

CONTRACT DOCUMENTS AND SPECIFICATIONS

for

MARKET STREET STREETScape IMPROVEMENTS

Bid #45-10

State of New Hampshire

John P. Bohenko, City Manager

Prepared by:

City of Portsmouth
Engineering Division
Public Works Department

TABLE OF CONTENTS

INVITATION TO BID	3
INSTRUCTION TO BIDDERS	5
AWARD AND EXECUTION OF CONTRACT	8
PROPOSAL	10
BID BOND	21
BIDDER'S QUALIFICATIONS	23
CONTRACT AGREEMENT	25
NOTICE OF INTENT TO AWARD	28
NOTICE TO PROCEED	29
CHANGE ORDER	30
PERFORMANCE BOND	31
LABOR AND MATERIALS PAYMENT BOND	33
MAINTENANCE BOND	36
CONTRACTOR'S AFFIDAVIT	37
CONTRACTOR'S RELEASE	38
GENERAL REQUIREMENTS	39
CONTROL OF WORK	41
TEMPORARY FACILITIES	43
INSURANCE	44
MEASUREMENT AND PAYMENT	45
STANDARD SPECIFICATIONS	50
SHOP DRAWINGS	57
TECHNICAL SPECIFICATIONS	58

MARKET STREET STREETScape IMPROVEMENTS

INVITATION TO BID

Sealed bid proposals, **plainly marked, Market Street Streetscape Improvements**, Bid Proposal #45-10 **on the outside of the mailing envelope as well as the sealed bid envelope**, addressed to the Finance/Purchasing Department, City Hall, 1 Junkins Avenue, Portsmouth, New Hampshire, 03801, will be accepted until April 6, 2010 at 2:00 p.m.; at which time all bids will be publicly opened and read aloud. There will be a mandatory pre-bid meeting held at the Portsmouth DPW Building at 680 Pevery Hill Road at 9:00 AM on Friday, March 26, 2010.

This project consists of the installation of granite curbing, asphalt pavement, drainage pipe, brick & concrete sidewalks, lighting and various other amenities.

Work may begin at any time on or after April 19, 2010. The first section of the work (Bow to Deer St) shall be completed by June 11, 2010, the second section (Deer to Russell St) must be complete by June 25, 2010. Liquidated damages shall be assessed at \$500.00 per day. Hours of work will be 7AM to 5 PM daily. Work will not be allowed on Thursday, May 6 or Friday, May 7; or on Monday May 31.

The Contractor will be required to keep roadways and sidewalks passable for the public to the maximum degree possible. The Contractor will also be responsible for ensuring that the public will be able to access the different businesses and residences at all times.

The General Contractor for this project must be Pre-qualified with NHDOT for Road Construction. All electrical work on this project, including conduit, will be installed under the supervision of a New Hampshire Licensed Electrician. An electrical permit is required prior to any project work being completed.

The General Contractor will be permitted to subcontract portions of the work not to exceed an aggregate dollar value of 50% of the total contract bid amount in complete accordance with Section 108 of the State of New Hampshire Standard Specifications for Road and Bridge Construction.

Bidders must determine the quantities of work required and the conditions under which the work will be performed.

Specifications may be obtained from the Finance/Purchasing Department on the third floor at the above address, or by calling the Purchasing Coordinator at 603-610-7227, or at the City's website: <http://www.cityofportsmouth.com/finance/purchasing.htm> Addenda to this project, if any, including written answers to questions, will not be provided directly to vendors, but will be posted by 12:00 noon, on Friday April 2, 2010 on the City of Portsmouth Website under the project heading.

Hard copies of the plans and specifications may be obtained by from the Purchasing Department, at Portsmouth City Hall, upon payment of a fee of \$50.00 per set, which will not be refunded. Partial sets will not be distributed. All requests for mailed documents must be accompanied by an additional fee of \$10.00 to cover the cost of postage and handling.

The City reserves the right, after bid opening and prior to award of the contract, to modify the amount of the work in the event that bids exceed budgeted amounts. The City of Portsmouth further reserves the right to reject any or all bids, to waive technical or legal deficiencies, to re-bid, and to accept any bid that it may deem to be in the best interest of the City. Also, the City reserves the right to approve or deny subcontractors for this project.

Each Bidder shall furnish a bid security in the amount of ten percent (10%) of the bid. The Bid Security may be in the form of a certified check or a bid bond executed by a surety company authorized to do business in the State of New Hampshire, made payable to the City of Portsmouth, N.H.

This project is funded, in part, with funding from the United States Department of Housing and Urban Development. All work must be completed in accordance with the Equal Opportunity Act, Section 3 of the Housing and Community Development Act of 1968 and other regulations listed in Attachment 1 "Compliance by Contractor with Laws and Regulations". The U.S. Department of Housing and Urban Development funding for this project has been released as set forth in accordance with the National Environmental Protection Act of 1969 (as amended).

INSTRUCTIONS TO BIDDERS

BIDDING REQUIREMENTS AND CONDITIONS

1. Special Notice to Bidders

Appended to these instructions is a complete set of bidding and general contract forms. These forms may be detached and executed for the submittal of bids. The plans, specifications, and other documents designated in the proposal form will be considered as part of the proposal, whether attached or not.

The bidders must submit a statement of bidder's qualifications, if requested, subsequent to bid opening but prior to award.

Addenda to this bid document, if any, including written answers to questions, will be posted by March 22, 2010 on the City of Portsmouth website at <http://www.cityofportsmouth.com/finance/purchasing.htm> under the project heading. Addenda and updates will NOT be sent directly to firms. Contractors submitting a bid should check the web site daily for addenda and updates after the release date. Firms should print out, sign and return addenda with the proposal. Failure to do so may result in disqualification.

2. Interpretation of Quantities in Bid Schedules

The quantities appearing in the bid schedule are approximate only and are prepared for the comparison of bids. Payment to the contractor will be made only for actual work performed and accepted in accordance with the contract. Any scheduled item of work to be done and materials to be furnished may be increased, decreased or omitted as hereinafter provided, and no claim for loss, anticipated profits or costs incurred in anticipation of work not ultimately performed will be allowed due to such increase or decrease.

3. Examination of Plans, Specifications and Site Work

The bidder is expected to examine carefully the site of the proposed work, the plans, standard specifications, supplemental specifications, special provisions and contract forms before submitting a proposal. The submission of a bid shall be considered conclusive evidence that the bidder has made such examination and is satisfied as to the conditions to be encountered in performing the work and as to the requirements of the contract. It will be conclusive evidence that the bidder has also investigated and is satisfied with the sources of supply for all materials.

Plans, surveys, measurements, dimensions, calculations, estimates and statements as to the condition under which the work is to be performed are believed to be correct, but the contractors must examine for themselves, as no allowance will be made for any errors or inaccuracies that maybe found therein.

Familiarity with Laws

The bidder is assumed to have made himself or herself familiar with all federal and state laws and all local by-laws, ordinances and regulations which in any manner affect those engaged or employed on the work or affect the materials or equipment used in the work or affect the conduct of the work, and the bidder, if awarded the contract, shall be obligated to perform the work in conformity with said laws, by-laws, ordinances and regulations notwithstanding its ignorance thereof. If the bidder shall discover any provision in the plans or specifications which is in conflict with any such law, by-law, ordinance or regulation the bidder shall forthwith report it to the engineer in writing.

5. Preparation of Proposal

a) The bidder shall submit its proposal upon the forms furnished by the Owner. The bidder shall specify a lump sum price in figures, for each pay item for which a quantity is given and shall also show the products of the

respective prices and quantities written in figures in the column provided for that purpose and the total amount of the proposal obtained by adding the amount of the several items. All words and figures shall be in ink or typed. If a unit price or a lump sum bid already entered by the bidder on the proposal form is to be altered it should be crossed out with ink, the new unit price or lump sum bid entered above or below it and initialed by the bidder, also with ink.

b) The bidder's proposal must be signed with ink by the individual, by one or more general partners of a partnership, by one or more members or officers of each firm representing a joint venture; by one or more officers of a corporation, by one or more members (if member-managed) or managers (if manager-managed) of a limited liability company, or by an agent of the contractor legally qualified and acceptable to the owner. If the proposal is made by an individual, his or her name and post office address must be shown, by a partnership the name and post office address of each general and limited partner must be shown; as a joint venture, the name and post office address of each venturer must be shown; by a corporation, the name of the corporation and its business address must be shown, together with the name of the state in which it is incorporated, and the names, titles and business addresses of the president, secretary and treasurer.

6. Nonconforming Proposals

Proposals will be considered nonconforming and may be rejected in the Owner's sole discretion for any of the following reasons:

- If the proposal is on a form other than that furnished by the Owner, or if the form is altered or any portion thereof is detached;
- If there are unauthorized additions, conditional or altered bids, or irregularities of any kind which may tend to make the proposal or any portion thereof incomplete, indefinite or ambiguous as to its meaning;
- If the bidder adds any provisions reserving the right to accept or reject an award, or to enter into a contract pursuant to an award; or
- If the proposal does not contain a unit price for each pay item listed except in the case of authorized alter pay items.

7. Proposal Guaranty

No proposal will be considered unless accompanied by a bid bond, surety, or similar guaranty of the types and in an amount not less than the amount indicated in the Invitation to Bid. All sureties shall be made payable to the "City of Portsmouth". If a bid bond is used by the bidder it shall be:

- In a form satisfactory to the Owner;
- With a surety company licensed, authorized to do business in, and subject to the jurisdiction of the courts of the State of New Hampshire; and
- Conditioned upon the faithful performance by the principal of the agreements contained in the sub-bid or the general bid.

In the event any irregularities are contained in the proposal guaranty, the bidder will have four business days (not counting the day of opening) to correct any irregularities. The corrected guaranty must be received by 4:00 p.m. If irregularities are not corrected to the satisfaction of the Owner, the Owner, in its sole discretion, may rejected the bid.

8. Delivery of Proposals

When sent by mail, the sealed proposal shall be addressed to the Owner at the address and in the care of the official in whose office the bids are to be received. All proposals shall be filed prior to the time and at the place specified in the invitation for bids. Proposals received after the time for opening of the bids will be returned to the bidder, unopened.

9. Withdrawal of Proposals

A bidder will be permitted to withdraw his or her proposal unopened after it has been submitted if the Owner receives a request for withdrawal in writing prior to the time specified for opening the proposals.

10. Public Opening of Proposals

Proposals will be opened and read publicly at the time and place indicated in the invitation for bids. Bidders, their authorized agents, and other interested parties are invited to be present.

11. Disqualification of Bidders

Any or all of the following reasons may be deemed by Owner in its sole discretion as being sufficient for the disqualification of a bidder and the rejection of his proposal:

- More than one proposal for the same work from an individual, firm, or corporation under the same or different name;
- Evidence of collusion among bidders;
- Failure to submit all required information requested in the bid specifications;
- If the Contractor is not listed with the New Hampshire Department of Transportation as a pre-qualified contractor under the classification of Road Construction and Site Work;
- Lack of competency or of adequate machinery, plant or other equipment, as revealed by the statement of bidders qualification or otherwise;
- Uncompleted work which, in the judgment of the owner, might hinder or prevent the prompt completion of additional work if awarded;
- Failure to pay, or satisfactorily settle, all bills due for labor and materials on former contracts;
- Default or unsatisfactory performance on previous contracts; or
- Such disqualification would be in the best interests of the Owner.

12. Material Guaranty and Samples

Before any contract is awarded, the bidder may be required to furnish a complete statement of the origin, composition and manufacture of any or all materials to be used in the construction of the work, and the Owner may, in its sole discretion, reject the bid based on the contents of the statement or as a result of the failure of the bidder to submit the statement.

AWARD AND EXECUTION OF CONTRACT

1. Consideration of Proposals

After the proposals are opened and read, they will be compared on the basis of the total price for all sections of work and any such additional considerations as may be identified in the bid documents. The results of such comparisons will be immediately available to the public. In case of a discrepancy between the prices written in words and those written figures, the prices written in words shall govern. In case of a discrepancy between the total shown in the proposal and that obtained by adding the products of the quantities of items and unit bid prices, the latter shall govern.

2. Award of Contract

Within 30 calendar days after the opening of proposals, if a contract is to be awarded, the award will be made to the lowest responsible and qualified bidder whose proposal complies with all the requirements prescribed. The successful bidder will be notified, in writing, mailed to the address on his or her proposal, that his or her bid has been accepted and that the bidder has been awarded the contract.

3. Reservation of Rights

The Owner reserves the right to reject any or all proposals, to waive technicalities or to advertise for new proposals, if, in the sole discretion of the Owner, the best interest of the City of Portsmouth will be promoted thereby. The Owner further reserves the right to modify the scope of work in the event that bids exceed budgeted amounts.

The Owner reserves the right to cancel the award of any contract at any time before the execution of such contract by all parties without any liability of the Owner.

The City reserves the right, after bid opening and prior to award of the contract, to modify the amount of the work in the event that bids exceed budgeted amounts and/or necessary easements and agreements from one or more impacted property owners are not received.

4. Return of Proposal Guaranty

All proposal guaranties, except those of the three lowest bidders, will be returned upon request following the opening and checking of the proposals. The proposal guaranties of the three lowest bidders will be returned within ten days following the award of the contract if requested.

5. Contract Bonds

At the time of the execution of the contract, the successful bidder shall furnish:

- A performance bond in the amount of 100 percent of the contract amount.
- Labor and materials payment bond in the sum equal to 100 percent of the contract amount.

At the time of project completion, the Owner may, in its sole discretion, permit the Contractor to substitute a maintenance bond in lieu of holding retainage for the entire guaranty period. If a bond is furnished it shall meet the following criteria:

- The bond shall be in an amount equal to 20 percent of the contract amount. Such bond shall guarantee the repair of all damage due to faulty materials or workmanship provided or done by the contractor. The

guarantee shall remain in effect for a period of one year after the date of final acceptance of the job by the Owner.

Each bond shall be: (1) in a form satisfactory to the Owner; (2) with a surety company licensed and authorized to do business and with a resident agent designated for services of process in the State of New Hampshire; and (3) conditioned upon the faithful performance by the principal of the agreements contained in the original bid. All premiums for the contract bonds are to be paid by the contractor.

6. Execution and Approval of Contract

The successful bidder is required to present all contract bonds, to provide proof of insurance, and to execute the contract within 10 days following receipt of the City's notification of acceptance of the bid. No contract shall be considered as in effect until it has been fully executed by all parties.

7. Failure to Execute Contract

Failure to execute the contract and to provide acceptable bonds and proof of insurance within 10 days after notification of acceptance of bid shall be just cause for the cancellation of the award and the forfeiture of the proposal guarantee which shall become the property of the Owner, not as a penalty, but in liquidation of damages sustained. Award may then be made to the next lowest responsible bidder, or the City may exercise its reserved rights including the rejection of all bids or re-advertisement.

PROPOSAL FORM

MARKET STREET STREETScape IMPROVEMENTS

CITY OF PORTSMOUTH, N.H.

To the City of Portsmouth, New Hampshire, herein called the Owner.

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

1. All interested in the Bid as Principals are named herein.
2. This bid is not made jointly, or in conjunction, cooperation or collusion with any other person, firm, corporation, or other legal entity;
3. No officer, agent or employee of the Owner is directly or indirectly interested in this Bid.
4. The bidder has carefully examined the sites of the proposed work and fully informed and satisfied himself as to the conditions there existing, the character and requirements of the proposed work, the difficulties attendant upon its execution and the accuracy of all estimated quantities stated in this Bid, and the bidder has carefully read and examined the Drawings, Agreement, Specifications and other Contract Documents therein referred to and knows and understands the terms and provisions thereof;
5. The bidder understands that the quantities of work calculated in the Bid or indicated on the Drawings or in the Specifications or other Contract Documents are approximate and are subject to increase or decrease or deletion as deemed necessary by the Portsmouth City Engineer. Any such changes will not result in or be justification for any penalty or increase in contract prices; and agrees that, if the Bid is accepted the bidder will contract with the Owner, as provided in the Contract Documents, this Bid Form being part of said Contract Documents, and that the bidder will supply or perform all labor, services, plant, machinery, apparatus, appliances, tools, supplies and all other activities required by the Contract Documents in the manner and within the time therein set forth, and that the bidder will take in full payment therefore the following item prices, to wit:

PROPOSAL FORM (continued)

ITEM #	EST. QTY.	UNITS	ITEM DESCRIPTION & UNIT PRICE IN WORDS	UNIT PRICE IN FIGURES	ITEM TOTAL IN FIGURES
203.3	2850	Sy	Sidewalk Excavation & Removal (F)	\$ _____	\$ _____
206.19	20	Cy	Exploratory Excavation	\$ _____	\$ _____
206.2	9	Ea	Catch Basin Structure Removal	\$ _____	\$ _____
304.3	300	Cy	Crushed Gravel	\$ _____	\$ _____
403.11	206	Tons	Machine Pave	\$ _____	\$ _____
403.12	160	Tons	Hand Method Bituminous Paving	\$ _____	\$ _____
410.21	2300	Sy	Emulsified Tack Coat	\$ _____	\$ _____
417	2300	Sy	Cold Planing (2.5" deep) of Market Street	\$ _____	\$ _____
520	75	Cy	Class B Curb Backfill	\$ _____	\$ _____
593	100	Sy	Weed Block Fabric (Under Mulch)	\$ _____	\$ _____

PROPOSAL FORM (continued)

ITEM #	EST. QTY.	UNITS	ITEM DESCRIPTION & UNIT PRICE IN WORDS	UNIT PRICE IN FIGURES	ITEM TOTAL IN FIGURES
603.83206A	14	Ea	6" CI Roof Leader Stub (24" long each)	\$ _____	\$ _____
603.83206B	14	Ea	Roof Leader connection including fittings	\$ _____	\$ _____
603.83206D	270	Lf	6" PVC Drain Pipe	\$ _____	\$ _____
603.83208B	260	Lf	8" PVC Drain Pipe	\$ _____	\$ _____
603.83210	20	Lf	10" PVC Drain Pipe	\$ _____	\$ _____
603.83212	435	Lf	12" PVC Drain Pipe	\$ _____	\$ _____
604.0007	6	Ea	Polyethylene Liner for CB	\$ _____	\$ _____
604.12	6	Ea	New Catch Basins (Type B) (Includes Hood)	\$ _____	\$ _____
604.22	4	Ea	New Drop Inlet Basins (Type B) (Includes Hood)	\$ _____	\$ _____
604.32	6	Ea	Drain Manhole (4' to 6' Diameter)	\$ _____	\$ _____
604.32A	2	Ea	Drain Manhole 3' Diameter	\$ _____	\$ _____

PROPOSAL FORM (continued)

ITEM #	EST. QTY.	UNITS	ITEM DESCRIPTION & UNIT PRICE IN WORDS	UNIT PRICE IN FIGURES	ITEM TOTAL IN FIGURES
604.5A	10	Ea	Reconstruct Manhole/Structure Frame and Cover including adjusting for new grades	\$ _____	\$ _____
608.24	5300	Sf	4" Concrete Sidewalk	\$ _____	\$ _____
608.26	330	Sf	6" Concrete Sidewalk in HC Ramp Areas	\$ _____	\$ _____
608.5	9060	Sf	Brick Sidewalk	\$ _____	\$ _____
608.52	9	Ea	Detectable Warning Surface Panels Armor Tile, Color: Light Gray	\$ _____	\$ _____
609.01A	225	Lf	New Straight Vertical Granite Curb 5" Wide	\$ _____	\$ _____
609.01B	175	Lf	New Straight Vertical Granite Curb 7" Wide	\$ _____	\$ _____
609.02 A	50	Lf	New Curved Vertical Granite Curb 5" Wide	\$ _____	\$ _____
609.02B	15	Lf	New Curved Vertical Granite Curb 7" Wide	\$ _____	\$ _____
609.5	1750	Lf	Reset Existing Curb	\$ _____	\$ _____
611.90001	46	Ea	Reconstruct Water Gate / Service Valve Cover including adjusting for new grades	\$ _____	\$ _____

PROPOSAL FORM (continued)

ITEM #	EST. QTY.	UNITS	ITEM DESCRIPTION & UNIT PRICE IN WORDS	UNIT PRICE IN FIGURES	ITEM TOTAL IN FIGURES
614	3	Ea	Electrical Pull Box	\$ _____	\$ _____
614.321	600	Lf	2" Steel Conduit	\$ _____	\$ _____
614.7214	1400	Lf	2" Schedule 40 PVC Conduit	\$ _____	\$ _____
614.7218	100	Lf	2" Schedule 80 PVC Conduit	\$ _____	\$ _____
616	1	U	Electrical Work for Project	\$ _____	\$ _____
618.6	600	Hr	Uniformed Portsmouth Police Flaggers <u>Fifty dollars and 10 cents per hour</u>	<u>\$50.10</u>	<u>\$30,060.00</u>
619.1	1	U	Maintenance of Traffic	\$ _____	\$ _____
625	32	Ea	Light Pole Bases	\$ _____	\$ _____
628	4000	Lf	Saw Cut Pavement and/or Concrete as required	\$ _____	\$ _____
632.0104	3600	Lf	4" Paint Striping	\$ _____	\$ _____
632.0112	680	Lf	12" Paint Crosswalk/Stop Bar Striping	\$ _____	\$ _____
637.2	11	Ea	Reset Granite Steps to new Grade (If necessary)	\$ _____	\$ _____

PROPOSAL FORM (continued)

ITEM #	EST. QTY.	UNITS	ITEM DESCRIPTION & UNIT PRICE IN WORDS	UNIT PRICE IN FIGURES	ITEM TOTAL IN FIGURES
641	32	Cy	Loam	\$ _____	\$ _____
645.153	20	Cy	Bark Mulch	\$ _____	\$ _____
659	3	Ea	London Plane Tree (3" Caliper)	\$ _____	\$ _____
670.21	2	Ea	Granite Benches	\$ _____	\$ _____
692	1	U	Mobilization	\$ _____	\$ _____
1008.11	10	Hr	Unanticipated Work - Labor	\$ _____	\$ _____
1008.12	1000	\$	Unanticipated Work - Material	\$ _____	\$1000.00
			<u>Actual cost plus 10%</u>		

To Bidder:

The City reserves the right, after bid opening and prior to award of the contract, to modify the amount of the work in the event that bids exceed budgeted amounts and/or easements and agreements from one or more impacted property owners are not received.

It is the intention of this contract that the items listed above describe completely and thoroughly the entirety of the work as shown on the plans and as described in the specifications. All other items required to accomplish the above items are considered to be subsidiary work, unless shown as a pay item.

TOTAL FOR PROJECT AND BASIS OF AWARD

In Figures \$ _____

In Words \$ _____

The undersigned agrees that for extra work, if any, performed in accordance with the terms and provisions of the Contract Documents, the bidder will accept compensation as stipulated therein.

Date:

Company

By: _____
Signature

Business Address

Title: _____

City, State, Zip Code

Telephone: _____

We certify that the Company is currently pre-qualified with the State of New Hampshire for Road Construction.

By: _____
Signature & Title

Date

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

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

In order to follow the City's sustainability practices, future bid invitations/specifications may be sent electronically. Please provide an email address as to where I could email future bid invitations/specifications of this type. Thank you in advance for your cooperation.

Email
Address: _____

BID SECURITY BOND

(This format provided for convenience, actual Bid Bond is acceptable in lieu of, if compatible.)

KNOW ALL MEN BY THESE PRESENTS, that we the undersigned

_____, as Principal, and

_____, as Surety, are hereby

held and firmly bound unto _____

IN THE SUM OF _____

as liquidated damages for payment of which, well and truly to be made we hereby jointly and severally bind ourselves, our heirs, executors, administrators, successors and assigns.

The condition of this obligation is such that whereas the Principal has submitted to the

_____ A CERTAIN Bid attached hereto and hereby made a part hereof to enter into a contract in writing, hereinafter referred to as the "AGREEMENT" and or "CONTRACT", for

NOW THEREFORE,

- (a) If said Bid shall be rejected or withdrawn as provided in the INFORMATION FOR BIDDERS attached hereto or, in the alternative,
- (b) If said Bid shall be accepted and the Principal shall duly execute and deliver the form of AGREEMENT attached hereto and shall furnish the specified bonds for the faithful performance of the AGREEMENT and/or CONTRACT and for the payment for labor and materials furnished for the performance of the AGREEMENT and or CONTRACT,

then this obligation shall be void , otherwise it shall remain in full force and effect; it being expressly understood and agreed that the liability of the Surety for any and all claims hereunder in no event shall exceed the amount of this obligation.

BID SECURITY BOND (continued)

The Surety, for value received, hereby agrees that the obligation of said surety and its bond shall be in no way impaired or affected by any extensions of the time within such BID may be accepted, and said Surety does hereby waive notice of any such extension.

IN WITNESS WHEREOF, the parties hereto have duly executed

this bond on the _____ day of _____, 20__.

(Name of Principal) L.S.

(SEAL)

BY _____

(Name of Surety)

BY _____

STATEMENT OF BIDDER'S QUALIFICATIONS

Supply with Bid

All questions must be answered and the data given must be clear and comprehensive. This statement must be notarized. Add separate sheets if necessary

1. Name of Bidder
2. Permanent Main Office Address
3. Form of Entity
4. When Organized
5. Where Organized
6. How many years have you been engaged in the contracting business under your present name; also state names and dates of previous firm names, if any.
7. Contracts on hand; (schedule these, showing gross amount of each contract and the approximate anticipated dates of completion).
8. General character of work performed by your company.
9. Have you ever failed to complete any work awarded to you? ____ (no) ____ (yes). If so, where and why?
10. Have you ever defaulted on a contract?
____ (no) ____ (yes). If so, where and why?
11. Have you ever failed to complete a project in the time allotment according to the Contract Documents?
____ (no) ____ (yes). If so, where and why?
12. List the most important contracts recently executed by your company, stating approximate cost for each, and the month and year completed.
13. List your major equipment available for this contract.
14. List your key personnel such as project superintendent and foremen available for this contract.

STATEMENT OF BIDDERS QUALIFICATIONS (continued)

15. List any subcontractors whom you would expect to use for the following (unless this work is to be done by your own organization).
- a. Paving _____
 - b. Concrete Flatwork _____
 - c. Brick Pavers _____
 - d. Curbing _____
 - e. Electrical _____

The City reserves the right to disallow any subcontractor.

16. With what banks do you do business?
- a. Do you grant the Owner permission to contact this/these institutions?
____(yes) ____ (no).

b. Latest Financial Statements, certified audited if available, prepared by an independent certified public accountant, may be requested by Owner. If requested, such statements must be provided within five (5) business days or the bid proposal will be rejected. Certified Audited Statements are preferred. Internal statements may be attached only if independent statements were not prepared.

Dated at _____ this _____ day of _____, 20____.

Name of Bidder

BY _____

TITLE _____

State of _____

County of _____

_____ being duly sworn, deposes and

says that the bidder is _____ of _____
(Name of Organization)

and answers to the foregoing questions and all statements contained therein are true and correct.

Sworn to before me this _____ day of _____, 20____.

Notary of Public
My Commission expires _____

CONTRACT AGREEMENT

MARKET STREET STREETScape IMPROVEMENTS

THIS AGREEMENT made as of the _____ in the year **2010**, by and between the City of Portsmouth, New Hampshire (hereinafter call the Owner) and _____ (hereinafter called the Contractor),

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

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

ARTICLE II - ENGINEER - The City Engineer, or his authorized representative will act as engineer in connection with completion of the Project in accordance with the Contract Documents.

ARTICLE III - CONTRACT TIME - The work will commence in accordance with the Notice to Proceed. **All work shall be completed no later than June 25, 2010.**

ARTICLE IV - CONTRACT PRICE - Owner shall pay Contractor for performance of the work in accordance with the Contract Documents as shown under item prices in the Bid Proposal.

ARTICLE V - PAYMENT - Partial payments will be made in accordance with the Contract Documents. Upon final acceptance of the work and settlement of all claims, Owner shall pay the Contractor the unpaid balance of the Contract Price, subject to additions and deductions provided for in the Contract Documents.

ARTICLE VI - RETAINAGE – To insure the proper performance of this Contract, the Owner shall retain **ten percent** of the Contract Price as specified in the Contract Documents.

ARTICLE VII - LIQUIDATED DAMAGES - In event the Contractor fails to successfully execute the work within the specified contract time the Owner shall assess the Contractor liquidated damages in the amount of **five hundred dollars (\$500)** for each calendar day beyond the specified completion date for each section of work. Liquidated damages shall be deducted from the Contract Price prior to final payment of the Contractor.

CONTRACT AGREEMENT (continued)

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

- 8.1 This Agreement
- 8.2 Contractor’s Bid and Bonds
- 8.3 Notice of Award, Notice to Proceed
- 8.4 Instruction to Bidders

General Requirements, Control of Work, Temporary Facilities, Measurement and Payment, Standard Specifications

- 8.5 Insurance Requirements
- 8.6 Standard and Technical Specifications
- 8.7 Drawings
- 8.8 Special Provisions
- 8.9 Any modifications, including change orders, duly delivered after execution of this Agreement.

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

ARTICLE X – INDEMNIFICATION OF OWNER – Contractor will indemnify Owner against all suits, claims, judgments, awards, loss, cost or expense (including without limitation attorneys’ fees) arising in any way out of the Contractor’s negligent performance of its obligations under this Contract. Contractor will defend all such actions with counsel satisfactory to Owner at its own expense, including attorney’s fees, and will satisfy any judgment rendered against Owner in such action.

ARTICLE XI – PERMITS –The Contractor will secure at its own expense, all other permits and consents required by law as necessary to perform the work and will give all notices and pay all fees and otherwise comply with all applicable City, State, and Federal laws, ordinances, rules and regulations.

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

ARTICLE XIII – MISCELLANEOUS –

- A. Neither Owner nor Contractor shall, without the prior written consent of the other, assign, sublet or delegate, in whole or in part, any of its rights or obligations under any of the Contract Documents; and, specifically not assign any monies due, or to become due, without the prior written consent of Owner.
- B. Owner and Contractor each binds himself, his partners, successors, assigns and legal representatives, to the other party hereto in respect to all covenants, agreements and obligations contained in the Contract Documents.
- C. The Contract Documents constitute the entire Agreement between Owner and Contractor and may only be altered amended or repealed by a duly executed written instrument.
- D. The laws of the State of New Hampshire shall govern this Contract without reference to the conflict of law principles thereof.
- E. Venue for any dispute shall be the Rockingham County Superior Court unless the parties otherwise agree.

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

BIDDER:

BY: _____

TITLE: _____

CITY OF PORTSMOUTH, N.H.

BY: _____
John P. Bohenko

TITLE: City Manager

NOTICE OF INTENT TO AWARD

Date:

TO:

IN AS MUCH as you were the low responsible bidder for work entitled:

MARKET STREET STREETScape IMPROVEMENTS

You are hereby notified that the City intends to award the aforesaid project to you.

Immediately take the necessary steps to execute the Contract and to provide required bonds and proof of insurance within ten (10) calendar days from the date of this Notice.

The City reserves the right to revoke this Notice if you fail to take the necessary steps to execute this Contract.

City of Portsmouth
Portsmouth, New Hampshire

Judie Belanger,
Finance Director

NOTICE TO PROCEED

DATE:

MARKET STREET STREETScape IMPROVEMENTS

TO:

YOU ARE HEREBY NOTIFIED TO COMMENCE WORK IN ACCORDANCE

WITH THE AGREEMENT DATED _____, ON OR AFTER _____ AND ALL

WORK SHALL BE COMPLETED BY June 25, 2010.

CITY OF PORTSMOUTH, N.H.

BY: Steven F. Parkinson, PE

TITLE: Public Works Director

ACCEPTANCE OF NOTICE

RECEIPT OF THE ABOVE NOTICE TO
PROCEED IS HEREBY ACKNOWLEDGED BY

This the _____ day of _____ 20__

By: _____

Title: _____

CHANGE ORDER

Change Order Number _____

Date of Issuance _____

Owner: CITY OF PORTSMOUTH, N.H

Contractor: _____

You are directed to make the following changes in the Contract Documents:

Description: _____

Purpose of Change Order: _____

Attachments: _____

CHANGE IN CONTRACT PRICE

CHANGE IN CONTRACT TIME

Original Contract Price:
\$ _____

Original Completion Date: _____

Contract Price prior to this
Change Order:
\$ _____

Contract date prior to this
Change Order: _____

Net Increase or Decrease of
this Change Order:
\$ _____

Net Increase or Decrease of
this Change Order: _____

Contract Price with all
approved Change Orders:
\$ _____

Contract Due date with all
approved Change Orders: _____

RECOMMENDED:

APPROVED:

APPROVED:

by _____

by _____

by _____

by _____

PW Director

City Finance

City Manager

Contractor

PERFORMANCE BOND

(This format provided for convenience, actual Performance Bond is acceptable in lieu, if compatible)

Bond Number _____

KNOW ALL MEN BY THESE PRESENTS

that _____ as Principal, hereinafter called Contractor, and _____ (Surety Company) a corporation organized and existing under the laws of the State of _____ and authorized to do business in the State of New Hampshire as surety, hereinafter called Surety, are held and firmly bound unto the City of Portsmouth, N.H. Obligee, hereinafter called Owner, in the amount of _____ Dollars (\$_____), for the payment whereof Contractor and Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents. WHEREAS, Contractor has by written agreement dated _____ entered into a contract with Owner for _____ in accordance with drawings and specifications prepared by the Public Works Department, 680 Peeverly Hill Road, Portsmouth, N.H. 03801, which contract is by reference made a part hereof, and is hereinafter referred to as the Contract.

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION is such that if the Contractor shall well and faithfully do and perform the things agreed by him to be done and performed, according to the terms of said Contract and such alterations as may be made in said Contract during progress work, and shall further indemnify and save harmless the said Owner in accordance with the Contract and shall remedy without cost to the Owner any defect which may develop within one year from the time of completion and acceptance of the work.

The Surety hereby waives notice of any alteration in work or extension of time made by the Owner or any of its agents or representatives.

Whenever Contractor shall be, and declared by Owner to be, in default under the Contract, the Owner having performed Owner's obligations thereunder, the Surety may promptly remedy the default, or shall promptly:

- (1) Complete the Contract in accordance with its terms and conditions, or

LABOR AND MATERIAL PAYMENT BOND

(This format provided for convenience, actual Labor and Material Bond is acceptable in lieu, if compatible)

Bond Number _____

KNOW ALL MEN BY THESE PRESENTS:

that _____

as Principal, hereinafter called Contractor, and _____ (Surety Company) a corporation organized and existing under the laws of the State of

_____ and authorized to do business in the State of New Hampshire hereinafter called Surety, are held and firmly bound unto the City of Portsmouth, N.H. Oblige, hereinafter called Owner, for the use and benefit of claimants as herein below defined, in the

amount of _____ Dollars (\$ _____), for the payment whereof Principal and Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, Principal has by written agreement dated _____ entered into a

contract with Owner for _____ in accordance with drawings and specifications prepared by the Public Works Department, 680 Peverly Hill Road, Portsmouth, N.H. 03801, which contract is by reference made a part hereof, and is hereinafter referred to as the Contract.

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION is such that the Principal shall promptly make payment to all claimants as hereinafter defined, for all labor and material used or reasonably required for use in the performance of the Contract and for the hire of all equipment, tools, and all other things contracted for or used in connection therewith, then this obligation shall be void, otherwise it shall remain in full force and effect, subject however, to the following conditions:

(1) A claimant is defined as one having a direct contract with the Principal or, with a subcontractor of the Principal for labor, material, equipment, or other things used or reasonably required for use in the performance of the Contract. "Labor and material" shall include but not be limited to that part of water, gas, power, light, heat, oil and gasoline, telephone service or rental of equipment applicable to the Contract.

(2) The above named Principal and Surety hereby jointly and severally agree with the Owner that every claimant as herein defined, who has not been paid in full before the expiration of a period of ninety (90) days after the date on which the last of such claimant's work or labor was done or performed, or materials were furnished by such a claimant, may sue on this bond for the use of such claimant, prosecute the suit by final judgment for such sum or sums as may be

LABOR AND MATERIAL PAYMENT BOND (continued)

justly due claimant, and have execution thereon. The Owner shall not be liable for the payment of any such suit or any costs or expenses of any such suit, and principal and surety shall jointly and severally indemnify, defend and hold the Owner harmless for any such suit, costs or expenses.

(3) No suit or action shall be commenced hereunder by any claimant:

(a) Unless Claimant, other than one having a direct contract with the Principal, shall have given notice to all the following:

The Principal, the Owner and the Surety above named, within six (6) calendar months after such claimant did or performed the last of the work or labor, or furnished the last of the materials for which said claim is made, stating with substantial accuracy the amount claimed and the name of the party to whom the materials were furnished, or for whom the work or labor was done or performed. Such notice shall be served by mailing the same by registered mail or certified mail, postage prepaid, in an envelope addressed to the Principal, Owner, and Surety, at any place where an office is regularly maintained for the transaction of business, or served in any manner in which legal process may be served in the State of New Hampshire save that such service need not be made by a public officer.

(b) After the expiration of one (1) year following the date on which Principal ceased all work on said contract, it being understood, however, that if any limitation embodied in this bond is prohibited by any law controlling the construction hereof, such limitation shall be deemed to be amended so as to be equal to the minimum period of limitation permitted by such law.

(c) Other than in a State court of competent jurisdiction in and for the county or other political subdivision of the State in which the project, or any part thereof, is situated, or in the United States District Court for the district in which the project, or any part thereof, is situated, and not elsewhere. (4) The amount of this bond may be reduced by and to the extent of any payment of payments made in good faith hereunder, inclusive of the payment by Surety of mechanics' liens which may be filed on record against said improvement, whether or not claim for the amount of such lien by presented under and against this bond.

Signed and sealed this _____ day of _____, 20____. In the presence of:

(Witness) BY: _____
(Principal) (Seal)

(Surety Company)

(Witness) BY: _____
(Title) (Seal)

LABOR AND MATERIAL PAYMENT BOND (continued)

Note:

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

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

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

There should be executed an appropriate number of counterparts of the bond corresponding to the number of counterparts of the Agreement.

MAINTENANCE BOND

At the Owner's election, a maintenance bond may be substituted for retainage at the completion of the project. If the Owner permits a maintenance bond, it shall be in the amount of **Twenty Percent (20%)** of the contract price with a corporate surety approved by the Owner. Such bond shall be provided at the time of Contract completion and shall guarantee the repair of all damage due to faulty materials or workmanship provided or done by the Contractor. This guarantee shall remain in effect for a period of one year after the date of final acceptance of the job by the Owner.

CONTRACTOR'S AFFIDAVIT

STATE OF _____:

COUNTY OF _____:

Before me, the undersigned, a _____
(Notary Public, Justice of the Peace)

in and for said County and State personally appeared, _____
(Individual, Partner, or duly authorized representative of Corporate)

who, being duly sworn, according to law deposes and says that the cost of labor, material, and equipment and outstanding claims and indebtedness of whatever nature arising out of the performance of the Contract between

CITY OF PORTSMOUTH, NEW HAMPSHIRE

and _____
(Contractor)

of _____

Dated: _____

has been paid in full for Construction of: **Market Street Streetscape Improvements**

(Individual, Partner, or
duly authorized
representative of
Corporate Contractor)

Sworn to and subscribed
before me this _____ day
of _____ 20____

CONTRACTOR'S RELEASE

KNOW ALL MEN BY THESE PRESENTS that _____

(Contractor) of _____, County of _____ and State of

_____ does hereby acknowledge

that _____ (Contractor)

has on this day had, and received from the CITY OF PORTSMOUTH NEW HAMPSHIRE, final and completed payment for the Construction of:

Market Street Streetscape Improvements

NOW THEREFORE, the said _____

(Contractor)

for myself, my heirs, executors, and administrators) (for itself, its successors and assigns) do/does by these presents remise, release, quit-claim and forever discharge the City of Portsmouth, New Hampshire, its successors and assigns, of and from all claims and demands arising from or in connection with the said Contract dated _____, and of and from all, and all manners of action and actions, cause and causes of action and actions, suits, debts, dues, duties, sum and sums of money, accounts, reckonings, bonds, bills, specifications, covenants, contracts, agreements, promises, variances, damages, judgments, extents, executions, claims and demand, whatsoever in law of equity, or otherwise, against the City of Portsmouth, New Hampshire, its successors and assigns, which (I, my heirs, executors, or administrators) (it, its successors and assigns) ever had, now have or which (I, my heirs, executors, or administrators) (it, its successors and assigns) hereafter can shall or may have, for, upon or by reason of any matter, cause, or thing whatsoever; from the beginning of record time to the date of these presents.

IN WITNESS WHEREOF,

Contractor:

print name of witness: _____

By: _____
Its Duly Authorized _____

Dated: _____

GENERAL REQUIREMENTS

SCOPE OF WORK

1. INTENT OF CONTRACT

The intent of the Contract is to provide for the construction and completion in every detail of the work described. The Contractor shall furnish all labor, materials, equipment, tools, transportation and supplies required to complete the work in accordance with the terms of the Contract. The Contractor shall be required to conform to the intent of the plans and specifications. No extra claims shall be allowed for portions of the work not specifically addressed in the plans and specifications but required to produce a whole and complete project, such work will be considered subsidiary to the bid items.

2. INCIDENTAL WORK

Incidental work items for which separate payment is not measured includes, but is not limited to, the following items:

- a. Clearing, grubbing and stripping (unless otherwise paid for)
- b. Clean up
- c. Plugging existing sewers and manholes
- d. Signs
- e. Mobilization/Demobilization (unless otherwise paid for)
- f. Restoration of property
- g. Cooperation with other contractors, abutters and utilities.
- h. Utility crossings, (unless otherwise paid for)
- i. Minor items - such as replacement of fences, guardrails, rock wall, etc.
- j. Steel and/or wood sheeting as required.
- k. Accessories and fasteners or components required to make items paid for under unit prices or lump sum items complete and functional.

3. ALTERATION OF PLANS OR OF CHARACTER OF WORK

The Owner reserves the right, without notice to Surety, to make such alterations of the plans or of the character of the work as may be necessary or desirable to complete fully and acceptably the proposed construction; provided that such alterations do not increase or decrease the contract cost. Within these cost limits, the alterations authorized in writing by the Owner shall not impair or affect any provisions of the Contract or bond and such increases or decreases of the quantities as a result from these alterations or deletions of certain items, shall not be the basis of claim for loss or for anticipated profits by the contractor. The contractor shall perform the work as altered at the contract unit price or prices.

4. EXTRA WORK ITEMS

Extra work shall be performed by the Contractor in accordance with the specifications and as directed, and will be paid for at a price as provided in the Contract documents or if such pay items are not applicable than at a price negotiated between the contractor and the Owner or at the unit bid price. If the Owner determines that extra work is to be performed, a change order will be issued.

5. CHANGE ORDERS

The Owner reserves the right to issue a formal change order for any increase, decrease, deletion, or addition of work or any increase in contract time or price. The contractor shall be required to sign the change order and it shall be considered as part of the Contract documents.

6. FINAL CLEANING UP

Before acceptance of the work, the contractor shall remove from the site all machinery, equipment, surplus materials, rubbish, temporary buildings, barricades and signs. All parts of the work shall be left in a neat and presentable condition. On all areas used or occupied by the contractor, regardless of the contract limits, the bidder shall clean-up all sites and storage grounds.

The items prescribed herein will not be paid for separately, but shall be paid for as part of the total contract price.

7. ERRORS AND INCONSISTENCY IN CONTRACT DOCUMENTS

Any provisions in any of the Contract Documents that may be in conflict with the paragraphs in these General Requirements shall be subject to the following order of precedence for interpretation.

1. Standard Specifications for Road & Bridge Construction will govern General Requirements.
2. Technical Specifications will govern Standard Specifications.
3. Plans will govern Technical Specifications, and General Requirements.

CONTROL OF WORK

1. AUTHORITY OF ENGINEER

(a) All work shall be done under supervision of the City Engineer and to his satisfaction. The City Engineer will decide all questions which may arise as to the quality and acceptability of materials furnished and work performed and as to the rate of progress of the work; all questions that may arise as to the interpretation of the plans and specifications; and all questions as to the acceptable fulfillment of the Contract by the Contractor.

(b) The City Engineer will have the authority to suspend the work wholly or in part for such periods as he may deem necessary due to the failure of the Contractor to correct conditions unsafe for workers or the general public; for failure to carry out provisions of the Contract; for failure to carry out orders; for conditions considered unsuitable for the prosecution of the work, including unfit weather; or for any other condition or reason deemed to be in the public interest. The Contractor shall not be entitled any additional payments arising out of any such suspensions.

(c) The Owner reserves the right to demand a certificate of compliance for a material or product used on the project. When the certificate of compliance is determined to be unacceptable to the City Engineer the Contractor may be required to provide engineering and testing services to guarantee that the material or product is suitable for use in the project, at its expense (see Sample of Certificate of Compliance).

2. PROTECTION AND RESTORATION OF PROPERTY AND LANDSCAPES

(a) The Contractor shall use every precaution to prevent injury or damage to wires, poles, or other property of public utilities; trees, shrubbery, crops, and fences along and adjacent to the right-of-way, all underground structures such as pipes and conduits, within or outside of the right-of-way; and the Contractor shall protect and carefully preserve all property marks until an authorized agent has witnessed or otherwise referenced their location.

(b) The Contractor shall be responsible for all damage or injury to property of any character, during the prosecution of the work, resulting from any act, omission, neglect, or misconduct in his manner or method of executing the work, or at any time due to defective work or materials, and said responsibility will not be released until the project shall have been completed and accepted.

(c) When or where any direct or indirect damage or injury is done to public or private property by or on account of any act, omission, neglect, or misconduct in the execution of the work, or as a result of the failure to perform work by the Contractor, the Contractor shall restore, at its own expense, such property to a condition similar or equal to that existing before such damage or injury was done, by repairing rebuilding, or otherwise restoring as may be directed, or the Contractor shall make good such damage or injury in an acceptable manner.

(d) The Contractor shall paint with tree paint all scars made on fruit or ornamental trees by equipment, construction operations, or the removal of limbs larger than one inch in diameter. Damaged trees must be replaced if so determined by the City Arborist, in his or her sole discretion.

(e) If the Contractor fails to repair, rebuild or otherwise restore such property as may be deemed necessary, the Owner, after 48 hours notice, may proceed to do so, and the cost thereof may be deducted from any money due or which may become due the Contractor under the contract.

(f) It is the intent of the Parties that the Contractor preserve, to as great an extent as possible, the natural features of the site.

CONTROL OF WORK (continued)

3. MAINTENANCE DURING CONSTRUCTION

The Contractor shall maintain the work during construction and until the project is accepted. This maintenance shall constitute continuous and effective work prosecuted day by day, with adequate equipment and workers to ensure that the structure is kept in satisfactory conditions at all times.

4. SAFETY PRECAUTIONS

Upon commencement of work, the Contractor shall be responsible for initiating, maintaining and supervising all safety precautions necessary to ensure the safety of employees on the site, other persons who may be affected thereby, including the public, and other property at the site or adjacent thereto.

5. PERMITS

It will be the responsibility of the Contractor to obtain all permits required for the operation of equipment in, or on, all city streets and public ways.

The City has applied for a wetland permit from NHDES wetlands bureau allowing work within 100' of the highest observable tide line. As of this date, the City has not received final approval for the work. Upon the City's receipt of the approved permit, the Contractor will be furnished with a copy of the permit and the Contractor will be required to abide by all conditions of that permit.

The City has received its release of funds from the US Housing and Urban Development in accordance with the National Environmental Policy Act of 1969 (as amended).

6. BARRICADES, WARNING SIGNS AND TRAFFIC OFFICERS

(a) The Contractor shall provide, erect and maintain all necessary barricades, suitable and sufficient lights, danger signals, signs and other traffic control devices, and shall take all necessary precautions for the protection of the work and safety of the public. Roadway closed to traffic shall be protected by effective barricades. Obstructions shall be illuminated during hours of darkness. Suitable warning signs shall be provided to control and direct traffic in a proper manner, as approved by the engineer.

(b) The Contractor will be held responsible for all damage to the work from traffic, pedestrians, animals or any other cause due to lack of adequate controlling devices.

(c) The Contractor shall provide such police officers as the City Engineer deems necessary for the direction and control of traffic within the site of project.

The work prescribed herein will not be paid for separately but will be paid for as part of the Contract Price unless specifically appearing as a bid item.

TEMPORARY FACILITIES

1. STORAGE FACILITIES

(a) The Contractor shall not store materials or equipment in a public right-of-way beyond the needs of one working day. Equipment and materials shall be stored in an approved location.

(b) The Contractor shall protect all stored materials from damage by weather or accident and shall insure adequate drainage at and about the storage location.

(c) Prior to final acceptance of the work all temporary storage facilities and surplus stored materials shall be removed from the site.

2. SANITARY FACILITIES

(a) The Contractor shall provide for toilet facilities for the use of the workers employed on the work.

(b) Temporary toilet facilities may be installed provided that the installation and maintenance conform with all State and local laws, codes, regulations and ordinances governing such work. They shall be properly lit and ventilated, and shall be kept clean at all times.

(c) Prior to final acceptance of the work all temporary toilet facilities shall be removed from the site.

3. TEMPORARY WATER

The Contractor shall make all arrangements with the local water department for obtaining water connections to provide the water necessary for construction operations and shall pay all costs.

4. TEMPORARY ELECTRICITY

The Contractor shall make all arrangements with the Public Service Company for obtaining electrical connections to provide the electrical power necessary for construction operations and security lighting and shall pay all electrical connection and power costs.

The Contractor shall be responsible with obtaining an electrical permit from the City Electrical Inspector.

INSURANCE REQUIREMENTS

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

AMOUNT OF INSURANCE

- A) Comprehensive General Liability:
Bodily injury or Property Damage - \$2,000,000
Per occurrence and general aggregate
- B) Automobile and Truck Liability:
Bodily Injury or Property Damage - \$2,000,000
Per occurrence and general aggregate

Coverage amounts may be met with excess policies

Additionally, the Contractor shall purchase and maintain the following types of insurance:

- A) Full Workers Comprehensive Insurance coverage for all people employed by the Contractor to perform work on this project. This insurance shall at a minimum meet the requirements of the most current laws of the State of New Hampshire.
- B) Contractual Liability Insurance coverage in the amounts specified above under Comprehensive General Liability.
- C) Product and Completed Operations coverage to be included in the amounts specified above under Comprehensive General Liability.

ADDITIONAL INSURED

All liability policies (including any excess policies used to meet coverage requirements) shall include the City of Portsmouth, New Hampshire as named Additional Insureds.

- 1) The contractor's insurance shall be primary in the event of a loss.
- 2) City of Portsmouth shall be listed as a Certificate Holder. The City shall be identified as follows:

City of Portsmouth
Attn: Legal Department
1 Junkins Avenue
Portsmouth, NH 03801

MEASUREMENT AND PAYMENT

1. MEASUREMENT OF QUANTITIES

- (a) All work completed under the contract will be measured according to the United States standard measure.
- (b) The method of measurement and computations to be used in determination of quantities of material furnished and of work performed under the contract will be those methods generally recognized as conforming to good engineering practice. Unless otherwise stated all quantities measured for payment shall be computed or adjusted for "in place" conditions.
- (c) Unless otherwise specified, longitudinal measurements for area computations will be made horizontally, and no deductions will be made for individual fixtures having an area of 9 square feet or less. Unless otherwise specified, transverse measurements for area computations will be the dimensions shown on the plans or ordered in writing.
- (d) Structures will be measured according to lines shown on the plans or as ordered unless otherwise provided for elsewhere in the specifications.
- (e) In computing volumes of excavation, embankment, and borrow, the average end area method will be used. Where it is impracticable to measure by the cross-section method, acceptable methods involving three-dimensional measurement may be used. When measurement of borrow in vehicles is permitted, the quantity will be determined as 80 percent of the loose volume.
- (f) In computing volumes of concrete, stone and masonry, the prismatic method will be used. The term "ton" will mean the short ton consisting of 2,000 pounds avoirdupois.
- (g) Except as specified below, all materials that are measured or proportioned by weight shall be weighed on scales which the Contractor has had sealed by the State or by a repairman registered by the Commissioner of Agriculture. All weighing shall be performed in a manner prescribed under the Rules and Regulations of the Bureau of Weights and Measures of the New Hampshire Department of Agriculture.
- (h) Weighing of materials on scales located outside New Hampshire will be permitted for materials produced or stored outside the state, when requested by the Contractor and approved. Out-of-state weighing in order to be approved, must be performed by a licensed public weigh master or a person of equal authority in the state concerned on scales accepted in the concerned state.
- (i) Each truck used to haul material being paid for by weight shall bear a plainly legible identification mark, and if required, shall be weighed empty daily at such times as directed.
- (j) When material is weighed, the individual weight slips, which shall be furnished by the Contractor, for trucks, trailers, or distributors, shall show the following information: the date; the project; the material or commodity; the dealer or vendor; the Contractor or Subcontractor; the location of the scales; the vehicle registration number or other approved legible identification mark; the tare and net weights, with gross weights when applicable; and the weigher's signature or his signed initials.

MEASUREMENT AND PAYMENT (continued)

(k) The right is reserved to weight any truck, trailer, or distributor, at locations designated, before and after making deliveries to the project.

(l) Bituminous materials will be measured by the gallon or ton.

(m) When material is specified to be measured by the cubic yard but measurement by weight is approved, such material may be weighed and the weight converted to cubic yards for payment purposes. Necessary conversion factors will be determined by the Owner.

(n) The term "lump sum" when used as an item of payment will mean complete payment for the work described in the item.

(o) When a complete structure or structural unit (in effect, "lump sum" work) is specified as the unit of measurement, the unit will be construed to include all necessary fittings and accessories, so as to provide the item complete and functional. Except as may be otherwise provided, partial payments for lump sum items will be made approximately in proportion to the amount of the work completed on those items.

(p) Material wasted without authority will not be included in the final estimate.

2. SCOPE OF PAYMENT

(a) The Contractor shall receive and accept compensation provided for in the contract as full payment for furnishing all materials and for performing all work under the contract in a complete and acceptable manner and for all risk, loss, damage or expense of whatever character arising out of the nature of the work or the prosecution thereof.

(b) The Contractor shall be liable to the Owner for failure to repair, correct, renew or replace, at his own expense, all damage due or attributable to defects or imperfections in the construction which defects or imperfections may be discovered before or at the time of the final inspection and acceptance of the work.

(c) No monies, payable under the contract or any part thereof, except the first estimate, shall become due or payable if the Owner so elects, until the Contractor shall satisfy the Owner that the Contractor has fully settled or paid all labor performed or furnished for all equipment hired, including trucks, for all materials used, and for fuels, lubricants, power tools, hardware and supplies purchased by the Contractor and used in carrying out said contract and for labor and parts furnished upon the order of said Contractor for the repair of equipment used in carrying out said contract; and the Owner, if he so elects, may pay any and all such bills, in whole or in part, and deduct the amount of amounts so paid from any partial or final estimate, excepting the first estimate.

MEASUREMENT AND PAYMENT (continued)

3. COMPENSATION FOR ALTERED QUANTITIES

(a) Except as provided for under the particular contract item, when the accepted quantities of work vary from the quantities in the bid schedule the Contractor shall accept as payment in full, so far as contract items are concerned, at the original contract unit prices for the accepted quantities of work done. No allowance will be made for any increased expense, loss of expected reimbursement, or loss of anticipated profits suffered or claimed by the Contractor resulting either directly from such alterations or indirectly from unbalanced allocation among the contract items of overhead expense on the part of the Bidder and subsequent loss of expected reimbursements therefore or from any other cause.

(b) Extra work performed will be paid for at the contract bid prices or at the price negotiated between the Owner and the Contractor if the item was not bid upon. If no agreement can be negotiated, the Contractor will accept as payment for extra work, cost plus 15% (overhead and profit). Costs shall be substantiated by invoices and certified payroll.

4. PARTIAL PAYMENTS

Partial payments will be made on a monthly basis during the contract period. From the total amount ascertained as payable, an amount equivalent to ten percent (10 %) of the whole will be deducted and retained by the Owner until such time as the work receives final acceptance.

5. FINAL ACCEPTANCE

Upon due notice from the Contractor of presumptive completion of the entire project, the City Engineer will make an inspection. If all construction provided for and contemplated by the contract is found complete to his satisfaction, this inspection shall constitute the final inspection and the City Engineer will make the final acceptance and notify the Contractor in writing of this acceptance as of the date of the final inspection.

If, however, the inspection discloses any work in whole or in part, as being unsatisfactory, the City Engineer will give the Contractor the necessary instructions for correction of such work, and the Contractor shall immediately comply with and execute such instructions. Upon correction of the work, another inspection will be made which shall constitute the final inspection provided the work has been satisfactorily completed. In such event, the City Engineer will make the final acceptance and notify the Contractor in writing of this acceptance as of the date of final inspection.

MEASUREMENT AND PAYMENT (continued)

6. ACCEPTANCE AND FINAL PAYMENT

(a) When the project has been accepted and upon submission by the Contractor of all required reports, completed forms and certifications, the Owner will review the final estimate of the quantities of the various classes of work performed. The Contractor may be required to certify that all bills for labor and material used under this contract have been paid.

(b) The Contractor shall file with the Owner any claim that the Contractor may have regarding the final estimate at the same time the Contractor submits the final estimate. Failure to do so shall be a waiver of all such claims and shall be considered as acceptance of the final estimate. From the total amount ascertained as payable, an amount equal to ten percent (10%) of the whole will be deducted and retained by the Owner for the guaranty period. This retainage may be waived, at the discretion of the City, provided the required Maintenance Bond has been posted. After approval of the final estimate by the Owner, the Contractor will be paid the entire sum found to be due after deducting all previous payments and all amounts to be retained or deducted under the provisions of the contract.

(c) All prior partial estimates and payments shall be subject to correction in the final estimate and payment.

7. GENERAL GUARANTY AND WARRANTY OF TITLE

(a) Neither the final certification of payment nor any provision in the contract nor partial or entire use of the improvements embraced in this Contract by the Owner or the public shall constitute an acceptance of work not done in accordance with the Contract or relieve the Contractor of liability in respect to any express or implied warranties or responsibility for faulty materials or workmanship. The Contractor shall promptly remedy any defects in the work and pay for any damage to other work resulting therefrom which shall appear within a period of twelve (12) months from the date of final acceptance of the work. The Owner will give notice of defective materials and work with reasonable promptness.

(b) No material, supplies or equipment to be installed or furnished under this Contract shall be purchased subject to any chattel mortgage or under a conditional sale, lease purchase or other agreement by which an interest therein or in any part thereof is retained by the Seller or supplier. The Contractor shall warrant good title to all materials, supplies and equipment installed or incorporated in the work and upon completion of all work, shall deliver the same together with all improvements and appurtenances constructed or placed thereon by him to the Owner free from any claims, liens or charges. Neither the Contractor nor any person, firm or corporation furnishing any material or labor for any work covered by this Contract shall have the right to a lien upon any improvements or appurtenances thereon.

Nothing contained in this paragraph, however, shall defeat or impair the right of persons furnishing materials or labor to recover under any bond given by the Contractor for their protection or any rights under any law permitting such persons to look to funds due the Contractor in the hands of the Owner. The provisions of this paragraph shall be inserted in all subcontractors and material contracts and notice of its provisions shall be given to all persons furnishing materials for the work when no formal contract is entered into for such materials.

MEASUREMENT AND PAYMENT (continued)

8. NO WAIVER OF LEGAL RIGHTS

(a) Upon completion of the work, the Owner will expeditiously make final inspection and notify the Contractor of acceptance. Such final acceptance, however, shall not preclude or stop the Owner from correcting any measurement, estimate, or certificate made before or after completion of the work, nor shall the Owner be precluded or be stopped from recovering from the Contractor or his Surety, or both, such overpayment as it may sustain by failure on the part of the Contractor to fulfill his obligations under the contract. A waiver on the part of the Owner of any breach of any part of the contract shall not be held to be a waiver of any other or subsequent breach.

(b) The Contractor, without prejudice to the Contract shall be liable to the terms of the Contract, shall be liable to the Owner for latent defects, fraud or such gross mistakes as may amount to fraud, and as regards the Owner's right under any warranty or guaranty.

9. TERMINATION OF CONTRACTOR'S RESPONSIBILITY

Whenever the improvement provided for by the Contract shall have been completely performed on the part of the Contractor and all parts of the work have been released from further obligations except as set forth in his bond and as provided in Section 8 above.

STANDARD SPECIFICATIONS

The Standard Specifications for Road and Bridge Construction of the State of New Hampshire Department of Transportation and any Addenda shall apply but without regard to Section 100 “General Conditions” of those Standard Specifications

Attachment 1

Compliance by Contractor with Laws and Regulations

In connection with the performance of this Contract, the contractor and its subcontractors shall comply with all applicable statutes, laws, regulations, and orders of federal, state, county or municipal authorities which shall impose any obligation or duty upon the Owner.

During the performance of this Contract and for a period of three (3) years after its completion the Contractor, and its subcontractors, shall establish, maintain and preserve property management, project performance, financial management and reporting documents and systems, and such other books, records, and other data pertinent to the project. Such records shall be retained for a period of three (3) years following completion of the project and receipt of final payment, or until an audit is completed and all questions arising therefrom are resolved, whichever is later.

The provisions contained in this Attachment, "Compliance by Contractor with Laws and Regulations" shall be binding on each subcontractor covered by this contract; provided, however, that the foregoing provisions shall not apply to contracts for standard commercial supplies or raw materials. The contractor shall cause the applicable foregoing provisions to be inserted in all subcontracts for any work covered by this Contract.

During the term of this Contract, contractor shall not discriminate against employees or applicants for employment because of race, color, religion, creed, age, sex, handicap or national origin and will take affirmative action to prevent such discrimination.

As this Contract is funded by monies of the United States, Contractor shall comply with all of the provisions of Executive Order No. 11246 ("Equal Employment Opportunity") (**attached**) as supplemented by the regulations of the United State Department of Labor (41 C.F.R. Part 60), and with any rules, regulations and guidelines as the State of New Hampshire or the United States issue to implement these regulations. Contractor further agrees to permit the State, the United States, or any designated representative of either, to have access to any of the Contractor's books, records, and accounts for the purpose of ascertaining compliance with the aforesaid rules, regulations and orders, and the covenants and conditions of this Contract.

Contractor, and all subcontractors, shall also comply with the following federal and state laws and all applicable standards, rules, orders, or regulations issued pursuant thereto:

Nondiscrimination, Title VI of the Civil Rights Act of 1974 (PL 88-352), as amended, (42 USC 2000d) the Fair Housing Act of 1968 (PL 90-284), Executive Orders 11063 and 12259, and the requirements imposed by the Regulations of the Department of Housing and Urban Development (24 CFR 107 and 24 CFR 570.496) issued pursuant to that Title.

Rehabilitation Act of 1973, 29 USC 794, Sections 503 and 504, Executive Order 11914 and U.S. Department of Labor regulations issued pursuant thereto.

The National Environmental Policy Act of 1969 (PL 90-190): the National Historic Preservation Act of 1966 (80 Stat 915, 116 USC 470): and Executive Order No. 11593 of May 31, 1971, as specified in 24 CFR 58.

The Age Discrimination Act of 1975 as amended (42 USC 6101, et. seq.) and implementing regulations.

Section 3 of the Housing and Urban Development Act of 1968 (attached) (12 USC 1701u) as amended by the Housing and Community Development Act of 1992 (42 USC 5301).

Executive Orders 11625 and 12432 (concerning Minority Business Enterprise), and 12138 (concerning Women's Business Enterprise)

**Equal Employment Opportunity
Executive Order 11246, As Amended**

Executive Order 11246 - Equal Employment Opportunity

SOURCE: The provisions of Executive Order 11246 of Sept. 24, 1965, appear at 30 FR 12319, 12935, 3 CFR, 1964-1965 Comp., p.339, unless otherwise noted.

Under and by virtue of the authority vested in me as President of the United States by the Constitution and statutes of the United States, it is ordered as follows:

Part I - Nondiscrimination in Government Employment

[Part I superseded by EO 11478 of Aug. 8, 1969, 34 FR 12985, 3 CFR, 1966-1970 Comp., p. 803]

Part II - Nondiscrimination in Employment by Government Contractors and Subcontractors

Subpart A - Duties of the Secretary of Labor

SEC. 201. The Secretary of Labor shall be responsible for the administration and enforcement of Parts II and III of this Order. The Secretary shall adopt such rules and regulations and issue such orders as are deemed necessary and appropriate to achieve the purposes of Parts II and III of this Order.

[Sec. 201 amended by EO 12086 of Oct. 5, 1978, 43 FR 46501, 3 CFR, 1978 Comp., p. 230]

Subpart B - Contractors' Agreements

SEC. 202. Except in contracts exempted in accordance with Section 204 of this Order, all Government contracting agencies shall include in every Government contract hereafter entered into the following provisions:

"During the performance of this contract, the contractor agrees as follows:

- (1) The contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, or national origin. The contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, color, religion, sex or national origin. Such action shall include, but not be limited to the following: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided by the contracting officer setting forth the provisions of this nondiscrimination clause.
- (2) The contractor will, in all solicitations or advancements for employees placed by or on behalf of the contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex or national origin.
- (3) The contractor will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice, to be provided by the agency contracting officer, advising the labor union or workers' representative of the contractor's commitments under Section 202 of Executive Order No. 11246 of September 24, 1965, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.
- (4) The contractor will comply with all provisions of Executive Order No. 11246 of Sept. 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.
- (5) The contractor will furnish all information and reports required by Executive Order No. 11246 of September 24, 1965, and by the rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his books, records, and accounts by the contracting agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.
- (6) In the event of the contractor's noncompliance with the nondiscrimination clauses of this contract or with any of such rules, regulations, or orders, this contract may be cancelled, terminated, or suspended in whole or in part and the contractor may be declared ineligible for further Government contracts in accordance

with procedures authorized in Executive Order No. 11246 of Sept. 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order No. 11246 of September 24, 1965, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.

- (7) The contractor will include the provisions of paragraphs (1) through (7) in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to Section 204 of Executive Order No. 11246 of September 24, 1965, so that such provisions will be binding upon each subcontractor or vendor. The contractor win take such action with respect to any subcontract or purchase order as may be directed by the Secretary of Labor as a means of enforcing such provisions including sanctions for noncompliance: *Provided, however*, that in the event the contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction, the contractor may request the United States to enter into such litigation to protect the interests of the United States." [Sec. 202 amended by EO 11375 of Oct. 13, 1967, 32 FR 14303, 3 CFR, 1966-1970 Comp., p. 684, EO 12086 of Oct. 5, 1978, 43 FR 46501, 3 CFR, 1978 Comp., p. 230]

1. The Offeror's or Bidder's attention is called to the ``Equal Opportunity Clause" and the ``Standard Federal Equal Employment Specifications" set forth herein.
2. The goals and timetables for minority and female participation, expressed in percentage terms for the Contractor's aggregate workforce in each trade on all construction work in the covered area, are as follows:

Timetables	Goals for minority participation in each trade	Goals for female participation for each trade
	6.9	6.9

These goals are applicable to all the Contractor's construction work (whether or not it is Federal or federally assisted) performed in the covered area. If the contractor performs construction work in a geographical area located outside of the covered area, it shall apply the goals established for such geographical area where the work is actually performed. With regard to this second area, the contractor also is subject to the goals for both its federally involved and nonfederally involved construction.

The Contractor's compliance with the Executive Order and the regulations in 41 CFR Part 60-4 shall be based on its implementation of the Equal Opportunity Clause, specific affirmative action obligations required by the specifications set forth in 41 CFR 60-4.3(a), and its efforts to meet the goals. The hours of minority and female employment and training must be substantially uniform throughout the length of the contract, and in each trade, and the contractor shall make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees from Contractor to Contractor or from project to project for the sole purpose of meeting the Contractor's goals shall be a violation of the contract, the Executive Order and the regulations in 41 CFR Part 60-4. Compliance with the goals will be measured against the total work hours performed.

3. The Contractor shall provide written notification to the Director of the Office of Federal Contract Compliance Programs within 10 working days of award of any construction subcontract in excess of \$10,000 at any tier for construction work under the contract resulting from this solicitation. The notification shall list the name, address and telephone number of the subcontractor; employer identification number of the subcontractor; estimated dollar amount of the subcontract; estimated starting and completion dates of the subcontract; and the geographical area in which the subcontract is to be performed.
4. As used in this Notice, and in the contract resulting from this solicitation, the ``covered area" is (insert description of the geographical areas where the contract is to be performed giving the state, county and city, if any).[43 FR 49254, Oct. 20, 1978; 43 FR 51401, Nov. 3, 1978, as amended at 45 FR 65977, Oct. 3, 1980]
 - (a) The equal opportunity clause published at 41 CFR 60-1.4(a) of this chapter is required to be included in, and is part of, all nonexempt Federal contracts and subcontracts, including construction contracts and subcontracts. The equal opportunity clause published at 41 CFR 60-1.4(b) is required to be included in, and is a part of, all nonexempt federally assisted construction

contracts and subcontracts. In addition to the clauses described above, all Federal contracting officers, all applicants and all nonconstruction contractors, as applicable, shall include the specifications set forth in this section in all Federal and federally assisted construction contracts in excess of \$10,000 to be performed in geographical areas designated by the Director pursuant to 60-4.6 of this part and in construction subcontracts in excess of \$10,000 necessary in whole or in part to the performance of nonconstruction Federal contracts and subcontracts covered under the Executive order. Standard Federal Equal Employment Opportunity Construction Contract Specifications (Executive Order 11246)

1. As used in these specifications:
 - a. "Covered area" means the geographical area described in the solicitation from which this contract resulted;
 - b. "Director" means Director, Office of Federal Contract Compliance Programs, United States Department of Labor, or any person to whom the Director delegates authority;
 - c. "Employer identification number" means the Federal Social Security number used on the Employer's Quarterly Federal Tax Return, U.S. Treasury Department Form 941.
 - d. "Minority" includes:
 - (i) Black (all persons having origins in any of the Black African racial groups not of Hispanic origin);
 - (ii) Hispanic (all persons of Mexican, Puerto Rican, Cuban, Central or South American or other Spanish Culture or origin, regardless of race);
 - (iii) Asian and Pacific Islander (all persons having origins in any of the original peoples of the Far East, Southeast Asia, the Indian Subcontinent, or the Pacific Islands); and (iv) American Indian or Alaskan Native (all persons having origins in any of the original peoples of North America and maintaining identifiable tribal affiliations through membership and participation or community identification).
2. Whenever the Contractor, or any Subcontractor at any tier, subcontracts a portion of the work involving any construction trade, it shall physically include in each subcontract in excess of \$10,000 the provisions of these specifications and the Notice which contains the applicable goals for minority and female participation and which is set forth in the solicitations from which this contract resulted.
3. If the Contractor is participating (pursuant to 41 CFR 60-4.5) in a Hometown Plan approved by the U.S. Department of Labor in the covered area either individually or through an association, its affirmative action obligations on all work in the Plan area (including goals and timetables) shall be in accordance with that Plan for those trades which have unions participating in the Plan. Contractors must be able to demonstrate their participation in and compliance with the provisions of any such Hometown Plan. Each Contractor or Subcontractor participating in an approved Plan is individually required to comply with its obligations under the EEO clause, and to make a good faith effort to achieve each goal under the Plan in each trade in which it has employees. The overall good faith performance by other Contractors or Subcontractors toward a goal in an approved Plan does not excuse any covered Contractor's or Subcontractor's failure to take good faith efforts to achieve the Plan goals and timetables.
4. The Contractor shall implement the specific affirmative action standards provided in paragraphs 7 a through p of these specifications. The goals set forth in the solicitation from which this contract resulted are expressed as percentages of the total hours of employment and training of minority and female utilization the Contractor should reasonably be able to achieve in each construction trade in which it has employees in the covered area. Covered Construction contractors performing construction work in geographical areas where they do not have a Federal or federally assisted construction contract shall apply the minority and female goals established for the geographical area where the work is being performed. Goals are published periodically in the Federal Register in notice form, and such notices may be obtained from any Office of Federal Contract Compliance Programs office or from Federal procurement contracting officers. The Contractor is expected to make substantially uniform progress in meeting its goals in each craft during the period specified.
5. Neither the provisions of any collective bargaining agreement, nor the failure by a union with whom the Contractor has a collective bargaining agreement, to refer either minorities or women shall excuse the Contractor's obligations under these specifications, Executive Order 11246, or the regulations promulgated pursuant thereto.

6. In order for the nonworking training hours of apprentices and trainees to be counted in meeting the goals, such apprentices and trainees must be employed by the Contractor during the training period, and the Contractor must have made a commitment to employ the apprentices and trainees at the completion of their training, subject to the availability of employment opportunities. Trainees must be trained pursuant to training programs approved by the U.S. Department of Labor.
7. The Contractor shall take specific affirmative actions to ensure equal employment opportunity. The evaluation of the Contractor's compliance with these specifications shall be based upon its effort to achieve maximum results from its actions. The Contractor shall document these efforts fully, and shall implement affirmative action steps at least as extensive as the following:
 - a. Ensure and maintain a working environment free of harassment, intimidation, and coercion at all sites, and in all facilities at which the Contractor's employees are assigned to work. The Contractor, where possible, will assign two or more women to each construction project. The Contractor shall specifically ensure that all foremen, superintendents, and other on-site supervisory personnel are aware of and carry out the Contractor's obligation to maintain such a working environment, with specific attention to minority or female individuals working at such sites or in such facilities.
 - b. Establish and maintain a current list of minority and female recruitment sources, provide written notification to minority and female recruitment sources and to community organizations when the Contractor or its unions have employment opportunities available, and maintain a record of the organizations' responses.
 - c. Maintain a current file of the names, addresses and telephone numbers of each minority and female off-the-street applicant and minority or female referral from a union, a recruitment source or community organization and of what action was taken with respect to each such individual. If such individual was sent to the union hiring hall for referral and was not referred back to the Contractor by the union or, if referred, not employed by the Contractor, this shall be documented in the file with the reason therefor, along with whatever additional actions the Contractor may have taken.
 - d. Provide immediate written notification to the Director when the union or unions with which the Contractor has a collective bargaining agreement has not referred to the Contractor a minority person or woman sent by the Contractor, or when the Contractor has other information that the union referral process has impeded the Contractor's efforts to meet its obligations.
 - e. Develop on-the-job training opportunities and/or participate in training programs for the area which expressly include minorities and women, including upgrading programs and apprenticeship and trainee programs relevant to the Contractor's employment needs, especially those programs funded or approved by the Department of Labor. The Contractor shall provide notice of these programs to the sources compiled under 7b above.
 - f. Disseminate the Contractor's EEO policy by providing notice of the policy to unions and training programs and requesting their cooperation in assisting the Contractor in meeting its EEO obligations; by including it in any policy manual and collective bargaining agreement; by publicizing it in the company newspaper, annual report, etc.; by specific review of the policy with all management personnel and with all minority and female employees at least once a year; and by posting the company EEO policy on bulletin boards accessible to all employees at each location where construction work is performed.
 - g. Review, at least annually, the company's EEO policy and affirmative action obligations under these specifications with all employees having any responsibility for hiring, assignment, layoff, termination or other employment decisions including specific review of these items with onsite supervisory personnel such as Superintendents, General Foremen, etc., prior to the initiation of construction work at any job site. A written record shall be made and maintained identifying the time and place of these meetings, persons attending, subject matter discussed, and disposition of the subject matter.

- h. Disseminate the Contractor's EEO policy externally by including it in any advertising in the news media, specifically including minority and female news media, and providing written notification to and discussing the Contractor's EEO policy with other Contractors and Subcontractors with whom the Contractor does or anticipates doing business.
 - i. Direct its recruitment efforts, both oral and written, to minority, female and community organizations, to schools with minority and female students and to minority and female recruitment and training organizations serving the Contractor's recruitment area and employment needs. Not later than one month prior to the date for the acceptance of applications for apprenticeship or other training by any recruitment source, the Contractor shall send written notification to organizations such as the above, describing the openings, screening procedures, and tests to be used in the selection process.
 - j. Encourage present minority and female employees to recruit other minority persons and women and, where reasonable, provide after school, summer and vacation employment to minority and female youth both on the site and in other areas of a Contractor's work force.
 - k. Validate all tests and other selection requirements where there is an obligation to do so under 41 CFR Part 60-3.
 - l. Conduct, at least annually, an inventory and evaluation at least of all minority and female personnel for promotional opportunities and encourage these employees to seek or to prepare for, through appropriate training, etc., such opportunities.
 - m. Ensure that seniority practices, job classifications, work assignments and other personnel practices, do not have a discriminatory effect by continually monitoring all personnel and employment related activities to ensure that the EEO policy and the Contractor's obligations under these specifications are being carried out.
 - n. Ensure that all facilities and company activities are nonsegregated except that separate or single-user toilet and necessary changing facilities shall be provided to assure privacy between the sexes.
 - o. Document and maintain a record of all solicitations of offers for subcontracts from minority and female construction contractors and suppliers, including circulation of solicitations to minority and female contractor associations and other business associations.
 - p. Conduct a review, at least annually, of all supervisors' adherence to and performance under the Contractor's EEO policies and affirmative action obligations.
8. Contractors are encouraged to participate in voluntary associations which assist in fulfilling one or more of their affirmative action obligations (7a through p). The efforts of a contractor association, joint contractor-union, contractor-community, or other similar group of which the contractor is a member and participant, may be asserted as fulfilling any one or more of its obligations under 7a through p of these Specifications provided that the contractor actively participates in the group, makes every effort to assure that the group has a positive impact on the employment of minorities and women in the industry, ensures that the concrete benefits of the program are reflected in the Contractor's minority and female workforce participation, makes a good faith effort to meet its individual goals and timetables, and can provide access to documentation which demonstrates the effectiveness of actions taken on behalf of the Contractor. The obligation to comply, however, is the Contractor's and failure of such a group to fulfill an obligation shall not be a defense for the Contractor's noncompliance.
9. A single goal for minorities and a separate single goal for women have been established. The Contractor, however, is required to provide equal employment opportunity and to take affirmative action for all minority groups, both male and female, and all women, both minority and non-minority. Consequently, the Contractor may be in violation of the Executive Order if a particular group is employed in a substantially disparate manner (for example, even though the Contractor has achieved its goals for women generally, the Contractor may be in violation of the Executive Order if a specific minority group of women is underutilized).
10. The Contractor shall not use the goals and timetables or affirmative action standards to discriminate against any person because of race, color, religion, sex, or national origin.

11. The Contractor shall not enter into any Subcontract with any person or firm debarred from Government contracts pursuant to Executive Order 11246.
12. The Contractor shall carry out such sanctions and penalties for violation of these specifications and of the Equal Opportunity Clause, including suspension, termination and cancellation of existing subcontracts as may be imposed or ordered pursuant to Executive Order 11246, as amended, and its implementing regulations, by the Office of Federal Contract Compliance Programs. Any Contractor who fails to carry out such sanctions and penalties shall be in violation of these specifications and Executive Order 11246, as amended.
13. The Contractor, in fulfilling its obligations under these specifications, shall implement specific affirmative action steps, at least as extensive as those standards prescribed in paragraph 7 of these specifications, so as to achieve maximum results from its efforts to ensure equal employment opportunity. If the Contractor fails to comply with the requirements of the Executive Order, the implementing regulations, or these specifications, the Director shall proceed in accordance with 41 CFR 60-4.8.
14. The Contractor shall designate a responsible official to monitor all employment related activity to ensure that the company EEO policy is being carried out, to submit reports relating to the provisions hereof as may be required by the Government and to keep records. Records shall at least include for each employee the name, address, telephone numbers, construction trade, union affiliation if any, employee identification number when assigned, social security number, race, sex, status (e.g., mechanic, apprentice trainee, helper, or laborer), dates of changes in status, hours worked per week in the indicated trade, rate of pay, and locations at which the work was performed. Records shall be maintained in an easily understandable and retrievable form; however, to the degree that existing records satisfy this requirement, contractors shall not be required to maintain separate records.
15. Nothing herein provided shall be construed as a limitation upon the application of other laws which establish different standards of compliance or upon the application of requirements for the hiring of local or other area residents (e.g., those under the Public Works Employment Act of 1977 and the Community Development Block Grant Program).
 - (b) The notice set forth in 41 CFR 60-4.2 and the specifications set forth in 41 CFR 60-4.3 replace the New Form for Federal Equal Employment Opportunity Bid Conditions for Federal and Federally Assisted Construction published at 41 FR 32482 and commonly known as the Model Federal EEO Bid Conditions, and the New Form shall not be used after the regulations in 41 CFR Part 60-4 become effective. [43 FR 49254, Oct. 20, 1978; 43 FR 51401, Nov. 3, 1978, as amended at 45 FR 65978, Oct. 3, 1980]

60-741.5 - Equal opportunity clause for workers with disabilities

Standard Number: 60-741.5

Standard Title: Equal Opportunity Clause.

SubPart Number: A

SubPart Title: Preliminary Matters, Equal Opportunity Clause

Sec. 60-741.5 Equal opportunity clause.

- (a) Government contracts. Each contracting agency and each contractor shall include the following equal opportunity clause in each of its covered Government contracts or subcontracts (and modifications, renewals, or extensions thereof if not included in the original contract):

Equal Opportunity for Workers With Disabilities

1. The contractor will not discriminate against any employee or applicant for employment because of physical or mental disability in regard to any position for which the employee or applicant for employment is qualified. The contractor agrees to take affirmative action to employ, advance in employment and otherwise treat qualified individuals with disabilities without discrimination based on their physical or mental disability in all employment practices, including the following:
 - i. Recruitment, advertising, and job application procedures;
 - ii. Hiring, upgrading, promotion, award of tenure, demotion, transfer, layoff, termination, right of return from layoff and rehiring;
 - iii. Rates of pay or any other form of compensation and changes in compensation;
 - iv. Job assignments, job classifications, organizational structures, position descriptions, lines of progression, and seniority lists;
 - v. Leaves of absence, sick leave, or any other leave;
 - vi. Fringe benefits available by virtue of employment, whether or not administered by the contractor;
 - vii. Selection and financial support for training, including apprenticeship, professional meetings, conferences, and other related activities, and selection for leaves of absence to pursue training;
 - viii. Activities sponsored by the contractor including social or recreational programs; and
 - ix. Any other term, condition, or privilege of employment.
2. The contractor agrees to comply with the rules, regulations, and relevant orders of the Secretary of Labor issued pursuant to the act.
3. In the event of the contractor's noncompliance with the requirements of this clause, actions for noncompliance may be taken in accordance with the rules, regulations, and relevant orders of the Secretary of Labor issued pursuant to the act.
4. The contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices in a form to be prescribed by the Deputy Assistant Secretary for Federal Contract Compliance Programs, provided by or through the contracting officer. Such notices shall state the rights of applicants and employees as well as the contractor's obligation under the law to take affirmative action to employ and advance in employment qualified employees and applicants with disabilities. The contractor must ensure that applicants and employees with disabilities are informed of the contents of the notice (e.g., the contractor may have the notice read to a visually disabled individual, or may lower the posted notice so that it might be read by a person in a wheelchair).
5. The contractor will notify each labor organization or representative of workers with which it has a collective bargaining agreement or other contract understanding, that the contractor is bound by the terms of section 503 of the Rehabilitation Act of 1973, as amended, and is committed to take affirmative action to employ and advance in employment individuals with physical or mental disabilities.
6. The contractor will include the provisions of this clause in every subcontract or purchase order in excess of \$10,000, unless exempted by the rules, regulations, or orders of the Secretary issued pursuant to section 503 of the act, as amended, so that such provisions will be binding upon each subcontractor or vendor. The contractor will take such action with respect to any subcontract or purchase order as the Deputy Assistant Secretary for Federal Contract Compliance Programs may direct to enforce such provisions, including action for noncompliance.

[End of Clause]

- (b) Subcontracts. Each contractor shall include the equal opportunity clause in each of its subcontracts subject to this part.
- (c) Adaption of language. Such necessary changes in language may be made to the equal opportunity clause as shall be appropriate to identify properly the parties and their undertakings.
- (d) Inclusion of the equal opportunity clause in the contract. It is not necessary that the equal opportunity clause be quoted verbatim in the contract. The clause may be made a part of the contract by citation to 41 CFR 60-741.5(a).
- (e) Incorporation by operation of the act. By operation of the act, the equal opportunity clause shall be considered to be a part of every contract and subcontract required by the act and the regulations in this part to include such a clause, whether or not it is physically incorporated in such contract and whether or not there is a written contract between the agency and the contractor.
- (f) Duties of contracting agencies. Each contracting agency shall cooperate with the Deputy Assistant Secretary and the Secretary in the performance of their responsibilities under the act. Such cooperation shall include insuring that the equal opportunity clause is included in all covered Government contracts and that contractors are fully informed of their obligations under the act and this part, providing the Deputy Assistant Secretary with any information which comes to the agency's attention that a contractor is not in compliance with the act or this part, responding to requests for information from the Deputy Assistant Secretary, and taking such actions for noncompliance as are set forth in Sec. 60-741.66 as may be ordered by the Secretary or the Deputy Assistant Secretary.

Section 3 of the Housing and Community Development Act of 1968, as amended

Section Number: 135.38

Sec. 135.38 Section 3 clause.

All section 3 covered contracts shall include the following clause (referred to as the section 3 clause):

- A. The work to be performed under this contract is subject to the requirements of section 3 of the Housing and Urban Development Act of 1968, as amended, 12 U.S.C. 1701u (section 3). The purpose of section 3 is to ensure that employment and other economic opportunities generated by HUD assistance or HUD-assisted projects covered by section 3, shall, to the greatest extent feasible, be directed to low- and very low-income persons, particularly persons who are recipients of HUD assistance for housing.
- B. The parties to this contract agree to comply with HUD's regulations in 24 CFR part 135, which implement section 3. As evidenced by their execution of this contract, the parties to this contract certify that they are under no contractual or other impediment that would prevent them from complying with the part 135 regulations.
- C. The contractor agrees to send to each labor organization or representative of workers with which the contractor has a collective bargaining agreement or other understanding, if any, a notice advising the labor organization or workers' representative of the contractor's commitments under this section 3 clause, and will post copies of the notice in conspicuous places at the work site where both employees and applicants for training and employment positions can see the notice. The notice shall describe the section 3 preference, shall set forth minimum number and job titles subject to hire, availability of apprenticeship and training positions, the qualifications for each; and the name and location of the person(s) taking applications for each of the positions; and the anticipated date the work shall begin.
- D. The contractor agrees to include this section 3 clause in every subcontract subject to compliance with regulations in 24 CFR part 135, and agrees to take appropriate action, as provided in an applicable provision of the subcontract or in this section 3 clause, upon a finding that the subcontractor is in violation of the regulations in 24 CFR part 135. The contractor will not subcontract with any subcontractor where the contractor has notice or knowledge that the subcontractor has been found in violation of the regulations in 24 CFR part 135.
- E. The contractor will certify that any vacant employment positions, including training positions, that are filled (1) after the contractor is selected but before the contract is executed, and (2) with persons other than those to whom the regulations of 24 CFR part 135 require employment opportunities to be directed, were not filled to circumvent the contractor's obligations under 24 CFR part 135.
- F. Noncompliance with HUD's regulations in 24 CFR part 135 may result in sanctions, termination of this contract for default, and debarment or suspension from future HUD assisted contracts.

SHOP DRAWINGS

Shop Drawings for this project shall be submitted under the following conditions:

1. The Contractor shall submit working and detail drawings, well in advance of the work, to the City Engineer & Building Inspector for review.
2. The Contractor's drawings shall consist of shop detail, erection and other working plans showing dimensions, sizes and quality of material, details and other information necessary for the complete fabrication and erection of the pertinent work.
3. The Contractor shall submit three (3) sets of drawings to the City Engineer.
4. Prior to the approval of the drawings, any work done or materials ordered for the work involved shall be at the Contractor's risk.
5. One (1) set of the drawings will be returned to the Contractor approved or marked with corrections to be made. After approval has been given, the Contractor shall supply the City Engineer with two sets of the revised detail working drawings.
6. The City Engineer's approval of the Contractor's working drawings will not relieve the Contractor from responsibility for errors in dimensions or for incorrect fabrication processes, or from responsibility to complete the contract work.

TECHNICAL SPECIFICATIONS

As noted above, the Standard Technical Specifications for this project are the Standard Specifications for Road and Bridge Construction of the State of New Hampshire Department of Transportation and any Addenda shall apply. Additional Technical Specifications and Special Provisions for this project are attached.

**SPECIAL CONDITIONS
&
CRITICAL TIMELINES**

REQUIRED DEADLINES

The City has made certain representations to the residents, business owners and stakeholders of this project. A very important part of this project will be meeting goals by certain dates. The following dates are crucial to the success of this project.

The project may begin on April 19th 2010.

The upper area (Bow St to Deer St) must be substantially complete by June 11th 2010 which is the Friday before Portsmouth's annual Market Square Day celebration.

Final completion for the project must occur by June 25th 2010.

In addition, work will not be allowed on Thursday May 6th or Friday May 7th for the Governor's Conference on Tourism being held at the Sheraton Hotel.

Work will also not be allowed on Monday May 31st for Memorial Day.

Work will commence no earlier than 7am and will stop no later than 5 pm daily unless allowed by the Engineer.

Failure to complete by any of the dates mentioned here will result in liquidated damages of \$500.00 per day.

IMPORTANT INFORMATION

Please note that Davis-Bacon wage rates are not applicable to this project.

This project is funded, in part, with funding from the United States Department of Housing and Urban Development. All work must be completed in accordance with the Equal Opportunity Act, Section 3 of the Housing and Community Development Act of 1968 and other regulations listed in Attachment 1 "Compliance by Contractor with Laws and Regulations". The U.S. Department of Housing and Urban Development funding for this project has been released as set forth in accordance with the National Environmental Protection Act of 1969 (as amended).

SPECIAL PROVISION

To Section 608 (NHDOT Standard Specifications) Sidewalks

Amend Section 608 to read:

SECTION 608.24 & 608.26 CONCRETE SIDEWALK CONSTRUCTION

1.01 Scope of Work: The work shall consist of construction of concrete sidewalks as shown on the plans or as directed in the field by the Engineer.

1.02 Methods of Construction:

1.02a All labor and materials shall conform to the State of New Hampshire Standard Specifications for Road and Bridge Construction, Section 608, 203 and 209 except as amended here.

1.02b All concrete shall be Class A, 4000-PSI after 28 days with 5 to 7 percent air entrained. The maximum concrete slump that will be allowed is 5, this may be tested by the engineer at any time. All concrete will have polyfiber reinforcing. Any concrete found not meeting this specification will be removed and repoured by the contractor with no additional expense to the owner. Expansion joints shall be 25' apart. Control joints shall be 5' apart and shall be ¼ of the depth of the sidewalk (Up to 1 1/2" deep).

1.02c Minimum thickness shall be 4 inches (for 608.24) and unless approved by the engineer.

1.02d The ends of all sidewalks at driveways shall be ramped at a maximum slope of 1:12.

1.02e All sidewalks shall have handicap ramps at street intersections or as located by the Engineer, built at a maximum slope of 1:12 and in accordance with the ADA Regulations (see plan details).

1.02f Excavation for new sidewalks shall be at a depth of 12 inches below finish grade. In areas not butting curbing or buildings the excavation shall be 6 inches wider on each side than the finished sidewalk width. At all drive crossings, the depth of excavation shall be increased accordingly. All unsuitable material shall be approved by the Engineer and removed and disposed of offsite at the Contractor's own expense. At no time will unsuitable material be left under sidewalk areas.

1.02g **Handicapped ramps (at street intersections) shall be 6" deep, 4000 psi fiber mix reinforced with 6" x 6" x 10ga welded wire mesh with truncated dome panels (paid for under 608.52).**

1.02h All exposed edges of sidewalks will be sealed with an approved Silane-Siloxane coating as specified under 534.3.4. Any sidewalks not meeting the test referenced in 534.3.4 will be recoated at no expense to the owner. Contractor will provide cut sheets on product before installation for engineers approval.

1.02i All sidewalk areas shall be thoroughly wetted and compacted prior to the pouring of any concrete. All sidewalks will be kept damp using wet burlap tarps or any other approved

method for 24 hours after set up. Tarps will be staked down to prevent being blown off by wind gusts. Curing compounds will be considered an approved equal.

1.02j All sidewalks will be finished with a soft broom with the finish being transverse to the typical pedestrian path. After brooming, all edges will be finish edged.

1.02k Any sidewalks poured that have excessive “popcorning” on top or on the sides as determined by the engineer will not be approved or paid for.

1.02l All joints shall be straight, even and perpendicular to the sidewalk.

1.03 Methods of Measurement:

This work shall be measured by the square foot of concrete sidewalk successfully & completely installed and approved by the Engineer.

1.04 Basis of Payment:

This work shall be paid for at the Contract Unit Price as listed in Item #608.24 & 608.26 in the Bid Specification.

This price shall include all equipment, material and labor incidental hereto.

SPECIAL PROVISION

To Section 608 (NHDOT Standard Specifications) Sidewalks Item 608.52 – ADA Compliant Handicap Ramp Panels

This special provision provides for the installation of handicap accessible ramp surfaces (Detectable Warning Pavers) to be in compliance with the Americans with Disabilities Act (ADA). This Special Provision provides for Item 608.52 and neither modifies nor amends any other provisions of this section unless specifically noted.

Description

1.1 This work shall consist of furnishing and installing a detectable warning surface and accessories on sidewalk ramps at locations shown on the plans, as specified herein, or as ordered including any and all required surface preparation. Detectable warnings shall be installed at sidewalk ramps where a sidewalk crosses a vehicular way, excluding unsignalized driveway crossings. The edge nearest the curblines shall be located 150 to 200 mm (6 to 8 in) from the back of the curblines. The paver shall be centered on the ramp.

Materials

2.1 Detectable Warning Device:

2.1.1 Material. The detectable warning surface shall consist of Engineered Plastic units or approved equal. The units will be pressed into Portland cement or other Owner approved material. **The paver units shall be Armor Tile as manufactured and supplied by Engineered Plastic, Inc., 300 International Dr Suite 100, Williamsville, NY 14221, 1-800-769-4463, www.armor-tile.com**

2.1.2 Color. The color of the tile used shall be **light gray**, and would be installed in a concrete ramp as described above (608.26).

2.1.3 Paver Dimensions. Nominal paver dimensions shall be **2' deep x 3' wide**.

2.1.4 Detectable Warning Truncated Dome Geometry:

2.1.4.1 Detectable warnings shall be in full compliance with ADAAG guidelines (Title 49 DFR Transportation, Part 37.9 Standard for Accessible Transportation Facilities, Appendix A, Section 4.29.2- Detectable Warning on Walking Surfaces).

2.1.4.2 Size and spacing for truncated domes shall be as follows: base diameter of nominal 0.9 inch, top diameter of nominal 0.4 inch, height of nominal 0.2 inch, with a center to center spacing of nominal 2.35 inches.

2.1.4.3 The truncated dome pattern shall align properly from paver to paver if more than 1 paver is required.

2.2 Setting Bed Material

2.2.1 Material. Pavers shall be set into fresh concrete before it sets. See ramp specification above (608.26). Also see manufacturer instructions.

Construction Requirements

3.1 The Contractor shall submit manufacturer's installation instructions and descriptive literature for materials specified herein.

3.2 Transport, storage, and handling of products shall be in accordance with manufacturer's instructions.

- 3.2.1 All sealants/adhesives shall be protected from freezing conditions.
- 3.3 The air and surface temperatures during construction shall be in accordance with manufacturer's recommendations.
- 3.4 Concrete foundation shall be installed in accordance with the specifications included within Section 608 to depths indicated in the section shown on the plans.
- 3.5 Install detectable warning pavers in accordance with manufacturer's instructions directly in the setting bed and the allowing the top surface of the paver units to be at or just below the required finish grade.
- 3.6 Care shall be taken to ensure the safety of pedestrians when sidewalks must remain in service during construction.

Method of Measurement

- 4.1 These are measured by each panel installed successfully under the truncated dome panel item.

Basis of Payment

Pay Item and Unit

608.52 Truncated Dome Pavers (Detectable Warning Pavers Only) Each

SPECIAL PROVISION

To Section 608 (NHDOT Standard Specifications) Sidewalks

Amend Section 608 to read:

SECTION 608.5 Brick Sidewalk

6.01 SCOPE OF WORK

- A. The work shall consist of reconstructing brick sidewalks as directed in the field by the Engineer.

6.02 METHODS OF CONSTRUCTION

- A. All labor and materials shall conform to the State of New Hampshire Standard Specifications for Road and Bridge Construction, Section 608.
- B. New bricks shall conform to the requirements of ASTM Standard Specifications for Building Bricks Designation C902 SX for Grade SW. The bricks shall be No. 1, wire cut type for paving, with a compressive strength of not less than 6,000 pounds per square inch. The bricks shall not be cored or have frogs and shall be of a standard size (2.25" x 3.625" x 7.625"). The Engineer will have 5 working days to approve the brick submittals before they are installed. It is the responsibility of the Contractor to provide suitable brick samples for approval.
- C. Excavation for sidewalks shall be at a depth of 13 inches below finish grade. In areas not butting curbing or buildings, the excavation shall be 6 inches wider than the finished sidewalk width. At all drive crossings, the depth of excavation shall be increased accordingly. The Contractor's price shall include neat and square cutting of existing asphalt road surface as needed. All unsuitable material shall be removed and disposed of off-site at the Contractor's own expense.
- D. The base material for sidewalks shall consist of type 304.3 crushed gravel.
- E. The Contractor shall lay the bricks so that approximately 5 bricks shall cover one square foot.
- F. The sidewalk shall pitch 1/4 inch per foot towards the street or as directed.
- G. In areas where the edge of the brick sidewalk is not adjacent to granite curbing, the Contractor shall install edging to hold the bricks in place. Such edging shall be installed per the manufacturer's recommendations.

- H. In areas with a closed drainage system, the contractor shall provide “silt sacks” to prevent brick dust from entering the collection system. Also, the area will be swept daily to keep dust levels as low as possible.
- I. All half bricks will be snapped and all efforts will be made to keep brick dust to a minimum. All cuts not made by snapping will be wet cut.
- J. Prior to placing the brick, the sidewalks will be paved parallel to grade with bituminous asphalt type F hot mix paving 1 1/2” compacted thickness. Paving for this will be paid for under item 403.12. 1” of 1:3 portland cement / course sand mix will then be placed on the asphalt base and the pavers will be dry laid on the mixture.

SPECIAL PROVISIONS

AMENDMENT TO SECTION 618.6 – Uniformed Officers

AMENDMENT TO SECTION 619.1 – Maintenance of Traffic

The construction work zone(s) designated for this contract shall extend approximately 100 feet, beyond the work limits as described below and/or shown on the project layout map

618.6 UNIFORMED OFFICERS

Whenever the contractor is working in Market Street, Portsmouth Police officers will be hired to conduct traffic details. Traffic details while working on sidewalks will be under the discretion of the Engineer.

619.1 MAINTENANCE OF TRAFFIC

All work shall be prosecuted so pedestrian and traffic flow can be maintained whenever possible. No travel lane or sidewalk closures will be allowed without prior approval from the Engineer.

The Contractor will develop a construction staging plan for this project. The plan shall be submitted to be approved by the Engineer.

Access shall be maintained to the abutting driveways and store entrances at all times during construction.

Pedestrian ramps, walkways, railings etc may be ordered by the Engineer if the need arises.

Dust and traffic control may be ordered by the Engineer.

Sidewalk areas, unless directed otherwise by the Engineer, will be reconstructed within 3 weeks of disturbance. Sidewalk disruptions longer than 1 day may require ramps, gravel ramps, railings etc as ordered by the Engineer.

All costs associated with the application of these measures or other measures directed by the Engineer shall be paid for under this item and will not be further chargeable to the project, except as stipulated and specified under Contract Items.

Method of Measurement:

The uniformed officer work shall be measured by the exact cost billed to the contractor based on the man-hours worked.

The traffic control items shall be measured on a unit basis under Maintenance of Traffic.

Basis of Payment:

This work shall be paid for from the Contract Price Allowance as listed under Items 618.6 in the Bid Proposal Form using the actual man-hours worked in the field on the project.

This work shall be paid for from the Contract Unit Price as listed under Item 619.1 (Maintenance of Traffic). This unit price shall include all equipment, materials and labor thereto.

SPECIAL PROVISIONS

Sections 614, 616, 625

ELECTRICAL WORK

PART I – GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings also apply to work of this section.
- B. The Contractor must be familiar with all other Sections of this specifications and the associated Drawings, which affect the scope of work. Where paragraphs of this Section conflict with similar paragraphs elsewhere, the more stringent requirements shall prevail.

1.02 DESCRIPTION OF WORK

- A. The Contractor shall furnish a complete finished product, which meets all applicable codes and standards, and the intent and specific requirements of the Drawings and specifications for this project. It is the intent of these specifications that the electrical system shall be suitable in every way for the service (and use) required. All materials and all work, which may be reasonably implied as being incidental to the work of this Section, shall be furnished at no extra cost to the Owner.
- B. As used in this Section, “*provide*” means “furnish and install”, “*furnish*” means “to purchase and deliver to the project site complete with every necessary appurtenance and support”, and “*install*” means “to unload at the delivery point at the site and perform every operation necessary to establish secure mounting and correct operation at the proper location in the project”.
- C. Perform work and provide (furnish and install) material and equipment as shown on Drawings and as specified, or indicated, in this Section of the specifications. Completely coordinate work of this Section with work of other trades and provide a complete and fully functional installation. Drawings and specifications form complimentary requirements; provide work specified and not shown, and work shown and not specified as though explicitly required by both. Although work is not specifically shown or specified, provide supplementary or miscellaneous items, appurtenances, devices and materials obviously necessary for a sound, secure and complete installation.
- D. Remove all debris caused by Contractors’ work.

- E. Provide demolition and relocation of existing electrical items as shown on the drawings.
- F. The work under this section shall require that the Contractor provide all labor, materials, equipment, tools, supplies and transportation involved in the installation of electrical equipment as specified.
- G. The work to be done under this contract generally includes, but is not limited to the following:

Electrical Demolition

1. Demolition of existing light foundation next to pump station at Deer street to facilitate new conduit run.

Electrical System

2. Provide new conduit and handhole system for outdoor electrical work, in locations as shown on Contract Drawings. Provide precast concrete electric handholes (24"x24"x36") in locations as shown and "Electric" logo on cover rated for H-20 loading.
3. Provide new light pole precast concrete bases for new proposed decorative lighting poles (light poles & fixtures to be supplied by City) in locations and quantities as shown on Contract Drawings. Precast foundations to be reinforced with conduits and bolt patterns as shown on Contract Drawings, to match City-standard light poles.
4. Install new City-furnished decorative light poles, fixtures, along with necessary accessories in quantities and locations as shown on Contract Drawings.
5. Provide conduit and cabling for outdoor lighting between fixtures, hand holes, etc. **This includes rewiring existing conduit runs from Deer St. pump station to existing pull boxes or light pole bases (as appropriate) to ensure proper wire size for the entire lighting system.** It is not known what wire size currently is in place.
6. Conduits outside below grade to be PVC Schedule 40 under sidewalks, schedule 80 under roadways and rigid steel for 10' on either side of new light base. Conduit sizes as indicated on Contract Drawings. Provide all necessary grounding, including ground rods at each light pole foundation if required by NEC or local authorities.
7. Provide startup services for new lighting system.

- 8. Provide other associated electrical equipment necessary for a complete system, shown, or implied in these Specifications and on Contract Drawings.

1.03 SITE VISIT

- A. Each bidder shall visit the site of the proposed work and fully acquaint himself with the conditions there relating to construction and labor, and should fully inform himself as to the facilities involved, and the difficulties and restrictions attending the performance of the Contract. The Bidder should thoroughly examine and familiarize himself with Drawings, Technical Specifications and all other Bid and Contract Documents. The Contractor, by the execution of the Contract, shall in no way be relieved of any obligation under it due to his failure to receive or examine any form or legal document or to visit the site and acquaint himself with the conditions there existing and the Owner will be justified in rejecting any claim thereof.

1.04 GUARANTEE

- A. Guarantee work of this Section in writing for one year from date of Owner's acceptance. Repair or replace defective materials, equipment, workmanship and installation that develop within this period, promptly and to Owner's satisfaction and correct damage caused in making necessary repairs or replacements under guarantee with no extra cost to Owner. Contractor shall transfer all equipment warranties for all systems to Owner.

1.05 REFERENCE STANDARDS AND SPECIFICATIONS

- A. Perform work strictly as required by rules, regulations, standards, codes, ordinances, and laws of local, state, and federal government, and other authorities that have lawful jurisdiction.
- B. All materials and installations shall be in accordance with the latest edition of the National Code, and all applicable local codes and ordinances. Materials and equipment shall be listed by Underwriters Laboratories (UL). Special Attention shall be paid to the latest edition of the following standards:

American National Standards Institute	ANSI
American Society for Testing & Materials	ASTM
Illuminating Engineering Society	IES
Institute of Electrical & Electronics Engineers	IEEE
Insulated Cable Engineers' Association	ICEA
National Electrical Code	NEC
National Electrical Manufacturer's Association	NEMA
National Electrical Safety Code	NESC
InterNational Electrical Testing Association	NETA

National Fire Protection Association
Occupational Safety & Health Administration
Underwriter's Laboratories, Inc.

NFPA
OSHA
UL

- C. The above listed codes and standards are referenced to establish minimum requirements and wherever this Section requires higher grades of materials and workmanship than required by the listed codes and standards, this Section shall apply. In the event a conflict occurs between the above listed codes and standards and this Section, the more stringent requirement shall govern.

1.06 SUBMITTALS

- A. Within 10 days after Award of General Contract, submit shop drawings and product data on below listed items for approval. Submit copies as requested.
- B. Check, stamp and mark with project name shop drawings and product data before submitting for approval. Specifically indicate on shop drawing transmittal form, or by separate letter any deviations from Contract Documents because of standard shop practice or other reason. Rectify with no extra cost to Owner, deviations which escape Engineer's scrutiny and have not been indicated on shop drawings.
- C. List of materials and equipment requiring shop drawings shall include:
 - 1. Concrete Products and Light Bases
 - 2. Hand holes
- D. The Engineer's review shall be only for conformance with the design concept of the project and compliance with the specifications and Drawings. The responsibility of, and the necessity of, furnishing materials and workmanship required by the specifications and Drawings which may not be indicated on the shop drawings is included under the work of this Section.

1.07 INSPECTIONS AND FEES

- A. Obtain all necessary permits and licenses, file necessary plans and pay all fees for permits and inspections. Permit fees are the responsibility of the Contractor as part of his bid, as is all coordination with the local utility. Contractor is also responsible for obtaining any site-specific utility requirements for this project prior to the start of construction and notifying local utility for all inspections prior to backfilling, etc.

1.08 INTERPRETATION OF DRAWINGS

- A. Drawings are diagrammatic and indicate general arrangement of systems and work included in Contract. Drawings are not intended to specify or show every

offset, fitting or component; however, Contract Documents require components and materials whether or not indicated or specified as necessary to make installation complete and operational.

- B. Any work installed contrary to, or without review by, the Engineer shall be subject to change as directed by the Engineer, and no extra compensation will be allowed for making these changes.
- C. Circuit layouts are not intended to show the number of fittings, or other installation details. Additional circuits shall be installed wherever needed to conform to the specific requirements of the equipment or local codes.
- D. As work progresses and for duration of Contract, maintain complete and separate set of prints of Contract Drawings at job site at all times. Record work completed and all changes from original Contract Drawings clearly and accurately, including work installed as a modification or addition to the original design

PART II – MATERIALS & PRODUCTS

2.01 GENERAL

- A. Materials and products furnished shall be designed for the intended use, shall meet all requirements of the latest edition of the National Electric Code (NEC), and all local codes.
- B. Materials shall be manufactured in accordance with the standards indicated in this Section, and typical industry standards and codes for the products specified. Materials and equipment shall be Underwriter’s Laboratory (UL) listed.
- C. The materials used shall be new, unused, and of the best quality for the intended use. All equipment shall have the manufacturer’s name, address, model or type designation, serial number and all applicable ratings clearly marked thereon in a location which can be readily observed after installation. The required information should be marked on durable nameplates that are permanently fastened to the equipment.
- D. Electrical equipment shall at all times during construction be adequately protected against mechanical injury or damage by water. Electrical equipment shall not be stored outside exposed to the elements. If any equipment or apparatus is damaged, such damage shall be repaired at no additional cost, or replaced at no additional cost as directed by the Engineer.

2.02 RACEWAYS

- A. Rigid Metallic Conduit: UL6 and ANSI C80.1.

- B. Flexible Metallic Conduit: UL1. Liquidtight flexible metal conduit shall be used in wet locations.
- C. Polyvinyl Chloride (PVC) Conduit, electrical, gray, Schedule 40 or 80 as specified, meeting the requirements of UL 651 and NEMA TC-2. If concrete encasement is required, a minimum of 3,000 psi concrete shall be used.
- D. Minimum size of conduit shall be 3/4". Unless indicated on Drawings, conduit sizes can be sized in accordance with National Electric Code (NEC). Conduit bends shall not have kinks or flats, and shall not be less than standard radii.
- E. Rigid Galvanized Steel (RGS) conduit shall be used for 10' to entrance and exit of each light pole, except where noted. Conduit shall be fully threaded at both ends and each length shall be furnished with one threaded coupling. All 90 degree conduit sweeps shall be RGS for all entry and exit into concrete pads and at riser poles, with ground bushings connected to new grounding with minimum #4Awg ground wire for conduit grounding bushings.
- F. Expansion fittings shall be provided on all conduits as required by the 2008 National Electrical Code, and as required by local and state codes. This includes, but is not limited to, vertical conduit risers coming from below-grade.

2.03 WIRE AND CABLE

- A. Unless otherwise noted, conductors for power, lighting, and grounding *above grade* shall be No. 12 through No. 2 AWG, NEC type THWN/THHN, meeting the requirements of UL 83. Conductors for power and lighting shall be no smaller than No. 12 AWG.
- B. Where required by code, conductors for power, lighting, grounding, and control *below grade* (and in wet locations) shall be No. 2 AWG and larger, NEC type XHHW (or XHHW-2), meeting the requirements of NEMA WC7 and ICEA S-66-524.
- C. All conductors shall be annealed copper, 98% conductivity, Class B stranded, except conductors used for power and lighting circuits No. 10 AWG and smaller which may be solid. All conductors should be rated for 600 volts or less, with a thermal rating of 90° C.
- D. The outside covering of all wiring for power, lighting, grounding, and control uses shall be color coded to identify polarity.

2.04 WIRE AND CABLE CONNECTORS AND DEVICES

- A. Wire and cable connectors and devices shall meet the requirements of UL 486. Connectors, including miscellaneous nuts, bolts, and washers shall be silicon bronze. Ferrous materials shall not be used. All connectors below grade shall be water-proof secondary type, gel-filled, bolted submersible connectors (gel-port style). No “wire-nuts” are allowed to be used below grade.

2.05 BOXES

- A. Pull Boxes, Junction Boxes, and Equipment Enclosures: NEMA ICS 6.
- B. Pull boxes, junction boxes, and equipment enclosures shall be of NEMA Type 1 construction for indoor use, and NEMA Type 3R construction for outdoor or wet location use, unless otherwise noted.
- C. Box sizes shall not be less than that required by the National Electrical Code.

2.06 WARNING TAPE

- A. Warning tape shall be six (6) inches wide, polyethylene not less than 3.5 mil thick with a minimum strength of 1,500 psi. Install 12 inches below final grade. Tape shall be red for electric conduit, and red or yellow for communication conduit. Tape shall have black lettering on two lines as indicated below:
- B. For Electric conduit:

CAUTION CAUTION CAUTION
BURIED ELECTRIC LINE BELOW

2.07 ELECTRIC HANDHOLES

- A. Electric Handholes are to be precast concrete and provided in the dimensions as shown on the Contract Drawings. Handhole size as indicated on Contract Drawings.
- B. Handholes shall be provided with skid-resistant cast iron surface covers, with an “Electric” logo. Handholes and Covers shall be design for street-rated, heavy duty applications, meeting the requirements of the either: AASHTO HS-20 loading, with a minimum design load of 15,000 lbs for both the handhole box and cover. . Handholes shall meet the requirements of the latest edition of the National Electric Code (2008 or later) with regards to structural integrity, installation methods, grounding of the cover and metallic parts, etc.
- C. A layer of 6-inches of crushed rock shall be installed below and in the bottom of each handhole to assist with drainage, and this compacted gravel base material

shall extend out beyond the sidewalls of the handhole. Conduits shall sweep up and be at least 4-inches above top of crushed rock layer.

- D. Handhole size to be 24"W x 24"L x 36"D minimum for this project.

2.08 FOUNDATIONS FOR LIGHTING POLES

- A. Provide approved precast foundations, and other devices as necessary and as required.
- B. Foundations for 14-foot light poles shall be as shown on Contract Drawings, including number, type and location of anchor bolts. Foundations shall be made of minimum 5,000 psi concrete (at 28 days) and have steel reinforcement meeting ASTM A-615, grade 60 (cover to steel, 1" minimum). Foundations shall have 2-2" RGS conduits for lighting circuits, 180 degrees apart. Foundations to be installed with the top of the concrete approximately 1/2" inche above final grade. Foundation minimum size is 15" diameter x 4'-0" in length. Conduits to be flush with top of concrete to not interfere with anchor bolts or pole base.

2.09 DECORATIVE LIGHTING

- A. Install City provided light poles and fixtures in quantities and locations as shown. Pole to be Spring City "Hancock", 10-foot, with 12-inch bolt circle. Light poles and fixtures have been purchased by City and will be installed by Contractor. Contractor to pick up light poles and fixtures from City-designated location and installed on site.
- B. Fixture is Newstamp RUS-TUR-177 "PORTSMOUTH". Fixture to be 120V. These have been previously purchased by the City.

PART III – EXECUTION

3.01 GENERAL

- A. This Section covers the requirements for installation of materials, proper workmanship, testing, cleaning, grounding, and work methods to be followed by the Contractor. This Section also includes specific instructions and to be used in conjunction with the contract Drawings. Any discrepancies noted between the specification, Drawings, and actual installation shall be reported immediately to the Owner, Engineer, and Architect. Failure on the part of the Contractor to report discrepancies immediately will be considered negligent and Contractor will be responsible for correcting actions at no cost to Owner.

- B. Contractor is responsible for coordinating work with other trades, Owner, and Architect's schedule. Work will be coordinated such that systems can be properly located, and conflicts and delays are avoided. Contractor shall consider commencement of work acceptance of existing conditions.

3.02 MATERIALS AND WORKMANSHIP

- A. Work shall be executed in workmanlike manner and shall present neat, rectilinear and mechanical appearance when completed. Do not run raceway exposed unless shown exposed on Drawings. Material and equipment shall be new and installed according to manufacturer's recommended best practice so that complete installation shall operate safely and efficiently.

3.03 CONTINUITY OF SERVICES

- A. Do not interrupt existing services without Owner's, Utilities, Engineer's and Architect's approvals.

3.04 TESTING, INSPECTION AND CLEANING

- A. Test wiring and connections for continuity and grounds before fixtures are connected; demonstrate insulation resistance by megger test as required at not less than 500 volts. Insulation resistance between conductors and grounds for secondary distribution systems shall meet National Electrical Code (NEC) and interNational Electrical Testing Association (NETA) requirements.
- B. Verify and correct as necessary: voltages, tap settings, trip settings and phasing on equipment from secondary distribution system to point of use. Test secondary voltages at transformers, bus in panelboards, and at other locations on distribution systems as necessary. Test secondary voltages under no-load and full-load conditions.
- C. Test lighting fixtures with specified lamps in place for 100 hours. Replace lamps that fail within 90 days after acceptance by Owner at no extra cost to Owner (no exceptions).
- D. Provide necessary testing equipment and testing services.
- E. Failures or defects in workmanship or materials revealed by tests or inspection shall be corrected promptly and retested. Replace defective material.

3.05 WIRING METHODS

- A. Install wire and cables in approved raceways as specified and as approved by authorities that have jurisdiction.

- B. Follow homerun circuit numbers and/or notes as shown on Drawings to connect circuits to panelboards. Where homerun circuit numbers are not shown on Drawings, divide similar types of connected loads among phase buses so that currents are approximately equal in normal usage.
- C. Run concealed conduit in as direct lines as possible with a minimum number of bends of longest possible radius. Run exposed conduit parallel to or at right angles to building/field lines. Bends shall be free from dents or flattening. The exact locations and routing of conduit shall be determined by the Contractor subject to the approval of the Owner and Engineer.
- D. Polarity of all electrical connections shall be observed in order to preserve phase relationship in all feeders and equipment.
- E. Splices shall be made in neat, workmanlike manner using approved mechanical connectors. After splicing, insulation equal to that on the spliced wires shall be applied at each splice. Splices are permitted only in junction boxes, outlet boxes, or other permanently accessible locations. Splices installed in electric handholes shall be weather and waterproof, pre-molded polymer splices. Hand taping of splices below-grade is not acceptable.

3.06 GROUNDING

- A. Bond and ground equipment and systems connected under this Section in accordance with standards of the NEC and other applicable regulations and codes.
- B. Copper fittings for ground connections shall conform to the requirements of ASTM B 30. All bolts, u-bolts, cap screws, nuts, and lock washers for copper fitting shall be of approved corrosion-resisting material. Compression connectors required for all below-grade grounding connections. Exothermic (cad-weld) connectors are also acceptable for use below grade. The use of bolted grounding and ground rod connectors below grade is not acceptable.
- C. Ground Rods shall be 5/8" diameter and 8' in length, as required by applicable codes (NEC, NESC). All wire used for grounding shall be no smaller than #4 Awg copper, stranded conductor.

3.07 INSTALLATION OF LIGHTING FIXTURES

- A. Verify construction of light pole foundations is suitable, and provide fixtures, poles, hardware, and other accessories suitable for construction encountered.
- B. Coordinate installation of fixtures with installation of surrounding materials and landscaping (if applicable). Investigate lighting fixture locations and foundation supports to ensure that no interference exists between lighting fixtures, supports,

and other equipment including that provided by other trades. Report any possible interference's to the Engineer.

3.08 EXECUTION – INSTALLATION OF ELECTRICAL EQUIPMENT

- A. Contractor to Provide (furnish & install) all items as indicated as Contractor-furnished and install all items as indicated as City-furnished, and all necessary minor and expected accessories.
- B. Contractor to meet with local wiring inspector prior to the start of any work and obtain any local site requirements and restrictions, which must be followed. Contractor shall also meet with local utility, any other Town/City officials, as directed by Owner and wire inspector, prior to the start of work, or ordering of materials. Failure to meet with the local officials and utility prior to ordering materials and start of construction will be considered negligent and all necessary corrections resulting from this failure will be at no cost to Owner.
- C. Provide, furnish and install all products and work outlined in this Specification.
- D. Provide all grounding of electrical lighting. Grounding to be installed per installation details and National Electrical Code.
- E. Balance the lighting, or electrical load evenly on all circuits and on all phases of each circuit.
- F. Provide new hand holes and conduit system for lighting and electrical work, in locations as shown on Contract Drawings.
- G. Install all equipment in locations as shown on Contract Drawings. All deviations must be approved, in advance by Engineer.
- H. Install all equipment per manufacturer's instructions.
- I. Clean-up excavated areas, and restore with new loam & seed or pave to match existing surfaces, as directed by Engineer.

END OF SECTION

SPECIAL PROVISION

To Section 637 AND 670(NHDOT Standard Specifications)

Amend Section 670 to read:

SECTION 670.21 GRANITE BENCHES

General

1.1 Scope of Work

- a. The Contractor shall furnish all labor, materials, equipment and transportation required to complete the installation of granite as described below:
 1. Furnish and install granite block seating etc in the locations designated on the plan to the specified width & length. **Supplier for all granite shall be Swenson Granite Works.**
- b. The work shall include all work related to the quarrying, manufacturing, transporting, finishing and furnishing of the materials referenced above and shall include all necessary excavation, removals, backfilling and all site preparation necessary for the complete installation of the above referenced items.
- c. Only experienced, licensed riggers and crane operators will be permitted to perform rigging and crane operations.

1.2 Shop Drawings

- a. The granite supplier, Swenson Granite, shall submit six (2) copies of shop drawings for each element specified under this section for approval.
- b. Shop Drawings shall show all bedding, bonding, jointing and anchoring details as applicable and the dimensions and identifying number of any/all unique granite elements. Finishes for each face shall be noted. No final sizing or finishing of the various granite elements shall be done until the shop drawings for that part of the work have been approved.

1.3 Samples

- a. Prior to ordering any materials, the Contractor shall prepare representative granite samples for the Engineer's selection and approval. Do not order materials until Engineer's approval has been obtained. Delivered materials shall exactly match the approved samples. Due to the mass and weight of many of the elements specified under this section, the owner's project representative shall review and approve representative samples at the place of manufacture.

1. Granite Segments

The Contractor shall prepare representative samples for each granite element (curbing, seats, etc.) and set them as they would be set in the field in accordance with the details. Submittals shall identify sources of the materials and samples shall represent typical texture, finish, and range of color that can be expected in the finished features.

1.4 Shipping and Handling of Materials

- a. Notwithstanding any prior acceptance of materials given prior to delivery, acceptance and approval for all work will be based upon the conditions at completion of installation.
- b. It is the responsibility of the Contractor to exercise all necessary precautions to properly protect materials. Where damage occurs the items will be rejected.
 - 1. Granite elements shall be packaged and delivered/off-loaded in a manner that is consistent with good practice and industry standards. Granite features that are damaged in any manner will be rejected and shall be replaced with new material at no additional cost to the Owner.
 - 2. Store all granite features in designated locations and in an approved manner to prevent damage or intrusion of foreign matter. All materials shall be stored under approved waterproof tarpaulins, at all times, except when individuals are engaged in the actual installations of the various features.

1.5 Reference Standards and Specifications

- a. Reference to the standards, specifications and tests of technical societies, organizations, and governmental bodies is made in the following publications:
 - 1. AASHTO - American Association of State Highway and Transportation Officials (tests or specifications).
 - 2. ASTM - American Society for Testing and Materials.
 - 3. Specifications for Architectural Granite as published by the National Granite Quarries Association, Inc.

PART II – MATERIALS

2.1 Granite Elements

- a. All granite shall be of standard architectural grade, free of cracks, seams, or starts that may impair its structural integrity or function. Color or other visual characteristics indigenous to the particular material and adequately demonstrated in the sampling/submittal process will be accepted provided they do not compromise the structural or durability capabilities of the material. Texture and finish shall be within the range of samples approved by the Project Representative.
- b. For all granite elements furnish Woodbury Gray granite as quarried by Swenson Granite Company, or approved equal. The color shall be true throughout all of the elements. Matching color of existing steps will be required.
- c. The required number of the individual segments shall be as stipulated in the contract drawings or as otherwise determined by the Contractor based on the lengths and sizes indicated in the drawings.
- d. Fabrication of all granite elements shall be in accordance with the National Building Granite Quarries Association to the tolerance typical for the dimensions specified.
- e. Granite elements shall be furnished in the appropriate dimensions for the particular seat configuration, as determined by the granite supplier and as approved by the owner's project representative. No segment shall be less than four (5') long with special exceptions for closure, if approved.
- f. Granite elements shall be furnished as thermal finish.
- g. **2.2 Cement Concrete and Reinforcing**

Execution

3.1 Granite Elements

- a. After the installation of all relevant foundations and footings set granite elements in place.
- b. All granite elements are to be set with zero clearance tolerance to the specified alignment. Ensure perfect alignment of stones prior to securing in place.

- c. Adjust any variations in alignment and remove and replace any stones that in the opinion of the Project Representative exhibit a less than satisfactory alignment (vertically and horizontally).
- d. Protect all granite elements until final acceptance of the project. Features that are damaged during the execution of construction activity or otherwise shall be repaired or replaced as directed by the engineer.

- - - END OF SECTION - - -

SPECIAL PROVISION

To Sections 641 & 659 (NHDOT Standard Specifications) LANDSCAPING

Amend Section 641 & 659 to read:

641 & 659 LOAM, LANDSCAPING AND PLANTINGS

General

1.1 Scope of Work

- a. The work to be done under this section shall require the Contractor to provide all labor, material, equipment and transportation necessary for the furnishing and planting of new trees, shrubs and groundcovers for both interior and exterior, free-standing and built-in, planters as shown on the Contract Drawings and as specified herein.

1.2 Applicable Specifications and Standards

- a. STANDARDIZED PLANT NAMES, 1942 Edition, American Joint Committee on Horticultural Nomenclature.
- b. AMERICAN STANDARD FOR NURSERY STOCK, Z 60.1, latest edition, American Association of Nurserymen.
- c. Standards of the Association of Official Agriculture Chemists regarding soil analysis.
- d. United States Department of Agriculture – ‘Soil Classification System’.

1.3 Submittals

- a. Inspection certificates for plant materials, as required by governmental agencies, shall be submitted to the Engineer.
- b. Samples and manufacturer’s product data, as applicable, shall be submitted for the following materials:
 1. Prepared planting mix.
 2. Commercial Fertilizer.
 3. Agricultural Limestone.

4. Sphagnum Peat Moss.
5. Humus.
6. Organic Compost.
7. Mulch.
8. Zinc Planters.
9. Stakes.
10. Flexible Nylon Braided Webbing.

1.4 Soils Testing

a. Loam Borrow

1. Representative samples of loam borrow shall be sent to a testing laboratory for analysis. Test results with recommended treatments shall be submitted to the Engineer. Deficiencies in the loam and stockpiled topsoil shall be corrected by the Contractor as directed by the testing agency and shall include the use of soil additives listed below. The Contractor shall bear any and all costs for this analysis.
2. Mechanical and chemical (pH soluble salts) analysis shall be by a public extension service agency or a private certified testing lab in accordance with the current 'Standards' of the Association of Official Agriculture Chemists.
3. Soils test report shall be submitted at least one (1) month before any loaming is to be done. Soils tests shall include Nitrate Nitrogen, Ammonium Nitrogen, Phosphorous, Potassium, Calcium, Aluminum, Magnesium, Manganese, Ferric Iron, Sulfate, Soluble Salts (1:2 soil-water ratio) and pH (1:1 soil water ratio), percent organic matter content, and mechanical gradation (sieve analysis) which shall be compared to the USDA Soil Classification System.

1.5 Personnel Qualifications

- a. The planting shall be done by contractors regularly engaged in landscape construction work, specifically planting installation, and by skilled workers, trained and experienced in accepted horticultural/nursery practices. The work shall be done under the supervision of a qualified planting foreman. Plant installer shall have a minimum of three (3) years of experience in the landscape contracting profession and be able to provide references to the Owner of past related project work.

1.6 Planting Season

- a. Deciduous plants shall be planted only when dormant, either prior to bud break, before leaves appear in the spring, or subsequent to their loss in the fall, unless otherwise directed by the Owner's Representative.
- b. Plants may be planted either in the spring until new growth appears or at any time between September 15 and November 30.
- c. If the construction completion date prohibits in-season planting, the Contractor shall complete his work within the project date and prepare himself for out-of-season planting, including application of anti-transpirant and extra water. Plant guarantee periods remain as stated below. Frozen ground planting shall not be permitted.

1.7 Transportation, Delivery, Storage and Handling

- a. Each plant shall be handled and packed in the approved manner for that species or variety and all necessary precautions shall be taken to insure that the plants arrive on-site in proper condition for successful growth. Trucks used for transporting plants shall be equipped with covers to protect plants from windburn during transport.
- b. No plants shall be transported to the planting site that are not thoroughly wet through the ball of earth surrounding the roots. Any plants that are dry or in a wilted condition when delivered to the site will not be accepted and shall be replaced by the Contractor at his expense.
- c. Plants shall be delivered only after preparations for planting have been completed. They shall be planted immediately upon arrival to the site. If planting is delayed more than six (6) hours after delivery, plants shall be heeled in, protected from sun, wind, weather and mechanical damage, and kept watered.
- d. Packaged materials shall be delivered to the site in original unopened packaging showing weight, analysis and the name of the manufacturer.

Materials

2.01 LOAM BORROW

- a. Loam borrow shall meet the requirements as specified in Section 02910 of these Specifications. Loam shall be of a uniform composition throughout without admixture of subsoil, and shall be clean and reasonably free from clay, lumps, stones, roots two (2) inches or more in diameter, or other similar substances. Loam shall not contain toxic substances harmful to plant growth. It shall be free

of weeds, weed seeds and debris, or other objects that might hinder planting operations.

- b. Loam shall have a pH value range between 5.0 and 7.0. If the soil does not fall within the pH range specified, it may be amended to bring it within the specified limit.
- c. Loam shall not contain less than four percent (4%) nor more than twenty percent (20%) organic matter, as determined by the loss ignition of samples oven-dried at a constant weight at a temperature of 230°F, ± 9°F.
- d. Loam shall not be worked, excavated or delivered while in a frozen or muddy state.

2.2 Prepared Planting Mix

- a. The prepared planting soil mix for all plant bed areas shall consist of the following materials and quantities:
 - 1. Seven (7) parts loam borrow as specified in Section 02910 of these Specifications.
 - 2. One (1) part organic compost, humus, or peat borrow as specified in the Mass. Std. Spec. M1.06.0.
 - 3. To this mixture add fertilizer and/or soil amendments in accordance with the recommendations of the soils testing laboratory.
- b. Community Garden Plot Soil shall consist of seven (7) parts topsoil and one (1) part peat moss, and one (1) part decomposed compost by volume.

2.3 Soil Amendments

- a. The Contractor shall be encouraged to use materials that are naturally occurring, derived from renewable resources, and non-toxic. Alternative materials and products shall be permitted provided that the specifications and application information are submitted to the Engineer for approval prior to use.
- b. Limestone

1. Limestone shall be an approved agricultural limestone containing no less than fifty percent (50%) total carbonates and twenty-five percent (25%) total magnesium, with a neutralizing value of at least one-hundred percent (100%). The material shall be ground to such fineness that forty percent (40%) will pass through a No. 100 U.S. Standard Sieve and ninety-eight percent (98%) will pass through a No. 20 U.S. Standard Sieve. The lime shall be uniform in composition, dry, and free flowing, and shall be delivered to the site in the original, unopened containers, each bearing the manufacturer's guaranteed analysis. Any lime that becomes caked or otherwise damaged, making it unsuitable for use, will be rejected.

c. Fertilizer

1. Commercial Fertilizer shall be a complete, standard product complying with State and Federal Fertilizer Laws. The fertilizer shall be uniform in composition, dry and free flowing, and shall be delivered to the site in the original, unopened containers, each bearing the manufacturer's guaranteed analysis. Fertilizer shall contain the following minimum percentage of available plant nutrients by weight in which fifty percent (50%) minimum of the nitrogenous elements shall be derived from organic sources or Urea-form. The following fertilizer analysis shall be used for all tree and shrub plantings.

Nitrogen	Phosphorous	Potash
10%	10%	10%

2. As an option for tree plantings, a slow-release, root contact fertilizer packet, "Easy Grow" (16-8-16), or approved equal product complying with State and Federal Fertilizer Laws, may be used in place of the above, at the discretion of the Engineer.

d. Organic Compost

1. Compost shall be a standard commercial product comprised of fully decomposed, one hundred percent (100%) plant derived, natural organic matter. Its composition shall furnish ample water holding capacity and cation exchange capacity for the retention of plant nutrients. Compost shall be free of sticks, stones, weed seeds, roots, mineral or other foreign matter and delivered air dry. It shall be free from excessive soluble salts, heavy metals, phytotoxic compounds, and/or substances harmful to plant growth and viability. Organic compost shall have an acidity range of 4.5 to 7.0 pH, as determined in accordance with the testing methods of the AOAC, latest edition.

e. Sphagnum Peat Moss

1. Sphagnum peat moss shall be a standard, commercial product. Its composition shall furnish ample water holding capacity and cation exchange capacity for the retention of plant nutrients. Peat moss shall be free of sticks, stones, weeds or weed seeds, roots, mineral or other foreign matter. It shall be free from toxic substances and/or compounds harmful to plant growth and viability. It shall be delivered air dry in standard bales and shall have an acidity range of 3.5 to 5.5 pH, as determined in accordance with the testing methods of the AOAC, latest edition.

f. Humus

1. Humus shall be natural humus, reed peat, or sedge peat. Its composition shall furnish ample water holding capacity and cation exchange capacity for the retention of plant nutrients. Humus shall be free of sticks, stones, weeds, roots, mineral or other foreign matter and/or toxic substances harmful to plant growth and viability. It shall be low in wood content, free from hard lumps and excessive amounts of zinc and delivered air dry in a shredded or granular form. According to the testing methods of the AOAC, latest edition, the acidity range shall be 5.5 to 7.5 pH, and the organic matter content shall be not less than eighty-five percent (85%), as determined by loss on ignition. The minimum water holding capacity shall be two hundred percent (200%) by weight on an oven-dry basis.

2.4 Water

- a. Water shall be is available at the site for use, but costs associated with use of the water shall be born solely by the contractor. Hose and other equipment required for application of water shall be furnished by the Contractor.

2.5 Mulch

- a. Shredded softwood bark mulch shall be fibrous pliable slices, not exceeding one half (½) inch in width. It shall be ninety-eight percent (98%) organic matter with a pH range of 3.5 to 4.5 and a moisture content not to exceed thirty-five percent (35%). It shall be free of weeds, weed seeds, debris, phytotoxic compounds and materials harmful to plant growth and viability. Organic mulch shall be aged not longer than two (2) years and shall conform with M.6.04.5 of the Massachusetts Standard Specifications.
- b. Contractor to supply sample to Owner's Representative for approval. Dark mulc

color is preferred.

2.6 Plant Materials

- a. Selection of Nursery Stock
 1. At least twenty (20) days prior to the expected planting date, the Contractor shall request in writing, that the Engineer provide a representative to select and tag stock to be planted under this Section. This request shall be made ten (10) days prior to the date on which stock selections are to be made. The Contractor shall arrange for and bear the cost of transportation, meals in transit, and overnight accommodations, if necessary, for the Engineer's representative during the period of time required to select and tag the required number of sized stock.
 2. The letter of request shall also have attached a letter of certification from the supplier attesting to the availability of the required plants in specified sizes prior to requesting the Engineer to make plant source inspections.
 3. Plants shall be selected by the Engineer's representative at the place of growth for conformity to specification requirements as to quality, size and variety. Such approval shall not impair the right of inspection and rejection upon delivery at the site or during the progress of work. Any material so rejected shall be removed from the site immediately. Costs of replacements will be borne by the Contractor.
 4. All plants shall be legibly tagged with their proper latin name (i.e., genus, species and cultivar) and size. The Contractor shall supply the necessary tags or seals which shall be durable and capable of accepting weather-resistant ink or an embossed process. The tags or seals shall be attached directly and securely to each selected plant.
- b. The Contractor shall furnish and plant all plants shown on the drawings, as specified, and in quantities and sizes as designated on the PLANT LIST. No substitutions will be permitted.
- c. All plants shall be grown in nurseries that have been inspected by the appropriate State agency and have complied with the regulations thereof. All plants shall comply with Federal and State Laws requiring inspection for plant diseases and pest infestations. Inspection certification, as required by law, shall accompany each shipment of plants, and certificates shall be submitted to the Engineer. The Contractor shall obtain clearance from the applicable Governing Agency, as required by law, before planting any plants delivered from outside the state in which they are to be planted. Evidence that such clearance has been obtained shall be submitted to the Engineer.

- d. All plants shall conform to the American Standard for Nursery Stock of the American Association of Nurserymen, publication Z60.1. All trees and shrubs shall be typical of their species or variety and shall have a normal habit of growth.
- e. The root system of each plant shall be well provided with fibrous roots. All parts shall be sound, healthy, and vigorous, well branched and densely foliated when in leaf. They shall be free of disease, insect pests, eggs or larvae.
- f. The Contractor shall take note that only plant stock grown specifically for hardiness in Zone 5 of the Hardiness Zones established by the Arnold Arboretum, Jamaica Plain, Massachusetts, will be accepted. The Contractor's suppliers must certify in writing that the stock has actually been grown under Zone 5 conditions and is hardy, or that the stock was asexually propagated from and grafted onto stock from a strain proven hardy to Zone 5 conditions. Trees and shrubs not so certified may not be accepted.
- g. Balled and Burlapped Plants
 - 1. All plants designated balled and burlapped or 'B & B' must be moved with the root systems as solid units with balls of earth firmly wrapped with biodegradable burlap and bound carefully with twine or cord. The diameter and depth of the balls of earth must be sufficient to encompass the fibrous root feeding system necessary for the healthy development of the plant. No plant shall be accepted when the ball of earth surrounding its roots has been badly cracked or broken preparatory to or during the process of planting, or after the burlap, staves, ropes or platform required in connection with its transplanting have been removed. The plants and root balls shall remain intact as a unit during all planting operations. All plants shall be freshly dug. No plants from cold storage or previously heeled-in will be accepted.
 - 2. Soil characteristics (i.e., composition, texture, pH, etc.) of all field-grown balled and burlapped plants shall closely match that of the soil where plant materials are to be planted.
 - 3. All balled and burlapped plants that cannot be planted at once must be heeled in, protected and watered
- h. Container Grown Plants
 - 1. All container grown plants shall be well established in the container in which they are sold and shall have been have acclimitized for at least one

2. (1) growing season. Plants shall have a fibrous, healthy root system with sufficient roots to hold earth intact after removal from the container. Plants shall have no girdling roots and shall not be in a rootbound condition. Plants shall remain in their container until planted.
 3. Container plants shall not be broken up prior to installation unless approved by Landscape Architect, container plants must match planting schedule on Sheet PL-1 and installed one to one.
- i. The height of the trees (measured from the crown of the root flare to the tip of the top branch) shall be not less than the minimum size designated. Caliper measurement shall be taken at six (6) inches above ground level for trees up to and including four (4) inch caliper size, and at twelve (12) inches above ground level for larger sizes. The branching height for shade trees next to walks shall be seven (7) feet minimum. This may be obtained by pruning after planting if this does not ruin the shape or form of the trees or cause unsightly scars.
 - j. All pruning cuts shall comply with acceptable horticultural practice.
 - k. Trees shall have single straight trunks, unless otherwise indicated by the contract drawings, growing from a single unmutilated crown of roots. No part of the trunk shall be conspicuously crooked as compared with normal trees of the same variety. Tree trunks shall be free from sunscald, frost cracks, disfiguring knots or wounds resulting from abrasions, fire or other causes. All abrasions and cuts shall be completely callused over. No pruning wounds shall be present having a diameter exceeding two inches and such wounds must show vigorous bark on all edges. No trees which have had their leaders cut will be accepted.

2.7 Staking Materials

- a. Stakes for trees shall be wooden, as shown in the contract drawing details.
- b. Flexible braided nylon webbing shall be 'Arbortie', or approved equal. Nylon webbing shall be three-quarters ($\frac{3}{4}$) inch wide and have a tensile strength of nine hundred (900) pounds.

2.8 Tree Paint

- a. Tree paint shall not be permitted to be used.

2.9 Antitranspirants

- a. Antitranspirant shall be 'Wilt-Pruf', manufactured by Nursery Specialty Products, Inc., Groton Falls, New York, or approved equal. It shall be delivered in the manufacturer's containers and used in accordance with the manufacturer's instructions.

2.10 Pesticides

- a. No pesticide shall be used on-site without the knowledge and prior approval of the Engineer. Pesticides shall be E.P.A. registered and approved for use in public open spaces. All pesticides shall be handled by State licensed operators only, delivered in the manufacturer's containers, and used in accordance with the manufacturer's instructions.

2.11 Herbicides

- a. Herbicide shall be glyphosate contact, 'Roundup', manufactured by Monsanto, Inc., or approved equal. It shall be delivered in the manufacturer's containers, and used in accordance with the manufacturer's instructions.

EXECUTION

3.1 Plant Locations

- a. All plant locations and outlines for planting beds shall be staked out on the ground and approved by the Engineer before any excavation is begun. If it is necessary to adjust any of the locations, because of unforeseen problems, the changes shall be under the direction of the Engineer and there shall be no extra charges for these adjustments.

3.2 Planting Hole Excavations

- a. Planting holes for trees shall be at least two (2) feet greater in diameter than the spread of the root ball or root system; holes for shrubs shall be at least one (1) foot greater in diameter than the root ball. Planting holes shall not be deeper than the height of the root ball. The walls of the hole shall be sloped, wider at the top than at the bottom, and shall be scarified to eliminate glazing.

3.3 Planting Trees, Shrubs and Groundcovers

- a. All ties, tags, rope, twine and/or other materials that would potentially girdle plant stems, trunks or branches shall be removed prior to planting.
- b. Plants shall be moved being lifted by their root ball masses and shall be set to the lines and grades as shown in the contract drawings. All trees and shrubs shall be faced properly, plumbed straight and planted at the center of the planting pits, at the same level as they had been previously grown. Owner's Representative shall

- c. inspect final resting height and exposed trunk flare of all trees and shrubs prior to backfilling planting pits. Contractor shall make any necessary adjustments to meet approval of Owner's Representative.

- c. Balled and Burlapped Trees and Shrubs
 - 1. Root ball masses of balled and burlapped (B&B) plants shall not be disturbed, loosened, broken or otherwise damaged during planting operations. All tying materials, twine and ropes shall be cut off and removed. Biodegradable burlap shall be laid back and/or cut away from the top half of the ball. No burlap shall be pulled out from under the ball. Any and all non-biodegradable materials, synthetic and/or treated burlap, shall be entirely removed prior to planting. If a wire basket is present, the upper two-thirds (2/3) of the metal basket shall be cut away and removed. Do not remove the entire basket.

- d. Container Grown Plants
 - 1. Container plants shall be removed from the grow container before planting. If roots are densely matted, the outer root mass shall be scored, sliced vertically with a sharp knife to separate roots.

- e. Groundcover Planting
 - 1. All groundcover plants shall be evenly spaced to produce a uniform effect, and staggered in rows at intervals detailed in the contract drawings. Groundcover plants shall not be installed individually, but per container or as instructed by Landscape Architect. Landscape Architect shall inspect all groundcover layout prior to planting.

- f. Planting pits shall be backfilled with the existing, unamended soil removed from the hole, or prepared soil mix, as specified in the contract drawings, in layers not to exceed eight (8) inches. Each layer is to be tamped firmly and watered to sufficiently settle the backfilled soil. When the pit is approximately two-thirds (2/3) backfilled, water deeply and thoroughly, allowing it to drain through undisturbed. Continue backfilling and tamping in eight (8) inch layers until soil is at the level at which the plant was formerly grown. Water thoroughly and adjust soil level.

- g. At the time of planting, during backfill, install fertilizer at a depth of six (6) to eight (8) inches, equally spaced around the plant. Packets and/or granular applications shall be placed approximately three (3) inches away from the plant roots or root ball. Packets shall not be cut, ripped or otherwise damaged. If it becomes necessary to remove and replace dead or unhealthy plants, any damaged or broken packets shall be replaced.

1. The Contractor shall follow the manufacturer's recommendation for fertilizer packets or granular applications to trees and shrubs.
- h. The planting mixture shall be spread around the plant to form a temporary saucer, a minimum of three (3) inches deep and equal to the diameter of the planting hole. On slopes, a ridge of soil shall be formed on the downhill side to catch and hold water. Saucers shall not be formed around individual plants in planting beds.
- i. After all planting and watering, soil in planting beds shall be cultivated and raked smooth to eliminate compaction between the planting pits.
- j. All plants shall be flooded with water twice within the first twenty-four (24) hours from the time of planting.
- k. Immediately after planting operations are complete, all tree saucers and plant beds shall be covered with an approved mulch to a depth of no less than three (3) inches. Mulch shall not contact tree trunk bark, nor cover the root flare. No mulch shall be applied prior to the first watering.
- l. All thin barked, deciduous, non-evergreen trees shall be wrapped immediately after they are planted and before they are staked. Tree trunks shall wrapped spirally from the bottom to the top with the specified wrapping material and secured. The wrapping shall overlap and completely cover the trunk from the ground to the height of the first branch and shall be neat and snug. Overlap shall be approximately two (2) inches. Wrapping shall be tied securely in place with jute twine.
- m. All trees shall be staked or guyed, in accordance with standard practice. Care shall be taken to ensure that the stakes do not pierce the root ball mass and that stakes and guying will not create pedestrian or vehicular hazards. Tree trunks shall be secured at one-third (1/3) the height of the tree with wire with hose and adjustable buckle, fastened to staking apparatus, and shall be approved by owner's representative. The Contractor shall remove all staking apparatus, stakes, and guys after one (1) growing season.
- n. Immediately after planting and staking, spray all plant material with an approved antitranspirant, applied in strict accordance with the manufacturer's recommendations.

3.4 Pruning New Plants

- a. Trees and shrubs shall be pruned in accordance with American Association of

Nurserymen Standards to preserve the natural character of the plant.

- b. Trees shall be pruned only after the plant has been completely planted. All large pruning cuts, one-half ($\frac{1}{2}$) inch diameter and larger, shall be made along the bark branch ridge. Pruning cuts shall not be made to breach or otherwise interfere with the branch collar. All pruning cuts less than one-quarter ($\frac{1}{4}$) inch diameter shall be made with a sharp pair of hand pruners as close to the main stem as possible without damaging the cambium or bud.
- c. All dead or dying limbs and tips, sucker growth, water sprouts, crossing or rubbing branches, broken or damaged branches, and/or diseased or insect infested limbs shall be removed. Questionable weak limb and branch removal that may disfigure the tree should be left for final approval by the Engineer.
- d. Never cut the tree leader.
- e. Any and all pruning shall be done with clean, sharp tools.
- f. Tree paint shall not be used to cover pruning cuts.

3.7 Maintenance

- a. Maintenance shall begin immediately after each plant is planted and shall continue until final acceptance of the project.
- b. Maintenance shall consist of keeping plants in a healthy viable growing condition. Plants shall be watered, mulched, weeded, pruned, sprayed, fertilized, cultivated, and otherwise maintained and protected. Settled plants shall be reset to proper grade and position, planting saucer restored and dead material removed. Stakes and guys shall be tightened and repaired. Defective work shall be corrected as soon as possible after it becomes apparent and weather and season permit.
- c. Planting beds and individual plant pits shall be kept free of weeds. Mulch shall be replaced as required to maintain a three (3) inch depth. Beds and individual pits shall be neat in appearance and maintained to the original laid out lines.
- d. Planting areas that have been compacted for any reason during planting operations and/or the maintenance period, shall be recultivated by the Contractor, at his expense.
- e. Application of pesticides shall be included during the maintenance period, as required, with approved materials, at clearly announced and safe hours, by a State licensed pesticide operator.
- f. Sidewalks and other paved areas shall be kept clean during planting and maintenance operations.

- g.
- g. Upon completion of planting, excess soil and debris shall be removed from the site, and all damage resulting from planting operations shall be repaired.
- h. Planting areas and plants shall be protected against trespassing and damage of any kind for the duration of the maintenance period. This shall include the provisions and installation of approved temporary fencing if necessary. If any plants become damaged during the maintenance period, they shall be treated or replaced as directed by the Engineer, at no additional cost to the Owner.

3.8 Guarantee

- a. All plant materials shall be guaranteed for a period of one (1) year after the completion of the specified maintenance period and the date of final acceptance of the entire project, in writing from the Landscape Architect. All trees over a 3" caliper at installation shall be guaranteed for a period of 2 years from date of final acceptance. Plants shall exhibit satisfactory growth and have no less than seventy-five percent (75%) of their branches alive at the end of the guarantee period. If the leader of any single-leader species is dead, the entire plant shall be considered dead.
- b. All replacements shall be plants of the same kind and size specified on the PLANT LIST. They shall be furnished and planted as specified above. The cost shall be borne by the Contractor. Replacements resulting from the removal, loss or damage, vandalism or acts of neglect on the part of others, physical damage by animals, vehicles, etc., and losses due to curtailment of water by local authorities, will be approved and paid for by the Owner.
- d. At the end of the guarantee period, inspection will be made again. Any plant required under this Contract that is dead or unsatisfactory shall be removed from the site. These shall be replaced during the normal planting season, until the plants live through one (1) year.

4.0 Payment

- a. Payment for "PLANTING" shall be paid for under the contract unit bid price per plant, which shall include all labor, tools, materials, equipment, transportation and all other incidental work as necessary to provide a complete, functional and proper installation.

SPECIAL PROVISION

To Section 1008 (NHDOT Standard Specifications)

Item 1008.11 & 1008.12 – Alterations and Additions as Needed – Unanticipated Work

Description

This work shall consist of repairs, or other work required in order to finish the project that was not anticipated at the time of the bid. It is intended to be used primarily for repairs to the buildings that may be necessary due to the proximity of the buildings to the work. It may be used for instance to fill in old coal chutes or bulkheads that are not apparent at this time.

Construction Requirements

The Contractor shall submit manufacturer’s installation instructions and descriptive literature for materials used.

The air and surface temperatures during construction shall be in accordance with manufacturer’s recommendations.

Care shall be taken to ensure the safety of pedestrians when sidewalks must remain in service during construction.

Construction shall be approved by the Engineer.

Method of Measurement

Work will be by the hour.

Materials will be paid for by the cost of the item with 10% markup.

Basis of Payment

Pay Item and Unit

1008.11	Unanticipated Work	Hr (hour)
1008.12	Unanticipated Work – Material	\$

MARKET STREET

STREETSCAPE IMPROVEMENTS

FROM BOW STREET TO RUSSEL STREET

CONTACT #'S

PUBLIC WORKS DEPT 427-1530
WATER & SEWER DEPARTMENT 427-1552
POLICE DETAILS 610-7412
FIRE & POLICE EMERGENCY 911
FIRE DEPARTMENT 427-1515
POLICE DEPARTMENT 427-1500
UNITIL GAS EMERGENCY 800-525-8222
FAIRPOINT TELEPHONE 427-5525
PSNH 436-7708

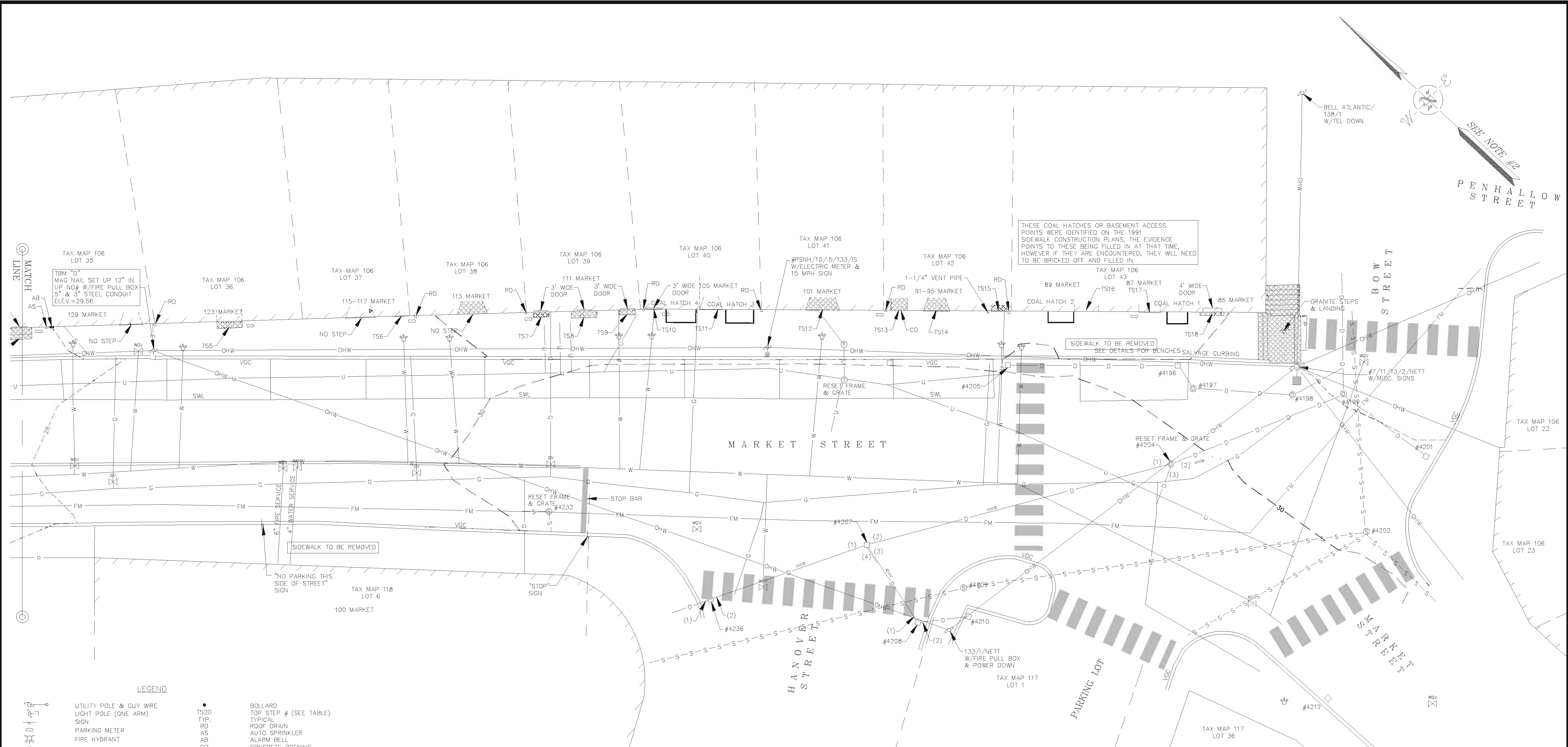


	SHEET #
EXISTING FEATURES AND DEMOLITION PLANS	1-5
SITE & LAYOUT PLANS	6-10
DETAILS	11

CITY OF PORTSMOUTH, NH

DEPARTMENT OF PUBLIC WORKS

MARCH 16, 2010



THESE COAL HATCHES OR BASEMENT ACCESS POINTS WERE IDENTIFIED ON THE 1991 SIDEWALK CONSTRUCTION PLANS, THE EVIDENCE POINTS TO THESE BEING ENCOUNTERED IN AT THAT TIME, HOWEVER IF THEY ARE ENCOUNTERED, THEY WILL NEED TO BE BRICKED OFF AND FILLED IN.

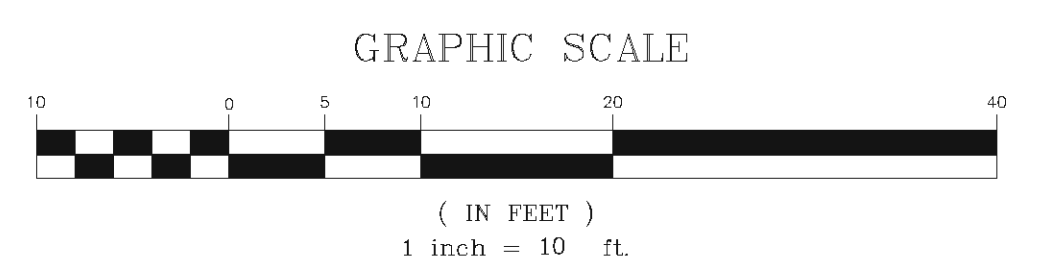
SIDEWALK TO BE REMOVED SEE DETAILS FOR BENCHES SALVAGE CURBING

LEGEND

- | | | |
|-------------------------|-----|---------------------------|
| UTILITY POLE & GUY WIRE | ● | BOLLARD |
| LIGHT POLE (ONE ARM) | ○ | TOP STEP # (SEE TABLE) |
| SIGN | RD | TYP. ROOF DRAIN |
| PARKING METER | AS | AUTO SPRINKLER |
| FIRE HYDRANT | AB | ALARM BELL |
| GATE VALVE | CO | CONCRETE OPENING |
| SEWER GATE VALVE | EP | EDGE OF PAVEMENT |
| GAS GATE VALVE | SWL | SINGLE WHITE LINE |
| WATER GATE VALVE | VGC | VERTICAL GRANITE CURB |
| GAS SHUTOFF VALVE | DYL | DOUBLE YELLOW LINE |
| WATER SHUTOFF VALVE | ○ | WOOD FENCE |
| CATCH BASIN | ○ | CHAINLINK FENCE |
| DRAIN MANHOLE | — | OVERHEAD WIRES |
| TELEPHONE MANHOLE | S | SEWER LINE |
| SEWER MANHOLE | D | DRAIN LINE |
| MANHOLE | U | UNDERGROUND UTILITIES |
| | G | GAS LINE |
| | W | WATER LINE |
| | E | UNDERGROUND ELECTRIC LINE |
| CONCRETE | ▬ | CROSSWALK |
| BRICK | ▬ | CONTOUR LINE |
| LANDSCAPED AREA | ▬ | |
| COBBLE STONE | ▬ | |
| GRANITE | ▬ | |
| LEDGE OUTCROP | ▬ | |

NOTE:
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SEE SHEET 2 FOR DRAINAGE TABLE, STEP TABLE & LOCUS MAP

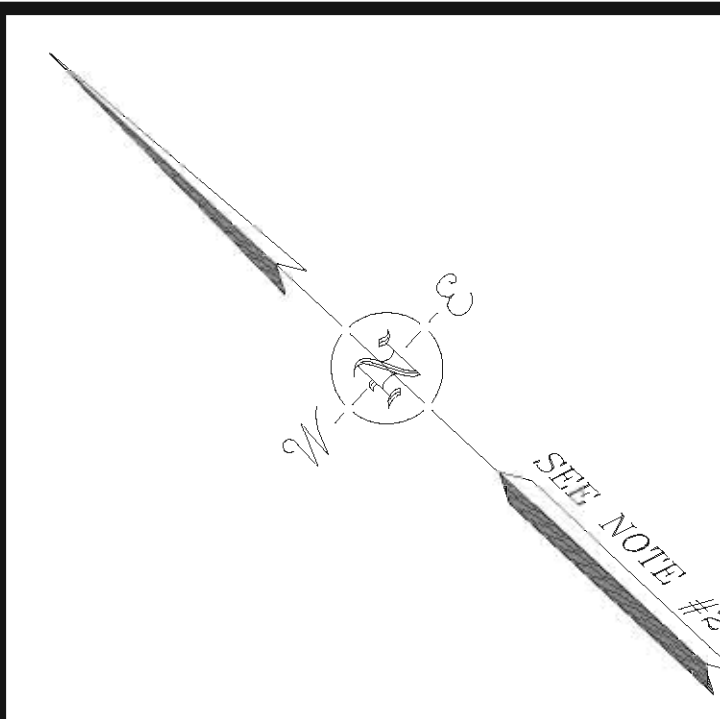


- NOTES:
1. FIELD SURVEY PERFORMED BY J.A.G. & M.W.F. ON 11/09 AND BY M.W.F. & J.G. ON 12/09 USING A GEODIMETER PRO TOTAL STATION WITH A RANGER TDS DATA COLLECTOR AND A SOKKIA B20 AUTO LEVEL. TRAVERSE ADJUSTMENT BASED ON LEAST SQUARES ANALYSIS.
 2. HORIZONTAL DATUM BASED ON U.S. ARMY CORP CONTROL POINTS "CRUISE" AND "DANISH".
 3. VERTICAL DATUM BASED ON MEAN LOWER LOW WATER DATUM. CONVERSION TO N.G.V.D. 1929 IS -4.39 AS PROVIDED BY APPLDRE MARINE ENGINEERING, INC.
 4. UNDERGROUND UTILITIES SHOW ON PLAN ARE PER MARKINGS FOUND ON GROUND. PAINT MARKINGS IN SOME AREAS WERE FADED AND/OR MISSING.

TOPOGRAPHIC PLAN
OF A PORTION OF
MARKET STREET
PORTSMOUTH, NEW HAMPSHIRE

DRAWN BY:	M.W.F.	DATE:	DEC. 1, 2009
CHECKED BY:	W.J.D.	DRAWING NO.:	2948A
JOB NO.:	2948	SHEET	1 OF 5

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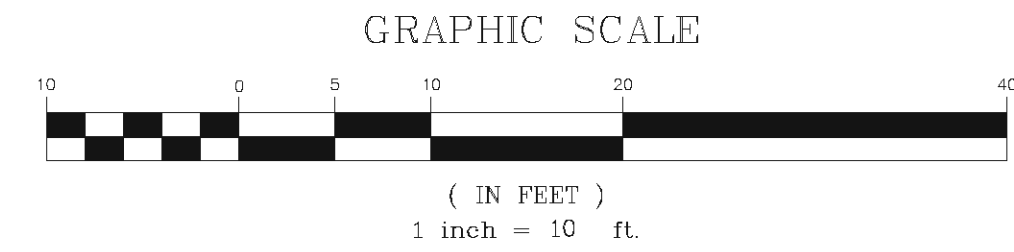
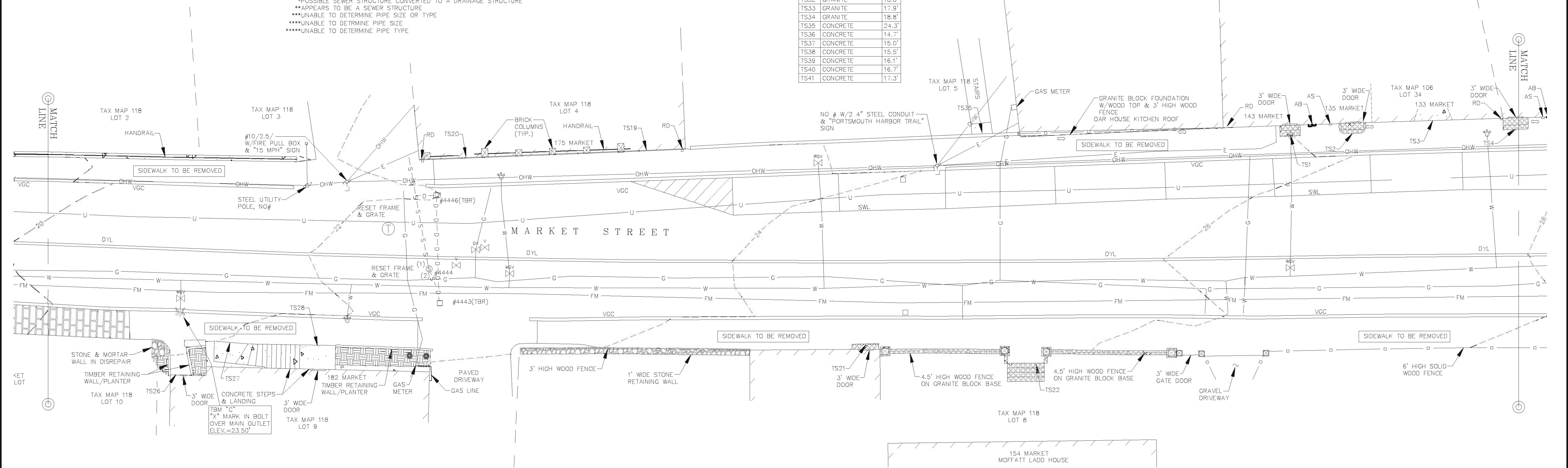
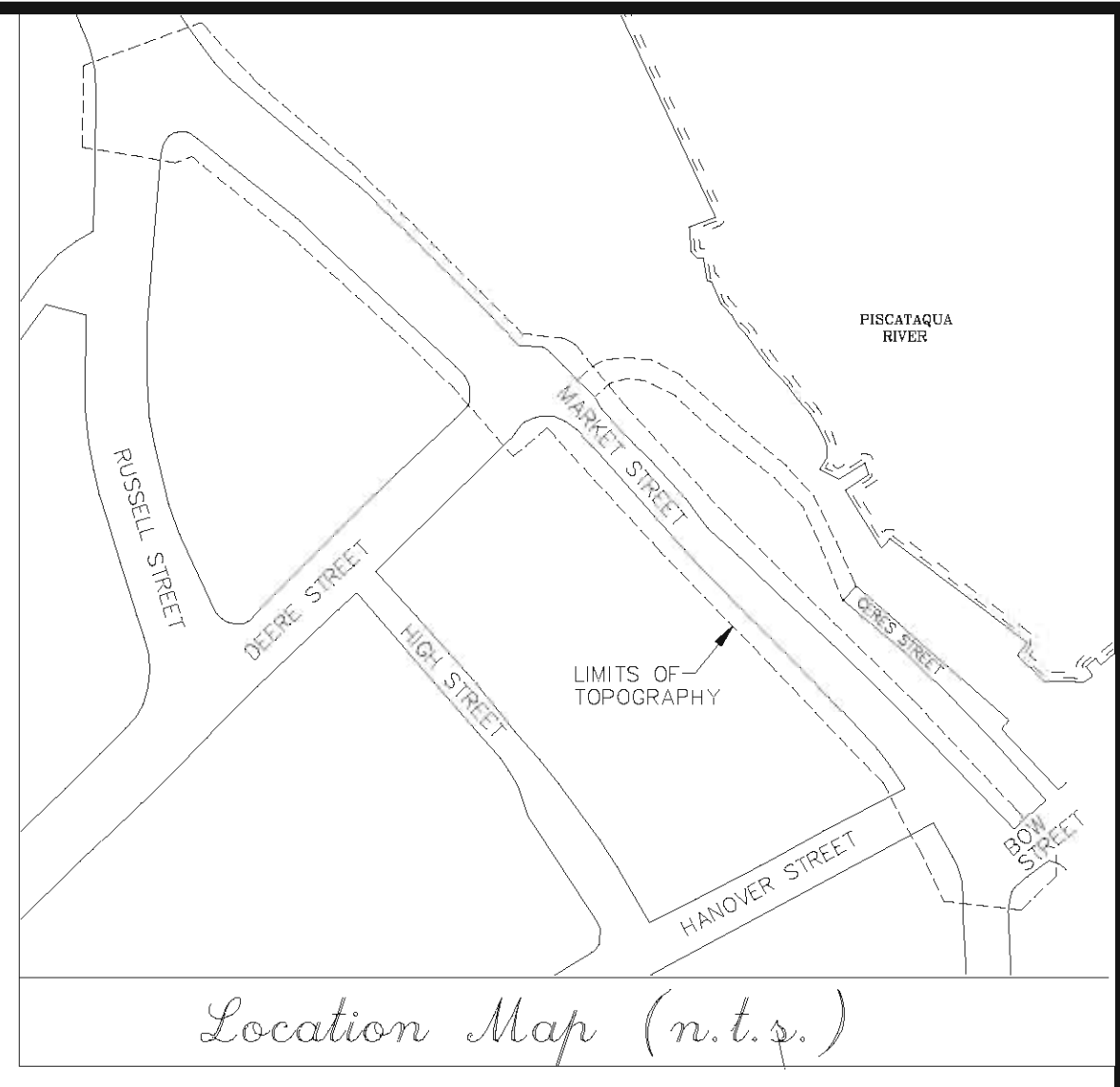


SEWER & DRAINAGE STRUCTURE TABLE			
DMH #4198 RIM ELEV.=28.5' INVS. = 22.63'	SMH #4444 RIM ELEV.=22.6' (1) 6" CLAY=18.7' (2) 6" CLAY=18.9'	SMH #4631 RIM ELEV.=15.2' (1) 8" CLAY=9.1'	MH #4640 RIM ELEV.=14.2' (1) 15" RCP=7.8' (2) 18" RCP=6.7' (3) INV.=2.7'
SMH #4204* RIM ELEV.=30.2' (1) 12" CLAY=23.4' (2) 12" CLAY=23.3' (3) 12" CMP=25.0'	CB #4446 RIM ELEV.=22.0' 8" BROKEN PIPE=19.6' FULL OF WATER SUMP=18.8'	MH #4633 RIM ELEV.=14.3' (4) 8" CLAY=2.4'	SMH #5059 RIM ELEV.=16.4' (1) 12" STEEL=7.9' (2) 24"=4.4'**** (3) 24"=4.2'****
CB #4205 RIM ELEV.=29.8' 3" PVC=29.2'	SMH #4475 RIM ELEV.=15.6' (1) INV.=2.0'*** (2) INV.=2.5'*** (3) INV.=2.2'*** (4) INV.=2.6'***	SMH #4634 RIM ELEV.=14.2' (1) DIP**** (2) DIP**** BOTH RECESSED UNABLE TO MEASURE (3) 24" HOLE=8.9'	CB #5161 RIM ELEV.=15.8' OUT 12" RCP=9.9'
CB #4207 RIM ELEV.=30.4' (1) 12" PVC=25.7' (2) 12" PVC=25.7' (3) 12" CPP=25.9' (4) 4" PVC=27.1'	SMH #4476 RIM ELEV.=14.5' (1) INV.=2.5'*** (2) 24" RCP=2.5' (3) 24" RCP=2.2'	SMH #4635 RIM ELEV.=14.1' (1) 12" RCP=7.9' (2) 12" RCP=9.1' (3) 18" RCP=5.8' (3) 24"=5.7'	SMH #5176 RIM ELEV.=15.5' (1) 6" PVC=6.2' (2) 6" PVC=10.3' (3) 12" PVC=6.3' (4) 6" PVC=6.3'
CB #4208 RIM ELEV.=30.5' (1) 12" CPP=26.6' W/HOOD (2) 8" PVC=26.7'	CB #4507 RIM ELEV.=13.9' OUT 12" RCP=10.2'	SMH #4636 RIM ELEV.=14.2' (1) 24"=3.8'**** (2) 15"=3.5'****	SMH #5292 RIM ELEV.=15.2' (1) 12" RCP=10.4' (2) 12" RCP=10.4'
SMH #4232 RIM ELEV.=30.2' FORCED MAIN 2" METAL VENT PIPE=27.8'	CB #4508 RIM ELEV.=14.2' (1) 15" RCP=8.4' (2) 12" RCP=9.1' (3) 8" RCP=9.7'	SMH #4638 RIM ELEV.=14.3' (1) 8" CLAY RECESSED UNABLE TO MEASURE (2) INV.=2.3'*** (3) 24" RCP=3.1' (4) DIP=7.0'**** (5) DIP=7.0'****	SMH #5293 RIM ELEV.=15.2' (1) 24" CONC=4.1' (2) 24" CONC=3.9' (3) 18" STEEL=5.4'
CB #4236 RIM ELEV.=30.4' (1) 8" PVC=27.0' (2) 12" PVC=27.0'	CB #4519 RIM ELEV.=13.3' NO PIPES VISIBLE WATER LEVEL=9.7'	CB #4644 RIM ELEV.=14.3' OUT 12" RCP=11.1'	CB #5294 RIM ELEV.=14.1' OUT 12" RCP=10.5'
CB #4438 RIM ELEV.=14.2' 8" PVC=11.6'	MH #4568** RIM ELEV.=14.8' (1) 8" CLAY=10.5' (2) 8" CLAY=10.6'	CB #5243 RIM ELEV.=14.3' OUT 12" RCP=10.9'	SMH #5261 RIM ELEV.=15.1' (1) 8" STEEL=7.8' (2) 8" STEEL=8.0'
CB #4443 RIM ELEV.=22.5' 6" PVC=19.2'			

*POSSIBLE SEWER STRUCTURE CONVERTED TO A DRAINAGE STRUCTURE
 **APPEARS TO BE A SEWER STRUCTURE
 ***UNABLE TO DETERMINE PIPE SIZE OR TYPE
 ****UNABLE TO DETERMINE PIPE SIZE
 *****UNABLE TO DETERMINE PIPE TYPE

STEP TABLE		
STEP	TYPE	ELEV.
TS1	GRANITE	26.8'
TS2	GRANITE	26.6'
TS3	CONCRETE	27.4'
TS4	GRANITE	28.3
TS5	GRANITE	29.8'
TS6	WOOD	30.4'
TS7	GRANITE	30.8'
TS8	GRANITE	30.7'
TS9	GRANITE	30.8'
TS10	GRANITE	31.1'
TS11	CONCRETE	30.8'
TS12	GRANITE	31.0'
TS13	GRANITE	30.8'
TS14	GRANITE	31.0'
TS15	GRANITE	31.0'
TS16	CONCRETE	30.6'
TS17	CAST IRON	30.9'
TS18	GRANITE	30.6'
TS19	GRANITE	24.0'
TS20	CONCRETE	24.0'
TS21	GRANITE	25.4'
TS22	GRANITE	26.1'
TS23	CONCRETE	17.8'
TS24	GRANITE	18.0'
TS25	CONCRETE	18.5'
TS26	METAL THRESHOLD	22.5'
TS27	CONCRETE	22.1'
TS28	WOOD THRESHOLD	23.1'
TS29	GRANITE	18.1'
TS30	GRANITE	18.8'
TS31	GRANITE	18.1'
TS32	GRANITE	18.8'
TS33	GRANITE	17.9'
TS34	GRANITE	18.8'
TS35	CONCRETE	24.3'
TS36	CONCRETE	14.7'
TS37	CONCRETE	15.0'
TS38	CONCRETE	15.5'
TS39	CONCRETE	16.1'
TS40	CONCRETE	16.7'
TS41	CONCRETE	17.3'

LEGEND	
UTILITY POLE & GUY WIRE	●
LIGHT POLE (ONE ARM)	○
SIGN	○
PARKING METER	○
FIRE HYDRANT	○
GATE VALVE	○
SEWER GATE VALVE	○
GAS GATE VALVE	○
WATER GATE VALVE	○
GAS SHUTOFF VALVE	○
WATER SHUTOFF VALVE	○
CATCH BASIN	○
DRAIN MANHOLE	○
TELEPHONE MANHOLE	○
SEWER MANHOLE	○
MANHOLE	○
CONCRETE	■
BRICK	■
LANDSCAPED AREA	■
COBBLE STONE	■
GRANITE	■
LEDGE OUTCROP	■
TS20	○
TYP.	○
RD	○
AS	○
AB	○
CO	○
EP	○
SWL	○
VGC	○
DYL	○
BOLLARD	○
TOP STEP # (SEE TABLE)	○
TYPICAL	○
ROOF DRAIN	○
AUTO SPRINKLER	○
ALARM BELL	○
CONCRETE OPENING	○
EDGE OF PAVEMENT	○
SINGLE WHITE LINE	○
VERTICAL GRANITE CURB	○
DOUBLE YELLOW LINE	○
WOOD FENCE	○
CHAINLINK FENCE	○
OVERHEAD WIRES	○
SEWER LINE	○
DRAIN LINE	○
UNDERGROUND UTILITIES	○
GAS LINE	○
WATER LINE	○
UNDERGROUND ELECTRIC LINE	○
CROSSWALK	○
CONTOUR LINE	○



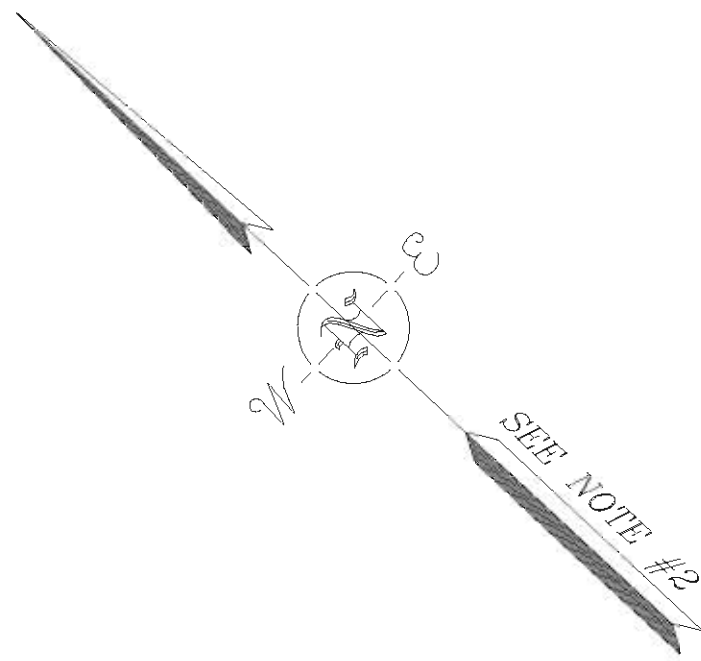
TOPOGRAPHIC PLAN
 OF A PORTION OF
 MARKET STREET
 PORTSMOUTH, NEW HAMPSHIRE

NO.	DATE	DESCRIPTION	BY

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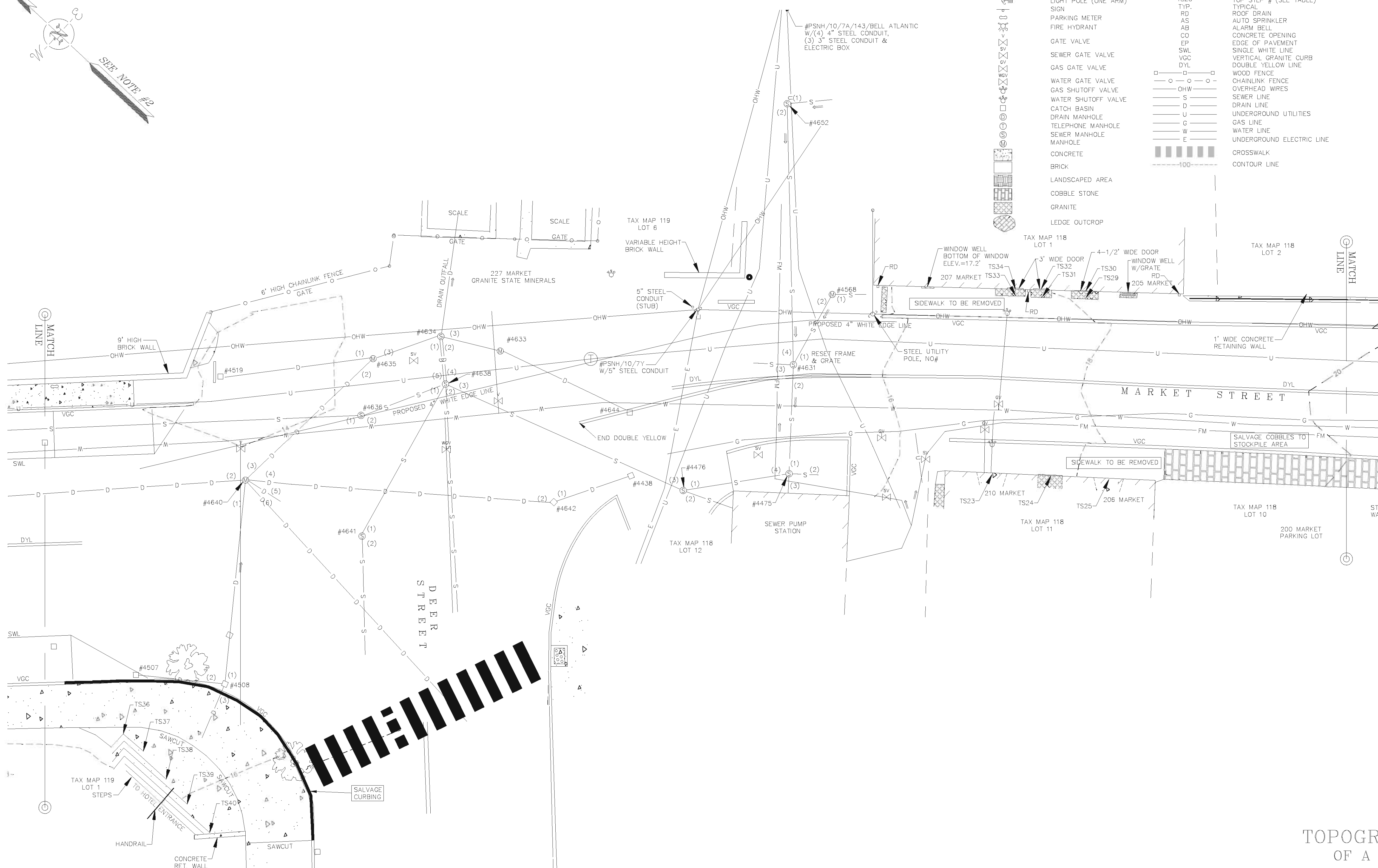
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LEGEND

- UTILITY POLE & GUY WIRE
- LIGHT POLE (ONE ARM)
- SIGN
- PARKING METER
- FIRE HYDRANT
- GATE VALVE
- SEWER GATE VALVE
- GAS GATE VALVE
- WATER GATE VALVE
- GAS SHUTOFF VALVE
- WATER SHUTOFF VALVE
- CATCH BASIN
- DRAIN MANHOLE
- TELEPHONE MANHOLE
- SEWER MANHOLE
- MANHOLE
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- BRICK
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- COBBLE STONE
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- AUTO SPRINKLER
- ALARM BELL
- CONCRETE OPENING
- EDGE OF PAVEMENT
- SINGLE WHITE LINE
- VERTICAL GRANITE CURB
- DOUBLE YELLOW LINE
- WOOD FENCE
- CHAINLINK FENCE
- OVERHEAD WIRES
- SEWER LINE
- DRAIN LINE
- UNDERGROUND UTILITIES
- GAS LINE
- WATER LINE
- UNDERGROUND ELECTRIC LINE
- CROSSWALK
- CONTOUR LINE



GRAPHIC SCALE



(IN FEET)
1 inch = 10 ft.

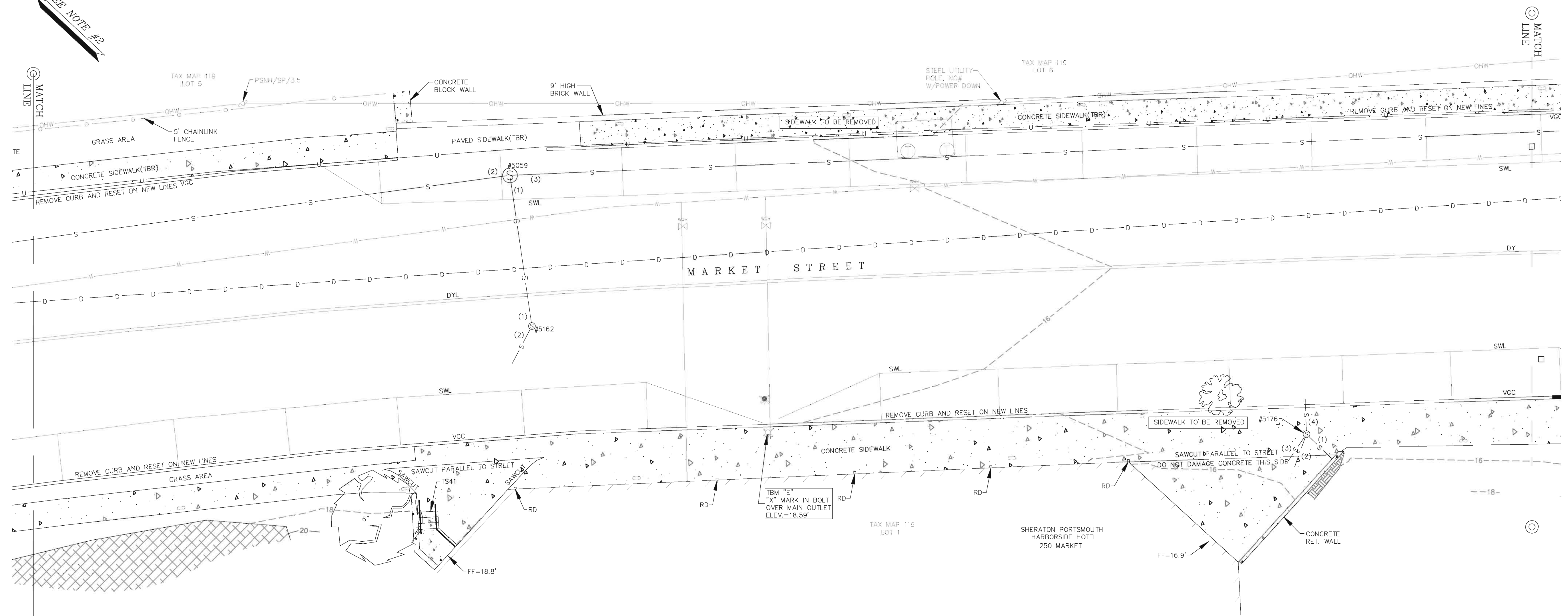
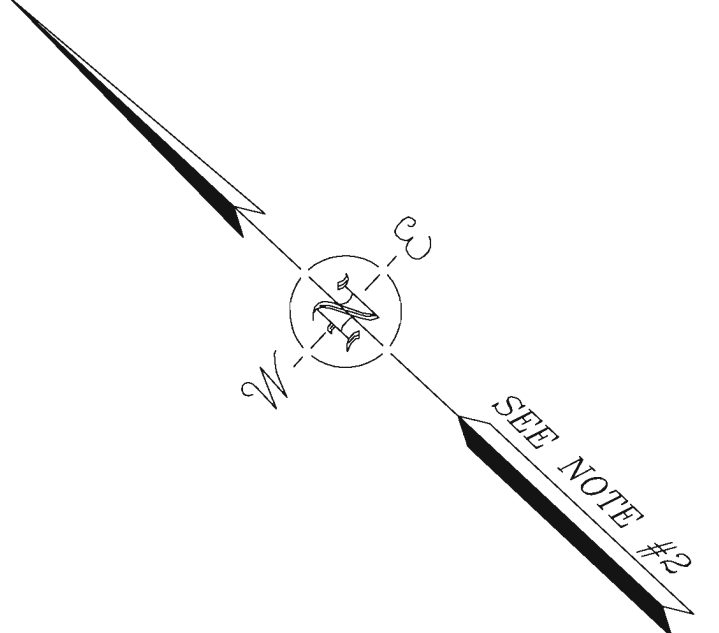
TOPOGRAPHIC PLAN
OF A PORTION OF
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DRAWN BY:	M.W.F.	DATE:	DEC. 1, 2009
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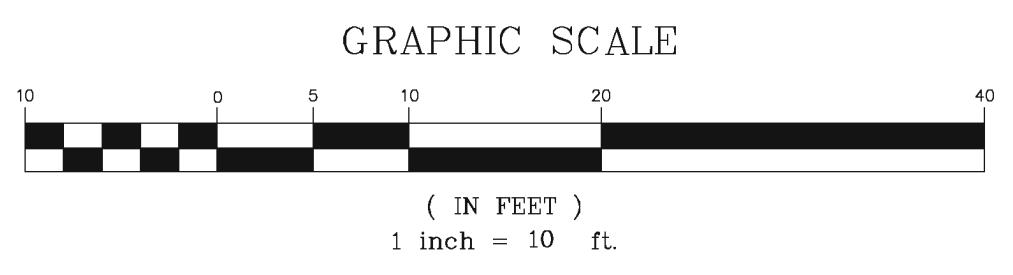
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NO.	DATE	DESCRIPTION	BY



LEGEND

UTILITY POLE & GUY WIRE	●	BOLLARD
LIGHT POLE (ONE ARM)	○	TOP STEP # (SEE TABLE)
SIGN	○	TYP.
PARKING METER	○	RD
FIRE HYDRANT	○	AS
GATE VALVE	○	AB
SEWER GATE VALVE	○	CO
GAS GATE VALVE	○	EP
WATER GATE VALVE	○	SWL
GAS SHUTOFF VALVE	○	VGC
WATER SHUTOFF VALVE	○	DYL
CATCH BASIN	○	WOOD FENCE
DRAIN MANHOLE	○	CHAINLINK FENCE
TELEPHONE MANHOLE	○	OVERHEAD WIRES
SEWER MANHOLE	○	S
MANHOLE	○	D
CONCRETE	▨	U
BRICK	▨	G
LANDSCAPED AREA	▨	W
COBBLE STONE	▨	E
GRANITE	▨	CROSSWALK
LEDGE OUTCROP	▨	CONTOUR LINE

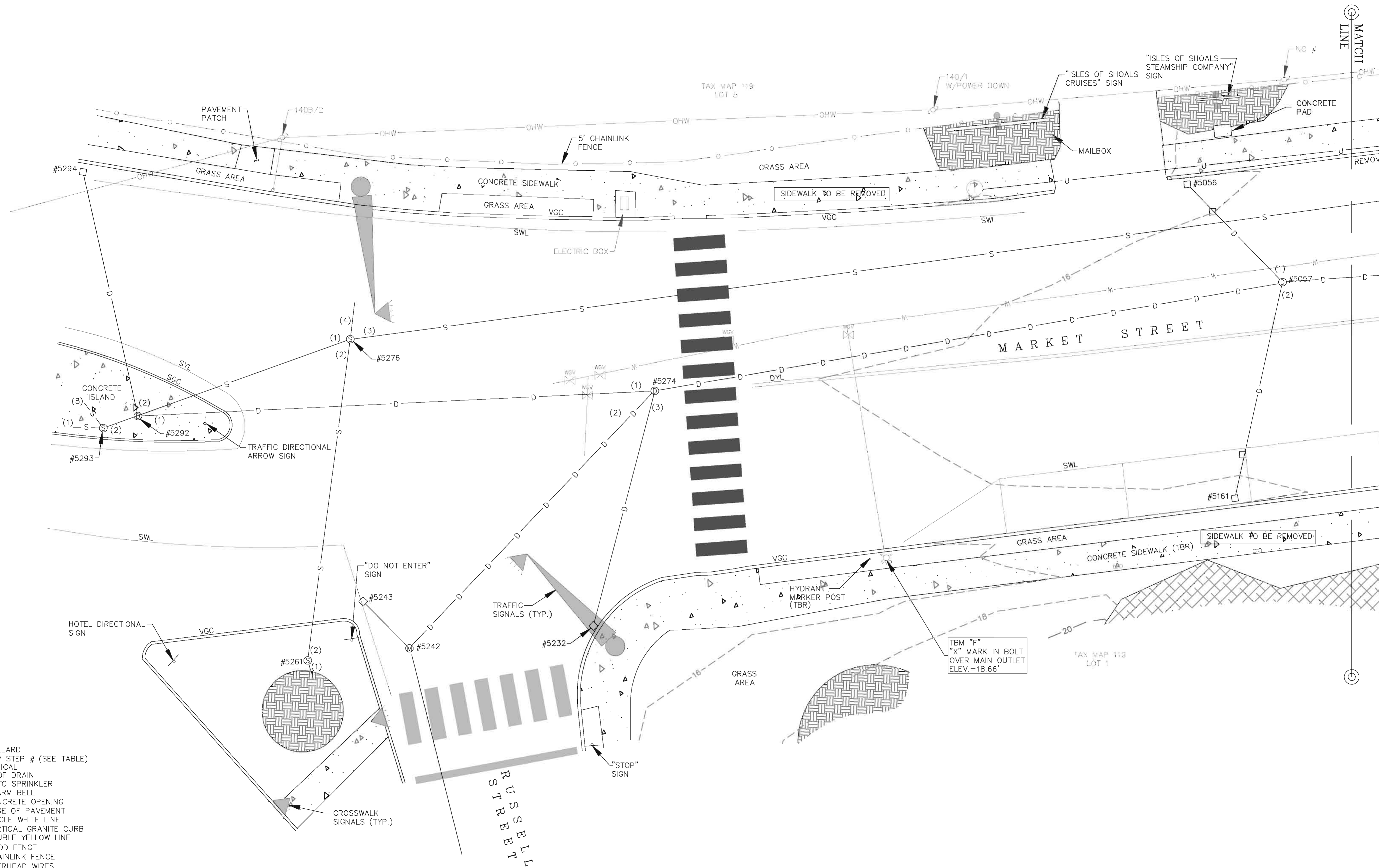
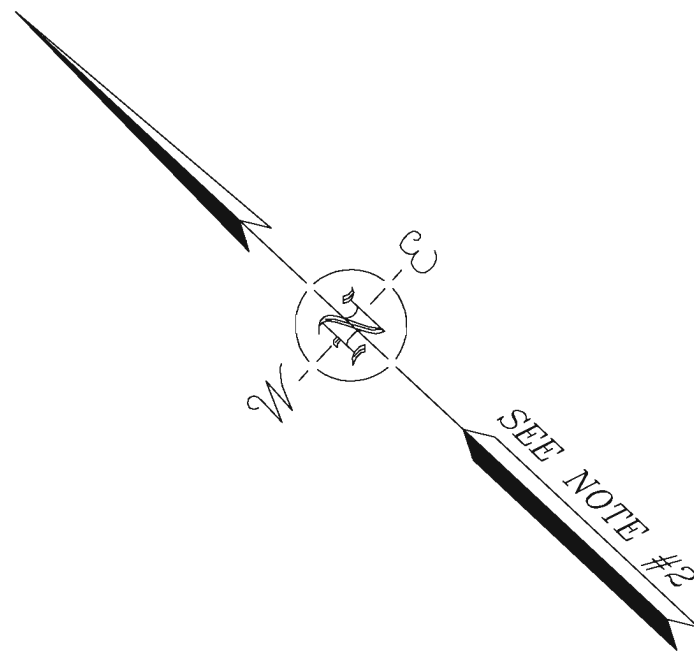


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 OF A PORTION OF
 MARKET STREET
 PORTSMOUTH, NEW HAMPSHIRE**

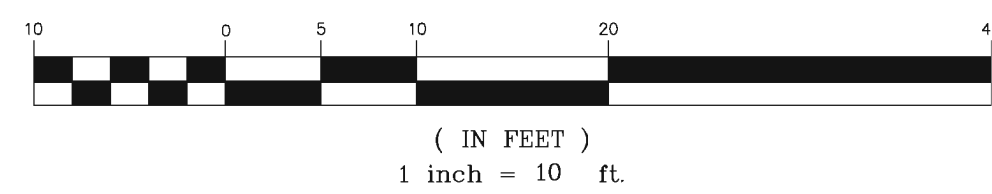
DRAWN BY:	M.W.F.	DATE:	DEC. 1, 2009
CHECKED BY:	W.J.D.	DRAWING NO.:	2948A
JOB NO.:	2948	SHEET	4 OF 5



LEGEND

- | | | |
|-------------------------|-----|---------------------------|
| UTILITY POLE & GUY WIRE | • | BOLLARD |
| LIGHT POLE (ONE ARM) | ○ | TOP STEP # (SEE TABLE) |
| SIGN | RD | TYPICAL |
| PARKING METER | AS | ROOF DRAIN |
| FIRE HYDRANT | AB | AUTO SPRINKLER |
| GATE VALVE | CO | ALARM BELL |
| SEWER GATE VALVE | EP | CONCRETE OPENING |
| GAS GATE VALVE | SWL | EDGE OF PAVEMENT |
| WATER GATE VALVE | VGC | SINGLE WHITE LINE |
| GAS SHUTOFF VALVE | DYL | VERTICAL GRANITE CURB |
| WATER SHUTOFF VALVE | ○ | DOUBLE YELLOW LINE |
| CATCH BASIN | ○ | WOOD FENCE |
| DRAIN MANHOLE | ○ | CHAINLINK FENCE |
| TELEPHONE MANHOLE | ○ | OVERHEAD WIRES |
| SEWER MANHOLE | ○ | SEWER LINE |
| MANHOLE | ○ | DRAIN LINE |
| CONCRETE | ○ | UNDERGROUND UTILITIES |
| BRICK | ○ | GAS LINE |
| LANDSCAPED AREA | ○ | WATER LINE |
| COBBLE STONE | ○ | UNDERGROUND ELECTRIC LINE |
| GRANITE | ○ | CROSSWALK |
| LEDGE OUTCROP | ○ | CONTOUR LINE |

GRAPHIC SCALE



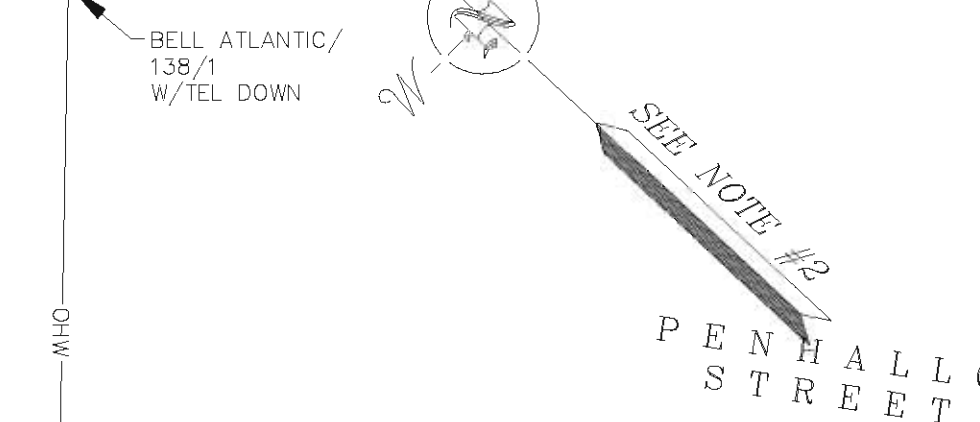
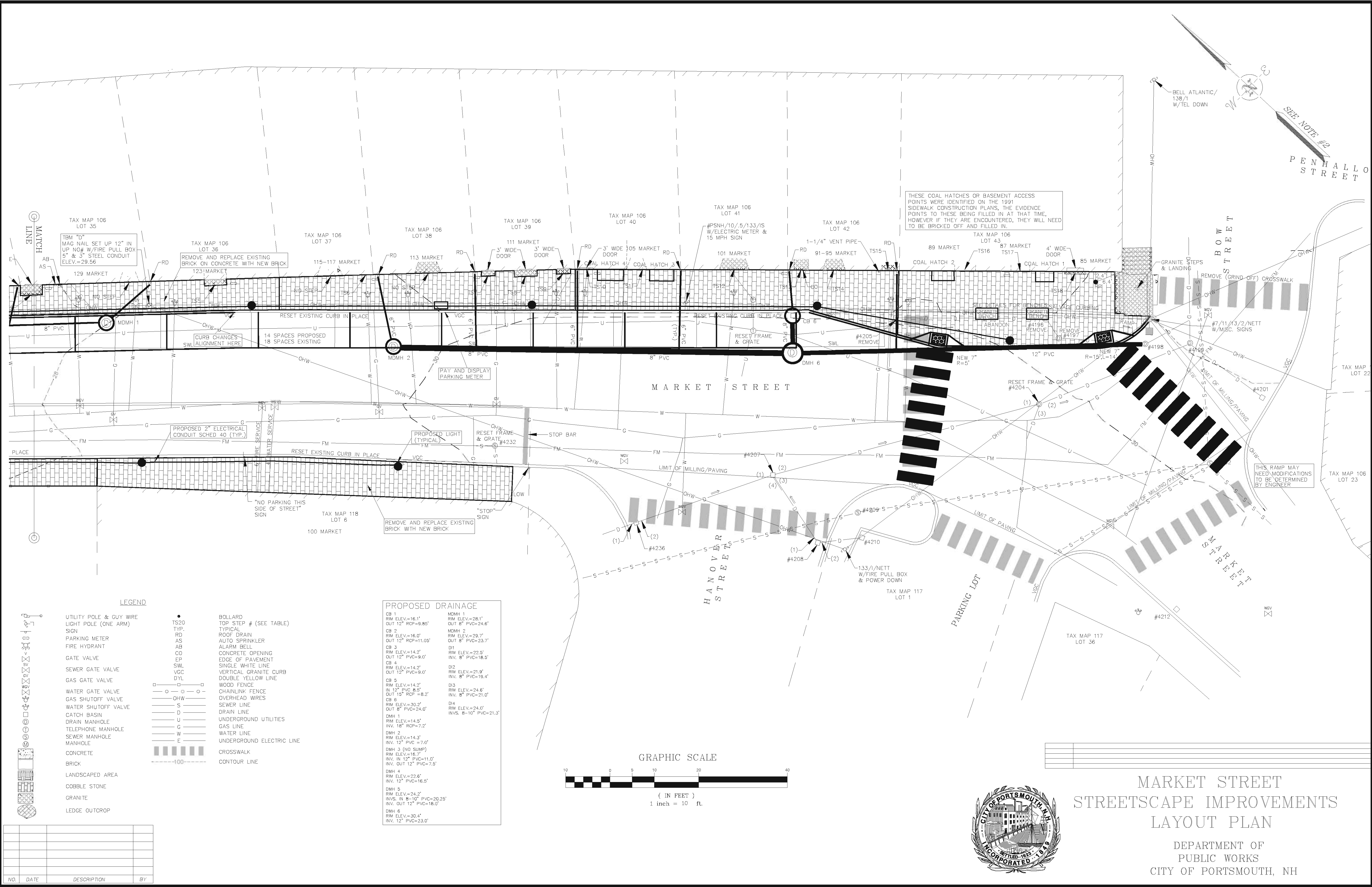
**TOPOGRAPHIC PLAN
OF A PORTION OF
MARKET STREET
PORTSMOUTH, NEW HAMPSHIRE**

DRAWN BY:	M.W.F.	DATE:	DEC. 1, 2009
CHECKED BY:	W.J.D.	DRAWING NO.:	2948A
JOB NO.:	2948	SHEET	5 OF 5



NO.	DATE	DESCRIPTION	BY

NOTE:
ALL ELECTRIC, GAS, TEL, WATER, SEWER AND DRAIN SERVICES ARE SHOWN IN SCHEMATIC FASHION, THEIR LOCATIONS ARE NOT PRECISE OR NECESSARILY ACCURATE. NO WORK WHATSOEVER SHALL BE UNDERTAKEN ON THIS SITE USING THIS PLAN TO LOCATE THE ABOVE SERVICES. CONSULT WITH THE PROPER AUTHORITIES CONCERNED WITH THE SUBJECT SERVICE LOCATIONS FOR INFORMATION REGARDING SUCH. CALL DIG-SAFE AT 1-888-DIG-SAFE.



THESE COAL HATCHES OR BASEMENT ACCESS POINTS WERE IDENTIFIED ON THE 1991 SIDEWALK CONSTRUCTION PLANS, THE EVIDENCE POINTS TO THESE BEING FILLED IN AT THAT TIME, HOWEVER IF THEY ARE ENCOUNTERED, THEY WILL NEED TO BE BRICKED OFF AND FILLED IN.

THIS RAMP MAY NEED MODIFICATIONS TO BE DETERMINED BY ENGINEER

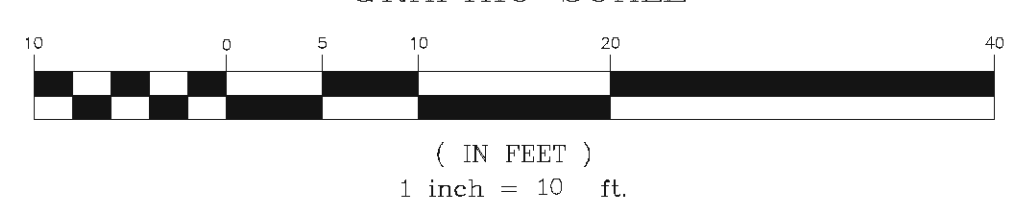
LEGEND

- | | | |
|-------------------------|-----|---------------------------|
| UTILITY POLE & GUY WIRE | ● | BOLLARD |
| LIGHT POLE (ONE ARM) | ○ | TOP STEP # (SEE TABLE) |
| SIGN | ○ | TYP. |
| PARKING METER | RD | TYPICAL ROOF DRAIN |
| FIRE HYDRANT | AS | AUTO SPRINKLER |
| GATE VALVE | AB | ALARM BELL |
| SEWER GATE VALVE | CO | CONCRETE OPENING |
| GAS GATE VALVE | EP | EDGE OF PAVEMENT |
| WATER GATE VALVE | SWL | SINGLE WHITE LINE |
| GAS SHUTOFF VALVE | VGC | VERTICAL GRANITE CURB |
| WATER SHUTOFF VALVE | DYL | DOUBLE YELLOW LINE |
| CATCH BASIN | OHW | WOOD FENCE |
| DRAIN MANHOLE | S | CHAINLINK FENCE |
| SEWER MANHOLE | D | OVERHEAD WIRES |
| MANHOLE | U | SEWER LINE |
| | G | DRAIN LINE |
| | W | UNDERGROUND UTILITIES |
| | E | GAS LINE |
| | | WATER LINE |
| | | UNDERGROUND ELECTRIC LINE |
| CONCRETE | ▬▬▬ | CROSSWALK |
| BRICK | ▬▬▬ | CONTOUR LINE |
| LANDSCAPED AREA | ▬▬▬ | |
| COBBLE STONE | ▬▬▬ | |
| GRANITE | ▬▬▬ | |
| LEDGE OUTCROP | ▬▬▬ | |

PROPOSED DRAINAGE

- | | |
|---|---|
| CB 1
RM ELEV.=16.1'
OUT 12" RCP=9.85' | MDMH 1
RM ELEV.=28.1'
OUT 8" PVC=24.6' |
| CB 2
RM ELEV.=16.0'
OUT 12" RCP=11.05' | MDMH 2
RM ELEV.=29.7'
OUT 8" PVC=23.7' |
| CB 3
RM ELEV.=14.2'
OUT 12" PVC=9.0' | D1
RM ELEV.=22.5'
INV. 8" PVC=18.5' |
| CB 4
RM ELEV.=14.2'
OUT 12" PVC=9.0' | D2
RM ELEV.=21.9'
INV. 8" PVC=19.4' |
| CB 5
RM ELEV.=14.2'
IN 12" PVC 8.5'
OUT 10" RCP=8.2' | D3
RM ELEV.=24.6'
INV. 8" PVC=21.0' |
| CB 6
RM ELEV.=30.2'
OUT 8" PVC=24.0' | D4
RM ELEV.=24.0'
INVS. 8-10" PVC=21.3' |
| DMH 1
RM ELEV.=14.5'
INV. 18" RCP=7.2' | |
| DMH 2
RM ELEV.=14.3'
INV. 12" PVC=7.0' | |
| DMH 3 (NO SUMP)
RM ELEV.=18.7'
INV. IN 12" PVC=11.0'
INV. OUT 12" PVC=7.5' | |
| DMH 4
RM ELEV.=22.6'
INV. 12" PVC=16.5' | |
| DMH 5
RM ELEV.=24.2'
INVS. IN 8-10" PVC=20.25'
INV. OUT 12" PVC=18.0' | |
| DMH 6
RM ELEV.=30.4'
INV. 12" PVC=23.0' | |

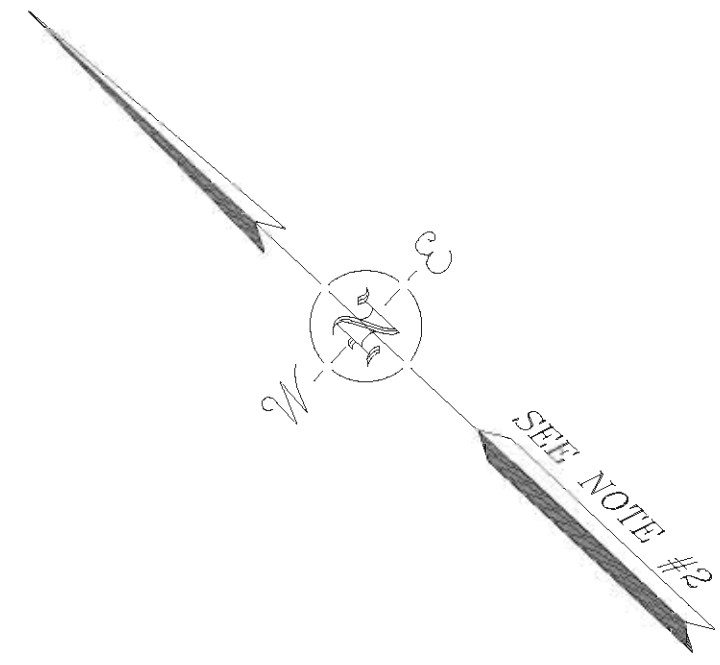
GRAPHIC SCALE



**MARKET STREET
STREETSCAPE IMPROVEMENTS
LAYOUT PLAN**

DEPARTMENT OF
PUBLIC WORKS
CITY OF PORTSMOUTH, NH

NO.	DATE	DESCRIPTION	BY

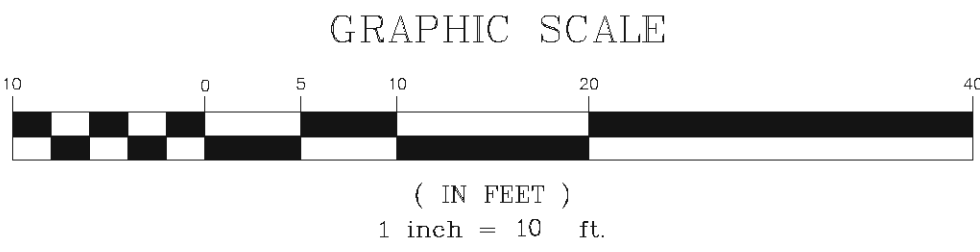
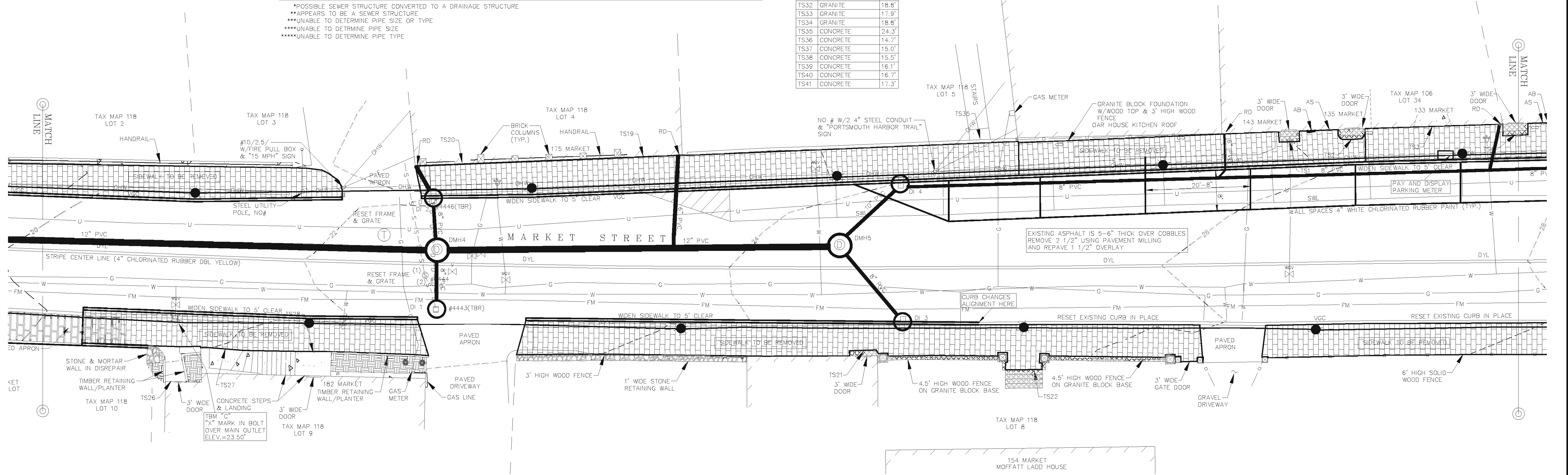
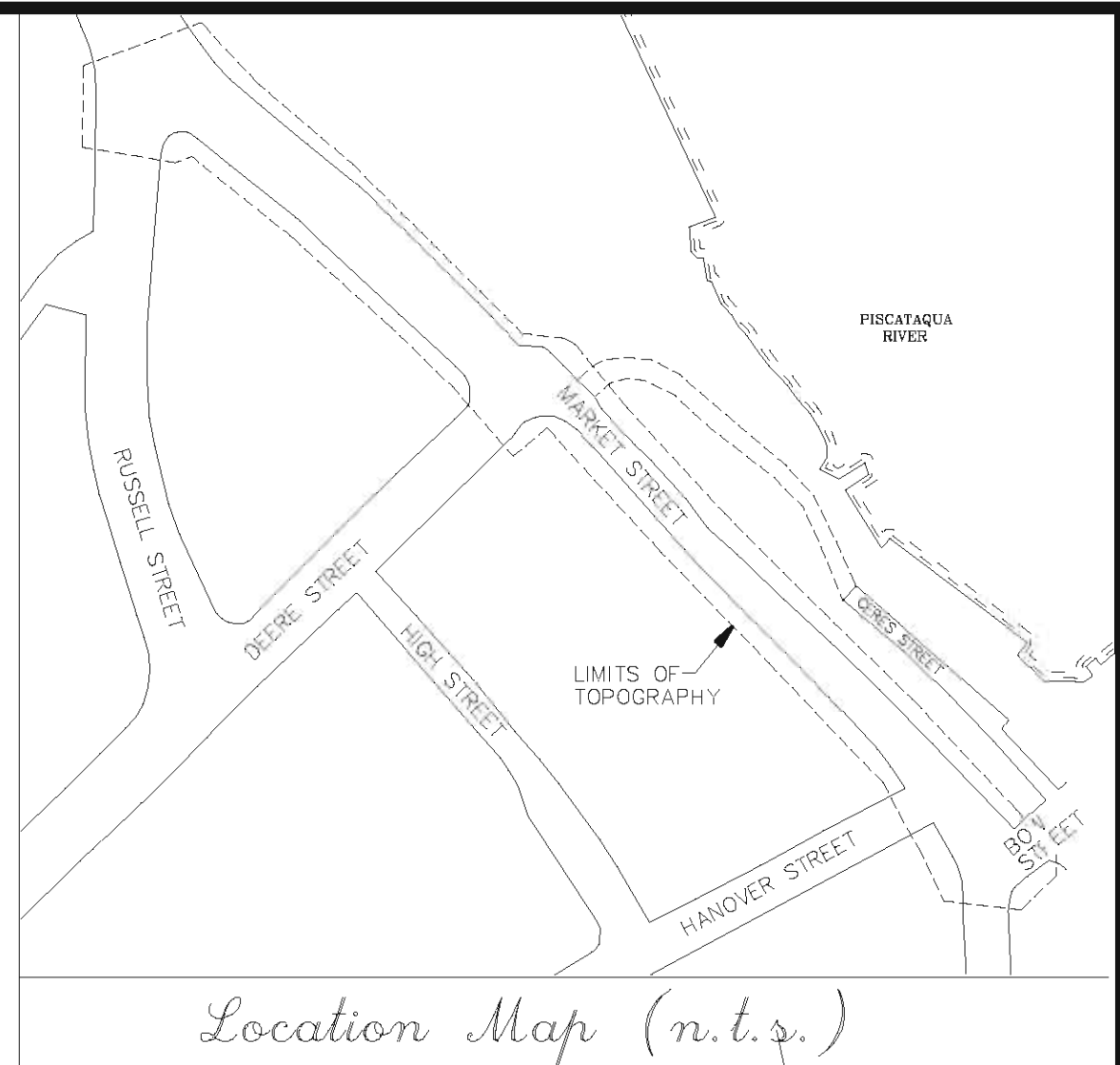


SEWER & DRAINAGE STRUCTURE TABLE			
DMH #4198 RIM ELEV.=28.5' INVS.=22.63'	SMH #4444 RIM ELEV.=22.6' (1) 6" CLAY=18.7' (2) 6" CLAY=18.9'	SMH #4631 RIM ELEV.=15.2' (1) 8" CLAY=9.1' (2) INV.=2.7*** (3) INV.=2.7*** (4) 8" CLAY=2.4'	MH #4640 RIM ELEV.=14.2' (1) 15" RCP=7.8' (2) 18" RCP=6.7' (3) 18" RCP=6.6' APPEARS TO CONNECT TO SMH #4635
SMH #4204* RIM ELEV.=30.2' (1) 12" CLAY=23.4' (2) 12" CLAY=23.3' (3) 12" CMP=25.0'	CB #4446 RIM ELEV.=22.0' 8" BROKEN PIPE=19.6' FULL OF WATER SUMP=18.8'	MH #4633 RIM ELEV.=14.3' FILLED DEBRIS	SMH #5059 RIM ELEV.=16.4' (1) 12" STEEL=7.9' (2) 24"=4.4'**** (3) 24"=4.2'****
CB #4205 RIM ELEV.=29.8' 3" PVC=29.2'	SMH #4475 RIM ELEV.=15.6' (1) INV.=2.0'*** (2) INV.=2.5'*** (3) INV.=2.2'*** (4) INV.=2.6'***	SMH #4634 RIM ELEV.=14.2' (1) DIP**** (2) DIP**** BOTH RECESSED UNABLE TO MEASURE (3) 24" HOLE=8.9'	DMH #5274 RIM ELEV.=15.3' (1) 12" RCP=9.6' (2) 15" RCP=9.3' (3) 15" RCP=10.6'
CB #4207 RIM ELEV.=30.4' (1) 12" PVC=25.7' (2) 12" PVC=25.7' (3) 12" CPP=25.9' (4) 4" PVC=27.1'	SMH #4476 RIM ELEV.=14.5' (1) INV.=2.5'*** (2) 24" RCP=2.5' (3) 24" RCP=2.2' (4) 4" PVC=27.1'	SMH #4635 RIM ELEV.=14.1' (1) 12" RCP=7.9' (2) 12" RCP=9.1' (3) 18" RCP=5.8' (4) 24"=5.7'	CB #5161 RIM ELEV.=15.8' OUT 12" RCP=9.9'
CB #4208 RIM ELEV.=30.5' (1) 12" CPP=26.6' W/HOOD (2) 8" PVC=26.7'	SMH #4507 RIM ELEV.=13.9' OUT 12" RCP=10.2'	SMH #4636 RIM ELEV.=14.2' (1) 24"=3.8'**** (2) 15"=3.5'****	SMH #5176 RIM ELEV.=15.5' (1) 6" PVC=10.3' (2) 6" PVC=11.1' (3) 12" PVC=6.3' (4) 6" PVC=6.3'
SMH #4232 RIM ELEV.=30.2' FORCED MAIN 2" METAL VENT PIPE=27.8'	CB #4508 RIM ELEV.=14.2' (1) 15" RCP=8.4' (2) 12" RCP=9.1' (3) 8" RCP=9.7'	SMH #4638 RIM ELEV.=14.3' (1) 8" CLAY RECESSED UNABLE TO MEASURE (2) INV.=2.3'*** (3) 24" RCP=3.1' (4) DIP=7.0'****	DMH #5292 RIM ELEV.=15.2' (1) 12" RCP=10.4' (2) 12" RCP=10.4'
CB #4236 RIM ELEV.=30.4' (1) 8" PVC=27.0' (2) 12" PVC=27.0'	CB #4519 RIM ELEV.=13.3' NO PIPES VISIBLE WATER LEVEL=9.7'	DMH #5293 RIM ELEV.=15.2' (1) 24" CONC=4.1' (2) 24" CONC=3.9' (3) 18" STEEL=5.4'	DMH #5294 RIM ELEV.=14.1' OUT 12" RCP=10.5'
CB #4438 RIM ELEV.=14.2' 8" PVC=11.6'	MH #4568** RIM ELEV.=14.8' (1) 8" CLAY=10.5' (2) 8" CLAY=10.6' 6" PVC=19.2'	CB #5056 RIM ELEV.=15.7' OUT 12" RCP=11.1'	CB #5243 RIM ELEV.=14.3' OUT 12" RCP=10.9'
CB #4443 RIM ELEV.=22.5' 6" PVC=19.2'		DMH #5261 RIM ELEV.=15.1' (1) 8" STEEL=7.8' (2) 8" STEEL=8.0'	

*POSSIBLE SEWER STRUCTURE CONVERTED TO A DRAINAGE STRUCTURE
 **APPEARS TO BE A SEWER STRUCTURE
 ***UNABLE TO DETERMINE PIPE SIZE OR TYPE
 ****UNABLE TO DETERMINE PIPE SIZE
 *****UNABLE TO DETERMINE PIPE TYPE

STEP TABLE		
STEP	TYPE	ELEV.
TS1	GRANITE	26.6'
TS2	GRANITE	26.6'
TS3	CONCRETE	27.4'
TS4	GRANITE	28.3
TS5	GRANITE	29.8'
TS6	WOOD	30.4'
TS7	GRANITE	30.8'
TS8	GRANITE	30.7'
TS9	GRANITE	30.8'
TS10	GRANITE	31.1'
TS11	CONCRETE	30.8'
TS12	GRANITE	31.0'
TS13	GRANITE	30.8'
TS14	GRANITE	31.0'
TS15	GRANITE	31.0'
TS16	CONCRETE	30.6'
TS17	CAST IRON	30.9'
TS18	GRANITE	30.6'
TS19	GRANITE	24.0'
TS20	CONCRETE	24.0'
TS21	GRANITE	25.4'
TS22	GRANITE	26.1'
TS23	CONCRETE	17.8'
TS24	GRANITE	18.0'
TS25	CONCRETE	18.5'
TS26	METAL THRESHOLD	22.5'
TS27	CONCRETE	22.1'
TS28	WOOD THRESHOLD	23.1'
TS29	GRANITE	18.1'
TS30	GRANITE	18.8'
TS31	GRANITE	18.1'
TS32	GRANITE	18.8'
TS33	GRANITE	17.9'
TS34	GRANITE	18.8'
TS35	CONCRETE	24.3'
TS36	CONCRETE	14.7'
TS37	CONCRETE	15.0'
TS38	CONCRETE	15.5'
TS39	CONCRETE	16.1'
TS40	CONCRETE	16.7'
TS41	CONCRETE	17.3'

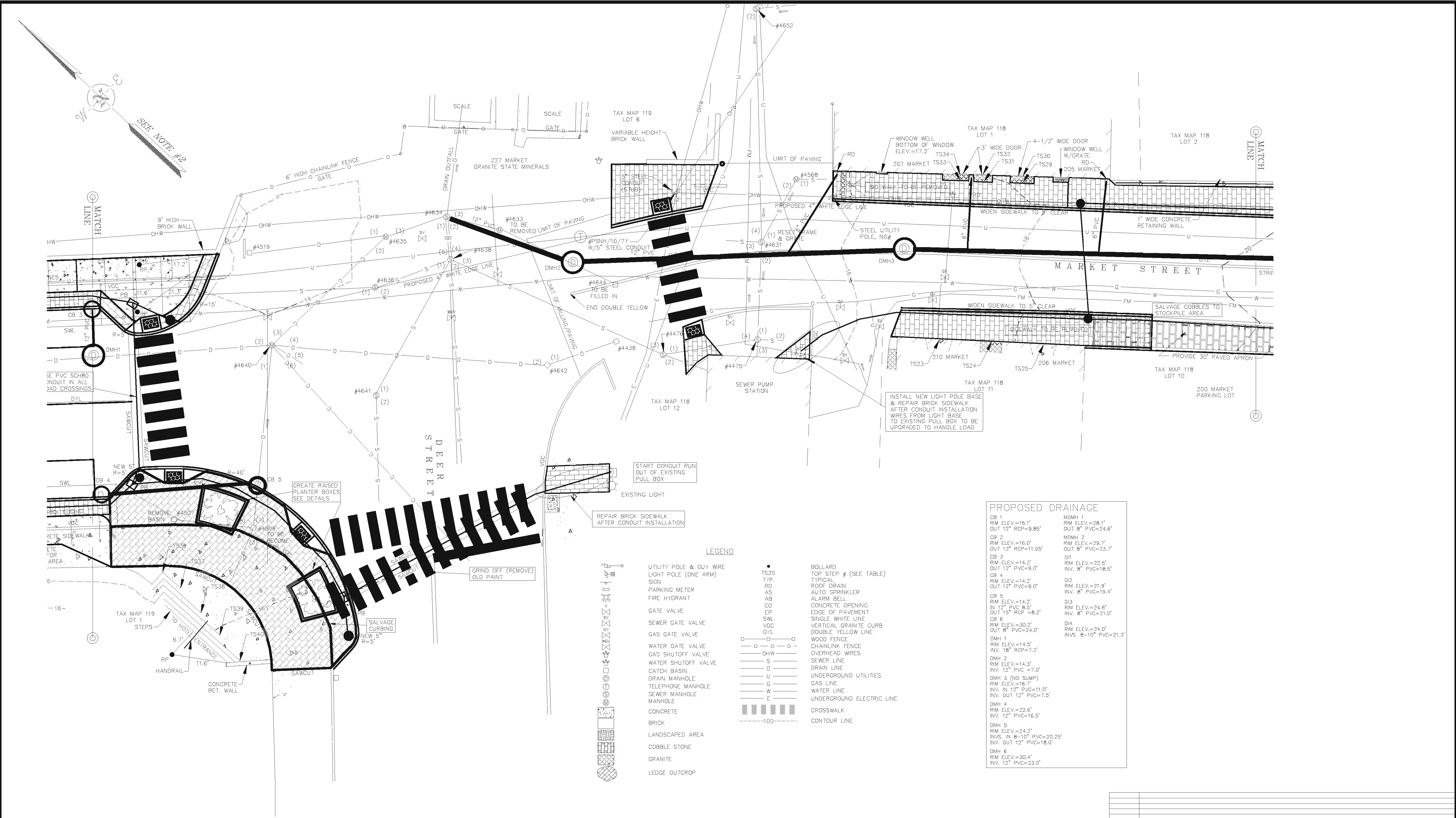
LEGEND	
UTILITY POLE & GUY WIRE	●
LIGHT POLE (ONE ARM)	○
SIGN	□
PARKING METER	○
FIRE HYDRANT	○
GATE VALVE	○
SEWER GATE VALVE	○
GAS GATE VALVE	○
WATER GATE VALVE	○
GAS SHUTOFF VALVE	○
WATER SHUTOFF VALVE	○
CATCH BASIN	○
DRAIN MANHOLE	○
TELEPHONE MANHOLE	○
SEWER MANHOLE	○
MANHOLE	○
CONCRETE	■
BRICK	■
LANDSCAPED AREA	■
COBBLE STONE	■
GRANITE	■
LEDGE OUTCROP	■
TS20 TYP.	○
RD	—
AS	—
AB	—
CO	—
EP	—
SWL	—
VCC	—
DYL	—
OHW	—
S	—
D	—
U	—
G	—
W	—
E	—
CROSSWALK	—
CONTOUR LINE	—
BOLLARD	●
TOP STEP # (SEE TABLE)	○
TYPICAL ROOF DRAIN	○
AUTO SPRINKLER	○
ALARM BELL	○
CONCRETE OPENING	○
EDGE OF PAVEMENT	—
SINGLE WHITE LINE	—
VERTICAL GRANITE CURB	—
DOUBLE YELLOW LINE	—
WOOD FENCE	—
CHAINLINK FENCE	—
OVERHEAD WIRES	—
SEWER LINE	—
DRAIN LINE	—
UNDERGROUND UTILITIES	—
GAS LINE	—
WATER LINE	—
UNDERGROUND ELECTRIC LINE	—



NO.	DATE	DESCRIPTION	BY



MARKET STREET
 STREETScape IMPROVEMENTS
 LAYOUT PLAN
 DEPARTMENT OF
 PUBLIC WORKS
 CITY OF PORTSMOUTH, NH

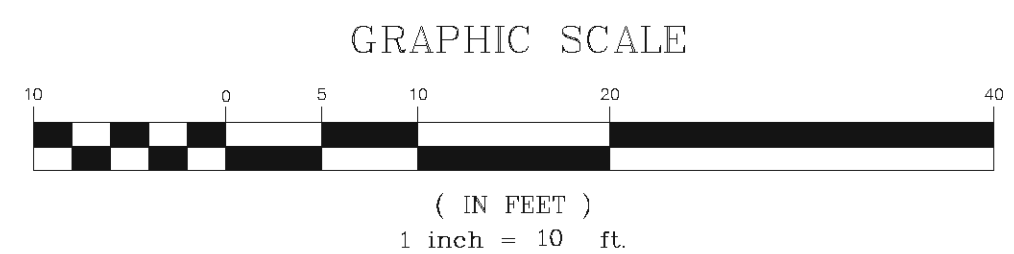


SPR. NOTE #2

PROPOSED DRAINAGE

CB 1 RIM ELEV.=16.1' OUT 12" RCP=9.85'	MDMH 1 RIM ELEV.=28.1' OUT 8" PVC=24.6'
CB 2 RIM ELEV.=16.0' OUT 12" RCP=11.05'	MDMH 2 RIM ELEV.=29.7' OUT 8" PVC=23.7'
CB 3 RIM ELEV.=14.2' OUT 12" PVC=9.0'	D11 RIM ELEV.=22.5' INV. 8" PVC=18.5'
CB 4 RIM ELEV.=14.2' OUT 15" RCP=8.2'	D12 RIM ELEV.=21.9' INV. 8" PVC=19.4'
CB 5 RIM ELEV.=14.2' IN 12" PVC 8.5' OUT 15" RCP=8.2'	D13 RIM ELEV.=24.6' INV. 8" PVC=21.0'
CB 6 RIM ELEV.=30.2' OUT 8" PVC=24.0'	D14 RIM ELEV.=24.0' INVS. 8-10" PVC=21.3'
DMH 1 RIM ELEV.=14.5' INV. 18" RCP=7.2'	
DMH 2 RIM ELEV.=14.3' INV. 12" PVC=7.0'	
DMH 3 (NO SUMP) RIM ELEV.=16.7' INV. IN 12" PVC=11.0' INV. OUT 12" PVC=7.5'	
DMH 4 RIM ELEV.=22.6' INV. 12" PVC=16.5'	
DMH 5 RIM ELEV.=24.2' INVS. IN 8-10" PVC=20.25' INV. OUT 12" PVC=18.0'	
DMH 6 RIM ELEV.=30.4' INV. 12" PVC=23.0'	

- LEGEND**
- UTILITY POLE & GUY WIRE
 - LIGHT POLE (ONE ARM)
 - SIGN
 - PARKING METER
 - FIRE HYDRANT
 - GATE VALVE
 - SEWER GATE VALVE
 - GAS GATE VALVE
 - WATER GATE VALVE
 - GAS SHUTOFF VALVE
 - WATER SHUTOFF VALVE
 - CATCH BASIN
 - DRAIN MANHOLE
 - TELEPHONE MANHOLE
 - SEWER MANHOLE
 - MANHOLE
 - CONCRETE
 - BRICK
 - LANDSCAPED AREA
 - COBBLE STONE
 - GRANITE
 - LEDGE OUTCROP

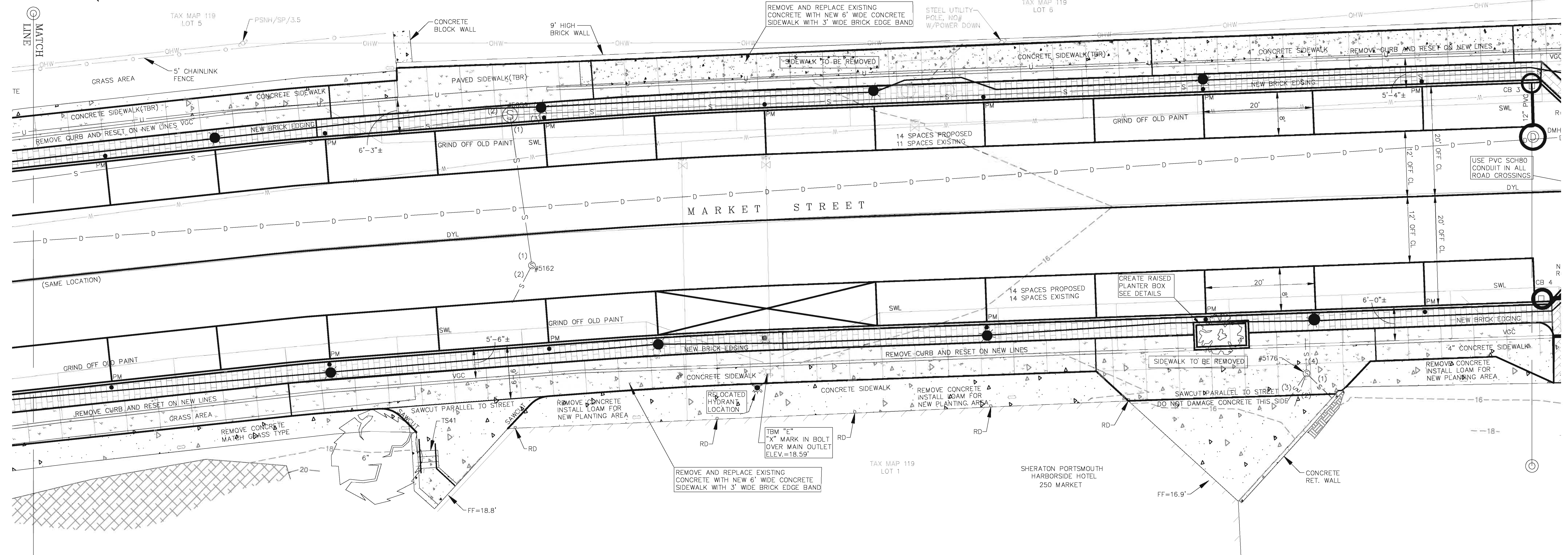
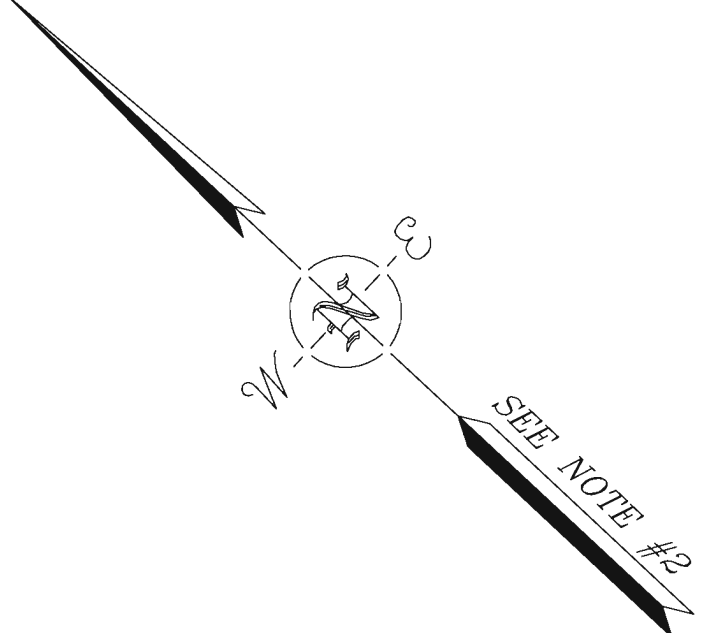


NO.	DATE	DESCRIPTION	BY



**MARKET STREET
STREETSCAPE IMPROVEMENTS
LAYOUT PLAN**

DEPARTMENT OF
PUBLIC WORKS
CITY OF PORTSMOUTH, NH



MATCH LINE

MATCH LINE

(SAME LOCATION)

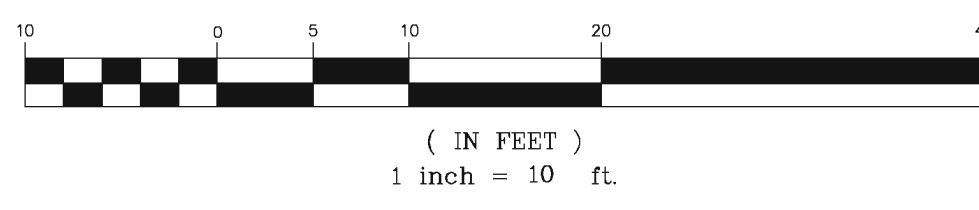
MARKET STREET

SHERATON PORTSMOUTH HARBORSIDE HOTEL
250 MARKET

LEGEND

- | | | |
|-------------------------|---|---------------------------|
| UTILITY POLE & GUY WIRE | ● | BOLLARD |
| LIGHT POLE (ONE ARM) | ○ | TOP STEP # (SEE TABLE) |
| SIGN | ○ | TYPICAL |
| PARKING METER | ○ | RD |
| FIRE HYDRANT | ○ | ROOF DRAIN |
| GATE VALVE | ○ | AS |
| SEWER GATE VALVE | ○ | AUTO SPRINKLER |
| GAS GATE VALVE | ○ | AB |
| WATER GATE VALVE | ○ | ALARM BELL |
| GAS SHUTOFF VALVE | ○ | CO |
| WATER SHUTOFF VALVE | ○ | CONCRETE OPENING |
| CATCH BASIN | ○ | EP |
| DRAIN MANHOLE | ○ | EDGE OF PAVEMENT |
| TELEPHONE MANHOLE | ○ | SWL |
| SEWER MANHOLE | ○ | SINGLE WHITE LINE |
| MANHOLE | ○ | VGC |
| CONCRETE | ■ | VERTICAL GRANITE CURB |
| BRICK | ■ | DOUBLE YELLOW LINE |
| LANDSCAPED AREA | ■ | WOOD FENCE |
| COBBLE STONE | ■ | CHAINLINK FENCE |
| GRANITE | ■ | OVERHEAD WIRES |
| LEDGE OUTCROP | ■ | S |
| | ■ | SEWER LINE |
| | ■ | D |
| | ■ | DRAIN LINE |
| | ■ | U |
| | ■ | UNDERGROUND UTILITIES |
| | ■ | G |
| | ■ | GAS LINE |
| | ■ | W |
| | ■ | WATER LINE |
| | ■ | E |
| | ■ | UNDERGROUND ELECTRIC LINE |
| | ■ | CROSSWALK |
| | ■ | CONTOUR LINE |

GRAPHIC SCALE

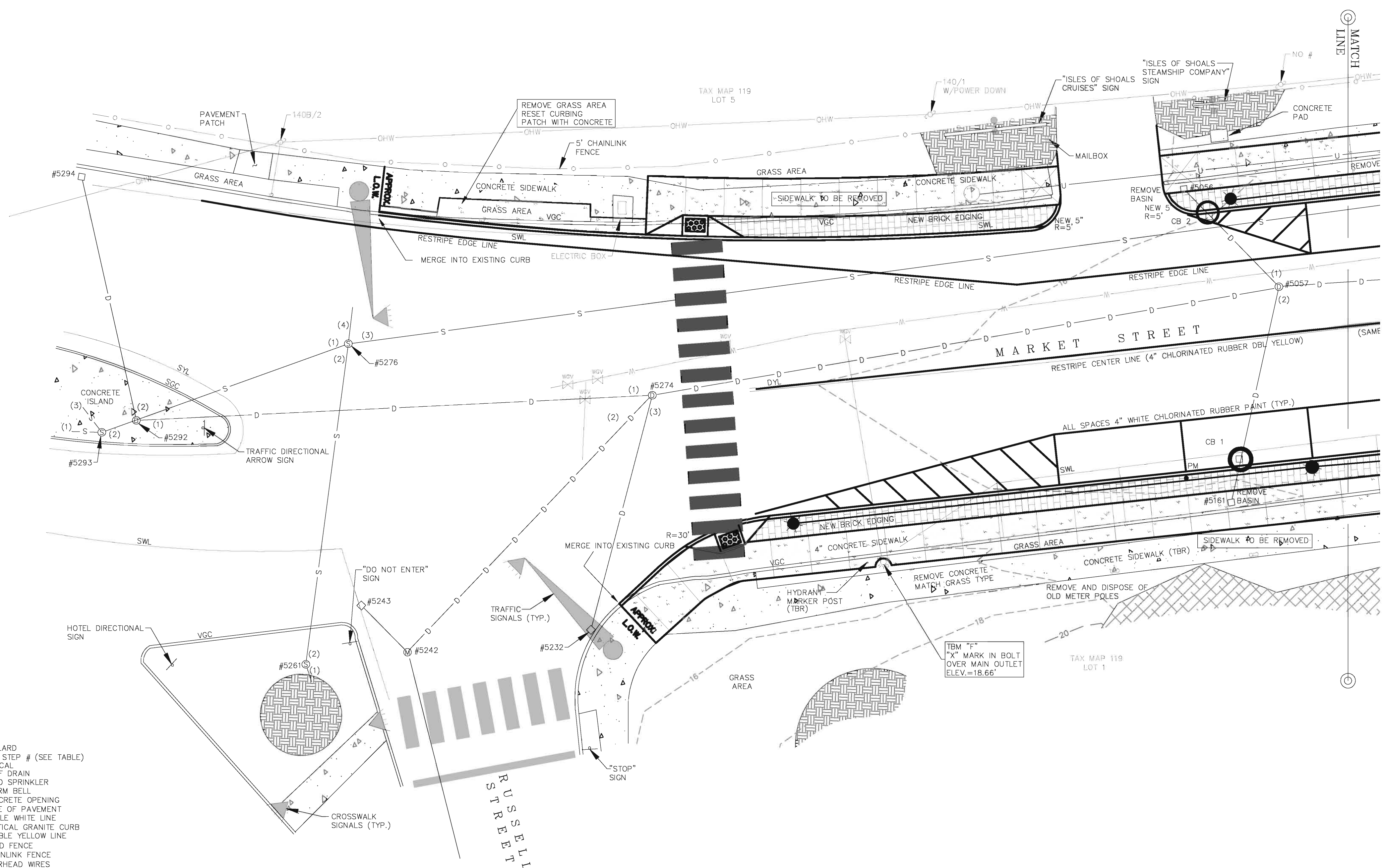
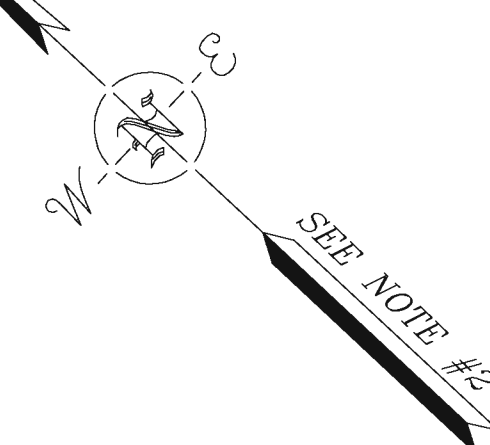


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MARKET STREET
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LAYOUT PLAN

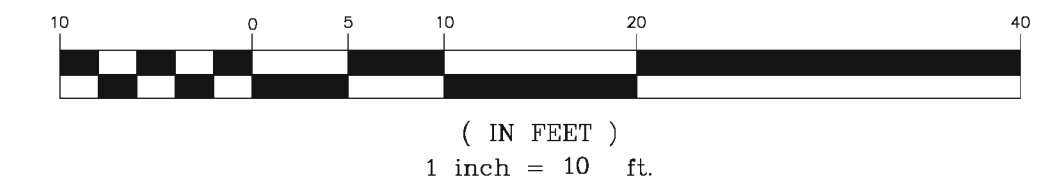
DEPARTMENT OF
PUBLIC WORKS
CITY OF PORTSMOUTH, NH



LEGEND

- | | |
|---|---|
| <ul style="list-style-type: none"> UTILITY POLE & GUY WIRE LIGHT POLE (ONE ARM) SIGN PARKING METER FIRE HYDRANT GATE VALVE SEWER GATE VALVE GAS GATE VALVE WATER GATE VALVE GAS SHUTOFF VALVE WATER SHUTOFF VALVE CATCH BASIN DRAIN MANHOLE TELEPHONE MANHOLE SEWER MANHOLE MANHOLE CONCRETE BRICK LANDSCAPED AREA COBBLE STONE GRANITE LEDGE OUTCROP | <ul style="list-style-type: none"> TS20 TYP. RD AS AB CO EP SWL VGC DYL WOOD FENCE CHAINLINK FENCE OVERHEAD WIRES SEWER LINE DRAIN LINE UNDERGROUND UTILITIES GAS LINE WATER LINE UNDERGROUND ELECTRIC LINE CROSSWALK CONTOUR LINE |
|---|---|

GRAPHIC SCALE

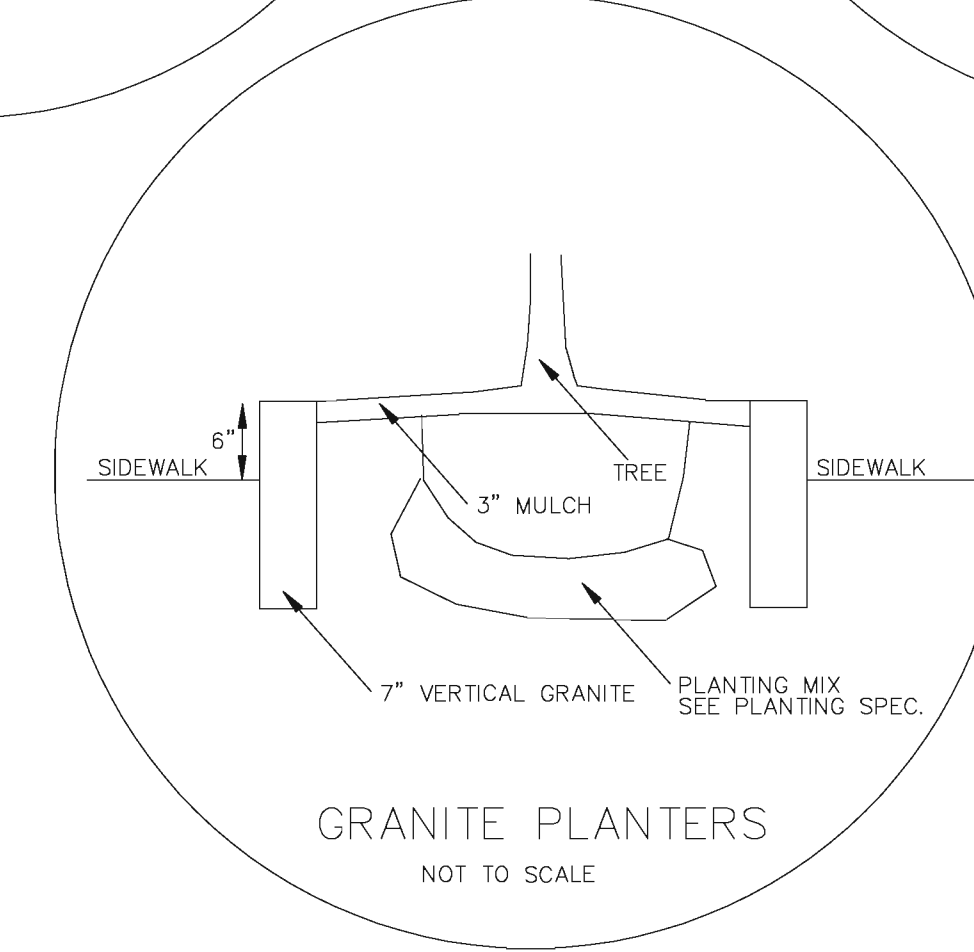
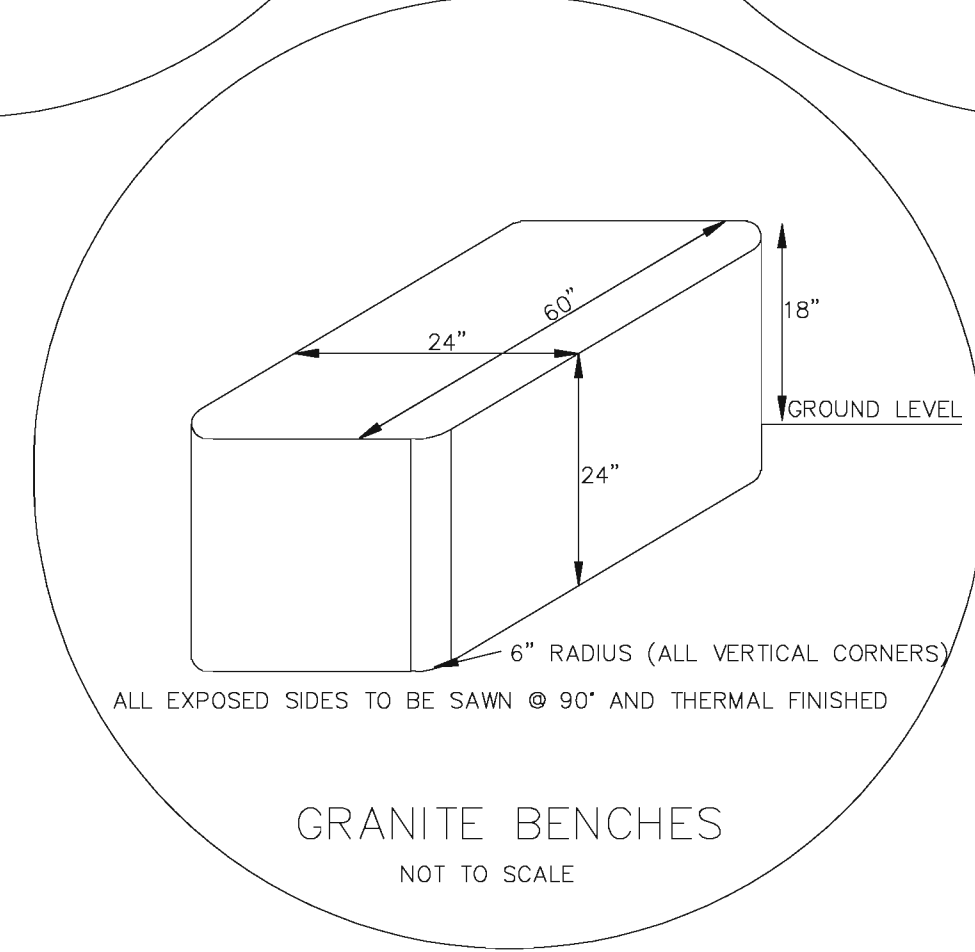
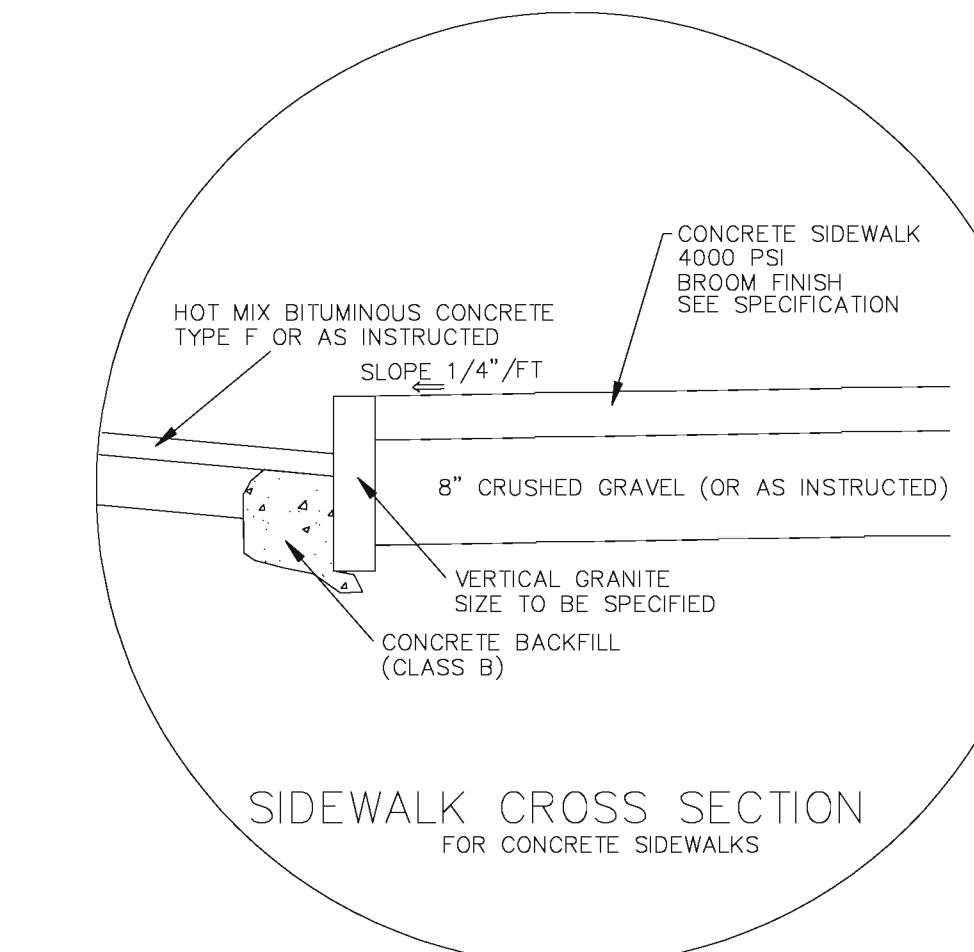
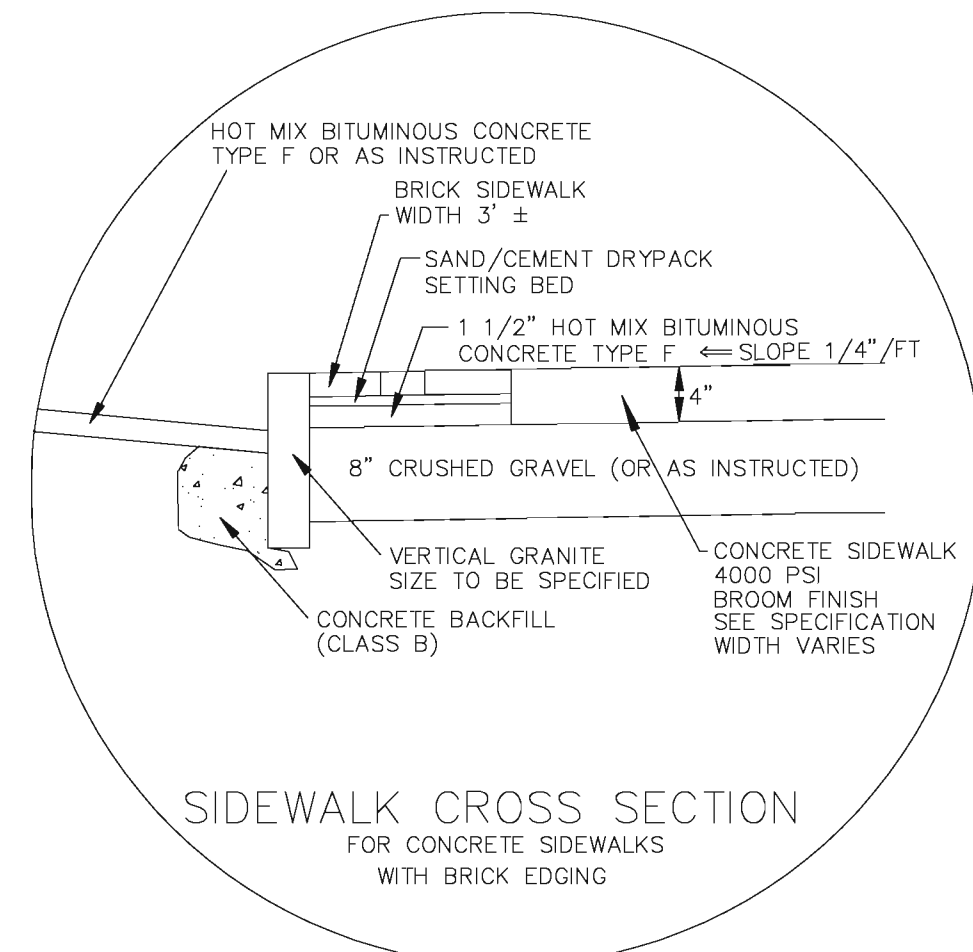
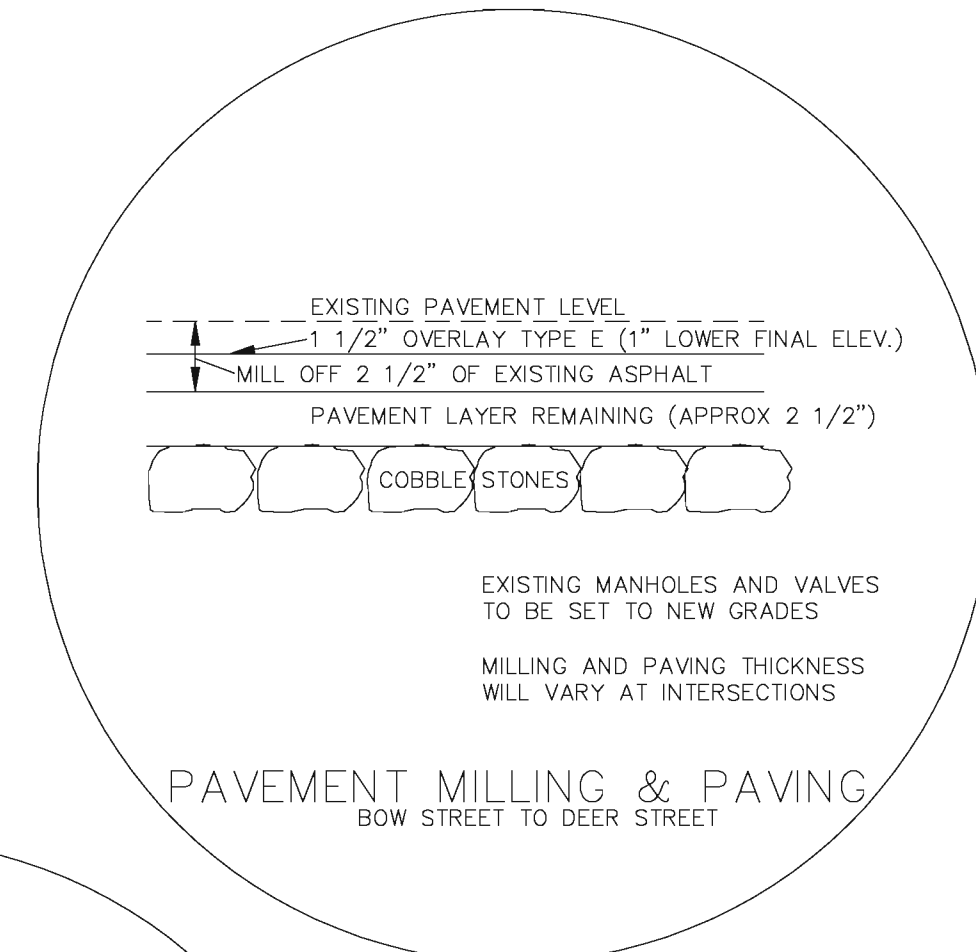
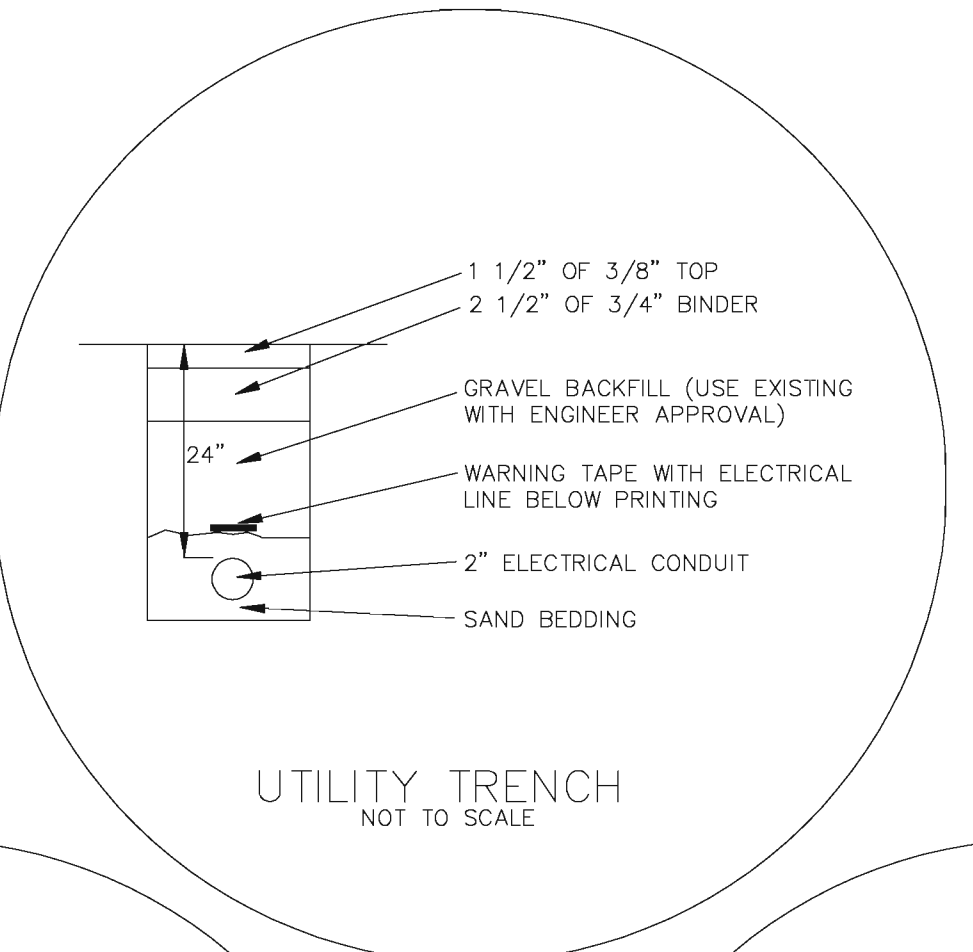
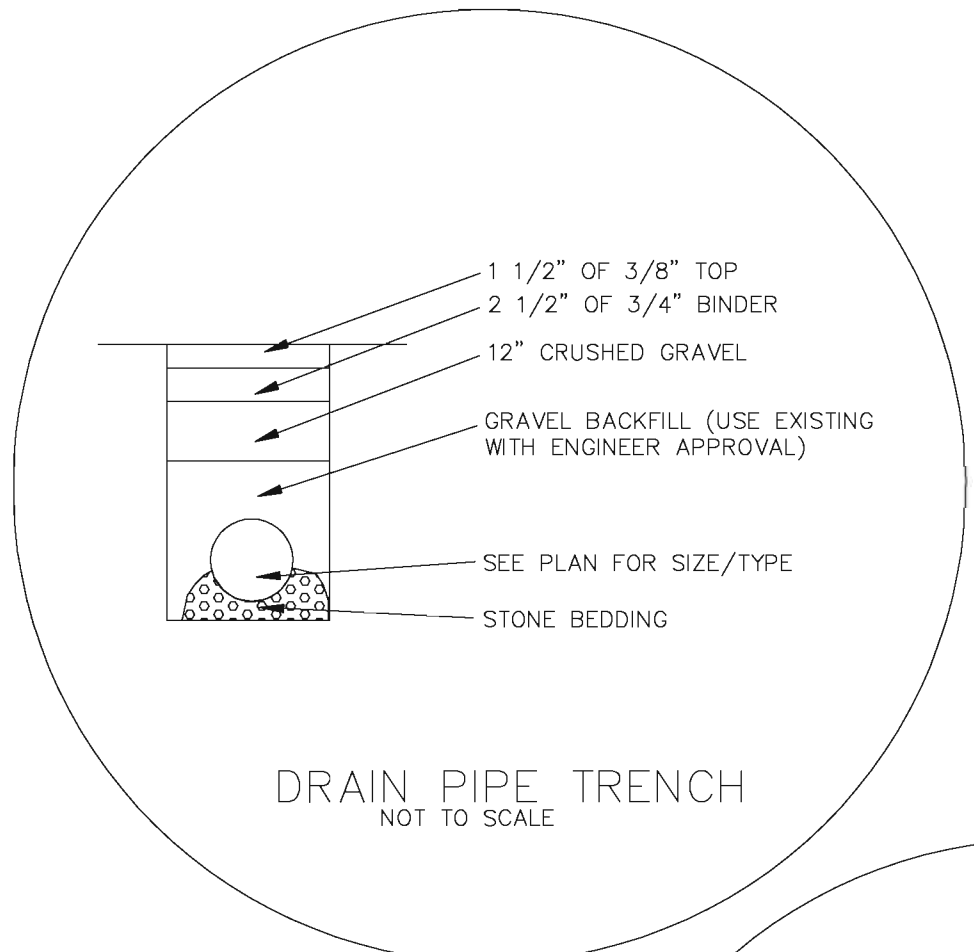
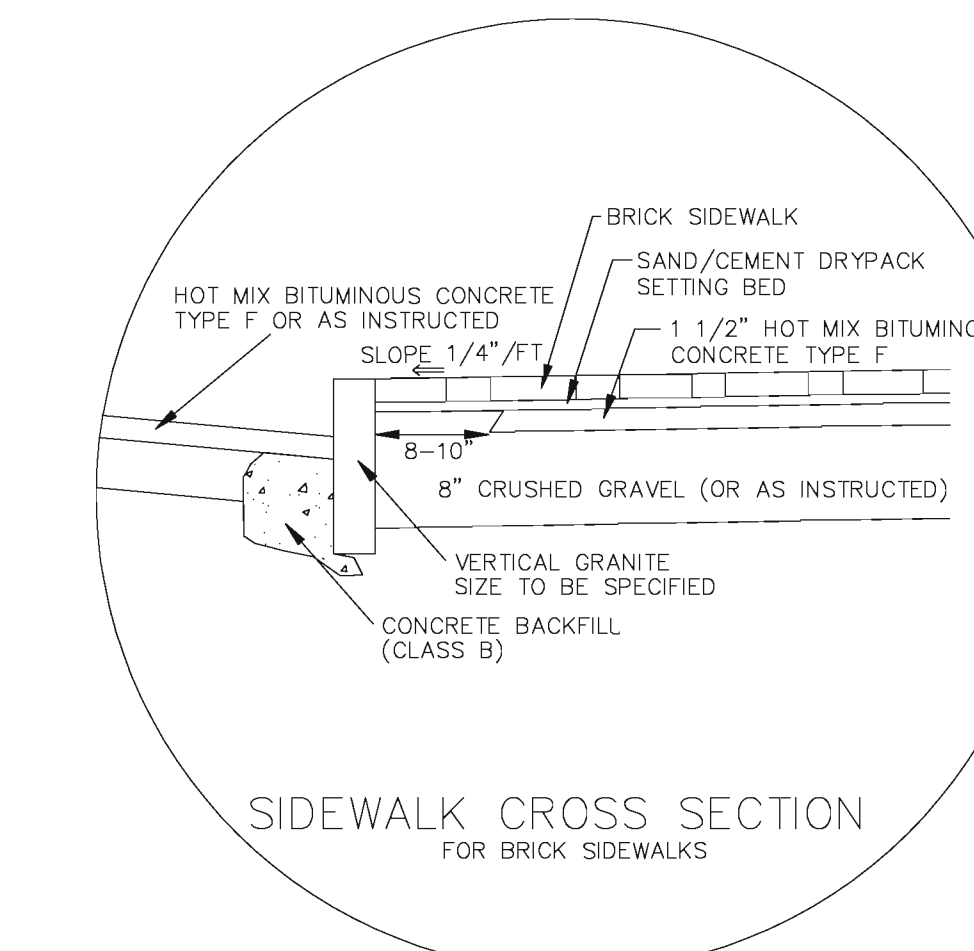
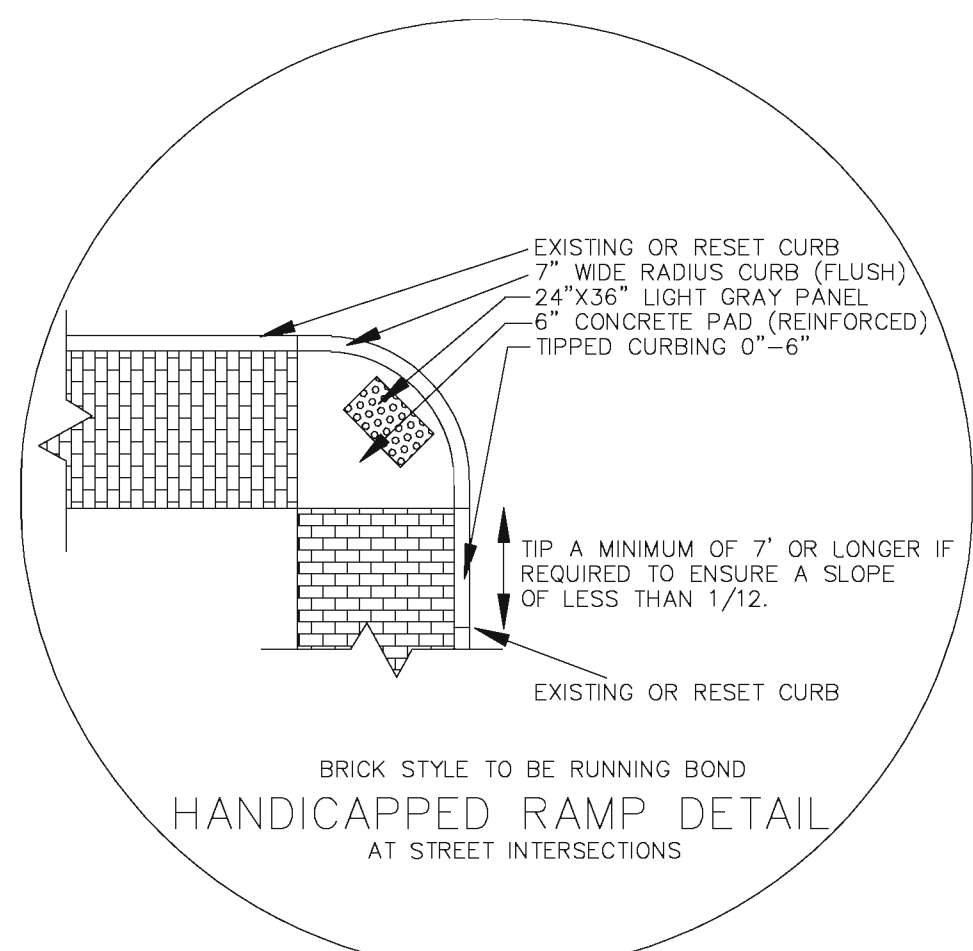
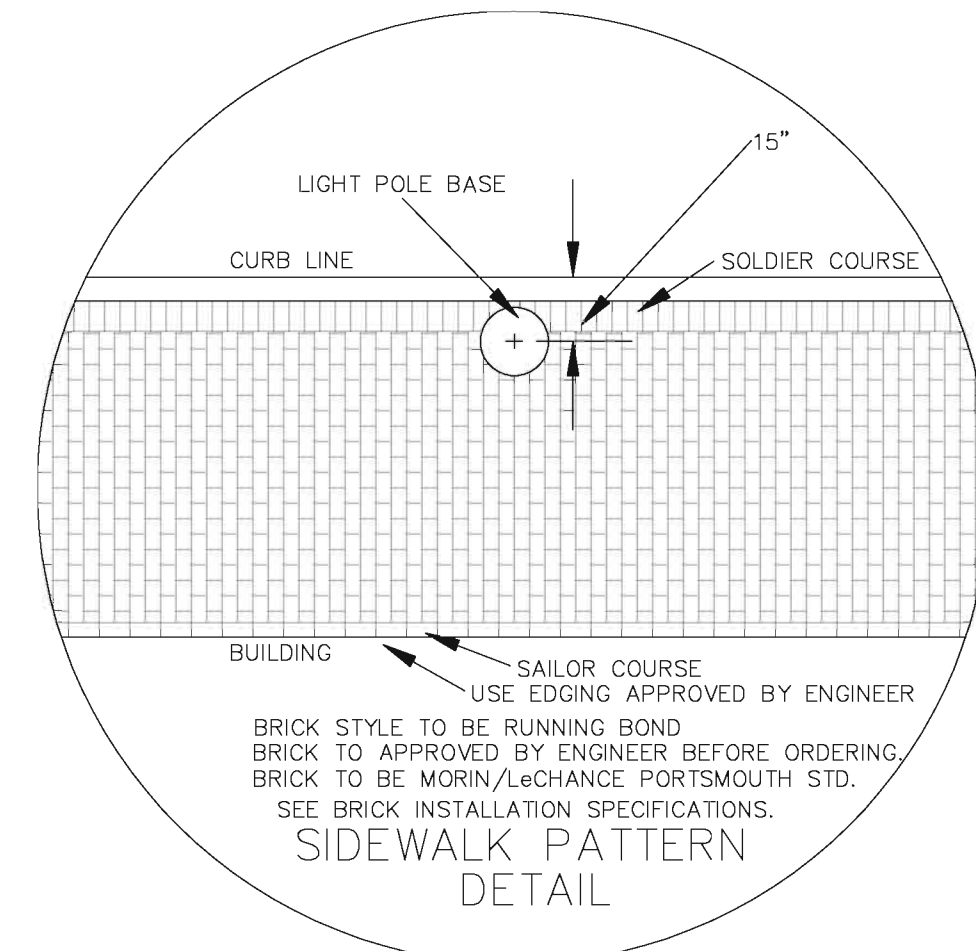
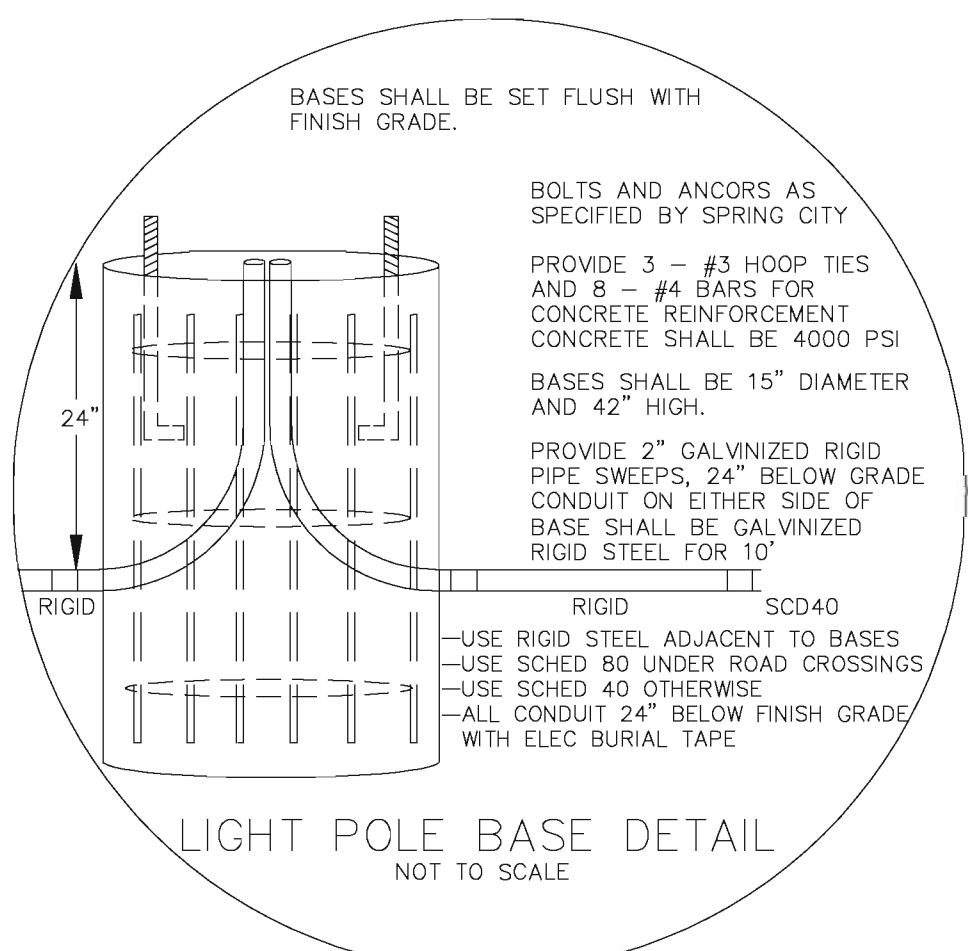
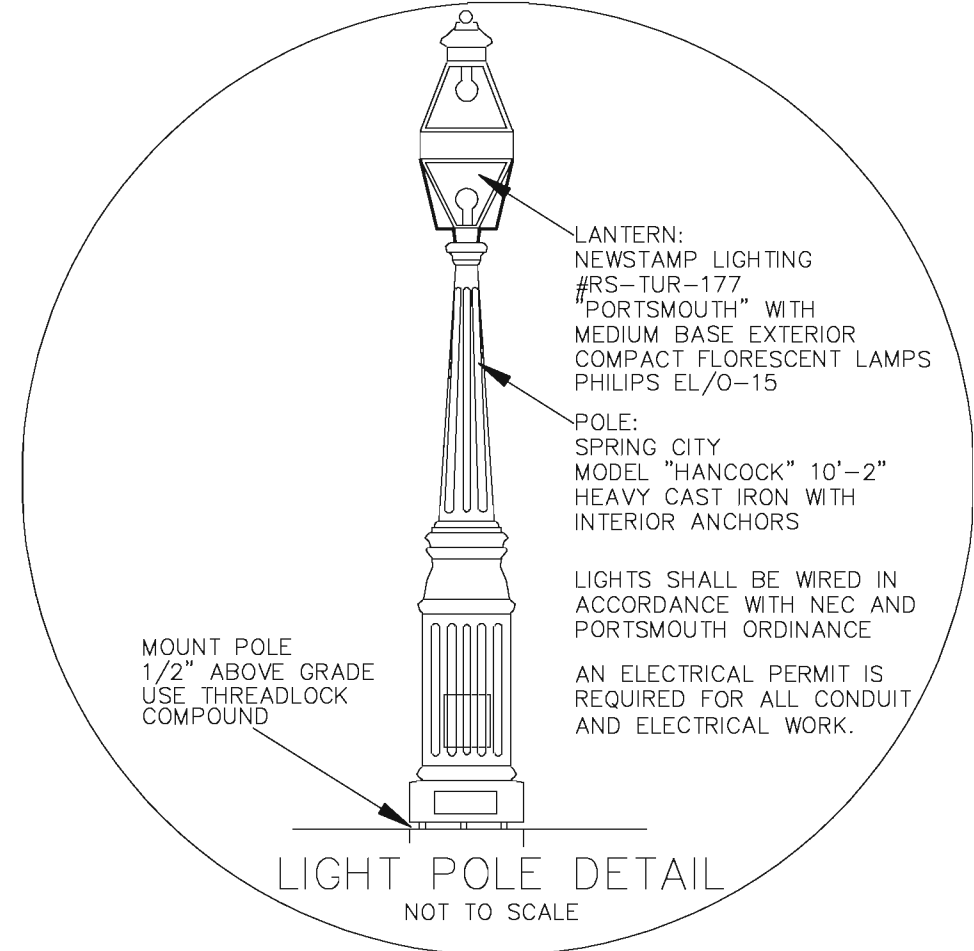
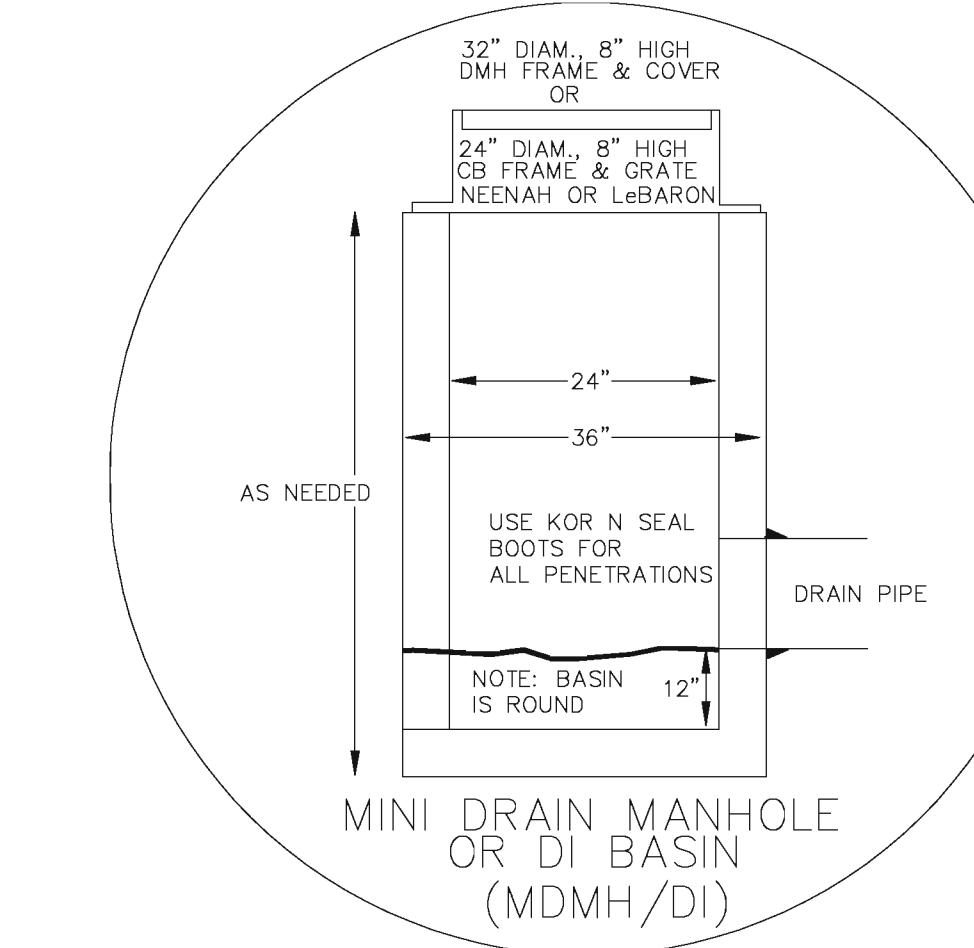
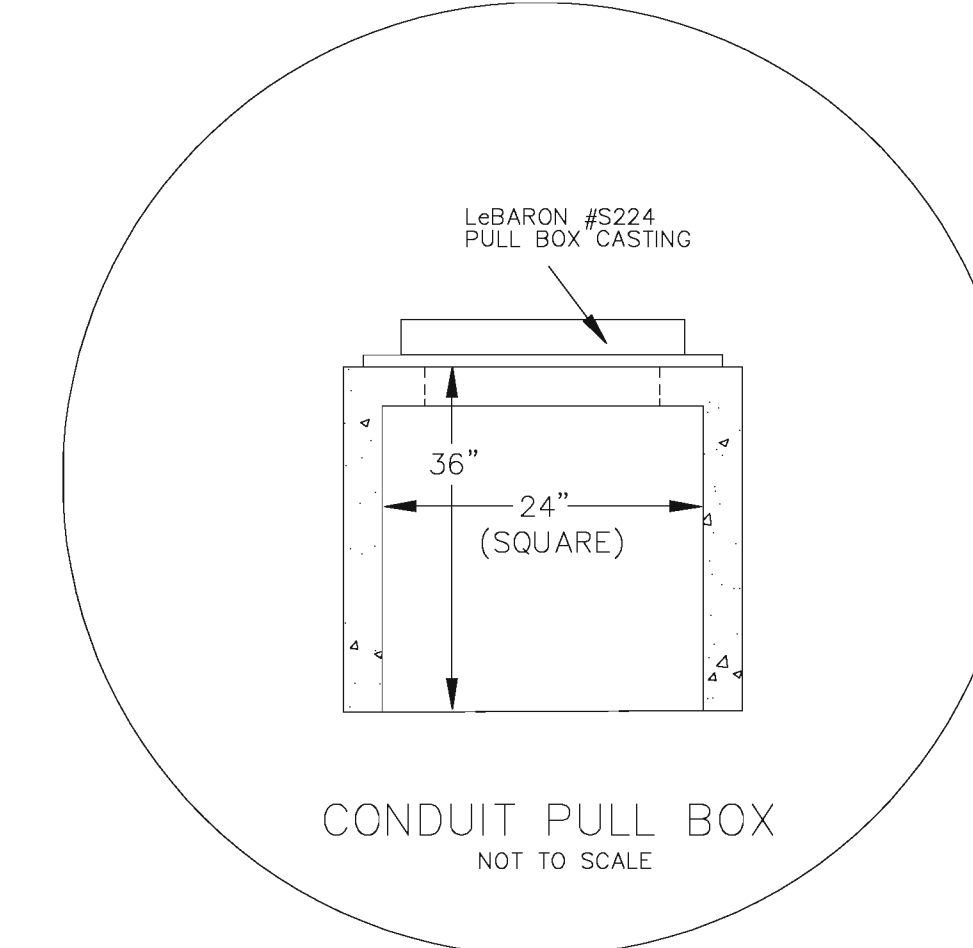
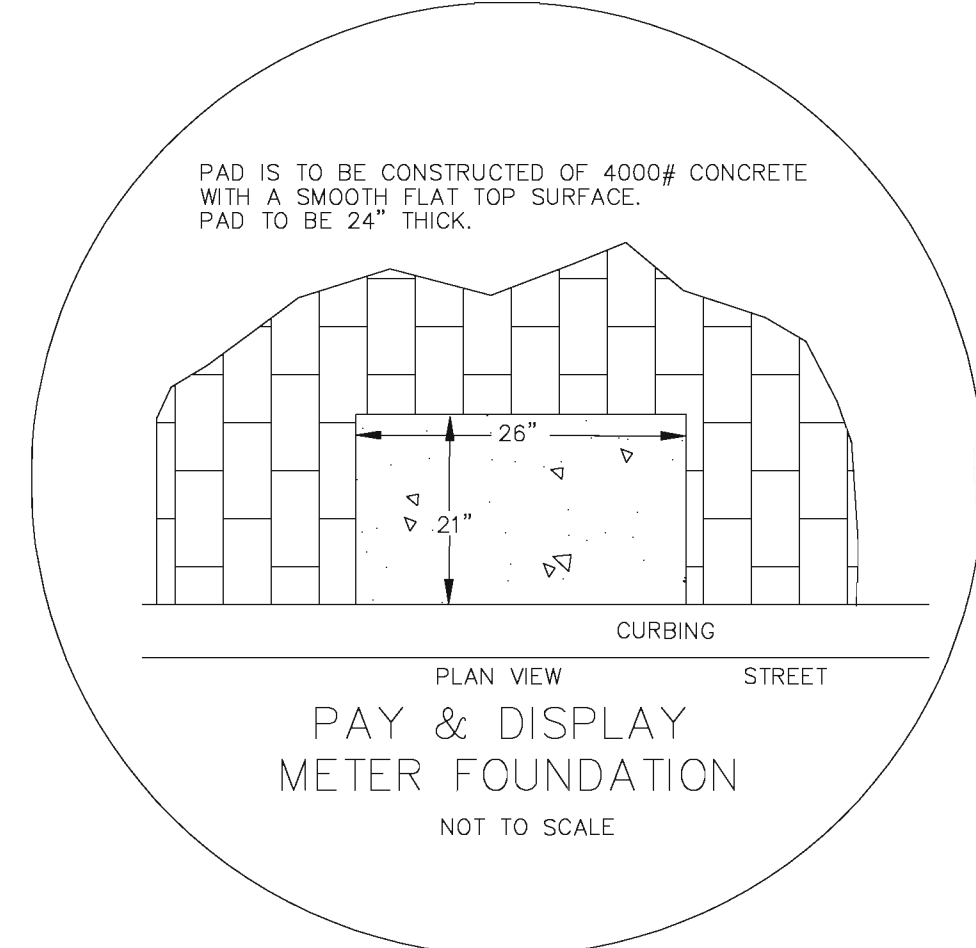
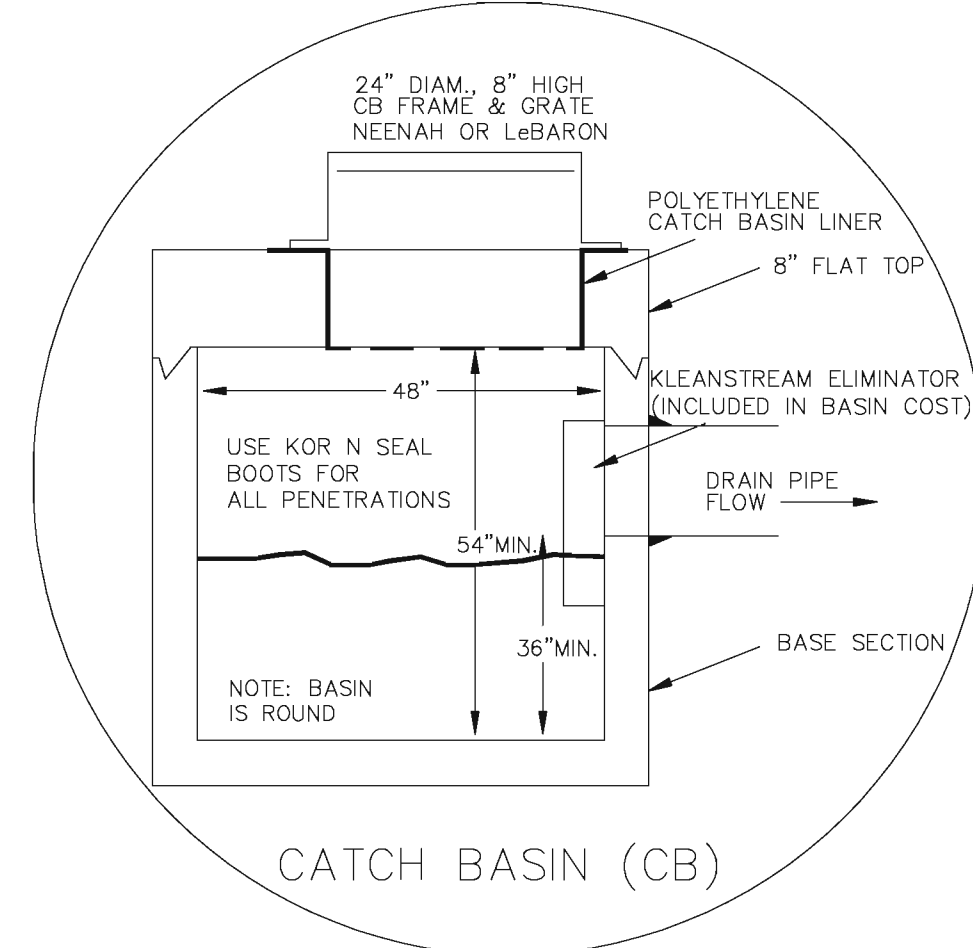
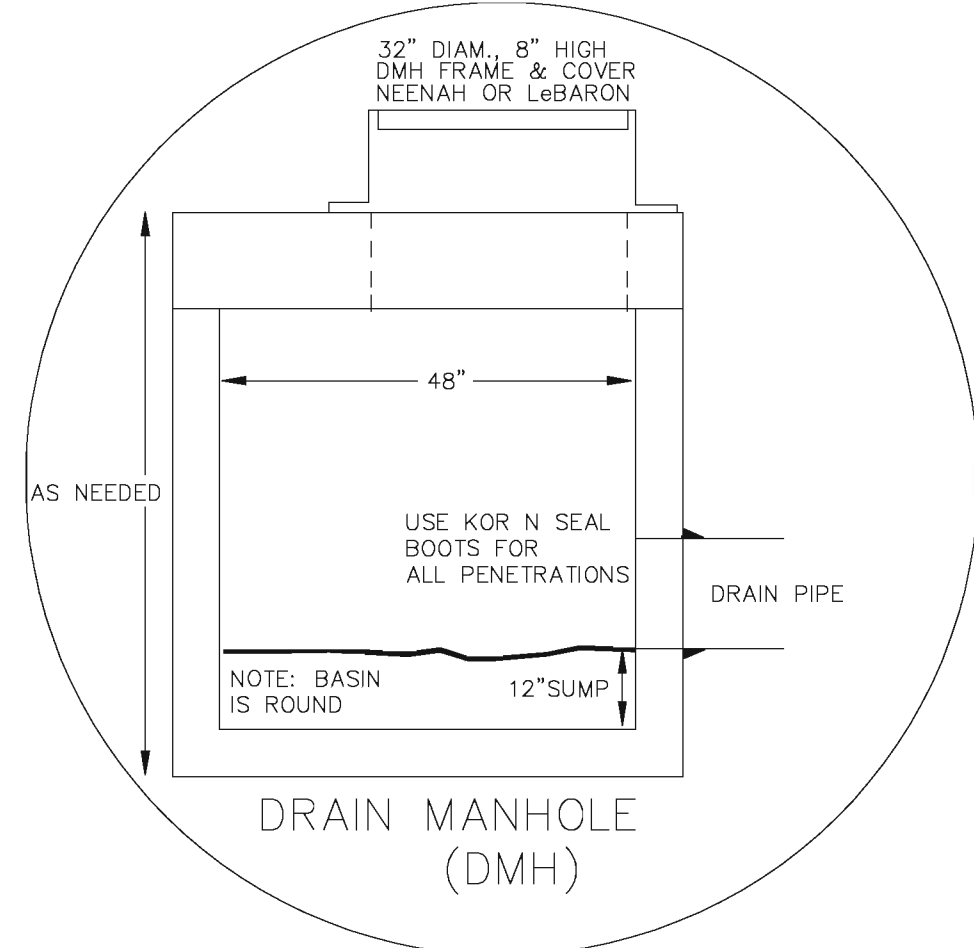


NO.	DATE	DESCRIPTION	BY



**MARKET STREET
STREETSCAPE IMPROVEMENTS
LAYOUT PLAN**

DEPARTMENT OF
PUBLIC WORKS
CITY OF PORTSMOUTH, NH



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STREETSCAPE IMPROVEMENTS
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