

Public Facilities Committee Agenda

City of Newton In City Council

Wednesday, March 18, 2020

The Public Facilities Committee will hold this meeting as a virtual meeting on Wednesday, March 18, 2020 at 7:00 pm. To view this meeting use this link at the above date and time: <u>https://zoom.us/j/778730670</u>

Public Hearing

#159-20 Eversource Energy petition for a Grant of Location on Harvard Street

EVERSOURCE ENERGY petitioning for a grant of location to relocate one pole (JO Pole #1515/2) to the southerly side of Farquhar Road in front of #20 Harvard Street (Ward 2).

Public Hearing

#188-20 Eversource Energy petition for a Grant of Location on Duffield Road

EVERSOURCE ENERGY petitioning for a grant of location to relocate one pole (JO Pole #125/4) approximately 30' south of the existing pole location in front of #34 Duffield Road (Ward 4).

Public Hearing

#189-20 Verizon petition for a Grant of Location on Washington Street

<u>VERIZON</u> petitioning for a grant of location to install approximately 250' of 4" conduit in a westerly direction from existing manhole 16/314A to a proposed hand hole between building 721-719 Washington Street (Ward 2). This is needed for Newton's Network Transformation Project.

The location of this meeting is accessible and reasonable accommodations will be provided to persons with disabilities who require assistance. If you need a reasonable accommodation, please contact the city of Newton's ADA Coordinator, Jini Fairley, at least two business days in advance of the meeting: <u>jfairley@newtonma.gov</u> or (617) 796-1253. The city's TTY/TDD direct line is: 617-796-1089. For the Telecommunications Relay Service (TRS), please dial 711.

Public Hearing

#190-20 Verizon petition for a Grant of Location on Washington Street

<u>VERIZON</u> petitioning for a grant of location to install approximately 160' of 4" conduit in a westerly direction from existing manhole 16/211 to the alley of the Post Office at 897 Washington Street to provide FIOS (Ward 2). This is needed for Newton's Network Transformation Project

Public Hearing

#191-20 Verizon petition for a Grant of Location on Washington Street

<u>VERIZON</u> petitioning for a grant of location to install approximately 40' of 4" conduit from existing manhole 211 in a southeasterly direction to existing pole 94 located in the sidewalk on the southerly side of Washington Street (Ward 2).

Referred to Programs & Services, Public Facilities and Finance Committees

#200-20 Accept \$270,000 of lighting equipment for Winkler Stadium Field <u>HER HONOR THE MAYOR</u> requesting authorization to accept \$270,000 of lighting equipment as well as authorization to accept more funds to be expended on the installation of a field light system for the Newton South High School Winkler Stadium Field which is on Newton Parks and Recreation property. The funds are being donated by the Newton South High School Booster Club.

Referred to Public Facilities and Finance Committees

#196-20 Transfer of \$60,000 for HVAC system at Police Headquarters <u>HER HONOR THE MAYOR</u> requesting authorization to transfer the sum of sixty thousand dollars (\$60,000) from Current Year Budget Reserve to a non-lapsing Public Buildings Department account for the evaluation and recommendations for the upgrade of the Police Headquarters HVAC System.

Referred to Public Facilities and Finance Committees

#197-20 Transfer of \$500,000 for improvements at Horace Mann at 225 Nevada Street <u>HER HONOR THE MAYOR</u> requesting authorization to appropriate five hundred thousand dollars (\$500,000) from June 30, 2019 Certified Free Cash for the purpose of providing interior and exterior improvements at the Horace Mann School at 225 Nevada Street.

Referred to Public Facilities and Finance Committees

#201-20 Transfer of \$650,000 for the purpose of reimbursing Newton Public Schools <u>HER HONOR THE MAYOR</u> requesting authorization to transfer the sum of six hundred and fifty thousand dollars (\$650,000) from June 30, 2019 Certified Free Cash to the Newton Public Schools for the purpose of reimbursing Newton Public Schools for onetime costs associated with several projects that were necessary to accomplish the move of the Horace Mann Elementary School community to the former Carr School on Nevada Street.

Referred to Public Facilities and Finance Committees

#198-20 Appropriate \$7,000,000 for Water Main Improvements in FY2021

<u>HER HONOR THE MAYOR</u> requesting authorization to appropriate and expend seven million dollars (\$7,000,000) and authorize a general obligation borrowing of an equal amount for the estimated design and construction costs associated with Water Main Improvements in FY2021 and authorization to apply any premium received upon the sale of the bonds or notes, less the cost of preparing, issuing, and marketing them, and any accrued interest received upon the delivery of the bonds or notes to the costs of the project and to reduce the amount authorized to be borrowed for the project by like amount.

#117-20 Acceptance of a sewer extension and easement on Farwell Street

<u>HER HONOR THE MAYOR</u> requesting the acceptance of 40 linear feet of sewer pipe as a public sewer and the acceptance of a 20' x 40' easement in property known as the Farwell Street Subdivision (Ward 3). The developer shall pay all costs associated with the construction of the sewer pipe and the direct connection to the MWRA trunk interceptor sewer line.

Public Facilities Held 6-0, Public Hearing Continued on 02/19/20

Respectfully submitted,

Alison M. Leary, Chair

RECEIVED 2020 FEB 14 PM 3: 58

CITY OF NEWTON MASSACHUSETTS

PETITION for GRANT OF LOCATION

CITY CLERK NEWTON, MA. 02459 To the Petitioner:

To the Petitioner:

City of Newton Ordinance Section 23-52 requires that each petition for grant of location be submitted to the City Council before it is sent to the Public Works Department for a preliminary review. The comments of the Public Works Commissioner will be part of the record submitted to the City Council. Upon filing with the City Council, the petition will be scheduled for a public hearing before the Public Facilities Committee of the City Council. The petitioner is responsible for insuring that the petition is complete and all required materials are in order for review. Attached please find the City Engineer's <u>Standard Requirements for Plans</u> and the Department of Public Works <u>Permit Processing</u> brochure.

Grant of Location Process:

- 1. Applicant submits completed Petition Form and required materials to the City Council
- 2. Public Works Department conducts preliminary review and gives written comments to the applicant
- 3. Engineering Division files Petition Form with comments with the Clerk of the City Council
- 4. City Council schedules petition for a public hearing before the Public Facilities Committee of the City Council
- 5. Public Facilities Committee recommendations are forwarded to the City Council for a final decision

Questions my be directed to:

Lou Taverna, City Engineer, 617-796-1020 City Council Office, 617-796-1210

L IDENTIFICATION (Please Type or Print Clearly)

Company Name	Eversource Energy					
Address	200 Calvary Street			· · ·		nunununun anlalde''). an e
	Waltham, MA 02453		navana di san ingen			
Phone Number	617-776-7300		Fax Number	781-314-5	165	and income cause of Time of
Contact Person	Riehard M. Schilone	Tit	le Supervisor,	Rights and Per	rmits	
Signature	erson filing application		Date	02/14/2020	<u></u>	

If a telecommunications company, indicate how certified by the Department of Telecommunications and Energy:

type of materials to be used, benefit provided to reconstruction plan including timetable for comp Eversource to relocate pole #1515/2	including, location, proposed time frame for completion, the City, project mitigation plan as applicable, street pletion.
B. Include or attach a sketch to provide a visual des Title of Plan <u>Harvard Street, Newton</u>	cription of the project. If plans are attached, provide: Date of plan February 13, 2020
III. PUBLIC WORKS DEPARTMENT R	EVIEW
Date received by Public Works Department Feb	18 2020
Check One: Minor Project 🕅 Major I	Project
(Refer to City Engineer Standard Requirement	······································
(Refer to only Engineer Dundard Requirement	nts for Plans for definition of minor and major project)
Plans Submitted: Certified Plot Plan	ad Plans
Plans Submitted: Certified Plot Plan	nts for Plans for definition of minor and major project) ed Plans
Plans Submitted: Certified Plot Plan Stampe DATE AND COMMENTS: DPW mack this request	RECOMMENDATIONS:
Plans Submitted: Certified Plot Plan Stampe DATE AND COMMENTS: DPW mack this request to remove falk 1515/2	RECOMMENDATIONS:
Plans Submitted: Certified Plot Plan Stampe DATE AND COMMENTS: DPW mack this request to remove pole 1515/2- Which is in the middle of	RECOMMENDATIONS: Any side walle or carb demoged during the installation shall be
Plans Submitted: Certified Plot Plan Stampe DATE AND COMMENTS: DPW mack this request to remove pole 1515/2 Which is in the middle of a sidewalk + reloction to	RECOMMENDATIONS: Any side walk or carb damaged during the installation shall be Nefficient in kind-
Plans Submitted: Certified Plot Plan Stampe DATE AND COMMENTS: DPW mack this request to remove fole 1515/2 Which is in the middle of A sidewalk + reloction to provide ADA	RECOMMENDATIONS: Any side walk or carb damaged during the installation shall be Neffaced in kind-
Plans Submitted: Certified Plot Plan Stampe DATE AND COMMENTS: DPW mack this request to remove fole 1515/2 Which is in the middle of a sidewalk + relocation to provide adequate ADA access for all pedesterio	RECOMMENDATIONS: Any side walk or carb damaged during the installation shall be Neplaced in kind- Any Side walk of the Carbon Shall be Neplaced in kind-
Plans Submitted: Certified Plot Plan Stampe DATE AND COMMENTS: DPW mack this request to remove fole 1515/2 Which is in the middle of a sidewalk + relocation to provide adequate ADA access for all pedesterio	RECOMMENDATIONS: Any side walk or carb damaged during the installation shall be reflaced in kind- John Dallation Feb 18, 2020
Plans Submitted: Certified Plot Plan Stampe DATE AND COMMENTS: DPW mack this request to remove fole 1515/2 Which is in the middle of a sidewalk + relocation to provide adequate ADA access for all pedesterio V. RECOMMENDATION TO PUBLIC F	RECOMMENDATIONS: Any side walk or carb damaged during the installation shall be reflaced in kind- John Daffer John Daffer Eb 18, 2020 ACILITIES COMMITTEE:
Plans Submitted: Certified Plot Plan Stampe DATE AND COMMENTS: DPW mask this request to remove fole 1515/2 Which is in the middle of 2 Sidewalk + reloction to Provide Idequate ADA I Devestoric	RECOMMENDATIONS: Any side walk or carb Damoed Jury The installation Shall be Nefficient in kind- John Dafter John Dafter Eb 18, 2020 ACILITIES COMMITTEE:
Plans Submitted: Certified Plot Plan Stampe DATE AND COMMENTS: DPW mask this request to remove fole 1515/2 Which is in the middle of a sidewalk + relocation to Provide adequate ADA access for 211 pedesterio V. RECOMMENDATION TO PUBLIC F	RECOMMENDATIONS: Any Side walk or Carb damaged during the installation shall be Neffaced in kind- Neffaced in kind- Nefaced in kind- Nefaced in kind- Nefaced in kind- Nefaced in kind- Neffaced in kind- Neffaced in kind- Nefaced i

159-20



200 Calvary Street Waltham, Ma 02453

February 13, 2020

City Council City of Newton 1000 Commonwealth Avenue Newton, MA 02459

RE: Harvard Street Newton, MA W.O. #2298950

Dear Members of the Council:

The enclosed petition and plan are being presented by the NSTAR ELECTRIC COMPANY d/b/a EVERSOURCE ENERGY for the purpose of obtaining a Grant of Location to relocate one pole on Harvard Street.

This pole is being relocated to provide access to an ADA wheelchair ramp.

Your immediate attention to this matter is appreciated. If you have any questions, please call Maureen Carroll at (781) 314-5053.

Sincerely,

Richard M. Schifone, Supervisor Rights & Permits

RMS/kj Attachments

PETITION OF NSTAR ELECTRIC DBA EVERSOURCE ENERGY AND OTHER COMPANIES FOR JOINT OR IDENTICAL LOCATIONS FOR EXISTING POLES

To the <u>City Council</u> of the City of <u>Newton</u>, <u>Massachusetts</u>

RESPECTFULLY represent <u>NSTAR ELECTRIC COMPANY DBA EVERSOURCE</u> <u>ENERGY</u> and <u>VERIZON NEW ENGLAND INC.</u> companies subject to Chapter 166 of the General Laws (Ter. Ed.), that they heretofore received a grant of joint or identical location for, and have erected or constructed, a line, consisting of wires, poles and such other fixtures as may be necessary to sustain or protect the wires of the line, upon along and across the public way or ways hereinfater specified, and that it is desirable that the location of certain said poles be altered.

WHEREFORE, your petitioners pray that after due notice and hearing as provided by law the <u>COUNCIL</u> may by Order grant your petitioners alteration in the location of said existing poles so that hereafter said poles, together with such other fixtures as may be necessary to sustain or protect the wires of the line, shall be located, substantially as shown on the plan by <u>A. DeBenedictis</u> dated <u>February 13, 2020</u> and filed herewith, upon, along and across the following public way or ways of said City:

Harvard Street

Easterly side, approximately 5 feet south of Farquhar Road

Install one (1) joint owned pole #1515/2 Remove one (1) joint owned pole #1515/2

W/O #2298950

By

Your petitioners agree to reserve space for one crossarm at a suitable point upon each of said poles for the telephone, fire and police signal wires owned by the City and used for municipal purposes.

> NSTAR ELECTRIC COMPANY DBA EVERSOURCE ENERGY

Richard M. Schifone, Supervisor Rights and Permits

VERIZON NEW ENGLAND, INC.

<u>Kasen Levesque</u>

2020

Dated this _____ day of _____ 2020

City of ______ Massachusetts.

Received and filed

City Clerk

ORDER FOR ALTERATION OF JOINT OR IDENTICAL LOCATIONS 159-20 FOR EXISTING POLES

To the City Council of the City of Newton, Massachusetts

WHEREAS, NSTAR ELECTRIC COMPANY DBA EVERSOURCE ENERGY and VERIZON NEW

ENGLAND INC. have herefore been granted a joint or identical location for, and have erected or constructed, a line of wires, poles and such other fixtures as may be necessary tosustain or protect the wires of the line upon, along and across the public way or ways thereinafter specified, and have petitioned for an alteration in the location of certain said poles.

It is DIRECTED that the location heretofore granted for said poles be altered so that hereafter said poles shall be located, substantially as shown on the plan on file with said petition for alteration in the location, upon, along and across the following public way or ways of said city:

Harvard Street

Easterly side, approximately 5 feet south of Farguhar Road

Install one (1) joint owned pole #1515/2 Remove one (1) joint owned pole #1515/2

W/O #2298950

All construction work under this Order shall be in accordance with the following conditions: A true record.

Poles shall be of sound timber and located as shown on a plan made by <u>A. DeBenedictis</u> dated <u>February 13, 2020</u> on file with said petition. There may be attached to said poles by said <u>NSTAR ELECTRIC COMPANY DBA EVERSOURCE ENERGY</u> and by said <u>VERIZON NEW</u> <u>ENGLAND INC.</u> wires and cables necessary for the conduct of their business. All such wires and cables shall be placed at a height of not less than twenty feet from the ground.

2020

Attest:

City Clerk

Approved:

Mayor

CERTIFICATE

We hereby certify that the foregoing Order was adopted after due notice and a public hearing as prescribed by Section 22 of Chapter 166 of the General Laws (Ter.Ed.), and any additions thereto or amendments thereof, to wit: -after written notice of the time and place of the hearing mailed at least seven days prior to the date of the hearing by the City Clerk to all owners of real estate abutting upon that part of the way or ways upon, along or across which the line is to be constructed under said Order, as determined by the last preceding assessment for taxation, and a public hearing held at <u>City Council</u> in said City on day of , 2020 at P.M.

City Clerk

CERTIFICATE

 I hereby certify that the foregoing are true copies of the Order of the City Council of the

 City of
 Newton,
 Massachusetts,
 duly adopted on the
 day of

 2020, and recorded with the records of location Orders of said City,
 and of the certificate of notice of hearing thereon required by Section

 22 of Chapter 166 of the General Laws (Ter. Ed.), and any additions thereto or amendments thereof, as the same appear of record.

Attest:

Clerk of the City of Newton, Massachusetts



. 11...00000000.....11.....1110001...00...00000111100g0000481

۴Ε



PERMIT #15341

RECEIVED

CITY OF NEWTON MASSACHUSETTS

PETITION for GRANT OF LOCATION

CITY CLERK

NEWTON, MA. 02459

To the Petitioner:

City of Newton Ordinance Section 23-52 requires that each petition for grant of location be submitted to the City Council before it is sent to the Public Works Department for a preliminary review. The comments of the Public Works Commissioner will be part of the record submitted to the City Council. Upon filing with the City Council, the petition will be scheduled for a public hearing before the Public Facilities Committee of the City Council. The petitioner is responsible for insuring that the petition is complete and all required materials are in order for review. Attached please find the City Engineer's <u>Standard Requirements for Plans</u> and the Department of Public Works <u>Permit Processing</u> brochure.

Grant of Location Process:

- 1. Applicant submits completed Petition Form and required materials to the City Council
- 2. Public Works Department conducts preliminary review and gives written comments to the applicant
- 3. Engineering Division files Petition Form with comments with the Clerk of the City Council
- 4. City Council schedules petition for a public hearing before the Public Facilities Committee of the City Council
- 5. Public Facilities Committee recommendations are forwarded to the City Council for a final decision

Questions my be directed to:

Lou Taverna, City Engineer, 617-796-1020 City Council Office, 617-796-1210

I. IDENTIFICATION (Please Type or Print Clearly)

Company Name Eversource Energy

200 Calvary Street

Waltham, MA 02453

Richard M/Schlone

Phone Number 617-776-7300

Address

Contact Person

Signature

Fax Number 781-314-5165

Title Supervisor, Rights and Permits

Date March 2, 2020

Person filing application

If a telecommunications company, indicate how certified by the Department of Telecommunications and Energy:

II. DESCRIPTION OF PROJECT: to be completed by petitioner
 A. Write here or attach a description of the project including, location, proposed time frame for completion, type of materials to be used, benefit provided to the City, project mitigation plan as applicable, street reconstruction plan including timetable for completion. Eversource to relocate pole 125/4
B. Include or attach a sketch to provide a visual description of the project. If plans are attached, provide: Title of Plan Duffield Road, Newton Date of plan January 16, 2020
III. PUBLIC WORKS DEPARTMENT REVIEW
Date received by Public Works Department <u>3-2-2020</u>
Check One: Minor Project Major Project Lateral
(Refer to City Engineer Standard Requirements for Plans for definition of minor and major project)
Plans Submitted: Certified Plot Plan Stamped Plans
DATE AND COMMENTS: RECOMMENDATIONS:
Any gidewall camared John Kondan
during installation of new Accounter City England
fole shall be repaired
to city standard, March 3 2020
H Stockwing Cong Canil
www.az-ypace.
V. RECOMMENDATION TO PUBLIC FACILITIES COMMITTEE:
the 1/11 2/2/2020
Commissioner, Public Works Date



200 Calvary Street Waltham, Ma 02453



March 2, 2020

City Council City of Newton 1000 Commonwealth Avenue Newton MA, 02459

RE: Duffield Road Newton, MA W.O. #2363040

Dear Members of the Council:

The enclosed petition and plan are being presented by the NSTAR ELECTRIC COMPANY d/b/a EVERSOURCE ENERGY for the purpose of obtaining a Grant of Location to relocate one pole on Duffield Road.

This work is being done to relocate the overhead electric service for 37 Duffield Road to underground electric service.

Your immediate attention to this matter is appreciated. If you have any questions, please call Maureen Carroll at (781) 314-5053.

Sincerely,

Richard M. Schifone, Supervisor Rights & Permits

RMS/kj Attachments

PETITION OF NSTAR ELECTRIC DBA EVERSOURCE ENERGY AND OTHER COMPANIES FOR JOINT OR IDENTICAL LOCATIONS FOR EXISTING POLES

To the City Council of the City of Newton, Massachusetts

RESPECTFULLY represent NSTAR ELECTRIC COMPANY DBA EVERSOURCE

ENERGY and **VERIZON NEW ENGLAND INC.** companies subject to Chapter 166 of the General Laws (Ter. Ed.), that they heretofore received a grant of joint or identical location for, and have erected or constructed, a line, consisting of wires, poles and such other fixtures as may be necessary to sustain or protect the wires of the line, upon along and across the public way or ways hereinfater specified, and that it is desirable that the location of certain said poles be altered.

WHEREFORE, your petitioners pray that after due notice and hearing as provided by law the <u>COUNCIL</u> may by Order grant your petitioners alteration in the location of said existing poles so that hereafter said poles, together with such other fixtures as may be necessary to sustain or protect the wires of the line, shall be located, substantially as shown on the plan by <u>A .DeBenedictis</u> dated <u>January 16, 2020</u> and filed herewith, upon, along and across the following public way or ways of said City:

Duffield Road -

Easterly side, approximately 383 feet north of Islington Road

Install one (1) joint owned pole #125/4 Remove one (1) joint owned pole #125/4

W/O #2363040

By

Your petitioners agree to reserve space for one crossarm at a suitable point upon each of said poles for the telephone, fire and police signal wires owned by the City and used for municipal purposes.

> NSTAR ELECTRIC COMPANY DBA EVERSOURCE ENERGY

Richard M. Schifone, Supervisor Rights and Permits

VERIZON NEW ENGLAND, INC.

Caren Leverque Bv

2020

Dated this 2nd day of March 2020

City of Newton, Massachusetts.

Received and filed

City Clerk

ORDER FOR ALTERATION OF JOINT OR IDENTICAL LOCATIONS **188-20** FOR EXISTING POLES

To the City Council of the City of Newton, Massachusetts

WHEREAS, NSTAR ELECTRIC COMPANY DBA EVERSOURCE ENERGY and VERIZON NEW

ENGLAND INC. have herefore been granted a joint or identical location for, and have erected or constructed, a line of wires, poles and such other fixtures as may be necessary tosustain or protect the wires of the line upon, along and across the public way or ways thereinafter specified, and have petitioned for an alteration in the location of certain said poles.

It is DIRECTED that the location heretofore granted for said poles be altered so that hereafter said poles shall be located, substantially as shown on the plan on file with said petition for alteration in the location, upon, along and across the following public way or ways of said city:

Duffield Road -

Easterly side, approximately 383 feet north of Islington Road

Install one (1) joint owned pole #125/4 Remove one (1) joint owned pole #125/4

W/O #2363040

Mayor

All construction work under this Order shall be in accordance with the following conditions: A true record.

Poles shall be of sound timber and located as shown on a plan made by <u>A. DeBenedictis</u> dated <u>January 16, 2020</u> on file with said petition. There may be attached to said poles by said <u>NSTAR ELECTRIC COMPANY DBA EVERSOURCE ENERGY</u> and by said <u>VERIZON NEW</u> <u>ENGLAND INC.</u> wires and cables necessary for the conduct of their business. All such wires and cables shall be placed at a height of not less than twenty feet from the ground.

2020

Attest:

City Clerk

Approved:

CERTIFICATE

We hereby certify that the foregoing Order was adopted after due notice and a public hearing as prescribed by Section 22 of Chapter 166 of the General Laws (Ter.Ed.), and any additions thereto or amendments thereof, to wit: -after written notice of the time and place of the hearing mailed at least seven days prior to the date of the hearing by the City Clerk to all owners of real estate abutting upon that part of the way or ways upon, along or across which the line is to be constructed under said Order, as determined by the last preceding assessment for taxation, and a public hearing held at <u>City Council</u> in said City on day of , 2020 at P.M.

CERTIFICATE

I hereby certify that the foregoing are true copies of the Order of the City Council of the City of <u>Newton</u>, Massachusetts, duly adopted on the day of 2020, and recorded with the records of location Orders of said City, Book Page and of the certificate of notice of hearing thereon required by Section 22 of Chapter 166 of the General Laws (Ter. Ed.), and any additions thereto or amendments thereof, as the same appear of record. Attest:

Clerk of the City of Newton, Massachusetts

.

City Clerk



2 5.2.2

		PERMIT 415359
-	RECEIVED	$\frac{1}{2} i = 0$
	2020 MAR -6 AM 9:51	MASSACHUSETTS
/	CITY CLERK NEWTON, MA. 02459	PETITION for GRANT OF LOCATION
	To the Petitioner:	
•	City of Newton Ordinance Section 2 Board of Aldermen before it is sent to of the Public Works Commissioner with the Board of Aldermen, the peti Committee of the Board of Aldermen complete and all required material Standard Requirements for Plans and	3-52 requires that each petition for grant of location be submitted to the to the Public Works Department for a preliminary review. The comments will be part of the record submitted to the Board of Aldermen. Upon filing tion will be scheduled for a public hearing before the Public Facilities n. The petitioner is responsible for insuring that the petition is is are in order for review. Attached please find the City Engineer's is the Department of Public Works Perinit Processing brochure
	Grant of Location Process: 1. Applicant submits comple 2. Public Works Departmen 3. Engineering Division file 4. Board of Aldermen sched 5. Public Facilities Committ decision	eted Petition Form and required materials to the Board of Aldermen t conducts preliminary review and gives written comments to the applicant s Petition Form with comments with the Clerk of the Board of Aldermen tules petition for a public hearing before the Public Facilities Committee of the recommendations are forwarded to the Board of Aldermen for a final.
	Questions my be directed to: Lou Taverna, City Engineer, Cassidy Flynn, Clërk of the P	617-796-1020 ublic Facilities Committee 617-796-1213
	TRIDENSUFICATION (Bleave Typ	e or Emnix leadly)
	Company Name_VCV120	N
	Address 275 Mi	Idwood Are
	WOBURN	MA DISO/
	Phone Number 781 37602	43 Fax Number 781 376 0207
	Contact Person Toe Avdizz	ONC TITLE CONST. MSR
	, Signature Person filing applicati	$Date \frac{2}{28/20}$
·_	If a telecommunications company, in Energy:	dicate how certified by the Department of Telecommunications and
	III DIESCRIPHION OF PROIH	IC-II. to be completed by pennioner as a structure of the

A. Write here or attach a description of the project including, location, proposed time frame for completion, type of materials to be used, benefit provided to the City, project mitigation plan as applicable, street reconstruction plan including timetable for completion. lace annox 250' at 4" PUC CONA IT tron between Washinston St 10 e of huilding 510 ashincton. 57 Xistar ronduit redau creti encasea toma Don Pa B. Include or attach a sketch to provide a visual description of the project. If plans are attached, provide: · 11 Title of Plan_____ Date of plan_____ a 200 million and a construction of the second s Lotter 1944 States A PARTICLE OF AN AND ADDRESS B. LAND L. M. C. C. MARCENCE Cate. Sec. 120.15 THE PUBLIC WORKS DEPARTMENTER Date received by Public Works Department MARCH 8 2020 March 199 March 201 March 201 and the second Check One: And the second second state of the water of the state and the second s (Refer to City Engineer Standard Requirements for Plans for definition of minor and major project) and a section of the test and a section of the course share a section of the section of the test of the test Plans Submitted: 1. 601. Stamped Plans ĿĿ. Certified Plot Plan 化氨基糖医胆氨基吗啡 化过分化化 化分子 CARE SHE SHE SHE DATE AND COMMENTS: RECOMMENDATIONS: -WER P.POD Jom zogla + and silewor ARECOMMENDATION FOR BEACHARDER COMMETERS Gocale Gity By Mancot 102020 Commissioner, Public Works 1. 2. 1. 10 1 WH 4072 27 17 Date 10 1 Att Same : . .



1/1

RECEIVED CITY OF NEWTON 2020 MAR-6 AM 9:51 ហេ ហេ MASSACH ĉ'n ្ពុ ស្ព CITY CLERK TION for GRANT OF LOCATION 5 NEWTON To the Petitioner: City of Newton Ordinance Section 23-52 requires that each petition for grant of location be submitted to the Board of Aldermen before it is sent to the Public Works Department for a preliminary review. The comments of the Public Works Commissioner will be part of the record submitted to the Board of Aldermen. Upon filing with the Board of Aldermen, the petition will be scheduled for a public hearing before the Public Facilities Committee of the Board of Aldermen. The petitioner is responsible for insuring that the petition is complete and all required materials are in order for review. Attached please find the City Engineer's Standard Requirements for Plans and the Department of Public Works Permit Processing brochure; Grant of Location Process: 1. Applicant submits completed Petition Form and required materials to the Board of Aldermen 2. Public Works Department conducts preliminary review and gives written comments to the applicant 3. Engineering Division files Petition Form with comments with the Clerk of the Board of Aldermen 4. Board of Aldermen schedules petition for a public hearing before the Public Facilities Committee of the Board of Aldermen, and a state of the st 5. Public Facilities Committee recommendations are forwarded to the Board of Aldermen for a final. decision agaut Ouestions my be directed to: Lou Taverna, City Engineer, 617-796-1020 Cassidy Flynn, Clerk of the Public Facilities Committee 617-796-1213 I. IDENTIFICATION (Please Type or Brint Clearly) **Company** Name Address Phone Number Fax Number Contact Person Signature Date son filing application If a telecommunications company, indicate how certified by the Department of Telecommunications and Energy: HEDESCRIPTION OF PROJECT note completed by neuron

A. Write here or attach a description of the project including, location, proposed time frame for completion, type of materials to be used, benefit provided to the City, project mitigation plan as applicable, street reconstruction plan including timetable for completion. lace annox 1600 of 411 conduct from pre - towards gliper Cher 1145HUN S Washinston や Dronde -6'W Concrete Wetward 1 and stormanda Curtic B. Include or attach a sketch to provide a visual description of the project. If plans are attached, provide: Title of Plan _____ Date of plan and we have a start been also be a set of the set of the A Rate Bach A LOCHT NOT 17. 14 SUL BUBEICAWORKS DEPAREMENTARE VIE Date received by Public Works Department Check One: A manufactory of the second Minor Project Minor Project (Refer to City Engineer Standard Requirements for Plans for definition of minor and major project) and the second of the first of the second second second of the second bet the second second second second second Plans Submitted: 25 2 1 Je Stamped Plans Certified Plot Plan dist for the second second 61.11 · . . DATE AND COMMENTS: : RECOMMENDATIONS:> 120 RECOMMENDATIONEROPREBEICLAVEIGHEIPSCOMMENEE Commissioner, Public Works Date 255 ··... 1



PERMIT #15362

¹ 191-20

CITY OF NEWTON MASSACHUSETTS

2020 MAR -6 PM 3: 58

RECEIVED

PETITION for GRANT OF LOCATION

CITY CLERK NEWTON, MA. 02459

To the Petitioner:

City of Newton Ordinance Section 23-52 requires that each petition for grant of location be submitted to the Board of Aldermen before it is sent to the Public Works Department for a preliminary review. The comments of the Public Works Commissioner will be part of the record submitted to the Board of Aldermen. Upon filing with the Board of Aldermen, the petition will be scheduled for a public hearing before the Public Facilities Committee of the Board of Aldermen. The petitioner is responsible for insuring that the petition is complete and all required materials are in order for review. Attached please find the City Engineer's Standard Requirements for Plans and the Department of Public Works Permit Processing brochure.

Grant of Location Process:

- 1. Applicant submits completed Petition Form and required materials to the Board of Aldermen
- 2. Public Works Department conducts preliminary review and gives written comments to the applicant
- 3. Engineering Division files Petition Form with comments with the Clerk of the Board of Aldermen
- 4. Board of Aldermen schedules petition for a public hearing before the Public Facilities Committee of the Board of Aldermen
- 5. Public Facilities Committee recommendations are forwarded to the Board of Aldermen for a final decision

Questions may be directed to:

Lou Taverna, City Engineer, 617-796-1020 Cassidy Flynn, Clerk of the Public Facilities Committee 617-796-1213

I. IDENTIFICATION (Please Type or Print Clearly)

Company Name Verizon New England Inc.

Address 385 Myles Standish Blvd

Taunton, MA 02780

Phone Number 774-409-3170

Fax Number

Contact Person Karen Levesque Title ROW Manager

Signature <u>Kanon Lowengue</u> Date <u>3/6/2020</u> Person filing application

If a telecommunications company, indicate how certified by the Department of Telecommunications and Energy:

I. DESCRIPTION OF PROJECT: to be comple	ted by petitioner
A. Write here or attach a description of the project includir type of materials to be used, benefit provided to the Citr reconstruction plan including timetable for completion. Placing 40' of new conduit on Washington Street.	ng, location, proposed time frame for completion, y, project mitigation plan as applicable, street
B. Include or attach a sketch to provide a visual description Title of Plan Petition Plan Newton 1A2JW5T	n of the project. If plans are attached, provide: _ Date of plan _ 3/6/2020
III. PUBLIC WORKS DEPARTMENT REVIE	W
Date received by Public Works Department MACL	9 7020
Date received by rubite works Department	
Check One: Minor Project 🛛 Major Project	Lateral
(Refer to City Engineer Standard Requirements for	Plans for definition of minor and major project)
Plans Submitted: Certified Plot Plan Stamped Plans	s 🔲
DATE AND COMMENTS:	RECOMMENDATIONS:
Interator must obtain Police	be cut by Sow + re-establishe
Details, Street apening +	with 2-way epoxy
Thench Permit.	costed report + Tranch
This portion of Washington	resturation per permit
STred has a 12" thick	OF - TEX CE PAIL De 19pe 1 4
Concrete Tothe Whiten musi	Ausseidle Gitz Engineer
V RECOMMENDATION TO PUBLIC FACIL	TIFS COMMITTEE
Ι Ληλ	
Manna Willing	3/10/2020

Commissioner, Public Works

Date /

Karen Levesque Right of Way Manager

verizon

385 Myles Standish Blvd Taunton, MA 02780

Phone 774-409-3170 Mobile 774-504-1279 karen levesgue@one.verizon.com

March 6, 2020

Newton City Council Newton City Hall, Room 105 1000 Commonwealth Avenue Newton, MA 02459

RE: Petition for Verizon job #1A2JW5T Washington Street, Newton, MA

Dear Honorable City council:

Enclosed find the following items in support of the above-referenced project:

- 1. Petition;
- 2. Petition Plan;
- 3. Order;
- 4. Abutters.

A Public Hearing and notice to abutters is required. A Verizon representative will attend the Public Hearing. Should any questions or comments arise concerning this matter prior to the hearing, please contact me at 774-409-3170. Your assistance is greatly appreciated.

Sincerely,

Karen Levesque

Karen Levesque

Enc

PETITION FOR CONDUIT LOCATION

To the City Council

of NEWTON, Massachusetts

VERIZON NEW ENGLAND INC. requests permission to lay and maintain underground conduits, with the wires and cables to be placed therein, under the surface of the following public way or ways:

Washington Street:

Place one new four-inch (4") conduit approximately 40' beginning at existing Manhole numbered MH211, which is situated on the eastbound lane of Washington Street, thence extending in a southeasterly direction to existing Pole, P.94, which is located in the sidewalk on the southerly side of Washington Street.

This petition is necessary to upgrade existing services.

Also for permission to lay and maintain underground conduits, manholes, cables and wires in the above or intersecting public ways for the purpose of making connections with such poles and buildings as it may desire for distributing purposes.

Plan marked-VZ N.E. Inc. No. 1A2JW5T dated March 6, 2020 showing location of conduit to be constructed is filed herewith.

VERIZON NEW ENGLAND INC.

By Karen Leverque

Karen Levesque ∂ Manager - Rights of Way

Dated this 6th day of March , 2020.



ORDER FOR CONDUIT LOCATION

By the City Council of the City of NEWTON, Massachusetts.

Notice having been given and a public hearing held, as provided by law, It is HEREBY ORDERED:

That permission be and hereby is granted VERIZON NEW ENGLAND INC. to lay and maintain underground conduits and manholes, with the wires and cables to be placed therein, under the surface of the following public way or ways as requested in petition of said Company dated the 6th day of March, 2020.

Moulton Street:

Place one new four-inch (4") conduit approximately 40' beginning at existing Manhole numbered MH211, which is situated on the eastbound lane of Washington Street, thence extending in a southeasterly direction to existing Pole, P.94, which is located in the sidewalk on the southerly side of Washington Street.

This petition is necessary to upgrade existing services.

Substantially as shown on plan marked- VZ N.E. Inc. No. **1A2JW5T** dated **March 6**, **2020** - filed with said petition. Also, that permission be and hereby is granted said VERIZON NEW ENGLAND INC. to lay and maintain underground conduits, manholes, cables and wires in the above or intersecting public ways for the purpose of making connections with such poles and buildings as it may desire for distributing purposes.

The foregoing permission is subject to the following conditions:

1. The conduits and manholes shall be of such material and construction and all work done in such manner as to be satisfactory to such municipal officers as it may appoint to the supervision of the work, and a plan showing the location of conduits constructed shall be filed with the City when the work is completed.

2. In every underground main line conduit constructed by said Company hereunder one duct not less than three inches in diameter shall be reserved and maintained for the limited purpose of attaching one-way low voltage fire and police signaling wires owned by the municipality or governmental entity for public safety purposes only.

3. Said Company shall indemnify and save the City harmless against all damages, costs and expense whatsoever to which the City may be subjected in consequence of the acts or neglect of said Company, its agents or servants, or in any manner arising from the rights and privileges granted it by the City.

4. In addition said Company shall, before a public way is disturbed for the laying of its wire or conduits, execute its bond in a penal sum of Ten Thousand Dollars (\$10,000) (reference being had to the bond already on file with said City) conditioned for the faithful performance of it duties under this permit.

5. Said Company shall comply with the requirements of existing by-laws and such as may hereafter be adopted governing the construction and maintenance of conduits and wires, so far as the same are not inconsistent with the laws of the Commonwealth.

I hereby certify that the foregoing order was adopted at a meeting of the City Council of the City of NEWTON, Massachusetts, held on the day of 2020.

City Clerk

ORDER FOR CONDUIT LOCATION

We hereby certify that on _____ 2020, at _____ o'clock _____M. at _____a public hearing was held on the petition of the

VERIZON NEW ENGLAND INC. for permission to lay and maintain underground conduits, manholes and connection, with the wires and cables to be placed therein, described in the order herewith recorded, and that we mail at least seven days before said hearing a written notice of the time and place of said hearing to each of the owners of real estate (as determined by the last preceding assessment for taxation) along the ways or parts of ways upon which the Company is permitted to construct the lines of said Company under said order. And that thereupon said order was duly adopted.

City Council of the City of NEWTON, Massachusetts

CERTIFICATE

I hereby certify that the foregoing is a true copy of location order, and certificate of hearing with notice adopted by the City Council of the City of NEWTON, Massachusetts, on the _____ day of ______ 2020, and recorded with the records of location orders of said City, Book ______ Page _____. This certified copy is made under the provisions of Chapter 166 General Laws and any additions thereto or amendments thereof.

Attest:

City Clerk

ABUTTERS LIST

PROPERTY SBL: 21029 0031 162 Lowell Ave

A & M JOINT VENTURES LLC 633 Trapelo Road Waltham, MA 02452

PROPERTY SBL: 21029 0030 911 Washington Street

MARTINO, ERIC M MARTINO, V RONALD 911 Washington Street Newton, MA 02460

PROPERTY SBL: 21029 0029 899 Washington Street

> MOON & ZEN LLC 899 Washington Street Newton, MA 02460

PROPERTY SBL: 21029 0025 17 Washington Terrace

MARK NEWTONVILLE II LLC 57 River Street, Suite 106 Wellesley, MA 02481

PROPERTY SBL: 21029 0028 891-897 Washington Street

MARK NEWTONVILLE II LLC 57 River Street, Suite 106 Wellesley, MA 02481

PROPERTY SBL: 21029 0027 885 Washington Street

MARK NEWTONVILLE II LLC 57 River Street, Suite 106 Wellesley, MA 02481

PROPERTY SBL: 21029 0010 839-853 Washington Street WASHINGTON PL OWNER LLC 57 River Street, Suite 106 Wellesley, MA 02481



RUTHANNE FULLER MAYOR City of Newton, Massachusetts Office of the Mayor 200-20

Telephone (617) 796-1100

Telefax (617) 796-1113

TDD (617) 796-1089

E-mail rfuller@newtonma.gov

March 9, 2020

Honorable City Council Newton City Hall 1000 Commonwealth Avenue Newton Centre, MA 02459

Councilors:

I respectfully submit a docket item to your Honorable Council requesting authorization to accept \$270,000 of lighting equipment as well as authorization to accept more funds to be expended on the installation of a field light system for the Newton South High School Winkler Stadium Field which is on Newton Parks and Recreation property. The funds are being donated by the Newton South High School Booster Club.

Thank you for your consideration of this matter.

Sincerely,

Fuller

Ruthanne Fuller Mayor

RECEIVED



RUTHANNE FULLER MAYOR

NEWTON PARKS, RECREATION

AND CULTURE DEPARTMENT

246 Dudley Road, Newton, MA 02459 Office: (617) 796-1500 TDD/TTY: (617) 796-1089 parks@newtonma.gov





NICOLE BANKS COMMISSIONER

March 9, 2020

Honorable Mayor Ruthanne Fuller Newton City Hall 1000 Commonwealth Ave Newton, MA 02459

Dear Mayor Fuller,

I am writing to respectfully request that you docket with the Honorable City Council for consideration a request for the acceptance of \$270,000 of lighting equipment with technical details attached along with permission to accept more funds to be expended on the installation of a field light system for the Newton South High School Winkler Stadium Field which is on Newton Parks and Recreation property. The funds are being donated by the Newton South High School Booster Club.

Thank you for your consideration in this matter.

Sincerely,

Nicole Banks, Commissioner

CC: Jonathan Yeo, Chief Operating Officer Maureen Lemieux, Chief Financial Officer

Γ	POLE IDENTIFICATION AND RESULTANT FORCES DESIGN NOTES									
Ī	POLE	POLE	PRECAST BASE TYPE	FIXTURE CONFIGURATION	FIXTURE AND ACCESSORIES	HOMENT ON	FORCES (1.)		DESIGN PARAMETERS: WIND: V _{at} = 127 MPH, V _{ato} = 98 MPH (EXPOSURE C, RISK CATEGORY II) PER MASSACHUSETTS STATE BUILDING CODE - 780 CMR, 9TH EDITION (IBC 2015 / ASCE 7-10).	CER
	DESIGNATION		BAGETITE	(FIX. PER XARM)	EPA (FT ²)	FT-LBS	LBS	LBS	GEOTECHNICAL PARAMETERS: ALLOWARLE END REARING SOIL PRESSURE: 1 200 PSE (S1 & S2)	H DOUL
	S1, S2	LSS80C	6B	11 (5+4)	29.4	152,192	2,986	4,037	LATERAL SOIL RESISTANCE PARAMETERS: AS PROVIDED IN SOIL REPORT IN ACCORDANCE WITH MASSACHUSETTS STATE BUILDING CODE - 780 CMR, 9TH EDITION,	N, S(
L	S3, S4	ATION D + 0.6W	68	12 (544)	29.6	152,452	2,991	4,087	CHAPTER 18.	1 S L I S
2	VERTICAL FORCE IS 2. POLES S3 & S4 HAVE POLES S1 - S4 HAVE	S WEIGHT OF D E (1) MUSCO LI E (2) MUSCO LE	RESSED POLE. ED FIXTURE AT ED FIXTURES AT	70'-0" AGL INCLUDED / 15'-6" AGL INCLUDED	ABOVE. ABOVE.				5-0 BELOW GRADE. REPLACE THE OVER EXCAVATED AREA WITH COMPACTED STRUCTURAL FILL. THE STRUCTURAL FILL SHOULD BE IBC, TABLE 1806.2, CLASS 3 OR BETTER AND BE COMPACTED TO 98% OF STANDARD PROCTOR.	VTON TBA
•									DESIGN SOIL PARAMETERS ARE AS NOTED. ACTUAL ALLOWABLE SOIL PARAMETERS MUST BE VERIFIED ON SITE. REFERENCE SOILS AND FOUNDATION REPORT, FILE NO. 01.0174475.00, PREPARED BY GZA GEOENVIRONMENTAL, INC.; BOSTON, MA.	FOC
									A GEOTECHNICAL ENGINEER OR REPRESENTATIVE OF IS RECOMMENDED (NOT REQUIRED) TO BE AVAILABLE AT THE TIME OF THE FOUNDATION INSTALLATION TO VERIFY THE SOIL DESIGN PARAMETERS AND TO PROVIDE ASSISTANCE IF ANY PROBLEMS ARISE IN FOUNDATION INSTALLATION,	
ſ							1 0 00)		ENCOUNTERING SOIL FORMATIONS THAT WILL REQUIRE SPECIAL DESIGN CONSIDERATIONS OR EXCAVATION PROCEDURES MAY OCCUR. POLE FOUNDATIONS WILL NEED TO BE ANALYZED ACCORDING TO THE SOIL CONDITIONS THAT EXIST. IF ANY DISCREPANCIES OR INCONSISTENCIES ARISE, NOTIFY THE ENGINEER OF SUCH	A S2577
		PRECA	STBASE	TU FUR SP	READ FC				DISCREPANCIES. FOUNDATIONS WILL THEN BE REVISED ACCORDINGLY. REVISIONS WILL BE ANALYZED PER RECOMMENDATIONS DIRECTED BY A REGISTERED ENGINEER.	
	PRECAST P BASE BAS TYPE	PRECAST SE WEIGHT (1.)	PRECAST BASE LENGTH (1.)	PROJECTION ABOVE GRADE	STANDARD EMBEDMENT (1.)	OUTSIDE DIAMETER	CUT LENGTH OFF BOTTOM (2.)	EMBEDMENT INTO FOOTING & PIER (3.)	ALL EXCAVATIONS MUST BE FREE OF LOOSE SOIL AND DEBRIS PRIOR TO FOUNDATION INSTALLATION AND CONCRETE BACKFILL PLACEMENT. FOR DRILLED PIERS, TEMPORARY CASINGS OR DRILLERS SLURRY MAY BE USED TO STABILIZE THE	
ļ		6,930 LBS	26'-1"	8'-1"		20.56"	10'-0"	6'-0"	EXCAVATION DURING INSTALLATION. CASINGS MUST BE REMOVED DURING CONCRETE BACKFILL PLACEMENT. CONCRETE BACKFILL MUST BE PLACED WITH A TREMIE WHEN OLUDBY OD WATER DEPENDENCE FUCAVIOUR DURING THE STORE DEPENDENCE.	0
:	2. EPOXY COAT NEW I 3. EMBEDMENT EQUA	BOTTOM SURF	ACE OF PRECAS	3T BASE AFTER CUTT PLUS 4'-0" PIER HEIGH	NG T BELOW FOOTIN	G			EXCEEDS 6'0'. CONTRACTOR MUST BE FAMILIAR WITH THE COMPLETE SOIL INVESTIGATION REPORT AND BORINGS, AND CONTACT THE GEOTECHNICAL FIRM (IF NECESSARY) TO UNDERSTAND THE SOIL CONDITIONS AND THE POSSIBILITY OF GROUND WATER PUMPING AND EXCAVATION STABILIZATION OR BRACING DURING PRECAST BASE INSTALLATION AND PLACEMENT OF CONCRETE BACKFILL.	CTURAL JEERS, P. 45 DRIVE 05 D
	- I								GENERAL NOTES: FIXTURES MUST BE LOCATED TO MAINTAIN 10'-0' MINIMUM HORIZONTAL CLEARANCE FROM ANY OBSTRUCTION. ENGINEER MUST BE NOTIFIED IF FOUNDATIONS ARE NEAR ANY RETAINING WALLS OR WITHIN / NEAR ANY SLOPES STEEPER THAN 3H : 1V. POLES, FIXTURES, PRECAST BASES, ELECTRICAL ITEMS AND INSTALLATION PER MUSCO LIGHTING.	STRUG ENGIN 114 NICHOLA MARSHALLT PHANE NUM
	5. 1 m		GHT STRUCTURE	C	ONCRETE	REINFO	RCEMEN	NOTES		ATION
[: p:	mint	1.) (SI	EE PRECAST BA	SE SCH.)	RETE SHALL COM	APLY WITH THE FO	LLOWING ASTM S	TANDARDS:		
		9 #4 w/	TIES AT 12" O.C MIN. 18" LAP SP TAGGER SPLICE	AGGF LICE ACI 3 (S) HAVE	REGATES (MAX 0.7 18. CONCRETE SI A MAXIMUM WAT	75") WITH ASTM C- HALL BE AIR-ENTR ER-CEMENT RATIC	33 AND BE IN CONI AINED (COMPLY W 0, w/cm = 0.45 AND	FORMANCE WITH /ITH ASTM C-260), HAVE A MINIMUM		MING TTTL LE AND F LE: SEE P ES: AN #1171
1.			CAL PIER REINFO	COMI DESI SLUM DRCEMENT MEET	YRESSIVE STREN GN SLUMP LIMITS IP MAY BE INCRE/ ING ASTM C494-9	ARE 4" MINIMUM A ASED BY THE USE 2.	F 4,500 PSI (S1, S2 ND 6° MAXIMUM. OF A WATER REDI); 3,000 PSI (S3, S4). THE JOB SITE JCING AGENT	PRELIMINARY	PROJECT NUMBER
	No A	(SEE F (45" PF	OOTING SCHED	PIER) CONC AND	CRETE REINFORC	EMENT SHALL CON NCE WITH ACI 315	MPLY WITH ASTM / & 318.	4615 GRADE 60	NOT FOR CONSTRUCTION	DATE 29 JANUARY 2020
(A)	PIER DETAIL	L &	2	CON TO P	CRETE FOR SPRE	AD FOOTINGS MUS N AND FIXTURE MO	ST ATTAIN DESIGN DUNTING.	STRENGTH PRIOR		DRAWING NUMBER C1

DIAMETER - SEE FOOTING SCH.



USE OR REPRODUCTION OF THIS INFORMATION OTHER THAN ITS INTENDED PURPOSE FOR THIS PROJECT IS PROHIBITED WITHOUT WRITTEN CONSENT FROM MUSCO SPORTS LIGHTING, LLC.

-



ENDED PURPOSE FOR THIS PROJECT IS PROHIB FROM MUSCO SPORTS LIGHTING LU



Project Specific Notes:

Materials Checklist

Contractor/Customer Supplied:

- A dedicated control circuit must be supplied per distribution panel location.
 - If the control voltage is NOT available, a control transformer is required.
- Electrical distribution panel to provide overcurrent protection for circuits
 - HID rated or D-curve circuit breaker sized per full load amps on Circuit Summary by Zone Chart
- U Wiring:
 - See chart on page 2 for wiring requirements
 Equipment grounding conductor and splices
 - must be insulated. (per circuit) — Lightning ground protection (per pole), if not Musco supplied.
- Electrical conduit wireway system
 - Entrance hubs rated NEMA 4: must be die-cast zinc, PVC, or copper-free die-cast aluminum
- Mounting hardware for cabinets
- Breaker lock-on device to prevent unauthorized power interruption to control power and powerline connection (if present)
- Anti-corrosion compound to apply to ends of wire, if necessary

Call Control-Link Central ™ operations center at 877/347-3319 to schedule activation of the control system upon completion of the installation. Note: Activation may take up to 1 1/2 hours

200-20

Control System Summary

Project Information

Project #: 117155 Project Name: Newton South High School Football/Soccer Date: 02/14/20 Project Engineer: TLanphier Sales Representative: Mike Berry Control System Type: LED C&M PowerLine-ST Communication Type: Scan: 117155F Document ID: 117155P1V4-0214092014 Distribution Panel Location or ID: Electrical Service #1 Total # of Distribution Panel Locations for Project: Design Voltage/Hertz/Phase: 208/60/3 Control Voltage: 120

Equipment Listing

DESCRIPTION

APPROXIMATE SIZE

1. Control and Monitoring Cabinet 24 X 48 1. Control and Monitoring Cabinet 24 X 48 1. Control and Monitoring Cabinet 1 1. Control and Monitoring Cabinet 1

of distribution panels

IMPORTANT NOTES

- Please confirm that the design voltage listed above is accurate for this facility. Design voltage/phase is defined as the voltage/phase being connected and utilized at each lighting pole's electrical components enclosure disconnect. Inaccurate design voltage/phase can result in additional costs and delays. Contact your Musco sales representative to confirm this item.
- 2. In a 3 phase design, all 3 phases are to be run to each pole. When a 3 phase design is used Musco's single phase luminaires come pre-wired to utilize all 3 phases across the entire facility.
- One contactor is required for each pole. When a pole has multiple circuits, one contactor is required for each circuit. All contactors are UL 100% rated for the published continuous load. All contactors are 3 pole.
- If the lighting system will be fed from more than one distribution location, additional equipment may be required. Contact your Musco sales representative.
 A single control circuit must be supplied per control system.
- Size overcurrent devices using the full load amps column of the Circuit Summary By Zone chart- Minimum power factor is 0.9.

NOTE: Refer to Installation Instructions for more details on equipment information and the installation requirements

© 1999,2020 Musco Sports Lighting,LLC Form: T-5030-1


Newton South High School Football/Soccer / 117155 - 117155F Electrical Service #1 - Page 2 of 4

Control·Link. Control and Monitoring System



10	Description	Wires	(AWG)	(in)	Length (ft)	Supplied	nules	
1	Line power to contactors, and equipment grounding conductor	*A	*8	*C	N/A	No	A-E	
1	Power-line Communication Connection (dedicated, 20A)	*A	12	*C	N/A	No	A-E	
2	Load power to lighting circuits, and equipment grounding conductor	*A	*В	*C	N/A	No	A-E	
3	Control power (dedicated, 20A)	3	12	*C	N/A	No	C,E	

* Notes:

R60-100-00_A

A. See voltage and phasing per the notes on cover page.

B. Calculate per load and voltage drop.

C. All conduit diameters should be per code unless otherwise specified to allow for connector size.

D. Equipment grounding conductor and any splices must be insulated.

E. Refer to control and monitoring system installation instructions for more details on equipment information and the installation requirements.

IMPORTANT: Control wires (3) must be in separate conduit from line and load power wires (1, 2).





Control System Summary

Newton South High School Football/Soccer / 117155 - 117155F Electrical Service #1 - Page 3 of 4

SWITCHING SCHEDULE

Field/Zone Description	Zones		
FB/SO	1		

CONTROL P	OWER CONSUMPTION
120V Single F	Phase
VA loading	INRUSH: 1553.0
of Musco	
Supplied	SEALED: 179.8
Equipment	

	CIRCUIT SUMMARY BY ZONE								
POLE	CIRCUIT DESCRIPTION	# OF FIXTURES	# OF DRIVERS	*FULL LOAD AMPS	CONTACTOR SIZE (AMPS)	CONTACTOR ID	ZONE		
S1	FB/SO	11	11	50.1	60	C1	1		
S2	FB/SO	11	11	50.1	60	C2	1		
S3	FB/SO	11	11	50.1	60	C3	1		
S4	FB/SO	11	11	50.1	60	C4	1		

*Full Load Amps based on amps per driver.



Control System Summary

Newton South High School Football/Soccer / 117155 - 117155F Electrical Service #1 - Page 4 of 4

	PANEL SUMMARY							
CABINET #	CONTROL MODULE LOCATION	ID	CIRCUIT DESCRIPTION	FULL LOAD AMPS	DISTRIBUTION PANEL ID (BY OTHERS)	CIRCUIT BREAKER POSITION (BY OTHERS)		
1	1	C1	Pole S1	50.07				
1	1	C2	Pole S2	50.07				
1	1	C3	Pole S3	50.07				
1	1	C4	Pole S4	50.07				

ZONE SCHEDULE						
-			CIRCUIT DESCRIPT			
ZONE	SELECTOR SWITCH	ZONE DESCRIPTION	POLE ID	CONTACTOR ID		
Zone 1	1	FB/SO	S1	C1		
			S2	C2		
			S3	C3		
			S4	C4		

Newton South High School Football/Soccer

Lighting System

Pole ID	Pole Height	Mtg Height	Fixture Qty	Luminaire Type	Load	Circuit
S1-S4	80'	80'	9	TLC-LED-1500	12.87 KW	A
		16'	2	TLC-BT-575	1.15 kW	A
4		-	44		58.08 kW	-

A Soccer 56.08 kW 44

Fixture Type Summary							
Туре	Source	Wattage	Lumens	LBO	LBO	L70	Quantity
TLC-BT-575	LED 5700K - 75 CRI	575W	52,000	>81,000	>81,000	>81,000	8
TLC-LED-1500	LED 5700K - 75 CRI	1430W	160,000	>81,000	>81,000	>81,000	36

t Level Summary								
alculation Grid Summa	ry and the state of the state	-	1 - 12	12	1710			
Grid Name	Calculation Metric		Min	Bumination	1. 14	Aver (Beller	Circuits	Fixture Qt
Bleachers	Horizontal Illuminance	0 Ave	0	0 Max	0.00	AverMin	В	0
Football	Horizontal Illuminance	51	41	59	1.46	1.24	A	44
Property Line	Horizontal	0	0	0.04	0.00		A,B	44
Property Line	Max Candela (by Fixture)	286	0	2317	0.00		A.B	44
Property Line	Max Vertical Illuminance Metric	0.01	0	0.08	0.00		A,B	44
Soccar	Horizontal Illuminance	50.1	41	59	1.46	1.22	A	44
Wetlands Grid	Horizontal	0.01	0	2	0.00		A,B	44
Zero Grid	- Horizontal	14.6	0	62	12539.03		A,B	44

From Hometown to Professional





PROJECT SUMMARY

ENGINEERED DESIGN By: Tanner Lanphier • File #117155F • 14-Feb-20





EQUIPMENT LIST FOR AREAS SHOWN Pole Luminaires 07/ 102/07 103/07 103/07 103/07 103/07	Newton South High School Football/Soccer Newton,MA
Image: Constraint of the second sec	GRID SUMMARY Name: Zero Grid Size: 360'x 160' Spacing: 40.0' x 40.0'
	<text></text>
0' 200' 400'	to on managements bounds of the marken of marken of the ma

Not to be reproduced in whole or pert without the written consent of Musco Sports Lighting, LLC. 61881, 2020 Musco Sports Lighting, LLC. ILLUMINATION SUMMARY

.

.

EQUIPMENT LIST FOR AREAS SHOWN	Newton South High School Football/Soccer Newton,MA
Orv LOCATION INDIA EQUATION HEBGAT TYPE APPL ORIGO	GRID SUMMARY Narme: Wetlands Grid Size: 360' x 160' Spacing: 20.0' x 20.0' Height: 3.0' above grade
In the provide of	Height: 3.0° above grade ILLUMINATION SUMMARY MAINTAINED HORIZONTAL FOOTCANDLSS Entre Grid Entre Grid San Average: 0.01 Maintum: 2 Minimum: 0 Avg / Min: - UG (ødjecen tpt): 14.13 CU: 0.00 No. of Points: 1428 Luminalre Output: 52,000 / 160,000 lumens No. of Points: 1428 Luminalre Output: 52,000 / 160,000 lumens No. of Points: 120 hrs Luminalre Tupe: 120 hrs Luminalere Station 120 hrs Cuminalre Tupe: 130 hrs Mainter Station 120 hrs Cuminalere Type: 130 hrs Reported per Twi-21-11. See luminalere datasheet for details Starenteed Performance: 120 hrs Statent Performance: The LUMINTON described above is guaranteed per your Musco Warrentv document and Includes a 0.35 120 hrs
enter en la caracteria de la car de la caracteria de la ca de la caracteria de la de la caracteria de la caract de la caracteria de la caracte	dirt depredistion factor. Reld Messurements: Individual field measurements may vary from computer-calculated predictions and about be taken in accordance with IESNA RP-6-15. Electrical System Requirements: Refer to Amperage Draw Chart and/or the "Musco Control System Summary" for electrical System
	Installation Requirements: Results assume ± 3% nominal voltage at line side of the driver and structures located within 3 feet (Im) of design locations.
SCALE IN FEET 1: 120 Pole bortlon(s)	We Make It Happen
ENGINEERED DESIGN By: Tanner Lanphier • File #117155F • 14-Feb-20	Not to be reproduced in whole or part without the written consent of Musco Sports Lighting, LLC. @1961, 2020 Musco Sports Lighting, LLC.

ILLUMINATION SUMMARY

EQUIPMENT LIST FOR AREAS SHOWN	Newton South High School Football/Soccer
ITY LOCATION NEXT CMANTHS LIMBAUKE OV/17 THE OTHER 2 S1.52 80' - 35.5' TLC-BI-575 2 2 0 9 9 0 - 100' TLC-LI-S00 9 9 0	GRID SUMMARY
2 53-54 80' - 15.5' TLC-BT-575 2 2 0 4 - TOTALS - 15.5' TLC-BT-505 4 44 0	Name: Property Line Spacing: 30.0* Height: 3.0*above grade
	ILLUMINATION SUMMARY
	Entire Grid Scan Average: 0.0038
	Maximum: 0.04 Minimum: 0.00 No. of Points: 47
	LUMINAIRE INFORMATION Color / CRI: 5700K - 75 CRI
-free	No. of Liminaire Graphic S2,000 / 100,000 / University Total Load: 56,08 kW
$S1 $ $S2 $ V_{V}	Luminaire Type L90 hrs L30 hrs L70 hrs TLC-8T-575 >81,000 >81,000 >81,000
	TLC-LED-1500 >81,000 >81,000 >81,000 Reported per TM-21-11. See lumenaire datasheet for details.
	Guarantaed Performance: The ILLUMINATION described above is guaranteed per your Musco Warranty decument
aft at the	Field Mesurements: IndiVidual field measurements may vary from computer-calculated predictions and should be taken
to the second se	in accordance with IESNA RP-6-15. Electrical System Requirements: Refer to Amperage Draw Chart and/or the "Bluesc Control System Summary"
S4 S3 O BUILL	for electrical string. Installation Requirements: Results assume ± 3%
the second	nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.
A A A A A A A A A A A A A A A A A A A	
and and a second s	-
a sea a second sec	
	0000
	MŬŠ<u>C</u>O
SCALE IN FEET 1 : 200 Pole location(s) +dimensions are relative	Manneg
σ 200° 400° ENGINEERED DESIGN By: Tanner Lanphler ● File #117155F • 14-Feb-20	We Make It Happen. Not to be reproduced in whole or part without the written consent of Musco Sports Lichting, LLC, CHRIT, 2020 Musco Sports Lichting, LLC
	ILLUMINATION SUMMARY

Pole Luminatives Pole Luminatives Luminatives Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2" Vision Colspan="2" Colspan="2">Luminatives Colspan="2">Colspan="2" Colspan="2">Colspan="2" Colspan="2" Colspan="2" <th <="" colspan="2" th=""><th>Newton South High School Football/Soccer Newton,MA GRID SUMIMARY Name: Property Une</th></th>	<th>Newton South High School Football/Soccer Newton,MA GRID SUMIMARY Name: Property Une</th>		Newton South High School Football/Soccer Newton,MA GRID SUMIMARY Name: Property Une
a <u>availabelised</u> <u>availabelis</u>	Spacing: 30.07 Height: 3.07 bloove grade ILLUMINATION SUMMARY MAX VERTICAL FOOTCAMOLES Entire Grid Scan Average: 0.0098 Matimum: 0.08 Millimum: 0.00 No. of Points: 47 LUMMINARE MICRIMATION Color / CRI: 5700K -75 CRI Luminalire Output: 53,000 / 16,000 humens Ne. of Luminalire Uptut: 53,000 / 16,000 humens Ne. of Luminalire Uptut: 54,000 / 16,000 humens Ne. of Luminalire Uptut: 54,000 / 16,000 humens Ne. of Luminalire Uptut: 54,000 / 16,000 humens		
S1 ◆ S2	Luminaire Type L90 hrs L00 hrs L70 hrs TLC-8F-57 >881,000 >81,000 >81,000 TLC-LED-1500 >81,000 >81,000 >81,000		
	Reported performance: The LLU MINATION described above is guaranteed performance: The LLUMINATION described above is guaranteed per your Musco Waranty document. Reid Massurements: Individual field measurements may vary from computer-calculated predictions and should be taten in accordance with IESNA RP6-15. Electrical System Requirements: Refer to Ampenge Draw Chart and/or the "Musco Control System Summary" for electrical sizing. Installation Requirements: Results assume ± 3% nominal voltage at line side of the driver and structures		
	iouzeeu wrizin 3 ner (,m) or gesgn iouzons.		
	the second se		
SCALE IN FEET 1: 200	ole locator(s) +dmensions are relative		
to T T T T T T T T T T T T T T T T T T T	0.0.0 reference point(s) We Make It Happen. Not to be reproduced in whole or part without the written consent of Musco Biports Lighting, LLC. 01981, 2020 Musco Sports Lighting, LLC.		

200-20

EQUIPMENT LIST FOR AREAS SHOWN		Newton South High School Football/Soccer Newton,MA
BYT LOCATION WEX PLENDER TMOD TMOL AUDID 2 51.52 8.07 - 15.5' TLC-167575 2 2 2 2 53.54 8.07 - 10.5' TLC-167575 2 2 0 2 53.54 8.07 - 10.5' TLC-167575 2 2 0		GRID SUMMARY Name: Property Line
80° TLC-LED-1500 9 9 0 4 TOTALS 44 44 0		Spacing: 30.0' Height: 3.0' above grade
		CANDELA (PER FIXTURE) Entime Grid
		Scan Average: 286.1185 Maximum: 2316.63 Minimum: 0.00
		NO. OF FOINDS: 47 LUMINAIRE INFORMATION Color / CRI: 5700K - 75 CRI
- free		No. of Luminaires: 44 Total Load: 56.08 kW
S1 ↓ S2 ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓		Luminaire Type L90 hrs L80 hrs L70 hrs TLC-BT-575 >81,000 >81,000 >83,000 TLC-LED-1500 >841,000 >81,000 Rbports per TM-21-11. See luminaire datasheet for details.
2 S S S S S S S S S S S S S S S S S S S		Guarantaed Parformance: The ILLUMINATION described above is guaranteed per your Musco Warranty
and the second se		Reld Measurements: Individual field measurements may vary from computer-calculated predictions and should be taken to scenetic on with ISNA 89.6.15
A A A A A A A A A A A A A A A A A A A		Electrical System Requirements: Refer to Amparage Draw Chart and/or the "Musco Control System Summery"
54 53 0 40 0		Installation Requirements: Results assume ± 3% nominal voltage at line side of the driver and structures
A comment		riocassia wanin 5 laac (7m) ni nasellu iocannua.
The second of the second		
	S-	
	A COLOR	
	ar /	
	T	
	A.	00000
		musco
SCALE IN FEET 1:200	Dala location(s) . A dimension an estatu	Lighting
	to 0,0 reference point(s)	We Make It Happen.
	a production of the	ILLUMINATION SUMMARY



ENGINEERED DESIGN By: Tanner Lanphier • File #117155F • 14-Feb-20



EQUIPMENT LAYOUT

Ruthanne Fuller Mayor

City of Newton, Massachusetts

Department of Planning and Development 1000 Commonwealth Avenue Newton, Massachusetts 02459 Telephone (617) 796-1120 Telefax (617) 796-1142 TDD/TTY (617) 796-1089 www.newtonma.gov

Barney S. Heath Director

January 31, 2020

Luis Perez-Demorizi City of Newton Parks, Recreation, and Culture 246 Dudley Road Newton, MA 02459

RE: 140 Brandeis Road, Request for Determination of Applicability

Project summary

- Install 4 field light poles at the currently unlit Newton South High School field, with related trenching for electrical wiring.
- Work within the buffer zone is limited to the installation of the bases for 2 of the light structures and the trenching
 associated with the necessary electrical conduit.
- Erosion controls are proposed to be installed between the proposed lights and the resource area.

Approved plans

- "Electrical Site Plan E1.01" prepared by Richard Alexy (1/12/20)
- "Illumination Summary (wetlands grid)" prepared by Musco (11/11/19)
- "Newton South High School Football/Soccer Lighting Design" by Musco (10/4/19)

Dear Mr. Perez-Demorizi:

Enclosed is the Newton Conservation Commission's Determination of Applicability under the Wetlands Protection Act, MGL Ch. 131, s. 40 and the Newton Floodplain/Watershed Protection Ordinance, Section 22-22. The Determination is "Negative-Conditional", i.e., the Commission has determined that <u>by following the referenced plan(s) and the following mandatory conditions listed below, no</u> adverse alteration of the wetland resource area will occur and so no further wetland filing is needed.

- The applicant must schedule and attend a pre-construction site visit to check erosion controls.
- All spoils from trenching and auguring must be properly disposed of off-site.
- Concrete for the footings must be mixed on site to reduce waste. Any excess concrete must be properly disposed of off-site.
- Any concrete washout must occur outside the 100' buffer zone.
- All disturbed areas must be fine-graded, loamed, and seeded to ensure permanent stabilization.

If you have any questions regarding this Determination, please contact me.

Sincerely Claire Rundelli Assistant Environmental Planner

CC: Wetlands Division, DEP - NERO, 205B Lowell St., Wilmington, MA 01887

Preserving the Past 🕅 Planning for the Future

200-20



Massachusetts Department of Environmental Protection Bureau of Resource Protection - Wetlands

WPA Form 2 – Determination of Applicability

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Important: When filling out forms on the computer, use only the tab key to move your cursor do not use the return key.

From:

Newton

	Conservation Commission		1	
Го:	Applicant		Property Owner (if different from ap	plicant):
	Luis Perez Demorizi, Parks,	Rec., and Culture	City of Newton	•
	Name		Name	
	246 Dudley Road		1000 Commonwealth Ave	
	Mailing Address	*	Mailing Address	
	Newton	MA 02459	Newton	02459
	City/Town	State Zip Code	Clty/Town State	Zip Coo

1. Title and Date (or Revised Date if applicable) of Final Plans and Other Documents:

"Electrical Site Plan E1.01" prepared by Richard Alexy	1/12/20
Title	Date
"Illumination Summary (wetlands grid)" prepared by Musco	11/11/19
Tille	Date
"Newton South High School Football/Soccer Lighting Design" by Musco	10/4/19
Tille	Date

2. Date Request Filed:

A. General Information

1/14/20

B. Determination

Pursuant to the authority of M.G.L. c. 131, § 40, the Conservation Commission considered your Request for Determination of Applicability, with its supporting documentation, and made the following Determination.

Project Description (if applicable):

The scope of work at the Newton South High School Field encompasses the retrofitting of the unlit field with new high efficiency lighting that will help extend the playability of the fields. Excavation occuring on the WPA jurisiction involves digging the light pole foundations and trenching associated with the installation of new electrical conduit. The lighting proposed at the fields has been designed for the least possible spillage.

Project Location:

140 Brandeis Road Street Address 81051 Assessors Map/Plat Number

	 Parcel/Lot I	Number
	0047	
	City/ I own	· .

Newton



Massachusetts Department of Environmental Protection Bureau of Resource Protection - Wetlands

WPA Form 2 – Determination of Applicability

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

B. Determination (cont.)

The following Determination(s) is/are applicable to the proposed site and/or project relative to the Wetlands Protection Act and regulations:

Positive Determination

Note: No work within the jurisdiction of the Wetlands Protection Act may proceed until a final Order of Conditions (issued following submittal of a Notice of Intent or Abbreviated Notice of Intent) or Order of Resource Area Delineation (issued following submittal of Simplified Review ANRAD) has been received from the issuing authority (i.e., Conservation Commission or the Department of Environmental Protection).

1. The area described on the referenced plan(s) is an area subject to protection under the Act. Removing, filling, dredging, or altering of the area requires the filing of a Notice of Intent.

☐ 2a. The boundary delineations of the following resource areas described on the referenced plan(s) are confirmed as accurate. Therefore, the resource area boundaries confirmed in this Determination are binding as to all decisions rendered pursuant to the Wetlands Protection Act and its regulations regarding such boundaries for as long as this Determination is valid.

2b. The boundaries of resource areas listed below are <u>not</u> confirmed by this Determination, regardless of whether such boundaries are contained on the plans attached to this Determination or to the Request for Determination.

3. The work described on referenced plan(s) and document(s) is within an area subject to protection under the Act and will remove, fill, dredge, or alter that area. Therefore, said work requires the filing of a Notice of Intent.

☐ 4. The work described on referenced plan(s) and document(s) is within the Buffer Zone and will alter an Area subject to protection under the Act. Therefore, said work requires the filing of a Notice of Intent or ANRAD Simplified Review (if work is limited to the Buffer Zone).

5. The area and/or work described on referenced plan(s) and document(s) is subject to review and approval by:

Name of Municipality

Pursuant to the following municipal wetland ordinance or bylaw:

Name

Ordinance or Bylaw Citation



Massachusetts Department of Environmental Protection Bureau of Resource Protection - Wetlands

WPA Form 2 – Determination of Applicability

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

B. Determination (cont.)

- 6. The following area and/or work, if any, is subject to a municipal ordinance or bylaw but not subject to the Massachusetts Wetlands Protection Act:
- 7. If a Notice of Intent is filed for the work in the Riverfront Area described on referenced plan(s) and document(s), which includes all or part of the work described in the Request, the applicant must consider the following alternatives. (Refer to the wetland regulations at 10.58(4)c. for more information about the scope of alternatives requirements):
 - Alternatives limited to the lot on which the project is located.
 - Alternatives limited to the lot on which the project is located, the subdivided lots, and any adjacent lots formerly or presently owned by the same owner.
 - Alternatives limited to the original parcel on which the project is located, the subdivided parcels, any adjacent parcels, and any other land which can reasonably be obtained within the municipality.
 - Alternatives extend to any sites which can reasonably be obtained within the appropriate region of the state.

Negative Determination

Note: No further action under the Wetlands Protection Act is required by the applicant. However, if the Department is requested to issue a Superseding Determination of Applicability, work may not proceed on this project unless the Department fails to act on such request within 35 days of the date the request is post-marked for certified mail or hand delivered to the Department. Work may then proceed at the owner's risk only upon notice to the Department and to the Conservation Commission. Requirements for requests for Superseding Determinations are listed at the end of this document.

- 1. The area described in the Request is not an area subject to protection under the Act or the Buffer Zone.
- 2. The work described in the Request is within an area subject to protection under the Act, but will not remove, fill, dredge, or alter that area. Therefore, said work does not require the filing of a Notice of Intent.
- 3. The work described in the Request is within the Buffer Zone, as defined in the regulations, but will not alter an Area subject to protection under the Act. Therefore, said work does not require the filing of a Notice of Intent, subject to the following conditions (if any).

1) Applicant must schedule and attend a pre-construction site visit to check erosion controls. 2) All spoils from trenching and auguring shall be properly disposed off-site. 3) Concrete for backfilling of footings shall be mixed on site to reduce waste and any excess concrete must be disposed properly off-site. 4) Any concrete washout must occur outside the 100' buffer zone. 5) All disturbed areas must be fine graded, loamed, and seeded to ensure permanent stabilization.

4. The work described in the Request is not within an Area subject to protection under the Act (including the Buffer Zone). Therefore, said work does not require the filing of a Notice of Intent, unless and until said work alters an Area subject to protection under the Act.

B. Determination (cont.)



Signatures:

1/31/20 Dale **D.** Appeals



Massachusetts Department of Environmental Protection Bureau of Resource Protection - Wetlands WPA Form 2 – Determination of Applicability Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

The applicant, owner, any person aggrieved by this Determination, any owner of land abutting the land upon which the proposed work is to be done, or any ten residents of the city or town in which such land is located, are hereby notified of their right to request the appropriate Department of Environmental Protection Regional Office (see http://www.mass.gov/eea/agencies/massdep/about/contacts/) to issue a Superseding Determination of Applicability. The request must be made by certified mail or hand delivery to the Department, with the appropriate filing fee and Fee Transmittal Form (see Request for Departmental Action Fee Transmittal Form) as provided in 310 CMR 10.03(7) within ten business days from the date of issuance of this Determination. A copy of the request shall at the same time be sent by certified mail or hand delivery to the Conservation Commission and to the applicant if he/she is not the appellant. The request shall state clearly and concisely the objections to the Determination which is being appealed. To the extent that the Determination is based on a municipal ordinance or bylaw and not on the Massachusetts Wetlands Protection Act or regulations, the Department of Environmental Protection has no appellate jurisdiction.

	ureau of Resource Pro	otection - Wetlan	ds			aumoor,
	Request for Dep	artmental A	ction Fee	1. S. S.	Dravidad	by DED
	ransmittal Forn	n			Piovided	
. <u>N</u>	lassachusetts Wetland	ls Protection Act	M.G.L. c. 131,	§40	•	
A	. Request Informa	ation		t Timo and	•	
	Leasting of Design			•		· ,
1	Location of Project				· · · ·	•
· · ·	a Street Address		h Clfv/Tou	n 7in	<u> </u>	
н. 1911 - Р. С.			D. ONYTON	n, zip		
•	c. Check number		d. Fee amo	unt		
t: 2.	Person or party making	request (if appropriat	te, name the citize	en group's rep	presentative):	
on					· · · ·	
uter,	Name			• •	· · · · · · · · · · · · · · · · · · ·	
he	Mailing Address				·	
r	Mailing Address					·
o	City/Town			State		Zip Co
e					<u> </u>	
•	Phone Number	· · ·		Fax Number	(il applicable)	
3.	Applicant (as shown on I	Determination of App	licability (Form 2)	, Order of Re	source Area	Deline
	(Form 4B), Order of Con	allions (Form 5), Rei 6)):	storation Order of	Conditions (r	onn 5A), or i	Notice
D .	Non-Significance (Form	<i>,,</i>		· ·		
	Non-Significance (Form	· ·				
	Non-Significance (Form)					
	Non-Significance (Form (
]	Non-Significance (Form Name Mailing Address					
	Non-Significance (Form Name Mailing Address City/Town			State		Zip Coo
	Non-Significance (Form Name Mailing Address City/Town			State		Zip Coo
	Non-Significance (Form Name Mailing Address City/Town Phone Number			State Fax Number	(if applicable)	Zip Co
4.	Non-Significance (Form (Name Mailing Address City/Town Phone Number DEP File Number:			State Fax Number	(if applicable)	Zip Cor
4.	Non-Significance (Form Name Mailing Address City/Town Phone Number DEP File Number:			State Fax Number	(if applicable)	Zip Cor

- 1. When the Departmental action request is for (check one):
 - Superseding Order of Conditions Fee: \$120.00 (single family house projects) or \$245 (all other projects)
 - Superseding Determination of Applicability Fee: \$120
 - Superseding Order of Resource Area Delineation Fee: \$120

Send this form and check or money order, payable to the Commonwealth of Massachusetts, to:

Department of Environmental Protection Box 4062 Boston, MA 02211

200-20



Massachusetts Department of Environmental Protection Bureau of Resource Protection - Wetlands Request for Departmental Action Fee Transmittal Form

DEP File Number:

Provided by DEP

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

- **B. Instructions** (cont.)
- 2. On a separate sheet attached to this form, state clearly and concisely the objections to the Determination or Order which is being appealed. To the extent that the Determination or Order is based on a municipal bylaw, and not on the Massachusetts Wetlands Protection Act or regulations, the Department has no appellate jurisdiction.
- 3. Send a **copy** of this form and a **copy** of the check or money order with the Request for a Superseding Determination or Order by certified mail or hand delivery to the appropriate DEP Regional Office (see <u>http://www.mass.gov/eea/agencies/massdep/about/contacts/</u>).
- 4. A copy of the request shall at the same time be sent by certified mail or hand delivery to the Conservation Commission and to the applicant, if he/she is not the appellant.



RUTHANNE FULLER

MAYOR

City of Newton, Massachusetts Office of the Mayor

196-20

Telephone (617) 796-1100

Telefax (617) 796-1113

TDD (617) 796-1089

E-mail <u>rfuller@newtonma.gov</u>

March 9, 2020

Honorable City Council Newton City Hall 1000 Commonwealth Avenue Newton Centre, MA 02459

Councilors:

I respectfully submit a docket item to your Honorable Council requesting authorization to transfer the sum of \$60,000 from Acct # 0110498-579000 Current Year Budget Reserve to a non-lapsing Public Buildings Department account for the evaluation and recommendations for the upgrade of the Police Headquarters HVAC System.

As detailed in the FY21 – FY25 Capital Improvement Plan, Police Headquarters will undergo a series of improvements over the next several years beginning with \$1 million in HVAC upgrades in FY21.

Thank you for your consideration of this matter.

Sincerely,

Fuller

Ruthanne Fuller Mayor

RECEIVED 2020 MAR -9 PM 4:57



RUTHANNE FULLER

MAYOR

City of Newton, Massachusetts Office of the Mayor

197-20

Telephone (617) 796-1100

Telefax (617) 796-1113

TDD (617) 796-1089

E-mail rfuller@newtonma.gov

March 9, 2020

Honorable City Council Newton City Hall 1000 Commonwealth Avenue Newton Centre, MA 02459

Councilors:

I respectfully submit a docket item to your Honorable Council requesting authorization to appropriate \$500,000 from June 30, 2019 Certified Free Cash for the purpose of providing interior and exterior improvements at the Horace Mann School at 225 Nevada Street.

Improvements identified in the FY21 - FY25 Capital Improvement Plan include improvements to the existing playground with programmatically accessible features and new accessible sinks on the second floor among other items.

Thank you for your consideration of this matter.

Sincerely,

Fuller

Ruthanne Fuller Mayor

RECEIVED 2020 MAR -9 PM 4: 58 CITY CLERK NEWTON, MA. 02459



CITY OF NEWTON, MASSACHUSETTS PUBLIC BUILDINGS DEPARTMENT 52 ELLIOT STREET. NEWTON HIGHLANDS, MA 02461

Ruthanne Fuller, Mayor Josh Morse Building Commissioner

Telephone (617) 796-1600 Facsimile (617) 796-1601 TDD/tty # (617) 796-1608

February 24, 2020

Ruthanne Fuller, Mayor Newton City Hall 1000 Commonwealth Avenue Newton Centre, MA 02459

Re: Funding Request for Horace Mann Improvements

Dear Mayor Fuller:

The Public Buildings Department respectfully requests \$500,000 for Interior Improvements and Exterior Improvements at the Horace Mann School at 225 Nevada Street.

Sincerely,

Josh Morse Public Buildings Commissioner

cc: Maureen Lemieux, Chief Financial Officer Alex Valcarce, Deputy Buildings Commissioner



RUTHANNE FULLER

MAYOR

City of Newton, Massachusetts Office of the Mayor

201-20 Telephone (617) 796-1100

Telefax (617) 796-1113

TDD (617) 796-1089

E-mail rfuller@newtonma.gov

March 9, 2020

2020 MAR - 9 PM 4:

ទួ

Honorable City Council Newton City Hall 1000 Commonwealth Avenue Newton Centre, MA 02459

Councilors:

I respectfully submit a docket item to your Honorable Council requesting authorization to transfer the sum of \$650,000 from June 30, 2019 Certified Free Cash to the Newton Public Schools for the purpose of reimbursing NPS for one-time costs associated with several projects that were necessary to accomplish the move of the Horace Mann Elementary School community to the former Carr School on Nevada Street.

Projects to be included in this reimbursement are as follows:

- ▶ new bus loop \$235k,
- ➤ technology upgrades \$120k,
- ▶ installation of two modular classrooms \$215k, and
- \triangleright installation of acoustical tiles where needed \$80k.

Thank you for your consideration of this matter.

Sincerely, Full thin.

Ruthanne Fuller Mayor

Horace Mann - Phase 1				
Phase 1				
Bus Loop	\$ 71,249.54			
Construction	\$ 163,586.24			
moving cost	\$ 28,085.00			
Technology Costs	\$ 122,236.98			
Total	\$ 385,157.76			
	Horace Mann -	Construction Phase		
	· · · · ·			
Construction Phrase 2	Amount PD	Notes		
Mod 1 -Rental	\$ 41,304.00	Contract Signed		
delivery & Install	\$ 31,937.00	Money transferred		
return charges	\$ 977.00			
Mod 2 - rental	\$ 48,384.00	Contract Signed		
delivery & Install	\$ 33,437.00	Money transferred		
return charges	\$ 2,477.00			
	\$ 158,516.00	Amount encumbered		
	1			
Acoustical Tile Install	\$ 20,783.17	Vanguard Invoice 8520		
Acoustical Tile Install	\$ 20,783.18	Vanguard Invoice 8522		
Acoustical Tile Install	\$ 24,492.00	Vanguard Invoice 8529		
Acoustical Tile Install	\$ 12,412.36	Vanuguard Invoice 8534		
Acoustical Tile Install	\$ 8,565.00	Vanguard Invoice 8538		
Acoustical Tile Install	\$ 6,800.00	\$6,800.00 paid - see 11/21 Invoice		
······				
Mod Architect	\$ 6,400.00	RDA - Invoice 20191218.2 - 12/18 Invoice		
Furniture	\$ 6,522.51	paid from Cindy's accoun		
Lockers	\$ 1,531.98	School Speciality 20812448015		
IT for Mod Classrooms	\$ 14,099.08	Reimburse IT / transfer bill		
Electrical Work HM Mod	\$ 95,500.00	Yes Invoice 174638		
Horace Mann Modular Deck	\$ 23,200.00	Vanguard invoice 8530		
	\$ 19,316.00	Vanguard Construction Invoice 8546		
Furniture Consultant	\$ 1,947.50	Todd Tsiang - PA2012		
Misc costs	\$ 6,287.32			
	\$ 2,900.00	ADI - PO 20203092 - fire alarm supplies		
	\$ 5,450.00	HM - design for Homer / Vanguard Work		
	\$ 276,990.10			
Total Cost	\$ 435,506.10			

	Tota	al amount Pd
HM Phase 1	\$	385,157.76
HM Phase 2	\$	435,506.10
Total Paid to dat	\$	820,663.86



RUTHANNE FULLER MAYOR

City of Newton, Massachusetts Office of the Mayor

198-20 Telephone

(617) 796-1100

Telefax (617) 796-1113

TDD (617) 796-1089

E-mail <u>rfuller@newtonma.gov</u>

March 9, 2020

2020 MAR - 9 PM 4: 59

RECEIVEL

Honorable City Council Newton City Hall 1000 Commonwealth Avenue Newton Centre, MA 02459

Councilors:

I respectfully submit a docket item to your Honorable Council requesting authorization to appropriate and expend \$7,000,000 and authorize a general obligation borrowing of an equal amount for estimated design and construction costs associated with Water Main Improvements in FY2021.

Water main rehabilitation projects for FY2021 include Needham Street and Winchester Street from Boylston Street to Needham Street (\$5,000,000) and Chestnut Street from Beacon Street to Commonwealth Ave (\$2,000,000).

Further, I request that your Honorable Council authorize any premium received upon the sale of the bonds or notes, less the cost of preparing, issuing and marketing them, and any accrued interest received upon the delivery of the bonds or notes be applied to the costs of the project being financed by the bonds or notes and to reduce the amount authorized to be borrowed for the project by a like amount.

Thank you for your consideration of this matter.

Sincerely;

Kurtham Fuller

Ruthanne Fuller Mayor City of Newton



DEPARTMENT OF PUBLIC WORKS OFFICE OF THE COMMISSIONER 1000 Commonwealth Avenue Newton Centre, MA 02459-1449

Ruthanne Fuller Mayor

March 9, 2020

To: Mayor Ruthanne Fuller Jonathan Yeo, Chief Operating Officer Maureen Lemieux, Chief Financial Officer

From: James McGonagle, Commissioner

Subject: FY21 Water Main Improvements

I respectfully request a total of \$7,000,000 for estimated design and construction costs associated with Water Main improvements in FY 2021.

In the Capital Improvement plan, the City is committing to borrowing \$4.6 million annually from City debt and MWRA loans to upgrade our water system, which will improve fire flows, and ensure the delivery of superior water quality. The Needham Street and Winchester Street water main project schedule is driven by MassDOT's reconstruction project. The Chestnut Street water main project schedule is being driven by the schedule of the milling and paving and sidewalk improvements of Chestnut Street by Public Works. We are therefore requesting additional funds to cover the cost of these projects.

Water main rehabilitation projects for FY 2021 include the following estimated design and construction costs:

\$5,000,000 - Needham St. and Winchester St. from Boylston St. to Needham St. **\$2,000,000** – Chestnut St from Beacon St. to Commonwealth Ave.

Needham St. and Winchester St. from Boylston St. to Needham St.

This work precedes the rehabilitation of Winchester Street and Needham Street by MassDOT. This unlined cast iron water main is 20 inches in diameter, and it was installed in 1877. We have experienced two major leaks on this water main within the past 2 years. New gate valves were recently installed to control water main shut-downs if necessary. Our consulting engineers were tasked to evaluate the pipe, and they made a recommendation as to its rehabilitation. The pipe has a remaining useful life of about 17 years, and complete replacement is recommended prior to roadway rehabilitation. Cost estimates for complete replacement is \$5,000,000 (including design). Cost estimates and the testing report is attached. This project will be designed by MassDOT's consulting engineers (under contract with the city), and it will be bid by MassDOT as part of the roadway rehabilitation contract. City of Newton will pay for this construction under a non-participating agreement with MassDOT.

Chestnut St from Beacon St. to Commonwealth Ave.

This work precedes the milling and paving of Chestnut Street. This unlined cast iron water main is 12 inches in diameter, and it was installed in 1877. The estimated construction cost is \$2,000,000, based on a recent bid for the Chestnut Street (from Boylston street to Beacon street) water main cleaning and lining project. This project will be designed by our consulting engineers, and it will be bid by the city.



September 25, 2018

Mr. Ted Jerdee, Director of Utilities City of Newton DPW 1000 Commonwealth Avenue Newton, MA 02439

Subject: Winchester Street Pipe Analysis T&H No. 4586-09

Dear Mr. Jerdee:

As requested, Tata & Howard has performed testing on a sample of pipe provided by the City of Newton from the 20-inch diameter main along Winchester Street to evaluate the condition of the pipe. The unlined cast iron pipe was reportedly installed in 1878. The pipe sample was sandblasted at Abrasive Blasting and Coating in Worcester, MA and then delivered to Massachusetts Materials Research, Inc. (MMR) in West Boylston, MA, for metallurgical analysis and testing.

The sandblasted pipe sample was visually inspected by MMR. The minimum and maximum wall thickness was recorded and used to estimate the pipe class based on the measured, remaining thickness of the pipe sample wall and comparison with vintage American Water Works Association (AWWA) pipe thickness class information. Pitting was observed on the interior of the pipe with pits as deep as 0.1365 inches. Reportedly, no external pitting was observed. Table No.1 shows the pipe characteristics measured by MMR, and a photograph of the interior pitting is shown in Figure No. 1, below.

Estimated Class	Original Wall Thickness (in)	Existing Wall Thickness (in)	Max. Internal Pit (in)	Max. External Pit (in)	Min. Wall Thickness less Total Pit (in)	Percent Remaining Wall Thickness
D	1.03	0.8465	0.1365	0.00	0.7100	69%

Table No. 1 Summary of MMR Report

Tata & Howard 67 Forest Street | Marlborough, MA 01752 T: 508-303-9400 | F: 508-449-9400 www.tataandhoward.com

Other Offices MA | NH | CT | ME | VT | AZ | TX Mr. Ted Jerdee, Director of Utilities City of Newton DPW September 25, 2018 Page 2 of 3



Figure No. 1 Winchester Street Pitting

After measurement of the physical characteristics of the pipe, the sample was crushed by MMR using the ANSI A21.6-13 Ring Test Method. The Factor of Safety (FOS) is the ratio of the pipe resistance capacity to loads that are applied to the pipe itself. The standard factory minimum FOS for new pit cast mains is 2.5. The FOS can begin to decrease as soon as the pipe is installed in the ground. Water quality, soil composition, groundwater characteristics, and groundwater flow can lead to corrosion, metal deterioration and loss of strength in pipe, lowering the FOS. The test result for the pipe sample was 11,700 lbs and the remaining FOS is estimated at 1.15.

MMR performed additional testing on the pipe sample including tests of tensile strength, Talbot strip tests, and metallurgical analysis. Tensile strength was estimated at 5,950 pounds per square inch (psi), compared to the typical original value for cast iron of 20,000 to 60,000 psi. The Talbot strip test results were used to estimate an average modulus of rupture of 18,667 psi, compared to the typical standard for pit cast iron pipe of 40,000 psi. A copy of the MMR report is included in Attachment A.

The City has reported that at least one break has occurred on this main. Based on the extent of metal loss, the low FOS, and the deteriorated tensile strength and modulus of rupture, the Winchester Street water main is near the end of its useful life and should be scheduled for replacement. Cleaning and cement mortar lining will inhibit additional interior corrosion but will not affect structural strength. As at least one break has occurred on this main, cleaning and lining is not recommended. One option is a structural liner, however, additional analysis using the hydraulic model is recommended to evaluate the impact of reducing the internal diameter of the pipe.



Mr. Ted Jerdee, Director of Utilities City of Newton DPW September 25, 2018 Page 3 of 3

At this time, we wish to express our appreciation to the Newton Water Department for their participation in this project and their help in collecting information and the pipe sample. If you have any questions, please do not hesitate to contact us.

Sincerely,

TATA & HOWARD, INC.

acy

Karen L. Gračey, P.E. Co-President

Enclosures



REPORT TO:

Tata & Howard

Marlborough, MA

Attn: Steve Daunais

Purchase Order No. 4586-09

Metallurgical Life Assessment of a 20-inch Pipe from Newton, MA

MMR Project No. 123531

September 7, 2018

From: Massachusetts Materials Research, Inc.

> Veda-Anne Ulčickas Senior Materials Engineer

BACKGROUND AND INVESTIGATION

Tata & Howard requested that Massachusetts Materials Research, Inc. (MMR) perform a metallurgical life assessment of a section of a 20-inch pipe from Newton, MA. This assessment was to include tensile testing, Talbot strip testing, ring crush testing, chemical analysis, hardness testing and metallurgical examination for microstructure, corrosion/remaining wall/remaining life. The pipe was installed in 1878, and the segment removed in 2018.

RESULTS

Visual Examination

The pipe segment is shown as-received in Figures 1 and 2. The 14-inch tall unlined segment contained numerous visible internal pits, many of which were too wide to be completely accommodated within a metallurgical mount and appeared deep for the pipe's nominal 7 /₈-inch wall thickness, Figure 3.

Wall thickness was measured as-received with digital calipers at arbitrarily determined 12 o'clock, 3 o'clock, 6 o'clock and 9 o'clock positions, and the depths of several pits determined. These measurements are summarized in Table I.

Location	Wall Thickness/Depth, inch	
12 o'clock	0.9235	
3 o'clock	0.8465	
6 o'clock	0.9470	
9 o'clock	0.8720	
ID Pits, Various	0.1265, 0.1365, 0.1185	

Table IWall Thickness and ID Pitting Depth

Wall thickness measurements taken on as-received piping provide information on total wall thickness only, including corrosion product, not just remaining metal thickness within that wall. Indications of graphitic corrosion were present during the visual examination of this pipe, with some regions revealing as little as ¹/₄-inch remaining metallic wall, Figures 4 and 5. The wall thickness value used during calculation of remaining life for this pipe was assessed from a metallurgical section taken at a region of visibly less general corrosion and no visible pitting.

Overall, the initial visual examination revealed that this pipe appeared to be in poor condition due to graphitic corrosion and pitting along its ID wall surface. Note that no obvious pitting was noted on the OD wall.

Mechanical Testing

Tensile Testing

One longitudinally oriented ASTM flat tensile test specimen with a ¹/₂-inch gauge section width was machined from the pipe material. This testing revealed the ultimate strength (UTS) of the pipe metal was 5,950 PSI. This result is summarized below in Table II.

Talbot Strip Testing

Two longitudinally oriented ¹/₂-inch deep specimens for Talbot strip testing were machined from the pipe material remaining from ring testing. The modulus of rupture calculated per AWWA C106-75 was 19,620 PSI for one specimen and 17,714 PSI for the second specimen. This produces a mean modulus of rupture of 18,667 PSI. These results are summarized below in Table II.

Ring Crush Testing

Ring crush testing was performed on a 12-inch long section of the submitted pipe. This testing revealed a modulus of rupture of 25,647 PSI, calculated per AWWA C106-75. This result is summarized below in Table II.

Hardness Testing

Brinell (HB) hardness testing using a 10mm ball and a 3,000Kg load was performed on the pipe material. This testing indicated the pipe material hardness was HB 152. The result of this testing is summarized in Table II below, along with a conversion to the Rockwell B (HRB) scale for convenience.

Summary

Table II summarizes the results of the mechanical testing of this pipe segment. As the age of the pipe and its specifications were unknown, some typical mechanical test values are provided for comparison.

Mechanical Test	Subject Pipe	AWWA Standard	Other Standards (Grey Cast Iron)
Tensile Test – UTS, PSI	5,950	n/a	20,000 - 60,000
Ring Crush Test Modulus of Rupture, PSI	25,647	40,000, min.	n/a
Talbot Strip Test Modulus of Rupture, PSI	18,667	40,000, min.	n/a
Hardness, HB (HRB)	152 (82)	< 95 HRB	Variable

Table IIMechanical Testing Summary

These results revealed that the subject pipe is weaker than modern standards require, but meets the AWWA requirement for hardness. This is a normal result for older piping.

Chemical Analysis

Chemical analysis was performed on the pipe ring material using inductively coupled plasma spectroscopy (ICP) in conjunction with LECO carbon-sulfur analysis. The results of this testing are summarized below.

Floment	Composition, wt. %		
Element	Pipe Material	UNS F10006	
Carbon	3.19	3.10 - 3.40	
Cobalt	0.01	·	
Copper	0.02	· · · · · · · · · · · · · · · · · · ·	
Manganese	0.20	0.60 -0.90	
Nickel	0.02		
Phosphorus	1.28	0.15 max.	
Silicon	1.49	1.90 - 2.30	
Sulfur	0.082	0.15 max.	
Titanium	0.07		
Vanadium	0.04		

Table IIIChemical Analysis Results

This analysis revealed that the pipe material was typical of older grey cast irons, with a high phosphorus content. A modern chemical composition controlled grey iron is provided as a comparison. Phosphorus improves mold filling capabilities of the molten metal and depresses melting temperature. It was intentionally added to older irons for these reasons, as its detrimental effects on pipe metallurgy were not understood. Excess phosphorus levels lead to the development of an iron phosphide eutectic phase known as steadite. This phase is hard and brittle and can encourage brittle cracking of pipes that contain it if they are not cut or handled with care.

Metallurgical Examination

Longitudinal and transverse oriented sections were cut from the pipe, mounted in plastic, and ground, polished and etched to reveal pipe material microstructure. The resulting metallurgical mounts provided planar cross-sectional views of the pipe material, allowing metallurgical features and remaining wall thickness to be observed. These mounts were examined in both the as-polished and the etched conditions.

This examination revealed that the pipe material possessed ASTM A247 Type A random flake graphite along its ID wall, Figure 6. The same was present along its OD wall, but mixed with some tendency towards Type B rosettes, Figure 7. Random flake graphite is a desirable graphite form in cast irons as it is not as brittle as the rosette form commonly seen in older pipes.

MMR Project No. 123531 Page 4

Etching revealed that the pipe possessed a largely pearlitic microstructure with a well-developed cellular network of steadite, Figure 8. The steadite network would be predicted by the phosphorus content of the pipe material. A detail view of the microstructure with phases labelled is provided in Figure 9. This microstructure, excepting the steadite network, is common in newer cast irons. This pipe did not possess the variability in microstructure and graphite forms typically seen with older irons. Given the state of the art of cast iron metallurgy when this pipe was installed, it was a well-made example of its kind.

Remaining Life Calculations

Remaining life calculations were performed on two regions of this pipe. One was at a region of less corrosion, also used to provide the best estimate of the original wall thickness of the pipe. The second was at a region of thin remaining wall (Figures 4 and 5). Both options are provided in case there exist regions along this pipe that exhibit less internal corrosion than was observed on the submitted segment. If the remainder of the pipe is typical of this segment, then the more corroded data should be used for replacement scheduling.

In the region with less corrosion, wall thickness was 0.839-inch with a remaining wall of 0.587inch, Figure 10. At 140 years' service, this produces a corrosion rate of 0.0018 inch/year and a remaining life of 326 years. Note that this remaining life assumes a constant corrosion rate and failure by through-wall corrosion penetration. In reality, pipes can fail with as much as 20% remaining wall if pressure spikes, nearby construction disturbance, or undermining occurs. In this less corroded region, a 20% remaining wall failure assumption produces a remaining life of 233 years.

In the region with more noticeable corrosion, remaining wall was 0.2425-inch, which produced a corrosion rate of 0.0043 inch/year. This indicated a remaining life of 56.4 years, assuming through-wall corrosion penetration. For a 20% remaining wall failure, remaining life in the more corroded region was 17 years.

CONCLUSIONS

- The submitted pipe did not possess a cement lining.
- Chemical analysis indicated the pipe material contained an excess of phosphorus over modern requirements. This is typical of older cast irons.
- The pipe microstructure was predominantly pearlitic with a well-developed steadite network and only isolated ferrite. This is typical of older cast irons.
- Mechanical testing indicated the pipe was weaker than modern requirements specify. This
 is typical of older cast irons, especially ones with extensive corrosion.
- The corrosion rate for this pipe at heavily corroded regions is 0.0043 inch/year. This corrosion rate indicates a remaining life of 56.4 years, assuming failure from through wall corrosion penetration. Assuming failure at 20% remaining wall, this corrosion rate indicates a remaining life of 17 years.

MMR Project No. 123531



Figure 1: Overall view of pipe segment as-received.



Figure 2:

The pipe segment was 14-inches long.


Figure 3: The pipe segment possessed many notable pits on its ID wall.













ID graphite form was Type A random flake. As-polished.



Figure 7:

OD graphite form was predominantly Type A with some isolated tendency toward Type B rosette groupings. As-polished.





Overall view of predominantly pearlitic microstructure. Etchant: nital.





Detail of microstructure with phases labelled for clarity. Etchant: nital.





Less corroded region remaining wall. Etchant: nital.

MMR letters and reports apply to the second second

REPORT TO:

Tata & Howard

Marlborough, MA

Attn: Steve Daunais

Purchase Order No. 4586-09

Metallurgical Life Assessment of a 20-inch Pipe from Newton, MA

MMR Project No. 123531

September 7, 2018

From: Massachusetts Materials Research, Inc.

> Veda-Anne Ulčickas Senior Materials Engineer

MMR Project No. 123531 Page 1

BACKGROUND AND INVESTIGATION

Tata & Howard requested that Massachusetts Materials Research, Inc. (MMR) perform a metallurgical life assessment of a section of a 20-inch pipe from Newton, MA. This assessment was to include tensile testing, Talbot strip testing, ring crush testing, chemical analysis, hardness testing and metallurgical examination for microstructure, corrosion/remaining wall/remaining life. The pipe was installed in 1878, and the segment removed in 2018.

RESULTS

Visual Examination

The pipe segment is shown as-received in Figures 1 and 2. The 14-inch tall unlined segment contained numerous visible internal pits, many of which were too wide to be completely accommodated within a metallurgical mount and appeared deep for the pipe's nominal ⁷/₈-inch wall thickness, Figure 3.

Wall thickness was measured as-received with digital calipers at arbitrarily determined 12 o'clock, 3 o'clock, 6 o'clock and 9 o'clock positions, and the depths of several pits determined. These measurements are summarized in Table I.

Location	Wall Thickness/Depth, inch					
12 o'clock	0.9235					
3 o'clock	0.8465					
6 o'clock	0.9470					
9 o'clock	0.8720					
ID Pits, Various	0.1265, 0.1365, 0.1185					

 Table I

 Wall Thickness and ID Pitting Depth

Wall thickness measurements taken on as-received piping provide information on total wall thickness only, including corrosion product, not just remaining metal thickness within that wall. Indications of graphitic corrosion were present during the visual examination of this pipe, with some regions revealing as little as ¼-inch remaining metallic wall, Figures 4 and 5. The wall thickness value used during calculation of remaining life for this pipe was assessed from a metallurgical section taken at a region of visibly less general corrosion and no visible pitting.

Overall, the initial visual examination revealed that this pipe appeared to be in poor condition due to graphitic corrosion and pitting along its ID wall surface. Note that no obvious pitting was noted on the OD wall.

MMR Project No. 123531 Page 2

Mechanical Testing

Tensile Testing

One longitudinally oriented ASTM flat tensile test specimen with a ¹/₂-inch gauge section width was machined from the pipe material. This testing revealed the ultimate strength (UTS) of the pipe metal was 5,950 PSI. This result is summarized below in Table II.

Talbot Strip Testing

Two longitudinally oriented ½-inch deep specimens for Talbot strip testing were machined from the pipe material remaining from ring testing. The modulus of rupture calculated per AWWA C106-75 was 19,620 PSI for one specimen and 17,714 PSI for the second specimen. This produces a mean modulus of rupture of 18,667 PSI. These results are summarized below in Table II.

Ring Crush Testing

Ring crush testing was performed on a 12-inch long section of the submitted pipe. This testing revealed a modulus of rupture of 25,647 PSI, calculated per AWWA C106-75. This result is summarized below in Table II.

Hardness Testing

Brinell (HB) hardness testing using a 10mm ball and a 3,000Kg load was performed on the pipe material. This testing indicated the pipe material hardness was HB 152. The result of this testing is summarized in Table II below, along with a conversion to the Rockwell B (HRB) scale for convenience.

Summary

Table II summarizes the results of the mechanical testing of this pipe segment. As the age of the pipe and its specifications were unknown, some typical mechanical test values are provided for comparison.

Mechanical Test	Subject Pipe	AWWA Standard	Other Standards (Grey Cast Iron)
Tensile Test – UTS, PSI	5,950	n/a	20,000 - 60,000
Ring Crush Test Modulus of Rupture, PSI	25,647	40,000, min.	n/a
Talbot Strip Test Modulus of Rupture, PSI	18,667	40,000, min.	n/a
Hardness, HB (HRB)	152 (82)	< 95 HRB	Variable

Table II Mechanical Testing Summary

These results revealed that the subject pipe is weaker than modern standards require, but meets the AWWA requirement for hardness. This is a normal result for older piping.

Chemical Analysis

Chemical analysis was performed on the pipe ring material using inductively coupled plasma spectroscopy (ICP) in conjunction with LECO carbon-sulfur analysis. The results of this testing are summarized below.

Flomant	Composition, wt. %					
Element	Pipe Material	UNS F10006				
Carbon	3.19	3.10 - 3.40				
Cobalt	0.01					
Copper	0.02	<u> </u>				
Manganese	0.20	0.60 -0.90				
Nickel	0.02					
Phosphorus	1.28	0.15 max.				
Silicon	1.49	1.90 - 2.30				
Sulfur	0.082	0.15 max.				
Titanium	0.07					
Vanadium	0.04					

Table IIIChemical Analysis Results

This analysis revealed that the pipe material was typical of older grey cast irons, with a high phosphorus content. A modern chemical composition controlled grey iron is provided as a comparison. Phosphorus improves mold filling capabilities of the molten metal and depresses melting temperature. It was intentionally added to older irons for these reasons, as its detrimental effects on pipe metallurgy were not understood. Excess phosphorus levels lead to the development of an iron phosphide eutectic phase known as steadite. This phase is hard and brittle and can encourage brittle cracking of pipes that contain it if they are not cut or handled with care.

Metallurgical Examination

Longitudinal and transverse oriented sections were cut from the pipe, mounted in plastic, and ground, polished and etched to reveal pipe material microstructure. The resulting metallurgical mounts provided planar cross-sectional views of the pipe material, allowing metallurgical features and remaining wall thickness to be observed. These mounts were examined in both the as-polished and the etched conditions.

This examination revealed that the pipe material possessed ASTM A247 Type A random flake graphite along its ID wall, Figure 6. The same was present along its OD wall, but mixed with some tendency towards Type B rosettes, Figure 7. Random flake graphite is a desirable graphite form in cast irons as it is not as brittle as the rosette form commonly seen in older pipes.

MMR Project No. 123531 Page 4

Etching revealed that the pipe possessed a largely pearlitic microstructure with a well-developed cellular network of steadite, Figure 8. The steadite network would be predicted by the phosphorus content of the pipe material. A detail view of the microstructure with phases labelled is provided in Figure 9. This microstructure, excepting the steadite network, is common in newer cast irons. This pipe did not possess the variability in microstructure and graphite forms typically seen with older irons. Given the state of the art of cast iron metallurgy when this pipe was installed, it was a well-made example of its kind.

Remaining Life Calculations

Remaining life calculations were performed on two regions of this pipe. One was at a region of less corrosion, also used to provide the best estimate of the original wall thickness of the pipe. The second was at a region of thin remaining wall (Figures 4 and 5). Both options are provided in case there exist regions along this pipe that exhibit less internal corrosion than was observed on the submitted segment. If the remainder of the pipe is typical of this segment, then the more corroded data should be used for replacement scheduling.

In the region with less corrosion, wall thickness was 0.839-inch with a remaining wall of 0.587inch, Figure 10. At 140 years' service, this produces a corrosion rate of 0.0018 inch/year and a remaining life of 326 years. Note that this remaining life assumes a constant corrosion rate and failure by through-wall corrosion penetration. In reality, pipes can fail with as much as 20% remaining wall if pressure spikes, nearby construction disturbance, or undermining occurs. In this less corroded region, a 20% remaining wall failure assumption produces a remaining life of 233 years.

In the region with more noticeable corrosion, remaining wall was 0.2425-inch, which produced a corrosion rate of 0.0043 inch/year. This indicated a remaining life of 56.4 years, assuming through-wall corrosion penetration. For a 20% remaining wall failure, remaining life in the more corroded region was 17 years.

CONCLUSIONS

- The submitted pipe did not possess a cement lining.
- Chemical analysis indicated the pipe material contained an excess of phosphorus over modern requirements. This is typical of older cast irons.
- The pipe microstructure was predominantly pearlitic with a well-developed steadite network and only isolated ferrite. This is typical of older cast irons.
- Mechanical testing indicated the pipe was weaker than modern requirements specify. This is typical of older cast irons, especially ones with extensive corrosion.
- The corrosion rate for this pipe at heavily corroded regions is 0.0043 inch/year. This corrosion rate indicates a remaining life of 56.4 years, assuming failure from through wall corrosion penetration. Assuming failure at 20% remaining wall, this corrosion rate indicates a remaining life of 17 years.



Figure 1:

Overall view of pipe segment as-received.



Figure 2:

The pipe segment was 14-inches long.





re 3: The pipe segment possessed many notable pits on its ID wall.



Figure 4: An overall view of a region of wall with corrosion from both ID and OD.





Remaining metal in the wall region shown in Figure 4.



Figure 6: ID graphite form was Type A random flake. As-polished.





OD graphite form was predominantly Type A with some isolated tendency toward Type B rosette groupings. As-polished.





Overall view of predominantly pearlitic microstructure. Etchant: nital.



Figure 9:

Detail of microstructure with phases labelled for clarity. Etchant: nital.





Less corroded region remaining wall. Etchant: nital.

MMR letters and reports apply to the specific materials, products, or processes tested, examined, surveyed, inspected, or calculated; and are not necessarily indicative of the qualities of apparently identical or similar materials, products, or processes. The liability of Massachusetts Materials Research, Inc., with respect to the services rendered, shall be limited to the amount of the consideration paid for such services and not include any consequential damages.

New Main Same Trench Cost Estimate Needham Street Water Main Design Newton, Massachusetts

ŧ. 1

	Item	<u>Units</u>	Quantity	Unit Price		Cost
\mathbf{h}	Mobilization	L.S.	1	\$ 190.055.00	\$	190.055.00
2	Sawcut Bituminous Concrete Roadways	L.F.	7,200	\$ 2.00	\$	14,400.00
3	Sawcut Reinforced Concrete Panels	L.F.	100	\$ 10.00	\$	1,000.00
4	General Excavation	NA	0		\$	-
5	Test Pits	C.Y.	200	\$ 60.00	\$	12,000.00
6	Excavation Below Grade	C.Y.	250	\$ 150.00	\$	37,500.00
7	Rock Removal	C.Y.	200	\$ 75.00	\$	15,000.00
8	Gravel Borrow	TON	2,500	\$ 1.00	\$	2,500.00
9	Dense Graded Crushed Stone	TON	1,500	\$ 1.00	\$	1,500.00
10	Sand for Water Service Pipe Bedding	TON	300	\$ 1.00	\$	300.00
11	3/4" Fractured Crushed Stone	TON	75	\$ 25.00	\$	1,875.00
12	Control Density Fill	C.Y.	100	\$ 115.00	\$	11,500.00
13	Class B Cement Concrete for Encasement	C.Y.	1,500	\$ 1.00	\$	1,500.00
14	Dust Control (Chemical Treatment)	L.B.	5,000	\$ 1.00	\$	5,000.00
15	Reset Existing Curb	L.F.	2,000	\$ 20.00	\$	40,000.00
16	Temporary 7" Pavement	TON	1,500	\$ 200.00	\$	300,000.00
17	MassDOT Mill & Overlay	TON	900	\$ 250.00	\$	225,000.00
18	2" Bituminous Concrete Walks & Driveways (Patching Private Property)	S.Y.	150	\$ 30.00	\$	4,500.00
H				 	,	
19	3" Bituminous Concrete Walks & Driveways (Patching Public Property)	S.Y.	100	\$ 50.00	\$	5,000.00
20	4" Cement Concrete Walks with Lampblack	S.Y.	300	\$ 65.00	\$	19,500.00
21	6" Cement Concrete Driveway Aprons with Lampblack	S.Y.	75	\$ 60.00	3	4,500.00
22	Cold Patch	TON	500	\$ 75.00	\$	37,500.00
23	Regrade, Loam, & Seed (Restore Loam Borders and/or Private Yards)	S.Y.	550	\$ 5.00	\$	2,750.00
24	Materials Testing	ALL.		\$ 12,000.00	\$	12,000.00
25	Miscellaneous Work Allowance (Engineers Discretionary Fund)	ALL,		\$ 30,000.00	3	50,000.00
26	Furnish & Mount Safety & Specialty Signboards (Less the Post System)	S.F.	75	\$ 50.00	\$	3,750.00
27	Furnish, Establish, & Re-Establish the Post System for Mounted Signboards	S.F.	30	\$ 25.00	\$	750.00
	Safety Controls for Construction Operations (Primary Portable Traffic Control		1			
28	Devices)	L.S.	1	\$ 15,000.00	\$	15,000.00
29	Allowance for Payment of Uniformed Police Officers	ALL.	1	\$ 160,000.00	\$	160,000.00
30	Vehicle Loop Detector	L.F.	250	\$ 15.00	\$	3,750.00
	Locate & Exercise Existing Water Main Gates to Determine Pre-Construction					
31	serviceability	EA.	10	\$ 500.00	\$	5,000.00
	Locate & Exercise Existing Hydrants to Determine Pre-Construction					
32	Serviceability	EA.	5	\$ 200.00	\$	1,000.00
22	Access Pit, Removal, & Disposal of Water Gates or Hydrants that Lie Beyone	EA	10	\$ 250.00	\$	2,500.00
34	4" D 1 Water Main	L.F.	100	\$ 60.00	\$	6,000,00
35	6" D I. Water Main	L.F.	500	\$ 80.00	\$	40,000.00
36	8" D.I. Water Main	L.F.	500	\$ 120.00	\$	60,000.00
37	12" D I. Water Main	L.F.	500	\$ 150.00	\$	75,000.00
38	16" D.I. Water Main	L.F.	500	\$ 200.00	\$	100,000.00
30	20" D.I. Water Main	L.F.	5,100	\$ 210.00	\$	1,071,000.00
40	6" Fire Service	NA	0	5	\$	-
41	6" Water Gate Valves with Sleeve, Box, and Cover	EA.	20	\$ 2,500.00	\$	50,000.00
42	8" Water Gate Valves with Sleeve, Box, and Cover	EA.	5	\$ 5,000.00	\$	25,000.00
43	12" Water Gate Valves with Sleeve, Box, and Cover	EA.	8	\$ 7,500.00	\$	60,000.00
44	20" Butterfly Gate Valves with Sleeve, Box, and Cover	EA.	23	\$ 10,000.00	\$	230,000.00
45	6" Insertion Valve with Sleeve, Box and Cover	EA.	5	\$ 500.00	\$	2,500.00
46	8" Insertion Valve with Sleeve, Box, and Cover	EA.	5	\$ 750.00	\$	3,750.00
47	12" Insertion Valve with Sleeve, Box, and Cover	EA.	5	\$ 900.00	\$	4,500.00

New Main Same Trench Cost Estimate Needham Street Water Main Design Newton, Massachusetts

48	6" Hydrant	EA.	10	\$ 9,500.00	\$	95,000.00
49	Remove and Dispose or Stockpile Hydrant	EA.	10	\$ 500.00	\$	5,000.00
50	6" Bend	EA.	1	\$ 100.00	\$	100.00
51	12" Bend	EA.	2	\$ 175.00	\$	350.00
52	16" Bend	EA.	1	\$ 200.00	\$	200.00
53	20" Bend	EA.	4	\$ 225.00	\$	900.00
54	20" x 16" Reducer	EA.	2	\$ 500.00	\$	1.000.00
55	12" x 8" Reducer	EA.	4	\$ 300.00	\$	1,200,00
56	12" x 6" Reducer	EA.	5	\$ 150.00	\$	750.00
57	6" x 4" Reducer	EA.	4	\$ 100.00	ŝ	400.00
58	20" x 20" Mechanical Joint Tee	EA.		\$ 2,500,00	ŝ	2 500 00
59	20" x 12" Mechanical Joint Tee	EA	8	\$ 2,200,00	\$	17 600 00
60	20" x 8" Mechanical Joint Tee	FΔ	5	\$ 1,200.00	¢	9,000,00
61	20" x 6" Mechanical Joint Tee	EA.	23	\$ 1,300,00	1¢	40,250,00
62	16" x 16" Mechanical Joint Tee	FA		\$ 1,750.00	\$	1 700 00
63	4" Megalug	EA.	15	\$ 5.00	1¢	75.00
64	6" Megalug	EA.	120	\$ 7.00	\$	840.00
65	8" Megalug	EA	50	\$ 9.00		450.00
66	12" Megalug	EA.	45	\$ 11.00	1¢	495.00
67	16" Megalug	EA.	15	\$ 13.00	1¢	195.00
68	20" Megalug	EA.	160	\$ 15.00		2 400 00
69	3/4" Diameter Threaded Steel Tie Rod Assembly (Complete in Place)	SET	25	\$ 20.00	1¢	500.00
70	Class B Cement Concrete Anchorage and/or Thrust Block	FA	55	\$ 1.00	¢	55.00
71	4" Mechanical Joint Solid Sleeve or Counting	FA	. 5	\$ 80.00	\$	400.00
72	6" Mechanical Joint Solid Sleeve or Coupling	EA	16	\$ 100.00	1¢	1 600 00
73	8" Mechanical Joint Solid Sleeve or Coupling	EA .	9	\$ 115.00	\$	1,035,00
74	16" Mechanical Joint Solid Sleeve or Coupling	FA	2	\$ 175.00	l ¢	350.00
75	20" Mechanical Joint Solid Sleeve or Coupling	EA	1	\$ 200.00	1¢	200.00
76	6" Can	FA	1	\$ 180.00	\$	180.00
77	2" Preformed Pine Insulation with Plastic Jacketing	LF	50	\$ 50.00	\$	2 500 00
78	Test Pit to Determine Water Service Tubing Type	FA	50	\$ 5.00	\$	250.00
79	1" Copper Water Service Tubing	LE	400	\$ 30.00	\$	12 000 00
80	1" Corporation	EA	32	\$ 1,400,00	15	44,800.00
81	1" Curb Stop & Box	EA.	32	\$ 800.00	ŝ	25,600.00
82	Nominal 5/8" -1" Water Service Coupling	EA.	32	\$ 50.00	\$	1.600.00
83	2" Copper Water Service Tubing	L.F.	200	\$ 40.00	\$	8.000.00
84	2" Corporation	EA.	14	\$ 3,200,00	\$	44.800.00
85	2" Curb Stop & Box	EA.	14	\$ 2.000.00	\$	28,000,00
86	2" Water Service Pipe Coupling	EA.	14	\$ 100.00	\$	1,400.00
87	Temporary By-Pass Piping	L.S.	1	\$ 612.000.00	\$	612,000.00
88	Pressure Test, Leakage Test, & Disinfection of Water Mains	L.S.	1	\$ 25.000.00	\$	25,000.00
89	Water Sampling (by Laboratory Personanel)	ALL.	1	\$ 15.000.00	\$	15,000.00
90	Supply & Deliver Rust & Stain Remover as Required	CTN.	4	\$ 25.00	\$	100.00
91	Existing Drainage Repair (All Sizes)	L.F.	450	\$ 125.00	\$	56,250.00
92	Silt Sacks	EA.	205	\$ 50.00	\$	10,250.00
93	Existing Sewer Service Repair (All Sizes)	EA.	100	\$ 45.00	\$	4,500.00
94	Tree Protection	EA.	200	\$ 50.00	\$	10,000.00
95	Price Adjustment: Hot Mix Asphalt Mixtures	ALL.	1	\$ 5,000.00	\$	5,000.00
96	Price Adjustment: Fuel	ALL.	1	\$ 5,000.00	\$	5,000.00
_						
				Sub-Total	\$:	3,991,155.00
				15% Contingency	\$	598,673.25
				Total	\$.	4,589,828.25

CITY OF NEWTON, MASSACHUSETTS PURCHASING DEPARTMENT COMPARISON OF BIDS

INVITATION #20-29 Chestnut Street Water Main Cleaning & Lining

Bid Opening: November 14, 2019 at 11:00 am Public Works/Engineering - James McGonagle

Awarded to:

Bidders	N. Granese & Sons Inc.	Umbro & Sons Construction Corp	Biszko Contracting Corp	Dewcon, Inc	
Chestnut Street Water Main Cleaning & Lining	\$1,793,706.90	\$1,847,000.47	\$2,193,849.68	\$2,293,087.73	

Department Head		· .		Date
	NOTES REGARD	ING SUBMITT	ED BIDS	

Chief Procurement Officer

Mayor or l	her de	signee
------------	--------	--------

Date

Date

Bidders	QTY	N. Granese	& Sons Inc.	Umbro & Sons Construction Corp		Biszko Con	tracting Corp
ITEM DESCRIPTION & BID PRICE		Unit Price	Annual	Unit Price	Annual	Unit Price	Annual
1 - Mobilization & Demobilization	1	\$15,000.00	\$15,000.00	\$85,000.00	\$85,000.00	\$100,000.00	\$100,000.00
2 – SAWCUT BITUMINOUS CONCRETE ROADWAYS	4600	\$0.01	\$46.00	\$5.00	\$23,000.00	\$1.00	\$4,600.00
3 - GENERAL EXCAVATION	N/A			N	/A	1	I/A
4 – TEST PITS	20	\$25.00	\$500.00	\$50.00	\$1,000.00	\$0.01	\$0.20
5-EXCAVATION BELOW GRADE	15	\$0.01	\$0.15	\$0.01	- \$0.15	\$0.01	\$0.15
7 - GRAVEL BORROW	400	\$0.01	\$0.15	\$0.01	\$12,000,00	\$0.01	\$0.15
8 - DENSE GRADED CRUSHED STONE	200	\$0.01	\$2.00	\$50.00	\$10,000,00	\$0.01	\$2.00
9 – SAND FOR WATER SERVICE PIPE BEDDING	250	\$0.01	\$2.50	\$50.00	\$12,500.00	\$0.01	\$2.50
10 - ¾" FRACTURED CRUSHED STONE	15	\$0.01	\$0.15	\$75.00	\$1,125.00	\$0.01	\$0.15
11 - CONTROLLED DENSITY FILL	50	\$138.00	\$6,900.00	\$25.00	\$1,250.00	\$0.01	\$0.50
12 - CLASS B CEMENT CONCRETE FOR ENCASEMENT	250	\$0.01	\$2.50	\$0.01	\$2.50	\$0.01	\$2.50
13 - DUST CONTROL (CHEMICAL TREATMENT)	1500	\$0.01	\$15.00	\$0.01	\$15.00	\$0.01	\$15.00
14 – RESET EXISTING CURB	300	\$0.01	\$3.00	\$0.01	\$3.00	\$0.01	\$3.00
15 - 1.5 TRUCK MINING AND OVERAY	275	\$225.00	\$61,875.00	\$50.00	\$13,750.00	\$100.00	\$27,500.00
10 - SEAM & CRACK SEALING (AFFLIED AFTER THE FERMAMARE) FATCH OFERATION	50	\$73.00	\$11,250.00	\$7.00	\$1,050.00	\$0.01	\$1,50
18 - 3" BIT CONCRETE WALKS & DRIVEWAY APRONS (PATCHING PUBLIC	50	\$51.00	\$1,550.00	\$20.00	\$1,000.00	\$0.01	\$0.50
PROPERTY)	100	\$34.00	\$3,400.00	\$30.00	\$3,000.00	\$0.01	\$1.00
19 – 4" CEMENT CONCRETE WALKS WITH LAMPBLACK	160	\$100.00	\$16,000.00	\$40.00	\$6,400.00	\$40.00	\$6,400.00
20 - 6" CEMENT CONCRETE DRIVEWAY APRONS WITH LAMPBLACK	20	\$200.00	\$4,000.00	\$60.00	\$1,200.00	\$40.00	\$800.00
21 – 4 TEMPORARY TRENCH PAVEMENT	170	\$235.00	\$39,950.00	\$500.00	\$85,000.00	\$100.00	\$17,000.00
22 - COLD FATCH 23 - Regrade Loam & Seed (Restore Loan Borders and/or Private Yords)	250	\$0.01	\$0.75	\$150.00	\$1,250.00	\$110.00	\$8,250.00
24- Materials Tested	1	\$5.00	000.00	\$3.00	91,250.00	\$0.01	00.00
25 - Miscellaneous Work Allowance (Engineers Discretionary Fund)	î	\$30,	000.00	\$30,0	00.00	\$30.	00.00
26 - Furnish & Mount Safety & Specialty Signboards (Less the Post System)	50	\$50.00	\$2,500.00	\$50.00	\$2,500.00	\$0.01	\$0.50
27 – FURNISH, ESTABLISH & RE-ESTABLISH THE POST SYSTEM FOR MOUNTED SIGNBOARDS	15	\$200.00	\$3,000.00	\$25.00	\$375.00	\$0.01	\$0.15
28-SAFETY CONTROLS FOR CONSTRUCTION OPERATIONS (PRIMARILY PORTABLE TRAFFIC CONTROL DEVICES)	1	\$2,500.00	\$2,500.00	\$20,000.00	\$20,000.00	\$10,000.00	\$10,000.00
29 – ALLOWANCE FOR PAYMENT OF UNIFORMED POLICE OFFICERS	1	\$75,	00.00	\$75,0	00.00	\$75,	00.00
30 - VEHICLE LOOP DETECTOR	-50	\$15.00	\$750.00	\$100.00	\$5,000.00	\$0.01	\$0.50
31 - DUCATE & EXERCISE EXISTING WATER MAIN GATES TO DETERMINE PRE- CONSTRUCTION SERVICIBILITY 22 - LOCATE & EVERYTRICE EVERTICE HVDP ANDS TO DETERMINE DEE CONSTRUCTION	15	\$500.00	\$7,500.00	\$500.00	\$7,500.00	\$0.01	\$0.15
S2 - LUCATE & EARCISE EXISTING AT DRANTS TO DETERMINE PRE-CONSTRUCTION SERVICEABILITY	15	\$50.00	\$750.00	\$250.00	\$3,750.00	\$0.01	\$0.15
33- Access Pit, Removal, & Disposal of Water Gates of Hydrants that Lie Beyond the Project Limit	· 5	\$250.00	\$1,250.00	\$250.00	\$1,250.00	\$0.01	\$0.05
Operation	5	\$250.00	\$1,250.00	\$250.00	\$1,250.00	\$0.01	\$0.05
35 - 6" D.I. Water Main (Class 52 Cement Lined & Dispose of Existing Pipe(s))	200	\$15.00	\$3,000.00	\$150.00	\$30,000.00	\$80.00	\$16,000.00
36 - 8" D.I. Water Main (Class 52 Cement Lined & Dispose of Existing Pipe(s))	450	\$20.00	\$9,000.00	\$150.00	\$67,500.00	\$120.00	\$54,000.00
37 - 10" D.I. Water Main (Class 52 Cement Lined & Dispose of Existing Pipe(s))	20	\$25.00	\$500.00	\$150.00	\$3,000.00	\$125.00	\$2,500.00
39- 16" D I. Water Main (Class 52 Cement Lined & Dispose of Existing Pipe(s))	50	\$30.00	\$21,000.00	\$150.00	\$108,000.00	\$175.00	\$126,000.00
40- Clean and Line Existing 12" Pine	4075	\$103.00	\$419 725 00	\$50.00	\$203 750 00	\$110.00	\$10,000.00
41 – 6" Fire Service	n/a	4105.000	<i><i>(</i></i>), <i>(</i>	1	VA	110.00	V/A
42 - 6" WATER GATE VALVE WITH SLEEVE, BOX & COVER	. 8	\$6,000.00	\$48,000.00	\$2,500.00	\$20,000.00	\$2,500.00	\$20.000.00
43 - 8" WATER GATE VALVE WITH SLEEVE, BOX & COVER	17	\$6,000.00	\$102,000.00	\$5,000.00	\$85,000.00	\$5,000.00	\$85,000.00
44 – 12" WATER GATE VALVE WITH SLEEVE, BOX & COVER	21	\$6,000.00	\$126,000.00	\$7,500.00	\$157,500.00	\$8,000.00	\$168,000.00
45-16" Water Butterfly Valves with Sleeve, Box, and Cover	2	\$9,000.00	\$18,000.00	\$9,500.00	\$19,000.00	\$7,500.00	\$15,000.00
46- 6" Insertion Valve with sleeve, box & cover	S	\$0.01	\$0.05	\$500.00	\$2,500.00	\$0.01	\$0.05
47-8" Insertion Value with sleeve, box & cover	5	\$0.01	\$0.05	\$750.00	\$3,750.00	\$0.01	\$0.05
48-12 Insertion valve with sizeve, box & cover	2	\$0.01	\$0.05	\$900.00	\$4,500.00	\$0.01	\$0.05
50 - REMOVE AND DISPOSE OR STOCKPILE HYDRANT	7	\$500.00	\$3,500.00	\$2,000.00	\$14,000.00	\$15,000,00	\$120,000.00
51 - 8" BEND	12	\$100.00	\$1,200.00	\$500.00	\$6,000.00	\$0.01	\$0.12
52 - 12" Bend	5	\$200.00	\$1,000.00	\$1,000.00	\$5,000.00	\$0.01	\$0.05
53- 16" x 12" Cross	1	\$900.00	\$900.00	\$2,000.00	\$2,000.00	\$0.01	\$0.01
54- 12" x 8" Cross	2	\$350.00	\$700.00	\$1,500.00	\$3,000.00	\$0.01	\$0.02

Bidders		N. Granese	e & Sons Inc.	Umbro & Sons Construction Corp		Biszko Contracting (
ITEM DESCRIPTION & BID PRICE		Unit Price	Annual	Unit Price	Annual	Unit Price	Annual
55 – 16" X 10" REDUCER	1	\$300.00	\$300.00	\$1,000.00	\$1,000.00	\$0.01	\$0.01
55 – 12" X 10" REDUCER	1	\$110.00	\$110.00	\$600.00	\$600.00	\$0.01	\$0.01
56 – 8" X 6" REDUCER	11	\$500.00	\$5,500.00	\$500.00	\$5,500.00	\$0.01	\$0.11
57 – 12"x 12" MECHANICAL JOINT TEE	2	\$250.00	\$500.00	\$1,200.00	\$2,400.00	\$0.01	\$0.02
58 – 12"x 8" MECHANICAL JOINT TEE	12	\$250.00	\$3,000.00	\$1,000.00	\$12,000.00	\$0.01	\$0.12
59 – 12"x 6" MECHANICAL JOINT TEE	8	\$250.00	\$2,000.00	\$900.00	\$7,200.00	\$0.01	\$0.08
60 – 6" MEGALUG	76	\$40.00	\$3,040.00	\$4.00	\$304.00	\$0.01	\$0.76
61 – 8" MEGALUG	108	\$50.00	\$5,400.00	\$5.00	\$540.00	\$0.01	\$1.08
62 - 10" MEGALUG	6	\$75.00	\$450.00	\$8.00	\$48.00	\$0.01	\$0.06
63 - 12" MEGALUG	198	\$90.00	\$17,820.00	\$12.00	\$2,376.00	\$0.01	\$1.98
64 – 16" Megalug	11	\$175.00	\$1,925.00	\$18.00	\$198.00	\$0.01	\$0.11
65- 34" DIAMETER THREADED STEEL TIE ROD ASSEMBLY (COMPLETE IN							
PLACE)	215	\$40.00	\$8,600.00	\$20.00	\$4,300.00	\$0.01	\$2.15
66 - CLASS B CEMENT CONCRETE ANCHORAGE AND/OR THRUST BLOCK	25	\$0.01	\$0.25	\$40.00	\$1,000,00	\$0.01	\$0.25
67 - 6" MECHANICAL JOINT SOLID SUFFYE OF COUPLING	11	\$500.00	\$5,500,00	\$600.00	\$6,600,00	\$0.01	\$0.11
68 - 8" MECHANICAL JOINT SOLID SLEEVE OR COUPLING	6	\$110.00	\$660.00	\$800.00	\$4,800.00	\$0.01	\$0.06
69 - 10" MECHANICAL JOINT SOLID SLEEVE OR COUPLING	2	\$160.00	\$320.00	\$900.00	\$1,800.00	\$0.01	\$0.02
70 - 12" MECHANICAL JOINT SOLID SLEEVE OR COUPLING	41	\$190.00	\$7 790.00	\$1 100 00	\$45,100,00	\$0.01	\$0.41
71 - 16" MECHANICAL JOINT SOLID SLEEVE OR COLIPLING	1	\$500.00	\$500.00	\$1,200,00	\$1,200,00	\$0.01	\$0.01
72 - 6" CAP		\$180.00	\$1.620.00	\$300.00	\$2,700.00	\$0.01	\$0.09
73 - 8" CAP	Íí	\$230.00	\$230.00	\$400.00	\$400.00	\$0.01	\$0.01
74 – 12" CAP		\$540.00	+ \$540.00	\$500.00	\$500.00	\$0.01	\$0.01
75 - 2" Preferred pipe Insulation with Plastic Jacketing	25	\$50.00	\$1,250.00	\$0.01	\$0.25	\$0.01	\$0.25
76 – Test Pit to Determine Water Service Tubing Type	30	\$50.00	\$1,500.00	\$0.01	\$0.30	\$0.01	\$0.30
77 - 1" COPPER WATER SERVICE TUBING	1250	\$30.00	\$37,500,00	\$5.00	\$6 250 00	\$10.00	\$12 500.00
78 - 1" CORPORATION	67	\$1,250.00	\$83,750.00	\$1,250.00	\$83,750.00	\$1,500.00	\$100 500 00
79 – 1" CURB STOP & BOX	62	\$500.00	\$31,000,00	\$100.00	\$6,200.00	\$1,000.00	\$62,000,00
80 - NOMINAL 5/8" - 1" WATER SERVICE Fitting	67	\$25.00	\$1.675.00	\$25.00	\$1.675.00	\$0.01	\$0.67
81-1.25" Water Service Pipe Fitting	10	\$250.00	\$2,500.00	\$25.00	\$250.00	\$0.01	\$0.10
82 - 1.5" COPPER WATER SERVICE TUBING	200	\$35.00	\$7,000.00	\$15.00	\$3.000.00	\$10.00	\$2.000.00
83 – 1.5" CORPORATION	11	\$3,200.00	\$35,200.00	\$1,500.00	\$16,500,00	\$1.500.00	\$16,500,00
84 - 1.5" CURB STOP & BOX	9	\$500.00	\$4,500.00	\$250.00	\$2,250.00	\$1,000.00	\$9.000.00
85-1.5" Water Service Pipe Fitting	1	\$100.00	\$100.00	\$100.00	\$100.00	\$0.01	\$0.01
86- TEMPORARY BY-PASS PIPING	1	\$350,000.00	\$350,000.00	\$306,003.00	\$306,003.00	\$600,000.00	\$600,000.00
87 - PRESSURE TEST, LEAKAGE TEST & DISINFECTION OF WATER MAIN(S)	1	\$1,500.00	\$1,500.00	\$15,000.00	\$15,000.00	\$10,000.00	\$10,000.00
88 - Water Sampling (by Laboratory Personnel)	1	\$15,	000.00	\$15,	00.00	\$15,0	00.00
89 - Supply & Deliver Rust & Stain Remover as Required	1	\$250.00	\$250.00	\$24.82	\$24.82	\$0.01	\$0.01
90- Cleaning and Lining Pits	20	\$0.01	\$0.20	\$0.01	\$0.20	\$0.01	\$0.20
91- Additional Cleaning and Lining Pits Beyond the Scope of Work	5	\$0.01	\$0.05	\$0.01	\$0.05	\$0.01	\$0.05
92- Mismarked Main (Cleaning and Lining Trenches Only)	5	\$0.01	\$0.05	\$0.01	\$0.05	\$0.01	\$0.05
93- Existing Drainage Renair (All Sizes)	150	\$125.00	\$18,750.00	\$150.00	\$22,500.00	\$0.01	\$1.50
04 Silt Sasher	56	\$50.00	\$2,800,00	\$95.00	\$4 760 00	\$0.01	\$0.56
05 - Evicting Sower Service Bangir (All Sizes)	50	\$50.00	\$2,500.00	\$45.00	\$2,250.00	\$0.01	\$0.50
06 - Tree Protection	40	\$50.00	\$2,500.00	\$50.00	\$2,200.00	\$0.01	\$0.10
07 Drice Adjustment: Hot Mix Asphalt Mixtures	. 40	. \$JU.UU ¢¢1		\$30.00 ¢< r	00.00	\$0.01 ¢< ∩	00.00
27 - The Aujustment, For Mar Aspirat Wildlifes		\$3,0	000.00	\$J,U	00.00	\$3,0	00.00
98 - Price Adjustment: Puel	1	\$5,	000.00	\$5,0	00.00	\$5,0	00.00
Total Bid Items		\$1,793	3,706.90	\$1,847	,000.47	\$2,193	,849.68



City of Newton, Massachusetts

Office of the Mayor

117-20 Telephone (617) 796-1100 Fax (617) 796-1113 TDD/TTY (617) 796-1089 Email rfuller@newtonma.gov

January 28, 2020

Ruthanne Fuller Mayor

Honorable City CouncilNewton City CouncilNewton City HallNewton, MA 02459Honorable City Councilors:Newton, MA 02459

I respectfully submit a docket item to your Honorable Council requesting the acceptance of a sewer extension, connection and easement from the developer of an approved subdivision off Farwell Street, as allowed in City Ordinance 29-69. As outlined in the attached memo of January 27, 2020 from DPW Commissioner McGonagle, the developer of this six-home subdivision along the Charles River will pay for the construction of a 40' sewer pipe and a direct connection to the MWRA trunk interceptor sewer line. MWRA requires that the sewer connection is owned, operated and maintained by the City of Newton.

The subdivision was approved by Planning Board acting as a Board of Survey on July 19, 2018.

As requested by DPW, the Council is asked to vote:

- Approval of the sewer extension and connection
- Acceptance of the 40' sewer pipe and connection as a public sewer, to be owned and operated by the City of Newton
- Acceptable of the sewer easement, to be approximately 40' long by 20' wide, as shown in an easement plan
- The condition that all costs of installing the sewer, and the sewer connection, will be borne by the developer
- Approval of the name of newly created Private Way, name to be Farwell Circle.

Thank you for your consideration of this matter.

Sincerely,

Ruthanne Fuller, Mayor

Cc: James McGonagle, DPW Commissioner

City of Newton



DEPARTMENT OF PUBLIC WORKS OFFICE OF THE COMMISSIONER 1000 Commonwealth Avenue Newton Centre, MA 02459-1449

Ruthanne Fuller Mayor

January 27, 2020

To: Mayor Ruthanne Fuller Jonathan Yeo, Chief Operating Officer Maureen Lemieux, Chief Financial Officer

James McGonagle, Commissioner Public Works From:

Subject: Docket Request, Sewer Extension and Connection, and Acceptance of a Sewer Easement, Farwell Street Subdivision, City Ordinance Sec. 29-69 (Ref 373-19)

Discussion: Farwell Street Subdivision was approved by the Planning Board Acting as a Board of Survey on July 19, 2018. The subdivision consists of six (6) new single-family homes on a newly created road off Farwell Street. The proposed sewer system within Farwell Street, which serves the six houses, will be installed by the developer of the subdivision, at his cost, and will be operated and maintained by the homeowner's association.

Due to topography, the privately-owned sewer system is designed to directly discharge into the nearby MWRA trunk interceptor sewer (not the City of Newton sewer system), which flows from west to east along the bank of the Charles River, from Farwell Street toward California Street. The MWRA will allow the connection from the proposed Farwell Street sewer directly into the MWRA trunk interceptor sewer only if the sewer connection is owned, operated and maintained by the City of Newton, not the homeowner's association. The proposed Farwell Street sewer is designed so that approximately 40 linear feet of sewer pipe and the connection to the MWRA trunk interceptor sewer could be owned, operated and maintained by the City of Newton, should the Honorable City Council approve this as a sewer extension.

The proposed 40 linear feet of sewer pipe and connection to the MWRA sewer will be laid within a proposed 40 ft x 20 ft sewer easement, to be accepted by the City.

Please docket this sewer extension request, and acceptance of a sewer easement request, with the Honorable City Council for consideration. The docket item for consideration and vote includes:

- Approval of the sewer extension and connection (see plan),
- Acceptance of the 40 linear feet of sewer pipe and connection as a public sewer, to be owned and operated • by the City of Newton (see plan),
- Acceptance of the sewer easement, to be approximately 40 feet long by 20 feet wide, as shown on the easement plan (see plan),
- The condition that all costs of installing the sewer, and the sewer connection, will be borne by the developer (see letter from developer),
- Approval of the name of the newly created Private Way, name to be Farwell Circle.

Sincerely James McGonagle

Attachments: Utility Plan showing proposed sewer extension Utility Profile showing proposed sewer extension Easement Plan showing proposed sewer easement Easement Plan showing approved water easement (for reference) Letter from developer agreeing to bear all costs associated with the sewer construction

Telephone: 617-796-1009 • Fax: 617-796-1050 • Jmcgonagle@newtonma.gov



•



117-20

117-20



117-20

Turtle Lane LLC 77 Oldham Rd Newton Mass 02465

Lou Taverna City Engineer City of Newton Engineering Dept. Board of survey 1000 Commonwealth Ave Newton Mass.

Mr. Taverna, As requested. Turtle Lane LLC will be responsible for all construction and maintenance of the sewer main extension to 56 Farwell St for the new six lot subdivision approved by the board of Survey, City of Newton Engineering Dept, Newton Conservation, MWRA and the DEP. All Approvals have been recorded with the registry of Deeds.

Thank you Scott Tellier Manager

117-20



March 4, 2020

By electronic transmission: ltaverna@newtonma.gov Lou Taverna, City Engineer Engineering Division Department of Public Works 1000 Commonwealth Avenue Newton, MA 02459

Re: 56 Farwell Street

Dear Mr. Taverna:

On August 18, 2018 Turtle Lane LLC established the Farwell Lane Trust under a Declaration of Easements, Covenants and Restrictions recorded with the Middlesex South Registry of Deeds in Book 71463, Page 129. The Trust was created as a homeowners association ("HOA") responsible for the obligations assumed under a subdivision plan approved by the Planning Board Acting as a Board Survey for the above-referenced property that same year.

I have been asked to write this letter on behalf of Farwell on the Charles, LLC ("Farwell") of which I am Manager. On October 18, 2019, Farwell acquired title to the above-referenced property from Turtle Lane LLC by deed recorded in the said Registry of Deeds in Book 73486, Page 42. As owner Farwell succeeded Turtle Lane LLC as the sole Trustee of the HOA. It is in that capacity that I am writing to you to affirm the responsibility of the HOA for all costs associated with any repair or maintenance of the sewer main extension into the MWRA manhole on the site.

Thank you for your attention to this matter.

Sincerely,

J. Scott Tellier

117-20

LLC Manager and HOA Trustee