STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS

JUDICIAL PURCHASING OFFICE
670 NEW LONDON AVENUE
CRANSTON, RHODE ISLAND 02920
TEL: 401-275-6527
FAX: 401-275-6530

BID SOLICITATION INFORMATION

Date: 09/16/2014	**RFP/LOI #: B2014015**

Project Name: Fire Suppression & Fire Alarm System Replacement, Testing & Maintenance - McGrath Judicial Complex

Opening Date, Time and Place: 10/07/2014 at 10:00 AM
Purchasing Room 1014 – RITT – 670 New London Avenue, Cranston , RI 02920

Pre-Bid/Proposal Conference: X No ☐ Yes ***** Important *****
Although there will be no pre-bid conference, a site visit is mandatory. All bidders must visit and familiarize themselves with the fire suppression system at the McGrath Judicial Complex so that they may respond accurately to this RFP.

Bonds Required:

Surety Bond No ☐ Yes Bidder is required to provide a bid surety in the form of a bid bond or certified check payable to the State of Rhode Island in an amount not less than five percent (5%) of the bid price.

Fidelity Bond No ☐ Yes

Performance Bond No ☐ Yes

The successful bidder will be required to furnish all insurance documentation as outlined in the attached Judicial Purchasing Rules & Regulations and General Terms & Conditions of Purchase which are available for inspection at http://www.courts.ri.gov/PublicResources/purchasingrules/PDFs/Purchasing-Rules-Reg.pdf.

Specific bid solicitation information begins on page 3 of this document. Replacement, testing and maintenance of the fire suppression system in the computer room at the McGrath Judicial

Proposals must be mailed or hand-delivered in a sealed envelope **marked with the above RFP/LOI# and Project Name** to:

Rhode Island Traffic Tribunal
670 New London Avenue, Cranston RI, 02920
Purchasing, Room 1014

The bid process and any resulting contract are subject to the Judicial Purchasing Rules and Regulations and General Terms and Conditions of Purchase. Submission of a bid in response to this solicitation is acknowledgement and acceptance of the Judicial Purchasing Rules and Regulations and General Terms and Conditions of Purchase.

The Administrative Office of State Courts ("AOSC") reserves the right to award on the basis of cost alone, accept or reject any or all bids, and to act in its best interest including, but not limited to, directly negotiating with any vendor who submits a proposal in response to this RFP and to award a contract based upon those negotiations alone. Proposals found to be technically or substantially nonresponsive at any point in the evaluation process will be rejected and not considered further. The AOSC may, at its sole option, elect to require presentations(s) by bidders clearly in consideration for award.

Questions concerning this solicitation may be e-mailed to the Judicial Purchasing Office at purchasing@courts.ri.gov **no later than September 29th, 2014 at 12:00 PM**. Please reference the RFP / LOI number on all correspondence. Answers to questions received, if any, will be posted on the internet as an addendum to this bid solicitation.

Carla Ciccone
Purchasing Agent
Rhode Island Supreme Court

BSI 5/05

THIS PAGE IS NOT A BIDDER CERTIFICATION FORM

This is a Request for Proposals, not an Invitation for Bid. Responses will be evaluated on the basis of the relative merits of the proposal, in addition to price.

INSTRUCTIONS AND NOTIFICATIONS TO BIDDERS

- Potential bidders are advised to review all sections of this Request carefully and to follow instructions completely as failure to make a complete submission as described herein may result in rejection of the proposal.

- All costs associated with developing or submitting a proposal in response to this Request, or to provide oral or written clarification of its content, shall be borne by the bidder. The AOSC assumes no responsibility for these costs.

- Proposals are considered to be irrevocable for a period of not less than sixty (60) days following the opening date, and may not be withdrawn, except with the express written permission of the Judicial Purchasing Committee.

- All pricing submitted will be considered to be firm and fixed unless otherwise indicated herein.

- Proposals misdirected to other judicial locations or which are otherwise not received by the Supreme Court Purchasing Office by the time of opening for any cause, will be deemed late and will not be considered. **For the purposes of this requirement, the official time and date shall be that of the time clock in the Judicial Purchasing Office.**

- It is intended that an award pursuant to this Request will be made to a prime contractor, who will assume responsibility for all aspects of the work. Joint venture and cooperative proposals will not be considered, but subcontracts are permitted, provided that their use is clearly indicated in the bidder's proposal, and the subcontractor(s) proposed to be used are identified in the proposal.

- Bidders are advised that all materials submitted to the AOSC for consideration in response to this Request for Proposals shall be considered to be public records as defined in Title 38 Chapter 2 of the Rhode Island General Laws, without exception, and may be released for inspection immediately upon request once an award has been made.

STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS

JUDICIAL PURCHASING OFFICE
ROOM 1006, RI TRAFFIC TRIBUNAL
670 NEW LONDON AVENUE
CRANSTON, RHODE ISLAND 02920
TEL: 401-275-6527
FAX: 401-275-6530

BID / RFP SPECIFICATION SHEET

Pursuant to Article X ("Methods of Source Selection") of the Judicial Purchasing Rules and Regulations, attached are the bid/ request for proposal specifications for the following project

Project Name:	**Fire Suppression & Fire Alarm System Replacement, Testing & Maintenance – McGrath Judicial Complex**
Project Number:	**B2014015**
Prepared by:	**Carla Ciccone – Purchasing Agent**

All bids and/or proposal specifications are subject to and governed by the Judicial Purchasing Rules and Regulations and General Terms and Conditions of Purchase.

Contents:

1.0 Overview

2.0 Scope of Work

3.0 Proposal Content and Organization

4.0 Acknowledgment of Risk and Hold Harmless Agreement

5.0 Additional Insurance Requirements

6.0 Evaluation Criteria

7.0 Miscellaneous

8.0 Bid Form

Appendix A BCI Authorization and Disclaimer Form

Appendix B Rhode Island Judiciary General Terms and Conditions of Purchase

Appendix C Drawings

1.0 Overview

The Administrative Office of State Courts ("AOSC") is seeking a company ("Contractor" or "Vendor"), to provide a new Novec 1230 fire suppression system and associated architectural, electrical and fire alarm work at the McGrath Judicial Complex. The existing system is located in the existing computer room at the McGrath Judicial Complex located at 4800 Tower Hill Road, Wakefield, RI. All work must completed within 90 days after signing the contract.

2.0 Scope of Work

This solicitation is for a new Novec 1230 Fire Suppression systems protection and associated architectural, electrical, fire suppression and fire alarm system located at the McGrath Judicial Complex to be performed in accordance with state and local fire codes.

General Qualifications

The Contractor must comply with all applicable licensing and permitting requirements for this type of service. A copy of all required local, state and/or federal (if applicable) license(s) or permit(s) must be submitted with the RFP response. Submission of a bid is acknowledgement that any and all work performed in relation to this bid will be performed by personnel holding the required valid local, state and/or federal license(s) and/or permit(s).

All work performed must be in accordance with all present and future state, local and national fire codes.

Contractor must demonstrate that it has experience repairing and maintaining the fire alarm system equipment and has experience working in facilities similar in size to the McGrath Judicial Complex.

Technicians must be certified to install and make repairs to a Novec 1230 Fire Suppression System. Copies of documentation proving certifications must be submitted with this bid.

The contract shall include the provision of any and all control panel parts by the Vendor at no additional charge.

Final fire alarm system testing is to be performed during working hours and must be coordinated with the designated contact person of the AOSC's Facilities and Operations Office, 250 Benefit Street, Providence, RI. The contact person will be named at the time of the award. All work shall be under warranty for one (1) year including one (1) year of testing and maintenance.

The existing fire suppression and fire alarm systems must remain operational during the renovation. Coordinate shutdown of the existing systems with the building maintenance personnel when changing over to the new fire suppression and fire alarm systems.

Location

The location to be serviced under this contract:

McGrath Judicial Complex
4800 Tower Hill Road
Wakefield, RI 02879

Site visits may be arranged by contacting Tek Ung at (401-222-4773).

Work

No work shall be performed without the prior written approval of the Building Superintendent. All work must be scheduled with the Building Superintendent at least twenty-four (24) hours in advance. All shutdown and installation work must performed off hours. Testing and Inspections can be conducted during normal business hours.

This contract shall include the provision of any and all control panel parts by the Vendor at no additional charge.

The contract shall include, at no additional charge, unlimited service calls Monday through Friday between the hours of 8:00 am and 5:00 pm.

Response Time

The Contractor must be available to respond to service and maintenance calls twenty-four (24) hours a day, seven (7) days per week and shall provide the Building Superintendent with accurate twenty-four (24) hour emergency contact information. The Contractor must respond on-site within four (4) hours of notification of any potential problem per RI Uniform Fire Code, but must immediately notify the Building Superintendent of their expected arrival on-site.

All service calls resulting in repairs where parts are required must be delivered and installed within twenty-four (24) hours of the service call.

Equipment

It is the responsibility of the Bidder to visit the site and it is the responsibility of the Bidder to verify the systems equipment and count.

Reporting

Within forty-eight (48) hours of each service call and quarterly inspection, a detailed written report of the results shall be submitted to, and reviewed with, the Building Superintendent. A copy of the report detailing the repairs must also be forwarded to the designated contact person at the Judiciary's Facilities and Operations Office, 250 Benefit Street, Providence, RI. The contact person will be named at the time of the award.

Charges

Overtime rates apply for work after hours (i.e., nights after 5:00 pm, weekends, and holidays) and must be quoted on the Bid Form as indicated. These charges do not apply to the quarterly maintenance and inspection work. All other times will be billed at the regular time rate. No work for which overtime rates would otherwise apply shall be performed without prior written approval of the Building Superintendent. Without prior written approval only regular hourly rates will be paid for the work performed.

The Contractors must obtain prior written approval for all costs associated with any materials (including parts) needed for repairs. Only pre-approved charges for materials/parts and labor will be allowed. The Bid Form must specify the amount of the percentage (%) over the Contractor's cost of materials (cost of materials + percentage markup = AOSC cost) that will be extended to the AOSC.

Charges for travel, mileage, portal to portal, and other miscellaneous charges will not be covered under the contract.

Security

During this contract, normal security measures will be in place at the McGrath Judicial Complex. The Contractors and their employees, agents and subcontractors will be subject to all security rules and regulations. There will be no exceptions.

Upon awarding of the contract, the Contractors shall forward to the AOSC's Director of Security the names, social security numbers and copies of photo identification of all personnel who will be working on the project, along with a signed copy of the BCI Authorization and Disclaimer located in this document as Addendum A. All personnel will be subject to BCI checks and must be cleared by AOSC's Security Personnel in writing prior to performing any work pursuant to this RFP.

3.0 Proposal Content and Organization

Pricing must include all costs as specified in Section 2.0 – Scope of Work. Pricing for this proposal must be indicated on the Bid Form in Section 8.0 and **must be submitted in a separate, sealed envelope marked with the words "Pricing Proposal"**. Only one pricing proposal needs to be submitted. All Bid Forms must be signed.

The Bid Form must specify the amount of the percentage (%) over the Contractor's cost of materials (cost of materials + percentage markup = AOSC cost) that will be extended to the AOSC.

Vendors must include on the Bid Form a list of at least four (4) references with whom they have contracted to do similar work by including the company name, telephone number and a contact person.

Respondents must also include an overview of their company's experience including, but not limited to, the number of years the company has been providing these services, the size of the company (including the number of employees and locations), a description of work undertaken that is similar to what is being requested in this RFP, and certifications that show a knowledge of equipment that would be serviced under this contract.

Four (4) copies of your proposal must be submitted at the time of submission. Proposals must be in the following format:

Bid Form

Company overview

All licensing, certification and permits as required in the Scope of Work

Submission of a proposal is acknowledgement and acceptance of the Judicial Purchasing Rules and Regulations and General Terms and Conditions of Purchase.

4.0 Acknowledgment of Risk and Hold Harmless Agreement

In addition to the indemnity provisions in the Judicial Terms and Conditions of Purchase, the Vendor, its officers, agents, servants, employees, parents, subsidiaries, partners, officers, directors, attorneys, insurers, and/or affiliates (Releasors) agree to release, waive, discharge and covenant not to sue the AOSC, its officers, agents, servants or employees (Releasees) from any and all liability, claims, cross-claims, rights in law or in equity, agreements, promises demands, actions and causes of action whatsoever arising out of or related to any loss, damage, expenses (including without limitation, all legal fees, expenses, interest and penalties) or injury (including death), of any type, kind or nature whatsoever, whether based in contract, tort, warranty, or other legal, statutory, or equitable theory of recovery, which relate to or arise out of a contract awarded pursuant to this RFP and the Releasors use of or presence in and/or on judicial property. The Releasors agree to defend, indemnify and hold harmless the Releasees from (a) any and all

claims, loss, liability, damages or costs by any person, firm, corporation or other entity claiming by, through or under Releasors in any capacity whatsoever, including all subrogation claims and/or claims for reimbursement, including any court costs and attorneys fees, that may incur as a result of a contract awarded pursuant to this RFP or due to Releasors use of or presence in and on judicial property; and (b) any and all legal actions, including third-party actions, cross-actions, and/or claims for contribution and/or indemnity with respect to any claims by any other persons, entities, parties, which relate to or arise out of a contract awarded pursuant to this RFP or Releasors use of or presence in and on judicial property.

The Releasors acknowledge the risks that may be involved and hazards connected with use of or presence in and on judicial property but elect to provide services under any contract with the AOSC with full knowledge of such risks. Releasors also acknowledge that any loss, damage, and/or injury sustained by Releasors is not covered by Releasees insurance. Releasors agree to become fully aware of any safety risks involved with the performance of services under any contract with the AOSC and any safety precautions that need to be followed and agree to take all such precautions.

The duty to indemnify and/or hold harmless the AOSC shall not be limited by the insurance required under the Judicial Terms and Conditions of Purchase.

5.1 Additional Insurance Requirements

In addition to the insurance provisions in the Judicial Terms and Conditions of Purchase, the liability insurance coverage, except Professional Liability, Errors and Omissions or Workers' Compensation insurance required for performance of a contract with the AOSC shall include the AOSC, its divisions, officers and employees as Additional Insureds but only with respect to the Vendor's activities under the contract. The insurance required through a policy or endorsement shall include:

a. a Waiver of Subrogation waiving any right to recovery the insurance company may have against the AOSC; and

b. a provision that the Vendor's insurance coverage shall be primary with respect to any insurance, self insurance or self retention maintained by the State on behalf of the AOSC and that any insurance, self insurance or self retention maintained by the State on behalf of the AOSC shall be in excess of the Vendor's insurance and shall not contribute.

There shall be no cancellation, material change, potential exhaustion of aggregate limits or non-renewal without thirty (30) days written notice from the Vendor or its insurer(s) to the Judiciary's Purchasing Agent. Any failure to comply with the reporting provision of this clause shall be grounds for immediate termination of the contract with the AOSC.

Insurance coverage required under the contract shall be obtained from insurance companies acceptable to the AOSC. The Vendor shall pay for all deductibles, self insured retentions and/or self insurance included hereunder.

The Judiciary's Purchasing Agent reserves the right to consider and accept alternative forms and plans of insurance or to require additional or more extensive coverage for any individual requirement.

6.1 Evaluation Criteria

The AOSC reserves the right to award on the basis of cost alone, accept or reject any or all proposals, and to otherwise act in its best interest including, but not limited to, directly negotiating with any Supplier who submits a proposal in response to this RFP and to award a contract for these services based upon the results of those negotiations alone.

Proposals found to be technically or substantially non-responsive at any point in the evaluation process will be rejected and not considered further. The AOSC may elect to require presentations(s) by vendors in consideration for award.

Proposals will be evaluated in two (2) phases:

1. The first phase is an initial review to determine if the proposal, as submitted, is complete. To be complete, a proposal must meet all the requirements of this RFP.
2. The second phase is an in-depth analysis and review based on criteria below and their associated weights.

Evaluation Criteria	Importance
Ability to Meet Specifications	30%
Price	40%
Experience (No. Yrs.)	30%

7.0 Miscellaneous

The AOSC reserves the right to cancel an agreement with the Vendor with thirty (30) days written notice and to award the contract to the next highest evaluated bidder.

The AOSC reserves the right to renegotiate the terms of this contract with the Vendor for subsequent years provided the Vendor agrees to the contract terms for the renewal period.

The payment and performance of any obligations under this contract are subject to the availability of funds.

8.0 Bid form

Project: **B2014015 Fire Suppression & Fire Alarm Replacement, Testing and Maintenance – McGrath Judicial Complex**

Date: _____

Submitted By: _____

(Include Name, Address and Telephone No.) _____

_____

_____

Will any of the work spelled out in this bid be outsourced?_____Yes_____No

If so, please explain below:

_____

_____

_____

General Information

Have you or your firm been subject to suspension, debarment or criminal conviction by the AOSC, the Judiciary, the State of Rhode Island, or any other jurisdiction?

Yes:_____ No: _____

Has the AOSC, the Judiciary and/or the State of Rhode Island ever terminated contracts with your firm for cause?

Yes:_____ No: _____

Has your firm ever withdrawn from a contract with the AOSC, the Judiciary and/or the State of Rhode Island during its performance?

Yes:_____ No: _____

Have you or your firm been involved in litigation against the AOSC, the Judiciary and/or the State of Rhode Island.

Yes:_____ No: _____

If you answered yes to any of the foregoing, please explain the circumstances below. If you or your firm has been involved in litigation against the AOSC, the Judiciary and/or the State of Rhode Island, please include the case caption, case number and status. (If more space is needed, please attach separate sheet and submit with the bid.)

_____

_____

_____

Is your company bonded? Yes ____ No ____

Please describe the nature and extent of all insurance coverage:

_____

_____

_____

Addenda

The following Addenda have been received. The noted modifications to the Bidding Documents have been considered and all costs are included in the Bid Sum.

Addendum #1, Dated:_____

Addendum #2, Dated:_____

Addendum #2, Dated:_____

References

Please list at least four (4) companies' with whom you have contracted to provide similar services:

Reference #1

Company Name:_____

Contact Person:_____Telephone #: _____

Contract Dates:_____To _____

Reference # 2

Company Name:_____

Contact Person:_____Telephone #: _____

Contract Dates:_____To _____

Reference # 3

Company Name:_____

Contact Person:_____Telephone #: _____

Contract Dates:_____To _____

Reference # 4

Company Name:_____

Contact Person:_____Telephone #: _____

Contract Dates:_____To _____

Did you remember to: **Initial below**

1. Place the pricing proposal in a separate sealed envelope marked "Pricing Proposal"? _____

2. Prepare five (5) separate copies of your bid response (NOT including the Pricing Proposal) for submission? _____

Pricing Proposal

Pricing must be submitted in a separate, sealed envelope marked with the words "Pricing Proposal".

Only one pricing proposal needs to be submitted

Having examined bid # B2014015, we propose to enter into a contract with the AOSC to supply the services as per the bid specifications for the costs listed below:

Total cost of project to include one (1) year parts, labor and bi-annual maintenance

$ ___ , ___ . ___

_____

Written

Pricing Proposal Signature

_____

(Bidder Name – Please Print)

By:_____

(Signature)

Title:_____ Company Name:_____

Appendix A

STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS
ADMINISTRATIVE OFFICE OF STATE COURTS
250 BENEFIT STREET
PROVIDENCE, RHODE ISLAND 02903
TEL: 401-222-6700
FAX: 401-222-4740

CRIMINAL BACKGROUND INVESTIGATION AUTHORIZATION, RELEASE AND DISCLAIMER

I,_____, hereby direct and authorize the Bureau of Criminal Identification of the Department of Attorney General for the State of Rhode Island to make available to the Rhode Island Administrative Office of State Courts any criminal record that the Bureau of Criminal Identification has on file in reference to me, and I further consent to the authentication of my identity through fingerprinting, or some other process that may be required to confirm my identity.

I understand that an investigative report may be generated on me that may include information as to my criminal history records from any criminal justice agency in any or all federal, state, city and county jurisdictions, including any state Department of Motor Vehicle/Drivers' License Records, traffic citations and/or registrations.

I hereby waive and release any and all manner of actions, cause of actions, and demands of every kind, nature and description, arising from any release of criminal records and requests therefrom, whatsoever against the State of Rhode Island, the Rhode Island Administrative Office of State Courts, the Bureau of Criminal Identification, the Attorney General, and the employees of the Attorney General's Office, in both law and equity which I may now have or that may arise in the future.

_____ Employee Name (Please Print)

_____ Employee Signature

_____ Maiden Name (If Applicable)

_____ Date

_____ Date of Birth

_____ Employer/Company Name (If applicable)

_____ Place of Birth

_____ Social Security Number

Sworn to before me in the City/Town of_____, State of Rhode Island, this_____day of _____, 20_____.

_____ Notary Public (Print Name)

Commission expires on_____.

_____ Notary Public (Signature)

Project Name: _____

Project # _____ Date of Bid/RFP Specifications _____

Copy of valid photo identification with date of birth must be attached to all BCI Authorization Forms.

BCIF 08/08

Appendix B

RHODE ISLAND JUDICIARY
GENERAL TERMS AND CONDITIONS OF PURCHASE

Preamble

The Judicial Purchasing Office may, from time to time, make amendments to the General Terms and Conditions when the Judicial Purchasing Agent determines that such amendments are in the best interest of the Judiciary. Amendments shall be made available for public inspection at the Office of the Secretary of State but shall not require formal public notice and hearing. Copies of the Terms and Conditions shall be provided to any individual or firm requesting to become a registered bidder. Applicants shall be required, as part of the application process, to
certify that they have read the General Terms and Conditions and understand that they apply to all judicial purchases.

JUDICIAL PURCHASING OFFICE GENERAL CONDITIONS OF PURCHASE

All Judicial purchase orders, contracts, solicitations, delivery orders and service requests shall incorporate and be subject to the provisions of Rhode Island General Laws 8-15-4 and the judicial purchasing rules and regulations adopted pursuant thereto, all other applicable provisions of the Rhode Island General Laws, specific requirements described in the Request or Contract, and the following General Conditions of Purchase:

1. GENERAL

All purchase orders, contracts, solicitations, delivery orders, and service requests are for specified goods and services, in accordance with express terms and conditions of purchase, as defined herein. For the purposes of this document, the terms "bidder" and "contractor" refer to any individual, firm, corporation, or other entity presenting a proposal indicating a desire to enter into contracts with the Judiciary, or with whom a contract is executed by the Judicial Purchasing Agent, and the term "contractor" shall have the same meaning as"Vendor".

2. ENTIRE AGREEMENT

The Judiciary's Purchase Order, or other Judiciary contract endorsed by the Judicial Purchasing Office, shall constitute the entire and exclusive agreement between the Judiciary and any contractor receiving an award. In the event any conflict between the bidder's standard terms of sale, these conditions or more specific provisions contained in the solicitation shall govern.

All communication between the Judiciary and any contractor pertaining to any award or contract shall be accomplished in writing.

a. Each proposal will be received with the understanding that the acceptance, in writing, by contract or Purchase Order by the Judicial Purchasing Agent of the offer to do work or to furnish any or all the materials, equipment, supplies or services described therein shall constitute a contract between the bidder and the Judiciary. This shall bind the bidder on his part to furnish and deliver at the prices and in accordance with the conditions of said accepted proposal and detailed specifications and the Judiciary on its part to order from such contractor (except in case of emergency) and to pay for at the agreed prices, all materials, equipment, supplies or services specified and delivered. A contract shall be deemed executory only to the extent of funds available for payment of the amounts shown on Purchase Orders issued by the Judiciary to the contractors.

b. No alterations or variations of the terms of the contract shall be valid or binding upon the Judiciary unless submitted in writing and accepted by the Judicial Purchasing Agent. All orders and changes thereof must emanate from the Judicial Purchasing Office: no oral agreement or arrangement made by a contractor with an agency or employee will be considered to be binding on the Judicial Purchasing Agent, and may be disregarded.

c. Contracts will remain in force for the contract period specified or until all articles or services ordered before date of termination shall have been satisfactorily delivered or rendered and accepted and thereafter until all terms and conditions have been met, unless:

1. terminated prior to expiration date by satisfactory delivery against orders of entire quantities, or
2. extended upon written authorization of the Judicial Purchasing Agent and accepted by the contractor, to permit ordering of the unordered balances or additional quantities at the contract price and in accordance with the contract terms, or
3. canceled by the Judiciary in accordance with other provisions stated herein.

d. It is mutually understood and agreed that the contractor shall not assign, transfer, convey, sublet or otherwise dispose of this contract or his right, title or interest therein, or his power to execute such contract, to any other person, company or corporation, without the previous consent, in writing, of the Judicial Purchasing Agent.

e. If, subsequent to the submission of an offer or issuance of a purchase order or execution of a contract, the bidder or contractor shall merge with or be acquired by another entity, the contract may be terminated, except as a corporate resolution prepared by the contractor and the new entity ratifying acceptance of the original bid or contract terms, condition, and pricing is submitted to the Judicial Purchasing Office, and expressly accepted.

f. The contractor or bidder further warrants by submission of an offer or acceptance of a purchase order or other contract that he has no knowledge at the time of such action of any outstanding and delinquent or otherwise unsettled debt owed by him to the Judiciary, and agrees that later discovery by the Judicial Purchasing Agent that this warranty was given in spite of such knowledge, except where the matter is pending in hearing or from any appeal therefrom, shall form reasonable grounds for termination of the contract.

3. SUBCONTRACTS

No subcontracts or collateral agreements shall be permitted, except with the Judiciary's express written consent. Upon request, contractors must submit to the Judicial Purchasing Office a list of all subcontractors to be employed in the performance of any Purchase Order or other contract arising from this Request.

4. RELATIONSHIP OF PARTIES

The contractor or bidder warrants, by submission of an offer or acceptance of a purchase order or other contract, that he is not an employee, agent, or servant of the Judiciary, and that he is fully qualified and capable in all material regards to provide the specified goods and services. Nothing herein shall be construed as creating any contractual relationship or obligation between the Judiciary and any sub-bidder, subcontractor, supplier, or employee of the contractor or offeror.

5. COSTS OF PREPARATION

All costs associated with the preparation, development, or submission of bids or other offers will be borne by the offeror. The Judiciary will not reimburse any offeror for such costs.

6. SPECIFIED QUANTITY REQUIREMENT

Except where expressly specified to the contrary, all solicitations and contracts are predicated on a specified quantity of goods or services, or for a specified level of funding.

a. The Judiciary reserves the right to modify the quantity, scope of service, date of delivery or completion, or funding of any contract, with no penalty or charge, by written notice to the contractor, except where alternate terms have been expressly made a part of the contract.

b. The Judiciary shall not accept quantities in excess of the specified quantity except where the item is normally sold by weight (where sold by weight, the Judiciary will not accept quantities greater than ten per cent [10%] of the specified quantity), or where the Request or Contract provides for awards for other than exact quantities.

c. Purchase Orders or other contracts may be increased in quantity or extended in term without subsequent solicit with the mutual consent of the contractor and the Judiciary, where determined by the Judicial Purchasing Agent to be in the Judiciary's best interest.

7. TERM AND RENEWAL

Where offers have been requested or contracts awarded for terms exceeding periods of twelve (12) months, it is mutually understood and agreed that the Judiciary's commitment is limited to a base term not to exceed twelve (12) months, subject to renewal annually at the Judiciary's sole option for successive terms as otherwise described, except where expressly specified to the contrary. Purchase orders appearing to commit to obligations of funding or terms of performance may be executed for administrative convenience, but are otherwise subject to this provision, and in such cases the Judiciary's renewal shall be deemed to be automatic, conditional on the continued availability of appropriated funds for the purpose, except as written notice of the Judiciary's intent not to renew is served.

8. DELIVERY/COMPLETION

Delivery must be made as ordered and/or projects completed in accordance with the proposal. If delivery qualifications do not appear on the bidder's proposal, it will be interpreted to mean that goods are in stock and that shipment will be made within seven (7) calendar days. If the project completion date is not specified in the proposal, the date shall be determined by the Judicial Purchasing Agent. The decision of the Judicial Purchasing Agent, as to reasonable compliance with the delivery terms,

and date of completion shall be final. Burden of proof of delay in receipt of order shall rest with the contractor. No delivery charges shall be added to invoices except when authorized on the Purchase Order.

9. FOREIGN CORPORATIONS

In accordance with Title 7 Chapter 1.1 ("Business Corporations") of the General Laws of Rhode Island, no foreign corporation shall have the right to transact business in this state until it shall have procured a certificate of authority so to do from the Secretary of State.

10. PRICING

All pricing offered or extended to the Judiciary is considered to be firm and fixed unless expressly provided for to the contrary. All prices shall be quoted F.O.B. Destination with freight costs included in the unit cost to be paid by the Judiciary, except, where the Request or Contract permits, offers reflecting F.O.B. Shipping Point will be considered, and freight costs may then be prepaid and added to the invoice.

11. COLLUSION

Bidder or contractor warrants that he has not, directly or indirectly, entered into any agree participated in any collusion or otherwise taken any action in restraint of full competitive bidding. In special circumstances, an executed affidavit will be required as a part of the bid.

12. PROHIBITION AGAINST CONTINGENT FEES AND GRATUITIES

Bidder or contractor warrants that he has not paid, and agrees not to pay, any bonus, commission, fee, or gratuity to any employee or official of the Judiciary for the purpose of obtaining any contract or award issued by the Judiciary. Bidder or contractor further warrants that no commission or other payment has been or will be received from or paid to any third party contingent on the award of any contract by the Judiciary, except as shall have been expressly communicated to the Judicial Purchasing Agent in writing prior to acceptance of the contract or award in question. Subsequent discovery by the Judiciary of non-compliance with these provisions shall constitute sufficient cause for immediate termination of all outstanding contracts and suspension or debarment of the bidder(s) or contractor(s) involved.

13. AWARDS

Awards will be made with reasonable promptness and by written notice to the successful bidder (only); bids are considered to be irrevocable for a period of sixty (60) days following the bid opening unless expressly provided for to the contrary in the Request, and may not be withdrawn during this period without the express permission of the Judicial Purchasing Agent.

a. Awards shall be made to the bidder(s) whose offer(s) constitutes the lowest responsive price offer (or lowest responsive price offer on an evaluated basis) for the item(s) in question or for the Request as a whole, at the option of the Judiciary. The Judiciary reserves the right to determine those offers which are responsive to the Request, or which otherwise serve its best interests.

b. The Judiciary reserves the right, before making award, to initiate investigations as to whether or not the materials, equipment, supplies, qualifications or facilities offered by the bidder meet the requirements set forth in the proposal and specification, and are ample and sufficient to insure the proper performance of the contract in the event of award. If upon such examination it is found that the conditions of the proposal are not complied with or that articles or equipment proposed to be furnished do not meet the requirements called for, or that the qualifications or facilities are not satisfactory, the Judiciary may reject such a bid. It is distinctly understood, however, that nothing in the foregoing shall mean or imply that it is obligatory upon the Judiciary to make any examinations before awarding a contract; and it is further understood that if such examination is made, it in no way relieves the contractor from fulfilling
all requirements and conditions of the contract.

c. Qualified or conditional offers which impose limitations of the bidder's liability or modify the requirements of the bid, offers for alternate specifications, or which are made subject to different terms and conditions than those specified by the Judiciary may, at the option of the
Judiciary, be
   1. rejected as being non-responsive, or
   2. set aside in favor of the Judiciary's terms and conditions (with the consent of the bidder), or
   3. accepted, where the Judicial Purchasing Agent determines that such acceptance best serves the interests of the Judiciary.

Acceptance or rejection of alternate or counter-offers by the Judiciary shall not constitute a precedent which shall be considered to be binding on successive solicitations or procurements.

d. Bids submitted in pencil, or which do not bear an original signature, in ink, by an owner or authorized agent thereof, will not be accepted.

e. Bids must be extended in the unit of measure specified in the Request. In the event of any discrepancy between unit prices and their extensions, the unit price will govern.

f. The Judicial Purchasing Agent reserves the right to determine the responsibility of any bidder for a particular procurement.

g. The Judicial Purchasing Agent reserves the right to reject any and all bids in whole or in part, to waive technical defects, irregularities, and omissions, and to give consideration to past performance of the offerors where, in his judgment the best interests of the Judiciary will be served by so doing.

h. The Judicial Purchasing Agent reserves the right to make awards by items, group of items or on the total low bid for all the items specified as indicated in the detailed specification, unless the bidder specifically indicates otherwise in his bid.

i. Preference may be given to bids on products raised or manufactured in the State of Rhode Island, other things being equal.

j. The impact of discounted payment terms shall not be considered in evaluating responses to any Request.

k. The Judicial Purchasing Agent reserves the right to act in the Judiciary's best interests regarding awards caused by clerical errors by the Judicial Purchasing Office.

14. SUSPENSION AND DEBARMENT

The Judicial Purchasing Agent may suspend or debar any Vendor or potential bidder, for good cause shown:

a. A debarment or suspension against a part of a corporate entity constitutes debarment or suspension of all of its divisions and all other organizational elements, except where the action has been specifically limited in scope and application, and may include all known corporate affiliates of a contractor, when such offense or act occurred in connection with the affiliate's performance of duties for or on behalf of the contractor, or with the knowledge, approval, or acquiescence of the contractor or one or more of its principals or directors (or where the contractor otherwise participated in, knew of, or had reason to know of the acts).

b. The fraudulent, criminal or other serious improper conduct of any officer, director, shareholder, partner, employee, or any other individual associated with a contractor may be imputed to the contractor when the conduct occurred in connection with the individual's performance of duties for or on behalf of the contractor, or with the contractor's knowledge, approval or acquiescence. The contractor's acceptance of benefits derived from the conduct shall be evidence of such knowledge, approval, or acquiescence.

c. A Vendor or contractor who knowingly engages as a subcontractor for a contract awarded by the Judiciary to a Vendor or contractor then under a ruling of suspension or debarment by the Judiciary shall be subject to disallowance of cost, annulment or termination of award, issuance of a stop work order, or debarment or suspension, as may be judged to be appropriate by the Judicial Purchasing Agent.

15. PUBLIC RECORDS

Contractors and bidders are advised that certain documents, correspondence, and other submissions to the Judicial Purchasing Office may be voluntarily made public by the Judiciary absent specific notice that portions of such submittals may contain confidential or proprietary information, such that public access to those items should be withheld.

16. PRODUCT EVALUATION

In all specifications, the words "or equal" are understood after each article when manufacturer's name or catalog are referenced. If bidding on items other than those specified, the bidder must, in every instance, give the trade designation of the article, manufacturer's name and detailed specifications of the item the bidder proposes to furnish; otherwise, the bid will be construed as submitted on the identical commodity described in the detailed specifications. The Judicial Purchasing Agent reserves the right to determine whether or not the item submitted is the approved equal the detailed specifications.

a. Any objections to specifications must be filed by a bidder, in writing, with the Judicial Purchasing Agent at least 96 hours before the time of bid opening to enable the Judicial Purchasing Office to properly investigate the objections.

b. All standards are minimum standards except as otherwise provided for in the Request or Contract.

c. Samples must be submitted to the Judicial Purchasing Office in accordance with the terms of the proposals and detailed specifications. Samples must be furnished free of charge and must be accompanied by descriptive

memorandum invoices indicating whether or not the bidder desires their return and specifying the address to which they are to be returned (at the bidder's risk and expense), provided they have not been used or made useless by tests; and absent instructions, the samples shall be considered to be abandoned. Award samples may be held for comparison with deliveries.

d. All samples submitted are subject to test by any laboratory the Judicial Purchasing Agent may designate.

17. PRODUCT ACCEPTANCE

All merchandise offered or otherwise provided shall be new, of prime manufacture, and of first quality unless otherwise specified by the Judiciary. The Judiciary reserves the right to reject all nonconforming goods, and to cause their return for credit or replacement, at the Judiciary's option. Contract deliverables specified for procurements of services shall be construed to be work products, and subject to the provisions of this section.

a. Failure by the Judiciary to discover latent defect(s) or concealed damage or non-conformance shall not foreclose the Judiciary's right to subsequently reject the goods in question.

b. Formal or informal acceptance by the Judiciary of non-conforming goods shall not constitute a precedent for successive receipts or procurements.

c. Where the contractor fails to promptly cure the defect or replace the goods, the Judiciary reserves the right to cancel the Purchase Order, contract with a different contractor, and to invoice the original contractor for any differential in price over the original contract price.

d. When materials, equipment or supplies are rejected, the same must be removed by the contractor from the premises of the Judiciary within forty-eight (48) hours of notification. Rejected items left longer than two days will be regarded as abandoned and the Judiciary shall have the right to dispose of them as its own property.

18. PRODUCT WARRANTIES

All product or service warranties normally offered by the contractor or bidder shall accrue to the Judiciary's benefit, in addition to any special requirements which may be imposed by the Judiciary. Every unit delivered must be guaranteed against faulty material and workmanship for a period of one year unless otherwise specified, and the Judiciary may, in the event of failure, order its replacement, repair, or return for full credit, at its sole option.

19. PAYMENT

Unless otherwise provided for by the Request or Contract, payment shall not be made until delivery has been made, or services performed, in full, and accepted. Payment shall not be due prior to thirty (30) working days following the latest of completion, acceptance, or the rendering of a properly submitted invoice.

a. Payment terms other than the foregoing may be rejected as being nonresponsive.

b. No partial shipments, or partial completion will be accepted, unless provided for by the Request or Contract.

c. Where a question of quality is involved, or failure to complete a project by the specified due date, payment in whole or part against which to charge back any adjustment required, shall be withheld at the direction of the Judicial Purchasing Agent. In the event a cash discount is stipulated, the withholding of payments, as herein described, will not deprive the Judiciary from taking such discount.

d. Payments for used portion of inferior delivery or late delivery will be made by the Judiciary on an adjusted price basis.

e. Payments on contracts under architectural or engineering supervision must be accompanied by a Certificate of Payment and Statement of Account signed by the architect or engineer and submitted to the Judicial Purchasing Office for approval.

20. THIRD PARTY PAYMENTS

The Judiciary recognizes no assigned or collateral rights to any purchase agreement except as may be expressly provided for in the bid or contract documents, and will not accede to any request for third party or joint payment(s), except as provided for in specific orders by a court of competent jurisdiction, or by express written permission of the Judicial Purchasing Agent. Where an offer is contingent upon such payment(s), the offeror is obligated to serve affirmative notice in his bid submission.

21. SET-OFF AGAINST PAYMENTS

Payments due the contractor may be subject to reduction equal to the amount of unpaid and delinquent state taxes (or other just debt owed to the State), except where notice of delinquency has not been served or while the matter is pending in hearing or from any appeal therefrom.

22. CLAIMS

Any claim against a contractor may be deducted by the Judiciary from any money due him in the same or other transactions. If no deduction is made in such fashion, the contractor shall pay the Judiciary the amount of such claim on demand. Submission of a voucher and payment, thereof, by the Judiciary shall not preclude the Judicial Purchasing Agent from demanding a price adjustment in any case when the commodity delivered is later found to deviate from the specifications and proposal.

a. The Judicial Purchasing Agent may assess dollar damages against a Vendor or contractor determined to be non-performing or otherwise in default of their contractual obligations equal to the cost of remedy incurred by the Judiciary, and make payment of such damages a condition for consideration for any subsequent award. Failure by the Vendor or contractor to pay such damages shall constitute just cause for disqualification and rejection, suspension, or debarment.

23. CERTIFICATION OF FUNDING

The Chief Purchasing Officer shall provide certification as to the availability of funds to support the procurement for the current fiscal year ending June 30th only. Where delivery or service requirements extend beyond the end of the current fiscal year, such extensions are subject to both the availability of appropriated funds and a determination of continued need.

24. UNUSED BALANCES

Unless otherwise specified, all unused Blanket Order quantities and/or unexpended funds shall be automatically canceled on the expiration of the specified term. Similarly, for orders encompassing more than one fiscal year, unexpended balances of funding allotted for an individual fiscal year may be liquidated at the close of that fiscal year, at the Judiciary's sole option.

25. MINORITY BUSINESS ENTERPRISES

Pursuant to the provisions of Title 37 Chapter 14.1of the General Laws, the Judiciary reserves the right to apply additional consideration to offers, and to direct awards to bidders other than the responsive bid representing the lowest price where:

a. the offer is fully responsive to the terms and conditions of the Request, and
b. the price offer is determined to be within a competitive range (not to exceed 5% higher than the lowest responsive price offer) for the product or service, and
c. the firm making the offer has been certified by the R.I. Department of Economic Development to be a small business concern meeting the criteria established to be considered a Minority Business Enterprise. Ten per cent [10%] of the dollar value of the work performed against contracts for construction exceeding $5,000 shall be performed by Minority Business Enterprises where it has been determined that subcontract opportunities exist, and where certified Minority Business Enterprises are available. A contractor may count towards its MBE, DBE, or WBE goals 60% of its expenditures for materials and supplies required under a contract and obtained from an MBE, DBE, or WBE regular dealer, and 100% of such expenditures when obtained from an MBE, DBE, or WBE manufacturer. Awards of this type shall be subject to approval, by the Chief Purchasing Officer, of a Subcontracting Plan submitted by the bidder receiving the award.

26. PREVAILING WAGE REQUIREMENT

In accordance with Title 37 Chapter 13 of the General Laws of Rhode Island, payment of the general prevailing rate of per diem wages and the general prevailing rate for regular, overtime and other working conditions existing in the locality for each craft, mechanic, teamster, or type of workman needed to execute this work is a requirement for both contractors and subcontractors for all public works.

27. EQUAL OPPORTUNITY COMPLIANCE, HANDICAPPED ACCESS AND AFFIRMATIVE ACTION

Contractors of the Judiciary are required to demonstrate the same commitment to equal opportunity as prevails under federal contracts controlled by Federal Executive Orders 11246, 11625, 11375 and 11830, and Title 28 Chapter 5.1 of the General Laws of Rhode Island.

Affirmative action plans shall be submitted by the contractor for review by the State Equal Opportunity Office. A contractor's failure to abide by the rules, regulations, contract terms and compliance reporting provisions as established shall be grounds for forfeiture and penalties as shall be established, including but not limited to suspension.

28. DRUG-FREE WORKPLACE REQUIREMENT

Contractors who do business with the Judiciary and their employees shall abide by the State's drug-free workplace policy and the contractor shall so attest by signing a certificate of compliance.

29. TAXES

The Judiciary is exempt from payment of excise, transportation and sales tax imposed by the Federal or State Government. These taxes should not be included in the proposal price. Exemption Certificates will be furnished upon request.

30. INSURANCE

All construction contractors, independent tradesmen, or firms providing any type of maintenance, repair, or other type of service to be performed on judicial premises, buildings, or grounds are required to purchase and maintain coverage with a company or companies licensed to do business in the state as follows:

a. Comprehensive General Liability Insurance
   1) Bodily Injury $1,000,000 each occurrence/ $1,000,000 annual aggregate
   2) Property Damage $500,000 each occurrence /$500,000 annual aggregate
   Independent Contractors
   Contractual - including construction hold harmless and other types of contracts or agreements in effect for insured operations
   Completed Operations
   Personal Injury (with employee exclusion deleted)

b. Automobile Liability Insurance
   Combined Single Limit $1,000,000 each occurrence
   Bodily Injury
   Property Damage, and in addition non-owned and/or hired vehicles and equipment

c. Workers' Compensation Insurance
   Coverage B $100,000

The Judicial Purchasing Agent reserves the right to consider and accept alternate forms and plans of insurance or to require additional or more extensive coverage for any individual requirement. Successful bidders shall provide certificates of coverage, reflecting the Rhode Island Judiciary as an additional insured, to the Judicial Purchasing Office, forty-eight (48) hours prior to the commencement of work, as a condition of award. Failure to comply with this provision shall result in rejection of the offeror's bid.

31. BID SURETY

When requested, a bidder must furnish a Bid Bond or Certified Check for 5% of his bid, or for the stated amount shown in the solicitation. Bid Bonds must be executed by a reliable Surety Company authorized to do business in the State of Rhode Island. Failure to provide Bid Surety with bid may be cause for rejection of bid. The Bid Surety of any three bidders in contention will be held until an award has been made according to the specifications of each proposal. All others will be returned by mail within 48 hours following the bid opening. Upon award of a contract, the remaining sureties will be returned by mail unless instructed to do otherwise.

32. PERFORMANCE AND LABOR AND PAYMENT BONDS

A performance bond and labor and payment bond of up to 100% of an award may be required by the Judicial Purchasing Agent. Bonds must meet the following requirements:

a. Corporation: The Bond must be signed by an official of the corporation above his/her official title and the corporate seal must be affixed over his/her signature.
b. Firm or Partnership: The Bond must be signed by all of the partners and must indicate that they are "Doing Business As (name of firm)."
c. Individual: The Bond must be signed by the individual owning the business and indicate "Owner."
d. The Surety Company executing the Bond must be licensed to do business in the State of Rhode Island or Bond must be countersigned by a company so licensed.
e. The Bond must be signed by an official of the Surety Company and the corporate seal must be affixed over his signature.
f. Signatures of two witnesses for both the principal and the Surety must appear on the Bond.
g. A Power of Attorney for the official signing of the Bond for the Surety Company must be submitted with the Bond.

33. SUSPENSION, DEFAULT AND TERMINATION

a. Suspension of a Contract by the Judiciary

The Judiciary reserves the right at any time and for any reason to suspend all or part of this contract, for a reasonable period, not to exceed sixty days, unless the parties agree to a longer period. The Judiciary shall provide the contractor with written notice of the suspension order signed by the Purchasing Agent or his or her designee, which shall set forth the date upon which the suspension shall take effect, the date of its expiration, and all applicable instructions. Upon receipt of said order, the contractor shall immediately comply with the order and suspend all work under this contract as specified in the order. The contractor shall take all reasonable steps to mitigate costs and adverse impact to the work specified in the contract during the suspension period. Before the order expires, the Judiciary shall either:

1. cancel the suspension order;
2. extend the suspension order for a specified time period not to exceed thirty (30) days; or
3. terminate the contract as provided herein.

The contractor shall resume performance once a suspension order issued under this section is canceled or expires. If as a result of the suspension of performance, there is a financial or schedule impact upon the contract, an appropriate adjustment may be made by, or with the approval of, the Judicial Purchasing Agent. Any adjustment shall be set forth in writing. After a suspension order has been canceled or expires, the contractor shall provide any request for adjustment to the Judicial Purchasing Agent within thirty (30) days after resuming work performance.

b. Termination of a Contract by the Judiciary

1. Termination for Default or Nonperformance

If, for any reason, the contractor breaches the contract by failing to satisfactorily fulfill or perform any obligations, promises, terms, or conditions, and having been given reasonable notice of and opportunity to cure such default, fails to take satisfactory corrective action within the time specified by the Judiciary, the Judiciary may terminate the contract, in whole or in part, the termination of all outstanding contracts or sub-contracts held by the contractor, and the suspension or debarment of the contractor from future procurements by giving written notice to the contractor specifying the date for termination. The Judiciary shall endeavor to provide such notice at least seven (7) calendar days before the effective date of the termination.

A contractor who fails to commence within the time specified or complete an award made for repairs, alterations, construction, or any other service will be considered in default of contract. If contractor consistently fails to deliver quantities or otherwise perform as specified, the Judicial Purchasing Agent reserves the right to terminate the contract and contract for completion of the work with another contractor and seek recourse from the defaulting contractor or his surety. In the event of a termination for default or nonperformance, in whole or in part, the Judiciary may procure similar goods or services in a manner and upon terms it deems appropriate, and the contractor shall be liable for the excess costs incurred by the Judiciary as a result of the contractor's default. The contractor, or its surety, agrees to promptly reimburse the Judiciary for the excess costs, but shall have no claim to the difference should the replacement cost be less.

2. Termination Without Cause

The Judiciary may terminate the contract in whole or in part without cause at any time by giving written notice to the contractor of such termination at least thirty (30) days before the effective date of such termination. The notice shall specify the part(s) of the contract being terminated and the effective termination date.

Within thirty (30) days of the effective date of the termination of the contract the contractor shall compile and submit to the Judiciary an accounting of the work performed up to the date of termination. The Judiciary may consider the following claims in determining reasonable compensation owed to the contractor for work performed up to the date of termination:

(a) contract prices for goods or services accepted under the contract;
(b) costs incurred in preparing to perform and performing the terminated portion of the contract; or
(c) any other reasonable costs incurred by the contractor as a result of the termination.

The total sum to be paid to the contractor shall not exceed the total contract price, less any payments previously made to the contractor, the proceeds from any sales of goods or manufacturing materials, and the contract price for work not terminated.

3. Contractor's Obligations in the Event of Termination

If the contract is terminated for any reason, or expires pursuant to its terms, the contractor shall transfer and deliver to the Judiciary in the manner and to the extent directed by the Judiciary:

- all finished or unfinished material prepared by the contractor; and
- all material, if any, provided to the contractor by the Judiciary.

For the purposes of the contract, "material" shall include, but is not limited to, goods, supplies, parts, tools, machinery, equipment, furniture, fixtures, information, data, reports, summaries, tables, maps, charts, photographs, studies, recommendations, files, audiotapes, videotapes, records, keys, security badges, and documents.

If the contract is terminated for cause, the contractor shall not be relieved of liability to the Judiciary for damages sustained because of any breach by the contractor. In such event, the Judiciary may retain any amounts which may be due and owing to the contractor until such time as the exact amount of damages due the Judiciary from the contractor has been determined by the Judicial Purchasing Agent. The Judiciary may also set off any damages so determined against the amounts retained.

Upon termination of the contract, the contractor shall stop performance on the date specified, terminate any outstanding orders and subcontracts applicable to the terminated portion of the contract, and shall incur no further commitments or obligations in connection with the terminated performance. The contractor shall settle all liabilities and claims arising out of the termination of subcontracts and order generating from the terminated performance. The Judiciary may direct the contractor to assign the contractor's right, title and interest under terminated orders or subcontracts to the Judiciary or a third party.

Terminations of Purchase Order Contracts or Master Pricing Agreements shall require the signature of the Judicial Purchasing Agent or his designee. Notice of termination by either party shall be submitted in writing to the other party in accordance with the termination clause of the contract, or where no specific termination clause is included, written notice shall be provided no later than thirty (30) days before the expiration of the contract.

34. INDEMNITY

The contractor guarantees:

a. To save the Judiciary, its agents and employees, harmless from any liability imposed upon the Judiciary arising from the negligence, either active or passive, of the contractor, as well as for the use of any copyrighted or uncopyrighted composition, secret process, patented or unpatented invention, article or appliance furnished or used in the performance of the contract of which the contractor is not the patentee, assignee or licensee.

b. To pay for all permits, licenses and fees and give all notices and comply with all laws, ordinances, rules and regulations of the city or town in which the installation is to be made and of the State of Rhode Island.

c. That the equipment offered is standard new equipment, latest model of regular stock product with all parts regularly used with the type of equipment offered; also, that no attachment or part has been substituted or applied contrary to manufacturer's recommendations and standard practice.

35. CONTRACTOR'S OBLIGATIONS

In addition to the specific requirements of the contract, construction and building repair contractors bear the following standard responsibilities:

a. To furnish adequate protection from damage for all work and to repair damages of any kind, for which he or his workmen are responsible, to the building or equipment, to his own work, or to the work of other contractors;

b. The contractor, its subcontractor(s) and their employees and/or agents, shall protect and preserve property in the contractor or subcontractor's possessions in which the Judiciary has an interest, and any and all materials provided to the contractor or subcontractor by the Judiciary;

c. To clear and remove all debris and rubbish resulting from his work from time to time, as directed or required, a completion of the work leave the premises in a neat unobstructed condition, broom clean, and in satisfactory order and repair;

d. To store equipment, supplies, and material at the site only upon approval by the Judiciary, and at his own risk;

e. To perform all work so as to cause the least inconvenience to the Judiciary, and with proper consideration for the rights of other contractors and workmen;

f. To acquaint themselves with conditions to be found at the site, and to assume responsibility for the appropriate dispatching of equipment and supervision of his employees during the conduct of the work;

g. To ensure that his employees are instructed with respect to special regulations, policies, and procedures in effect for any judicial facility or site, and that they comply with such rules, including but not limited to security policies or practices and/or criminal background checks for any employees and/or subcontractors;

h. The contractor shall ensure that its employees or agents are experienced and fully qualified to engage in the activities and services required under the contract;

i. The contractor shall ensure that at all times while services are being performed under this contract at least one of its employees or agents on the premises has a good command of the English language and can effectively communicate with the Judiciary and its staff;

j. The contractor and contractor's employees or agents shall comply with all applicable licensing and operating requirements required by federal or state law and shall meet accreditation and other generally accepted standards of quality in the applicable field of activity;

k. The contractor shall secure and retain all employee-related insurance coverage for its employees and agents as required by law; and

l. The contractor, subcontractor, and his or her employees and agents shall not disclose any confidential information of the Judiciary to a third party. Confidential information means:

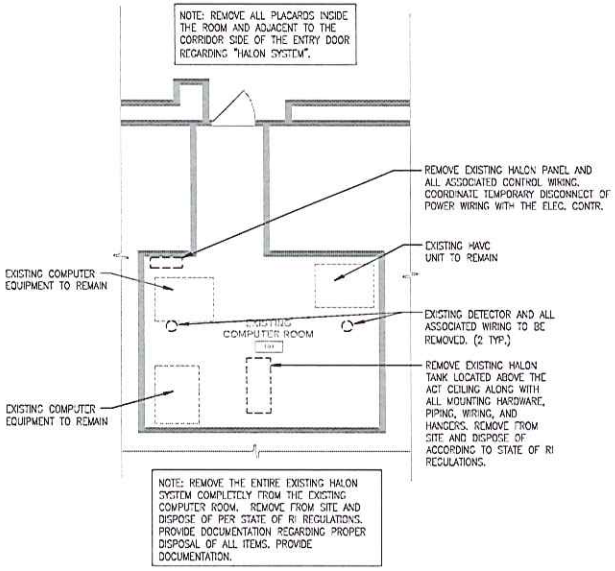
(1) any information of a sensitive or proprietary nature, whether or not specially identified as confidential or proprietary; or

(2) any information about the Judiciary gained during the performance of a contract that is not already lawfully in the public domain.

36. FORCE MAJEURE

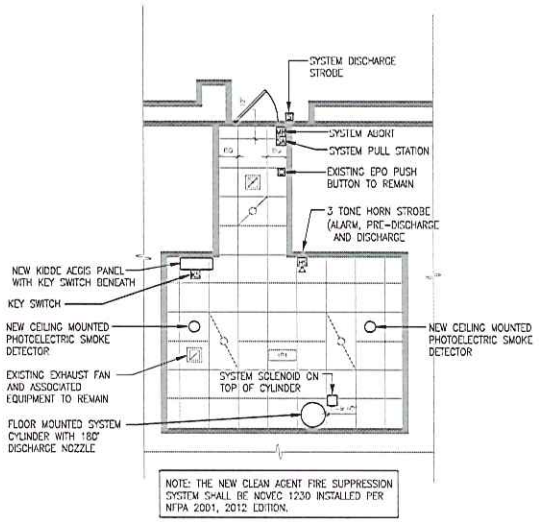
All orders shall be filled by the contractor with reasonable promptness, but the contractor shall not be held responsible for any losses resulting if the fulfillment of the terms of the contract shall be delayed or prevented by wars, acts of public enemies, strikes, fires, floods, acts of God, or for any other acts not within the control of the contractor and which by the exercise of reasonable diligence, the contractor is unable to prevent.

Appendix C



FIRE PROTECTION DEMOLITION PLAN

SCALE: 1/4"=1'-0"



FIRE PROTECTION FLOOR PLAN

SCALE: 1/4"=1'-0"

FIRE PROTECTION NOTES

1. THE CLEAN AGENT FIRE SUPPRESSION SYSTEM SHALL CONFORM TO NFPA STANDARD 2001, 2012 EDITION. THE SYSTEM MUST DEVELOP AND MAINTAIN A 4.7% CONCENTRATION WITHIN THE HAZARD AREA WITHOUT SHUTTING DOWN COMPUTER EQUIPMENT.

2. THE FIRE SUPPRESSION SYSTEM SHALL BE NOVEC 1230.

3. THE CONTROL PANEL SHALL BE THE NEW UL-864 9TH EDITION COMPLIANT KIDDE AEGIS SINGLE HAZARD CONTROL PANEL. THIS PANEL IS LISTED TO OPERATE WITHIN AN AMBIENT TEMPERATURE RANGE OF 32 – 120F.

4. PROVIDE PHOTOELECTRIC TYPE SMOKE DETECTORS MOUNTED TO THE CEILING.

5. THE SYSTEM SHALL UTILIZE A CROSS ZONING TYPE OF DETECTION SYSTEM.

6. PROVIDE CUSTOM ENGRAVED NAME PLATES AT EACH DEVICE LOCATION FOR THE PURPOSE OF IDENTIFYING EACH DEVICE'S ASSOCIATION WITH THE NOVEC 1230 FIRE SUPPRESSION SYSTEM.

7. PERFORM A ROOM INTEGRITY TEST TO CONFIRM THAT THE HAZARD IS CAPABLE OF MAINTAINING THE EXTINGUISHING AGENT'S DESIGN CONCENTRATION FOR THE TEN (10) MINUTE RETENTION PERIOD.

8. ALL REQUIRED WORK SHALL BE PERFORMED "OFF HOURS". ALL TESTING AND TRAINING CAN BE DONE DURING "NORMAL HOURS", PROVIDED THE TESTING DOES NOT INTERFERE WITH THE FACILITIES DAY TO DAY OPERATIONS.

9. ALL LABOR SHALL ADHERE TO THE STATE OF RI PREVAILING WAGE RATES.

10. PROVIDE FOUR (4) BOUND SETS OF AS-BUILT DRAWINGS AND O&M MANUALS AFTER COMPLETION OF TESTING AND TRAINING.

DiSanto Engineering Corporation
Fire Protection Engineers
250 Commerce Park
Suite 204
Providence, RI 02904
401-331-6222
www.disantoengineering.com

McGrath Judicial Complex
4800 Tower Hill Road
Wakefield, RI 02879

Status: ISSUED FOR CONSTRUCTION

No.	Revision	Date

Sheet Title: FIRE PROTECTION AND NOTES

Project No:	20140039
Drawn By:	DCF
Checked By:	RCK
Scale:	NOTED
Date:	06/06/2014

Drawing No: FP.1

Sheet 2 of 2

SHEET NOTES:

1. ELECTRICAL CONTRACTOR SHALL COORDINATE WITH THE FIRE PROTECTION CONTRACTOR AND DEMOLISH ALL ASSOCIATED HALON SYSTEM CONNECTION ABOVE THE CEILING.
2. E.C. SHALL MAINTAIN WIRING TO THE EXISTING SHUNT-TRIP MAIN CIRCUIT BREAKER IN PANEL "DP" AND RECONNECT TO NEW FIRE PROTECTION SYSTEM.
3. E.C. SHALL MAINTAIN WIRING TO SHUT DOWN EXISTING LIEBERT HVAC UNIT, AND RECONNECT TO NEW FIRE PROTECTION SYSTEM.
4. E.C. SHALL MAINTAIN WIRING TO ROOM EXHAUST SYSTEM.
5. E.C. SHALL RECONNECT EXISTING CIRCUIT SERVING THE EXISTING FIRE PROTECTION SYSTEM TO THE NEW FIRE PROTECTION PANEL.
6. E.C. SHALL COORDINATE WITH THE FIRE PROTECTION CONTRACTOR AND PROVIDE ALL INCIDENTAL WORK ASSOCIATED WITH THE NEW FIRE PROTECTION SYSTEM FOR A COMPLETE AND OPERATION SYSTEM.
7. THE EXISTING BASE BUILDING FCI FIRE ALARM PANEL IS LOCATED AT THE MAIN ENTRANCE. FIELD VERIFY THE EXACT LOCATION.
8. THE EXISTING FIRE ALARM CONNECTIONS "ZONE 22 – HALON SYSTEM" SHALL BE RECONNECTED TO THE NEW FIRE PROTECTION SYSTEM. RE-LABEL AS "ZONE 22– NOVEC1230" OR AS DIRECTED BY THE LOCAL FIRE DEPARTMENT. PROVIDE FIRE ALARM TESTING VIA RED MANN FIRE & SECURITY (1800-698-5197). PROVIDE A FIRE ALARM TEST REPORT PER NFPA 72, AND PER THE REQUIREMENTS OF THE LOCAL FIRE DEPARTMENT.
9. E.C. SHALL PROVIDE 1 BLANK SPACE IN PANEL "DP".
10. E.C. SHALL PROVIDE NAMEPLATE LABELED AS "EXHAUST FAN".
11. E.C. SHALL PROVIDE INTERMEDIATE RELAYS AND PROVIDE EMERGENCY POWER OFF WIRING TO THE UPSs WITHIN THE TEL/DATA RACKS.
12. TEL/DATA RACK LOCATION.
13. LOCATION OF FIRE PROTECTION CYLINDER AND SYSTEM SOLENOID.
14. E.C. SHALL REMOVE AND REINSTALL CEILING MOUNTED EQUIPMENT TO ACCOMMODATE CEILING REPLACEMENT.
15. E.C. SHALL VERIFY PROPER OPERATION OF AUTOMATIC SHUT-DOWN OF PANEL "DP", UPSs, LIEBERT HVAC UNIT, VIA ACTIVATION OF ROOM FIRE PROTECTION SYSTEM AND EPO BUTTON, DURING THE PLANNED COMPUTER ROOM SHUT-DOWN, COORDINATE WITH THE FIRE PROTECTION VENDOR AND BUILDING I.T. DEPARTMENT AS REQUIRED.

NOTES:

ALL WORK SHALL BE PERFORMED ON OFF HOURS. COORDINATE WITH BUILDING MANAGER. THIS PROJECT WILL FOLLOW PREVAILING WAGE LAWS.

ELECTRICAL SYMBOL LEGEND

LIGHTING

- FLUORESCENT 2'x2' LIGHTING FIXTURE
- FLUORESCENT 2'x4' LIGHTING FIXTURE
- S — SINGLE POLE SWITCH MTD. 48" A.F.F. ("K" INDICATES KEY TYPE, "P" INDICATES WITH PILOT LIGHT)

FIRE ALARM

- SYSTEM FIRE ALARM SMOKE DETECTOR, PROVIDED BY FIRE PROTECTION VENDOR.
- FIRE ALARM PULL STATION
- ABORT STATION, PROVIDED BY FIRE PROTECTION VENDOR.
- MANUAL RELEASE STATION, PROVIDED BY FIRE PROTECTION VENDOR.
- SYSTEM HORN/STROBE COMBINATION, PROVIDED BY FIRE PROTECTION VENDOR.
- FIRE ALARM STROBE ONLY, MTD. 80" A.F.F. TO BOTTOM OF STROBE LENS. "CLG" INDICATES CEILING TYPE, CANDELA RATING SHALL BE 15/75, UNLESS OTHERWISE NOTED.
- FIRE ALARM BELL.
- HALON PULL STATION.
- FACP — FIRE ALARM CONTROL PANEL.
- SYSTEM PULL STATION PROVIDED BY FIRE PROTECTION CONTRACTOR.
- SYSTEM KEY SWITCH PROVIDED BY FIRE PROTECTION VENDOR.

POWER

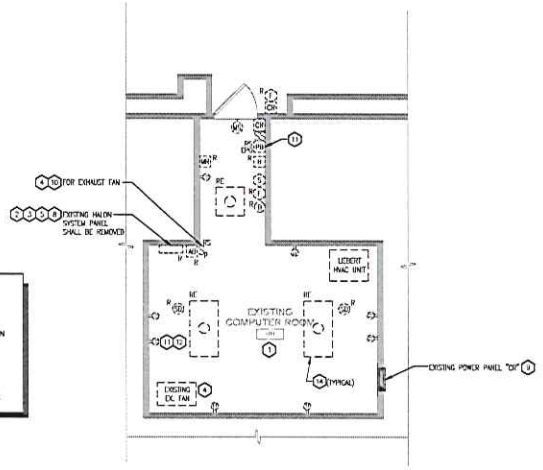
- DUPLEX RECEPTACLE MTD 18" A.F.F. TO CENTER. "G" INDICATES MTD 6" ABOVE COUNTER TOP. "F" INDICATES FLOOR MOUNTED. "IG" INDICATES ISOLATED GROUND TYPE.
- ELECTRIC PANEL, SURFACE MOUNTED
- ELECTRIC PANEL, FLUSH MOUNTED
- PB — PUSH BUTTON MTD. 48" A.F.F.
- CR — CARD READER
- MS — SECURITY MOTION SENSOR.

NOTES

1. DISCONNECT, REMOVE, AND MAKE SAFE ALL CONDUIT AND WIRING NOT IN SERVICE.
2. VERIFY ALL EQUIPMENT NAMEPLATE LOADS AND INSURE PROPER SIZING OF CONDUCTORS AND OVERCURRENT PROTECTION. NOTIFY ENGINEER OF DISCREPANCIES.
3. USE #10 CONDUCTORS FOR ALL HOMERUNS OVER 100 FEET IN LENGTH.
4. BALANCE THE PHASES IN EACH ELECTRICAL PANEL.

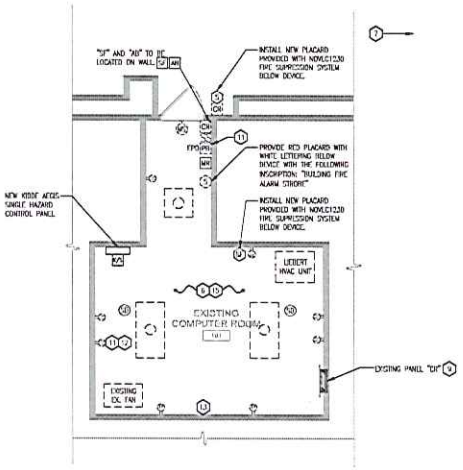
EXISTING ITEMS NOTES:

1. ALL EXISTING ITEMS SHOWN DASHED ARE EXISTING TO REMAIN UNLESS NOTED OTHERWISE:
   - R ... REMOVE
   - RC ... REMOVE, REINSTALL ONTO NEW CEILING
   - RN ... REMOVE AND REPLACE WITH NEW
   - RS ... REMAIN
2. SEE SPECIFICATION SECTION, "REMOVALS AND RELOCATIONS".



ELECTRICAL DEMOLITION PLAN

N.T.S.



ELECTRICAL PLAN

N.T.S.

McGrath Judicial Complex
4800 Tower Hill Road
Wakefield, RI 02879

Status: ISSUED FOR CONSTRUCTION

No.	Revision/Issue	Date

Sheet Title: ELECTRICAL PLAN

Project No.	2003400039
Drawn By:	TB
Checked By:	SC
Scale:	NOTED
Date:	08/26/2014

Drawing No.: E.1

Sheet 3 of 3

SECTION 260000

GENERAL

PART 1 - GENERAL

1.1 SUMMARY

A. This Section includes the following:

1. Work that applies to all sections of DIVISION 26
2. Removals (demolition) and relocations

1.2 RELATED DOCUMENTS

A. The General Conditions, Supplementary Conditions, and applicable portions of Division 1 of the specification are part of Division 26 and 28 which shall consist of all labor, equipment, materials and other costs necessary to complete all ELECTRICAL MATERIALS AND METHODS work indicated on the drawings, herein specified or both.

1.3 RELATED WORK SPECIFIED UNDER OTHER SECTIONS: Read these DIVISIONS carefully. For purposes of bidding, assume that all work of the DIVISION referenced is to be performed under that DIVISION unless specifically indicated therein to be performed under the ELECTRICAL DIVISION. Refer to the Architects Specification on drawings for division specification sections not included in this specification.

A. Cutting and patching - see DIVISION 1

B. Allowances – see DIVISION 1.

C. Alternatives - see DIVISION 1.

D. Access panels - see DIVISION 8.

E. Temperature controls, temperature control wiring, interlock wiring, and boiler control wiring (except as indicated on the electrical drawings) - see DIVISION 23.

1.4 DEFINITIONS

A. Provide: Furnish and install.

B. Wiring: Wire, raceways, boxes and fittings.

1.5 PERMITS AND FEES

A. Obtain all permits for the work of this section

B. Pay all fees, including a FIRE ALARM REVIEW FEE and FINAL INSPECTION FEES.

1.6 SUBMITTALS

A. Product Data: For each product indicated

B. Shop Drawings: Wiring and connection diagrams

C. Manufacturers: Where the drawings or specifications list specific brands or catalog numbers, only these products may be used unless the words: "or approved equal" or "but are not limited to" are included.

D. Limitations of approval: The Contractor shall not be relieved of responsibility for deviations from requirements of the Contract Documents by the Engineer's approval of Shop Drawings, Product Data, Samples or similar submittals unless the Contractor has specifically informed the Engineer in writing of such deviation, in a separate cover letter on Contractor's letterhead, at the time of submittal and the Engineer has given written approval to the specific deviation. The Contractor shall not be relieved of responsibility for errors or omissions in Shop Drawings, Product Data, Samples or similar submittals by the Engineer's approval thereof.

E. Contractor's responsibility: It is the responsibility of the Contractor to check all dimensions and details on shop drawings, before submission to the Engineer, reject same if necessary and only forward to the Engineer shop drawings which he is reasonably certain fulfill the requirements of the contract documents and the work. The approval of shop drawings by the Engineer shall be general only in character and not mean dimensions on drawings have been checked, and will in no way relieve the Contractor of the responsibility for proper fitting and construction of the work, nor from the necessity of furnishing materials or doing the work required by the drawings and/or specifications, which may not be indicated on the shop drawings when approved. All shop drawings shall be checked by the Contractor, and must bear the Contractor's stamp of approval; drawings submitted without this stamp of approval will not be considered.

F. Tests: Test the complete installation to prove it free from shorts, grounds, opens and faulty connections. Make any corrections necessary before acceptance.

1. Test each function of each system including each device.

G. Certification: Upon request, provide "Certification" (by a recognized testing agency or a Professional Engineer registered in the state where the project is located) that submitted items of equipment are suitable for their intended use.

H. Record of Addenda and Change Orders: To avoid overlooking addenda and change order modifications, mark all changes on all copies of drawings and specifications, in a manor acceptable to the Engineer. One method of accomplishing this is to make copies and tape them on the back of the preceding page (tape all edges). Also, circle the changed area and note: see addenda #1, etc. If whole pages or sheets change, either remove the superseded document or put a bold **"X"** through it.

I. Record Drawings: Owner's record drawings shall be updated as the project progresses. Maintain documents in a safe, dry location. Indicate clearly and accurately any changes

necessitated by field conditions and dimension all raceways built into or under concrete slabs or buried under ground.

J. Letter of Confirmation: Include in the above manuals a letter confirming that the following items have been completed. Provide written receipt signed by the Owner or his representative indicating that the first 4 items listed below have been received.

1. The number of circuit breaker locks called for have been provided.
2. Identification is complete and in accordance with these specifications.
3. As-built electrical drawings have been completed and submitted.
4. All tests are complete and in accordance with these specifications.
5. All required shop drawings have been submitted and approved.
6. The entire installation has been accepted by all authorities.

1.7 QUALITY ASSURANCE

A. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, Article 100, by a testing agency acceptable to authorities having jurisdiction, and marked for intended use.

B. Do all wiring and provide all equipment in accordance with the prevailing issue of the National Electrical Code, State Building Code, State Fire Code, OSHA and any additional local rules or requirements.

C. Obtain and pay for all necessary permits, certificates, reviews, etc. Present satisfactory proof of final inspection and approval by all inspection authorities.

D. Consider the most current edition (as of the date of this specification) of the following Industry Standards as minimum requirements for all materials, equipment and systems where such standards are established for materials in question:

1. National Board of Fire Underwriters
2. National Electrical Manufacturers Association
3. National Fire Protection Association
4. Institute of Electrical and Electronic Engineers
5. Local Electric Utility Company
6. Local Telephone Company
7. A nationally recognized testing laboratory (UL, ETL, etc.)
8. Factory Mutual
9. Americans with Disabilities Act
10. American National Standards Institute
11. TIA/EIA
12. BICSI TDDM

E. Where applicable, this installation shall comply with the most recent edition of the following NECA (National Electrical Contractors Association) "National Electrical Installation Standards." Except, if there is a conflict between this specification and these standards, the requirements of this specification shall prevail.

1. NECA 1 Standard Practices for Good Workmanship in Electrical Contracting

2.	NECA 101	Standard for Installing Steel Conduit (Rigid, EMT)
3.	NECA/IESNA 500	Recommended Practice for Installing Indoor Commercial Lighting Systems
4.	NECA/BICSI 568(B)	Telecommunications

1.8 COORDINATION

A. Coordinate with the Fire Protection vendor and the owner's IT department as required.

1.9 CHANGE ORDERS/PROPOSAL REQUESTS:

A. Refer to DIVISION 1 of these specifications and add the following:

B. During the course of construction, changes in the work may occur. When a significant change is to be made, a Proposal Request will be issued.

C. Provide a complete cost breakdown when responding to each Proposal Request.

D. Each item of work to be priced separately.

E. Each line item to be broken down including quantities and listing separately labor and material.

F. Both credits and extras shall be separately and clearly quantified.

G. Allowances for overhead and profit shall be as listed in the supplementary conditions.

H. If you become aware of a field condition, code requirement, error, or omission that you feel should result in a change to the work, please contact the Engineer for discussion. The Engineer may be able to clarify the situation and avoid unnecessary paperwork.

1.10 INSPECTIONS/SITE OBSERVATIONS

A. The authority having jurisdiction (usually the Municipal Electrical Inspector) shall be notified at periodic intervals that an inspection is requested. Inspections shall be requested at points of progress, meeting the approval of the inspector and as a minimum include the following:

1. Prior to enclosing walls.
2. Prior to enclosing ceilings.
3. Prior to installation of panel panel/switchgear trims/covers.
4. For observation of connections and grounding at switchboards, transformers and generators.

B. Do not cover the work before the Engineer has had a chance to observe it in completed form. The electrical foreman shall request a meeting with the Engineer within 10 days after the start of electrical construction to assure that there is agreement on the scope of work and to answer questions.

C. The electrical foreman shall provide assistance to the Engineer during site observations:

1. Describe the progress of the electrical work in detail.
2. Accompany the Engineer on his tour of the site, upon request.
3. Provide use of a suitable ladder, scaffolding or bucket truck to observe the work, upon request.
4. Remove ceiling tiles, panel trims, junction box covers, etc. for observation of the work, upon request.
5. Provide use of project drawings, specifications and shop drawings.

1.11 GUARANTEES/WARRANTIES:

A. Refer to Division 1 of these specifications and add the following:

B. A minimum warrantee time of one year from date of acceptance by the Engineer.

C. The Owner reserves the right to make appropriate modifications or extensions of systems and equipment furnished under this contract during the guarantee/warranty period without "voiding" or modifying the guarantee/warranty of equipment and wiring installed under this contract. If manufacturer voids guarantee, it shall not relieve this contractor of his responsibilities for guarantee/warranty period.

1.12 MISCELLANEOUS

A. Provide all systems complete. Drawings and Specifications form complementary requirements; provide work specified and not shown, and work shown and not specified as though explicitly required by both.

B. Although work is not specifically shown or specified, provide supplementary or miscellaneous items, appurtenances, devices and materials obviously necessary for a sound, secure and complete installation.

C. All wiring and connections to be done with associated circuit de-energized.

PART 2 - PRODUCTS

2.1 MATERIALS - General:

A. All materials and equipment to be <u>new</u> unless specifically stated otherwise.

B. Materials and equipment shall be suitable for their intended use and for the environment in which they are installed. For example, equipment located outside shall be weatherproof and constructed of materials that will not rust. This includes brackets, screws, etc.

C. Coordinate all dimensions to make sure that boxes, raceways, equipment, fixtures, etc., fit properly in the finished construction. If special provisions, such as shallow boxes, are required, they shall be provided at no increase in contract price, regardless of catalog numbers listed in contract documents or on shop drawings.

D. As it is not practical to enumerate in these specifications (or show on the drawings) all details of fittings and accessory equipment required for proper operation of the various electrical systems herein described, it is understood that they will be supplied without extra compensation. Provide all fittings, terminations, relays, components of panels and equipment, etc., needed for the best performance possible at the present state-of-the-art.

PART 3 - EXECUTION

3.1 ELECTRICAL EQUIPMENT INSTALLATION

A. Headroom Maintenance: If mounting heights or other location criteria are not indicated, arrange and install components so as to allow for safe personnel movement and maintenance access.

B. Materials and Components: Install level, plumb, and parallel and perpendicular to other building systems and components, unless otherwise indicated.

C. Equipment: Install to facilitate service, maintenance, and repair or replacement of components. Connect for ease of disconnecting, with minimum interference with other installations.

D. Right of Way: Give to raceways and piping systems installed at a required slope.

3.2 LAYOUTS

A. The electrical system layouts indicated are generally diagrammatic and locations of outlets and equipment are approximate only. Exact routing of wiring and locations of outlets and equipment shall be governed by structural conditions and obstructions. This is not to be construed to permit redesigning systems. Interconnect as shown.

B. Locate all equipment requiring maintenance and operation so that it will be readily accessible. The right is reserved to make any reasonable change in location of outlets and equipment prior to roughing-in without involving additional expense. This may involve slightly longer wiring runs, longer stems, additional mounting provisions, etc. Allow for this in your bid because additional compensation will not be provided. Items not specifically located on the plans shall (for the purposes of bidding) be assumed to be in the farthest, most difficult location. Exact location to be as directed in the field.

3.3 ELECTRICAL SUPPORTING DEVICE APPLICATION

A. Damp Locations and Outdoors: Hot-dip galvanized materials, slotted channel system components.

B. Dry Locations: Steel materials.

C. Strength of Supports: Adequate to carry present and future loads, times a safety factor of at least four with, 200-lb (90-kg) minimum design load for each support element.

3.4 SEQUENCE AND BALANCE:

A. Maintain correct phase sequence of all feeders and circuits by establishing phase identification and maintaining correct relationship throughout the system. Provide line balance within 10% of normal loads.

3.5 FIRESTOPPING

A. Refer to Division 7 of these specifications and add the following:

B. Apply firestopping to cable and raceway sleeves and other penetrations of fire-rated floor and wall assemblies to restore original undisturbed fire-resistance ratings of assemblies.

C. Penetrations through exterior surfaces shall be made watertight.

D. Floor boxes, fed from floor below, shall be fire-rated, poke-through type with UL labeled fire rating to match floor rating.

E. Fire Stop new and existing penetrations serving the computer room.

3.6 WORK INTERFERING WITH EXISTING WIRING:

A. Make any necessary re-circuiting, extensions of existing circuits and relocations required to properly re-energize remaining existing devices or equipment that may be interfered with by new construction or removals.

3.7 REMOVALS (DEMOLITION) AND RELOCATIONS:

A. Coordinate with DIVISION 1 section "Selective Demolition."

B. Do all removal work in a neat and orderly manner so as not to endanger lives nor cause damage. Removal work to include all associated hangers, couplings, supports, raceway and wiring, etc., and shall be complete in every way.

C. Remove and dispose of, off-site in a legal manner, all raceways and wire indicated to be removed.

D. Carefully remove and store on-site, where directed by the Owner, all electrical equipment indicated to be REMOVED. After the Owner has examined this equipment, remove and dispose of, off-site in a legal manner, all of this equipment that the Owner does not want. All remaining equipment shall remain the property of the Owner. Relocate the remaining equipment to a permanent storage location on site where directed by the Owner.

E. The electrical removal (demolition) drawings show the general extent of removals. However it is impractical to show every item; some of which may be concealed. Therefore, assume that you will be required to perform an additional 10% of removal work, without additional compensation. Items not shown to be removed or to remain shall remain or be removed, as directed.

F. Prior to removing any electrical equipment, properly de-energize all associated wiring. Remove wires from terminals of supply switches or circuit breakers. Properly tape supply and load end conductors of all wiring remaining and not re-used. Properly tag both ends.

G. Provide outlet boxes, knock-out seals, receptacle cover plates, etc. to leave remaining installation in finished condition.

H. Take special care in removing equipment indicated to be RELOCATED and properly and thoroughly clean and lubricate this equipment. Renew fuses and overload elements in starters and switches being relocated, if required to properly serve the new installation.

I. Adjust outlet and junction boxes as required to suit new finished surfaces.

J. When necessary to perform your work, carefully remove ceiling tiles and properly re-install them. Make sure that hands are clean and take special care to avoid damage. If tiles become damaged, provide new tiles to exactly match existing. If exiting tiles have yellowed with age, it may be necessary to relocate existing undamaged tiles from utility spaces (closets, etc.) and install new tiles in their place.

K. For relocation of lighting fixtures, see sections entitled "Interior Lighting" and "Exterior Lighting."

L. Protect existing electrical equipment and installations indicated to remain. If damaged or disturbed in the course of the Work, remove damaged portions and install new products of equal capacity, quality, and functionality.

M. Accessible Work: Remove exposed electrical equipment and installations, indicated to be demolished, in their entirety.

N. Abandoned Work: Cut and remove buried raceway and wiring, indicated to be abandoned in place, 2 inches (50 mm) below the surface of adjacent construction. Cap raceways and patch surface to match existing finish.

O. Remove, store, clean, reinstall, reconnect, and make operational components indicated for relocation. Extend existing circuits to the new location for items to be relocated, unless otherwise noted.

3.8 CUTTING AND PATCHING

A. Refer to Division 1 of these specifications and add the following:

B. This trade (specification section) is responsible for its respective cutting and patching.

C. Do not endanger any work by cutting or altering work or any part of it.

D. Do not cut or alter work of another Contractor without written consent of the Engineer.

E. Prior to cutting which affects structural safety of project, or work of another Contractor, submit written notice to the Engineer, requesting consent to proceed with cutting.

F. Perform all work of fitting, adjustment, cutting, patching, finishing and restoration to perfectly match the quality as specified throughout these specifications. Painting, **under DIVISION 9**, shall match and be feathered into adjacent surfaces.

3.9 CORE DRILLING:

A. Refer to Division 1 of these specifications and add the following:

B. All holes through masonry surfaces must be "core drilled". This trade (specification section) is responsible for its respective core drilling, if any.

C. Do not endanger any work by drilling or altering work or any part of it.

D. Do not drill or alter work of another Contractor without written consent of the Engineer.

E. Prior to drilling which affects structural safety of project, or work of another Contractor, submit written notice to the Engineer, requesting consent to proceed with cutting.

F. Perform all work of core drilling to perfectly match the quality as specified throughout these specifications.

3.10 ACCESS PANELS:

A. Refer to Division 8 of these specifications and add the following:

B. This trade (specification section) is responsible for determining the number of access panels required for existing and new electrical work (including one under each above ceiling thermodetector) and furnishing them to the mason or drywall contractor for installation.

3.11 CLEANING, PAINTING AND REFINISHING:

A. Refer to Division 1 of these specifications and add the following:

B. Paint all new plywood backboards on all sides and edges before mounting, under DIVISION 9.

C. Thoroughly clean all new electrical equipment, devices and enclosures upon completion of all work.

D. Refinish any new electrical equipment whose finish is damaged or rusted, as determined by the Engineer.

END OF SECTION

SECTION 260519

CONDUCTORS AND CABLES

PART 1 - GENERAL

1.1 SUMMARY

A. This Section includes the following:

1. Building wires and cables rated 600 V and less.
2. Connectors, splices, and terminations rated 600 V and less.

1.2 SUBMITTALS

A. Product Data: For each type of product indicated.

B. Field quality-control test reports.

1.3 QUALITY ASSURANCE

A. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, Article 100, by a testing agency acceptable to authorities having jurisdiction, and marked for intended use.

B. Comply with NFPA 70.

PART 2 - PRODUCTS

2.1 CONDUCTORS AND CABLES

A. Copper Conductors: Comply with NEMA WC 70.

B. Conductor Insulation: Comply with NEMA WC 70 for Types THW, THHN-THWN and XHHW.

C. Multiconductor Cable: Comply with NEMA WC 70 for metal-clad cable, Type MC.

2.2 CONNECTORS AND SPLICES

A. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:

B. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

1. AFC Cable Systems, Inc.
2. Hubbell Power Systems, Inc.
3. O-Z/Gedney; EGS Electrical Group LLC.
4. 3M; Electrical Products Division.

5. Tyco Electronics Corp.
6. Thomas & Betts

C. Description: Factory-fabricated connectors and splices of size, ampacity rating, material, type, and class for application and service indicated.

PART 3 - EXECUTION

3.1 CONDUCTOR MATERIAL APPLICATIONS

A. Feeders: All conductors shall be copper.

B. Branch Circuits: Copper.

C. At terminations of devices, provide solid conductor in sizes #10 and smaller; stranded wire may be used with fork type crimp connectors or with clamp type termination on the device. Do not wrap stranded wire under screw heads. Do not use back wired devices with spring type connection.

3.2 CONDUCTOR INSULATION AND MULTICONDUCTOR CABLE APPLICATIONS AND WIRING METHODS

A. Exposed Feeders: Type THHN-THWN, single conductors in raceway.

B. Feeders Concealed in Ceilings, Walls, Partitions, and Crawlspaces: Type THHN-THWN, single conductors in raceway.

C. Feeders Concealed in Concrete, below Slabs-on-Grade, and Underground: Type THHN-THWN, single conductors in raceway.

D. Exposed Branch Circuits, Including in Crawlspaces: Type THHN-THWN, single conductors in raceway.

E. Branch Circuits Concealed in Ceilings, Walls, and Partitions: Type THHN-THWN, single conductors in raceway or Metal-clad cable, Type MC.

3.3 INSTALLATION OF CONDUCTORS AND CABLES

A. Conceal cables in finished walls, ceilings, and floors, unless otherwise indicated.

B. Use manufacturer-approved pulling compound or lubricant where necessary; compound used must not deteriorate conductor or insulation. Do not exceed manufacturer's recommended maximum pulling tensions and sidewall pressure values.

C. Use pulling means, including fish tape, cable, rope, and basket-weave wire/cable grips, that will not damage cables or raceway.

D. Install exposed cables parallel and perpendicular to surfaces of exposed structural members, and follow surface contours where possible.

E. Support cables according to Division 16 Section "Electrical Supports and Seismic Restraints."

F. Identify and color-code conductors and cables according to Division 16 Section "Electrical Identification."

G. Tighten electrical connectors and terminals according to manufacturer's published torque-tightening values. If manufacturer's torque values are not indicated, use those specified in UL 486A and UL 486B.

H. Make splices and taps that are compatible with conductor material and that possess equivalent or better mechanical strength and insulation ratings than unspliced conductors.

3.4 FIRESTOPPING

A. Apply firestopping to electrical penetrations of fire-rated floor and wall assemblies to restore original fire-resistance rating of assembly according to Division 7 Section "Through-Penetration Firestop Systems."

3.5 FIELD QUALITY CONTROL

A. Perform tests and inspections and prepare test reports.

B. Tests and Inspections:

1. After installing conductors and cables and before electrical circuitry has been energized, test the emergency system and conductors for compliance with requirements.

2. Perform each visual and mechanical inspection and electrical test stated in NETA Acceptance Testing Specification. Certify compliance with test parameters.

C. Test Reports: Prepare a written report to record the following:

1. Test procedures used.
2. Test results that comply with requirements.
3. Test results that do not comply with requirements and corrective action taken to achieve compliance with requirements.

D. Remove and replace malfunctioning units and retest as specified above.

END OF SECTION

SECTION 260526

GROUNDING AND BONDING

PART 1 - GENERAL

1.1 SUMMARY

A. This Section includes methods and materials for grounding systems and equipment.

1.2 SUBMITTALS

A. Product Data: For each type of product indicated.

B. Field quality-control test reports.

1.3 QUALITY ASSURANCE

A. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, Article 100, by a testing agency acceptable to authorities having jurisdiction, and marked for intended use.

B. Comply with UL 467 for grounding and bonding materials and equipment.

PART 2 - PRODUCTS

2.1 CONDUCTORS

A. Insulated Conductors: Copper wire or cable insulated for 600 V unless otherwise required by applicable Code or authorities having jurisdiction.

B. Bare Copper Conductors shall conform to ASTM B3 and B8 as applicable.

2.2 CONNECTORS

A. Listed and labeled by a nationally recognized testing laboratory acceptable to authorities having jurisdiction for applications in which used, and for specific types, sizes, and combinations of conductors and other items connected.

PART 3 - EXECUTION

3.1 APPLICATIONS

A. Conductors: Install solid conductor for No. 10 AWG and smaller, and stranded conductors for No. 8 AWG and larger, unless otherwise indicated.

3.2 EQUIPMENT GROUNDING

A. Install insulated equipment grounding conductors in all circuits.

B. Coordinate paragraph and subparagraphs below with Drawings and Sections for signal and communication equipment.

3.3 INSTALLATION

A. Grounding Conductors: Route along shortest and straightest paths possible, unless otherwise indicated or required by Code. Avoid obstructing access or placing conductors where they may be subjected to strain, impact, or damage.

3.4 FIELD QUALITY CONTROL

A. Perform the following tests and inspections and prepare test reports:

1. After installing grounding system but before permanent electrical circuits have been energized, test for compliance with requirements.

END OF SECTION

SECTION 260529

HANGERS AND SUPPORTS FOR ELECTRICAL SYSTEMS

PART 1 - GENERAL

1.1 SUMMARY

A. Section includes:

1. Hangers and supports for electrical equipment and systems.

1.2 PERFORMANCE REQUIREMENTS

A. Delegated Design: Design supports for multiple raceways, including comprehensive engineering analysis by a qualified professional engineer, using performance requirements and design criteria indicated.

B. Design supports for multiple raceways capable of supporting combined weight of supported systems and its contents.

C. Design equipment supports capable of supporting combined operating weight of supported equipment and connected systems and components.

D. Rated Strength: Adequate in tension, shear, and pullout force to resist maximum loads calculated or imposed for this Project, with a minimum structural safety factor of five times the applied force.

1.3 SUBMITTALS

A. Product Data: For steel slotted support systems.

1.4 QUALITY ASSURANCE

A. Comply with NFPA 70.

PART 2 - PRODUCTS

2.1 SUPPORT, ANCHORAGE, AND ATTACHMENT COMPONENTS

A. Steel Slotted Support Systems: Comply with MFMA-4, factory-fabricated components for field assembly.

1. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
2. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

a. Allied Tube & Conduit.

b. Cooper B-Line, Inc.; a division of Cooper Industries.
c. ERICO International Corporation.
d. GS Metals Corp.
e. Thomas & Betts Corporation.
f. Unistrut; Tyco International, Ltd.
g. Wesanco, Inc.
h. Power Strut

3. Metallic Coatings: Hot-dip galvanized after fabrication and applied according to MFMA-4.
4. Nonmetallic Coatings: Manufacturer's standard PVC, polyurethane, or polyester coating applied according to MFMA-4.
5. Painted Coatings: Manufacturer's standard painted coating applied according to MFMA-4.
6. Channel Dimensions: Selected for applicable load criteria.

B. Raceway and Cable Supports: As described in NECA 1 and NECA 101.

C. Conduit and Cable Support Devices: Steel and malleable iron hangers, clamps, and associated fittings, designed for types and sizes of raceway or cable to be supported.

D. Support for Conductors in Vertical Conduit: Factory-fabricated assembly consisting of threaded body and insulating wedging plug or plugs for non-armored electrical conductors or cables in riser conduits. Plugs shall have number, size, and shape of conductor gripping pieces as required to suit individual conductors or cables supported. Body shall be malleable iron.

E. Structural Steel for Fabricated Supports and Restraints: ASTM A 36/A 36M, steel plates, shapes, and bars; black and galvanized.

F. Mounting, Anchoring, and Attachment Components: Items for fastening electrical items or their supports to building surfaces include the following:

1. Powder-Actuated Fasteners: Threaded-steel stud, for use in hardened portland cement concrete, steel, or wood, with tension, shear, and pullout capacities appropriate for supported loads and building materials where used.

   a. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
   b. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

      1) Hilti Inc.
      2) ITW Ramset/Red Head; a division of Illinois Tool Works, Inc.
      3) MKT Fastening, LLC.
      4) Simpson Strong-Tie Co., Inc.; Masterset Fastening Systems Unit.

2. Mechanical-Expansion Anchors: Insert-wedge-type, [zinc-coated] [stainless] steel, for use in hardened portland cement concrete with tension, shear, and pullout capacities appropriate for supported loads and building materials in which used.

a. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
b. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

1) Cooper B-Line, Inc.; a division of Cooper Industries.
2) Empire Tool and Manufacturing Co., Inc.
3) Hilti Inc.
4) ITW Ramset/Red Head; a division of Illinois Tool Works, Inc.
5) MKT Fastening, LLC.

3. Concrete Inserts: Steel or malleable-iron, slotted support system units similar to MSS Type 18; complying with MFMA-4 or MSS SP-58.
4. Clamps for Attachment to Steel Structural Elements: MSS SP-58, type suitable for attached structural element.
5. Through Bolts: Structural type, hex head, and high strength. Comply with ASTM A 325.
6. Toggle Bolts: All-steel springhead type.
7. Hanger Rods: Threaded steel.

2.2 FABRICATED METAL EQUIPMENT SUPPORT ASSEMBLIES

A. Description: Welded or bolted, structural-steel shapes, shop or field fabricated to fit dimensions of supported equipment.

B. Materials: Comply with requirements in Division 5 Section "Metal Fabrications" for steel shapes and plates.

PART 3 - EXECUTION

3.1 APPLICATION

A. Comply with NECA 1 and NECA 101 for application of hangers and supports for electrical equipment and systems except if requirements in this Section are stricter.

B. Maximum Support Spacing and Minimum Hanger Rod Size for Raceway: Space supports for EMT, IMC, and RMC as scheduled in NECA 1, where its Table 1 lists maximum spacings less than stated in NFPA 70. Minimum rod size shall be 1/4 inch in diameter.

C. Multiple Raceways or Cables: Install trapeze-type supports fabricated with steel slotted support system, sized so capacity (weight bearing and raceway / cable accommodation) exceeds the current need by 25%.

1. Secure raceways and cables to these supports with conduit clamps listed for the use.

D. Spring-steel clamps designed for supporting single conduits without bolts may be used for 1-1/2-inch and smaller raceways serving branch circuits and communication systems above suspended ceilings and for fastening raceways to trapeze supports.

3.2 SUPPORT INSTALLATION

A. Comply with NECA 1 and NECA 101 for installation requirements except as specified in this Article.

B. Raceway Support Methods: In addition to methods described in NECA 1, EMT, IMC, and RMC may be supported by openings through structure members, as permitted in NFPA 70.

C. Strength of Support Assemblies: Where not indicated, select sizes of components so strength will be adequate to carry present and future static loads within specified loading limits. Minimum static design load used for strength determination shall be weight of supported components plus 200 lb.

D. Mounting and Anchorage of Surface-Mounted Equipment and Components: Anchor and fasten electrical items and their supports to building structural elements by the following methods unless otherwise indicated by code:

1. To Wood: Fasten with lag screws or through bolts.
2. To New Concrete: Bolt to concrete inserts.
3. To Masonry: Approved toggle-type bolts on hollow masonry units and expansion anchor fasteners on solid masonry units.
4. To Existing Concrete: Expansion anchor fasteners.
5. Instead of expansion anchors, powder-actuated driven threaded studs provided with lock washers and nuts may be used in existing standard-weight concrete 4 inches thick or greater. Do not use for anchorage to lightweight-aggregate concrete or for slabs less than 4 inches thick.
6. To Steel: Welded threaded studs complying with AWS D1.1/D1.1M, with lock washers and nuts, Beam clamps (MSS Type 19, 21, 23, 25, or 27) complying with MSS SP-69, or Spring-tension clamps.
7. To Light Steel: Sheet metal screws.
8. Items Mounted on Hollow Walls and Nonstructural Building Surfaces: Mount cabinets, panelboards, disconnect switches, control enclosures, pull and junction boxes, transformers, and other devices on slotted-channel racks attached to substrate by means that meet seismic-restraint strength and anchorage requirements.

E. Drill holes for expansion anchors in concrete at locations and to depths that avoid reinforcing bars.

3.3 INSTALLATION OF FABRICATED METAL SUPPORTS

A. Comply with installation requirements in Division 5 Section "Metal Fabrications" for site-fabricated metal supports.

B. Cut, fit, and place miscellaneous metal supports accurately in location, alignment, and elevation to support and anchor electrical materials and equipment.

C. Field Welding: Comply with AWS D1.1/D1.1M.

END OF SECTION

SECTION 260533

RACEWAYS AND BOXES

PART 1 - GENERAL

1.1 SUMMARY

A. This Section includes raceways, fittings, boxes, enclosures, and cabinets for electrical wiring.

1.2 SUBMITTALS

A. Product Data: For surface raceways, wireways and fittings, floor boxes, hinged-cover enclosures, and cabinets.

B. Shop Drawings: For custom enclosures and cabinets. Include plans, elevations, sections, details, and attachments to other work.

1.3 QUALITY ASSURANCE

A. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, Article 100, by a testing agency acceptable to authorities having jurisdiction, and marked for intended use.

B. Comply with NFPA 70.

PART 2 - PRODUCTS

2.1 METAL CONDUIT AND TUBING

A. Rigid Steel Conduit: ANSI C80.1.

B. IMC: ANSI C80.6.

C. EMT: ANSI C80.3.

D. FMC: Zinc-coated steel.

E. LFMC: Flexible steel conduit with PVC jacket.

F. Fittings for Conduit (Including all Types and Flexible and Liquidtight), EMT, and Cable: NEMA FB 1; listed for type and size raceway with which used, and for application and environment in which installed.

1. Conduit Fittings for Hazardous (Classified) Locations: Comply with UL 886.

2. Fittings for EMT: Steel, set-screw type or compressed type.

2.2 METAL WIREWAYS

A. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:

B. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

1. Cooper B-Line, Inc.
2. Hoffman.
3. Square D; Schneider Electric.

C. Description: For indoor applications sheet metal sized and shaped as indicated, NEMA 250, Type 1, unless otherwise indicated. For outdoor applications, stainless steel, sheet metal sized and shaped as indicated, NEMA 250, Type 3R, with stainless steel hardware, unless otherwise noted.

D. Fittings and Accessories: Include couplings, offsets, elbows, expansion joints, adapters, hold-down straps, end caps, and other fittings to match and mate with wireways as required for complete system.

E. Wireway Covers: Screw-cover type

F. Finish: Manufacturer's standard enamel finish.

2.3 BOXES, ENCLOSURES, AND CABINETS

A. Sheet Metal Outlet and Device Boxes: NEMA OS 1.

B. Cast-Metal Outlet and Device Boxes: NEMA FB 1, ferrous alloy, Type FD, with gasketed cover.

C. Small Sheet Metal Pull and Junction Boxes: NEMA OS 1.

D. Cast-Metal Access, Pull, and Junction Boxes: NEMA FB 1, cast aluminum with gasketed cover.

E. Hinged-Cover Enclosures: NEMA 250, Type 1, with continuous-hinge cover with flush latch, unless otherwise indicated.

1. Metal Enclosures: Steel, finished inside and out with manufacturer's standard enamel.
2. Nonmetallic Enclosures: Plastic.

F. Cabinets:

1. NEMA 250, Type 1, galvanized-steel box with removable interior panel and removable front, finished inside and out with manufacturer's standard enamel.
2. Hinged door in front cover with flush latch and concealed hinge.
3. Key latch to match panelboards.
4. Metal barriers to separate wiring of different systems and voltage.

5. Accessory feet where required for freestanding equipment.

PART 3 - EXECUTION

3.1 RACEWAY APPLICATION

A. Comply with the following indoor applications, unless otherwise indicated:

1. Exposed, Not Subject to Physical Damage: EMT.
2. Concealed in Ceilings and Interior Walls and Partitions: EMT.
3. Connection to Vibrating Equipment (Including Transformers and Hydraulic, Pneumatic, Electric Solenoid, or Motor-Driven Equipment): FMC, except use LFMC in damp or wet locations.
4. Damp or Wet Locations: Rigid steel conduit or Schedule 80.
5. Raceways for Optical Fiber or Communications Cable: EMT.
6. Boxes and Enclosures: NEMA 250, Type 1, except use NEMA 250, Type 4, in damp or wet locations.

B. Minimum Raceway Size: 3/4-inch trade size.

C. Raceway Fittings: Compatible with raceways and suitable for use and location.

1. Rigid Steel Conduit: Use threaded rigid steel conduit fittings, unless otherwise indicated.

3.2 INSTALLATION

A. Comply with NECA 1 for installation requirements applicable to products specified in Part 2 except where requirements on Drawings or in this Article are stricter.

B. Keep raceways at least 6 inches away from parallel runs of flues and steam or hot-water pipes. Install horizontal raceway runs above water and steam piping.

C. Complete raceway installation before starting conductor installation.

D. Support raceways as specified in Division 26 Section "Electrical Supports and Seismic Restraints."

E. Arrange stub-ups so curved portions of bends are not visible above the finished slab.

F. Install no more than the equivalent of three 90-degree bends in any conduit run except for communications conduits, for which fewer bends are allowed.Conceal conduit and EMT within finished walls, ceilings, and floors, unless otherwise indicated.

G. Raceway Terminations at Locations Subject to Moisture or Vibration: Use insulating bushings to protect conductors, including conductors smaller than No. 4 AWG.

H. Install pull wires in empty raceways. Use polypropylene or monofilament plastic line with not less than 200-lb tensile strength. Leave at least 12 inches of slack at each end of pull wire.

I. Install raceway sealing fittings at suitable, approved, and accessible locations and fill them with listed sealing compound. For concealed raceways, install each fitting in a flush steel box with a blank cover plate having a finish similar to that of adjacent plates or surfaces. Install raceway sealing fittings at the following points:

1. Where conduits pass from warm to cold locations, such as boundaries of refrigerated spaces.
2. Where otherwise required by NFPA 70.

J. Flexible Conduit Connections: Use maximum of 72 inches of flexible conduit for recessed and semirecessed lighting fixtures,]equipment subject to vibration, noise transmission, or movement; and for transformers and motors.

1. Use LFMC in damp or wet locations subject to severe physical damage.
2. Use LFMC or LFNC in damp or wet locations not subject to severe physical damage.

K. Recessed Boxes in Masonry Walls: Saw-cut opening for box in center of cell of masonry block, and install box flush with surface of wall.

L. Set metal floor boxes level and flush with finished floor surface.

3.3 FIRESTOPPING

A. Apply firestopping to electrical penetrations of fire-rated floor and wall assemblies to restore original fire-resistance rating of assembly. Firestopping materials and installation requirements are specified in Division 7 Section "Through-Penetration Firestop Systems."

END OF SECTION

SECTION 260553

ELECTRICAL IDENTIFICATION

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Identification for conductors.
2. Warning labels and signs.
3. Instruction signs.
4. Equipment identification labels.

1.2 SUBMITTALS

A. Product Data: For each electrical identification product indicated.

1.3 QUALITY ASSURANCE

A. Comply with ANSI A13.1.

B. Comply with NFPA 70.

C. Comply with 29 CFR 1910.144 and 29 CFR 1910.145.

D. Comply with ANSI Z535.4 for safety signs and labels.

E. Adhesive-attached labeling materials, including label stocks, laminating adhesives, and inks used by label printers, shall comply with UL 969.

PART 2 - PRODUCTS

2.1 CONDUCTOR IDENTIFICATION MATERIALS

A. Color-Coding Conductor Tape: Colored, self-adhesive vinyl tape not less than 3 mils thick by 1 to 2 inches wide.

2.2 WARNING LABELS AND SIGNS

A. Comply with NFPA 70 and 29 CFR 1910.145.

B. Self-Adhesive Warning Labels: Factory-printed, multicolor, pressure-sensitive adhesive labels, configured for display on front cover, door, or other access to equipment unless otherwise indicated.

C. Baked-Enamel Warning Signs:

1. Preprinted aluminum signs, punched or drilled for fasteners, with colors, legend, and size required for application.
2. 1/4-inch grommets in corners for mounting.
3. Nominal size, 7 by 10 inches.

D. Warning label and sign shall include, but are not limited to, the following legends:

1. Multiple Power Source Warning: "DANGER - ELECTRICAL SHOCK HAZARD - EQUIPMENT HAS MULTIPLE POWER SOURCES."
2. Workspace Clearance Warning: "WARNING - OSHA REGULATION - AREA IN FRONT OF ELECTRICAL EQUIPMENT MUST BE KEPT CLEAR FOR 36 INCHES."

2.2 EQUIPMENT IDENTIFICATION LABELS

A. Adhesive Film Label with Clear Protective Overlay: Machine printed, in black, by thermal transfer or equivalent process. Minimum letter height shall be 3/8 inch. Overlay shall provide a weatherproof and UV-resistant seal for label.

B. Self-Adhesive, Engraved, Laminated Acrylic or Melamine Label: Adhesive backed, with white letters on a black background. Minimum letter height shall be 3/8 inch.

2.3 MISCELLANEOUS IDENTIFICATION PRODUCTS

A. Fasteners for Labels and Signs: Self-tapping, stainless-steel screws or stainless-steel machine screws with nuts and flat and lock washers.

PART 3 - EXECUTION

3.1 INSTALLATION

A. Location: Install identification materials and devices at locations for most convenient viewing without interference with operation and maintenance of equipment.

B. Apply identification devices to surfaces that require finish after completing finish work.

C. Self-Adhesive Identification Products: Clean surfaces before application, using materials and methods recommended by manufacturer of identification device.

D. Attach signs and plastic labels that are not self-adhesive type with mechanical fasteners appropriate to the location and substrate.

E. System Identification Color-Coding Bands for Raceways and Cables: Each color-coding band shall completely encircle cable or conduit. Place adjacent bands of two-color markings in contact, side by side. Locate bands at changes in direction, at penetrations of walls and floors, at 50-foot maximum intervals in straight runs, and at 25-foot maximum intervals in congested areas.

3.2 IDENTIFICATION SCHEDULE

A. Accessible Raceways and Cables within Buildings: Identify the covers of each junction and pull box of the following systems with self-adhesive vinyl labels with the wiring system legend and system voltage. System legends shall be as follows:
   1. Power.

B. Power-Circuit Conductor Identification, 600 V or Less: For conductors in vaults, pull and junction boxes, manholes, and handholes, use color-coding conductor tape to identify the phase.

   1. Color-Coding for Phase and Voltage Level Identification, 600 V or Less: Use colors listed below for all conductors.

      a. Color shall be factory applied or field applied for sizes larger than No. 10 AWG.
      b. Colors for 208/120-V Circuits:

         1) Phase A: Black.
         2) Phase B: Red.
         3) Phase C: Blue.
         4) Neutral: White
         5) Ground: Green
         6) Isolated Ground: Green with trace ID

      c. Field-Applied, Color-Coding Conductor Tape: Apply in half-lapped turns for a minimum distance of 6 inches from terminal points and in boxes where splices or taps are made. Apply last two turns of tape with no tension to prevent possible unwinding. Locate bands to avoid obscuring factory cable markings.

C. Warning Labels for Indoor Cabinets, Boxes, and Enclosures for Power:

   1. Comply with 29 CFR 1910.145.
   2. Identify system voltage with black letters on an orange background.
   3. Apply to exterior of door, cover, or other access.

D. Equipment Identification Labels: On each unit of equipment, install unique designation label that is consistent with wiring diagrams, schedules, and the Operation and Maintenance Manual. Apply labels to disconnect switches and protection equipment, central or master units, control panels, control stations, terminal cabinets, and racks of each system. Systems include power, lighting, control, communication, signal, monitoring, and alarm systems unless equipment is provided with its own identification.

   1. Labeling Instructions:

      a. Indoor Equipment: Self-adhesive, engraved, laminated acrylic or melamine label. Unless otherwise indicated, provide a single line of text with 1/2-inch high letters on 1-1/2-inch high label; where two lines of text are required, use labels 2 inches high.

END OF SECTION

SECTION 283111

FIRE ALARM – MODIFICATION TO EXISTING

PART 1 - GENERAL

1.1 SUMMARY

A. This section includes the furnishing of all labor, equipment, materials, testing, and performance of all operations in connection with the modifications to the existing conventional FCI fire alarm control system.

1.2 RELATED DOCUMENTS

A. The General Conditions, Supplementary Conditions, and applicable portions of Division 1 of the specification are part of this section which shall consist of all labor, equipment, materials and other costs necessary to complete all FIRE ALARM - ADDRESSABLE work indicated on the drawings, herein specified or both.

B. The applicable portions of section 260500 BASIC ELECTRICAL MATERIALS AND METHODS are hereby make a part of this section. It is important that you read that section carefully because it expands upon the requirements herein.

1.3 DEFINITIONS:

A. FACP: Fire Alarm Control Panel

B. LED: Light-emitting Diode

C. Definitions in NFPA 72 apply to this section.

1.4 SUBMITTALS

A. Product Data: For each type of product indicated.

B. Field quality-control test reports.

C. Operation and maintenance data.

D. Submittals to Authorities Having Jurisdiction: In addition to distribution requirements for submittals specified in Division 1 Section "Submittals," make an identical submittal to authorities having jurisdiction. To facilitate review, include copies of annotated Contract Drawings as needed to depict component locations. Resubmit if required to make clarifications or revisions to obtain approval. On receipt of comments from authorities having jurisdiction, submit them to Engineer for review.

E. Documentation:

1. Approval and Acceptance: Provide the "Record of Completion" form (Inspection and Testing Form) according to NFPA 72.
2. Record of Completion Documents: Provide the "Permanent Records" according to NFPA 72. Format of the written sequence of operation shall be the optional input/output matrix. See A-7-5.2.2(i).

1.5 QUALITY ASSURANCE

A. Installer Qualifications: Personnel shall be trained and certified by manufacturer for installation of units required for this Project.

B. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, Article 100, by a testing agency acceptable to authorities having jurisdiction, and marked for intended use.

C. Manufacturers Label: All equipment must be labeled with the manufacturers name to assure the integrity of the complete system. "Hybridized" systems (containing equipment from several different manufacturers) shall not be considered acceptable.

D. Compliance: The complete installation must comply with applicable sections of NFPA – 72 and all local requirements.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
1. Fire Control Instruments, Inc. (F.C.I.) to match existing.

2.2 SYSTEM OPERATION

A. General Requirements:

1. Maintain existing sequence of operations, Class, style, and survivability level of wiring.
2. Provide all required devices, modules, and testing for a complete and operational system.

B. Sequence of Operation:

1. Maintain existing sequence of operations.

PART 3 - EXECUTION

3.1 WIRING INSTALLATION

A. Install wiring according to the following:

1. NECA 1.
2. TIA/EIA 568-A.
3. Rhode Island Fire Safety Code

B. Wiring Method: Install wiring in metal raceway according to Division 26 Section "Raceways and Boxes."
1. Fire alarm circuits and equipment control wiring associated with the fire alarm system shall be installed in a dedicated raceway system. This system shall not be used for any other wire or cable.
2. All wiring shall meet NEC 760 for fire alarm system wiring. All wiring shall be tagged at junction points and shall test free of grounds and shorts between conductors.

3. All final terminations of the field wiring shall be made by or under the direct supervision of the Fire Alarm System Manufacturer's representative.
4. All junction boxes shall be painted red and labeled "Fire Alarm". Color coded wiring shall be maintained throughout the installation.
5. Installation of equipment and devices relevant to other work in the contract shall be closely coordinated.
6. An equipment bonding conductor shall be provided in all flexible metallic raceways.

C. Alternate wiring method: Type MC cable dual rated as FPL and 2-hour fire rated by UL may be selectively, installed with written approval of the authority having jurisdiction.

D. Color code for fire alarm systems shall be in accordance with the Rhode Island Fire Safety Code

E. AC supply to the main fire alarm panel shall be white and black. Fire alarm primary power source shall be on dedicated branch circuit. Circuit breaker locks shall be used. If a separate feed is required for the battery charger it shall be black and white unless the main fire alarm panel required only AC feed. In this case the conductors to the battery charger shall be red and white and shall be on a circuit breaker of its own

F. Conductors shall be minimum #14 gauge solid copper type THHN/THWN. Condutor's size shall be increased as required to maintain voltage drop to a maximum of 3%. All AC and DC portions of the system shall be installed in separate raceway. Addressable loop wiring may be #16 providing manufacturer's recommended distance is observed. If the system provided at no additional cost. Alarm speaker circuits shall be twisted shielded pairs. Emergency fire fighters telephone shall be twisted shielded pairs. Notification appliance circuits shall meet survivability requirements.

G. Junctions shall not be allowed unless approved by the AHJ.

H. Red painted terminal cabinets with hinged local covers shall be provided at all approved junction points. All conductor splices shall be made on screw type terminal blocks; wire nuts shall not be used. All terminals within terminal cabinet shall be properly labeled. Provide terminal cabinet at each building cable entrance and at other locations as required.

I. All fire alarm initiating zone and signal wiring shall be wired Class A. Separate raceways shall be provided for outgoing and return conductors.

J. Final connections between the equipment and the wiring system shall be made under the direct supervision of the fire alarm maintenance contractor.

K. Manufacturers approval: Install all wiring in accordance with wiring diagrams, instructions and directions provided by the manufacturer.

3.2 IDENTIFICATION

A. Provide identification meeting the requirements of the authority having jurisdiction.

3.3 GROUNDING

A. Ground the FACP and associated circuits.

3.4 WARRANTEE/GUARANTEE

A. The Contractor shall guarantee all equipment and wiring to be free from inherent mechanical and electrical defects for a period of one year from the date of final acceptance.

3.5 FIELD QUALITY CONTROL

A. General Testing Requirements:

1. Prior to energizing any part of this system, the factory authorized representative shall check thoroughly the installation, and perform pre-start checks. This representative shall check all points, fire alarm panels and complete network to ensure proper operation, and make any needed repairs and/or replacements required. Sufficient time shall be included in the project bid to cover all required start-up assistance and testing.

2. Before requesting final approval of the installation, submit a written statement using the form for Record of Completion shown in NFPA 72.
3. Perform each electrical test and visual and mechanical inspection listed in NFPA 72. Certify compliance with test parameters.
4. Visual Inspection: Conduct a visual inspection before any testing. Use as-built drawings and system documentation for the inspection. Identify improperly located, damaged, or nonfunctional equipment, and correct before beginning tests.
5. Testing: Follow procedure and record results complying with requirements in NFPA 72.
6. Test and Inspection Records: Prepare according to NFPA 72, including demonstration of sequences of operation by using the matrix-style form in Appendix A in NFPA 70.

B. Specific Testing Requirements:

1. All testing (pre-testing, final testing, and program change testing) to be coordinated with the owner and scheduled in advance so that owner personnel can be present during testing. Contractor to certify that all tests comply with the requirements of the authority having jurisdiction.

2. Before this installation shall be considered complete and acceptable, a complete test on the system shall be performed as follows:

   a. A pre-test will be held by the Contractor with the fire alarm system's maintenance contractor, coordinate meeting with the building maintenance supervisor. After certification of a complete pre-test, the installing Contractor shall inform the authority having jurisdiction of the outcome of the test and arrange to re-inspect in the presence of the authority having jurisdiction and the manufacturer's authorized representative.
   b. Final Test: The Contractor in the presence of an authorized representative of the fire alarm maintenance contractor and the Fire Department.
   c. Each station/detector circuit and horn circuit shall be opened in at least two locations to check for the presence of correct supervisory circuitry. When this testing has been completed to the satisfaction of the Contractor's job foreman, the fire department and the representative of the manufacturer, a letter from the Contractor cosigned by the manufacturer attesting to the satisfactory completion of said testing, shall be forwarded to the Engineer.

END OF SECTION

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