIN AND MOODY STREETS SIDEWALK AND LIGHTING IMPROVEMENTS

The City of Waltham is undertaking various downtown streetscape improvements consisting of new sidewalks, expanded lighting and other amenities.

The project is funded entirely with City of Waltham funds.

The areas to be improved are: Main Street from Banks Square to the overpass bridge at Linden Street, and Moody Street from Main Street to the Newton line, and the areas on Elm Street and Carter Street around the Common.

I. LIGHTING UPGRADES

NOTE: THE CITY WILL PROVIDE LIGHT POLES AND LIGHT FIXTURES. CONTRACTOR WILL PROVIDE MATERIALS AND INSTALLATION OF POLES AND LIGHT FIXTURES.

A. MAIN STREET

From Banks Square to overpass bridge at Linden Street:

Double Light Fixture Poles

- Existing double light fixture black poles are to be cut down (by the City) to 17 feet, lightly sanded and painted with black oil paint (to match the new poles being purchased) and then relocated to intersecting streets with Main Street. Poles and light fixtures are provided by the City
- All double light fixture poles are to have an outlet, flag bracket and banner poles (existing size).
- Placement/installation of the light fixture piece is to be rotated so that the lights are parallel with the sidewalk and not jutting out over the street. Banners are to be installed on the sidewalk side, and the flag pole brackets are to be installed on the street side.
- The poles are to be wired per Wires Department specifications so that all lights don't cease operation if one light pole loses its electrical feed.
- Total number of double poles 53.

Single Light Fixture Poles

- Install new 12 foot single fixture light poles black enamel oil are to be placed approximately every 52 feet. (Provided by the City)
- All single light fixture poles are to have banner poles (smaller than existing banner size). Brackets are provided to the contractor by the City and are installed on the sidewalk side by the contractor. (Provided by the City, Installed by Contractor)
- The poles are to be wired per Wires Department specifications so that all lights don't cease operation if one light pole loses its electrical feed.
- Total number of single poles 191
- See GIS map for Main Street to be provided Via Addendum.

B. MOODY STREET

Common side of Moody Street from Main Street to the railroad tracks:

Double Light Fixture Poles

- Existing double fixture black poles are to be cut down to 17 feet, lightly sanded and painted with black oil enamel paint (to match new poles being purchased) and then reinstalled with fixture parallel with sidewalk not jutting out over street. Poles and light fixtures are provided by the City
- All double light fixture poles are to have an outlet, flag bracket and banner poles (existing size).
- Install 31 (17ft) double fixture black light poles around the Common on Main Street, Elm Street and Carter Streets. They will be provided to the contractor cut down, painted, rotated. The fixtures are installed parallel to sidewalk not jutting out, and all have a flag bracket existing size and a flag holder. 14 17" double head pole and lights.

From south side of railroad tracks to High Street:

Cement Cobras:

- Existing concrete Cobras with LED lighting to stay.

Single light fixture poles:

- Black lanterns are to be replaced with new lanterns (provided by City). Surplus lanterns are the property of the City of Waltham.
- New single light fixture poles are to be placed where the current poles are.
- Remove 10 existing poles and lights and replace with City provided Poles and Lights.
- The poles are to have flower brackets on either side of the pole and an outlet. Surplus poles are the property of the City of Waltham.
- Existing concrete cobras with new LED lighting to stay.
- At the discretion of the Wires Inspector, install 5, 12 foot single poles and fixtures in the downtown Moody Street Area
- There are 69 light fixture pole at this location

From High Street to the Newton line:

Double Light Fixture Poles

- 17 pole and light will be removed by contractor and re-installed, after the City completes the necessary modifications, to other locations.
- The poles are to be wired per Wires Department specifications so that all lights don't cease operation if one light pole loses its electrical feed.
- Total number of double poles 0.

Single Light Fixture Poles

- Install new 12 foot single fixture light poles black enamel oil are to be placed approximately every 52 feet. (provided by City)

- All single light fixture poles are to have banner poles (smaller than existing banner size). Banner brackets are to be installed on the sidewalk side.
- The poles are to be wired per Wires Department specifications so that all lights don't cease operation if one light pole loses its electrical feed.
- Total number of single poles 100.
- See GIS map for Moody Street to be provided via addendum

NOTE: ALL INSTALLATION AND EQUIPMENT IS SUBJECT TO THE APPROVAL OF THE WIRES INSPECTOR.

II. SIDEWALK UPGRADES

- New concrete sidewalks with a brick strip are to be installed the entire length of Main Street from the point that the Main Street Marketplace left off to the overpass at Linden Street, and on Moody Street, from Felton Street to the Newton line.
 - Length of sidewalks, Main Street Approx. 6600 ft. per side (6600x2=13,200ft)
 - Length of sidewalks, Moody Street Approx. 3600 ft. per side (3600x2=7,200ft)
- The concrete sidewalks are to have a concrete lip for the brick to be set in. See the attached specification used at Moody Street in front of the Waltham Community Center.
- The trees in front of the Library and in front of the Christ Episcopal Church are to be saved (9 in total). The contractor shall install all remove and install all trees. Tree pits are to be built in such depth to accommodate the root system. See specs
 - Trees are to be installed 125 ft. apart or as directed by the City
 - Trees are Zelkovia Serrata, Green Vase 2-2.5", B& B
 - Install trees after all light poles

OTHER

- Additional granite tree pits are to be installed per the specifications of the CPW Director, unit price for a 4X4, and a unit price for 6X8 shall be provided.

Number of 4X4 granite tree pits 120

Number of 4X8 granite tree pits 44

- Bus stops are to have benches. Provided by the City See the attached Installation specs.
- Tree species to be used, see the attached specification.
- Parking meters will be removed by contractor.
- Any metal traffic signage will be placed on black poles or cobra poles with appropriate clamp. There shall be no signage in the concrete or brick work.

Wheelchair Ramp Pads. Shall be provided by the contractor as specified in the attached drawing. All pads will be installed on a 6 inch concrete base. Color to match those in front of the South Middle School and the one at Main Street and Spring Street. There are 105 Units on main street and 94 Units at Moody Street.

Benches. 32 benches shall be provided to the contractor by the City and installed by the contractor as indicated in the attached drawing.

Surplus Lanterns and Poles. Removed lanterns and poles become the property of the City.

Curb Stones. Keep and reuse all curb stones that are not damaged. Replace damaged ones.

Light Poles Then Trees. Install first all light poles then all trees.

Brick Design Submittal. Contractor will propose a design for the placement of bricks around all sidewalk manhole covers, light control boxes, hydrants, water shut off, etc.

ALTERNATE BID

BRICK SIDEWALKS FOR A PORTION OF MOODY STREET

- All brick sidewalks for Moody Street from the southerly side of Moody Street Bridge to High Street. (The rest of Moody Street is concrete with a brick strip).

CLEARING AND GRUBBING

DESCRIPTION

General.

This work shall consist of clearing, grubbing, cutting, removal and disposal of all vegetation and debris from areas either within or outside of the Right-of-Way as shown on the plans or designated by the Engineer.

The work shall also include the preservation from injury or defacement of all vegetation and objects designated by the Engineer to remain.

The burning of trees, brush, stumps, etc., will not be permitted. The Contractor shall provide other satisfactory methods of disposal without additional compensation.

Quality of Work.

Quality of work must conform to all accepted tree trimming practices. All trimming and pruning shall conform to recognize tree surgery practices, and particular note should be made that painting with an approved tree dressing or paint, will be required on all cuts 2 inches or over in diameter.

The dressing or paint shall be applied no later than two days after the cuts are made.

Recognized tree surgery practices include among others, the fact that all limbs and branches which require removal and all stubs regardless of age must be cut flush either to a union with the next larger sound limb or branch or flush to the trunk of the tree.

The cutting shall be performed by experienced woodsmen. Trained tree climbers are required for pruning of tall growth. Care shall be exercised by the Contractor to prevent injury to trees and shrubs designed to be preserved. Any injury to limbs, bark or roots of such plants shall be repaired by the Contractor, as directed, or the plants replaced without additional compensation for such repair or replacement.

Disposal of Trees.

All trees to be cleared shall become the property of the Contractor, and the satisfactory disposal of the wood in such trees outside the Right-of Way shall become his responsibility.

The tress, including cuttings and slash shall be disposed after cutting as soon as practicable and in such a manner as not to distract from the appearance of the roadside.

If the existing ground in the area is disturbed by any of the work or equipment, the Contractor shall rough-grade and loam and seed if necessary the disturbed areas, if so directed, without additional compensation.

General

Disposal of Stumps and Brush.

After removal, all stumps including the major root system shall be disposed by the Contractor at his own responsibility outside the layout where the material will not cause obstructions to streams and will not detract from the appearance of the roadside.

Disposal of Dutch Elm Diseased Wood.

Dutch Elm diseased wood shall be disposed of in accordance with the provisions of General Law, Chapter 87, Section 5 and Chapter 132, Sections 8 and 11, as amended; and in accordance with any additional local regulations.

Where the work includes the removal of elm trees or the limbs of elm trees, such trees or limbs thereof shall be disposed of immediately after cutting or removal and in such a manner as to prevent the spread of Dutch elm disease. This shall be accomplished by covering them with earth to a depth of at least 6-inches in areas outside the highway location where the Contractor has arranged for disposal.

Where the work includes the removal and disposal of stumps of elm trees, such stumps shall be completely disposed of immediately after cutting in the manner specified above.

Method of Measurement.

Only such trees as have a shortest diameter of at least 9-inches and less than 24-inches shall be included in the item of Trees Removed (Diameter Under 24-Inches). Only such trees as have a shortest diameter of 24- inches or more shall be included in the item of Trees Removed (Diameter 24 Inches and Over).

The item of Stumps Removed shall include the removal and satisfactory disposal of all tree stumps which remain in their original position and 9 –inches or more in shortest diameter at the cutoff point, where the trees have been previously removed by others. A stump shall not be construed as a tree under these specifications unless the trunk extends over 6-feet above the average ground.

Trees or stumps to be removed which have the shortest diameter specified for payment will be measured in place by the following procedure.

Where the tree consists of a single trunk extending more than a 3-foot vertical height above the average natural ground line, the shortest diameter shall be measured at the 3-foot level above the average elevation of the original ground.

Any tree whose main trunk separates into multiple trunks or which has limbs or branches growing out from the main trunk below the 3-foot level defined hereinbefore shall have its shortest diameter measure at the lowest point on the main trunk where multiple growths or branching out begins.

Measurement for payment under the respective items shall be such that any individual growth to be classed as a tree stump shall be measured in a manner to limit payment to one single tree or stump at each particular location of the individual growth. When multiple trunks with a common root system are separated at ground level each separate trunk shall be considered as an individual growth under these specifications.

The quantity of trees or stumps to be paid for will be the number actually removed by the Contractor in the completed and accepted work as determine by count.

The removal of trees, including the stumps thereof and required spray material will be paid for at the contract unit price each for the particular kind of work involved, as defined hereinbefore when a quantity is given in the Proposal under their respective items, otherwise this work will be paid for at the contract unit price for excavation or at the contract unit price per acre of Clearing and Grubbing or Selected Clearing and Thinning, whichever is applicable. The contract unit price shall include the cost of all arrangements and methods required to protect from harm all existing overhead or underground installations. The contract unit price for the respective items shall not include any trees or stumps removed from the area paid for under the item of Clearing and Grubbing or Selected Clearing and Thinning.

Only such trees or stumps as have a shortest diameter of 9-inches and over, measured

UNCLASSIFIED EXCAVATION

GENERAL: This work shall consist of the necessary excavation and removal of various materials as shown on the contract drawings or as required by the OWNER. All work shall be done by the CONTRACTOR. All excavated material shall be disposed of in a proper manner. All material shall be cleaned up by the CONTRACTOR as the work progresses. No material or waste shall be left on the street overnight and no driveways or sidewalks shall be left in a rough or unsafe condition unless lighted and guarded by the CONTRACTOR at his expense. Where abutting lawns are cut, the CONTRACTOR must properly adjust and reseed the lawn to the new grade. Where abutting surfaces of blacktop or other material are disturbed beyond the limit of adjustment, the CONTRACTOR shall replace same at his own expense.

Excavation shall include the removal and disposal of bituminous, earth, curbing, signposts, and/or any incidental items as indicated on the contract drawings or as required by the OWNER. Items and/or

materials that are classified for payment under some other unit item within this contract shall not be considered as part of ITEM 120.100.

The edges of existing concrete surfaces that are to receive new replacement materials shall be saw-cut along even lines and shall be cut back to obtain clean, sound vertical edges of the abutting material.

The edges of bituminous concrete shall be saw-cut or cut with pneumatic tools along even lines and shall be cut back to obtain clean, sound vertical edges of the abutting material. All edges shall be coated with an approved bituminous material for proper bonding of new pavement construction with the existing pavements. All preparation of edges of existing pavements shall be provided as specified herein and shall be subject to approval by the OWNER.

The City of Waltham, at its own discretion, may retain the right to the excavated gravel and the OWNER may select a site for said gravel to be placed. On-site gravel, if requested by the OWNER, shall be saved for re-use on the job. The gravel shall be excavated separately from the bituminous, stored (if required) and/or relocated on the site or at a site within the city selected by the OWNER, at no additional cost to the City of Waltham. All work shall be done by the CONTRACTOR.

If requested by the OWNER, any suitable excess material (as determined by the OWNER) excavated from the site shall be re-used to fill areas below subgrade. This shall be done at no extra cost to the City.

All saw-cutting of materials shall be done at no extra cost and shall be considered as incidental to the item unless there is a separate and/or specific pay item listed for saw-cutting in the Contract.

CONTRACTOR shall avoid damage to trees that have parts of their root system in the roadway, sidewalk or planting areas that are selected for excavation. Said excavation shall be accomplished as carefully as possible or as required by the OWNER.

NOTE: Material excavated during reclamation or cold planing operations is not included in this item.

MEASUREMENT: Measurement for unclassified excavation shall be the number of cubic yards of material removed and legally disposed of. This quantity shall be based on the OWNER'S field measurements and/or office calculations.

Failure to allow ample time for the OWNER to make the required measurements will forfeit the CONTRACTOR'S right of claim to any excavation other than that allowed by the OWNER.

CONCRETE SIDEWALK EXCAVATION

GENERAL: This work shall consist of all necessary excavation and disposal of existing concrete surfaces as shown on the Contract Drawings or as specified by the OWNER. All work shall be done by the CONTRACTOR and the material shall be cleaned up as the work progresses. No material or waste shall be left on the street overnight and no driveway or sidewalk shall be left in an unsafe condition unless lighted and guarded by the CONTRACTOR at his expense. Where abutting surfaces of concrete or material are disturbed beyond the limits of adjustment or beyond the limits of contract, the CONTRACTOR shall replace the same at his own expense. If reinforced concrete walks and/or drives are encountered during removal, they shall be included as part of this item. The edges of existing concrete surfaces that are to receive new replacement materials

shall be saw-cut along even lines and shall be cut back to obtain clean, sound vertical edges of the abutting material.

All saw-cutting of concrete shall be done at no extra cost and shall be considered as incidental to the work within this item unless there is a separate and/or specific pay item listed for saw-cutting elsewhere in this contract.

MEASUREMENT: Measurement shall be the number of square yards removed and disposed, regardless of the depth of concrete excavated, in a manner satisfactory to the OWNER. This quantity shall be measured in the field by the OWNER. Failure to allow ample time for the OWNER to make the required measurements will forfeit the CONTRACTOR'S right-of-claim to any concrete excavation other than that allowed by the OWNER.

GRAVEL BORROW

GENERAL: This work shall consist of furnishing and placing ordinary gravel borrow in accordance with these Specifications, and/or as required by the OWNER.

MATERIALS: Gravel borrow shall consist of hard durable stone and coarse sand free from loam and clay, well graded and containing no stone having any dimension greater than two (2) inches (type C), as per Section M1.03.0 of the Commonwealth of Massachusetts Standard Specifications, including any and all addenda. The gravel borrow shall conform to the following sieve requirements:

| <u>SIEVE</u> | <u>% PASSING</u> |
|--------------|------------------|
| 1/2" | 50 - 85 |
| #4 | 40 - 75 |
| #50 | 08 - 28 |
| #200 | 0 - 08 |

The gravel shall be tested for sieve analysis at the plant prior to delivery on the job site. The written results shall be given to the inspector for the city for approval prior to delivery. Failure to do so may result in the refusal of the material by the City. All costs incurred shall be paid for by the CONTRACTOR at no cost to the City.

The gravel borrow shall be placed in six inch (maximum) layers and then compacted to not less than 95% of maximum optimum density as determined by AASHTO Test Designation: T99-57, Method C.

Crusher run may be substituted in place of gravel borrow if desired by the CONTRACTOR and so approved by the OWNER. Crusher run shall be paid for at the same unit price as gravel borrow. The conversion factor used in determining the quantity of crusher run substituted shall be one and one-half tons of crusher run is equivalent to one cubic yard of crusher run.

MEASUREMENT: Measurement for gravel borrow shall be the number of cubic yards furnished, placed, and accepted in accordance with these specifications and/or as required by the OWNER. The number of cubic yards in place and accepted shall be measured or calculated by the OWNER. Fifteen percent shall be added to the figure for compaction. Only gravel borrow placed within the established pay limit necessary to complete the work as required by the OWNER shall be considered for payment. If, in the opinion of the OWNER, the CONTRACTOR has excavated areas to an excessive width and/or depth, either through error or for his own convenience, the gravel borrow used to refill trenches beyond said reasonable width or depth shall be paid for by the CONTRACTOR with no cost to the City.

Failure to allow the OWNER ample time to make the required measurements will forfeit the CONTRACTOR'S right of claim to any gravel borrow other than that which is allowed by the OWNER.

On-site gravel, if requested by the OWNER, shall be saved for re-use on the job. The gravel shall be excavated, stored (if required), and/or relocated on the site, all at no additional cost to the City. All work shall be done by the CONTRACTOR.

CRUSHER RUN

GENERAL: This work shall consist of the furnishing and placing of a one-inch leveling layer of crusher run as required by the OWNER. Depth of crusher run shall be measured after compaction. Crusher run may also be provided as a base for granite curb if required by the OWNER.

MEASUREMENT: All crusher run used will be paid for on the basis of weight and shall be measured by tickets delivered with each load. The tickets shall clearly show the total, tare, and net weights. Loads represented by tickets not showing the weights as specified above will not be accepted for payment. Only crusher run placed at the required depth and within the limits specified will be accepted for payment.

SAND BORROW

GENERAL: This work shall consist of furnishing and mixing sand borrow as an additive for reclamation applications.

MEASUREMENT: Sand borrow will be paid for on the basis of weight and shall be measured by tickets delivered with each load. The tickets shall clearly show the total, tare, and net weights.

Loads represented by tickets not showing the weights as specified above will not be accepted for payment.

DRAINAGE STRUCTURE ADJUSTED

GENERAL: This work shall consist of adjusting and replacing where necessary, OWNER'S existing frames and grates or covers of manholes and catch basins to newly proposed line and/or grade changes. FRAMES AND GRATES WILL BE PROVIDED TO THE CONTRACTOR. **This item shall not apply to any new castings installed under item 222.010 or castings for new structures.** When the line and/or grade of an existing structure require a change of more than one foot vertically and/or horizontally, the structure shall be remodeled under ITEM 220.500.

METHOD: Frames shall be set in full mortar beds true to the lines and grades established by the OWNER. All voids beneath the bottom flange shall be entirely filled to make a water-tight fit. A ring of mortar at least one inch thick shall be placed around the outside of the bottom flange and shall extend to the outer edge of the masonry structure.

After frames have been set and mortared, a cement concrete collar shall be constructed to the dimensions shown on the detail plans of the contract drawings. Cement concrete shall be 3000 psi with ¾ inch stone. All work shall be done under the direction of the OWNER.

DRAINAGE STRUCTURE REMODELED

GENERAL: This work shall consist of remodeling existing drainage structures, as required, to conform to newly proposed line and/or grade changes. The work shall be in accordance with these specifications or as required by the OWNER. **This item shall not apply to new castings for new structures**

When the line and/or grade of an existing drainage structure require a change of more than one foot vertically and/or horizontally, the structure shall be remodeled unless otherwise specified by the OWNER.

METHOD: Closing blocks and/or bricks shall be removed to expose the barrel portion of the structure. The barrel portion shall then be altered according to the new line and/or grade. Closing blocks and/or bricks shall then be reset to the structure. All masonry work shall be completed to the satisfaction of the OWNER. The CONTRACTOR shall be held responsible for the protection of the castings and the materials during construction operations. Any materials or castings damaged by the CONTRACTOR shall be replaced at his own expense and at no cost to the City.

Frames shall be set in full mortar beds true to the lines and grades established by the OWNER. All voids beneath the bottom flange shall be entirely filled to make a water-tight fit. A ring of mortar at least one inch thick shall be placed around the outside of the bottom flange and shall extend to the outer edge of the masonry structure.

MEASUREMENT: Measurement for drainage structures remodeled shall be made for the number of vertical feet the structure has been altered. Limits of measurement shall be from the top of the undisturbed row of blocks or barrel portion up to one foot below proposed finished rim grade of the casting. Final adjustment of the casting to finished grade shall be done under ITEM 220.000 or item 222.010 and shall not be considered for measurement or payment under this item. Measurement shall be made in the field by the OWNER.

FRAME & GRATE OR COVER (IN-PLACE)

(MUNICIPAL STANDARD or MHD CASCADE TYPE)

GENERAL: This work shall consist of furnishing, setting and adjusting to final grade any new castings as required.

When existing castings, in the opinion of the OWNER, are found to be defective through no fault of the CONTRACTOR, they shall be removed and disposed of by the CONTRACTOR. A new complete casting shall then be furnished, installed and adjusted to final grade by the CONTRACTOR as required by the OWNER.

Any casting damaged by the CONTRACTOR through his own negligence shall be replaced by him at no additional cost to the City.

MATERIALS: For catch basins, the frames shall conform to LeBaron type LF 246 (3 flange when curbing is present, 4 flange if there is no curbing) or the equivalent. Grates shall conform to LeBaron type L24-SG8 for standard grates or LK121A for cascade type grates or the equivalent.

For manholes, the frames shall conform to LeBaron type LA 246 or the equivalent. Covers shall conform to LeBaron type L24C19 or the equivalent. When ordering the covers, specify whether the top is to be lettered as "SEWER" or "DRAIN".

METHOD: Frames shall be set in full mortar beds true to the lines and grades established by the OWNER. All voids beneath the bottom flange shall be entirely filled to make a water-tight fit. A ring of mortar at least one inch thick shall be placed around the outside of the bottom flange and shall extend to the outer edge of the masonry structure.

GATE BOXES

GENERAL: This work shall consist of installing gate boxes. GGATE BOXES WILL BE PROVIDED BY THE CITY and will be installed flush with the new concrete

Gate boxes shall be two section, cast iron, heavy pattern, adjustable type with cast iron cover. The upper section shall have a bottom flange of sufficient bearing area to prevent settling. The bottom section shall enclose the valve stuffing box and operating nut. Boxes shall be of lengths adapted to five foot pipe cover or more and have a minimum of six inch overlap in the most extended position. Covers shall have the word "WATER" cast in the top.

The box shall be installed vertically and centered over the gate so that the gate wrench may be easily attached onto the gate. After installation, the box shall be cleaned out of all residue. Also included with this item shall be the final adjustment to proposed grade of the new gate box.

MEASUREMENT: Measurement for gate boxes shall be for the number of units furnished, installed and accepted as measured by the OWNER.

ADJUSTMENT OF GATE BOXES

GENERAL: This work shall consist of raising the OWNER'S existing water gate and water service gate boxes to newly proposed grades. Prior to adjustment of the gate boxes, the vertical alignment of the box over the center of the gate shall be checked. If needed, the gate box shall be re-aligned over the top of the gate before it is adjusted. Gravel base around the gate boxes shall be thoroughly compacted. For gate boxes in the traveled roadway, the excavated area shall be refilled with gravel, compacted, and set in a cement concrete collar as shown on the detail section of the contract drawings. The final elevations of the structures shall be determined in the field by the OWNER at the time of construction. All work shall be done under the direction of the OWNER. After the boxes are adjusted, they shall be air blown to remove all debris from the inside.

If, during the course of the work, a defective gate box is encountered, the CONTRACTOR shall remove it as required by the OWNER. A new gate box and/or sleeve shall be furnished and installed by the CONTRACTOR. This shall not include any gate boxes and/or sleeves damaged by the CONTRACTOR. Any damage as a result of the CONTRACTOR'S negligence shall be repaired or replaced by him at no cost to the City. Furnishing, installation and adjustment to final grade of any new gate boxes and/or sleeves shall be included as part of ITEMS 357 and shall not be considered as part of ITEMS 358.100 or 358.200.

MEASUREMENT: Measurement for gate boxes adjusted shall be for the number of units completed and accepted as determined from actual count by the OWNER.

BITUMINOUS CONCRETE PAVEMENT

GENERAL: This work shall consist of fine grading and compaction of gravel base material and/or crusher run base material prior to placing mix, and furnishing, spreading and compacting bituminous concrete base courses and wearing surfaces in accordance with the details shown on the Contract Drawings, as specified in these Specifications, or as required by the OWNER.

MATERIALS: Class I bituminous concrete pavement, Type I-1, shall conform to the requirements of Section 560.00 of the current Edition of the "Standard Specifications for Highways and Bridges," Commonwealth of Massachusetts, Department of Public Works, including any addenda or amendments thereto. The City of Waltham has the option of requesting a modified state top when deemed necessary.

Bituminous concrete shall be spread at a temperature of not less than 225 degrees Fahrenheit and all initial rolling or tamping shall be performed when the temperature of the mixture is such that

the sum of the air temperature plus the temperature of the mixture is between 300 and 375 degrees Fahrenheit. All mixtures shall be placed only when the atmospheric temperature is above 40 degrees Fahrenheit.

Bituminous concrete for wearing surfaces and base courses shall be spread in individual layers and compacted to the required lines, grades and cross section.

Rolling shall commence at the lower edges and shall progress toward the highest portion. Under no circumstances shall the center be rolled first. Each completed surface shall be thoroughly compacted, smooth and free from ruts, humps, depressions, or irregularities.

Where new bituminous meets existing bituminous surfaces, an emulsifying agent shall be applied to seal the joint. A sand overcoat shall then be applied over the emulsifying agent.

MEASUREMENT: All bituminous used for roadway and sidewalk bases and surfaces will be paid for on the basis of weight and shall be measured by tickets delivered with each load. The tickets shall be signed by a certified weigher and shall be countersigned by the OWNER. The tickets shall clearly show the total, tare, and net weights. Loads represented by tickets not showing the weights as specified above will not be accepted for payment. Only bituminous concrete placed at the required depth and within the limits specified by the OWNER will be accepted for payment.

INSTALLATION OF GRANITE CURBING

GENERAL: Under these items, the CONTRACTOR is to furnish and install new granite curbing, inlet stones, granite edging and curb corners. Curb shall be set on undisturbed earth to the lines and grades indicated on the Contract drawings and/or as required by the OWNER.

MATERIALS: Where granite curb is being installed adjacent to existing granite curbing the CONTRACTOR shall use curbing of similar style and wear. All new granite curb, curb corners, and inlet stones and granite edging shall conform to the applicable requirements of the "Standard Specification for Highways and Bridges," Commonwealth of Massachusetts, including any addenda or amendments thereto with the exception of payment for crusher run. Crusher run for curbing shall be included as part of the applicable curb item. All granite curbing shall consist of at least ninety percent of six feet minimum lengths unless otherwise required by the OWNER.

Granite curb shall be hard, durable, fine to medium grain and free from seams that impair structural integrity. Color shall be light gray, highlighted by black flakes, similar to that installed on recent projects in Waltham. Curb for each location shall be fabricated from the same parent material by one manufacturer to give a uniform appearance. Natural variations characteristic of the deposit will be permitted. The top of the curb shall be polished. The sides shall be cut square, most specifically the top 6" of the face that faces the street.

Cement concrete shall be 2,500 psi, 3/4" stone.

METHOD: Granite edging shall be set in accordance with the "Commonwealth of Massachusetts Standard Specifications for Highways and Bridges."

A trench shall be excavated to a width of eighteen inches to the bottom of the proposed curb. Unless otherwise required by the OWNER, curb shall be set to the lines and grades shown on the plans and fitted together as closely as possible. Curb shall be saw cut, not broken, to required lengths. If requested by the OWNER, crusher run shall be added and hand tamped to fill any voids between the undisturbed earth and the bottom of the curb so the curb is supported along two points of its entire length. The center and both ends of each curb length shall be left open for cement concrete. On the day of the curb installation, 6" x 6" beds of cement concrete shall be poured front and back, and the concrete shall flow under the curb. Care shall be taken not to affect the line and/or grade of the curb. Joints between curbstones shall be filled with mortar and exposed surfaces shall be neatly pointed. At completion of work, curb shall be clean and free of cement spills. If curb is not clean, the OWNER may request that the curb be pressure washed, at no additional cost to the City.

Care should be taken to avoid placing concrete in areas selected for future placement of trees.

MEASUREMENT: Granite curb to be paid for will be the length actually furnished, set, completed and accepted in accordance with the Specifications and Contract Drawings and as measured along the outer radius of the curb. The quantity of new granite curb corners and inlet stones shall be on a unit basis for the actual number furnished and set in accordance with the Specifications and Contract Drawings.

CURB REMOVED AND RESET

GENERAL: This work shall consist of removing existing curb and/or curb corners and resetting them to grade in the same location in accordance with these specifications, as shown on the Contract Drawings, and/or as required by the OWNER. The CONTRACTOR assumes full responsibility for any damages incurred in the removal and resetting processes or any damages incurred while executing said work.

METHODS: Unless otherwise required by the OWNER, curb shall be set to the lines and grades shown on the plans and fitted together as closely as possible. Crusher run shall be added and hand tamped to fill any voids between the undisturbed earth and the bottom of the curb so the curb is supported along two points of its entire length. The center and both ends of each curb length shall be left open for cement concrete. On the day of the curb installation, 6" x 6" beds of cement concrete shall be poured front and back, and the concrete shall flow under the curb. Care shall be taken not to affect the line and/or grade of the curb. Joints between curbstones shall be filled with mortar and exposed surfaces shall be neatly pointed.

MEASUREMENT: Payment for granite curb removed and reset shall be the number of linear feet of curb actually removed and reset as measured and accepted by the OWNER. The quantity of curved granite curb and granite curb corners removed and reset shall be measured along the outer radius.

CEMENT CONCRETE FOR SIDEWALKS

GENERAL: This work shall consist of fine grading and compaction of gravel and/or crusher run and the furnishing and placing of cement concrete for sidewalks, driveways and aprons in accordance with these Specifications and/or as required by the OWNER. Depths of concrete shall be 4 inches (reinforced) in sidewalks and 6 inches (reinforced) in driveways, aprons, roundings, and handicap sidewalk ramps and as required by the OWNER.

MATERIALS: 7% ($\pm 1\frac{1}{2}\%$) air-entrained cement concrete (4,000 psi, 3/4" stone), borrow, and pre-formed joint fillers shall conform to the requirements of SECTION 701 of the "Standard Specifications for Highways and Bridges," Commonwealth of Massachusetts, Department of Public Works, 1988 Edition, including any addenda or amendments thereto, unless otherwise specified by the OWNER.

All concrete shall contain a fibrous concrete reinforcement of 100% virgin polypropylene fibrillated fibers of multi-design gradation as manufactured by Fibermesh, Synthetic Industries, 4019 Industry Drive, Chattanooga, Tennessee 37416 or an approved equal.

Wheelchair ramps shall include a prefabricated truncated dome modular system manufactured from high strength polymer concrete. Each accessible ramp shall have one panel 24 inches deep by 60 inches wide. The color of the panels shall be gray. The physical properties of the concrete panels shall meet the following requirements.

| PROPERTY | VALUE |
|---------------------------------------|--|
| Water Absorption – ASTM D570 | $\leq 0.35\%$ |
| Slip Resistance – ASTM C1028 | ≥ 0.80 |
| Abrasive Wear – ASTM D2486 | BYK Gardner Tester $\leq 0.03/1,000$ cycles |
| Accelerated Weathering – ASTM G26 | $\geq 2,000$ hours no fading |
| Chemical Stain Resistance – ASTM D543 | no discoloration |
| Gardener Impact – ASTM D5420 | ≥ 450 in. lbf/in. |
| Compressive Strength – ASTM D695 | $\geq 18,000$ psi |

Tactile warning panels shall be installed in accordance with the manufacturer's recommendations and tamped into the fresh concrete and made flush with the surrounding surfaces. Concrete masonry blocks may be needed to insure continuous contact with the panel's underside with the concrete. Panels shall be protected from damage and concrete and asphalt spatter. Surfaces shall be cleaned as recommended by the manufacturer.

The concrete of the surrounding ramp shall be finished true and smooth to the required dimensions and slope before the tactile warning panel is installed. The panel shall be placed true and square to the curb line.

METHODS: Methods shall conform to the aforesaid, unless otherwise required by the OWNER. All transverse joints shall be formed with a 1/2" wide by 1" deep jointing tool such as the Marshall Town No. 836 jointing tool or the equivalent. All transverse joints shall be measured and divided equally and separately between the expansion joint distances. Continuous concrete blocks shall be no longer than 30 feet.

Concrete shall have a broom finish. A colored curing agent or retardant approved by the OWNER shall be applied to the finished concrete if requested by the OWNER. Otherwise, the curing method shall be as prescribed in Section 476.71A of the Mass. Standard Specifications.

The CONTRACTOR shall be responsible for the guarding of the wet concrete until it has sufficiently set up in place. The CONTRACTOR shall assume responsibility for replacing any concrete that is damaged due to cracking or vandalism. Replacement of concrete including saw cutting, removal and disposal of rejected concrete shall be done at the CONTRACTOR'S expense with no additional cost to the City. The CONTRACTOR maintains responsibility for the concrete for one year after the completion of the entire contract as noted in the Specifications of these documents (Section 6 Paragraph **Error! Bookmark not defined.**)

MEASUREMENT: Measurement for concrete sidewalks, drives and aprons shall be the number of square yards furnished, placed and accepted based on the OWNER'S field measurements or office calculations. Only cement concrete placed at the required depths and within the limits specified by the OWNER shall be accepted for payment.

STONE BOUND REMOVED AND RESET

GENERAL: This work shall consist of resetting existing stone bounds to new lines and grades as required by the OWNER.

MATERIALS: Cement concrete for stone bounds shall be 3000 psi with ¾ inch stone.

METHODS: All excavation shall be done by hand. Prior to excavation at least three accurate ties shall be made to the stone bound, witnessed and approved by the OWNER. Points shall be in locations that will not be disturbed by other construction operations until the bound has been set.

After each stone bound has been set in place and backfilled, the CONTRACTOR will mark the exact survey point in the presence of the OWNER and drill a hole of approximately three-eighth inch diameter to a depth of approximately one-half inch deep.

If, as a result of negligence by the CONTRACTOR, ties are lost or deemed unreliable by the OWNER, it will be the responsibility of the CONTRACTOR to hire a Registered Professional Land Surveyor to

conduct a survey to replace such points. The cost of the surveyor and all equipment, materials and manpower shall be paid by the CONTRACTOR at no additional cost to the City.

MEASUREMENT: Measurement for stone bound frame and cover shall be for the number of bounds reset as determined from actual count by the OWNER.

STONE BOUND FRAME AND COVER

GENERAL: This work shall consist supplying and installing a cast iron cover over an existing stone bound where there is a change in grade as required by the OWNER.

MATERIALS: Cover shall be S208-6 as supplied by LeBaron Foundry Inc., Brockton, Massachusetts or an approved equal.

METHODS: All excavation shall be done by hand. Covers shall be installed on undisturbed earth with the cover set to the level of the finished grade.

If, as a result of negligence by the CONTRACTOR, the stone bound is moved or broken it shall be the responsibility of the CONTRACTOR to hire a Registered Professional Land Surveyor to conduct a survey to properly locate the stone bound point and the CONTRACTOR shall reset the bound to accurate line and grade. The cost of the replacement, including the surveyor and all equipment, materials and manpower shall be paid by the CONTRACTOR at no additional cost to the City.

LOAM BORROW

GENERAL: This work shall consist of furnishing and placing loam borrow at the required depths and on approved areas in accordance with these Specifications, as indicated on the Contract Drawings, and/or as required by the OWNER. Only screened loam will be accepted for use.

All grass areas worked on or disturbed during construction and/or grassed areas shown on the Contract Drawings shall be graded to the necessary depths and covered with loam. The loam shall be fertile natural topsoil loam free from brush, weeds, stumps roots, stones over ½ inch in size, and any other objectionable matter. Respreading of existing on-site loam shall be part of ITEM 765.000 and will not be included with as part of this item.

METHOD: In sidewalk loam areas, loam shall be placed and uniformly spread on the sub-grade. When raked out and rolled, the depth of the loam shall be six inches. The finished surface shall be even with the top of the curb and the face of the sidewalk.

If loam is required in adjustment areas, it shall be placed at the depths indicated by the OWNER, but not to exceed 3 inches maximum depth.

MEASUREMENT: Measurement for loam borrow shall be for the number of cubic yards furnished and placed. Measurement shall be made after compaction. This amount shall be measured in the field by the OWNER or, at his option, determined from plan or office calculations. **This shall not**

include the re-spreading of any existing on-site loam. 20% of the measured amount will be added to the final amount to allow for compaction.

There will be no separate payment for re-spreading of existing on-site loam. That shall be considered as part of SEEDING.

SEEDING

GENERAL: This work shall consist of the raking, fertilizing, liming, compacting and preparation of loam areas for the furnishing and application of seed. All work shall be done in accordance with these Specifications and/or as required by the OWNER. This item shall also include the respreading of existing on-site loam obtained from stripping operations.

MATERIALS: Lawn seed shall be fresh, clean new crop seed. The seed shall be delivered to the work site with each container bearing the manufacturer's guaranteed analysis. Lawn seed shall be composed substantially as follows and shall be germinative and pure to at least the percentages indicated:

| | Proportion | Germinative | Purity |
|---------------------------------------|------------|-------------|--------|
| Chewing Fescue or Creeping Red Fescue | 25% | 85% | 97% |
| Alta Fescue | 30% | 85% | 97% |
| Domestic Rye Grass | 20% | 90% | 98% |
| Red Top | 15% | 90% | 92% |
| White Clover or Alsike | 10% | 90% | 98% |

METHOD: The surface to receive seed shall be raked smooth, without pockets, and pleasing to the eye. The area shall be fertilized, limed, seeded, rolled and watered as required to promote satisfactory grass growth. Any areas or parts of areas that fail to show a satisfactory stand of grass within a reasonable amount of time for any reason shall be fertilized and re-seeded until all areas are covered with an adequate acceptable growth of grass. When the grass has grown, the CONTRACTOR shall, at the direction of the OWNER, make a minimum of at least one lawn cutting. Seeding shall be done only within certain times of the year as determined by the OWNER. If seeding is done in the fall season, the acceptance of the work shall not be until the end of the next following growing period. Seed shall be placed at a rate of 2 pounds per 1,000 square feet of area to be covered.

MEASUREMENT: Measurement shall be determined for the number of square yards of area treated and seeded as determined by the OWNER. This amount shall be measured in the field by the OWNER, or, at his option, determined from plan or office calculations.

placing all seed, for furnishing and spreading all fertilizer and lime, for raking and compaction of all areas affected, for all cutting, for all tools, labor, equipment, materials and all else incidental

thereto. All work is subject to approval by the OWNER. **There will be no payment for respreading of existing on-site loam.** This shall be considered as incidental to the work within this item.

1" PVC ELECTRICAL CONDUIT

GENERAL: Furnish and install 3" PVC conduit in locations specified by the OWNER.

MATERIALS: PVC conduit shall be rigid polyvinyl chloride, Schedule 8 as manufactured by Carlon, Phillips Petroleum Co., Triangle Pipe and Tube Co., Inc., or approved equal. Fittings used with PVC conduit shall be PVC and of the same manufacturer as the conduit.

Warning tape shall be 6 inch wide, yellow polyethylene not less than 3.5 mils thick and shall be as manufactured by W. H. Brady Co., Seton Name Plate Co., Unitrust Corp., or approved equal. Warning tape shall display the following message:

CAUTION CAUTION CAUTION

BURIED ELECTRIC LINE BELOW

CONSTRUCTION METHODS: Prior to any road construction, the contractor shall check existing conduit in anticipation of installing wires for new cameras. If the contractor is unable to pull wires as required, he shall notify the OWNER who may authorize installation of new conduit.

Underground conduit shall run in straight lines. Where deviation from a straight line becomes necessary, bends shall be of sufficient radius for the proper rodding and installation of cable. Changes in direction of runs exceeding a total of 10 degrees, either vertical or horizontal, shall be made of long sweep bends having a minimum radius of curvature of 25 feet, except that manufactured bends may be used at ends of runs, and then only at or close to the end of the run. The long sweep bends may be made up of one or more curved or straight sections and/or combinations thereof. Manufactured bends shall have a minimum radius of 36 inches where a larger radius cannot be used.

Conduit bends shall be carefully made to prevent distortion of the circular cross-section. No conduit run shall have more than the equivalent of three 90 degree bends between pulling points. Changes in direction shall be made with bends, standards elbows and pull boxes.

The ends of all conduits shall be tightly plugged during construction until wires are to be pulled. Spare conduits shall be furnished with threaded caps, or removable, neoprene plugs.

Conduit shall be placed on a 6 inch bed of tamped sand.

Do not commence backfilling operations for trenches and structures until all conduit has been installed and approved, and the lengths and locations of all pipe and appurtenances have been recorded. Place an additional 6 inch bed of sand over conduit and backfill, tamping firmly in layers not exceeding six inches, compacting with hand rammers or mechanical tampers

A 2" x 6" untreated wooden plank shall be installed three inches above the conduit. Warning tape shall be installed twelve inches above the plank.

MEASUREMENT: Conduit shall be measured in the field prior to backfilling operations. Failure to allow ample time for the Engineer to make the required measurements will forfeit the Contractor's right-of-claim to any length of conduit other than that allowed by the Engineer.

City of Waltham Main and Moody Street Lighting Project

ELECTRICAL SPECIFICATIONS

Electrical conduit shall extend from hand hole to light base, continued to next hand hole- Light shall be supplied by one power source with the capability to supply power from alternate source.

Conduit shall be 1 inch trade size PVC schedule 80; it shall be installed under sidewalk- not in concrete pour.

Conductors shall be minimum size # 8 thwn, consisting of a hot, neutral and equipment ground.

Hand holes shall be a minimum of 12 by 17, 12 inch deep, shall be

U.L Listed to be installed in concrete and or brick and approved for pedestrian traffic, Hand holes shall be installed every 150 feet, if not already present.

If no underground power source is present, the new lights shall be supplied from the nearest traffic controller at the discretion of The Inspector of Wires.

Handholes shall be flush with the finished sidewalk, and shall match finish as

LOOP DETECTORS AND LEAD-IN WIRES

GENERAL: This work shall consist of furnishing and installing loop detectors and lead-in wires in areas of resurfacing where the existing loops and lead-ins are removed due to excavation operations. The work shall be done by the CONTRACTOR to the satisfaction of the OWNER.

MATERIALS AND METHODS: The CONTRACTOR shall obtain an electrical permit from the City of Waltham Wire Inspector prior to construction. The CONTRACTOR shall notify the City of Waltham Wire Inspector 60 day's prior to start of work. All traffic signal equipment and related items (such as pavement markings and signs) shall be in place and permission obtained from the City of Waltham Wire Inspector prior to the traffic signal being turned on stop and go operation.

Before starting any installation work, the electrical CONTRACTOR shall furnish data sheets and shop drawings on the materials and methods to be used.

In advance of the loop detector installation, the CONTRACTOR shall mark, on site, the loop detectors with any changes required by field conditions such as manholes. The loop detector layout shall be inspected and approved by the OWNER before the loop detectors are installed.

Loop wire shall be encased in a protected plastic tubing of PVC or polyethylene plastic, IMSA 51-5, 0.25 inch outside diameter, and the wire may have cross-linked polyethylene insulation or it may have THHN/THWN insulation.

Splicing insulator shall be an approved re-enterable rigid body splice kit with a non-hardening sealing compound compatible with the wire insulation.

Splice and Connection: Splicing and connection shall be made in the pull box nearest the roadway loop sensor but not exceeding four loops per pull box. All loops included in a detector group as shown on the plans shall be spliced in a single pull box. Each lead and lead-in connector shall be stripped back and spliced using a pressure type wire connector applied with a crimping tool. Multiple loop sensors shall be identified as detailed on the plans.

Lead-in splicing shall be staggered to prevent contact with each other. Each crimped splice shall be soldered and insulated. The insulation material shall be heat-shrunked polyolefin. The shielded lead-in cable outer jacket and shield shall be stripped back sufficiently to ensure that the shield cannot come into contact with the spliced conductors. Follow the instructions of the kit manufacturer for this procedure when installing the re-enterable splice kit.

NOTE WELL: The above splice shall be done on the day of the loop wire installation to prevent the entrance of any moisture into the plastic tubing.

The lead-in conductors shall be connected to the appropriate terminals in the controller cabinet, by using crimped or soldered terminal ends. The heat source for soldering shall be electrical not exceeding 30W capacity.

Testing of Loops: The following test procedure shall be performed in the presence of the OWNER before and after the loop sensor is sealed in the pavement as detailed below. The cost of equipment, labor, and materials to perform such testing and similar re-testing following repairs, replacement, or adjustment of any detector within the project area shall be included in the contract unit price for this item.

After installation of wire loop sensors in the roadway and installation of shielded lead-in connecting the loop sensors to the controller cabinet each loop sensor and lead-in combination shall be tested (at the controller cabinet) for proper installation. The resistance from lead to lead of the same loop shall not exceed three ohms per one thousand feet as measured by a high quality meter suitable for measurements of low resistance in the range of 1 to 6 ohms.

A megohm meter test at 500 volts DC shall be made between the two leads of a loop/lead-in combination temporarily spliced together, but otherwise disconnected from all terminals, and the shield drain wire and the earth ground connection. These resistances shall be at least one hundred megohms.

A megohm meter test at 500 volts DC shall be made between lead-in shield and the earth ground rod. This resistance shall be at least one hundred megohms.

The meter used for these tests shall be checked for calibration each day of use by using a resistor block of $\pm 5\%$ resistors simulating loads of 1 megohm, 20 megohm and 100 megohms. The observed meter reading shall be $\pm 10\%$ of the nominal resistor load.

If any loop sensor and lead-in combination fails to pass any one of the four tests, it shall be repaired and then re-tested on two occasions at least two weeks apart and then shall pass on each re-test occasion. If the loop sensor lead-in combination does not pass all these re-tests, a new loop sensor and/or lead-in shall be installed, and shall pass these tests, at no additional cost.

After the above tests have been satisfactorily completed, all loop sensor/shielded lead-in inductance shall be measured and a written report of the results shall be filed with the OWNER and a copy stored with the "box prints" at the intersection.

GENERAL: The work to be done under these items shall conform to the relevant provisions of Section 860 of the 1988 MDPW Standard Specifications for Highways and Bridges, and the following:

METHODS: The layout of all necessary field controls by the CONTRACTOR of the several types of traffic line systems shall be approved by the OWNER. The width and spacing of stop lines and crosswalks shall be as indicated on the plans.

MEASUREMENT: Measurement for pavement arrows, legends, crosswalks, stop lines, chevrons and/or gore lines shall be for the actual square foot of area of material furnished and installed by the CONTRACTOR and accepted by the OWNER. Measurement for other thermoplastic lines shall be for the actual linear foot of material furnished and installed by the CONTRACTOR and accepted by the OWNER. All measurement shall be done in the field by the OWNER.

PORTABLE MESSAGE BOARD

GENERAL: Portable message boards shall conform to the relevant provisions of Section 6F.52 of the Federal Highway Administration Manual on Uniform Traffic Devices. Message boards shall be solar powered, capable for displaying three alternating messages of three lines, eight characters per line.

MEASUREMENT AND PAYMENT: Measurement for each Portable Message Board shall be per day whenever boards are required and accepted by the OWNER. Payment for Portable Message Boards shall be as determined above at the contract unit prices for ITEM 870.000 as set forth in the Bid. Said price and payment shall be full compensation for furnishing equipment and programming, locating and relocating message boards as required by the OWNER. All work is subject to final approval and acceptance by the OWNER.

TRAFFIC POLICE

GENERAL: The CONTRACTOR shall provide such uniformed police officers (outside their regular tour of duty) as the OWNER shall deem necessary to avoid, so far as reasonably possible, damage to the safety of persons and substantial interference with the free circulation of traffic. When so required by the OWNER, the CONTRACTOR shall make all arrangements in obtaining police assistance. The CONTRACTOR shall pay the amount due for such assistance to the City of Waltham. The CONTRACTOR shall then be reimbursed by the City of Waltham. Police details may be arranged by calling (781) 314-3604.

All bills for police details must be paid in full by the CONTRACTOR out of the allowance built into the bid.. Only bills stamped "PAID" by the City Treasurer's Office will be accepted by the OWNER.

METHOD OF PAYMENT: The CONTRACTOR shall pay to any police officer employed by him the prevailing rate of wage to special duty police officers (MGL Chapter 149, §34B). The police allowance is an estimate for funding and bid comparison purposes. Payment to the CONTRACTOR for special duty police will be made at the rate established by the Waltham Police Department.

Payment shall be made by the CONTRACTOR within 30 days of billing. Failure to pay an outstanding bill within 30 days may result in a penalty charge to the CONTRACTOR for late payment. There will be no reimbursement for any penalties or late charges that may be assessed against the CONTRACTOR for late payment. Furthermore, the OWNER will accept no further requests for payment if police detail bills are more than 30 days in arrears.

The CONTRACTOR will not be reimbursed for any detail that he fails to cancel when it is not required (work does not proceed as scheduled or due to inclement weather, etc.) Reimbursement will be entered in the next estimate for payment.

Reimbursement shall be made on all bills stamped "PAID" by the City of Waltham Treasurer's Office and presented to the OWNER less any amount for unnecessary details not canceled by the CONTRACTOR when required.

It is suggested that payments be made in person at the Treasurer's Office and that a copy of the bill be presented to the Treasurer's Office at the same time so that it may be stamped "PAID" and presented to the OWNER by the CONTRACTOR.

PAYMENT: Payment for special duty police will be made on a dollar for dollar basis. Said price and payment shall be full compensation for furnishing all special duty police. A \$100,000 allowance has been built into the pricing for this project. All vendors are required to carry this amount in their bids. When police detailing reimbursement is sought by the vendor, all proper receipts shall be enclosed with the request for payment. Only police detailing hours supported by receipts will be paid.

SPECIFICATIONS- Tree Pits

The CONTRACTOR is to furnish and install raised tree pits along the public way. Tree pit locations are indicated on the drawings and/or as indicated by the OWNER.

The raised tree pits will be bordered by new granite curbing, with straight curbing along the roadway and sides, creating a square corner on the street side, radius curb shall be used to create the corners on the sidewalk side of the tree pit.

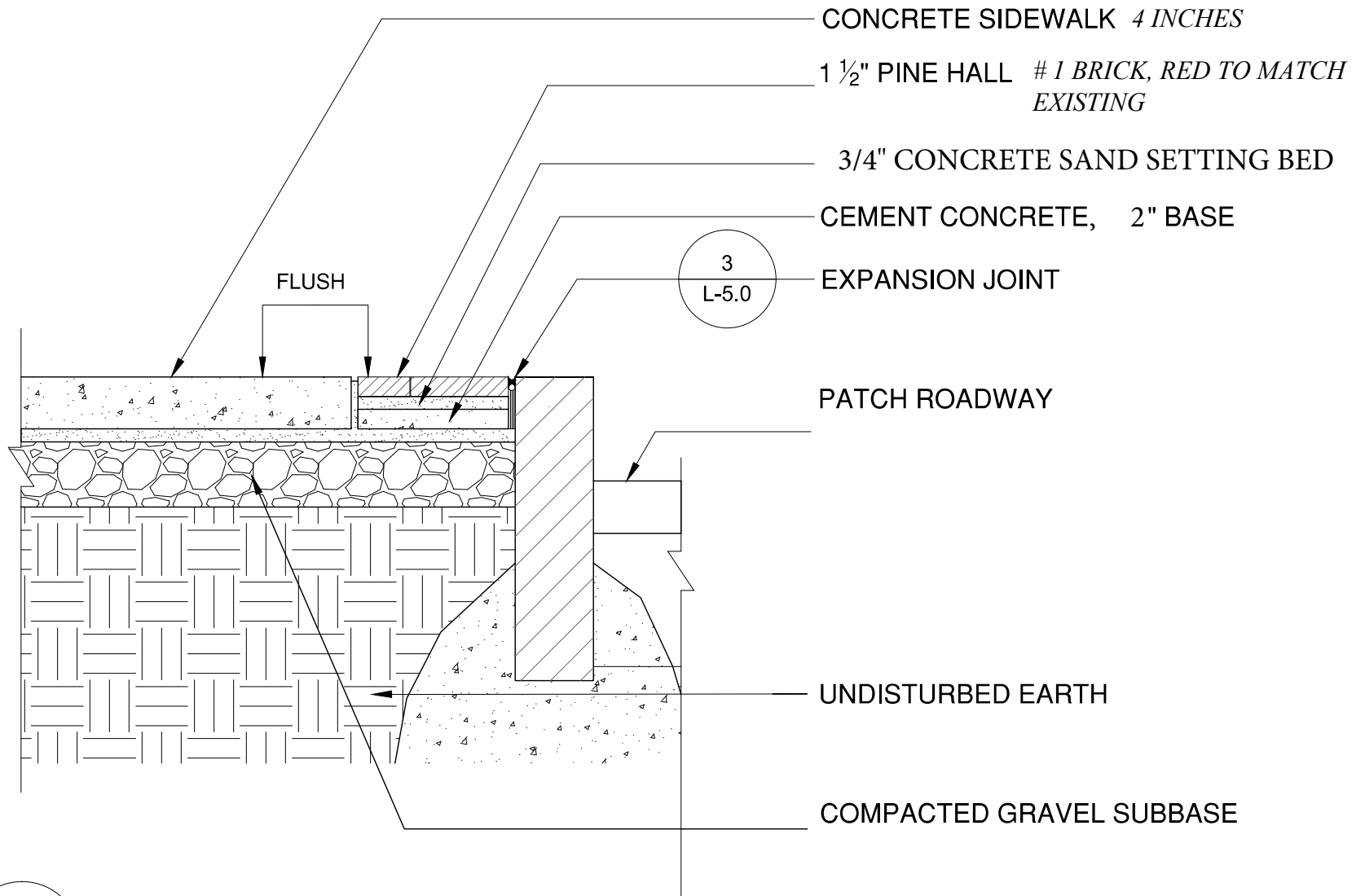
Tree pits will vary in size depending on location and width of sidewalk. Sidewalks must stay in compliance with ADA design standards. Typical size will be approximately 4 ft. x 4 ft. from face of granite curb, street side, to face of granite curb, sidewalk side. Larger tree pits may be installed where the width of the sidewalk allows. Tree pit curbing shall have approximately up to 4 ft. to 8 ft. reveal from top of new sidewalk.

Granite curb shall be hard, durable, fine to medium grain and free from seams that impair structural integrity. Color shall be light gray, highlighted by black flakes. Curb for each location shall be fabricated from the same parent material by one manufacturer to give a uniform appearance. Natural variations characteristic of the deposit will be permitted.

The top of the curb shall be polished. The sides shall be cut square, most specifically the top 6" to 8" of the face of the curb.

SKETCHES AND DRAWINGS

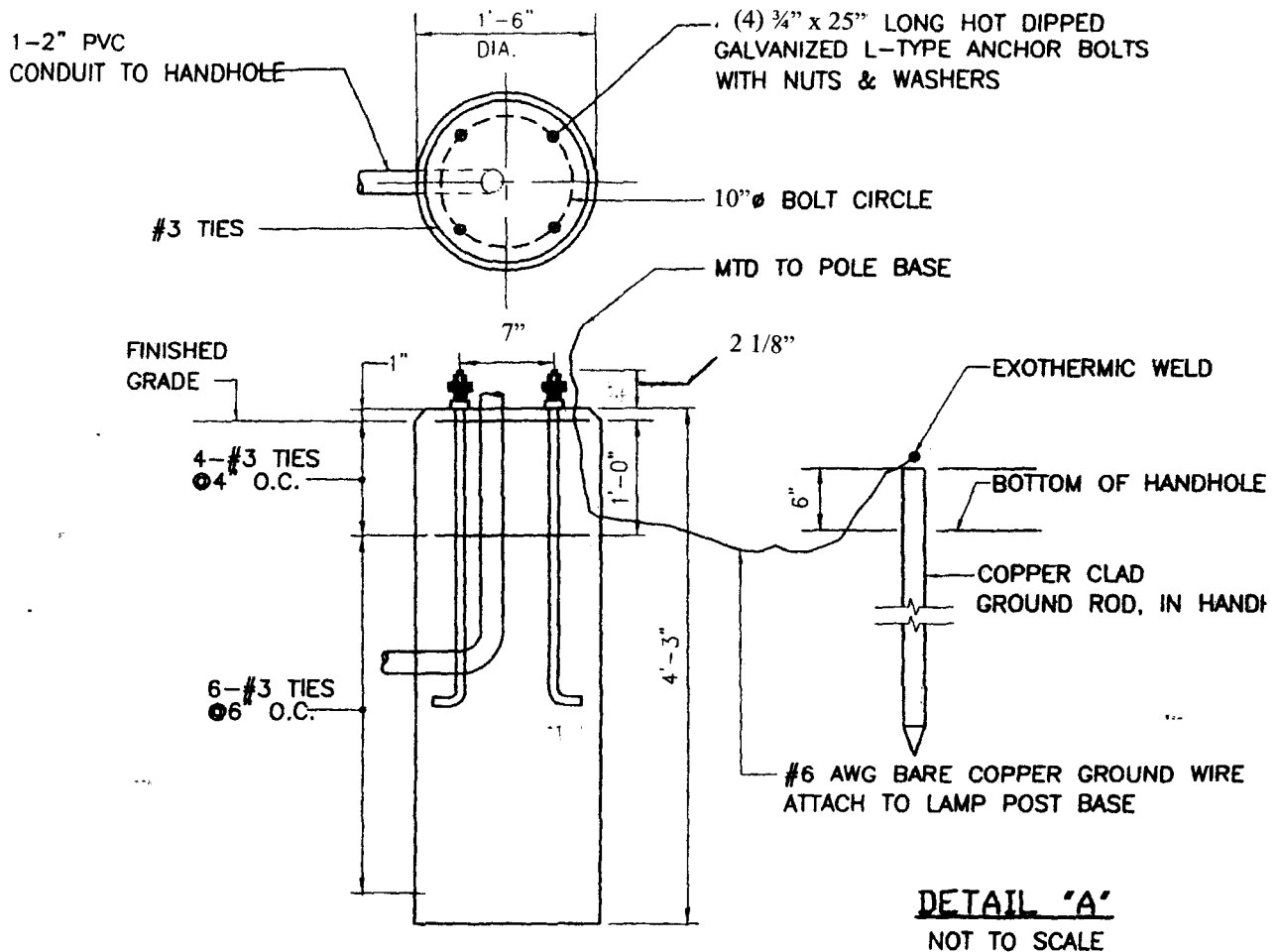
CONCRETE & TRIM BRICK WORK AND SIDEWALK DETAILS



12
L-5.0

CITY OF WALTHAM UNIT PAVER STANDARD

SCALE: 1" = 1'-0"



NOTES:

1. CONCRETE COMPRESSIVE STRENGTH AT 28 DAYS, $F'_c=3000$ psi (Min.)
2. THE CONTRACTOR SHALL COORDINATE AND VERIFY WITH THE POLE MANUFACTURER THAT THE FOUNDATION BOLT POSITIONS ARE ACCURATE, AND THE FOUNDATION DIAMETER IS ACCEPTABLE TO THE ENGINEER.
3. PROVIDE A MULTI-TAP VOLTAGE, BALLAST.
4. ALL FOUNDATIONS ARE TO BE PROVIDED AND COORDINATED BY THE ELECTRICAL CONTRACTOR.

CONCRETE FOUNDATION



American Concrete Industries

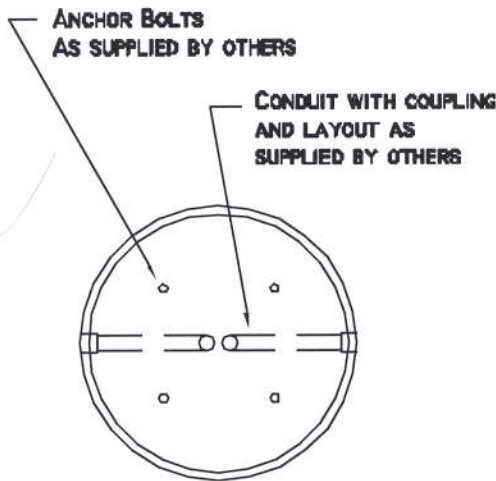
24" DIA. Light Pole Base

Catalog Section:

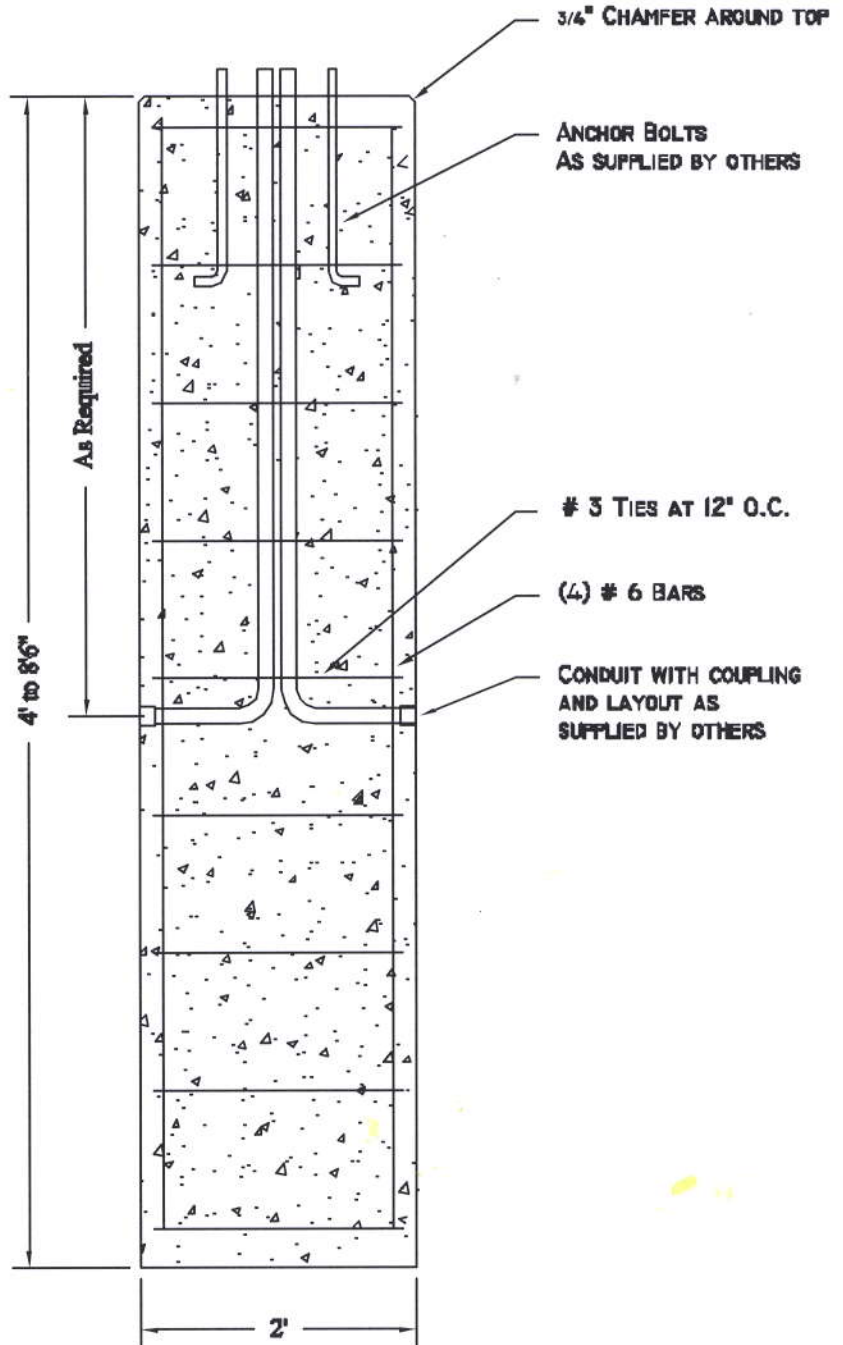
Layout Name:

GENERAL NOTES:

1. 4000 PSI CONCRETE AT 28 DAYS.
2. NATURAL GRAY CONCRETE, STEEL FORM FINISH.
- 3 CONDUIT, ANCHOR BOLTS AND BOLT TEMPLATE TO BE SUPPLIED BY OTHERS.
4. WEIGHT = 465 LBS. PER VERTICAL FOOT.



PLAN



TYPICAL ELEVATION

CURB RAMP SPECIFICATIONS
TO BE INSTALLED ON A BASE OF 6 INCHES OF CONCRETE



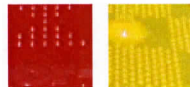
**Replaceable Cast in Place
 HERCULITE SERIES**

SETTING THE STANDARD FOR QUALITY &
 DURABILITY IN DETECTABLE WARNING SURFACE



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- [Products <<](#)
 - [Cast In Place System](#)
 - [Herculite Series Replaceable Cast in Place](#)
 - [Surface Applied System](#)
 - [Modular Paver System](#)
 - [Detectable Guidance System](#)
 - [Detectable Directional System](#)
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Product Photos



Features:

- Innovative Design for Quick Change Replaceability
- Manufactured of Herculite Polymer Composite
- Inline Dome Configuration with 2.35 Inch Dome Spacing
- 5 Year Warranty

Benefits:

- Efficient and Economical Installation
- Easy Removal and Replacement for Maintenance if Needed
- Fully Compliant with ADA Government Guidelines and Regulations
- Enhanced Anti-Slip Surface

Colors Available



**Replaceable Cast in Place
 HERCULITE SERIES
 Installation Instructions**

| | |
|--|--------------------|
| Detailed Installation Instructions - PDF | |
| Printable Illustrated Installation Instructions - Coming Soon | Coming Soon |

**Replaceable Cast in Place
 HERCULITE SERIES
 Cleaning and Maintenance
 Instructions**

| | |
|---|--|
| Cleaning and Maintenance Instructions - PDF | |
|---|--|

1. COLOR OF THE PAD IS TOP MATCH THE ONES IN FRONT OF SOUTH MIDDLE SCHOOL AND THE ONE AT MAIN ST. AND SPRING ST.

2. INSTALLED ON 6" OF CONCRETE

3. NUMBER OF UNITS: 105 AT MAIN ST AND 94 AT MOODY ST.

Important Notice

Thank you for ordering Landscape Forms outdoor furniture and accessories!

Assembly instructions, including a list of tools required, will be included with the product. If you would like them in advance, visit landscapeforms.com and click on Design Tools, Assembly Instructions. Or call us to request a copy via email.

To ensure a smooth delivery of your order, please read the information below carefully.

Shipment will be made via common carrier and they do **NOT** provide the manpower to unload the freight.

Therefore, please be advised:

1. If the carrier needs to contact anyone prior to delivery, please provide a name and telephone number (if you have not already) and we will add this information to the bill of lading.
2. You must have someone on site to accept and sign for the delivery.
3. It may be necessary to have a forklift available to unload the product.

Please Inspect for Concealed Damages

If you suspect the merchandise was damaged during transit:

1. Inspect the merchandise for visible damage with the driver present. If you are not able to make a qualified inspection at the time of delivery (drivers may press for a signature and not be able to wait), mark the delivery receipt "**Concealed Damage Possible**". In the event that damage is discovered upon opening, **contact Landscape Forms ASAP**. Save all packaging material.
2. If not visibly damaged, but damage is discovered after uncrating, **contact Landscape Forms ASAP**. Save all packaging material.
3. Landscape Forms will work with you to determine the next steps.

Instructions

Assembly
Installation
Operation

4/2008

Plainwell™ Bench and Litter Receptacle Installation Instructions

Introduction:

The Plainwell bench and litter receptacle are shipped fully assembled with freestanding glides that may be removed for surface mounting. Each leg has a 7/16" diameter hole with a 21/32" counterbore for anchor bolts supplied by others. The leg castings add 1/2" to the length of anchoring hardware. Corrosion resistant hardware is recommended.

HANDLE WITH CARE! Pangard II® polyester powder coat is a strong, long-lasting finish. Protect this finish from damage during assembly. Place unwrapped powder coated parts on packaging foam or other nonabrasive surface. Do not place or slide powder coated parts on concrete or other hard or abrasive surfaces – this will damage the finish causing corrosion to occur. Use touch-up paint to repair any finish abrasions.

The Plainwell design locates anchors toward the inside of the product where they are less visible and less likely to harm human feet. This makes surface mounting a little more difficult. Two anchors located diagonally opposite may provide adequate security. Although anchoring procedure and hardware are responsibilities of the installer, we suggest the following:

Surface Mounting:

1. Remove nylon glides, and place unit in desired position.
2. Mark anchor locations through holes provided in feet.
3. Drill holes at marked locations according to anchor manufacturer's specification.
4. Place unit in position, and install anchors according to anchor manufacturer's specification.
5. Use stainless steel flat washers to shim units mounted on uneven surfaces.
6. Examples of various anchoring methods follow:

Instructions

Assembly
Installation
Operation

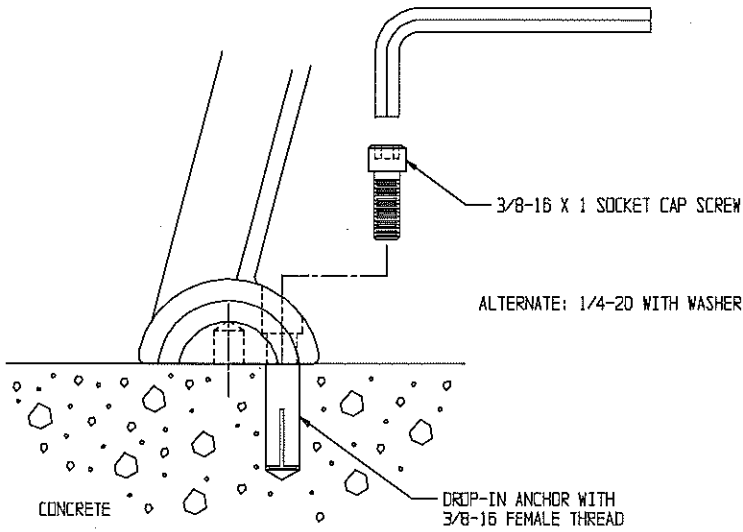


Figure 1. Drop in anchor

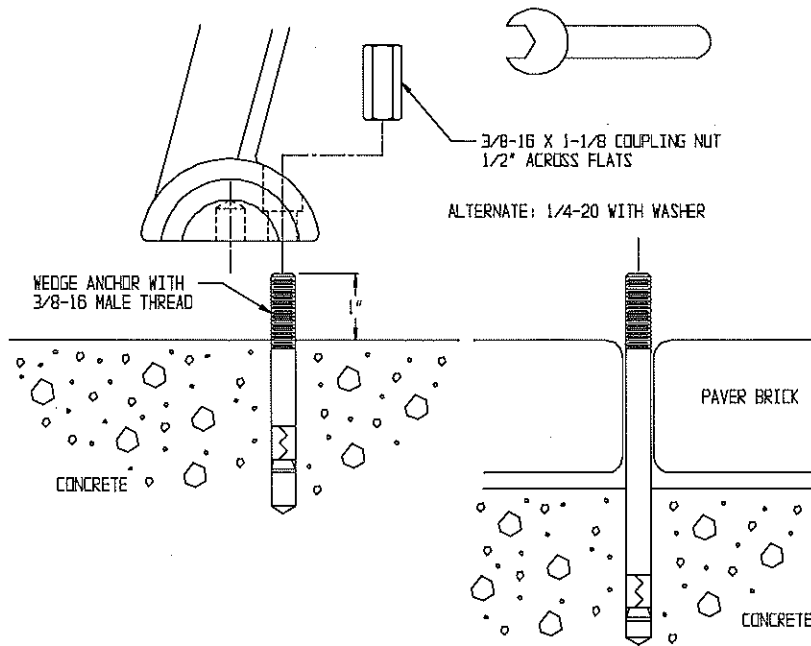
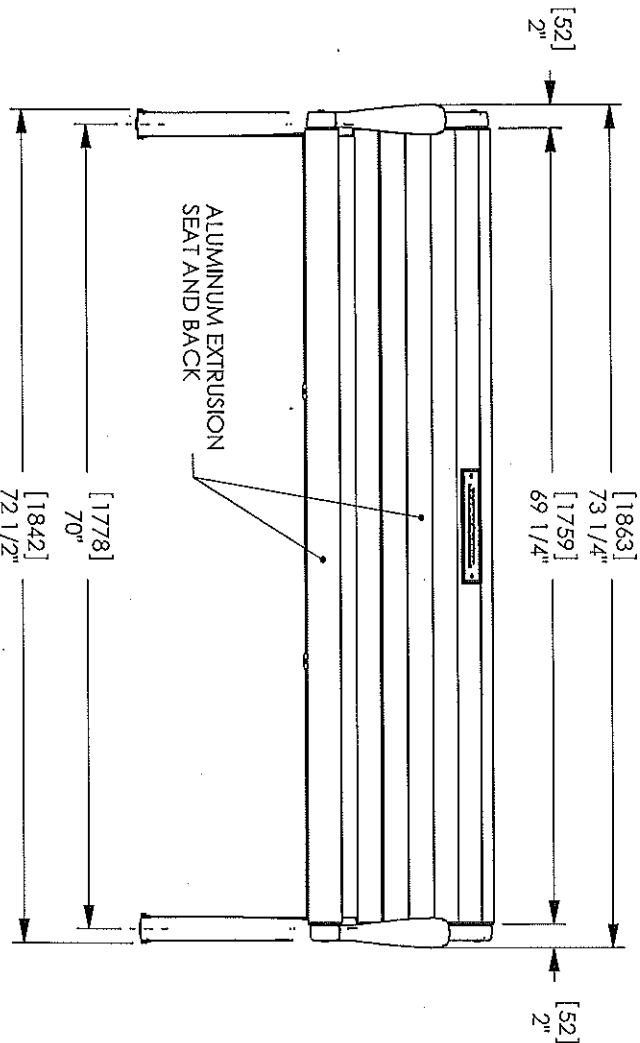
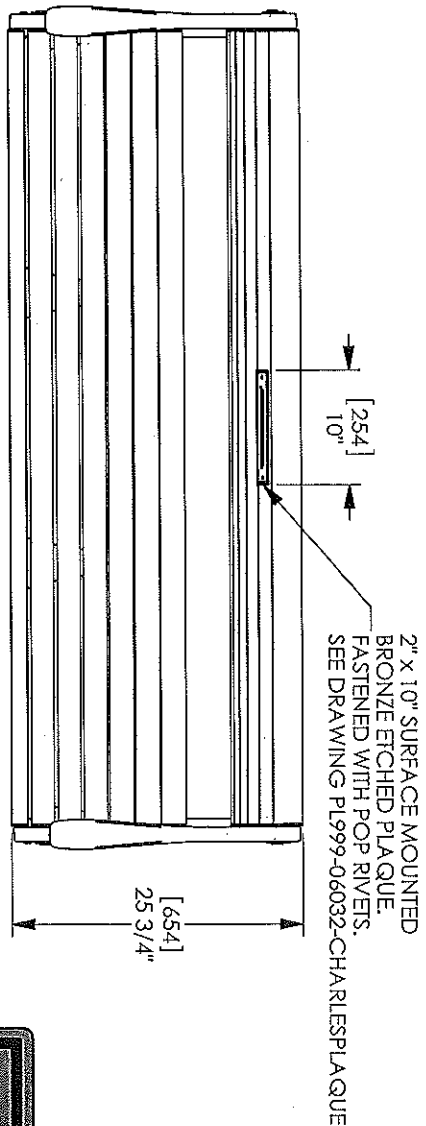


Figure 2. Wedge anchor and coupling nut

Bench, 72" Length, with Aluminum Seat, Freestanding / Surface Mount, Bronze Etched Plaque

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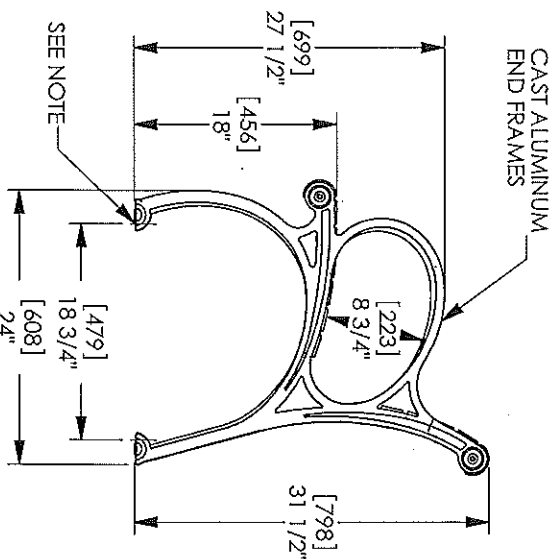


PL1999-06032-CHARLESPLAQUE

APPROVED _____
 REVISE AND RESUBMIT _____
 REJECTED _____

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BY: _____ DATE: _____



Drawing: PL1999-06032-CHARLES
 Date: 4/22/2013
 Dimensions are in Inches[mm]
 U.S. Patent No.: D419,341

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Instructions

Assembly
Installation
Operation

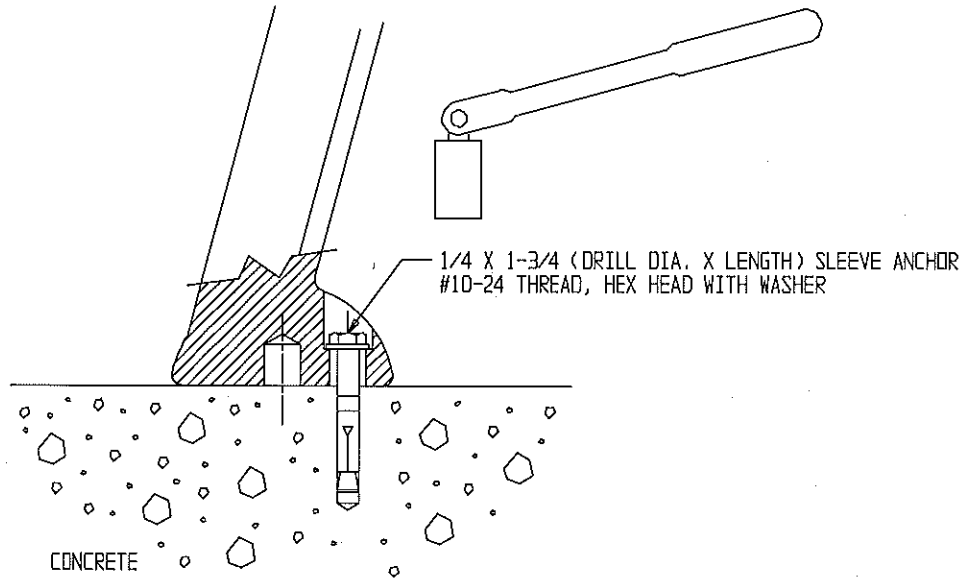


Figure 3. Sleeve anchor

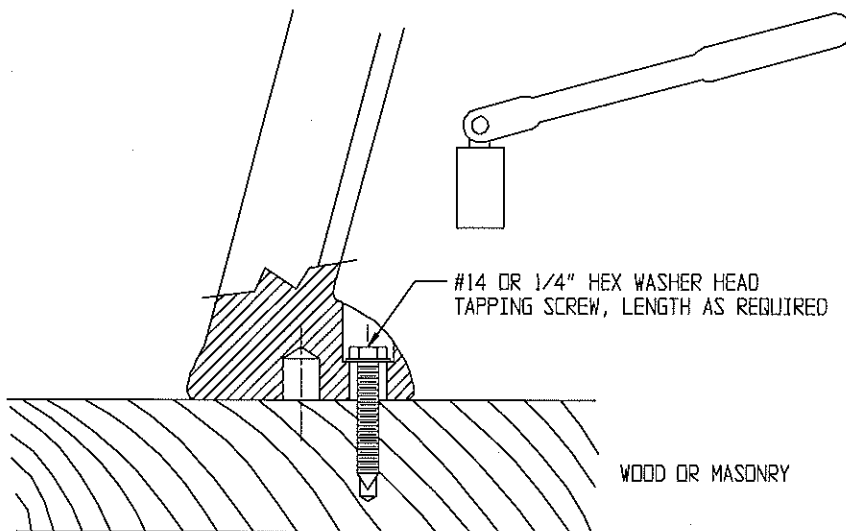


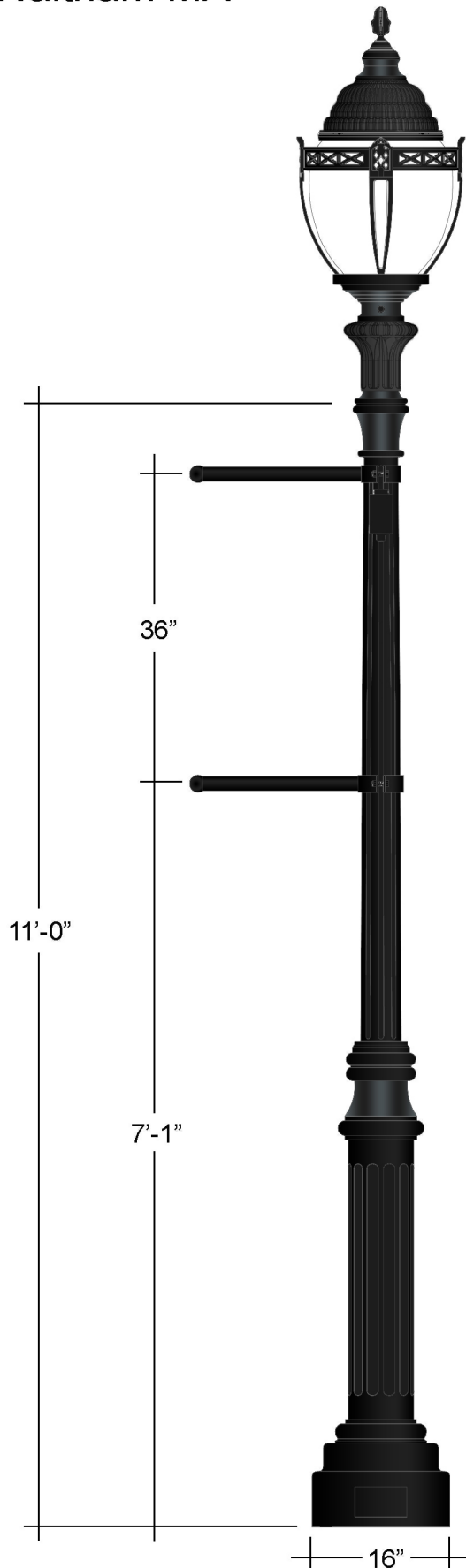
Figure 4. Tapping screw

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Page 3 of 3

Pedestrian Light Standard with Banner Arms Main Street - Waltham MA



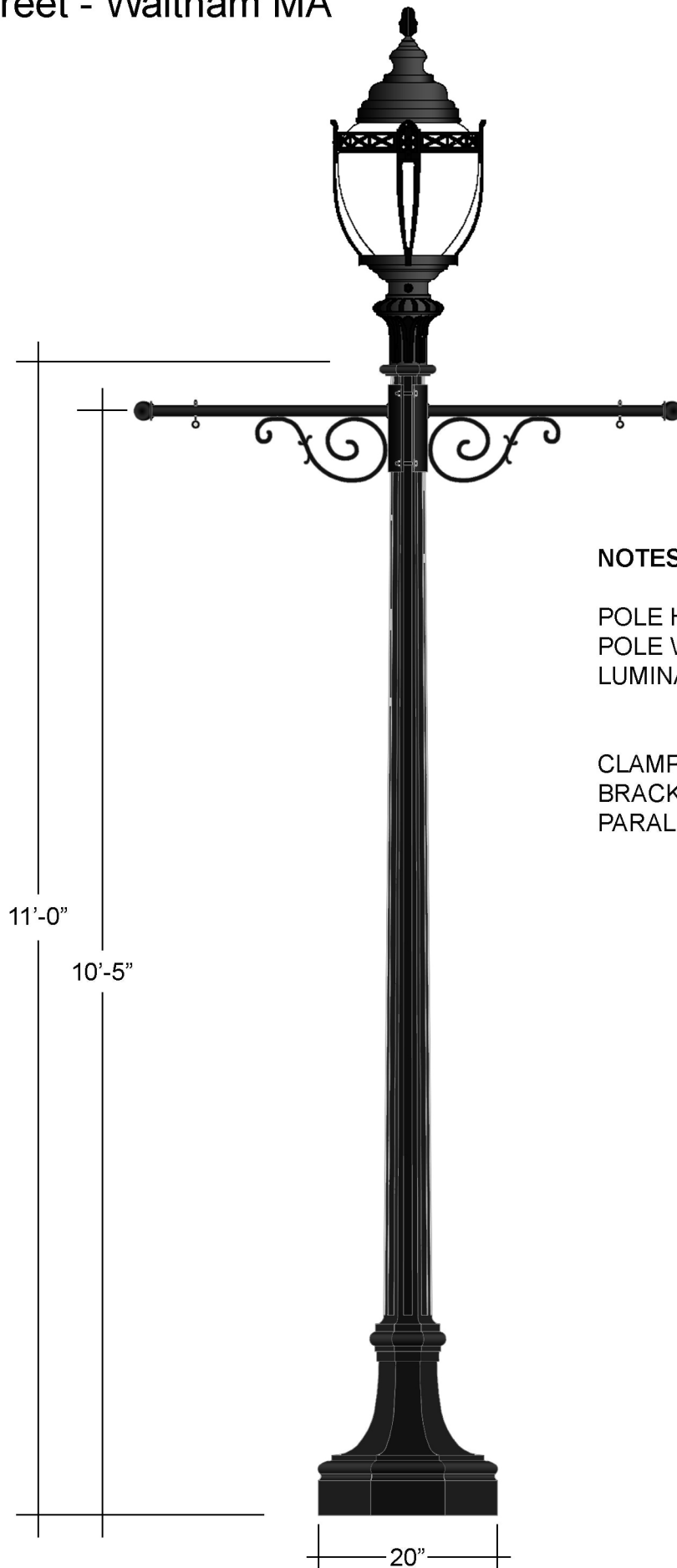
NOTES:

POLE HEIGHT: 11'-0"
POLE WEIGHT: 120 lbs.
LUMINAIRE WEIGHT: 60 lbs.

CLAMP-ON BANNER ARMS TO BE
MOUNTED TOWARD SIDEWALK

Pedestrian Light Standard with Flower Brackets

Moody Street - Waltham MA

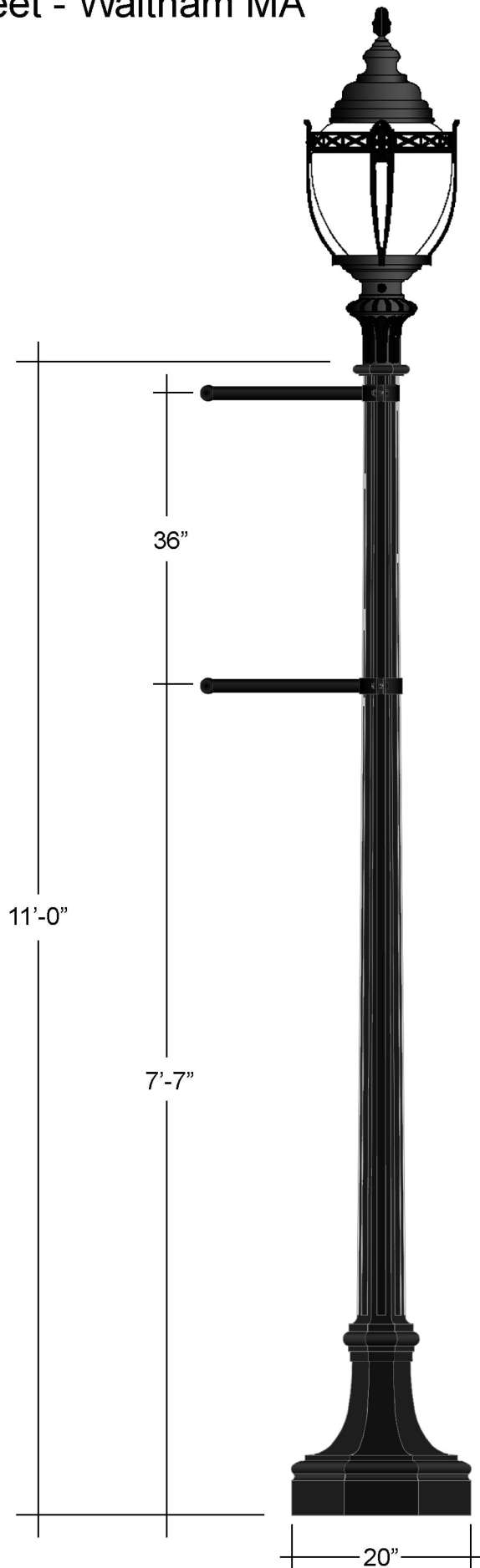


NOTES:

POLE HEIGHT: 11'-0"
POLE WEIGHT: 370 lbs.
LUMINAIRE WEIGHT: 60 lbs.

CLAMP-ON FLOWER POT
BRACKETS TO BE POSITIONED
PARALLEL TO CURB

Pedestrian Light Standard with Banner Arms Moody Street - Waltham MA

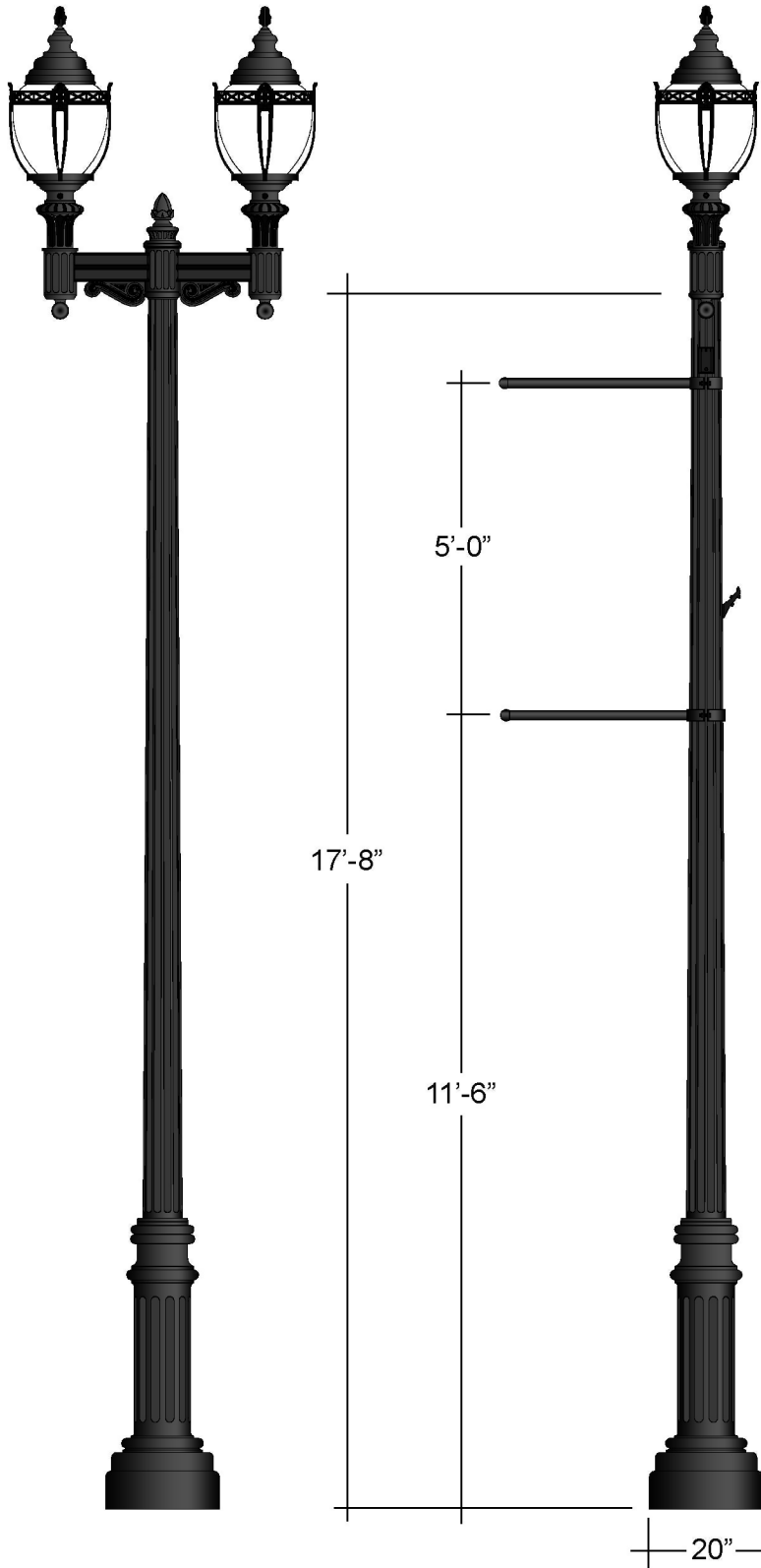


NOTES:

POLE HEIGHT: 11'-0"
POLE WEIGHT: 370 lbs.
LUMINAIRE WEIGHT: 60 lbs.

CLAMP-ON BANNER ARMS TO BE
MOUNTED TOWARDS SIDEWALK

Roadway Light Standard with Banner Arms and Flag Bracket Main Street - Waltham MA



NOTES:

- POLE HEIGHT: 17'-8"
- POLE SHAFT WEIGHT: 200 lbs.
- POLE BASE: 320 lbs.
- TWIN CROSS ARM: 65 lbs.
- LUMINAIRE WEIGHT: (2) 60 lbs.

CLAMP-ON BANNER ARMS TO BE MOUNTED TOWARD SIDEWALK

FLAG HOLDER TO BE MOUNTED TOWARD ROADWAY

PRICE SHEET

PRICE SHEET

My Company offers to deliver the items described within this document for the **ALL INCLUSIVE PRICE OF:**

1. **Concrete Sidewalks, Main Street and Moody Street-** removal, installation with brick border (Moody St. only); removal and installation of trees; bench Installation (provided by the city); removal and installation of wheelchair pads and the installation of light poles and fixture.

- a. Price for Main St. Work \$ _____
- b. Price for Moody St. Work \$ _____
- c. Price for 4x4 Granite tree pits each \$ _____ x 120 pcs = \$ _____
- d. Price for 4x8 Granite tree pits each \$ _____ x 44 pcs = \$ _____

2. **Installation of Electrical Equipment (City Provides Equip.)** \$ _____
Note: City will not provide supplies. This is the responsibility of the contractor)

3. **Allowance for Police Details** (all contractors to carry this amount) \$ **100,000.00**

4. **Less () credit for the existing Moody Street (only) Brick** \$(_____)

GRAND TOTAL \$ _____

Add Alternate Number 1. Price for Moody Street Brick Sidewalk, both sides,
from the Moody Street Bridge to High Street \$ _____

My company recognizes receipt of addenda #: _____.

Company's Name: _____

Authorized Signature: _____

Print Name: _____

E-Mail: _____, Phone#: _____

Date: _____