

**ADDENDUM NO. 1**  
**to the Contract Documents for**

**New Bedford High School Infrastructure Upgrades – Phase 2: Fire Alarm & HVAC**

**New Bedford, Massachusetts**

Mount Vernon Group Inc.  
47 North Second St  
New Bedford, MA 02740

Addendum Date: September 26, 2014

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**TO ALL BIDDERS AND SUB-BIDDERS**

This Addendum modifies, amends, and supplements designated parts of the Contract Documents for New Bedford High School Infrastructure Upgrades – Phase 2 : Fire Alarm & HVAC, New Bedford, Massachusetts set dated September 17, 2014 and is hereby made a part thereof by reference and shall be as binding as though inserted in its entirety in the locations designated hereunder. It shall be the responsibility of each General Bidder and all Filed Sub-Bidders to notify all sub-contractors and suppliers he/she proposes to use for the various parts of the works, of any changes or modifications contained in this Addendum. No claims for additional compensation because of the lack of knowledge of the contents of this Addendum will be considered.

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THE NUMBER OF THIS ADDENDUM MUST BE INSERTED IN PARAGRAPH B. OF THE “FORM FOR SUB-BID” AND IN PARAGRAPH B. OF THE “FORM FOR GENERAL BID”

THIS ADDENDUM CONSISTS OF PAGES NUMBERED: **AD1-1** through **AD1-4**

THIS ADDENDUM CONSISTS OF DRAWINGS: E0.1 Thru E1.04E Inclusive Dated 9/24/14.

THIS ADDENDUM CONSISTS OF SKETCHES: N/A

THIS ADDENDUM CONSISTS OF SPECIFICATIONS:

**CHANGES TO THE PROJECT MANUAL**

**ALL SECTIONS**

ITEM 01 Remove Reference to Fire Alarm in each Section Header.

**INVITATION FOR BIDS ADVERTISEMENT BID NUMBER 15.300.01**

ITEM 01 Page 2, Paragraph 5, Delete the Pre-Bid Conference date of September 22, 2014, and Replace with new date of *October 3, 2014 at 12:00 P.M.*

ITEM 02 Page 2, Paragraph 6, Delete the following sentence: “ Bids will be received by the City of New Bedford Purchasing Department until 1:00 PM on October 2, 2014 for Sub-Bids abd 1:00 P.M. on

October 9, 2014 for General Bids., prevailing time at which time and place they will be publicly opened and read aloud. “

and REPLACE with the Following:

“ Sealed Bids for File-Sub Bids will be received by the City of new Bedford , Purchasing Department, 133 William Street, New Bedford, MA 02740. Until 1:00 P.M. local time on Thursday, October 9, 2014 at which time all bids will be publicly opened and read aloud

File Sub-Bids will be received on the Following Work:

- Division 22 – HVAC
- Division 26 – Electrical

Note: New Date for General Bid.

Sealed Bids for the General Contract will be received by the City of New Bedford Purchasing Department, 133 William Street. New Bedford , MA 02740 until 1:00 P.M. local time on Thursday, October 16, 2014 at which time all bids will be publicly opened and read aloud

ITEM 03            A. INFORMATION AND INSTRUCTIONS TO BIDDERS, PROJECT, Paragraph 2  
Delete “predominantly electrical”

ITEM 04            A. INFORMATION AND INSTRUCTIONS TO BIDDERS, A. GENERAL ,  
1. Examination of Site and Contract Documents:  
Delete the Non-Mandatory Pre-Bid Date, September 12, 2014 and Replace with new date :  
October 3, 2014 at 12:00

ITEM 05            A. INFORMATION AND INSTRUCTIONS TO BIDDERS, A. GENERAL ,  
2. Interpretation of Contract Documents:  
Delete the Following:

**Debra Traverse**  
**City of New Bedford Purchasing Department**  
**133 William Street, Room 208.**  
**New Bedford, MA 02740**

Replace with

**Jorge Figueiredo**  
**Mount Vernon Group Architects, Inc**  
**47 North Second Street**  
**New Bedford, MA 02740**  
**jfigueiredo@mvgarchitects.com**

ITEM 06            D. SPECIAL REQUIREMENTS.  
Delete the Following Paragraph in its entirety  
“ General Contractor shall also provide at it’s expense a standard manufacturers 30 year labor and materials warranty for the roof replacement at the City of New Bedford City Hall the roof and roofing materials shall comply in all respects with the specifications set forth herein. “

ITEM 07            The Following paragraph shall be added:  
Upon award, the work of this Contract for construction for the City of New Bedford, New Bedford High School Infrastructure Upgrades – Phase 2: Fire Alarm and HVAC is scheduled to be Complete for the Owner Occupancy by January 23, 2015

**SECTION 00 09 00 -2 – LABOR STANDARDS**

ITEM 01 Page 2, insert the Commonwealth of Massachusetts Prevailing Wage Rates

**SECTION 00 01 00 – INSTRUCTIONS TO BIDDERS**

ITEM 01 Delete in its entirety. Use City of New Bedford Information and Instructions to Bidders

**SECTION 00 03 00 – Form For General Bid**

ITEM 01 Delete in its entirety City of New Bedford Form for General Bid and replace with revised Form for General Bid, Section 00 30 00. See Attached

**SECTION 00 08 00 – Supplemental General Conditions of the Contract for Construction**

ITEM 01 Delete in its entirety AIA Document, A101 – 207 and Supplemental General Conditions of the Contract for Construction Section 00 08 00

**SECTION 01 50 00 – Temporary Facilities and Controls**

ITEM 01 1.08 Temporary Electricity, The Owner will provide temporary electricity

**SECTION 01 74 19 – Construction Waste Management and Disposal**

ITEM 01 1.02, Paragraph A, Delete the word "Recycle"

ITEM 02 1.04, Intent Paragraph C, Delete in its entirety

ITEM 03 Submittals: This Project is not required to be a MA CHPS Project

**SECTION 09 30 00 – Tiling**

ITEM 01 Item 01, 3.03, Repair, Cleaning, and Protection. Add the Following:  
" Tiling File Sub Shall be Responsible for All Required Tile Demolition as required to Install new and repairs to Pool Tile. "

**SECTION 10 11 00 – Visual Display Surfaces**

ITEM 01 Part 2 , Products, Item 6 : Delete 16'-0" Long and Replace with 8'-0" Long

ITEM 02 Paragraph F – Delete in its entirety

**SECTION 26 00 01 – ELECTRICAL**

ITEM 01 Remove the entire Section 26 00 01 - ELECTRICAL and replace with attached Section 26 00 01 - ELECTRICAL Dated 9/24/14

**General**

- ITEM 01 City of New Bedford, MA , Owner-Contract Agreement
- ITEM 02 Delete in its entirety AIA Document, A311 Performance Board..
- ITEM 03 General Bidder shall comply with City of New Bedford Requirement for Performance Bond and Labor and Materials Payment Bond per Article XIV
- ITEM 04 All Workers will be required to submit the New Bedford Public Schools CORI Request Form (attached) to the OPM prior to the start of any work. No worker will be allowed access without approval by the New Bedford High School.
- The General Bidder shall provide a decal system that will identify cleared employees as well as keep an updated log at the field office.
- ITEM 05 Delete in it's entirety the Following Form: (1077A), (1077B), (1077C), (1077D)
- ITEM 06 City of New Bedford General Conditions of the Contract  
Replace Working Hours within Article I with new revised Work Hour Requirements. See Attached.  
Replace Item II Temporary Office with Revised Requirements. See Attached Field Office Requirement. Refer to Section 01 50 00, Page 2, Item 1.06.  
Field Offices and Storage Sheds.

**ALL DRAWINGS**

- ITEM 01 Remove Reference to Fire Alarm in each Drawing's Title Block.

**DRAWING E0.1 THRU E1.04E INCLUSIVE**

- ITEM 01 Remove drawings from Bid Set and Replace with Attached Drawings E0.1 THRU E1.04 Dated 9/24/14 Inclusive.



# NEW BEDFORD PUBLIC SCHOOLS

PAUL RODRIGUES ADMINISTRATION BUILDING  
455 COUNTY STREET  
NEW BEDFORD, MASSACHUSETTS 02740  
www.newbedfordschools.org

(508) 997-4511 Fax (508) 991-7483

HEATHER D. LARKIN, Ed.D.  
ASSISTANT SUPERINTENDENT  
STUDENT SERVICES

JANE L. DALY  
ASSISTANT SUPERINTENDENT  
ACCOUNTABILITY AND  
SCHOOL IMPROVEMENT

ANN BRADSHAW  
ASSISTANT SUPERINTENDENT  
HUMAN RESOURCES

PATRICK MURPHY  
BUSINESS MANAGER

PIA DURKIN, Ph.D.  
SUPERINTENDENT

*"We are committed to developing a community of learners who are academically proficient, demonstrate strong character and exhibit self-confidence."*

NBEPS  
CH385  
EOHHS

## CORI REQUEST FORM

(please print)

New Bedford Public Schools has been certified by the Criminal History Systems Board for access to all criminal case data including conviction, non-conviction and pending. As an applicant/employee for the position of \_\_\_\_\_, I understand that a criminal record check will be conducted for conviction, non-conviction and pending criminal case information only and that it will not necessarily disqualify me. The information below is correct to the best of my knowledge.

\_\_\_\_\_  
LAST NAME FIRST NAME MIDDLE NAME

\_\_\_\_\_  
MAIDEN NAME OR ALIAS (IF APPLICABLE) PLACE OF BIRTH

\_\_\_\_\_  
DATE OF BIRTH SOCIAL SECURITY NUMBER ID THEFT INDEX (PIN)  
(REQUESTED BUT NOT REQUIRED)

MOTHER'S MAIDEN NAME (IF APPLICABLE) \_\_\_\_\_

CURRENT & FORMER ADDRESSES: \_\_\_\_\_

SEX: \_\_\_\_\_ HEIGHT: \_\_\_\_\_ ft. \_\_\_\_\_ in. WEIGHT: \_\_\_\_\_ EYE COLOR: \_\_\_\_\_

DRIVER'S LICENSE NUMBER: \_\_\_\_\_ STATE: \_\_\_\_\_

SCHOOL NAME: \_\_\_\_\_  
(IF VOLUNTEER OR CHAPERONE) APPLICANT/EMPLOYEE SIGNATURE

\*\*\* THE ABOVE INFORMATION WAS VERIFIED BY REVIEWING THE FOLLOWING FORM OF GOVERNMENT

ISSUED PHOTOGRAPHIC IDENTIFICATION: \_\_\_\_\_

REQUESTED BY: \_\_\_\_\_  
SIGNATURE OF CORI AUTHORIZED EMPLOYEE

\*\*\*\*The CHSB Identity Theft Index PIN Number is to be completed by those applicants that have been issued an Identity Theft Index PIN Number by the CHSB. Certified agencies are required to provide all applicants the opportunity to include this information to ensure the accuracy of the CORI request process.

All CORI request forms that include this field are required to be submitted to the CHSB via mail or by fax to 617-660-4614.

Revised 07/13

The New Bedford Public Schools do not discriminate on the basis of age, gender, race, color, religion, ethnicity, national origin, disability, sexual orientation, ancestry, homelessness, gender identity or gender expression.



DEVAL L. PATRICK  
Governor

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

**Prevailing Wage Rates**

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

RACHEL KAPRIELIAN  
Secretary  
HEATHER E. ROWE  
Director

**Awarding Authority:** City of New Bedford  
**Contract Number:** 15.300.031 **City/Town:** NEW BEDFORD  
**Description of Work:** New Bedford High School Upgrades Phase II - Remove and replace 36 Unit Ventilators, install split system Air Conditioning Units, Install new visual display unit (white boards) roof replacement  
**Job Location:** 230 Hathaway Blvd

Information about Prevailing Wage Schedules for Awarding Authorities and Contractors

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

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
<b>Construction</b>						
(2 AXLE) DRIVER - EQUIPMENT <i>TEAMSTERS JOINT COUNCIL NO. 10 ZONE B</i>	08/01/2014	\$31.30	\$9.91	\$8.80	\$0.00	\$50.01
	12/01/2014	\$31.30	\$9.91	\$9.33	\$0.00	\$50.54
	06/01/2015	\$31.65	\$9.91	\$9.33	\$0.00	\$50.89
	08/01/2015	\$31.65	\$10.41	\$9.33	\$0.00	\$51.39
	12/01/2015	\$31.65	\$10.41	\$10.08	\$0.00	\$52.14
	06/01/2016	\$32.15	\$10.41	\$10.08	\$0.00	\$52.64
	08/01/2016	\$32.15	\$10.91	\$10.08	\$0.00	\$53.14
	12/01/2016	\$32.15	\$10.91	\$10.89	\$0.00	\$53.95
(3 AXLE) DRIVER - EQUIPMENT <i>TEAMSTERS JOINT COUNCIL NO. 10 ZONE B</i>	08/01/2014	\$31.37	\$9.91	\$8.80	\$0.00	\$50.08
	12/01/2014	\$31.37	\$9.91	\$9.33	\$0.00	\$50.61
	06/01/2015	\$31.72	\$9.91	\$9.33	\$0.00	\$50.96
	08/01/2015	\$31.72	\$10.41	\$9.33	\$0.00	\$51.46
	12/01/2015	\$31.72	\$10.41	\$10.08	\$0.00	\$52.21
	06/01/2016	\$32.22	\$10.41	\$10.08	\$0.00	\$52.71
	08/01/2016	\$32.22	\$10.91	\$10.08	\$0.00	\$53.21
	12/01/2016	\$32.22	\$10.91	\$10.89	\$0.00	\$54.02
(4 & 5 AXLE) DRIVER - EQUIPMENT <i>TEAMSTERS JOINT COUNCIL NO. 10 ZONE B</i>	08/01/2014	\$31.49	\$9.91	\$8.80	\$0.00	\$50.20
	12/01/2014	\$31.49	\$9.91	\$9.33	\$0.00	\$50.73
	06/01/2015	\$31.84	\$9.91	\$9.33	\$0.00	\$51.08
	08/01/2015	\$31.84	\$10.41	\$9.33	\$0.00	\$51.58
	12/01/2015	\$31.84	\$10.41	\$10.08	\$0.00	\$52.33
	06/01/2016	\$32.34	\$10.41	\$10.08	\$0.00	\$52.83
	08/01/2016	\$32.34	\$10.91	\$10.08	\$0.00	\$53.33
	12/01/2016	\$32.34	\$10.91	\$10.89	\$0.00	\$54.14
ADS/SUBMERSIBLE PILOT <i>PILE DRIVER LOCAL 56 (ZONE 2)</i>	08/01/2014	\$87.36	\$9.80	\$18.17	\$0.00	\$115.33
	08/01/2015	\$90.51	\$9.80	\$18.17	\$0.00	\$118.48
AIR TRACK OPERATOR <i>LABORERS - ZONE 2</i>	06/01/2014	\$31.10	\$7.30	\$12.10	\$0.00	\$50.50
	12/01/2014	\$31.60	\$7.30	\$12.10	\$0.00	\$51.00
	06/01/2015	\$32.10	\$7.30	\$12.10	\$0.00	\$51.50
	12/01/2015	\$32.60	\$7.30	\$12.10	\$0.00	\$52.00
	06/01/2016	\$33.10	\$7.30	\$12.10	\$0.00	\$52.50
	12/01/2016	\$33.85	\$7.30	\$12.10	\$0.00	\$53.25
For apprentice rates see "Apprentice- LABORER"						
ASBESTOS WORKER (PIPES & TANKS) <i>HEAT &amp; FROST INSULATORS LOCAL 6 (SOUTHERN MASS)</i>	06/01/2014	\$31.58	\$10.40	\$5.95	\$0.00	\$47.93
	12/01/2014	\$32.48	\$10.40	\$5.95	\$0.00	\$48.83
	06/01/2015	\$33.43	\$10.40	\$5.95	\$0.00	\$49.78
	12/01/2015	\$34.38	\$10.40	\$5.95	\$0.00	\$50.73
ASPHALT RAKER <i>LABORERS - ZONE 2</i>	06/01/2014	\$30.60	\$7.30	\$12.10	\$0.00	\$50.00
	12/01/2014	\$31.10	\$7.30	\$12.10	\$0.00	\$50.50
	06/01/2015	\$31.60	\$7.30	\$12.10	\$0.00	\$51.00
	12/01/2015	\$32.10	\$7.30	\$12.10	\$0.00	\$51.50
	06/01/2016	\$32.60	\$7.30	\$12.10	\$0.00	\$52.00
	12/01/2016	\$33.35	\$7.30	\$12.10	\$0.00	\$52.75
For apprentice rates see "Apprentice- LABORER"						

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
ASPHALT/CONCRETE/CRUSHER PLANT-ON SITE <i>OPERATING ENGINEERS LOCAL 4</i>	06/01/2014	\$41.49	\$10.00	\$14.20	\$0.00	\$65.69
	12/01/2014	\$42.49	\$10.00	\$14.20	\$0.00	\$66.69
	06/01/2015	\$43.24	\$10.00	\$14.20	\$0.00	\$67.44
	12/01/2015	\$44.49	\$10.00	\$14.20	\$0.00	\$68.69
	06/01/2016	\$45.24	\$10.00	\$14.20	\$0.00	\$69.44
	12/01/2016	\$46.49	\$10.00	\$14.20	\$0.00	\$70.69
	06/01/2017	\$47.49	\$10.00	\$14.20	\$0.00	\$71.69
	12/01/2017	\$48.49	\$10.00	\$14.20	\$0.00	\$72.69
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
BACKHOE/FRONT-END LOADER <i>OPERATING ENGINEERS LOCAL 4</i>	06/01/2014	\$41.49	\$10.00	\$14.20	\$0.00	\$65.69
	12/01/2014	\$42.49	\$10.00	\$14.20	\$0.00	\$66.69
	06/01/2015	\$43.24	\$10.00	\$14.20	\$0.00	\$67.44
	12/01/2015	\$44.49	\$10.00	\$14.20	\$0.00	\$68.69
	06/01/2016	\$45.24	\$10.00	\$14.20	\$0.00	\$69.44
	12/01/2016	\$46.49	\$10.00	\$14.20	\$0.00	\$70.69
	06/01/2017	\$47.49	\$10.00	\$14.20	\$0.00	\$71.69
	12/01/2017	\$48.49	\$10.00	\$14.20	\$0.00	\$72.69
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
BARCO-TYPE JUMPING TAMPER <i>LABORERS - ZONE 2</i>	06/01/2014	\$30.60	\$7.30	\$12.10	\$0.00	\$50.00
	12/01/2014	\$31.10	\$7.30	\$12.10	\$0.00	\$50.50
	06/01/2015	\$31.60	\$7.30	\$12.10	\$0.00	\$51.00
	12/01/2015	\$32.10	\$7.30	\$12.10	\$0.00	\$51.50
	06/01/2016	\$32.60	\$7.30	\$12.10	\$0.00	\$52.00
	12/01/2016	\$33.35	\$7.30	\$12.10	\$0.00	\$52.75
For apprentice rates see "Apprentice- LABORER"						
BLOCK PAVER, RAMMER / CURB SETTER <i>LABORERS - ZONE 2</i>	06/01/2014	\$31.10	\$7.30	\$12.10	\$0.00	\$50.50
	12/01/2014	\$31.60	\$7.30	\$12.10	\$0.00	\$51.00
	06/01/2015	\$32.10	\$7.30	\$12.10	\$0.00	\$51.50
	12/01/2015	\$32.60	\$7.30	\$12.10	\$0.00	\$52.00
	06/01/2016	\$33.10	\$7.30	\$12.10	\$0.00	\$52.50
	12/01/2016	\$33.85	\$7.30	\$12.10	\$0.00	\$53.25
For apprentice rates see "Apprentice- LABORER"						
BOILER MAKER <i>BOILERMAKERS LOCAL 29</i>	01/01/2010	\$37.70	\$6.97	\$11.18	\$0.00	\$55.85

**Classification**

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

**Apprentice - BOILERMAKER - Local 29**

**Effective Date - 01/01/2010**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	65	\$24.51	\$6.97	\$11.18	\$0.00	\$42.66
2	65	\$24.51	\$6.97	\$11.18	\$0.00	\$42.66
3	70	\$26.39	\$6.97	\$11.18	\$0.00	\$44.54
4	75	\$28.28	\$6.97	\$11.18	\$0.00	\$46.43
5	80	\$30.16	\$6.97	\$11.18	\$0.00	\$48.31
6	85	\$32.05	\$6.97	\$11.18	\$0.00	\$50.20
7	90	\$33.93	\$6.97	\$11.18	\$0.00	\$52.08
8	95	\$35.82	\$6.97	\$11.18	\$0.00	\$53.97

**Notes:**

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

BRICK/STONE/ARTIFICIAL MASONRY (INCL. MASONRY WATERPROOFING)	08/01/2014	\$48.96	\$10.18	\$18.22	\$0.00	\$77.36
BRICKLAYERS LOCAL 3 (NEW BEDFORD)	02/01/2015	\$49.52	\$10.18	\$18.22	\$0.00	\$77.92
	08/01/2015	\$50.42	\$10.18	\$18.29	\$0.00	\$78.89
	02/01/2016	\$50.99	\$10.18	\$18.29	\$0.00	\$79.46
	08/01/2016	\$51.89	\$10.18	\$18.37	\$0.00	\$80.44
	02/01/2017	\$52.46	\$10.18	\$18.37	\$0.00	\$81.01

**Apprentice - BRICK/PLASTER/CEMENT MASON - Local 3 New Bedford**

**Effective Date - 08/01/2014**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$24.48	\$10.18	\$18.22	\$0.00	\$52.88
2	60	\$29.38	\$10.18	\$18.22	\$0.00	\$57.78
3	70	\$34.27	\$10.18	\$18.22	\$0.00	\$62.67
4	80	\$39.17	\$10.18	\$18.22	\$0.00	\$67.57
5	90	\$44.06	\$10.18	\$18.22	\$0.00	\$72.46

**Effective Date - 02/01/2015**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$24.76	\$10.18	\$18.22	\$0.00	\$53.16
2	60	\$29.71	\$10.18	\$18.22	\$0.00	\$58.11
3	70	\$34.66	\$10.18	\$18.22	\$0.00	\$63.06
4	80	\$39.62	\$10.18	\$18.22	\$0.00	\$68.02
5	90	\$44.57	\$10.18	\$18.22	\$0.00	\$72.97

**Notes:**

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

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
BULLDOZER/GRADER/SCRAPER <i>OPERATING ENGINEERS LOCAL 4</i>	06/01/2014	\$41.10	\$10.00	\$14.20	\$0.00	\$65.30
	12/01/2014	\$42.09	\$10.00	\$14.20	\$0.00	\$66.29
	06/01/2015	\$42.83	\$10.00	\$14.20	\$0.00	\$67.03
	12/01/2015	\$44.07	\$10.00	\$14.20	\$0.00	\$68.27
	06/01/2016	\$44.82	\$10.00	\$14.20	\$0.00	\$69.02
	12/01/2016	\$46.05	\$10.00	\$14.20	\$0.00	\$70.25
	06/01/2017	\$47.04	\$10.00	\$14.20	\$0.00	\$71.24
	12/01/2017	\$48.03	\$10.00	\$14.20	\$0.00	\$72.23
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
CAISSON & UNDERPINNING BOTTOM MAN <i>LABORERS - FOUNDATION AND MARINE</i>	06/01/2014	\$35.20	\$7.30	\$12.90	\$0.00	\$55.40
	12/01/2014	\$35.95	\$7.30	\$12.90	\$0.00	\$56.15
	06/01/2015	\$36.70	\$7.30	\$12.90	\$0.00	\$56.90
	12/01/2015	\$37.45	\$7.30	\$12.90	\$0.00	\$57.65
	06/01/2016	\$38.20	\$7.30	\$12.90	\$0.00	\$58.40
	12/01/2016	\$39.20	\$7.30	\$12.90	\$0.00	\$59.40
For apprentice rates see "Apprentice- LABORER"						
CAISSON & UNDERPINNING LABORER <i>LABORERS - FOUNDATION AND MARINE</i>	06/01/2014	\$34.05	\$7.30	\$12.90	\$0.00	\$54.25
	12/01/2014	\$34.80	\$7.30	\$12.90	\$0.00	\$55.00
	06/01/2015	\$35.55	\$7.30	\$12.90	\$0.00	\$55.75
	12/01/2015	\$36.30	\$7.30	\$12.90	\$0.00	\$56.50
	06/01/2016	\$37.05	\$7.30	\$12.90	\$0.00	\$57.25
	12/01/2016	\$38.05	\$7.30	\$12.90	\$0.00	\$58.25
For apprentice rates see "Apprentice- LABORER"						
CAISSON & UNDERPINNING TOP MAN <i>LABORERS - FOUNDATION AND MARINE</i>	06/01/2014	\$34.05	\$7.30	\$12.90	\$0.00	\$54.25
	12/01/2014	\$34.80	\$7.30	\$12.90	\$0.00	\$55.00
	06/01/2015	\$35.55	\$7.30	\$12.90	\$0.00	\$55.75
	12/01/2015	\$36.30	\$7.30	\$12.90	\$0.00	\$56.50
	06/01/2016	\$37.05	\$7.30	\$12.90	\$0.00	\$57.25
	12/01/2016	\$38.05	\$7.30	\$12.90	\$0.00	\$58.25
For apprentice rates see "Apprentice- LABORER"						
CARBIDE CORE DRILL OPERATOR <i>LABORERS - ZONE 2</i>	06/01/2014	\$30.60	\$7.30	\$12.10	\$0.00	\$50.00
	12/01/2014	\$31.10	\$7.30	\$12.10	\$0.00	\$50.50
	06/01/2015	\$31.60	\$7.30	\$12.10	\$0.00	\$51.00
	12/01/2015	\$32.10	\$7.30	\$12.10	\$0.00	\$51.50
	06/01/2016	\$32.60	\$7.30	\$12.10	\$0.00	\$52.00
	12/01/2016	\$33.35	\$7.30	\$12.10	\$0.00	\$52.75
For apprentice rates see "Apprentice- LABORER"						
CARPENTER <i>CARPENTERS -ZONE 2 (Eastern Massachusetts)</i>	09/01/2014	\$35.35	\$9.80	\$16.11	\$0.00	\$61.26
	03/01/2015	\$36.12	\$9.80	\$16.11	\$0.00	\$62.03

**Classification**

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

**Apprentice - CARPENTER - Zone 2 Eastern MA**

**Effective Date - 09/01/2014**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$17.68	\$9.80	\$1.57	\$0.00	\$29.05
2	60	\$21.21	\$9.80	\$1.57	\$0.00	\$32.58
3	70	\$24.75	\$9.80	\$11.40	\$0.00	\$45.95
4	75	\$26.51	\$9.80	\$11.40	\$0.00	\$47.71
5	80	\$28.28	\$9.80	\$12.97	\$0.00	\$51.05
6	80	\$28.28	\$9.80	\$12.97	\$0.00	\$51.05
7	90	\$31.82	\$9.80	\$14.54	\$0.00	\$56.16
8	90	\$31.82	\$9.80	\$14.54	\$0.00	\$56.16

**Effective Date - 03/01/2015**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$18.06	\$9.80	\$1.57	\$0.00	\$29.43
2	60	\$21.67	\$9.80	\$1.57	\$0.00	\$33.04
3	70	\$25.28	\$9.80	\$11.40	\$0.00	\$46.48
4	75	\$27.09	\$9.80	\$11.40	\$0.00	\$48.29
5	80	\$28.90	\$9.80	\$12.97	\$0.00	\$51.67
6	80	\$28.90	\$9.80	\$12.97	\$0.00	\$51.67
7	90	\$32.51	\$9.80	\$14.54	\$0.00	\$56.85
8	90	\$32.51	\$9.80	\$14.54	\$0.00	\$56.85

**Notes:**

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

CEMENT MASONRY/PLASTERING	07/01/2014	\$43.77	\$10.90	\$18.71	\$1.30	\$74.68
BRICKLAYERS LOCAL 3 (NEW BEDFORD)	01/01/2015	\$44.69	\$10.90	\$18.71	\$1.30	\$75.60
	07/01/2015	\$45.29	\$10.90	\$18.71	\$1.30	\$76.20
	01/01/2016	\$46.21	\$10.90	\$18.71	\$1.30	\$77.12

**Classification**

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

**Apprentice - CEMENT MASONRY/PLASTERING - Eastern Mass (New Bedford)**

**Effective Date - 07/01/2014**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$21.89	\$10.90	\$12.21	\$1.30	\$46.30
2	60	\$26.26	\$10.90	\$13.71	\$1.30	\$52.17
3	65	\$28.45	\$10.90	\$14.71	\$1.30	\$55.36
4	70	\$30.64	\$10.90	\$15.71	\$1.30	\$58.55
5	75	\$32.83	\$10.90	\$16.71	\$1.30	\$61.74
6	80	\$35.02	\$10.90	\$17.71	\$1.30	\$64.93
7	90	\$39.39	\$10.90	\$18.71	\$1.30	\$70.30

**Effective Date - 01/01/2015**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$22.35	\$10.90	\$12.21	\$1.30	\$46.76
2	60	\$26.81	\$10.90	\$13.71	\$1.30	\$52.72
3	65	\$29.05	\$10.90	\$14.71	\$1.30	\$55.96
4	70	\$31.28	\$10.90	\$15.71	\$1.30	\$59.19
5	75	\$33.52	\$10.90	\$16.71	\$1.30	\$62.43
6	80	\$35.75	\$10.90	\$17.71	\$1.30	\$65.66
7	90	\$40.22	\$10.90	\$18.71	\$1.30	\$71.13

**Notes:**

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

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

CHAIN SAW OPERATOR	06/01/2014	\$30.60	\$7.30	\$12.10	\$0.00	\$50.00
LABORERS - ZONE 2	12/01/2014	\$31.10	\$7.30	\$12.10	\$0.00	\$50.50
	06/01/2015	\$31.60	\$7.30	\$12.10	\$0.00	\$51.00
	12/01/2015	\$32.10	\$7.30	\$12.10	\$0.00	\$51.50
	06/01/2016	\$32.60	\$7.30	\$12.10	\$0.00	\$52.00
	12/01/2016	\$33.35	\$7.30	\$12.10	\$0.00	\$52.75

For apprentice rates see "Apprentice- LABORER"

CLAM SHELLS/SLURRY BUCKETS/HEADING MACHINES	06/01/2014	\$42.49	\$10.00	\$14.20	\$0.00	\$66.69
OPERATING ENGINEERS LOCAL 4	12/01/2014	\$43.49	\$10.00	\$14.20	\$0.00	\$67.69
	06/01/2015	\$44.24	\$10.00	\$14.20	\$0.00	\$68.44
	12/01/2015	\$45.49	\$10.00	\$14.20	\$0.00	\$69.69
	06/01/2016	\$46.24	\$10.00	\$14.20	\$0.00	\$70.44
	12/01/2016	\$47.49	\$10.00	\$14.20	\$0.00	\$71.69
	06/01/2017	\$48.49	\$10.00	\$14.20	\$0.00	\$72.69
	12/01/2017	\$49.49	\$10.00	\$14.20	\$0.00	\$73.69

For apprentice rates see "Apprentice- OPERATING ENGINEERS"

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
COMPRESSOR OPERATOR <i>OPERATING ENGINEERS LOCAL 4</i>	06/01/2014	\$28.80	\$10.00	\$14.20	\$0.00	\$53.00
	12/01/2014	\$29.50	\$10.00	\$14.20	\$0.00	\$53.70
	06/01/2015	\$30.02	\$10.00	\$14.20	\$0.00	\$54.22
	12/01/2015	\$30.89	\$10.00	\$14.20	\$0.00	\$55.09
	06/01/2016	\$31.41	\$10.00	\$14.20	\$0.00	\$55.61
	12/01/2016	\$32.28	\$10.00	\$14.20	\$0.00	\$56.48
	06/01/2017	\$32.97	\$10.00	\$14.20	\$0.00	\$57.17
	12/01/2017	\$33.66	\$10.00	\$14.20	\$0.00	\$57.86

For apprentice rates see "Apprentice- OPERATING ENGINEERS"

DELEADER (BRIDGE) <i>PAINTERS LOCAL 35 - ZONE 2</i>	07/01/2014	\$46.76	\$7.85	\$16.10	\$0.00	\$70.71
	01/01/2015	\$47.66	\$7.85	\$16.10	\$0.00	\$71.61
	07/01/2015	\$48.56	\$7.85	\$16.10	\$0.00	\$72.51
	01/01/2016	\$49.51	\$7.85	\$16.10	\$0.00	\$73.46
	07/01/2016	\$50.46	\$7.85	\$16.10	\$0.00	\$74.41
	01/01/2017	\$51.41	\$7.85	\$16.10	\$0.00	\$75.36

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

**Effective Date - 07/01/2014**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$23.38	\$7.85	\$0.00	\$0.00	\$31.23
2	55	\$25.72	\$7.85	\$3.66	\$0.00	\$37.23
3	60	\$28.06	\$7.85	\$3.99	\$0.00	\$39.90
4	65	\$30.39	\$7.85	\$4.32	\$0.00	\$42.56
5	70	\$32.73	\$7.85	\$14.11	\$0.00	\$54.69
6	75	\$35.07	\$7.85	\$14.44	\$0.00	\$57.36
7	80	\$37.41	\$7.85	\$14.77	\$0.00	\$60.03
8	90	\$42.08	\$7.85	\$15.44	\$0.00	\$65.37

**Effective Date - 01/01/2015**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$23.83	\$7.85	\$0.00	\$0.00	\$31.68
2	55	\$26.21	\$7.85	\$3.66	\$0.00	\$37.72
3	60	\$28.60	\$7.85	\$3.99	\$0.00	\$40.44
4	65	\$30.98	\$7.85	\$4.32	\$0.00	\$43.15
5	70	\$33.36	\$7.85	\$14.11	\$0.00	\$55.32
6	75	\$35.75	\$7.85	\$14.44	\$0.00	\$58.04
7	80	\$38.13	\$7.85	\$14.77	\$0.00	\$60.75
8	90	\$42.89	\$7.85	\$15.44	\$0.00	\$66.18

**Notes:**

Steps are 750 hrs.

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

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
DEMO: ADZEMAN <i>LABORERS - ZONE 2</i>	06/01/2014	\$34.25	\$7.30	\$12.70	\$0.00	\$54.25
	12/01/2014	\$35.00	\$7.30	\$12.70	\$0.00	\$55.00
	06/01/2015	\$35.75	\$7.30	\$12.70	\$0.00	\$55.75
	12/01/2015	\$36.50	\$7.30	\$12.70	\$0.00	\$56.50
For apprentice rates see "Apprentice- LABORER"						
DEMO: BACKHOE/LOADER/HAMMER OPERATOR <i>LABORERS - ZONE 2</i>	06/01/2014	\$35.25	\$7.30	\$12.70	\$0.00	\$55.25
	12/01/2014	\$36.00	\$7.30	\$12.70	\$0.00	\$56.00
	06/01/2015	\$36.75	\$7.30	\$12.70	\$0.00	\$56.75
	12/01/2015	\$37.50	\$7.30	\$12.70	\$0.00	\$57.50
For apprentice rates see "Apprentice- LABORER"						
DEMO: BURNERS <i>LABORERS - ZONE 2</i>	06/01/2014	\$35.00	\$7.30	\$12.70	\$0.00	\$55.00
	12/01/2014	\$35.75	\$7.30	\$12.70	\$0.00	\$55.75
	06/01/2015	\$36.50	\$7.30	\$12.70	\$0.00	\$56.50
	12/01/2015	\$37.25	\$7.30	\$12.70	\$0.00	\$57.25
For apprentice rates see "Apprentice- LABORER"						
DEMO: CONCRETE CUTTER/SAWYER <i>LABORERS - ZONE 2</i>	06/01/2014	\$35.25	\$7.30	\$12.70	\$0.00	\$55.25
	12/01/2014	\$36.00	\$7.30	\$12.70	\$0.00	\$56.00
	06/01/2015	\$36.75	\$7.30	\$12.70	\$0.00	\$56.75
	12/01/2015	\$37.50	\$7.30	\$12.70	\$0.00	\$57.50
For apprentice rates see "Apprentice- LABORER"						
DEMO: JACKHAMMER OPERATOR <i>LABORERS - ZONE 2</i>	06/01/2014	\$35.00	\$7.30	\$12.70	\$0.00	\$55.00
	12/01/2014	\$35.75	\$7.30	\$12.70	\$0.00	\$55.75
	06/01/2015	\$36.50	\$7.30	\$12.70	\$0.00	\$56.50
	12/01/2015	\$37.25	\$7.30	\$12.70	\$0.00	\$57.25
For apprentice rates see "Apprentice- LABORER"						
DEMO: WRECKING LABORER <i>LABORERS - ZONE 2</i>	06/01/2014	\$34.25	\$7.30	\$12.70	\$0.00	\$54.25
	12/01/2014	\$35.00	\$7.30	\$12.70	\$0.00	\$55.00
	06/01/2015	\$35.75	\$7.30	\$12.70	\$0.00	\$55.75
	12/01/2015	\$36.50	\$7.30	\$12.70	\$0.00	\$56.50
For apprentice rates see "Apprentice- LABORER"						
DIRECTIONAL DRILL MACHINE OPERATOR <i>OPERATING ENGINEERS LOCAL 4</i>	06/01/2014	\$41.10	\$10.00	\$14.20	\$0.00	\$65.30
	12/01/2014	\$42.09	\$10.00	\$14.20	\$0.00	\$66.29
	06/01/2015	\$42.83	\$10.00	\$14.20	\$0.00	\$67.03
	12/01/2015	\$44.07	\$10.00	\$14.20	\$0.00	\$68.27
	06/01/2016	\$44.82	\$10.00	\$14.20	\$0.00	\$69.02
	12/01/2016	\$46.05	\$10.00	\$14.20	\$0.00	\$70.25
	06/01/2017	\$47.04	\$10.00	\$14.20	\$0.00	\$71.24
	12/01/2017	\$48.03	\$10.00	\$14.20	\$0.00	\$72.23
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
DIVER <i>PILE DRIVER LOCAL 56 (ZONE 2)</i>	08/01/2014	\$58.24	\$9.80	\$18.17	\$0.00	\$86.21
	08/01/2015	\$60.34	\$9.80	\$18.17	\$0.00	\$88.31
DIVER TENDER <i>PILE DRIVER LOCAL 56 (ZONE 2)</i>	08/01/2014	\$41.60	\$9.80	\$18.17	\$0.00	\$69.57
	08/01/2015	\$43.10	\$9.80	\$18.17	\$0.00	\$71.07
DIVER TENDER (EFFLUENT) <i>PILE DRIVER LOCAL 56 (ZONE 2)</i>	08/01/2014	\$62.40	\$9.80	\$18.17	\$0.00	\$90.37
	08/01/2015	\$64.65	\$9.80	\$18.17	\$0.00	\$92.62
DIVER/SLURRY (EFFLUENT) <i>PILE DRIVER LOCAL 56 (ZONE 2)</i>	08/01/2014	\$87.36	\$9.80	\$18.17	\$0.00	\$115.33
	08/01/2015	\$90.51	\$9.80	\$18.17	\$0.00	\$118.48

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
ELECTRICIAN ELECTRICIANS LOCAL 223	09/01/2014	\$37.31	\$8.00	\$11.03	\$0.00	\$56.34
	09/01/2015	\$38.31	\$8.40	\$11.28	\$0.00	\$57.99
	09/01/2016	\$39.21	\$8.90	\$11.51	\$0.00	\$59.62

**Apprentice - ELECTRICIAN - Local 223**

**Effective Date - 09/01/2014**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	40	\$14.92	\$0.00	\$0.45	\$0.00	\$15.37
2	42	\$15.67	\$0.00	\$0.47	\$0.00	\$16.14
3	45	\$16.79	\$8.00	\$0.50	\$0.00	\$25.29
4	48	\$17.91	\$8.00	\$3.30	\$0.00	\$29.21
5	50	\$18.66	\$8.00	\$3.41	\$0.00	\$30.07
6	55	\$20.52	\$8.00	\$3.68	\$0.00	\$32.20
7	60	\$22.39	\$8.00	\$3.94	\$0.00	\$34.33
8	65	\$24.25	\$8.00	\$4.22	\$0.00	\$36.47
9	70	\$26.12	\$8.00	\$4.48	\$0.00	\$38.60
10	75	\$27.98	\$8.00	\$4.76	\$0.00	\$40.74

**Effective Date - 09/01/2015**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	40	\$15.32	\$0.00	\$0.46	\$0.00	\$15.78
2	42	\$16.09	\$0.00	\$0.48	\$0.00	\$16.57
3	45	\$17.24	\$8.40	\$0.52	\$0.00	\$26.16
4	48	\$18.39	\$8.40	\$3.36	\$0.00	\$30.15
5	50	\$19.16	\$8.40	\$3.47	\$0.00	\$31.03
6	55	\$21.07	\$8.40	\$3.75	\$0.00	\$33.22
7	60	\$22.99	\$8.40	\$4.03	\$0.00	\$35.42
8	65	\$24.90	\$8.40	\$4.31	\$0.00	\$37.61
9	70	\$26.82	\$8.40	\$5.28	\$0.00	\$40.50
10	75	\$28.73	\$8.40	\$4.86	\$0.00	\$41.99

**Notes:**

Steps are 750 hours

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

ELEVATOR CONSTRUCTOR ELEVATOR CONSTRUCTORS LOCAL 4	01/01/2012	\$52.45	\$8.78	\$6.96	\$0.00	\$68.19
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**Apprentice - ELEVATOR CONSTRUCTOR - Local 4**

**Effective Date - 01/01/2012**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$26.23	\$8.78	\$0.00	\$0.00	\$35.01
2	55	\$28.85	\$8.78	\$6.96	\$0.00	\$44.59
3	65	\$34.09	\$8.78	\$6.96	\$0.00	\$49.83
4	70	\$36.72	\$8.78	\$6.96	\$0.00	\$52.46
5	80	\$41.96	\$8.78	\$6.96	\$0.00	\$57.70

**Notes:**

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

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

ELEVATOR CONSTRUCTOR HELPER <i>ELEVATOR CONSTRUCTORS LOCAL 4</i>	01/01/2012	\$38.59	\$8.78	\$6.96	\$0.00	\$54.33
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For apprentice rates see "Apprentice - ELEVATOR CONSTRUCTOR"

FENCE & GUARD RAIL ERECTOR <i>LABORERS - ZONE 2</i>	06/01/2014	\$30.60	\$7.30	\$12.10	\$0.00	\$50.00
	12/01/2014	\$31.10	\$7.30	\$12.10	\$0.00	\$50.50
	06/01/2015	\$31.60	\$7.30	\$12.10	\$0.00	\$51.00
	12/01/2015	\$32.10	\$7.30	\$12.10	\$0.00	\$51.50
	06/01/2016	\$32.60	\$7.30	\$12.10	\$0.00	\$52.00
	12/01/2016	\$33.35	\$7.30	\$12.10	\$0.00	\$52.75

For apprentice rates see "Apprentice- LABORER"

FIELD ENG.INST.PERSON-BLDG,SITE,HVY/HWY <i>OPERATING ENGINEERS LOCAL 4</i>	05/01/2014	\$38.87	\$10.00	\$14.18	\$0.00	\$63.05
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For apprentice rates see "Apprentice- OPERATING ENGINEERS"

FIELD ENG.PARTY CHIEF-BLDG,SITE,HVY/HWY <i>OPERATING ENGINEERS LOCAL 4</i>	05/01/2014	\$40.29	\$10.00	\$14.18	\$0.00	\$64.47
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For apprentice rates see "Apprentice- OPERATING ENGINEERS"

FIELD ENG.ROD PERSON-BLDG,SITE,HVY/HWY <i>OPERATING ENGINEERS LOCAL 4</i>	05/01/2014	\$20.92	\$10.00	\$14.18	\$0.00	\$45.10
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For apprentice rates see "Apprentice- OPERATING ENGINEERS"

FIRE ALARM INSTALLER <i>ELECTRICIANS LOCAL 223</i>	09/01/2014	\$37.31	\$8.00	\$11.03	\$0.00	\$56.34
	09/01/2015	\$38.31	\$8.40	\$11.28	\$0.00	\$57.99
	09/01/2016	\$39.21	\$8.90	\$11.51	\$0.00	\$59.62

For apprentice rates see "Apprentice- ELECTRICIAN"

FIRE ALARM REPAIR / MAINTENANCE <i>LOCAL 223</i> / COMMISSIONING <i>ELECTRICIANS</i>	09/01/2014	\$31.71	\$8.00	\$9.38	\$0.00	\$49.09
	09/01/2015	\$32.56	\$8.40	\$9.59	\$0.00	\$50.55
	09/01/2016	\$33.33	\$8.90	\$9.78	\$0.00	\$52.01

For apprentice rates see "Apprentice- TELECOMMUNICATIONS TECHNICIAN"

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
FIREMAN (ASST. ENGINEER) <i>OPERATING ENGINEERS LOCAL 4</i>	06/01/2014	\$34.59	\$10.00	\$14.20	\$0.00	\$58.79
	12/01/2014	\$35.43	\$10.00	\$14.20	\$0.00	\$59.63
	06/01/2015	\$36.05	\$10.00	\$14.20	\$0.00	\$60.25
	12/01/2015	\$37.10	\$10.00	\$14.20	\$0.00	\$61.30
	06/01/2016	\$37.72	\$10.00	\$14.20	\$0.00	\$61.92
	12/01/2016	\$38.76	\$10.00	\$14.20	\$0.00	\$62.96
	06/01/2017	\$39.60	\$10.00	\$14.20	\$0.00	\$63.80
	12/01/2017	\$40.43	\$10.00	\$14.20	\$0.00	\$64.63
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
FLAGGER & SIGNALER <i>LABORERS - ZONE 2</i>	06/01/2014	\$20.50	\$7.30	\$12.10	\$0.00	\$39.90
	12/01/2014	\$20.50	\$7.30	\$12.10	\$0.00	\$39.90
	06/01/2015	\$20.50	\$7.30	\$12.10	\$0.00	\$39.90
	12/01/2015	\$20.50	\$7.30	\$12.10	\$0.00	\$39.90
	06/01/2016	\$20.50	\$7.30	\$12.10	\$0.00	\$39.90
	12/01/2016	\$20.50	\$7.30	\$12.10	\$0.00	\$39.90
For apprentice rates see "Apprentice- LABORER"						
FLOORCOVERER <i>FLOORCOVERERS LOCAL 2168 ZONE 1</i>	09/01/2014	\$40.40	\$9.80	\$17.21	\$0.00	\$67.41

**Apprentice - FLOORCOVERER - Local 2168 Zone 1**

**Effective Date - 09/01/2014**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$20.20	\$9.80	\$1.79	\$0.00	\$31.79
2	55	\$22.22	\$9.80	\$1.79	\$0.00	\$33.81
3	60	\$24.24	\$9.80	\$11.84	\$0.00	\$45.88
4	65	\$26.26	\$9.80	\$11.84	\$0.00	\$47.90
5	70	\$28.28	\$9.80	\$13.63	\$0.00	\$51.71
6	75	\$30.30	\$9.80	\$13.63	\$0.00	\$53.73
7	80	\$32.32	\$9.80	\$15.42	\$0.00	\$57.54
8	85	\$34.34	\$9.80	\$15.42	\$0.00	\$59.56

**Notes:**

Steps are 750 hrs.

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

FORK LIFT/CHERRY PICKER <i>OPERATING ENGINEERS LOCAL 4</i>	06/01/2014	\$41.49	\$10.00	\$14.20	\$0.00	\$65.69
	12/01/2014	\$42.49	\$10.00	\$14.20	\$0.00	\$66.69
	06/01/2015	\$43.24	\$10.00	\$14.20	\$0.00	\$67.44
	12/01/2015	\$44.49	\$10.00	\$14.20	\$0.00	\$68.69
	06/01/2016	\$45.24	\$10.00	\$14.20	\$0.00	\$69.44
	12/01/2016	\$46.49	\$10.00	\$14.20	\$0.00	\$70.69
	06/01/2017	\$47.49	\$10.00	\$14.20	\$0.00	\$71.69
	12/01/2017	\$48.49	\$10.00	\$14.20	\$0.00	\$72.69

For apprentice rates see "Apprentice- OPERATING ENGINEERS"

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
GENERATOR/LIGHTING PLANT/HEATERS <i>OPERATING ENGINEERS LOCAL 4</i>	06/01/2014	\$28.80	\$10.00	\$14.20	\$0.00	\$53.00
	12/01/2014	\$29.50	\$10.00	\$14.20	\$0.00	\$53.70
	06/01/2015	\$30.02	\$10.00	\$14.20	\$0.00	\$54.22
	12/01/2015	\$30.89	\$10.00	\$14.20	\$0.00	\$55.09
	06/01/2016	\$31.41	\$10.00	\$14.20	\$0.00	\$55.61
	12/01/2016	\$32.28	\$10.00	\$14.20	\$0.00	\$56.48
	06/01/2017	\$32.97	\$10.00	\$14.20	\$0.00	\$57.17
	12/01/2017	\$33.66	\$10.00	\$14.20	\$0.00	\$57.86
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
GLAZIER (GLASS PLANK/AIR BARRIER/INTERIOR SYSTEMS) <i>GLAZIERS LOCAL 1333</i>	06/01/2014	\$34.58	\$9.80	\$7.75	\$0.00	\$52.13
	06/01/2015	\$35.08	\$10.25	\$8.00	\$0.00	\$53.33
	06/01/2016	\$35.58	\$10.70	\$8.25	\$0.00	\$54.53

**Apprentice - GLAZIER - Local 1333**

**Effective Date - 06/01/2014**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$17.29	\$9.80	\$1.00	\$0.00	\$28.09
2	56	\$19.45	\$9.80	\$1.00	\$0.00	\$30.25
3	63	\$21.61	\$9.80	\$1.50	\$0.00	\$32.91
4	69	\$23.77	\$9.80	\$1.50	\$0.00	\$35.07
5	75	\$25.94	\$9.80	\$2.00	\$0.00	\$37.74
6	81	\$28.10	\$9.80	\$2.00	\$0.00	\$39.90
7	88	\$30.26	\$9.80	\$7.75	\$0.00	\$47.81
8	94	\$32.42	\$9.80	\$7.75	\$0.00	\$49.97

**Effective Date - 06/01/2015**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$17.54	\$10.25	\$1.00	\$0.00	\$28.79
2	56	\$19.73	\$10.25	\$1.00	\$0.00	\$30.98
3	63	\$21.93	\$10.25	\$1.50	\$0.00	\$33.68
4	69	\$24.12	\$10.25	\$1.50	\$0.00	\$35.87
5	75	\$26.31	\$10.25	\$2.00	\$0.00	\$38.56
6	81	\$28.50	\$10.25	\$2.00	\$0.00	\$40.75
7	88	\$30.70	\$10.25	\$8.00	\$0.00	\$48.95
8	94	\$32.89	\$10.25	\$8.00	\$0.00	\$51.14

**Notes:**

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

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
HOISTING ENGINEER/CRANES/GRADALLS <i>OPERATING ENGINEERS LOCAL 4</i>	06/01/2014	\$41.49	\$10.00	\$14.20	\$0.00	\$65.69
	12/01/2014	\$42.49	\$10.00	\$14.20	\$0.00	\$66.69
	06/01/2015	\$43.24	\$10.00	\$14.20	\$0.00	\$67.44
	12/01/2015	\$44.49	\$10.00	\$14.20	\$0.00	\$68.69
	06/01/2016	\$45.24	\$10.00	\$14.20	\$0.00	\$69.44
	12/01/2016	\$46.49	\$10.00	\$14.20	\$0.00	\$70.69
	06/01/2017	\$47.49	\$10.00	\$14.20	\$0.00	\$71.69
	12/01/2017	\$48.49	\$10.00	\$14.20	\$0.00	\$72.69

**Apprentice - OPERATING ENGINEERS - Local 4**

**Effective Date - 06/01/2014**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	55	\$22.82	\$10.00	\$0.00	\$0.00	\$32.82
2	60	\$24.89	\$10.00	\$14.18	\$0.00	\$49.07
3	65	\$26.97	\$10.00	\$14.18	\$0.00	\$51.15
4	70	\$29.04	\$10.00	\$14.18	\$0.00	\$53.22
5	75	\$31.12	\$10.00	\$14.18	\$0.00	\$55.30
6	80	\$33.19	\$10.00	\$14.18	\$0.00	\$57.37
7	85	\$35.27	\$10.00	\$14.18	\$0.00	\$59.45
8	90	\$37.34	\$10.00	\$14.18	\$0.00	\$61.52

**Effective Date - 12/01/2014**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	55	\$23.37	\$10.00	\$0.00	\$0.00	\$33.37
2	60	\$25.49	\$10.00	\$14.18	\$0.00	\$49.67
3	65	\$27.62	\$10.00	\$14.18	\$0.00	\$51.80
4	70	\$29.74	\$10.00	\$14.18	\$0.00	\$53.92
5	75	\$31.87	\$10.00	\$14.18	\$0.00	\$56.05
6	80	\$33.99	\$10.00	\$14.18	\$0.00	\$58.17
7	85	\$36.12	\$10.00	\$14.18	\$0.00	\$60.30
8	90	\$38.24	\$10.00	\$14.18	\$0.00	\$62.42

**Notes:**

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

HVAC (DUCTWORK) <i>SHEETMETAL WORKERS LOCAL 17 - B</i>	04/01/2013	\$34.64	\$9.82	\$12.31	\$1.70	\$58.47
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For apprentice rates see "Apprentice- SHEET METAL WORKER"

HVAC (ELECTRICAL CONTROLS) <i>ELECTRICIANS LOCAL 223</i>	09/01/2014	\$37.31	\$8.00	\$11.03	\$0.00	\$56.34
	09/01/2015	\$38.31	\$8.40	\$11.28	\$0.00	\$57.99
	09/01/2016	\$39.21	\$8.90	\$11.51	\$0.00	\$59.62

For apprentice rates see "Apprentice- ELECTRICIAN"

HVAC (TESTING AND BALANCING - AIR) <i>SHEETMETAL WORKERS LOCAL 17 - B</i>	04/01/2013	\$34.64	\$9.82	\$12.31	\$1.70	\$58.47
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For apprentice rates see "Apprentice- SHEET METAL WORKER"

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
HVAC (TESTING AND BALANCING -WATER) <i>PLUMBERS &amp; PIPEFITTERS LOCAL 51</i>	09/01/2014	\$35.88	\$11.00	\$15.35	\$0.00	\$62.23
	03/01/2015	\$36.63	\$11.00	\$15.35	\$0.00	\$62.98
	09/01/2015	\$37.38	\$11.00	\$15.35	\$0.00	\$63.73
	03/01/2016	\$38.13	\$11.00	\$15.35	\$0.00	\$64.48
For apprentice rates see "Apprentice- PIPEFITTER" or "PLUMBER/PIPEFITTER"						
HVAC MECHANIC <i>PLUMBERS &amp; PIPEFITTERS LOCAL 51</i>	09/01/2014	\$35.88	\$11.00	\$15.35	\$0.00	\$62.23
	03/01/2015	\$36.63	\$11.00	\$15.35	\$0.00	\$62.98
	09/01/2015	\$37.38	\$11.00	\$15.35	\$0.00	\$63.73
	03/01/2016	\$38.13	\$11.00	\$15.35	\$0.00	\$64.48
For apprentice rates see "Apprentice- PIPEFITTER" or "PLUMBER/PIPEFITTER"						
HYDRAULIC DRILLS <i>LABORERS - ZONE 2</i>	06/01/2014	\$31.10	\$7.30	\$12.10	\$0.00	\$50.50
	12/01/2014	\$31.60	\$7.30	\$12.10	\$0.00	\$51.00
	06/01/2015	\$32.10	\$7.30	\$12.10	\$0.00	\$51.50
	12/01/2015	\$32.60	\$7.30	\$12.10	\$0.00	\$52.00
	06/01/2016	\$33.10	\$7.30	\$12.10	\$0.00	\$52.50
	12/01/2016	\$33.85	\$7.30	\$12.10	\$0.00	\$53.25
For apprentice rates see "Apprentice- LABORER"						
INSULATOR (PIPES & TANKS) <i>HEAT &amp; FROST INSULATORS LOCAL 6 (SOUTHERN MASS)</i>	09/01/2014	\$38.98	\$11.25	\$12.60	\$0.00	\$62.83

**Apprentice - ASBESTOS INSULATOR (Pipes & Tanks) - Local 6 Southern MA**

**Effective Date - 09/01/2014**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$19.49	\$11.25	\$11.00	\$0.00	\$41.74
2	60	\$23.39	\$11.25	\$11.32	\$0.00	\$45.96
3	70	\$27.29	\$11.25	\$11.64	\$0.00	\$50.18
4	80	\$31.18	\$11.25	\$11.96	\$0.00	\$54.39

**Notes:**

Steps are 1 year

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

IRONWORKER/WELDER <i>IRONWORKERS LOCAL 37</i>	09/16/2014	\$33.96	\$7.70	\$14.80	\$0.00	\$56.46
	03/16/2015	\$34.66	\$7.70	\$14.80	\$0.00	\$57.16
	09/16/2015	\$35.36	\$7.70	\$14.80	\$0.00	\$57.86
	03/16/2016	\$36.06	\$7.70	\$14.80	\$0.00	\$58.56

**Classification**

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

**Apprentice - IRONWORKER - Local 37**

**Effective Date - 09/16/2014**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	70	\$23.77	\$7.70	\$14.80	\$0.00	\$46.27
2	75	\$25.47	\$7.70	\$14.80	\$0.00	\$47.97
3	80	\$27.17	\$7.70	\$14.80	\$0.00	\$49.67
4	85	\$28.87	\$7.70	\$14.80	\$0.00	\$51.37
5	90	\$30.56	\$7.70	\$14.80	\$0.00	\$53.06
6	95	\$32.26	\$7.70	\$14.80	\$0.00	\$54.76

**Effective Date - 03/16/2015**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	70	\$24.26	\$7.70	\$14.80	\$0.00	\$46.76
2	75	\$26.00	\$7.70	\$14.80	\$0.00	\$48.50
3	80	\$27.73	\$7.70	\$14.80	\$0.00	\$50.23
4	85	\$29.46	\$7.70	\$14.80	\$0.00	\$51.96
5	90	\$31.19	\$7.70	\$14.80	\$0.00	\$53.69
6	95	\$32.93	\$7.70	\$14.80	\$0.00	\$55.43

**Notes:**

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

<b>JACKHAMMER &amp; PAVING BREAKER OPERATOR</b> <i>LABORERS - ZONE 2</i>	06/01/2014	\$30.60	\$7.30	\$12.10	\$0.00	\$50.00
	12/01/2014	\$31.10	\$7.30	\$12.10	\$0.00	\$50.50
	06/01/2015	\$31.60	\$7.30	\$12.10	\$0.00	\$51.00
	12/01/2015	\$32.10	\$7.30	\$12.10	\$0.00	\$51.50
	06/01/2016	\$32.60	\$7.30	\$12.10	\$0.00	\$52.00
	12/01/2016	\$33.35	\$7.30	\$12.10	\$0.00	\$52.75

For apprentice rates see "Apprentice- LABORER"

<b>LABORER</b> <i>LABORERS - ZONE 2</i>	06/01/2014	\$30.35	\$7.30	\$12.10	\$0.00	\$49.75
	12/01/2014	\$30.85	\$7.30	\$12.10	\$0.00	\$50.25
	06/01/2015	\$31.35	\$7.30	\$12.10	\$0.00	\$50.75
	12/01/2015	\$31.85	\$7.30	\$12.10	\$0.00	\$51.25
	06/01/2016	\$32.35	\$7.30	\$12.10	\$0.00	\$51.75
	12/01/2016	\$33.10	\$7.30	\$12.10	\$0.00	\$52.50

**Classification**

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

**Apprentice - LABORER - Zone 2**

**Effective Date - 06/01/2014**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	60	\$18.21	\$7.30	\$12.10	\$0.00	\$37.61
2	70	\$21.25	\$7.30	\$12.10	\$0.00	\$40.65
3	80	\$24.28	\$7.30	\$12.10	\$0.00	\$43.68
4	90	\$27.32	\$7.30	\$12.10	\$0.00	\$46.72

**Effective Date - 12/01/2014**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	60	\$18.51	\$7.30	\$12.10	\$0.00	\$37.91
2	70	\$21.60	\$7.30	\$12.10	\$0.00	\$41.00
3	80	\$24.68	\$7.30	\$12.10	\$0.00	\$44.08
4	90	\$27.77	\$7.30	\$12.10	\$0.00	\$47.17

**Notes:**

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

LABORER: CARPENTER TENDER LABORERS - ZONE 2	06/01/2014	\$30.35	\$7.30	\$12.10	\$0.00	\$49.75
	12/01/2014	\$30.85	\$7.30	\$12.10	\$0.00	\$50.25
	06/01/2015	\$31.35	\$7.30	\$12.10	\$0.00	\$50.75
	12/01/2015	\$31.85	\$7.30	\$12.10	\$0.00	\$51.25
	06/01/2016	\$32.35	\$7.30	\$12.10	\$0.00	\$51.75
	12/01/2016	\$33.10	\$7.30	\$12.10	\$0.00	\$52.50

For apprentice rates see "Apprentice- LABORER"

LABORER: CEMENT FINISHER TENDER LABORERS - ZONE 2	06/01/2014	\$30.35	\$7.30	\$12.10	\$0.00	\$49.75
	12/01/2014	\$30.85	\$7.30	\$12.10	\$0.00	\$50.25
	06/01/2015	\$31.35	\$7.30	\$12.10	\$0.00	\$50.75
	12/01/2015	\$31.85	\$7.30	\$12.10	\$0.00	\$51.25
	06/01/2016	\$32.35	\$7.30	\$12.10	\$0.00	\$51.75
	12/01/2016	\$33.10	\$7.30	\$12.10	\$0.00	\$52.50

For apprentice rates see "Apprentice- LABORER"

LABORER: HAZARDOUS WASTE/ASBESTOS REMOVER LABORERS - ZONE 2	06/01/2014	\$30.55	\$7.30	\$12.05	\$0.00	\$49.90
	12/01/2014	\$31.05	\$7.30	\$12.05	\$0.00	\$50.40
	06/01/2015	\$31.55	\$7.30	\$12.05	\$0.00	\$50.90
	12/01/2015	\$32.05	\$7.30	\$12.05	\$0.00	\$51.40

For apprentice rates see "Apprentice- LABORER"

LABORER: MASON TENDER LABORERS - ZONE 2	06/01/2014	\$30.60	\$7.30	\$12.10	\$0.00	\$50.00
	12/01/2014	\$31.10	\$7.30	\$12.10	\$0.00	\$50.50
	06/01/2015	\$31.60	\$7.30	\$12.10	\$0.00	\$51.00
	12/01/2015	\$32.10	\$7.30	\$12.10	\$0.00	\$51.50
	06/01/2016	\$32.60	\$7.30	\$12.10	\$0.00	\$52.00
	12/01/2016	\$33.35	\$7.30	\$12.10	\$0.00	\$52.75

For apprentice rates see "Apprentice- LABORER"

<b>Classification</b>	<b>Effective Date</b>	<b>Base Wage</b>	<b>Health</b>	<b>Pension</b>	<b>Supplemental Unemployment</b>	<b>Total Rate</b>
LABORER: MULTI-TRADE TENDER <i>LABORERS - ZONE 2</i>	06/01/2014	\$30.35	\$7.30	\$12.10	\$0.00	\$49.75
	12/01/2014	\$30.85	\$7.30	\$12.10	\$0.00	\$50.25
	06/01/2015	\$31.35	\$7.30	\$12.10	\$0.00	\$50.75
	12/01/2015	\$31.85	\$7.30	\$12.10	\$0.00	\$51.25
	06/01/2016	\$32.35	\$7.30	\$12.10	\$0.00	\$51.75
	12/01/2016	\$33.10	\$7.30	\$12.10	\$0.00	\$52.50
	For apprentice rates see "Apprentice- LABORER"					
LABORER: TREE REMOVER <i>LABORERS - ZONE 2</i>	06/01/2014	\$30.35	\$7.30	\$12.10	\$0.00	\$49.75
	12/01/2014	\$30.85	\$7.30	\$12.10	\$0.00	\$50.25
	06/01/2015	\$31.35	\$7.30	\$12.10	\$0.00	\$50.75
	12/01/2015	\$31.85	\$7.30	\$12.10	\$0.00	\$51.25
	06/01/2016	\$32.35	\$7.30	\$12.10	\$0.00	\$51.75
	12/01/2016	\$33.10	\$7.30	\$12.10	\$0.00	\$52.50
	This classification applies to all tree work associated with the removal of standing trees, and trimming and removal of branches and limbs when the work is not done for a utility company for the purpose of operation, maintenance or repair of utility company equipment. For apprentice rates see "Apprentice- LABORER"					
LASER BEAM OPERATOR <i>LABORERS - ZONE 2</i>	06/01/2014	\$30.60	\$7.30	\$12.10	\$0.00	\$50.00
	12/01/2014	\$31.10	\$7.30	\$12.10	\$0.00	\$50.50
	06/01/2015	\$31.60	\$7.30	\$12.10	\$0.00	\$51.00
	12/01/2015	\$32.10	\$7.30	\$12.10	\$0.00	\$51.50
	06/01/2016	\$32.60	\$7.30	\$12.10	\$0.00	\$52.00
	12/01/2016	\$33.35	\$7.30	\$12.10	\$0.00	\$52.75
	For apprentice rates see "Apprentice- LABORER"					
MARBLE & TILE FINISHERS <i>BRICKLAYERS LOCAL 3 - MARBLE &amp; TILE</i>	08/01/2014	\$37.37	\$10.18	\$16.90	\$0.00	\$64.45
	02/01/2015	\$37.82	\$10.18	\$16.90	\$0.00	\$64.90
	08/01/2015	\$38.53	\$10.18	\$16.97	\$0.00	\$65.68
	02/01/2016	\$38.98	\$10.18	\$16.97	\$0.00	\$66.13
	08/01/2016	\$39.68	\$10.18	\$17.05	\$0.00	\$66.91
	02/01/2017	\$40.14	\$10.18	\$17.05	\$0.00	\$67.37

**Classification**

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

**Apprentice - MARBLE & TILE FINISHER - Local 3 Marble & Tile**

**Effective Date - 08/01/2014**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$18.69	\$10.18	\$16.90	\$0.00	\$45.77
2	60	\$22.42	\$10.18	\$16.90	\$0.00	\$49.50
3	70	\$26.16	\$10.18	\$16.90	\$0.00	\$53.24
4	80	\$29.90	\$10.18	\$16.90	\$0.00	\$56.98
5	90	\$33.63	\$10.18	\$16.90	\$0.00	\$60.71

**Effective Date - 02/01/2015**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$18.91	\$10.18	\$16.90	\$0.00	\$45.99
2	60	\$22.69	\$10.18	\$16.90	\$0.00	\$49.77
3	70	\$26.47	\$10.18	\$16.90	\$0.00	\$53.55
4	80	\$30.26	\$10.18	\$16.90	\$0.00	\$57.34
5	90	\$34.04	\$10.18	\$16.90	\$0.00	\$61.12

**Notes:**

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

MARBLE MASONS, TILELAYERS & TERRAZZO MECH BRICKLAYERS LOCAL 3 - MARBLE & TILE	08/01/2014	\$49.00	\$10.18	\$18.22	\$0.00	\$77.40
	02/01/2015	\$49.56	\$10.18	\$18.22	\$0.00	\$77.96
	08/01/2015	\$50.46	\$10.18	\$18.29	\$0.00	\$78.93
	02/01/2016	\$51.03	\$10.18	\$18.29	\$0.00	\$79.50
	08/01/2016	\$51.93	\$10.18	\$18.37	\$0.00	\$80.48
	02/01/2017	\$52.50	\$10.18	\$18.37	\$0.00	\$81.05

**Classification**

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

**Apprentice - MARBLE-TILE-TERRAZZO MECHANIC - Local 3 Marble & Tile**

**Effective Date - 08/01/2014**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$24.50	\$10.18	\$18.22	\$0.00	\$52.90
2	60	\$29.40	\$10.18	\$18.22	\$0.00	\$57.80
3	70	\$34.30	\$10.18	\$18.22	\$0.00	\$62.70
4	80	\$39.20	\$10.18	\$18.22	\$0.00	\$67.60
5	90	\$44.10	\$10.18	\$18.22	\$0.00	\$72.50

**Effective Date - 02/01/2015**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$24.78	\$10.18	\$18.22	\$0.00	\$53.18
2	60	\$29.74	\$10.18	\$18.22	\$0.00	\$58.14
3	70	\$34.69	\$10.18	\$18.22	\$0.00	\$63.09
4	80	\$39.65	\$10.18	\$18.22	\$0.00	\$68.05
5	90	\$44.60	\$10.18	\$18.22	\$0.00	\$73.00

**Notes:**

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

MECH. SWEEPER OPERATOR (ON CONST. SITES) <i>OPERATING ENGINEERS LOCAL 4</i>	06/01/2014	\$41.10	\$10.00	\$14.20	\$0.00	\$65.30
	12/01/2014	\$42.09	\$10.00	\$14.20	\$0.00	\$66.29
	06/01/2015	\$42.83	\$10.00	\$14.20	\$0.00	\$67.03
	12/01/2015	\$44.07	\$10.00	\$14.20	\$0.00	\$68.27
	06/01/2016	\$44.82	\$10.00	\$14.20	\$0.00	\$69.02
	12/01/2016	\$46.05	\$10.00	\$14.20	\$0.00	\$70.25
	06/01/2017	\$47.04	\$10.00	\$14.20	\$0.00	\$71.24
	12/01/2017	\$48.03	\$10.00	\$14.20	\$0.00	\$72.23

For apprentice rates see "Apprentice- OPERATING ENGINEERS"

MECHANICS MAINTENANCE <i>OPERATING ENGINEERS LOCAL 4</i>	06/01/2014	\$41.10	\$10.00	\$14.20	\$0.00	\$65.30
	12/01/2014	\$42.09	\$10.00	\$14.20	\$0.00	\$66.29
	06/01/2015	\$42.83	\$10.00	\$14.20	\$0.00	\$67.03
	12/01/2015	\$44.07	\$10.00	\$14.20	\$0.00	\$68.27
	06/01/2016	\$44.82	\$10.00	\$14.20	\$0.00	\$69.02
	12/01/2016	\$46.05	\$10.00	\$14.20	\$0.00	\$70.25
	06/01/2017	\$47.04	\$10.00	\$14.20	\$0.00	\$71.24
	12/01/2017	\$48.03	\$10.00	\$14.20	\$0.00	\$72.23

For apprentice rates see "Apprentice- OPERATING ENGINEERS"

MILLWRIGHT (Zone 2) <i>MILLWRIGHTS LOCAL 1121 - Zone 2</i>	04/01/2014	\$33.16	\$9.80	\$16.21	\$0.00	\$59.17
	10/01/2014	\$33.92	\$9.80	\$16.21	\$0.00	\$59.93
	04/01/2015	\$34.69	\$9.80	\$16.21	\$0.00	\$60.70

**Classification**

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

**Apprentice - MILLWRIGHT - Local 1121 Zone 2**

**Effective Date - 04/01/2014**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	55	\$18.24	\$9.80	\$4.48	\$0.00	\$32.52
2	65	\$21.55	\$9.80	\$13.36	\$0.00	\$44.71
3	75	\$24.87	\$9.80	\$14.18	\$0.00	\$48.85
4	85	\$28.19	\$9.80	\$14.99	\$0.00	\$52.98

**Effective Date - 10/01/2014**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	55	\$18.66	\$9.80	\$4.48	\$0.00	\$32.94
2	65	\$22.05	\$9.80	\$13.36	\$0.00	\$45.21
3	75	\$25.44	\$9.80	\$14.18	\$0.00	\$49.42
4	85	\$28.83	\$9.80	\$14.99	\$0.00	\$53.62

**Notes:**

Steps are 2,000 hours

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

MORTAR MIXER LABORERS - ZONE 2	06/01/2014	\$30.60	\$7.30	\$12.10	\$0.00	\$50.00
	12/01/2014	\$31.10	\$7.30	\$12.10	\$0.00	\$50.50
	06/01/2015	\$31.60	\$7.30	\$12.10	\$0.00	\$51.00
	12/01/2015	\$32.10	\$7.30	\$12.10	\$0.00	\$51.50
	06/01/2016	\$32.60	\$7.30	\$12.10	\$0.00	\$52.00
	12/01/2016	\$33.35	\$7.30	\$12.10	\$0.00	\$52.75

For apprentice rates see "Apprentice- LABORER"

OILER (OTHER THAN TRUCK CRANES,GRADALLS) OPERATING ENGINEERS LOCAL 4	06/01/2014	\$21.48	\$10.00	\$14.20	\$0.00	\$45.68
	12/01/2014	\$22.00	\$10.00	\$14.20	\$0.00	\$46.20
	06/01/2015	\$22.38	\$10.00	\$14.20	\$0.00	\$46.58
	12/01/2015	\$23.03	\$10.00	\$14.20	\$0.00	\$47.23
	06/01/2016	\$23.42	\$10.00	\$14.20	\$0.00	\$47.62
	12/01/2016	\$24.07	\$10.00	\$14.20	\$0.00	\$48.27
	06/01/2017	\$24.58	\$10.00	\$14.20	\$0.00	\$48.78
	12/01/2017	\$25.10	\$10.00	\$14.20	\$0.00	\$49.30

For apprentice rates see "Apprentice- OPERATING ENGINEERS"

OILER (TRUCK CRANES, GRADALLS) OPERATING ENGINEERS LOCAL 4	06/01/2014	\$25.03	\$10.00	\$14.20	\$0.00	\$49.23
	12/01/2014	\$25.64	\$10.00	\$14.20	\$0.00	\$49.84
	06/01/2015	\$26.09	\$10.00	\$14.20	\$0.00	\$50.29
	12/01/2015	\$26.84	\$10.00	\$14.20	\$0.00	\$51.04
	06/01/2016	\$27.30	\$10.00	\$14.20	\$0.00	\$51.50
	12/01/2016	\$28.05	\$10.00	\$14.20	\$0.00	\$52.25
	06/01/2017	\$28.65	\$10.00	\$14.20	\$0.00	\$52.85
	12/01/2017	\$29.26	\$10.00	\$14.20	\$0.00	\$53.46

For apprentice rates see "Apprentice- OPERATING ENGINEERS"

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
OTHER POWER DRIVEN EQUIPMENT - CLASS II <i>OPERATING ENGINEERS LOCAL 4</i>	06/01/2014	\$41.10	\$10.00	\$14.20	\$0.00	\$65.30
	12/01/2014	\$42.09	\$10.00	\$14.20	\$0.00	\$66.29
	06/01/2015	\$42.83	\$10.00	\$14.20	\$0.00	\$67.03
	12/01/2015	\$44.07	\$10.00	\$14.20	\$0.00	\$68.27
	06/01/2016	\$44.82	\$10.00	\$14.20	\$0.00	\$69.02
	12/01/2016	\$46.05	\$10.00	\$14.20	\$0.00	\$70.25
	06/01/2017	\$47.04	\$10.00	\$14.20	\$0.00	\$71.24
	12/01/2017	\$48.03	\$10.00	\$14.20	\$0.00	\$72.23

For apprentice rates see "Apprentice- OPERATING ENGINEERS"

PAINTER (BRIDGES/TANKS) <i>PAINTERS LOCAL 35 - ZONE 2</i>	07/01/2014	\$46.76	\$7.85	\$16.10	\$0.00	\$70.71
	01/01/2015	\$47.66	\$7.85	\$16.10	\$0.00	\$71.61
	07/01/2015	\$48.56	\$7.85	\$16.10	\$0.00	\$72.51
	01/01/2016	\$49.51	\$7.85	\$16.10	\$0.00	\$73.46
	07/01/2016	\$50.46	\$7.85	\$16.10	\$0.00	\$74.41
	01/01/2017	\$51.41	\$7.85	\$16.10	\$0.00	\$75.36

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

**Effective Date - 07/01/2014**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$23.38	\$7.85	\$0.00	\$0.00	\$31.23
2	55	\$25.72	\$7.85	\$3.66	\$0.00	\$37.23
3	60	\$28.06	\$7.85	\$3.99	\$0.00	\$39.90
4	65	\$30.39	\$7.85	\$4.32	\$0.00	\$42.56
5	70	\$32.73	\$7.85	\$14.11	\$0.00	\$54.69
6	75	\$35.07	\$7.85	\$14.44	\$0.00	\$57.36
7	80	\$37.41	\$7.85	\$14.77	\$0.00	\$60.03
8	90	\$42.08	\$7.85	\$15.44	\$0.00	\$65.37

**Effective Date - 01/01/2015**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$23.83	\$7.85	\$0.00	\$0.00	\$31.68
2	55	\$26.21	\$7.85	\$3.66	\$0.00	\$37.72
3	60	\$28.60	\$7.85	\$3.99	\$0.00	\$40.44
4	65	\$30.98	\$7.85	\$4.32	\$0.00	\$43.15
5	70	\$33.36	\$7.85	\$14.11	\$0.00	\$55.32
6	75	\$35.75	\$7.85	\$14.44	\$0.00	\$58.04
7	80	\$38.13	\$7.85	\$14.77	\$0.00	\$60.75
8	90	\$42.89	\$7.85	\$15.44	\$0.00	\$66.18

**Notes:**

Steps are 750 hrs.

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

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
PAINTER (SPRAY OR SANDBLAST, NEW) * * If 30% or more of surfaces to be painted are new construction, NEW paint rate shall be used. <i>PAINTERS LOCAL 35 - ZONE 2</i>	07/01/2014	\$37.66	\$7.85	\$16.10	\$0.00	\$61.61
	01/01/2015	\$38.56	\$7.85	\$16.10	\$0.00	\$62.51
	07/01/2015	\$39.46	\$7.85	\$16.10	\$0.00	\$63.41
	01/01/2016	\$40.41	\$7.85	\$16.10	\$0.00	\$64.36
	07/01/2016	\$41.36	\$7.85	\$16.10	\$0.00	\$65.31
	01/01/2017	\$42.31	\$7.85	\$16.10	\$0.00	\$66.26

**Apprentice - PAINTER Local 35 Zone 2 - Spray/Sandblast - New**

**Effective Date - 07/01/2014**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$18.83	\$7.85	\$0.00	\$0.00	\$26.68
2	55	\$20.71	\$7.85	\$3.66	\$0.00	\$32.22
3	60	\$22.60	\$7.85	\$3.99	\$0.00	\$34.44
4	65	\$24.48	\$7.85	\$4.32	\$0.00	\$36.65
5	70	\$26.36	\$7.85	\$14.11	\$0.00	\$48.32
6	75	\$28.25	\$7.85	\$14.44	\$0.00	\$50.54
7	80	\$30.13	\$7.85	\$14.77	\$0.00	\$52.75
8	90	\$33.89	\$7.85	\$15.44	\$0.00	\$57.18

**Effective Date - 01/01/2015**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$19.28	\$7.85	\$0.00	\$0.00	\$27.13
2	55	\$21.21	\$7.85	\$3.66	\$0.00	\$32.72
3	60	\$23.14	\$7.85	\$3.99	\$0.00	\$34.98
4	65	\$25.06	\$7.85	\$4.32	\$0.00	\$37.23
5	70	\$26.99	\$7.85	\$14.11	\$0.00	\$48.95
6	75	\$28.92	\$7.85	\$14.44	\$0.00	\$51.21
7	80	\$30.85	\$7.85	\$14.77	\$0.00	\$53.47
8	90	\$34.70	\$7.85	\$15.44	\$0.00	\$57.99

**Notes:**

Steps are 750 hrs.

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

PAINTER (SPRAY OR SANDBLAST, REPAINT) <i>PAINTERS LOCAL 35 - ZONE 2</i>	07/01/2014	\$35.72	\$7.85	\$16.10	\$0.00	\$59.67
	01/01/2015	\$36.62	\$7.85	\$16.10	\$0.00	\$60.57
	07/01/2015	\$37.52	\$7.85	\$16.10	\$0.00	\$61.47
	01/01/2016	\$38.47	\$7.85	\$16.10	\$0.00	\$62.42
	07/01/2016	\$39.42	\$7.85	\$16.10	\$0.00	\$63.37
	01/01/2017	\$40.37	\$7.85	\$16.10	\$0.00	\$64.32

**Classification**

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

**Apprentice - PAINTER Local 35 Zone 2 - Spray/Sandblast - Repaint**

**Effective Date - 07/01/2014**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$17.86	\$7.85	\$0.00	\$0.00	\$25.71
2	55	\$19.65	\$7.85	\$3.66	\$0.00	\$31.16
3	60	\$21.43	\$7.85	\$3.99	\$0.00	\$33.27
4	65	\$23.22	\$7.85	\$4.32	\$0.00	\$35.39
5	70	\$25.00	\$7.85	\$14.11	\$0.00	\$46.96
6	75	\$26.79	\$7.85	\$14.44	\$0.00	\$49.08
7	80	\$28.58	\$7.85	\$14.77	\$0.00	\$51.20
8	90	\$32.15	\$7.85	\$15.44	\$0.00	\$55.44

**Effective Date - 01/01/2015**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$18.31	\$7.85	\$0.00	\$0.00	\$26.16
2	55	\$20.14	\$7.85	\$3.66	\$0.00	\$31.65
3	60	\$21.97	\$7.85	\$3.99	\$0.00	\$33.81
4	65	\$23.80	\$7.85	\$4.32	\$0.00	\$35.97
5	70	\$25.63	\$7.85	\$14.11	\$0.00	\$47.59
6	75	\$27.47	\$7.85	\$14.44	\$0.00	\$49.76
7	80	\$29.30	\$7.85	\$14.77	\$0.00	\$51.92
8	90	\$32.96	\$7.85	\$15.44	\$0.00	\$56.25

**Notes:**  
Steps are 750 hrs.

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

PAINTER (TRAFFIC MARKINGS) LABORERS - ZONE 2	06/01/2014	\$30.35	\$7.30	\$12.10	\$0.00	\$49.75
	12/01/2014	\$30.85	\$7.30	\$12.10	\$0.00	\$50.25
	06/01/2015	\$31.35	\$7.30	\$12.10	\$0.00	\$50.75
	12/01/2015	\$31.85	\$7.30	\$12.10	\$0.00	\$51.25
	06/01/2016	\$32.35	\$7.30	\$12.10	\$0.00	\$51.75
	12/01/2016	\$33.10	\$7.30	\$12.10	\$0.00	\$52.50

For Apprentices rates see "Apprentice- LABORER"

PAINTER / TAPER (BRUSH, NEW) *	07/01/2014	\$36.26	\$7.85	\$16.10	\$0.00	\$60.21
* If 30% or more of surfaces to be painted are new construction, NEW paint rate shall be used. PAINTERS LOCAL 35 - ZONE 2	01/01/2015	\$37.16	\$7.85	\$16.10	\$0.00	\$61.11
	07/01/2015	\$38.06	\$7.85	\$16.10	\$0.00	\$62.01
	01/01/2016	\$39.01	\$7.85	\$16.10	\$0.00	\$62.96
	07/01/2016	\$39.96	\$7.85	\$16.10	\$0.00	\$63.91
	01/01/2017	\$40.91	\$7.85	\$16.10	\$0.00	\$64.86

**Apprentice - PAINTER - Local 35 Zone 2 - BRUSH NEW**

**Effective Date - 07/01/2014**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$18.13	\$7.85	\$0.00	\$0.00	\$25.98
2	55	\$19.94	\$7.85	\$3.66	\$0.00	\$31.45
3	60	\$21.76	\$7.85	\$3.99	\$0.00	\$33.60
4	65	\$23.57	\$7.85	\$4.32	\$0.00	\$35.74
5	70	\$25.38	\$7.85	\$14.11	\$0.00	\$47.34
6	75	\$27.20	\$7.85	\$14.44	\$0.00	\$49.49
7	80	\$29.01	\$7.85	\$14.77	\$0.00	\$51.63
8	90	\$32.63	\$7.85	\$15.44	\$0.00	\$55.92

**Effective Date - 01/01/2015**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$18.58	\$7.85	\$0.00	\$0.00	\$26.43
2	55	\$20.44	\$7.85	\$3.66	\$0.00	\$31.95
3	60	\$22.30	\$7.85	\$3.99	\$0.00	\$34.14
4	65	\$24.15	\$7.85	\$4.32	\$0.00	\$36.32
5	70	\$26.01	\$7.85	\$14.11	\$0.00	\$47.97
6	75	\$27.87	\$7.85	\$14.44	\$0.00	\$50.16
7	80	\$29.73	\$7.85	\$14.77	\$0.00	\$52.35
8	90	\$33.44	\$7.85	\$15.44	\$0.00	\$56.73

**Notes:**

Steps are 750 hrs.

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

PAINTER / TAPER (BRUSH, REPAINT)	07/01/2014	\$34.32	\$7.85	\$16.10	\$0.00	\$58.27
PAINTERS LOCAL 35 - ZONE 2	01/01/2015	\$35.22	\$7.85	\$16.10	\$0.00	\$59.17
	07/01/2015	\$36.12	\$7.85	\$16.10	\$0.00	\$60.07
	01/01/2016	\$37.07	\$7.85	\$16.10	\$0.00	\$61.02
	07/01/2016	\$38.02	\$7.85	\$16.10	\$0.00	\$61.97
	01/01/2017	\$38.97	\$7.85	\$16.10	\$0.00	\$62.92

**Apprentice - PAINTER Local 35 Zone 2 - BRUSH REPAINT**

**Effective Date - 07/01/2014**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$17.16	\$7.85	\$0.00	\$0.00	\$25.01
2	55	\$18.88	\$7.85	\$3.66	\$0.00	\$30.39
3	60	\$20.59	\$7.85	\$3.99	\$0.00	\$32.43
4	65	\$22.31	\$7.85	\$4.32	\$0.00	\$34.48
5	70	\$24.02	\$7.85	\$14.11	\$0.00	\$45.98
6	75	\$25.74	\$7.85	\$14.44	\$0.00	\$48.03
7	80	\$27.46	\$7.85	\$14.77	\$0.00	\$50.08
8	90	\$30.89	\$7.85	\$15.44	\$0.00	\$54.18

**Effective Date - 01/01/2015**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$17.61	\$7.85	\$0.00	\$0.00	\$25.46
2	55	\$19.37	\$7.85	\$3.66	\$0.00	\$30.88
3	60	\$21.13	\$7.85	\$3.99	\$0.00	\$32.97
4	65	\$22.89	\$7.85	\$4.32	\$0.00	\$35.06
5	70	\$24.65	\$7.85	\$14.11	\$0.00	\$46.61
6	75	\$26.42	\$7.85	\$14.44	\$0.00	\$48.71
7	80	\$28.18	\$7.85	\$14.77	\$0.00	\$50.80
8	90	\$31.70	\$7.85	\$15.44	\$0.00	\$54.99

**Notes:**  
Steps are 750 hrs.

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

PANEL & PICKUP TRUCKS DRIVER <i>TEAMSTERS JOINT COUNCIL NO. 10 ZONE B</i>	12/01/2012	\$30.28	\$9.07	\$8.00	\$0.00	\$47.35
PIER AND DOCK CONSTRUCTOR (UNDERPINNING AND DECK) <i>PILE DRIVER LOCAL 56 (ZONE 2)</i>	09/01/2013	\$37.01	\$9.80	\$18.17	\$0.00	\$64.98
PILE DRIVER <i>PILE DRIVER LOCAL 56 (ZONE 2)</i>	09/01/2013	\$37.01	\$9.80	\$18.17	\$0.00	\$64.98

**Apprentice - PILE DRIVER - Local 56 Zone 2**

**Effective Date - 09/01/2013**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00

**Notes:** Apprentice wages shall be no less than the following Steps;  
(Same as set in Zone 1)  
1\$49.52/2\$53.83/3\$58.14/4\$60.30/5\$62.45/6\$62.45/7\$66.76/8\$66.76

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

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
PIPELAYER <i>LABORERS - ZONE 2</i>	06/01/2014	\$30.60	\$7.30	\$12.10	\$0.00	\$50.00
	12/01/2014	\$31.10	\$7.30	\$12.10	\$0.00	\$50.50
	06/01/2015	\$31.60	\$7.30	\$12.10	\$0.00	\$51.00
	12/01/2015	\$32.10	\$7.30	\$12.10	\$0.00	\$51.50
	06/01/2016	\$32.60	\$7.30	\$12.10	\$0.00	\$52.00
	12/01/2016	\$33.35	\$7.30	\$12.10	\$0.00	\$52.75

For apprentice rates see "Apprentice- LABORER"

PLUMBER & PIPEFITTER <i>PLUMBERS &amp; PIPEFITTERS LOCAL 51</i>	09/01/2014	\$35.88	\$11.00	\$15.35	\$0.00	\$62.23
	03/01/2015	\$36.63	\$11.00	\$15.35	\$0.00	\$62.98
	09/01/2015	\$37.38	\$11.00	\$15.35	\$0.00	\$63.73
	03/01/2016	\$38.13	\$11.00	\$15.35	\$0.00	\$64.48

**Apprentice - PLUMBER/PIPEFITTER - Local 51**

**Effective Date - 09/01/2014**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	40	\$14.35	\$11.00	\$1.50	\$0.00	\$26.85
2	50	\$17.94	\$11.00	\$1.50	\$0.00	\$30.44
3	60	\$21.53	\$11.00	\$7.85	\$0.00	\$40.38
4	70	\$25.12	\$11.00	\$11.66	\$0.00	\$47.78
5	80	\$28.70	\$11.00	\$15.35	\$0.00	\$55.05

**Effective Date - 03/01/2015**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	40	\$14.65	\$11.00	\$1.50	\$0.00	\$27.15
2	50	\$18.32	\$11.00	\$1.50	\$0.00	\$30.82
3	60	\$21.98	\$11.00	\$7.85	\$0.00	\$40.83
4	70	\$25.64	\$11.00	\$11.66	\$0.00	\$48.30
5	80	\$29.30	\$11.00	\$15.35	\$0.00	\$55.65

**Notes:**

Steps 2000hrs. Prior 9/1/05; 40/40/45/50/55/60/65/75/80/85

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

PNEUMATIC CONTROLS (TEMP.) <i>PLUMBERS &amp; PIPEFITTERS LOCAL 51</i>	09/01/2014	\$35.88	\$11.00	\$15.35	\$0.00	\$62.23
	03/01/2015	\$36.63	\$11.00	\$15.35	\$0.00	\$62.98
	09/01/2015	\$37.38	\$11.00	\$15.35	\$0.00	\$63.73
	03/01/2016	\$38.13	\$11.00	\$15.35	\$0.00	\$64.48

For apprentice rates see "Apprentice- PIPEFITTER" or "PLUMBER/PIPEFITTER"

PNEUMATIC DRILL/TOOL OPERATOR <i>LABORERS - ZONE 2</i>	06/01/2014	\$30.60	\$7.30	\$12.10	\$0.00	\$50.00
	12/01/2014	\$31.10	\$7.30	\$12.10	\$0.00	\$50.50
	06/01/2015	\$31.60	\$7.30	\$12.10	\$0.00	\$51.00
	12/01/2015	\$32.10	\$7.30	\$12.10	\$0.00	\$51.50
	06/01/2016	\$32.60	\$7.30	\$12.10	\$0.00	\$52.00
	12/01/2016	\$33.35	\$7.30	\$12.10	\$0.00	\$52.75

For apprentice rates see "Apprentice- LABORER"

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
POWDERMAN & BLASTER <i>LABORERS - ZONE 2</i>	06/01/2014	\$31.35	\$7.30	\$12.10	\$0.00	\$50.75
	12/01/2014	\$31.85	\$7.30	\$12.10	\$0.00	\$51.25
	06/01/2015	\$32.35	\$7.30	\$12.10	\$0.00	\$51.75
	12/01/2015	\$32.85	\$7.30	\$12.10	\$0.00	\$52.25
	06/01/2016	\$33.35	\$7.30	\$12.10	\$0.00	\$52.75
	12/01/2016	\$34.10	\$7.30	\$12.10	\$0.00	\$53.50
	For apprentice rates see "Apprentice- LABORER"					
POWER SHOVEL/DERRICK/TRENCHING MACHINE <i>OPERATING ENGINEERS LOCAL 4</i>	06/01/2014	\$41.49	\$10.00	\$14.20	\$0.00	\$65.69
	12/01/2014	\$42.49	\$10.00	\$14.20	\$0.00	\$66.69
	06/01/2015	\$43.24	\$10.00	\$14.20	\$0.00	\$67.44
	12/01/2015	\$44.49	\$10.00	\$14.20	\$0.00	\$68.69
	06/01/2016	\$45.24	\$10.00	\$14.20	\$0.00	\$69.44
	12/01/2016	\$46.49	\$10.00	\$14.20	\$0.00	\$70.69
	06/01/2017	\$47.49	\$10.00	\$14.20	\$0.00	\$71.69
	12/01/2017	\$48.49	\$10.00	\$14.20	\$0.00	\$72.69
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
PUMP OPERATOR (CONCRETE) <i>OPERATING ENGINEERS LOCAL 4</i>	06/01/2014	\$41.49	\$10.00	\$14.20	\$0.00	\$65.69
	12/01/2014	\$42.49	\$10.00	\$14.20	\$0.00	\$66.69
	06/01/2015	\$43.24	\$10.00	\$14.20	\$0.00	\$67.44
	12/01/2015	\$44.49	\$10.00	\$14.20	\$0.00	\$68.69
	06/01/2016	\$45.24	\$10.00	\$14.20	\$0.00	\$69.44
	12/01/2016	\$46.49	\$10.00	\$14.20	\$0.00	\$70.69
	06/01/2017	\$47.49	\$10.00	\$14.20	\$0.00	\$71.69
	12/01/2017	\$48.49	\$10.00	\$14.20	\$0.00	\$72.69
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
PUMP OPERATOR (DEWATERING, OTHER) <i>OPERATING ENGINEERS LOCAL 4</i>	06/01/2014	\$28.80	\$10.00	\$14.20	\$0.00	\$53.00
	12/01/2014	\$29.50	\$10.00	\$14.20	\$0.00	\$53.70
	06/01/2015	\$30.02	\$10.00	\$14.20	\$0.00	\$54.22
	12/01/2015	\$30.89	\$10.00	\$14.20	\$0.00	\$55.09
	06/01/2016	\$31.41	\$10.00	\$14.20	\$0.00	\$55.61
	12/01/2016	\$32.28	\$10.00	\$14.20	\$0.00	\$56.48
	06/01/2017	\$32.97	\$10.00	\$14.20	\$0.00	\$57.17
	12/01/2017	\$33.66	\$10.00	\$14.20	\$0.00	\$57.86
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
READY-MIX CONCRETE DRIVER <i>TEAMSTERS LOCAL 59</i>	06/01/2008	\$19.00	\$5.10	\$4.21	\$0.00	\$28.31
RECLAIMERS <i>OPERATING ENGINEERS LOCAL 4</i>	06/01/2014	\$41.10	\$10.00	\$14.20	\$0.00	\$65.30
	12/01/2014	\$42.09	\$10.00	\$14.20	\$0.00	\$66.29
	06/01/2015	\$42.83	\$10.00	\$14.20	\$0.00	\$67.03
	12/01/2015	\$44.07	\$10.00	\$14.20	\$0.00	\$68.27
	06/01/2016	\$44.82	\$10.00	\$14.20	\$0.00	\$69.02
	12/01/2016	\$46.05	\$10.00	\$14.20	\$0.00	\$70.25
	06/01/2017	\$47.04	\$10.00	\$14.20	\$0.00	\$71.24
	12/01/2017	\$48.03	\$10.00	\$14.20	\$0.00	\$72.23
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
RESIDENTIAL WOOD FRAME (All Other Work) <i>CARPENTERS -ZONE 2 (Residential Wood)</i>	04/01/2011	\$24.24	\$8.67	\$15.51	\$0.00	\$48.42

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
RESIDENTIAL WOOD FRAME CARPENTER ** ** The Residential Wood Frame Carpenter classification applies only to the construction of new, wood frame residences that do not exceed four stories including the basement. <i>CARPENTERS -ZONE 2 (Residential Wood)</i> As of 9/1/09 Carpentry work on wood-frame residential WEATHERIZATION projects shall be paid the RESIDENTIAL WOOD FRAME CARPENTER rate.	05/01/2011	\$24.24	\$6.34	\$6.23	\$0.00	\$36.81

**Apprentice - CARPENTER (Residential Wood Frame) - Zone 2**

**Effective Date - 05/01/2011**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	60	\$14.54	\$6.34	\$0.00	\$0.00	\$20.88
2	60	\$14.54	\$6.34	\$6.23	\$0.00	\$27.11
3	65	\$15.76	\$6.34	\$6.23	\$0.00	\$28.33
4	70	\$16.97	\$6.34	\$6.23	\$0.00	\$29.54
5	75	\$18.18	\$6.34	\$6.23	\$0.00	\$30.75
6	80	\$19.39	\$6.34	\$6.23	\$0.00	\$31.96
7	85	\$20.60	\$6.34	\$6.23	\$0.00	\$33.17
8	90	\$21.82	\$6.34	\$6.23	\$0.00	\$34.39

Notes:

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

RIDE-ON MOTORIZED BUGGY OPERATOR <i>LABORERS - ZONE 2</i>	06/01/2014	\$30.60	\$7.30	\$12.10	\$0.00	\$50.00
	12/01/2014	\$31.10	\$7.30	\$12.10	\$0.00	\$50.50
	06/01/2015	\$31.60	\$7.30	\$12.10	\$0.00	\$51.00
	12/01/2015	\$32.10	\$7.30	\$12.10	\$0.00	\$51.50
	06/01/2016	\$32.60	\$7.30	\$12.10	\$0.00	\$52.00
	12/01/2016	\$33.35	\$7.30	\$12.10	\$0.00	\$52.75
For apprentice rates see "Apprentice- LABORER"						
ROLLER/SPREADER/MULCHING MACHINE <i>OPERATING ENGINEERS LOCAL 4</i>	06/01/2014	\$41.10	\$10.00	\$14.20	\$0.00	\$65.30
	12/01/2014	\$42.09	\$10.00	\$14.20	\$0.00	\$66.29
	06/01/2015	\$42.83	\$10.00	\$14.20	\$0.00	\$67.03
	12/01/2015	\$44.07	\$10.00	\$14.20	\$0.00	\$68.27
	06/01/2016	\$44.82	\$10.00	\$14.20	\$0.00	\$69.02
	12/01/2016	\$46.05	\$10.00	\$14.20	\$0.00	\$70.25
	06/01/2017	\$47.04	\$10.00	\$14.20	\$0.00	\$71.24
	12/01/2017	\$48.03	\$10.00	\$14.20	\$0.00	\$72.23
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
ROOFER (Inc. Roofer Waterproofing & Roofer Damproofg) <i>ROOFERS LOCAL 33</i>	08/01/2014	\$39.21	\$10.50	\$11.60	\$0.00	\$61.31
	02/01/2015	\$40.11	\$10.50	\$11.60	\$0.00	\$62.21
	08/01/2015	\$41.01	\$10.50	\$11.60	\$0.00	\$63.11
	02/01/2016	\$41.91	\$10.50	\$11.60	\$0.00	\$64.01

**Classification**

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

**Apprentice - ROOFER - Local 33**

**Effective Date - 08/01/2014**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$19.61	\$10.50	\$3.38	\$0.00	\$33.49
2	60	\$23.53	\$10.50	\$11.60	\$0.00	\$45.63
3	65	\$25.49	\$10.50	\$11.60	\$0.00	\$47.59
4	75	\$29.41	\$10.50	\$11.60	\$0.00	\$51.51
5	85	\$33.33	\$10.50	\$11.60	\$0.00	\$55.43

**Effective Date - 02/01/2015**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$20.06	\$10.50	\$3.38	\$0.00	\$33.94
2	60	\$24.07	\$10.50	\$11.60	\$0.00	\$46.17
3	65	\$26.07	\$10.50	\$11.60	\$0.00	\$48.17
4	75	\$30.08	\$10.50	\$11.60	\$0.00	\$52.18
5	85	\$34.09	\$10.50	\$11.60	\$0.00	\$56.19

**Notes:** \*\* 1:5, 2:6-10, the 1:10; Reroofing: 1:4, then 1:1  
Step 1 is 2000 hrs.; Steps 2-5 are 1000 hrs.

**Apprentice to Journeyworker Ratio:\*\***

ROOFER SLATE / TILE / PRECAST CONCRETE ROOFERS LOCAL 33	08/01/2014	\$39.46	\$10.50	\$11.60	\$0.00	\$61.56
	02/01/2015	\$40.36	\$10.50	\$11.60	\$0.00	\$62.46
	08/01/2015	\$41.26	\$10.50	\$11.60	\$0.00	\$63.36
	02/01/2016	\$42.16	\$10.50	\$11.60	\$0.00	\$64.26

For apprentice rates see "Apprentice- ROOFER"

SHEETMETAL WORKER SHEETMETAL WORKERS LOCAL 17 - B	04/01/2013	\$34.64	\$9.82	\$12.31	\$1.70	\$58.47
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**Apprentice - SHEET METAL WORKER - Local 17-B**

**Effective Date - 04/01/2013**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	40	\$13.86	\$9.82	\$2.88	\$0.81	\$27.37
2	45	\$15.59	\$9.82	\$3.23	\$0.87	\$29.51
3	50	\$17.32	\$9.82	\$7.51	\$1.05	\$35.70
4	55	\$19.05	\$9.82	\$7.51	\$1.10	\$37.48
5	60	\$20.78	\$9.82	\$9.96	\$1.22	\$41.78
6	65	\$22.52	\$9.82	\$10.16	\$1.28	\$43.78
7	70	\$24.25	\$9.82	\$10.37	\$1.33	\$45.77
8	75	\$25.98	\$9.82	\$10.57	\$1.39	\$47.76
9	80	\$27.71	\$9.82	\$10.77	\$1.45	\$49.75
10	85	\$29.44	\$9.82	\$10.98	\$1.51	\$51.75

**Notes:**

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

SIGN ERECTOR PAINTERS LOCAL 35 - ZONE 2	06/01/2013	\$25.81	\$7.07	\$7.05	\$0.00	\$39.93
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**Apprentice - SIGN ERECTOR - Local 35 Zone 2**

**Effective Date - 06/01/2013**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$12.91	\$7.07	\$0.00	\$0.00	\$19.98
2	55	\$14.20	\$7.07	\$2.45	\$0.00	\$23.72
3	60	\$15.49	\$7.07	\$2.45	\$0.00	\$25.01
4	65	\$16.78	\$7.07	\$2.45	\$0.00	\$26.30
5	70	\$18.07	\$7.07	\$7.05	\$0.00	\$32.19
6	75	\$19.36	\$7.07	\$7.05	\$0.00	\$33.48
7	80	\$20.65	\$7.07	\$7.05	\$0.00	\$34.77
8	85	\$21.94	\$7.07	\$7.05	\$0.00	\$36.06
9	90	\$23.23	\$7.07	\$7.05	\$0.00	\$37.35

**Notes:**  
Steps are 4 mos.

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

<b>Classification</b>	<b>Effective Date</b>	<b>Base Wage</b>	<b>Health</b>	<b>Pension</b>	<b>Supplemental Unemployment</b>	<b>Total Rate</b>
SPECIALIZED EARTH MOVING EQUIP < 35 TONS <i>TEAMSTERS JOINT COUNCIL NO. 10 ZONE B</i>	08/01/2014	\$31.59	\$9.91	\$8.80	\$0.00	\$50.30
	12/01/2014	\$31.59	\$9.91	\$9.33	\$0.00	\$50.83
	06/01/2015	\$31.94	\$9.91	\$9.33	\$0.00	\$51.18
	08/01/2015	\$31.94	\$10.41	\$9.33	\$0.00	\$51.68
	12/01/2015	\$31.94	\$10.41	\$10.08	\$0.00	\$52.43
	06/01/2016	\$32.44	\$10.41	\$10.08	\$0.00	\$52.93
	08/01/2016	\$32.44	\$10.91	\$10.08	\$0.00	\$53.43
	12/01/2016	\$32.44	\$10.91	\$10.89	\$0.00	\$54.24
SPECIALIZED EARTH MOVING EQUIP > 35 TONS <i>TEAMSTERS JOINT COUNCIL NO. 10 ZONE B</i>	08/01/2014	\$31.88	\$9.91	\$8.80	\$0.00	\$50.59
	12/01/2014	\$31.88	\$9.91	\$9.33	\$0.00	\$51.12
	06/01/2015	\$32.23	\$9.91	\$9.33	\$0.00	\$51.47
	08/01/2015	\$32.23	\$10.41	\$9.33	\$0.00	\$51.97
	12/01/2015	\$32.23	\$10.41	\$10.08	\$0.00	\$52.72
	06/01/2016	\$32.73	\$10.41	\$10.08	\$0.00	\$53.22
	08/01/2016	\$32.73	\$10.91	\$10.08	\$0.00	\$53.72
	12/01/2016	\$32.73	\$10.91	\$10.89	\$0.00	\$54.53
SPRINKLER FITTER <i>SPRINKLER FITTERS LOCAL 550 - (Section C) Zone 2B</i>	03/01/2014	\$42.50	\$8.42	\$13.10	\$0.00	\$64.02
	10/01/2014	\$45.31	\$8.42	\$14.35	\$0.00	\$68.08
	01/01/2015	\$45.31	\$8.42	\$14.50	\$0.00	\$68.23
	03/01/2015	\$49.12	\$8.42	\$14.50	\$0.00	\$72.04
	10/01/2015	\$50.16	\$8.42	\$14.50	\$0.00	\$73.08
	01/01/2016	\$50.16	\$8.67	\$14.65	\$0.00	\$73.48
	03/01/2016	\$51.06	\$8.67	\$14.65	\$0.00	\$74.38
	10/01/2016	\$52.10	\$8.67	\$14.65	\$0.00	\$75.42
	03/01/2017	\$53.00	\$8.67	\$14.65	\$0.00	\$76.32

**Apprentice - SPRINKLER FITTER - Local 550 (Section C) Zone 2B**

**Effective Date - 03/01/2014**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	40	\$17.00	\$8.42	\$8.25	\$0.00	\$33.67
2	40	\$17.00	\$8.42	\$8.25	\$0.00	\$33.67
3	45	\$19.13	\$8.42	\$8.25	\$0.00	\$35.80
4	50	\$21.25	\$8.42	\$8.25	\$0.00	\$37.92
5	55	\$23.38	\$8.42	\$8.25	\$0.00	\$40.05
6	60	\$25.50	\$8.42	\$8.25	\$0.00	\$42.17
7	65	\$27.63	\$8.42	\$8.25	\$0.00	\$44.30
8	70	\$29.75	\$8.42	\$8.25	\$0.00	\$46.42
9	75	\$31.88	\$8.42	\$8.25	\$0.00	\$48.55
10	80	\$34.00	\$8.42	\$8.25	\$0.00	\$50.67

**Effective Date - 10/01/2014**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	40	\$18.12	\$8.42	\$8.25	\$0.00	\$34.79
2	40	\$18.12	\$8.42	\$8.25	\$0.00	\$34.79
3	45	\$20.39	\$8.42	\$8.25	\$0.00	\$37.06
4	50	\$22.66	\$8.42	\$8.25	\$0.00	\$39.33
5	55	\$24.92	\$8.42	\$8.25	\$0.00	\$41.59
6	60	\$27.19	\$8.42	\$8.25	\$0.00	\$43.86
7	65	\$29.45	\$8.42	\$8.25	\$0.00	\$46.12
8	70	\$31.72	\$8.42	\$8.25	\$0.00	\$48.39
9	75	\$33.98	\$8.42	\$8.25	\$0.00	\$50.65
10	80	\$36.25	\$8.42	\$8.25	\$0.00	\$52.92

**Notes:** Apprentice entered prior 9/30/10:  
40/45/50/55/60/65/70/75/80/85  
Steps are 850 hours

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

STEAM BOILER OPERATOR	06/01/2014	\$41.10	\$10.00	\$14.20	\$0.00	\$65.30
OPERATING ENGINEERS LOCAL 4	12/01/2014	\$42.09	\$10.00	\$14.20	\$0.00	\$66.29
	06/01/2015	\$42.83	\$10.00	\$14.20	\$0.00	\$67.03
	12/01/2015	\$44.07	\$10.00	\$14.20	\$0.00	\$68.27
	06/01/2016	\$44.82	\$10.00	\$14.20	\$0.00	\$69.02
	12/01/2016	\$46.05	\$10.00	\$14.20	\$0.00	\$70.25
	06/01/2017	\$47.04	\$10.00	\$14.20	\$0.00	\$71.24
	12/01/2017	\$48.03	\$10.00	\$14.20	\$0.00	\$72.23

For apprentice rates see "Apprentice- OPERATING ENGINEERS"

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
TAMPERS, SELF-PROPELLED OR TRACTOR DRAWN <i>OPERATING ENGINEERS LOCAL 4</i>	06/01/2014	\$41.10	\$10.00	\$14.20	\$0.00	\$65.30
	12/01/2014	\$42.09	\$10.00	\$14.20	\$0.00	\$66.29
	06/01/2015	\$42.83	\$10.00	\$14.20	\$0.00	\$67.03
	12/01/2015	\$44.07	\$10.00	\$14.20	\$0.00	\$68.27
	06/01/2016	\$44.82	\$10.00	\$14.20	\$0.00	\$69.02
	12/01/2016	\$46.05	\$10.00	\$14.20	\$0.00	\$70.25
	06/01/2017	\$47.04	\$10.00	\$14.20	\$0.00	\$71.24
	12/01/2017	\$48.03	\$10.00	\$14.20	\$0.00	\$72.23

For apprentice rates see "Apprentice- OPERATING ENGINEERS"

TELECOMMUNICATION TECHNICIAN <i>ELECTRICIANS LOCAL 223</i>	09/01/2014	\$31.71	\$8.00	\$9.38	\$0.00	\$49.09
	09/01/2015	\$32.56	\$8.40	\$9.59	\$0.00	\$50.55
	09/01/2016	\$33.33	\$8.90	\$9.78	\$0.00	\$52.01

**Apprentice - TELECOMMUNICATION TECHNICIAN - Local 223**

**Effective Date - 09/01/2014**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00

**Notes:** See Electrician Apprentice Wages  
Steps are 750hrs  
Telecom Apprentice Wages shall be the same as the Electrician Apprentice Wages

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

TERRAZZO FINISHERS <i>BRICKLAYERS LOCAL 3 - MARBLE &amp; TILE</i>	08/01/2014	\$47.90	\$10.18	\$18.22	\$0.00	\$76.30
	02/01/2015	\$48.46	\$10.18	\$18.22	\$0.00	\$76.86
	08/01/2015	\$49.36	\$10.18	\$18.29	\$0.00	\$77.83
	02/01/2016	\$49.93	\$10.18	\$18.29	\$0.00	\$78.40
	08/01/2016	\$50.83	\$10.18	\$18.37	\$0.00	\$79.38
	02/01/2017	\$51.40	\$10.18	\$18.37	\$0.00	\$79.95

**Classification**

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

**Apprentice - TERRAZZO FINISHER - Local 3 Marble & Tile**

**Effective Date - 08/01/2014**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$23.95	\$10.18	\$18.22	\$0.00	\$52.35
2	60	\$28.74	\$10.18	\$18.22	\$0.00	\$57.14
3	70	\$33.53	\$10.18	\$18.22	\$0.00	\$61.93
4	80	\$38.32	\$10.18	\$18.22	\$0.00	\$66.72
5	90	\$43.11	\$10.18	\$18.22	\$0.00	\$71.51

**Effective Date - 02/01/2015**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$24.23	\$10.18	\$18.22	\$0.00	\$52.63
2	60	\$29.08	\$10.18	\$18.22	\$0.00	\$57.48
3	70	\$33.92	\$10.18	\$18.22	\$0.00	\$62.32
4	80	\$38.77	\$10.18	\$18.22	\$0.00	\$67.17
5	90	\$43.61	\$10.18	\$18.22	\$0.00	\$72.01

**Notes:**

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

TEST BORING DRILLER <i>LABORERS - FOUNDATION AND MARINE</i>	06/01/2014	\$35.45	\$7.30	\$12.90	\$0.00	\$55.65
	12/01/2014	\$36.20	\$7.30	\$12.90	\$0.00	\$56.40
	06/01/2015	\$36.95	\$7.30	\$12.90	\$0.00	\$57.15
	12/01/2015	\$37.70	\$7.30	\$12.90	\$0.00	\$57.90
	06/01/2016	\$38.45	\$7.30	\$12.90	\$0.00	\$58.65
	12/01/2016	\$39.45	\$7.30	\$12.90	\$0.00	\$59.65

For apprentice rates see "Apprentice- LABORER"

TEST BORING DRILLER HELPER <i>LABORERS - FOUNDATION AND MARINE</i>	06/01/2014	\$34.17	\$7.30	\$12.90	\$0.00	\$54.37
	12/01/2014	\$34.92	\$7.30	\$12.90	\$0.00	\$55.12
	06/01/2015	\$35.67	\$7.30	\$12.90	\$0.00	\$55.87
	12/01/2015	\$36.42	\$7.30	\$12.90	\$0.00	\$56.62
	06/01/2016	\$37.17	\$7.30	\$12.90	\$0.00	\$57.37
	12/01/2016	\$38.17	\$7.30	\$12.90	\$0.00	\$58.37

For apprentice rates see "Apprentice- LABORER"

TEST BORING LABORER <i>LABORERS - FOUNDATION AND MARINE</i>	06/01/2014	\$34.05	\$7.30	\$12.90	\$0.00	\$54.25
	12/01/2014	\$34.80	\$7.30	\$12.90	\$0.00	\$55.00
	06/01/2015	\$35.55	\$7.30	\$12.90	\$0.00	\$55.75
	12/01/2015	\$36.30	\$7.30	\$12.90	\$0.00	\$56.50
	06/01/2016	\$37.05	\$7.30	\$12.90	\$0.00	\$57.25
	12/01/2016	\$38.05	\$7.30	\$12.90	\$0.00	\$58.25

For apprentice rates see "Apprentice- LABORER"

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
TRACTORS/PORTABLE STEAM GENERATORS <i>OPERATING ENGINEERS LOCAL 4</i>	06/01/2014	\$41.10	\$10.00	\$14.20	\$0.00	\$65.30
	12/01/2014	\$42.09	\$10.00	\$14.20	\$0.00	\$66.29
	06/01/2015	\$42.83	\$10.00	\$14.20	\$0.00	\$67.03
	12/01/2015	\$44.07	\$10.00	\$14.20	\$0.00	\$68.27
	06/01/2016	\$44.82	\$10.00	\$14.20	\$0.00	\$69.02
	12/01/2016	\$46.05	\$10.00	\$14.20	\$0.00	\$70.25
	06/01/2017	\$47.04	\$10.00	\$14.20	\$0.00	\$71.24
	12/01/2017	\$48.03	\$10.00	\$14.20	\$0.00	\$72.23
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
TRAILERS FOR EARTH MOVING EQUIPMENT <i>TEAMSTERS JOINT COUNCIL NO. 10 ZONE B</i>	08/01/2014	\$32.17	\$9.91	\$8.80	\$0.00	\$50.88
	12/01/2014	\$32.17	\$9.91	\$9.33	\$0.00	\$51.41
	06/01/2015	\$32.52	\$9.91	\$9.33	\$0.00	\$51.76
	08/01/2015	\$32.52	\$10.41	\$9.33	\$0.00	\$52.26
	12/01/2015	\$32.52	\$10.41	\$10.08	\$0.00	\$53.01
	06/01/2016	\$33.02	\$10.41	\$10.08	\$0.00	\$53.51
	08/01/2016	\$33.02	\$10.91	\$10.08	\$0.00	\$54.01
	12/01/2016	\$33.02	\$10.91	\$10.89	\$0.00	\$54.82
TUNNEL WORK - COMPRESSED AIR <i>LABORERS (COMPRESSED AIR)</i>	06/01/2014	\$46.33	\$7.30	\$13.30	\$0.00	\$66.93
	12/01/2014	\$47.08	\$7.30	\$13.30	\$0.00	\$67.68
	06/01/2015	\$47.83	\$7.30	\$13.30	\$0.00	\$68.43
	12/01/2015	\$48.58	\$7.30	\$13.30	\$0.00	\$69.18
	06/01/2016	\$49.33	\$7.30	\$13.30	\$0.00	\$69.93
	12/01/2016	\$50.33	\$7.30	\$13.30	\$0.00	\$70.93
	For apprentice rates see "Apprentice- LABORER"					
TUNNEL WORK - COMPRESSED AIR (HAZ. WASTE) <i>LABORERS (COMPRESSED AIR)</i>	06/01/2014	\$48.33	\$7.30	\$13.30	\$0.00	\$68.93
	12/01/2014	\$49.08	\$7.30	\$13.30	\$0.00	\$69.68
	06/01/2015	\$49.83	\$7.30	\$13.30	\$0.00	\$70.43
	12/01/2015	\$50.58	\$7.30	\$13.30	\$0.00	\$71.18
	06/01/2016	\$51.33	\$7.30	\$13.30	\$0.00	\$71.93
	12/01/2016	\$52.33	\$7.30	\$13.30	\$0.00	\$72.93
For apprentice rates see "Apprentice- LABORER"						
TUNNEL WORK - FREE AIR <i>LABORERS (FREE AIR TUNNEL)</i>	06/01/2014	\$38.40	\$7.30	\$13.30	\$0.00	\$59.00
	12/01/2014	\$39.15	\$7.30	\$13.30	\$0.00	\$59.75
	06/01/2015	\$39.90	\$7.30	\$13.30	\$0.00	\$60.50
	12/01/2015	\$40.65	\$7.30	\$13.30	\$0.00	\$61.25
	06/01/2016	\$41.40	\$7.30	\$13.30	\$0.00	\$62.00
	12/01/2016	\$42.40	\$7.30	\$13.30	\$0.00	\$63.00
For apprentice rates see "Apprentice- LABORER"						
TUNNEL WORK - FREE AIR (HAZ. WASTE) <i>LABORERS (FREE AIR TUNNEL)</i>	06/01/2014	\$40.40	\$7.30	\$13.30	\$0.00	\$61.00
	12/01/2014	\$41.15	\$7.30	\$13.30	\$0.00	\$61.75
	06/01/2015	\$41.90	\$7.30	\$13.30	\$0.00	\$62.50
	12/01/2015	\$42.65	\$7.30	\$13.30	\$0.00	\$63.25
	06/01/2016	\$43.40	\$7.30	\$13.30	\$0.00	\$64.00
	12/01/2016	\$44.40	\$7.30	\$13.30	\$0.00	\$65.00
For apprentice rates see "Apprentice- LABORER"						

<b>Classification</b>	<b>Effective Date</b>	<b>Base Wage</b>	<b>Health</b>	<b>Pension</b>	<b>Supplemental Unemployment</b>	<b>Total Rate</b>
VAC-HAUL <i>TEAMSTERS JOINT COUNCIL NO. 10 ZONE B</i>	08/01/2014	\$31.59	\$9.91	\$8.80	\$0.00	\$50.30
	12/01/2014	\$31.59	\$9.91	\$9.33	\$0.00	\$50.83
	06/01/2015	\$31.94	\$9.91	\$9.33	\$0.00	\$51.18
	08/01/2015	\$31.94	\$10.41	\$9.33	\$0.00	\$51.68
	12/01/2015	\$31.94	\$10.41	\$10.08	\$0.00	\$52.43
	06/01/2016	\$32.44	\$10.41	\$10.08	\$0.00	\$52.93
	08/01/2016	\$32.44	\$10.91	\$10.08	\$0.00	\$53.43
	12/01/2016	\$32.44	\$10.91	\$10.89	\$0.00	\$54.24
WAGON DRILL OPERATOR <i>LABORERS - ZONE 2</i>	06/01/2014	\$30.60	\$7.30	\$12.10	\$0.00	\$50.00
	12/01/2014	\$31.10	\$7.30	\$12.10	\$0.00	\$50.50
	06/01/2015	\$31.60	\$7.30	\$12.10	\$0.00	\$51.00
	12/01/2015	\$32.10	\$7.30	\$12.10	\$0.00	\$51.50
	06/01/2016	\$32.60	\$7.30	\$12.10	\$0.00	\$52.00
	12/01/2016	\$33.35	\$7.30	\$12.10	\$0.00	\$52.75
For apprentice rates see "Apprentice- LABORER"						
WASTE WATER PUMP OPERATOR <i>OPERATING ENGINEERS LOCAL 4</i>	06/01/2014	\$41.49	\$10.00	\$14.20	\$0.00	\$65.69
	12/01/2014	\$42.49	\$10.00	\$14.20	\$0.00	\$66.69
	06/01/2015	\$43.24	\$10.00	\$14.20	\$0.00	\$67.44
	12/01/2015	\$44.49	\$10.00	\$14.20	\$0.00	\$68.69
	06/01/2016	\$45.24	\$10.00	\$14.20	\$0.00	\$69.44
	12/01/2016	\$46.49	\$10.00	\$14.20	\$0.00	\$70.69
	06/01/2017	\$47.49	\$10.00	\$14.20	\$0.00	\$71.69
12/01/2017	\$48.49	\$10.00	\$14.20	\$0.00	\$72.69	
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
WATER METER INSTALLER <i>PLUMBERS &amp; PIPEFITTERS LOCAL 51</i>	09/01/2014	\$35.88	\$11.00	\$15.35	\$0.00	\$62.23
	03/01/2015	\$36.63	\$11.00	\$15.35	\$0.00	\$62.98
	09/01/2015	\$37.38	\$11.00	\$15.35	\$0.00	\$63.73
	03/01/2016	\$38.13	\$11.00	\$15.35	\$0.00	\$64.48
For apprentice rates see "Apprentice- PLUMBER/PIPEFITTER" or "PLUMBER/GASFITTER"						
<b>Outside Electrical - East</b>						
CABLE TECHNICIAN (Power Zone) <i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>	09/01/2013	\$25.66	\$8.70	\$4.48	\$0.00	\$38.84
For apprentice rates see "Apprentice- LINEMAN"						
CABLEMAN (Underground Ducts & Cables) <i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>	09/01/2013	\$36.55	\$8.70	\$6.58	\$0.00	\$51.83
For apprentice rates see "Apprentice- LINEMAN"						
DRIVER / GROUNDMAN CDL <i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>	09/01/2013	\$29.94	\$8.70	\$6.05	\$0.00	\$44.69
For apprentice rates see "Apprentice- LINEMAN"						
DRIVER / GROUNDMAN -Inexperienced (<2000 Hrs) <i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>	09/01/2013	\$23.52	\$8.70	\$5.24	\$0.00	\$37.46
For apprentice rates see "Apprentice- LINEMAN"						
EQUIPMENT OPERATOR (Class A CDL) <i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>	09/01/2013	\$36.35	\$8.70	\$9.43	\$0.00	\$54.48
For apprentice rates see "Apprentice- LINEMAN"						
EQUIPMENT OPERATOR (Class B CDL) <i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>	09/01/2013	\$32.08	\$8.70	\$6.59	\$0.00	\$47.37
For apprentice rates see "Apprentice- LINEMAN"						

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
GROUNDMAN <i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>	09/01/2013	\$23.52	\$8.70	\$3.72	\$0.00	\$35.94
For apprentice rates see "Apprentice- LINEMAN"						
GROUNDMAN -Inexperienced (<2000 Hrs.) <i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>	09/01/2013	\$19.25	\$8.70	\$2.85	\$0.00	\$30.80
For apprentice rates see "Apprentice- LINEMAN"						
JOURNEYMAN LINEMAN <i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>	09/01/2013	\$42.77	\$8.70	\$11.78	\$0.00	\$63.25

**Apprentice - LINEMAN (Outside Electrical) - East Local 104**

**Effective Date -** 09/01/2013

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	60	\$25.66	\$8.70	\$4.24	\$0.00	\$38.60
2	65	\$27.80	\$8.70	\$4.71	\$0.00	\$41.21
3	70	\$29.94	\$8.70	\$5.43	\$0.00	\$44.07
4	75	\$32.08	\$8.70	\$6.16	\$0.00	\$46.94
5	80	\$34.22	\$8.70	\$6.88	\$0.00	\$49.80
6	85	\$36.35	\$8.70	\$7.62	\$0.00	\$52.67
7	90	\$38.49	\$8.70	\$8.83	\$0.00	\$56.02

**Notes:**

**Apprentice to Journeyworker Ratio:1:2**

TELEDATA CABLE SPLICER <i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>	07/16/2012	\$26.33	\$4.18	\$2.79	\$0.00	\$33.30
TELEDATA LINEMAN/EQUIPMENT OPERATOR <i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>	07/16/2012	\$24.78	\$4.18	\$2.74	\$0.00	\$31.70
TELEDATA WIREMAN/INSTALLER/TECHNICIAN <i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>	07/16/2012	\$24.78	\$4.18	\$2.74	\$0.00	\$31.70
TREE TRIMMER <i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>	01/29/2012	\$17.18	\$3.37	\$0.00	\$0.00	\$20.55
This classification applies only to tree work done: (a) for a utility company, R.E.A. cooperative, or railroad or coal mining company, and (b) for the purpose of operating, maintaining, or repairing the utility company's equipment, and (c) by a person who is using hand or mechanical cutting methods and is not on the ground. This classification does not apply to wholesale tree removal.						
TREE TRIMMER GROUNDMAN <i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>	01/29/2012	\$15.15	\$3.37	\$0.00	\$0.00	\$18.52

This classification applies only to tree work done: (a) for a utility company, R.E.A. cooperative, or railroad or coal mining company, and (b) for the purpose of operating, maintaining, or repairing the utility company's equipment, and (c) by a person who is using hand or mechanical cutting methods and is on the ground. This classification does not apply to wholesale tree removal.

Additional Apprentices Information:

Minimum wage rates for apprentices employed on public works projects are listed above as a percentage of the pre-determined hourly wage rate established by the Commissioner under the provisions of the M.G.L. c. 149, ss. 26-27D. Apprentice ratios are established by the Division of Apprenticeship Training pursuant to M.G.L. c. 23, ss. 11E-11L.

All apprentices must be registered with the Division of Apprenticeship Training in accordance with M.G.L. c. 23, ss. 11E-11L.

All steps are six months (1000 hours) unless otherwise specified.

- \* Ratios are expressed in allowable number of apprentices to journeymen or fraction thereof.
- \*\* Multiple ratios are listed in the comment field.
- \*\*\* APP to JM; 1:1, 2:2, 2:3, 3:4, 4:4, 4:5, 4:6, 5:7, 6:7, 6:8, 6:9, 7:10, 8:10, 8:11, 8:12, 9:13, 10:13, 10:14, etc.
- \*\*\*\* APP to JM; 1:1, 1:2, 2:3, 2:4, 3:5, 4:6, 4:7, 5:8, 6:9, 6:10, 7:11, 8:12, 8:13, 9:14, 10:15, 10:16, etc.

DELETE



## City of New Bedford

Mayor Jonathan F. Mitchell

### FORM FOR GENERAL BID

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

TO: CITY OF NEW BEDFORD  
C/O NEW BEDFORD PURCHASING DEPARTMENT  
133 WILLIAM STREET, Room 208  
NEW BEDFORD, MASSACHUSETTS 02740  
PURCHASING AGENT

A) The Undersigned proposes to furnish all labor and materials required for the Security and Technology Upgrades 230 Hathaway Blvd., New Bedford MA **IN ACCORDANCE WITH THE ENCLOSED CONTRACT DOCUMENTS AND TECHNICAL SPECIFICATIONS.**

B) The proposed contract price is \_\_\_\_\_ Dollars.

(\$ \_\_\_\_\_).

C) The undersigned agrees that, if he is selected as General Contractor, he will, within five (5) days, Saturdays, Sundays, and legal holidays excluded, after presentation thereof by the awarding authority, execute a contract in accordance with the terms of this Bid, and furnish a Performance Bond, and also a Labor and Materials or Payment Bond, each of a surety company qualified to do business under the laws of the Commonwealth and satisfactory to the Awarding Authority, and each in the sum of the contract price, the premiums for which are to be paid by the General Contractor and are included in the Contract Price.

The undersigned hereby certifies that he is able to furnish labor that can work in harmony with all other elements of labor employed or to be employed on the work and that will comply fully with all laws and regulations applicable to awards made subject to Massachusetts General Laws Chapter 149 Section 44A.

The undersigned further certifies under the penalties of perjury that this bid is in all respects bona fide, fair and made without collusion or fraud with any other person. As used in this subsection the word "person" shall mean any natural person, joint venture, partnership, corporation or other business or legal entity.

The undersigned further certifies under penalty of perjury that the said undersigned is not presently debarred from doing public construction work in the Commonwealth under the provisions of M.G.L. Section 29F of chapter 29, or any other applicable debarment provisions of any other chapter of the General Laws or any rule or regulation promulgated thereunder.

# DELETE

The undersigned hereby certifies, under penalty of perjury, that the said undersigned has paid all State Taxes (Income Taxes, Unemployment Taxes, Excise Taxes, Real Estate Taxes, etc., etc.) due in compliance with the Tax Laws of the Commonwealth of Massachusetts M.G.L. Chapter 62C Sections 47A thru 49A.

The undersigned further certifies that the said undersigned shall comply with the City of New Bedford "Bidders Affirmative Action Requirements, as contained in the BIDDING REQUIREMENTS of these project specifications.

D) Time of Completion

The number of calendar days shall not exceed 50 calendar days from the signing of the contract to complete the work of this Contract.

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

Name of General Bidder: \_\_\_\_\_

BY: \_\_\_\_\_  
(Authorized Signature)(Title)

Business Address: \_\_\_\_\_

City/State/Zip: \_\_\_\_\_

Telephone #: \_\_\_\_\_

Note: If the bidder is a corporation, indicate the State of Incorporation under the signature and affix the Corporate seal; if a partnership, give full names and residential address if different from the business address.

SECTION 00 30 00  
FORM FOR GENERAL BID

FROM:

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TO:

- A The undersigned proposes to furnish all labor and materials required for New Bedford High School Infrastructure Upgrades, New Bedford, Massachusetts, in accordance with the accompanying Plans and Specifications prepared by the Mount Vernon Group Architects, Inc., 47 N. Second Street, New Bedford, Massachusetts 04720, (508) 991-7500, for the Contract Price specified below, subject to additions and deductions according to the terms of the Specifications,
- B. This bid includes addenda numbered \_\_\_\_\_
- C. The Proposed Contract Price is \_\_\_\_\_  
\_\_\_\_\_ DOLLARS (\$ \_\_\_\_\_)

UNIT PRICES

As authorized by the Owner, should the quantities of certain classes of work to be increased or decreased, as described below, the Unit Prices listed below shall be the basis of payment to the Contractor, or credit to the Owner, for such increase or decrease in the Work. The Unit Prices shall represent the exact net amount, per unit, to be paid the Contractor, in the case of additions, and the exact net amount to be refunded to the Owner, in the case of decreases. No additional adjustment will be allowed for overhead, profit, insurance, or other direct or indirect expenses of the Contractor. No additional adjustments will be allowed for over excavation, or other related work, without prior written approval of the Owner.

- 1. Provide and Install one (1) recessed quad receptacle with mounting box and concealed raceway/wiring back to nearest new panelboard at \$ \_\_\_\_\_ per unit, for a cost of DOLLARS (\$ \_\_\_\_\_).
- 2. Provide and Install one (1) recessed quad receptacle with mounting box and concealed raceway/wiring to existing circuit within room at \$ \_\_\_\_\_ per unit, for a cost of DOLLARS (\$ \_\_\_\_\_).
- 3. Provide and Install one (1) surface mounted quad receptacle with mounting box and surface mounted raceway/ wiring back to nearest new panelboard at \$ \_\_\_\_\_ per unit, for a cost of DOLLARS (\$ \_\_\_\_\_).
- 4. Provide and Install one (1) surface mounted quad receptacle with mounting box and surface mounted raceway/ wiring back to existing circuit within room at \$ \_\_\_\_\_ per unit, for a cost of DOLLARS (\$ \_\_\_\_\_).
- 5. Provide and Install one (1) recessed 1-gang mounting box and (1) 1/4" concealed empty raceway with pull string back to ceiling space at \$ \_\_\_\_\_ per unit, for a cost of DOLLARS (\$ \_\_\_\_\_).

Mount Vernon Group Architects, Inc., Project No. 2014.01

6. Provide and Install one (1) surface mounted 1-gang mounting box and (1) 1/4" exposed empty raceway with pull string back to ceiling space at \$ \_\_\_\_\_ per unit, for a cost of DOLLARS (\$ \_\_\_\_\_).
7. Provide and Install one (1) recessed 2-gang mounting box and (1) 1/4" concealed empty raceway with pull string back to ceiling space at \$ \_\_\_\_\_ per unit, for a cost of DOLLARS (\$ \_\_\_\_\_).
8. Provide and Install one (1) recessed 2-gang mounting box and (2) 1/4" concealed empty raceway with pull string back to ceiling space at \$ \_\_\_\_\_ per unit, for a cost of DOLLARS (\$ \_\_\_\_\_).
9. Provide and Install one foot of surface mounted raceway at \$ \_\_\_\_\_ per foot, for a cost of DOLLARS (\$ \_\_\_\_\_).

E. The undersigned agrees that each of the above-named sub-bidders will be used for the Work indicated at the amount stated, unless a substitution is made.

The undersigned agrees that if he is selected as General Contractor, he will promptly confer with the Awarding Authority on the question of Sub-bidders and that the Awarding Authority may substitute for any sub-bid listed above a sub-bid duly filed with the Awarding Authority by another sub-bidder for the sub-trade, against whose standing and ability the undersigned makes no objection; and that the undersigned will use all such finally selected sub-bidders at the amount named in their respective sub-bids and be in every way responsible for them and their Work as if they had been originally named in this General Bid the total Contract Price being adjusted to conform thereto.

The undersigned agrees that, if he is selected as General Contractor, he will within (5) days, Saturdays, Sundays and legal holidays excluded, after presentation thereof by the Awarding Authority, execute a Contract in accordance with the terms of this General Bid and furnish a performance bond and also a labor and materials or payment bond each of a surety company qualified to do business under the laws of the Commonwealth and satisfactory to the Awarding Authority and each in the sum of one hundred percent (100%) of the Contract Price, the premiums for which are to be paid by the General Contractor and are included in the Contract Price.

The undersigned hereby certifies that he is able to furnish labor that can work in harmony with all other elements of labor employed or to be employed on the Work; that all employees to be employed at the worksite will have successfully completed a course in construction safety and health approved by the United States Occupational Safety and Health Administration that is at least 10 hours in duration at the time the employee begins work and who shall furnish documentation of successful completion of said course with the first certified payroll report for each employee; and that he will comply fully with all laws and regulations applicable to awards made subject to section 44A.

The undersigned hereby certifies under the penalties of perjury that this bid is in all respects bona fide, fair and made without collusion or fraud with any other person. As used in this subsection the word "person" shall mean any natural person, joint venture, partnership, corporation or other business or legal entity.

The undersigned further certifies under penalty of perjury that the said undersigned is not presently debarred from doing public construction work in the Commonwealth under the provisions of section twenty-nine F of chapter twenty-nine, or any other applicable debarment provisions of any other chapter of the General Laws or any other rule or regulation promulgated thereunder.

The undersigned certifies that he shall comply with the provisions of the "Supplemental Equal Employment Opportunity Anti-Discrimination and Affirmative Action Program" as set forth in the contract, Article XII, included under Section 00900 Labor Standard of the Commonwealth

Should the notice to contractors, bid form, contract, plans or specifications require submission of special data to accompany the bid, the awarding authority reserved the right to rule the bidder's failure to submit such data an informality and to receive said bid subsequently, within reasonable time as set by the awarding authority.

DATE \_\_\_\_\_

\_\_\_\_\_  
(Print Name of General Bidder)

Federal Employees Identification  
Number \_\_\_\_\_

\_\_\_\_\_  
(Signature) (Title)

\_\_\_\_\_  
(Telephone No.)

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

\_\_\_\_\_  
(City, State and Zip Code)

**END OF FORM FOR GENERAL BID**

**INVITATION FOR BIDS  
ADVERTISEMENT  
BID NUMBER 15300018**

The City of New Bedford, Massachusetts, in conjunction with the Purchasing Department (Awarding Authority) invites sealed bids for **Security and Technology Upgrades**

**The work of this contract is predominately electrical; a DCAM Certified Electrical Contractor is to be this project's General Contractor (may or may not apply) .** Contract Documents, including Drawings, Bidding Requirements, General Conditions, Specifications, and Addenda may be seen or examined at the following place during normal business hours, after issuance of the documents.

**Mount Vernon Group Architects  
47 North Second Street  
New Bedford, MA 02740  
(Monday through Friday - 9:00 AM - 4:00 PM)**

Contract Documents will be available for pick-up at the above address on 07/11/14. Copies of this bid document including plans and specifications may be obtained at the **Mount Vernon Group Architects, 47 North Second Street, New Bedford, MA 02740**

A **NON Mandatory** site inspection will be conducted for the benefit of all potential bidders on 07/21/14 at **230 Hathaway Blvd., New Bedford, MA 02740**. Questions regarding the site inspection may be forwarded to **Jorge Figueirido, Mount Vernon Group Architects, 47 North Second Street, New Bedford, MA 02740**

**Sealed Bids for General Contract**

Bids will be received by the City of New Bedford, Purchasing Department until Tuesday, July 29th at 11:00 AM Local Time, at which time and place will be publicly opened at read aloud. All bids shall be accompanied by a bid deposit that is five percent (5%) of the bid amount. Bid Deposits may be in form of Certified Check, Certificate of Deposit, or Bid Bond made payable to the City of New Bedford.

**Substantial Completion**

Upon Award, the Work of this Contract for construction of the New Bedford High School Infrastructure Upgrades is scheduled to be substantially complete for Owner by November 3, 2014

The attention of Bidders is called to Massachusetts General Laws Chapter 149 sections 44A through 44H inclusive, qualification will be by the Division of Capital Asset Management (DCAM). Furthermore, all bidders must submit a **Certificate of Eligibility and update statement** along with their bid. Any bid submitted without the appropriate certificate shall be invalid. Procedures respecting bids and the selection of contractors shall be in conformance with the provisions of M.G.L. Chapter 149, Sections 44A-44H inclusive.

Every bid or offer submitted for a contract subject to section forty-four A shall be accompanied by a copy of a certificate of eligibility issued by the commissioner showing that the bidder or offeror has the classification and capacity rating to perform the work required. The bid or offer shall also be accompanied by an update statement in such form as the commissioner shall prescribe. A blank copy of such form shall be furnished by the awarding authority to every person or business entity requesting a copy. The update form shall provide space for information regarding all projects completed by the bidder or offeror since the date of certification of eligibility, all projects which the bidder or offeror currently has under contract including the percentage of work on such projects not completed, the names and qualifications of the personnel who will have supervisory responsibility



# NEW BEDFORD PUBLIC SCHOOLS

PAUL RODRIGUES ADMINISTRATION BUILDING  
455 COUNTY STREET  
NEW BEDFORD, MASSACHUSETTS 02740  
www.newbedfordschools.org

(508) 997-4511 Fax (508) 991-7483

HEATHER D. LARKIN, Ed.D.  
ASSISTANT SUPERINTENDENT  
STUDENT SERVICES

JANE L. DALY  
ASSISTANT SUPERINTENDENT  
ACCOUNTABILITY AND  
SCHOOL IMPROVEMENT

ANN BRADSHAW  
ASSISTANT SUPERINTENDENT  
HUMAN RESOURCES

PATRICK MURPHY  
BUSINESS MANAGER

PIA DURKIN, Ph.D.  
SUPERINTENDENT

*"We are committed to developing a community of learners who are academically proficient, demonstrate strong character and exhibit self-confidence."*

NBEPS  
CH385  
EOHHS

## CORI REQUEST FORM

(please print)

New Bedford Public Schools has been certified by the Criminal History Systems Board for access to all criminal case data including conviction, non-conviction and pending. As an applicant/employee for the position of \_\_\_\_\_, I understand that a criminal record check will be conducted for conviction, non-conviction and pending criminal case information only and that it will not necessarily disqualify me. The information below is correct to the best of my knowledge.

\_\_\_\_\_  
LAST NAME FIRST NAME MIDDLE NAME

\_\_\_\_\_  
MAIDEN NAME OR ALIAS (IF APPLICABLE) PLACE OF BIRTH

\_\_\_\_\_  
DATE OF BIRTH SOCIAL SECURITY NUMBER ID THEFT INDEX (PIN)  
(REQUESTED BUT NOT REQUIRED)

MOTHER'S MAIDEN NAME (IF APPLICABLE) \_\_\_\_\_

CURRENT & FORMER ADDRESSES: \_\_\_\_\_

SEX: \_\_\_\_\_ HEIGHT: \_\_\_\_\_ ft. \_\_\_\_\_ in. WEIGHT: \_\_\_\_\_ EYE COLOR: \_\_\_\_\_

DRIVER'S LICENSE NUMBER: \_\_\_\_\_ STATE: \_\_\_\_\_

SCHOOL NAME: \_\_\_\_\_  
(IF VOLUNTEER OR CHAPERONE) APPLICANT/EMPLOYEE SIGNATURE

\*\*\* THE ABOVE INFORMATION WAS VERIFIED BY REVIEWING THE FOLLOWING FORM OF GOVERNMENT

ISSUED PHOTOGRAPHIC IDENTIFICATION: \_\_\_\_\_

REQUESTED BY: \_\_\_\_\_  
SIGNATURE OF CORI AUTHORIZED EMPLOYEE

\*\*\*\*The CHSB Identity Theft Index PIN Number is to be completed by those applicants that have been issued an Identity Theft Index PIN Number by the CHSB. Certified agencies are required to provide all applicants the opportunity to include this information to ensure the accuracy of the CORI request process.

All CORI request forms that include this field are required to be submitted to the CHSB via mail or by fax to 617-660-4614.

Revised 07/13

**DELETE**

**NEW BEDFORD CODE OF ORDINANCES  
QUALIFICATION CERTIFICATION  
(FORM # 1077A)**

Yes \_\_\_ 1. Bidder shall comply with the city employment plan as it currently exists and as it may, from time to time, be amended.

Yes \_\_\_ 2. Bidder shall comply with the obligations established under M.G.L.A. c. 149 to pay the appropriate lawful prevailing wage rates to its employees.

Yes \_\_\_ 3. Bidder shall maintain or participate in a bona fide apprentice training program, as defined by M.G.L.A. c. 23, §§ 11H and 11I, for each apprenticeable trade or occupation represented in its workforce that is approved by the division of apprentice training of the department of labor and industries and shall abide by the apprentice to journeyman ratio for each trade prescribed therein in the performance of the contract. This provision is applicable only to: 1) general contracts bid under Ch. 149 § 44A and estimated by the awarding authority to cost \$100,000 or more; 2) filed subcontracts bid under Ch. 149 § 44F and estimated by the awarding authority to cost \$25,000 or more; 3) sub-subcontract work to be performed under section "E" of the "Form for Sub-Bid" under Ch. 149 § 44F and estimated by the awarding authority to cost \$25,000 or more.

Yes \_\_\_ 4. Bidder shall furnish, at its expense, hospitalization and medical benefits for all its employees employed on the project and/or coverage at least comparable in value to the hospitalization and medical benefits provided by the health and welfare plans in the applicable craft recognized by M.G.L.A. c. 149, § 26, in establishing minimum wage rates.

Yes \_\_\_ 5. Bidder shall maintain appropriate industrial accident insurance coverage for all its employees employed on the project in accordance with M.G.L.A. c. 152.

Yes \_\_\_ 6. Bidder shall properly classify its employees as employees rather than independent contractors and treat them accordingly for purposes of workers' compensation insurance coverage, unemployment taxes, social security taxes, and income tax withholding in accordance with M.G.L.A. 149, § 148B, and further, for purposes of equal opportunity and civil rights issues, in accordance with M.G.L.A. c. 151B.

Yes \_\_\_ 7. Bidder shall comply with the obligations numbered (1) through (6) above for the entire duration of its work on the project, and an officer of the bidder shall certify under oath and in writing on a weekly basis that it is in compliance with such obligations. If requested, the bidder shall provide, within thirty (30) days of said request, any documentation necessary to support a weekly certification.

(Contractor)

BY: \_\_\_\_\_

TITLE: \_\_\_\_\_

**DELETE**

CITY OF NEW BEDFORD  
MASSACHUSETTS  
(FORM 1077B)

**CERTIFICATION RE: APPRENTICESHIP PARTICIPATION**

**NOTE:** Applicable to: 1) general contracts bid under Ch. 149 § 44A and estimated by the awarding authority to cost \$100,000 or more; 2) filed subcontracts bid under Ch. 149 § 44F and estimated by the awarding authority to cost \$25,000 or more; 3) sub-subcontract work to be performed under section "E" of the "Form for Sub-Bid" under Ch. 149 § 44F(2)(E) and estimated by the awarding authority to cost \$25,000 or more.

As evidenced by the signature of the Bidder's authorized signatory below, the Bidder certifies under the pains and penalties of perjury that the Bidder and all subcontractors and under the Bidder are in compliance with Article II, Section 10-77 (a) (3) of the New Bedford Code of Ordinances, which states:

The Bidder and all subcontractors under the Bidder must maintain or participate in a bona fide apprentice training program, as defined by M.G.L. c. 23, §§ 11H and 11I, for each apprenticeable trade or occupation represented in their workforce that is approved by the division of apprentice training of the Department of Labor and Industries and must abide by the apprentice to journeyman ratio for each trade prescribed therein in the performance of the contract.

The Bidder understands and agrees that a breach of any of the terms of said Article II, Section 10-77 (a) (3) during the period of the general contract or any subcontract may be regarded as a material breach of the general contract or subcontract in question and may subject the Bidder or subcontractor to sanctions, including, but not limited to, monetary penalties, withholding of payments, and /or suspension or termination of the general contract or subcontract.

\_\_\_\_\_  
Bidder's Authorized Signature

\_\_\_\_\_  
Printed Name

\_\_\_\_\_  
Title

\_\_\_\_\_  
Date

# DELETE

## **INSTRUCTIONS TO FILED SUB-BIDDERS FOR COMPLIANCE WITH CITY OF NEW BEDFORD RESPONSIBLE EMPLOYER ORDINANCE, SECTION 10-77 OF THE NEW BEDFORD CODE OF ORDINANCES**

I. All BIDDERS MUST SUBMIT WITH THEIR RESPECTIVE SUB-BIDS A FULLY COMPLETED "SECTION 10-77 QUALIFICATION CERTIFICATION," (FORM 1077A) SIGNED BY AN AUTHORIZED REPRESENTATIVE OF THE BIDDER, CERTIFYING THE BIDDER'S COMMITMENT TO COMPLY WITH SECTION 10-77 OF THE NEW BEDFORD CODE OF ORDINANCES.

II. All BIDDERS ALSO MUST SUBMIT WITH THEIR RESPECTIVE SUB-BIDS AN EXECUTED "CERTIFICATION RE: APPRENTICESHIP PROGRAM PARTICIPATION", (FORM 1077B) SIGNED BY AN AUTHORIZED REPRESENTATIVE OF THE BIDDER, CERTIFYING THAT THE BIDDER PARTICIPATES IN A BONA FIDE APPRENTICE TRAINING PROGRAM FOR THE FILED SUB-BID CATEGORY AND BID UPON, IF SUCH CATEGORY IS ESTIMATED BY THE AWARDING AUTHORITY TO COST \$25,000.00 OR MORE. BIDDER FURTHER CERTIFYS BY EXECUTION OF FORM 1077B THAT ALL SUB-SUBCONTRACTORS UNDER THE SUB-BIDDER THAT ARE TO PERFORM SUB-SUBCONTRACT WORK UNDER "SECTION E" OF THE FORM FOR SUB-BID, INCLUDING THE BIDDER, IF IT IS TO PERFORM THE "SECTION E" SUB-SUBCONTRACT WORK WITH ITS OWN WORKFORCE, PARTICIPATES IN A BONA FIDE APPRENTICE TRAINING PROGRAM FOR EACH APPRENTICEABLE TRADE REPRESENTED IN EACH "SECTION E" SUB-SUBCONTRACT CATEGORY, IF SUCH "SECTION E" SUB-SUBCONTRACT CATEGORY WORK IS ESTIMATED BY THE AWARDING AUTHORITY TO COST \$25,000.00 OR MORE.

III. BOTH FORM 1077A AND FORM 1077B ARE CONTAINED IN THE BID DOCUMENTS. FAILURE TO SUBMIT EITHER OF THE FORMS, FULLY COMPLETED AND EXECUTED, SHALL CONSTITUTE GROUNDS FOR REJECTION OF THE BIDDER'S SUB-BID BY THE AWARDING AUTHORITY.

IV. All BIDDERS MUST SUBMIT WITH THEIR RESPECTIVE SUB-BIDS AN APPRENTICE SPONSOR VERIFICATION FORM OR RECIPROCAL SPONSOR VERIFICATION FORM ISSUED BY THE MASSACHUSETTS DIVISION OF APPRENTICESHIP TRAINING FOR THE APPRENTICEABLE TRADE REPRESENTED IN THE SUB-BIDDER'S WORKFORCE THAT WILL PERFORM THE FILED SUB-BID CATEGORY WORK FOR WHICH THE SUB-BID IS SUBMITTED, IF SUCH CATEGORY IS ESTIMATED BY THE AWARDING AUTHORITY TO COST \$25,000.00 OR MORE.

V. All BIDDERS ALSO MUST SUBMIT WITH THEIR RESPECTIVE SUB-BIDS AN APPRENTICE SPONSOR VERIFICATION FORM OR RECIPROCAL SPONSOR VERIFICATION FORM ISSUED BY THE MASSACHUSETTS DIVISION OF APPRENTICESHIP TRAINING FOR EACH APPRENTICEABLE TRADE REPRESENTED IN THE SUB-BIDDER'S WORKFORCE THAT WILL PERFORM ANY CATEGORY OF SUB-SUBCONTRACT WORK UNDER "SECTION E" OF THE FORM FOR SUB-BID, INCLUDING THE SUB-BIDDER IF IT IS TO PERFORM THE "SECTION E" SUB-SUBCONTRACT WORK WITH ITS OWN WORKFORCE, IF SUCH "SECTION E" SUB-SUBCONTRACT CATEGORY WORK IS ESTIMATED BY THE AWARDING AUTHORITY TO COST \$25,000.00 OR MORE.

FAILURE TO SUBMIT EITHER AN APPRENTICE SPONSOR VERIFICATION FORM OR RECIPROCAL SPONSOR VERIFICATION FORM FOR ANY FILED SUB-BID CATEGORY WORK ESTIMATED BY THE AWARDING AUTHORITY TO COST \$25,000.00 OR MORE FOR WHICH THE SUB-BID IS SUBMITTED, OR AN APPRENTICE SPONSOR VERIFICATION FORM OR RECIPROCAL SPONSOR VERIFICATION FORM FOR ANY CATEGORY OF SUB-SUBCONTRACT WORK UNDER "SECTION E" OF THE FORM FOR SUB-BID ESTIMATED BY THE AWARDING AUTHORITY TO COST \$25,000.00 OR MORE, AS DESCRIBED IMMEDIATELY ABOVE, SHALL CONSTITUTE GROUNDS FOR REJECTION OF THE BIDDER'S SUB-BID BY THE AWARDING AUTHORITY.

(#1077C)

**DELETE**

**INSTRUCTIONS TO GENERAL CONTRACT BIDDERS FOR COMPLIANCE WITH  
CITY OF NEW BEDFORD RESPONSIBLE EMPLOYER ORDINANCE, SECTION 10-  
77 OF THE NEW BEDFORD CODE OF ORDINANCES**

**I. All GENERAL BIDDERS MUST SUBMIT WITH THEIR RESPECTIVE GENERAL BIDS A FULLY COMPLETED "SECTION 10-77 QUALIFICATION APPLICATION," SIGNED BY AN AUTHORIZED REPRESENTATIVE OF THE BIDDER, (Form 1077A) CERTIFYING THE BIDDER'S COMMITMENT TO COMPLY WITH SECTION 10-77 OF THE NEW BEDFORD CODE OF ORDINANCES.**

**II. All GENERAL BIDDERS ALSO MUST SUBMIT WITH THEIR RESPECTIVE GENERAL BIDS AN EXECUTED "CERTIFICATION RE: APPRENTICESHIP PROGRAM PARTICIPATION", SIGNED BY AN AUTHORIZED REPRESENTATIVE OF THE BIDDER, (Form 1077B), CERTIFYING THAT THE BIDDER PARTICIPATES IN A BONA FIDE APPRENTICE TRAINING PROGRAM FOR EACH APPRENTICEABLE TRADE REPRESENTED IN THE GENERAL BIDDER'S OWN WORKFORCE THAT WILL PERFORM ANY CATEGORY OF SUBTRADE WORK ESTIMATED BY THE AWARDDING AUTHORITY TO COST \$25,000.00 OR MORE, AND FURTHER CERTIFYING THAT ALL NON-FILED SUBCONTRACTORS AND SUB- SUBCONTRACTORS UNDER THE GENERAL BIDDER THAT ARE TO PERFORM ANY CATEGORY OF NON-FILED SUBTRADE WORK PARTICIPATES IN A BONA FIDE APPRENTICE TRAINING PROGRAM FOR EACH SUCH APPRENTICEABLE TRADE, IF SUCH CATEGORY IS ESTIMATED BY THE AWARDDING AUTHORITY TO COST \$25,000.00 OR MORE.**

**III. BOTH THE "SECTION 10-77 QUALIFICATION APPLICATION," (Form 1077A), AND THE "CERTIFICATION RE: APPRENTICESHIP PROGRAM PARTICIPATION" FORM (1077B) ARE CONTAINED IN THE BID DOCUMENTS. FAILURE TO SUBMIT EITHER OF THE FORMS, FULLY COMPLETED AND EXECUTED, SHALL CONSTITUTE GROUNDS FOR REJECTION OF THE GENERAL BIDDER'S BID BY THE AWARDDING AUTHORITY.**

**IV. All GENERAL BIDDERS MUST SUBMIT WITH THEIR RESPECTIVE GENERAL BIDS AN APPRENTICE SPONSOR VERIFICATION FORM OR RECIPROCAL SPONSOR VERIFICATION FORM ISSUED BY THE MASSACHUSETTS DIVISION OF APPRENTICESHIP TRAINING FOR ALL APPRENTICEABLE TRADES REPRESENTED IN THE GENERAL BIDDER'S OWN WORKFORCE THAT WILL PERFORM ANY NON-FILED SUBCONTRACT OR SUB-SUBCONTRACT CATEGORY WORK ON THE PROJECT ESTIMATED BY THE AWARDDING AUTHORITY TO COST \$25,000.00 OR MORE.**

**FAILURE TO SUBMIT EITHER AN APPRENTICE SPONSOR VERIFICATION FORM OR RECIPROCAL SPONSOR VERIFICATION FORM FOR THE NON-FILED SUBTRADE OR SUB-SUB TRADE CATEGORY WORK ESTIMATED BY THE AWARDDING AUTHORITY TO COST \$25,000.00 OR MORE, THAT THE GENERAL CONTRACTOR INTENDS TO PERFORM WITH ITS OWN WORKFORCE AS DESCRIBED IMMEDIATELY ABOVE, SHALL CONSTITUTE GROUNDS FOR REJECTION OF THE GENERAL BIDDER'S BID BY THE AWARDDING AUTHORITY.**

(1077D)

substantially all of the Work has been completed and opened to public use except for minor incomplete or unsatisfactory work items that do not materially impair the usefulness of the Work. **Superintendent:** The licensed construction supervisor who is an employee of the Contractor designated to be in full-time attendance at the Site throughout the prosecution and progress of the Work and who shall have complete authority to act for the Contractor.

**Work:** The Work defined in Article 1 of the Owner - Contractor Agreement, Article II, Section 2 of these General Conditions of the Contract and otherwise in the Contract Documents.

**Working Hours:**

**Work Hours during the month of August will coincide with the Overall First Floor Plan - A01.01. Normal Work shall be between 7:00 A.M. through 5:00 P.M., Monday through Friday.**

**Work Hours as of September 2, shall be between the hours of 3:00 P.M. till 11:00 P.M. Monday through Friday.**

**No work will be allowed during the day without the written approval from The Owner**

All terms that this Contract defines may be used with or without initial capital letters. Other terms, abbreviations and references are defined as they appear herein. Words and abbreviations that are not defined in the Contract Documents but which have recognized technical or trade meanings are used in accordance with those meanings. For additional definitions of terms, abbreviations and references refer to the *Supplementary General Conditions, or Specifications.*

**ARTICLE II: EXECUTION OF THE CONTRACT, SCOPE OF WORK, INTERPRETATION OF CONTRACT DOCUMENTS**

**1. Execution.**

The execution of the Owner – Contractor Agreement by the Contractor is a representation that the Contractor has visited the Site, has become familiar with local conditions under which the Work is to be performed and has correlated personal observations with requirements of the Contract Documents.

**2. Scope of Work.**

The Work consists of the Work identified in the Contract Documents. The Work comprises the completed construction required by the Contract Documents and includes all labor, tools, materials, supplies, equipment, permits, approvals, paperwork, calculations, submittals, and certificates necessary to develop, construct and complete the Work in accordance with all Laws, and all construction and other services required to be supervised, overseen, performed or furnished by Contractor or that the Contract Documents require the Contractor to cause to be supervised, overseen, performed or furnished. The Contractor shall provide and perform for the Contract Price all of the duties and obligations set forth in the Contract Documents.

**3. Interpretation.**

**A.** The Plans and Specifications and other Contract Documents are to be considered together and are intended to be mutually complementary, so that any work shown on the Plans though not specified in the Specifications, and any work specified in the Specifications though not shown on the Plans, is to be executed by the Contractor as a part of this Contract.

**B.** All things that in the opinion of the Designer may be reasonably inferred from the Plans, Specifications and other Contract Documents are to be executed by the Contractor. The Designer shall determine whether the detail Plans conform to the general Plans and Contract Documents, except as may be otherwise determined by the Awarding Authority.

**C.** The tables of contents, titles, headings and marginal notes or sub-scripts contained herein are solely to facilitate references, are not intended to be construed as provisions of the Contract, and in no way affect the interpretation of the provisions to which they refer.

**D.** Where reference is made in the Contract Documents to publications, standards, or codes issued by associations or societies, such reference shall be interpreted to mean the current edition of such publications, standards, or codes, including revisions in effect on the date of the Advertisement, notwithstanding any reference to a particular date. The foregoing sentence shall not apply to the dates, if any, specified with respect to insurance policy endorsement forms.

- A. There shall be no fewer facilities than the number required by applicable Laws;
  - B. Facilities shall be kept in a clean sanitary condition at all times and shall be adequately screened to be inaccessible to flies.
- (Note: If existing sanitary facilities at the Site are to be used by the Contractor, this requirement will be modified accordingly in the Supplementary General Conditions or Specifications.)

**11. Temporary Offices.**

Delete temporary offices and refer to Temporary Facilities and Controls 01 50 00 -2, Section 1.06 Field Offices and Storage Sheds for general bidders requirements for field offices and storage sheds

**12. Contract Documents and Samples at the Site.**

A reasonable number of sets of Contract Documents will be furnished to the Contractor by the Awarding Authority immediately after signing of the Contract, one of which shall be maintained at the Site for reference by authorized representatives of the Awarding Authority. The Contractor shall maintain at the Site for the use and information of the Awarding Authority one record copy of the Drawings, Specifications, Addenda, Change Orders, Approved Shop Drawings, Product Data, Samples, updated Progress Schedule, and all other submittals, all in good order and marked currently to record changes and selections made during construction. These shall be available to the Designer and the Awarding Authority and shall be delivered to the Designer for submittal to the Awarding Authority upon completion of the Work.

**13. Telephones.**

The Contractor shall provide and maintain separate individual telephone service and pay for all calls relating to the Work. Service and equipment shall meet the requirements, if any, of the Supplementary General Conditions and Specifications and shall include provisions for incoming and outgoing calls: (1) in the Contractor's field office for the use of its authorized agents and (2) in the OPM's office for the use of the Designer and authorized agents of the Owner.

**14. Health, Safety, and Accident Prevention**

A. In performing the Work, the Contractor shall:

- (1) Ensure that no laborer or mechanic shall be required to work in surroundings or under working conditions which are unsanitary, hazardous, or dangerous to his/her health and/or

- A. There shall be no fewer facilities than the number required by applicable Laws;
  - B. Facilities shall be kept in a clean sanitary condition at all times and shall be adequately screened to be inaccessible to flies.
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# City of New Bedford

Mayor Jonathan F. Mitchell

## FORM FOR GENERAL BID

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

**TO: CITY OF NEW BEDFORD  
C/O NEW BEDFORD PURCHASING DEPARTMENT  
133 WILLIAM STREET, Room 208  
NEW BEDFORD, MASSACHUSETTS 02740  
PURCHASING AGENT**

- A) The Undersigned proposes to furnish all labor and materials required for the Security and Technology Upgrades 230 Hathaway Blvd., New Bedford, MA **IN ACCORDANCE WITH THE ENCLOSED CONTRACT DOCUMENTS AND TECHNICAL SPECIFICATIONS.**
- B) The proposed contract price is \_\_\_\_\_ Dollars.  
(\$ \_\_\_\_\_).
- C) The undersigned agrees that, if he is selected as General Contractor, he will, within five (5) days, Saturdays, Sundays, and legal holidays excluded, after presentation thereof by the awarding authority, execute a contract in accordance with the terms of this Bid, and furnish a Performance Bond, and also a Labor and Materials or Payment Bond, each of a surety company qualified to do business under the laws of the Commonwealth and satisfactory to the Awarding Authority, and each in the sum of the contract price, the premiums for which are to be paid by the General Contractor and are included in the Contract Price.

The undersigned hereby certifies that he is able to furnish labor that can work in harmony with all other elements of labor employed or to be employed on the work and that will comply fully with all laws and regulations applicable to awards made subject to Massachusetts General Laws Chapter 149 Section 44A.

The undersigned further certifies under the penalties of perjury that this bid is in all respects bona fide, fair and made without collusion or fraud with any other person. As used in this subsection the word "person" shall mean any natural person, joint venture, partnership, corporation or other business or legal entity.

The undersigned further certifies under penalty of perjury that the said undersigned is not presently debarred from doing public construction work in the Commonwealth under the provisions of M.G.L. Section 29F of chapter 29, or any other applicable debarment provisions of any other chapter of the General Laws or any rule or regulation promulgated thereunder.

The undersigned hereby certifies, under penalty of perjury, that the said undersigned has paid all State Taxes (Income Taxes, Unemployment Taxes, Excise Taxes, Real Estate Taxes, etc., etc.) due in compliance with the Tax Laws of the Commonwealth of Massachusetts M.G.L. Chapter 62C Sections 47A thru 49A.

The undersigned further certifies that the said undersigned shall comply with the City of New Bedford "Bidders Affirmative Action Requirements, as contained in the BIDDING REQUIREMENTS of these project specifications.

D) Time of Completion

The number of calendar days shall not exceed 50 calendar days from the signing of the contract to complete the work of this Contract.

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

Name of General Bidder: \_\_\_\_\_

BY: \_\_\_\_\_  
(Authorized Signature) (Title)

Business Address: \_\_\_\_\_

City/State/Zip: \_\_\_\_\_

Telephone #: \_\_\_\_\_

Note: If the bidder is a corporation, indicate the State of Incorporation under the signature and affix the Corporate seal; if a partnership, give full names and residential address if different from the business address.

Effective **July 1, 2006**, all employees of a contractor to be employed on **public building and public works** worksites must have successfully completed at least a 10 hour course in construction safety and health approved by OSHA at the time the employee begins work.

I, \_\_\_\_\_, as \_\_\_\_\_, of the  
(Print Name) (Position with the entity submitting bid)

joint venture/corporation/partnership or other legal entity submitting this bid for a public works project falling under §39M of Chapter 30 of the Massachusetts General Laws and Chapter 149 of the same, do hereby certify that any and all employees found on my worksite for this project have, or will have by the start of their work on the project, successfully completed a course in construction safety and health approved by the United States Occupational Safety and Health Administration that was at least 10 hours in duration.

A copy of the OSHA completion cards for each employee must be submitted to the City of New Bedford before work on this project is to begin and must be supplemented as new employees are hired or contracted to work on this project.

\_\_\_\_\_, as  
Signature

\_\_\_\_\_, of  
Position

\_\_\_\_\_, on  
Company/Corporation/Joint Venture/Partnership/Etc.

\_\_\_\_\_  
Date

~~**INSTRUCTIONS TO GENERAL CONTRACT BIDDERS FOR COMPLIANCE WITH  
CITY OF NEW BEDFORD RESPONSIBLE EMPLOYER ORDINANCE, SECTION 10-77  
OF THE NEW BEDFORD CODE OF ORDINANCES**~~

**I. All GENERAL BIDDERS MUST SUBMIT WITH THEIR RESPECTIVE GENERAL BIDS A FULLY COMPLETED "SECTION 10-77 QUALIFICATION APPLICATION," SIGNED BY AN AUTHORIZED REPRESENTATIVE OF THE BIDDER, (Form 1077A) CERTIFYING THE BIDDER'S COMMITMENT TO COMPLY WITH SECTION 10-77 OF THE NEW BEDFORD CODE OF ORDINANCES.**

**II. All GENERAL BIDDERS ALSO MUST SUBMIT WITH THEIR RESPECTIVE GENERAL BIDS AN EXECUTED "CERTIFICATION RE: APPRENTICESHIP PROGRAM PARTICIPATION", SIGNED BY AN AUTHORIZED REPRESENTATIVE OF THE BIDDER, (Form 1077B), CERTIFYING THAT THE BIDDER PARTICIPATES IN A BONA FIDE APPRENTICE TRAINING PROGRAM FOR EACH APPRENTICEABLE TRADE REPRESENTED IN THE GENERAL BIDDER'S OWN WORKFORCE THAT WILL PERFORM ANY CATEGORY OF SUBTRADE WORK ESTIMATED BY THE AWARING AUTHORITY TO COST \$25,000.00 OR MORE, AND FURTHER CERTIFYING THAT ALL NON-FILED SUBCONTRACTORS AND SUB-SUBCONTRACTORS UNDER THE GENERAL BIDDER THAT ARE TO PERFORM ANY CATEGORY OF NON-FILED SUBTRADE WORK PARTICIPATES IN A BONA FIDE APPRENTICE TRAINING PROGRAM FOR EACH SUCH APPRENTICEABLE TRADE, IF SUCH CATEGORY IS ESTIMATED BY THE AWARING AUTHORITY TO COST \$25,000.00 OR MORE.**

**III. BOTH THE "SECTION 10-77 QUALIFICATION APPLICATION," (Form 1077A), AND THE "CERTIFICATION RE: APPRENTICESHIP PROGRAM PARTICIPATION" FORM (1077B) ARE CONTAINED IN THE BID DOCUMENTS. FAILURE TO SUBMIT EITHER OF THE FORMS, FULLY COMPLETED AND EXECUTED, SHALL CONSTITUTE GROUNDS FOR REJECTION OF THE GENERAL BIDDER'S BID BY THE AWARING AUTHORITY.**

**IV. All GENERAL BIDDERS MUST SUBMIT WITH THEIR RESPECTIVE GENERAL BIDS AN APPRENTICE SPONSOR VERIFICATION FORM OR RECIPROCAL SPONSOR VERIFICATION FORM ISSUED BY THE MASSACHUSETTS DIVISION OF APPRENTICESHIP TRAINING FOR ALL APPRENTICEABLE TRADES REPRESENTED IN THE GENERAL BIDDER'S OWN WORKFORCE THAT WILL PERFORM ANY NON-FILED SUBCONTRACT OR SUB-SUBCONTRACT CATEGORY WORK ON THE PROJECT ESTIMATED BY THE AWARING AUTHORITY TO COST \$25,000.00 OR MORE.**

**FAILURE TO SUBMIT EITHER AN APPRENTICE SPONSOR VERIFICATION FORM OR RECIPROCAL SPONSOR VERIFICATION FORM FOR THE NON-FILED SUBTRADE OR SUB-SUB TRADE CATEGORY WORK, ESTIMATED BY THE AWARING AUTHORITY TO COST \$25,000.00 OR MORE, THAT THE GENERAL CONTRACTOR INTENDS TO PERFORM WITH ITS OWN WORKFORCE AS DESCRIBED IMMEDIATELY ABOVE, SHALL CONSTITUTE GROUNDS FOR REJECTION OF THE GENERAL BIDDER'S BID BY THE AWARING AUTHORITY.**

**(1077D)**

**NEW BEDFORD CODE OF ORDINANCES  
QUALIFICATION CERTIFICATION**

(FORM # 1077A)

Yes \_\_\_ 1. Bidder shall comply with the city employment plan as it currently exists and as it may, from time to time, be amended.

Yes \_\_\_ 2. Bidder shall comply with the obligations established under M.G.L.A. c. 149 to pay the appropriate lawful prevailing wage rates to its employees.

Yes \_\_\_ 3. Bidder shall maintain or participate in a bona fide apprentice training program, as defined by M.G.L.A. c. 23, §§ 11H and 11I, for each apprenticeable trade or occupation represented in its workforce that is approved by the division of apprentice training of the department of labor and industries and shall abide by the apprentice to journeyman ratio for each trade prescribed therein in the performance of the contract. This provision is applicable only to: 1) general contracts bid under Ch. 149 § 44A and estimated by the awarding authority to cost \$100,000 or more; 2) filed subcontracts bid under Ch. 149 § 44F and estimated by the awarding authority to cost \$25,000 or more; 3) sub-subcontract work to be performed under section "E" of the "Form for Sub-Bid" under Ch. 149 § 44F and estimated by the awarding authority to cost \$25,000 or more.

Yes \_\_\_ 4. Bidder shall furnish, at its expense, hospitalization and medical benefits for all its employees employed on the project and/or coverage at least comparable in value to the hospitalization and medical benefits provided by the health and welfare plans in the applicable craft recognized by M.G.L.A. c. 149, § 26, in establishing minimum wage rates.

Yes \_\_\_ 5. Bidder shall maintain appropriate industrial accident insurance coverage for all its employees employed on the project in accordance with M.G.L.A. c. 152.

Yes \_\_\_ 6. Bidder shall properly classify its employees as employees rather than independent contractors and treat them accordingly for purposes of workers' compensation insurance coverage, unemployment taxes, social security taxes, and income tax withholding in accordance with M.G.L.A. 149, § 148B, and further, for purposes of equal opportunity and civil rights issues, in accordance with M.G.L.A. c. 151B.

Yes \_\_\_ 7. Bidder shall comply with the obligations numbered (1) through (6) above for the entire duration of its work on the project, and an officer of the bidder shall certify under oath and in writing on a weekly basis that it is in compliance with such obligations. If requested, the bidder shall provide, within thirty (30) days of said request, any documentation necessary to support a weekly certification.

(Contractor)

BY: \_\_\_\_\_

TITLE: \_\_\_\_\_

CITY OF NEW BEDFORD  
MASSACHUSETTS  
(FORM 1077B)

**CERTIFICATION RE: APPRENTICESHIP PARTICIPATION**

**NOTE:** Applicable to: 1) general contracts bid under Ch. 149 § 44A and estimated by the awarding authority to cost \$100,000 or more; 2) filed subcontracts bid under Ch. 149 § 44F and estimated by the awarding authority to cost \$25,000 or more; 3) sub-subcontract work to be performed under section "E" of the "Form for Sub-Bid" under Ch. 149 § 44F(2)(E) and estimated by the awarding authority to cost \$25,000 or more.

As evidenced by the signature of the Bidder's authorized signatory below, the Bidder certifies under the pains and penalties of perjury that the Bidder and all subcontractors and under the Bidder are in compliance with Article II, Section 10-77 (a) (3) of the New Bedford Code of Ordinances, which states:

The Bidder and all subcontractors under the Bidder must maintain or participate in a bona fide apprentice training program, as defined by M.G.L. c. 23, § 11H and 11I, for each apprenticeable trade or occupation represented in their workforce that is approved by the division of apprentice training of the Department of Labor and Industries and must abide by the apprentice to journeyman ratio for each trade prescribed therein in the performance of the contract.

The Bidder understands and agrees that a breach of any of the terms of said Article II, Section 10-77 (a) (3) during the period of the general contract or any subcontract may be regarded as a material breach of the general contract or subcontract in question, and may subject the Bidder or subcontractor to sanctions, including, but not limited to, monetary penalties, withholding of payments, and /or suspension or termination of the general contract or subcontract.

\_\_\_\_\_  
Bidder's Authorized Signature

\_\_\_\_\_  
Printed Name

\_\_\_\_\_  
Title

\_\_\_\_\_  
Date

**INSTRUCTIONS TO FILED SUB-BIDDERS FOR COMPLIANCE WITH CITY OF NEW BEDFORD RESPONSIBLE EMPLOYER ORDINANCE, SECTION 10-77 OF THE NEW BEDFORD CODE OF ORDINANCES**

**I.** All BIDDERS MUST SUBMIT WITH THEIR RESPECTIVE SUB-BIDS A FULLY COMPLETED "SECTION 10-77 QUALIFICATION CERTIFICATION," (FORM 1077A) SIGNED BY AN AUTHORIZED REPRESENTATIVE OF THE BIDDER, CERTIFYING THE BIDDER'S COMMITMENT TO COMPLY WITH SECTION 10-77 OF THE NEW BEDFORD CODE OF ORDINANCES.

**II.** All BIDDERS ALSO MUST SUBMIT WITH THEIR RESPECTIVE SUB-BIDS AN EXECUTED "CERTIFICATION RE APPRENTICESHIP PROGRAM PARTICIPATION", (FORM 1077B) SIGNED BY AN AUTHORIZED

REPRESENTATIVE OF THE BIDDER, CERTIFYING THAT THE BIDDER PARTICIPATES IN A BONA FIDE APPRENTICE TRAINING PROGRAM FOR THE FILED SUB-BID CATEGORY WORK UPON, IF SUCH CATEGORY IS ESTIMATED BY THE AWARDING AUTHORITY TO COST \$25,000.00 OR MORE. BIDDER FURTHER CERTIFYS BY EXECUTION OF FORM 1077B THAT ALL SUB-SUBCONTRACTORS UNDER THE SUB-BIDDER THAT ARE TO PERFORM SUB-SUBCONTRACT WORK UNDER "SECTION E" OF THE FORM FOR SUB-BID, INCLUDING THE BIDDER, IF IT IS TO PERFORM THE "SECTION E" SUB-SUBCONTRACT WORK WITH ITS OWN WORKFORCE, PARTICIPATES IN A BONA FIDE APPRENTICE TRAINING PROGRAM FOR EACH APPRENTICEABLE TRADE REPRESENTED IN EACH "SECTION E" SUB-SUBCONTRACT CATEGORY, IF SUCH "SECTION E" SUB-SUBCONTRACT CATEGORY WORK IS ESTIMATED BY THE AWARDING AUTHORITY TO COST \$25,000.00 OR MORE.

**III. BOTH FORM 1077A AND FORM 1077B ARE CONTAINED IN THE BID DOCUMENTS. FAILURE TO SUBMIT EITHER OF THE FORMS, FULLY COMPLETED AND EXECUTED, SHALL CONSTITUTE GROUNDS FOR REJECTION OF THE BIDDER'S SUB-BID BY THE AWARDING AUTHORITY.**

IV. All BIDDERS MUST SUBMIT WITH THEIR RESPECTIVE SUB-BIDS AN APPRENTICE SPONSOR VERIFICATION FORM OR RECIPROCAL SPONSOR VERIFICATION FORM ISSUED BY THE MASSACHUSETTS DIVISION OF APPRENTICESHIP TRAINING FOR THE APPRENTICEABLE TRADE REPRESENTED IN THE SUB-BIDDER'S WORKFORCE THAT WILL PERFORM THE FILED SUB-BID CATEGORY WORK FOR WHICH THE SUB-BID IS SUBMITTED, IF SUCH CATEGORY IS ESTIMATED BY THE AWARDING AUTHORITY TO COST \$25,000.00 OR MORE.

V. All BIDDERS ALSO MUST SUBMIT WITH THEIR RESPECTIVE SUB-BIDS AN APPRENTICE SPONSOR VERIFICATION FORM OR RECIPROCAL SPONSOR VERIFICATION FORM ISSUED BY THE MASSACHUSETTS DIVISION OF APPRENTICESHIP TRAINING FOR EACH APPRENTICEABLE TRADE REPRESENTED IN THE SUB-BIDDER'S WORKFORCE THAT WILL PERFORM ANY CATEGORY OF SUB-SUBCONTRACT WORK UNDER "SECTION E" OF THE FORM FOR SUB-BID INCLUDING THE SUB-BIDDER IF IT IS TO PERFORM THE "SECTION E" SUB-SUBCONTRACT WORK WITH ITS OWN WORKFORCE, IF SUCH "SECTION E" SUB-SUBCONTRACT CATEGORY WORK IS ESTIMATED BY THE AWARDING AUTHORITY TO COST \$25,000.00 OR MORE.

**FAILURE TO SUBMIT EITHER AN APPRENTICE SPONSOR VERIFICATION FORM OR RECIPROCAL SPONSOR VERIFICATION FORM FOR ANY FILED SUB-BID CATEGORY WORK ESTIMATED BY THE AWARDING AUTHORITY TO COST \$25,000.00 OR MORE FOR WHICH THE SUB-BID IS SUBMITTED, OR AN APPRENTICE SPONSOR VERIFICATION FORM OR RECIPROCAL SPONSOR VERIFICATION FORM FOR ANY CATEGORY OF SUB-SUBCONTRACT WORK UNDER "SECTION E" OF THE FORM FOR SUB-BID ESTIMATED BY THE AWARDING AUTHORITY TO COST \$25,000.00 OR MORE, AS DESCRIBED IMMEDIATELY ABOVE, SHALL CONSTITUTE GROUNDS FOR REJECTION OF THE BIDDER'S SUB-BID BY THE AWARDING AUTHORITY.**

(#1077C)

substantially all of the Work has been completed and opened to public use except for minor incomplete or unsatisfactory work items that do not materially impair the usefulness of the Work.

**Superintendent:** The licensed construction supervisor who is an employee of the Contractor designated to be in full-time attendance at the Site throughout the prosecution and progress of the Work and who shall have complete authority to act for the Contractor.

**Work:** The Work defined in Article 1 of the Owner - Contractor Agreement, Article II, Section 2 of these General Conditions of the Contract and otherwise in the Contract Documents.

**Working Hours:**

**Work Hours shall be between the hours of 3:00 P.M. till 11:00 P.M. Monday through Friday. (Second Shift)**

**No work will be allowed during the day without the written approval from The Owner**

All terms that this Contract defines may be used with or without initial capital letters. Other terms, abbreviations and references are defined as they appear herein. Words and abbreviations that are not defined in the Contract Documents but which have recognized technical or trade meanings are used in accordance with those meanings. For additional definitions of terms, abbreviations and references refer to the *Supplementary General Conditions, or Specifications*.

## **ARTICLE II: EXECUTION OF THE CONTRACT, SCOPE OF WORK, INTERPRETATION OF CONTRACT DOCUMENTS**

### **1. Execution.**

The execution of the Owner – Contractor Agreement by the Contractor is a representation that the Contractor has visited the Site, has become familiar with local conditions under which the Work is to be performed and has correlated personal observations with requirements of the Contract Documents.

### **2. Scope of Work.**

The Work consists of the Work identified in the Contract Documents. The Work comprises the completed construction required by the Contract Documents and includes all labor, tools, materials, supplies, equipment, permits, approvals, paperwork, calculations, submittals, and certificates necessary to develop, construct and complete the Work in accordance with all Laws, and all construction and other services required to be supervised, overseen, performed or furnished by Contractor or that the Contract Documents require the Contractor to cause to be supervised, overseen, performed or furnished. The Contractor shall provide and perform for the Contract Price all of the duties and obligations set forth in the Contract Documents.

### **3. Interpretation.**

**A.** The Plans and Specifications and other Contract Documents are to be considered together and are intended to be mutually complementary, so that any work shown on the Plans though not specified in the Specifications, and any work specified in the Specifications though not shown on the Plans, is to be executed by the Contractor as a part of this Contract.

**B.** All things that in the opinion of the Designer may be reasonably inferred from the Plans, Specifications and other Contract Documents are to be executed by the Contractor. The Designer shall determine whether the detail Plans conform to the general Plans and Contract Documents, except as may be otherwise determined by the Awarding Authority.

**C.** The tables of contents, titles, headings and marginal notes or sub-scripts contained herein are solely to facilitate references, are not intended to be construed as provisions of the Contract, and in no way affect the interpretation of the provisions to which they refer.

**D.** Where reference is made in the Contract Documents to publications, standards, or codes issued by associations or societies, such reference shall be interpreted to mean the current edition of such publications, standards, or codes, including revisions in effect on the date of the Advertisement, notwithstanding any reference to a particular date. The foregoing sentence shall not apply to the dates, if any, specified with respect to insurance policy endorsement forms.

SECTION 260001

ELECTRICAL

(FILED SUB-BID REQUIRED)

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SECTION 260001

ELECTRICAL

(FILED SUB-BID REQUIRED)

PART 1 – GENERAL

1.01 GENERAL REQUIREMENTS AND REFERENCES

- A. Attention is directed to the CONTRACT AND GENERAL CONDITIONS and all Sections within DIVISION 1 - GENERAL REQUIREMENTS, which are hereby made a part of this Section and Specifications.
- B. Examine all other Sections of the Specifications for requirements which affect work under this Section whether or not such work is specifically mentioned in this Section. Where paragraphs of this section conflict with similar paragraphs of Division 1, requirements of this section shall prevail.
- C. Coordinate work with that of all other trades affecting, or affected by work of this Section. Cooperate with such trades to assure the steady progress of all work under the Contract.
- D. The Electrical Contractor shall be responsible for filing all documents, payment of all fees, and securing of all inspections and approvals necessary for the electrical work.
- E. The Electrical Contractor shall carry in the bid price all Municipal back charges for all materials furnished and work performed by them in conjunction with this Contract and pay same to the respective agency upon demand. The Electrical Contractor shall not be entitled to additional compensation after the submittal of his bid price should he fail, for any reason, to obtain the total back charge costs to be incurred by the local utility companies or municipal agencies.

1.02 FILING OF SUB-BIDS

- A. The Work of this Section is stipulated as a filed-Sub-Bid under Paragraph D, Item 2 of the Form for General Bid.
- B. All Sub-bids shall be submitted on the Form For Sub-Bid, included as Section 000325 of these specifications, as required by Section 44F of Chapter 149 of the General Laws, as amended.
- C. Sub-Bids shall be filed with the Awarding Authority in a sealed envelope, before the time and date stipulated in the Invitation to Bid.
- D. Specific information relating to bidders is set forth in the Contract Documents, under the heading "Instructions To Bidders" and the attention of bidders is directed thereto.
- E. Work to be done under this section is shown on the following drawings:

Drawings E0.1 through E1.04E inclusive

1.03 DEFINITIONS

- A. As used in this Section and in the drawings, "provide" means "furnish and install" and "POS" means "Provided Under Other Sections".

- B. As used in the drawings and specifications for electrical work, certain non-technical words shall be understood to have specific meanings as follows regardless of indications to the contrary in the general conditions or other documents governing the electrical work.
- C. "Furnish" means: Purchase and deliver to the project site complete with every necessary appurtenance and support, all as part of the electrical work. Purchasing shall include payment of all sales taxes and other surcharges as may be required to assure that purchased items are free of liens, claims, or encumbrances.
- D. "Install" means: Unload at the delivery point at the site and perform every operation necessary to establish secure mounting and correct operation at the proper location in the project, all as part of the electrical work.
- E. "Provide" means: "Furnish" and "Install".
- F. "New" means: Manufactured within the past two years and never before used.
- G. Except where modified by a specific notation to the contrary, it shall be understood that the indication and/or description of any electrical item in the drawings or specifications for electrical work carries with it the instruction to furnish, install and connect the item as part of the electrical work, regardless of whether or not this instruction is explicitly stated.
- H. It shall be understood that the specifications and drawings for electrical work are complimentary and are to be taken together for a complete interpretation of the electrical work except that indications on the drawings, which refer to an individual element of work, take precedence over the specifications where they conflict with same.

1.04 SCOPE

- A. Work Included: Provide labor, materials and equipment necessary to complete the work of this Section, including but not limited to the following:
  - 1. Interior power system including panelboards, raceways, cables, wiring, junction and pull boxes, wireways, and all other components required for complete electrical power system.
  - 2. Grounding and bonding of all electrical systems and equipment.
  - 3. Power wiring to HVAC equipment.
  - 4. Wiring Devices
  - 5. Testing of all electrical systems.
  - 6. Coordination between electrical and other contractors under separate contract. Low voltage cabling, devices, and equipment are being installed under separate contract and will require coordination under this project scope.
  - 7. All required staging and scaffolding of any height.

1.05 RELATED WORK UNDER OTHER SECTIONS

- A. The following items are not included in this Section and will be performed under the designated Sections.

1. HVAC

1.06 REGULATORY REQUIREMENTS

- A. Comply with all applicable federal and state laws, and all local codes, by-laws and ordinances.
- B. Where provisions of the Contract Documents conflict with any codes, rules or regulations, the latter shall govern. Where the contract requirements are in excess of applicable codes, rules or regulations, the contract provisions shall govern unless the Architect rules otherwise.
- C. Request inspections from authorities having jurisdiction, obtain all permits and pay for all fees and inspection certificates as applicable and/or required. All permits and certificates shall be turned over to the Owners at the completion of the work. Copies of permits shall be given to the resident engineer prior to the start of work.
- D. Unless otherwise specified or indicated, materials and workmanship and equipment performance shall conform with the latest edition of the following standards, codes, specifications, requirements and regulations:
  - 1. State Building Code
  - 2. State Electrical Code
  - 3. National Fire Protection Association (NFPA)
  - 4. Local Town Regulations and By-laws
  - 5. Underwriter's Laboratories, Inc. (UL)
  - 6. National Electrical Manufacturer's Association (NEMA)
  - 7. American National Standards Institute (ANSI)
- E. All electrical work shall meet or exceed any other state and local codes and/or authorities having jurisdiction including all other standards indicated herein.

1.07 SUBMITTALS

- A. This Paragraph supplements Division 1.
- B. Definitions:
  - 1. Shop Drawings are information prepared by the Contractor to illustrate portions of the work in more detail than shown in the Contract Documents.
- C. Submittal Procedures and Format
  - 1. Review submittal packages for compliance with Contract Documents and then submit to Architect for review. Submit transparency and two blue- or black-line reproductions of each Shop Drawing larger than 8-1/2 x 11. Submit eight sets of each smaller shop drawing. After review, transparency

original of each large Shop Drawing and six sets of each small shop drawing will be returned with reviewer's marks.

2. Each Shop Drawing shall indicate in title block, and each Product Data package shall indicate on cover sheet, the following information:

Title.

Name and location of project.

Names of Architect, Engineer, Contractor and Subcontractor(s).

Names of manufacturer, supplier, vendor, etc.

Date of submittal.

Original submittal or resubmitted.

3. Shop Drawings showing layouts of systems shall contain sufficient plans, elevations, sections, details and schematics to describe work clearly.
4. Shop drawings showing manufacturer's product data shall contain detailed dimensional drawings, accurate and complete description of materials of construction, manufacturer's published performance characteristics and capacity ratings (performance data, alone, is not acceptable), electrical requirements and wiring diagrams. Drawings shall clearly indicate location (terminal block or wire number), voltage and function for all field terminations, and other information necessary to demonstrate compliance with all requirements of Contract Documents.

D. Acceptable Manufacturers

1. The design for each product is based on the single manufacturer listed in the schedule or shown on the drawings. In Division 26 of these specifications certain Alternate Manufacturers are listed as being acceptable. These are acceptable only if, as a minimum, they:
  - a. Meet all performance criteria listed in the schedules and outlined in the specification.
  - b. Have identical operating characteristics to those called for in the specification.
  - c. Fit within the available space it was designed for, including space for maintenance and component removal, with no modification to either the space or the product. Clearances to walls, ceilings and other equipment will be at least equal to those shown on the design drawings. The fact that a manufacturers name appears as acceptable shall not be taken to mean that the Architect has determined that the manufacturers products will fit within the available space - this determination is solely the responsibility of the contractor.
  - d. For equipment mounted in areas where structural matters are a consideration, the products must have a weight no greater than the product listed in the schedules or specifications.
  - e. Products must adhere to all architectural considerations including but not limited to: being the same size and of the same physical appearance as scheduled or specified products.

2.

E. Submittal Notations: Submittals will be returned from the Architect marked as illustrated below:

NO EXCEPTION TAKEN

MAKE CORRECTIONS NOTED

REJECTED

REVISE AND RESUBMIT

Checking is only for general conformance with the design concept of the project and general compliance with the information given in the contract documents. Any action shown is subject to the requirements of the plans and specifications. Contractor is responsible for dimensions which shall be confirmed and correlated at the job site; fabrication process and techniques of construction; coordination of his work with that of all other trades; and the satisfactory performance of his work.

F. Schedule: Incorporate shop drawing review period into construction schedule so that Work is not delayed. Contractor shall assume full responsibility for delays caused by not incorporating the following shop drawing review time requirements into his project schedule: Allow at least 10 working days, exclusive of transmittal time, for review each time shop drawing is submitted or resubmitted with the exception that 22 working days, exclusive of transmittal time, are required for the following:

1. If more than five shop drawings of this trade are received in one calendar week.

G. List of Proposed Equipment and Materials

1. Within one week after Award of Contract and before ordering materials or equipment, submit complete list of proposed materials and equipment and indicate manufacturer's names and addresses. No consideration will be given to partial lists submitted out of sequence.

H. Responsibility

1. Intent of Submittal review is to check for capacity, rating, and certain construction features. Contractor shall ensure that work meets requirements of Contract Documents regarding information that pertains to fabrication processes or means, methods, techniques, sequences and procedures of construction; and for coordination of work of this and other Sections. Work shall comply with submittals marked "REVIEWED" to extent that they agree with Contract Documents. Submittal review shall not diminish responsibility under this Contract for dimensional coordination, quantities, installation, wiring, supports and access for service, nor the shop drawing errors or deviations from requirements of Contract Documents. The architect's noting of some errors while overlooking others will not excuse the contractor for proceeding in error. Contract Documents requirements are not limited, waived nor superseded in any way by review.

2. INFORM SUBCONTRACTORS, MANUFACTURERS, SUPPLIERS, ETC. OF SCOPE AND LIMITED NATURE OF REVIEW PROCESS AND ENFORCE COMPLIANCE WITH CONTRACT DOCUMENTS.

I. Material and equipment requiring Shop Drawing Submittals shall include but not be limited to:

1. Panelboards.

2. Overcurrent and switching devices.

3. Wiring devices and wallplates.
4. Wiring and cables.
5. Conduit.
6. Boxes and fittings.

#### 1.08 SURVEYS AND MEASUREMENTS

- A. Base all required measurements, both horizontal and vertical, on reference points established by the General Contractor and be responsible for the correct laying out of the electrical work. In the event of a discrepancy between actual measurements and those indicated, notify the General Contractor in writing, and do not proceed with the work required until written instructions have been issued by the General Contractor.

#### 1.09 COORDINATION

- A. Electrical and HVAC Drawings are diagrammatic. They indicate general arrangements of mechanical and electrical systems and other work. They do not show all offsets required for coordination nor do they show the exact routings and locations needed to coordinate with structure and other trades and to meet Architectural requirements.
- B. Work shall be performed in cooperation with other trades on the project and so scheduled as to allow speedy and efficient completion of the work.
- C. Furnish to other trades advance information on locations and sizes of all frames, boxes, sleeves and openings needed for their work, and also furnish information and shop drawings necessary to permit trades affected by the work to install same properly and without delay.
- D. In all spaces, prior to installation of visible material and equipment, including access panels, review Architectural Drawings for exact locations and where not definitely indicated, request information from Architect. Where the electrical work shall interfere with the work of other trades, assist in working out the space conditions to make satisfactory adjustments before installation. Without extra cost to the Owners, make reasonable modifications to the work as required by normal structural interferences. Pay the General Contractor for additional openings, or relocating and/or enlarging existing openings through concrete floors, walls, beams and roof required for any work which was not properly coordinated. Maintain maximum headroom at all locations. All piping, duct, conduit, and associated components to be as tight to underside of structure as possible.
- E. If any electrical work has been installed before coordination with other trades so as to cause interference with the work of such trades, all necessary adjustments and corrections shall be made by the electrical trades involved without extra cost to the owners.
- F. Where conflicts or potential conflicts exist and engineering guidance is desired, submit sketch of proposed resolution to Architect for review and approval.
- G. Protect all materials and work of other trades from damage which may be caused by the electrical work, and repair all damages without extra cost to the owners.

#### 1.10 INSTALLATION REQUIREMENTS

- A. The arrangement of all electrical work shown on the drawings is diagrammatic only and indicates the minimum requirements of the work. Conditions at the building including actual measurements shall determine the details of the installation. All work shall be laid out and installed so as to require the least amount of cutting and patching.
- B. Check the Architectural plans and specifications before ordering any material and equipment. Any discrepancies shall be brought to the attention of the Architect for his determination prior to proceeding with the work.

1.11 TYPICAL DETAILS

- A. Typical details where shown on the drawings shall apply to each and every item of the project where such items are applicable. They are not repeated in full on the drawings, which in many cases are diagrammatic only, but with the intention that such details shall be incorporated in full. Any alternate method proposed for use by the Contractor shall have the prior approval of the Architect.

1.12 SLEEVES, INSERTS

- A. Furnish and install all sleeves, inserts, anchor bolts and similar items to be set into masonry or concrete, as required for electrical work. Internal diameter of sleeve shall be 2" larger than the outside diameter of the pipe or insulation covered line passing through it.
- B. Fire stop and seal all penetrations as required to maintain fire separations as indicated on the Architectural Drawings.

1.13 CORING, DRILLING

- A. Core, cut and/or drill all holes in walls and floors required for the installation of sleeves and supports for the electrical work.
- B. Fire stop and seal all penetrations as required to maintain existing fire separations.
- C. Seal all floor and wall penetrations.

1.14 ACCESSIBILITY

- A. Install all work such that parts requiring periodic inspection, operation, maintenance and repair are readily accessible.
- B. Furnish all access panels appropriate to particular conditions, to be installed by trades having responsibility for the construction of actual walls, floors or ceilings at required locations.

1.15 SUPPLEMENTARY SUPPORTING STEEL

- A. Provide all supplementary steelwork required for properly mounting and/or supporting equipment and materials.
- B. Equipment shall not be supported to the underside deck of the existing roof. All equipment in these areas must be supported by the existing steel support structure. Provide all supplementary steel to create proper mounting provisions.
- C. Steelwork shall be firmly connected to building construction as required and where allowed.

- D. Steelwork shall be of sufficient strength to allow only minimum deflection in conformity with manufacturer's published requirements.
- E. All supplementary steelwork shall be installed in a neat and workmanlike manner parallel to floor, wall and ceiling construction; all turns shall be made at forty-five and ninety degrees, and/or as dictated by construction and installation conditions.
- F. All manufactured steel parts and fittings shall be galvanized.

#### 1.16 TOOLS AND EQUIPMENT

- A. Provide all tools and equipment required for the fabrication and installation of the mechanical and electrical equipment at the site.

#### 1.17 PORTABLE AND DETACHABLE PARTS

- A. Contractors shall retain in their possession all portable and/or detachable parts and portions of materials, devices, equipment etc. necessary for the proper operation and maintenance of the mechanical and electrical systems until final completion of the work, at which time they shall be handed over to the Owners.

#### 1.18 RECORD DRAWINGS, PROJECT CLOSEOUT

- A. As work progresses and for the duration of Contract, maintain a complete and separate set of prints of Contract Drawings at job site at all times. Record work completed and all changes from original Contract Drawings clearly and accurately including work installed as a modification or addition to the original design. Work shall be updated on a weekly basis and shall be made available for review by Architect. Failure to perform this work shall be reason for withholding requisition payments. In addition, take photographs of all concealed equipment in gypsum board ceilings, shafts, and other concealed, inaccessible work. At completion of work, make copies of photographs with written explanation on back. These shall become part of Record Documents.
- B. At completion of work prepare a complete set of electronic record drawings on diskette in Autocad Release 14 format showing all systems as actually installed, including all fire alarm and electrical circuitry. The design tracings will be made available for the electrical contractor's copying, at their expense, into reproducible prints to serve as backgrounds for the drawings. The quantity of design tracings which are made available shall in no way be interpreted as setting a limit to the number of drawings necessary to show the required information. The Electrical Contractor's professional draftsman shall transfer changes to the prints; submit three sets of prints to Architect for comments as to compliance with this section.
- C. THE ARCHITECT WILL NOT CERTIFY THE ACCURACY OF THE RECORD DRAWINGS - THIS IS THE SOLE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR.
- D. This trade shall submit the record set for approval by the fire and building departments in a form acceptable to the departments, when required by the jurisdiction.
- E. Drawings shall show record condition of details, sections, riser diagrams, control changes and corrections to schedules. Schedules shall show actual manufacturer and make and model numbers of final equipment installation.

#### 1.19 GUARANTEE/WARRANTY

- A. Guarantee and 24 hour service
1. Guarantee Work of this Section in writing for not less than one year following the date of acceptance by the Owner. If the equipment is used for temporary power etc. prior to acceptance by the Owner, the bid price shall include an extended period of warranty covering the one year of occupancy, starting from the date of acceptance by the Owner. The guarantee shall repair or replace defective materials, equipment, workmanship and installation that develop within this period, promptly and to Architect's satisfaction and correct damage caused in making necessary repairs and replacements under guarantee within Contract Price.
  2. In addition to guarantee requirements of Division 1 and of Subparagraph A above, obtain written equipment and material warranties offered in manufacturer's published data without exclusion or limitation, in Owner's name.
  3. Upon receipt of notice from the Owner of failure of any part of the systems or equipment during the warranty period, the affected part or parts shall be replaced by this Contractor without any reimbursement.
  4. At nine (9) months into the one-year guarantee period, the contractor shall perform a 100% test of all installed equipment. Any device and/or part found to be defective shall be repaired and/or replaced at no cost to the Owner. The contractor shall notify the fire department one month in advance of the 100% test.
  5. Replace material and equipment that require excessive service during guarantee period as defined and as directed by Architect.
  6. Provide 24 hour service beginning on the date the project is accepted by the Owner, whether or not fully occupied, and lasting until the termination of the guarantee period. Service shall be at no cost to the Owner. Service can be provided by this contractor or a separate service organization. Choice of service organization shall be subject to Architect and Owner approval. Submit name and a phone number that will be answered on a 24-hour basis each day of the week, for the duration of the service.
  7. Submit copies of equipment and material warranties to Architect before final payment.
  8. At end of guarantee period, transfer manufacturers' equipment and material warranties still in force to Owner.
  9. This Paragraph shall not be interpreted to limit Owner's rights under applicable codes and laws and under this Contract.
  10. Part 2 Paragraphs of this Specification may specify warranty requirements that exceed those of this Paragraph. Those paragraphs will govern.
  11. Use of systems provided under this Section for temporary services and facilities shall not constitute Final Acceptance of work by Owner, and shall not initiate the guarantee period.
  12. Non-durable items, such as electric lamps, shall be replaced up to the date of acceptance, such that they shall have had no more than 100 hours use prior to this date.
  13. Provide manufacturer's engineering and technical staff at site to analyze and rectify problems that develop during guarantee period immediately. If problems cannot be rectified immediately to

Owner's satisfaction, advise Architect in writing, describe efforts to rectify situation, and provide analysis of cause of problem. Architect and/or Engineer will direct course of action.

1.20 OPERATING, INSTRUCTION AND MAINTENANCE MANUALS

- A. Refer to SECTION 01700 - CONTRACT CLOSEOUT for submittal procedures pertaining to operating and maintenance manuals.
- B. Each copy of the approved operating and maintenance manual shall contain copies of approved shop drawings, equipment literature, cuts, bulletins, details, equipment and engineering data sheets and typewritten instructions relative to the care and maintenance for the operation of the equipment, all properly indexed. Each manual shall have the following minimum contents:
  - 1. TABLE OF CONTENTS
  - 2. Introduction
    - a. Explanation of manual and its purpose and use.
    - b. Safety precautions necessary for equipment.
    - c. Illustrations, schematics and diagrams.
    - d. Installation drawing.
  - 3. Maintenance
    - a. Maintenance and lubricating instructions.
    - b. Replacement charts.
    - c. Trouble shooting charts for equipment components.
    - d. Testing instructions for each typical component.
    - e. Two typed sets of instructions for ordering spare parts. Each set shall include name, price, telephone number and address of where they may be obtained.
  - 4. Manufacturer's Literature
    - a. The equipment for which shop drawings have been submitted and approved.

1.21 SERVICE CHARACTERISTICS

- A. Secondary Building Voltage - High Level: 480/277V
- B. Secondary Building Voltage - Low Level: 208/120V
- C. All equipment and wiring shall be suitable for the applied voltage.

1.22 QUALITY ASSURANCE

- A. The requirements of the State Building Code and local regulations establish the minimum acceptable quality of workmanship and materials, and all work shall conform thereto unless more stringent requirements are indicated or specified herein.
- B. All work shall comply with the latest editions of the codes as referenced herein.
- C. Follow manufacturer's directions for articles furnished, in addition to directions shown on drawings or specified herein.
- D. Protect all work, materials, and equipment from damage during process of work. Replace all damaged or defective work, materials and equipment without additional cost to Owner.
- E. All equipment and materials for permanent installation shall be the products of recognized manufacturers and shall be new.
- F. Equipment and materials shall:
  - 1. Where normally subject to Underwriters Laboratory Inc. listing or labeling services, be so listed or labeled.
  - 2. Be without blemish or defect.
  - 3. Not be used for temporary light and power purposes.
  - 4. Be in accordance with the latest applicable NEMA standards.
  - 5. Be products which will meet with the acceptance of all authorities having jurisdiction over the work. Where such acceptance is contingent upon having the products examined, tested and certified by Underwriters or other recognized testing laboratory, the product shall be so examined, tested and certified.
- G. Except for conduit, conduit fittings, outlet boxes, wire and cable, all items of equipment or material of one generic type shall be the product of one manufacturer throughout.
- H. For items which are to be installed but not purchased as part of the electrical work, the electrical work shall include:
  - 1. The coordination of their delivery.
  - 2. Their unloading from delivery trucks driven into any point on the property line at grade level.
  - 3. Their safe handling and field storage up to the time of permanent placement in the project.
  - 4. The correction of any damage, defacement or corrosion to which they may have been subjected. Replacement if necessary shall be coordinated with Contractor who originally purchased the item.

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5. Their field make-up and internal wiring as may be necessary for their proper operation.
  6. Their mounting in place including the purchase and installation of all dunnage, supporting members, and fastenings necessary to adapt them to architectural and structural conditions.
  7. Their connection to building wiring including the purchase and installation of all termination junction boxes necessary to adapt and connect them to this wiring. Included also shall be the purchase and installation of any substitute lugs or other wiring terminations as may be necessary to adapt their terminals to the building wiring as called for and to the connection methods set forth in these specifications.
- I. Items which are to be installed but not purchased as part of the electric work shall be carefully examined upon delivery to the project. Claims that any of these items have been received in such condition that their installation will require procedures beyond the reasonable scope of the electric work will be considered only if presented in writing within one week of the date of delivery to the project of the items in question. The electric work includes all procedures, regardless of how extensive, necessary to put into satisfactory operation, all items for which no claims have been submitted as outlined above.

1.23 DELIVERY, STORAGE AND HANDLING

- A. All materials for the work of this section shall be delivered, stored and handled so as to preclude damage of any nature. Manufactured materials shall be delivered and stored in their original containers, plainly marked with the products' and manufacturer's name. Materials in broken containers or in packages showing watermarks or other evidence of damage, shall not be used and shall be removed from the site.

1.24 STAGING AND SCAFFOLDING

- A. Provide staging and scaffolding for all the work of this section complying with Division 1 requirements.

1.25 EXTRA MATERIALS

- A. Furnish extra materials described in following product specification sections that match products installed, are packaged with protective covering for storage, and are identified with labels clearly describing contents.

1.26 PHASING

- A. Phasing
1. Refer to the Division 1 General Requirements sections of these specifications.

PART 2 - PRODUCTS

2.01 GENERAL

- A. Product specifications are written in such a manner so as to specify what materials may be used in a particular location or application and therefore do not indicate what is not acceptable or suitable for a particular location or application. As an example: non-metallic sheathed cable is not specified; therefore, it is not acceptable.

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- B. For purpose of establishing a standard of quality and not for purpose of limiting completion, the basis of this Specification is upon specified models and types of equipment and materials, as manufactured by specified manufacturers.
- C. In all cases, standard cataloged materials and systems have been selected. Materials such as lighting fixtures specially manufactured for this particular project and not part of a manufacturers standard product line will not be acceptable. In the case of systems, the system components shall be from a single source regularly engaged in supplying such systems. A proposed system made up of a collection of various manufacturers products will be unacceptable.
- D. Where Specifications list manufacturer's names and/or "as approved" or "Equal approved by Designer, other manufacturers equipment will be considered if equipment meets Specification requirements and has all features of the specified items as are considered essential by Architect.
- E. All materials shall be new and shall be UL listed.

2.02 RACEWAYS AND FITTINGS

- A. Raceways - General:
  - 1. No raceway shall be used smaller than 3/4" diameter. No conduit shall have more than three (3) 90° bends in any one run, and where necessary, pull boxes shall be provided. Intermediate metal conduit is not allowed.
  - 2. Rigid metal conduit conforming to, and installed in accordance with, Article 358 of NFPA 70 shall be heavy wall zinc coated steel conforming to American Standard Specifications C80-1 and shall be used for exterior work.
  - 3. Thin wall metallic conduit (EMT), conforming to, and installed in accordance with, Article 346 of NFPA 70 shall be zinc coated steel, conforming to industry standards and shall be used for interior work.
  - 4. Flexible metal conduit shall be used for connections to motors. Liquid tight flexible metal conduit shall be used for the above connections which are located in moist locations. All flexible connections shall include a grounding conductor.
  - 5. Fittings:
    - a. Provide insulated bushings on all raceways 1 inch diameter or larger.
    - b. Manufacturer's standard fittings shall be used for raceway supports.
    - c. Expansion Fittings: Expansion fittings shall be used where structural and concrete expansion joints occur and shall include a ground strap.
    - d. Threadless fittings for EMT shall be watertight compression type. Set-screw type fittings are not acceptable. All fittings shall be concrete tight. No diecast fittings allowed except for raceways larger than 1 inch diameter.

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- e. Couplings for rigid metal conduit shall be threaded type.

2.03 WIRING MATERIALS - 600V OR LESS SYSTEMS

- A. Feeder conductors rated 50 Amps and greater shall be either copper or aluminum, type THWN with 600V insulation. Feeder conductors rated less than 50 Amps and all branch circuits shall be copper, type THWN with 600V insulation.
- B. Copper conductors shall be of soft drawn 98% minimum conductivity properly refined copper, solid construction where No. 10 AWG and smaller, stranded construction where No. 8 AWG and larger.
- C. Aluminum conductors shall be made of AA-8000 series electrical grade aluminum alloy stranded construction. Conductor and associated conduit sizes indicated on the contract drawings are based on copper conductor ratings, provide the aluminum conductor and associated conduit equivalent size to maintain the equivalent amperage rating.
- D. Exterior of wires shall bear repetitive markings along their entire length indicating conductor size, insulation type and voltage rating.
- E. Exterior of wires shall be color coded, so as to indicate a clear differentiation between each phase and between each phase and neutral. In all cases, grounded neutral wires and cables shall be identified by the colors white or gray. In sizes and insulation types where factory applied colors are not available, wires and cables shall be color coded by the application of approved colored plastic tapes in overlapping turns at all terminal points, and in all boxes in which splices are made. Colored tape shall be applied for a distance of 6 inches along the wires and cables, or along their entire extensions beyond raceway ends, whichever is less.
- F. Final connections to motors shall be made with 18" of neoprene sheathed flexible metal conduit.
- G. Minimum conductor size shall be No. 12 AWG installed in conduit. Motor control circuit wiring shall be minimum No. 14 AWG installed in conduit.
- H. For fire alarm and other specialty systems wiring, refer to manufacturers shop drawings and wiring diagrams for conductor size, electrical characteristics, and approved wire manufacturers.
- I. Other wires and cables required for the various systems described elsewhere in this section of the Specifications shall be as specified herein, as shown on the Contract Drawings, or as recommended by the manufacturer of the specific equipment for which they are used, all installed in conduit.
- J. Metal Clad sheathed cable NFPA 70, type MC may be used for feeder and branch circuitry where run within the interior of the building. All type MC cable used shall contain a full size insulated ground conductor. Conductors shall be copper or aluminum as allowed by this specification. All type MC cable insulation used shall have voltage rating of 600 volts, shall have a temperature rating of 75 degrees C. and shall be thermoplastic material. Armor material shall be steel and armor design shall be interlocked metal tape.

2.04 OUTLET, JUNCTION, AND PULL BOXES FOR ALL SYSTEMS

- A. Outlets:

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1. Each outlet in wiring or raceway systems shall be provided with an outlet box to suit conditions encountered. Boxes shall be cadmium plated or zinc coated sheet metal type.
  2. Exposed boxes used with snap type surface mounted raceway shall be of the same manufacture and type of the surface mounted raceway.
  3. Concealed boxes shall be old work type and provide with all mounting provisions, the contractor shall provide all cutouts in the existing gypsum walls.
  4. Each box shall have sufficient volume to accommodate number of conductors in accordance with requirements of NFPA 70. Boxes shall not be less than 1-1/2" deep unless shallower boxes are required by structural conditions and are specifically approved by Architect.
- B. Pull and Junction Boxes: Where necessary to terminate, tap off, or redirect multiple raceway runs or to facilitate conductor installation, furnish, and install appropriately designed boxes. Boxes shall be fabricated from code gauge steel assembled with corrosion resistant machine screws. Box size shall be as required by Code. Where intermediate cable supports are necessary because of box dimensions, provide insulated removable core brackets to support conductors. Junction boxes are to be equipped with barriers to separate circuits. Where splices are to be made, boxes shall be large enough to provide ample work space. All conductors in boxes are to be clearly tagged to indicate characteristics. Boxes shall be supported independently of raceways. Junction boxes in moist or wet areas shall be galvanized type. Boxes larger than 4 inches square shall have hinged covers. Boxes larger than 12 inches in one dimension will be allowed to have screw fastened covers, if a hinged cover would not be capable of being opened a full 90 degrees due to installation location.

2.05 WIRING DEVICES

- A. Provide wiring device type plates for all wall mounted devices. All wall plates shall be smooth high impact nylon for all public areas, offices, classrooms, etc color as directed by the Architect. Provide galvanized steel type for all Utility, Electric and Mechanical Rooms.
- B. Wiring devices standard for the project (i.e., with no specific type indicated) shall conform to the following:
  1. Visible part colors of wiring devices shall be as directed by the architect for all public areas, offices, classrooms etc.
  2. Exclude compact or "despard" type devices.
- C. Standard duplex convenience receptacles shall be 125 volt, 20 amps, three wire (two circuit wires plus ground), "U-bar" ground NEMA slot configuration 5-20R, extra heavy duty specification grade with a one-piece ground assembly.
- D. Non-standard receptacles and special purpose power supply receptacles shall be as listed on plans.
- E. Devices and device plates for flush wall devices which are not integrally equipped with same, shall be as directed by the Architect.

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- F. For unfinished spaces, plates for surface mounted wall devices which are not integrally equipped with same, shall be galvanized sheet steel, formed raised type which does not overlap box. Where for switches, such plates shall have toggle guards.
- G. Mount duplex convenience and power receptacles vertically with grounding posts at top of device unless otherwise indicated. Locate grounding post to left when horizontal mounting is indicated.
- H. Weatherproof and wet location cover plates shall comply with NEMA 250, type 3R weather-resistant die-cast aluminum with lockable cover.
- I. Wiring devices and associated hardware shall be manufactured by Arrow-Hart, Leviton, or Pass and Seymour.

**2.06 GROUNDING REQUIREMENTS**

- A. Ground all systems and equipment in accordance with best industry practice, the requirements of NFPA 70 and the following:
  - B. All separately derived sources (i.e., transformers) shall be grounded per code.
  - C. Provide grounding bonds between all metallic conduits of the light and power system which enter and leave cable chambers or other non-metallic cable pulling and splicing boxes. Accomplish this by equipping the conduits with bushings of the grounding type individually cross connected.
  - D. Provide supplementary ground bonding where metallic conduits terminate at metal clad equipment (or at the metal pull box of equipment) for which a ground bus is specified. Accomplish this by equipping the conduits with bushings of the grounding type connected individually by means of jumpers to the ground bus. Exclude the jumpers where directed. This exclusion will be required where an isolated ground for electronic equipment is to be maintained.
  - E. Each grounding type bushing shall have the maximum ground wire accommodation available in standard manufacture for the particular conduit size. Connection to bushing shall be with wire of this maximum size.
  - F. Bonding conductors on the load side of the service device and equipment grounding conductors shall be sized in relation to the fuses or trip size of the overcurrent device supplying the circuit.
  - G. Each branch circuit and feeder shall have a dedicated equipment grounding conductor, minimum # 12 AWG. Shared or tapped equipment grounding conductor shall not be acceptable.
  - H. The central equipment for the fire protective alarm system and security system shall have its grounding terminal connected to the grounding electrode by means of a No. 6 green coded insulated conductor, run in 3/4" conduit. Utilize a ground clamp of a type specifically manufactured for the purpose.

**2.07 PHASING AND COLOR CODING**

- A. The insulation or covering of each wire or cable shall be color coded so as to provide for circuit identification as specified below.

120/208 V Circuits

277/480V

Phase Circuits

Black	Brown	A
Red	Orange	B
Blue	Yellow	C
White	Grey	Neutral
Green	Green w/yellow tracer	Equipment Ground

- B. Color coding shall be achieved by one of the following methods:
1. The insulation or covering shall be coded during manufacture by use of one of the following methods:
    - a. Colored compounds.
    - b. Colored coatings.
  2. In sizes and insulation types where factory applied colors are not available, wires and cables shall be color coded by the application of colored plastic tapes in overlapping turns at all terminal points, and in all boxes in which splices are made.
- C. The same colored cable shall be connected to the same phase throughout the project.
- D. In general, building load centers and panelboards shall be phased "A", "B", "C", left to right. The neutral, although it may be in different locations for different equipment, shall be identified.

## 2.08 ELECTRICAL EQUIPMENT ENCLOSURES

- A. Construction shall be NEMA Class 1, where installed indoors in HVAC controlled areas.
- B. Construction shall be NEMA Class IV, where installed outdoors, in mechanical rooms, in locations defined as damp or wet by NFPA 70 or where indicated as weatherproof.
- C. Operating handles shall be front or side type to accommodate hand access space and flush or surface mounting requirements.
- D. Each shall be equipped with padlock for locking operating handle in the open position.

## 2.09 DRY TYPE THREE PHASE TRANSFORMERS

- A. Provide individually mounted dry type, 3 phase aluminum wound transformers in accordance with the following:
  1. They shall be of the indoor ventilated type.
  2. They shall be for 60 Hertz operation.
  3. They shall have a delta connected high side rated for 480 volts and a wye connected low side rated for 120/208 volts, 3 phase, 4 wire, grounded neutral or as indicated.

4. They shall have full capacity taps above and below normal as follows:

Transformer Rating	Taps
15 KVA and less	Two-5% - FCBN
30 KVA and above	Two-2-1/2% FCAN and 4-2-1/2% FCBN

5. Up to and including 15 KVA they shall be suitable for wall mounting. Larger than 15 KVA, shall be suitable for platform mounting.
6. They shall have sheet metal casings which are coated inside and out with a rust inhibiting primer and finished with a factory coat of enamel.
7. Floor or wall supported transformers shall be resiliently isolated from the building structure by means of neoprene vibration isolators.
8. Ceiling supported transformers shall be resiliently suspended by means of spring hanger rod isolators providing.
9. They shall be designed so that the full load temperature rise does not exceed 115°C, over a 40°C ambient. The insulation system shall conform to NEMA ST20 Standards for a 220°C UL component recognized insulation system for 15 KVA and above and 185°C for below 15 KVA.
10. Submit manufacturers certification that 75°C operating temperature wires connecting to their terminals will not be damaged under full load conditions if the ambient temperature is maintained at 40°C.
11. Submit manufacturers certification that the sound outputs of transformers do not exceed the following levels based on NEMA standard testing procedures:

TRANSFORMER RATING	DECIBEL SOUND OUTPUT
9	40
15	45
30	45
45	45
75	50
112-1/2	50
150	50
300	55

- B. The center tap or neutral of the load side transformer windings shall be bonded to a lug and bolt inside the transformer casing. The bolt shall extend outside to serve as a system grounding stud. The bond to the bolt shall have an ampere capacity of no less than 20% of the capacity of a load side phase winding.

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- C. Submit manufacturers certification that peak excitation currents do not exceed twelve times full load current for transformers 30KVA and larger or thirty-two times full load for transformers less than 30 KVA.
- D. Install transformers in accordance with the following:
  - 1. Wall or floor mount transformers 15 KVA and less. Floor mount transformers larger than 15 KVA.
  - 2. Make any required changes to transformer tap connections in accordance with instructions issued by the Engineer in the field.

2.10 PANELBOARDS

- A. Panelboards shall consist of factory completed deadfront assemblies of back pans, main busses, overcurrent and switching units, sheet metal cabinets and trims. They shall be so designed that switching and overcurrent devices can be replaced without disturbing adjacent units and without removing the main bus connectors, so that circuits may be changed without machining drilling or tapping.
- B. Where indicated as power or distribution panels, they shall be of the "I-Line" (Square D), "Pow-R" (Cutler Hammer), "spectra" (General Electric) or equal.
- C. Bus bars for their mains shall be of copper or tin-plated aluminum having current capacities as indicated and sized for such capacities in accordance with Underwriter Laboratory standards. Bus bar taps for panels with single pole branches shall be arranged for sequence phasing of the branch circuit devices. Bussing shall be braced throughout to conform to industry standard practice governing short circuit stresses in panelboards. Phase bussing shall be full height without reduction.
- D. A ground bus shall be provided for each panel. Each ground bus shall be of the same material as the phase and neutral buses.
- E. Cabinets shall be fabricated from industry standard gauge galvanized sheet steel with corners lapped and riveted, or fastened by approved methods.
- F. The inside and outside of the trims shall be factory painted with one rustproofing primer coat and one finish coat. The finish paint shall be of a type to which field applied paint will bond. All trims shall be hinged.
- G. Cabinets and trims shall be suitable for the required mounting. Trims shall be fastened to cabinets and shall be of a type that are self-supporting on cabinets. Trims for flush panels shall overlap cabinets by at least 3/4" all around. Where two section panels are required, cabinets shall be of equal height including those cases where there is one main for both sections.
- H. Cabinets and trims for lighting and appliance panels shall accommodate and conform to the following limiting dimensions:
  - 1. Minimum wiring gutter width on each side - 5-3/4".
  - 2. Maximum overall width - 24".
  - 3. Maximum overall depth - 6".

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- I. Where wires or cables are used within panelboards to make up internal connections (factory installed or otherwise) such wire or cable shall have copper conductors only.
- J. Any cabinet for a power or distribution panel shall (regardless of the actual devices required to be in it) have a width, depth and bussing adequate for a three pole branch device equal in rating to the panel mains. In no case shall the cabinet be wider than 42 inches or deeper than 18 inches.
- K. Hinged doors covering all switching device handles shall be included in all panel trims.
- L. Doors in panelboard trims shall conform to the following:
  - 1. In making switching device handles accessible, doors shall not uncover any live parts.
  - 2. Doors shall have flush type paracentric cylinder locks and catches. Two keys shall be supplied for each lock and each key shall open all panelboards. Locks and keys shall conform to a "standard keying policy" as directed.
- M. Where "spaces only" for overcurrent protection and switching devices are called for in a panel, its main bus, and backpan, as well as its cabinet and trim, shall be extended to accommodate these spaces and shall include all necessary hardware including bus connectors to add future devices.
- N. Panelboards shall comply with the following industry standards:
  - 1. UL Standards
    - a. Panelboards - UL67
    - b. Cabinet & Boxes - UL50
  - 2. NEMA Standard - PB1
- O. Panelboards shall be labeled with a UL short circuit rating adequate for the available short circuit and based on the lowest panel mounted circuit breaker available UL listed interrupting current rating.
- P. Provide "lock on" clips for the toggle handles of certain branches serving the Fire Alarm System, security, etc.

**2.11 MOLDED CASE CIRCUIT BREAKERS**

- A. Molded case type circuit breakers shall consist of manually operated quick-make quick-break mechanically trip free operating mechanisms for simultaneous operation of all poles, with contacts, arc interrupters and trip elements for each pole, all enclosed in molded phenolic plastic cases.
  - 1. Their tripping units shall be of the "thermal magnetic" type having bimetallic elements for time delay overload protection and magnetic elements for short circuit protection.
  - 2. Main and power distribution feeder breakers rated 400 Amps and larger shall have long time, short time, instantaneous, (LSI) trip functions.
  - 3. They shall be manually operable by means of toggle type operating handles having "tripped" position midway between the "on-off" position.

4. They shall each be contained in an individual case enclosing only the number of poles required for the particular breaker.
  5. All panels and individually mounted circuit breakers shall have short circuit ratings exceeding the available short circuit or the values indicated in the Power System Studies in this section by a factor of 1.2 with a minimum as follows:
    - a. 240V class panels/breakers
      - 1) 10 kAIC where shown fed by a 150 kVA or less transformer
      - 2) 22 kAIC where shown fed by a 300 kVA or less transformer
    - b. 480V Class Panels/Breakers shall be 65 kAIC.
  6. They shall be of the "bolted-in" type.
  7. Where necessary, to accommodate other requirements, their frame sizes shall be increased to conform to such requirements, frame sizes being indicated only as a reference to the minimum acceptable interrupting ratings noted above.
  8. Where single pole in trip sizes 20 amps or less, they shall be rated for switching duty.
  9. They shall be equipped with 5 milliamp sensitivity ground fault interrupting features where so indicated.
- B. They shall be manufactured by Square D, Cutler Hammer, or General Electric.

## 2.12 DISCONNECT SWITCHES

- A. Visible blade type disconnect switches shall be heavy-duty, quick-make, quick-break, visible blades, 600 Volt, 3 pole with full cover locking mechanism and ampere ratings as indicated on drawings. Where shown on drawings heavy duty type disconnect switches shall be furnished and installed for all 3-phase loads and 1-phase loads rated greater than 16 amps.
  1. They shall have arc quenchers and circuit breaker type pressure contacts.
  2. Where of the fusible type, they shall be designed for use with "Class R" fuses up to 600 amps.
- B. Toggle type, 20 Amp, 600 Volt, 2 pole disconnect switches shall be quick-make, quick-break with handle guard and lock-off feature. Where shown on drawings toggle type disconnect switches shall be furnished and installed for all 1-phase loads rated for less 16 amps or less.
- C. Enclosures shall be phosphate coated or equivalent code gauge galvanized sheet steel with gray baked enamel finish.
- D. Provide fusible type disconnect switches with auxiliary contacts for all elevator main power disconnects.

- E. Provide service entrance rated disconnect switches for all feeders originating from an outdoor generator source.

2.13 CARTRIDGE FUSES

- A. Cartridge fuses shall be as follows:
  - 1. Provide a complete set of fuses for each item of fusible type equipment. Fusible equipment furnished by other contractors will be complete with fuses.
  - 2. Secondary system fuses, rated at 600 volts or less, shall be UL listed and constructed in conformance with the applicable standards set forth by NEMA and ANSI. All fuses of a particular class shall be of same manufacturer.
  - 3. Regardless of actual fault current, they shall, at full recovery voltage, be capable of safely interrupting fault currents of 200,000 amperes RMS symmetrical or 340,000 amperes RMS asymmetrical, deliverable at the line side of the fuse.
  - 4. Circuits 0-600 amperes shall be protected by the equal of Bussman "Low Peak" current limiting fuses, LPN-RK (250 volts), LPS-RK (600 volts), UL class RK-1.
  - 5. Fuses shall be suitable for application to fuse gaps which reject other types of fusing.
  - 6. Supply 10 per cent spare fuses of each size and type 60 amps and less. Supply three spare fuses for each size and type over 60 amps.
- B. Cartridge fuses shall be manufactured by Bussman, Gould or EFCO.

PART 3 - EXECUTION

3.01 BASIC REQUIREMENTS

- A. Adhere to best industry practice and the following.
- B. All work shall be concealed.
- C. Route circuitry runs embedded in concrete to coordinate with structural requirements.
- D. Equip each raceway intended for the future installation of wire or cable with a nylon pulling cord 3/16 inch in diameter and clearly identify both ends of the raceway.
- E. Provide all outlet boxes, junction boxes, and pull boxes for proper wire pulling and device installation. Include those omitted from the drawings due to symbolic methods of notation.
- F. Beyond the termination of raceways, fireproof the following:
  - 1. All wires and cables within pad mounted transformer enclosure.

2. All service feeder cables ahead of main service overcurrent protection devices, and elsewhere where not in raceways.
  3. Fireproofing of wires and cables shall be by means of a half-lapped layer of arcproof or by means of sleeving of a type specifically manufactured for the purpose. Ends of tape or sleeving shall be served with twine. Fireproofing shall be extended up into raceways. After conductors have been finally shaped into their permanent configuration, fireproofing tape or sleeving shall be coated with silicate of soda (water glass). Fireproofing shall be applied in an overall manner to raceway groupings of conductors.
- G. Provide all sleeves through fireproof and waterproof slabs, walls, etc. required for electric work.
1. Provide waterproof sealing for the sleeves through waterproof slabs, walls, etc.
  2. Provide fireproof sealing for the sleeves through fireproof walls, slabs, etc.
  3. Provide fireproof sealing for the openings in fireproof walls, slabs, etc., resulting from removal of existing electrical sleeves, conduits, poke-thru's, etc.
- H. Bundle wiring passing through pull boxes and panel boards in a neat and orderly manner with plastic cable ties. Cable ties shall be Ty-Raps as manufactured by Thomas & Betts, Holub Industries Inc., Quick Wrap, Bundy Unirap or equal.
- I. Turn branch circuits and auxiliary system wiring out of wiring gutters at 90 degrees to circuit breakers and terminal lugs.

### 3.02 TESTING REQUIREMENTS AND INSTRUCTIONS

- A. The Electrical Subcontractor shall provide supervision, labor, materials, tools, test instruments and all other equipment or services and expenses required to test, adjust, set, calibrate, and operationally check work and components of the electrical systems and circuitry throughout Division 26 work.

The Electrical Subcontractor shall pay for all tests specified in Division 26, including expenses incident to retests occasioned by defects and failures of equipment to meet specifications, at no additional cost to the owner. Any defects or deficiencies discovered in any of the electrical work shall be corrected.

The Electrical Subcontractor shall:

1. Replace wiring and equipment found defective (defined as failing to meet specified requirements) at no additional cost to the owner.
  2. Submit three copies of test results to the engineer.
- B. Do not void equipment warranties or guarantees by testing and checkout work. Checks and tests shall be supplemental to and compatible with the manufacturer's installation instructions. Where deviations are apparent, obtain the manufacturer's approved review of procedure prior to testing. Where any repairs, modifications, adjustments, tests or checks are to be made, the Contractor shall contact the engineer to determine if the work should be performed by or with the manufacturer's representative.

All checks and tests specified for proper operating and safety of equipment and personnel are to be performed concurrent with progression of the work, prior to Final Acceptance by the owner.

- C. Test are to:
1. Provide initial equipment/system acceptance.
  2. Provide recorded data for future routine maintenance and trouble shooting.
  3. Provide assurance that each system component is installed satisfactorily and can be expected to perform, and continue to perform, its specified function with reasonable reliability throughout the life of the facility.
- D. At any stage of construction and when observed, any electrical equipment or system determined to be damaged, or faulty, is to be reported to the engineer. Corrective action by the Contractor requires prior engineer approval, retesting, and inspection.
- E. Prior to testing and start-up, equipment and wiring shall be properly and permanently identified with nameplates, and other identification as specified in Section 3.7. Check and tighten terminals and connection points, remove shipping blocks and thoroughly clean equipment, repair damaged or scratched finishes, inspect for broken and missing parts and review and collect manufacturer's drawings and instructions for delivery to the engineer. Make routine checks and tests as the job progresses to ensure that wiring and equipment is properly installed.
- F. Testing and checkout work is to be performed with fully qualified personnel skilled in the particular tests being conducted. Personnel are to have at least five years of experience with tests of same type and size as specified:
- G. Inspections and tests shall be in accordance with the following applicable codes and standards as amended to date, unless otherwise specified.
1. National Electrical Manufacturer's Association - NEMA.
  2. American Society for Testing and Materials - ASTM.
  3. Institute of Electrical and Electronic Engineers -IEEE.
  4. National Electrical Testing Association - NETA.
  5. American National Standards Institute - ANSI.
    - a. C2: National Electrical Safety Code.
    - b. Z244-1: American National Standard for Personnel Protection.
  6. Insulated Cable Engineers Association - ICEA.
  7. Association of Edison Illuminating Companies - AEIC.

8. Occupational Safety and health Administration.
  - a. OSHA Part 1910; Subpart S, 1910.308.
  - b. OSHA Part 1926; Subpart V, 1926.950 through 1926.960.
9. National Fire Protection Association - NFPA.
  - a. 70B: Electrical Equipment Maintenance.
  - b. 70E: Electrical Safety Requirements for Employer Workplaces.
  - c. 70: National Electrical Code.
  - d. 78: Lightning Protection Code.
  - e. 101: Life Safety Code.
10. Inspections and tests shall utilize the following references:
  - a. Contract Drawings and Specifications.
  - b. Contractor's Short Circuit and Coordination Study.
  - c. Manufacturer's printed test procedures for respective equipment.
- H. Test Equipment:
  1. Test equipment used by the Contractor is to be inspected and calibrated.
  2. Perform calibration and setting checks with calibrated test instruments of at least twice that of that of the accuracy of the equipment, device, relay or meter under test. Dated calibration labels shall be visible on test equipment. Calibrations over 6 months old are not acceptable on field test instruments. Inspect test instruments for proper operation prior to proceeding with the tests. Record serial and model numbers of the instruments used on the test forms.
- I. Test Procedures:
  1. The Electrical Subcontractor is responsible for the preparation of the procedures and schedules for the work specified herein. This work is to be coordinated and compatible with both the work and schedule of the other crafts. Sequence the tests and checks so that the equipment can be energized immediately after the completion of the application tests.
  2. Submit proposed testing and check out forms. The procedures shall provide specific instructions for the checking and testing of each electrical component of each system. Schedule tests and inspections as the job progresses. Test procedures submitted shall include job safety rules.
- J. After each electrical system installation is complete, perform the tests to determine that the entire system is in proper working order and in accordance with applicable codes, manufacturer's instructions, drawings, and

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specifications. Tests are in addition to shop tests of individual items at the manufacturer's plant. Perform insulation and ground resistance tests before operating tests.

- K. Perform insulation tests on electrical equipment, apparatus, cables, motors, generators, transformers, circuit breakers and switches, switchgear, motor control centers, and similar electrical equipment, at the following times and conditions:
1. Prior to energization and/or placing into service.
  2. When damage to the insulation is suspected or known to exist.
  3. After repairs or modifications to the equipment affecting the insulation.
  4. Where lightning or other surge conditions are known to have existed on the circuit.
- L. Make openings in circuits for test instruments and place and connect instruments, equipment, and devices, required for the tests. Upon completion of tests, remove instruments and instrument connections and restore circuits to permanent condition.
- M. List each circuit and measured resistance as test data. Maintain record of insulation resistance values. Identify conductor, or equipment, date that value was taken and resistance value. Arrange information in tabular form and submit to Engineer.
- N. Report inspections, tests, and calibrations in writing on engineer-approved reports/forms. The recorded data form shall have the signatures of the persons conducting the tests, authorized witnesses, and the engineer. The forms shall serve as the test and inspection checklist.
- O. When the electrical tests and inspections specified or required within Division 26 are completed and results reported, reviewed, and approved by the engineer, the Contractor may consider that portion of the electrical equipment system or installation electrically complete. The Contractor will then affix appropriate, approved, and dated completion or calibration labels to the tested equipment and notify the engineer of electrical completion. If the engineer finds completed work unacceptable, he will notify the Contractor in writing of the unfinished or deficient work, with the reason for his rejection, to be corrected by the Contractor. The Contractor will notify the engineer in writing when exceptions have been corrected. The Contractor will prepare a "Notification of Substantial Electrical Completion" for approval by the engineer following engineer's acceptance of electrical completion. If later in-service operation or further testing identifies problems attributable to the Contractor, these will be corrected by the Contractor, at no additional cost to the Authority.
- P. Specific Tests:
1. Perform the following specific tests. De-energize and isolate equipment and cable prior to performing the tests.
  2. Motors:
    - a. Before energizing any machine, visually inspect for serviceability. Check manufacturer's instruction manual for correct lubrication and ventilation. Align motor with driven equipment. Check nameplate for electrical power requirements.

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- b. Test run motors uncoupled or unloaded, before placing into operation. Check the motor for rotation, speed, current and temperature rise under normal load and record the results. Maintain the proper color codes for phase identifications. This may require swaps at the motor for proper rotation. Use motor phase rotation meter prior to lead connection at motor in order to minimize later swaps.
3. Grounding Systems:
  - a. Test each building and major equipment grounding system for continuity of connections and for resistance. Ground resistance of conduits, equipment cases, and supporting frames, shall not vary from that of system as a whole and shall not exceed 5 ohms to ground. Submit all readings to the engineer.
4. Wire and Cable: (All conductors originating from main switchboard and distribution panels).
  - a. Before energizing any cable or wire, megger the insulation resistance of every external circuit wire to each other and to ground. Tests shall be conducted at voltages of 500 volts or lower. Continuity test each wire and cable to verify the field applied tag per conductor. Minimum insulation resistance values shall not be less than two megohms.
  - b. Take insulation resistance measurements for motor feeders. With motors disconnected, measure insulation resistance from load side of contactors or circuit breakers.
  - c. Check cables and wires for the proper identification numbering and/or color coding.
  - d. Inspect cables for physical damage and proper connection in accordance with single line diagram.
5. Power Distribution System:
  - a. Circuit Breakers - Molded Case
    - 1) Circuit breaker shall be checked for proper mounting, conductor size and feeder designation.
    - 2) Operate circuit breaker to ensure smooth operation.
    - 3) Inspect case for cracks or other defects.
    - 4) Check tightness of connections with calibrated torque wrench. Refer to manufacturer's instruction for proper torque levels.
    - 5) Perform a contact resistance test or measure millivolt drop at rated current.
    - 6) Verify trip unit reset characteristics.
  - b. Panelboards
    - 1) Inspect for physical damage and proper grounding.

- 2) Compare nameplate information with schedules and report any discrepancies.
- 3) Inspect all panelboards for cleanliness, workmanship, etc.

6. Operating Instructions: Furnish operating instructions to owner's designated representative with respect to operations, functions and maintenance procedures for equipment and systems installed. Cost of such instruction up to a full five (5) days of Electrical Subcontractor's time shall be included in contract. Cost of providing a manufacturer's representative at site for instructional purposes shall also be included.

3.03 BRANCH CIRCUITRY

- A. For all lighting and appliance branch circuitry, raceway sizes shall conform to industry standard maximum permissible occupancy requirements except where these are exceeded by other requirements specified elsewhere.
- B. Circuits shall be balanced on phases at their supply as evenly as possible.
- C. Feeder connections shall be in the phase rotation which establishes proper operation for all equipment supplied.
- D. Reduced size conductors indicated for any feeders shall be taken as their grounding conductors.
- E. Feeders consisting of multiple cables and raceways shall be arranged such that each raceway of the feeder contains one cable for each leg and one neutral cable, if any.
- F. For circuitry indicated as being protected at 20 Amps or less, abide by the following:
  1. All 20 amp, 120/208 volt, 3 phase, 4 wire combined branch circuit homeruns shall be provided with a #8 AWG neutral conductor.
  2. Minimum conductor size shall be No. 12 A.W.G. copper.
  3. Conductors operating at 120 volts extending in excess of 100 Ft., or at 277 volts extending in excess of 200 ft., or the last outlet or fixture tap shall be No. 10 A.W.G. copper throughout.
  4. Lighting fixtures and receptacles shall not be connected to the same circuit.
  5. Circuits shall be balanced on phases at their supply point as evenly as possible.
  6. Each circuit shall have dedicated neutral conductor, sharing of single neutral conductor between multiple circuits shall not be allowed.
- G. Type MC Cable Installation:
  1. Where cable is permitted under the products section, the installation of same shall be done in accordance with code and the following:

- a. Cable shall be supported in accordance with code. Tie wire is not an acceptable means of support. Cable supports such as Caddy WMX-6, MX-3, and clamps such as Caddy 449 shall be used. Where cables are supported by the structure and only need securing in place, then ty-raps will be acceptable. Ty-raps are not acceptable as a means of support. All fittings, hangers, and clamps for support and termination of cables shall be of types specifically designed for use with cable, i.e., romex connectors not acceptable.
- b. Armor of cable shall be removed with rotary cutter device equal to roto-split by Seatek co., not with hacksaw.
- c. Use split "insuliner" sleeves at terminations.

3.04 IDENTIFICATION AND TAGGING

- A. Identify individually:
  1. Each panelboard.
  2. Each switch and circuit breaker.
  3. Each feeder, wire or cable of all systems.
  4. Each end of nylon pullwire in empty conduit.
- B. Each wire or cable in a feeder shall be identified at its terminal points of connection and in each pullbox, junction box and panel gutter through which it passes.
- C. The nomenclature used to identify panelboards or load center shall designate the numbers assigned to them.
- D. The nomenclature used to identify switches or circuit breakers shall:
  1. Where they disconnect mains or services designate this fact.
  2. Where they control feeders, designate the feeder number and the name of the load supplied.
  3. Where they control lighting and appliance branch circuitry, designate the name of the space and the load supplied.
- E. The nomenclature used to identify feeder wires and cables shall designate the feeder number.
- F. Identification for panelboards or load centers shall be by means of engraved lamacoid nameplates showing 1/4" high white lettering on a black background fastened to the outside face of the front.
- G. Identification for switches or circuit breakers shall be by means of the following:
  1. Where individually enclosed -- engraved lamacoid nameplates showing 1/8" high white lettering on a black background fastened on the outside front face of the enclosure.

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- 2. Where in panelboards or load centers without doors -- same as for individually enclosed.
- 3. Where in panelboards or load centers with doors -- typewritten directories mounted behind transparent plastic covers, in metal frames fastened on the inside face of the doors.
- H. Identification for wires and cables shall be by means of wrap around "brady" type labels.
- I. Device plates for local toggle switches, toggle switch type motor starters, pilot lights and the like, whose function is not readily apparent shall be engraved with 1/8" high letters suitably describing the equipment controlled or indicated.
- J. Phase identification letters shall be stamped into the metal of the bus bars of each phase of the main busses of each switchboard and each panelboard. The letters shall be visible from at least one "normal posture" location without having to demount any current carrying or supporting elements.

**3.05 LIMITING NOISE PRODUCED BY ELECTRICAL INSTALLATION**

- A. Perform the following work, in accordance with field instructions issued by the Architect to assure that minimal noise is produced by electrical installations due to equipment furnished as part of the electrical work.
- B. Check and tighten the fastenings of sheet metal plates, covers, doors and trims used in the enclosures of electrical equipment.
- C. Remove and replace any individual device containing one or more magnetic flux path metallic cores (e.g., discharge lamp ballast, transformer, reactor, dimmer, solenoid) which is found to have a noise output exceeding that of other identical devices installed at the project.

**3.06 SUPPORTS AND FASTENINGS**

- A. Support work in accordance with best industry standards, Mass. Electric Code and the following:
- B. Include supporting frames or racks for equipment, intended for vertical surface mounting, which is required in a free standing position.
- C. Supporting frames or racks shall be of standard angle, standard channel or specialty support system steel members. They shall be rigidly bolted or welded together and adequately braced to form a substantial structure. Racks shall be of ample size to assure a workmanlike arrangement of all equipment mounted on them.
- D. No work intended for exposed installation shall be mounted directly on any building surface. In such locations, flat bar members or spacers shall be used to create a minimum of 1/4" air space between the building surfaces and the work. Provide 3/4" thick exterior grade plywood painted with two coats of fire-retardant grey paint for mounting of panelboards.
- E. Nothing (including outlet, pull and junction boxes and fittings) shall depend on electric conduits, raceways or cables for support.
- F. Nothing shall rest on, or depend for support on, suspended ceiling media.

- G. Support less than 2" trade size, vertically run, conduits at intervals no greater than 8 Ft. Support such conduits, 2-1/2" trade size or larger, at intervals no greater than the story height, or 15 Ft, whichever is smaller.
- H. Where they are not embedded in concrete, support less than 1" trade size, horizontally run, conduits at intervals no greater than 7 ft.. Support such conduits, 1" trade size or larger, at intervals no greater than 10 ft.
- I. Support all lighting fixtures directly from structural slab, deck or framing member.
- J. Where fixtures and ceilings are such as to require fixture support from ceiling openings frames, include in the electric work the members necessary to tie back the ceiling opening frames to ceiling suspension members or slabs so as to provide actual support for the fixtures noted above.
- K. As a minimum procedure, in suspended ceilings support small runs of circuitry (e.g., conduit not in excess of 1 inch trade size) from ceiling suspension members as defined above. Support larger runs of circuitry directly from structural slabs, decks or framing members.
- L. Fasten electric work to building structure in accordance with the best industry practice.
- M. Floor mounted equipment shall not be held in place solely by its own dead weight. Include floor anchor fastenings in all cases.
- N. For items which are shown as being ceiling mounted at locations where fastenings to the building construction element above is not possible, provide suitable auxiliary channel or angle iron bridging tying to building structural elements.
- O. As a minimum procedure, where weight applied to the attachment points is 100 lbs. or less, fasten to concrete and solid masonry with bolts and expansion shields.
- P. As a minimum procedure, where weight applied to building attachment points exceeds 100 lbs., but is 300 lbs. or less, conform to the following:
  - 1. At field poured concrete slabs, utilize inserts with 20' minimum length slip-through steel rods, set transverse to reinforcing steel.

3.07 SPLICING AND TERMINATING WIRES AND CABLES

- A. Maintain all splices and joints in removable cover boxes or cabinets where they may be easily inspected.
- B. Locate each completed conductor splice or joint in the outlet box, junction box, or pull box containing it, so that it is accessible from the removal cover side of the box.
- C. Join solid conductors No. 8 AWG and smaller by securely twisting them together and soldering, or by using insulated coiled steel spring "wire nut" type connectors. Exclude "wire nuts" employing non-expandable springs. Terminate conductors No. 8 AWG and smaller by means of a neat and fast holding application of the conductors directly to the binding screws or terminals of the equipment or devices to be connected.

- D. Join, tap and terminate stranded conductors No. 6 AWG and larger by means of solder sleeves, taps; and lugs with applied solder or by means of bolted saddle type or pressure indent type connectors, taps and lugs. Exclude connectors and lugs of the types which apply set screws directly to conductors. Where equipment or devices are equipped with set screw type terminals which are impossible to change, replace the factory supplied set screws with a type having a ball bearing tip. Apply pressure indent type connectors, taps and lugs utilizing tools manufactured specifically for the purpose and having features preventing their release until the full pressure has been exerted on the lug or connector.
- E. Except where wire nuts are used, build up insulation over conductor joints to a value, equal both in thickness and dielectric strength, to that of the factory applied conductor insulation. Insulation of conductor taps and joints shall be by means of half-lapped layers of rubber tape, with an outer layer of friction tape; by means of half-lapped layers of approved plastic electric insulating tape; or by means of split insulating casings manufactured specifically to insulate the particular connector and conductor, and fastened with stainless steel or non-metallic snaps or clips.
- F. Exclude splicing procedures for neutral conductors in lighting and appliance branch circuitry which utilize device terminals as the splicing points.
- G. Exclude joints or terminations utilizing solder in any conductors used for grounding or bonding purposes.
- H. Exclude all but solder or pressure indent type joints in conductors used for signaling or communications purposes.
- I. Lugs for conductors used to make phase leg connections on the line side of the main service overcurrent and switching device shall be of the limiter type.

3.08 PULLING WIRES INTO CONDUITS AND RACEWAYS

- A. Delay pulling wires or cables in until the project has progressed to a point when general construction procedures are not liable to injure wires and cables, and when moisture is excluded from raceways.
- B. Utilize nylon snakes or metallic fish tapes with ball type heads to set up for pulling. In raceways 2" trade size and larger, utilize a pulling assembly ahead of wires consisting of a suitable brush followed by an 3-1/2" diameter ball mandrel.
- C. Leave sufficient slack on all runs of wire and cable to permit the secure connection of devices and equipment.
- D. Include circular wedge-type cable supports for wires and cables at the top of any vertical raceway longer than 20 feet. Also include additional supports spaced at intervals which are no greater than 10'. Supports shall be located in accessible pull boxes. Supports shall be of a nondeteriorating insulating material manufactured specifically for the purpose.
- E. Pulling lubricants shall be used. They shall be products manufactured specifically for the purpose.
- F. Slack on wires and cables located in cabinets and pull boxes shall be formed and set in place in groupings corresponding to their occupancy of raceways. They shall also be arranged, with insulators and supports provided where necessary, such that cable shims or other such temporary expedients do not have to be left permanently in place to prevent the wires and cables from shifting when covers or trims are removed.

3.09 INSTALLATION OF JUNCTION BOXES, OUTLET BOXES AND PULL BOXES

- A. Flush wall mounted outlet boxes shall not be set back to back but shall be offset at least 12" horizontally regardless of any indication on the drawings.
- B. Locate all boxes so that their removable covers are accessible without necessitating the removal of parts of permanent building structure, including piping, ductwork, and other permanent mechanical elements.
- C. In conjunction with concealed circuitry, abide by one of the following instructions (as may be applicable to the conditions) in order to assure the aforementioned accessibility. (Not required for circuitry concealed by removable suspended ceiling tiles.)
  - 1. For a small (outlet size) box on circuitry concealed in a partition or wall, locate box or fitting so that its removable cover side (or the face of any applied raised cover) penetrates through to within 1/8" a of the exposed surface of the building materials concealing the circuitry and apply a blank or device plate to suit the functional requirements.
  - 2. For a large box on circuitry concealed in a partition, suspended ceiling, or wall, locate box totally hidden but with its removable cover directly behind an architectural access door or panel (included for the purpose, separate from the electric work) in the building construction which conceals the circuitry.
  - 3. For a small (outlet size) box on circuitry concealed above and intended as an outlet for a surface mounted lighting fixture or other such electrical item, locate box so that its removable cover side penetrates through to the exposed surface of the building materials concealing the circuitry. Arrange the mounting of the lighting fixture or other item so that it completely covers the opening in the building construction caused by the box.
  - 4. For a small (outlet size) box on circuitry concealed in a suspended ceiling, and intended as an outlet for a non-demountable type of recessed lighting fixtures or other such electrical items, locate box totally hidden but with its removable cover not more than one foot away from the building construction opening occupied by the demountable items.
- D. Apply junction and pull boxes in accordance with the following:
  - 1. Include pull boxes in long straight runs of raceway to assure that cables are not damaged when they are pulled in.
  - 2. Include junction and pull boxes to assure a neat and workmanlike installation of raceways.
  - 3. Include junction and pull boxes to fulfill requirements pertaining to the limitations to the number of bends permitted in raceway between cable access points, the accessibility of cable joints and splices, and the application of cable supports.
  - 4. Include all required junction and pull boxes regardless of indications on the drawings (which, due to symbolic methods of notation, may omit to show some of them).
- E. Apply outlet boxes in accordance with the following:

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1. Unless noted below or otherwise specifically indicated, include a separate outlet box for each individual wiring device, lighting fixture and signal or communication system outlet component. Outlet boxes supplied attached to lighting fixtures shall not be used as replacements for the boxes specified herein.
  2. A continuous row of fixtures of the end-to-end channel type, designed for "through wiring," and wired in accordance with the specification hereinafter pertaining to circuitry through a series of lighting fixtures, may be supplied through a single outlet box.
  3. A series of separate fixtures, designed for "through wiring," spaced not more than 4' apart, and inter-connected with conduit or raceway and circuitry which is in accordance with the specifications hereinafter pertaining to circuitry through a series of lighting fixtures, may be supplied through a single outlet box.
  4. Connection to recessed ceiling fixtures supplied with pigtails may be arranged so that more than one, but not more than four, such fixtures are connected into a single outlet box. When adopting this procedure:
    - a. Utilize an outlet box no smaller than 5" square by 2-1/2" deep.
    - b. Allow no fixture to be supplied from an outlet box in another room.
  5. Multiple local switches indicated at a single location shall be gang mounted in a single outlet box.
  6. Include all required outlet boxes regardless of indications on the drawings (which due to symbolic methods of notation, may omit to show some of them).
- F. Install junction boxes, pull boxes and outlet boxes in accordance with the following:
1. Exclude surface mounted outlet boxes in conjunction with concealed circuitry.
  2. Exclude unused circuitry openings in junction and pull boxes. In larger boxes each such opening shall be closed with a galvanized sheet steel plate fastened with a continuous weld all around. In small outlet type boxes, utilize plugs as specified for such boxes.
  3. Close up all unused circuitry openings in outlet boxes. Unused openings in cast boxes shall be closed with approved cast metal threaded plugs. Unused openings in sheet metal boxes shall be closed with sheet metal knock-out plugs.
  4. Outlet boxes for switches shall be located at the strike side of doors. Indicated door swings are subject to field change. Outlet boxes shall be located on the basis of final door swing arrangements.
  5. Boxes and plaster covers for duplex receptacles shall be arranged for vertical mounting of the receptacle.
  6. Equip outlet boxes used for devices which are connected to wires of systems supplied by more than one set of voltage characteristics with barriers to separate the different systems.

- G. Barriers in junction and pull boxes of outlet size shall be of the same metal as the box.
- H. Barriers in junction and pull boxes which are larger than outlet size shall be of the polyester resin fiberglass of adequate thickness for mechanical strength, but in no case less than 1/4" thick. Each barrier shall be mounted, without fastenings, between angle iron guides so that they may be readily removed.

3.10 LOCATING AND ROUTING OF CIRCUITRY

- A. In general, all circuitry shall be run concealed except that it shall be run exposed where the following conditions occur:
  - 1. Horizontally at the ceiling of permanently unfinished spaces which are not assigned to mechanical or electrical equipment.
  - 2. Horizontally and vertically in mechanical equipment spaces.
  - 3. Horizontally and vertically in electric equipment rooms.
- B. Concealed circuitry shall be so located that building construction materials can be applied over its thickest elements without being subject to spalling or cracking.
- C. All circuitry and raceways shall not be run within slabs. If for field conditions requires raceways to be embedded in field poured structural building construction concrete fill or slab shall conform to the following:
  - 1. All proposed embedded raceways shall be indicated on plan and elevation and submitted to the Architect and Structural Engineer for review and written approval prior to installation. Any costs associated with the review and approval shall be borne by the Electrical Subcontractor.
  - 2. They shall be run "single layer" with their outside surface no closer than 1" to any surface of the structural concrete.
  - 3. They shall not be located in any configuration which places the outside surface of one closer than 3" to the outside surface of another, except at tees, crosses or other single level wide angle junction points.
  - 4. Where crossovers or close grouping are unavoidable, circuitry shall be carefully field coordinated so as not to cause structural weakness.
  - 5. Where turned up or down into a wall or partition they shall, before entering same, be routed parallel for a long enough distance to assure that no relocation of the wall or partition will be necessary to conceal the required bend.
  - 6. They shall be routed in such a manner as to coordinate with the structural requirements of the building.
  - 7. They shall be routed in accordance with field instructions issued by the Architect where such instructions differ from specifications set forth herein.

- D. Circuitry run exposed shall be routed parallel to building walls and column lines.
- E. Exposed circuitry located overhead shall be run in a completely accessible manner on the underside of all piping and ductwork.
- F. Circuitry run in suspended ceilings shall be routed parallel to building walls, column lines, etc.
- G. Circuitry shall be routed so as to prevent electric conductors from being subject to high ambient temperature. Minimum clearances from heated lines or surfaces shall be maintained as follows:
  - 1. Crossing where uninsulated 3"
  - 2. Crossing where insulated 1"
  - 3. Running parallel where uninsulated 36"
  - 4. Running parallel where insulated 6"
- H. Circuitry shall not be run in elevator shafts, hoistways, and the like. Where outlets for trail cables, pit lights, run be level lights, and the like, are involved, only the "final connection" outlet boxes themselves shall be located within or open into, the confines of the shaft.
- I. Circuitry for miscellaneous systems indicated without notation as to location and routing shall be run as per the requirements and notations governing the adjacent light and power circuitry.

3.11 INSTALLING CIRCUITRY

- A. The outside surface of circuitry which is to be embedded in cinder concrete shall be coated with asphaltum paint.
- B. In runs of conduit or raceway including flexible limit the number of bends between cable access points to a total which does not exceed the maximum specified for the particular system. Where no such maximum is specified, limit the number to four right angle bends or the equivalent thereof.
- C. In each conduit or raceway assigned for the future pulling in of wires, include a nylon drag cord. In raceways 2" trade size and larger, the cord shall be pulled in utilizing a suitable brush, followed by an 85% diameter ball mandrel ahead of the cord in the pulling assembly. In the event that obstructions are encountered, which will not permit the drag cord to be installed, the blocked section of raceway shall be replaced and any cutting and patching of the structure involved in such replacement shall be included as part of the electric work.
- D. Circuitry shall be arranged such that conductors of one feeder or circuitry carrying "going" current are not separated from conductors of the same feeder or circuitry carrying "return" current by any ferrous or other metal. Where not within raceways, all "going" and "return" current conductors of one feeder or circuit shall be laces together so as to minimize induction heating of adjacent metal components.
- E. Sleeves used where circuitry is to penetrate waterproof slabs, decks and walls, shall be of a type selected to suite the water condition encountered in the field.

NEW BEDFORD HIGH SCHOOL HVAC UPGRADES  
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END OF SECTION

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