

# Community College *of* Philadelphia

RFP#: 9808

Description: Parking Garage Repairs - FY14

***Mandatory Pre-Bid Meeting***

Date: *Friday 11 October 2013*

Time: *10:00am*

Location: *S1-09 of the Winnet Building*  
At the Main Campus.

***Queries Due***

Date: *Thursday 17 October 2013*

Time: *10:00am*

***Addenda to be Posted***

Date: *Friday 18 October 2013*

***Bids Due***

Date: *Monday 28 October 2013*

Time: *10:00am*

***Bid Administrator:***

*William A. Vogel*

Purchasing Department, Room M1-4  
Community College of Philadelphia  
1700 Spring Garden Street  
Philadelphia, PA 19130

Phone: *215-751-8903*

Fax: *215-751-8935*

Email: *wvogel@ccp.edu*

## ***I. Table of Contents***

II.	BID SOLICITATION .....	3
III.	REQUIREMENTS TO BID .....	4
IV.	INSTRUCTIONS FOR PROPOSAL .....	7
V.	TERMS AND CONDITIONS .....	10
VI.	CRITERIA FOR AWARD .....	13
VII.	EXECUTION OF CONTRACT .....	13
VIII.	GENERAL COLLEGE INFORMATION .....	13
IX.	STATEMENT OF AFFIRMATIVE ACTION COMPLIANCE .....	14
X.	OPERATIONAL PROCEDURES & SUPPLEMENTAL SPECIAL CONDITIONS .....	16
XI.	SCOPE OF WORK .....	20
XII.	TECHNICAL SPECIFICATIONS .....	20
XIII.	DRAWINGS.....	20
XIV.	AFFIDAVIT OF VERIFICATION OF BID.....	21
XV.	MACBRIDE PRINCIPLES, SLAVERY ERA BUSINESS & EXCLUDED PARTIES .....	23
XVI.	STATEMENT OF AFFIRMATIVE ACTION COMPLIANCE FORM.....	25
XVII.	BID FORM .....	26
XVIII.	CANDIDATES QUALIFICATION STATEMENT .....	32
XIX.	APPENDICES.....	34

## ***II. BID SOLICITATION***

### **Legal Notice – RFP # 9808**

Community College of Philadelphia will accept bids, for work necessary to repair the campus Parking Facility, at it's Purchasing office M1-4, at 1700 Spring Garden Street. This will be a Prevailing Wage project. Drawings and specifications will be available on our internet web site at [www.ccp.edu/rfp](http://www.ccp.edu/rfp) as they become available. There will be a mandatory pre-bid meeting on Friday 11 October 2013 at 10:00am at room S1-09 of the college, followed by a walkthrough. Proposals are due no later than Monday 28 October 2013 at 10:00am. Bidders must be in compliance with Federal, State, and Municipal regulations concerning Affirmative Action as well as executive order # 11246. Bids must be accompanied by a Bid Bond or Certified Check for not less than 5% of the contracted amount.

### **III. REQUIREMENTS TO BID**

#### **A. Affirmative Action Program:**

1. The Vendor shall be an equal opportunity employer and shall conform to all Affirmative Action and other applicable requirements. Accordingly, the Vendor shall neither discriminate nor permit discrimination in its operations or employment practices against any person or group of person on the grounds of race, color, religion, national origin, or sex in any manner prohibited by law. A Vendor with 50 or more employees shall provide, with its proposal, the two most recent annual Federal EEO-1 forms.

#### **B. Pre-Bid Meeting:**

1. This bid requires a mandatory pre-bid meeting. Time and date are stated on the front cover of this document. Please review specifications carefully. Questions should be addressed at the Pre-Bid Meeting.

#### **C. Hold Harmless:**

1. The Vendor agrees to indemnify, hold harmless and defend the College and its officers and employees from any claim, damage, liability, injury, expense or loss, including defense costs and attorney's fees, arising out of Vendor's performance under the Agreement or as a consequence of the existence of the Agreement. Accordingly, the College shall notify the Vendor promptly in writing of any claim or action brought against the college in connection with Agreement. Upon such notification, the Vendor shall promptly take over and defend any such claim or action. The College shall have the right and option to be represented in such claims or action at its own expense.

#### **D. Patent Liability:**

1. Vendors agree to indemnify, defend and save harmless the College from all suits and action of every nature and description brought against them, or any of them, for or on account of the use of patented appliances, products, or processes, and Vendor shall pay all royalties and charges which are legal and equitable, as it applies to product or service supplied under this agreement.

#### **E. Insurance:**

1. These coverage and limits are to be considered minimum requirements under the agreement and shall in no way limit the liability obligations of the successful Vendor under the Agreement. Limits are to be set in accordance with the individual Contractor scope of work. The insurance must name Community College of Philadelphia *and the Construction Management Company as additional insured.*
2. The Vendor shall maintain in force at all times during the term of the Agreement, with an insurance carrier acceptable to the College the following insurance:

Community College of Philadelphia  
1700 Spring Garden Street, M1-4  
Philadelphia, PA 19130

1.	Worker's Compensation	Statutory limits
2.	Employers liability	\$3,000,000 aggregate \$1,000,000 each occurrence
3.	Bodily Injury and Property Damage	\$3,000,000 aggregate \$1,000,000 each occurrence
4.	Comprehensive Automobile	\$1,000,000 each occurrence

**F. Insurance Termination:**

1. The companies providing the insurance shall provide written notification to the College thirty days prior to the termination of any coverage.

**G. Certificate of Insurance:**

1. Upon award and prior to the start of service, a Certificate of Insurance shall be furnished to the College in evidence of the required coverage.
2. Forward Certificate of Insurance to:

***William A. Vogel***

Community College of Philadelphia  
1700 Spring Garden Street, M1-4  
Philadelphia, PA 19130

**H. Authority to do Business in Pennsylvania:**

1. Vendors must possess the necessary authority to do business in the Commonwealth of Pennsylvania. (Penna. Business Corporation Law, approved May 5, 1933, P.L. 364 as amended.) Proposals will not be accepted from companies not so authorized.

**I. Pennsylvania Prevailing Wage Act:**

1. Vendors must be in compliance with the provisions of the Pennsylvania Prevailing Wage Act approved August 15, 1961, Act No. 442, P.L. 987 with subsequent amendments thereto and federal minimum wage legislation now in effect. Note: This may or may not pertain to this project. Refer to wage act limitations.

**J. Pennsylvania Human Relations Act:**

1. Vendors must be in compliance with the provisions of the Pennsylvania Human Relations Act No. 222, October 27, 1955, as amended by Act No. 19, February 28, 1961, and in accordance with the provision of the Governor's Code of Fair Practice, effective June 6, 1963, and the regulations of the Pennsylvania Human Relations Commission as approved by the Attorney General July 7, 1965 in providing equal opportunities in connection with all the work performed by the Vendor.

**K. Exclusionary Membership:**

1. The Vendor agrees, in accordance with the City of Philadelphia Bill No. 336-A, an Ordinance approved by the Mayor on January 14, 1981, that is payment or reimbursement of membership fees or other expenses associated with participation by its employees in an exclusionary private organization, in so far as such participation confers an employment advantage or constitutes or results in

Community College of Philadelphia  
1700 Spring Garden Street, M1-4  
Philadelphia, PA 19130

discrimination with regard to hiring, tenure of employment, promotions, terms, privileges, or conditions of employment on the basis of race, color, sex, religion, national origin or ancestry, constitutes a substantial breach of this Agreement entitling the College to all rights and remedies provided in this Agreement or otherwise available in law or equity.

**L. Bid Bond:**

1. No proposal will be considered unless accompanied by a proposal security in the form of a certified check or bank check in the amount of \$5,000 or a proposal bond for 5%, whichever is greater, of the contract rendered in favor of Community College of Philadelphia, pledging that the Vendor will enter into an Agreement with the College on the terms stated in its proposal and will furnish a performance bond as described below covering the faithful performance of the Agreement and the payment of all obligations there under.
  - a) Should the Vendor refuse to enter into such Agreement or fail to furnish the performance bond as required, the amount of the proposal security shall be forfeited to the College as liquidated damages.
  - b) If a Vendor submits its proposal with a proposal bond, a company legally authorized to conduct business in Pennsylvania must issue such surety bond. If requested, the Vendor shall prove that it has financial and technical capability, the labor, and materials necessary to perform services required.

**M. Vendor Qualifications:**

1. Responding firms must demonstrate broad capabilities and extensive in noted areas. Responding firms must provide a Statement of Qualifications including, but not limited to, the following information
  - a) Current audited financial statement including Net Worth and Working capital.
  - b) Project history listing, covering major contracts performed over the last five years, giving information such as Volume, Project Type, Architect, Owner's Contact and Local Union Affiliation.
  - c) Account history listing major contracts performed over the last five years, and local Union Affiliation.
  - d) Documentation of past history and current ability to meet established MBE/WBE requirements.
  - e) Proof of license to do business in the Commonwealth of Pennsylvania
  - f) List of any lawsuits involving the Vendor

**N. Vendor Reference:**

1. References must be for contracts similar in nature as to the service requested under this proposal.
2. Vendor is required to submit a client list, which must include:
  - a) Name of Contact
  - b) Title of the contact person
  - c) Company Name
  - d) Phone Number
  - e) Email Address
  - f) Contracted Term

- g) Years of Service
- h) Size of the Institution

**O. Evidence of Financial Stability:**

1. Upon request the Vendor shall prove that it has financial and technical capability to provide the labor and materials necessary to perform services requested.

**IV. INSTRUCTIONS FOR PROPOSAL**

**A. Bid Format:**

1. Bids shall be submitted on the Bid Form, attached. Bids shall acknowledge the Bidding Instructions, Terms and Conditions, and Specifications sections of this BID and state that all these documents are part of their bid. No bid shall be considered if received after the date and time specified in the REQUEST FOR BID. A Bid, which is incomplete, obscure, conditional, contains additions not called for, or has irregularities of any kind, including alterations or erasures, may be rejected as non-responsive.

**B. Bid Date:**

1. Vendors are to submit an original and two (2) copies of their proposal in an envelope marked RFP # 9808 on the front, or mail to:

**Attention: Bid Administrator: WILLIAM A. VOGEL**  
**RFP # 9808**  
COMMUNITY COLLEGE OF PHILADELPHIA  
PURCHASING OFFICE, M1-4  
1700 SPRING GARDEN STREET,  
PHILADELPHIA, PA 19130

2. Vendor may email their bid so that it arrives on time, however the original must arrive at the office no later than 3 business days after the due date.
3. Bids will be accepted until 10:00am on Monday 28 October 2013.

**C. Bid Record Keeping:**

1. Bids will become a part of the College's official files without any obligations on the College's part.

**D. Tax Exemption:**

1. Community College of Philadelphia is exempt from all taxes imposed by the Internal Revenue Service under Chapter 32 of the Internal Revenue Code.

**E. Pennsylvania Sales Tax:**

1. Community College of Philadelphia is exempt from provisions of fair trade laws and the Pennsylvania sales tax. The Sales and Use Tax Regulation provides that exemption certificates are not required for sales made to Instrumentality's of the Commonwealth. Exemption or certificates will not be issued.

**F. Affirmative Action:**

1. Community College of Philadelphia is an Affirmative Action/Equal Opportunity Employer and encourages minority and women-owned organizations to quote.

**G. Queries/Addenda:**

1. Questions other than those addressed at the Pre-Bid Meeting should be directed to: *William A. Vogel*, Purchasing, fax number 215-751-8935; clarifications to the bid documents, requested by Vendors must be in writing no later than *Thursday 17 October 2013 at 10:00am*. All parties will be contacted with the explanation. All such interpretations will be in the form of written addenda to the bid documents no later than *Friday 18 October 2013*. Any such addenda will be emailed followed by via U.S. Post Office. All addenda shall become part of the bid/contract documents. Bids shall acknowledge addenda on the form provided and cost shall be reflected in the Bid. If no form provided, Vendor must acknowledge addenda on their response proposal.
2. In case any Vendor fails to acknowledge receipt of any such addendum in the space provided in the Bid Form, its bid will nevertheless be construed as though the addendum has been received and acknowledged, and the submission of its bid will constitute acknowledgement of the receipt for same.

**H. Content of Bid:**

1. Each Vendor by making their proposal represent that they have read and understand the request for bid and the specifications; and that they have visited the site and have familiarized themselves with the local conditions under which the work/product is to be performed; and that their bid (proposal) is based upon the labor and materials required to perform the work.

**I. Additional Warranty:**

1. The Vendor by submitting its proposal agrees that the following clause or similar wording is in the quotation "In addition to all other warranties expressed or implied in law, the Vendor will conform to all applicable specifications, drawings, samples, symbols, or other descriptions furnished by the Buyer, and will be of good material or workmanship and free from defects. In case any such item shall be defective or otherwise not in conformity herewith, Vendor at Buyer's option and in addition to all other remedies of Buyer, either credit Buyer for any such non conformity or defects or, at Vendor's expense replace, repairs, or correct any such article".

**J. Total Cost:**

1. Bids are to show total cost to Community College of Philadelphia for the service specified. Should Vendor notice obvious omissions on the part of Community College of Philadelphia in the outline of services, such omissions should be included and noted in Vendor's response proposal. Hidden cost(s) revealed during the performance of contract will be construed as misrepresentation of service and may avoid award of Contract, at the discretion of the college. All quotes are to be F.O.B. Destinations.

**K. Authorized Individual:**

1. Indicate the name of the account manager and the individual authorized to execute this agreement. An authorized officer of the Corporation is to sign the Affidavit of Verification of Bid (insert provided) and attach to your proposal.

**L. Alternate Bids:**

1. The College will consider alternate bids offering economies; however, these proposals must be in addition to your quotation as outlined in this request.

**M. Cancellation:**

1. The College reserves the right to cancel the Bid Process at any time.

**N. Waive Technicalities:**

1. Community College of Philadelphia reserves the right to accept or reject proposals in whole or in part, waive technicalities and to make awards deemed in the best interests of the College.

**O. Acceptance of Proposals:**

1. It is understood and agreed that the College reserves the right to reject any and all bids, or any part of a bid, if it deems it to be in the best interest of the College.
2. The College reserves the right to waive any informality in any bid when such waiver is in the best interest of the College.
3. The acceptance of the successful proposal requires approval of the Board of Trustees of the College on contracts \$100,000.00 and over.

**P. Definitions:**

1. **Addendum** – A modification of the Bidding Instructions, Bid Bond, Bid Form, Performance & Payment Guarantee Bond, Agreement, General Conditions, Special Conditions or Specifications or any other contract documents issued by the College and distributed to prospective Vendors prior to the date and time set for the receipt of the bids.
2. **Affidavit of verification of Bid** – Document which legally binds the corporation/firm, as it documents that an “Authorized” individual of firm or corporation has the right to submit the bid proposal. Must be notarized.
3. **Bid** – The written offer of the Vendor to enter into the Agreement with the College.
4. **Vendor** – Any individual, partnership, or corporation submitting a bid in accordance with the Bidding Instructions.
5. **Bid Bond** – Form of surety in order to guarantee a legitimate offer is put before the college for consideration of a particular contract. Subject to forfeiture for early withdraw of an offer.
6. **Bidding Administrator** – The individual designated by the College and identified in the Request for Bid or in an addendum authorized to solicit and receive or reject bids for this contract, to conduct the Vendor's conference and site inspection, to receive and answer any questions regarding the bidding documents, and to issue any addenda to the bidding documents.

7. **Bidding instructions** – The section which describes method of preparation and bid submission and award of contract together with other information of value to prospective Vendors.
8. **The College** – Community College of Philadelphia.
9. **Payment & Performance Bond** – Forms of surety to guarantee performance of the contract in adherence to the terms and conditions of same, and a guarantee that all incurred debt by Vendor in regard to this contract is paid. Bonds shall not be released until accepted completion of contract and successful Vendor has provided verification that subcontracted debt has been paid.
10. **Mechanic Waiver of Lien** – Form which releases a person's or entity's mechanic's lien or right to assert a mechanic's lien against Owner. Goods and or services sold to Owner are free of claim and encumbrance.
11. **Work** – For the purpose of this project, the term Work shall be interpreted to mean and not be limited to: all labor, supervision, tools, materials, equipment, unloading, scaffolding, cranes, hoisting, storage, temporary facilities, temporary shoring, bracing and planking, as required unless listed in the exclusion section of the individual contractor scope of work.

## ***V. TERMS AND CONDITIONS***

### **A. Use of Community College's Name:**

1. At no time shall the Vendor use the name of Community College of Philadelphia in making contracts with suppliers.
2. Vendor shall make all contracts in its own name, and Vendor alone shall be responsible for their purchases and contracts.
3. The College at no time and for no reason shall be responsible for any goods purchased by the Vendor, or for any other obligations or liabilities assumed or created by the Vendor.
4. It is to be understood specifically that the Vendor shall not set or hold itself out to be an agent for the College, and nothing herein shall be construed as creating the relationship of partners, a joint venture, or agency.

### **B. Price Changes:**

1. All services must be rendered to the College at the prices quoted. Proposals containing reservations to pass on possible price changes will be rejected.
2. All proposals must be effective for a period of 90 calendar days.

### **C. Hazardous Chemicals:**

1. The Vendor shall supply the College with the appropriate MSDS' for all hazardous materials supplied by Vendor, prior to their introduction on site.
2. The College reserves the right to reject or accept in whole or part any material proposed for use in the College.

### **D. Equipment Installation:**

1. Items of equipment purchased on the basis of being delivered and installed will require the successful Vendor to fulfill all facets of installation such as electrical, plumbing, fastening, etc., and will require the successful Vendor to supply all

materials, tools, equipment, transportation, labor supervision, etc., which are required to complete the installation in an approved and acceptable manner.

**E. Equipment Status:**

1. All items delivered and / or installed shall be guaranteed to be NEW and FREE of defects.
2. RECONDITIONED equipment may be used for repair or replacement where full functionality can be restored. Reconditioned equipment can only be used with prior knowledge and consent of CCP. Such reconditioned equipment must have a written warranty equivalent to a new and similar piece of equipment.
3. The successful Vendor shall replace any delivered and/or installed item found to be defective within the period of warranty. Vendors are required to state the warranty, period for each item listed, if applicable.

**F. Approved Equal Requirements:**

1. Vendors quoting "OR APPROVED EQUAL" items shall provide the College with descriptive literature, catalog tear sheets, drawings, detailed specifications, etc., and any other information on which to base an impartial evaluation by the College. The Vendor must be prepared to provide a sample to demonstrate the "OR APPROVED EQUAL" item.

**G. Order Format:**

1. Orders with the Vendor will be in the form of a purchase order issued by the College. The Purchasing Order may reference an AIA Agreement.

**H. Payment:**

1. Payment for purchases made by the College is expected to be made within 30 days after equipment /service is received and accepted by the College.

**I. Payment with Delayed Installation:**

1. When equipment involves installation, which shall be interpreted to mean erection and/or setting in place, testing, or making final connection, payment will be processed only following completion of installation. Where delay in such installation is attributable solely to the College, partial payment may be made on the basis of 50% of the price Quote, and the balance upon completion. This will not preclude the College from taking advantage of prompt payment discounts.

**J. Termination:**

1. Notwithstanding the term of this agreement, The College on written notice can terminate at any time by certified mail with return receipt with not less than thirty (30) days prior notice.

**K. Waiver of Liens:**

1. The successful Vendor shall be required to furnish the College a Waiver of Liens within 10 calendar days after the award.

**L. Work Stoppage:**

Community College of Philadelphia  
1700 Spring Garden Street, M1-4  
Philadelphia, PA 19130

1. The selected Vendor shall be wholly responsible for any relations with appropriate trade unions involved in the work.
2. In the event there shall be a delay or any work stoppage on the College's property resulting from a labor dispute or union activity, the Vendor will take whatever action may be necessary to insure re-commencement of work within 24-hours.
3. The selected Vendor shall be responsible for any and all delays claims arising by reason of labor disputes or relations or union activities if the same shall result from failure to comply with is duties as outlined above.

**M. Work Stoppage by College:**

1. In the event of a work stoppage or strike by the College employees, and such work stoppage or strike interferes with normal operations on College premises, neither party shall be liable for failure to perform.

**N. Performance & Payment Bond:**

1. The successful Vendor shall be required to furnish the College a surety performance & payment bond in the amount of the contract within 10 calendar days after the award.
2. Failure to provide this surety performance & payment bond with the prescribed period of time may result in the forfeiture of the proposal surety bond and nullify the award.
3. Companies legally authorized to conduct business in the Commonwealth of Pennsylvania shall issue bonds, which are acceptable to the College.

**O. Contractor/Vendor Safety:**

1. All personnel shall regularly utilize OSHA approved personal protective equipment appropriate to the work performed.
2. If engaged in any electrical work, contract personnel shall utilize OSHA approved Lock Out/Tag Out procedures and equipment to prevent exposure to them, or to employees, students or invitees of the College from hazardous electrical energy.
3. In addition to items specified above, all contract personnel shall comply with OSHA regulations during their work on College premises.

## **VI. CRITERIA FOR AWARD**

- A. *The Vendor must be present at the Pre-Bid Conference and Site Inspection.***
- B.** Compliance with the request for bid. It is imperative that all the required information be included with the bid. Failure to include this information may render the proposal non-responsive.
- C.** Award will be made to the most “responsible Vendor”. The College may evaluate proposals and award a contract without discussion with the respondents. The College may ask for clarifications of minor issues in the proposal and the Vendor agrees to provide this information in the time period requested by the College or have their proposal deemed non-responsive.
- D.** The Bid Administrator may waive any informalities or irregularities of bids.
- E.** Criteria to be used in evaluating “responsible Vendor”.
  - 1. Qualification Statement
  - 2. Depth and breadth of experience of the firm
  - 3. Capacity of firm to service the College account (management reports, availability of staff and supervision and support staff).
  - 4. Effectiveness of staff at comparable sites
  - 5. Financial stability of firm
- F.** All proposals will be evaluated in light of the above criteria with the final award being made to the firm who best meets the needs of the College. While price will be an important factor in the selection process, it will not be the only factor.

## **VII. EXECUTION OF CONTRACT**

- A.** Within ten (10) calendar days after award of contract, Vendor will furnish insurance documents as required within this request for proposal.
- B.** *The Contract will be in the form of an AIA Contract.*
- C.** Withdrawal of Bids:
  - 1. No bid can be withdrawn after it is submitted unless the Vendor makes the request in writing to the Bidding Administrator, and such request is received before the day and time set for receipts of bids.
  - 2. No bid can be withdrawn for a period of **90 days** after the date and time set for receipt of bids.

## **VIII. GENERAL COLLEGE INFORMATION**

- A.** Description of Facilities
  - 1. Community College of Philadelphia is the owner of properties located at 1700 Spring Garden Street, Philadelphia, PA 19130, identified as:
    - a) Mint Building
    - b) West Building
    - c) Bonnell Building
    - d) Winnet Building
    - e) Gymnasium Building
    - f) The Center for Business and Industry Building
    - g) The College also operates a parking garage and a sports deck on 18<sup>th</sup> Street.

2. These facilities are utilized for administrative and instructional purposes. The location is bordered by Spring Garden Street on the North, 16<sup>th</sup> and 18<sup>th</sup> Streets on the East and West sides respectively, and Callowhill Street on the South.
3. The College also owns Regional Center facilities located:
  - a) 4725 Chestnut Street
  - b) 1300 West Godfrey Avenue
  - c) 12901 Townsend Road

## ***IX. STATEMENT OF AFFIRMATIVE ACTION COMPLIANCE***

- A.** Each Contractor and Subcontractor shall include the following affirmative action clause in each of its covered government contracts or subcontracts (and modifications, renewals, or extensions thereof if not included in the original contract):
- B.** Affirmative Action for Disabled Veteran and Veterans of the Vietnam Era.
  1. The Contractor will not discriminate against any employee or applicant for employment because he or she is a disabled veteran or veteran of the Vietnam era in regard to any position for which the employee or applicant for employment is qualified. The Contractor agrees to take affirmative action to employ, advance in employment and otherwise treat qualified disabled veteran and veterans of the Vietnam era without discrimination based upon their disability or veterans status in all employment practices such as the following: Employment upgrading, demotion or transfer, recruitment, advertising, layoff or termination, rates of pay or other forms of compensation, and selection for training, including apprenticeship.
  2. The Contractor agrees that all suitable employment openings of the Contractor which exist at the time of the execution of this contract and those which occur during the performance of this contract, including those not generated by this contract including those occurring at an establishment of the Contractor other than the one wherein the contract is being performed but excluding those of independently operated corporate affiliates, shall be listed at an appropriate local office of the State employment service system wherein the opening occurs. The Contractor further agrees to provide such reports to local office regarding employment openings and hires as may be required.
- C.** State and local government agencies holding Federal contracts of \$10,000 or more shall also list all their suitable openings with the appropriate office of the State employment service, but are not required to provide those reports set forth in paragraph (2) and (3).
  1. Listing of employment openings with the employment service system pursuant to this clause shall be made at least concurrently with the use of any other recruitment source or effort and shall involve the normal obligations which attach to the placing of a bona fide job order, including the acceptance of referrals of veterans and non-veterans. The listing of employment opening does not require the hiring of any particular job applicant or from any particular group of job applications, and nothing herein is intended to relieve the contractor from any requirements in Executive Orders or regulations regarding nondiscrimination in employment.

Community College of Philadelphia  
1700 Spring Garden Street, M1-4  
Philadelphia, PA 19130

2. The reports required by paragraph (B.2) of this clause shall include, but not be limited to, periodic reports which shall be filed at least quarterly with the appropriate local office, or, where the Contractor has more than one hiring location in a State, with the central office of that State employment service. Such reports shall indicate for each hiring location (1) the number of individuals hired during the reporting period, (2) The number of non-disabled veterans of the Vietnam era hired, (3) the number of disabled veterans of the Vietnam era hired, and (4) the total number of disabled veterans hired. The reports should include covered veterans hired for on-the-job training under 38 U.S.C. 1787. The Contractor shall submit a report within 30 days after the end of each reporting period wherein any performance is made on this contract identifying data for each hiring location. The Contractor shall maintain at each hiring location copies of the reports submitted until the expiration of one year after final payment under the contract, during which time these reports and related documentation shall be made available, upon request, for examination by any authorized representatives of the contracting officer or of the Secretary of Labor. Documentation would include personnel records respecting job openings, recruitment and placement.
3. Whenever the Contractor becomes contractually bound to the listing provisions of this clause, it shall advise the employment service system in each State where it has establishments, of the name and location of each hiring location in the State. As long as the Contractor is contractually bound to these provisions and has advised the State system, there is no need to advise the State system of subsequent contracts. The Contractor may advise the State system when it is no longer bound by this contract clause.
4. This clause does not apply to the listing of employment openings which occur and are filled outside of the 50 States, the District of Columbia, Puerto Rico, Guam, and the Virgin Islands.
5. The provisions of paragraph (B.2), (1), (2), and (3) of this clause do not apply to openings which the Contractor proposes to fill from within its organization or to fill pursuant to a customary and traditional employer-union hiring arrangement. This exclusion does not apply to a particular opening once an employer decides to consider applicants outside of its own organization or employer-union arrangement for that opening.
6. As used in this clause: (1) "All suitable employment openings" includes, but is not limited to, openings which occur in the following job categories: Production and non-production; plant and office; laborers and mechanics; supervisory and non-supervisory; technical; and executive, administrative, and professional openings as are compensated on a salary basis of less than \$25,000 per year. This term includes full-time employment, temporary employment of more than 3 days' duration, and part-time employment. It does not include openings which the Contractor proposes to fill from within its own organization or to fill pursuant to a customary and traditional employer-union hiring arrangement or openings in an educational institution which are restricted to students of that institution. Under the most compelling circumstances an employment may not be suitable for listing, including such situations where the needs of the Government cannot reasonably be otherwise supplied, where listing would be contrary to nation security, or where the requirement of listing would otherwise not be for the best interest of the Government.
  - a. "Appropriate office of the State employment service system" means the local office of the Federal-State national system of the public employment offices with assigned responsibility for serving the area where the

employment opening is to be filled, including the District of Columbia, Guan, Puerto Rico, and the Virgin Islands.

- b. "Openings which the Contractor proposes to fill from within its own organization" means employment openings for which no consideration will be given to persons outside the contractor's organization (including any affiliates, subsidiaries, and the parent companies) and includes any openings which the Contractor proposes to fill from regularly established "recall" lists.
  - c. "Opening which the Contractor proposes to fill pursuant to a customary and traditional employer-union hiring arrangement" means employment openings which the contractor proposes to fill from union halls, which is part of the customary and traditional hiring relationship which exists between the Contractor and representative of its employees.
- 7. The Contractor agrees to comply with the rules, regulations, and relevant orders of the Secretary of Labor issued pursuant to the Act.
  - 8. In the event of the Contractor's noncompliance with the requirements of this clause, actions for noncompliance may be taken in accordance with the rules, regulations, and relevant orders of the Secretary of Labor issued pursuant to the Act.
  - 9. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices in a form to be prescribed by the Director, provided by or through the contracting officer. Such notice shall state the Contractor's obligation under the law to take affirmative action to employ and advance in employment qualified disabled veterans and veterans of the Vietnam era for employment, and the rights of applicants and employees.
  - 10. The Contractor will notify each labor union or representative of workers with which it has a collective bargaining agreement or other contract understanding, that the Contractor is bound by the terms of the Vietnam Era Veterans Readjustment Assistance Act, and is committed to take affirmative action to employ and advance in employment qualified disabled veterans and veterans of the Vietnam Era.
  - 11. The Contractor will include the provisions of this clause in every subcontract or purchase order of \$10,000 or more unless exempted by rules, regulations, or orders of the Secretary issued pursuant to the Act, so that such provisions will be binding upon each (subcontractor or vendor). The Contractor will take such action with respect to any subcontract or purchase order as the Director of the Office of Federal Contract Compliance Programs may direct to enforce such provisions, including action for noncompliance.

## ***X. OPERATIONAL PROCEDURES & SUPPLEMENTAL SPECIAL CONDITIONS***

These Community College of Philadelphia Supplemental Special Conditions are an extension of the A201/CMA Contract Documents. This document applies to all Contracts and is subject to modification or a revision in individual Contract Scope of Work.

### **A. Contract Documents**

- 1. Conflicts or discrepancies among the contract Documents shall be resolved in the following order of priority:

- a) The Agreement
  - b) Amendment and revisions of later date take precedence over those of earlier date;
  - c) The Supplementary Conditions
  - d) The General Conditions
  - e) Drawings and Specifications; drawings govern specifications for quantity and location, and specification govern drawings for quality and performance. In the event of ambiguity in quantity or quality, the greater and the better quality shall govern.
  - f) Figured dimensions govern scale dimensions and large scale drawings govern small scale drawings.
  - g) Submittals
2. Contract Documents show design intent and do not necessarily indicate or describe all work required for full performance and completion of the work. The Subcontractor is responsible to review all Contract Documents and provide all items necessary for the proper installation or operation of the work. In the event an item is not shown or specified and is required for the proper installation or operation of the work, this contractor shall include the cost of the most expensive case that can be inferred by the Contract Documents. The Owner shall have the final decision concerning Document discrepancies.

#### **B. General Requirements**

1. Storage of Materials: All materials and equipment shall be stored on-site at a place in a way designated by the Owner. No materials shall be removed from the job site by the Contractor for any reason, except where specifically authorized, in writing, by the Owner. All materials shall be inventoried by the Owner and Contractor as soon as possible after the delivery. Any items lost or stolen as a result of not being secured shall be the responsibility of the Contractor to replace. All materials shall be maintained in dry condition unless otherwise specified within the Contract Documents.
  - a) The Contractor shall be responsible for providing dry storage. Tarpaulins shall be supplied by the Contractor and will be required for protection of all materials.
2. Dumpsters: This Contractor is responsible to deposit daily all rubbish and debris created during the day by his work force into an exterior dumpster at grade level provided by others unless specifically included as part of the individual Contract Scope of Work. Housekeeping must be performed on a daily basis. The Contractor will cooperate with the Owner to keep areas of the project clean on a daily basis.
  - a) Cleaning and removal of all non-hazardous debris to the dumpster shall be performed at the end of each shift by laborers provided by this Contractor. The dumpster will be located outside of the building, at the direction of the Owner.
3. Temporary Electric: Temporary electric will be provided by the Owner unless otherwise specified in an individual Contract Scope of Work.
  - a) Cost of current will be paid for by the Owner. Contractors are requested to minimize consumption.
  - b) The Contractor shall bear all costs if any for the connection of its equipment to the available power supply.
4. Temporary Water: The water at the existing building will be available to the Contractor.

Community College of Philadelphia  
1700 Spring Garden Street, M1-4  
Philadelphia, PA 19130

- a) Cost of water will be paid for by the Owner. Contractors are requested to minimize consumption.
- b) The Contractor shall bear all costs for the connection of its equipment to the available water supply.
- 5. Parking:
  - a) Parking cannot be provided
  - b) Street parking may be available
  - c) No vehicles will be allowed to block truck doors or the lobby entrance
- 6. Site Conditions Prior to Commencement:
  - a) It shall be the responsibility of the Contractor to arrange an inspection of the job site with the Owner.
  - b) All necessary work permits must be obtained before work begins
- 7. Final Inspection and Training:
  - a) The representative of the Contracting firm shall notify the Owner when he is within five (5) working days of completing a particular project unless otherwise noted in an individual Contract Scope of Work.
  - b) A final inspection team consisting of the Owner, a Representative of the Contracting Firm, and the contractor's Job Foreman, shall inspect the work.
  - c) Any defects noted in the work during the course of the final inspection shall be corrected to the satisfaction of the Owner within 10 working days and prior to the removal of the contractor's equipment from the job site unless otherwise noted in an individual Contract Scope of Work.
  - d) In addition, the Owner, at his/her discretion, may withhold final payment or a portion thereof until all defects are corrected to his/her satisfaction.
- 8. Submittals:
  - a) All submittals must be received by the Owner within two weeks of Contract Award unless otherwise noted in an individual. Contract Scope of Work.
  - b) A letter of transmittal must be attached to all submittals.
    - 1. The Transmittal letter and all submittals shall include the name of the Project, the name and address of the Contractor, Vendor, material supplier, the specification section relating to submissions, and the date submitted.
  - c) Submittals must be complete; partial submittals will not be accepted.
  - d) "Reviewed" or "Make-Corrections-AS-Noted" submittals need to be resubmitted unless requested by the Owner.
  - e) All disapproved submittals must be corrected, re-submitted and received by the Owner within one week of receipt so as not to delay the Work.
  - f) All revisions must be clouded.
  - g) Materials may be released for fabrication when marked "Reviewed" or "Make-Corrections-As-Noted".
    - 1. Shop Drawings – Contractors shall submit one (1) reproducible sepia transparency plus four (4) prints bearing the Contractor's stamp and signature certifying completeness and compliance with the Contract Documents. Each submission

Community College of Philadelphia  
1700 Spring Garden Street, M1-4  
Philadelphia, PA 19130

shall be accompanied by the form entitled "Submittal Cover Sheet".

2. Samples – Submit three (3) samples of each item required by the Specifications. Samples will not be returned unless specifically requested by the Contractor.
- h) The sepias when returned by the Owner will be retained by the Owner. One print will be returned to the Contractors.
  1. Brochures and Descriptive Literature – Submit six (6) copies of all brochures, materials, and equipment cuts and descriptive literature. One (1) copy will be returned to the Contractor.
9. Permits:
  - a) The Contractor shall obtain and pay for all permits which are applicable to the work and conform to all rules and regulations of any authority having jurisdiction over the work.
10. Time Schedule:
  - a) The Contractor shall submit, within seven (7) days after being awarded the Contract, a detailed "Time Schedule" to the Owner showing individual tasks, preferred sequence and duration of each task.
  - b) All work under this Contract must follow the start and completion schedule as set forth in the "Project Schedule" prepared by the Owner.
  - c) Normal working day hours:
    - i. Weekdays – 7:00 a.m. – 3:30 p.m.
    - ii. Weekends – Same
11. Entry into Building:
  - a) Entry into building shall be in accordance with existing entrances that are designated for use during construction.
  - b) Access to individual spaces outside of a Contractor's Scope of Work will be permitted only after the specific authorization by the Owner.
12. Safety:
  - a) The Contractor must carefully review, and assure all his employees and subcontractors working at this jobsite are aware of OSHA Safety Standards and Contract Safety Policy prior to the work.
  - b) The Owner will fully enforce all OSHA Safety Standards, including but not limited to:
    1. Inspect all equipment arriving on site to ensure all safety features; back-up alarms, overhead safety, etc., are operating properly.
    2. Ensure all personnel adhere to wearing all safety protection items required for the safe a removal of demolition materials; hard hats, eye protection, work boots, hearing protection, work gloves, dust masks, etc.
    3. Ensure all safety barricades, flags, caution tape, signage etc., are in place daily prior to starting work.
    4. Hold weekly safety meeting with all on-site personnel and an Owner's Representative present.
    5. File daily inspection report with Project Superintendent.
    6. Provide copy of Company's safety policy.
    7. Provide fire watch personnel and equipment. Fire watch must be maintained for a minimum of three (3) hours after burning operations that day.

Community College of Philadelphia  
1700 Spring Garden Street, M1-4  
Philadelphia, PA 19130

8. Contractor acknowledges that it shall provide all safety personnel required by referenced safety standards.
9. Contractor acknowledges requirement for 100% fall protection.

***XI. SCOPE OF WORK***

**APPENDIX A**

***XII. TECHNICAL SPECIFICATIONS***

**APPENDIX A**

***XIII. DRAWINGS***

**APPENDIX A**

***XIV. AFFIDAVIT OF VERIFICATION OF BID***

Vendors by making their proposal represent that: They have read and understand the Bid documents and their proposal is made in accordance therewith. Their proposal is based upon all of the requirements of this REQUEST FOR BID #9808. Vendor's proposal is effective for 90 days after the due date. Attach complete proposal and supporting documents according to requirements in the Bid including but not limited to the items listed herein.

- ☐ Affidavit of Verification of Bid
- ☐ Statement of Affirmative Action Compliance Form
- ☐ Bid Form
- ☐ Bid Bond
- ☐ Candidate's Qualification Statement
- ☐ Financial Record
- ☐ Updated W9
- ☐ Client References (minimum of three)

By Firm of Corporation (Please indicate)

Company Name	
Address 1	
Address 2	
City	
State, Zip Code	

Name of Individual	
Title	

Being duly sworn, says: I am an agent of:

(Company Name)	
----------------	--

The firm/corporation described in and who executed the foregoing proposal and several matters described therein stated are in all respects true. I am authorized to make this affidavit on behalf of my firm, and its owner, and officers.

I reside at	
In the city of	

Community College of Philadelphia  
1700 Spring Garden Street, M1-4  
Philadelphia, PA 19130

Signature of person verifying bid	
Date	
Witness, Notary Signature	
Seal	

**"Note: This document must be completed, signed, notarized, and returned with your bid"**

***XV. MACBRIDE PRINCIPLES, SLAVERY ERA BUSINESS & EXCLUDED PARTIES***

**AFFIDAVIT**

ON THE \_\_\_\_ day of \_\_\_\_\_ 2010, before me, the undersigned Officer, personally appeared \_\_\_\_\_ who is the \_\_\_\_\_ of the company known as \_\_\_\_\_ (the "Contractor"), and who, being duly sworn according to law and intending to be legally bound, certified and represented that the following statements are true and correct:

**I. *MacBride Principles***

A. In accordance with Section 17-104 of The Philadelphia Code (the "Code"), (1) the Contractor (including any parent company, subsidiary, exclusive distributor or company affiliated with Contractor) does not have, and will not have at any time during the term of the Contract (including any extensions thereof), any investments, licenses, franchises, management agreements or operations in Northern Ireland, and (2) no product to be provided by Contractor under the Contract will originate in Northern Ireland, unless the Contractor has implemented the fair employment principles embodied in the MacBride Principles.

B. In the performance of the Contract, the Contractor will not utilize any suppliers, subcontractors or sub-consultants at any tier (1) who have (or whose parent, subsidiary, exclusive distributor or company affiliate have) any investments, licenses, franchises, management agreements or operations in Northern Ireland or (2) who will provide products originating in Northern Ireland unless said supplier, sub-consultant or subcontractor has implemented the fair employment principles embodied in the MacBride Principles.

II. ***Slavery Era Business.*** In accordance with Section 17-104 of the Code, Contractor has searched any and all records of the company or any predecessor company regarding records of investments or profits from slavery or slaveholder insurance policies during the slavery era. The names of any slaves or slaveholders described in those records are as follows \_\_\_\_\_

[INSERT NAMES OR IF NONE, INSERT NONE]. \_\_\_\_\_

III. ***Excluded Parties.*** Contractor and its principal employees are not listed on the General Services Administration List of Parties Excluded from Federal Procurement or Non-Procurement Programs nor has Contractor or its principal employees been debarred, suspended or otherwise excluded or declared ineligible from contracting with the United States of America, the Commonwealth of Pennsylvania, the City of Philadelphia or any of their respective agencies.

The Contractor expressly understands and agrees that any false certification or representation contained herein and any failure to comply with the provisions of this Affidavit shall constitute a breach of the Contract entitling Community College of Philadelphia to all rights and remedies provided in the Contract or otherwise available at law (including, but not limited to, Section 17-104 of the Code) or in equity.

Community College of Philadelphia  
1700 Spring Garden Street, M1-4  
Philadelphia, PA 19130

MacBride Principles, Slavery Era Business & Excluded Parties

**SWORN TO AND SUBSCRIBED** before me,  
the day and year first set forth above.

\_\_\_\_\_  
[Insert name of contractor]

\_\_\_\_\_  
Notary Public

My Commission Expires: \_\_\_\_\_

By: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

**"Note: This document must be completed, signed, notarized, and returned with your bid"**

***XVI. STATEMENT OF AFFIRMATIVE ACTION COMPLIANCE FORM***

(Company Name)	
----------------	--

States that:

- A.** My company has 50 or more employees. In accordance with Section I.7 of “Instructions to Vendors”, copies of the two most recent annual federal EEO-1 forms are attached herewith.

Authorized Signature	
Date	

**OR**

- B.** My company has less than 50 employees.

Authorized Signature	
Date	

***XVII. BID FORM***

**PART I - GENERAL**

**Description**

Bid Due Date: 10:00 AM on Monday 28 October 2013

Project Name: Community College of Philadelphia Parking Garage 2013 Repairs

Submit Bids To: ***Bid Administrator:***  
*William A. Vogel*

Purchasing Department, Room M1-4  
Community College of Philadelphia  
1700 Spring Garden Street  
Philadelphia, PA 19130

Phone: 215-751-8903

Fax: 215-751-8935

Email: [wvogel@ccp.edu](mailto:wvogel@ccp.edu)

Include with this Bid Form the following in order for Bid to be compliant:

1. ☐ Affidavit of Verification of Bid (supplied)
2. ☐ Affirmative Action Compliance (supplied)
3. ☐ Bid Bond or Certified Check
4. ☐ Qualification Statement
5. ☐ Financial Record
6. ☐ Updated W9
7. ☐ Client References

Bid Submitted By: \_\_\_\_\_

Bidders Name: \_\_\_\_\_

Bidders Address: \_\_\_\_\_

- A. The undersigned BIDDER proposes and agrees, if this Bid is accepted, to enter into an Agreement with OWNER in the form included in the Contract Documents to complete all Work as specified or indicated in the Contract Documents for the Contract Price and within the Contract Time indicated in this Bid and in accordance with the Contract Documents.

Community College of Philadelphia  
1700 Spring Garden Street, M1-4  
Philadelphia, PA 19130

- B. BIDDER accepts all of the terms and conditions of the Community College of Philadelphia RFP #9808
- C. In submitting this Bid, BIDDER represents, as more fully set forth in the Agreement, that:
  - 1. BIDDER has examined the site and locality where the Work is to be performed, the legal requirements (federal, state and local laws, ordinances, rules and regulations) and the conditions affecting cost, progress or performance of the Work and has made such independent investigations as BIDDER deems necessary.
  - 2. This Bid is genuine and not made in the interest of or on behalf of any undisclosed person, firm or corporation and is not submitted in conformity with any agreement or rules of any group, association, organization or corporation; BIDDER has not directly induced or solicited any other Bidder to submit a false or sham Bid; BIDDER has not solicited or induced any person, firm or a corporation to refrain from bidding; and BIDDER has not sought by collusion to obtain for himself any advantage over any other Bidder or over OWNER.
- D. BIDDER agrees that the Work will be substantially completed and fully completed on or before the following dates:
  - 1. Substantial Completion by February 07, 2014.
  - 2. Full Completion by February 21, 2014.
- E. The following information will be supplied per the requirements of the Bid Submission:
  - 1. This Bid Form in its entirety
- F. Total project base bid shall include the summation of lump sum bids described in paragraph F.1, plus the summation of unit prices multiplied by the estimated quantities in paragraph F.2. Items with zero estimated quantities shall not be added to cost.
  - 1. Contractor shall submit a lump sum Contract price for all work included in the Drawings and Specifications except as modified herein. Lump sum price shall include all costs to provide, install, and/or repair work items including, but not limited to, labor, material, equipment, supervision, overhead, profits, etc. Specific lump sum work is described below:
    - a. Project mobilization shall include General Contractor and Subcontractor mobilization costs. Construction permit will not be necessary.
    - b. Project General Requirements and all miscellaneous costs associated with completion of work in accordance with the Construction Documents. This shall include, but not be limited to, access to work areas, barricades, cleanup, dust and fume control, layout, equipment, waste disposal, documentation, and obstruction removal and replacement. Provide itemization upon request
    - c. Division 3

Community College of Philadelphia  
1700 Spring Garden Street, M1-4  
Philadelphia, PA 19130

- Apply migrating corrosion inhibitor to Roof Level and exposed portion of Fourth Level as indicated on drawings.
- d. Division 7
  - Repair damaged section of expansion joint gland and nosing spalls on north bay of top level.
- e. Division 8
  - Remove and replace (3) stair tower doors, frames and hardware at top level of garage.
- f. Division 9
  - Re-Install parking line stripes, traffic arrows, and other graphics to match existing on Roof Level and exposed portion of Fourth Level as indicated on drawings.
- g. Lump Sum Work Items:

<u>Description</u>	<u>Ref. Spec. or Details</u>	<u>Units</u>	<u>Bid Price</u>
1. Project Mobilization	Divs. 0 & 1	L.S. \$	_____
2. Project General Requirements	Divs. 0 & 1	L.S. \$	_____
3. Apply Migrating Corrosion Inhibitor	(03555)	L.S. \$	_____
4. Repair expansion joint gland	(6,7,8,9/SR511)	L.S. \$	_____
5. Remove & Replace 3 Stair Tower Doors, Frames & Hdw	(08810,08700,09900)	L.S. \$	_____
6. Line Striping and Graphics	(SR105-6, 09920)	L.S. \$	_____
7. Allowance #1 – Replacement of Deteriorated Conduit	(01020)	L.S. \$	<u>5,000.00</u> _____

2. Provide unit prices for items listed below. These items shall be included in the project base bid. Unit prices shall include all costs to provide, install, and/or repair work item including, but not limited to, labor, materials, equipment, supervision, overhead, profits, etc.
  - a. Quantities beyond those estimated shall be paid at the stated unit price, quantities less than estimated will be deducted from the Contract. Quantities may be distributed throughout the project, not necessarily in a single location.
  - b. All prices to include demolition, unless noted.
  - c. Unit Cost Work Items:

Community College of Philadelphia  
1700 Spring Garden Street, M1-4  
Philadelphia, PA 19130

<u>Description</u>	<u>Ref. Spec. Section or Detail</u>	<u>Units</u>	<u>Estimated Quantity</u>	<u>Unit Price</u>	<u>Bid Price</u>
--------------------	---	--------------	-------------------------------	-----------------------	----------------------

**Division 3**

1. CIP Topping Slab Repair	(3/SR501)	S.F.	2,400	\$ _____	\$ _____
2. Joint Edge CIP Topping Slab Repair	(4/SR501)	S.F.	750	\$ _____	\$ _____
3. CIP Topping Repair @ Wall Connection	(5,6/SR501)	EA.	250	\$ _____	\$ _____
4. Column Repair	(7/SR501)	S.F.	50	\$ _____	\$ _____
5. Wall Repair	(8/SR501)	S.F.	80	\$ _____	\$ _____
6. P/C Façade Panel Repair	(9/SR501)	S.F.	25	\$ _____	\$ _____
7. P/C Tee Flange Repair	(10/SR501)	S.F.	60	\$ _____	\$ _____
8. P/C Tee Stem Repair	(11/SR501)	L.F.	10	\$ _____	\$ _____
9. Beam Repair	(12/SR501)	S.F.	50	\$ _____	\$ _____
10. Stair Repair	(13/SR501)	L.F.	20	\$ _____	\$ _____
11. Grout Pocket Repair	(14/SR501)	EA.	20	\$ _____	\$ _____

**Division 5**

12. Remove and Replace P/C Connection	(15,16/SR501)	EA.	2	\$ _____	\$ _____
--	---------------	-----	---	----------	----------

**Division 7**

13. Control Joint Sealant Replacement	(1/SR511)	L.F.	3,900	\$ _____	\$ _____
14. Cove Sealant Replacement	(2/SR511)	L.F.	1,450	\$ _____	\$ _____
15. Rout and Seal Cracks	(4/SR511)	L.F.	100	\$ _____	\$ _____

16. Vertical and Horizontal

Community College of Philadelphia  
1700 Spring Garden Street, M1-4  
Philadelphia, PA 19130

Wall Sealant Replacement	(3/SR511)	L.F.	1,250	\$_____	\$_____
17. Floor Drain Sealant Replacement	(5/SR511)	EA	20	\$_____	\$_____

3. BIDDER will complete the Work for the following price:

4. BASE BID CONTRACT PRICE:

\_\_\_\_\_ Dollars (use words)

(\$ \_\_\_\_\_)  
(figures)

a. The total base bid Contract price includes the following breakdown:

1)	Summation of Lump Sum Contract Prices (Paragraph F.1.e)	\$_____
2)	Summation of Unit Price Items (Paragraph F.2.c)	\$_____
	Total	\$_____

Community College of Philadelphia  
1700 Spring Garden Street, M1-4  
Philadelphia, PA 19130

- G. The Bidder, by its officers and its agents or representatives present at the time of filing this Bid, being duly sworn on their oaths, say that neither they nor any of them have in any way directly or indirectly entered into any arrangement or agreement with any other Bidder, or with any officer of Community College of Philadelphia whereby such affiant or affiants has paid or is to pay such other Bidder or officer any sum of money, or has given is to give to such other Bidder or officer anything of value whatever; that such affiant or affiants has not directly or indirectly, entered into any arrangement or agreement with any other free competition in the letting of the Contract sought for by the attached Bids; that no inducement of any form or character other than that which appears on the face of the Bid will be suggested, offered, paid or delivered to any person whomsoever to influence the acceptance of the Bid or awarding of the Contract; that this Bidder has no agreement or understanding of any kind whatsoever, with any person whomsoever to pay, deliver to, or share with any other person in any way or manner, any of the proceeds of the Contract sought by this bid.

By \_\_\_\_\_  
(Corporation Name)

\_\_\_\_\_  
(State of Incorporation)

By \_\_\_\_\_  
(Name of Person Authorized to Sign)

\_\_\_\_\_  
(Title)  
(Corporate Seal)

Attest \_\_\_\_\_  
(Secretary)

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

Phone No. \_\_\_\_\_

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

**PART 2 - PRODUCTS**

**2.1 Not used.**

**PART 3 - EXECUTION**

**3.1 Not used.**

***XVIII. CANDIDATES QUALIFICATION STATEMENT***

This statement is to be filed with the bid; attach separate sheet as necessary. The undersigned certified under oath the truth and correctness of all statements and of all answers to questions made hereinafter. The Contractor may instead use the AIA Qualification Statement.

To:

Community College of Philadelphia  
Purchasing Department  
1700 Spring Garden Street, M1-4  
Philadelphia, PA 19130-3991  
Attention: *William A. Vogel*

Submitted by: \_\_\_\_\_

Name: \_\_\_\_\_

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

- ☐ Corporation
- ☐ Partnership
- ☐ Individual
- ☐ Joint Venture

How many years has your organization been in business as an Operator? \_\_\_\_\_

How many years has your organization been in business under its present business under its present business name? \_\_\_\_\_

If a Corporation, answer the following:

Date of Incorporation: \_\_\_\_\_

State of Incorporation: \_\_\_\_\_

President's Name: \_\_\_\_\_

Vice President's Name(s): \_\_\_\_\_

Secretary's Name: \_\_\_\_\_

Treasurer's Name: \_\_\_\_\_

Names and addresses of all shareholders with greater than 10% interest in the corporation. (If additional space needed, report on the back of the page.)

Community College of Philadelphia  
1700 Spring Garden Street, M1-4  
Philadelphia, PA 19130

If individual or partnership, answer the following:

Date of Organization: \_\_\_\_\_

Name and address of all Partners:

(If additional space needed, report on the back of the page.)

If other than Corporation or Partnership, describe organization and name principals:

(If additional space needed, report on the back of the page.)

List the name of the Contract, Owner, contract amount, date of service, your organization holds in the past two years which is equal to at least 50% or the total amount of this Bid:

(If additional space needed, report on the back of the page.)

List the experience of the principal individuals of your organization (include proposed manager): (If additional space needed, report on the back of the page.)

Trade References:

(If additional space needed, report on the back of the page.)

Bank References:

(If additional space needed, report on the back of the page.)

Community College of Philadelphia  
1700 Spring Garden Street, M1-4  
Philadelphia, PA 19130

Candidate shall furnish to client at the time of proposal submission, an original letter from his/her insurance company indicating their EMR (Experience MOD) rating. Failure to submit this item will disqualify the Candidate's Bid.

Dated at this \_\_\_\_\_ day of \_\_\_\_\_ 20\_\_\_\_\_

Name of Organization: \_\_\_\_\_

By: \_\_\_\_\_ Title: \_\_\_\_\_

Being duly sworn deposes and says that he (she) is the \_\_\_\_\_ of the contracting firm and that answers to the foregoing questions and all statements therein contained are true and correct.

Subscribed and sworn before this \_\_\_\_\_ day of \_\_\_\_\_ .

Notary Public: \_\_\_\_\_

My Commission Expires: \_\_\_\_\_

**"Note: This document must be completed, signed, notarized, and returned with your bid"**

***XIX. APPENDICES***

**Next Page:**

# APPENDIX A

## TECHNICAL SPECIFICATIONS & DRAWINGS

*for*

**Community  
College  
*of* Philadelphia**  
**Philadelphia, PA**

**BY: CARL WALKER, INC.**

**6 North Broad Street, Suite 320  
Woodbury, NJ 08096**

**CARL WALKER, INC. PROJECT NO. R1-2013-667**

***Community College of Philadelphia RFP #***

**Contact: Paul Uhrig**

**Date: May 8, 2013**

**Phone: 856-579-1511**

**Fax: 856-251-1070**

**APPENDIX A (TECHNICAL SPECIFICATIONS) TABLE OF CONTENTS**

**Section      Name**

**PROJECT IDENTIFICATION**

00001	Cover Page
00002	Specification Table of Contents
00005	Project Description

**DIVISION 1      GENERAL REQUIREMENTS**

01020	Allowances
01300	Submittals
01700	Project Closeout and Warranties

**DIVISION 2      SITEWORK**

02050	Demolition
-------	------------

**DIVISION 3      CONCRETE**

03200	Concrete Reinforcement
03370	Concrete Repair
03555	Chemical Treatment

**DIVISION 5      METALS**

05990	Miscellaneous Metals
-------	----------------------

**DIVISION 7      THERMAL AND MOISTURE PROTECTION**

07900	Joint Sealants
-------	----------------

**DIVISION 8      DOORS AND WINDOWS**

08110	Hollow Metal Doors and Frames
08700	Finish Hardware General

**DIVISION 9      FINISHES**

09900	Painting
09920	Pavement Marking

**DIVISION 16 ELECTRICAL**

16010 General Electrical Requirements

**ATTACHED DRAWINGS TABLE OF CONTENTS**

G001	Cover Sheet and General Notes
SR101	Ground Level Repair Plan
SR102	First Level Repair Plan
SR103	Second Level Repair Plan
SR104	Third Level Repair Plan
SR105	Fourth Level Repair Plan
SR106	Roof Level Repair Plan
SR501	Repair Details
SR511	Waterproofing Details

END OF SECTION

## SECTION 00005 - PROJECT DESCRIPTION

The Community College of Philadelphia Parking Garage 2013 Repairs scope of work will be in general accordance with the following, but not limited to:

1. Cast in place topping slab repairs throughout the garage.
2. Concrete repairs to various structural components (beams, columns, spandrel panel) throughout the garage.
3. Repair steel connections between precast elements.
4. Remove and replace construction and control joint sealants on top level to include tee to tee control joints, cove joints, and wall panel sealants.
5. Rout and seal random slab cracks on top level.
6. Apply concrete sealer/migrating corrosion inhibitor to the roof level and exposed portion of the fourth level.
7. Restripe the roof level and exposed portion of fourth level (same limits as migrating corrosion inhibitor).
8. Remove and replace 3 stair tower doors, frames, and hardware on top level of garage.
9. Repair approximately 12 feet of damaged expansion joint gland and related nosing spalls on north bay of top level.

END OF SECTION

**SECTION 01020 - ALLOWANCES**

**PART 1 - GENERAL**

**1.1 Description**

- A. The conditions of the Contract for the General Requirements of Division I are hereby made a part of this Section.
- B. This Section specifies procedures for allowances which shall be included in the Contract Price Base Bid per the Contract Documents. Allowances have been established to defer to a later date the determination of the actual cost for work which the exact quantity cannot be determined at the time of bidding and to defer selection of actual materials and equipment.
- C. The Contractor shall advise the Engineer of the date when the final selection and purchase of each product or system included as an allowance must be completed in order not to delay the project of performance of the work.
- D. Coordinate materials and their installation for each allowance with related materials and installations to ensure that each allowance item is completely integrated with related work.
- E. The following descriptions of the allowances describe the extent of the work in general. Detailed requirements may be specified in the various sections of the Specifications.
  - 1. Allowance No. 1: Include a lump sum of \$5,000 for the replacement of corroded/deteriorated conduit embedded in the cast-in-place concrete topping slab. This allowance does not cover damage to embedded conduit caused by demolition activities.

**PART 2 - PRODUCTS**

**2.1 Not Used.**

**PART 3 - EXECUTION**

**3.1 Not Used.**

END OF SECTION

**SECTION 01300 - SUBMITTALS**

**PART 1 - GENERAL**

**1.1 Related Documents**

- A. The General Conditions of the Contract for Construction and the General Requirements of Division 1 of the Specifications apply to the Work of this Section.

**1.2 Work Included**

- A. This Section specifies procedural requirements for submittals for review and approval including schedules, products, materials, samples, shop drawings, and other work-related submittals.
- B. Submittals required for informational purposes, record and project closeout (normally two copies) are specified elsewhere and are not a part of this Section.
- C. Submittals not requested from the Contractor will be returned stamped "No Architect/ Engineer's Action Required."

**1.3 Engineer Responsibilities**

- A. The Engineer shall review and approve Contractor submittals such as schedules, products, materials, samples, and shop drawings for the limited purpose of conformance with the design concept and the information expressed in the Contract Documents.
- B. The Engineer shall not be responsible for any deviations from the Contract Documents not brought to the attention of the Engineer in writing by the Contractor.
- C. The Engineer shall not be required to review partial submittals or those for which submissions or correlated items have not been received. However, review of a specific item shall not indicate that the Engineer has reviewed the entire assembly of which the item is a component.
- D. The "actions taken" appearing on the Engineer's Approval Stamp shall be defined as follows:
  - 1. "Approved" – Fabrication and/or installation may be undertaken. Approval does not authorize changes to the Contract Sum or Contract Time unless stated in separate letter or Change Order.

2. "Furnish as Corrected" – Fabrication and/or installation may be undertaken. Exceptions as noted are to be incorporated. Approval does not authorize changes to the Contract Sum or Contract Time unless stated in separate letter or Change Order.
3. "Revise and Resubmit" – Fabrication and/or installation MAY NOT be undertaken until exceptions as noted are incorporated and resubmitted for approval. Revision does not authorize changes to the Contract Sum or Contract Time.
4. "Rejected" – Fabrication and/or installation MAY NOT be undertaken. Submittal is too incomplete or does not meet Contract Documents. Resubmit for approval. Rejection does not authorize changes to the Contract Sum or Contract Time.
5. "No Architect/Engineer's Action Required" – Submittal not requested from the Contractor and was not reviewed.

#### **1.4 Contractor Responsibilities**

- A. The submittals are not to be considered a part of the Contract Documents.
- B. Submittals shall demonstrate that the Contractor understands and has interpreted the intent of the design as detailed and specified in the Contract Documents. The Contractor shall check and approve submittals for accuracy or completeness of details, such as quantities, dimensions, weights or gauges, fabrication processes, construction means or methods, coordination of the work with other trades, construction safety precautions and verification of field dimensions or conditions. The Contractor's responsibility for errors and omissions in submittals is not relieved by Engineer's review of submittals.
- C. All submittals to the Engineer shall be routed through the Contractor and bear the Contractor's Approval Stamp certifying they have been checked. All submittals to the Engineer that are without this stamp of approval or that contain obvious errors or have not been checked or have been checked superficially will be returned unchecked and unstamped by the Engineer for resubmission by the Contractor.
- D. The Contractor will begin no work which requires submittals until submittals bear the Contractor's and Engineer's stamp along with an "Issued For Construction For Field Use" notation by the supplier.

#### **1.5 General Submittal Procedures**

- A. All submittals shall be received in an orderly sequence and sufficiently in advance of construction requirements to allow time for checking, resubmitting and rechecking.
  1. The Engineer's review shall be conducted with reasonable promptness while allowing ten (10) working days for processing.

2. The Engineer will advise the Contractor and/or Engineer when it is determined that a submittal being processed must be delayed for coordination with other submittals.
  3. No extension of time will be authorized because of the Contractor's failure to transmit submittals to the Engineer sufficiently in advance of the work.
- B. Coordinate the submittal of different units of interrelated work so that one submittal will not be delayed by the Engineer's need to review a related submittal. The Engineer reserves the right to withhold action on any submittal requiring coordination with other submittals until related submittals are received.
- C. Submittal Review Label.
1. Mark each submittal with a permanent label for identification. In the case of products, materials and samples, use the enclosed Submittal Review Label.
- D. Package each submittal appropriately for transmittal and handling. Transmit each submittal from the Contractor to the Engineer, and to other destinations as indicated, by use of a transmittal form. Submittals received from sources other than the Contractor will be returned to the Sender "without action."

#### **1.6 Specific Submittal Procedures**

- A. Schedules
1. Construction Progress Schedule:
    - a. Within 10 days after execution of the Contract, submit for record five (5) copies of an estimated Construction Progress Schedule in Critical Path Method (CPM) (or bar chart) form.
    - b. Scheduling shall include provisions for materials cure time, adverse weather, and materials procurement.
    - c. Schedules for restoration work shall indicate the areas to be closed during each phase of construction and shall indicate the proposed traffic flow for each phase. (Restoration)
  2. Shop Drawing Schedule
    - a. Submit for record five (5) copies of the Shop Drawing Submissions Schedule.
  3. After the initial review, submit revised and updated copies of schedules as may be required by current or projected status of the project on a monthly basis.
- B. Products and Materials:

1. Submit for record five (5) copies of Manufacturer's Specifications and Product Data Sheets, Material Safety Data Sheets (MSDS), and recommended installation procedures.
2. Collect required product data into a single submittal for each unit of work or system.
3. Mark each copy to identify pertinent materials, products or models.
4. Show dimensions and clearances.
5. Modify drawings to delete information which is not applicable to project.
6. Supplement standard information to provide additional information applicable to project.

C. Samples

1. Submit physical samples for review and approval of kind, color, pattern and texture of the work. Samples are also to be submitted for quality control comparison between the final sample submittal and the actual work as it is delivered and installed.
2. Provide samples that are physically identical with the proposed material or product to be incorporated in the work. Provide fully fabricated samples cured and finished in the manner specified. Where variations in color, pattern or texture are inherent in the material or product represented by the sample, submit multiple units of the sample (not less than three (3) units) which show the approximate limits of variations. Mount, display or package samples in a manner to facilitate the review of indicated qualities.

D. Shop Drawings

1. Submit shop drawings for review and approval, include dimensions, identification of specific products and materials which are included in the work, compliance with specific standards and notations of coordination requirements with other work. Provide special notation of dimensions that have been established by field measurement. Highlight with notation, encircle, or otherwise indicate deviations from the Contract Documents on the shop drawings.
  - a. Preparation: Submit shop drawings on sheets not less than 8-1/2" by 11"; the maximum sheet size shall not exceed 30" by 42".
  - b. Reproducing Contract Documents or copying standard printed information as the basis for shop drawings is not permitted.
  - c. Submit for Engineer's review one (1) reproducible and five (5) prints or copies. One (1) print will be retained by each party involved in the approval process for use in making comments. Each party will transfer comments to the reproducible and forward the reproducible and remaining unmarked prints to the next party involved in the approval process.

E. Test Reports

1. Promptly submit a written report of each test and inspection for record required of the Contractor, two (2) copies each to the Engineer and Owner. Each report shall include:
  - a. Date issued
  - b. Project title and number
  - c. Testing laboratory name, address, and telephone number
  - d. Name and signature of laboratory inspector
  - e. Date and time of sampling or inspection
  - f. Record of temperature and weather conditions
  - g. Date of test
  - h. Identification of product and Specification Section
  - i. Location of sample or test in the Project
  - j. Type of inspection or test
  - k. Results of tests and compliance with Contract Documents
  - l. Interpretation of test results, when requested by the Engineer

**1.7 General Resubmission Requirements**

- A. Initial submittals shall be revised as required and resubmitted as specified for the initial submittal. Clearly indicate all changes which have been made, by clouding and use of revision number in a triangular symbol.
- B. Review of resubmittals by the Engineer shall be limited to required corrections only, and the Contractor by resubmitting shall represent that the resubmittals contain no other alterations, additions or deletions. If additional changes have been made, same shall be specifically noted and described on the resubmittal.

**1.8 Submittal Distribution**

- A. Contractor shall be responsible for distribution of "Field Use" drawings to the following:
  - 1 copy - Owner
  - 1 copy - Resident Engineer
  - 1 copy - Architect
  - 1 copy - Engineer

- B. Contractor shall provide "Issued for Construction for Field Use" drawings as required for all field construction activities including distribution to subcontractors and material suppliers.

### 1.9 Carl Walker, Inc. Submittal Check List

- A. The following list of submittals for review and approval by Division serve as a checklist for the Contractor and Engineer. Submittals for record are indicated by (R). Submittals required for record upon request are indicated by (UR). The checklist, however, does not relieve the Contractor for submittals specific to the Project and not listed herein.
1. Division 1
    - a. Section 01300, Submittals
      - ☐ Construction progress schedule (R)
      - ☐ Shop drawing submissions schedule (R)
  2. Division 2
    - a. Section 02050, Demolition
      - ☐ Sequencing plan (R)
      - ☐ Types of equipment (R)
  3. Division 3
    - a. Concrete Repair, Section 03370
      - ☐ Manufacturer's Spec Data Sheets
      - ☐ Material Safety Data Sheets (R)
    - b. Chemical Treatment – Migrating Corrosion Inhibitor, Section 03555
      - ☐ Certification of Compatibility (R)
      - ☐ Manufacturer's Spec Data Sheets
      - ☐ Material Safety Data Sheets (R)
      - ☐ Manufacturer's representative qualifications
  4. Division 5
    - a. Section 05990, Miscellaneous Metals
      - ☐ Shop drawings
        - ☐ Location
        - ☐ Dimensions and weight of members
        - ☐ Type, location field and shop connections
        - ☐ Paint system
      - ☐ Manufacturer's specifications and installation instructions
      - ☐ AWS certification (R)
  5. Division 7
    - a. Section 07900, Joint Sealants
      - ☐ Installation schedule
      - ☐ Manufacturer's Spec Data Sheets

- ☐ Material Safety Data Sheets and Code Certification (R)
- ☐ Description joint sealant system (R)
- ☐ Sample warranty
- ☐ Samples of materials including color
- 5. Division 8
  - a. Section 08110, Hollow Metal Doors and Frames
    - ☐ Manufacturer's product data, specifications, fabrication, shop painting and installation (R)
    - ☐ Shop drawings
      - ☐ Frame type
      - ☐ Elevations
      - ☐ Opening conditions
      - ☐ Construction details
      - ☐ Installation requirements for finish hardware and reinforcement
      - ☐ Joint and connection details
      - ☐ Anchorages and accessories
  - b. Section 08700, Finish Hardware, General
    - ☐ Finish hardware schedule
    - ☐ Manufacturer's product data (R)
- 6. Division 9
  - a. Section 09900, Painting
    - ☐ Manufacturer's Spec Data Sheets
    - ☐ Material Safety Data Sheets (R)
    - ☐ Preparation and painting procedure (R)
      - ☐ Surface preparation (R)
      - ☐ Mixing and application (R)
      - ☐ Dust and fume control (R)
      - ☐ Compatibility (R)
    - ☐ Color chart
    - ☐ Sample color chips
  - b. Section 09920, Pavement Marking
    - ☐ Manufacturer's Spec Data Sheets
    - ☐ Material Safety Data Sheets (R)
    - ☐ Sample color chip

## **PART 2 - PRODUCTS**

### **2.1 Not Used**

## **PART 3 - EXECUTION**

### **3.1 Not Used**

END OF SECTION



**CARL WALKER, INC.**  
**CONTRACTOR SUBMITTAL REVIEW LABEL**

Project: \_\_\_\_\_ Project No: \_\_\_\_\_  
Contractor: \_\_\_\_\_ Subcontractor: \_\_\_\_\_  
Supplier: \_\_\_\_\_ Manufacturer: \_\_\_\_\_  
Date: \_\_\_\_\_ Revision Date: \_\_\_\_\_

Submitted Product: \_\_\_\_\_  
Specification Section: \_\_\_\_\_ ASTM NO or Federal Spec \_\_\_\_\_  
Specified Material?: Yes / No  
Product Use: \_\_\_\_\_ Ref Drwg # and Detail \_\_\_\_\_  
Date Submittal Received by Carl Walker, Inc.: \_\_\_\_\_  
Carl Walker, Inc. Comments: \_\_\_\_\_

Contractor Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Contractor's Approval**

- |  |   |
|--|---|
| <input type="checkbox"/> Approved                                | <input type="checkbox"/> Furnish as Corrected |
| <input type="checkbox"/> Rejected                                | <input type="checkbox"/> Revise and Resubmit  |
| <input type="checkbox"/> No Architect/Engineer's Action Required |   |

This review is only for general conformance with the design concept of the project and the information given in the Construction Documents. Corrections or comments made on the shop drawings during this review do not relieve the contractor from compliance with the requirements of the drawings and specifications. Approval of a specific item shall not include approval of an assembly of which the item is a component. The contractor is responsible for: dimensions to be confirmed and correlated at the jobsite; information that pertains solely to the fabrication processes or to the means, methods, techniques, sequences and procedures of construction; coordination of the Work with that of all other trades and performing all Work in a safe and satisfactory manner.

By: \_\_\_\_\_ Date: \_\_\_\_\_  
**CARL WALKER, INC.**

Comments:

## SECTION 01700 - PROJECT CLOSEOUT AND WARRANTIES

### PART 1 - GENERAL

#### 1.1 Related Documents

- A. The Terms and Conditions of the Contract for Construction and the General Requirements of Division I of these Specifications apply to the Work in this Section.

#### 1.2 Cleaning and Closeout

- A. A punch list consisting of copies of the plans showing locations of unacceptable items and an attached explanation of the nature of the unacceptable work shall be delivered to the Contractor after substantial completion of the Project.
- B. Closeout submittals include, but are not limited to, the following:
  - 1. Maintenance manuals
  - 2. Warranties

#### 1.3 Warranties and Bonds

- A. The act of the Contractor in executing the Agreement for this Work shall be considered as his acceptance of the following guarantee covering the Project:
  - 1. Any materials, workmanship or equipment furnished as a part of this Project which prove defective or fail to operate properly, within one (1) year, or as otherwise specified in the Contract Documents, of the date of acceptance of the Work required under this (or substantial completion of the) Project (damage by wear and tear, violence or casualty not the fault of the Contractor excepted), shall be repaired and replaced by the Contractor promptly upon notification from the Owner and without cost to the Owner.
  - 2. This guarantee provision shall apply regardless of whether or not such defective workmanship, materials or equipment are listed in the final punch list. Date of acceptance (or substantial completion) will be established by the Owner and Engineer upon finding all items of this Project substantially complete as to quality of workmanship and materials. Also see Division 7 for additional guarantees.
  - 3. Contractor shall provide warranty commencing on the date of Project acceptance. Completion of various Project phases shall not initiate commencement of warranty in these specific areas. A single Project warranty date, at Project acceptance, will constitute commencement of warranty,

NOTE: Some areas of Project may be open to vehicular traffic and subject to wear (i.e. coatings, sealants) prior to commencement of warranty.

**PART 2 - PRODUCTS**

**2.1 Not used.**

**PART 3 - EXECUTION**

**3.1 Not used.**

END OF SECTION

**SECTION 02050 - DEMOLITION**

**PART 1 - GENERAL**

**1.1 Related Documents**

- A. The Conditions of the Contract for Construction and the General Requirements of Division 1 of these Specifications apply to the Work in this Section.

**1.2 Work Included**

- A. The Work of this Section shall include furnishing all labor, materials, equipment, and supervision to demolish, haul, and dispose of concrete in accordance with the Drawings and as specified herein.

- 1. Concrete delaminations to the depth as indicated on the Drawings.

**1.3 Related Work**

- A. The following Work is related to this Section:

- |                           |               |
|---------------------------|---------------|
| 1. Submittals             | Section 01300 |
| 2. Concrete Reinforcement | Section 03200 |
| 3. Concrete Repair        | Section 03370 |

**1.4 Quality Control**

- A. After demolition is complete but prior to final cleaning, the cavities and all exposed reinforcement shall be reviewed by the Engineer. The review shall include sounding the exposed concrete to determine completeness of delamination removals, examination of dressed edges to verify depth and vertical edge of cut, and uniformity of excavation to insure compliance with minimum limits specified.
- B. The Engineer shall review all reinforcement exposed within the cavities for corrosion or damage resulting from Contractor's removal operations. Replacement of defective or damaged reinforcement bars shall be performed in accordance with Section 03200, "Concrete Reinforcement."

**1.5 Safety**

- A. The concrete topping slab has embedded electrical conduit. Contractor shall take all necessary precautions to prevent damage to the conduit. Contractor shall coordinate with Owner to shut off power if repairs are located near conduit.

## **1.6 Submittals**

- A. Submit for review and approval prior to beginning Work a copy of the proposed restoration sequencing plan.
- B. Submit for record types of equipment proposed for use.

## **1.7 Basis of payment**

- A. Demolition cost to be included in repair costs, unless otherwise noted.

## **PART 2 - PRODUCTS**

### **2.1 Not Used**

## **PART 3 - EXECUTION**

### **3.1 Inspection**

- A. Examine areas and conditions under which the Work is to occur. Notify the Engineer immediately in writing as required in the General Conditions of any conditions detrimental to the proper and timely completion of this Work.

### **3.2 General**

- A. Review with the Owner and Engineer the types of equipment proposed for use.
- B. Conduct demolition operations to ensure minimum interference with roads, streets, walks, and other adjacent occupied or used facilities. Do not close or obstruct streets, walks or other occupied or used facilities without permission from authorities having jurisdiction.
- C. Protect Owner's property which is to remain including; facades, signs, windows, doors, plantings, parking equipment, electrical and mechanical lines and fixtures.
- D. Protect adjoining properties, public thoroughfares, sidewalks and utilities from damage due to this operation.
- E. Take adequate precautions and provide protection as required to prevent damage to remaining existing elements of the parking structure and all adjoining building elements, and all vehicles using the facility.
- F. At no cost to the Owner, promptly repair damage to adjacent facilities resulting from demolition operations.

- G. Clean adjacent facilities of dust, dirt and debris resulting from demolition operations.
- H. Authority for performing necessary work on public and private property adjoining Owner's property shall be obtained by the Contractor.
- I. Remove all temporary protection and devices when no longer needed and when directed by the Owner.

### **3.3 Delaminated Concrete Surface Preparation**

#### **A. Location and Marking of Work Areas**

- 1. Locate floor slab delaminations by sounding the surface with a hammer or rod, or dragging a chain. The Contractor shall sound all floor slabs. Delaminated areas once located by the Contractor will be further sounded to define their limits. These limits or "boundaries" shall be marked with chalk or paint.
- 2. Beam, wall, column, and slab delaminations shall be located by sounding the appropriate member with a hammer or rod. Cracks, usually horizontal in orientation along beam faces and vertical in orientation near corners of columns, are reliable indicators of delaminated concrete. Delaminated areas once located by the Contractor will be further sounded to define their limits. These limits or "boundaries" shall be marked with chalk or paint.
- 3. Prior to concrete removal locate reinforcing bars and electrical conduits in the vicinity of the repairs. Take the necessary precautions to prevent damage to reinforcement electrical conduits.

#### **B. Concrete Removal and Surface Preparation**

- 1. All concrete shall be removed from within the marked boundary to a minimum depth as indicated on the Drawings using 15 to 30 pound chipping hammers equipped with chisel point bits. Larger chipping hammers with a maximum stroke of 4 inches shall not be used without approval from the Engineer. If delaminations exist beyond the minimum removal depth, then chipping shall continue until all unsound and delaminated concrete has been removed from the cavity.
- 2. Where reinforcing bars (and tendons) are exposed by concrete removal, extra caution shall be exercised to avoid damaging them during removal of additional unsound concrete. The minimum depth of concrete removal around and beyond the perimeter of the bar for the entire exposed length shall be as indicated on the Drawings.
- 3. If rust is present on reinforcing bars where they enter sound concrete, then additional removal of concrete along the reinforcement is required. Such additional removal shall continue until grey reinforcement is exposed. If rust persists beyond the removal limits, the Engineer shall be advised and will direct further removals.

4. Delaminated, spalled and unsound concrete shall have their marked boundaries sawcut to a depth as indicated on the Drawings. All edges shall be straight and patch areas polygon shaped. A diamond blade saw or grinder with abrasive disk suitable for cutting concrete is acceptable for performing this work. The edge cut at the delamination boundary shall be dressed perpendicular to the member face. It shall also be of uniform depth for the entire length of the cut.

C. Preparation of Concrete Bonding Surface

1. Abrasive blast or high pressure waterblast all exposed concrete surfaces to remove laitance and any foreign material that may impair bonding prior to concrete placement.

D. Cleaning and Securing of Reinforcing

1. Refer to Section 03200, "Concrete Reinforcement." Existing reinforcing and miscellaneous metals shall be cleaned of rust and laitance to near white metal.

E. Final Preparation

1. Airblasting is required as a final step to remove dust and debris.

**3.4 Disposal**

- A. Remove and properly dispose of concrete and debris from areas exposed to public view on a daily basis.

END OF SECTION

## SECTION 03200 - CONCRETE REINFORCEMENT

### PART 1 - GENERAL

#### 1.1 Related Documents

- A. Conditions of Contract for Construction and General Requirements of Division 1 of these Specifications apply to Work in this Section.
- B. ACI 301 Standard Specifications for Structural Concrete and ACI 117 Standard Specifications for Tolerances for Concrete Construction and Materials are hereby a part of this Section. Specific project requirements or modifications are specified herein.
- C. A copy of ACI SP-15 Field Reference Manual; Standard Specifications for Structural Concrete ACI 301 with selected ACI and ASTM references shall be kept in Contractor's field office.

#### 1.2 Work Included

- A. Work of this Section shall include materials, fabrication, delivery, and installation of reinforcement for cast-in-place concrete.
- B. Field application of epoxy modified coating to exposed reinforcement and other embedded metals in concrete cavities.

#### 1.3 Related Work

- A. Work related to this Section:
  - 1. Submittals Section 01300
  - 2. Demolition Section 02050
  - 3. Concrete Repairs Section 03370

#### 1.4 Reference Standards

- A. Comply with following reference standards, except where more stringent requirements are indicated on Drawings or specified herein.
  - 1. American Concrete Institute as specified herein.
  - 2. American Welding Society
    - a. AWS D1.4 Structural Welding Code - Reinforcing Steel, latest edition.
  - 3. Concrete Reinforcing Steel Institute, latest edition.
    - a. Placing Reinforcing Bars, Seventh Edition
    - b. Reinforcement Anchorages and Splices, Fourth Edition

- c. Fabrication of Epoxy-Coated Rebar
- d. Field Handling Techniques for Epoxy-Coated Rebar at the Job Site
- e. Manual of Standard Practice, 26 Edition
- 4. Wire Reinforcement Institute
  - a. Manual of Standard Practice - Structural Welded Wire Fabric, latest edition.
  - b. Structural Detailing Manual, latest edition.
- 5. American Society for Testing and Materials
  - a. As specified herein.

### **1.5 Quality Control**

- A. Materials and installed Work may be reviewed by Engineer at any time during progress of Work. Allow free access to facilities for this purpose. Provide 48 hours notice to inspect completed reinforcing prior to placement of concrete.
- B. If in opinion of Engineer, cross-sectional area loss of bars is greater than 15 percent, Contractor shall splice as directed by Engineer. Minimal splice lap shall be 24" or as indicated in General Notes.

### **1.6 Submittals** (ACI 301 3.1.1) Additional requirements as follows:

- A. For review and approval, Health and Safety Data Sheets and Manufacturer's Spec Data Sheets for field-applied epoxy modified coating.

### **1.7 Transportation and Handling** (ACI 301 3.12) Additional requirements as follows:

- A. Store reinforcement on supports above ground level. Protect from weather.

### **1.8 Basis of Payment**

- A. Reinforcement (if required) is to be included in cost of concrete repair.

## **PART 2 - PRODUCTS**

### **2.1 Materials** (ACI 301 3.2.1) Additional requirements as follows:

- A. Reinforcement
  - 1. ASTM A615, grade 60, unless noted.
- B. Welded Wire Fabric Reinforcement (rolls not accepted)
  - 1. ASTM A884, epoxy-coated welded wire reinforcement.

C. Wire Reinforcement Supports (ACI 301 3.2.1.8)

1. Provide CRSI Class 1 plastic-protected wire bar supports for reinforcement in contact with formwork, including bolsters, chairs, spacers and other devices for spacing, supporting, and fastening reinforcing bars in place.

D. Field-Applied Epoxy Modified Coating

1. Field-applied epoxy modified coating with Anti-Corrosion Agent (two coats at 10 mils) for existing reinforcement and miscellaneous metals embedded in concrete.
2. Acceptable field applied epoxy modified coatings are:
  - a. Sika Armatec 110 Epo Cem, Sika Corporation.
  - b. Emaco P24, BASF.

E. Reinforcement Chemical Anchorages

1. If required by field conditions or contractor damage to existing reinforcement, provide sizes and types of anchorages as follows:
2. Acceptable embedded anchor systems are:
  - a. HILTI-HY HIT Fastening System, HILTI, Inc. Fastening Systems.
  - b. HILTI HVZ Adhesive Anchors, HILTI, Inc. Fastening Systems.
  - c. Power-Fast +, Power Fasteners.
  - d. Chem Stud, Power Fasteners.
  - e. or Approved Equivalent.

## **PART 3 - EXECUTION**

### **3.1 Inspection**

- A. Inspect area to receive Work and report immediately in writing to Engineer, as required in General Conditions, any unacceptable conditions.

### **3.2 Fabrication**

- A. Fabrication tolerances shall be in accordance with ACI 117 2.1.

### **3.3 Placement (ACI 301 3.3.2) Additional requirements as follows:**

- A. Tolerances (ACI 301 3.3.2.1)

1. Comply with Concrete Reinforcing Steel Institute's recommended practice for Placing Reinforcing Bars, for details and methods of reinforcement placement and supports, and as herein specified.
- B. Reinforcement supports (ACI 301 3.3.2.4)
1. Arrange, space, and securely tie bars and bar supports to hold reinforcement in position during concrete placement operations. Set wire ties so ends are directed into concrete, not toward exposed concrete surfaces so that concrete cover for tie wire matches cover for reinforcement.
  2. Supports for bars shall be placed at 4'-0" maximum spacing. Supports shall be placed a maximum of 6 inches from ends of the reinforcement.
- C. Welded wire reinforcement (ACI 301 3.3.2.5)
1. Install in lengths as long as practical. Offset end laps in adjacent widths to prevent continuous laps in either direction.
  2. Supports for welded wire fabric shall be placed at 2'-0" maximum spacing.
- D. Splices
1. Mechanical splices may be used in lieu of lap splices where required by project conditions.
  2. Welded splices may not be used.

### **3.4 Existing Reinforcement**

- A. Existing reinforcement and miscellaneous metal to remain shall be cleaned of rust and laitance to Near White Metal and field epoxy coated (with epoxy modified coating) in accordance with epoxy coating Manufacturer's recommendations.
- B. Loose reinforcement bars shall be secured by either tying to bonded reinforcement or drilling supplemental anchors and installing tie downs. Lead anchors are not permitted.
- C. Field-applied epoxy cure time must be extended as directed by Engineer during cold weather application.
- D. Field-applied epoxy must be properly cured in a non "tacky" condition prior to concrete placement.
- E. Remove epoxy spillage from adjacent concrete surfaces.

Community College of Philadelphia  
Parking Garage 2013 Repairs

May 8, 2013

END OF SECTION

**CARL WALKER, INC.**  
PROJECT NO. R1-2013-667

**Community  
College  
of Philadelphia**

CONCRETE REINFORCEMENT  
03200-5

## SECTION 03370 - CONCRETE REPAIR

### PART 1 - GENERAL

#### 1.1 Related Documents

- A. The Conditions of the Contract for Construction and the General Requirements of Division 1 of these Specifications apply to the Work in this Section.

#### 1.2 Work Included

- A. The Work of this Section shall include providing and installing concrete patching materials, as indicated on the Drawings and as herein specified.

#### 1.3 Related Work

- A. The following work is related to this Section:

1. Submittals	Section 01300
2. Demolition	Section 02050
3. Concrete Reinforcement	Section 03200
4. Chemical Treatment	Section 03555
5. Joint Sealants	Section 07900
6. Pavement Marking	Section 09920

#### 1.4 Reference Standards

- A. Comply with the following reference Standards; except where more stringent requirements are indicated on the Drawings or specified herein:
  - 1. American Concrete Institute (ACI)
    - a. ACI 117-90 Standard Tolerances for Concrete Construction and Materials.
    - b. ACI 201.2R-92 Guide to Durable Concrete.
    - c. ACI 222R-89 Corrosion of Metals in Concrete.
    - d. ACI-301-96 Specifications for Structural Concrete for Buildings.
    - e. ACI-302.1R-89 Guide for Concrete Floor and Slab Construction.
    - f. ACI 304R-89 Guide for Measuring, Mixing, Transporting and Placing Concrete.
    - g. ACI 305R-91 Hot Weather Concreting.
    - h. ACI 306R-88 Cold Weather Concreting.
    - i. ACI 306.1-90 Standard Specification for Cold Weather Concreting.
    - j. ACI 318-95 Building Code Requirements for Structural Concrete and Commentary.

- k. ACI 347R-94 Guide to Formwork for Concrete.

### **1.5 Quality Control**

- A. The patched areas shall be sounded with a hammer 7 days after placement. Repair all detected hollowness by removing and replacing the patch or affected area at no extra cost to the Owner.
- B. If shrinkage cracks appear in the repair material within 72 hours after placement, the repairs shall be considered defective, and shall be removed and replaced at no extra cost to the Owner.
- C. As-Built drawings shall be maintained locating all repairs performed under this Section. Location and size of patches must be located on drawings. Separate drawings shall be maintained for each Level and Ceiling plan.

### **1.6 Environmental Requirements**

- A. Cold weather concreting: In accordance with ACI 306.1 or as specified herein.
- B. Hot weather concreting: In accordance with ACI 305 or as specified herein.
- C. Inclement Weather:
  - 1. Unless adequate protection is provided, concrete shall not be placed during rain, sleet or snow.
  - 2. Rain water shall not be allowed to increase the mixing water nor to damage the surface finish.

### **1.7 Submittals**

- A. Submit for record the Manufacturer's Spec "Data Sheets" and "Health and Safety Data Sheets".
- B. Submit for record upon request, a written description of the Contractor's concrete repair ability, including equipment, facilities, personnel, and a list of similar completed projects.

### **1.8 Transportation and Handling**

- A. Store materials on platforms off ground, protected from the elements.
- B. Handle and store aggregates in a manner to prevent intrusion of foreign material. Protect all material until used.

- C. Material which has deteriorated or which has been damaged shall not be used.

## **1.9 Basis of Payment**

- A. All patching quantities shall be measured on a unit cost basis. Refer to Section 00300, Bid Forms.
- B. Depths of patches are as indicated on the Drawings.

## **PART 2 – PRODUCTS**

### **2.1 Horizontal Repair Mortar (Thin) ¼” – 1” deep**

- A. Repair mortar for thin surfaces to be traffic bearing polymer modified cementitious, type and thickness to meet conditions as indicated on the Drawings.
- B. Acceptable repair mortars for patching thin horizontal surfaces are:
  - 1. Sto Skim Coat, Sto Concrete Restoration Div., Atlanta, GA.
  - 2. Tamms Thin Patch, The Euclid Chemical Co., Cleveland, OH.
  - 3. Master Builders EMACO R300 CI (Pedestrian Traffic areas only), BASF Construction Chemicals, Shakopee, MN
  - 4. Or Approved Equivalent.

### **2.2 Horizontal Repair Mortar (with Corrosion Inhibitor)**

- A. Repair mortar to be traffic bearing, polymer modified with corrosion inhibitor, cementitious, type and thickness to meet conditions as indicated on the Drawings.
- B. For deeper patches add aggregate per Manufacturer's recommendation.
- C. Acceptable repair mortar with corrosion inhibitor for patching horizontal surfaces is:
  - 1. Sikatop 121 Plus or 122 Plus, Sika Chemical Corp., Lyndhurst, NJ.
  - 2. Duraltop Flowable Mortar, Euclid Chemical Company, Cleveland, OH
  - 3. Master Builders Emaco R310 CI, BASF Construction Chemicals
- D. Ready mix concrete may also be used at Contractor's option. Mix design shall be based on:
  - 1.  $f'c = 5,000$  p.s.i.
  - 2. Concrete mix shall contain a minimum of 564 lbs of cement per cubic yard of concrete. Fly ash and silica fume admixtures weight may be included with the weight of cement.
  - 3. Air Entrainment =  $6 \frac{1}{2}\%$  +/-  $1 \frac{1}{2}\%$

4. Maximum w/c ratio = 0.40
5. Corrosion Inhibitor at 2.5 gallons/Cubic Yard
6. Additional requirements per General Notes

### **2.3 Vertical Overhead Repair Mortar (Corrosion Inhibitor)**

- A. Repair mortar to be polymer modified cementitious, with corrosion inhibitor, type and thickness to meet conditions as indicated on the Drawings.
- B. Acceptable repair mortar with corrosion inhibitor for patching vertical surfaces is:
  1. Sikatop 123 Plus, Sika Chemical Corp., Lyndhurst, NJ.
  2. Master Builders EMACO R350 CI, BASF Construction Chemicals, Shakopee, MN

### **2.4 Surface Applied Bonding Agent**

- A. Bonding Agent to be epoxy-modified, with corrosion inhibitor.
- B. Acceptable bonding agent with corrosion inhibitor for preparation of concrete bonding surfaces is:
  1. Sika Armatec 110 EpoCem 123 Plus, Sika Chemical Corp., Lyndhurst, NJ.
  2. EMACO P24, BASF Construction Chemicals, Shakopee, MN

## **PART 3 - EXECUTION**

### **3.1 Inspection**

- A. Before commencing work, examine all adjoining work on which this work is dependent and report in writing to the Engineer any condition which prevents Contractor from performing the work. Starting work constitutes acceptance of adjoining work.

### **3.2 Surface Preparation, Refer to Section 02050, "Demolition"**

### **3.3 Existing Reinforcement, Refer to Section 03200, "Concrete Reinforcement"**

### **3.4 Placing Concrete Patching Materials**

- A. The mixing and installing of the concrete patching materials and the priming of the existing concrete surface (use of bonding agent) shall be in accordance with the Manufacturer's recommendations.

- B. If ready-mix concrete is used, bonding agent shall be scrubbed (or spray applied) into Saturated Surface Dry concrete bonding surface prior to concrete placement.
- C. Concrete patching materials shall be cured according to the Manufacturer's recommendations.

END OF SECTION

SECTION 03555 – CHEMICAL TREATMENT – MIGRATING CORROSION INHIBITOR

**PART 1 – GENERAL**

**1.1 Related Documents**

- A. The Conditions of the Contract for Construction and the General Requirements of Division 1 of these Specifications apply to the Work in this Section.

**1.2 Work Included**

- A. The Work of this Section shall include furnishing all labor, materials, equipment and supervision to install chemical treatment to the existing structural concrete slab, including surface preparation, in accordance with the Drawings and Specifications.

**1.3 Related Work**

- A. The following Work is related to this Section:

1.	Submittals	Section 01300
2.	Concrete Repair	Section 03370
3.	Joint Sealants	Section 07900
4.	Pavement Marking	Section 09920

**1.4 Quality Control**

- A. General

- 1. The chemical treatment Installer shall be approved by the chemical treatment Manufacturer.
- 2. The sealer Installer shall have a minimum of five (5) years experience in application of the approved chemical treatment and have experience for a project in size of 25,000 SF or greater.
- 3. The Manufacturer shall make available a qualified Representative to assist the Installer and Engineer as specified herein. The Representative shall be experienced in the placement of the chemical treatment. As a minimum, the Representative shall be on site to review the following:
  - a. Make regular visits to the project site during the course of construction to ensure that surface preparation and method of installation is acceptable.

4. Contractor shall notify Engineer 5 days in advance prior to installing chemical treatment.
- B. Trial Area Requirements
  1. Prepare a 100 SF trial area of the concrete surface incorporating all of the required preparation. The Engineer, Manufacturer's Representative, and Installer shall be in agreement that the surface preparation in the trial areas is satisfactory before preparation of concrete surfaces is continued.
  2. Apply the chemical treatment on the trial area to review the method of application. The Engineer, Manufacturer's Representative, and the Installer shall be in agreement that the application in the trial area is satisfactory before further application of the sealer.

### **1.5 Submittals**

- A. Submit for record certification that the chemical treatment is compatible with all of the products in Divisions 3, 7, and 9 to which it will come in contact.
- B. Submit for review and approval Manufacturer's Spec Data Sheets of each product to be used.
- C. Submit for record Material Safety Data Sheets of each product, solvent, or related chemicals to be used and certification that the materials conform to local, state, and federal environmental and worker's safety laws and regulations.
- D. Upon request, submit for review and approval qualifications of the Manufacturer's Representative.
- E. Submit for record certification of trial area acceptance.
- F. Submit for record copies of purchase orders indicating quantities of chemical treatment.

### **1.6 Environmental Requirements**

- A. Manufacturer and Installer are required to confirm that all materials used in accordance with this Section conform to local, state, and federal environmental and workers' safety laws and regulations.

- B. The Installer is solely responsible for fume control and shall take all necessary precautions against injury to personnel or adjacent building occupants during application. As a minimum, Installer shall take the following precautions:
  - 1. Provide and maintain barricades.
  - 2. Locate and protect building air intakes during application.
  - 3. Follow all state, federal, and local safety regulations.
  - 4. Follow all Manufacturers' safety requirements.
  - 5. Dispose empty containers immediately and properly.
  - 6. Use protective equipment.
  - 7. Ensure work area is well vented to the exterior.

### **1.7 Transportation and Handling**

- A. Deliver chemical treatment to site in original, unopened containers, bearing the following information:
  - 1. Name of product
  - 2. Name of Manufacturer
  - 3. Date of manufacture
  - 4. Lot or batch number
  - 5. Shelf life of product
  - 6. Mix ration if applicable.
- B. Store chemical treatment under cover and protected from the weather. Keep containers tightly closed when not in use. Comply with manufacture's printed instructions for storing and protecting materials.
- C. Do not store liquid material in hot sun. Keep material from freezing.
- D. Replace containers showing any signs of damage with new material at no additional cost to the Owner.
- E. At no time shall the weight of the stored material placed on a slab area exceed 30 PSF or 2,000 lbs. over 20 square inches.

### **1.8 Basis of Payment**

- A. Chemical treatment preparation and application will be paid on a Lump Sum basis. Refer to Section 00300, Bid Form.

## **PART 2 - PRODUCTS**

### **2.1 Chemical Treatment**

- A. Approved chemical treatments are:
  - 1. Surtreat TPS II or Surtreat TPS IV, Surtreat, Houston, TX.
  - 2. Protectasil CIT, Evonik Degussa Corp. Parsippany, NJ.

## **PART 3 – EXECUTION**

### **3.1 General**

- A. Inspect surfaces and adjoining work on which this work is in anyway dependent for proper installation and workmanship and report immediately in writing to the Engineer as required in the General Conditions any deficiencies in the surface which render it unsuitable for proper execution of this work. Do not proceed with work until unsatisfactory conditions have been corrected in an acceptable manner. Commencement of work implies acceptance of related work.
- B. Coordinate and verify that related work meets the following requirements:
  - 1. Concrete surfaces have been finished, cleaned and prepped, as recommended by the Manufacturer for the system to be installed.
  - 2. Concrete surfaces have completed the proper curing period for the system selected.
  - 3. All concrete repairs are completed in accordance with Section 03370, "Concrete Repairs".

### **3.2 Preparation**

- A. Remove all oil, grease, and contaminants in accordance with the Manufacturer's recommendations.
- B. Remove all existing loose or flaking striping not removed by Shotblasting operations.
- C. Shotblast all concrete surfaces to receive sealer application. Shotblast equipment performance requirements are as follows:

1. Equipment shall be capable of traveling at a constant speed to provide a uniform profile. The speed and the size of the equipment and the size of the steel shot shall be selected to provide desired preparation without causing unnecessary damage to the concrete surface.
  2. Equipment shall vacuum up, or otherwise retain all dirt, dust, and debris from the blasting operation.
  3. Equipment used during floor slab preparation cleaning shall not exceed the weight limitation of 30 PSF.
  4. Areas inaccessible to shotblaster (i.e. vertical surfaces, against walls, columns, stairways, etc.) are to be abrasive blasted to the same performance.
  5. Shotblasted surface must be clean with a profile in which a minimum 1/16 inch of the existing concrete surface is removed. Fine aggregates must be exposed, however, large aggregate must not be exposed. All laitance must be removed. Surface profile to match ICRI CSP3 in accordance with ICRI Guideline No. 03732 Selecting and Specifying Concrete Surface Preparation for Sealers, Coatings and Polymer Overlays.
  6. Remove debris immediately after the surface preparation. Debris includes, but is not limited to, shot, aggregate and dust. Debris shall be placed in a covered dumpster or a covered area where it will not be rebroadcast by wind or weather.
- D. All surfaces shall be air blown with sufficient pressure to remove excess dirt, dust and debris, and to assure that the concrete is clean prior to application of chemical treatment.
- E. Remove all standing water. Although a surface-saturated dry condition is acceptable, the dryer the substrate, the better the penetration and effectiveness.
- F. The Installer shall be responsible for repair or replacement of all materials damaged by surface preparation operations.

### **3.3 Field Quality Control**

- A. The Engineer is to review the mixing, surface preparation and proper application of all materials.
- B. The manufacturer's representative is to instruct in the proper usage of the material and to inspect the work throughout the project.

- C. Any defective areas shall be fixed at the contractor's expense.

### **3.4 Installation/Application**

- A. Do all work in strict accordance with Manufacturer's written instructions and specifications and as indicated on the Drawings.
- B. Protect adjacent surfaces not to be restored from material droppings and spraying. Protect area from overspray from mechanical preparation.
- C. Selected material shall be applied in multiple cycles using a fine (light) spray or roller so that the material is applied at a rate about equal to the absorption rate of concrete to avoid paneling in the deck surface recesses. It is important that the application be performed so that all of the material penetrates the concrete surface.
- D. Adhere to all procedures, limitations and cautions for the product in the manufacturer's current printed literature.
- E. Follow the manufacturer's latest recommendations for curing.
- F. Protect material from freezing and from rainfall prior to final set.

### **3.5 Cleanup**

- A. Clean all surfaces subjected to chemical treatment overspray and repair all damage caused by overspray to adjacent construction or property at no cost to the Owner.
- B. Remove misplaced materials from surfaces immediately.

END OF SECTION

**SECTION 05990 - MISCELLANEOUS METALS**

**PART 1 - GENERAL**

**1.1 Related Documents**

- A. Conditions of Contract for Construction and General Requirements of Division 1 of these Specifications apply to Work in this Section.

**1.2 Work Included**

- A. Work of this Section shall include all labor, materials, equipment, and supervision necessary to complete installation of miscellaneous metals as indicated on Drawings and listed below:
  - 1. Precast Connection Repairs

**1.3 Related Work**

- A. Following Work is related to this Section:
  - 1. Submittals Section 01300

**1.4 Design**

- A. Design of miscellaneous metals in accordance with American Institute of Steel Construction's (AISC) Manual of Steel Construction, including Specification for the Design, Fabrication and Erection of Structural Steel for Buildings.

**1.5 Reference Standards**

- A. Comply with provisions of following codes and standards, latest editions except where more stringent requirements are indicated on Drawings or Specifications.
  - 1. American Institute Steel Construction
    - a. AISC Manual of Steel Construction, including Specification for Structural Steel Buildings.
  - 2. American Welding Society
    - a. AWS D 1.1 Structural Welding Code - Steel.
    - b. AWS D 1.3 Structural Welding Code - Sheet Steel.
    - c. AWS D 1.6 Structural Welding Code - Stainless Steel.

3. American Concrete Institute.
  - a. ACI 301, Standard Specification for Structural Concrete.
4. American Society Testing Materials
  - a. As specified herein.

## **1.6 Quality Control**

- A. Use welders with current AWS certifications for required welding Work.

## **1.7 Submittals**

- A. For review and approval detailed shop drawings indicating all information necessary for fabrication and erection of miscellaneous metals. Include following:
  1. Material data
  2. Erection marks and location
  3. Dimensions and weight of member(s)
  4. Shop and field connections
  5. Erection details
  6. Paint Primer
- B. For review and approval AWS welder certification.

## **1.8 Transportation and Handling**

- A. Deliver all miscellaneous metals to Project site and handle and store in such a manner as not to damage or distort material.
- B. Handle so as not to damage the coating system.
- C. Replace damaged material at no additional expense to Owner.

## **PART 2 - PRODUCTS**

### **2.1 Steel Plates, Shapes, and Bars**

- A. Channels, Angles: ASTM A 36.
- B. Plates and Bars: ASTM A 36.

## 2.2 Fasteners

- A. Stainless Steel Bolts, Nuts, and Washers: ASTM F 593 for bolts, ASTM F 594 for nuts and washers.
- B. Chemical Anchorages:
  - 1. Acceptable embedded anchor systems are:
    - a. HILTI-HY HIT Fastening System, HILTI, Inc. Fastening Systems.
    - b. HILTI HVZ Adhesive Anchors, HILTI, Inc. Fastening Systems.
    - c. Power-Fast +, Power Fasteners.
    - d. Chem Stud, Power Fasteners.
    - e. or Approved Equivalent.

## 2.3 Galvanizing

- A. Provide a zinc coating for those items as indicated on Drawings or specified herein to be galvanized; comply with following:
  - 1. Rolled, pressed and forged steel shapes, plates, bars and strip 1/8 inch thick and heavier: ASTM A 123. (1.25 oz./sq. ft. min.)
  - 2. Assembled Steel Products: ASTM A 386. (1.25 oz./sq. ft. min.)
- B. Field-Applied Cold Galvanizing
  - 1. Acceptable Cold Galvanizing compounds are:
    - a. Z.R.C. Cold Galvanizing Compound, ZRC Worldwide, Marshfield, MA.
    - b. or Approved Equivalent.

## 2.4 Grout

- A. Non-Shrink Non-Metallic Grout:
  - 1. Premixed, factory packaged, non-staining, non-corrosive, non-gaseous grout complying with CE CRD-C588. Provide grout specifically recommended by Manufacturer for interior and exterior applications of type specified in this Section.

## **PART 3 - EXECUTION**

### **3.1 Inspection**

- A. Inspect area to receive Work and report immediately in writing to Engineer, as required in General Conditions, any unacceptable conditions. Do not proceed with Work until unsatisfactory conditions have been corrected in an acceptable manner. Commencement of erection implies acceptance of related Work.
- B. Take field measurements prior to preparation of Shop Drawings and fabrication, wherever possible, but do not delay job progress by waiting for field measurements. Make an allowance for trimming and fitting where the taking of field measurements before fabrication might delay either completion of the miscellaneous metals work in particular or Substantial Completion of the Work in general.

### **3.2 Fabrication**

- A. Preassemble miscellaneous metal items in the fabricating shop to the greatest extent possible to minimize field splicing and assembly. Disassemble units only to the extent necessary because of shipping and handling limitations. Clearly mark the units for later reassembly and coordinated installation. Field cutting of miscellaneous metal items not allowed. Field punched holes in metal items for purposes of attachment or other reasons is not allowed.
- B. All steel miscellaneous metals shall be hot dip galvanized unless noted.
- C. Weld corners and seams continuously and in accordance with requirements of AWS Code.
- D. Grind exposed welds smooth and flush to match and blend with adjoining surfaces.
- E. Work to be performed only by welders qualified in accordance with requirements of AWS Code.
- F. Fabricate Work exposed to view true to line and level with accurate angles and surfaces and straight sharp edges. Ease exposed edges to a radius of approximately 1/32 inch, unless otherwise indicated on Drawings.
- G. Cut, reinforce, drill and tap miscellaneous metal as may be required to receive finish hardware and similar items of Work.
- H. Fabricate miscellaneous metal to sizes, shapes and profiles and of dimensions to receive adjacent Work.

### **3.3 Installation – General**

- A. Install manufactured items in strict accordance with Manufacturer's current written instructions.
- B. Set all Work accurately to lines and levels, plumb and secure.
- C. Provide anchorage devices and fasteners where necessary for securing miscellaneous metal items to in-place construction.
- D. Provide all other Work as indicated on Drawings or necessary to complete miscellaneous metal Work.
- E. Fit exposed connections accurately together to form tight hairline joints. Weld connections which are not to be left as exposed joints, but cannot be shop welded because of shipping size limitations.
- F. Grind exposed joints smooth and touch-up shop paint coat. Do not weld, cut or abrade surfaces of exterior units which have been hot-dip galvanized after fabrication, and are intended for bolted or screwed field connections.
- G. Perform cutting, drilling and fitting required for installation. Set Work accurately in location, alignment and elevation, plumb, level, true and free of rack, measured from established lines and levels.
- H. Comply with AWS Code for procedures of manual shielded metal-arc welding, appearance and quality of welds made, and methods used in correcting welding Work.

### **3.4 Field Painting**

- A. Field Touch Up: Damaged galvanized surfaces apply cold-galvanizing to clean and dry surfaces.
  - 1. Apply three (3) coats of cold-galvanizing according to Manufacturer's instructions.

### **3.5 Cleanup**

- A. Remove all dirt, tags, and foreign materials from miscellaneous metals.

END OF SECTION

## SECTION 07900 - JOINT SEALANTS

### PART 1 - GENERAL

#### 1.1 Related Documents

- A. Conditions of Contract for Construction and General Requirements of Division 1 of these Specifications apply to Work in this Section.

#### 1.2 Work Included

- A. Work of this Section shall include furnishing all labor, materials, equipment, and supervision to install joint sealants, including surface preparation.

#### 1.3 Related Work

- A. Following Work is related to this Section:

- |    |                    |               |
|----|--------------------|---------------|
| 1. | Concrete Repair    | Section 03370 |
| 2. | Chemical Treatment | Section 03555 |
| 3. | Pavement Marking   | Section 09920 |

#### 1.4 Quality Control

- A. General

- 1. Joint sealant Installer shall be approved by joint sealant Manufacturer.
- 2. Manufacturer shall make available a qualified Representative to assist Installer and Engineer as specified herein. Representative shall be experienced in placement of sealant material.

- B. Testing Requirements

- 1. Installer to perform adhesion test in presence of Engineer at rate of one test per 500 lineal feet of joint. Adhesion test to be performed a minimum of 7 days after installation. Procedure per Manufacturer's standard or as follows:
  - a. Make a knife cut from one side of joint to other.
  - b. Make two cuts approximately two inches long at sides of joint, meeting first cut at top of two-inch cuts.
  - c. Grasp two-inch piece of sealant and try to pull uncut sealant out of joint.
  - d. If adhesion is adequate, sealant should tear cohesively in itself or be very difficult to adhesively remove from surface.
  - e. Sealant shall be replaced by applying more sealant in same manner as original.

2. If test results are unsatisfactory, more frequent testing will be required until satisfactory results are consistently obtained.
3. Replace all sealant which proves defective per above test at no additional cost to Owner.

### **1.5 Submittals**

- A. For review and approval Manufacturer's Spec Data Sheets of each product to be used.
- B. For record Material Safety Data Sheets of each product, solvent, or related chemicals to be used and certification that materials conform to local, state and federal environmental and worker's safety laws and regulations.

### **1.6 Transportation and Handling**

- A. Deliver all materials to site in original, unopened containers, bearing following information:
  1. Name of product
  2. Name of Manufacturer
  3. Date of manufacture
  4. Lot or batch number
  5. UL labels
- B. Store materials under cover and protected from weather, within Manufacturer's recommended temperature ranges.
- C. Replace packages or materials indicating any signs of damage with new material at no additional cost to Owner.
- D. At no time shall the weight of stored material placed on a slab area exceed 30 PSF or 2,000 lbs. over 20 square inches.

### **1.7 Warranty**

- A. Provide to Owner a Warranty by Installer that joint sealant system will be free of defects, water penetration, and chemical damage related to design, workmanship, or material deficiency, consisting of, but not limited to:
  1. Surface crazing or other weathering deficiency.
  2. Abrasion or tear failure resulting from normal traffic use.
  3. Tear failure resulting from anticipated movement.
  4. Debonding from substrate or delaminating between layers.
  5. Defective installation.

- B. Warranty shall include and provide at no charge to Owner materials and labor needed to properly repair or replace product within duration of Warranty.
- C. Normal traffic is considered to include snow removal equipment with rubber tipped blades as described in the National Parking Association publication, *Parking Garage Maintenance Manual*.
- D. Vandalism, abrasive maintenance equipment, and construction traffic are not normal traffic use and are exempt from Warranty.

### **1.8 Warranty Duration**

- A. Bid price shall include a three (3) year Warranty commencing with date of project acceptance.
- B. Although completed areas of facility may be opened to traffic and parking, commencement of Warranty period will not occur prior to acceptance of entire project.
- C. A single Warranty commencement date will apply to all waterproofing.

### **1.9 Basis of Payment**

- A. Cove sealants, control joint sealants, wall/panel sealants, and routing and sealing of random cracks will be paid on a unit price basis. Refer to Section 00300, "Bid Forms."
- B. Joint widening or other necessary modifications shall be incidental to system cost.

## **PART 2 - PRODUCTS**

### **2.1 Joint Sealant System - Polyurethane**

- A. Horizontal Joint Sealant (except cove joints)
  - 1. Traffic-bearing, multi-component, self-leveling or non-sag unmodified polyurethane sealant, gray in color unless noted otherwise, containing no coal tar, asphalt, or other adulterants and conforming to ASTM C 920, Standard Specification for Elastomeric Joint Sealants, Type M, Grade P or NS, Class 25, use T and Federal Specification TT-S-00227, Type I or II, Class A.
  - 2. On slopes greater than 2%, slope grade versions of specified self-leveling sealants or non-sag sealants, as specified for vertical and cove joint sealants, are to be used per Manufacturer's recommendations.

3. Approved Horizontal Joint Sealants are:

- a. Iso-Flex 880GB or 881, LymTal International, Inc., Orion, MI.
- b. Sikaflex - 2c NS/SL, Sika Corp., Lyndhurst, NJ.
- c. Sonneborn Sonolastic SL2, BASF Building Systems, Shakopee, MN.
- d. THC 900 or THC 901, Tremco Inc., Cleveland, OH.

B. Vertical and Cove Joint Sealants

- 1. Multi-component, non-sag unmodified polyurethane sealant, gray in color unless otherwise noted, containing no coal tar, asphalt, or other adulterants and conforming to ASTM C 920, Type M, Grade NS, Class 25, use NT and Federal Specification TT-S-00227E , Type II, Class A.

2. Approved Vertical and Cove Joint Sealants are:

- a. ISO-FLEX 881, LymTal International, Inc., Orion, MI.
- b. Sikaflex - 2c NS, Sika Corp., Lyndhurst, NJ.
- c. Sonneborn Sonolastic NP2, BASF Building Systems, Shakopee, MN.
- d. Dymeric 240 or Dymeric 511, Tremco Inc., Cleveland, OH.

## 2.2 Backer Rod

- A. Backer rod diameter shall be as recommended by Manufacturer for joint sizes indicated on Drawings.
- B. Backer rod shall be extruded round, closed cell, low-density polyethylene or polyolefin foam material with a skin-like outer texture.
- C. Approved closed cell backer rods are:
  - 1. Mile High Foam Backer Rod, Backer Rod Manufacturing, Inc., Denver, CO.
  - 2. ITP Standard Backer Rod Insulation, Industrial Thermo Polymers Limited, Buffalo, NY.
  - 3. HBR, Nomaco, Inc., Zebulon, NC.
  - 4. Sonneborn Sonolastic Closed-Cell Backer-Rod, BASF Building Systems, Shakopee, MN.

## **PART 3 - EXECUTION**

### **3.1 Inspection**

- A. Inspect surfaces to receive Work and report immediately in writing to Engineer as required in General Conditions any deficiencies in surface which render it unsuitable for proper execution of this Work. Do not proceed with Work until unsatisfactory conditions have been corrected in an acceptable manner. Commencement of Work implies acceptance of related Work.

### **3.2 General**

- A. Coordinate and verify that related Work meets following requirements.
  - 1. Concrete surfaces are finished, cleaned and prepped, as specified by Manufacturer for system to be installed.
  - 2. Curing compounds used on concrete surfaces are compatible with Work to be installed.
  - 3. Systems selected for use are compatible with each other.
- B. Installer shall take necessary precautions against injury to personnel or adjacent building occupants during installation of joint sealants. Installer personnel shall use protective equipment and area shall be well vented to outside.

### **3.3 Preparation**

- A. Grind joint edges smooth and straight prior to installation.
- B. All surfaces that are to receive joint sealant shall be dry and thoroughly cleaned by mechanical means of all loose particles, existing joint sealant, laitance, dirt, dust, oil, grease or other foreign matter. Mechanical methods, such as grinding or sandblasting, shall be used to clean joint surfaces to sound, virgin concrete.
- C. Check preparation of substrate to ensure adhesion of joint sealant.
- D. Correct unsatisfactory conditions in a manner acceptable to Manufacturer and Engineer before installation of joint sealant system.
- E. Rout cracks with a grinding tool to produce the profile indicated on Drawings. Crack must be centered in the routed notch.

### **3.4 Installation/Application**

- A. Do all Work in strict accordance with Manufacturer's written instructions and specifications and as indicated on Drawings.
- B. Do not apply joint sealant system until concrete has been air dried at temperatures at or above 40 degrees F. for at least 28 days after curing period specified in Section 03370, Concrete Repair, or as otherwise approved by Manufacturer.
- C. Install bond breaker or backer rod as indicated on Drawings.
- D. Prime all joints and cracks.
- E. Completely fill joint with sealant, without sagging or smearing onto adjacent surfaces.
- F. Fill horizontal joints and cracks until slightly recessed to avoid direct contact with wheel traffic.
- G. Cease installation under adverse weather conditions, or when temperatures are below 40 degrees F or below or above Manufacturer's recommended limitations.
- H. Protect joint sealant as required until sealant is fully cured.

### **3.5 Cleanup**

- A. Remove all excess primer, sealant, and masking materials from structure.

END OF SECTION

## SECTION 08110 - HOLLOW METAL DOORS AND FRAMES

### PART 1 - GENERAL

#### 1.1 Related Documents

- A. The Conditions of the Contract for construction and the General Requirements of Division 1 of these Specifications apply to the Work in this Section.

#### 1.2 Work Included

- A. The Work of this Section includes all labor, material, equipment and supervision to manufacture, transport and install hollow metal doors and frames as indicated on the Drawings and in the schedules.

#### 1.3 Related Work

- A. The following Work is related to this Section:
  - 1. Submittals Section 01300
  - 2. Finish Hardware, General Section 08700
  - 3. Painting Section 09900

#### 1.4 Quality Control

- A. Provide hollow metal doors and frames manufactured by a single firm specializing in the production of this type of work, all in accord with the Steel Door Institute requirements.
- B. Wherever a fire-resistance classification, 1-1/2 hour, or as indicated on the Drawings and schedules, provide fire-rated hollow metal doors and frames that have been investigated and tested as a fire door assembly, complete with the type of fire door hardware to be used in the work. Identify each fire door and frame with UL labels, indicating the applicable fire rating of both the door and the frame.
- C. Construct and install assemblies to comply with NFPA No. 80, and as herein specified.

#### 1.5 Submittals

- A. Submit for record manufacturer's product specifications, technical data, fabrication, shop-painting, and installation instructions.
- B. Submit for review and approval Shop Drawings including the following:

1. Details of each frame type.
2. Elevations of door design types
3. Conditions at openings
4. Details of construction
5. Location and installation requirements of finish hardware and reinforcements.
6. Details of joints and connections.
7. Provide details at 3" to 1'-0" scale.
8. Provide dimensioned elevations at not less than 1" to 1'-0" scale.
9. Indicate anchorages and accessory items.

## **1.6 Transportation and Handling**

- A. Deliver all doors in manufacturer's original, unopened containers with the door size clearly marked on the container.
- B. Fire doors requiring labels shall be clearly marked with permanent identification.
- C. Deliver materials in sufficient time and quantity to allow continuity of work and compliance with approved construction schedule.
- D. Handle doors in manner to prevent damage to edges and ends.
- E. Store all materials indoors on raised 2 x 4 wood skids with the door side on edge.
- F. Provide continuous protection of materials against damage.
- G. Remove damaged and defective materials from site.

## **PART 2 - PRODUCTS**

### **2.1 Hollow Metal Doors**

- A. Furnish flush design heavy duty, model 3 hollow metal doors, swing type, 1-3/4 inches thick, seamless hollow construction, to suit the existing door opening sizes and the door design, as indicated on the Drawings and specified herein.
- B. Face sheet gauge not less than No. 18 gauge.
- C. Steel Sheets shall be zinc-coated of commercial quality, complying with ASTM A526, A525, G60 zinc coating mill phosphatized.
- D. Provide stretcher-leveled standard of flatness where indicated.

### **2.2 Hollow Metal Frames**

- A. Provide hollow metal, Masonry/Flush frames suitable for existing field conditions. Conceal all fastenings unless otherwise indicated. Counter-sink exposed screws using Phillips flat-head screws.
- B. Gauge: Not less than No. 16 (manufacturer's standard gauge).
- C. Steel frames shall be zinc-coated of commercial quality, complying with ASTM A526, A525, G60 zinc-coating mill phosphatized.

### **2.3 Supports and Anchors**

- A. Provide supports and anchors fabricated of not less than 16 gauge sheet steel. Galvanize after fabrication where units will be built into exterior walls, complying with ASTM A153, Class B.
- C. Monolithic Concrete Openings: Existing Opening Anchors.
- D. Separate Topping Concrete Slabs: Adjustable type with extension clips. Terminate the bottom of frames at the finish floor surface.
- E. Provide two removable spreader bars across the bottom of frames, tack welded to jambs and mullions.

### **2.4 Inserts, Bolts and Fasteners**

- A. Provide manufacturer's standard Inserts, Bolts and Fasteners except hot-dip galvanize all items to be built into exterior walls, complying with ASTM A153.
- B. In-place Concrete: 3/8 inch concealed bolts into expansion shields or inserts.

### **2.5 Shop-Applied Paint**

- A. Provide manufacturer's standard baked on epoxy or enamel (gray).

### **2.6 Acceptable Manufacturers are:**

- A. CECO Corporation
- B. Fenestra
- C. Assa Abloy
- D. Steelcraft

## **PART 3 - EXECUTION**

### 3.1 Inspection

- A. Inspect area to receive the work and report immediately in writing to the Architect any unacceptable conditions, as required in the General Conditions.

### 3.2 Fabrication

- A. Fabricated hollow metal doors and frames to be rigid, neat in appearance and free from defects, accurately formed to the required sizes and profiles. Wherever practicable, fit and assemble units in the manufacturer's plant. Clearly identify work that cannot be permanently plant-assembled before shipment, to assure proper assembly at the project site. Dress all welded joints on exposed surfaces flush and smooth, to be invisible when prime painted. Use of metallic filler to conceal manufacturing defects is not acceptable.
- B. Fabricate exterior doors of two outer cold-rolled steel sheets with edges continuously welded and finished flush. Construct doors with smooth, flush surfaces without visible joints or seams on exposed faces of stile edges, except around glazed or louvered panel inserts.
- C. Reinforce inside of doors with vertical, steel channel-shaped sections not less than 0.0396 inch thick. Space vertical reinforcing 6 inches o.c. and extend the full door height. Spot-weld at 4 inches o.c. to both outer sheets.
- D. Continuous truss-form inner core of 28 gauge sheet metal reinforcing may be provided as inner reinforcement in lieu of above. Spot-weld truss-form reinforcement 3 inches o.c. vertically and horizontally over the entire surface of both sides.
- E. Provide sound insulation filler of fiberboard mineral-wool board, solidly packed the full door height to fill the voids between the inner core reinforcing members.
- F. Reinforce tops and bottoms of doors with 16 gauge horizontal steel channels welded continuously to the outer sheets. Close top and bottom edges to provide a weather seal, as an integral part of the door construction or by the addition of inverted steel channels.
- G. Provide rectangular shape steel moldings around glazed openings in doors, with non-removable moldings, either an integral part of the door construction, or welded thereto with all welds ground smooth. Assemble removable moldings with butted corners, and secure to door with countersunk Phillips flat-head machine screws uniformly spaced at 12 inches o.c.
- H. Form door moldings of 0.0359 inch thick cold-rolled steel sheets.

- I. Fabricate louvers and mount flush into doors without overlapping moldings on the surface of the door-facing sheets.
- J. For fire-rated openings, provide tightly fitted automatic closing, operable blades, equipped with fusible links, arranged so that metal overlaps metal at every joint.
- K. Provide moldings around solid, glazed or louvered panels in hollow metal doors for a rigid and secure installation.
- L. Fabricate assemblies of doors and frames to provide the door installation clearances specified.
- M. Prepare hollow metal units at the manufacturers to receive mortised and concealed finish hardware, including cutouts, reinforcing, drilling and tapping. Comply with applicable requirements of ANSI S115, "Specifications for Door and Frame Preparation." Prepare for other mortised and concealed finish hardware to the templates of the manufacturer of each finish hardware item required in the work.
- N. Reinforce hollow metal units at the manufacturer's plant to receive surface-applied hardware. Drilling and tapping for surface-applied finish hardware may be done at the project site.
- O. Locate finish hardware as indicated on the final shop drawings, with the template furnished by the hardware supplier.
- P. Fabricate frames of full-welded unit construction, with corners mitered, reinforced, continuously welded the full depth and width of frame, with welds dressed smooth and flush.
- Q. Reinforce each door for finish hardware, as follows:
  - 1. Hinges: Steel plate 3/16" thick x 1-1/2" wide x 6" longer than hinge, secured by not less than six spot-welds.
  - 2. Mortise Locksets and Dead Bolts: Steel sheet 0.0747" thick (14 gauge) secured with not less than two spot-welds.  
  
Cylinder Locks: Steel sheet 0.0747" thick (14 gauge) secured with not less than two spot-welds.
  - 3. Flush Bolts: Steel sheet .0747" thick (14 gauge) secured with not less than two spot-welds.

4. Surface-Applied Closers: Steel sheet 0.1406" (16 gauge), except when through bolts are shown or specified, secured with not less than two spot-welds.
  5. Push Plates and Bars: Steel sheet 0.058" thick (16 gauge), except when through bolts are shown or specified, secured with not less than two spot-welds.
  6. Surface Panic Devices: Sheet steel 0.0747" thick (14 gauge), except when through bolts are shown or specified, secured with not less than two spot-welds.
- R. Provide reinforcing for finish hardware as follows:
1. Hinges: Steel plate 3/16" thick x 1-1/2" wide x 6" longer than hinge, secured by not less than six spot-welds.
  2. Strike Plate Clips: Steel plate 3/16" thick x 1-1/2" wide x 3" long.
  3. Surface-Applied Closers: Steel sheet 0.1046" thick (12 gauge), size and shape as required, secured with not less than six spot-welds.
  4. Drill stops to receive three silencers on single door frames and four silencers on double door frames. Install plastic plugs to keep holes clear during construction.
- S. Shop Painting
1. Clean, treat, and paint all surfaces of fabricated hollow metal doors and frames including galvanized surfaces, whether concealed or exposed in the finish work.
  2. Clean steel surfaces of all mill scale, rust, oil, grease, dirt and other foreign materials before the application of the shop coat of paint. Remove mill scale and rust by hand tool methods complying with SSPC-SP 2, and solvent clean all metal complying with SSPC-SP 1.
  3. Apply pretreatment to cleaned metal surfaces, using cold phosphate solution (SSPC-PT 2), hot phosphate solution (SSPC-PT 4) or basic zinc chromate-vinyl butyryl solution (SSPC-PT 3).
  4. Apply shop coat of prime paint within the time limits recommended by the pretreatment manufacturer. Apply a smooth coat of even consistency to provide a uniform dry film thickness of not less than 1.25 mils.

### **3.3 Placing Frames**

- A. Install hollow metal frames and accessories in accordance with the final shop drawings and manufacturer's data, and as herein specified. Set frames accurately in position, plumbed, aligned, and braced securely until permanent anchors are set. After anchoring is completed, remove temporary braces and spreaders leaving surfaces smooth and undamaged. Comply with SDI-105.
- B. Provide masonry anchorage devices where required for securing hollow metal frames to in-place concrete or masonry construction.
- C. Set anchorage devices opposite each anchor location, in accordance with the anchorage device manufacturer's printed instructions. Leave drilled holes rough, not reamed, and free from dust and debris.
- D. Place fire-rated frames in accordance with NFPA Standard No. 80.

### **3.4 Placing Doors**

- A. All hollow metal doors shall fit accurately in their respective frames, within the following clearances (comply with SDI-100):
  - 1. Jambs and head: 3/32"
  - 2. Meeting edges, pairs of doors: 1/8"
  - 3. Bottom: 3/8", where no threshold or carpet
  - 4. Bottom: At threshold 1/8"
  - 5. Fire-rated doors with clearances as specified in NFPA Standard No. 80.
- B. After proper door operation has been confirmed and all anchors have been adjusted and finalized, apply bead of polyurethane cove sealant around top and sides of frame on interior and exterior sides per specification 07900.

### **3.5 Clean-Up**

- A. Check and readjust all hollow metal work just prior to final inspection. Leave work in complete and proper operating condition. Remove and replace defective work, including doors or frames which are warped, bowed, or otherwise damaged.

END OF SECTION

SECTION 08700 - FINISH HARDWARE, GENERAL

**PART 1 - GENERAL**

**1.1 Related Documents**

- A. The Conditions of the Contract and the General Requirements of Division 1 of these Specifications apply to the Work in this Section.

**1.2 Work Included**

- A. The Work of this Section includes all material, manufacturing, and transportation of finish hardware as indicated on the Drawings and in schedules. Finish hardware is hereby defined to include all items known commercially as builder's hardware, as required for swing and other doors, including screws, bolts, expansion shields, etc.
- B. Furnish hardware templates to each fabricator of doors, frames, and other work to be factory-prepared for the installation of hardware. Upon request, check the shop drawings of such other work, to confirm that adequate provisions will be made for the proper installation of hardware.

**1.3 Related Work**

- A. The following Work is related to this Section:

- 1. Hollow Metal Doors and Frames Section 08110

**1.4 Quality Control**

- A. Finish hardware supplier shall have been furnishing hardware in the same area as the project for a period of not less than two years, and have in their employment an experienced hardware consultant who is available at all reasonable times during the course of the work, for project hardware consultation to the Engineer, Contractor, and Owner.
- B. Assign the installation of hardware to an experienced tradesman in compliance with trade union jurisdictions.
- C. To the greatest extent possible, obtain each kind of hardware (latch sets, hinges, closers, etc.), from only one manufacturer, even though several are specified as acceptable Manufacturers.
- D. Except as otherwise indicated, the use of one Manufacturer's numeric designation system in schedules does not imply that another Manufacturer's products will not be acceptable, unless they are not equal in design, size, weight, finish, function, or

other quality of significance. However, do not make substitutions after Engineer's acceptance of hardware supplier's complete hardware schedule.

## **1.5 Submittals**

- A. Submit for review and approval a final finish hardware schedule indicating complete designation of every item required for each door or opening. Hardware schedules are intended for coordination of the work. Review and acceptance by the Engineer and Owner does not relieve the Contractor of responsibility to fulfill the requirements as indicated and specified herein.
- B. Submit for record manufacturer's data for each item of finish hardware. Include whatever information may be necessary to indicate compliance with requirements, and include instructions for installation and for maintenance of operating parts and exposed finishes.

## **1.6 Transportation and Handling**

- A. Provide secure lock-up for hardware delivered to the project, but not yet installed. Control the handling and installation of hardware items which cannot be immediately replaced, so that the completion of the work will not be delayed by hardware losses, both before and after installation.

## **PART 2 - PRODUCTS**

### **2.1 Finish Hardware**

- A. The Drawings indicate the direction of swing for each door. Furnish each item of hardware for proper installation and operation of the door swing.
- B. Provide hardware for fire-rated openings in compliance with AIA (NBFU) Pamphlet No. 80 and NFPA Standard No. 80. These requirements takes precedence over other requirements for such hardware. Provide only hardware which has been tested and listed by UL for the types and sizes of doors required, and complies with the requirements of the door and door frame labels.
- C. Match the finish of every hardware unit at each door or opening, to the greatest extent possible, and except as otherwise indicated. Reduce differences in color and textures as much as commercially possible where the base metal or metal forming process is different for individual units of hardware exposed at the same door or opening. In general, match all items to the manufacturer's standard finish for the latch and lock-set for color and texture.
- D. Products below are for items listed in hardware sets. Equivalent products of Manufacturers in parentheses will be accepted.

- |    |                                |         |
|----|--------------------------------|---------|
| 1. | Hinges                         | Hager   |
| 2. | Closers                        | LCN     |
| 3. | Latches                        | Schlage |
| 4. | Thresholds & Weather Stripping | Pemko   |

### 2.3 Hardware Adjustment Tools

- A. In addition to those tools furnished with the hardware for installation, furnish and deliver to the Owner, the following items:
1. Two closer adjustment wrenches

### 2.4 Hardware Sets

- A. Set #1 (To Match Door at Elevator Lobby)

- |   |                     |  |
|---|---------------------|--|
| 3 | Hinges              | BB 1279 4.5 X 4.5                          |
| 1 | Closer              | LCN 4040 Series                            |
| 1 | Latch Set           | ND10S (ANSI F75), Rhodes Style, 626 Finish |
| 1 | Door Sweep          | 3452 AV                                    |
| 1 | Threshold           | Saddle Threshold Style 271A                |
| 1 | Perimeter gasketing | 303AV                                      |

## PART 3 - EXECUTION

### 3.1 Inspection

- A. Inspect area to receive the work and report immediately in writing to the Engineer, as required in the General Conditions, any unacceptable conditions.

### 3.2 Installation

- A. Install each hardware item in compliance with the manufacturer's instructions and recommendations. Wherever cutting and fitting is required to install hardware onto or into surfaces which are later to be painted or finished in another way, install each item completely and then remove and store in a secure place during the finish application. After completion of the finishes, re-install each item. Do not install surface-mounted items until finishes have been completed on the substrate.
- B. Adjust and check each operating item or hardware and each door to ensure proper operation or function of every unit. Lubricate moving parts with type of lubrication recommended by manufacturer (graphite-type, if no other recommended). Replace units which cannot be adjusted and lubricated to operate freely and smoothly as intended for the application made.

- C. Final Adjustment: Wherever hardware installation is made more than one month prior to acceptance or occupancy of a space or area, return to the work during the week prior to acceptance or occupancy, and make a final check and adjustment of all hardware items in such space or area. Clean and re-lubricate operating items as necessary to restore proper function and finish of hardware and doors. Adjust door control devices to compensate for final operation of heating and ventilating equipment.
- D. Instruct Owner's personnel in proper adjustment and maintenance of hardware and hardware finishes, during the final adjustment of hardware.

END OF SECTION

SECTION 09900 - PAINTING

**PART 1 - GENERAL**

**1.1 Related Documents**

- A. The Conditions of the Contract for Construction and the General Requirements of Division 1 of these specifications apply to the Work in this Section.

**1.2 Work Included**

- A. The Work of this Section shall include furnishing all permits, labor, materials, equipment, and services to prepare and paint and/or stain as indicated on the repair drawings.
  - 1. Hollow metal doors and frames

**1.3 Related Work**

- A. The following Work is related to this Section:
  - 1. Submittals Section 01300
  - 2. Doors and Windows Section 08110

**1.4 Reference Standards**

- A. Comply with the requirements of the current edition of the specifications or standard listed, except where more stringent requirements are indicated on the Drawings or specified herein:
  - 1. Steel Structures Painting Council (SSPC), Volume I, Good Painting Practices and Volume II, Systems and Specifications
  - 2. Local, state, or federal laws and regulations governing Volatile Organic Compounds (VOC) in paint or paint products.
  - 3. *Standards of the American Society for Testing and Materials (ASTM), as cited herein.*

**1.5 Quality Control**

- A. Samples for testing shall be supplied not less than 30 days before work on the job is started. Samples of all coatings to be used under these specifications shall have received approval from the Engineer. Failure of the Contractor to obtain prior

approval shall not reflect upon any proposed product, nor shall such failure be used in order to obtain an extension of time for completion of the work.

- B. Provide coating systems produced by the same Manufacturer.

#### **1.6 Submittals**

- A. Submit for review and approval Manufacturer's "Spec Data Sheets for paint systems; including primer, intermediate, and final coats.
- B. Submit for record "Material Safety Data Sheets" for all materials used.
- C. Submit for record certification that paint system is compatible with shop applied primer.
- D. Submit for record complete preparation and painting procedure to be followed. As a minimum, the following items must be included:
  - 1. Surface preparation
  - 2. Paint mixing and application
  - 3. Inspection criteria
  - 4. Paint characteristics
  - 5. Dust and fume control
  - 6. Storage and handling
  - 7. Repair to paint system
  - 8. Paint curing
  - 9. Compatibility of all components
- E. Submit for record certification of compliance with local and federal guidelines governing paint application.
- F. Submit for review and approval Manufacturer's standard color chart. Topcoat color to be chosen by Owner.

#### **1.7 Samples**

- A. Submit upon request for review and approval sample color chips for each topcoat color. Samples are to measure 12" x 12", are to be on hardboard, and to have a texture to simulate actual conditions.

#### **1.8 Environmental Requirements**

- A. Manufacturer and Contractor are required to confirm that all materials used in accordance with this Section conform to local, state, and federal environmental and workers' safety laws and regulations.

- B. It shall be the sole responsibility of the Contractor to provide any and all necessary containment to protect on site and adjoining property from damage during cleaning and coating operations.
- C. It shall also be the sole responsibility of the Contractor to meet all regulations regarding air quality emission standards, OSHA, NFPA, EPA and other governing law set by local, state and federal agencies.

#### **1.9 Transportation and Handling**

- A. Deliver all materials to site in original, unopened containers designated by the Contractor.
- B. Store materials under cover and protected from the weather. Replace packages of materials showing any signs of damage with new material at no additional cost to Owner.
- C. Mix and prepare coatings only in areas designated by the Contractor for that purpose.
- D. Provide clean cans and buckets required for mixing coatings and for receiving rags and other waste materials associated with painting. Clean buckets regularly. At the close of each day's work remove used rags and other waste materials associated with painting.
- E. Take precautions to prevent fire in or around coatings materials. Provide and maintain hand fire extinguisher near storage and mixing area.

#### **1.10 Basis of Payment**

- A. Pay unit cost for painting is lump sum. The lump sum price shall include all costs associated with painting, including but not limited to preparation, disposal, etc. Refer to Section 00300, "Bid Forms".

### **PART 2 - MATERIALS**

#### **2.1 Steel Coating Systems with shop applied primer (New Hollow Metal Doors and Frames)**

- A. Provide coating system consisting of epoxy intermediate coat 3-5 mils dry film thickness and urethane finish coat 2-3 mils dry film thickness all in accordance with Manufacturer's recommendations.

- B. Intermediate coat and finish coat shall be from same Manufacturer and of a different color.
- C. Contractor to confirm epoxy intermediate coat is compatible with shop applied primer.
- D. Approved epoxy intermediate and urethane finish coat systems are:
  - 1. Carboguard 893, Carbothane 134 HS, Carboline Company
  - 2. Amercoat 385, Amershield, PPG Protective & Marine Coatings
  - 3. Super Spec HP P36, Super Spec HP P74, Benjamin Moore & Co.

### **PART 3 - EXECUTION**

#### **3.1 General**

- A. Inspect surfaces to which paint will be applied and report immediately in writing to the Engineer as required in the General Conditions any conditions detrimental to the proper execution of this work.
- B. Do not proceed until unsatisfactory conditions are acceptably remedied. Commencement of work implies acceptance of related work.
- C. No coating system shall be applied without the approval of the Engineer as to the proposed method of the surface preparation.
- D. Before commencing work, make certain that the surface is in proper condition to receive coating system, that surfaces are clean, dry, smooth, and at proper temperature as recommended by Manufacturer.
- E. Provide adequate ventilation to remove fumes to a safe location and to confine and control fumes so that life or property is not endangered.
- F. Protect all adjacent surfaces, vehicles and equipment from overspray.

#### **3.2 Preparation**

- A. Mask all boundaries to provide straight edges.
- B. Do not intermix materials of different character or different Manufacturer.
- C. Do not thin material except as recommended by Manufacturer.

#### **3.3 Application**

- A. Work shall be done by skilled craftsmen who are qualified to perform the required work and shall be done in a manner comparable to the best standards of practice found in that trade. All material shall be evenly applied so as to be free from sags, runs, crawls, wrinkles, holidays, or any other application defects. All brushed coats shall be of the proper consistency and properly brushed out so as to show the minimum of brush marks. When finished and dried, brush strokes shall appear in the vertical direction only, and there shall be no curved brush marks showing. All coats shall be thoroughly dry before the succeeding coat is applied.
- B. In applying coatings by spray gun, the material shall be applied in a wet coating that remains glossy wet for at least twenty seconds after application. Spraying shall be done in the crisscross lap method of spraying, striking first in one direction and shortly thereafter spraying across this same section at right angles to the first set of passes, so as to provide a continuous wet film of the finish coat.
- C. Coating systems shall be applied in accordance with the Manufacturer's printed instructions for that particular coating.
- D. Where more than two coats are specified, each subsequent coat shall be of sufficient color difference that holidays, skips, thin spots, etc. can be easily be seen in contrast with the preceding coat.

### **3.4 Repair**

- A. Paint damage is to be repaired by the re-application of the paint system in accordance with the Manufacturer's recommendations.
- B. Apply additional coats if the coating does not completely hide the undercoat.

END OF SECTION

SECTION 09920 - PAVEMENT MARKING

**PART 1 - GENERAL**

**1.1 Related Documents**

- A. The Conditions of the Contract for Construction and the General Requirements of Division 1 of these Specifications apply to the Work in this Section.

**1.2 Work Included**

- A. The Work of this Section includes furnishing all material, labor, equipment and services to paint the following items of the types, patterns, sizes and colors as indicated on the Drawings.
  - 1. Parking stripes
  - 2. Traffic arrows
  - 3. Text

**1.3 Related Work**

- A. The following Work is related to this Section:
  - 1. Submittals Section 01300
  - 2. Concrete Repairs Section 03370
  - 3. Chemical Treatment Section 03555
  - 4. Joint Sealants Section 07900

**1.4 Submittals**

- A. Submit for review and approval Manufacturer's Spec Data Sheets of each product to be used.
- B. Submit for record Material Safety Data Sheets of each product, solvent, or related chemicals to be used, and certification that the materials conform to local, state, and federal environmental and worker's safety laws and regulations.
- C. Submit for record standard color chip.
- D. Submit for review and approval shop drawings indicating stall size, spacing, etc.

### 1.5 Environmental Requirements

- A. Manufacturer and Installer are required to confirm that all materials used in accordance with this Section conform to local, state, and federal environmental and workers' safety laws and regulations.
  - 1. VOC content of materials shall not exceed the limits per Environmental Protection Agency National Volatile Organic Compound Emission Standards for Architectural Coatings (40CFR59).
- B. The Installer is solely responsible for fume control and shall take all necessary precautions against injury to personnel or adjacent building occupants during application. As a minimum, Installer shall take the following precautions:
  - 1. Provide and maintain barricades.
  - 2. Locate and protect building air intakes during application.
  - 3. Follow all state, federal, and local safety regulations.
  - 4. Follow all Manufacturers' safety requirements.
  - 5. Dispose empty containers immediately and properly.
  - 6. Use protective equipment.
  - 7. Ensure work area is well vented to the exterior.

### 1.6 Transportation and Handling

- A. Deliver all materials to site in original, unopened containers bearing the following information:
  - 1. Name of Product
  - 2. Name of Manufacturer
  - 3. Date of Manufacture
  - 4. Lot or Batch Number
- B. Store materials under cover and protected from the weather.
- C. Replace containers showing any signs of damage with new material at no additional cost to Owner.
- D. Mix and prepare coatings only in areas designated by the Contractor for that purpose.
- E. Take precautions to prevent fire in or around coatings materials. Provide and maintain hand fire extinguisher near storage and mixing area.
- F. At no time shall the weight of the stored material placed on a slab area exceed 30 PSF or 2,000 lbs. over 20 square inches.

### 1.7 Basis of Payment

- A. Pavement marking preparation and application will be paid on a lump sum basis. Refer to Section 00300, "Bid Forms."

## PART 2 - PRODUCTS

### 2.1 Pavement Markings – Acrylic Waterborne

- A. All materials shall meet Federal Specification TT-P-1952B.
- B. Provide pavement markings as indicated on the Drawings.
- C. Approved acrylic waterborne pavement markings are:
  - 1. SetFast Acrylic Waterborne Traffic Marking Paint, The Sherwin Williams Company, Cleveland, Ohio.
    - a. TM226 White
    - b. TM227 Lead-Free Yellow
    - c. TM2133 Low VOC Latex Traffic Marking Paint Handicap Blue
  - 2. Water Reducible Acrylic Traffic Paint, ICI Paints, Cleveland, Ohio.
    - a. 25524/22683 White
    - b. 20087/20088 Lead-Free Yellow
    - c. 26563/26564 Red
    - d. 26565/26566 Black
    - e. 20089/20090 Handicap Blue
  - 3. Or approved equal.

## PART 3 - EXECUTION

### 3.1 Inspection

- A. Inspect surfaces to which paint will be applied and report immediately in writing to the Engineer as required in the General Conditions any conditions detrimental to the proper execution of this work.
- B. Do not proceed until unsatisfactory conditions are acceptably remedied. Commencement of work implies acceptance of related work.

### 3.2 Preparation

- A. Before commencing work, make certain that surfaces are thoroughly cleaned, dry, and in sound condition. The cleaning of concrete floor surfaces shall meet the requirements of ASTM Designation: D 4258 for Water Cleaning and Detergent Water Cleaning.
- B. Any existing loose or flaking paint stripes shall be removed by grinding or scarifying so that loose paint stripe remains.
- C. Do not paint any surface that is wet or damp.
- D. Remove all oil, dust, grease, dirt, and other foreign material to ensure adequate adhesion.
- E. Lay out all striping on each level using the existing layout. Paint Contractor shall be required to remove paint, repair surface and repaint stripes not applied in strict accordance with the Drawings.
- F. Verify compatibility with concrete sealer/migrating corrosion inhibitor, joint sealant, and all other surface treatments as specified in Division 7.

### 3.3 Mixing

- A. Do not mix different types of materials or materials from different Manufacturers.
- B. Do not thin material except as recommended by Manufacturer for spray application.
- C. Mix paint thoroughly by boxing, stirring or power agitation before use.

### 3.4 Application

- A. Apply painting and finishing materials in accordance with the Manufacturer's directions. Use techniques best suited for the material and surfaces to which applied. Apply at 15 mils wet thickness.
- B. Do not apply paint when the air and/or surface temperature is below 50 degrees F, when relative humidity exceeds 85%, when rain is threatening or late in the evening when dew might form before drying.
- C. Allow concrete to age 60 days (asphalt 90 days) before coating.
- D. Parking space striping dimensions indicated on the Drawings are nominal dimensions. Tolerances shall be as follows:

1. Parking space length shall equal indicated length  $\pm$  2 inches.
  2. Parking space width (or base line dimension) shall equal indicated width  $\pm$  1 inch.
  3. A string of parking spaces shall equal indicated dimension  $\pm$  2 inches per run.
  4. Stripe width shall equal 4 inches  $\pm$  1/4 inch.
- E. For traffic arrows add glass beads on wet paint so that proper bead embedment and retention is achieved.

### **3.5 Cleaning**

- A. Immediately upon completion of work, clean up all paint spots, remove excess materials and equipment, and repair all paint damage to other finishes.

END OF SECTION

## SECTION 16010 - GENERAL ELECTRICAL REQUIREMENTS

### PART 1 - GENERAL

#### 1.1 Related Documents

- A. The Condition of the Contract for Construction and the General Requirements of Division 1 of these Specifications apply to the Work in this Section.

#### 1.2 Work Included

- A. The Work of this Section shall include all materials, labor, equipment and services required to furnish, fabricate, deliver to site and install all electrical work required to repair deteriorated conduit and wiring as a result of corrosion based deterioration uncovered during concrete repairs.

#### 1.3 Related Work

- A. The following work is related to this Section:

1.	Allowances	Section 01020
2.	Submittals	Section 01300
3.	Demolition	Section 02050
4.	Concrete Repair	Section 03370

#### 1.4 Quality Control

- A. Use skilled workers experienced in the area of Work.

#### 1.5 Reference Standards

- A. Comply with the provisions of the latest editions of the following Standards and Codes:
  - 1. The state electrical administration or a local inspection department recognized by the state as having jurisdiction.
  - 2. Requirements of state and federal Occupation Safety and Health Acts.
  - 3. The National Electrical Code as described in detail in the "National Electrical Contractors Association Standard of Installation."

B. All materials are to conform with:

1. National Electrical Manufacturers Association (NEMA).
2. National Board of Fire Underwriters (NBFU).
3. National Electrical Code.
4. All local and state codes.

## **1.7 Transportation and Handling**

A. Deliver material to the project in good condition. Store materials off the ground and protected from the elements.

## **1.8 Guarantee**

- A. Leave entire electrical system in proper working order.
- B. Provide a one-year guarantee from the date of acceptance of the work that all the material, equipment and wiring, except lamps, furnished and installed are free from all electrical and mechanical defects.
- C. Make good any defects which become apparent within that time.
- D. Provide the Owner with any other guarantees extended by manufacturers of equipment furnished and installed in the Project.

## **PART 2 - PRODUCTS**

### **2.1 Electrical Material**

- A. Products are referenced in this Specification to establish a standard of quality, style, design and function of materials, equipment, apparatus or product.
- B. Provide materials that are new and listed by the Underwriters Laboratories, Inc. bearing their label wherever standards have been established.
- C. Provide materials suitable for the environment and exposure.
- D. Provide weatherproof or rain-tight outdoor equipment.

### **PART 3 - EXECUTION**

#### **3.1 Inspection**

- A. Inspect area to receive work and report immediately in writing to the Engineer as required in the General Conditions, any unacceptable conditions.

#### **3.2 General**

- A. Minimum concrete cover requirements for reinforcing shall apply to all embedded electrical items unless indicated otherwise on the Drawings or specified otherwise herein.

#### **3.3 Installation**

- A. Provide the installation free from any faults or grounds and in operation condition.
- B. Provide all equipment necessary to make tests.
- C. Test all completed electrical systems.
- D. If faults or grounds are present, correct the trouble and retest the system.

#### **3.4 Cleanup**

- A. At the completion of Work, remove from the building all rubbish and accumulated materials.

END OF SECTION

# COMMUNITY COLLEGE OF PHILADELPHIA PARKING GARAGE 2013 REPAIRS

1700 SPRING GARDEN STREET  
PHILADELPHIA, PENNSYLVANIA

ISSUED FOR BIDDING - MAY 8, 2013

**Carl Walker**

6 North Broad Street  
Suite 320  
Woodbury, NJ 08096-4635  
Phone (856) 579-1511  
Fax (856) 251-1070  
www.carlwalker.com

CONSULTANTS:

Community  
College  
of Philadelphia  
**PARKING  
GARAGE  
2013 REPAIRS**  
1700 Spring Garden St.  
Philadelphia,  
Pennsylvania

**GENERAL NOTES**

DIVISION 1 – GENERAL

1.1 ALL DESIGN SHALL BE IN ACCORDANCE WITH THE FOLLOWING:

- A. CITY OF PHILADELPHIA CODES AND ORDINANCES, MOST RECENT.
- B. INTERNATIONAL BUILDING CODE (IBC), 2009 EDITION.
- C. FOR ADDITIONAL INFORMATION ON EXISTING STRUCTURE, REFER TO ORIGINAL DESIGN DRAWINGS BY A&R ENGINEERING DATED 8/2/1984.

DIVISION 3 CAST-IN-PLACE CONCRETE

3.1 ALL DESIGN AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH ACI 318-08, AND ACI GUIDE 362.1R-12. REFER TO SPECIFICATIONS SECTION 03370, "CONCRETE REPAIR" FOR INFORMATION NOT LISTED HEREIN.

- A. READY MIXED/SITE BATCHED CONCRETE REPAIR MATERIAL
  - 1.5,000 PSI, 0.40 MAX W/C, 6-1/2% ±1-1/2% AIR, 2-1/2 GAL/CY CNA CORROSION INHIBITOR
- B. PREMIXED HORIZONTAL CONCRETE REPAIR MATERIAL
  - 1.REFER TO SPECIFICATION SECTION 03370, "CONCRETE REPAIR" FOR MATERIALS AND REQUIREMENTS.
- C. TROWEL-APPLIED POLYMER MORTAR REPAIR MATERIAL
  - 1.REFER TO SPECIFICATION SECTION 03370, "CONCRETE REPAIR" FOR MATERIALS AND REQUIREMENTS.

3.2 CEMENT

- A. ASTM C 150 TYPE I OR III

3.3 AGGREGATES

- A. ASTM C 33

3.4 MILD REINFORCEMENT

- A. MILD REINFORCEMENT, ASTM A 615 GRADE 60

3.5 MIGRATING CORROSION INHIBITOR

- A. MIGRATING CORROSION INHIBITOR SHALL BE APPLIED TO SUPPORTED SLAB SURFACES AS INDICATED ON DRAWINGS.
- B. REFER TO SPECIFICATION SECTION 03555, "CHEMICAL TREATMENT," FOR MATERIALS AND REQUIREMENTS.

DIVISION 3 CAST-IN-PLACE CONCRETE (CONT'D)

3.6 GROUT

- A. PREMIXED, PACKAGED, NON-SHRINK, CHLORIDE-FREE, NON STAINING, F'C = 6000 PSI MINIMUM, ASTM C 1107.

3.7 GENERAL CAST-IN-PLACE CONCRETE

- A. TOOL SLAB JOINTS AT TIME OF FINISHING. SAW CUTTING IS NOT ALLOWED UNLESS APPROVED BY ENGINEER.
- B. FINISH OF REPAIRS TO ARCHITECTURAL CONCRETE SHALL MATCH EXISTING FINISH.

DIVISION 5 MISCELLANEOUS METALS

5.1 DESIGN AND CONSTRUCTION STANDARD – AMERICAN INSTITUTE OF STEEL CONSTRUCTION, MANUAL OF STEEL CONSTRUCTION. REFER TO SPECIFICATION SECTION 05990 MISCELLANEOUS METALS FOR INFORMATION NOT LISTED HEREIN.

5.2 ANGLES: ASTM A 36.

5.3 PLATES AND BARS: ASTM A 36.

5.4 ADHESIVE ANCHORS: STAINLESS STEEL, SIZES AS INDICATED ON DRAWINGS. REFER TO SPECIFICATION SECTION 05990, "MISCELLANEOUS METALS" FOR MATERIALS AND REQUIREMENTS.

5.5 ALL WELDING SHALL BE MADE WITH E70XX LOW HYDROGEN ELECTRODES AND SHALL CONFORM TO LATEST EDITION OF THE AMERICAN WELDING SOCIETY SPECIFICATIONS. ALL WELDS SHALL BE PERFORMED BY A CERTIFIED WELDER. CERTIFICATION SHALL BE APPROPRIATE FOR WELDING METHOD AND POSITION

5.6 SURFACE FINISH FOR STEEL MISCELLANEOUS METAL WORK SHALL BE HOT-DIP GALVANIZED.

DIVISION 7 THERMAL AND MOISTURE PROTECTION

7.1 JOINT SEALANTS

- A. ALL JOINTS BETWEEN STRUCTURAL AND ARCHITECTURAL MEMBERS AS INDICATED ON DRAWINGS SHALL BE PROPERLY PREPARED AND FILLED WITH JOINT SEALANT.
- B. REFER TO SPECIFICATION SECTION 07900, "JOINT SEALANTS," FOR MATERIALS AND REQUIREMENTS.

CONSTRUCTION NOTES

A. GENERAL

- WHERE DIMENSIONS ARE INDICATED FOR EXISTING STRUCTURES, THEY ARE APPROXIMATE AND FOR REFERENCE ONLY. CONTRACTOR SHALL VERIFY IN FIELD (VIF) ALL DIMENSIONS/ELEVATIONS PRIOR TO CONSTRUCTION. ANY VARIATIONS BETWEEN EXISTING DIMENSIONS ON DRAWINGS SHALL BE REPORTED TO ENGINEER.
- ALL OMISSIONS OR CONFLICTS AMONG VARIOUS ELEMENTS OF DRAWINGS AND/OR SPECIFICATIONS SHALL BE REPORTED TO ENGINEER BEFORE PROCEEDING WITH ANY WORK.
- FIELD VERIFY THE LOCATIONS OF EXISTING STRUCTURES, UTILITIES, ETC., AND NOTIFY ENGINEER OF INTERFERENCES NOT NOTED ON DRAWINGS.
- PRIOR TO BEGINNING WORK, EACH WORK AREA IS TO BE COMPLETELY ENCLOSED. CONTRACTOR TO BE RESPONSIBLE FOR ADEQUATE VENTILATION, FUME AND DUST CONTROL.
- PRIOR TO BEGINNING WORK, DOCUMENT EXISTING CONDITIONS.
- VISITS TO JOB SITE BY ENGINEER TO OBSERVE CONSTRUCTION DO NOT IN ANY WAY MEAN GUARANTEE OF CONTRACTOR'S WORK, NOR RESPONSIBILITY FOR COORDINATION, SUPERVISION, NOR SAFETY AT JOB SITE.
- THE EXISTING CONCRETE DESIGN STRENGTH IS 5,000 PSI (PRECAST) AND 4,000 PSI (CAST-IN-PLACE) AT 28 DAYS ACCORDING TO ORIGINAL STRUCTURAL DRAWINGS. THIS VALUE HAS NOT BEEN CONFIRMED AND MAY VARY.
- ANY OPERATIONS THAT CREATE EXCESSIVE NOISE (HAMMERING, SHOTBLASTING, ETC.) TO BE CONDUCTED BETWEEN 8AM AND 6PM. LOCAL NOISE ORDINANCE WILL GOVERN OPERATIONS.
- TAKE EXTREME CAUTION NOT TO DAMAGE IN ANY WAY THE EXISTING ELECTRICAL SERVICE, TELECOMMUNICATION LINES, COMPUTER LINES, ETC. LOCATE AND MARK ALL SERVICE LINES.
- DO NOT SCALE DRAWINGS.

B. CONSTRUCTION PHASING

- CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION OF ALL CONSTRUCTION ACTIVITY AND SHALL COOPERATE FULLY WITH OWNER FOR ALL CONSTRUCTION PHASING.
- PARKING OPERATIONS EQUIPMENT SHALL BE TEMPORARILY RELOCATED, AS REQUIRED, TO PROVIDE CONTINUOUS OPERATOR CONTROL DURING ALL PHASES OF CONSTRUCTION. OPERATIONAL EQUIPMENT IS TO BE RETURNED TO EXISTING LOCATIONS AND FUNCTION AT END OF CONSTRUCTION. COORDINATE WITH OWNER.
- CONTRACTOR SHALL MAINTAIN TRAFFIC FLOW TO ALL LEVELS OF THE STRUCTURE.
- CONTRACTOR SHALL COORDINATE ALL PARKING CLOSURES W/ OWNER/OPERATOR 14 DAYS IN ADVANCE OF WORK. A MAXIMUM OF 120 SPACES MAY BE CLOSED FOR CONSTRUCTION AT ONE TIME.
- AREAS OF PARKING ABOVE AND AROUND SHORING SHALL BE CLOSED TO PARKING, PRIOR TO REPAIRS AND SHORING.
- STAGING AREA FOR CONTRACTOR TO BE LOCATED ON ROOF LEVEL. CONTRACTOR SHALL COORDINATE WITH OWNER.
- PROTECT PEDESTRIAN TRAFFIC THROUGHOUT STRUCTURE AND ON SIDEWALKS AROUND PERIMETER OF PARKING STRUCTURE.

B. CONSTRUCTION PHASING (CONT'D)

- IT WILL BE NECESSARY TO SCHEDULE CONTRACTOR DELIVERIES AND WASTE HAULING TO MINIMIZE INTERFERENCE WITH EXISTING BUILDING OPERATIONS. CONTRACTOR SHALL COORDINATE WITH OWNER.
  - ONE STAIR TOWER MUST REMAIN OPEN AT ALL TIMES.
  - ACCESS TO THE ELEVATOR TO BE MAINTAINED AT ALL TIMES. EXCEPTION WILL BE DURING DECK COATING.
- C. CONCRETE DELAMINATION REPAIR
- REFER TO SPECIFICATION SECTION 03370, "CONCRETE REPAIR," FOR MATERIALS AND REQUIREMENTS UNLESS NOTED OTHERWISE.
  - SOUND ALL AREAS AS INDICATED ON DRAWINGS AND MARK PERIMETER OF AREAS.
  - SAWCUT AND CHIP AT PERIMETER OF DELAMINATED AREAS AS INDICATED IN DETAIL 1/SR501.
  - REMOVE EXISTING CONCRETE BEYOND DELAMINATION TO SOUND CONCRETE AS INDICATED IN DETAILS.
  - REMOVE EXISTING CONCRETE BEYOND DELAMINATION EXPOSING EXISTING REINFORCEMENT STEEL PERIMETER AS INDICATED IN DETAIL 1/SR501.
  - PROVIDE UNIFORM HORIZONTAL SURFACE BETWEEN ADJACENT BARS OR WIRES WHEN CAVITY ENCOMPASSES MORE THAN ONE BAR OR WIRE.
  - CLEAN ALL EXPOSED REINFORCEMENT STEEL AND OTHER EMBEDDED METALS AND COAT WITH EPOXY MODIFIED COATING PER SPECIFICATION SECTION 03200, "CONCRETE REINFORCEMENT".
  - PROVIDE SPRAY OR BRUSH APPLIED BONDING AGENT TO EXCAVATED CAVITY SURFACE.
  - REMOVE PATCH MATERIAL.
  - STEEL TROWEL FINISH OF UNFORMED CONCRETE PATCH SURFACES TO MATCH ADJACENT AREAS.
  - WHERE APPLICABLE CHAMFER CORNERS TO MATCH ADJACENT AREAS.
  - CONCRETE PATCH SURFACES TO BE TREATED TO MATCH ADJACENT AREAS.
  - NOMINAL SIZES OF MEMBERS ARE INDICATED ON DETAILS, ACTUAL SIZES MAY VARY.
  - NOMINAL PATCH DEPTHS ARE INDICATED ON DETAILS, ACTUAL DEPTH MAY VARY.
  - PAY BASIS SHALL BE AS INDICATED IN DETAILS AND BID FORMS.

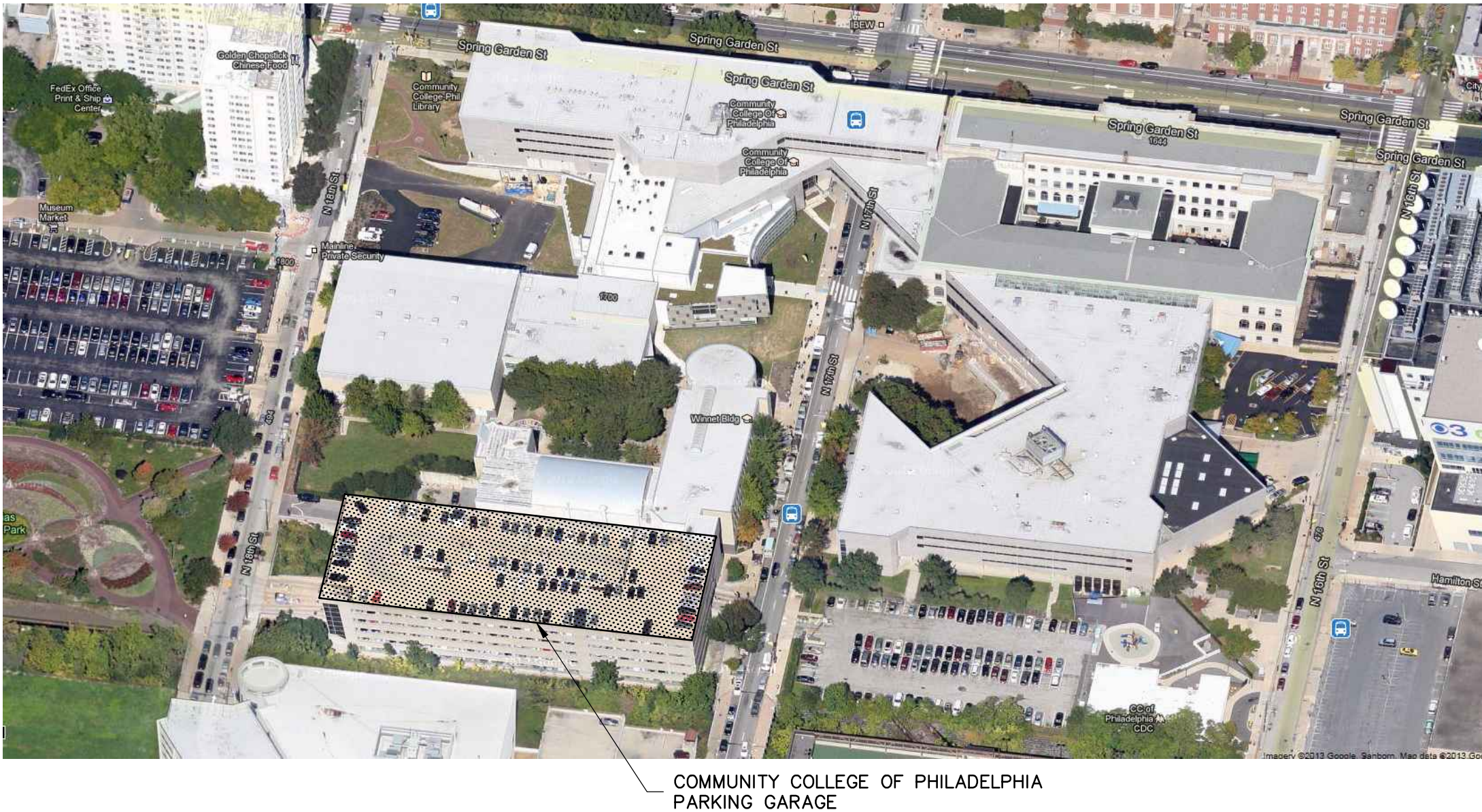
ABBREVIATIONS

- ALT = ALTERNATE
- ADD'L = ADDITIONAL
- ARCH = ARCHITECTURAL
- BOT = BOTTOM
- BRG = BEARING
- CIP = CAST-IN-PLACE CONCRETE
- CJ = CONSTRUCTION JOINT
- CL = CLEAR
- COL = COLUMN
- CONC = CONCRETE
- CONN = CONNECTION
- CONT = CONTINUOUS
- DET = DETAIL
- EA = EACH
- EXIST = EXISTING
- FD = FLOOR DRAIN
- FT = FOOT
- GALV = GALVANIZED
- JT = JOINT
- MIN = MINIMUM
- OC = ON CENTER
- P/C = PRECAST CONCRETE
- REINF = REINFORCING
- REQD = REQUIRED
- SECT = SECTION
- SIM = SIMILAR
- SOG = SLAB ON GRADE
- SPEC = SPECIFICATION
- STL = STEEL
- TYP = TYPICAL
- UNO = UNLESS NOTED OTHERWISE
- W/ = WITH
- VIF = VERIFY IN FIELD
- WWF = WELDED WIRE FABRIC
- ZRC = ZINC RICH COATING

VICINITY MAP



SITE LOCATION



PROJECT DIRECTORY

**OWNER**

COMMUNITY COLLEGE  
OF PHILADELPHIA  
1700 SPRING GARDEN STREET  
PHILADELPHIA, PENNSYLVANIA

**PRIME CONSULTANT/  
STRUCTURAL PARKING**

**Carl Walker**

6 North Broad Street  
Suite 320  
Woodbury, NJ 08096  
(856)579-1511  
(856)251-1070

SHEET INDEX

GENERAL

- G001 COVER SHEET AND DRAWING INDEX

STRUCTURAL

- SR101 GROUND LEVEL REPAIR PLAN
- SR102 FIRST LEVEL REPAIR PLAN
- SR103 SECOND LEVEL REPAIR PLAN
- SR104 THIRD LEVEL REPAIR PLAN
- SR105 FOURTH LEVEL REPAIR PLAN
- SR106 FIFTH LEVEL REPAIR PLAN
- SR501 REPAIR DETAILS
- SR511 WATERPROOFING DETAILS

ISSUE/REV. NO.	DATE	DESCRIPTION
1	05/08/2013	ISSUED FOR BIDDING
PROJECT NO.		R1-2013-667
DRAWN BY		MGM
CHECKED BY		PEU
The Drawings are the property of Carl Walker, Inc. and are not to be reused or reproduced without written permission from Carl Walker, Inc.		
SHEET TITLE COVER SHEET AND DRAWING INDEX		
G001		

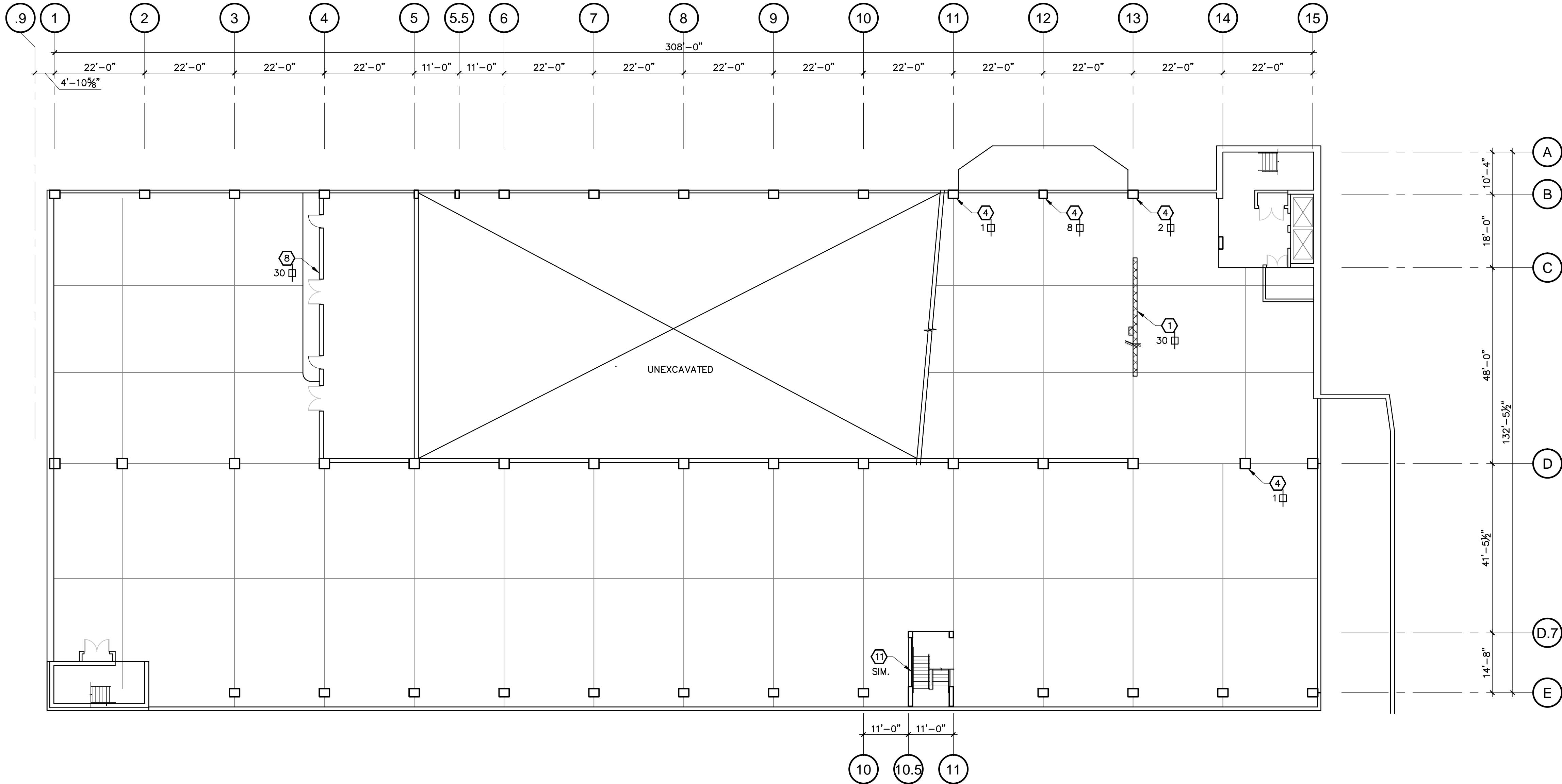
ISSUE/REV. NO.	DATE	DESCRIPTION
1	05/08/2013	ISSUED FOR BIDDING

PROJECT NO. R1-2013-667  
DRAWN BY MGM  
CHECKED BY PELU

The Drawings are the property of Carl Walker, Inc. and are not to be reused or reproduced without written permission from Carl Walker, Inc.

SHEET TITLE  
GROUND LEVEL REPAIR PLAN

SR101



1 GROUND LEVEL REPAIR PLAN  
SCALE: 1/16"=1'-0"

SHEET NOTES

- REFER TO DRAWING G001 FOR GENERAL NOTES.
- COORDINATE PARKING CLOSURES WITH OWNER 14 DAYS IN ADVANCE. BARRIERS AND ENCLOSURES SHALL BE IN PLACE PRIOR TO START OF DEMOLITION.
- LIVE ELECTRICAL CONDUIT IS EMBEDDED WITHIN THE TOPPING SLAB. CONTRACTOR SHALL EXERCISE CAUTION DURING ALL DEMOLITION OPERATIONS. CONTRACTOR SHALL COORDINATE WITH OWNER TO SHUT OFF POWER IF REPAIRS ARE LOCATED NEAR CONDUIT. REPORT CORRODED CONDUIT TO ENGINEER FOR INSPECTION PRIOR TO COMPLETION OF REPAIR.
- CONTRACTOR IS RESPONSIBLE FOR PROTECTING EXISTING INFRASTRUCTURE (MECHANICAL, ELECTRICAL, PLUMBING, FIRE PROTECTION, SECURITY.) DURING CONSTRUCTION. DAMAGE TO EXISTING COMPONENTS SHALL BE REPLACED BY OWNER AT CONTRACTOR'S EXPENSE.
- AREAS OF DETERIORATION AND REPAIR SHOWN ON PLAN ARE REPRESENTATIVE OF SIZE AND TYPE OF REPAIR. NOT ALL REPAIR LOCATIONS AND DETERIORATION ARE SHOWN ON PLANS. CONTRACTOR IS RESPONSIBLE FOR LOCATING AND IDENTIFYING REPAIR AREA PRIOR TO DEMOLITION.
- DISCONNECTION, REMOVAL, AND RE-INSTALLATION OF EXISTING LIGHT FIXTURES AND CONDUIT IN THE REPAIR AREAS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- CIP TOPPING SLAB IS REINFORCED W/ W.W.F. W/ AN ADDITIONAL MAT OF #4 BARS AT COLUMNS. REFER TO DETAIL 2/SR501 FOR EXISTING CONDITIONS. CONTRACTOR SHALL EXERCISE CAUTION DURING ALL DEMOLITION OPERATIONS AND SHALL REPLACE ANY DAMAGED BARS AT NO ADDITIONAL COST TO THE OWNER.

REPAIR NOTES #:

- CIP TOPPING SLAB REPAIR, REFER TO DETAIL 3/SR501.
- JOINT EDGE CIP TOPPING SLAB REPAIR, REFER TO DETAIL 4/SR501.
- CIP TOPPING SLAB REPAIR @ WALL CONNECTION, REFER TO DETAIL 5,6/SR501.
- COLUMN REPAIR, REFER TO DETAIL 7/SR501.
- WALL REPAIR, REFER TO DETAIL 8/SR501.
- P/C FACADE PANEL REPAIR, REFER TO DETAIL 9/SR501.
- UNDERSIDE P/C TEE FLANGE EDGE REPAIR, REFER TO DETAIL 10/SR501.
- UNDERSIDE P/C TEE STEM REPAIR, REFER TO DETAIL 11/SR501.
- UNDERSIDE BEAM REPAIR, REFER TO DETAIL 12/SR501.
- STAIR REPAIR, REFER TO DETAIL 13/SR501.
- GROUT POCKET REPAIR, REFER TO DETAIL 14/SR501.
- REMOVE AND REPLACE P/C CONNECTION, REFER TO DETAIL 15,16/SR501.
- CONTROL JT. SEALANT REPLACEMENT, REFER TO DETAIL 1/SR511.
- COVE SEALANT REPLACEMENT, REFER TO DETAIL 2/SR511.
- ROUT AND SEAL CRACKS, REFER TO DETAIL 4/SR511.
- VERTICAL AND HORIZONTAL WALL SEALANT REPLACEMENT, REFER TO DETAIL 3/SR511.
- FLOOR DRAIN SEALANT REPLACEMENT, REFER TO DETAIL 5/SR511.
- APPLY MIGRATING CORROSION INHIBITOR TO LEVEL 5 AND EXPOSED PORTION OF LEVEL 4, REFER TO SPECIFICATION SECTION 07570.
- LINE STRIPING AND FLOOR GRAPHICS TO BE REPAINTED AFTER APPLICATION OF CORROSION INHIBITOR, REFER TO SPECIFICATION SECTION 09920.
- REPLACE DOOR, FRAME, CLOSER, AND HARDWARE, REFER TO SPECIFICATION SECTION 08110.
- REPLACE DAMAGED SECTION OF EXPANSION JOINT.

LEGEND

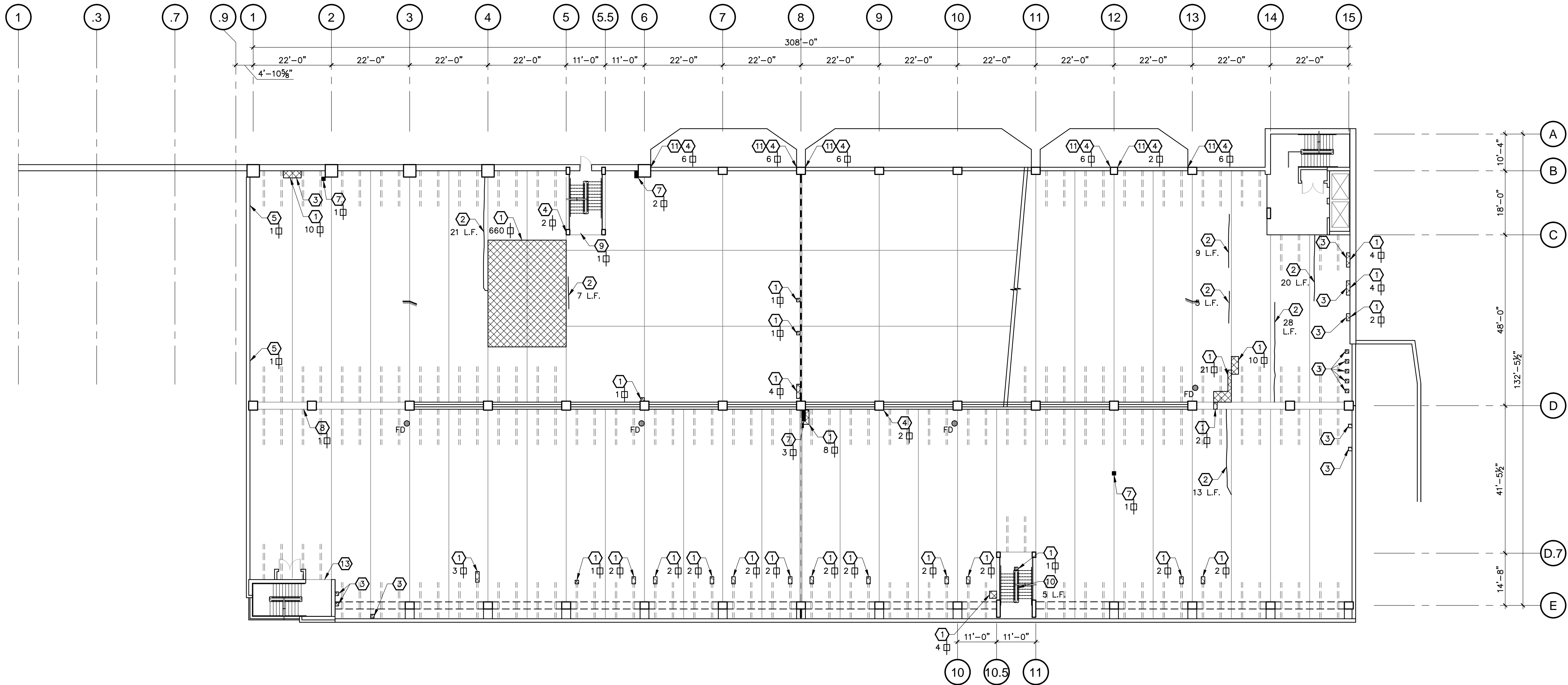
- CIP TOPPING REPAIR
- UNDERSIDE P/C TEE FLANGE REPAIR
- CRACK, SEE NOTES FOR REPAIR
- FLOOR DRAIN

ISSUE/REV. NO.	DATE	DESCRIPTION
1	05/08/2013	ISSUED FOR BIDDING

PROJECT NO.	R1-2013-667
DRAWN BY	MGM
CHECKED BY	PEU

The Drawings are the property of Carl Walker, Inc. and are not to be reused or reproduced without written permission from Carl Walker, Inc.

SHEET TITLE  
FIRST LEVEL  
REPAIR PLAN



1 FIRST LEVEL REPAIR PLAN  
SCALE: 1/16"=1'-0"

### SHEET NOTES

- REFER TO DRAWING G001 FOR GENERAL NOTES.
- COORDINATE PARKING CLOSURES WITH OWNER 14 DAYS IN ADVANCE. BARRIERS AND ENCLOSURES SHALL BE IN PLACE PRIOR TO START OF DEMOLITION.
- LIVE ELECTRICAL CONDUIT IS EMBEDDED WITHIN THE TOPPING SLAB. CONTRACTOR SHALL EXERCISE CAUTION DURING ALL DEMOLITION OPERATIONS. CONTRACTOR SHALL COORDINATE WITH OWNER TO SHUT OFF POWER IF REPAIRS ARE LOCATED NEAR CONDUIT. REPORT CORRODED CONDUIT TO ENGINEER FOR INSPECTION PRIOR TO COMPLETION OF REPAIR.
- CONTRACTOR IS RESPONSIBLE FOR PROTECTING EXISTING INFRASTRUCTURE (MECHANICAL, ELECTRICAL, PLUMBING, FIRE PROTECTION, SECURITY) DURING CONSTRUCTION. DAMAGE TO EXISTING COMPONENTS SHALL BE REPLACED BY OWNER AT CONTRACTOR'S EXPENSE.
- AREAS OF DETERIORATION AND REPAIR SHOWN ON PLAN ARE REPRESENTATIVE OF SIZE AND TYPE OF REPAIR. NOT ALL REPAIR LOCATIONS AND DETERIORATION ARE SHOWN ON PLANS. CONTRACTOR IS RESPONSIBLE FOR LOCATING AND IDENTIFYING REPAIR AREA PRIOR TO DEMOLITION.
- DISCONNECTION, REMOVAL, AND RE-INSTALLATION OF EXISTING LIGHT FIXTURES AND CONDUIT IN THE REPAIR AREAS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- CIP TOPPING SLAB IS REINFORCED W/ W.W.F. W/ AN ADDITIONAL MAT OF #4 BARS AT COLUMNS. REFER TO DETAIL 2/SR501 FOR EXISTING CONDITIONS. CONTRACTOR SHALL EXERCISE CAUTION DURING ALL DEMOLITION OPERATIONS AND SHALL REPLACE ANY DAMAGED BARS AT NO ADDITIONAL COST TO THE OWNER.

### REPAIR NOTES #:

- CIP TOPPING SLAB REPAIR, REFER TO DETAIL 3/SR501.
- JOINT EDGE CIP TOPPING SLAB REPAIR, REFER TO DETAIL 4/SR501.
- CIP TOPPING SLAB REPAIR @ WALL CONNECTION, REFER TO DETAIL 5,6/SR501.
- COLUMN REPAIR, REFER TO DETAIL 7/SR501.
- WALL REPAIR, REFER TO DETAIL 8/SR501.
- P/C FACADE PANEL REPAIR, REFER TO DETAIL 9/SR501.
- UNDERSIDE P/C TEE FLANGE EDGE REPAIR, REFER TO DETAIL 10/SR501.
- UNDERSIDE P/C TEE STEM REPAIR, REFER TO DETAIL 11/SR501.
- UNDERSIDE BEAM REPAIR, REFER TO DETAIL 12/SR501.
- STAIR REPAIR, REFER TO DETAIL 13/SR501.
- GROUT POCKET REPAIR, REFER TO DETAIL 14/SR501.
- REMOVE AND REPLACE P/C CONNECTION, REFER TO DETAIL 15,16/SR501.
- CONTROL JT. SEALANT REPLACEMENT, REFER TO DETAIL 1/SR511.
- COVE SEALANT REPLACEMENT, REFER TO DETAIL 2/SR511.
- ROUT AND SEAL CRACKS, REFER TO DETAIL 4/SR511.
- VERTICAL AND HORIZONTAL WALL SEALANT REPLACEMENT, REFER TO DETAIL 3/SR511.
- FLOOR DRAIN SEALANT REPLACEMENT, REFER TO DETAIL 5/SR511.
- APPLY MIGRATING CORROSION INHIBITOR TO LEVEL 5 AND EXPOSED PORTION OF LEVEL 4, REFER TO SPECIFICATION SECTION 07570.
- LINE STRIPPING AND FLOOR GRAPHICS TO BE REPAINTED AFTER APPLICATION OF CORROSION INHIBITOR, REFER TO SPECIFICATION SECTION 09920.
- REPLACE DOOR, FRAME, CLOSER, AND HARDWARE, REFER TO SPECIFICATION SECTION 08110.
- REPLACE DAMAGED SECTION OF EXPANSION JOINT.

### LEGEND

- CIP TOPPING REPAIR
- UNDERSIDE P/C TEE FLANGE REPAIR
- CRACK, SEE NOTES FOR REPAIR
- FLOOR DRAIN



SR103

1700 Spring Garden St.  
Philadelphia,  
Pennsylvania



1. REFER TO DRAWING G001 FOR GENERAL NOTES.
2. COORDINATE PARKING CLOSURES WITH OWNER 14 DAYS IN ADVANCE. BARRIERS AND ENCLOSURES SHALL BE IN PLACE PRIOR TO START OF DEMOLITION.
3. LIVE ELECTRICAL CONDUIT IS EMBEDDED WITHIN THE TOPPING SLAB. CONTRACTOR SHALL EXERCISE CAUTION DURING ALL DEMOLITION OPERATIONS. CONTRACTOR SHALL COORDINATE WITH OWNER TO SHUT OFF POWER IF REPAIRS ARE LOCATED NEAR CONDUIT. REPORT CORRODED CONDUIT TO ENGINEER FOR INSPECTION PRIOR TO COMPLETION OF REPAIR.
4. CONTRACTOR IS RESPONSIBLE FOR PROTECTING EXISTING INFRASTRUCTURE (MECHANICAL, ELECTRICAL, PLUMBING, FIRE PROTECTION, SECURITY.) DURING CONSTRUCTION. DAMAGE TO EXISTING COMPONENTS SHALL BE REPLACED BY OWNER AT CONTRACTOR'S EXPENSE.
5. AREAS OF DETERIORATION AND REPAIR SHOWN ON PLAN ARE REPRESENTATIVE OF SIZE AND TYPE OF REPAIR. NOT ALL REPAIR LOCATIONS AND DETERIORATION ARE SHOWN ON PLANS. CONTRACTOR IS RESPONSIBLE FOR LOCATING AND IDENTIFYING REPAIR AREA PRIOR TO DEMOLITION.
6. DISCONNECTION, REMOVAL, AND RE-INSTALLATION OF EXISTING LIGHT FIXTURES AND CONDUIT IN THE REPAIR AREAS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
7. CIP TOPPING SLAB IS REINFORCED W/ W.U.F. W/ AN ADDITIONAL MAT OF #4 BARS AT COLUMNS. REFER TO DETAIL REINFORC FOR EXISTING CONDITION. CONTRACTOR SHALL EXERCISE CAUTION DURING ALL DEMOLITION OPERATIONS AND SHALL REPLACE ANY DAMAGED BARS AT NO ADDITIONAL COST TO THE OWNER.

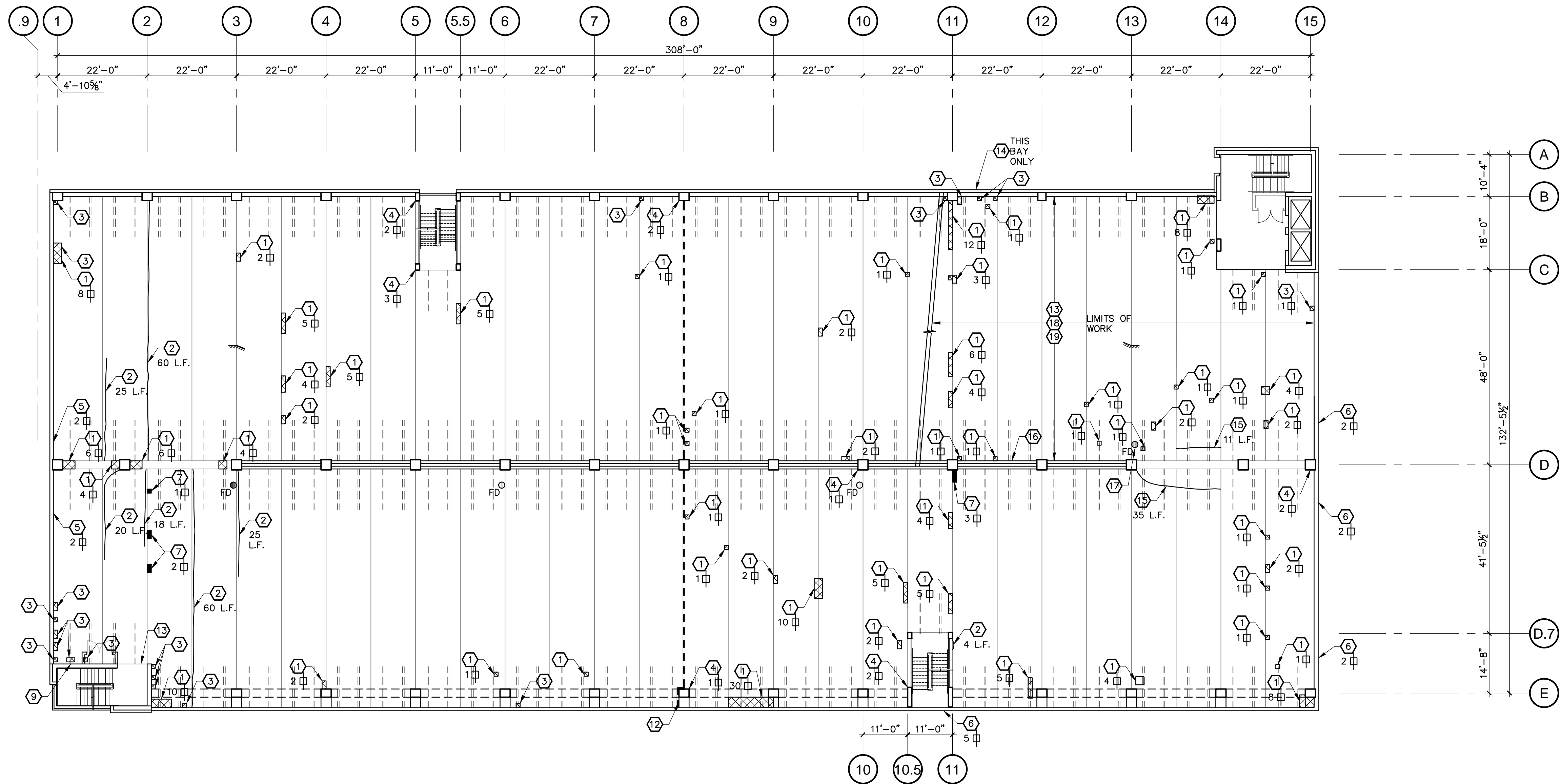
1. CIP TOPPING SLAB REPAIR, REFER TO DETAIL 3/SR501.
2. JOINT EDGE CIP TOPPING SLAB REPAIR, REFER TO DETAIL 4/SR501.
3. CIP TOPPING SLAB REPAIR @ WALL CONNECTION, REFER TO DETAIL 5,6/SR501.
4. COLUMN REPAIR, REFER TO DETAIL 7/SR501.
5. WALL REPAIR, REFER TO DETAIL 8/SR501.
6. P/C FACADE PANEL REPAIR, REFER TO DETAIL 9/SR501.
7. UNDERSIDE P/C TEE FLANGE EDGE REPAIR, REFER TO DETAIL 10/SR501.
8. UNDERSIDE P/C TEE STEM REPAIR, REFER TO DETAIL 11/SR501.
9. UNDERSIDE BEAM REPAIR, REFER TO DETAIL 12/SR501.
10. STAIR REPAIR, REFER TO DETAIL 13/SR501.
11. GROUT POCKET REPAIR, REFER TO DETAIL 14/SR501.
12. REMOVE AND REPLACE P/C CONNECTION, REFER TO DETAIL 15,16/SR501.
13. CONTROL JT. SEALANT REPLACEMENT, REFER TO DETAIL 1/SR511.
14. COVE SEALANT REPLACEMENT, REFER TO DETAIL 2/SR511.
15. ROUT AND SEAL CRACKS, REFER TO DETAIL 4/SR511.
16. VERTICAL AND HORIZONTAL WALL SEALANT REPLACEMENT, REFER TO DETAIL 3/SR511.
17. FLOOR DRAIN SEALANT REPLACEMENT, REFER TO DETAIL 5/SR511.
18. APPLY MIGRATING CORROSION INHIBITOR TO LEVEL 5 AND EXPOSED PORTION OF LEVEL 4, REFER TO SPECIFICATION SECTION 07570.
19. LINE STRIPING AND FLOOR GRAPHICS TO BE REPAINTED AFTER APPLICATION OF CORROSION INHIBITOR, REFER TO SPECIFICATION SECTION 0920.
20. REPLACE DOOR, FRAME, CLOSER, AND HARDWARE, REFER TO SPECIFICATION SECTION 08110.
21. REPLACE DAMAGED SECTION OF EXPANSION JOINT.

	CIP TOPPING REPAIR
	UNDERSIDE P/C TEE FLANGE REPAIR
	CRACK, SEE NOTES FOR REPAIR
	FLOOR DRAIN

ISSUE/ REV. NO.	DATE	DESCRIPTION
1	05/08/2013	ISSUED FOR BIDDING

The Drawings are the property of Carl Walker, Inc. and are not to be reused or reproduced without written permission from Carl Walker, Inc.

SR104



1 FOURTH LEVEL REPAIR PLAN  
SCALE: 1/16"=1'-0"

## SHEET NOTES

1. REFER TO DRAWING G001 FOR GENERAL NOTES.
2. COORDINATE PARKING CLOSURES WITH OWNER 14 DAYS IN ADVANCE. BARRIERS AND ENCLOSURES SHALL BE IN PLACE PRIOR TO START OF DEMOLITION.
3. LIVE ELECTRICAL CONDUIT IS EMBEDDED WITHIN THE TOPPING SLAB. CONTRACTOR SHALL EXERCISE CAUTION DURING ALL DEMOLITION OPERATIONS. CONTRACTOR SHALL COORDINATE WITH OWNER TO SHUT OFF POWER IF REPAIRS ARE LOCATED NEAR CONDUIT. REPORT CORRODED CONDUIT TO ENGINEER FOR INSPECTION PRIOR TO COMPLETION OF REPAIR.
4. CONTRACTOR IS RESPONSIBLE FOR PROTECTING EXISTING INFRASTRUCTURE (MECHANICAL, ELECTRICAL, PLUMBING, FIRE PROTECTION, SECURITY.) DURING CONSTRUCTION. DAMAGE TO EXISTING COMPONENTS SHALL BE REPLACED BY OWNER AT CONTRACTOR'S EXPENSE.
5. AREAS OF DETERIORATION AND REPAIR SHOWN ON PLAN ARE REPRESENTATIVE OF SIZE AND TYPE OF REPAIR. NOT ALL REPAIR LOCATIONS AND DETERIORATION ARE SHOWN ON PLANS. CONTRACTOR IS RESPONSIBLE FOR LOCATING AND IDENTIFYING REPAIR AREA PRIOR TO DEMOLITION.
6. DISCONNECTION, REMOVAL, AND RE-INSTALLATION OF EXISTING LIGHT FIXTURES AND CONDUIT IN THE REPAIR AREAS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
7. CIP TOPPING SLAB IS REINFORCED W/ W.W.F. W/ AN ADDITIONAL MAT OF #4 BARS AT COLUMNS. REFER TO DETAIL 2/SR501 FOR EXISTING CONDITIONS. CONTRACTOR SHALL EXERCISE CAUTION DURING ALL DEMOLITION OPERATIONS AND SHALL REPLACE ANY DAMAGED BARS AT NO ADDITIONAL COST TO THE OWNER.

## REPAIR NOTES #:

1. CIP TOPPING SLAB REPAIR, REFER TO DETAIL 3/SR501.
2. JOINT EDGE CIP TOPPING SLAB REPAIR, REFER TO DETAIL 4/SR501.
3. CIP TOPPING SLAB REPAIR @ WALL CONNECTION, REFER TO DETAIL 5,6/SR501.
4. COLUMN REPAIR, REFER TO DETAIL 7/SR501.
5. WALL REPAIR, REFER TO DETAIL 8/SR501.
6. P/C FACADE PANEL REPAIR, REFER TO DETAIL 9/SR501.
7. UNDERSIDE P/C TEE FLANGE EDGE REPAIR, REFER TO DETAIL 10/SR501.
8. UNDERSIDE P/C TEE STEM REPAIR, REFER TO DETAIL 11/SR501.
9. UNDERSIDE BEAM REPAIR, REFER TO DETAIL 12/SR501.
10. STAIR REPAIR, REFER TO DETAIL 13/SR501.
11. GROUT POCKET REPAIR, REFER TO DETAIL 14/SR501.
12. REMOVE AND REPLACE P/C CONNECTION, REFER TO DETAIL 15,16/SR501.
13. CONTROL JT. SEALANT REPLACEMENT, REFER TO DETAIL 1/SR511.
14. COVE SEALANT REPLACEMENT, REFER TO DETAIL 2/SR511.
15. ROUT AND SEAL CRACKS, REFER TO DETAIL 4/SR511.
16. VERTICAL AND HORIZONTAL WALL SEALANT REPLACEMENT, REFER TO DETAIL 3/SR511.
17. FLOOR DRAIN SEALANT REPLACEMENT, REFER TO DETAIL 5/SR511.
18. APPLY MIGRATING CORROSION INHIBITOR TO LEVEL 5 AND EXPOSED PORTION OF LEVEL 4, REFER TO SPECIFICATION SECTION 07570.
19. LINE STRIPING AND FLOOR GRAPHICS TO BE REPAINTED AFTER APPLICATION OF CORROSION INHIBITOR, REFER TO SPECIFICATION SECTION 09920.
20. REPLACE DOOR, FRAME, CLOSER, AND HARDWARE, REFER TO SPECIFICATION SECTION 08110.
21. REPLACE DAMAGED SECTION OF EXPANSION JOINT.

## LEGEND

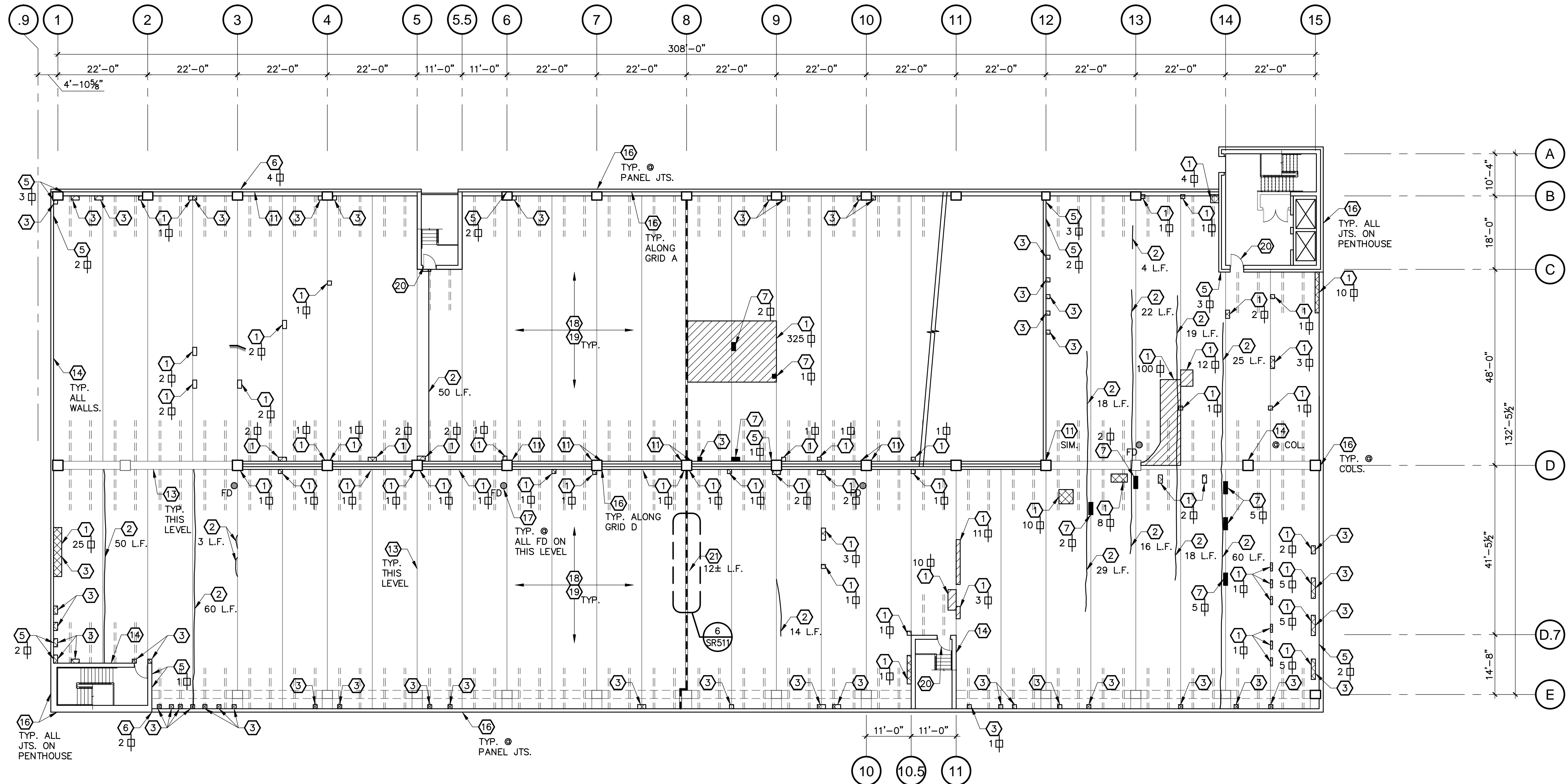
- XXXX CIP TOPPING REPAIR  
XXXXX UNDERSIDE P/C TEE FLANGE REPAIR  
— CRACK, SEE NOTES FOR REPAIR  
FD FLOOR DRAIN

ISSUE/REV. NO.	DATE	DESCRIPTION
1	05/08/2013	ISSUED FOR BIDDING

PROJECT NO.	R1-2013-667
DRAWN BY	MGM
CHECKED BY	PEU

The Drawings are the property of Carl Walker, Inc. and are not to be reused or reproduced without written permission from Carl Walker, Inc.

SHEET TITLE  
FOURTH LEVEL REPAIR PLAN



1 ROOF LEVEL REPAIR PLAN  
SCALE: 1/16"=1'-0"

SHEET NOTES

1. REFER TO DRAWING G001 FOR GENERAL NOTES.
2. COORDINATE PARKING CLOSURES WITH OWNER 14 DAYS IN ADVANCE. BARRIERS AND ENCLOSURES SHALL BE IN PLACE PRIOR TO START OF DEMOLITION.
3. LIVE ELECTRICAL CONDUIT IS EMBEDDED WITHIN THE TOPPING SLAB. CONTRACTOR SHALL EXERCISE CAUTION DURING ALL DEMOLITION OPERATIONS. CONTRACTOR SHALL COORDINATE WITH OWNER TO SHUT OFF POWER IF REPAIRS ARE LOCATED NEAR CONDUIT. REPORT CORRODED CONDUIT TO ENGINEER FOR INSPECTION PRIOR TO COMPLETION OF REPAIR.
4. CONTRACTOR IS RESPONSIBLE FOR PROTECTING EXISTING INFRASTRUCTURE (MECHANICAL, ELECTRICAL, PLUMBING, FIRE PROTECTION, SECURITY.) DURING CONSTRUCTION. DAMAGE TO EXISTING COMPONENTS SHALL BE REPLACED BY OWNER AT CONTRACTOR'S EXPENSE.
5. AREAS OF DETERIORATION AND REPAIR SHOWN ON PLAN ARE REPRESENTATIVE OF SIZE AND TYPE OF REPAIR. NOT ALL REPAIR LOCATIONS AND DETERIORATION ARE SHOWN ON PLANS. CONTRACTOR IS RESPONSIBLE FOR LOCATING AND IDENTIFYING REPAIR AREA PRIOR TO DEMOLITION.
6. DISCONNECTION, REMOVAL, AND RE-INSTALLATION OF EXISTING LIGHT FIXTURES AND CONDUIT IN THE REPAIR AREAS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
7. CIP TOPPING SLAB IS REINFORCED W/ W.W.F. W/ AN ADDITIONAL MAT OF #4 BARS AT COLUMNS. REFER TO DETAIL 2/SR501 FOR EXISTING CONDITIONS. CONTRACTOR SHALL EXERCISE CAUTION DURING ALL DEMOLITION OPERATIONS AND SHALL REPLACE ANY DAMAGED BARS AT NO ADDITIONAL COST TO THE OWNER.

REPAIR NOTES

1. CIP TOPPING SLAB REPAIR, REFER TO DETAIL 3/SR501.
2. JOINT EDGE CIP TOPPING SLAB REPAIR, REFER TO DETAIL 4/SR501.
3. CIP TOPPING SLAB REPAIR @ WALL CONNECTION, REFER TO DETAIL 5,6/SR501.
4. COLUMN REPAIR, REFER TO DETAIL 7/SR501.
5. WALL REPAIR, REFER TO DETAIL 8/SR501.
6. P/C FACADE PANEL REPAIR, REFER TO DETAIL 9/SR501.
7. UNDERSIDE P/C TEE FLANGE EDGE REPAIR, REFER TO DETAIL 10/SR501.
8. UNDERSIDE P/C TEE STEM REPAIR, REFER TO DETAIL 11/SR501.
9. UNDERSIDE BEAM REPAIR, REFER TO DETAIL 12/SR501.
10. STAIR REPAIR, REFER TO DETAIL 13/SR501.
11. GROUT POCKET REPAIR, REFER TO DETAIL 14/SR501.
12. REMOVE AND REPLACE P/C CONNECTION, REFER TO DETAIL 15,16/SR501.
13. CONTROL JT. SEALANT REPLACEMENT, REFER TO DETAIL 1/SR511.
14. COVE SEALANT REPLACEMENT, REFER TO DETAIL 2/SR511.
15. ROUT AND SEAL CRACKS, REFER TO DETAIL 4/SR511.
16. VERTICAL AND HORIZONTAL WALL SEALANT REPLACEMENT, REFER TO DETAIL 3/SR511.
17. FLOOR DRAIN SEALANT REPLACEMENT, REFER TO DETAIL 5/SR511.
18. APPLY MIGRATING CORROSION INHIBITOR TO LEVEL 5 AND EXPOSED PORTION OF LEVEL 4, REFER TO SPECIFICATION SECTION 07570.
19. LINE STRIPPING AND FLOOR GRAPHICS TO BE REPAINTED AFTER APPLICATION OF CORROSION INHIBITOR, REFER TO SPECIFICATION SECTION 09920.
20. REPLACE DOOR, FRAME, CLOSER, AND HARDWARE, REFER TO SPECIFICATION SECTION 08110.
21. REPLACE DAMAGED SECTION OF EXPANSION JOINT.

LEGEND

- CIP TOPPING REPAIR
- UNDERSIDE P/C TEE FLANGE REPAIR
- CRACK, SEE NOTES FOR REPAIR
- FLOOR DRAIN

ISSUE/REV. NO.	DATE	DESCRIPTION
1	05/08/2013	ISSUED FOR BIDDING

PROJECT NO.	R1-2013-667
DRAWN BY	MGM
CHECKED BY	PEU

The Drawings are the property of Carl Walker, Inc. and are not to be reused or reproduced without written permission from Carl Walker, Inc.

SHEET TITLE  
ROOF LEVEL  
REPAIR PLAN



