



City of Wheaton, Illinois

City of Wheaton
303 W. Wesley Street
Wheaton, IL 60187-0727
630-260-2000

www.wheaton.il.us

GROUP EXHIBIT A

Description: PARKING STRUCTURE MAINTENANCE REPAIRS

Requesting: Invitation to Bid (2 original copies compiled as described within)

Issue Date: May 26, 2017

Owner: City of Wheaton

Mandatory Pre-Bid Meeting: Friday, June 2, 2017, at 9:00 a.m.

Location: 220 Cross Street garage; meeting will proceed to 232 W. Wesley garage
Wheaton, IL

Last Date for Questions: Tuesday, June 6, 2017, at 12:00 pm local time

Sealed Proposal Submittal Due: Friday, June 9, 2017, prior to 11:00 am local time

Project Completion: Within ninety (90) calendar days from Notice to Proceed

Note: Illinois Prevailing Wage Act 820 ILCS DOES apply

Contacts for this bid: LStyczen@wheaton.il.us

Enclosures: Terms and Conditions
Specifications
Special Insurance Provisions
Prevailing Wage Provisions
Change Order (Draft)

Bid Submission must include

(in sequential order): Bid Submission (Specification Forms)
Bid Bond
Certification of Compliance
Notice of Deviations
Contractor Certification Part I
Contractor Certification Part II
Equal Employment Opportunity Clause
Drug Free Workplace Certification
Certificate of Insurance

If you are awarded the bid,

Additional Documents Required: Parking Structures Maintenance Repairs Services Agreement
Payment and Performance Bond
Certificate of Insurance with Endorsements

Contact with anyone other than the Procurement Officer for matters relative to this solicitation during the solicitation process is prohibited.

TERMS & CONDITIONS

ARTICLE 1: GENERAL PROVISIONS

1.1 The Contract Documents form the contract. The term "Contract Documents" consists of the Services Agreement, Terms & Conditions, Specifications and Drawings.

1.2 The Contract Documents represent the entire and integrated agreement between the parties hereto and supersedes prior negotiations, representations or agreements, either written or oral. The Contract Documents shall not be construed to create a contractual relationship of any kind between any persons or entities other than the City and Contractor.

1.3 In the event of a conflict between the Services Agreement, Terms & Conditions, Specifications, and Drawings, the following order shall control: (i) Service Agreement; (ii) Terms & Conditions; (iii) Specifications; (iv) Drawings.

1.4 The term "Work" means the equipment and services required by the Contract Documents, whether completed or partially completed, and includes all other labor, materials, equipment and services provided or to be provided by Contractor to fulfill Contractor's obligations. The Work may constitute the whole or a part of the Project.

1.5 The Specifications are the portion of the Contract Documents consisting of the written requirements for materials, equipment, construction systems, standards, and the performance of related services.

1.6 The Drawings are the graphic and pictorial portions of the Contract Documents prepared by the Engineer to show the design, location and dimensions of the Work. For this Project, the Drawings note certain written requirements for materials, equipment, systems, standards and workmanship for the Work, and performance of related services.

1.7 The intent of the Contract Documents is to include all items necessary for the proper execution and completion of the Work by Contractor. The Contract Documents are complementary, and what is required by one shall be as binding upon Contractor as if required by all.

1.8 For security purposes, all workers on the Project site must be clearly identified with company photo identification and company attire.

ARTICLE 2: CITY OF WHEATON ("CITY")

2.1 No employee of the City has the authority to authorize Contractor to perform an act or work contrary to the Contract Documents.

2.2 Except to the limited extent provided in Article 4, the Engineer does not have authority to represent or bind the City with respect to any matter requiring the City's approval or authorization.

2.3 The City shall furnish information or services required of City by the Contract Documents with reasonable promptness. The City shall also furnish any other information or services under the City's control and relevant to Contractor's performance of the Work with reasonable promptness after receiving Contractor's written request for such information or services.

2.4 The City shall issue a "Work May Proceed" order upon confirmation of the execution of all Contract Documents requiring execution.

2.5 The City's recourse for non-compliant Work shall be managed in any order, via Punch List, Retainage, and /or Performance Bond.

ARTICLE 3: CONTRACTOR

3.1 Contractor shall be lawfully licensed, if required, and registered to do business in the jurisdiction where the Project is located. Contractor shall designate a representative ("Key Representative") who shall have express authority to bind Contractor with respect to all matters under the Contract Documents and who shall be readily available to respond to communications with the City and/or Engineer and who shall have full authority to execute their directions, without delay, and promptly supply any necessary labor, equipment, material, or incidentals to do so. The Contractor's Key Representative must be a competent, English-speaking individual who is capable of reading and understanding the Contract Documents. The term "Contractor" means Contractor or Contractor's authorized representative.

3.2 Contractor shall provide the name and phone number of the Key Representative who, in the case of an off-hours emergency can be readily accessible and be available for quick response to the Project site. If that person does not respond within the period of time requested, all reasonable costs, including the payment of overtime wages or charges, shall be deducted from payments due to the Contractor. Contractor shall immediately notify the City and the Engineer in writing of any change in the identity and telephone number of the Key Representative.

3.3 Contractor shall perform the Work in strict accordance with the Contract Documents.

3.4 Contractor shall not be relieved of obligations to perform the Work in accordance with the Contract Documents by activities or duties of Engineer in the administration of the Contract Documents, or by tests, inspections or approvals required or performed by persons or entities other than Contractor.

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

3.6 Because the Contract Documents are complementary, Contractor shall, before starting each portion of the Work, carefully study and compare the various Contract Documents relative to that portion of the Work, shall take field measurements of any existing conditions related to that portion of the Work, and shall observe any conditions at the site affecting it. Contractor shall promptly report to the City and Engineer any errors, inconsistencies or omissions discovered by or made known to Contractor as a request for information in such form as the City may require.

3.7 Contractor shall promptly report to the City and Engineer any nonconformity discovered in the Contract Documents with applicable laws, statutes, ordinances, codes, rules and regulations, or lawful orders of public authorities as a request for information in such form as the City may require.

3.8 Contractor shall supervise and direct the Work, using Contractor's best skill and attention. Contractor shall be solely responsible for, and have control over, means, methods, techniques, sequences and procedures and for coordinating all portions of the Work under the Contract Documents, unless the Contract Documents give other specific instructions concerning these matters. If the Contract Documents give specific instructions concerning means, methods, techniques, sequences or procedures, Contractor shall evaluate the jobsite safety thereof and shall be fully and solely responsible for the jobsite safety of such means, methods, techniques, sequences or procedures.

3.9 Contractor shall be liable to the City for acts and omissions of Contractor's employees, Subcontractors and their agents and employees, and other persons or entities performing portions of the Work for, or on behalf of, Contractor or any of its Subcontractors. Contractor shall be solely responsible for conforming to the standards declared by OSHA, including but not limited to compliance with federal and state safety standards/directives for setting-up and utilizing platforms, lifts, ladders, scaffolding and safety lines/belts.

3.10 Contractor shall be responsible for inspection of portions of Work already performed to determine that such portions are in proper condition to receive subsequent Work.

3.11 Contractor shall provide and pay for labor, materials, equipment, tools, equipment, machinery, transportation, and other facilities and services necessary for proper execution and completion of the Work, whether temporary or permanent and whether or not incorporated or to be incorporated in the Work.

3.12 Contractor may make substitutions only with the consent of the City, after evaluation by Engineer and in accordance with a Change Order.

3.13 Contractor shall enforce strict discipline and good order among Contractor's employees and other persons carrying out the Work. Contractor shall not permit employment of unfit persons or persons not properly skilled in tasks assigned to them.

3.14 Contractor warrants that it shall perform the Work in a good and workmanlike manner, meeting the standards of quality prevailing in DuPage County, Illinois for work of this kind. Contractor shall perform all work using trained and skilled persons having substantial experience performing the work required under the Contract Documents as more fully described herein.

3.15 With respect to any materials and equipment furnished under the Contract Documents, Contractor warrants: (i) that all items are free of defects in title, design, material, and workmanship, (ii) that each item meets or exceeds the requirements of the Contract Documents, (iii) that each replacement item is new, in accordance with original equipment manufacturer's specifications, and of a quality at least as good as the quality of the item which it replaces (when the replaced item was new), and will not cause any manufacturer's warranties to lapse or become invalid, and (iv) that no item or its use infringes any patent, copyright, or proprietary right.

3.16 Work, materials, or equipment not conforming to the requirements of this Article shall be considered defective. If required by the City, Contractor shall furnish satisfactory evidence as to the kind and quality of materials and equipment.

3.17 Contractor shall pay before delinquent all sales, consumer, use and other taxes for the Work provided by Contractor that are legally enacted when bids are received or negotiations concluded, whether or not yet effective or merely scheduled to go into effect.

3.18 The City is exempt from payment of Federal Excise and Transportation Tax. Contractor's invoices to the City must not contain assessments of any of these taxes. The City will furnish the City's exemption certificate and federal tax identification number to Contractor if requested.

3.19 Unless otherwise provided in the Contract Documents, Contractor shall secure and pay for permits, fees, licenses, and inspections by government agencies necessary for proper execution and completion of the Work that are legally required at the time bids are received or negotiations concluded.

3.20 Contractor shall comply with and give notices required by applicable laws, statutes, ordinances, codes, rules and regulations, and lawful orders of public authorities applicable to performance of the Work.

3.21 If Contractor performs Work knowing it to be contrary to applicable laws, statutes, ordinances, codes, rules and regulations, or lawful orders of public authorities, Contractor shall assume liability for such Work and shall bear the costs attributable to correction.

3.22 Contractor shall include in the Contract Sum all allowances stated in the Contract Documents. Items covered by allowances shall be supplied for such amounts and by such persons or entities as the City may direct, but Contractor shall not be required to employ persons or entities to whom Contractor has reasonable objection.

3.23 Contractor shall employ a competent superintendent and necessary assistants who shall be in attendance at the Project Site during performance of the Work. The superintendent shall represent Contractor, and communications given to the superintendent shall be as binding as if given to Contractor.

3.24 Upon execution of the Agreement, Contractor shall furnish in writing to the City the name and qualifications of a proposed superintendent. The City may reply within seven days to Contractor in writing stating whether the City has reasonable objection to the proposed superintendent or that the City requires additional time to review. Failure of the City to reply within the seven day period shall constitute notice of no reasonable objection.

3.25 Contractor shall not employ a proposed superintendent to whom the City has made reasonable and timely objection. Contractor shall not change the superintendent without the City's consent, which shall not unreasonably be withheld or delayed.

3.26 Contractor shall confine operations at the site to areas designated by the City and as permitted under applicable laws, statutes, ordinances, codes, rules and regulations, and lawful orders of public authorities and the Contract Documents and shall not unreasonably encumber the site with materials, equipment, and worker's vehicles.

3.27 Contractor shall control operations to avoid interference with normal traffic flow on and around the site; when necessary provide barriers, warning lights, and signs as required to protect workers and the public.

3.28 If utility shut-down is required, Contractor shall provide City with two (2) days advanced warning and estimation of duration of required utility shut-down.

3.29 Contractor shall exercise extreme caution while working around existing utilities. The Contractor shall notify J.U.L.I.E., utility companies, the Engineer and the City before commencing construction work around utility locations within the scope of the Work.

3.30 Contractor shall be responsible for cutting, fitting or patching required to complete the Work or to make its parts fit together properly. All areas requiring cutting, fitting and patching shall be restored to the condition existing prior to the cutting, fitting and patching, unless otherwise required by the Contract Documents.

3.31 Contractor shall not damage or endanger a portion of the Work or fully or partially completed work of or separate contractors by cutting, patching or otherwise altering such construction, or by excavation. Contractor shall not cut or otherwise alter such work by the City or a separate contractor except with written consent of the City and of such separate contractor; such consent shall not be unreasonably withheld. Contractor shall not unreasonably withhold from the City or a separate contractor Contractor's consent to cutting or otherwise altering the Work.

3.32 Contractor shall keep the Project Site free from accumulation of waste materials or rubbish caused by operations under the Contract Documents. Contractor shall provide on-site metal containers for collection of waste materials, debris and rubbish. Cleaning and disposal operations must comply with Federal, State and local laws. At completion of the Work, Contractor shall remove waste materials, rubbish, Contractor's tools, equipment, machinery, and surplus materials from and about the Project Site in compliance with Specifications.

3.33 If Contractor fails to clean up as provided in the Contract Documents, the City may do so and the City shall be entitled to reimbursement from Contractor.

3.34 Contractor shall provide the City and the City's consultant access to the Work in preparation and progress wherever located.

3.35 Contractor shall provide the City and Engineer with written/e-mailed bulletins addressing the status of the Work throughout the life of the contract. The bulletins shall cover all Work performed and completed and shall confirm the schedule of the Work yet to be performed. They shall also state any assumptions and/or exclusions; and identify problems encountered, or still outstanding, with an explanation of the cause and resolution of the problem or how the problem will be resolved.

3.36 Contractor shall be responsible for conducting status meetings and conferences with the City and Engineer as scheduled in accordance with the Specifications.

ARTICLE 4: ENGINEER

4.1 The duties, responsibilities and limitations of authority of Engineer, as set forth in the Contract Documents, shall not be restricted, modified or extended without written consent of the City, Contractor and Engineer.

4.2 If Engineer is terminated by the City, then the City shall engage a successor whose status under the Contract Documents shall be that of Engineer immediately upon notice to Contractor.

4.3 Engineer will provide administration of the Contract Documents and will act as a City representative during performance of the Work by Contractor until Engineer issues the final Certificate for Payment. Engineer has authority to act on behalf of the City to the extent provided in the Contract Documents.

4.4 Engineer will visit the Project Site at intervals appropriate to the stage of construction, or as otherwise agreed with the City, to become generally familiar with the progress and quality of the portion of the Work completed, and to determine in general if the Work observed is being performed in a manner indicating that the Work, when fully completed, will be in accordance with the Contract Documents. Engineer will not have control over, charge of, or responsibility for, the means, methods, techniques, sequences or procedures, or for the safety precautions and programs in connection with the Work.

4.5 Engineer will keep the City reasonably informed about the progress and quality of the portion of the Work completed, and report to the City any deviations from the Contract Documents and from the most recent work schedule submitted by Contractor, and defects and deficiencies observed in the Work.

4.6 Except as otherwise provided in the Contract Documents or when direct communications have been specially authorized, the City and Contractor shall endeavor to communicate with each other through the Engineer regarding matters arising out of or relating to the Contract Documents. Communications by and with Engineer shall be through Engineer. Communications by and with Subcontractors and material suppliers shall be through Contractor. Communications by and with separate contractors shall be through the City.

4.7 Engineer has authority to reject Work that does not conform to the Contract Documents.

4.8 Engineer will review and approve, or take other appropriate action upon, Contractor's submittals such as shop drawings, product data and samples, but only for the limited purpose of checking for conformance with information given and the design concept expressed in the Contract Documents.

4.9 Engineer will conduct inspections to determine the date of final completion of the Work and issue a certificate of completion and receive and forward to the City written warranties and related documents required by the Contract Documents and assembled by Contractor.

4.10 Engineer will interpret and decide matters concerning performance under and requirements of the Contract Documents on written request of either the City or Contractor. Engineer's response to such requests will be made in writing within any time limits agreed upon or otherwise with reasonable promptness.

4.11 Interpretations and decisions of Engineer will be consistent with the intent of and reasonably inferable from the Contract Documents and will be in writing or in the form of drawings. When making such interpretations and decisions, Engineer will endeavor to secure faithful performance by both the City and Contractor, will not show partiality to either, and will not be liable for results of interpretations or decisions rendered in good faith.

4.12 Engineer will review and respond to requests for information about the Contract Documents. Engineer's response to such requests will be made in writing within any time limits agreed upon or otherwise with reasonable promptness. If appropriate, Engineer will prepare and issue supplemental drawings or specifications in response to the requests for information.

ARTICLE 5: SUBCONTRACTORS

5.1 A Subcontractor is a person or entity who has a direct agreement with Contractor to perform a portion of the Work at the Project Site. The term "Subcontractor" is referred to throughout the Contract Documents as if singular in number and means a Subcontractor or an authorized representative of the Subcontractor. The term "Subcontractor" does not include a separate contractor or subcontractors of a separate contractor.

5.2 Contractor shall, as soon as practicable after execution of the Agreement, furnish in writing to the City and Engineer the names of persons or entities (including those who are to furnish materials or equipment fabricated to a special design) proposed for each principal portion of the Work. Engineer may reply within 10 calendar days' to Contractor in writing stating whether the City or Engineer has reasonable objection to any such proposed person or entity or that Engineer requires additional time for review. Failure of the City or Engineer to reply within such period shall constitute notice of no reasonable objection.

5.3 Contractor shall not contract with a proposed person or entity to whom the City or Engineer has made reasonable and timely objection. Contractor shall not be required to contract with anyone to whom Contractor has made reasonable objection.

5.4 If the City or Engineer have reasonable objection to a person or entity proposed by Contractor, then Contractor shall propose another to whom the City or Engineer have no reasonable objection.

5.5 Contractor shall not substitute a Subcontractor, person or entity previously selected without prior approval by the City.

5.6 Contractor shall require each Subcontractor, to the extent of the Work to be performed by the Subcontractor, to be bound to Contractor by terms of the Contract Documents, and to assume toward Contractor all the obligations and responsibilities, including the responsibility for safety of the Subcontractor's Work, which Contractor, by these Contract Documents, assumes toward the City and Engineer.

5.7 Each subcontract agreement shall preserve and protect the rights of the City and Engineer under the Contract Documents with respect to the Work to be performed by the Subcontractor so that subcontracting thereof will not prejudice such rights, and shall allow to the Subcontractor, unless specifically provided otherwise in the subcontract agreement, the benefit of all rights, remedies and redress against Contractor that Contractor, by the Contract Documents, has against the City.

ARTICLE 6: CHANGE ORDERS

6.1 Changes in the Work may be accomplished after execution of the Agreement, and without invalidating the Contract Documents, by Change Order, subject to the limitations stated in this Article 6 and elsewhere in the Contract Documents.

6.2 A Change Order is a written instrument prepared by the City and signed by the City and Contractor stating their agreement upon all of the following: (i) the change in the Work; (ii) the amount of the adjustment, if any, in the Contract Sum; and (iii) the extent of the adjustment, if any, in the Contract Time.

6.3 Changes in the Work shall be performed under applicable provisions of the Contract Documents, and Contractor shall proceed promptly, unless otherwise provided in the Change Order.

6.4 In no event shall the aggregate amount of Change Orders under this Agreement exceed ten percent (**10%**) of the Contract Sum.

6.5 Engineer has authority to order minor changes in the Work not involving adjustment in the Contract Sum or extension of the Contract Time and not inconsistent with the intent of the Contract Documents. Such changes will be effected by written order or bulletin signed by Engineer and shall be binding on Contractor. Such minor changes effectuated by written order or bulletin shall not be considered a Change Order.

6.6 Should the Contractor consider that a change in the Work, the contract sum, or contract time is necessary, then Contractor shall initiate a Change Order and submit it to the City for written approval before proceeding with the change.

6.7 Issuance of an oral statement, or verbal approval, is not to be considered a Change Order and is not authorization to proceed.

6.8 Change Orders shall be numbered in sequence and dated.

6.9 Approved Change Orders are required with any and all changes in the Work, the Contract sum, the Contract Time, or any combination thereof.

6.10 Change Orders shall describe the change or changes, will refer to the bulletin(s) and proposal(s) involved, and will be signed by the City and the Contractor prior to implementing the change.

6.11 All Change Orders shall clearly identify the impact of cost and the effect of time required to perform the Work associated with the proposal. If the proposal is found to be satisfactory and in proper order, and both parties agree upon cost or credit for the change, the City shall authorize the documented Change Order which will be confirmed by Contract amendment. Additional requests for additional costs and/or extensions of time for previously proposed and accepted items will NOT be granted after initial acceptance.

6.12 Contractor will take measures to ensure Contractor's and Subcontractor's staff are familiar with the procedures for processing Change Orders.

ARTICLE 7: PROTECTION OF PERSONS AND PROPERTY

7.1 Contractor shall be responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the performance of the Contract Documents.

7.2 Contractor shall take reasonable precautions for safety of, and shall provide reasonable protection to prevent damage, injury or loss to (i) Employees on the Work and other persons who may be affected thereby; (ii) the Work and materials and equipment to be incorporated therein, whether in storage on or off the site, under care, custody or control of Contractor or Subcontractors; and (iii) other property at the Project Site or adjacent thereto, such as trees, shrubs, lawns, walks, pavements, roadways, structures, and utilities not designated for removal, relocation or replacement in the course of construction.

7.3 Contractor shall comply with and give notices required by applicable laws, statutes, ordinances, codes, rules and regulations, and lawful orders of public authorities bearing on safety of persons or property or their protection from damage, injury or loss.

7.4 Contractor shall erect and maintain, as required by existing conditions and performance of the Contract Documents, reasonable safeguards for safety and protection, including posting danger signs and other warnings against hazards, promulgating safety regulations and notifying owners and users of adjacent sites and utilities.

7.5 If use or storage of explosives or other hazardous materials or equipment or unusual methods are necessary for execution of the Work, then Contractor shall exercise utmost care and carry on such activities under supervision of properly qualified personnel.

7.6 Contractor shall designate a responsible member of Contractor's organization at the site whose duty shall be the prevention of accidents. This person shall be Contractor's superintendent unless otherwise designated by Contractor in writing to the City.

ARTICLE 8: BONDS

8.1 Contractor shall provide performance and payment bonds for 110% of the Contract Sum on a form approved by the City covering faithful performance of the Work and payment of obligations arising thereunder as required in the Contract Documents pursuant to the Illinois Public Construction Bond Act, 30 ILCS 550/1 et seq. The cost of such bonds is included in Contract Sum.

8.2 A bond that is given or tendered to the City pursuant to the Contract Documents must be executed by a surety company that is licensed by the Illinois Department of Insurance authorizing it to execute surety bonds and the company shall have a financial strength rating of at least A- as rated by A.M. Best Company, Inc., Moody's Investor Services, Standard & Poor's Corporation, or a similar rating agency.

8.3 If the amount of a bond is greater than \$100,000, then surety shall: (i) hold certificate of authority from the United States Secretary of Treasury to qualify as surety on obligations permitted or required under federal law; or, (ii) obtain reinsurance for any liability in excess of \$100,000 from a reinsurer that is authorized and admitted as a reinsurer in the State of Illinois and holder of a certificate of authority from the United States Secretary of the Treasury to qualify as surety or reinsurer on obligations permitted or required under federal law.

8.4 Determination of whether surety on the bond or the reinsurer holds a certificate of authority from the United States Secretary of the Treasury is based on information published in Federal Register covering the date on which bond was executed.

8.5 Each bond given or tendered to the City pursuant to the Contract Documents must be on forms approved by the City with no changes made by Contractor or surety, and must be dated, executed, and accompanied by power of attorney stating that the attorney in fact executing such the bond has requisite authority to execute such Bond. The bonds must be dated and must be no more than 30 days old.

8.6 Surety shall designate in its bond, power of attorney, or written notice to the City, an agent resident in DuPage County to whom any requisite notices may be delivered and on whom service of process may be had in matters arising out of the suretyship.

8.7 Contractor shall furnish information to a payment bond beneficiary as required by the Illinois Public Construction Bond Act, 30 ILCS 550/1 et seq.

8.8 Contractor shall deliver required bonds to the City prior to commencing Work.

ARTICLE 9: UNCOVERING AND CORRECTION OF WORK

9.1 If a portion of the Work is covered contrary to Engineer's request or to requirements specifically expressed in the Contract Documents, then it shall, if requested in writing by the City, be uncovered by

Contractor for examination by Engineer and replaced promptly thereafter at Contractor's sole cost and expense.

9.2 Contractor shall promptly correct Work rejected by Engineer or failing to conform to the requirements of the Contract Documents, whether discovered before or after Completion and whether or not fabricated, installed or completed. Costs of correcting such rejected Work, including additional testing and inspections, the cost of uncovering and replacement, and compensation for Engineer's services and expenses made necessary thereby, shall be at Contractor's expense.

9.3 In addition to Contractor's obligations under Article 3, if, within one year after the date of Completion of the Work, any of the Work is found to be not in accordance with the requirements of the Contract Documents, then Contractor shall correct it within 30 calendar days after receipt of written notice from the City to do so at no cost to the City; provided, however, that the warranty period for goods, materials and equipment shall be equal to one year after the date of Completion of the Work or the manufacturer's warranty, whichever is greater.

9.4 The one-year period for correction of Work shall be extended with respect to portions of Work first performed after Completion by the period of time between Completion and the actual completion of that portion of the Work.

9.5 The one-year period for correction of Work shall not be extended by corrective Work performed by Contractor pursuant to this Article 9.

9.6 Contractor shall remove from the site portions of the Work that are not in accordance with the requirements of the Contract Documents and are neither corrected by Contractor nor accepted by the City.

9.7 Contractor shall be liable for the cost of correcting destroyed or damaged construction, whether completed or partially completed, of the City or separate contractors caused by Contractor's correction or removal of Work that is not in accordance with the requirements of the Contract Documents.

9.8 Nothing contained in this Article 9 shall be construed to establish a period of limitation with respect to other obligations Contractor has under the Contract Documents. Establishment of the one-year period for correction of Work as described herein relates only to the specific obligation of Contractor to correct the Work, and has no relationship to the time within which the obligation to comply with the Contract Documents may be sought to be enforced, nor to the time within which proceedings may be commenced to establish Contractor's liability with respect to Contractor's obligations other than specifically to correct the Work.

9.9 If the City prefers to accept Work that is not in accordance with the requirements of the Contract Documents, then the City may do so instead of requiring its removal and correction, in which case the Contract Sum will be reduced as appropriate and equitable, as determined by the City in its reasonable discretion. Such adjustment shall be effected whether or not final payment has been made.

ARTICLE 10: DOCUMENTS

10.1 Contractor is to maintain at the job site a complete and current set of all Contract Documents; bulletins, supplemental instructions, proposals, change orders, subcontractor's proposals, supplier's invoices, all written requests, and responses to each required change.

10.2 All documents must accurately reflect the current status of all pertinent data including changes in the line item quantities and contract sum attributed to change orders.

10.3 All documents are to be made available to the Engineer.

10.4 All documents are to be available for auditing purposes, Freedom of Information Act compliance requirements, and other reasons necessitated by the City.

ARTICLE 11: MATERIAL AND EQUIPMENT

11.1 If the offer/proposal identifies an item by manufacturer's name, trade name, catalog number, or reference number, the Contractor shall furnish the item so identified and shall not propose to furnish an "equal."

11.2 If the identified item is no longer available, the City must approve any proposed "equal" prior to order placement. The City will not incur any additional costs for the "equal."

11.3 All components used in the manufacture or construction of materials, supplies and equipment, and all furnished materials, shall be new, the latest make/model, of the best quality, and the highest grade workmanship.

11.4 Contractor must provide documentation that any and all Hazardous Material created during the performance of the Work has been disposed of or recycled in compliance with the "Standards for Universal Waste Management" as set forth in Title 35, Part 733 of the Illinois Administrative Code, and other applicable State, Federal and local regulations.

11.5 All material or equipment furnished shall meet the minimum requirements of Occupational Safety & Health Standards (OSHA) published in the Federal Register, UL, or other nationally recognized certifying body.

11.6 Contractor shall store all volatile wastes in covered metal containers and remove from the Project site daily.

11.7 Contractor shall provide adequate ventilation when using volatile or noxious substances or materials.



WALKER
RESTORATION CONSULTANTS

SPECIFICATIONS
FOR

**CITY OF
WHEATON**

**PARKING STRUCTURES
MAINTENANCE REPAIRS**

WHEATON, ILLINOIS

RELEASED FOR BIDS
MAY 2017

WALKER PROJECT NO. 31-8139.00

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Name of Bidder

SECTION 004100 - BID FORMS

1.1 INSTRUCTIONS

Submit Bids on this Bid Form in accordance with Terms and Conditions.

1.2 BID FORM

PART 1 - TERMS OF BID

PROJECT IDENTIFICATION: **Parking Structures Maintenance Repairs**

THIS BID IS SUBMITTED TO: CITY OF WHEATON

- A. The undersigned BIDDER proposes and agrees, if this Bid is accepted, to enter into an Agreement with OWNER in form included in Contract Documents to complete all Work as specified or indicated in Contract Documents for Contract Price and within Contract Time indicated in this Bid and in accordance with Contract Documents.
- B. BIDDER accepts all of Terms and Conditions, including without limitation those dealing with disposition of Bid Security. BIDDER will sign Agreement and submit Contract Security and other documents required by Contract Documents within 15 days after date of OWNER's Notice of Award. This Bid will remain open for 60 days after day of Bid opening.
- C. In submitting this Bid, BIDDER represents, as more fully set forth in Agreement, that:

Date _____ Number _____

(receipt of all of which is hereby acknowledged) and also copies of Advertisement or Invitation to Bid or Instructions to Bidders.

2. BIDDER shall provide the City and Engineer with written/e-mailed bulletins addressing the status of the Work throughout the life of the contract. The bulletins shall cover all Work performed and completed and shall confirm the schedule of the Work yet to be performed. They shall also state any assumptions and/or exclusions; and identify problems encountered, or still outstanding, with an explanation of the cause and resolution of the problem or how the problem will be resolved.

Name of Bidder _____

3. This Bid is genuine and not made in 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 false or sham Bid; BIDDER has not solicited or induced any person, firm or corporation to refrain from bidding; and BIDDER has not sought by collusion to obtain for itself any advantage over any other Bidder or over OWNER; and
4. BIDDER agrees that Work Item quantities are estimates and that OWNER may increase or decrease these quantities at unit prices stated, so long as increases or decreases in Base Bid do not exceed 25% of Base Bid price.
5. OWNER reserves right to delete any section of Work.

D. BIDDER will complete Work for following price(s) based on unit prices stated in Section 004310.1.1:

LUMP SUM CONTRACT PRICE _____
(use words)

_____ DOLLARS \$ _____
(figures)

E. BIDDER will complete Work for the prices shown in Section "List of Unit Prices."

F. Communications concerning this Bid shall be addressed to: (BIDDER to provide bidder's name, address, telephone number and name of individual familiar with this Bid and able and authorized to answer questions regarding this Bid.)

PART 2 - ATTACHMENTS

Following documents are attached to and made condition of this Bid, unless noted otherwise:

- A. List of Unit Prices.
- B. Non-Collusion Affidavit.
- C. Contractor Qualification Statement.

Name of Bidder _____

PART 3 - SIGNATURES

If BIDDER is:

A Corporation

By _____
(Corporation Name)

(State of Incorporation)

By _____
(Name of Person Authorized to Sign)

(Title)

(Corporate Seal)

Attest _____
(Secretary)

Business Address: _____

Phone Number: _____

END OF SECTION 004100

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Name of Bidder _____

SECTION 004310 – PROCUREMENT FORM SUPPLEMENTS

1.1 LIST OF UNIT PRICES

State Unit Prices on the following forms.

220 CROSS STREET PARKING STRUCTURE

WORK ITEM	DESCRIPTION	UNITS	QUANTITY	UNIT PRICE	EXTENSION
PART I: GENERAL REQUIREMENTS / PRELIMINARY MATTERS					
1.0	General Requirements				
1.1	General Requirements				
1.1.2	Concrete Formwork				
1.1.3	Concrete Shores and Re-Shores	L.S.	1		
1.1.4	Concrete Reinforcement				
1.1.5	Temporary Signage				
2.0	Floor Surface Preparation				
2.1	Pressure Wash Floor	L.S.	1		
3.0	Concrete Floor Repair				
3.1	Floor Repair	S.F.	85		
3.5	Floor Repair – Lifting Loops	EA.	25		
7.0	Concrete Wall Repair				
7.1	Wall Repair	S.F.	10		
8.0	Precast Tee Repair				
8.1	Tee Stem Repair	S.F.	5		
8.4	Tee Flange Repair	S.F.	20		
11.0	Crack and Joint Repair				
11.1	Random Floor Cracks	L.F.	225		
11.2	Control Joint Sealant	L.F.	160		

Name of Bidder _____

WORK ITEM	DESCRIPTION	UNITS	QUANTITY	UNIT PRICE	EXTENSION
11.4	Tee-to-Tee Joint Sealant	L.F.	2,100		
11.7	Cove Sealant	L.F.	250		
15.0	Protective Sealer				
15.1	Penetrating Sealer	S.F.	120,000		
25.0	Mechanical - Drainage				
25.6	Clean Existing Drains and Piping	L.S.	1		
35.0	Brick / Masonry Repairs				
35.2	Masonry Unit Repair	S.F.	5		
40.0	Connections / Bearings				
40.3	Re-Weld Shear Connector	EA.	65		
42.0	Doors and Windows				
42.1	Window Gasket Sealant	L.S.	1		
43.0	Miscellaneous Metals				
43.2	Replace Guard Railing	EA.	1		
45.0	Painting				
45.1	Paint Traffic Markings	L.S.	1		
45.6	Paint Structural Steel	L.S.	1		
GRAND TOTAL					\$ _____

Description of Abbreviations:

L.F. = Lineal Feet
 EA = Each

S.F. = Square Feet
 L.S. = Lump Sum

Name of Bidder _____

232 WESLEY STREET PARKING STRUCTURE

WORK ITEM	DESCRIPTION	UNITS	QUANTITY	UNIT PRICE	EXTENSION
PART I: GENERAL REQUIREMENTS / PRELIMINARY MATTERS					
1.0	General Requirements				
1.1	General Requirements				
1.1.2	Concrete Formwork				
1.1.3	Concrete Shores and Re-Shores	L.S.	1		
1.1.4	Concrete Reinforcement				
1.1.5	Temporary Signage				
2.0	Floor Surface Preparation				
2.1	Pressure Wash Floor	L.S.	1		
3.0	Concrete Floor Repair				
3.1	Floor Repair	S.F.	15		
3.10	Rail Post Repair	S.F	5		
4.0	Concrete Ceiling Repair				
4.1	Ceiling Repair	S.F.	10		
6.0	Concrete Column Repair				
6.1	Column Repair	S.F.	10		
7.0	Concrete Wall Repair				
7.1	Wall Repair	S.F.	10		
11.0	Crack and Joint Repair				
11.1	Random Floor Cracks	L.F.	10		
11.3	Vertical Joint Sealant	L.F.	75		
11.7	Cove Sealant	L.F.	150		
15.0	Protective Sealer				
15.1	Penetrating Sealer	S.F.	150,000		

Name of Bidder _____

WORK ITEM	DESCRIPTION	UNITS	QUANTITY	UNIT PRICE	EXTENSION
25.0	Mechanical - Drainage				
25.6	Clean Existing Drains and Piping	L.S.	1		
35.0	Brick / Masonry Repairs				
35.1	Tuck pointing	L.F.	50		
35.2	Masonry Unit Repair	S.F.	5		
37.0	Doors, Frames, and Hardware				
37.3	Replace Door Hardware	EA.	2		
45.0	Painting				
45.1	Paint Traffic Markings	L.S.	1		
	GRAND TOTAL				
	\$ _____				

Description of Abbreviations:

L.F. = Lineal Feet
EA = Each

S.F. = Square Feet
L.S. = Lump Sum

Name of Bidder _____

1.2 NON-COLLUSION AFFIDAVIT

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 City of Wheaton whereby such affiant or affiants or either of them has paid or is to pay such other Bidder or officer any sum of money, or has given or is to give to such other Bidder or officer anything of value whatever, or such affiant or affiants or either of them has not directly or indirectly, entered into any arrangement or agreement with any other free competition into 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, nor has this Bidder any 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 Contractor sought by this Bid.

Submitted By:

Type or print firm name:

Authorized Signature

Date

END OF SECTION 004310

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SECTION 000500 - CONTRACTOR'S QUALIFICATION STATEMENT FOR RESTORATION WORK

This statement is required for consideration of the restoration contract for Parking Structures Maintenance Repairs.

SUBMITTED TO: City of Wheaton
Attn: Linda Styczen
303 W. Wesley St.
Wheaton, IL 60187

SUBMITTED BY: _____

ADDRESS: _____

PHONE: (____) _____

CONTACT: _____

COMPANY STRUCTURE:	SPECIAL CERTIFICATIONS:
<input type="checkbox"/> Corporation	<input type="checkbox"/> MBE
<input type="checkbox"/> Partnership	<input type="checkbox"/> WBE
<input type="checkbox"/> Individual	<input type="checkbox"/> Other (Explain): _____
<input type="checkbox"/> Joint Venture	_____
<input type="checkbox"/> Other (Explain)	_____
_____	_____
_____	_____

SUBMITTAL DATE: _____

AREA(S) OF EXPERTISE: (Check all that apply)

<input type="checkbox"/> Structural Concrete Repair	<input type="checkbox"/> Concrete Flatwork
<input type="checkbox"/> Waterproofing/Joints & Sealants	<input type="checkbox"/> Brick/Masonry
<input type="checkbox"/> Waterproofing/Traffic Toppings & Sealers	<input type="checkbox"/> Historic Buildings
<input type="checkbox"/> Waterproofing/Roofing	_____
<input type="checkbox"/> Waterproofing/Plaza Systems	_____

CONTRACTOR'S QUALIFICATION QUESTIONNAIRE

1. How many years has your organization been in business as a restoration contractor? _____
Starting Year: _____
2. How many years has your organization been in business as a restoration contractor?
Starting Year: _____
3. How many years has your organization been in business under its present business name?
Starting Year: _____
4. List states in which your organization is legally qualified to do business.
5. What percentage of the work do you normally perform with your own work forces?
6. List on **Table I** the last five restoration projects your firm has completed.
7. List on **Table II** the restoration projects your organization has in progress at this time.
8. Have you ever failed to complete any work awarded to you? If so, attach a separate sheet of explanation.
9. Has any officer or partner of your organization ever been an officer or partner of another organization that failed to complete a restoration contract? If so, attach a separate sheet of explanation.
10. List on **Table III** the restoration experience of the principals and superintendents of your company.
11. What is your present bonding capacity? \$_____ per Project,
\$_____ Aggregate
12. Who is your bonding agent?
NAME: _____
ADDRESS: _____
PHONE: (_____) _____
CONTACT: _____
13. Are you rated by any State Highway Departments? If so, please list which states on **Table IV** and your company's rating.
14. List on **Table V** the equipment you own that is available for restoration work.
15. Are there any liens against the above? _____ If so, total amount \$_____

16. Attach your company's most recent audited Balance Sheet, prepared in accordance with generally accepted accounting principles.

Date of Balance Sheet: _____

Name of firm Balance Sheet: _____

DATED AT _____ THIS ____ DAY OF _____, 2017.

Name of Organization: _____

By: _____

TITLE: _____

STATE OF: _____

COUNTY OF: _____

_____ being duly sworn, deposes and says that he/she is _____ of the above organization and that the answers to the questions in the foregoing questionnaire and all statements therein contained are true and correct.

SUBSCRIBING AND SWORN TO BEFORE ME THIS _____ DAY OF _____ 2017.

NOTARY PUBLIC: _____

MY COMMISSION EXPIRES: _____

TABLE I - LAST FIVE RESTORATION JOBS COMPLETED

Name and Address of Contractor			Date:
Name and Address of Owner	Type of Restoration Work	Contract Amount	Date Completed

TABLE II - LIST OF RESTORATION PROJECTS IN PROGRESS

Name and Address of Contractor			Date:
Name and Address of Owner	Type of Work	Contract Amount	Expected Completion Date

TABLE III - RESTORATION EXPERIENCE OF PRINCIPALS AND SUPERINTENDENTS

Name and address of Contractor:				Date:	
Name	Position	Years Experience		Type of Work	Contract Amount
		Construction	Restoration		

TABLE IV - RATINGS BY THE STATE OF ILLINOIS DEPARTMENTS

Name and address of Contractor:			Date:
State	Rating	Contact & Phone No.	Highway Jobs for Ea. State

TABLE V - LIST OF EQUIPMENT

Name and address of Contractor:			Date:
Description of Equipment	Quantity	Years of Service	Current Book Value

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SECTION 011110 - SUMMARY OF WORK

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of Contract and other Division 01 Specification Sections apply to this Section.

1.2 PROJECT DESCRIPTION

- A. Work will be performed at locations within the parking structure as shown on Drawings and shall be completed within 90 calendar days from the issuance of a notice to proceed by order by the city.
- B. All required or warranted overtime and benefits shall be included in the unit prices in order to meet the project schedule.
- C. Work required in these areas and estimated quantities are listed on Bid Form. Bid Quantities associated with Work Items listed on Drawings have been estimated and are subject to measurement as defined in Article "Measurements." Where additional Work Items are described, but not specifically located and/or shown on Drawings, Contractor shall be responsible for locating and marking areas to be repaired. Owner and/or Engineer reserves right to increase or decrease quantities up to 25% at same unit cost, as required by job conditions.
- D. Work Item specifications and details shall govern all repair operations. Locations where Work Items apply are shown on Drawings as symbols.
- E. Final payment shall be made on basis of actual approved Work performed as measured in place.
- F. Work consists of repairing the parking structure to its original condition. Work includes concrete repairs, removal and replacement of sealant materials, traffic membrane installation and miscellaneous repairs

1.3 MEASUREMENTS

- A. Before ordering any material or doing any Work, Contractor shall verify all measurements at Project site and shall be responsible for correctness of same.
- B. Before proceeding with each Work Item, Contractor shall locate, mark, and measure quantity of each item and report quantities to Engineer. If measured quantities exceed Engineer's estimate, Contractor shall obtain written authorization to proceed from Owner before executing Work required for that Work Item.

- C. Measurement of quantities for individual Work Items will be performed by Contractor and reviewed by Engineer. Coordinate measurements with inspection as required in Terms and Conditions.
- D. Cost of Work included in each Work Item for quantities as indicated in Contract Documents shall be included in Base Bid.
 - 1. Additions to or deductions from lump sum price for quantities of each Work Item added to or deducted from Work respectively shall be at unit prices indicated in Bid Form and shall constitute payment or deductions in full for all material, equipment, labor, supervision and incidentals necessary to complete Work.

1.4 WORK SEQUENCE

- A. Contractor shall be allowed to work on one of the parking structures at a time, two bays at one time on the maintenance repairs. The contractor shall coordinate with the City field representative a minimum of 48 hours' prior for removal of any parking spaces.
- B. Contractor shall provide secured drive lanes through the work area when cars need to reach the upper levels of the structure, when working on the lower level.
- C. Prior to commencement of work, meet with Engineer and Owner representatives to establish sequence and schedule of Work for each level.
- D. Contractor shall remove all broken concrete and debris from Work area on daily basis and dispose of same at authorized dump sites.
- E. Contractor shall remove dust and air transported sand/debris from remainder of facility at conclusion of operations in Work area.

1.5 CONTRACTOR USE OF PREMISES

- A. General: Limit use of premises to construction activities in areas indicated; allow for Owner occupancy and use by public.
 - 1. Confine operations to areas within Contract limits indicated. Portions of the site beyond areas in which construction operations are indicated are not to be disturbed.
 - 2. Keep driveways and entrances serving the premises clear and available to the Owner and Owner's employees at all times. Do not use these areas for parking or storage of materials. Schedule deliveries to minimize space and time requirements for storage of materials and equipment on site.
- B. Contractor's use of premises shall not interfere with operation of same. Elevators shall not be used for transfer of materials or equipment.
- C. Contractor's debris removal path shall be over non-repaired services unless physical restraints prevent use of such path.

D. On-Site Storage: Contractor shall not store materials or equipment at site of Work for more than one week prior to time that materials or equipment are incorporated into Work.

1.6 BARRICADES

A. Provide barricades and flagging or moveable partitions to separate Work areas from areas open to public. Provide additional barriers as required to prevent damage to vehicle due to airborne debris. See "Temporary Facilities" for additional requirements.

1.7 CLAIMS

A. Contractor shall promptly address all damages claims. Owner reserves right to resolve any claims not addressed by Contractor within 2 weeks after claim is received by Contractor. Any amounts paid by Owner will be deducted from Contractor's next progress payment.

PART 2 - PRODUCTS (NOT APPLICABLE)

PART 3 - EXECUTION (NOT APPLICABLE)

END OF SECTION 011110

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SECTION 013100 - PROJECT MANAGEMENT AND COORDINATION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes administrative provisions for coordinating construction operations on Project including, but not limited to, the following:
 1. General project coordination procedures.
 2. Coordination Drawings.
 3. Administrative and supervisory personnel.
 4. Project meetings.
- B. Related Sections: The following Sections contain requirements that relate to this Section:
 1. Division 01 Section "Construction Progress Documentation" for preparing and submitting the Contractor's Construction Schedule.
 2. Division 01 Section "Closeout Procedures" for coordinating Contract closeout.

1.3 COORDINATION

- A. Coordination: Coordinate construction operations included in various Sections of the Specifications to ensure efficient and orderly installation of each part of the Work. Coordinate construction operations, included in different Sections, that depend on each other for proper installation, connection, and operation.
 1. Schedule construction operations in sequence required to obtain the best results where installation of one part of the Work depends on installation of other components, before or after its own installation.
 2. Coordinate installation of different components with other contractors to ensure maximum accessibility for required maintenance, service, and repair.
 3. Make adequate provisions to accommodate items scheduled for later installation.
- B. If necessary, prepare memoranda for distribution to each party involved, outlining special procedures required for coordination. Include such items as required notices, reports, and list of attendees at meetings.

1. Prepare similar memoranda for Owner and separate contractors if coordination of their Work is required.
- C. Administrative Procedures: Coordinate scheduling and timing of required administrative procedures with other construction activities and activities of other contractors to avoid conflicts and to ensure orderly progress of the Work. Such administrative activities include, but are not limited to, the following:
 1. Preparation of Contractor's Construction Schedule.
 2. Preparation of the Schedule of Values.
 3. Installation and removal of temporary facilities and controls.
 4. Delivery and processing of submittals.
 5. Progress meetings.
 6. Project closeout activities.

1.4 PROJECT MEETINGS

- A. General: Schedule and conduct meetings and conferences at Project site, unless otherwise indicated.
 1. Attendees: Inform participants and others involved, and individuals whose presence is required, of date and time of each meeting. Notify Owner and Engineer of scheduled meeting dates and times.
 2. Agenda: Prepare the meeting agenda. Distribute the agenda to all invited attendees.
 3. Minutes: Record significant discussions and agreements achieved. Distribute the meeting minutes to everyone concerned, including Owner and Engineer, within 3 days of the meeting.
- B. Preconstruction Conference: Schedule a preconstruction conference before starting construction, at a time convenient to Owner and Engineer. Hold the conference at Project site or another convenient location. Conduct the meeting to review responsibilities and personnel assignments.
 1. Attendees: Authorized representatives of Owner, Engineer, and their consultants; Contractor and its superintendent; major subcontractors; and other concerned parties shall attend the conference. All participants at the conference shall be familiar with Project and authorized to conclude matters relating to the Work.
- C. Progress Meetings: Conduct progress meetings at monthly intervals. Coordinate dates of meetings with preparation of payment requests.
 1. Attendees: In addition to representatives of Owner and Engineer, each contractor, subcontractor, supplier, and other entity concerned with current progress or involved in planning, coordination, or performance of future activities shall be represented at these meetings. All participants at the conference shall be familiar with Project and authorized to conclude matters relating to the Work.

2. Reporting: Distribute minutes of the meeting to each party present and to parties who should have been present. Include a brief summary, in narrative form, of progress since the previous meeting and report.
 - a. Schedule Updating: Revise Contractor's Construction Schedule after each progress meeting where revisions to the schedule have been made or recognized. Issue revised schedule concurrently with the report of each meeting.

PART 2 - PRODUCTS (NOT APPLICABLE)

PART 3 - EXECUTION (NOT APPLICABLE)

END OF SECTION 013100

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SECTION 013200 - CONSTRUCTION PROGRESS DOCUMENTATION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes administrative and procedural requirements for documenting the progress of construction during performance of the Work, including the following:
 1. Contractor's Construction Schedule.
 2. Submittals Schedule.
- B. Related Sections include the following:
 1. Division 01 Section "Project Management and Coordination" for submitting and distributing meeting and conference minutes.
 2. Division 01 Section "Submittal Procedures" for submitting schedules and reports.
 3. Division 01 Section "Quality Control" for submitting a schedule of tests and inspections.
 4. Division 01 Section "Closeout Procedures" for submitting photographic negatives as Project Record Documents at Project closeout.

1.3 SUBMITTALS

- A. Submittals Schedule: Submit three copies of schedule. Arrange the following information in a tabular format:
 1. Scheduled date for first submittal.
 2. Specification Section number and title.
 3. Submittal category (action or informational).
 4. Name of subcontractor.
 5. Description of the Work covered.
 6. Scheduled date for Engineer's final release or approval.
- B. Preliminary Construction Schedule: Submit two printed copies.
- C. Contractor's Construction Schedule: Submit two printed copies of initial schedule, large enough to show entire schedule for entire construction period.

1.4 COORDINATION

- A. Coordinate preparation and processing of schedules and reports with performance of construction activities and with scheduling and reporting of separate contractors.
- B. Coordinate Contractor's Construction Schedule with the Schedule of Values, list of subcontracts, Submittals Schedule, progress reports, payment requests, and other required schedules and reports.
 - 1. Secure time commitments for performing critical elements of the Work from parties involved.
 - 2. Coordinate each construction activity in the network with other activities and schedule them in proper sequence.

PART 2 - PRODUCTS

2.1 CONTRACTOR'S CONSTRUCTION SCHEDULE

- A. Gantt-Chart Schedule: Submit a comprehensive, fully developed, horizontal Gantt-chart-type, Contractor's Construction Schedule within 5 days of date established for commencement of the Work.
- B. Preparation: Indicate each significant construction activity separately. Identify first workday of each week with a continuous vertical line.
 - 1. For construction activities that require 3 months or longer to complete, indicate an estimated completion percentage in 10 percent increments within time bar.

PART 3 - EXECUTION

3.1 CONTRACTOR'S CONSTRUCTION SCHEDULE

- A. Contractor's Construction Schedule Updating: At monthly intervals, update schedule to reflect actual construction progress and activities. Issue schedule one week before each regularly scheduled progress meeting.
 - 1. Revise schedule immediately after each meeting or other activity where revisions have been recognized or made. Issue updated schedule concurrently with the report of each such meeting.
 - 2. Include a report with updated schedule that indicates every change, including, but not limited to, changes in logic, durations, actual starts and finishes, and activity durations.
 - 3. As the Work progresses, indicate Actual Completion percentage for each activity.

B. Distribution: Distribute copies of approved schedule to Engineer, Owner, testing and inspecting agencies, and other parties identified by Contractor with a need-to-know schedule responsibility.

1. When revisions are made, distribute updated schedules to the same parties and post in the same locations. Delete parties from distribution when they have completed their assigned portion of the Work and are no longer involved in performance of construction activities.

END OF SECTION 013200

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SECTION 013300 - SUBMITTAL PROCEDURES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes administrative and procedural requirements for submitting Shop Drawings, Product Data, Samples, and other miscellaneous submittals.
- B. Related Sections include the following:
 1. Division 01 Section "Project Management and Coordination" for submitting Coordination Drawings.
 2. Division 01 Section "Quality Control" for submitting test and inspection reports and Delegated-Design Submittals.
 3. Division 01 Section "Closeout Procedures" for submitting warranties.

1.3 DEFINITIONS

- A. Action Submittals: Written and graphic information that requires Engineer's responsive action.
- B. Informational Submittals: Written information that does not require Engineer's approval. Submittals may be rejected for not complying with requirements.

1.4 SUBMITTAL PROCEDURES

- A. Coordination: Coordinate preparation and processing of submittals with performance of construction activities.
 1. Coordinate each submittal with fabrication, purchasing, testing, delivery, other submittals, and related activities that require sequential activity.
 2. Coordinate transmittal of different types of submittals for related parts of the Work so processing will not be delayed because of need to review submittals concurrently for coordination.
 - a. Engineer reserves the right to withhold action on a submittal requiring coordination with other submittals until related submittals are received.

- B. Submittals Schedule: Comply with requirements in Division 01 Section "Construction Progress Documentation" for list of submittals and time requirements for scheduled performance of related construction activities.
- C. Processing Time: Allow enough time for submittal review, including time for resubmittals, as follows. Time for review shall commence on Engineer's receipt of submittal.
 - 1. Initial Review: Allow 7 days for initial review of each submittal. Allow additional time if processing must be delayed to permit coordination with subsequent submittals. Engineer will advise Contractor when a submittal being processed must be delayed for coordination.
 - 2. If intermediate submittal is necessary, process it in same manner as initial submittal.
 - 3. Allow 7 days for processing each resubmittal.
 - 4. No extension of the Contract Time will be authorized because of failure to transmit submittals enough in advance of the Work to permit processing.
- D. Transmittal: Package each submittal individually and appropriately for transmittal and handling. Transmit each submittal using a transmittal form. Engineer will return submittals, without review, received from sources other than Contractor.
 - 1. On an attached separate sheet, prepared on Contractor's letterhead, record relevant information, requests for data, revisions other than those requested by Engineer on previous submittals, and deviations from requirements of the Contract Documents, including minor variations and limitations. Include the same label information as the related submittal.
 - 2. Include Contractor's certification stating that information submitted complies with requirements of the Contract Documents.
- E. Distribution: Furnish copies of final submittals to manufacturers, subcontractors, suppliers, fabricators, installers, authorities having jurisdiction, and others as necessary for performance of construction activities. Show distribution on transmittal forms.
- F. Use for Construction: Use only final submittals with mark indicating action taken by Engineer in connection with construction.

PART 2 - PRODUCTS

2.1 SHOP DRAWINGS

- A. Shop Drawings: Prepare Project-specific information, drawn accurately to scale. Do not base Shop Drawings on reproductions of the Contract Documents or standard printed data.
 - 1. Preparation: Include the following information, as applicable:
 - a. Dimensions.

- b. Identification of products.
- c. Fabrication and installation drawings.
- d. Shopwork manufacturing instructions.
- e. Schedules.
- f. Design calculations.
- g. Compliance with specified standards.
- h. Notation of coordination requirements.
- i. Notation of dimensions established by field measurement.

2. Sheet Size: Except for templates, patterns, and similar full-size drawings, submit Shop Drawings on sheets at least 8-1/2 by 11 inches but no larger than 30 by 40 inches.
3. Number of Copies: Submit three blue- or black-line prints of each submittal, unless prints are required for operation and maintenance manuals. Engineer will retain one and forward one to the Owner; remainder will be returned. As an alternative and with prior notice to the Engineer, submit shop drawings electronically via e-mail.

B. Samples: Prepare physical units of materials or products, including the following:

1. Comply with requirements in Division 01 Section "Quality Control" for mockups.
2. Samples for Initial Selection: Submit manufacturer's color charts consisting of units or sections of units showing the full range of colors, textures, and patterns available.
3. Submit Samples for review of kind, color, pattern, and texture for a final check of these characteristics with other elements and for a comparison of these characteristics between final submittal and actual component as delivered and installed.
 - a. If variation in color, pattern, texture, or other characteristic is inherent in the product represented by a Sample, submit at least three sets of paired units that show approximate limits of the variations.
 - b. Refer to individual Specification Sections for requirements for Samples that illustrate workmanship, fabrication techniques, details of assembly, connections, operation, and similar construction characteristics.
4. Disposition: Maintain sets of approved Samples at Project site, available for quality-control comparisons throughout the course of construction activity. Sample sets may be used to determine final acceptance of construction associated with each set.
 - a. Samples that may be incorporated into the Work are indicated in individual Specification Sections. Such Samples must be in an undamaged condition at time of use.
 - b. Samples not incorporated into the Work, or otherwise designated as Owner's property, are the property of Contractor.

C. Product Schedule or List: Prepare a written summary indicating types of products required for the Work and their intended location. Include the following information in tabular form:

1. Type of product. Include unique identifier for each product.
2. Number and name of room or space.
3. Location within room or space.

D. Delegated-Design Submittal: Comply with requirements in Division 01 Section "Quality Control."

E. Submittals Schedule: Comply with requirements in Division 01 Section "Construction Progress Documentation."

F. Application for Payment: Comply with requirements in Parking Structures Maintenance Repairs Services Agreement.

G. Schedule of Values: Comply with requirements for compensation and method of payment in "Parking Structures Maintenance Repairs Services Agreement".

2.3 REQUESTS FOR INFORMATION

- A. Engineer reserves the right to reject, unprocessed, any Request for Information (RFI) that the Engineer, at its sole discretion, deems frivolous.
- B. Engineer reserves the right to reject, unprocessed, any RFI that the Engineer, at its sole discretion, deems already answered in the Contract Documents.
- C. RFI process shall not be used for requesting substitutions. Procedures for substitutions are clearly specified elsewhere in the contract documents.

PART 3 - EXECUTION

3.1 CONTRACTOR'S REVIEW

- A. Review each submittal and check for compliance with the Contract Documents. Note corrections and field dimensions. Mark with approval stamp before submitting to Engineer.
- B. Approval Stamp: Stamp each submittal with a uniform, approval stamp. Include Project name and location, submittal number, Specification Section title and number, name of reviewer, date of Contractor's approval, and statement certifying that submittal has been reviewed, checked, and approved for compliance with the Contract Documents.

3.2 ENGINEER'S ACTION

- A. General: Engineer will not review submittals that do not bear Contractor's approval stamp and will return them without action.

- B. Action Submittals: Engineer or its sub consultant will stamp each submittal with an action stamp and will mark stamp appropriately to indicate action taken.
- C. Submittals not required by the Contract Documents will not be reviewed and may be discarded.

END OF SECTION 013300

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SECTION 014500 - QUALITY CONTROL

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of Contract and other Division 01 Specification Sections apply to this Section.

1.2 SUMMARY

- A. This Section specifies administrative and procedural requirements for quality control services.
- B. Quality control services include inspections, tests and related actions including reports, performed by independent agencies, governing authorities, and the Contractor. They do not include Contract enforcement activities performed by Engineer.
- C. Inspection and testing services are required to verify compliance with requirements specified or indicated. These services do not relieve the Contractor of responsibility for compliance with Contract Document requirements.
- D. Requirements of this Section relate to customized fabrication and installation procedures, not production of standard products.
 - 1. Specific quality control requirements for individual construction activities are specified in the Sections that specify those activities. Those requirements, including inspections and tests, cover production of standard products as well as customized fabrication and installation procedures.
 - 2. Inspections, tests and related actions specified are not intended to limit the Contractor's quality control procedures that facilitate compliance with Contract Document requirements.
 - 3. Requirements for the Contractor to provide quality control services required by Engineer, Owner, or authorities having jurisdiction are not limited by provisions of this Section.
- E. Related Sections: Following Sections contain requirements that relate to this Section:
 - 1. Division 01 Section "Surface Preparation for Patching" specifies requirements for repair and restoration of construction disturbed by inspection and testing activities.

1.3 RESPONSIBILITIES

- A. Contractor Responsibilities:

1. Retesting: Contractor is responsible for retesting where results of required inspections, tests or similar services prove unsatisfactory and do not indicate compliance with Contract Document requirements, regardless of whether the original test was the Contractor's responsibility.
 - a. Cost of retesting construction revised or replaced by the Contractor is the Contractor's responsibility, where required tests were performed on original construction.
- B. Owner Responsibilities: Owner will provide inspections, tests and similar quality control services specified to be performed by independent agencies and not by the Contractor, except where they are specifically indicated as the Contractor's responsibility or are provided by another identified entity. Costs for these services are not included in the Contract Sum.
 1. Owner will employ and pay for the services of an independent agency, testing laboratory or other qualified firm to perform services which are the Owner's responsibility.
- C. Coordination: Contractor and each agency engaged to perform inspections, tests and similar services shall coordinate the sequence of activities to accommodate required services with a minimum of delay. In addition, Contractor and each agency shall coordinate activities to avoid the necessity of removing and replacing construction to accommodate inspections and tests.
 1. Contractor is responsible for scheduling times for inspections, tests, taking samples and similar activities.

1.4 SUBMITTALS

- A. Testing Agency shall submit a certified written report of each inspection, test or similar service, to Engineer, in duplicate, unless Contractor is responsible for the service. If Contractor is responsible for the service, submit a certified written report of each inspection, test or similar service through the Contractor, in duplicate.
 1. Submit additional copies of each written report directly to the governing authority, when the authority so directs.
 2. Report Data: Written reports of each inspection, test or similar service shall include, but not be limited to:
 - a. Date of issue.
 - b. Project title and number.
 - c. Name, address and telephone number of testing agency.
 - d. Dates and locations of samples and tests or inspections.
 - e. Names of individuals making the inspection or test.
 - f. Designation of the Work and test method.
 - g. Identification of product and Specification Section.
 - h. Complete inspection or test data.
 - i. Test results and interpretations of test results.

- j. Comments or professional opinion as to whether inspected or tested Work complies with Contract Document requirements.
- k. Name and signature of laboratory inspector.
- l. Recommendations on retesting.

PART 2 - PRODUCTS (NOT APPLICABLE).

PART 3 - EXECUTION

3.1 REPAIR AND PROTECTION

- A. General: Upon completion of inspection, testing, sample-taking and similar services, repair damaged construction and restore substrates and finishes to eliminate deficiencies, including deficiencies in visual qualities of exposed finishes. Comply with Contract Document requirements for "Surface Preparation for Patching."
- B. Protect construction exposed by or for quality control service activities, and protect repaired construction.
- C. Repair and protection is the Contractor's responsibility, regardless of the assignment of responsibility for inspection, testing or similar services.

END OF SECTION 014500

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SECTION 015000 - TEMPORARY FACILITIES AND CONTROLS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract and other Division 01 Specification Sections apply to this Section.

1.2 SUMMARY

- A. This Section includes minimum requirements for construction facilities and temporary controls, including temporary utilities, support facilities, and security and protection. The Contractor retains all responsibility for the adequacy and sufficiency of all jobsite safety precautions and programs.
- B. Support facilities include, but are not limited to, the following:
 1. Temporary Project identification signs and bulletin boards.
 2. Waste disposal services.
 3. Construction aids and miscellaneous services and facilities.
- C. Security and protection facilities include, but are not limited to, the following:
 1. Barricades, warning signs, lights.

1.3 QUALITY ASSURANCE

- A. Regulations: Comply with industry standards and applicable laws and regulations of authorities having jurisdiction, including but not limited to, the following:
 1. Building Code requirements.
 2. Health and safety regulations.
 3. Police, Fire Department and Rescue Squad rules.
 4. Environmental protection regulations.
- B. Standards: Comply with NFPA Code 241, "Standard for Safeguarding Construction, Alterations, and Demolition Operations," ANSI-A10 Series standards for "Safety Requirements for Construction and Demolition," and NECA Electrical Design Library "Temporary Electrical Facilities."
 1. Electrical Service: Comply with NEMA, NECA and UL standards and regulations for temporary electric service. Install service in compliance with NFPA 70, "National Electric Code."

- C. Inspections: Arrange for authorities having jurisdiction to inspect and test each temporary utility before use. Obtain required certifications and permits.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. General: Provide new materials; if acceptable to Engineer, undamaged previously used materials in serviceable condition may be used. Provide materials suitable for use intended.
- B. Water: Provide potable water approved by local health authorities.

2.2 EQUIPMENT

- A. General: Provide new equipment; if acceptable to Engineer, undamaged, previously used equipment in serviceable condition. Provide equipment suitable for use intended.
- B. Water Hoses: Provide 0.75 in. heavy-duty, abrasion-resistant, flexible rubber hoses 100 ft. long, with pressure rating greater than maximum pressure of water distribution system; provide adjustable shut-off nozzles at hose discharge.
- C. First Aid Supplies: Comply with governing regulations.
- D. Fire Extinguishers: Provide hand-carried, portable UL-rated, class "A" fire extinguishers for temporary offices and similar spaces. In other locations provide hand-carried, portable, UL-rated, class "ABC" dry chemical extinguishers, or a combination of extinguishers of NFPA recommended classes for the exposures.
 - 1. Comply with NFPA 10 and 241 for classification, extinguishing agent and size required by location and class of fire exposure.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Use qualified personnel for installation of temporary facilities. Locate facilities where they will serve Project adequately and result in minimum interference with performance of the Work. Relocate and modify facilities as required.
- B. Provide each facility ready for use when needed to avoid delay. Maintain and modify as required. Do not remove until facilities are no longer needed, or are replaced by authorized use of completed permanent facilities.
- C. All temporary facilities shall be located within work area.

D. Installation of temporary facilities shall not block pedestrian and vehicular traffic to adjacent non-work areas.

3.2 TEMPORARY UTILITY INSTALLATION

A. General: Engage appropriate local utility company to install temporary service or connect to existing service. Where the company provides only part of the service, provide the remainder with matching, compatible materials and equipment. Comply with company recommendations.

1. Arrange with company and existing users for time when service can be interrupted, if necessary, to make connections for temporary services.
2. Provide adequate capacity at each stage of construction. Prior to temporary utility availability, provide trucked-in services.
3. Obtain easements to bring temporary utilities to site where Owner's easements cannot be used for that purpose.
4. Use Charges: Cost or use charges for temporary facilities are not chargeable to the Owner or Engineer. Neither Owner nor Engineer will accept cost or use charges as basis of claims for Change Orders.

B. Sanitary facilities include temporary toilets, wash facilities, and drinking-water fixtures. Comply with regulations and health codes for the type, number, location, operation, and maintenance of fixtures and facilities. Install where facilities will best serve the Project's needs.

1. Provide toilet tissue, paper towels, paper cups, and similar disposable materials for each facility. Provide covered waste containers for used material.

C. Toilets: Use of the Owner's existing toilet facilities will be permitted, so long as:

1. Facilities and access routes to facilities are cleaned and maintained in a condition acceptable to Owner.
2. Contractor personnel do not cause, in Owner's opinion, a significant disturbance to Owner's staff during use of facilities.
3. At substantial completion, or upon notice by Owner that Contractor personnel are no longer permitted to use restrooms, restore facilities and access routes to condition existing at time of initial use.

D. Collection and Disposal of Waste: Collect waste from construction areas and elsewhere daily. Comply with requirements of NFPA 241 for removal of combustible waste material and debris. Enforce requirements strictly. Do not hold materials more than 7 days during normal weather or 3 days when temperature is expected to rise above 80°F. Handle hazardous, dangerous, or unsanitary waste materials separately from other waste by containerizing properly. Dispose of material in lawful manner.

3.3 SECURITY AND PROTECTION FACILITIES INSTALLATION

- A. Barricades, Warning Signs and Lights: Comply with standards and code requirements for erection of structurally adequate barricades. Paint with appropriate colors, graphics and warning signs to inform personnel and public of hazard being protected against. Where appropriate and needed provide lighting, including flashing red or amber lights.
- B. Security Enclosure and Lockup: Install substantial temporary enclosure of partially completed areas of construction. Provide locking entrances to prevent unauthorized entrance, vandalism, theft and similar violations of security.
 - 1. Storage: Where materials and equipment must be stored, and are of value or attractive for theft, provide secure lockup. Enforce discipline in connection with the installation and release of material to minimize opportunity for theft and vandalism.
- C. Environmental Protection: Provide protection, operate temporary facilities and conduct construction in ways and by methods that comply with environmental regulations, and minimize possibility that air, waterways and subsoil might be contaminated or polluted, or that other undesirable effects might result. Avoid use of tools and equipment which produce harmful noise. Restrict use of noise making tools and equipment to hours that will minimize complaints from persons or firms near site.

END OF SECTION 015000

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SECTION 017300 - EXECUTION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes general procedural requirements governing execution of the Work including, but not limited to, the following:
 1. General installation of products.
 2. Progress cleaning.
 3. Protection of installed construction.
 4. Correction of the Work.
 5. Construction Phasing.
 6. Maintaining public access through or adjacent to the Work.
- B. Related Sections include the following:
 1. Division 01 Section "Project Management and Coordination" for procedures for coordinating field engineering with other construction activities.
 2. Division 01 Section "Submittal Procedures" for submitting surveys.
 3. Division 01 Section "Surface Preparation for Patching" for procedural requirements for cutting and patching necessary for the installation or performance of other components of the Work.
 4. Division 01 Section "Closeout Procedures" for submitting final property survey with Project Record Documents, recording of Owner-accepted deviations from indicated lines and levels, and final cleaning.
 5. Division 02 Section "Work Items" for coordinating restoration construction activities to maintain Owner's operations during construction.

PART 2 - PRODUCTS (NOT APPLICABLE)

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Existing Conditions: The existence and location of site improvements, utilities, and other construction indicated as existing are not guaranteed. Before beginning work,

investigate and verify the existence and location of mechanical and electrical systems and other construction affecting the Work.

B. Acceptance of Conditions: Examine substrates, areas, and conditions, with Installer or Applicator present where indicated, for compliance with requirements for installation tolerances and other conditions affecting performance. Record observations.

1. Verify compatibility with and suitability of substrates, including compatibility with existing finishes or primers.
2. Examine walls, floors, and roofs for suitable conditions where products and systems are to be installed.
3. Proceed with installation only after unsatisfactory conditions have been corrected. Proceeding with the Work indicates acceptance of surfaces and conditions.

3.2 PREPARATION

A. Existing Utility Interruptions: Do not interrupt utilities serving facilities occupied by Owner or others unless permitted under the following conditions and then only after arranging to provide temporary utility services according to requirements indicated:

1. Notify Engineer and Owner not less than two days in advance of proposed utility interruptions.
2. Do not proceed with utility interruptions without Engineer's and Owner's written permission.

B. Field Measurements: Take field measurements as required to fit the Work properly. Recheck measurements before installing each product. Where portions of the Work are indicated to fit to other construction, verify dimensions of other construction by field measurements before fabrication. Coordinate fabrication schedule with construction progress to avoid delaying the Work.

3.3 INSTALLATION

A. General: Locate the Work and components of the Work accurately, in correct alignment and elevation, as indicated.

1. Make vertical work plumb and make horizontal work level.
2. Where space is limited, install components to maximize space available for maintenance and ease of removal for replacement.

B. Comply with manufacturer's written instructions and recommendations for installing products in applications indicated.

C. Install products at the time and under conditions that will ensure the best possible results. Maintain conditions required for product performance until Substantial Completion.

- D. Conduct construction operations so no part of the Work is subjected to damaging operations or loading in excess of that expected during normal conditions of occupancy.
- E. Tools and Equipment: Do not use tools or equipment that produce harmful noise levels.
- F. Anchors and Fasteners: Provide anchors and fasteners as required to anchor each component securely in place, accurately located and aligned with other portions of the Work.
 - 1. Mounting Heights: Where mounting heights are not indicated, mount components at heights directed by Engineer.
 - 2. Allow for building movement, including thermal expansion and contraction.
- G. Joints: Make joints of uniform width. Where joint locations in exposed work are not indicated, arrange joints for the best visual effect. Fit exposed connections together to form hairline joints.
- H. Hazardous Materials: Use products, cleaners, and installation materials that are not considered hazardous.

3.4 PROGRESS CLEANING

- A. General: Clean Project site and work areas daily, including common areas. Coordinate progress cleaning for joint-use areas where more than one installer has worked. Enforce requirements strictly. Dispose of materials lawfully.
 - 1. Comply with requirements in NFPA 241 for removal of combustible waste materials and debris.
 - 2. Do not hold materials more than 7 days during normal weather or 3 days if the temperature is expected to rise above 80 deg F (27 deg C).
 - 3. Containerize hazardous and unsanitary waste materials separately from other waste. Mark containers appropriately and dispose of legally, according to regulations.
- B. Site: Maintain Project site free of waste materials and debris.
- C. Work Areas: Clean areas where work is in progress to the level of cleanliness necessary for proper execution of the Work.
 - 1. Remove liquid spills promptly.
 - 2. Where dust would impair proper execution of the Work, broom-clean or vacuum the entire work area, as appropriate.
- D. Installed Work: Keep installed work clean. Clean installed surfaces according to written instructions of manufacturer or fabricator of product installed, using only cleaning materials specifically recommended. If specific cleaning materials are not

recommended, use cleaning materials that are not hazardous to health or property and that will not damage exposed surfaces.

- E. Concealed Spaces: Remove debris from concealed spaces before enclosing the space.
- F. Exposed Surfaces: Clean exposed surfaces and protect as necessary to ensure freedom from damage and deterioration at time of Substantial Completion.
- G. Cutting and Patching: Clean areas and spaces where cutting and patching are performed. Completely remove paint, mortar, oils, putty, and similar materials.
 - 1. Thoroughly clean piping, conduit, and similar features before applying paint or other finishing materials. Restore damaged pipe covering to its original condition.
- H. Waste Disposal: Burying or burning waste materials on-site will not be permitted. Washing waste materials down sewers or into waterways will not be permitted.
- I. During handling and installation, clean and protect construction in progress and adjoining materials already in place. Apply protective covering where required to ensure protection from damage or deterioration at Substantial Completion.
- J. Clean and provide maintenance on completed construction as frequently as necessary through the remainder of the construction period. Adjust and lubricate operable components to ensure operability without damaging effects.

3.5 PROTECTION OF INSTALLED CONSTRUCTION

- A. Provide final protection and maintain conditions that ensure installed Work is without damage or deterioration at time of Substantial Completion.
- B. Comply with manufacturer's written instructions for temperature and relative humidity.

3.6 CORRECTION OF THE WORK

- A. Repair or remove and replace defective construction. Restore damaged substrates and finishes. Comply with requirements in Division 01 Section "Surface Preparation for Patching."
 - 1. Repairing includes replacing defective parts, refinishing damaged surfaces, touching up with matching materials, and properly adjusting operating equipment.
- B. Restore permanent facilities used during construction to their specified condition.
- C. Remove and replace damaged surfaces that are exposed to view if surfaces cannot be repaired without visible evidence of repair.

- D. Repair components that do not operate properly. Remove and replace operating components that cannot be repaired.
- E. Remove and replace chipped, scratched, and broken glass or reflective surfaces.

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SECTION 017423 - FINAL CLEANING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of Contract and other Division 01 Specification Sections apply to this Section.

1.2 SUMMARY

- A. This Section specifies administrative and procedural requirements for final cleaning at Substantial Completion.
 - 1. Special cleaning requirements for specific elements of Work are included in appropriate Sections of Divisions 02 through 09.
- B. General Project closeout requirements are included in Division 01 Section "Closeout Procedures."
- C. General cleanup and waste removal requirements are included in Division 01 Section "Temporary Facilities and Controls."
- D. Environmental Requirements: Conduct cleaning and waste disposal operations in compliance with local laws and ordinances. Comply fully with federal and local environmental and anti-pollution regulations.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Cleaning Agents: Use cleaning materials and agents recommended by the manufacturer or fabricator of surface to be cleaned. Do not use cleaning agents that are potentially hazardous to health or property, or that might damage finished surfaces.

PART 3 - EXECUTION

3.1 FINAL CLEANING

- A. General: Provide final cleaning operations when indicated. Employ experienced workers or professional cleaners for final cleaning. Clean each surface or unit of Work to the condition expected from commercial building cleaning and maintenance program. Comply with manufacturer's instructions.

- B. Complete following cleaning operations before requesting inspection for Certification of Substantial Completion for entire Project or a portion of Project.
 - 1. Clean Project site, yard and grounds, in areas disturbed by construction activities, including landscape development areas, of rubbish, waste materials, litter and foreign substances. Sweep paved areas broom clean. Remove petro-chemical spills, stains and other foreign deposits. Rake grounds that are neither planted nor paved, to a smooth even-textured surface.
 - 2. Remove tools, construction equipment, machinery and surplus material from the site.
 - 3. Clean exposed exterior and interior hard-surfaced finishes to a dirt-free condition, free of stains, films and similar foreign substances. Avoid disturbing natural weathering of exterior surfaces. Restore reflective surfaces to their original condition.
 - 4. Broom clean concrete floors in unoccupied spaces.
 - 5. Clean transparent materials, including mirrors and glass in doors and windows. Remove glazing compounds and other substances that are noticeable vision-obscuring materials. Replace chipped or broken glass and other damaged transparent materials. Polish mirrors and glass, taking care not to scratch surfaces.
 - 6. Touch-up and otherwise repair and restore marred exposed finishes and surfaces. Replace finishes and surfaces that can not be satisfactorily repaired or restored, or that show evidence of repair or restoration. Do not paint over "UL" and similar labels, including mechanical and electrical name plates.
 - 7. Leave Project clean and ready for occupancy.
 - 8. All floor drains shall be free-flowing and clean of debris.
- C. Removal of Protection: Remove temporary protection and facilities installed during construction to protect previously completed installations during remainder of construction period.
- D. Compliances: Comply with governing regulations and safety standards for cleaning operations. Remove waste materials from the site and dispose of in a lawful manner.
 - 1. Where extra materials of value remain after completion of associated construction have become Owner's property, dispose of these materials as directed.

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SECTION 017700 - CLOSEOUT PROCEDURES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of Contract and other Division 01 Specification Sections apply to this Section.

1.2 SUMMARY

- A. This Section specifies administrative and procedural requirements for project closeout, including but not limited to:
 1. Inspection procedures.
 2. Submittal of warranties.
 3. Final cleaning.
- B. Closeout requirements for specific construction activities are included in appropriate Sections in Divisions 02 through 09.

1.3 SUBSTANTIAL COMPLETION

- A. Preliminary Procedures: Before requesting inspection for certification of Substantial Completion, complete following. List exceptions in request.
 1. Comply with requirements in Parking Structures Maintenance Repairs Services Agreement
 2. Submit specific warranties, workmanship bonds, maintenance agreements, final certifications and similar documents.
 3. Obtain and submit releases enabling Owner unrestricted use of Work and access to services and utilities; include occupancy permits, operating certificates and similar releases.
 4. Complete final clean up requirements, including touch-up painting. Touch-up and otherwise repair and restore marred exposed finishes.
- B. Inspection Procedures: On receipt of request for inspection, Engineer will either proceed with inspection or advise Contractor of unfilled requirements. Engineer will prepare Certificate of Substantial Completion following inspection, or advise Contractor of construction that must be completed or corrected before certificate will be issued.
 1. Engineer will repeat inspection when requested and assured that Work has been substantially completed.
 2. Engineer will provide one repeat inspection under its contract with Owner. Subsequent inspections shall be at Contractor's expense.

3. Results of completed inspection will form basis of requirements for final acceptance.

1.4 FINAL ACCEPTANCE

- A. Preliminary Procedures: Before requesting final inspection for certification of final acceptance and final payment, complete the following. List exceptions in request.
 1. Submit final payment request with releases and supporting documentation not previously submitted and accepted. Include certificates of insurance for products and completed operations where required.
 2. Submit an updated final statement, accounting for final additional changes to Contract Sum.
 3. Submit certified copy of Engineer's final inspection list of items to be completed or corrected, stating that each item has been completed or otherwise resolved for acceptance, and list has been endorsed and dated by Engineer.
- B. Re-inspection Procedure: Engineer will re-inspect Work upon receipt of notice that Work, including inspection list items from earlier inspections, has been completed, except items whose completion has been delayed because of circumstances acceptable to Engineer.
 1. Engineer will provide one repeat inspection under its contract with Owner. Subsequent inspections shall be at Contractor's expense.
 2. Upon completion of re-inspection, Engineer will prepare certificate of final acceptance, or advise Contractor of Work that is incomplete or of obligations that have not been fulfilled but are required for final acceptance.
 3. If necessary, reinspection will be repeated.

PART 2 - PRODUCTS (NOT APPLICABLE).

PART 3 - EXECUTION

3.1 CLOSEOUT PROCEDURES

- A. Operating and Maintenance Instructions: Arrange for each installer of equipment that requires regular maintenance to meet with Owner's personnel to provide instruction in proper operation and maintenance. If installers are not experienced in procedures, provide instruction by manufacturer's representatives. Include detailed review of following items:
 1. Maintenance manuals.
 2. Warranties and bonds.
 3. Maintenance agreements and similar continuing commitments.

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SECTION 017836 - WARRANTIES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of Contract and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes administrative and procedural requirements for warranties required by Contract Documents, including manufacturers standard warranties on products and special warranties.
 - 1. Refer to General Conditions for terms of Contractor's period for correction of Work.
- B. Related Sections: Following Sections contain requirements that relate to this Section:
 - 1. Division 01 Section "Submittal Procedures" specifies procedures for submitting warranties.
 - 2. Division 01 Section "Closeout Procedures" specifies contract closeout procedures.
 - 3. Divisions 02 through 09 Sections for specific requirements for warranties on products and installations specified to be warranted.
 - 4. Certifications and other commitments and agreements for continuing services to Owner are specified elsewhere in Contract Documents.
- C. Disclaimers and Limitations: Manufacturer's disclaimers and limitations on product warranties do not relieve Contractor of warranty on Work that incorporates products. Manufacturer's disclaimers and limitations on product warranties do not relieve suppliers, manufacturers, and subcontractors required to countersign special warranties with the Contractor.

1.3 DEFINITIONS

- A. Standard Product Warranties are preprinted written warranties published by individual manufacturers for particular products and are specifically endorsed by manufacturer to Owner.
- B. Special warranties are written warranties required by or incorporated in the Contract Documents, either to extend time limits provided by standard warranties or to provide greater rights for the Owner.

1.4 WARRANTY REQUIREMENTS

- A. Related Damages and Losses: When correcting failed or damaged warranted construction, remove and replace construction that has been damaged as result of such failure or must be removed and replaced to provide access for correction of warranted construction.
- B. Reinstatement of Warranty: When Work covered by warranty has failed and been corrected by replacement or rebuilding, reinstate warranty by written endorsement. Reinstated warranty shall be equal to original warranty with equitable adjustment for depreciation.
- C. Replacement Cost: Upon determination that Work covered by warranty has failed replace or rebuild Work to an acceptable condition complying with requirements of Contract Documents. Contractor is responsible for cost of replacing or rebuilding defective Work regardless of whether Owner has benefited from use of Work through portion of its anticipated useful service life.
- D. Owner's Recourse: Expressed warranties made to Owner are in addition to implied warranties, and shall not limit duties, obligations, rights and remedies otherwise available under law. Expressed warranty periods shall not be interpreted as limitations on the time in which the Owner can enforce such other duties, obligations, rights, or remedies.
 - 1. Rejection of Warranties: Owner reserves right to reject warranties and to limit selection to products with warranties not in conflict with requirements of Contract Documents.
- E. Where Contract Documents require a special warranty, or similar commitment on Work or part of Work, Owner reserves the right to refuse to accept Work, until Contractor presents evidence that entities required to countersign such commitments are willing to do so.

1.5 SUBMITTALS

- A. Submit written warranties to Engineer prior to date certified for Substantial Completion. If Engineer's Certificate of Substantial Completion designates commencement date for warranties other than date of Substantial Completion for Work, or designated portion of Work, submit written warranties upon request of Engineer.
- B. When designated portion of Work is completed and occupied or used by Owner, by separate agreement with Contractor during construction period, submit properly executed warranties to Engineer within 15 days of completion of that designated portion of Work.
- C. Forms for special warranties are included at end of this Section. Prepare written document utilizing appropriate form, ready for execution by Contractor, or by Contractor and subcontractor, supplier or manufacturer. Submit draft to Owner through Engineer for approval prior to final execution.

1. Refer to Divisions 02 through 09 Sections for specific content requirements and particular requirements for submittal of special warranties
- D. Form of Submittal: At Final Completion compile 2 copies of each required warranty properly executed by Contractor, or by Contractor, subcontractor, supplier, or manufacturer. Organize warranty documents into an orderly sequence based on table of contents of Project Manual.

PART 2 - PRODUCTS (NOT APPLICABLE)

PART 3 - EXECUTION (NOT APPLICABLE)

END OF SECTION 017836

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SECTION 020010 - WORK ITEMS

PART 1 - GENERAL

RELATED DOCUMENTS

- A. Drawings and general provisions of Contract and Division 01 Specification Sections apply to this Section.

PART 2 - PRODUCTS (NOT APPLICABLE)

PART 3 - EXECUTION

WI 1.0 GENERAL REQUIREMENTS

- A. Scope of Work
 1. Work consists of performing all tasks, specifically required and incidental, which are not identified under separate Work Item designation, but necessary to perform the work identified in this project. This work includes, but is not limited to the following items:
 - WI 1.1 – General Requirements
 - WI 1.1.2 – Concrete Formwork
 - WI 1.1.3 – Concrete Shores and Reshores
 - WI 1.1.4 – Concrete Reinforcement
 - WI 1.1.5 – Temporary Signage

WI 1.1 GENERAL REQUIREMENTS

- A. Scope of Work
 1. Work consists of coordinating, scheduling, obtaining and assembling at construction site all equipment, materials, permits, supplies, manpower and other essentials and incidentals necessary to perform Work defined in this Contract.
- B. Materials
 1. None

C. Execution

1. None.

WI 1.1.2 CONCRETE FORMWORK

A. Scope of Work

1. Work consists of furnishing all labor, materials, equipment, supervision, and incidentals necessary to install shoring and formwork as required for cast-in-place concrete.

B. Materials

1. Forms for Exposed Finish Concrete: Plywood, metal, metal-framed plywood faced, or other acceptable panel-type materials, to provide continuous, straight, smooth, exposed surfaces. Furnish in largest practicable sizes to minimize number of joints and to conform to joint system shown on Drawings.
 - a. Use overlaid plywood complying with U.S. Product Standard PS-1 "A-C or B-B High Density Overlaid Concrete Form," Class I
 - b. Use plywood complying with U.S. Product Standard PS-1 "B-B (Concrete Form) Plywood," Class I, Exterior Grade or better, mill-oiled and edge-sealed, with each piece bearing legible inspection trademark.
2. Forms for Unexposed Finish Concrete: Plywood, lumber, metal, or other acceptable material. Provide lumber dressed on at least 2 edges and one side for tight fit.
3. Form Coatings: Provide commercial formulation form-coating compounds with a maximum VOC of 350 mg/l that will not bond with, stain, or adversely affect concrete surfaces and will not impair subsequent treatments of concrete surfaces, including but not limited to water-curing, curing compound, stains, or paints.
4. Form Ties: Factory-fabricated, adjustable-length, removable or snap-off metal form ties, designed to prevent form deflection and to prevent spalling concrete upon removal. Provide units that will leave no metal closer than 1.5 in. to exposed surface.
 - a. Provide ties that, when removed, will leave holes not larger than 1.0 in. diameter in concrete surface.
5. Shores:
 - a. Nail Ellis clamps, if used with wood shores, to shores with minimum of two nails to prevent slipping.
 - b. Wedges: Hardwood or steel. Softwood wedges prohibited.

C. Execution

1. Work shall conform to requirements of ACI 301 "Standard Specifications for Structural Concrete," ACI 302.1 R "Guide for Concrete Floor Slab Construction," ACI 318 "Building Code Requirements for Reinforced Concrete," and ACI 347 "Recommended Practice for Concrete Formwork" except as modified by the following paragraphs.
2. Store all formwork and formwork materials clear of ground, protected, so as to preclude damage.
3. Construct forms to sizes, shapes, lines, and dimensions shown and to obtain accurate alignment, location, grades, level, and plumb work in finished structures. Provide for openings, offsets, sinkages, keyways, recesses, moldings, rustications, reglets, chamfers, blocking, screeds, bulkheads, anchorages and inserts, and other features required in work. Use selected materials to obtain required finishes. Solidly butt joints and provide backup at joints to prevent leakage of cement paste.
4. Fabricate forms for easy removal without hammering or prying against concrete surfaces. Provide crush plates or wrecking plates where stripping may damage cast concrete surfaces. Provide top forms for inclined surfaces where slope is too steep to place concrete with bottom forms only. Kerf wood inserts for forming keyways, reglets, recesses, and the like, for easy removal.
5. Provide temporary openings where interior area of formwork is inaccessible for cleanout, for inspection before concrete placement, and for placement of concrete. Securely brace temporary openings and set tightly to forms to prevent loss of concrete mortar. Locate temporary openings in forms at inconspicuous locations.
6. Chamfer exposed corners and edges as indicated, using wood, metal, PVC, or rubber chamfer strips fabricated to produce uniform smooth lines and tight edge joints.
7. Provisions for Other Trades: Provide openings in concrete formwork to accommodate work of other trades. Determine size and location of openings, recesses, and chases from trades providing such items. Accurately place and securely support items built into forms.
8. Cleaning and Tightening: Thoroughly clean forms and adjacent surfaces to receive concrete. Remove chips, wood, sawdust, dirt, or other debris just before concrete is placed. Retighten forms and bracing before concrete placement as required to prevent mortar leaks and maintain proper alignment.
9. Set edge forms or bulkheads and intermediate screed strips for slabs to obtain required elevations and contours in finished slab surface. Provide and secure units sufficiently strong to support types of screed strips by use of strike-off templates or accepted compacting type screeds
10. Coat contact surfaces of forms with accepted, nonresidual, low-VOC form-coating compound before reinforcement is placed.
11. Coat steel forms with non-staining, rust-preventive form oil or otherwise protect against rusting. Rust-stained steel formwork not acceptable.
12. For post-tensioned concrete, formwork shall remain in place until post-tensioning has been completed. Do not place additional loads on structure until concrete has been properly reshored.
13. For non-post-tensioned concrete, formwork shall remain in place until concrete has reached minimum two-thirds of 28-day strength. Do not place additional loads on structure until concrete has been properly reshored.

14. Clean and repair surfaces of forms to be re-used in Work. Split, frayed, delaminated or otherwise damaged form facing material will not be acceptable for exposed surfaces. Apply new form coating compound as specified for new formwork.
15. When forms are extended for successive concrete placement, thoroughly clean surfaces, remove fins and laitance, and tighten forms to close joints. Align and secure joint to avoid offsets. Do not use "patched" forms for exposed concrete surfaces, except as acceptable to Engineer.

WI 1.1.3 CONCRETE SHORES AND RESHORES

A. Scope of Work

1. Work consists of furnishing all labor, materials, equipment, supervision, and incidentals necessary to install temporary floor slab shoring and to maintain shores in place until restoration Work requiring shores and associated concrete has properly cured.

B. Materials

1. Shores shall be steel, rated at a minimum allowable load of 4,500 pounds at 12 ft extension or steel shoring towers rated at a minimum allowable load of 40,000 pounds per four leg tower.

C. Execution

1. Comply with ACI 301 and ACI 347 for shoring and reshoring in multi-story construction, except as modified in this Section.
2. For purpose of calculations: Construction load = 50 psf; dead load = 85 psf for the floor plus the dead load of the beams and girders.
3. Shore/Reshore loads on the structure shall not exceed 40 psf distributed load on the slab and concentrated loads shall not exceed posted wheel loads or 2,000 lbs., whichever is less. Concentrated contract bearing pressures on concrete shall not exceed 1,500 psi.
4. Shore/Reshore loads on concrete slab-on-grade shall be distributed by steel grillage or timber grillage so as not to exceed soil bearing capacity or 1,500 psf, whichever is smaller.
5. Shore/Reshore loads on asphalt slab-on-grade shall be distributed by steel grillage or timber grillage so as not to exceed asphalt/soil bearing capacity, with consideration of the reduced asphalt bearing capacity during extreme hot weather.
6. Shore/Reshore loads shall be distributed horizontally and/or distributed to more than one level to meet shore/reshore load limitations.
7. Shore/Reshore loads shall be distributed to multiple framing members (beams/joists/double tee stems) and extend beyond the immediate work area to ensure proper distribution of loads throughout the structure.
8. Whenever temporary shoring is required, the contractor shall hire an Illinois Licensed Structural Engineer to design all required shoring and bracing to complete the repairs. The contractor's structural engineer shall determine all

areas where shoring is required. The contractor's structural engineer shall prepare signed and sealed shoring and bracing scheme drawings for all areas requiring shoring and bracing.

9. Walker Restoration Consultants will review shoring scheme for general conformance to requirements stated herein. If it does not conform, Contractor will be informed to resubmit another shoring scheme. See requirements of Division 1 Section, "Submittal Procedures," Part 1 heading, "Submittal Procedures," for limits to resubmittals.
10. Remove shores and reshore in planned sequence to avoid damage to partially cured concrete. Locate and provide adequate reshoring to safely support Work without excessive stress or deflection.
11. Keep reshores in place as required until heavy loads due to construction operations have been removed.
12. If during construction, modifications are necessary to accommodate other trades, revise and resubmit erection plan to Engineer for review.

WI 1.1.4 CONCRETE REINFORCEMENT

A. Scope of Work

1. Work consists of furnishing all labor, materials, equipment, supervision, and incidentals necessary to fabricate and install all mild steel reinforcement and epoxy coated reinforcement.

B. Materials

1. Reinforcement materials shall be as specified in ACI 301 "Standard Specifications for Structural Concrete."
2. Welded wire reinforcement: provide mats only. Roll stock prohibited.
3. Epoxy Coating Materials for Reinforcement: ASTM A775 and A884:
4. Supplier shall be certified currently under CRSI Fusion Bonded Epoxy Coating Applicator Plant Certification Program.
5. Provide one of following epoxy coatings for reinforcement and steel accessories as noted on Drawings:
 - a. "Scotchkote 413," 3M Company.
 - b. "Nap-Gard 7-2709," DuPont Powder Coatings, USA, Inc.
 - c. "Epoxiplate R346 or R349," Armstrong Products Company.
6. Use patching material recommended by epoxy powder manufacturer, compatible with epoxy coating and inert in concrete. Acceptable:
 - a. "Scotchkote 413 PC," 3M Company.
 - b. "Armatec 110," Sika Corporation.
 - c. "MasterEmaco P22," Master Builders Solutions.
 - d. "Corr Bond," The Euclid Chemical Company.
7. Epoxy Coating for Existing Exposed Non-prestressed Steel Reinforcement or Welded wire reinforcement:

- a. "Sikadur 32 Hi-Mod," Sika Chemical Corp., Lyndhurst, NJ.
- b. "MasterSeal Liquid LPL," Master Builders Solutions, Shakopee, MN.
- c. "Scothkote 413 PC," 3M Company.
- d. "Armatec 110," Sika Corporation.
- e. "Euco 452," The Euclid Chemical Company, Cleveland, OH.
- f. "Resi-Bond (J-58)," Dayton Superior Corporation, OH.

C. Execution

1. Work shall conform to requirements of ACI 301 "Standard Specifications for Structural Concrete," ACI 315-80 "Details and Detailing of Concrete Reinforcement," ACI 318 "Building Code Requirements for Reinforced Concrete," and Concrete Reinforcing Steel Institute (CRSI), "Manual of Standard Practice."
2. Submittals required include: Product data for proprietary materials and items, including reinforcement and forming accessories, admixtures, patching compounds, waterstops, joint systems, curing compounds, and others as requested by Engineer including, but not limited to:
 - a. Manufacturer's product data and installation instructions for proprietary form coatings, manufactured form systems, ties, and accessories.
 - b. Steel producer's certificates of mill analysis, tensile tests, and bend tests.
 - c. Manufacturer's product data, specifications, and installation instructions for proprietary materials, welded and mechanical splices, and reinforcement accessories.
 - d. Epoxy Coating for Reinforcement:
 - 1) Written certification from coating manufacturer that coating resin for reinforcement has been approved by National Bureau of Standards.
 - 2) Written information from coating manufacturer on proper use and application of coating resin.
 - 3) Coating applicator's written certification of results of quality control program.
 - e. Submit all materials and methods for concrete curing to Engineer for approval before beginning concreting Work. Include certification of curing compound allowable moisture loss.
3. Store concrete reinforcement materials at site to prevent damage and accumulation of dirt or excessive rust.
4. Epoxy Coated Reinforcement:
 - a. Contact areas of handling and hoisting systems shall be padded or be made of nylon or other acceptable material.
 - b. Use spreader bars to lift bundles of coated steel to prevent bar-to-bar abrasion.
 - c. Pad bundling bands or fabricate of nylon or other acceptable material.
 - d. Store coated steel on padded or wooden cribbing.
 - e. Do not drag coated steel members.
 - f. After placement, restrict traffic on coated steel to prevent damage.

5. Reinforcement with any of following defects will be rejected:
 - a. Lengths, depths and bends exceeding CRSI fabrication tolerances.
 - b. Bends or kinks not indicated on Drawings or final Shop Drawings.
 - c. Reduced cross-section due to excessive rusting or other cause.
6. General: 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.
 - a. Avoiding cutting or puncturing vapor retarder during reinforcement placement and concreting operations.
 - b. Examine conditions under which concrete reinforcement is to be placed, and immediately notify Engineer in writing of unsatisfactory conditions. Do not proceed with Work until unsatisfactory conditions have been corrected in acceptable manner.
 - c. Clean reinforcement of loose rust and mill scale, earth, ice, and other materials that reduce or destroy bond with concrete.
 - d. Fabricate reinforcement to conform to required shapes and dimensions, with fabrication tolerances complying with CRSI MSP. In case of fabricating errors, do not re-bend or straighten reinforcement in manner that will injure or weaken material.
 - e. Bends in reinforcement are standard 90° bends unless noted otherwise.
 - f. Reinforcement with any of following defects will be rejected:
 - 1) Lengths, depths and bends exceeding CRSI fabrication tolerances.
 - 2) Bends or kinks not indicated on Drawings or final Shop Drawings.
 - 3) Reduced cross-section due to excessive rusting or other cause.
 - g. Perform all welding of mild steel reinforcement, metal inserts and connections with low hydrogen welding electrodes in accordance with AWS D1.4.
 - h. Epoxy coated reinforcement: Fabricator and applicator to provide installer with written instructions to handle, store and place epoxy coated reinforcement to prevent damage to coating.
 - i. Comply with ACI 301, Chapter 3 for placing reinforcement.
 - j. Use rebar chairs and accessories to hold all reinforcing positively in place. Provide rebar chairs at all formed surfaces, both vertical and horizontal, to maintain minimum specified cover. Set wire ties so ends are directed into concrete, not toward exposed concrete surfaces. Maximum spacing of chairs and accessories shall be per CRSI Manual of Standard Practice. In situations not covered by CRSI, provide support at 4 ft on center maximum each way.
 - k. Install welded wire reinforcement in as long lengths as practicable. Lap adjoining pieces at least one full mesh and lace splices with wire. Offset laps of adjoining widths to prevent continuous laps in either direction.
 - l. Splices:

- 1) Provide standard reinforcement splices by lapping ends, placing bars in contact, and tying tightly with wire. Comply with requirements of ACI 318 for minimum lap of spliced bars.
- 2) For mechanical tension splices of reinforcement:
 - a) Column bar lengths shall not exceed 30 ft between splices. In any bar, no splices shall occur at any floor level.
 - b) Exercise care to assure that no reduction of cross-sectional area of reinforcement occurs.
 - c) Use Barsplice Products, Inc., Bar-Grip or Grip-Twist, NMB Splice Sleeve, or Erico LENTON splices.
 - d) For all mechanical splices, perform splicing in strict accordance with manufacturer's requirements and instructions.
 - e) All splices to develop 125% of specified yield strength of bars, or of smaller bar in transition splices.
 - f) Stagger splices in adjacent bars.
 - g) Except where shown on Drawings, welding of reinforcement prohibited without prior written authorization by Engineer.
- 3) Compression splices: Mechanically coupled splices in accordance with ACI 318, Chapter 12.

m. Epoxy Coated Reinforcement:

- 1) Rest epoxy coated steel members supported from formwork on coated wire bar supports, or on bar supports made of dielectric material or other suitable material.
- 2) Coat wire bar supports with dielectric material for minimum distance of 2 in. from point of contact with coated steel member.
- 3) Fasten epoxy-coated steel members with nylon-, epoxy-, or plastic-coated tie wire, or other suitable material acceptable to Engineer.
- 4) Mechanical connections, when required, shall be installed in accordance with splice device manufacturer's recommendations. Repair any damage to coating.
- 5) All parts of mechanical connections on epoxy-coated steel, including steel splice sleeves, bolts, and nuts shall be coated with same material used for repair of coating damage.
- 6) Do not cut epoxy-coated steel unless permitted by Engineer. When cut, coat ends with material used for repair of coating damage.
- 7) All welding of epoxy-coated steel shall conform to AWS D1.4.
- 8) Adequate ventilation shall be provided when welding epoxy-coated steel.
- 9) After welding, repair coating damage as specified in Part 3 heading "Quality Control Testing During Construction," paragraph "Epoxy Coated Material."

WI 1.1.5 TEMPORARY SIGNAGE

A. Scope of Work

1. Work consists of furnishing all labor, materials, equipment and supervision necessary to provide and install and remove following completion of project, temporary signage as required for traffic control and user information during construction and as required by Owner/Engineer.

B. Materials

1. Temporary signage shall meet following minimum requirements:
 - a. Minimum size: 2' x 4'
 - b. Backing material: 0.5 in. medium density overlay plywood.
 - c. Colors:
 - 1) Background: medium orange or white.
 - 2) Symbols/Lettering: black
 - d. Lettering: silk screened or die-cut.
 - 1) Font Style: Helvetica or similar.
 - 2) Size: 2 in. high minimum for pedestrian information; 4 in. high minimum for traffic information.

C. Execution

1. Mounting height: 5 ft. to bottom of sign. Provide mounting brackets as required.
2. Contractor shall submit shop drawings detailing sign size, layout, colors, and mounting schemes for approval prior to fabricating signs and mounting brackets.
3. Typical regulatory signs (that is, STOP, YIELD, etc.) and "Handicap" signs shall conform to all Federal, state, and local requirements for sizes, materials, and colors.

WI 2.0 FLOOR SURFACE PREPARATION

WI 2.1 PRESSURE WASH FLOOR

A. Scope of Work

Work consists of furnishing all labor, materials, equipment, and incidentals necessary to pressure wash clean the existing floor surfaces, stairs and stair landings. The minimum water pressure floor cleaning the floor surface shall 1,500 psi. Owner will supply all water needed for this work. Contractor shall provide filter fabric cover over all floor drains in order to keep the fine sediment from clogging the drain lines.

WI 3.0 CONCRETE FLOOR REPAIR

A. Scope of Work

1. This Work consists of furnishing all labor, materials, equipment, supervision and incidentals necessary to locate existing spalls, locate and remove delaminated and unsound concrete, prepare cavities and install patching material to restore floor slab to original condition and appearance. Refer to Detail Series 3.0 for specific requirements.

B. Materials

1. Concrete repair materials shall be as specified in Division 03 Section "Latex Modified Concrete and Mortar."

C. Execution

1. Contractor shall locate and mark all Work areas as specified in Division 02 Section "Surface Preparation for Patching," Article "Inspection."
2. Procedure for delaminated, spalled and unsound concrete removal shall be as specified in Division 02 Section "Surface Preparation for Patching," Article "Preparation." Remove all unsound concrete within marked boundary prior to sawcutting and preparation of patch edges.
3. Engineer shall inspect all cavities for condition according to Division 02 Section "Surface Preparation for Patching," Article "Inspection of Repair Preparation."
4. All steel exposed within cavities shall be cleaned to bare metal by sandblasting as specified in Division 02 Section "Surface Preparation for Patching," Article "Cleaning of Reinforcement within Delamination and Spall Cavities," and damaged and defective reinforcement replaced as specified in Division 02 Section "Surface Preparation for Patching," Article "Reinforcement and Embedded Materials in Repair Areas." Exposed steel shall be epoxy coated with an approved epoxy resin as specified in Work Item "Concrete Reinforcement."
5. Contractor shall prepare cavities for patch placement as specified in Division 02 Section "Surface Preparation for Patching," Article "Preparation of Cavity for Patch Placement."
6. Patch materials and associated reference specifications are listed in Work Item "Concrete Floor Repair," Article "Materials," above. Patch installation procedures shall be in accordance with referenced specifications for selected material.

WI 3.1 FLOOR REPAIR

- A. Refer to Work Item "Concrete Floor Repair" for scope of Work, materials and procedure associated with this Work Item. Refer to Detail 3.1 for specific requirements.

WI 3.5 FLOOR REPAIR – LIFTING LOOPS

- A. Refer to Work Item "Concrete Floor Repair" for scope of Work, materials and procedure associated with this Work Item. Refer to Detail 3.5 for specific requirements.

WI 3.10 RAIL POST REPAIR

A. Scope of Work

1. Work consists of furnishing all labor, materials, equipment, supervision and incidentals necessary to prepare, prime (as required) and paint exposed steel railing bases, and install sealants as located on Drawings, including surface preparation, painting, sealing of rail pockets, and associated concrete repair. Refer to Detail 3.10 for specific requirements.

B. Materials

1. Paint shall be Alkyd Enamel. Manufacturers of compatible primers and top coats for steel substrates include, but are not limited to:

- a. Benjamin Moore
- b. Behr
- c. Duron
- d. PPG
- e. Sherwin Williams

2. Joint Sealants

- a. Single-component, Non-sag, Silicone Joint Sealant: ASTM C 920, Type S, Grade NS, Class 50, for Use NT.

- 1) Dow Corning Corporation; 790.
- 2) GE Silicones; SilPruf LM SCS2700.
- 3) Tremco; Spectrem 1 (Basic).
- 4) Sonolastic NP-2; BASF Building Systems.
- 5) Color: As selected by Owner from manufacturer's full range of colors.

C. Execution

1. Contractor shall locate and verify with Engineer all Work areas.
2. Contractor shall verify color selection with Owner prior to start of Work.
3. Surface Preparation: Mechanically clean areas to receive paint/sealants to bare metal. Notify Engineer if section loss exceeds 15% of cross sectional area.
4. Apply primer to all cleaned and prepared surfaces on same day (within 8 hrs.) as cleaning/preparation operations. Apply metal primer in accordance with the manufacturer's recommendations.
5. Apply top coat in accordance with the manufacturer's recommendations and allow to fully cure prior to sealant application.
6. Remove delaminated and unsound concrete, prepare cavities, and install new concrete to restore concrete steps to original condition and appearance. Refer to Detail Series 3.0 for specific requirements.

WI 4.0 CONCRETE CEILING REPAIR

A. Scope of Work

1. This Work consists of furnishing all labor, materials, equipment, supervision and incidentals including shoring necessary to locate existing spalls, locate and remove delaminated and unsound overhead concrete, prepare cavities and install new concrete and reinforcing (as required) materials to restore overhead concrete to original condition and appearance. Refer to Detail Series 4.0 for specific requirements.

B. Materials

1. Trowel applied patching material shall be as specified in Division 03 Section "Trowel Applied Mortar." This material may be used for shallow removal and repair Work Items only.

C. Execution

1. Locating, marking, removal ,preparation, and inspection of deteriorated concrete and reinforcing steel preparation, repair and installation shall be performed as specified in Division 02 Section "Surface Preparation for Patching."
2. Final surface preparation, concrete placement, finishing and curing shall be performed as specified in concrete repair material specification. Manufacturer specifications/requirements on these issues shall also be followed in the event proprietary bag mix repair materials are used.

WI 4.1 CEILING REPAIR

A. Refer to Work Item 4.0, "Concrete Ceiling Repair" for Scope of Work, materials and procedure associated with this Work Item. Refer to Detail 4.1 for specific requirements.

WI 6.0 CONCRETE COLUMN REPAIR

A. Scope of Work

1. Work consists of furnishing all labor, materials, equipment, supervision and incidentals including shoring necessary to locate existing spalls, locate and remove delaminated and unsound concrete, prepare cavities and install concrete and reinforcing (as required) materials to restore concrete columns to original condition and appearance. Refer to Detail Series 6.0 for specific requirements.

B. Materials

1. Cast-in-place concrete repair materials shall be as specified in Division 03 Section "Latex Modified Concrete and Mortar."
2. Conventional steel reinforcement shall be as specified in Work Item 1.1.4, "Concrete Reinforcement."

3. Trowel applied patching material shall be as specified in Division 03 Section "Trowel Applied Mortar." This material may be used for shallow removal and repair Work Items only.

C. Execution

1. Locating, marking, removal ,preparation, and inspection of deteriorated concrete and reinforcing steel preparation, repair and installation shall be performed as specified in Division 02 Section "Surface Preparation for Patching." Install shoring at repair locations where required per the Construction Documents prior to starting removals.
2. Final surface preparation, concrete placement, finishing and curing shall be performed as specified in concrete repair material specification. Manufacturer specifications/requirements on these issues shall also be followed in the event proprietary bag mix repair materials are used.

WI 6.1 COLUMN REPAIR

- A. Refer to Work Item 6.0, "Concrete Column Repair" for scope of Work, materials and procedure associated with this Work Item. Refer to Detail 6.1 for specific requirements.

WI 7.0 CONCRETE WALL REPAIR

A. Scope of Work

1. Work consists of furnishing all labor, materials, equipment, supervision and incidentals necessary to locate existing spalls, locate and remove delaminated and unsound concrete, prepare cavities and place patching materials to restore concrete walls to original condition and appearance. Refer to Detail Series 7.0 for specific requirements.

B. Materials

1. Trowel applied patching material shall be as specified in Division 03 Section "Trowel Applied Mortar." This material may be used for shallow removal and repair Work Item only.

C. Execution

1. Contractor shall locate and mark all Work areas as specified in Division 02 Section "Surface Preparation for Patching," Article "Inspection."
2. Procedure for delaminated, spalled and unsound concrete removal shall be as specified in Division 02 Section "Surface Preparation for Patching," Article "Preparation."
3. Engineer shall inspect all cavities for condition according to Division 02 Section "Surface Preparation for Patching," Article "Inspection of Repair Preparation."

4. All steel exposed within cavities shall be cleaned to bare metal by sandblasting according to Division 02 Section "Surface Preparation for Patching," Article "Cleaning of Reinforcement within Delamination and Spall Cavities," and damaged and defective reinforcement replaced as specified in Division 02 Section "Surface Preparation for Patching," Article "Reinforcement and Embedded Materials in Repair Areas." Exposed steel shall be epoxy coated with an approved epoxy resin as specified in Division 03 Section "Latex Modified Concrete and Mortar."
5. Contractor shall prepare cavities for patch placement as specified in Division 02 Section "Surface Preparation for Patching," Article "Preparation of Cavity for Patch Placement."
6. Patch materials and associated reference specifications are listed in Work Item "Concrete Wall Repair," Article "Materials," above. Patch installation procedures shall be in accordance with referenced specifications for selected material.

WI 7.1 WALL REPAIR

- A. Refer to Work Item "Concrete Wall Repair" for scope of Work, materials and procedure associated with this Work Item. Refer to Detail 7.1 for specific requirements.

WI 8.0 PRECAST TEE REPAIR

- A. Scope of Work
 1. Work consists of furnishing all labor, materials, equipment, supervision and incidentals including shoring necessary to locate, support and repair damaged or deteriorated tee beams. Refer to Detail Series 8.0 for specific requirements.
- B. Materials/Equipment
 1. Trowel applied patching material shall be as specified in Division 03 Section "Trowel Applied Mortar." This material may be used for shallow removal and repair Work Items only.
 2. Concrete repair materials shall be as specified in Division 03 Section "Latex Modified Concrete and Mortar."
 3. Chipping hammers shall be 15 lb or less unless directed by Engineer.
- C. Execution
 1. Contractor shall locate and mark tee beam repairs indicated on Drawings according to Division 02 Section "Surface Preparation for Patching," Article "Inspection."
 2. Contractor shall provide shoring as required. Shop Drawings according to Section "Submittals" and receive Engineer's approval prior to starting removal operations.

3. Procedure for delaminated, spalled and unsound concrete removal shall be as specified in Division 02 Section "Surface Preparation for Patching," Article "Preparation."
4. Engineer shall inspect all cavities for condition according to Division 02 Section "Surface Preparation for Patching," Article "Inspection of Repair Preparation."
5. All steel exposed within cavities shall be cleaned to bare metal by sandblasting as specified in Division 02 Section "Surface Preparation for Patching," Article "Cleaning of Reinforcement within Delamination and Spall Cavities," and damaged reinforcement replaced as specified in Division 02 Section "Surface Preparation for Patching," Article "Reinforcement and Embedded Materials in Repair Areas."
6. Contractor shall prepare cavities for patch placement in accordance with Division 02 Section "Surface Preparation for Patching," Article "Preparation of Cavity for Patch Placement."
7. Patch materials and associated reference specifications are listed in Work Item "Precast Tee Repair," Article "Materials," above. Patch installation procedures shall be in accordance with referenced specifications for selected material.
8. Contractor shall maintain forms and shores in place until concrete has attained at least 75% of 28-day strength.

WI 8.1 TEE STEM REPAIR

- A. Refer to Work Item 8.0, "Precast Tee Repair" for scope of Work, materials and procedure associated with this Work Item. Refer to Detail 8.1 for specific requirements.

WI 8.4 TEE FLANGE REPAIR

- A. Refer to Work Item "Precast Tee Repair" for scope of Work, materials and procedure associated with this Work Item. Refer to Detail 8.4 for specific requirements.

WI 11.0 CRACK AND JOINT REPAIR

WI 11.1 RANDOM FLOOR CRACKS

- A. Scope of Work
 1. Work consists of furnishing all labor, materials, equipment, supervision and incidentals necessary to locate, prepare and seal random cracks in concrete floor and/or topping. Refer to Detail 11.1 for specific requirements.
- B. Materials
 1. Approved materials for use in this Work are specified in Division 07 Section "Concrete Joint Sealants."

C. Execution

1. Contractor shall thoroughly clean and inspect concrete slabs and/or topping for cracks and unsealed construction joints. Those identified as either greater than 0.03 in. wide or showing evidence of water and/or salt staining on ceiling below shall be sealed. All cracks and joints identified for repair shall be marked with chalk to aid in precision routing. Obtain depths to top reinforcing bars and P-T tendons in area of repair by use of a pachometer. Determine depth of electrical conduit (metal or plastic). Do not exceed this depth of routing where the crack to be repaired crosses the embedded items. Damage to embedded items will require repair or replacement at no cost to the Owner.
2. Cracks shall be ground or sawcut to an adequate width and depth as required by Work Item Detail. Routing shall be performed by mechanized device that has positive mechanical control over depth and alignment of cut. Hand held power grinders with abrasive disks shall not be used on control/construction joints, but may be used on random cracks.
3. Cavities shall be thoroughly cleaned by either sandblasting or grinding to remove all laitance, unsound concrete and curing compounds which may interfere with adhesion. Groove shall be air blasted to remove remaining debris.
4. Sealant materials and associated reference specifications are listed in Work Item "Random Floor Cracks," Article "Materials," above. Sealant installation procedures shall be in accordance with referenced specifications for selected material.
5. Traffic topping manufacturer shall specify joint sealant type compatible with traffic topping. Crack and joint sealant work shall be incidental to traffic topping system.

WI 11.2 CONTROL JOINT SEALANT

A. Scope of Work

1. Work consists of furnishing all labor, materials, equipment, supervision and incidentals necessary to locate and mark failed joint sealant, remove existing sealant, prepare edges and reseal joints and cracks. Refer to Detail 11.2 for specific requirements.

B. Materials

1. Approved materials for use in this Work are specified in Division 07 Section "Concrete Joint Sealants."

C. Execution

1. Contractor shall locate failed crack/joint sealant by visual inspection.
2. Contractor shall remove existing sealant from joints and/or cracks.
3. When existing joint dimensions do not conform to Detail 11.2, joints shall be routed or sawcut to an adequate width and depth to match Work Item Detail. Routing shall be performed by mechanized device that has positive mechanical control over depth and alignment of cut.

4. Cavities shall be thoroughly cleaned by either sandblasting or grinding to remove all remaining sealant and unsound concrete which may interfere with adhesion. Groove shall also be air blasted to remove remaining debris.
5. Sealant materials and installation procedures shall be in accordance with referenced specifications for selected material.
6. Traffic topping manufacturer shall verify in writing that joint sealant is compatible with traffic topping.
7. Crack and joint sealant work shall be incidental to traffic topping system.

WI 11.3 VERTICAL JOINT SEALANT

- A. Scope of Work
 1. Work consists of furnishing all labor, materials, equipment, supervision and incidentals necessary to locate and install vertical joint sealant.
- B. Materials
 1. Materials used shall be as specified in Division 07 Section "Concrete Joint Sealants."
- C. Execution
 1. Contractor shall locate and mark Work areas as located on Drawings.
 2. Joint shall be cleaned by sand and air blasting.
 3. Sealant shall be tooled concave. (No wet tooling will be allowed.) Joint preparation, backer rod and bond breaker shall be in accordance with sealant manufacturer's recommendations. Sealant materials shall be in accordance with specification Division 07 Section "Concrete Joint Sealants."

WI 11.4 TEE-TO-TEE JOINT SEALANT

- A. Scope of Work
 1. Work consists of furnishing all labor, materials, equipment, supervision and incidentals necessary to locate and mark failed joint sealant, remove existing sealant, prepare edges and reseal joints and cracks. Refer to Detail 11.4 for specific requirements.
- B. Materials
 1. Approved materials for use in this Work are specified in Section "Concrete Joint Sealant."
- C. Execution
 1. Contractor shall locate failed joint sealant by visual inspection or as indicated on the drawings.

2. Contractor shall remove existing sealant from joints.
3. When existing joint dimensions do not conform to Detail 11.4, joints shall be routed or sawcut to an adequate width and depth as required by Work Item Detail. Routing shall be performed by mechanized device that has positive mechanical control over depth and alignment of cut.
4. Cavities shall be thoroughly cleaned by either sandblasting or grinding to remove all remaining sealant and unsound concrete which may interfere with adhesion. Groove shall also be air blasted to remove remaining debris.
5. Sealant materials and associated reference specifications are listed in Work Item "Tee-to-Tee Joint Sealant," Article "Materials," above. Sealant installation procedures shall be in accordance with referenced specifications for selected material.

WI 11.7 COVE SEALANT

- A. Scope of Work
 1. Work consists of furnishing all labor, materials, equipment, supervision and incidentals necessary to prepare concrete surfaces and install cove sealant between floor and vertical surfaces as shown on Drawings. Refer to Detail 11.7 for specific requirements.
- B. Materials
 1. Joint sealant materials shall be as specified in Division 07 Section "Concrete Joint Sealant."
- C. Execution
 1. Wall-floor intersection to be sealed shall be thoroughly cleaned by sandblasting to remove all contaminants and foreign material.
 2. Entire Work area shall then be cleaned with compressed air to assure that all loose particles have been removed and that intersection is dry.
 3. Properly prepared intersection shall be coated evenly and completely with joint primer material on each of intersecting faces in accordance with sealant manufacturer's recommendations.
 4. After primer has cured, apply cove sealant to intersection such that sealant extends 0.75 in. onto each of intersecting faces.
 5. Work cove sealant into joint so that all air is removed and tool to concave shape such that minimum throat dimension of no less than 0.5 in. is maintained.
 6. Remove excess sealant and allow to cure.
 7. Apply coating on horizontal and vertical surfaces where shown on Drawings in even layers in strict accordance with manufacturer's recommendations. Sealant material and associated reference specifications are listed in Work Item "Cove Sealant," Article "Materials," above for installation requirements.

WI 15.0 PROTECTIVE SEALER

- A. Scope of Work

1. Work consists of providing all labor, materials, equipment, supervision and incidentals necessary to prepare surfaces and install protective sealer system on concrete surfaces exposed to vehicular and/or pedestrian traffic and on bumper walls, or other structural members as required.

B. Materials

1. Protective sealer system materials shall be as specified in Division 07 Section "Water Repellents."

C. Execution

1. All surfaces scheduled to receive protective sealer system shall be identified by Contractor. Mark with chalk all areas other than floor surfaces which are to be treated.
2. Floor surfaces shall be prepared by shotblast in accordance with Division 07 Section "Water Repellents."
3. All other surfaces to be treated shall be brushed, waterblasted, or sandblasted as required and then airblasted prior to application. Use of waterblasting on vertical or overhead surfaces requires adequate drying time before application to achieve proper penetration.
4. Sealer application shall be as specified in referenced specification section listed in Work Item "Protective Sealer," Article "Materials," above. Overhead and vertical surface application shall be by brush or pressure sprayer.

WI 15.1 CONCRETE SEALER

- A. Refer to Work Item "Protective Sealer" for scope of Work, materials and procedure associated with this Work Item.

WI 25.0 MECHANICAL - DRAINAGE

WI 25.6 CLEAN EXISTING DRAINS AND PIPING

A. Scope of Work

1. Work consists of furnishing all labor, materials, equipment, supervision and incidentals necessary to clean drains, collectors/pits, and piping in the garage for adequate drainage.

B. Materials (not used)

C. Execution

1. Work shall commence after all concrete operations that leave slurry or similar debris in or near drains.

2. Clean and flush all drains within parking structure to remove debris buildup and accumulation, to include collector/pit areas.
3. All drains within the parking structure shall be kept free-flowing throughout the duration of the project.
4. Equipment shall be equal to or better than 4000 psi water jet flusher with no less than 15 gpm at nozzle end.
5. Contractor will be required to provide a written summary for each parking structure of all drain locations, date each drain and drain line cleaned and tested, verifications of proper flow upon completion of construction Contractor shall provide sample format of report for approval by the Engineer prior to performing Work.

WI 35.0 BRICK / MASONRY REPAIRS

WI 35.1 TUCKPOINTING

A. Scope of Work

1. Work consists of furnishing all labor, materials, equipment, supervision and incidentals necessary to tuckpoint defective, cracked, broken or eroded joints in existing brick work. Refer to Detail 35.1 for specific requirements.

B. Materials

1. Materials shall be as specified in Division 04 Section "Unit Masonry."
2. Portland Cement: ASTM C 150, Type I or II.
3. Quicklime: ASTM C5; pulverized lime.
4. Hydrated Lime: ASTM C 207, Type N.
5. Aggregate for Mortar: ASTM C 144; except for joints less than 0.25 in., use aggregate graded with 100% passing the No. 16 sieve.
6. Water: Potable
7. Mortar shall match existing color.

C. Execution

1. Contractor shall locate and mark all Work areas. Engineer shall verify locations prior to start of Work.
2. All defective joints which are cracked, broken, or eroded to depth of 0.5 in. or more shall be tuckpointed.
3. Joints to be tuckpointed shall be cut back to depth of 0.75 in., or to full depth of deterioration. Use mechanically operated blades only to perform cutting. Joint at back of cut shall have square shoulder. Remove all mortar from upper and lower surfaces and sides of mortar joint being prepared.
4. Contractor shall flush all mortar joints thoroughly with clean water under pressure prior to tuckpointing to remove all dust, dirt, and laitance. Brick shall be damp and free of excess water before tuckpointing commences. Take all necessary precautions to prevent water from entering cavity space during cleaning operations.

5. Tuckpointing shall be performed using Type N mortar in accordance with ASTM C270 using specified materials.
6. Match existing mortar color. Mortar shall be dry and mixed thoroughly prior to adding water. Add one-half required mixing water and allow to stand 1 hour, then add balance of mixing water.
7. Press mortar into prepared joint using pointing tool 0.125 in. smaller than width of joint until joint is packed full. Finish point joint with pointing tool at least 0.125 in. wider than prepared joint.
8. Prior to initial set of mortar, tool joints to match existing.
9. Allow 3 to 7 days for mortar to harden prior to cleaning of brick wall.
10. Dispose of all accumulated material and leave premises in clean condition.
11. Masonry surfaces that become dirty or smeared during joint cutting and repointing of joint surfaces shall be cleaned with bristle brushes and plain water.
12. Unnecessary damage to surrounding brick shall be repaired by Contractor at no cost to Owner.

WI 35.2 MASONRY UNIT REPAIR

- A. Refer to Work Item 35.2, "Masonry Unit Repair" for scope of Work, materials and procedure associated with this Work Item. Refer to Detail 35.2 for specific requirements. Note specific requirements for CMU reinforcing called out on Detail.

WI 37.0 DOORS, FRAMES AND HARDWARE

WI 37.3 REPLACE DOOR HARDWARE

A. Scope of Work

1. Work consists of furnishing all labor, materials, equipment, supervision and incidentals necessary to remove the existing broken door hardware and replace with a new hardware.

B. Materials

1. New door hardware shall match existing in kind.
2. Doors to include knobs, latch sets and closers.

C. Execution

1. Contractor shall locate where door hardware requires removal and replacement.
2. Contractor shall match existing color and style of door hardware.
3. Remove and replace door hardware. Existing door hardware shall be disposed of properly.

WI 40.0 CONNECTIONS / BEARINGS

WI 40.3 RE-WELD SHEAR CONNECTOR

A. Scope of Work

1. Work consists of furnishing all labor, materials, equipment, shoring and jacking, supervision and incidentals necessary to re-weld existing tee-to-tee shear connector as indicated on the Drawings. See Detail 40.3 for specific requirements.

B. Materials

1. Welds shall be made using E70 electrodes.
2. If not galvanized, corrosion inhibiting coating for shear connector:
 - a. "Sikadur 32 Hi-Mod," by Sika Corporation, Lyndhurst, NJ.
 - b. "MasterEmaco ADH 326," by BASF Building Systems, Shakopee, MN.
 - c. "Armatec 110," Sika Corporation, Lyndhurst NJ.
 - d. "Euco 452," The Euclid Chemical Company, Cleveland, OH.

C. Execution

1. Contractor shall locate and mark broken shear connectors exposed by concrete excavation or by visual inspection from underside of slab.
2. Contractor shall verify locations with Engineer prior to starting Work.
3. Contractor shall sandblast shear connector to bare metal prior to welding.
4. Following welding, Contractor shall apply corrosion inhibitor coating on exposed connector steel in accordance with Section "Surface Preparation for Patching."

WI 42.0 DOORS AND WINDOWS

WI 42.1 WINDOW GASKET SEALANT

A. Scope of Work

1. Work consists of furnishing all labor, materials, equipment, supervision and incidentals necessary to prepare existing window glass and window frame substrates and install sealant to perimeter of existing window lites. See Detail 42.1 for specific requirements.

B. Materials

1. Sealants shall be as specified in Division 07 Section "Concrete Joint Sealants."

C. Execution

1. Contractor shall locate and mark all locations requiring "wet sealing" sealing installation as detailed on Drawings.

2. Contractor shall remove existing joint sealant (if present). Care shall be taken not to damage glass adjacent façade, window components or other surrounding features.
3. If gasket or glazing tape extends beyond the frame, cut back gasket/glazing tape flush with frame. Take care not to damage glass when cutting gasket/tape.
4. Joint shall be thoroughly cleaned to bare substrate materials by grinding to remove all debris, residual joint filler material and joint sealant material. Joint shall be airblasted to remove remaining debris after preparation.
5. Unnecessary damage to surrounding elements shall be repaired by Contractor at no cost to Owner.
6. Contractor shall install liquid applied joint sealant in accordance with Details and manufacturer's recommendations.
7. Sealed joints shall be neat in appearance. Poorly sealed or improperly sealed joints shall be removed and replaced at no additional cost to Owner.

WI 43.0 MISCELLANEOUS METALS

WI 43.2 REPLACE GUARD RAILING

A. Scope of Work

1. Work consists of furnishing all labor, materials, equipment, supervision and incidentals necessary to remove the existing damaged guard rail and to replace with a new guard rail in-kind.

B. Materials

1. New guard rail shall match existing guard rail in kind.
2. Guard rail shall be galvanized ASTM A36 steel or Grade 304 stainless steel.
3. Anchor bolts and all hardware shall be the same type of finish of steel as the adjacent bolts.

C. Execution

1. Contractor shall locate and layout work areas and verify location with Engineer.
2. Contractor shall provide and install the new guard rail as indicated on the drawings and detail 43.2.

WI 45.0 PAINTING

WI 45.1 PAINT TRAFFIC MARKINGS

A. Scope of Work

1. Work consists of furnishing all labor, materials, equipment, supervision and incidentals necessary to locate, layout and paint parking stall stripes, traffic arrows, crosswalks, accessible stall access aisles, curbs, symbols, stop bars and all other required pavement markings.

B. Materials

1. Painting materials shall be as specified in Division 09 Section "Pavement Marking."

C. Execution

1. Unless otherwise indicated in the Construction Documents, stripes and paint color shall match all existing marks and be provided at same locations.
2. Where new striping layout is described in the Construction Documents that conflicts with existing striping layout, remove existing stripes in those locations where they conflict with new striping layout. See referenced specification section for removal requirements.
3. Where existing traffic marking layout is to be maintained, Contractor shall prepare drawing of existing traffic marking layout in work areas prior to starting with repairs. Contractor shall note stall width, angle of parking, directional traffic arrows and all other existing pavement markings.
4. Contractor shall submit striping plan for Engineer's review.
5. Engineer may inspect all layout and surface preparation for conditions in accordance with Division 09 Section "Pavement Marking."

WI 45.6 PAINT STRUCTURAL STEEL

A. Scope of Work

1. Work consists of furnishing all labor, materials, equipment, supervision and incidentals necessary to contain, with full height barriers, preparation debris and paint during operations and prepare, prime and paint all structural steel and miscellaneous metal items as located on Drawings.

B. Materials

1. Paint materials shall be as specified in Division 09 Section "Exterior Painting."

C. Execution

1. Contractor shall locate and verify with Engineer all Work areas.
2. Contractor shall verify color selection with Owner prior to start of Work.
3. Contractor shall take all necessary measures to contain, with full height barriers, sandblasting debris and paint to immediate Work area to protect public from injury and property from damage.
4. Contractor shall solvent clean any surface area with oil or grease build-up prior to receiving additional preparation in accordance with SSPC-SP1 and Division 09 Section "Exterior Painting."

5. Contractor shall prepare all surfaces with surface corrosion in accordance with SSPC-SP10 "Near White Metal Blast Cleaning" or SSPC-SP11 "Power Tool Cleaning to Bare Metal" and Division 09 Section "Exterior Painting."
6. Contractor shall remove all debris from Work area prior to application of primer or paint.
7. Contractor shall apply primer to all prepared metal surfaces on same day (within 8 hrs) as preparation operations. Apply primer and Paints according to Section "Exterior Painting" and in strict accordance with manufacturer's recommendations.

END OF SECTION 020010

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SECTION 025130 - GENERAL CONCRETE SURFACE PREPARATION

PART 1 - GENERAL

1.1 DEFINITIONS

- A. **DELAMINATIONS:** Fracture planes, "internal cracks," within concrete. Typically, these fractures are parallel to the member face and vary in depth.
- B. **NEAR-VERTICAL CHIPPED EDGES:** Provide an edge dressed to within 20° of perpendicular of finished surface.
- C. **SPALLS:** Potholes, cavities or voids in floor slabs, beams, columns, and walls. Usually result of delamination migrating to face of concrete member. When fracture finally reaches surface, concrete encompassed by delamination breaks away, resulting in spall.
- D. **UNSOOUND CONCRETE:** Concrete exhibiting one or more of:
 - 1. Incipient fractures present beneath existing delaminated or spalled surfaces.
 - 2. Honeycombing.
 - 3. Friable or punky areas.
 - 4. Deterioration from freeze-thaw action.
- E. **SCALING:** Deterioration which attacks mortar fraction (paste) of concrete mix. First appears as minor flaking and disintegration of concrete surface. Scaling eventually progresses deeper into concrete, exposing aggregate which breaks away. Concrete scaling is caused by freeze-thaw action. If concrete is frozen in saturated state, excess water freezing in concrete causes high internal stresses.
- F. **SHOTBLASTING:** Scarification of concrete surfaces using an abraded metal shot-rebound. See Corps of Engineer's Manual EM 1110-2-2002 and the National Cooperative Highway Research Program's Report #99 for a more detailed definition.

PART 2 - PRODUCTS (NOT APPLICABLE)

PART 3 - EXECUTION (NOT APPLICABLE)

END OF SECTION 025130

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SECTION 025140 - SURFACE PREPARATION FOR PATCHING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of Contract and Division 01 Specification Sections apply to this Section.

1.2 SUMMARY

- A. This Section includes the provision of all labor, materials, equipment, supervision and incidentals necessary to locate and remove all delaminated and unsound concrete, sound concrete necessary to complete other work items, and preparation of cavities created by removal to receive repair material and preparation of existing surfaces to receive repair material.
- B. Related Sections: Following Sections contain requirements that relate to this Section:
 1. Division 01 Section "Submittal Procedures."
 2. Division 02 Section "Work Items."
 3. Division 02 Section "General Concrete Surface Preparation."
 4. Division 02 Section "Surface Preparation for Patching."
 5. Division 03 Section "Latex Modified Concrete and Mortar."
 6. Division 03 Section "Trowel Applied Mortar"

1.3 REFERENCES

- A. "Specifications for Structural Concrete for Buildings" (ACI 301) by American Concrete Institute, herein referred to as ACI 301 is included in total as specification for this structure except as otherwise specified herein.
- B. Comply with provisions of following codes, specifications and standards except where more stringent requirements are shown on Drawings or specified herein:
 1. "Guide for Repair of Concrete Bridge Superstructures" (ACI 546.1), American Concrete Institute.

PART 2 - PRODUCTS (NOT APPLICABLE)

PART 3 - EXECUTION

3.1 INSPECTION

- A. Floor Slabs:
 - 1. Floor slab delaminations: locate by sounding surface with hammer, rod, or chain drag.
 - 2. When delaminated area is struck, distinct hollow sound is heard.
 - 3. Contractor: sound all designated floors for delaminations.
 - 4. Contractor: Visually inspect thin slab thicknesses with small diameter reinforcing for deterioration.
- B. Vertical and Overhead Surfaces:
 - 1. Vertical and overhead surface delaminations: locate by sounding appropriate member with hammer or rod.
 - 2. Cracks, usually horizontal in orientation along beam faces, and vertical in orientation near column corners are indicators of delaminated concrete.
 - 3. Contractor: sound only vertical and overhead surfaces that show evidence of cracking and/or salt and water staining.
- C. Delaminated areas, once located by Contractor, shall be further sounded to define limits. Mark limits with chalk or paint.
- D. Contractor: locate spalls by visual inspection and mark boundaries with chalk or paint after sounding surface.
- E. Engineer will define and mark additional unsound concrete areas for removal, if required.
- F. Areas to be removed shall be as straight and rectangular as practical to encompass repair and provide neat patch.
- G. Contractor: Locate and determine depth of all embedded REINFORCEMENT and ELECTRICAL CONDUIT in repair area and mark these locations for reference during concrete removal. Do **NOT** nick or cut any embeds unless approved by Engineer.

3.2 PREPARATION

- A. **Temporary shoring may be required at concrete floor repair areas exceeding 5 sq ft and at any beam or column repair. Contractor: Review all marked removal and preparation areas and request clarification by Engineer of shoring requirements in questionable areas. Shores shall be in place prior to concrete removal and cavity preparation in any area requiring shores.**
- B. Delaminated, spalled and unsound concrete floor areas: mark boundaries. All concrete shall be removed from within marked boundary to minimum depth of 0.75 in. using 15 to 30 lb chipping hammers equipped with chisel point bits. When directed by Engineer, chipping hammers less than 15 lb shall be used to minimize damage to sound concrete. If delamination exists beyond minimum removal depth, chipping shall continue until all unsound and delaminated concrete has been removed from cavity.

- C. Where embedded reinforcement or electrical conduit is exposed by concrete removal, exercise extra caution to avoid damaging it during removal of unsound concrete. If bond between exposed embedded reinforcement and adjacent concrete is impaired by Contractor's removal operations, Contractor shall perform additional removal around and beyond perimeter of reinforcement for minimum of 0.75 in. along entire length affected at no cost to Owner.
- D. If rust is present on embedded reinforcement where it enters sound concrete, additional removal of concrete along and beneath reinforcement required. Additional removal shall continue until non-rusted reinforcement is exposed, or may be terminated as Engineer directs.
- E. Saw cut to depth of 0.75 in. into floor slab, unless otherwise noted. For vertical and overhead surfaces marked boundary may be saw cut, ground or chipped to depth of 0.5 in. to 0.625 in. into existing concrete, measured from original surface. All edges shall be straight and patch areas square or rectangular-shaped. Diamond blade saw or grinder with abrasive disk suitable for cutting concrete is acceptable for performing work. Edge cut at delamination boundary shall be dressed perpendicular to member face. It shall also be of uniform depth, for entire length of cut. Exercise extra caution during saw cutting to avoid damaging existing reinforcement and electrical conduit and any other embedded items near surface of concrete. Any damage to existing reinforcement during removals shall be repaired by Contractor with Engineer-approved methods at no additional cost to Owner.

3.3 INSPECTION OF REPAIR PREPARATION

- A. After removals are complete, but prior to final cleaning, cavity and exposed reinforcement shall be inspected by Contractor and verified by Engineer for compliance with requirements of this Section. Where Engineer finds unsatisfactory cavity preparation, Engineer shall direct Contractor to perform additional removals. Engineer shall verify areas after additional removals.
- B. Contractor shall inspect embedded reinforcement and conduits exposed within cavity for defects due to corrosion or damage resulting from removal operations. Contractor shall notify Engineer of all defective and damaged reinforcement or conduits. Replacement of damaged or defective reinforcement or conduits shall be performed according to this Section and as directed by Engineer.

3.4 REINFORCEMENT AND EMBEDDED MATERIALS IN REPAIR AREAS

- A. All embedded reinforcement exposed during surface preparation that has lost more than 25% (20% if 2 or more consecutive parallel bars and/or tendons are affected) of original cross-section due to corrosion shall be considered DEFECTIVE. All non-defective exposed reinforcement that has lost section to extent specified above as direct result of Contractor's removal operations shall be considered DAMAGED.
- B. **Embedded materials** including, but not limited to, electrical conduits shall be protected by Contractor during removal operations. Damage due to removal operations shall be

repaired by Contractor in accordance with national code requirements at no cost to Owner. Embedded materials which are defective due to pre-existing conditions may be repaired or replaced by Contractor or abandoned at Owner's option and cost.

- C. Supplement defective or damaged embedded reinforcement by addition of reinforcement of equal diameter with Class "B" minimum splice per ACI 318 beyond damaged portion of reinforcement. Secure new reinforcement to existing reinforcement with wire ties and/or approved anchors. Supplemental reinforcement shall be ASTM A615 Grade 60 steel installed in accordance with Section "Latex Modified Concrete and Mortar."
- D. Loose and supplemental reinforcement exposed during surface preparation shall be securely anchored prior to patch placement. Loose reinforcement shall be adequately secured by wire ties to bonded reinforcement or shall have drilled-in anchors installed to original concrete substrate. Drilled-in anchors shall be Powers "Tie-Wire Lok-Bolt" anchors, ITW Ramset/Red Head "TW-1400" anchor, or approved equivalent. Supplemental reinforcing needed to be held off substrate shall be adequately secured by drilled-in anchors installed to original concrete substrate with Powers "Tie-Wire Spike", ITW Ramset/Red Head Redi-Drive "TD4-112" anchors, or approved equivalent. Engineer will determine adequacy of wire ties and approve other anchoring devices prior to their use. Securing loose and supplemental reinforcement is incidental to surface preparation and no extras will be allowed for this Work.
- E. Concrete shall be removed to provide minimum of 3/4 in. clearance on all sides of defective or damaged exposed embedded reinforcement that is left in place. Minimum of 1.5-in. concrete cover shall be provided over all new and existing reinforcement.
- F. Supplemental reinforcement and concrete removals required for repairs of defective or damaged reinforcement shall be paid for as follows:
 - 1. Concrete removals and supplemental reinforcement required for repairs of DEFECTIVE reinforcement shall be paid for by Owner at unit price bid.
 - 2. Concrete removals and supplemental reinforcement required for repairs of DAMAGED reinforcement shall be paid for by Contractor.

3.5 CLEANING OF REINFORCEMENT WITH DELAMINATION AND SPALL CAVITIES

- A. All exposed steel shall be cleaned of rust to bare metal by sandblasting. Cleaning shall be completed immediately before patch placement to insure that base metal is not exposed to elements and further rusting for extended periods of time. Engineer may require entire bar diameter be cleaned.

3.6 PREPARATION OF CAVITY FOR PATCH PLACEMENT

- A. Cavities will be examined prior to commencement of patching operations. Sounding surface shall be part of examination. Any delamination noted during sounding shall be removed as specified in this Section.

B. Cavities shall be sandblasted. Air blasting is required as final step to remove sand. All debris shall be removed from site prior to commencement of patching.

END OF SECTION 025140

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SECTION 033750 - LATEX MODIFIED CONCRETE AND MORTAR

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of Contract and Division 01 Specification Sections apply to this Section.

1.2 SUMMARY

- A. This Section includes the provision of all labor, materials, and equipment necessary for production and installation of latex modified concrete or mortar for patching floor spalls and overlays.
- B. Related Sections: Following Sections contain requirements that relate to this Section:
 1. Division 02 Section "Surface Preparation for Patching."
 2. Division 07 Section "Water Repellents."
 3. Division 09 Section "Pavement Marking."

1.3 QUALITY ASSURANCE

- A. Work shall conform to requirements of ACI 301 and ACI 318 except where more stringent requirements are shown on Drawings or specified in this Section.
- B. Testing Agency:
 1. Independent testing laboratory employed by Owner and acceptable to Engineer.
 2. Accredited by AASHTO under ASTM C1077. Testing laboratory shall submit documented proof of ability to perform required tests.
- C. Sampling and testing of concrete and mortar shall be performed by ACI certified Concrete Field Technicians Grade I. Certification shall be no more than 3 years old.
- D. Testing Agency is responsible for conducting, monitoring and reporting results of all tests required under this Section. Testing Agency has authority to reject concrete or mortar not meeting Specifications.
- E. Proportioning, production, placement and finishing of latex modified concrete or mortar shall be overseen by, and have approval of, latex manufacturer. Latex admixture supplier shall make available qualified individual experienced in placement of latex modified concrete overlays, to aid Contractor during placement of all latex modified concrete overlay. Qualification of supplier's representative shall be acceptable to Engineer.

F. Testing Agency shall submit following information for field testing of concrete unless modified in writing by Engineer:

1. Project name and location.
2. Contractor's name.
3. Testing Agency's name, address and phone number.
4. Concrete supplier.
5. Date of report.
6. Testing Agency technician's name (sampling and testing).
7. Placement location within structure.
8. Concrete mix data (quantity and type):
 - a. Cement.
 - b. Fine aggregates.
 - c. Coarse aggregates.
 - d. Water.
 - e. Water/cement ratio.
 - f. Latex emulsion.
 - g. Latex emulsion per cu yd of concrete.
 - h. Other admixtures.
9. Weather data:
 - a. Air temperatures.
 - b. Weather.
 - c. Wind speed.
10. Field test data:
 - a. Date, time and place of test.
 - b. Slump.
 - c. Air content.
 - d. Unit weight.
 - e. Concrete temperature.
11. Compressive test data:
 - a. Cylinder number.
 - b. Age of concrete when tested.
 - c. Date and time of cylinder test.
 - d. Curing time (field and lab).
 - e. Compressive strength.
 - f. Type of break.

1.4 REFERENCES

A. American Concrete Institute (ACI):

1. ACI 214, "Recommended Practice for Evaluation of Strength Test Results of Concrete."
2. ACI 301, "Standard Specifications for Structural Concrete."
3. ACI 302.1R, "Guide for Concrete Floor and Slab Construction."
4. ACI 305R, "Hot Weather Concreting."
5. ACI 306R, "Cold Weather Concreting."
6. ACI 306.1, "Standard Specification for Cold Weather Concreting."
7. ACI 318, "Building Code Requirements for Reinforced Concrete."
8. ACI 347, "Recommended Practice for Concrete Formwork."

B. American Society for Testing and Materials (ASTM):

1. ASTM C31, "Method of Making and Curing Concrete Test Specimens in the Field."
2. ASTM C33, "Specification for Concrete Aggregates."
3. ASTM C39, "Test Method for Compressive Strength of Cylindrical Concrete Specimens."
4. ASTM C94, "Specification for Ready-Mixed Concrete."
5. ASTM C109, "Test Method for Compressive Strength of Hydraulic Cement Mortars (Using 2-in. or 50-mm Cube Specimens)."
6. ASTM C138, "Test Method for Unit Weight, Yield, and Air Content (Gravimetric) of Concrete."
7. ASTM C143, "Test Method for Slump of Portland Cement Concrete."
8. ASTM C150, "Specification for Portland Cement."
9. ASTM C172, "Method of Sampling Freshly Mixed Concrete."
10. ASTM C173, "Test Method for Air Content of Freshly Mixed Concrete by the Volumetric Method."
11. ASTM C231, "Test Method for Air Content of Freshly Mixed Concrete by the Pressure Method."
12. ASTM C260, "Specification for Air-Entraining Admixtures for Concrete."
13. ASTM C494, "Specification for Chemical Admixtures for Concrete."
14. ASTM C685, "Specification for Concrete Made by Volumetric Batching and Continuous Mixing."
15. ASTM C1040, "Standard Test Method for Density of Unhardened and Hardened Concrete by Nuclear Methods."
16. ASTM C1077, "Standard Practice for Testing Concrete and Concrete Aggregates for Use in Construction and Criteria for Laboratory Evaluation."
17. ASTM C1218, "Sampling and Testing for Water Soluble Chloride Ion in Concrete and Concrete Raw Materials."

C. Concrete Reinforcing Steel Institute (CRSI):

1. CRSI MSP, "Manual of Standard Practice."

D. Contractor shall have following ACI publications at Project construction site:

1. ACI SP-15, "Standard Specifications for Structural Concrete ACI 301 with selected ACI and ASTM References."
2. ACI 302.1R, "Guide for Concrete Floor and Slab Construction."
3. ACI 305R, "Hot Weather Concreting."

4. ACI 306R, "Cold Weather Concreting."
5. ACI 306.1, "Standard Specification for Cold Weather Concreting."

1.5 SUBMITTALS

- A. Make submittals in accordance with requirements of Division 01 of this Specification, and as herein specified.
- B. Contractor shall submit concrete mix design reviewed and approved by latex manufacturer to Engineer 2 weeks prior to placing concrete. Use mix design submittal form included at end of this Section. Proportion mix designs as defined in ACI 301, 4.2.3. Include following information for each concrete mix design:
 1. Method used to determine proposed mix design (per ACI 301, 4.2.3).
 2. Gradation of fine and coarse aggregates: ASTM C33.
 3. Proportions of all ingredients including all admixtures added either at time of batching or at job site.
 4. Water-cement ratio.
 5. Slump: ASTM C143.
 6. Certification of chloride content of admixtures.
 7. Air content of freshly mixed concrete by pressure method, ASTM C231.
 8. Unit weight of concrete: ASTM C138.
 9. Strength at 3 and 28 days.
 10. Water soluble chloride ion content of concrete per ASTM C1218.
- C. Contractor: At pre-concrete meeting, submit procedures to protect fresh concrete from rain and hot and cold weather conditions.
- D. Testing Agency: Promptly report all concrete test results to Engineer, Contractor and concrete supplier. Include following information:
 1. See Article "Quality Assurance," paragraph "Testing Agency shall submit...."
 2. Weight of concrete, ASTM C138.
 3. Slump, ASTM C143.
 4. Air content of freshly mixed concrete by pressure method, ASTM C231 or volumetric method, ASTM C173.
 5. Concrete temperature (at placement time).
 6. Air temperature (at placement time).
 7. Strength determined in accordance with ASTM C39.
- E. Concrete batched on-site shall be placed and finished within 30 minutes of adding water to mixture.
- F. See requirements of Division 01 Section, "Submittal Procedures," Part 1 heading, "Submittal Procedures," for limits to resubmittals.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Aggregates (ACI 301, Article 4.2.1):
 - 1. Normal weight concrete aggregates:
 - a. Coarse aggregate: Crushed and graded limestone or approved equivalent conforming to ASTM C33, Class Designation 5S.
 - b. Fine aggregate: Natural sand conforming to ASTM C33 and having preferred grading shown for normal weight aggregate in ACI 302.1R, Table 4.2.1.
 - 2. Coarse aggregate: Nominal sizes indicated below, conforming to ASTM C33, Table 2:
 - a. 0.375 in. for patch cavities 0.75 to 1.5 in. deep.
 - b. 0.5 in. for patch cavities greater than 1.5 in. deep and overlay work. For overlays limit maximum size of aggregates to one-third nominal thickness of overlay.
 - 3. Chloride Ion Level: Chloride ion content of aggregates shall be tested by laboratory making trial mixes. Also, total water soluble chloride ion content of mix including all constituents shall not exceed 0.06% chloride ions by weight of cement for prestressed concrete, and 0.15% chloride ions by weight of cement for reinforced concrete. Test to determine chloride ion content shall conform to Test Method ASTM C1218.
- B. Cement (ACI 301, 4.2.1.1):
 - 1. Portland cement, Type I, ASTM C150. Use 1 cement clinker source throughout project. No change in brand without prior written approval from Engineer.
- C. Water (ACI 301, 4.2.1.3):
 - 1. ASTM C94.
- D. Latex Emulsion:
 - 1. "Dow Reichhold Modifier A/NA, Dow Reichhold Specialty Latex LLC, Research Triangle Park, N.C.
 - 2. "Styrofan 1186," BASF Corporation, Chattanooga, TN.
- E. Admixtures (ACI 301, 4.2.1.4):
 - 1. Only admixtures listed shall be acceptable. Do not submit alternates.
 - 2. Concrete supplier and manufacturer shall certify compatibility of all ingredients in each mix design.
 - 3. Use admixtures in strict accordance with manufacturer's recommendations.

4. Prohibited Admixtures: Calcium chloride, thiocyanates or admixtures containing more than 0.5% chloride ions, by weight of admixture, are not permitted. Additionally, each admixture shall not contribute more than 5 ppm, by weight, of chloride ions to total concrete constituents.
- F. Storage of Materials (ACI 301, 4.1.4).

2.2 CONCRETE MIX DESIGN

- A. Selection of concrete proportions shall be in accordance with ACI 301, 4.2.3.1. Before any concrete is placed for project, Contractor shall submit to Engineer data showing method used for determining proposed concrete mix design, including fine and coarse aggregate gradations, proportions of all ingredients, water-cement ratio, slump, air content, cylinder breaks and other required data specified in Article "Submittals," second paragraph, for each different concrete type specified. Mix design shall meet following minimum requirements:

Compressive Strength	4500 psi @ 28 days (2500 psi @ 3 days)
Water-Cement Ratio	0.25 to 0.40
Latex Content Per Sack of Cement	3.5 gal.
Slump*	4 in. \pm 2 in.
Cement Content	658-800 lb./c.y.
Air Content	Less than 6.5%

*For concrete placed by vibratory screeds, slump shall not exceed 4 in. at point of deposit.

- B. Chloride Ion Level: See Article "Materials," paragraph "Chloride Ion Level."
- C. Bonding Grout: Bonding grout shall consist of sand, cement, and latex emulsion in proportions similar to mortar in concrete with sufficient water to form stiff slurry to achieve consistency of "pancake batter."

PART 3 - EXECUTION

3.1 PRODUCTION OF MORTAR OR CONCRETE

- A. Production of latex modified mortar or concrete shall be in accordance with requirements of ACI 301, 4.3.1, except as otherwise specified herein.
- B. Concrete or mortar, mixed at site, shall be proportioned by continuous mixer used in conjunction with volumetric proportioning. Volumetric batching/continuous mixers shall conform to ASTM C685. In addition, self-contained, mobile, continuous type mixing equipment shall comply with following:
 1. Mixer shall be capable of producing batches of not less than 6 cu yds.
 2. Mixer shall be capable of positive measurement of cement being introduced into mix. Recording meter visible at all times and equipped with ticket printout shall indicate this quantity.

3. Mixer shall provide positive control of flow of water into mixing chamber. Water flow shall be indicated by flowmeter and shall be readily adjustable to provide for minor variations in aggregate moisture.
4. Mixer shall be capable of being calibrated to automatically proportion and blend all components of indicated composition on continuous or intermittent basis, as required by finishing operation, and shall discharge mixed material through conventional chute into transporting device or directly in front of finishing machine. Sufficient mixing capacity of mixers shall be provided to permit intended pour to be placed without interruption.
5. Mixer shall be calibrated to accurately proportion specified mix. Yield is required to be within tolerance of 1.0 %.

C. On-site mortar or concrete batching in mixer of at least 0.125 cu yd capacity shall be permitted only with approval of Engineer. On-site concrete batching and mixing shall comply with requirements of ACI 301, 4.3.1.

3.2 PREPARATION (ACI 301, 5.3.1)

- A. Cavity surfaces shall be clean and dry prior to commencement of patch or overlay installation. Preparation of surfaces to receive new concrete shall be in accordance with Section "Surface Preparation for Patching."
- B. Bonding Grout: (For Overlays)
 1. For overlays, bonding grout shall be applied to damp (but not saturated) concrete surface in uniform thickness of 0.0625 in. to 0.125 in. over all surfaces to receive patching or overlay. Grout shall not be allowed to dry or dust prior to placement of patch or overlay material. If concrete placement is delayed and the coating dries, cavity or surface shall not be patched or overlaid until it has been recleaned and prepared as specified in Section "Surface Preparation for Patching." Grout shall not be applied to more area than can be patched or overlaid within 0.5 hr by available manpower.
- C. For patches, surface shall be surface saturated damp, (SSD), with potable water. Do not allow water to accumulate in the patch. Broom out all excess water.
- D. Receive Owner's and Engineer's written approval of concrete surface finish used on flatwork before beginning of construction.

3.3 INSTALLATION

- A. Placing (ACI 301, 5.3.2):
 1. Do not place concrete when temperature of surrounding patch area or air is less than 50° F. unless following conditions are met:
 - a. Place concrete only when temperature of surrounding air is expected to be above 45° F. for at least 36 hours.
 - b. When above conditions are not met, concrete may be placed only if insulation or heating enclosures are provided in accordance with ACI 306,

"Recommended Practice for Cold Weather Concreting." Submit proposed protective measures in writing for Engineer's review prior to concrete placement.

- c. Cost for precautionary measures required shall be borne by Contractor.
2. Concrete shall be manipulated and struck off slightly above final grade. Concrete shall then be consolidated and finished to final grade with internal and surface vibration devices. Proposed consolidation method shall be submitted for Engineer's review prior to concrete placement.
 - a. Do not place concrete if mix temperature exceeds 85° F.
 - b. Do not place concrete under hot weather conditions. Hot weather is defined as air temperature which exceeds 80° F. or any combination of high temperature, low humidity and high wind velocity which causes evaporation rates in excess of 0.10 psf per hr as determined by ACI 305R, Figure 2.1.5.
3. Fresh concrete 3 in. or more in thickness shall be vibrated internally in addition to surface vibration.
4. Concrete shall be deposited as close to its final position as possible. All concrete shall be placed in continuous operation and terminated only at bulkheads or designated control or construction joints.
5. On ramps with greater than 5 % slope, all concreting shall begin at low point and end at high point. Contractor shall make any necessary adjustment to slump or equipment to provide wearing surface without any irregularities or roughness.
6. For overlays concrete consolidation shall be by vibrating screeds meeting following requirements:
 - a. Placing and finishing equipment shall not exceed maximum weight of 6,000 lbs or 3,000 lbs per axle.
 - b. Screed shall be designed to consolidate concrete to 98% of unit weight determined in Section 2.04.A in accordance with ASTM C138. Sufficient number of identical vibrators shall be effectively installed such that at least 1 vibrator is provided for each 5 ft of screed length.
 - c. Bottom face of screeds shall not be less than 4 in. wide and shall be metal covered with turned-up or rounded leading edge to minimize tearing of surface of plastic concrete.
 - d. Screed shall be capable of forward and reverse movement under positive control. Screed shall be provided with positive control of vertical position and angle of tilt.
 - e. Screed shall be capable of vibrating at controlled rate, adjustable to between 3,000 and 6,000 vpm.

B. Finishing (ACI 301, 5.3):

1. Flatwork (BROOM Finish, 5.3.4.2.d):
 - a. When tight and uniform concrete surface has been achieved by screeding and finishing operation, give slab surface coarse transverse scored texture by drawing broom across surface. Texture shall be accepted by Owner and Engineer from sample panels.
 - b. Finishing tolerance: ACI 301, 5.3.4.2; Class B tolerance.

- c. Finish all concrete surfaces to proper elevations to insure that all surface moisture will drain freely to floor drains, and that no puddle areas exist. Contractor shall bear cost of any corrections to provide for positive drainage.
- d. Before installation of overlay and after submittal, review, and approval of concrete mix design, Contractor shall fabricate 2 acceptable test areas simulating finishing techniques and final appearance to be expected and used on Project. Test overlay area shall be minimum of 200 sq ft and shall be cast to thickness of typical wearing surface in Project. Test overlay areas shall be cast from concrete supplied and batched in accordance with project specifications. Contractor shall finish test areas following requirements of items a and b above, and shall adjust finishing techniques to duplicate appearance of concrete surface of each test area. Finished overlay areas (1 or both) may be rejected by Owner or Engineer, in which case Contractor shall repeat procedure until Owner or Engineer acceptance is obtained. Accepted test overlay areas shall be cured in accordance with Specifications. Accepted test areas shall serve as basis for acceptance/rejection of final finished surfaces of all flatwork.

C. Joints in Concrete (ACI 301, 2.2.2.5):

- 1. Construction, control and isolation joints are located and detailed on Drawings:
 - a. Tool joints at time of finishing. Sawcut joints are prohibited.
 - b. Isolation joints - interrupt structural continuity resulting from bond, reinforcement or keyway.
 - c. Coordinate configuration of tooled joints with control joint sealants.

D. Curing:

- 1. Latex modified mortar and concrete shall be cured according to latex manufacturer's recommendations and according to following minimum requirements:
 - a. Surface shall be covered with single layer of clean, wet burlap as soon as surface will support it without deformation. Cover burlap with continuous single thickness of polyethylene film for 24 hours.
 - b. After 24 hours remove polyethylene film and allow burlap to dry slowly for an additional 24 to 48 hours.
 - c. Remove burlap and allow concrete to air dry for an additional 48 hours.
 - d. Curing time shall be extended, as Engineer directs, when curing temperature falls below 50° F.

E. Repair of Defects (ACI 301, 5.3.7):

- 1. Repair all surface defects exceeding 0.25 in. width or depth.
- 2. Match color of concrete to be repaired.
- 3. Submit samples of materials and relevant literature and test data on proprietary compounds and procedures used for adhesion or patching ingredients to Engineer for its review before patching concrete.
- 4. Receive written approval of Engineer of method and materials prior to making repairs to concrete.

3.4 FIELD QUALITY CONTROL BY TESTING AGENCY (ACI 301, 1.6)

A. Air Content:

1. Sample freshly-mixed concrete per ASTM C172 and conduct 1 air content test per ASTM C231 or ASTM C173 for each 10 cubic yards of concrete placed or each day's production, whichever is less.

B. Concrete Compressive Strength:

1. Mold test cylinders in accordance with ASTM C31 and test in accordance with ASTM C31 as follows:

- a. Take minimum of 6 cylinders for each 25 cubic yards or fraction thereof, of each mix design of concrete placed in any 1 day. Use of 4 in. x 8 in. cylinders in lieu of standard cylinders is acceptable.
- b. Additional 2 cylinders shall be taken and field cured under conditions of cold weather concreting, and when directed by Engineer.

2. Cover specimens properly, immediately after finishing. Protect outside surfaces of cardboard molds, if used, from contact with sources of water for first 24 hours after molding.

3. Fabricate and cure test cylinders per ASTM C31, except as follows:

- a. To verify compressive strength, test cylinders required due to cold weather concreting conditions:

- 1) Store test specimens on structure as near to point of sampling as possible and protect from elements in same manner as that given to portion of structure as specimen represents.
- 2) Transport to test laboratory no more than 4 hours before testing. Remove molds from specimens immediately before testing.

- b. To verify 28-day compressive strength:

- 1) During first 24 hours after molding, store test specimens under conditions that maintain temperature immediately adjacent to specimens in range of 60 to 80° F. and prevent loss of moisture from specimens.
- 2) Remove test specimens from molds at end of 20 ± 4 hours and store at 73 ± 3 ° F., 50 ± 4 % relative humidity in laboratory until moment of test.

4. Compression tests:

- a. Test 2 cylinders at 3 days.
- b. Test 2 cylinders at 28 days.
- c. Hold 2 cylinders in reserve for use as Engineer directs.

5. Unless notified by Engineer, reserve cylinders may be discarded without being tested after 56 days.

C. Slump Test:

1. Conduct 1 slump test in accordance with ASTM C143 for each 10 yards of concrete placed, or each day's production, whichever is less.

D. Yield and Proportioning Tests (ASTM C685):

1. When concrete placements involve more than 100 cu yds, accuracy of on-site batching equipment output indicators shall be verified at 50 cu yd intervals.
2. Accuracy of on-site batching equipment proportioning of concrete mixture shall be verified at 100 cu yd intervals.

E. Evaluation and Acceptance of Concrete (ACI 301, 1.6.7 and ACI 318, 4.7):

1. Concrete compression tests will be evaluated by Engineer in accordance with ACI 301, 1.6.7. If number of tests conducted is inadequate for evaluation of concrete or test results for any type of concrete fail to meet specified strength requirements, core tests may be required as directed by Engineer.
2. Core tests, when required, per ACI 301, 1.6.7.3.
3. Should tested hardened concrete meet these specifications, Owner will pay for coring and testing of hardened concrete. Should tested hardened concrete not meet these specifications, concrete contractor will pay for coring and testing of hardened concrete and for any corrective action required for unaccepted concrete.

F. Acceptance of Structure (ACI 301,1.7):

1. Acceptance of completed concrete Work will be according to provisions of ACI 301, 1.7.
2. Patched and overlaid areas shall be sounded by Contractor with chain drag after curing for 7 days. Contractor shall repair all hollowness detected by removing and replacing patch or affected area at no extra cost to Owner.
3. If shrinkage cracks appear in overlay when initial 24 hours curing period is completed, overlay shall be considered defective, and it shall be removed and replaced by Contractor at no extra cost.

MIX DESIGN SUBMITTAL FORM
LATEX MODIFIED CONCRETE
(Submit separate form for each mix design)

I. GENERAL INFORMATION

Project: _____ City: _____

General Contractor: _____

Mix Design Identification No.: _____

Use (Describe)⁽¹⁾: _____

⁽¹⁾ Overlay, Floor Patching, Beam Repairs, etc.

II. MIX DESIGN PREPARATION:

Mix Design Based on (Check one):	Standard Deviation Analysis: or	Trial Mix Test Data:
Design Characteristics:	Density: _____ pcf; Air: _____ %	
	Strength: _____ psi (28 day);	Slump _____ in.

Latex Manufacturer Approval

Name: _____

Title: _____

Date: _____

WALKER ACCEPTANCE STAMP

III. MATERIALS:		
Aggregates: (size; type; source; gradation report; specification)		
Coarse:		
Fine:		
Other Materials:	Type	Product-Manufacturer (Source)
Cement:		
Latex Admixture:		
Other(s):		

IV. <u>MIX PROPORTIONS</u> (per yd³)		
	WEIGHT (lbs.)	ABSOLUTE VOL. (cu. ft.)
Cement:		
Fine Aggregate: ⁽¹⁾		
Coarse Aggregate: ⁽¹⁾		
Latex: ⁽²⁾		
Water: ⁽³⁾		
Other(s):		
TOTALS:		

NOTES:

(1) Based on saturated surface dry weights of aggregates.
(2) Include only weight of solids portion of latex admixture. Confirm with manufacturer actual percentages of solids and water in suspension and coordinate with Note 3.
(3) Includes **ALL WATER**, including added water, free water contained on aggregates, and water suspension portion of latex admixture.

V. RATIOS

<u>Water</u> ⁽⁴⁾ =	_____ lb.
Cement	_____ lb.
<u>Fine Agg.</u> =	_____ lb.
Total Agg	_____ lb.

VI. SPECIFIC GRAVITIES

Fine Aggregate

Coarse Aggregate

VII. ADMIXTURES

Air Entraining Agent (A.E.A.):	_____ oz.	per 100# cement
Water Reducer	_____ oz.	per 100# cement
Latex Emulsion	_____ gal	per sack cement
Other(s)		

VIII. STANDARD DEVIATION ANALYSIS:	<u>Yes</u>	<u>N/A</u>
(Complete this section only if mix design was developed using standard deviation analysis of previous project test results. If other method was used, check "N/A".)		
Number of Test Cylinders Evaluated:	Standard Deviation:	
Mix Designs Proportioned to Achieve $f'_{cr} = f'c +$ _____ psi		
NOTE: Mix designs shall be proportioned to achieve f'_{cr} equal to or greater than the larger of $f'_{cr} = f'c + 1.34s$ [s= calculated standard deviation] or $f'_{cr} = f'c + 2.33s - 500$ (Refer to ACI 301 for increased deviation factor when less than 30 tests are available.)		

IX. TRIAL MIXTURE TEST DATA:	<u>Yes</u>	<u>N/A</u>
(Complete this section only if mix design is based on data from trial test mixture(s) batched by testing agency or Contractor. If other method was used, check "N/A".)		
Age (days)	Trial Mix #1 (comp. str.)	Trial Mix #2 (comp. str.)
<u>7</u>		
<u>7</u>		
<u>28</u>		
<u>28</u>		
28 day average compressive strength: _____ psi		
DESIGN MIX CHARACTERISTICS		
Slump = _____ in.	Air Content = _____ %	
Unit Wet Wt. = _____ pcf	Unit Dry Wt. = _____ pcf	
Mix Design Proportioned to Achieve: $f'_c + 1200$ psi (1200 psi increases to 1400 psi when $f'_c > 5000$ psi)		
ACTUAL MIX CHARACTERISTICS		
Initial Slump = _____ in.	Final Slump _____ in.	
Unit Wet Wt. = _____ pcf.	Unit Dry Wt. = _____ pcf	
Air Content = _____ %		

X. OTHER REQUIRED TESTS

Soluble Chloride Ion Content of mix: _____ % by weight of cement
(Water soluble by ASTM 1218 OR AASHTO T260)

XI. Remarks:

Submitted by:

Latex Modified Concrete Supplier

Name:

Address:

Phone Number:

Date:

My signature below certifies that I have read, understood, and will comply with the requirements of this Section.

Signature _____

Typed or Printed Name _____

REQUIRED ATTACHMENTS	
	Coarse aggregate grading report
	Fine aggregate grading report
	Concrete compressive strength data used for standard deviation calculations
	Chloride ion data and related calculations
	Admixture compatibility certification letter

INSTRUCTIONS:

1. Fill in all blank spaces. Use -0- (Zero) or N.A. (Not Applicable) where appropriate. See "Design and Control of Concrete Mixtures: 13th Edition by Portland Cement Association, for assistance in completing this form.
2. Provide the necessary documentation to support any laboratory test results or compliance to standard ASTM test methods or specifications referenced in the mix design submittal form.
3. If mix design utilizes multiple aggregate material sources, submit chloride ion content test data of each component from material suppliers. Test data shall be not more than 1 yr old.
Attach letter of certification that all admixtures, including latex admixture, are compatible for this mix design.

END OF SECTION 033750

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SECTION 033760 – PREPACKAGED REPAIR MORTAR

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of Contract and Division 01 Specification Sections apply to this Section.

1.2 SUMMARY

- A. This Section includes the provision of all labor, materials, supervision and incidentals necessary to prepare deteriorated or damaged concrete surfaces and install prepackaged concrete repair mortar to formed horizontal, vertical and overhead surfaces to restore original surface condition and integrity.
- B. Related Sections: Following Sections contain requirements that relate to this Section:
 1. Division 01 Section "Submittal Procedures."
 2. Division 02 Section "Work Items."
 3. Division 02 Section "General Concrete Surface Preparation."
 4. Division 02 Section "Surface Preparation for Patching."
 5. Division 03 Section "Latex Modified Concrete and Mortar."
 6. Division 07 Section "Concrete Joint Sealants."

1.3 QUALITY ASSURANCE

- A. Work shall conform to requirements of ACI 301 as applicable except where more stringent requirements are shown on Drawings or specified in this Section.
- B. Testing Agency:
 1. Independent testing laboratory employed by Owner and acceptable to Engineer.
 2. Accredited by AASHTO under ASTM C1077. Testing laboratory shall submit documented proof of ability to perform required tests.
- C. Testing Agency is responsible for conducting, monitoring and reporting results of all tests required under this Section. Testing Agency has authority to reject mortar not meeting Specifications. Testing Agency does not have the authority to accept mortar that does not meet specifications.
- D. Testing Agency shall submit the following information for Field Testing of Concrete unless modified in writing by Engineer:
 1. Project name and location.
 2. Contractor's name.

3. Testing Agency's name, address and phone number.
4. Mortar manufacturer.
5. Date of report.
6. Testing Agency technician's name (sampling and testing).
7. Placement location within structure.
8. Weather data:
 - a. Air temperatures.
 - b. Weather.
 - c. Wind speed.
9. Date, time, and place of test.
10. Compressive test data:
 - a. Cube or cylinder number.
 - b. Age of sample when tested.
 - c. Date and time of test.
 - d. Compressive strength.

1.4 REFERENCES

- A. "Standard Specification for Structural Concrete" (ACI 301) by American Concrete Institute, herein referred to as ACI 301, is included in total as specification for this structure except as otherwise specified herein.
- B. Comply with provisions of following codes, specifications and standards except where more stringent requirements are shown on Drawings or specified herein:
 1. "Building Code Requirements for Structural Concrete" (ACI 318), American Concrete Institute, herein referred to as ACI 318.
 2. "Hot Weather Concreting" reported by ACI Committee 305.
 3. "Cold Weather Concreting" reported by ACI Committee 306.
 4. "Standard Specification for Curing Concrete" (ACI 308.1)
- C. American Society for Testing and Materials (ASTM):
 1. ASTM C109, "Test Method for Compressive Strength of Hydraulic Cement Mortars (Using 2-in. or 50-mm Cube Specimens)."
 2. ASTM C31, "Test Method for Compressive Strength of Cylindrical Concrete Specimens."
 3. ASTM C1583, "Standard Test Method for the Tensile Strength of Concrete Surfaces and the Bond Strength or Tensile Strength of Concrete Repair and Overlay Materials by Direct Tension (Pull-off Method)"

1.5 SUBMITTALS

- A. Make submittals in accordance with requirements of Division 01 and as specified in this Section.

- B. Contractor: At preconstruction meeting, submit procedures for demolition, surface preparation, material batching, placement, finishing, and curing of application. Provide procedure to protect fresh patches from severe weather conditions.
- C. Testing Agency: Promptly report all mortar test results to Engineer and Contractor. Include following information:
 - 1. See Article "Quality Assurance," paragraph "Testing Agency shall submit...."
 - 2. Strength determined in accordance with ASTM C109.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Manufacturer: Subject to compliance with requirements, provide products of one of following, only where specifically named in product category:
 - 1. BASF Building Systems (BASF), Shakopee, MN
 - 2. Euclid Chemical Corporation (Euclid), Cleveland, OH
 - 3. King Construction Products (King), Burlington, ON
 - 4. Mapei Corporation (MAPEI), Deerfield Beach, FL
 - 5. Sika Corporation (Sika), Lyndhurst, NJ.
 - 6. J.E. Tomes (Tomes), Blue Island, IL

2.2 MATERIALS

- A. Repair and Form and Pour Mortar for use with Galvanic Anodes: Shall be prepackaged cementitious repair mortar capable of horizontal and form and pour partial depth applications, achieving a minimum 3,000 psi compressive strength at 7 days and 5,000 psi compressive strength at 28 days per ASTM C39 as certified by manufacturer with maximum lineal shrinkage of 0.10% at 28 days. Manufacturer shall provide written certification of compatibility with galvanic anode corrosion protection system. Extend per manufacturer's instructions as required for deeper placements.
 - 1. Acceptable materials for this Work are as follows:
 - a. "MasterEmaco S440," by BASF.
 - b. "EucoRepair CP," by Euclid.
 - c. "FA-S10 Concrete," by King.
 - d. "Sikacrete 211," by Sika.
 - e. "Form Flo P-38," by Tomes.
 - f. Other types may be used only with Engineer's approval.

2.3 MATERIAL ACCESSORIES

- A. Bonding Grout: Bonding grout shall consist of prepackage repair material mixed with sufficient water to form stiff slurry to achieve consistency of "pancake batter."

- B. Clear, Membrane-Forming Curing Compound: ASTM C 309, Type 1, Class B.
- C. Clear, Solvent-Borne, Membrane-Forming Curing and Sealing Compound: ASTM C 1315, Type 1, Class A.
- D. Clear, Waterborne, Membrane-Forming Curing and Sealing Compound: ASTM C 1315, Type 1, Class A.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Bonding Grout:
 - 1. Mix bonding grout and scrub into SSD repair substrate with a stiff broom to all areas as indicated on Drawings.
 - 2. Place repair material prior to initial set of grout. If grout sets prior to placement of repair material, completely remove grout from surface and re-clean prior to proceeding with new grout placement and repair mortar.
- B. Mortar Placement: Mortar materials shall be placed in strict accordance with manufacturer's instructions. Properly proportioned and mixed mortar material shall be placed using tools to consolidate mortar so that no voids exist within new material and continuous contact with base concrete is achieved.
- C. Form and Pour Repair Mortar Placement: Mix and apply in strict accordance with manufacturer's written instructions, to achieve a maximum 9" slump. Consolidate mortar so that no voids exist and continuous contact with base concrete is achieved.
- D. Vertical and Overhead Repairs: Mortar materials shall be placed in strict accordance with manufacturer's instructions. Properly proportioned and mixed mortar material shall be placed using tools to consolidate mortar so that no voids exist within new material and continuous contact with base concrete is achieved. Supplemental wire mesh shall be required for delamination and spall repairs greater than two inches in depth.
- E. Finishing:
 - 1. Apply a nonslip broom finish to top of floor patches and to exterior concrete platforms, steps, and ramps. Immediately after float finishing, slightly roughen trafficked surface by brooming with fiber-bristle broom perpendicular to main traffic route.
 - 2. Provide a surface finish similar to adjacent surfaces for vertical and overhead partial depth repairs.
 - 3. Finish formed surfaces similar to adjacent surfaces.

3.2 CONCRETE PROTECTION AND CURING

- A. Protect freshly placed concrete from premature drying and excessive cold or hot temperatures. Comply with ACI 306.1 for cold-weather protection and ACI 305R for hot-weather protection during placement. Keep concrete continually moist prior to final curing by evaporation retarder, misting, sprinkling, or using absorptive mat or fabric covering kept continually moist.
- B. Immediate upon conclusion of finishing operation cure concrete in accordance with ACI 308.1 for duration of at least seven days by curing methods listed below. Provide additional curing immediately following initial curing and before concrete has dried.
 - 1. During initial and final curing periods maintain concrete above 50°.
 - 2. Prevent rapid drying at end of curing period.
- C. Concrete surfaces to receive slab coatings or penetrating sealers shall be cured with moisture curing or moisture-retaining-cover curing.

3.3 FIELD QUALITY CONTROL

- A. Testing Agency: Owner shall engage a qualified independent testing and inspecting agency acceptable to the Engineer to sample materials, perform tests, and submit test reports during concrete placement according to requirements specified in this Article. Perform tests according to ACI 301.
- B. Testing Frequency: Perform one set of strength testing and one bond test for each product used for each day's work. Prepare samples in accordance with ASTM C31.
- C. Compressive Strength Testing: Determine strength at 7 and 28 days. Each test shall consist of two 6-inch diameter cylinders or three 4-inch diameter cylinders. Testing shall be in accordance with ASTM C39.

3.4 EVALUATION AND ACCEPTANCE OF WORK

- A. Acceptance of Repairs (ACI 301):
 - 1. Acceptance of completed concrete Work will be according to provisions of ACI 301.
 - 2. Repair areas shall be sounded by Engineer and Contractor with hammer or rod after curing for 72 hours. Contractor shall repair all hollowness detected by removing and replacing patch or affected area at no extra cost to Owner.
 - 3. If shrinkage cracks appear in repair area when initial curing period is completed, repair shall be considered defective, and it shall be removed and replaced by Contractor at no extra cost.
 - 4. Patches shall be considered defective if average strength does not meet minimum strength at 28 days or if average bond strength does not meet minimum requirements of 150 psi.

END OF SECTION 033760

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SECTION 037200 - TROWEL APPLIED MORTAR

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of Contract and Division 01 Specification Sections apply to this Section.

1.2 SUMMARY

- A. This Section includes the provision of all labor, materials, supervision and incidentals necessary to prepare deteriorated or damaged concrete surfaces and install patches to overhead and vertical surfaces to restore original surface condition and integrity.
- B. Related Sections: Following Sections contain requirements that relate to this Section:
 1. Division 02 Section "General Concrete Surface Preparation."
 2. Division 02 Section "Surface Preparation for Patching."

1.3 QUALITY ASSURANCE

- A. Work shall conform to requirements of ACI 301 as applicable except where more stringent requirements are shown on Drawings or specified in this Section.
- B. Testing Agency:
 1. Independent testing laboratory employed by Owner and acceptable to Engineer.
 2. Accredited by AASHTO under ASTM C1077. Testing laboratory shall submit documented proof of ability to perform required tests.
- C. Testing Agency is responsible for conducting, monitoring and reporting results of all tests required under this Section. Testing Agency has authority to reject mortar not meeting Specifications.
- D. Sampling and testing of mortar shall be performed by ACI certified Concrete Field Technicians Grade I. Certification shall be no more than three years old.
- E. Testing Agency shall submit following information for Field Testing of Concrete unless modified in writing by Engineer:
 1. Project name and location.
 2. Contractor's name.
 3. Testing Agency's name, address and phone number.
 4. Mortar manufacturer.
 5. Date of report.
 6. Testing Agency technician's name (sampling and testing).

7. Placement location within structure.
8. Weather data:
 - a. Air temperatures.
 - b. Weather.
 - c. Wind speed.
9. Date, time, and place of test.
10. Compressive test data:
 - a. Cube number.
 - b. Age of mortar when tested.
 - c. Date and time of cube test.
 - d. Compressive strength.

1.4 REFERENCES

- A. "Standard Specification for Structural Concrete" (ACI 301) by American Concrete Institute, herein referred to as ACI 301, is included in total as specification for this structure except as otherwise specified herein.
- B. Comply with provisions of following codes, specifications and standards except where more stringent requirements are shown on Drawings or specified herein:
 1. "Building Code Requirements for Structural Concrete" (ACI 318), American Concrete Institute, herein referred to as ACI 318.
 2. "Hot Weather Concreting" reported by ACI Committee 305.
 3. "Cold Weather Concreting" reported by ACI Committee 306.
 4. "Standard Specification for Curing Concrete" (ACI 308)
- C. Contractor shall have following ACI publications at Project construction site at all times:
 1. "Standard Specifications for Structural Concrete (ACI 301) with Selected ACI and ASTM References," ACI Field Reference Manual, SP15.
 2. "Hot Weather Concreting" reported by ACI Committee 305.
 3. "Cold Weather Concreting" reported by ACI Committee 306.
 4. "Standard Specification for Curing Concrete" (ACI 308)
- D. American Society for Testing and Materials (ASTM):
 1. ASTM C109, "Test Method for Compressive Strength of Hydraulic Cement Mortars (Using 2-in. or 50-mm Cube Specimens)."
 2. ASTM C31, "Test Method for Compressive Strength of Cylindrical Concrete Specimens."

1.5 SUBMITTALS

- A. Make submittals in accordance with requirements of Division 01 and as specified in this Section.

- B. Contractor: At pre-construction meeting, submit procedures for demolition, surface preparation, material batching, placement, finishing, and curing of application. Provide procedure to protect fresh patches from severe weather conditions.
- C. Testing Agency: Promptly report all mortar test results to Engineer and Contractor. Include following information:
 1. See Article "Quality Assurance," paragraph "Testing Agency shall submit...."
 2. Strength determined in accordance with ASTM C109.
- D. See requirements of Division 01 Section, "Submittal Procedures," Part 1 heading, "Submittal Procedures," for limits to resubmittals.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Trowel Applied Repair Mortar: Shall be prepackaged, polymer-modified cementitious repair mortar capable of vertical/overhead application by trowel achieving a minimum 3,000 psi compressive strength at 7 days and 5,000 psi compressive strength at 28 days per ASTM C 109 as certified by manufacturer. Manufacturer to submit volume and size of SSD aggregate used for mix extension.
- B. Acceptable materials for overhead and vertical work are:
 - a. "Planitop X or XS," Mapei Systems, Deerfield Beach, FL
 - b. "SikaQuick VOH," Sika Corporation, Lyndhurst, NJ
 - c. "MasterEmaco N 400 RS," Master Builder Solutions, Shakopee, MN
 - d. "Verticoat Supreme," by Euclid Chemical Company, Cleveland, OH
- C. Acceptable materials for horizontal repair work are:
 - a. "Planitop 18," Mapei Systems, Deerfield Beach, FL
 - b. "SikaTop 122 Plus," Sika Corporation, Lyndhurst, NJ
 - c. "MasterEmaco T310 CI," Master Builder Solutions, Shakopee, MN
 - d. "Concrete Top Supreme," by Euclid Chemical Company, Cleveland, OH

PART 3 - EXECUTION

3.1 PREPARATION

- A. Surface Preparation: Cavity surfaces shall be clean and dry prior to commencement of patch installation. Preparation of cavity to receive new mortar shall be in accordance with Section "Surface Preparation for Patching" and manufacturer's instructions.

3.2 INSTALLATION

A. Repair Mortar Bonding Grout:

1. Mix and apply bonding grout in strict accordance with manufacturer's recommendations.
2. If bonding grout dries, cavity shall not be patched until it has been recleaned and prepared as specified in Section "Surface Preparation for Patching." Grout shall not be applied to more cavities than can be patched within 0.25 hr by available manpower.

B. Mortar Placement: Patching materials shall be placed immediately following grout application in strict accordance with manufacturer's instructions. Properly proportioned and mixed patch material shall be placed using trowels to consolidate patch so that no voids exist within new material and continuous contact with base concrete is achieved. Supplemental wire mesh shall be required for delamination and spall repairs greater than two inches in depth. Fresh bonding grout is required between successive lifts of patching material.

3.3 CURING

A. Protect freshly placed concrete repair mortar from premature drying and excessive cold or hot temperatures. Comply with ACI 306.1 for cold-weather protection and ACI 301 for hot-weather protection during placement. Keep patch material continually moist prior to final curing by evaporation retarder, misting, sprinkling, or using absorptive mat or fabric covering kept continually moist.

1. **Evaporation Retarder:** Apply evaporation retarder to unformed concrete surfaces if hot, dry, or windy conditions cause moisture loss approaching 0.1 lb/sq. ft. x h before and during finishing operations. Apply material according to manufacturer's written instructions one or more times after placement, but prior to float finishing. Repeated applications are prohibited after float finishing has begun.
2. **Acceptable evaporation retarder materials for this Work are:**
 - a. "Cimfilm", by Axim Concrete Technologies.
 - b. "Confilm", by BASF Building Systems, Shakopee, MN.
 - c. "AquaFilm", by Conspec Marketing & Manufacturing Co., Inc.
 - d. "Sure-Film (J-74)", by Dayton Superior Corporation.
 - e. "Eucobar", or "Tamms Surface Retarder", by The Euclid Chemical Company, Cleveland, OH.
 - f. "E-Con", by L&M Construction Chemicals, Inc.
 - g. "EVRT", by Russ Tech Admixtures, Inc.
 - h. "SikaFilm", by Sika Corporation, Lyndhurst, NJ.

B. Final Curing: Curing compounds complying with ASTM C309 may be used in accordance with recommendations of ACI 506.7, "Specification for Concrete." Provide additional curing immediately following initial curing and before patch material has dried. Use one of following materials or methods:

1. Continue method used in initial curing.
2. Material conforming to ASTM C171.
3. Curing compounds conforming to ASTM C309.
4. Other moisture retaining covering as approved by Engineer.
5. Duration of Curing: Continue curing for first 7 days after patch placement. During initial and final curing periods maintain patch material above 50° F.
6. Prevent rapid drying at end of curing period.
7. Provide additional curing as required or recommended by manufacturer.

C. Curing Compound (VOC Compliant, less than 350 g/l): Comply with ASTM C 309, Type 1, Class A or B. Moisture loss shall be not more than 0.55 kg/m² when applied at 200 sq. ft/gal. Manufacturer's certification is required. Silicate based compounds prohibited.

1. Subject to project requirements provide one of the following products:
 - a. "Kurez DR VOX" or "Kurez RC," or "Kurez RC Off," Euclid Chemical Company.
 - b. "RxCure WB," or "RxCure VOC" or "W.B. Cure VOC," Conspec Marketing & Manufacturing.
 - c. "Kure N Seal W" or "Kure N Seal WB" BASF Construction Chemicals, LLC.
 - d. "MAPECURE DR", by MAPEI Corporation, Deerfield Beach, FL.
2. Additional requirements:
 - a. With product submittal provide plan and procedures for removal of residual curing compound prior to application of sealers, coatings, stains, pavement markings and other finishes.
 - b. Provide a summary of testing to show adequate surface preparation for successful application of sealers, coatings, stains, pavement markings, and other finishes.

3.4 FIELD QUALITY CONTROL BY TESTING AGENCY

A. Concrete Compressive Strength:

1. Mold test cubes in the field in accordance ASTM C-31 and ASTM C-109 as follows and further below:
 - a. Take a minimum of twelve (12) cubes for each 10 cu ft, or fraction thereof, of each repair mortar placed in any one day.
 - b. Use 2 in. x 2 in. cubes.
 - c. Additional 2 cubes shall be taken and field cured under conditions of cold weather concreting, and when directed by Engineer.
 - d. Cover specimens properly, immediately after finishing. Protect molds from contact with sources of water for first 24 hours after molding.
2. Fabricate and cure test cubes per ASTM C-109, except as follows:

- a. Do not remove specimens from molds before 24 hours.
- b. To verify 7 and 28-day compressive strengths:
 - 1) During first 24 hours after molding, store test specimens under conditions that maintain temperature immediately adjacent to specimens in range of 60 to 80° F. and prevent loss of moisture from specimens.
 - 2) Remove test specimens from molds at end of 24 hours and air dry in laboratory until moment of test.
- c. To verify compressive strength of test cubes required due to cold weather concreting conditions:
 - 1) Store test specimens on structure as near to point of sampling as possible and protect from elements in same manner as that given to portion of structure as specimen represents.
 - 2) Transport to test laboratory no more than 4 hours before testing. Remove molds from specimens immediately before testing.

3. Compression Test:
 - a. Test 3 cubes at 1 day (Mandatory).
 - b. Test 3 cubes at 7 days (Mandatory).
 - c. Test 3 cubes at 28 days (Mandatory).
 - d. Hold 3 cubes in reserve for use as Engineer directs.
4. Unless notified by Engineer, reserve cubes may be discarded without being tested after 56 days.

3.5 EVALUATION AND ACCEPTANCE OF TROWEL APPLIED MORTAR REPAIRS

- A. Acceptance of Repairs (ACI 301):
 1. Acceptance of completed concrete Work will be according to provisions of ACI 301.
 2. Patched areas shall be sounded by Engineer and Contractor with hammer or rod after curing for 72 hours. Contractor shall repair all hollowness detected by removing and replacing patch or affected area at no extra cost to Owner.
 3. If shrinkage cracks appear in patch area when initial curing period is completed, patch shall be considered defective, and it shall be removed and replaced by Contractor at no extra cost.

END OF SECTION 037200

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SECTION 042000 – UNIT MASONRY

PART 1 - GENERAL

1.1 SECTION REQUIREMENTS

- A. Comply with ACI 530.1/ASCE 6/TMS 602.

PART 2 - PRODUCTS

2.1 MASONRY UNITS

- A. Concrete Masonry Units: ASTM C 90; Weight Classification, Normal Weight; Type II.

2.2 MORTAR

- A. Mortar: ASTM C 270, Proportion Specification, for job-mixed mortar; and ASTM C 1142 for ready-mixed mortar.
 - 1. Do not use calcium chloride in mortar.
 - 2. For exterior, above-grade, load-bearing and non-load-bearing walls and parapet walls; for interior load-bearing walls; for interior non-load-bearing partitions, and for other applications where another type is not indicated, use Type N.
 - 3. For face brick, use colored cement or cement-lime mix of color selected.

2.3 JOINT REINFORCEMENT, TIES, AND ANCHORS

- A. Provide joint reinforcement formed from galvanized carbon-steel wire, ASTM A 153, Class B-2, for exterior walls.
 - 1. Wire Diameter for Side Rods: 0.1875 inch
 - 2. Wire Diameter for Cross Rods: 0.1483 inch.
 - 3. For single-wythe masonry, provide ladder design.
 - 4. For multiwythe masonry, provide ladder design with 2 side rods.
- B. Veneer Anchors: 2-piece adjustable masonry veneer anchors allowing vertical or horizontal differential movement between veneer and wall framing parallel to plane of wall but resisting tension and compression forces perpendicular to it, for attachment over sheathing to studs, and acceptable to authorities having jurisdiction.
 - 1. Dur-O-Wal
 - 2. Heckmann

2.4 EMBEDDED FLASHING MATERIALS

- A. Sheet Metal Flashing: Stainless-steel, 0.0156 inch

2.5 MISCELLANEOUS MASONRY ACCESSORIES.

- A. Weep Holes: Cotton sash cord
- B. Masonry Cleaner:
 - 1. $\frac{1}{2}$ -cup (0.14-L) tetrasodium polyphosphate and $\frac{1}{2}$ -cup (0.14-L) laundry detergent dissolved in 1 gal. (4 L) of water].
 - 2. 600 Detergent, Prosoco

PART 3 - EXECUTION

3.1 INSTALLATION, GENERAL

- A. Cut masonry units with motor-driven saws. Install cut units with cut surfaces and, where possible, cut edges concealed.
- B. Mix units for exposed unit masonry from several pallets or cubes as they are placed to produce uniform blend of colors and textures.
- C. Matching Existing Masonry: Match coursing, bonding, color, and texture of existing masonry.
- D. Stopping and Resuming Work: In each course, rack back units; do not tooth.
- E. Fill cores in hollow concrete masonry units with grout 24 inches (600 mm) under bearing plates, beams, lintels, posts, and similar items, unless otherwise indicated.
- F. Tool exposed joints slightly concave when thumbprint hard, unless otherwise indicated.
- G. Keep cavities clean of mortar droppings and other materials during construction. Strike joints facing cavities flush.

3.2 FLASHING AND WEEP HOLES

- A. Install embedded flashing and weep holes in masonry at shelf angles, lintels, ledges, flashings, other obstructions to the downward flow of water in the wall, and where indicated.
- B. Place through-wall flashing on sloping bed of mortar and cover with mortar. Seal penetrations in flashing before covering with mortar.

- C. Trim wicking material used in weep holes flush with outside face of wall after mortar has set.

3.3 CLEANING

- A. Clean stone masonry veneer as work progresses. Remove mortar fins and smears before tooling joints.
- B. Final Cleaning: After mortar is thoroughly set and cured, remove large mortar particles and scrub unit masonry.
 - 1. Wet wall surfaces with water, apply cleaner, then remove cleaner by rinsing thoroughly with clear water.

END OF SECTION 042000

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SECTION 071900 – WATER REPELLENTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of Contract and Division 01 Specification Sections apply to this Section.

1.2 SUMMARY

- A. A single installer shall be responsible for providing complete water proofing system including all products specified in the following Sections:
 1. Division 07 Section, "Water Repellents"
 2. Division 07 Section, "Concrete Joint Sealants"
- B. This Section includes penetrating concrete sealer on these surfaces:
 1. Supported concrete floor and concrete roof surfaces including curbs, walks, islands and pour strips.
- C. Related Sections: Following Sections contain requirements that relate to this Section.
 1. Division 03 Section, "Latex Modified Concrete and Mortar."
 2. Division 07 Section, "Concrete Joint Sealants"
 3. Division 09 Section, "Pavement Markings."

1.3 REFERENCES

- A. ASTM International (ASTM):
 1. ASTM D6489, "Standard Test Method for Determining the Water Absorption of Hardened Concrete Treated with a Water Repellent Coating."

1.4 ADMINISTRATIVE REQUIREMENTS

- A. Coordination:
 1. Materials shall be compatible with materials or related Work with which they come into contact, and with materials covered by this Section.
 2. Distribute reviewed submittals to all others whose Work is related.

1.5 INFORMATION SUBMITTALS

A. Certificates

1. Certification that products and installation comply with applicable federal, State of Illinois, and local EPA, OSHA and VOC requirements regarding health and safety hazards.
2. Evidence of applicator's being certified by manufacturer. Evidence shall include complete copy of manufacturer's licensing/certification document, spelling out repair responsibility for warranty claims.

B. Field Quality Control

1. ASTM D6489 Test Results
2. Two copies of manufacturer's technical representative's log for each visit.

C. Qualification Statements

1. Manufacturer's qualifications as defined in the "Quality Assurance" article.
2. Installer's qualifications as defined in the "Quality Assurance" article.
3. Signed statement from applicator certifying that applicator has read, understood, and shall comply with all requirements of this Section.

1.6 QUALITY ASSURANCE

A. Manufacturer's Qualifications: Owner retains right to reject any manufacturer.

1. Evidence of acceptable previous work on WALKER-designed projects. If none, so state.
2. Evidence of financial stability acceptable to Engineer.
3. Listing of 20 or more projects completed with submitted system, to include:
 - a. Name and location of project.
 - b. Type of system applied.
 - c. On-Site contact with phone number.

B. Installer's Qualifications: Owner retains right to reject any installer.

1. Evidence of compliance with Summary article paragraph "A single installer. . ."
2. Evidence that installer has successfully performed or has qualified staff who have successfully performed at least 5 verifiable years of installations similar to those involved in this Contract, and minimum 10 projects with submitted system.
3. Listing of 5 or more installations in climate and size similar to this Project performed by installer's superintendent.

C. Testing Agency: Independent testing laboratory employed by Owner and acceptable to Engineer.

D. Certifications

1. Sealer shall satisfy the current national and local Volatile Organic Compound (VOC) Emission Standards for Architectural Coatings.
2. Licensing/certification document from system manufacturer that confirms system installer is a licensed/certified applicator for the manufacturer and is legally licensed to perform work in the State of Illinois.
3. Licensing/certification agreement must provide following information:
 - a. Applicator's financial responsibility for warranty burden under agreement terms.
 - b. Manufacturer's financial responsibility for warranty burden under agreement terms.
 - c. Process for dispute settlement between manufacturer and applicator in case of system failures where cause is not evident or cannot be assigned.
 - d. Officers' signatures for both Applicator Company and Manufacturer.
 - e. Commencement date of agreement and expiration date (if applicable).

1.7 DELIVERY, STORAGE, 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 preparation.
 4. Lot or batch number.
- B. Store materials under cover and protect from weather. Replace packages or materials showing any signs of damage with new material at no additional cost to Owner.
- C. Do not store material on slabs to be post-tensioned before final post-tensioning of slabs is accomplished. At no time shall weight of stored material being placed on slab area, after post-tensioning is completed and concrete has reached specified 28-day strength, exceed total design load of slab area. Between time final post-tensioning is accomplished and time concrete has reached specified 28-day strength, weight of stored material placed on slab area shall not exceed half total design load of slab area.

1.8 FIELD CONDITIONS

- A. Weather and Substrate Conditions: Do not proceed with application (except with written recommendation of manufacturer) under any of the following conditions:
 1. Ambient temperature is less than 40° F.
 2. Substrate surfaces have cured for less than 1 month.
 3. Rain or temperatures below 40° F predicted for a period of 24 hours.
 4. Less than 24 hours after surfaces became wet.
 5. Substrate is frozen or surface temperature is less than 40° F.
 6. Wind velocities higher than manufacturer's specified limit to prevent solvent flash-off.

PART 2 - PRODUCTS

2.1 MAUFACTURES

A. Manufacturer: Subject to compliance with requirements, provide products of one of following, only where specifically named in product category:

1. Advanced Chemical Technologies Inc. (ACT), Oklahoma City, OK.
2. Master Builders Solutions (MBS), Shakopee, MN.
3. Evonik Degussa Corporation (Evonik Degussa), Parsippany, NJ.
4. Lymtal International Inc. (Lymtal), Lake Orion, MI.
5. Sika Corporation (Sika), Lyndhurst, NJ.

2.2 MATERIALS, CONCRETE SEALER

A. Silane (90% or greater solids, 400 g/L or less VOC):

1. MasterProtect H 1000, 200 sf/g, MBS.
2. Iso-Flex 618-100 CRS, 200 sf/g, Lymtal.
3. Protectosil BHN or 300S, 200 sf/g, Evonik Degussa Corp.
4. Sikagard 705L ,200 sf/g, Sika.
5. Sil-Act ATS-100 LV, 200 sf/g, ACT.

B. Proposed substitutions: None for this project. Contact Engineer for consideration for future projects.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine surfaces to receive Work and report immediately in writing to Engineer any deficiencies in surface which render it unsuitable for proper execution of Work.

B. Coordinate and verify that related Work meets following requirements before beginning surface preparation and application:

1. Concrete surface finishes are acceptable for system to be installed.
2. Curing compounds used on concrete surfaces are compatible with system to be installed.
3. Concrete surfaces have completed proper curing period for system selected.
4. Control joint and expansion joint Work is complete and has been accepted by Engineer.

3.2 PREPARATION

- A. Seal all openings to occupied space to prevent cleaning materials, solvents and fumes from infiltration. All protective measures and/or ventilating systems required to prevent infiltration are incidental to this Work.
- B. Acid etching is prohibited.
- C. Repair or replace all sealant materials damaged by surface preparation operations.
- D. Shot blast clean all surfaces to be sealed as acceptable to sealer manufacturer before sealer application. Cleaning method and materials shall be sufficient to allow absorption criteria stated in Field Quality Control article to be met. Prepare by sandblasting all surfaces inaccessible to shot blast equipment.
- E. Equipment used during floor slab cleaning shall not exceed height limitation of facility and shall not exceed 3,000 lb axle load or vehicle gross weight of 6,000 lb.
- F. Mask off adjoining surfaces not to receive sealer and mask off drains to prevent spillage and migration of liquid materials outside sealer area. Provide neat/straight lines at termination of sealer.

3.3 INSTALLATION/APPLICATION

- A. Do all Work in accordance with manufacturer's written instructions and specifications including, but not limited to, moisture content of substrate, atmospheric conditions (including relative humidity and temperature), coverage, mil thickness and texture, and as shown on Drawings.
- B. Clean all surfaces affected by sealer material overspray and repair all damage caused by sealer material overspray to adjacent construction or property at no cost to Owner.
- C. Clean off excess material as work progresses using methods and materials approved by manufacturer.

3.4 FIELD QUALITY CONTROL

- A. Install 3 trial sections of sealer to verify treated surface is not glazing as result of sealer application. If application of sealer causes glazing at trial section, contact sealer manufacturer to obtain written recommendations for solving problem. Do not proceed with sealer application following trial section applications until directed to do so in writing by Engineer.
- B. The contractor shall take 3 cores as directed by Engineer after sealer application to test for sealer effectiveness in accordance with ASTM D6489. Concrete core samples shall be taken 14 days after application of sealer. Report water absorption through top and bottom surfaces of core. Sealer effectiveness as determined by comparison of water absorption through sealed top surface and unsealed bottom surface shall be at least 85 percent.

3.5 NON-CONFORMING WORK

A. Unsatisfactory Field Quality Control test results shall be grounds for rejection of sealer or sealer application rate. Perform sealer reapplication at no additional cost to Owner.

END OF SECTION 071900

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SECTION 079233 – CONCRETE JOINT SEALANTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of Contract and Division 01 Specification Sections apply to this Section.

1.2 SUMMARY

- A. A single installer shall be responsible for providing complete water proofing system including all products specified in the following Sections:
 - 1. Division 07 Section, "Concrete Joint Sealants"
- B. This Section includes the following:
 - 1. Exterior joints in the following horizontal traffic bearing surfaces:
 - a. Construction joints in cast-in-place concrete.
- C. Related Sections: Following Sections contain requirements that relate to this Section.
 - 1. Division 03 Section, "Latex Modified Concrete and Mortar"
 - 2. Division 07 Section, "Water Repellents"

1.3 ADMINISTRATIVE REQUIREMENTS

- A. Coordination:
 - 1. Materials shall be compatible with materials or related Work with which they come into contact, and with materials covered by this Section.
 - 2. Distribute reviewed submittals to all others whose Work is related.
- B. Make submittals in accordance with requirements of Division 01 Section, "Submittal Procedures":
 - 1. See requirements of Division 01 Section, "Submittal Procedures," Part 1 heading, "Submittal Procedures," for limits to resubmittals.
- C. Submittals and Resubmittals: Engineer will review each of Contractor's shop drawings and/or submittal data the initial time and, should resubmittal be required, one additional time to verify that reasons for resubmittal have been addressed by Contractor and corrections made. Resubmittal changes/revisions/corrections shall be circled. Engineer will review only circled items and will not be responsible for non-circled

changes/revisions/corrections and additions. Should additional resubmittals be required, Contractor shall reimburse Owner for all costs incurred, including the cost of Engineer's services made necessary to review such additional resubmittals. Owner shall in turn reimburse Engineer.

1.4 QUALITY ASSURANCE

- A. Manufacturer's Qualifications: Owner retains right to reject any manufacturer.
 - 1. Evidence of acceptable previous work on WALKER-designed projects. If none, so state.
 - 2. Evidence of financial stability acceptable to Engineer.
 - 3. Listing of 20 or more projects completed with submitted system, to include:
 - a. Name and location of project.
 - b. Type of system applied.
 - c. On-Site contact with phone number.
- B. Manufacturer's technical representative, acceptable to Engineer, shall be on site during surface preparation and initial stages of installation.
- C. Installer's Qualifications: Owner retains right to reject any manufacturer.
 - 1. Evidence of compliance with Summary article paragraph "A single installer. . ."
 - 2. Evidence that installer has successfully performed or has qualified staff who have successfully performed at least 5 verifiable years of installations similar to those involved in this Contract, and minimum 10 projects with submitted system.
 - 3. Listing of 5 or more installations in climate and size similar to this Project performed by installer's superintendent.
- D. Testing Agency: Independent testing laboratory employed by Owner and acceptable to Engineer.
- E. Certifications:
 - 1. Licensing/certification document from system manufacturer that confirms system installer is a licensed/certified applicator for the manufacturer and is legally licensed to perform work in the State of Illinois.
 - 2. Licensing/certification agreement shall include following information:
 - a. Applicator's financial responsibility for warranty burden under agreement terms.
 - b. Manufacturer's financial responsibility for warranty burden under agreement terms.
 - c. Process for dispute settlement between manufacturer and applicator in case of system failures where cause is not evident or cannot be assigned.
 - d. Authorized signatures for both Applicator Company and Manufacturer.
 - e. Commencement date of agreement and expiration date (if applicable).

1.5 DELIVERY, STORAGE, 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 preparation.
 4. Lot or batch number.
- B. Store materials under cover and protect from weather. Replace packages or materials showing any signs of damage with new material at no additional cost to Owner.
- C. Do not store material on slabs to be post-tensioned before final post-tensioning of slabs is accomplished. At no time shall weight of stored material being placed on slab area, after post-tensioning is completed and concrete has reached specified 28-day strength, exceed total design load of slab area. Between time final post-tensioning is accomplished and time concrete has reached specified 28-day strength, weight of stored material placed on slab area shall not exceed half total design load of slab area.

1.6 FIELD CONDITIONS

- A. Weather and Substrate Conditions: Proceed with work only when existing and forecast weather and temperature of concrete substrate will permit work in accordance with manufacturer's recommendations.

1.7 WARRANTY

- A. System Manufacturer: Furnish Owner with written total responsibility Joint and Several Warranty, detailing responsibilities of manufacturer and installer with regard to warranty requirements (Joint and Several). The warranty shall provide that system will be free of defects, water penetration and chemical damage related to system design, workmanship or material deficiency, consisting of:
 1. Any adhesive or cohesive failures.
 2. Weathering.
 3. Abrasion or tear failure resulting from normal traffic use.
- B. If material surface shows any of defects listed above, supply labor and material to repair all defective areas and to repaint all damaged line stripes.
- C. Warranty period shall be a 1 year Joint and Several Warranty commencing with date of acceptance of work.
- D. Perform any repair under this warranty at no cost to Owner.
- E. Address the following in the terms of the Warranty: length of warranty, change in value of warranty – if any- based on length of remaining warranty period, transferability of

warranty, responsibilities of each party, notification procedures, dispute resolution procedures, and limitations of liability for direct and consequential damages.

F. Snowplows, vandalism, and abnormally abrasive maintenance equipment are not normal traffic use and are exempted from warranty.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Manufacturer: Subject to compliance with requirements, provide products of 1 of following, only where specifically named in product category:

1. Master Builders Solutions, Shakopee, MN.
2. Lymtal International Inc. (Lymtal), Lake Orion, MI.
3. Sika Corporation (Sika), Lyndhurst, NJ.
4. Sonneborn, a Division of BASF Construction Chemicals (BASF).
5. Tremco (Tremco), Cleveland, OH.

2.2 MATERIALS, JOINT SEALANT SYSTEM

A. Provide complete system of compatible materials designed by manufacturer to produce waterproof, traffic-bearing control joints as detailed on Drawings.

B. Compounds used for sealants shall not stain masonry or concrete. Aluminum pigmented compounds not acceptable.

C. Color of sealants shall match adjacent surfaces.

D. Closed cell or reticulated backer rods: Acceptable products:

1. "Sof Rod," Nomaco Inc., 501 NMC Drive, Zebulon, NC 27597. (800) 345-7279 ext. 341.
2. "ITP Soft Type Backer Rod," Industrial Thermo Polymers Limited, 2316 Delaware Ave., Suite 216, Buffalo, NY 14216. (800) 387-3847.
3. "Sonneborn Soft Type Backer Rod," Sonneborn, Minneapolis, MN.

E. Bond breakers and fillers: as recommended by system manufacturer.

F. Primers: as recommended by sealant manufacturer.

G. Acceptable sealants are listed below. Sealants shall be compatible with all other materials in this Section and related work.

H. Acceptable polyurethane control joint sealants (traffic bearing):

1. MasterSeal SL-2, Master Builders Solutions.
2. Iso-flex 880 GB, Lymtal.

3. Sikaflex-2c SL, Sika.
4. THC-900/901, Vulkem 45SSL, or Vulkem 245, Tremco.

I. Acceptable polyurethane vertical and cove joints sealants (non-traffic bearing):

1. Sikaflex-2c NS, Sika.
2. MasterSeal NP-2, Master Builders Solutions.
3. Dymeric 240/240FC or THC 901 (cove only), Tremco.
4. Iso-flex 881, Lymtal.

J. Proposed Substitutions: **None** for this project. Contact Engineer for consideration for future projects.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine surfaces to receive Work and report immediately in writing to Engineer and Owner any deficiencies in surface which render it unsuitable for proper execution of Work.
- B. Coordinate and verify that related Work meets following requirements before beginning installation
 1. Concrete surfaces are finished as acceptable for system to be installed.
 2. Curing compounds used on concrete surfaces are compatible with system to be installed.
 3. Concrete surfaces have completed proper curing period for system selected.

3.2 PREPARATION

- A. Seal all openings to occupied space to prevent cleaning materials, solvents and fumes from infiltration. All protective measures and/or ventilating systems required to prevent infiltration are incidental to this Work.
- B. Correct unsatisfactory conditions before installing sealant system.
- C. Acid etching is prohibited.
- D. Grind joint edges smooth and straight with beveled grinding wheel before sealing. All surfaces to receive sealant shall be dry and thoroughly cleaned of all loose particles, laitance, dirt, dust, oil, grease or other foreign matter. Obtain written approval of method from system manufacturer before beginning cleaning.
- E. Check preparation of substrate for adhesion of sealant.

F. Prime and seal joints and protect as required until sealant is fully cured. A primer coat is required for all systems.

3.3 INSTALLATION/APPLICATION

- A. Do all Work in strict accordance with manufacturer's written instructions and specifications including, but not limited to, moisture content of substrate, atmospheric conditions (including relative humidity and temperature), thicknesses and texture, and as shown on Drawings.
- B. Completely fill joint without sagging or smearing onto adjacent surfaces.
- C. Fill horizontal joints slightly recessed to avoid direct contact with wheel traffic.
- D. Clean off excess material and material smears adjacent to joints as work progresses using methods and materials approved by manufacturers.
- E. Cease material installation under adverse weather conditions, or when temperatures are outside manufacturer's recommended limitations for installation, or when temperature of work area or substrate are below 40°F.

3.4 FIELD QUALITY CONTROL

- A. Contractor and Engineer will jointly determine which one of following 2 methods of sealant testing to verify sealant profile:
 1. Contractor, at Engineer's direction, shall cut out lesser of 1% of total lineal footage placed or total of 100 lineal ft of joint sealant at isolated/random locations (varying from in. to ft of material) for Engineer and Manufacturer's Representative inspection of sealant profile.
 2. Contractor, at Engineer's direction, shall install 3 trial joint sections of 20 ft each. Contractor shall cut out joint sections, as selected by Engineer, for Engineer and Manufacturer's Representative inspection. Additional isolated/random removals may be required where sealant appears deficient. Total cut out sealant shall not exceed lesser of 1% of total lineal footage placed or total of 100 lineal ft of joint sealant at isolated/random locations (varying from in. to ft of material) for Engineer and Manufacturer's Representative inspection of sealant profile.
- B. Repair all random joint sealant "cut out" sections at no cost to Owner.
- C. Flood test joints where shown on Drawings.
- D. Testing Agency:
 1. Check shore hardness per ASTM standard specified in sealant manufacturer's printed data.
 2. If flood test of joints required by this Section, report results to Engineer.

END OF SECTION 079233

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SECTION 099113 - EXTERIOR PAINTING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of Contract and Division 01 Specification Sections apply to this Section.

1.2 SUMMARY

- A. Section includes surface preparation and the application of paint systems on the following exterior substrates:
 1. Concrete.
 2. Concrete masonry units (CMUs).
 3. Steel and iron.
 4. Galvanized metal.

1.3 DEFINITIONS

- A. MPI Gloss Level 1 (Matte Finish): Not more than five units at 60 degrees and 10 units at 85 degrees, according to ASTM D 523.
- B. MPI Gloss Level 3 ('Egg-Shell-Like' Finish): 10 to 25 units at 60 degrees and 10 to 35 units at 85 degrees, according to ASTM D 523.
- C. MPI Gloss Level 4 ('Satin-Like' Finish): 20 to 35 units at 60 degrees and not less than 35 units at 85 degrees, according to ASTM D 523.
- D. MPI Gloss Level 5 (Semi-Gloss): 35 to 70 units at 60 degrees, according to ASTM D 523.
- E. MPI Gloss Level 6 (Gloss): 70 to 85 units at 60 degrees, according to ASTM D 523.

1.4 MAINTENANCE MATERIAL SUBMITTALS

- A. Furnish extra materials, from the same product run, that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.
 1. Paint: 5 percent, but not less than 1 gal. of each material and color applied.

1.5 QUALITY ASSURANCE

A. Mockups: Apply mockups of each paint system indicated and each color and finish selected to verify preliminary selections made under Sample submittals and to demonstrate aesthetic effects and set quality standards for materials and execution.

1. Architect will select one surface to represent surfaces and conditions for application of each paint system.
 - a. Vertical and Horizontal Surfaces: Provide samples of at least 100 sq. ft.
 - b. Other Items: Architect will designate items or areas required.
2. Final approval of color selections will be based on mockups.
 - a. If preliminary color selections are not approved, apply additional mockups of additional colors selected by Architect at no added cost to Owner.
3. Approval of mockups does not constitute approval of deviations from the Contract Documents contained in mockups unless Engineer specifically approves such deviations in writing.
4. Subject to compliance with requirements, approved mockups may become part of the completed Work if undisturbed at time of Substantial Completion.

1.6 DELIVERY, STORAGE, AND HANDLING

A. Store materials not in use in tightly covered containers in well-ventilated areas with ambient temperatures continuously maintained at not less than 45 degrees F.

1. Maintain containers in clean condition, free of foreign materials and residue.
2. Remove rags and waste from storage areas daily.

1.7 FIELD CONDITIONS

- A. Apply paints only when temperature of surfaces to be painted and ambient air temperatures are between 50 and 95 degrees F.
- B. Do not apply paints in rain, fog, or mist; when relative humidity exceeds 85 percent; at temperatures less than 5 degrees F above the dew point; or to damp or wet surfaces.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

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

1. Behr Process Corporation.

2. Benjamin Moore & Co.
3. California Paints.
4. Conco Paints.
5. Coronado Paint; Benjamin Moore Company.
6. Diamond Vogel Paints.
7. Dulux (formerly ICI Paints); a brand of AkzoNobel.
8. Dunn-Edwards Corporation.
9. Duron, Inc.
10. Frazee Paint; Comex Group.
11. Glidden Professional.
12. Kelly-Moore Paint Company Inc.
13. Kwal Paint; Comex Group.
14. M.A.B. Paints.
15. Parker Paint; Comex Group.
16. PPG Architectural Finishes, Inc.
17. Pratt & Lambert.
18. Rodda Paint Co.
19. Rust-Oleum Corporation; a subsidiary of RPM International, Inc.
20. Sherwin-Williams Company (The).
21. Zinsser; Rust-Oleum Corporation.

2.2 PAINT, GENERAL

- A. MPI Standards: Products shall comply with MPI standards indicated and shall be listed in its "MPI Approved Products Lists."
- B. Material Compatibility:
 1. Materials for use within each paint system shall be compatible with one another and substrates indicated, under conditions of service and application as demonstrated by manufacturer, based on testing and field experience.
 2. For each coat in a paint system, products shall be recommended in writing by topcoat manufacturers for use in paint system and on substrate indicated.

VOC Content: For field applications, paints and coatings shall comply with VOC content limits of authorities having jurisdiction and the following VOC content limits:

1. Flat Paints and Coatings: 50 g/L.
2. Nonflat Paints and Coatings: 50 g/L.
3. Dry-Fog Coatings: 150 g/L.
4. Primers, Sealers, and Undercoaters: 100 g/L.
5. Rust-Preventive Coatings: 100 g/L.
6. Zinc-Rich Industrial Maintenance Primers: 100 g/L.
7. Pretreatment Wash Primers: 420 g/L.

D. Colors: Match existing color, unless noted otherwise.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates and conditions, with Applicator present, for compliance with requirements for maximum moisture content and other conditions affecting performance of the Work.
- B. Maximum Moisture Content of Substrates: When measured with an electronic moisture meter as follows: Percentages in six subparagraphs below are based on "MPI Manual."
 1. Concrete: 12 percent.
 2. Masonry (Clay and CMUs): 12 percent.
- C. Exterior Gypsum Board Substrates: Verify that finishing compound is sanded smooth.
- D. Verify suitability of substrates, including surface conditions and compatibility, with existing finishes and primers.
- E. Proceed with coating application only after unsatisfactory conditions have been corrected.
 1. Application of coating indicates acceptance of surfaces and conditions.

3.2 PREPARATION

- A. Comply with manufacturer's written instructions and recommendations in "MPI Architectural Painting Specification Manual" applicable to substrates and paint systems indicated.
- B. Remove hardware, covers, plates, and similar items already in place that are removable and are not to be painted. If removal is impractical or impossible because of size or weight of item, provide surface-applied protection before surface preparation and painting.
 1. After completing painting operations, use workers skilled in the trades involved to reinstall items that were removed. Remove surface-applied protection.
- C. Clean substrates of substances that could impair bond of paints, including dust, dirt, oil, grease, and incompatible paints and encapsulants.
 1. Remove incompatible primers and reprime substrate with compatible primers or apply tie coat as required to produce paint systems indicated.
- D. Concrete Substrates: Remove release agents, curing compounds, efflorescence, and chalk. Do not paint surfaces if moisture content or alkalinity of surfaces to be painted exceeds that permitted in manufacturer's written instructions.

- E. Masonry Substrates: Remove efflorescence and chalk. Do not paint surfaces if moisture content or alkalinity of surfaces or mortar joints exceeds that permitted in manufacturer's written instructions.
- F. Steel Substrates: Remove rust, loose mill scale, and shop primer if any. Clean using methods recommended in writing by paint manufacturer.
- G. Galvanized-Metal Substrates: Remove grease and oil residue from galvanized sheet metal by mechanical methods to produce clean, lightly etched surfaces that promote adhesion of subsequently applied paints.

3.3 APPLICATION

- A. Apply paints according to manufacturer's written instructions and recommendations in "MPI Architectural Painting Specification Manual."
 - 1. Use applicators and techniques suited for paint and substrate indicated.
 - 2. Paint surfaces behind movable items same as similar exposed surfaces. Before final installation, paint surfaces behind permanently fixed items with prime coat only.
 - 3. Paint both sides and edges of exterior doors and entire exposed surface of exterior door frames.
 - 4. Paint entire exposed surface of window frames and sashes.
 - 5. Do not paint over labels of independent testing agencies or equipment name, identification, performance rating, or nomenclature plates.
 - 6. Primers specified in painting schedules may be omitted on items that are factory primed or factory finished if acceptable to topcoat manufacturers.
- B. Apply paints to produce surface films without cloudiness, spotting, holidays, laps, brush marks, roller tracking, runs, sags, ropiness, or other surface imperfections. Cut in sharp lines and color breaks.

3.4 FIELD QUALITY CONTROL

- A. Dry Film Thickness Testing: Owner may engage the services of a qualified testing and inspecting agency to inspect and test paint for dry film thickness.
 - 1. Contractor shall touch up and restore painted surfaces damaged by testing.
 - 2. If test results show that dry film thickness of applied paint does not comply with paint manufacturer's written recommendations, Contractor shall pay for testing and apply additional coats as needed to provide dry film thickness that complies with paint manufacturer's written recommendations.

3.5 CLEANING AND PROTECTION

- A. At end of each workday, remove rubbish, empty cans, rags, and other discarded materials from Project site.

- B. After completing paint application, clean spattered surfaces. Remove spattered paints by washing, scraping, or other methods. Do not scratch or damage adjacent finished surfaces.
- C. Protect work of other trades against damage from paint application. Correct damage to work of other trades by cleaning, repairing, replacing, and refinishing, as approved by Engineer, and leave in an undamaged condition.
- D. At completion of construction activities of other trades, touch up and restore damaged or defaced painted surfaces.

3.6 EXTERIOR PAINTING SCHEDULE

- A. Concrete Substrates, Non-traffic Surfaces:
 - 1. Latex System:
 - a. Prime Coat: Primer, alkali resistant, water based.
 - b. Topcoat: Latex, exterior, satin finish.
- B. CMU Substrates:
 - 1. Latex System:
 - a. Prime Coat: Block filler, latex, interior/exterior.
 - b. Topcoat: Latex, exterior, satin finish.
- C. Steel and Iron Substrates:
 - 1. Alkyd System:
 - a. Prime Coat: Primer, alkyd, anticorrosive, for metal.
 - b. Topcoat: Alkyd, exterior, gloss.
- D. Galvanized-Metal Substrates:
 - 1. Alkyd System:
 - a. Prime Coat: Primer, galvanized, cementitious.
 - b. Topcoat: Alkyd, exterior, gloss.

END OF SECTION 099113

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SECTION 099120 - PAVEMENT MARKING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract and Division 01 Specification Sections apply to this Section.

1.2 SUMMARY

- A. This Section includes surface preparation and application of high build paint systems to replace existing for the items of types, patterns, sizes, and colors described in this article.
- B. Provide the following systems as shown on Drawings:
 1. Parking Stall Stripes.
- C. Related Work:
 1. Pavement Marking Contractor shall verify compatibility with sealers, joint sealants, caulking and all other surface treatments as specified in Division 07.

1.3 SUBMITTALS

- A. Product Data: For each type of product indicated.
- B. Provide product data as follows:
 1. Manufacturer's certification that the material complies with standards referenced within this Section.
 2. Intended paint use.
 3. Pigment type and content.
 4. Vehicle type and content.

1.4 PROJECT CONDITIONS

- A. Apply paints only when temperature of surfaces to be painted and ambient air temperatures are between 50 and 95 degrees F.
- B. Do not apply paints in snow, rain, fog, or mist; when relative humidity exceeds 85 percent; at temperatures less than 5 degrees F above the dew point; or to damp or wet surfaces.

1.5 QUALITY ASSURANCE

- A. Provide written 1-year warranty to Owner that pavement markings will be free of defects due to workmanship, inadequate surface preparation, and materials including, but not limited to, fading and/or loss of markings due to abrasion, peeling, bubbling and/or delamination. Excessive delamination, peeling, bubbling or abrasion loss shall be defined as more than 15% loss of marking material within one year of substantial completion and/or occupancy of the parking area. With no additional cost to Owner, repair and/or recoat all pavement marking where defects develop or appear during warranty period and all damage to other Work due to such defects.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Pavement marking materials shall meet Federal, State and Local environmental standards.
- B. Paint shall be manufactured and formulated from first grade raw materials and shall be free from defects or imperfections that might adversely affect product serviceability.
- C. Paints shall comply with the National Organic Compound Emission Standards for Architectural Coatings, Environmental Protection Agency, 40 CFR Part 59.
- D. The product shall not contain mercury, lead, hexavalent chromium, or halogenated solvents.

2.2 PAVEMENT MARKING PAINTS:

- A. 100% acrylic waterborne - paint shall be used for white and yellow pavement markings and shall meet requirements of MPI #70.
 - 1. Available Products: Subject to compliance with the requirements, products that may be incorporated into the Work include, but are not limited to the following:
 - a. Hi-Build Latex "Liquid Thermoplastic" Traffic & Zone Marking Paint, 5430/5431, by RAE Products & Chemicals Corporation
 - b. Setfast Acrylic Waterborne Marking Paint, TM 226/227 by Sherwin Williams Company
- B. All products shall have performance requirements of Type I and II of Federal Standard TT-P-1952E.

2.3 COLOR OF PAINT

- A. Color of paint shall match existing, unless noted otherwise on Contract Drawings:

1. Yellow: Match federal color chip No. 33538. Color shall have daylight directional reflectance (without glass beads) of not less than 50% (relative to magnesium oxide) when tested in accordance with Federal Test Method Standard 141, Method 6121.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates and conditions, with Applicator present, for compliance with requirements for maximum moisture content and other conditions affecting performance of work.
- B. Document the location of existing striping and traffic marking, and colors utilized prior to removal of traffic lines and markings for surface preparation.
- C. Verify suitability of substrates, including surface conditions and compatibility with existing finishes and primers.
- D. Begin coating application only after unsatisfactory conditions have been corrected and surfaces are dry.
 1. Beginning coating application constitutes Contractor's acceptance of substrates and conditions.
- E. Striping shall not be placed until full cure of concrete repairs, sealers or coatings. Sealers (other than silane) generally require 14 days @ 70°F or higher. Silane sealers require 24 hrs @ 70°F or higher. Bituminous surfaces generally require 30 days @ 45°F or higher. Coatings shall be fully cured

3.2 PREPARATION

- A. Comply with manufacturer's written instructions and recommendations in "MPI Architectural Painting Specification Manual" applicable to substrates and paint systems indicated.
- B. Do not paint or finish any surface that is wet or damp.
- C. Clean substrates of substances that could impair bond of paints, including dirt, dust, oil, grease, release agents, curing compounds, efflorescence, chalk, and incompatible paints and encapsulants.
- D. Concrete Substrates: Do not paint surfaces if moisture content or alkalinity of surfaces to be painted exceeds that permitted in manufacturer's written instructions.
- E. Lay out all striping on each tier, using existing layout, dimensions and details unless otherwise noted on Contract Drawings.

- F. Report any discrepancies, interferences or changes in striping due to field conditions to Engineer prior to painting. Pavement Marking Contractor shall be required to remove paint, repair surface treatment and repaint stripes not applied in strict accordance with Contract Drawings.
- G. Work Areas:
 - 1. Store, mix and prepare paints only in areas designated by Contractor for that purpose.
 - 2. Provide clean cans and buckets required for mixing paints and for receiving rags and other waste materials associated with painting. Clean buckets regularly. At close of each day's Work, remove used rags and other waste materials associated with painting.
 - 3. Take precautions to prevent fire in or around painting materials. Provide and maintain appropriate hand fire extinguisher near paint storage and mixing area.
- H. Mixing:
 - 1. Do not intermix materials of different character or different manufacturer.
 - 2. Do not thin material except as recommended by manufacturer.
- I. Disposal:
 - 1. Contractor shall properly dispose of unused materials and containers in compliance with Federal Resource Conservation Recovery Act (RCRA) of 1976 as amended, and all other applicable laws and regulations.

3.3 APPLICATION

- A. Apply painting and finishing materials in accordance with manufacturer's directions. Use applications and techniques best suited for material and surfaces to which applied. Minimum air shall be used to prevent overspray. Temperature during application shall be minimum of 40° F and rising, unless manufacturer requires higher minimum temperature. Maximum relative humidity shall be as required by manufacturer.
 - 1. Total wet mil thickness of 0.015 in (minimum).
 - 2. Total dry film thickness of 0.008 in (minimum).
- B. All lines shall be straight, true, and sharp without fuzzy edges, overspray or non-uniform application. Corners shall be at right angles, unless shown otherwise, with no overlaps. Line width shall be uniform (-0%, +5% from specified width). No excessive humping (more material in middle than at edges or vice versa).
- C. All lines shall be 4-inches wide unless otherwise noted.

END OF SECTION 099120

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WALKER
RESTORATION CONSULTANTS

CITY OF WHEATON

PARKING STRUCTURE MAINTENANCE REPAIRS

WHEATON, ILLINOIS

PROJECT No.: 31-8139.00



R-000 COVER SHEET

R-001 GENERAL NOTES, W.I. SCHEDULE, & LEGEND

232 WESLEY PARKING STRUCTURE

R-101 GROUND TIER PLAN

R-102 SECOND TIER PLAN

R-103 THIRD TIER PLAN

R-104 TOP TIER PLAN

220 CROSS STREET PARKING STRUCTURE

R-201 GROUND TIER PLAN

R-202 SECOND TIER PLAN

R-203 THIRD TIER PLAN

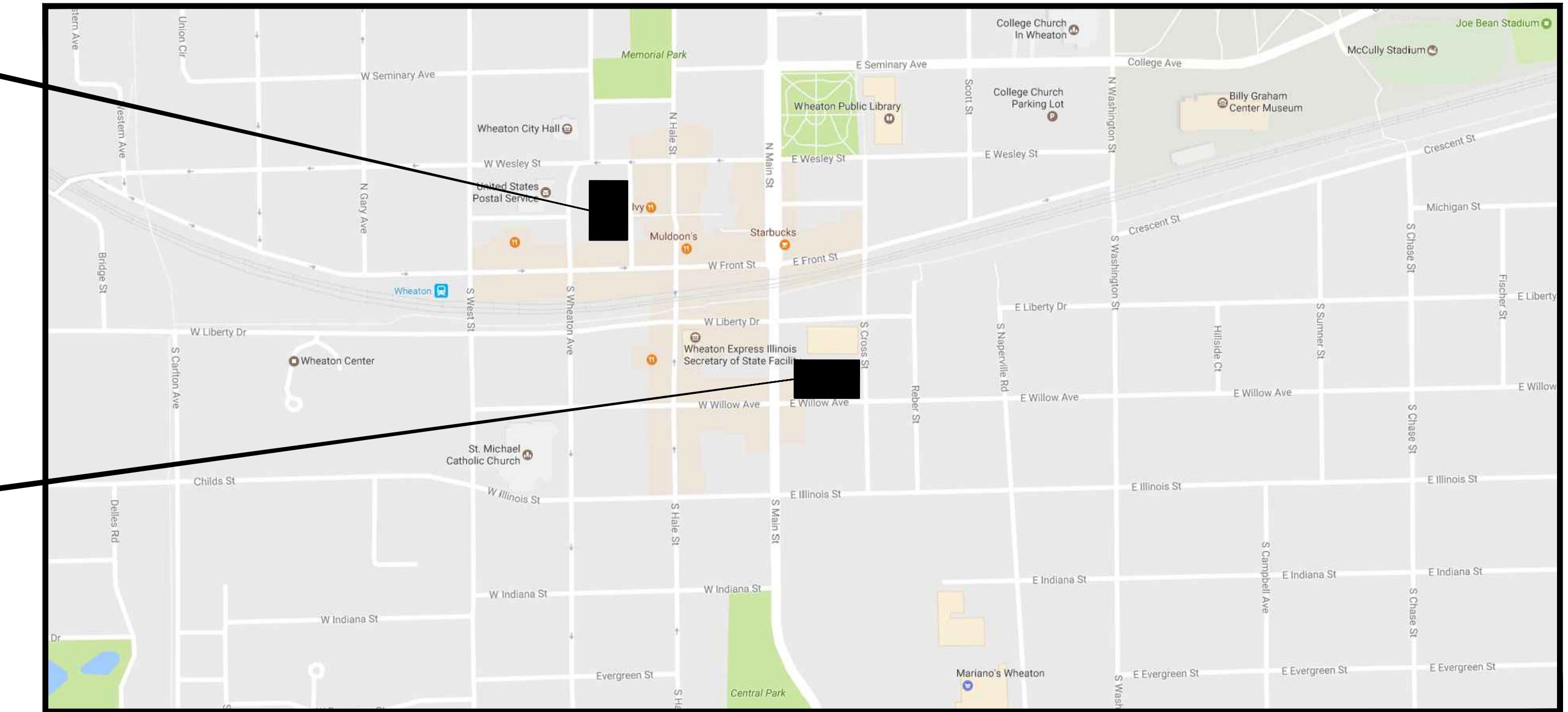
R-204 TOP TIER PLAN

R-501 REPAIR DETAILS

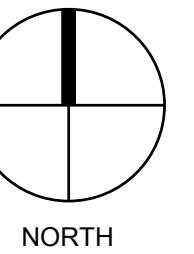
R-502 REPAIR DETAILS

PROJECT SITE:
232 W. WESLEY STREET
PARKING STRUCTURE
WHEATON, ILLINOIS

PROJECT SITE:
220 S. CROSS STREET
PARKING STRUCTURE
WHEATON, ILLINOIS



LOCATION MAP



RELEASED FOR BIDS
MAY, 2017

GENERAL RESTORATION NOTES

A. CONSTRUCTION

- The Contractor shall perform Work in accordance with all applicable Federal, State, and Local Codes and Ordinances. The Contractor shall promptly notify the Engineer of any known nonconformity with the intent of the Construction Documents and as-built conditions to the applicable Codes, Laws or Ordinances and request clarification from the Engineer prior to proceeding with Work which is deemed in conflict with the applicable Codes, Laws or Ordinances.
- Fire Safety during construction, alteration or demolition shall comply with NFPA 5000.
- This structure is classified as a parking structure, occupancy Group S-2, and as construction Type II B, Unprotected, Non-Combustible.
- Prior to fabrication of any material or placement of concrete, field verify all existing dimensions and conditions shown on Drawings. Report all discrepancies to the Engineer immediately.
- No Scale Drawings.

B. CONSTRUCTION DOCUMENTS

- The extent of repair areas shown on the drawings indicates Engineer's estimates only. The estimated unit quantities included in the bid documents are based on Engineer's estimated quantities for bid purposes only. The Contractor shall determine the actual quantities required for the completion of repair areas. The actual repair quantities shall be verified and agreed upon by the Engineer prior to commencing the repair Work.
- With respect to repair areas in coordination with construction observations by the Engineer to determine the proposed existing construction is as assumed in the design.
- Dimensions shown on plans are based on original construction documents. The Contractor is required to field verify all conditions for the purpose of preparing the bid and performing the Work.
- Refer to Specifications for scope, description and requirements of Work.

C. EXISTING STRUCTURE

- Design Live Loads for Existing Structure were assumed to be (all loads are service loads unless noted)

DESCRIPTION	LOAD
a. Floors	50 psf
b. Roofs (dead)	75 psf
c. Concentrated Wheel Load	3,000 lb (4.5 in x 4.5 in area)
d. Slabs on Grade	40 or 50 psf

- To the Engineer's knowledge, no outstanding environmental concerns are present at the site. If an outstanding environmental concern is identified during construction, the Contractor is to bring this to the attention of the Engineer and Owner.
- It is the Contractor's responsibility to familiarize itself with the original construction drawings for the Work areas. All significant deviations are to be brought to the attention of the Engineer.

D. DETAILS AND SYMBOLS

- Repair details are shown on drawing series R-501 through R-502, and are identified as two-digit (X-XX) numbers.
- Three-digit numbers (XXX) do not represent a separate price item. These details supplement the basic detail to provide additional information or show variation of the typical condition.
- When a Work item is labeled "TYP." it means the Work item occurs at all locations where the applicable deterioration or designation symbol occurs on that plan.
- When a Work item is noted, it means there may be areas of this work in addition to the particular designated areas.
- Where two or more Work Item Bubbles are grouped together, it means any one of the bubbles.
- When a Work item on Detail is listed as incidental, this work is included in the pay unit of other work items and does not have a separate price.
- When a Detail is labeled "(FOR REFERENCE ONLY)" it provides information only about incidental work and does not have a pay unit.

E. SHORING AND BRACING

- Contractor shall provide all shoring, bracing, sheeting, etc. required for safety and proper execution of the Work.
- Contractor is solely responsible to prepare shop drawing for bracing and shoring members designed and stamped/sealed by a registered professional engineer (registered in State of Illinois) and submit them to the Engineer for review.
- The design of the shoring and bracing members shall include all changes in the structure caused by the shoring and bracing.

F. EXISTING SERVICES AND UTILITIES

- Contractor shall review all existing conditions to determine all Electrical and Mechanical services and Utilities affected by the repair work. Make necessary temporary connections to maintain existing services to all areas affected by the repair work. The Contractor shall verify the location of existing services and shall submit the location and schedule of connections for the owner's approval prior to commencement.
- Provide a minimum 48 hour notice to the Owner representative prior to any interruption of utility services.

G. CONSTRUCTION PHASING, SEQUENCING AND TRAFFIC MAINTENANCE

- Work sequence shall be coordinated with the Owner's representative and all identified project representatives.
- Owner will control the structure during restoration. Contractor must plan for change work to maintain access at all times to all areas that are not under construction for both vehicles and pedestrians.
- Work hours are 8 am - 6 pm, Monday - Friday. The Contractor shall verify work hours with the Owner. The Contractor shall take all required full hours, weekend, and holiday Work with Owner at least 48 hours in advance.
- The Contractor is responsible for collection and removal of all construction debris daily and the site shall be left in a neat and orderly condition, satisfactory to the Owner.
- The Contractor is responsible for protecting all adjacent structures, landscaping, and other surfaces and items which could be affected by the Work.

H. GENERAL CONCRETE REQUIREMENTS

- LATEX MODIFIED CONCRETE OVERLAY(PATCHING) (033750)
COMPRESSIVE STRENGTH 5,000 PSI @ 28 days (2,500 @ 3 days)
WATER-CEMENT RATIO 0.25 to 0.40
LATEX CONTENT 3.0 GAL (Latex content?)
MAX. SIZE AGGREGATE 1/2 IN.
SLUMP 4 IN.
CEMENT CONTENT 658 LB/CY MIN
AIR CONTENT < 4%

*For concrete placed by vibratory screeds, slump shall not exceed 4 in. at point of deposit.

I. CONCRETE PROTECTION FOR REINFORCEMENT

- The following applies for full section replacement where shown on drawings.
- The minimum concrete protection for reinforcement shall be per ACI 319-08, Section 7.7.
- For pre-stressed and non-pre-stressed reinforcement in pre-stressed/pre-tensioned concrete members, the minimum concrete protection at top of members shall be 1-1/2 in.
- Minimum cover for reinforcing in non-pre-stressed concrete and non-post-tensioned members.

Minimum Concrete
Cover
(Inches)
1-1/2
3/4
2
1-1/2
2-1/2
1-1/2
* Or 3X bar diameter, whichever is greater.

J. EPOXY COATING FOR REINFORCEMENT AND ANCHORS

- Epoxy coat all reinforcement exposed within repair areas, except welded wire reinforcement.

K. MASONRY

- Compressive strength of masonry, f'm = 2,000 psi.
- Mortar type "S".

L. ABBREVIATIONS

1. APPROX	= Approximately
2. AGG	= Aggregate
3. BM	= Bottom
4. BOT	= Bottom
5. CIP	= Cast in Place
6. CJ	= Construction Joint/Control Joint
7. CLR	= Clearance
8. COL	= Column
9. CONC	= Concrete
10. DET	= Detail
11. EA	= Each
12. E.E	= Each End
13. E.S	= Each Side
14. EMBED	= Embedded length
15. EJ	= Expansion Joint
16. EXIST	= Existing
17. FIN	= Finished
18. FLO	= Floor
19. IN	= Inches
20. INC	= Incidental
21. L.F.	= Linear Foot
22. LS	= Lump Sum
23. MAX	= Maximum
24. MIN	= Minimum
25. N/A	= Not Applicable
26. OC	= On Center
27. O.C.H.	= Open Center Hand
28. P/C	= Precast
29. REINF	= Reinforcement
30. REQ'D	= Required
31. SFT	= Square Foot
32. SIM	= Similar
33. SOG	= Slab on Ground
34. SPEC	= Specification
35. SUPT	= Supt
36. T	= Top
37. TAR	= Typical as Required
38. TYP	= Typical
39. UN or UNO	= Unless Noted Otherwise
40. W.C.	= Work Continues
41. WWR	= Welded Wire Reinforcement

WORK ITEM SCHEDULE - 232 WESLEY STREET PARKING STRUCTURE

WORK ITEM	DESCRIPTION	UNITS	GROUND TIER	SECOND TIER	THIRD TIER	TOP TIER	TOTAL
1.1	General Requirements	L.S.	1	1	1	1	1
2.1	Pressure Wash Floor	L.S.	1	2	7	6	15
3.1	Floor Repair	S.F.	-	2	-	-	5
3.10	Rail Post Repair	S.F.	5	-	-	-	5
4.1	Ceiling Repair	S.F.	6	-	4	-	10
6.1	Wall Repair	S.F.	-	5	5	5	10
7.1	Random Floor Cracks	S.F.	6	2	2	-	10
11.1	Random Joint Sealant	L.F.	-	-	30	-	75
11.3	Vertical Joint Sealant	L.F.	-	-	-	150	150
11.7	Cove Sealant	L.F.	-	-	-	150	150
16.1	Perimeter Sealer	S.F.	-	50,000	50,000	50,000	150,000
25.6	Clean Existing Drains and Piping	L.S.	1	1	1	1	1
35.1	Turkpointing	L.F.	20	30	-	-	50
35.2	Masonry Unit Repair	S.F.	5	-	-	-	5
37.3	Replace Door Hardware	EA.	1	-	1	-	2
45.1	Paint Traffic Markings	L.S.	1	1	1	1	1

WORK ITEM SCHEDULE - 220 CROSS STREET PARKING STRUCTURE

WORK ITEM	DESCRIPTION	UNIT	GROUND TIER	SECOND TIER	THIRD TIER	TOP TIER	TOTAL
1.1	General Requirements	L.S.	1	1	1	1	1
2.1	Pressure Wash Floor	S.F.	-	10	25	50	85
3.1	Floor Repair	EA.	-	12	3	10	25
3.5	Floor Repair - Lifting Loops	S.F.	-	5	-	5	10
7.1	Wall Repair	S.F.	-	5	-	5	10
8.1	Tee Stem Repair	S.F.	-	5	-	-	5
9.1	Tee Stem Repair	S.F.	-	-	20	-	20
11.1	Random Floor Cracks	L.F.	-	150	50	25	225
11.2	Control Joint Sealant	L.F.	-	10	-	150	160
11.4	Tee to Tee Joint Sealant	L.F.	-	150	350	1,600	2,100
11.7	Cove Sealant	L.F.	-	-	250	250	250
16.1	Perimeter Sealer	S.F.	-	40,000	40,000	40,000	120,000
25.6	Clean Existing Drains and Piping	L.S.	1	1	1	1	1
35.2	Masonry Unit Repair	S.F.	5	-	-	-	5
40.3	Re-Weld Shear Connector	EA.	-	25	25	15	65
42.1	Window Gasket Sealant	L.S.	-	-	-	1	1
43.2	Replace Guard Railing	EA.	-	-	-	1	1
45.1	Paint Traffic Markings	L.S.	1	1	1	1	1
45.6	Paint Structural Steel	L.S.	1	1	1	1	1

LEGEND

WORK ITEM NUMBER (SEE SPECIFICATIONS)
00.0

WORK ITEM IDENTIFICATION

FLOOR SPALL OR DELAMINATION

CEILING SPALL OR DELAMINATION

F.D. EXISTING FLOOR DRAIN (F.D.)

NEW JOINT SEALANT

EXISTING CRACK

BROKEN SHEAR CONNECTOR


R-001
GENERAL NOTES,
WI SCHEDULE &
LEGENDS

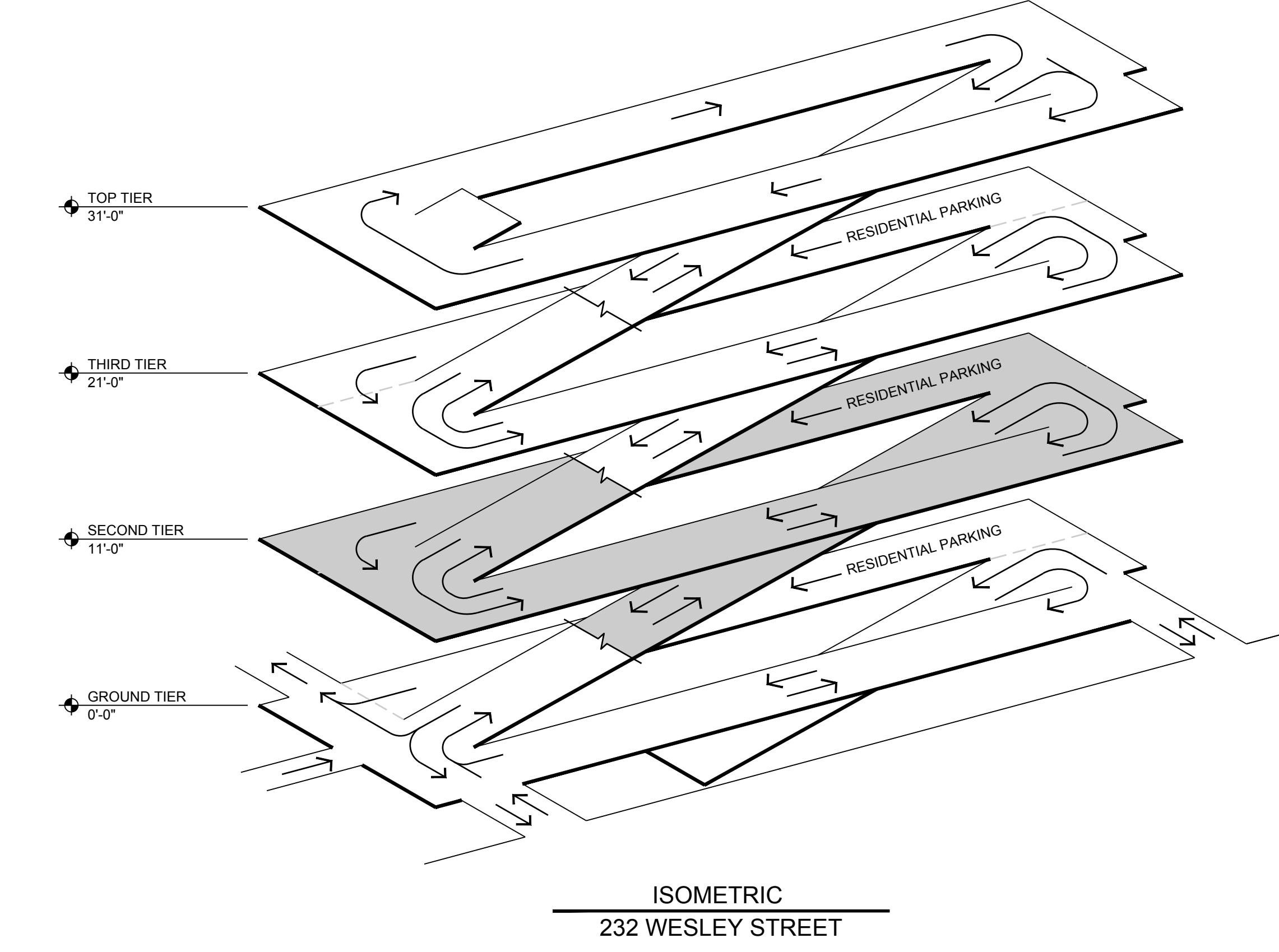
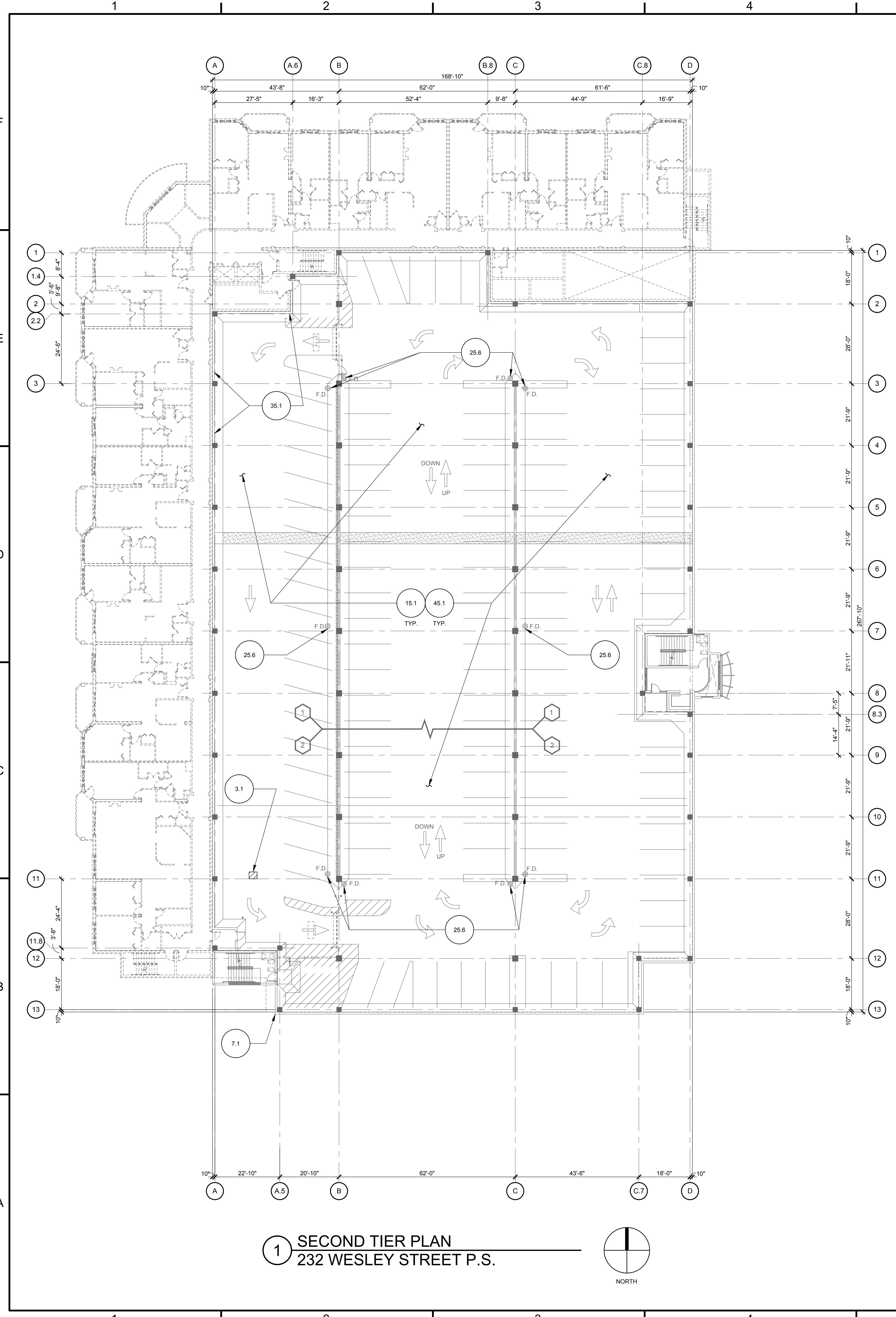
PROJECT NO. 31-8139.00
DRAWN BY: JSM
CHECKED BY: DEM
SHEET TITLE: GENERAL NOTES,
WI SCHEDULE &
LEGENDS

MAY 2017 RELEASED FOR BIDS
NO. DATE DESCRIPTION
ISSUED

WALKER
CONSTRUCTION
GENERAL CONTRACTORS
505 Davis Road
Elgin, IL 60123
847.897.2640 Ph.
847.897.7339 Fax
www.walkersrestoration.com

CITY OF WHEATON
PARKING STRUCTURES
MAINTENANCE REPAIRS
WHEATON, ILLINOIS





CITY OF WHEATON
PARKING STRUCTURES
MAINTENANCE REPAIRS
ILLINOIS

PROJECT NO.	31-8139.00
DRAWN BY:	JSM
CHECKED BY:	LCS
SHEET TITLE:	SECOND TIER PLAN
NO. DATE	MAY 2017 RELEASED FOR BIDS
ISSUED:	

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Architectural floor plan of a building section, likely a cross-section, showing various rooms and dimensions. The plan includes a legend for symbols like F.D. and arrows indicating up and down directions. Points are numbered 1 through 13, and specific points are labeled 1.4, 2.2, 3, 4.1, 15.1, 45.1, 25.6, 7.1, 11.3, 37.3, 6.1, and 3.1.

Legend:

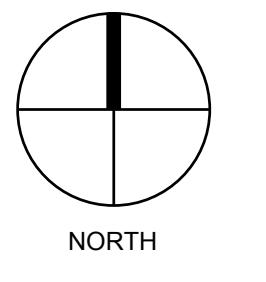
- Symbol with a circle and a dot: F.D.
- Symbol with a circle and a dot: DOWN
- Symbol with a circle and a dot: UP
- Symbol with a circle and a dot: (ON CEILING ABOVE)

Dimensions and Labels:

- Vertical dimensions: 10", 18'-0", 24'-4", 3'-8", 8'-4", 9'-8", 3'-6", 24'-6", 18'-0", 28'-0", 21'-9", 21'-9", 21'-9", 21'-9", 21'-11", 7'-5", 21'-9", 21'-9", 21'-9", 21'-9", 28'-0", 28'-0", 18'-0", 10".
- Horizontal dimensions: 10", 22'-10", 20'-10", 62'-0", 43'-6", 18'-0", 10".
- Rooms and Points:

 - Rooms: A, A.5, B, C, C.7, D.
 - Points: 1, 1.4, 2, 2.2, 3, 4.1, 15.1, 45.1, 25.6, 7.1, 11.3, 37.3, 6.1, 3.1.

1 THIRD TIER PLAN 232 WESLEY STREET P.S.



NOTES

This isometric diagram illustrates a four-tiered parking structure, labeled from bottom to top as GROUND TIER (0'-0"), SECOND TIER (11'-0"), THIRD TIER (21'-0"), and TOP TIER (31'-0"). The structure is oriented diagonally, with the top tier sloping upwards towards the top right. Each tier contains a U-shaped parking bay. The GROUND TIER features a vertical entrance/exit ramp. The top three tiers are shaded in grey and labeled "RESIDENTIAL PARKING". Arrows indicate the flow of vehicles between the tiers and within each tier's parking bays. The diagram is titled "ISOMETRIC" and "232 WESLEY STREET" at the bottom.

CITY OF WHEATON

PARKING STRUCTURES

MAINTENANCE REPAIRS

CITY OF WHEATON

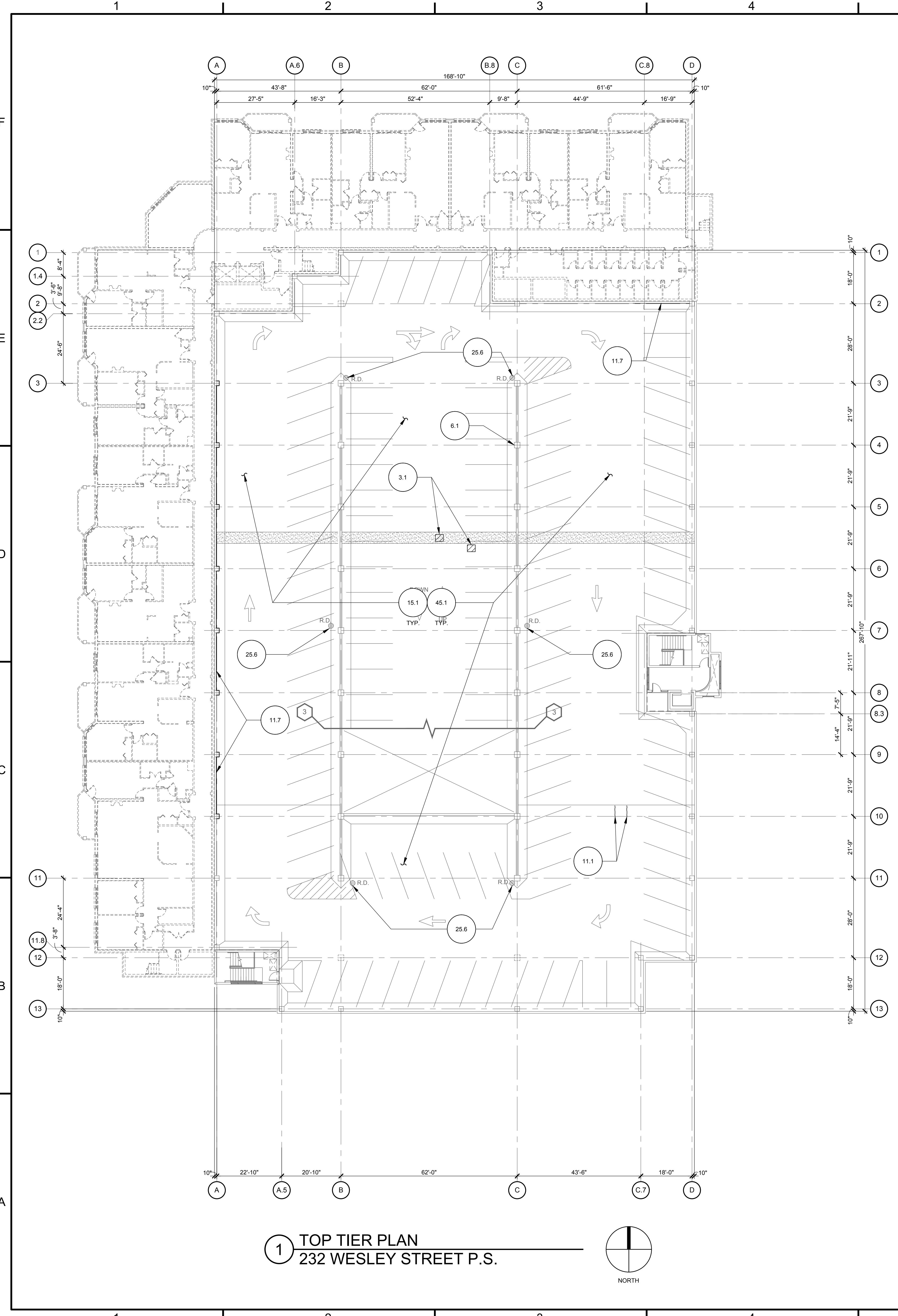
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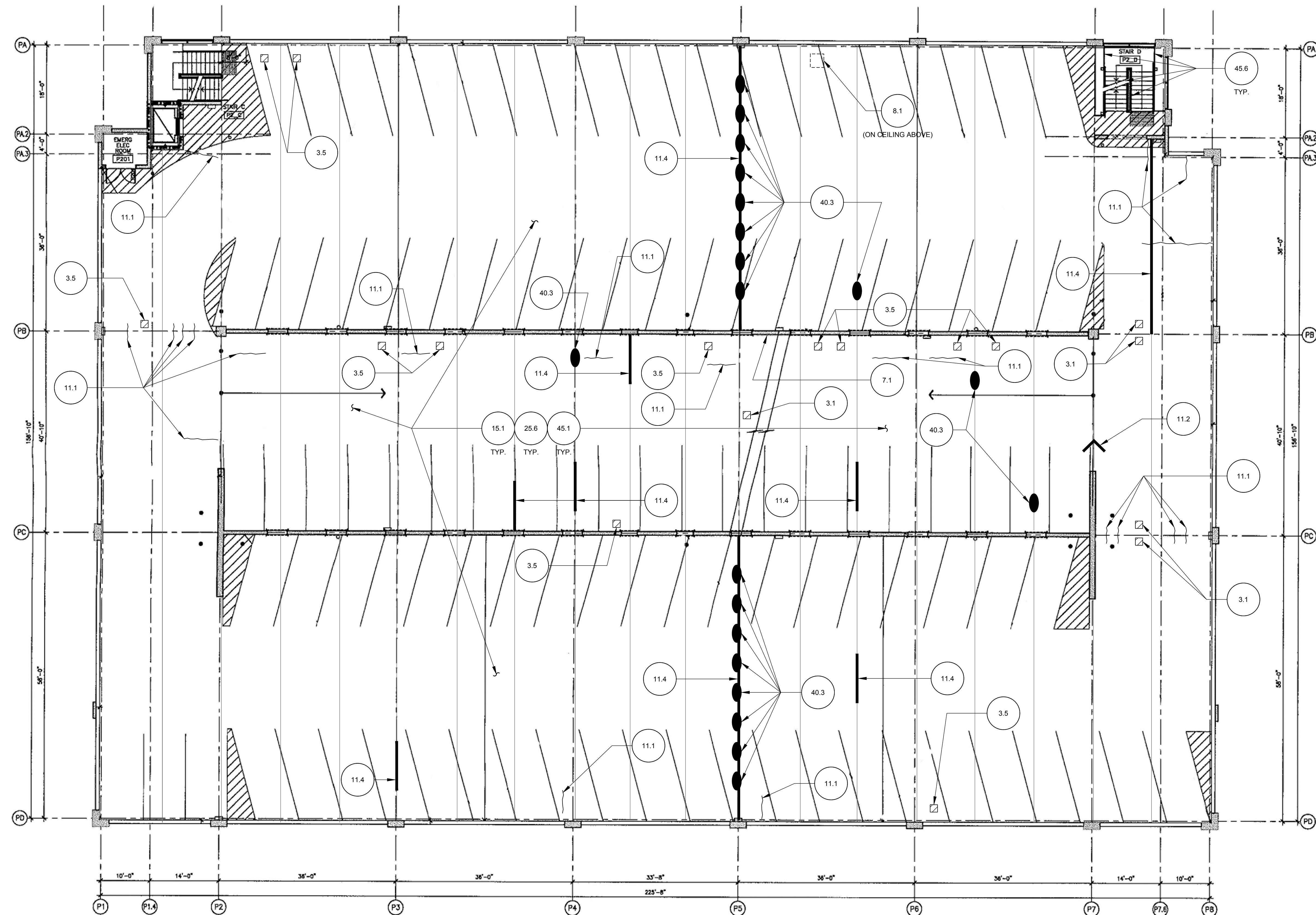
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DRAWN BY:	JSM
CHECKED BY:	LCS
SHEET TITLE:	

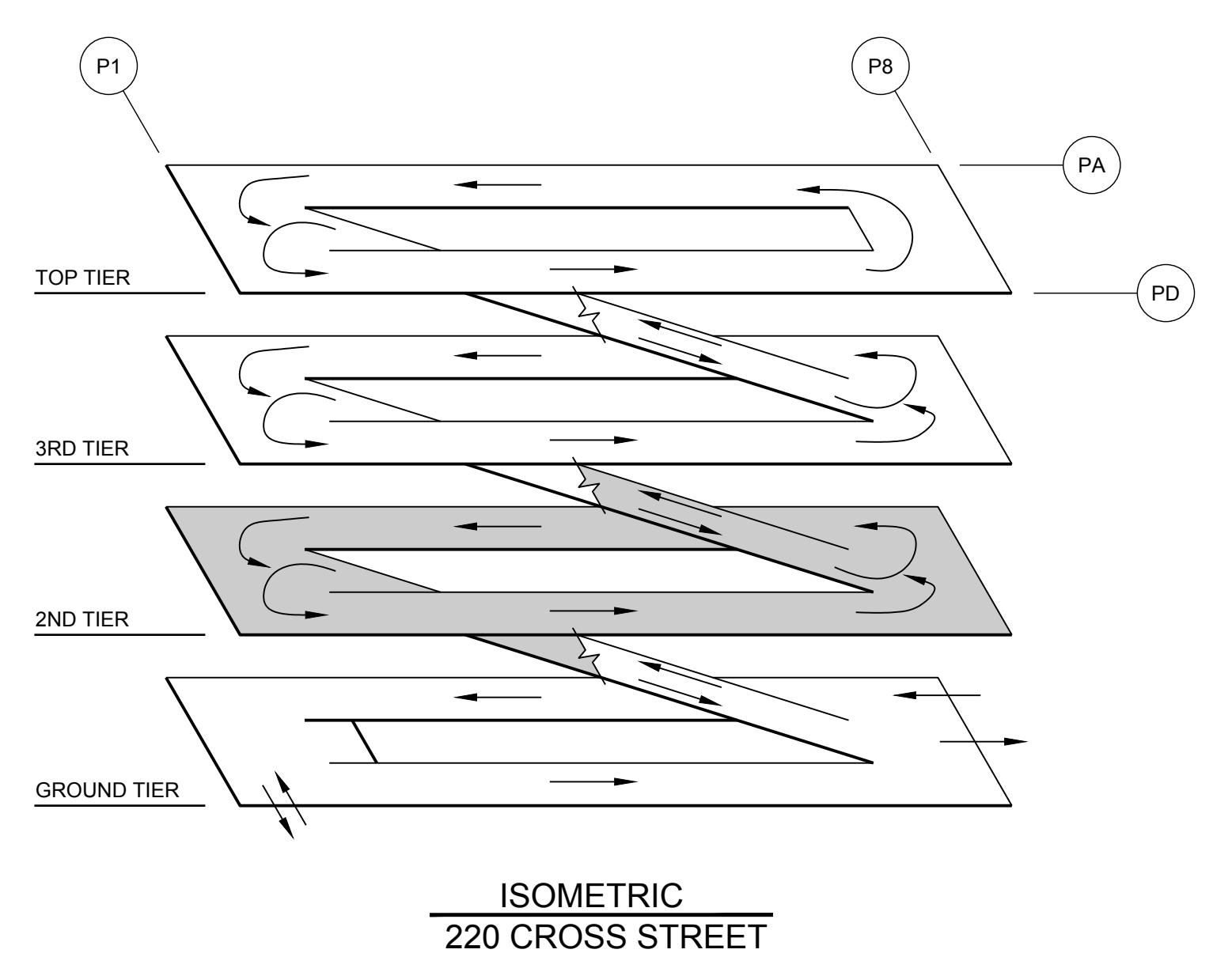
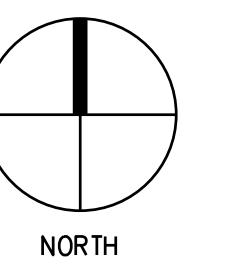
THIRD TIER PLAN

R-103





1 SECOND TIER PLAN
220 CROSS STREET P.S.




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PARKING STRUCTURES
MAINTENANCE REPAIRS

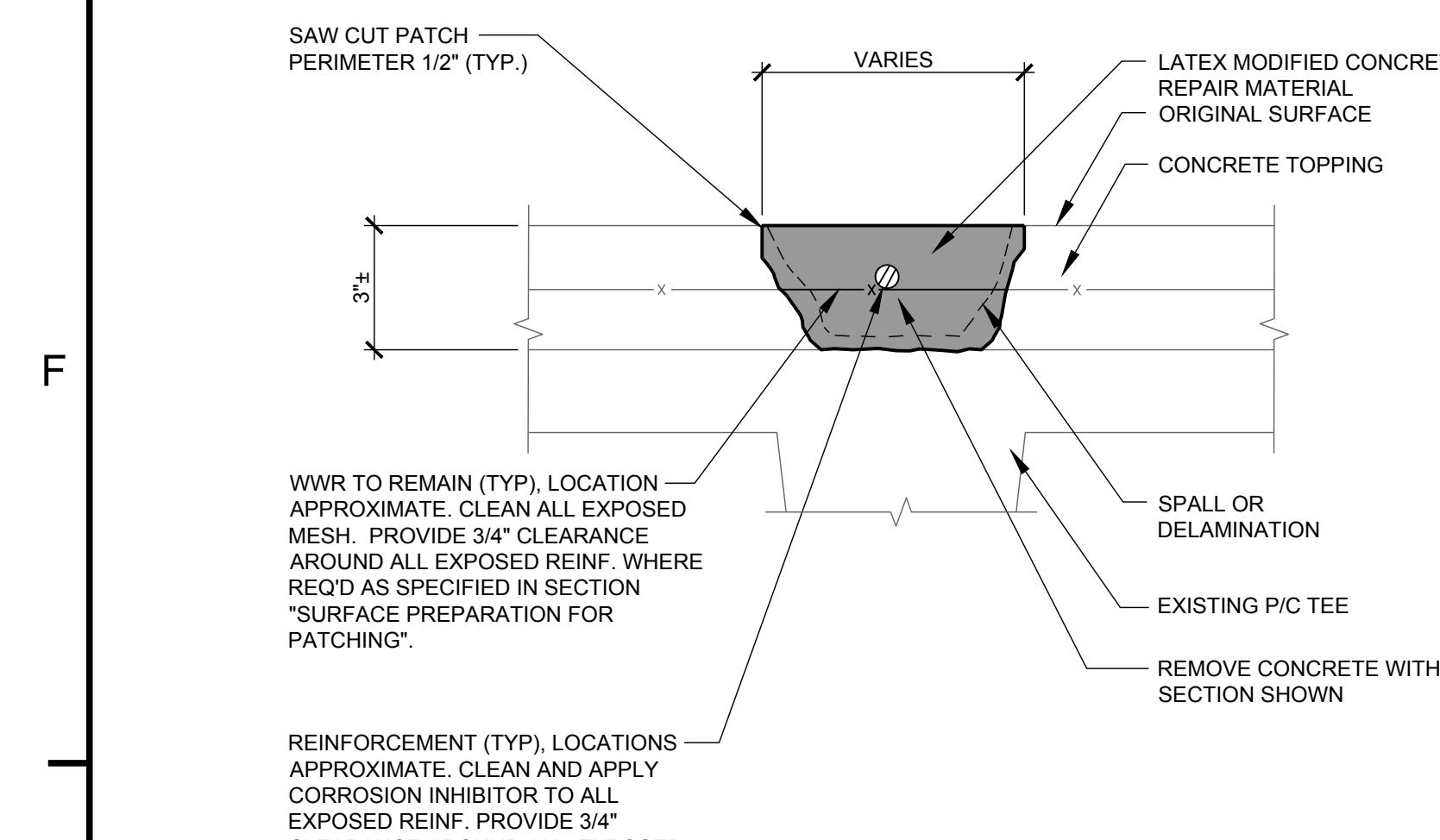
ILLINOIS

WHEATON,

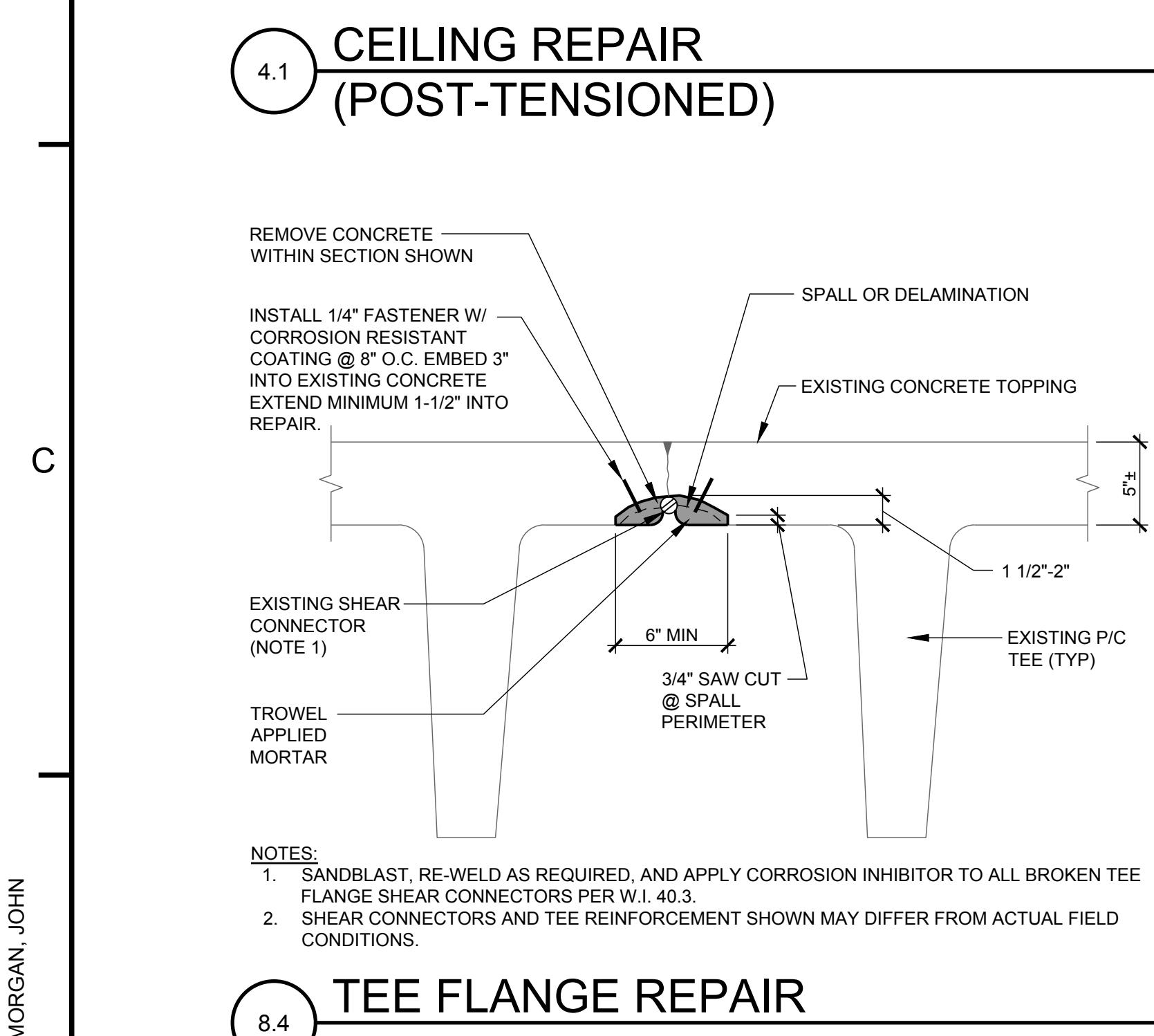
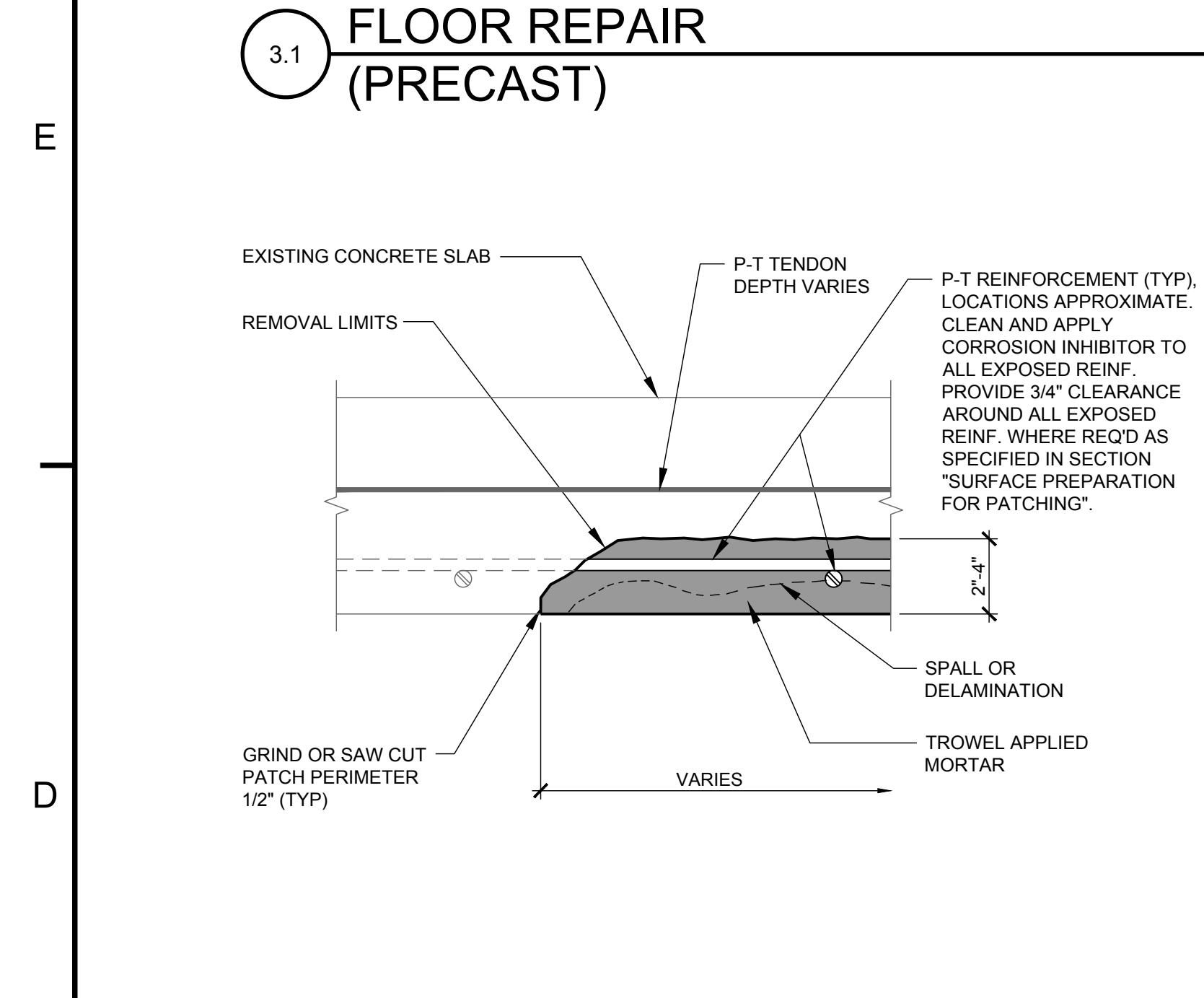
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SHEET TITLE: SECOND TIER PLAN

R-202

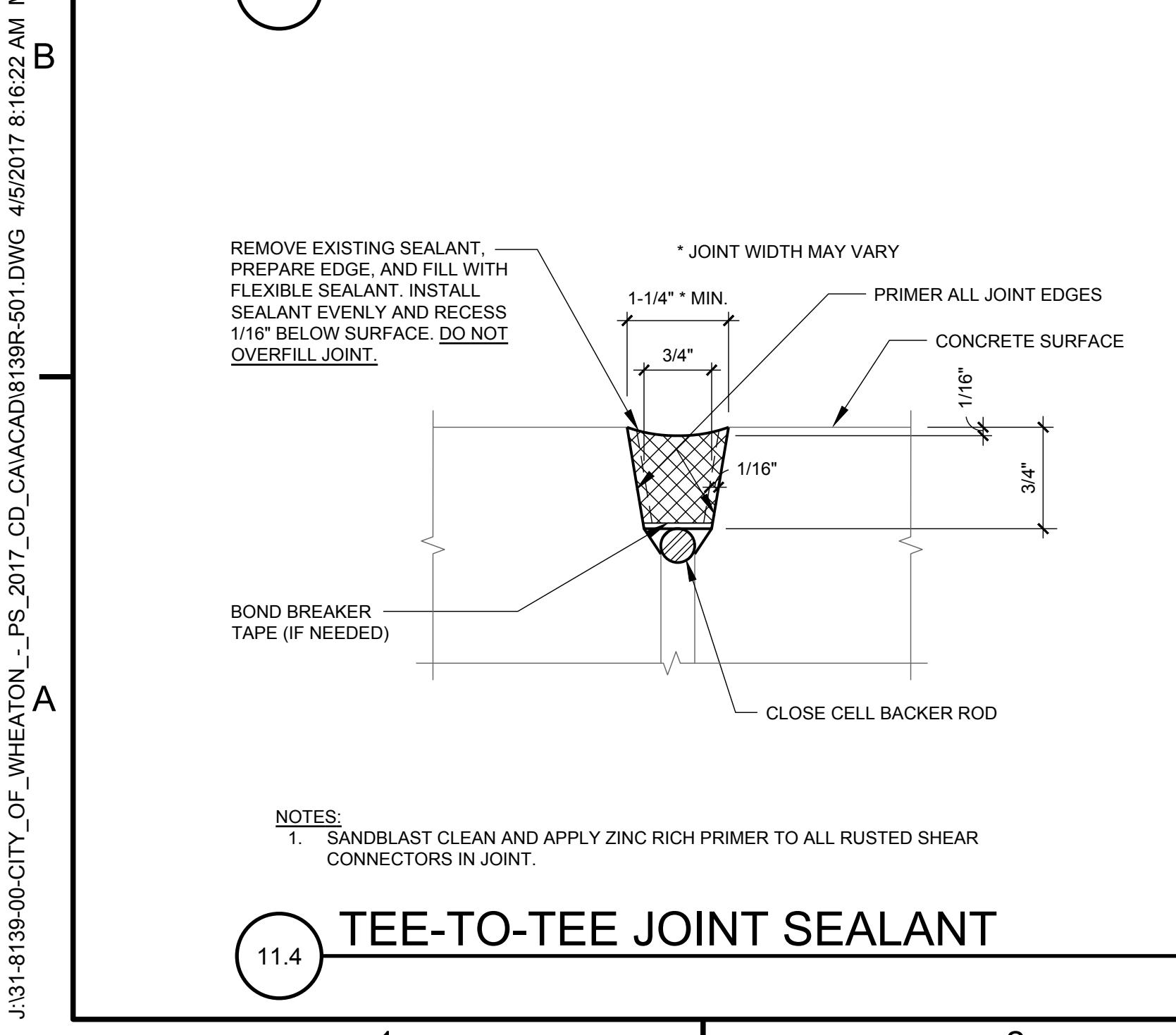




3.1 FLOOR REPAIR (PRECAST)

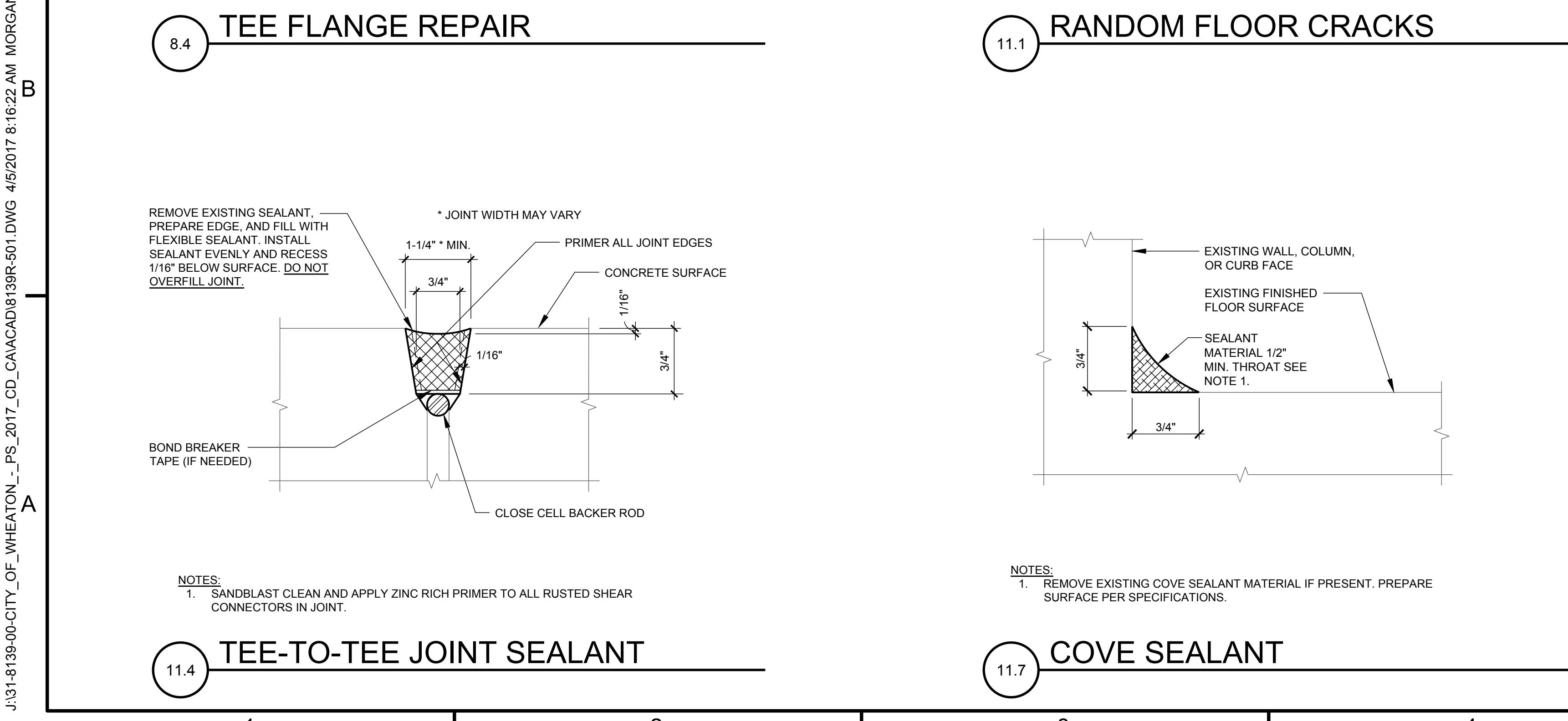
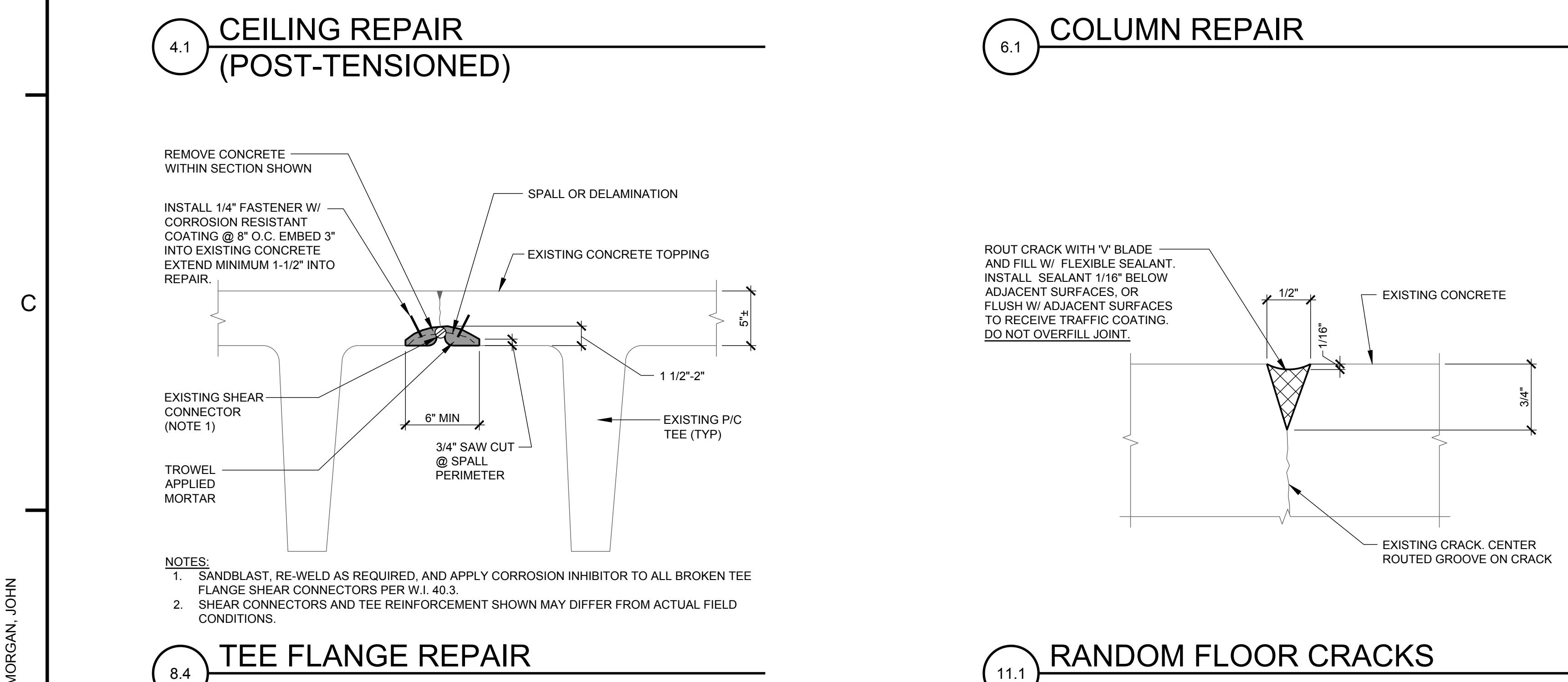
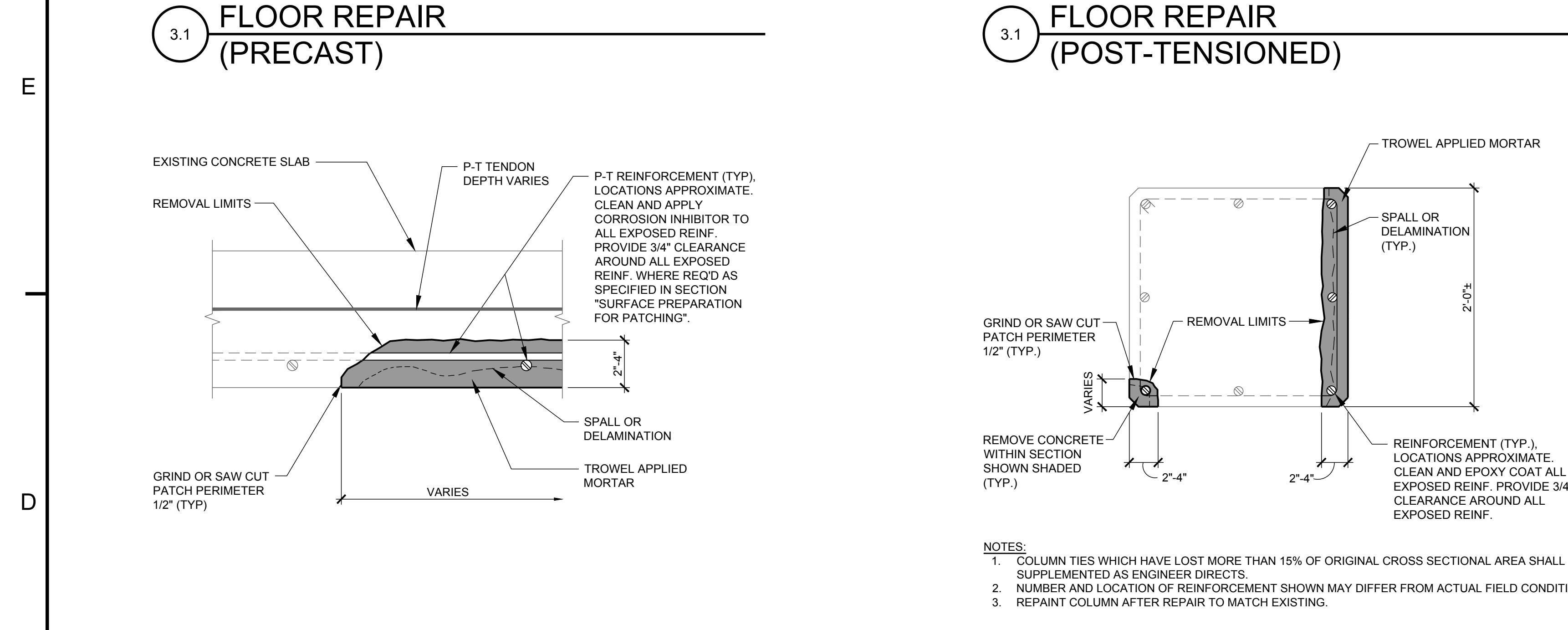


8.4 TEE FLANGE REPAIR

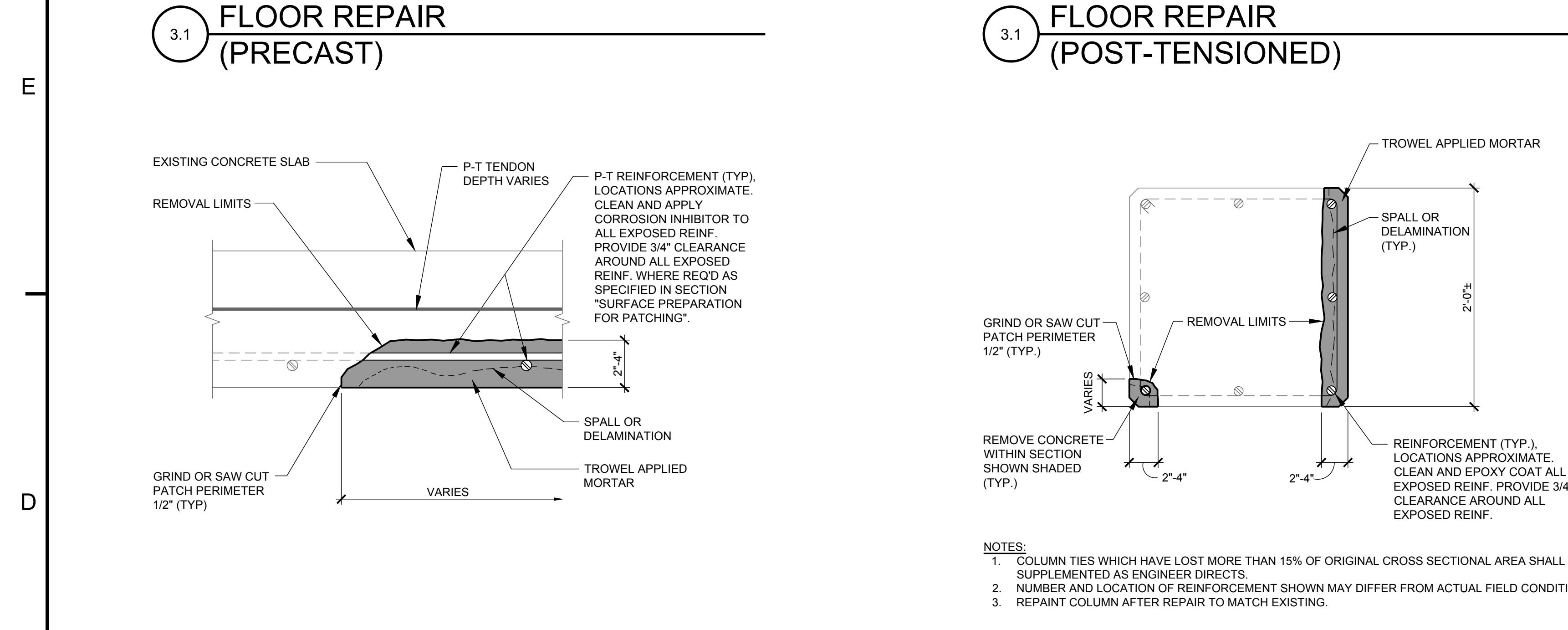


11.4 TEE-TO-TEE JOINT SEALANT

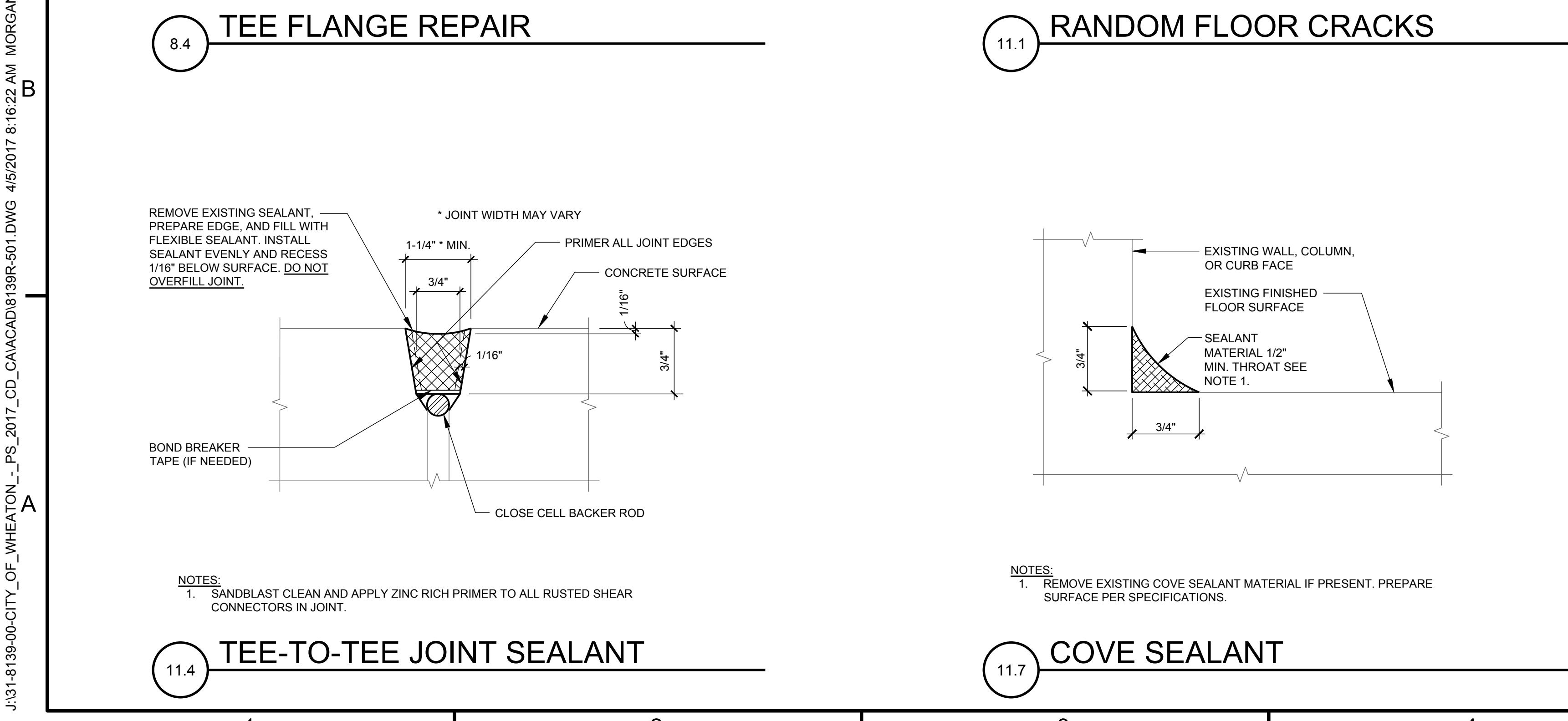
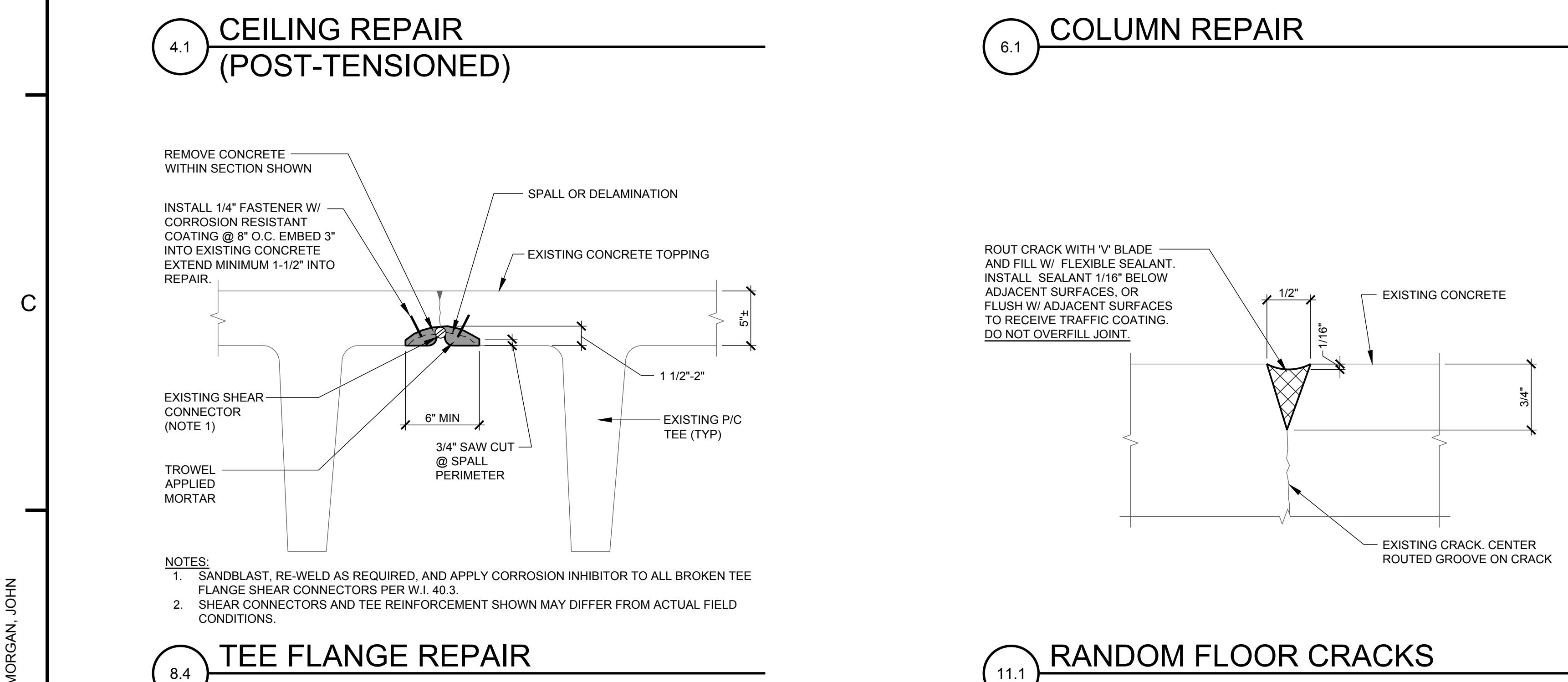
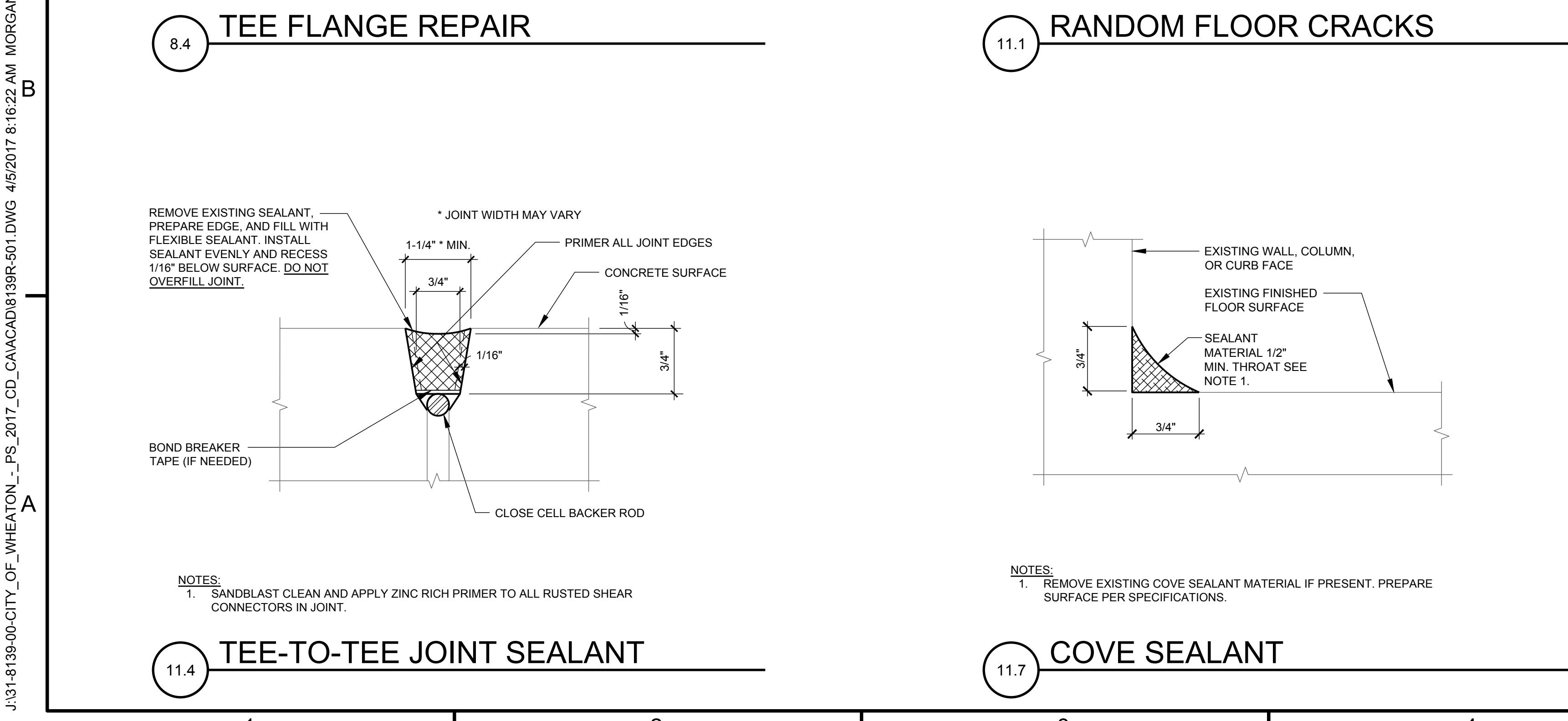
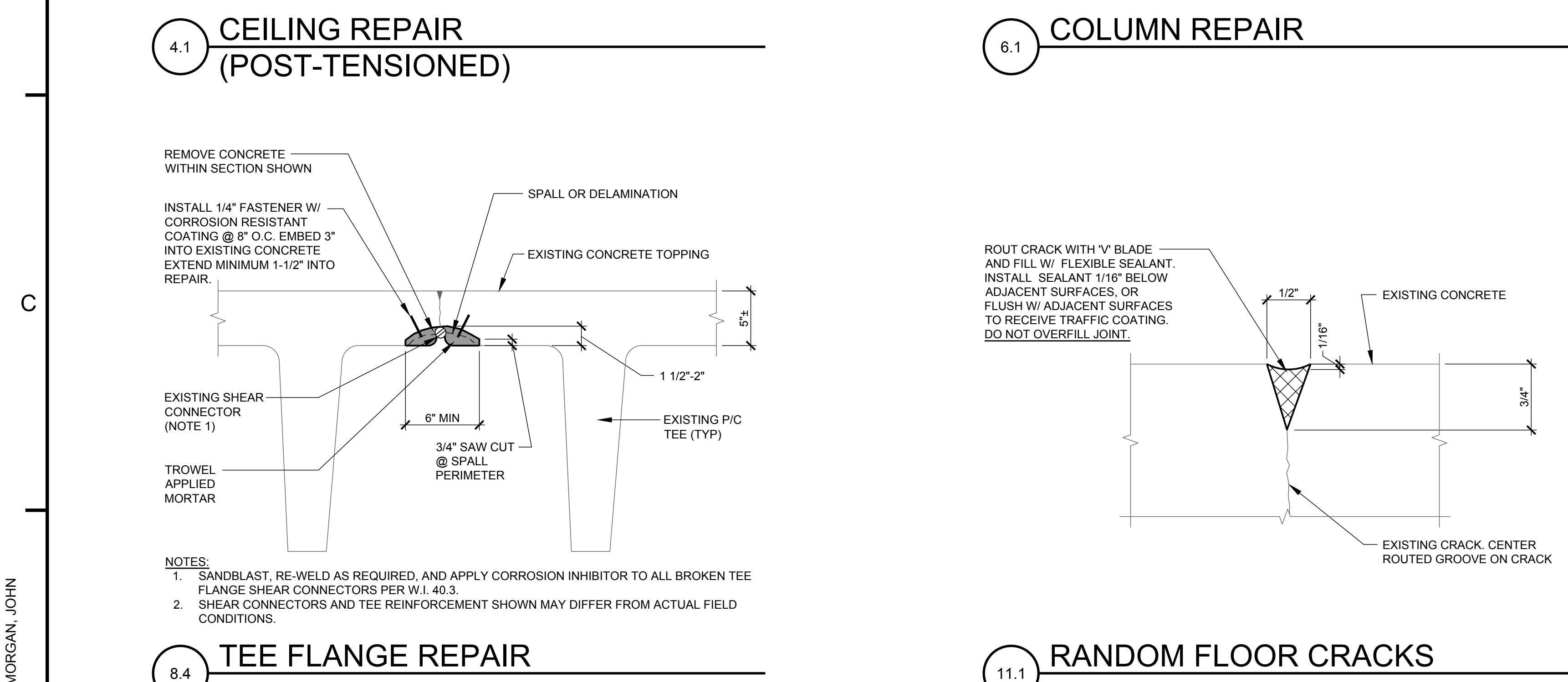
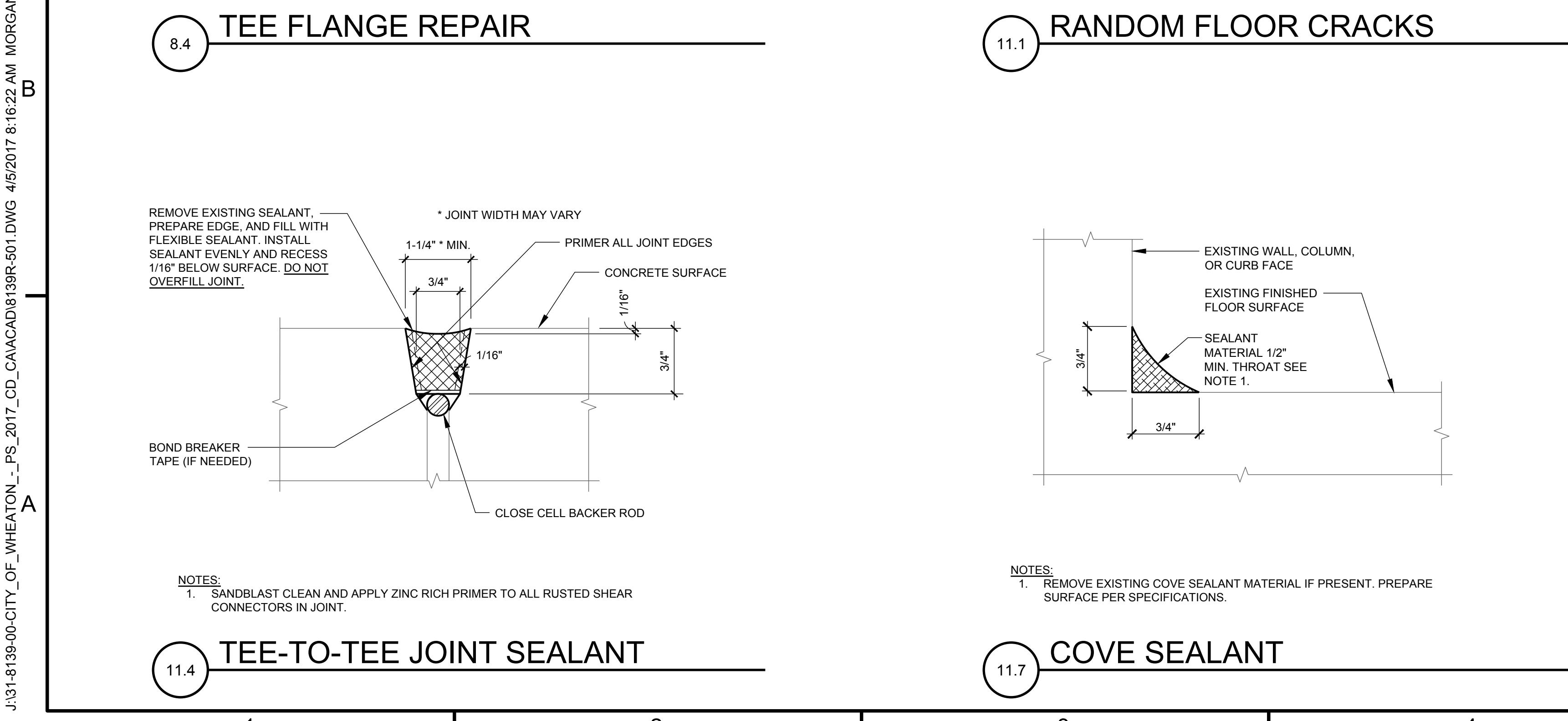
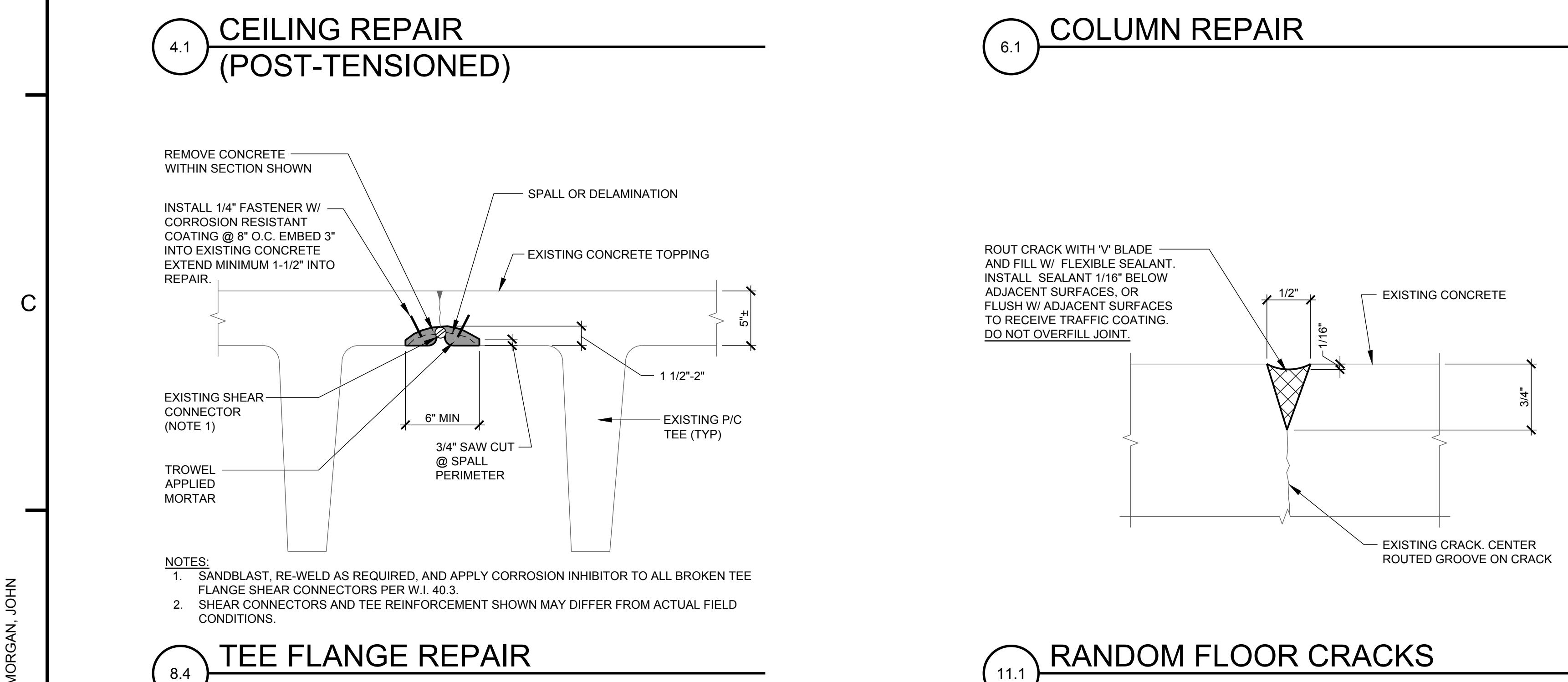
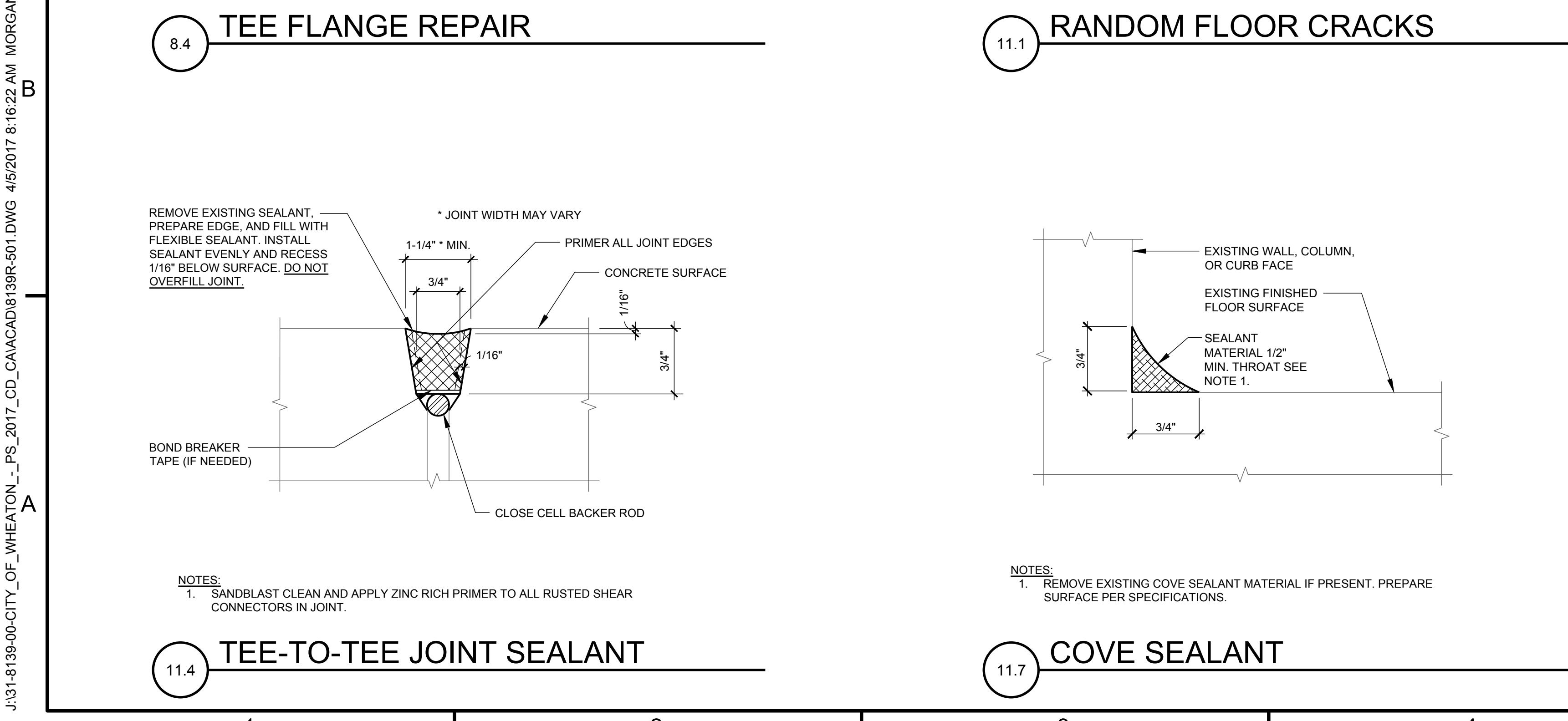
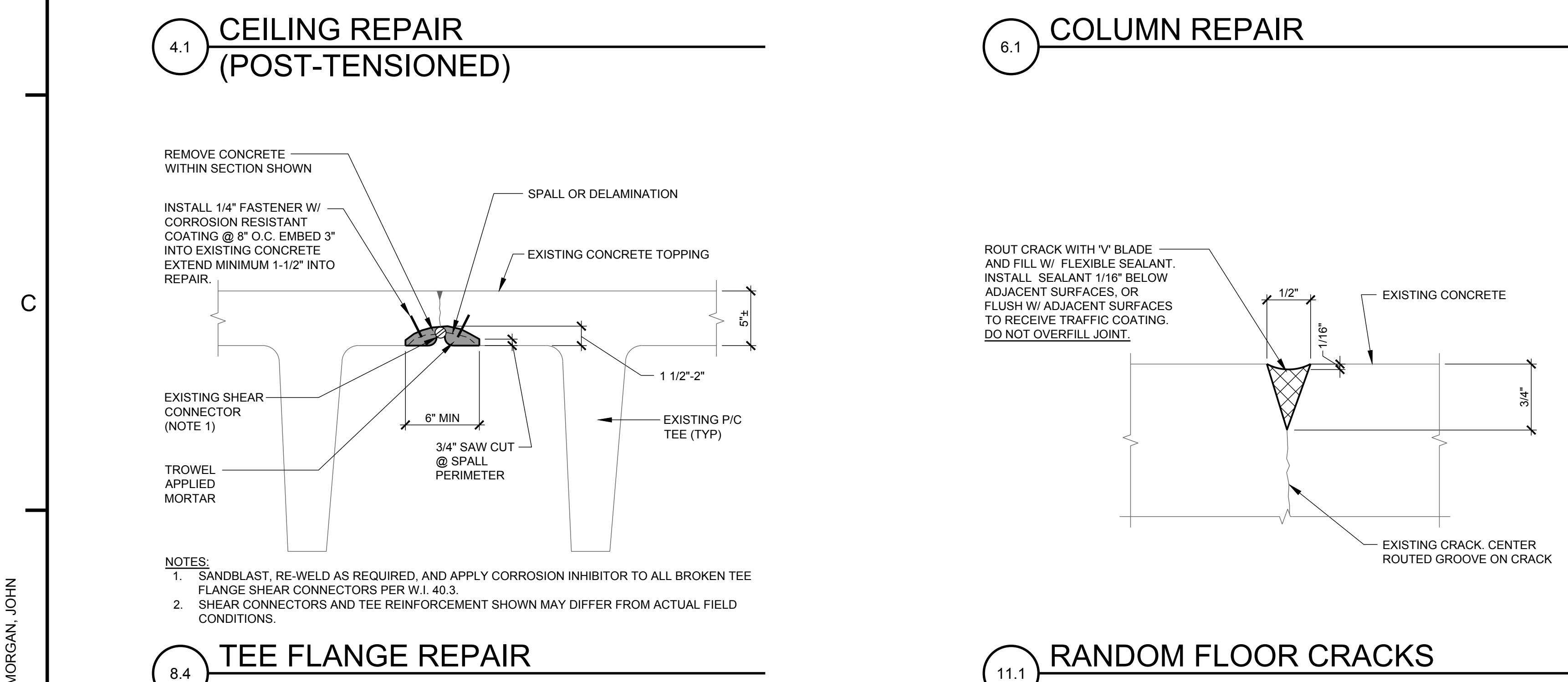
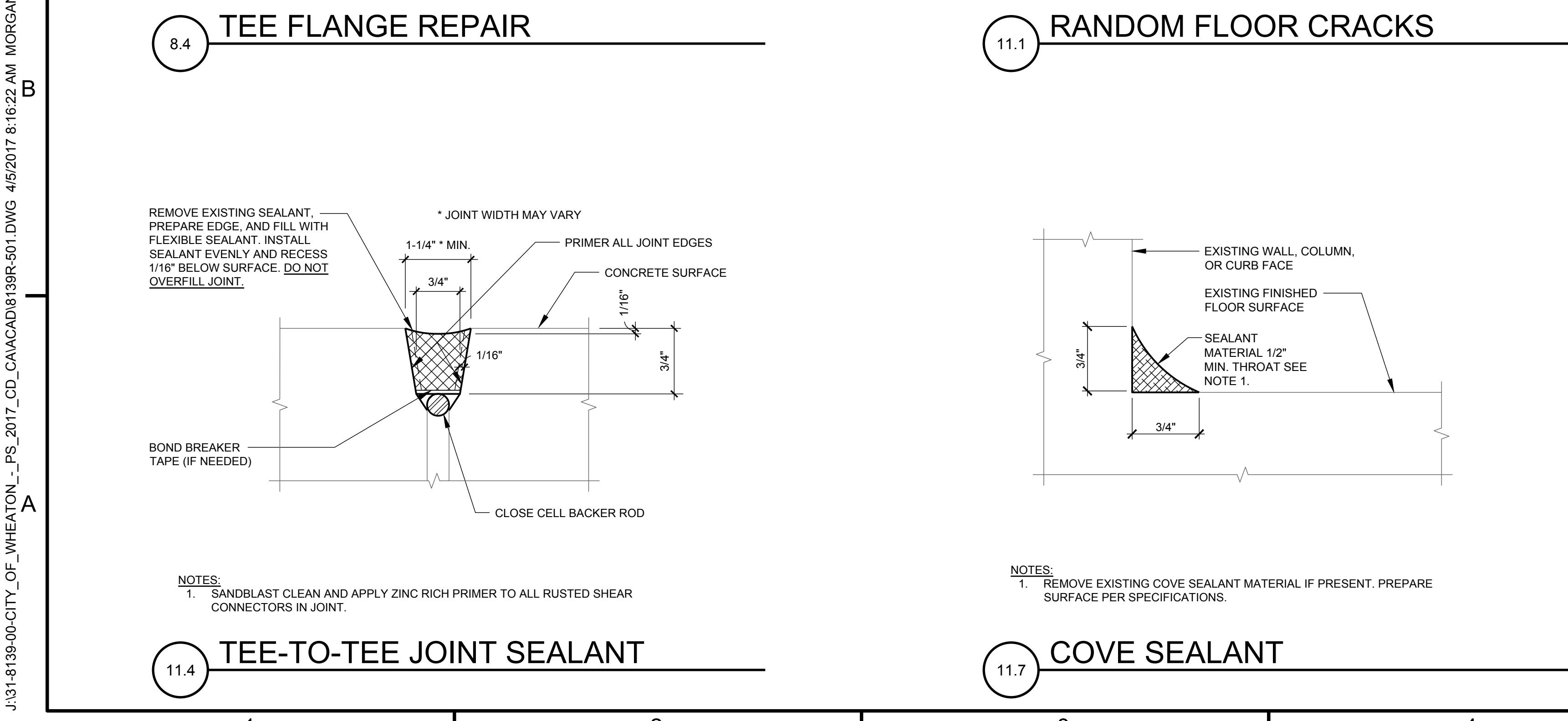
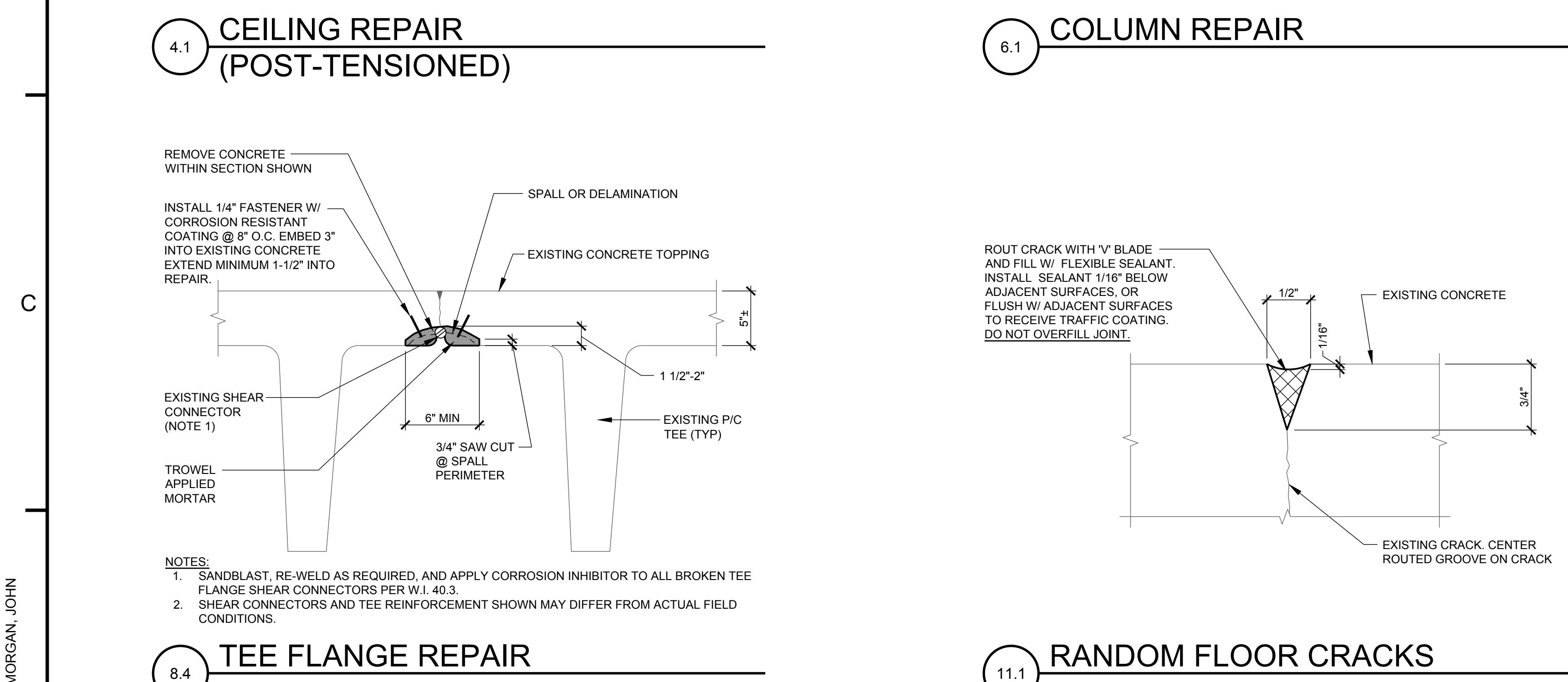
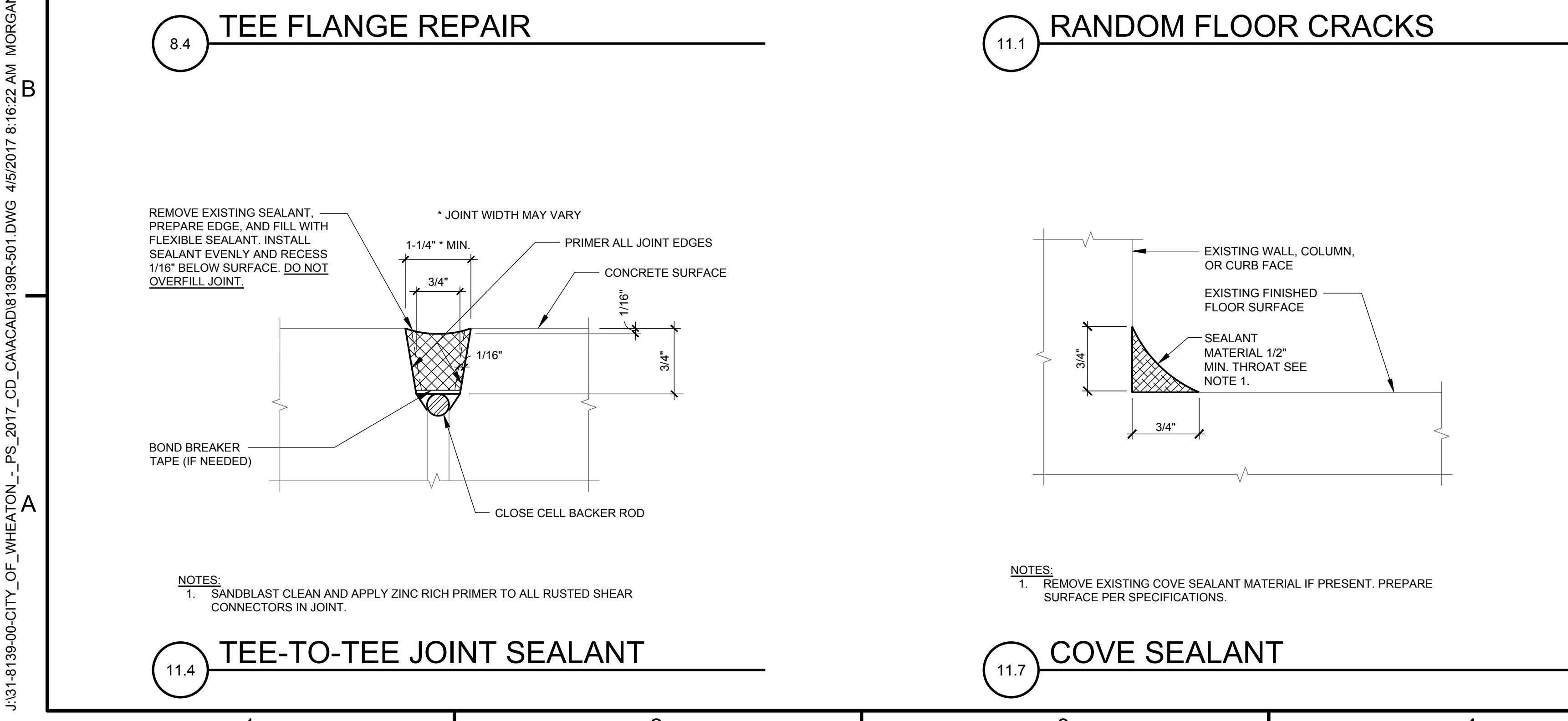
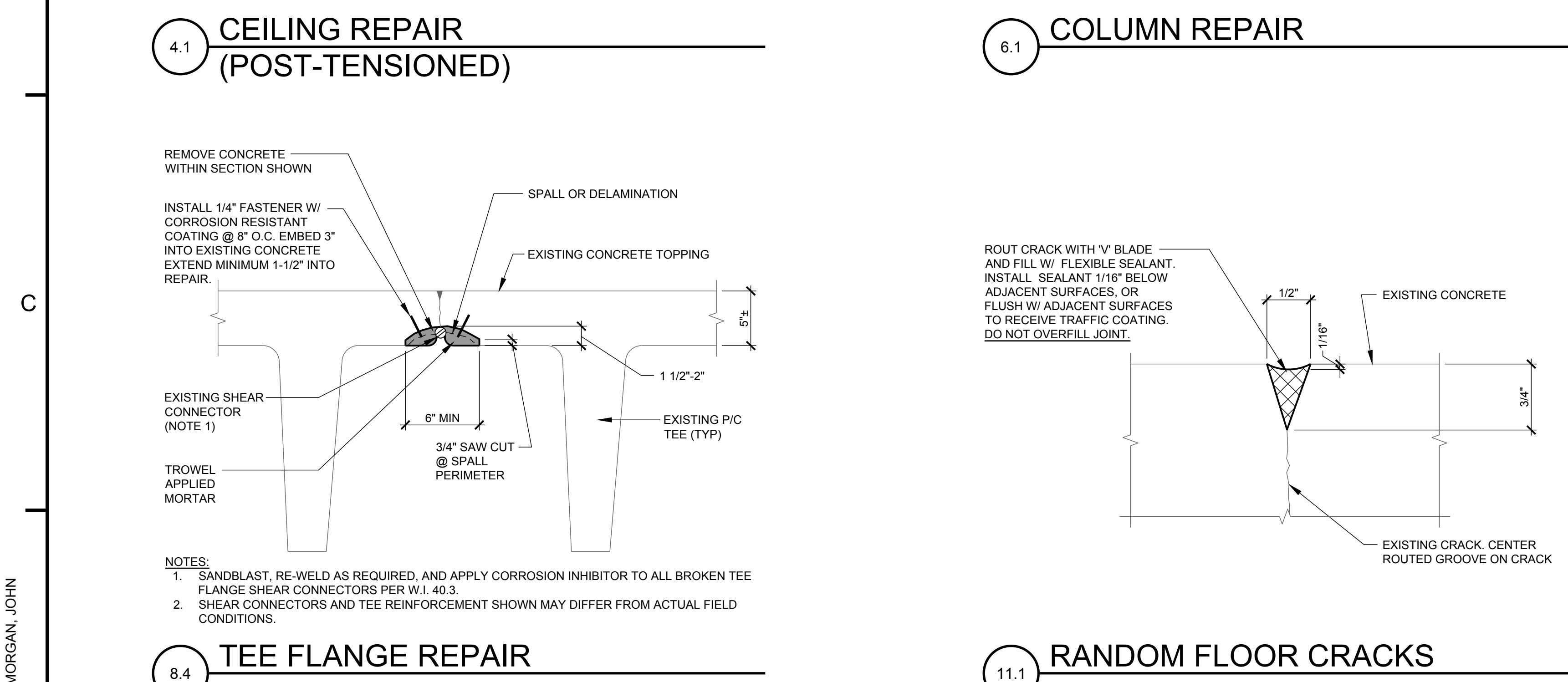
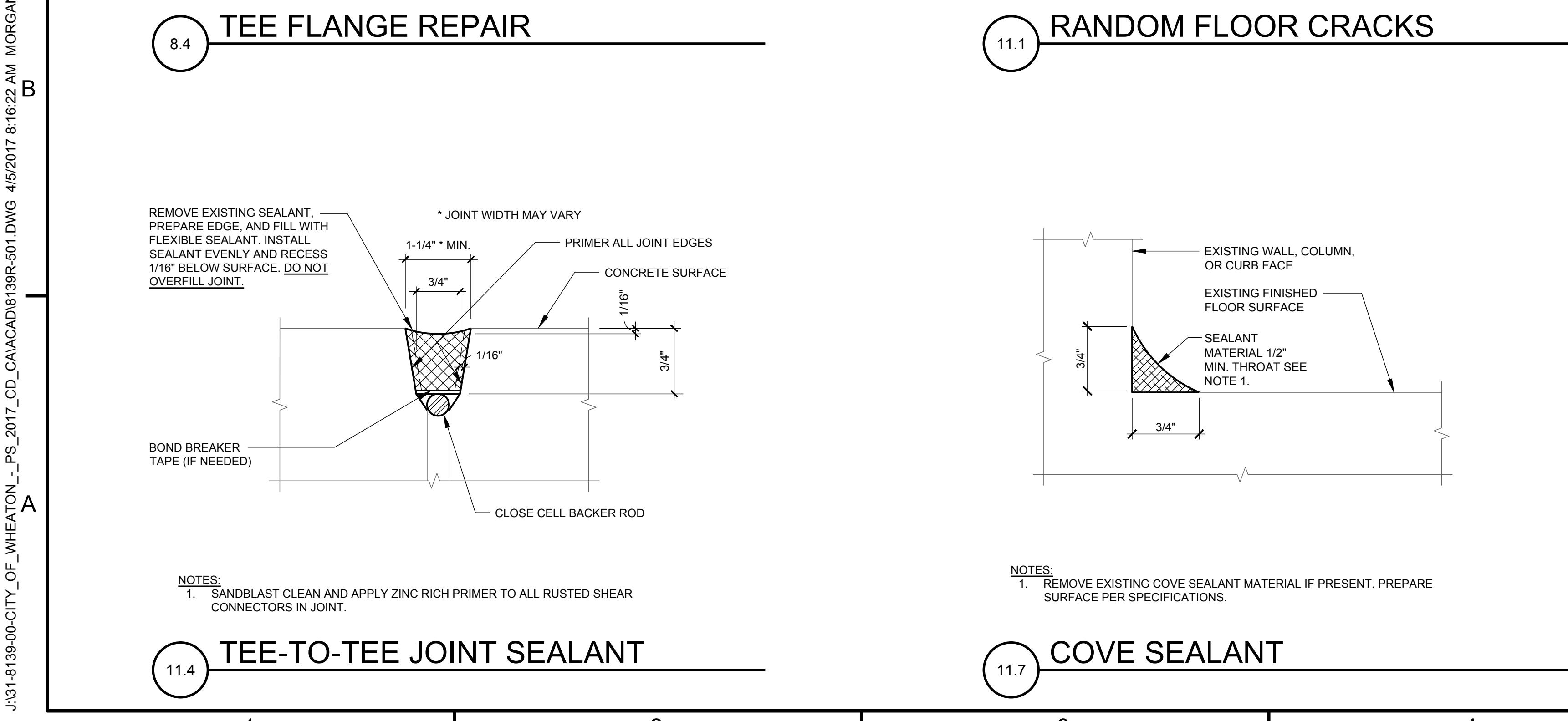
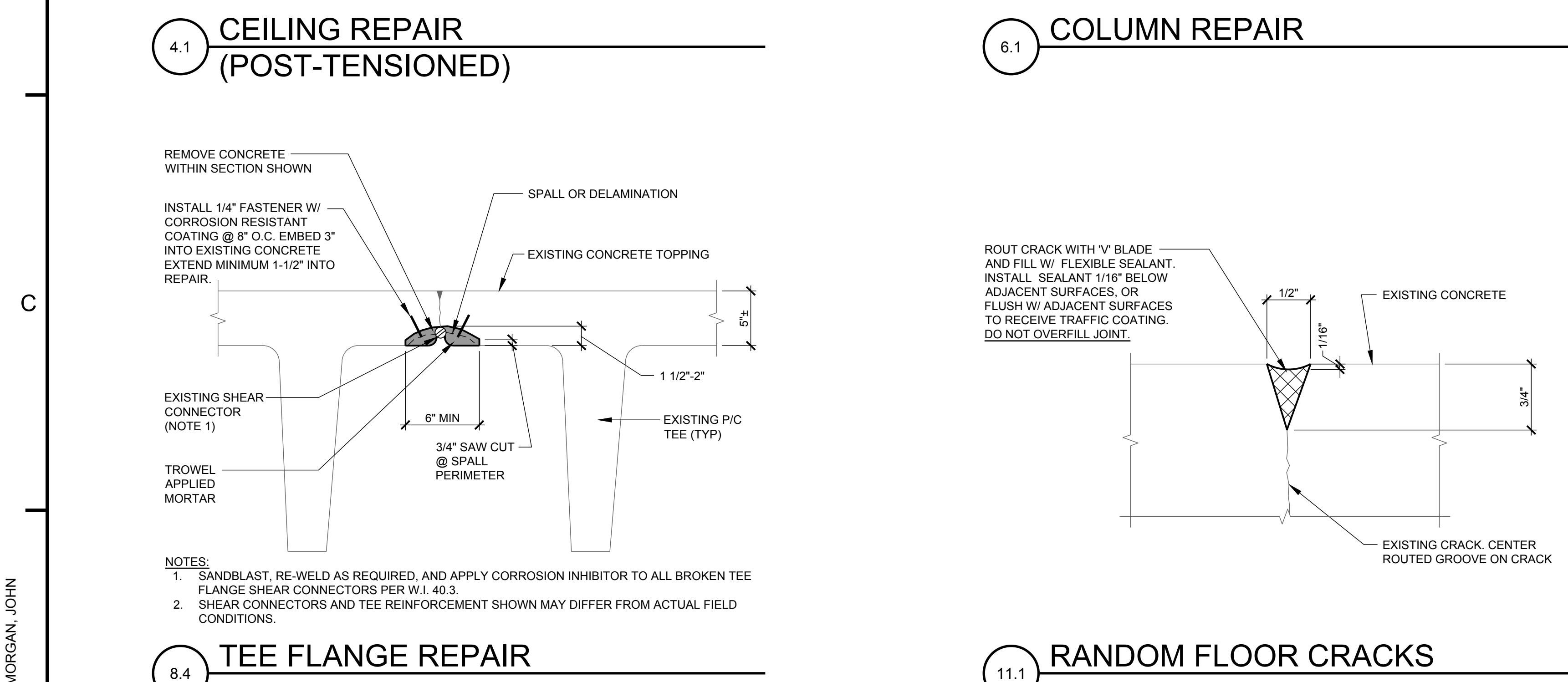
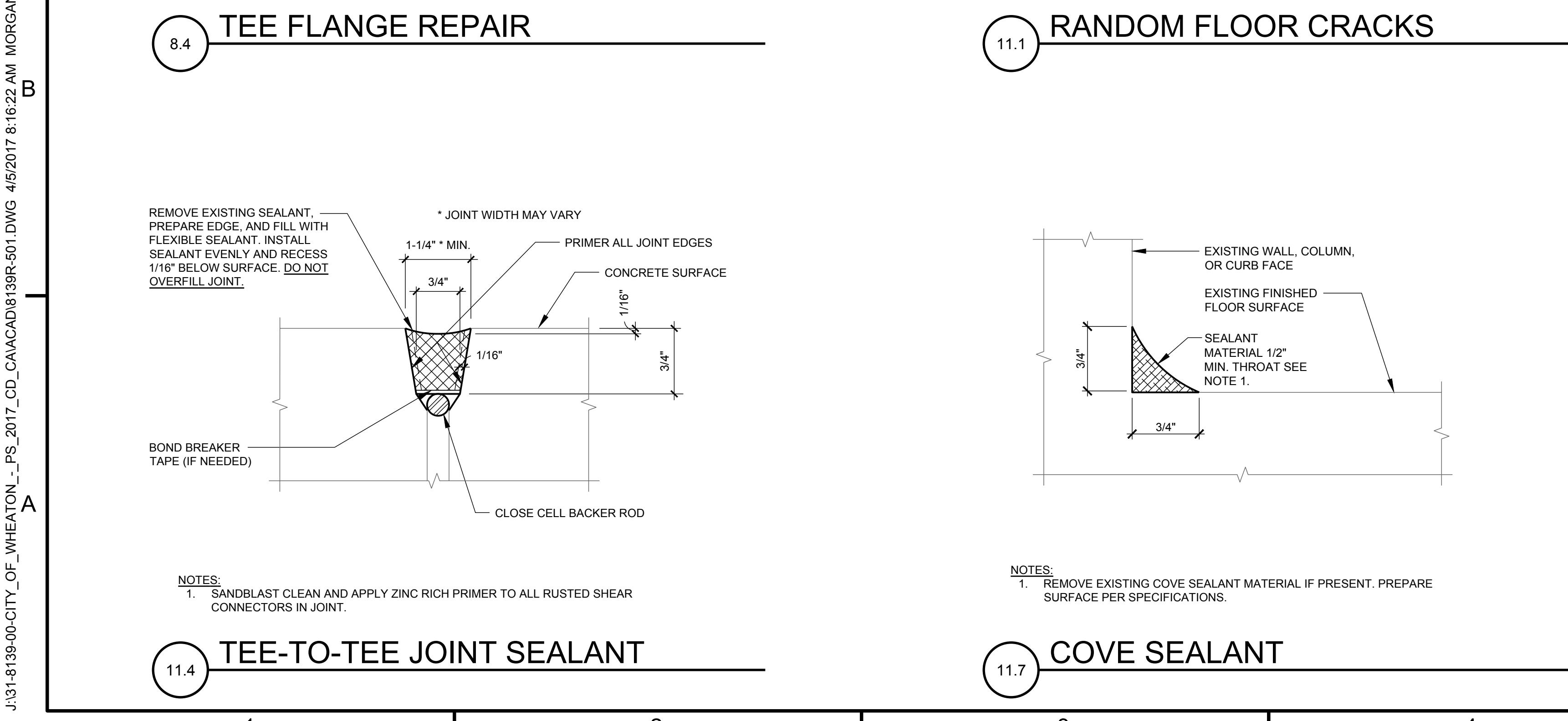
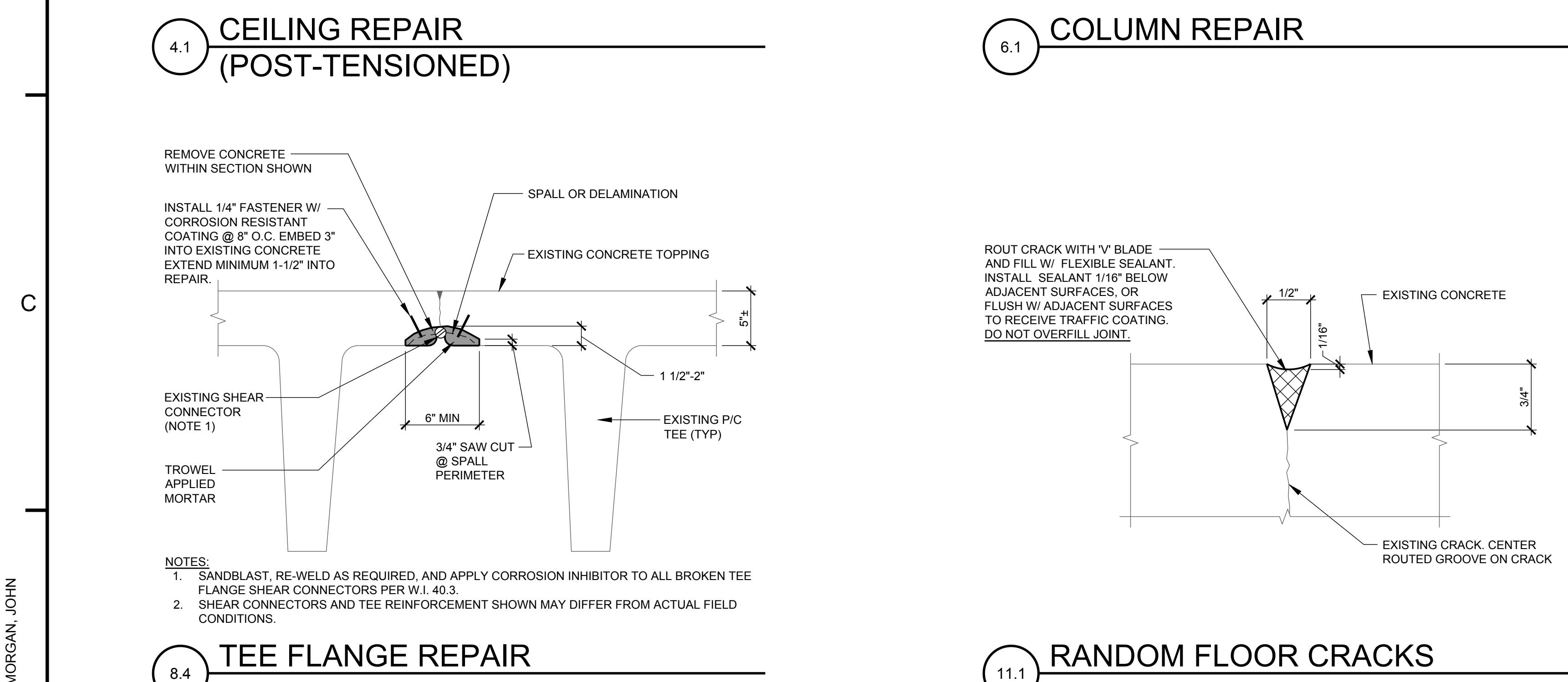
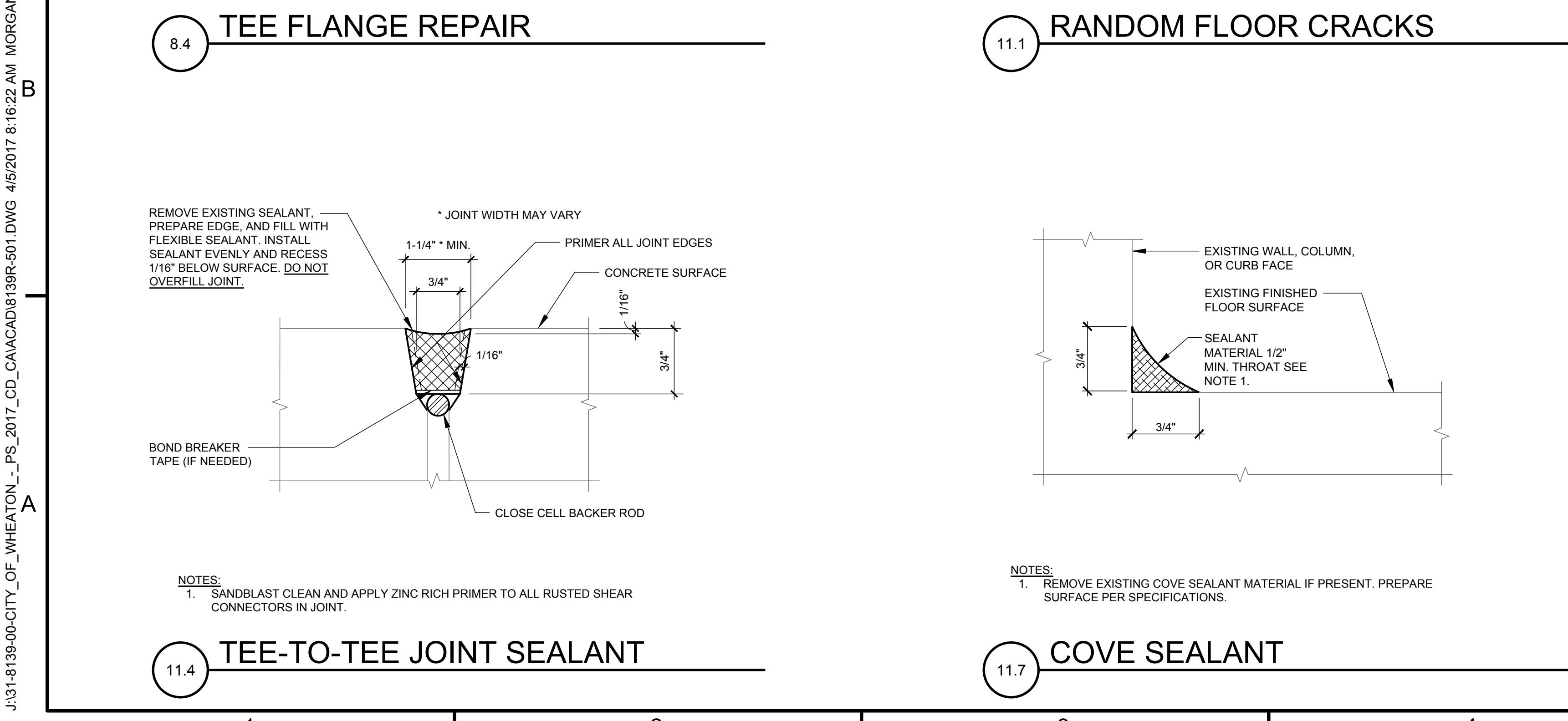
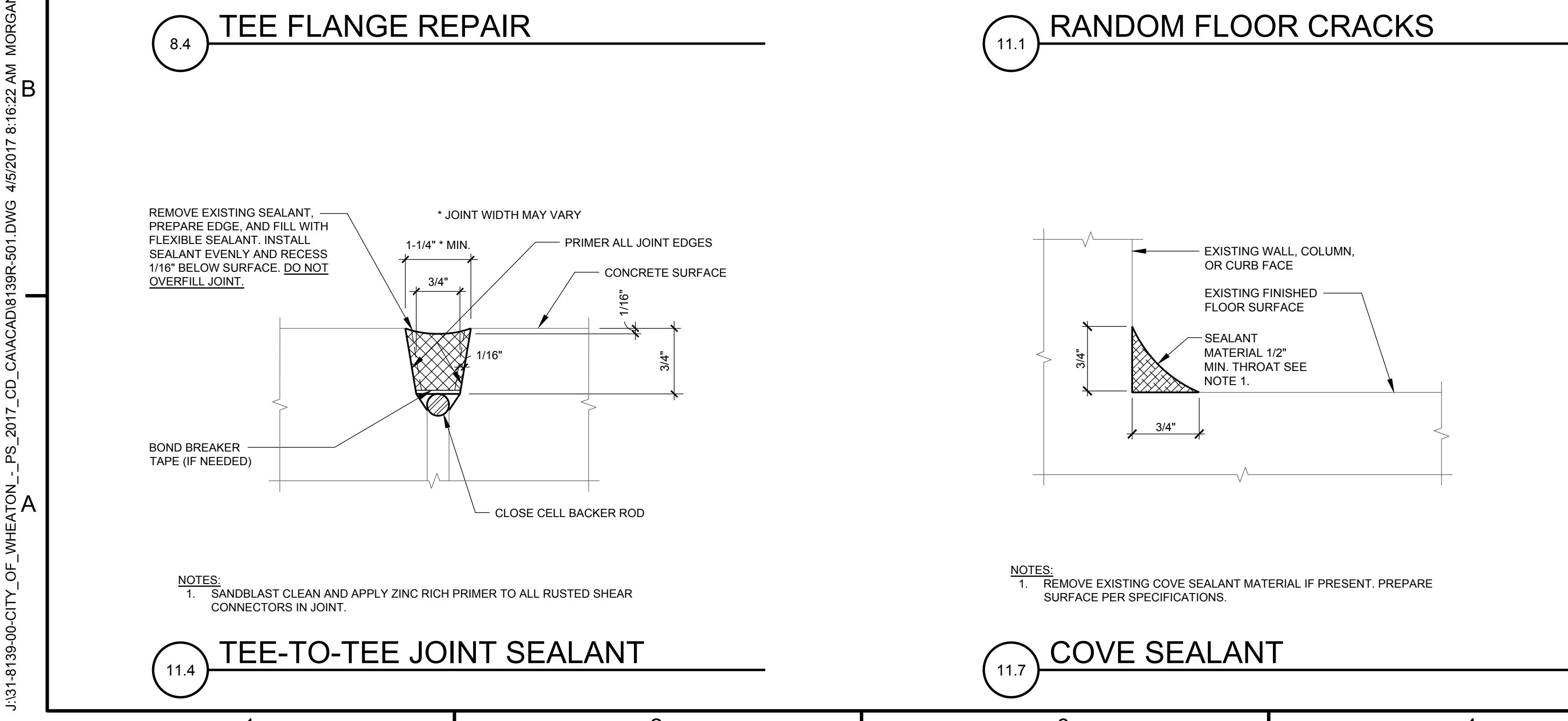
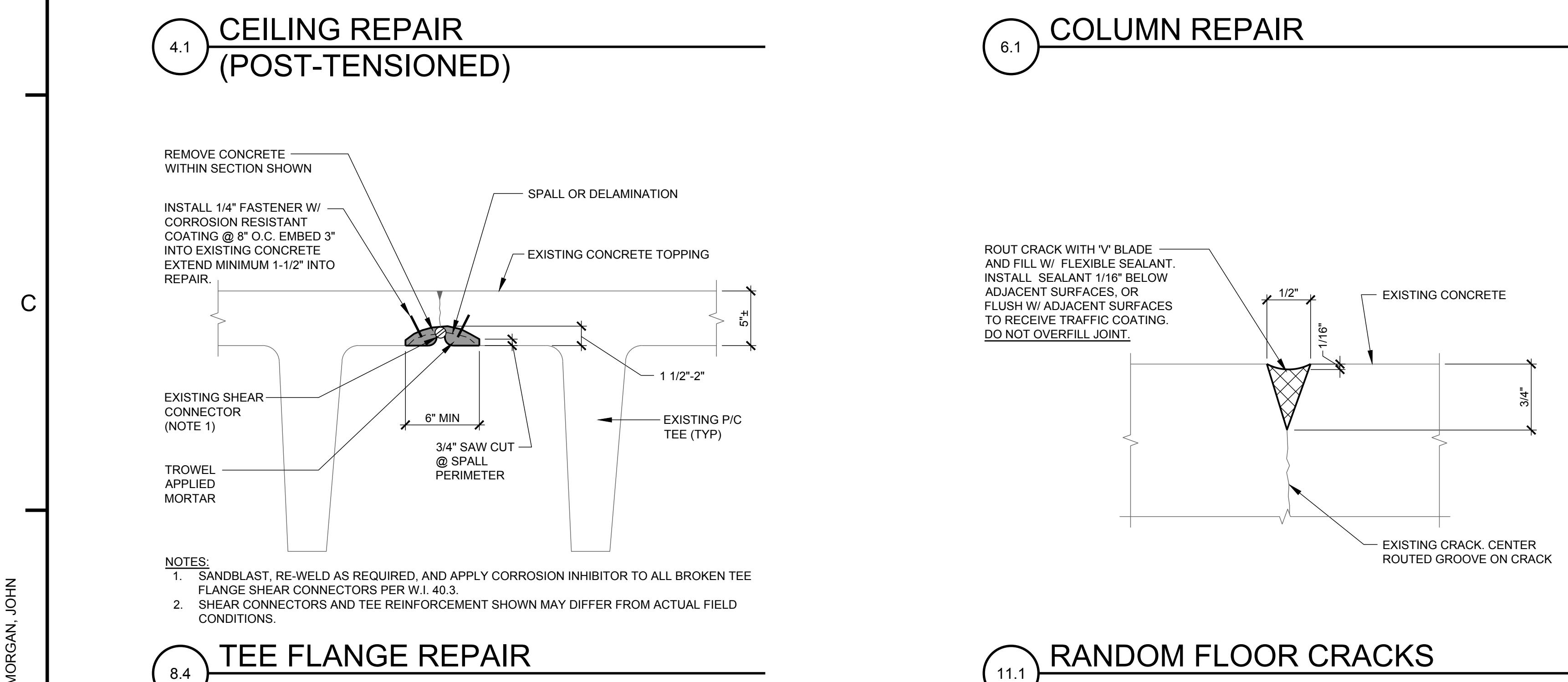
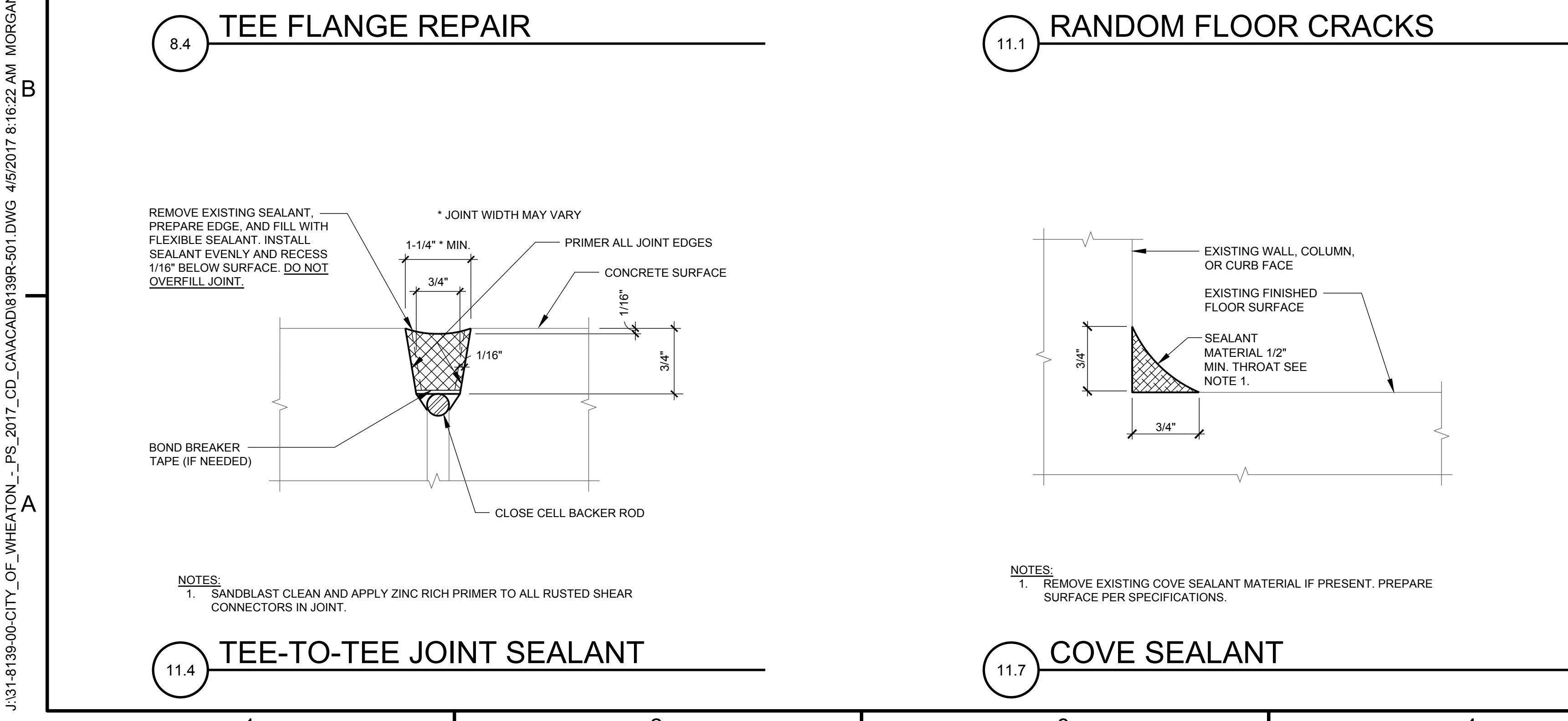
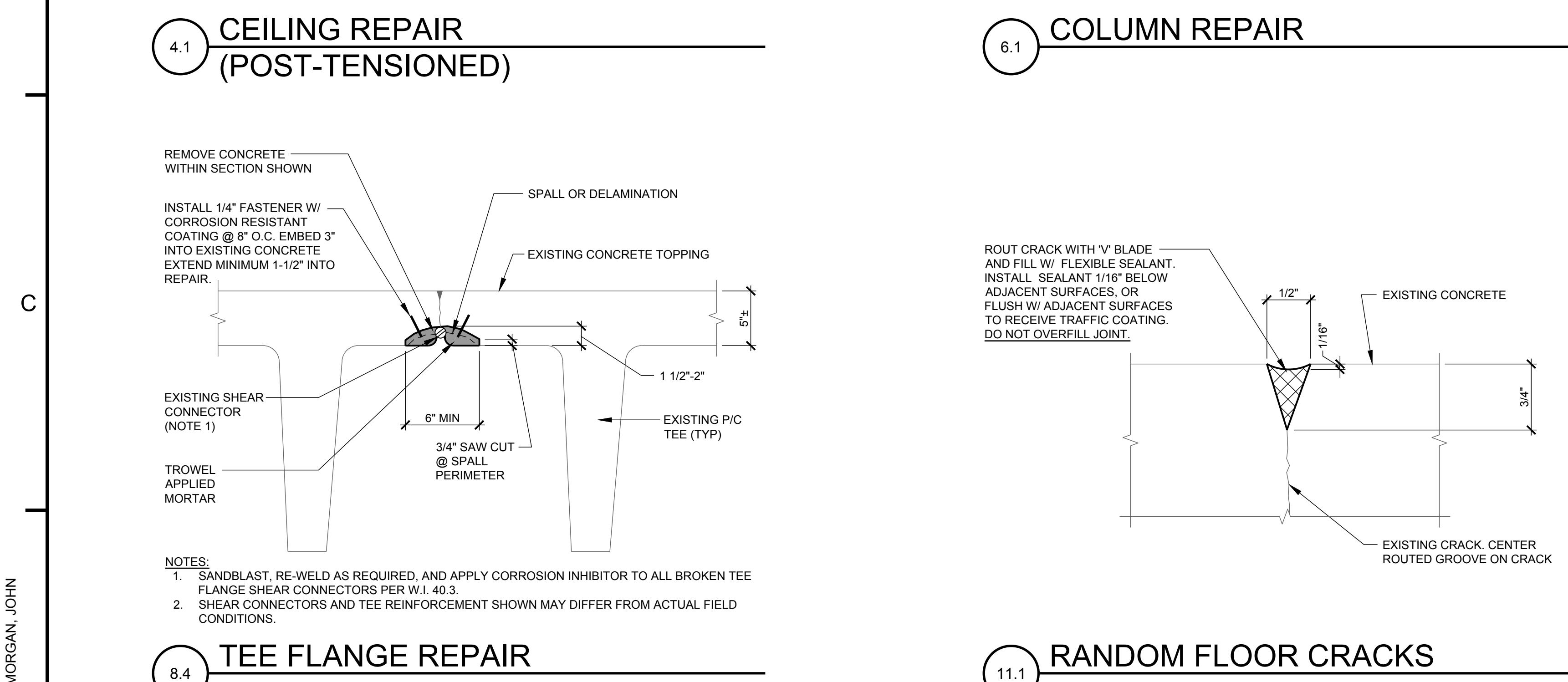
3.1 FLOOR REPAIR (POST-TENSIONED)



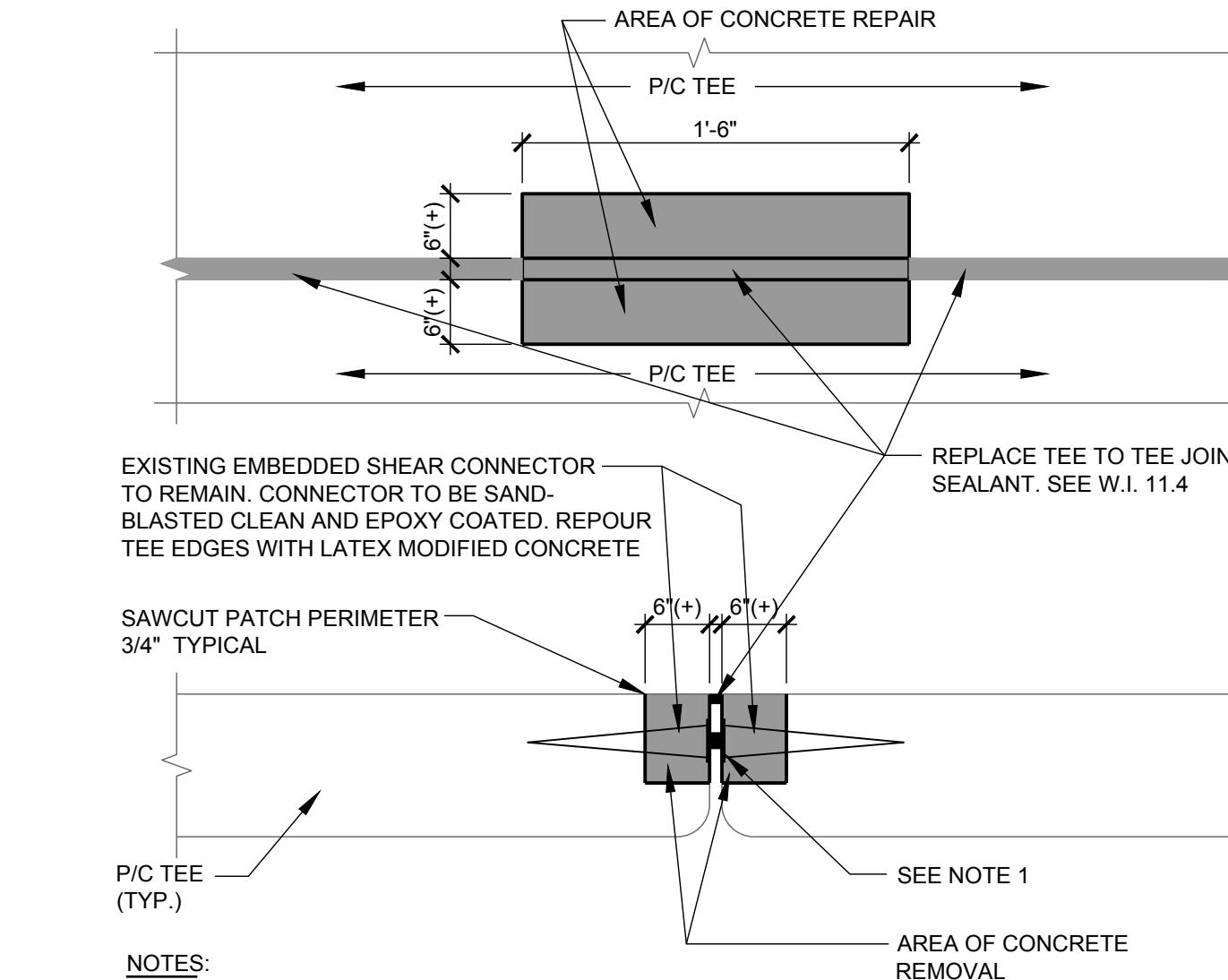
11.7 COVE SEALANT



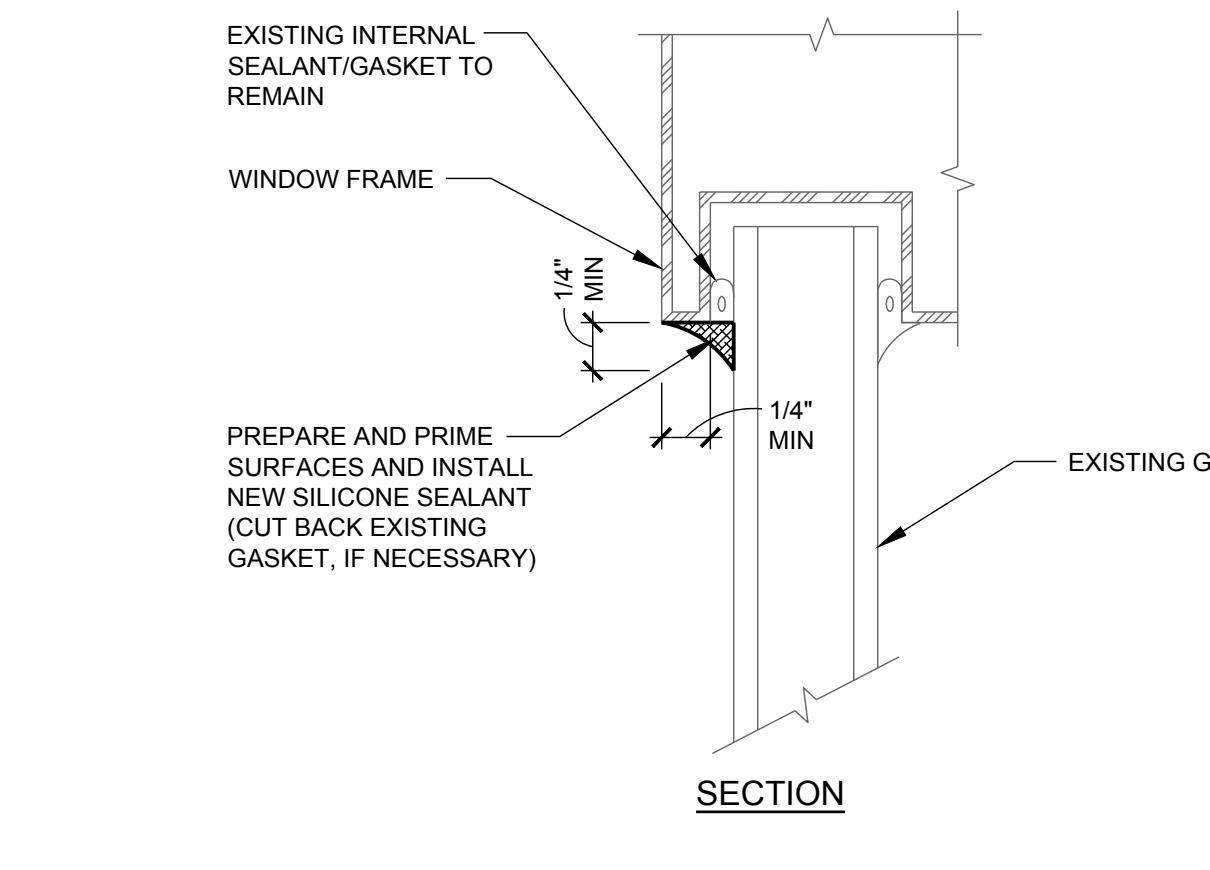
3.5 FLOOR REPAIR - LIFTING LOOPS



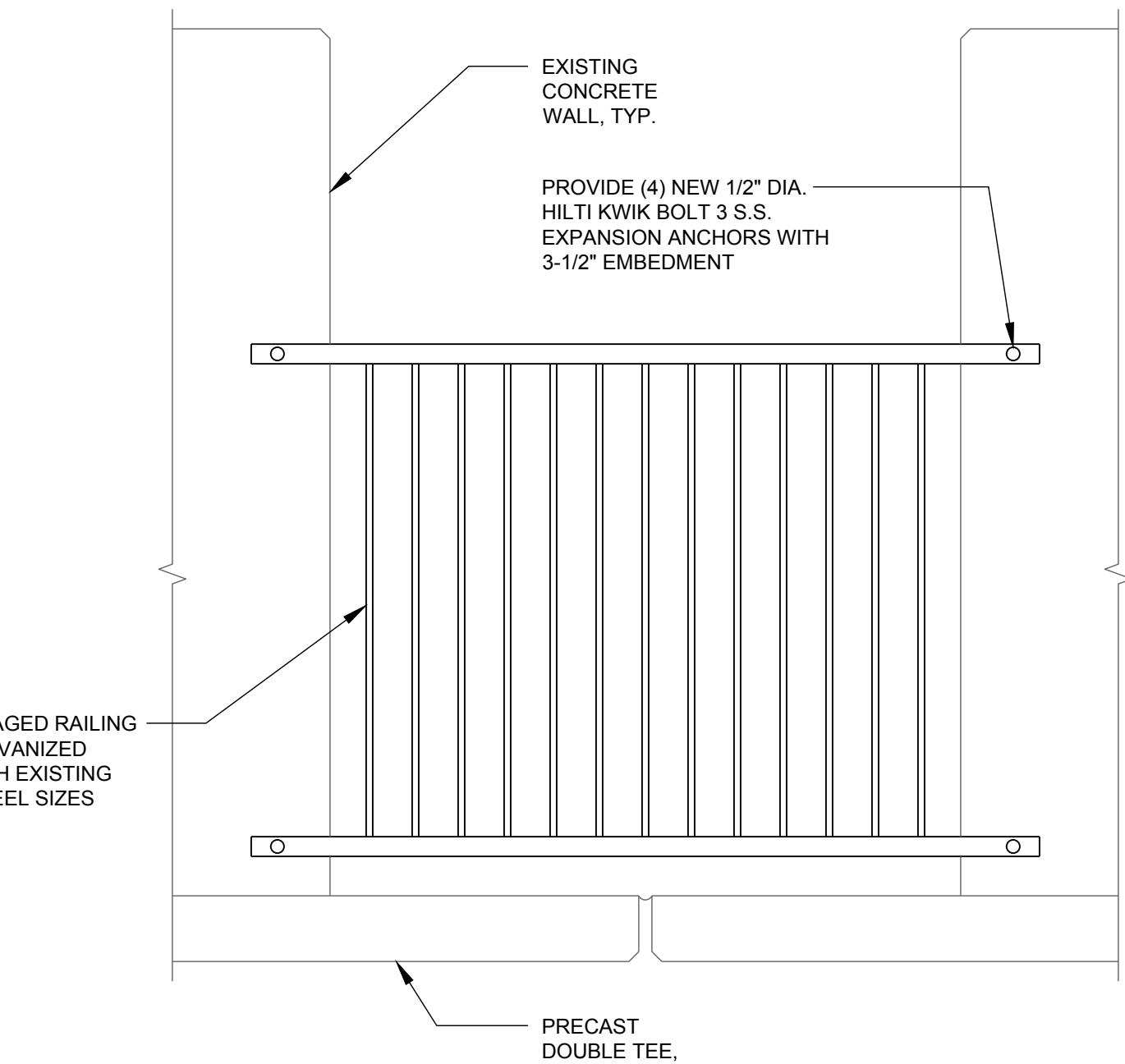
40.3 RE-WELD SHEAR CONNECTOR



42.1 WINDOW GASKET SEALANT



43.2 REPLACE GUARD RAILING



CITY OF WHEATON
PARKING STRUCTURES
MAINTENANCE REPAIRS
WHEATON, ILLINOIS

PROJECT NO.	31-8139.00	DRAWN BY:	JSW	RELEASER FOR BIDS	
NO.		DATE ISSUED		NO.	
DESCRIPTION		NO.		DATE	
ISSUED		NO.		DATE	
REPAIR DETAILS		NO.		DATE	

R-502

PARKING STRUCTURES MAINTENANCE REPAIRS

BID SUBMISSION INSTRUCTIONS

PLEASE SUBMIT 2 original bids in sequential order as follows:

- 1) Section 004100 Bid Forms
- 2) 004310 Procurement Form Supplements
- 3) 005000 Contractor's Qualification Statement for Restoration Work
- 4) Bid Bond
- 5) Certification of Compliance
- 6) Notice of Deviations
- 7) Contractor Certification Part I
- 8) Contractor Certification Part II
- 9) Equal Employment Opportunity Clause
- 10) Drug Free Workplace Certification
- 11) Certificate of Insurance

Do not submit perforated pages, nor bind your proposal in anything other than paper clips or binder clips.

BIDDER has examined copies of all the Request for Proposal Documents and of the following Amendments
(receipt of all which is hereby acknowledged):

Amendment #	Date	Amendment #	Date
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

It is the Bidder's responsibility to check the City of Wheaton web site to see if any amendments are issued regarding this project. Amendments may be issued until 48 hours before bid due date.

<http://www.wheaton.il.us/bids/>

CUSTOMIZED MAILING LABEL FOR SEALED BID

XXXXXX CUT OUT XXXXXX

Cut along outer border and affix this label to your sealed bid envelope to identify it as a "Sealed Bid".

SEALED BID – DO NOT OPEN

PROPOSAL FOR: PARKING STRUCTURES MAINTENANCE REPAIR

PROPOSAL FROM: (Insert your company name below)

Sealed Bids Due: June 9, 2017 before 11:00 a.m.

Public Bid Opening: June 9, 2017 at 11:00 a.m.

TO BE OPENED BY PROCUREMENT OFFICER

MAIL TO:

Procurement Office
City of Wheaton / City Hall
P.O. BOX 0727
303 West Wesley Street
Wheaton, IL 60187-0727

PARKING STRUCTURES MAINTENANCE REPAIRS

CERTIFICATION OF COMPLIANCE

- (I) The undersigned certifies that they agree to fulfill all Requirements, Specifications, Terms and Conditions.
- (II) The undersigned certifies that they agree to fulfill all Agreement Requirements.
- (III) The undersigned certifies that they agree to present alternative Greener products/processes to the City for consideration in this work.

Check One:

There are no conflicts of interest; and in the event that a conflict of interest is identified anytime during the duration of this award, or reasonable time thereafter, you, your firm, or your firm's ownership, management or staff will immediately notify the City of Wheaton in writing.

There is an affiliation or business relationship between you, your management or staff, your firm, or your firm's ownership, and an employee, officer, or elected official of the City of Wheaton who makes recommendations to the City of Wheaton with respect to expenditures of money, employment, and elected or appointed positions. Provide any and all affiliations or business relationships that might cause a conflict of interest or any potential conflict of interest. Include the name of each City of Wheaton affiliate with whom you, your firm, or your firm's ownership, management or staff, has an affiliation or a business relationship.

This Business Firm is: (check one)

Corporation Partnership Individual LLC

Firm Name: _____

Firm Address: _____

Signature: _____

Print Name: _____

Position: _____

Phone #: _____

Fax #: _____

e-mail address: _____

Date signed: _____

ACKNOWLEDGED AND AGREED TO:

By _____
(Authorized Signature and Title)

State of _____

County of _____

Signed and sworn (or affirmed) to before me on _____ (date)

By _____ (name/s of person/s making statement).

(Signature of Notary Public)

(Seal)

Failure to complete and return this form may be considered sufficient reason for rejection of the bid.

PARKING STRUCTURES MAINTENANCE REPAIRS

NOTICE OF DEVIATIONS

NOTICE OF DEVIATIONS for the (1) Specification and/or (2) Agreement Requirements: We deviate from (1) the desired SPECIFICATIONS of the City of Wheaton and/or (2) the PARKING STRUCTURES MAINENANCE REPAIRS SERVICES AGREEMENT, in the following areas (Please reference the specific requirement number):

As best as can be ascertained, there are no deviations other than those listed.

Company Name _____

Signature _____

Print Name _____

Job Title _____

Date Signed _____

CITY OF WHEATON, ILLINOIS
232 WESLEY & 220 CROSS STREET
PARKING STRUCTURE MAINTENANCE REPAIRS
SERVICES AGREEMENT

THIS AGREEMENT is made and entered this _____ day of _____ by and between the **CITY OF WHEATON**, an Illinois municipal corporation (“**City**”), located at 303 W. Wesley Street, Wheaton, Illinois, 60189 and _____ (“**Contractor**”), located at _____.

WHEREAS, the City has determined that it is reasonable, necessary, and desirable to engage the Contractor to provide materials, labor, equipment, supervision and services required to provide repair, restorative and maintenance services to the facades of the parking structures located at 232 Wesley Street and 220 Cross Street (hereinafter, “**Parking Structures**”) consistent with the City’s Parking Structure Maintenance Repairs Invitation to Bid package which is attached hereto and incorporated herein as if fully set forth as **Group Exhibit A**; and

WHEREAS, Contractor has submitted a cost proposal a to provide the materials, labor, equipment, supervision and services required to provide repair, restorative and maintenance services to the facades of the Parking Structures, a copy of the proposal is attached hereto and incorporated herein as if fully set forth as **Group Exhibit B**, and Contractor represents that it has the necessary expertise and experience to repair, restore, and maintain the facades of the Parking Structures, upon the terms and conditions set forth herein below.

NOW, THEREFORE, in consideration of the recitals and the mutual covenants, agreements, and conditions set forth in the Agreement, the parties agree as follows:

SECTION 1. PROJECT.

1.1 Recitals. The recitals set forth above, including **Group Exhibit A** and **Group Exhibit B**, are incorporated herein as substantive terms and conditions of this Agreement and represent the intent of the parties. Any inconsistency between the services as stated by the City in **Group Exhibit A** and the services as proposed by the Contractor in **Group Exhibit B** shall be controlled by the services as stated by the City in **Group Exhibit A**, unless specifically waived in writing in the contrary to this Subsection 1.1. Where this Agreement is inconsistent with any provision of **Group Exhibit A** or **Group Exhibit B**, this Agreement shall control.

1.2 Project Name. The name of this project is the **Parking Structures Maintenance Repairs** (“**Project**”).

1.3 Retention and Services. The City retains the Contractor to provide repair, restorative and maintenance services (“**Work**”) for the completion of this Project in strict accordance with this Services Agreement, including the Terms & Conditions, Specifications and Drawings contained in Group Exhibit A and which collectively shall be referred to as the “**Contract Documents**,” and the Contractor agrees to and shall provide the Work required to complete this Project in strict accordance with the Contract Documents.

1.4 Independent Contractor Status. The Contractor shall act as an independent contractor in providing and performing the Work. Nothing in, nor done pursuant to, this Agreement

shall be construed (i) to create the relationship of principal and agent, employer and employee, partners, or joint-venturers between the City and Contractor; or (ii) to create any relationship between the City and any subcontractor of the Contractor. Contractor is not in any way authorized to make any contract, agreement, or promise on behalf of the City, or to create any implied obligation on behalf of the City, and Contractor specifically agrees that it shall not do so. The City shall not have the authority to control the method or manner by which Contractor complies with the terms of this Agreement.

1.5 Project Engineer. The City has retained Walker Restoration Consultants as the Engineer for this Project. The Engineer's contact information is as follows: John Morgan, 505 Davis Road, Elgin, Illinois 60123; john.morgan@walkerrestoration.com.

1.6 Time of Performance. Contractor agrees and shall complete the Project within **90** calendar days from the issuance of a notice to proceed by order by the City. The Contractor agrees that time is of the essence.

1.7 Additional Work. The Contractor shall provide only the Work specified in the Contract Documents. Additional work that is not part of the Work of the Contract Documents may be assigned subject to prior written approval or direction by the City. Payment for additional work shall be mutually agreed upon by the parties before the commencement of any additional work. Any additional work shall be subject to the terms and conditions of this Agreement.

1.8 Bonds. Contractor shall furnish payment and performance bonds equal to one-hundred and ten percent (110%) of the full contract price on forms approved by the City. Bond certificates must be submitted with the executed Agreement. Such bond(s) shall be conditioned to save and keep harmless the City from any and all claims, demands, loss, suits, costs, expenses and damages which may be brought, sustained or recovered against the City by reason of any negligence, default or failure of the Contractor in building, constructing or completing the Work, and that the Work shall be free from all defects and remain in good order and condition for one year from its completion and acceptance by the City, ordinary wear and tear, and damage resulting from accident or willful destruction excepted; a copy of such bond certificate shall be attached to this Agreement and made a part hereof.

SECTION 2. COMPENSATION AND METHOD OF PAYMENT.

2.1 Agreement Amount. The total amount billed by the Contractor for the Work performed for the Project under this Services Agreement shall not exceed _____, including reimbursable expenses, without the prior express written authorization of the City.

2.2 Invoices and Payments. For the Work performed by Contractor, the City shall pay Contractor as follows:

- a) Authorization of payment requires the following: receipt by the City of invoices from the Contractor containing sufficient detail of the Work performed to enable the City to properly evaluate the payout request; acceptance by the City of the Work, including materials and/or equipment; and receipt of other paperwork required by this Agreement.

- b) Retainage in the amount of ten percent (10%) of a payment request will be deducted from the amount determined for the first fifty percent (50%) of the Project. Retainage will be held until: i) all defective work has been remedied;

- ii) all work is one-hundred percent (100%) final and the City's project manager has formally accepted the work; and iii) all waivers, liens, certified payrolls, warranty documents and other required documentation are provided. If the work is fifty percent (50%) completed, satisfactory and on schedule, upon the discretion of the Project Manager, the City will continue to retain no less than five percent (5%) of the total adjusted Agreement price.
- c) The City shall pay Contractor in accordance with the Illinois Local Government Prompt Payment Act.
- d) Payment will be made to the Contractor either through the City's Purchasing Card Program, MasterCard, in which payment will occur at the time of Work delivery, or through a Contractor generated invoice. Invoices shall be submitted to the City within six (6) months of completion of the Services. Any invoices submitted in excess of six (6) months from the date that Work is completed, will not be paid. Under no circumstances will a third party be reimbursed for Work performed under this Agreement.

2.3. Unappropriated Funds. The obligation of the City for payment to the Contractor is limited to the availability of funds appropriated in a current fiscal period, and continuation of this Agreement into a subsequent fiscal period is subject to the appropriation of funds, unless otherwise authorized by law.

2.4. Taxes, Benefits, and Royalties. The Agreement Amount includes all applicable federal, state and City taxes of every kind and nature applicable to the Work as well as all taxes, contributions, and premiums for unemployment insurance, old age or retirement benefits, pensions, annuities, or similar benefits and all costs, royalties, and fees arising from the use of, or the incorporation into, the Work, of patented or copyrighted equipment, materials, supplies, tools, appliances, devices, processes, or inventions. All claims or right to claim additional compensation by reason of the payment of any such tax, contribution, premium, costs, royalties, or fees is hereby waived and released by Contractor.

2.5. Records. The Contractor shall maintain records showing actual time devoted and costs incurred in connection with the Work performed under this Agreement, and shall permit the authorized representative of the City to inspect, audit and make copies of all data and records of the Contractor for the Work done under this Agreement. All such records shall be clearly identifiable. The records shall be made available to the City during normal business hours during the Agreement period, and for three years after the termination of the Agreement.

SECTION 3. REPRESENTATIONS OF CONTRACTOR.

3.1 Standard of Care. The Contractor represents, certifies and warrants that it shall perform and complete the Work in a manner consistent with the level of care, skill, and diligence exercised by other recognized Contractors in the Wheaton area, under similar circumstances at the time the Work is performed. The representations, certifications, and warranties expressed shall be in addition to any other representations, certifications, and warranties expressed in this Agreement, or expressed or implied by law, which are hereby reserved unto the City.

3.2 Solvency. The Contractor represents that it is financially solvent and has the necessary financial resources to perform the Work with the standard of care required under this Agreement.

3.3 Key Project Personnel/Personnel. The Key Project Personnel identified in Group Exhibit B shall be primarily responsible for carrying out the Work on behalf of the Contractor. The Key Project Personnel shall not be changed without the City's prior written approval. The Contractor shall provide all personnel necessary to complete the Work.

SECTION 4. INDEMNIFICATION; INSURANCE; LIABILITY

4.1 Indemnification. The Contractor shall, without regard to the availability or unavailability of any insurance, either of the City or of the Contractor, indemnify, save harmless, and defend the City, and its officials, directors, officers, employees, agents, and attorneys, in whole or in part from and against any and all lawsuits, claims, demands, damages, liabilities, losses, fines, judgments, settlements, penalties, costs, and expenses, including, but not limited to reasonable expert witness and attorneys' fees, as well as costs of litigation, that arise, or may be alleged to have arisen, out of or in connection with Contractor's performance or failure to perform the Work or any part thereof, whether or not due or claimed to be due in whole or in part to the active, passive, or concurrent negligence or fault of the Consultant, except to the extend caused by the sole negligence of the City.

The obligation on the part of the Contractor to defend, hold harmless, and indemnify the City shall survive the expiration or termination of this Agreement. Nothing in this Agreement shall be construed as prohibiting the City, its officials, directors, officers, employees, agents or attorneys from defending, through the selection and use of their own agents, attorneys and experts, any claims, actions or suits brought against them arising out of the performance of this Agreement.

In the event that any claim for indemnification hereunder arises from the negligence or willful misconduct of both the Contractor and the City, the parties agree that any and all lawsuits, claims, demands, damages, liabilities, losses, fines, judgments, settlements, penalties, costs, and expenses shall be apportioned between the parties on the basis of their comparative degrees of fault, except as otherwise herein provided.

4.2 Insurance. Contemporaneous with the Contractor's execution of this Agreement, the Contractor shall provide certificates and policies of insurance, all with coverages and limits acceptable to the City, and evidencing at least the minimum insurance coverages and limits as set forth by the City in the **Contract Addendum 1** included in Group Exhibit A to this Agreement.

4.3 No Personal Liability. No elected or appointed official, director, officer, agent or employee of the City shall be personally liable, in law or in contract, to the Contractor as the result of the execution, approval or attempted execution of this Agreement.

4.4. No Liability to Any Third Party. The City shall have no liability to any third party in contract, tort or otherwise for incidental or consequential damages of any kind, including, without limitation, punitive or economic damages or lost profits, regardless of whether the City shall be advised, shall have reason to know or in fact shall know of the possibility.

4.5 Third Party Beneficiaries. There are no third party beneficiaries of this Agreement.

4.6 Patents. The Contractor agrees to protect, defend, and save the City harmless against any demand for payment for the use of any patented material, process, good or device utilized or supplied in connection with the performance of the Work required or provided pursuant to the terms of this Agreement.

4.7 Liquidated Damages. The time of completion for the performance of this contract is of the essence of this contract and since quantifying losses arising from Contractor's delay are inherently difficult insofar as delay may impact traffic and the provision of City services to the public, the City will require Contractor to compensate the City in the amount of \$500.00 per calendar day beyond the delivery/performance date specified unless the delivery/performance date is delayed for reasons of force majeure. This is not meant to be a penalty, but rather as a reasonable measure of damages given the nature of the losses that may result from delay. Any extensions agreed to by executed Change Orders will be considered in the application of Liquidated Damages.

SECTION 5. CONFIDENTIAL INFORMATION.

5.1 Confidential Information. The term "**Confidential Information**" shall mean information in the possession or under the control of the City relating to the technical, business, or corporate affairs of the City; City property; user information, including, without limitation, any information pertaining to usage of the City's computer system, including and without limitation, any information obtained from server logs or other records of electronic or machine readable form; and the existence of, and terms and conditions of, this Agreement. City Confidential Information shall not include information that can be demonstrated: (i) to have been rightfully in the possession of the Contractor from a source other than the City prior to the time of disclosure of said information to the Contractor under this Agreement ("**Time of Disclosure**"); (ii) to have been in the public domain prior to the Time of Disclosure; (iii) to have become part of the public domain after the Time of Disclosure by a publication or by any other means except an unauthorized act or omission or breach of this Agreement on the part of the Contractor or the City; or (iv) to have been supplied to the Contractor after the Time of Disclosure without restriction by a third party who is under no obligation to the City to maintain such information in confidence.

5.2 No Disclosure of Confidential Information by the Contractor. The Contractor acknowledges that it in the event that it shall, in performing the Work for the City under this Agreement, have access to or be directly or indirectly exposed to Confidential Information, that Contractor shall hold confidential all Confidential Information and shall not disclose or use such Confidential Information without express prior written consent of the City. The Contractor shall use reasonable measures at least as strict as those the Contractor uses to protect its own confidential information. Such measures shall include, without limitation, requiring employees and subcontractors of the Contractor to execute a non-disclosure agreement before obtaining access to Confidential Information.

5.3 Breach of Confidentiality. In the event of breach of the confidentiality provisions of Section 5 of this Agreement, it shall be conclusively presumed that irreparable injury would result to the City and there would be no adequate remedy at law. The City shall be entitled to obtain temporary and permanent injunctions, without bond and without proving damages, to enforce this Agreement. The City shall be entitled to damages for any breach of the injunction, including but not limited to, compensatory, incidental, consequential, exemplary and punitive damages. The confidentiality provisions of this Agreement survive the termination or performance of this Agreement.

SECTION 6. TERMINATION and DEFAULT.

6.1 Termination. Notwithstanding any other provision hereof, the City may terminate this Agreement, with or without cause, at any time upon fifteen (15) days prior written notice to the Contractor. In the event that this Agreement is so terminated, the City shall pay Contractor for the Work performed and reimbursable expenses actually incurred as of the effective date of termination, less any sums attributable, directly or indirectly, to Contractor's breach of this Agreement. The written notice required under this subsection shall be either (i) served personally during regular business hours; (ii) served by facsimile during regular business hours (iii) served by certified or registered mail, return receipt requested, addressed to the address listed at the end of this Agreement with postage prepaid and deposited in the United States mail or (iv) by e-mail sent to the Contractor's Key Project Personnel. Notice served personally, by facsimile transmission or e-mail shall be effective upon receipt, and notice served by mail shall be effective upon receipt as verified by the United States Postal Service. Contractor shall provide the City with its Key Project Personnel's e-mail address upon its execution of this Agreement. On receiving such notice, Contractor shall, unless the notice directs otherwise, immediately discontinue all Work under this Agreement. As soon as practicable after receiving the termination notice, Contractor shall submit an invoice to the City showing in detail the Work performed under this Agreement up to the termination date. Contractor's receipt of payment for Work rendered upon City's termination of this Agreement, is Contractor's sole and exclusive remedy for termination for convenience by the City. City's termination for convenience does not constitute a default or breach of this Agreement. CONTRACTOR WAIVES ANY CLAIM (OTHER THAN ITS CLAIM FOR PAYMENT FOR WORK PERFORMED), IT MAY HAVE NOW OR IN THE FUTURE FOR FINANCIAL LOSSES OR OTHER DAMAGES RESULTING FROM CITY'S TERMINATION FOR CONVENIENCE.

6.2 Default. If it should appear at any time that the Contractor has failed or refused to perform, or has delayed in the performance of, the Work with diligence at a rate that assures completion of the Work in full compliance with the requirements of this Agreement, or has otherwise failed, refused, or delayed to perform or satisfy the Work requirements or any other requirement of this Agreement ("**Event of Default**"), then the City shall have the right, without prejudice to any other remedies provided by law or equity, to pursue any one or more of the following remedies:

1. Cure by Contractor. The City may require the Contractor, within a reasonable time, to complete or correct all or any part of the Work that is the subject of the Event of Default; and to take any or all action necessary to bring the Contractor and the Work into compliance with this Agreement.

2. Termination of Agreement by City. The City may terminate this Agreement as to any or all Work yet to be performed, effective at a time specified by the City, and shall pay Contractor for the Work performed or reimbursable expenses actually incurred as of the effective date of termination.

3. Withholding of Payment by City. The City may withhold from any payment, whether or not previously approved, or may recover from the Contractor, any and all costs, including attorneys' fees and administrative expenses, incurred by the City as the result of any Event of Default by the Contractor or as a result of actions taken by the City in response to any Event of Default by the Contractor.

SECTION 7. WARRANTIES and REPRESENTATIONS.

7.1 Contractor shall provide City with a warranty on materials and workmanship equal to one (1) year or the duration of the manufacturers' warranty, whichever is greater. Warranty periods shall commence on the date on which the City approves final completion of the Project.

7.2 Contractor shall transfer to the City any manufacturers' warranties which it has for materials used in connection with this Project.

7.3 Contractor warrants that all goods furnished hereunder will conform in all respects to the terms of this Agreement, including any drawings, specifications, or standards incorporated herein, and/or that defects in goods are free from defects in design. Contractor also warrants that the goods are suitable for and will perform in accordance with the purposes for which they were intended.

7.4. If within the warranted guaranty period any defects or signs of deterioration are noted which, in the opinion of the City, are due to faulty design and installation, workmanship, or materials, the City shall notify the Contractor. Warranty work shall be completed at Contractor's sole cost and expense. For all warranty repair and/or maintenance, Contractor shall be responsible for all shipping and/or freight costs from City's designated location to Contractor's facility and for the subsequent return to City's designated location.

7.5 The warranty rights and remedies provided in this Section 7 are in addition to and do not limit any rights afforded to the City by any other provision or term in this Agreement or by law.

7.6 Contractor represents and warrants that Work performed by Contractor shall conform to all applicable state and federal safety standards/directives for setting-up and utilizing platforms, lifts, ladders, scaffolding, safety lines and belts, and similar equipment used for demolition and construction.

7.7 Contractor's employees, agents, and subcontractors shall use personal protective equipment, safety harnesses, fall protection equipment, hard hats or other equipment required to perform the Work in a safe manner. Contractor will hold safety training, safety briefings or other meetings to ensure all staff are fully prepared to perform the Work with safety in mind.

7.8 Contractor shall conduct daily safety and health inspections of the work site. Contractor shall promptly report any accidents, injuries, spills or near misses to the City.

SECTION 8. COMPLIANCE WITH LAWS AND GRANTS.

8.1 **Freedom of Information Act.** The Contractor shall, within four (4) business days of the City's request, provide any documents in the Contractor's possession related to this Agreement which the City is required to disclose to a requester under the Illinois Freedom of Information Act ("FOIA"). This provision is a material covenant of this Agreement. Contractor agrees to not apply any costs or charge any fees to the City regarding the procurement of records required pursuant to an FOIA request. Should Contractor request that the City utilize a lawful exemption under FOIA in relation to any FOIA request thereby denying that request, Contractor agrees to pay all costs connected therewith (such as reasonable attorneys' fees and witness fees, filing fees, and any other expenses) to defend the denial of the request. The defense shall include, but not be limited to, challenged or appealed denials of FOIA requests to either the Illinois Attorney General or a court of competent jurisdiction. Contractor agrees to defend, indemnify, and hold harmless the City, and agrees to pay all

costs in connection therewith (such as reasonable attorneys' and witness fees, filing fees, and any other expenses) to defend any denial of a FOIA request by Contractor's request to utilize a lawful exemption to the City.

8.2 Generally: Permits/Codes/Business Laws/Safety Standards/Grants. Contractor shall give all notices, pay all fees, and take all other action that may be necessary to ensure that the Services are provided, performed, and completed in accordance with all required governmental permits, licenses, or other approvals and authorizations that may be required in connection with providing, performing, and completing the Services, and will comply with all applicable municipal, county, state and federal statutes, ordinances, rules, and regulations, including without limitation all applicable building and fire codes, now in force or which may hereafter be in force, any statutes regarding qualification to do business, and all local, state and federal safety standards. Contractor shall comply with all conditions of any federal, state, or local grant received by Owner or Contractor with respect to this Agreement or the Services. Contractor shall be solely liable for any fines or civil penalties that are imposed by any governmental or quasi-governmental agency or body that may arise, or be alleged to have arisen, out of or in connection with Contractor's, or its subcontractors', performance of, or failure to perform, the Services or any part thereof. Every provision of law required by law to be inserted into this Agreement shall be deemed to be inserted herein.

8.3 No Delinquent Taxes. The Contractor represents and certifies that the Contractor is not barred from contracting with a unit of state or local government as a result of a delinquency in the payment of any tax administered by the Illinois Department of Revenue unless the Contractor is contesting, in accordance with the procedures established by the appropriate revenue act, its liability for the tax, or has entered into an agreement with Department of Revenue for payment of all taxes due and is currently in compliance with that agreement, as set forth in 11-42.1-1 et seq. of the Illinois Municipal Code, 65 ILCS 5/11-42.1-1 et seq.

8.4 No Collusion. The Contractor represents and certifies that the Contractor is not barred from contracting with a unit of state or local government as a result of a violation of either Section 33E-3 or Section 33E-4 of Article 33E of the Criminal Code of 2012, 720 ILCS 5/33E-1 et seq. The Contractor represents that the only persons, firms, or corporations interested in this Agreement as principals are those disclosed to the City prior to the execution of this Agreement, and that this Agreement is made without collusion with any other person, firm, or corporation. If at any time it shall be found that the Contractor has, in procuring this Agreement, colluded with any other person, firm, or corporation, then the Contractor shall be liable to the City for all loss or damage that the City may suffer, and this Agreement shall, at the City's option, be null and void.

8.5 Sexual Harassment Policy. The Contractor shall certify that it has a written sexual harassment policy in full compliance with Section 2-105(A)(4) of the Illinois Human Rights Act, 755 ILCS 5/2-105(A)(4).

8.6 Patriot Act (USA Freedom Act) Compliance. The Contractor represents and warrants to the City that neither it nor any of its principals, shareholders, members, partners, or affiliates, as applicable, is a person or entity named as a Specially Designated National and Blocked Person (as defined in Presidential Executive Order 13224) and that it is not acting, directly or indirectly for or on behalf of a Specially Designated National and Blocked Person. The Contractor further represents and warrants to the City that the Contractor and its principals, shareholders, members, partners, or affiliates, as applicable, are not directly or indirectly, engaged in, and are not facilitating, the transactions contemplated by this Agreement on behalf of any person or entity named as a Specially

Designated National and Blocked Person. The Contractor hereby agrees to defend, indemnify and hold harmless the City, its corporate authorities, and all City elected or appointed officials, officers, employees, agents, representatives, engineers, and attorneys, from and against any and all claims, damages, losses, risks, liabilities, and expenses (including reasonable attorneys' fees and costs) arising from or related to any breach of the representations and warranties in this subsection.

8.7 Anti-Discrimination Laws. Contractor shall comply with all federal and state laws prohibiting discrimination because of, or requiring affirmative action based on race, color, religion, sex, sexual orientation, marital status, order of protection status, national origin or ancestry, citizenship status, age, physical or mental disability unrelated to ability, military status or an unfavorable discharge from military service, and shall execute the Equal Employment Opportunity Clause compliance certification attached to this Agreement in Group Exhibit A.

8.8 Americans with Disabilities Act. Contractor shall utilize standards and/or methods that do not discriminate against the disabled in compliance with the Americans with Disabilities Act, 42 U.S.C. §§12101 et seq.

8.9 Drug Free Workplace Act. Contractor shall comply with all conditions of the Illinois Drug Free Workplace Act, 30 ILCS 580/3 et seq.

8.10 CDL Driver Controlled Substances and Alcohol Use and Testing. To the extent that the Contractor and any employees, agents, or subcontractors thereof, will operate any commercial vehicles requiring the necessity for a state issued Commercial Driver's License, Contractor shall comply with Federal Highway Authority Rules on Controlled Substances and Alcohol Use and Testing, 49 CFR Parts 40 and 382 and shall notify the City of any employee, agent subcontractor driver participating in a drug and alcohol testing program pursuant to the aforementioned rules during the term of this Agreement.

8.11 Employment of Illinois Workers on Public Works Projects Act. When applicable, Contractor shall comply with the Illinois labor employment requirements as set forth in the Employment of Illinois Workers on Public Works Projects Act, 30 ILCS 570/1 et seq.

8.12 Public Works Employment Discrimination Act. Contractor shall comply with all conditions and requirements of the Illinois Public Works Employment Discrimination Act, 775 ILCS 10/0.01 et seq.

8.13 Steel Products Procurement Act. When applicable, any steel product used or supplied in the performance of the contract or any subcontract thereto, shall be manufactured or produced in the United States, as required by the Illinois Steel Products Procurement Act, 30 ILCS 565/1 et seq.

8.14 Substance Abuse Prevention. Pursuant to the Substance Abuse Prevention on Public Works Projects ("SAPPWP") 820 ILCS 265/1 et seq., employees of the Contractor and employees of any Subcontractor are prohibited from the use of drugs or alcohol, as defined in the SAPPWP, while performing work on any public works project. The Contractor certifies that it has a written Substance Abuse Prevention Program for the prevention of substance abuse among its employees which meets or exceed the requirements of the SAPPWP or shall have a collective bargaining agreement in effect dealing with the subject matter.

8.15 Prevailing Wage Act. Some or all of the Work herein required under this Agreement may involve the construction of a “public work,” within the meaning of the Illinois Prevailing Wage Act, 820 ILCS 130/0.01 et seq. (“the Act”). The Act requires contractors and subcontractors to pay laborers, workers and mechanics performing services on public works projects no less than the “prevailing rate of wages” (hourly cash wages plus fringe benefits) in the county where the work is performed. For information regarding current prevailing wage rates, please refer to the Illinois Department of Labor’s website at: <http://www.state.il.us/agency/idol/rates/rates.HTM>. All contractors and subcontractors rendering work under this contract must comply with all requirements of the Act, including but not limited to, all wage, notice and record keeping duties, as more fully set forth in the “Special Provisions for: Wages of Employees on Public Works” contained in Group Exhibit A to this Agreement. The Contractor shall indemnify the City for any and all violations of the prevailing wage laws and any rules and regulations now and hereafter issued pursuant to said laws.

8.16 Veterans Preference Act. When applicable, Contractor shall comply with all employment preference requirements of the Illinois Veterans Preference Act, 330 ILCS 55/0.01 et seq.

SECTION 9. GENERAL PROVISIONS.

9.1 Work Products. Designs, drawings, plans, specifications, photos, reports, information, observations, calculations, notes, studies, logbooks, instructions, manuals, models, recommendations, printed and electronic files, and any other data or information, in any form, prepared, collected, or received by the Contractor in connection with any or all of the Work to be performed under this Agreement (“**Documents**”) shall be and remain the exclusive property of the City. At the City's request, or upon termination of this Agreement, the Contractor shall cause the Documents to be promptly delivered to the City.

9.2 News Releases. The Contractor shall not issue any news releases or other public statements regarding the Work without prior approval from the City Manager.

9.3 Integration. The provisions set forth in this Agreement represent the entire agreement between the parties and supersede all prior agreements, promises, and representations, as it is the intent of the parties to provide for a complete integration within the terms of this Agreement.

9.4 Amendment. No amendment or modification to this Agreement shall be effective unless and until such amendment or modification is in writing, properly approved in accordance with applicable procedures, and executed.

9.5 Assignment. This Agreement, or any part, rights or interests hereof, may not be assigned by the City or by the Contractor to any other person, firm or corporation without the prior written consent of the other party.

9.6 Limitation of Liability. CITY SHALL NOT BE LIABLE TO CONTRACTORS FOR ANY INDIRECT, CONSEQUENTIAL, SPECIAL, INCIDENTAL, PUNITIVE, OR EXEMPLARY DAMAGES, INCLUDING WITHOUT LIMITATION, LOST PROFITS (DIRECT OR INDIRECT) AND LOST REVENUES HOWSOEVER ARISING, WHETHER OR NOT CHARACTERIZED IN NEGLIGENCE, TORT, CONTRACT OR OTHER THEORY OF LIABILITY, EVEN IF CITY HAS BEEN ADVISED OF THE POSSIBILITY OF OR COULD HAVE FORESEEN ANY SUCH DAMAGES.

9.7 Binding Effect. The terms of this Agreement shall bind and inure to the benefit of the parties hereto and their agents, successors, and assigns.

9.8 Waiver. Any failure of either the City or the Contractor to strictly enforce any term, right or condition of this Agreement, whether implied or express, shall not be construed as a waiver of such term, right or condition, nor shall it be deemed to or constitute a continuing waiver unless otherwise expressly provided in this Agreement.

9.9 Severability. If any term, covenant, condition, or provision of this Agreement is held by a court of competent jurisdiction to be invalid, void, or unenforceable, the remainder of the provisions shall remain in full force and effect and shall in no way be affected, impaired or invalidated.

9.10 Governing Laws/Jurisdiction. This Agreement shall be interpreted according to the laws of the State of Illinois. Exclusive jurisdiction for any litigation involving any aspect of this Agreement shall be in the Eighteenth Judicial Circuit Court, DuPage County, Illinois.

9.11 Force Majeure. No party hereto shall be deemed to be in default or to have breached any provision of this Agreement as the result of any delay, failure in performance or interruption of services resulting directly or indirectly from acts of God, acts of civil or military disturbance, or war, which are beyond the control of such non-performing party.

9.12 Headings. The headings of the several paragraphs of this Agreement are inserted only as a matter of convenience and for reference and are in no manner intended to define, limit or describe the scope of intent of any provision of this Agreement, nor shall they be construed to affect in any manner the terms and provisions hereof or the interpretation or construction thereof.

9.13 Rights Cumulative. Unless expressly provided to the contrary in this Agreement, each and every one of the rights, remedies, and benefits provided by this Agreement shall be cumulative and shall not be exclusive of any other such rights, remedies and benefits allowed by law.

9.14 Counterpart Execution. This Agreement may be executed in several counterparts, each of which, when executed, shall be deemed to be an original, but all of which together shall constitute one and the same instrument.

9.15 Notice. Unless otherwise expressly provided in this Agreement, any notice or communication required or permitted to be given under this Agreement shall be in writing and shall be delivered (i) personally, (ii) by a reputable overnight courier, (iii) by certified mail, return receipt requested, and deposited in the U.S. Mail, postage prepaid, (iv) by facsimile, or (v) by electronic internet mail ("e-mail"). Facsimile notices shall be deemed valid only to the extent that they are (a) actually received by the individual to whom addressed and (b) followed by delivery of actual notice in the manner described in either (i), (ii), or (iii) above within three (3) business days thereafter at the appropriate address set forth below. E-mail notices shall be deemed valid and received by the addressee thereof when delivered by e-mail and (a) opened by the recipient on a business day at the address set forth below, and (b) followed by delivery of actual notice in the manner described in either (i), (ii), or (iii) above within three (3) business days thereafter at the appropriate address set forth below. Unless otherwise expressly provided in this Agreement, notices shall be deemed received upon the earlier of (a) actual receipt; or (b) one business day after deposit with an overnight courier as evidenced by a receipt of deposit; or (c) three business days following deposit in the U.S. mail, as evidence by a return receipt. By notice complying with the requirements of this Subsection, each party shall have

the right to change the address or the addressee, or both, for all future notices and communications to such party, but no notice of a change of addressee or address shall be effective until actually received.

Notices and communications shall be addressed to, and delivered to as follows:

If to the Contractor:

If to the City:

City of Wheaton
Attn: City Clerk
303 W. Wesley Street, Box 727
Wheaton, IL 60189-727
E-Mail: cityclerk@wheaton.il.us
Fax #: 630-260-2017

IN WITNESS WHEREOF, the parties have entered into this Agreement this _____ day of _____ , 2017.

CITY OF WHEATON, an Illinois municipal corp.

By: _____ Date: _____

ATTEST:

BY: _____
Sharon Barrett-Hagen, City Clerk

CONTRACTOR

BY: _____ Date: _____
Signature

Its: _____

ATTEST:

BY: _____

Title: _____

Contractor Certification Part I: Sexual Harassment, Tax, Substance Abuse, Collusion, Employ Illinois Workers, & Prevailing Wage

_____, having been first duly sworn deposes and states as follows:
(Officer or Owner of Company)

_____, having submitted a proposal for:
(Name of Company)

Parking Structures Maintenance Repairs Services Agreement

hereby certifies that the undersigned Contractor:

1. has a written sexual harassment policy in place in full compliance with 775 ILCS 5/2-105(A)(4).
2. is not delinquent in the payment of any tax administered by the Illinois Department of Revenue, or if it is:
 - a. it is contesting its liability for the tax or the amount of tax in accordance with procedures established by the approved Revenue Act; or
 - b. it has entered into an agreement with the Department of Revenue for payment of all taxes due and is currently in compliance with that agreement.
3. is in full compliance with the Federal Highway Administration Rules on Controlled Substances and Alcohol Use and Testing, 49 CFR Parts 40 and 382 and that _____ is/are currently participating (Name of employee/driver or “all employee drivers”) in a drug and alcohol testing program pursuant to the aforementioned rules.

(Check either 4A or 4B, depending upon which certification is correct.)

4A. has in place a written program which meets or exceeds the program requirements of the Substance Abuse Prevention on Public Works Projects Act (Public Act 95-0635), and has provided a written copy thereof to the City of Wheaton; or

4B. has in place a collective bargaining agreement which deals with the subject matter of the Substance Abuse Prevention on Public Works Projects Act (Public Act 95-0635).

5. is not barred from contracting with any unit of state or local government as a result of a violation of either Section 33E-3 or 33E-4 of the Illinois Criminal Code, or of any similar offense of “bid-rigging” or “bid-rotating” of any state of the United States.
6. agrees that, to the extent required by the Employment of Illinois Workers on Public Works Act (30 ILCS 570/1 et seq.), as now existing or hereafter amended, the undersigned shall comply with the Illinois labor employment requirements as set forth in the Act.
7. is, to the extent required, in compliance with all requirements of the Illinois Prevailing Wage Act, 820 ILCS 130/0.01 et seq.

ACKNOWLEDGED AND AGREED TO:

By _____
(Authorized Signature and Title)

State of _____

County of _____

Signed and sworn (or affirmed) to before me on _____ (date)

By _____ (name/s of person/s making statement).

(Signature of Notary Public)

(Seal)

Failure to complete and return this form may be considered sufficient reason for rejection of the bid.

Contractor Certification Part II: Patriot Act/USA Freedom Act, Americans with Disabilities Act, Steel Products, Public Works Employment Discrimination, & Safety

_____, having been first duly sworn deposes and states as follows:
(Officer or Owner of Company)

_____, having submitted a proposal for:
(Name of Company)

Parking Structures Maintenance Repairs Services Agreement

hereby certifies that the undersigned Contractor:

1. is not barred from bidding and/or contracting with a unit of state or local government as a result of a violation of the USA Patriot Act of 2001, 107 Public Law 56 (October 26, 2001)(the “Patriot Act”) and the USA Freedom Act, H.R. 2048, Pub. L. 114-23 which restored and modified the Patriot Act, or other statutes, orders, rules, and regulations of the United States government and its various executive departments, agencies and offices related to the subject matter of the Patriot Act, including, but not limited to, Executive Order 13224 effective September 24, 2001. Contractor also certifies that it is not acting, directly or indirectly, for or on behalf of any person, group, entity or nation named by the United States Treasury Department as a Specially Designated National and Blocked Person, or for or on behalf of any person, group, entity or nation designated in Presidential Executive Order 13224 as a person who commits, threatens to commit, or supports terrorism; and Contractor further certifies that it is not engaged in this transaction directly or indirectly on behalf of, or facilitating this transaction directly or indirectly on behalf of, any such person, group, entity or nation.
2. agrees, to the extent required by the Americans with Disabilities Act (“ADA”), 42 U.S.C. §§12101 et seq., the undersigned shall utilize standards and/or methods that do not discriminate against the disabled.
3. agrees, when applicable, that steel products used or supplied in the performance of the contract or any subcontract thereto shall be manufactured or produced in the United States, as required by the Illinois Steel Products Procurement Act, 30 ILCS 565/1 et seq.
4. shall comply with the Public Works Employment Discrimination Act, 775 ILCS 10/0.01 et seq.
5. shall comply with all local, state and federal safety standards.
6. has and will comply with the Illinois Veterans Preference Act, 330 ILCS 55/0.01 et seq.

ACKNOWLEDGED AND AGREED TO:

By _____
(Authorized Signature and Title)

State of _____

County of _____

Signed and sworn (or affirmed) to before me on _____ (date)

By _____ (name/s of person/s making statement).

(Signature of Notary Public)

(Seal)

Failure to complete and return this form may be considered sufficient reason for rejection of the bid.

EQUAL EMPLOYMENT OPPORTUNITY CLAUSE

Section I: This EQUAL EMPLOYMENT OPPORTUNITY CLAUSE is required by the Illinois Human Rights Act and the Rules and Regulations of the Illinois Department of Human Rights published at 44 Illinois Administrative Code Section 750 *et seq*; also known as Title 44:Government Contracts, Grantmaking, Procurement and Property Management, Subtitle B: Supplemental Procurement Rules, Chapter X: Department of Human Rights, Part 750: Procedures Applicable to all Agencies.

Section II: In the event of the Contractor's non-compliance with the provisions of this Equal Employment Opportunity Clause or the Illinois Human Rights Act, the Contractor may be declared ineligible for future contracts or subcontracts with the State of Illinois or any of its political subdivisions or municipal corporations, and the contract may be cancelled or voided in whole or in part, and other sanctions or penalties may be imposed or remedies invoked as provided by statute or regulation. During the performance of this contract, the Contractor agrees as follows:

- 1) That he or she will not discriminate against any employee or applicant for employment because of race, color, religion, sex, sexual orientation, marital status, order of protection status, national origin or ancestry, citizenship status, age, physical or mental disability unrelated to ability, military status or an unfavorable discharge from military service; and, further, that he or she will examine all job classifications to determine if minority persons or women are underutilized and will take appropriate affirmative action to rectify any underutilization.
- 2) That, if he or she hires additional employees in order to perform this contract or any portion of this contract, he or she will determine the availability (in accordance with this Part) of minorities and women in the areas from which he or she may reasonably recruit and he or she will hire for each job classification for which employees are hired in a way that minorities and women are not underutilized.
- 3) That, in all solicitations or advertisements for employees placed by him or her or on his or her behalf, he or she will state that all applicants will be afforded equal opportunity without discrimination because of race, color, religion, sex, sexual orientation, marital status, order of protection status, national origin or ancestry, citizenship status, age, physical or mental disability unrelated to ability, military status or an unfavorable discharge from military service.
- 4) That he or she will send to each labor organization or representative of workers with which he or she has or is bound by a collective bargaining or other agreement or understanding, a notice advising the labor organization or representative of the Contractor's obligations under the Act and this Part. If any labor organization or representative fails or refuses to cooperate with the contractor in his or her efforts to comply with the Act and this Part, the contractor will promptly notify the Department and the contracting agency and will recruit employees from other sources when necessary to fulfill its obligations under the contract.
- 5) That he or she will submit reports as required by this Part, furnish all relevant information as may from time to time be requested by the Department or the contracting agency, and in all respects comply with the Act and this Part.
- 6) That he or she will permit access to all relevant books, records, accounts and work sites by personnel of the contracting agency and the Department for purposes of investigation to ascertain compliance with the Act and the Department's Rules and Regulations.
- 7) That he or she will include verbatim or by reference the provisions of this clause in every subcontract awarded under which any portion of the contract obligations are undertaken or assumed, so that the

provisions will be binding upon the subcontractor. In the same manner as with other provisions of this contract, the Contractor will be liable for compliance with applicable provisions of this clause by subcontractors; and further it will promptly notify the contracting agency and the Department in the event any subcontractor fails or refuses to comply with the provisions. In addition, the Contractor will not utilize any subcontractor declared by the Illinois Human Rights Commission to be ineligible for contracts or subcontracts with the State of Illinois or any of its political subdivisions or municipal corporations.

Section III: For the purposes of subsection 7 of Section II, “subcontract” means any agreement, arrangement or understanding, written or otherwise, between the Contractor and any person under which any portion of the Contractor’s obligations under one or more public contracts is performed, undertaken or assumed; the term “subcontract,” however, shall not include any agreement, arrangement or understanding in which the parties stand in the relationship of an employer and an employee, or between a Contractor or other organization and its customers.

ACKNOWLEDGED AND AGREED TO:

By _____
(Authorized Signature and Title)

State of _____

County of _____

Signed and sworn (or affirmed) to before me on _____ (date)

By _____ (name/s of person/s making statement).

(Signature of Notary Public)

(Seal)

Failure to complete and return this form may be considered sufficient reason for rejection of the bid.

DRUG FREE WORKPLACE CERTIFICATION

In compliance with State of Illinois Compiled Statutes, Chapter 30-580 (30 ILCS 580/30), the Contractor certifies and agrees that it will provide a drug free workplace by:

1. Publishing a Statement:
 - A. Notifying employees that the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance, including cannabis, is prohibited in the Contractor's workplace.
 - B. Specifying the actions that will be taken against employees for violations of such prohibition.
 - C. Notifying the employee that, as a condition of employment on such Agreement, the employee will:
 - i. Abide by the terms of the statement; and
 - ii. Notify the employer of any criminal drug statute conviction for a violation occurring in the workplace no later than five (5) days after such conviction.
2. Establishing a Drug Free Awareness Program to inform employees about:
 - A. The dangers of drug abuse in the workplace;
 - B. The Contractor's policy for maintaining a drug free workplace;
 - C. Available counseling, rehabilitation, or assistance programs; and
 - D. Penalties imposed for drug violations.
3. Providing a copy of the Statement required by Section 1 to each employee engaged in the performance of the Agreement and to post the Statement in a prominent place in the workplace.
4. Notifying the contracting agency within ten (10) days after receiving notice under part (C), subsection (ii) of paragraph 1 above, from an employee or otherwise receiving actual notice of such conviction.
5. Imposing a sanction on, or requiring the satisfactory participation in a Drug Abuse Assistance or Rehabilitation Program, by any employee who is so convicted, as required by Section 5 of the Drug Free Workplace Act.
6. Assisting employees in selecting a course of action in the event drug counseling, treatment, and rehabilitation are required and indicating that a trained referral team is in place.
7. Making a good faith effort to continue to maintain a drug free workplace through implementation of the Drug Free Workplace Act.

Failure to abide by this certification shall subject the Contractor to the penalties provided in the "Drug-Free Workplace Act."

The undersigned affirms, under penalties of perjury, that he/she is authorized to execute this certification on behalf of the designated organization.

(Printed name of Contractor)

Address

City State Zip Code

Signature of Authorized Representative

Title _____ Date _____

ACKNOWLEDGED AND AGREED TO:

By _____
(Authorized Signature and Title)

State of _____

County of _____

Signed and sworn (or affirmed) to before me on _____ (date)

By _____ (name/s of person/s making statement).

(Signature of Notary Public)

(Seal)

Failure to complete and return this form may be considered sufficient reason for rejection of the bid.

**Special Provisions for:
Insurance Coverage for Contractual Services**

The Contractor and each of its agents, subcontractors, and consultants hired to perform the Work, shall purchase and maintain during the term of this contract insurance coverage which will satisfactorily insure the Contractor and where appropriate, the City against claims and liabilities which may arise out of the Work. Such insurance shall be issued by companies authorized to do business in the State of Illinois and approved by the City. The insurance coverages shall include, but not necessarily be limited to, the following:

- **Worker's Compensation Insurance** with limits as required by the applicable statutes of the State of Illinois. The employer's liability coverage under the worker's compensation policy shall have limits not less than **FIVE HUNDRED THOUSAND DOLLARS (\$500,000)** and each accident/injury and **FIVE HUNDRED THOUSAND DOLLARS (\$500,000)** each employee/disease and **FIVE HUNDRED THOUSAND DOLLARS (\$500,000)** policy limit.
The workers' compensation policy shall provide a waiver of subrogation (aka Waiver of our Right to Recover from Others Endorsement), to the City.
- **Commercial General Liability Insurance** protecting the Contractor against any and all liability claims which may arise in the course of performance of this contract. The limits of liability shall be not less than **ONE MILLION DOLLARS (\$1,000,000)** each occurrence bodily injury/property damage combined single limit and **ONE MILLION DOLLARS (\$1,000,000)** aggregate bodily injury/property damage combined single limit. The policy of commercial liability insurance shall include contractual liability coverage and an endorsement naming the City as an additional insured on a primary and non-contributory basis. Completed Operations coverage shall continue for a period of two years after completion of the project. XCU coverage shall be included.
- **Commercial Automobile Liability Insurance** covering the Contractor's owned, non-owned, and hired vehicles which protects the Contractor against automobile liability claims whether on or off of the city's premises with coverage limits of not less than **ONE MILLION DOLLARS (\$1,000,000)** per accident bodily injury/property damage combined single limit. The policy of commercial liability insurance shall include contractual liability coverage and an endorsement naming the City as an additional insured on a primary and non-contributory basis.
- **Umbrella or Excess Liability Insurance** coverage of not less than **ONE MILLION (\$1,000,000)** per occurrence.

Nothing herein set forth shall be construed to create any obligation on the part of the City to indemnify Contractor for any claims of negligence against Contractor or its agents, employees, subcontractors or consultants. Prior to commencement of any work under this Agreement, Contractor shall file with the City the required original certificates of insurance with endorsements, including those of subcontractors, which shall clearly state all of the following:

- A. The policy number; name of insurance company; name and address of the agent or authorized representative; name, address, and telephone number of the insured; project name and address; policy expiration date; and specific coverage amounts; and
- B. That the City of Wheaton (including its agents, elected officials, officers and employees) is named as an additional insured under all coverage, except Workers' Compensation, and that all such coverage shall be primary and non-contributory for the City, its agents, elected officials, officers, and employees. A waiver of subrogation (aka Waiver of our Right to Recover from Others Endorsement), on all coverages shall be provided; and

- C. Should any of the above described policies be cancelled before the expiration date thereof, notice will be delivered in accordance with the policy provisions; and
- D. Contractor's insurance is primary with respects to any other valid or collectible insurance City may possess, including any self-insured retention that City may have; and
- E. Any deductibles or self-insured retention shall be stated on the certificates of insurance provided to the City; and

In addition to all of the insurance requirements identified above and contained on the certificates of insurance, all policies of insurance coverage under this section shall also be subject to the following requirements.

- F. All insurance carriers providing coverage under this Agreement shall be authorized to do business in the State of Illinois and shall be rated at least A:VI in A.M. Best and Companies Insurance Guide or otherwise acceptable to the City.
- G. The City of Wheaton shall have the right to reject the insurer/insurance of the contractor or any subcontractor; and
- H. Occurrence policies are preferred. The city may accept claims made policies for Professional Liability or Pollution/Environmental Liability on a case by case basis providing the contractor purchases a claims made policy for four (4) years past the contract completion date.
- I. The City will consider deductible amounts as part of its review of the financial stability of the bidder; and
- J. No acceptance and/or approval of any insurance by the City shall be construed as relieving or excusing the Contractor, or the surety, or its bond, from any liability or obligation imposed upon either or both of them by the provisions of the Contract Documents; and
- K. The City may require increases in Contractor's insurance coverage amounts over the course of this Agreement as it deems necessary so long as it reimburses Contractor for the actual increase in Contractor's insurance premiums attributable to the City's requested increase; and
- L. Insurance coverage required by this contract shall be in force throughout the Contract Term and upon written request by the City, the Contractor shall, within 7 days, provide to the City acceptable evidence of current insurance. Should the Contractor fail to provide acceptable evidence of current insurance following written request, the City shall have the absolute right to terminate the Contract without any further obligation to the Contractor; and
- M. Contractual and other liability insurance provided under this Contract shall not contain a supervision, inspection or engineering services exclusion that would preclude the City from supervising or inspecting the project to the end result. The Contractor shall assume all on-the-job responsibilities as to the control of persons directly employed by it; and
- N. All existing structures, utilities, roads, services, trees, shrubbery and landscaping shall be protected against damage or interruption of service at all times by the Contractor and its subcontractors during the term of the Contract.

END OF SPECIAL PROVISIONS FOR INSURANCE COVERAGE FOR CONTRACTUAL SERVICES



CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERs NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s). A waiver of subrogation is required.

PRODUCER	CONTACT	
	NAME: PHONE (A/C, No. Ext):	FAX (A/C, No.):
INSURED	E-MAIL ADDRESS:	
	INSURER(S) AFFORDING COVERAGE	
	NAIC #	
	INSURER A:	
	INSURER B:	
	INSURER C:	
	INSURER D:	
INSURER E:		
INSURER F:		

COVERAGES

CERTIFICATE NUMBER:

REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSR	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
	GENERAL LIABILITY						EACH OCCURRENCE	\$ 1,000,000
	COMMERCIAL GENERAL LIABILITY						DAMAGE TO RENTED PREMISES (Ea occurrence)	\$
	CLAIMS-MADE	<input type="checkbox"/>	OCCUR				MED EXP (Any one person)	\$
							PERSONAL & ADV INJURY	\$ 1,000,000
							GENERAL AGGREGATE	\$ 2,000,000
							PRODUCTS - COMP/OP AGG	\$ 2,000,000
								\$
	GEN'L AGGREGATE LIMIT APPLIES PER:							
	POLICY	<input type="checkbox"/>	PRO- JECT	<input type="checkbox"/>	LOC			
	AUTOMOBILE LIABILITY						COMBINED SINGLE LIMIT (Ea accident)	\$ 1,000,000
	ANY AUTO						BODILY INJURY (Per person)	\$
	ALL OWNED AUTOS	<input type="checkbox"/>	SCHEDULED AUTOS	<input type="checkbox"/>	NON-OWNED AUTOS		BODILY INJURY (Per accident)	\$
	HIRED AUTOS	<input type="checkbox"/>		<input type="checkbox"/>			PROPERTY DAMAGE (Per accident)	\$
								\$
	UMBRELLA LIAB	<input type="checkbox"/>	OCCUR				EACH OCCURRENCE	\$ 2,000,000
	EXCESS LIAB	<input type="checkbox"/>		CLAIMS-MADE			AGGREGATE	\$ 2,000,000
		<input type="checkbox"/>						\$
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY	<input type="checkbox"/>	Y / N	N / A			WC STATU- TORY LIMITS	OTH- ER
	ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH)	<input type="checkbox"/>					E.L. EACH ACCIDENT	\$ 500,000
	If yes, describe under DESCRIPTION OF OPERATIONS below						E.L. DISEASE - EA EMPLOYEE	\$ 500,000
	Professional Liability and Errors and Omissions: Owners/Contractors Protection XCU Coverage Included with General Liability Pollution/Environmental Liability						E.L. DISEASE - POLICY LIMIT	\$ 500,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (Attach ACORD 101, Additional Remarks Schedule, if more space is required)

Bid/Project Name or Contract Name and #
Contractor
Contact
Address
Phone #, Email Address, Fax #

- The City of Wheaton is an additional insured on a primary and non-contributory basis on all insurance policies with respect to Liability.
- Endorsements and a Waiver of Subrogation shall be provided for all policies with each updated certificate.
- Contractors: It shall be the responsibility of the contractor to insure that all subcontractors comply with the same insurance requirements.

CERTIFICATE HOLDER

CANCELLATION

City of Wheaton
303 West Wesley Street
PO Box 727
Wheaton, IL 60187-0727

Attn: Procurement Officer
(fax) 630-260-2017

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

Agreement Addendum 2

Special Provisions for: Wages of Employees on Public Works

This Agreement may be subject to the "Prevailing Wage Act," 820 ILCS 130/0.01 *et seq* ("The Act"). It shall be the responsibility of the Contractor to determine whether the Act is applicable and if so to comply with all its terms and conditions. Any Contractor having a question as to whether the Act is applicable shall consult with their own attorney to ascertain applicability. The City shall not have any duty to inform the Contractor of the Act's applicability. If, however the City informs the Contractor that the Act is applicable it shall be the Contractor's obligation to comply with all its terms and conditions unless the Contractor can establish to the satisfaction of the City that the Act is inapplicable. If it is determined that The Act applies to this Agreement, all Contractors and subcontractors subject to its terms shall comply with all of its provisions, including, but not limited to the following:

1. Not less than the prevailing rate of wages as found by the City of Wheaton or Department of Labor or by a court on review shall be paid to all laborers, workers and mechanics performing work under this Agreement. These prevailing rates of wages are included in this Agreement.
2. In all Contractors' bonds the Contractor shall include a provision that will guarantee the faithful performance of the prevailing wage clause provided by this Agreement.
3. If the Department of Labor revises the prevailing rate of hourly wages to be paid by the public body, the revised rate shall apply to the Contractor, and the public body shall be responsible to notify the Contractor and each subcontractor, of the revised rate.
4. The Contractor and each subcontractor shall:
 - a. make and keep, for a period of not less than 5 years, records of all laborers, mechanics, and other workers employed by them on the project; the records shall include each worker's name, address, telephone number when available, social security number, classification or classifications, the hourly wages paid in each pay period, the number of hours worked each day, the starting and ending times of work each day, the hourly wage rate, the hourly overtime wage rate, the hourly fringe benefit rates, the name and address of each fringe benefit fund, the plan sponsor or each fringe benefit, if applicable, and the plan administrator of each fringe benefit if applicable; and
 - b. submit no later than the 15th day of each calendar month, in person, by mail, or electronically a certified payroll to the City. The certified payroll shall consist of a complete copy of the records identified in paragraph 4(a), above. The certified payroll shall be accompanied by a statement signed by the Contractor or subcontractor which avers that:
 - i. such records are true and accurate;
 - ii. the hourly rate paid to each worker is not less than the general prevailing rate of hourly wages required by this Act; and
 - iii. the Contractor or subcontractor is aware that filing a certified payroll that he or she knows to be false is a Class A misdemeanor.

5. Upon 7 business days' notice, the Contractor and each subcontractor shall make available for inspection the records identified in paragraph 4 to the City of Wheaton, its officers and agents, and to the Director of Labor and his deputies and agents during reasonable hours at a location within this State during reasonable hours.

Du Page County Prevailing Wage for July 2015

(See explanation of column headings at bottom of wages)

Trade Name	RG	TYP	C	Base	FRMAN	M-F>8	OSA	OSH	H/W	Pensn	Vac	Trng
ASBESTOS ABT-GEN		ALL		39.400	39.950	1.5	1.5	2.0	13.98	10.72	0.000	0.500
ASBESTOS ABT-MEC		BLD		36.340	38.840	1.5	1.5	2.0	11.47	10.96	0.000	0.720
BOILERMAKER		BLD		47.070	51.300	2.0	2.0	2.0	6.970	18.13	0.000	0.400
BRICK MASON		BLD		43.780	48.160	1.5	1.5	2.0	10.05	14.43	0.000	1.030
CARPENTER		ALL		44.350	46.350	1.5	1.5	2.0	11.79	16.39	0.000	0.630
CEMENT MASON		ALL		43.750	45.750	2.0	1.5	2.0	13.05	14.45	0.000	0.480
CERAMIC TILE FNSHER		BLD		36.810	0.000	1.5	1.5	2.0	10.55	9.230	0.000	0.770
COMMUNICATION TECH		BLD		32.650	34.750	1.5	1.5	2.0	9.550	15.16	1.250	0.610
ELECTRIC PWR EQMT OP		ALL		37.890	51.480	1.5	1.5	2.0	5.000	11.75	0.000	0.380
ELECTRIC PWR EQMT OP		HWY		39.220	53.290	1.5	1.5	2.0	5.000	12.17	0.000	0.390
ELECTRIC PWR GRNDMAN		ALL		29.300	51.480	1.5	1.5	2.0	5.000	9.090	0.000	0.290
ELECTRIC PWR GRNDMAN		HWY		30.330	53.290	1.5	1.5	2.0	5.000	9.400	0.000	0.300
ELECTRIC PWR LINEMAN		ALL		45.360	51.480	1.5	1.5	2.0	5.000	14.06	0.000	0.450
ELECTRIC PWR LINEMAN		HWY		46.950	53.290	1.5	1.5	2.0	5.000	14.56	0.000	0.470
ELECTRIC PWR TRK DRV		ALL		30.340	51.480	1.5	1.5	2.0	5.000	9.400	0.000	0.300
ELECTRIC PWR TRK DRV		HWY		31.400	53.290	1.5	1.5	2.0	5.000	9.730	0.000	0.310
ELECTRICIAN		BLD		38.160	41.980	1.5	1.5	2.0	9.550	18.29	4.680	0.680
ELEVATOR CONSTRUCTOR		BLD		50.800	57.150	2.0	2.0	2.0	13.57	14.21	4.060	0.600
FENCE ERECTOR	NE	ALL		37.340	39.340	1.5	1.5	2.0	13.05	12.06	0.000	0.300
FENCE ERECTOR	W	ALL		45.060	48.660	2.0	2.0	2.0	10.52	20.76	0.000	0.700
GLAZIER		BLD		40.500	42.000	1.5	2.0	2.0	13.14	16.99	0.000	0.940
HT/FROST INSULATOR		BLD		48.450	50.950	1.5	1.5	2.0	11.47	12.16	0.000	0.720
IRON WORKER	E	ALL		44.200	46.200	2.0	2.0	2.0	13.65	21.14	0.000	0.350
IRON WORKER	W	ALL		45.060	48.660	2.0	2.0	2.0	10.52	20.76	0.000	0.700
LABORER		ALL		39.200	39.950	1.5	1.5	2.0	13.98	10.72	0.000	0.500
LATHER		ALL		44.350	46.350	1.5	1.5	2.0	11.79	16.39	0.000	0.630
MACHINIST		BLD		45.350	47.850	1.5	1.5	2.0	7.260	8.950	1.850	0.000
MARBLE FINISHERS		ALL		32.400	34.320	1.5	1.5	2.0	10.05	13.75	0.000	0.620
MARBLE MASON		BLD		43.030	47.330	1.5	1.5	2.0	10.05	14.10	0.000	0.780
MATERIAL TESTER I		ALL		29.200	0.000	1.5	1.5	2.0	13.98	10.72	0.000	0.500
MATERIALS TESTER II		ALL		34.200	0.000	1.5	1.5	2.0	13.98	10.72	0.000	0.500
MILLWRIGHT		ALL		44.350	46.350	1.5	1.5	2.0	11.79	16.39	0.000	0.630
OPERATING ENGINEER		BLD	1	48.100	52.100	2.0	2.0	2.0	17.55	12.65	1.900	1.250
OPERATING ENGINEER		BLD	2	46.800	52.100	2.0	2.0	2.0	17.55	12.65	1.900	1.250
OPERATING ENGINEER		BLD	3	44.250	52.100	2.0	2.0	2.0	17.55	12.65	1.900	1.250
OPERATING ENGINEER		BLD	4	42.500	52.100	2.0	2.0	2.0	17.55	12.65	1.900	1.250
OPERATING ENGINEER		BLD	5	51.850	52.100	2.0	2.0	2.0	17.55	12.65	1.900	1.250
OPERATING ENGINEER		BLD	6	49.100	52.100	2.0	2.0	2.0	17.55	12.65	1.900	1.250
OPERATING ENGINEER		BLD	7	51.100	52.100	2.0	2.0	2.0	17.55	12.65	1.900	1.250
OPERATING ENGINEER		FLT		36.000	36.000	1.5	1.5	2.0	17.10	11.80	1.900	1.250
OPERATING ENGINEER		HWY	1	46.300	50.300	1.5	1.5	2.0	17.55	12.65	1.900	1.250
OPERATING ENGINEER		HWY	2	45.750	50.300	1.5	1.5	2.0	17.55	12.65	1.900	1.250
OPERATING ENGINEER		HWY	3	43.700	50.300	1.5	1.5	2.0	17.55	12.65	1.900	1.250
OPERATING ENGINEER		HWY	4	42.300	50.300	1.5	1.5	2.0	17.55	12.65	1.900	1.250
OPERATING ENGINEER		HWY	5	41.100	50.300	1.5	1.5	2.0	17.55	12.65	1.900	1.250
OPERATING ENGINEER		HWY	6	49.300	50.300	1.5	1.5	2.0	17.55	12.65	1.900	1.250
OPERATING ENGINEER		HWY	7	47.300	50.300	1.5	1.5	2.0	17.55	12.65	1.900	1.250
ORNAMNTL IRON WORKER E	E	ALL		45.000	47.500	2.0	2.0	2.0	13.55	17.94	0.000	0.650
ORNAMNTL IRON WORKER W	W	ALL		45.060	48.660	2.0	2.0	2.0	10.52	20.76	0.000	0.700
PAINTER		ALL		41.730	43.730	1.5	1.5	1.5	10.30	8.200	0.000	1.350
PAINTER SIGNS		BLD		33.920	38.090	1.5	1.5	1.5	2.600	2.710	0.000	0.000
PILEDRIVER		ALL		44.350	46.350	1.5	1.5	2.0	11.79	16.39	0.000	0.630
PIPEFITTER		BLD		46.000	49.000	1.5	1.5	2.0	9.000	15.85	0.000	1.780
PLASTERER		BLD		43.430	46.040	1.5	1.5	2.0	10.05	14.43	0.000	1.020
PLUMBER		BLD		46.650	48.650	1.5	1.5	2.0	13.18	11.46	0.000	0.880
ROOFER		BLD		41.000	44.000	1.5	1.5	2.0	8.280	10.54	0.000	0.530

SHEETMETAL WORKER	BLD	44.720	46.720	1.5	1.5	2.0	10.65	13.31	0.000	0.820	
SPRINKLER FITTER	BLD	49.200	51.200	1.5	1.5	2.0	11.75	9.650	0.000	0.550	
STEEL ERECTOR	E	ALL	42.070	44.070	2.0	2.0	2.0	13.45	19.59	0.000	0.350
STEEL ERECTOR	W	ALL	45.060	48.660	2.0	2.0	2.0	10.52	20.76	0.000	0.700
STONE MASON	BLD	43.780	48.160	1.5	1.5	2.0	10.05	14.43	0.000	1.030	
<u>SURVEY WORKER</u>	->NOT IN EFFECT		ALL	37.000	37.750	1.5	1.5	2.0	12.97	9.930	
0.000	0.500										
TERRAZZO FINISHER	BLD	38.040	0.000	1.5	1.5	2.0	10.55	11.22	0.000	0.720	
TERRAZZO MASON	BLD	41.880	44.880	1.5	1.5	2.0	10.55	12.51	0.000	0.940	
TILE MASON	BLD	43.840	47.840	1.5	1.5	2.0	10.55	11.40	0.000	0.990	
TRAFFIC SAFETY WRKR	HWY	32.750	34.350	1.5	1.5	2.0	6.550	6.450	0.000	0.500	
TRUCK DRIVER	ALL	1	35.920	36.120	1.5	1.5	2.0	8.280	8.760	0.000	0.150
TRUCK DRIVER	ALL	2	32.700	33.100	1.5	1.5	2.0	6.500	4.350	0.000	0.150
TRUCK DRIVER	ALL	3	32.900	33.100	1.5	1.5	2.0	6.500	4.350	0.000	0.150
TRUCK DRIVER	ALL	4	33.100	33.100	1.5	1.5	2.0	6.500	4.350	0.000	0.150
TUCKPOINTER	BLD	42.620	43.620	1.5	1.5	2.0	10.05	13.34	0.000	0.670	

Legend: RG (Region)

TYP (Trade Type - All, Highway, Building, Floating, Oil & Chip, Rivers)

C (Class)

Base (Base Wage Rate)

FRMAN (Foreman Rate)

M-F>8 (OT required for any hour greater than 8 worked each day, Mon through Fri.)

OSA (Overtime (OT) is required for every hour worked on Saturday)

OSH (Overtime is required for every hour worked on Sunday and Holidays)

H/W (Health & Welfare Insurance)

Pensn (Pension)

Vac (Vacation)

Trng (Training)

Explanations

DUPAGE COUNTY

IRON WORKERS AND FENCE ERECTOR (WEST) - West of Route 53.

The following list is considered as those days for which holiday rates of wages for work performed apply: New Years Day, Memorial Day, Fourth of July, Labor Day, Thanksgiving Day, Christmas Day and Veterans Day in some classifications/counties. Generally, any of these holidays which fall on a Sunday is celebrated on the following Monday. This then makes work performed on that Monday payable at the appropriate overtime rate for holiday pay. Common practice in a given local may alter certain days of celebration. If in doubt, please check with IDOL.

EXPLANATION OF CLASSES

ASBESTOS - GENERAL - removal of asbestos material/mold and hazardous materials from any place in a building, including mechanical systems where those mechanical systems are to be removed. This includes the removal of asbestos materials/mold and hazardous materials from ductwork or pipes in a building when the building is to be demolished at the time or at some close future date.

ASBESTOS - MECHANICAL - removal of asbestos material from mechanical systems, such as pipes, ducts, and boilers, where the mechanical systems are to remain.

TRAFFIC SAFETY - work associated with barricades, horses and drums used to reduce lane usage on highway work, the installation and removal of temporary lane markings, and the installation and removal of temporary road signs.

CERAMIC TILE FINISHER

The grouting, cleaning, and polishing of all classes of tile, whether for interior or exterior purposes, all burned, glazed or unglazed products; all composition materials, granite tiles, warning detectable tiles, cement tiles, epoxy composite materials, pavers, glass, mosaics, fiberglass, and all substitute materials, for tile made in tile-like units; all mixtures in tile like form of cement, metals, and other materials that are for and intended for use as a finished floor surface, stair treads, promenade roofs, walks, walls, ceilings, swimming pools, and all other places where tile is to form a finished interior or exterior. The mixing of all setting mortars including but not limited to thin-set mortars, epoxies, wall mud, and any other sand and cement mixtures or adhesives when used in the preparation, installation, repair, or maintenance of tile and/or similar materials. The handling and unloading of all sand, cement, lime, tile, fixtures, equipment, adhesives, or any other materials to be used in the preparation, installation, repair, or maintenance of tile and/or similar materials. Ceramic Tile Finishers shall fill all joints and voids regardless of method on all tile work, particularly and especially after installation of said tile work. Application of any and all protective coverings to all types of tile installations including, but not be limited to, all soap compounds, paper products, tapes, and all polyethylene coverings, plywood, masonite, cardboard, and any new type of products that may be used to protect tile installations, Blastrac equipment, and all floor scarifying equipment used in preparing floors to receive tile. The clean up and removal of all waste and materials. All demolition of existing tile floors and walls to be re-tiled.

COMMUNICATIONS TECHNICIAN

Low voltage installation, maintenance and removal of telecommunication facilities (voice, sound, data and video) including telephone and data inside wire, interconnect, terminal equipment, central offices, PABX, fiber optic cable and equipment, micro waves, V-SAT, bypass, CATV, WAN (wide area networks), LAN (local area networks), and ISDN (integrated system digital network), pulling of wire in raceways, but not the installation of raceways.

MARBLE FINISHER

Loading and unloading trucks, distribution of all materials (all stone, sand, etc.), stocking of floors with material, performing all rigging for heavy work, the handling of all material that may be needed for the installation of such materials, building of scaffolding, polishing if needed, patching, waxing of material if damaged, pointing up, caulking, grouting and cleaning of marble, holding water on diamond or Carborundum blade or saw for setters cutting, use of tub saw or any other saw needed for preparation of material, drilling of holes for wires that anchor material set by setters, mixing up of molding plaster for installation of material, mixing up thin set for the installation of material, mixing up of sand to cement for the installation of material and such other work as may be required in helping a Marble Setter in the handling of all material in the erection or installation of interior marble, slate, travertine, art marble, serpentine, alberene stone, blue stone, granite and other stones (meaning as to stone any foreign or domestic materials as are specified and used in building interiors and exteriors and customarily known as stone in the trade), carrara, sanionyx, vitrolite and similar opaque glass and the laying of all marble tile, terrazzo tile, slate tile and precast tile, steps, risers treads, base, or any other materials that may be used as substitutes for any of the aforementioned materials and which are used on interior

and exterior which are installed in a similar manner.

MATERIAL TESTER I: Hand coring and drilling for testing of materials; field inspection of uncured concrete and asphalt.

MATERIAL TESTER II: Field inspection of welds, structural steel, fireproofing, masonry, soil, facade, reinforcing steel, formwork, cured concrete, and concrete and asphalt batch plants; adjusting proportions of bituminous mixtures.

OPERATING ENGINEER - BUILDING

Class 1. Asphalt Plant; Asphalt Spreader; Autograde; Backhoes with Caisson Attachment; Batch Plant; Benoto (requires Two Engineers); Boiler and Throttle Valve; Caisson Rigs; Central Redi-Mix Plant; Combination Back Hoe Front End-loader Machine; Compressor and Throttle Valve; Concrete Breaker (Truck Mounted); Concrete Conveyor; Concrete Conveyor (Truck Mounted); Concrete Paver Over 27E cu. ft; Concrete Paver 27E cu. ft. and Under: Concrete Placer; Concrete Placing Boom; Concrete Pump (Truck Mounted); Concrete Tower; Cranes, All; Cranes, Hammerhead; Cranes, (GCI and similar Type); Creter Crane; Spider Crane; Crusher, Stone, etc.; Derricks, All; Derricks, Traveling; Formless Curb and Gutter Machine; Grader, Elevating; Grouting Machines; Heavy Duty Self-Propelled Transporter or Prime Mover; Highlift Shovels or Front Endloader 2-1/4 yd. and over; Hoists, Elevators, outside type rack and pinion and similar machines; Hoists, One, Two and Three Drum; Hoists, Two Tugger One Floor; Hydraulic Backhoes; Hydraulic Boom Trucks; Hydro Vac (and similar equipment); Locomotives, All; Motor Patrol; Lubrication Technician; Manipulators; Pile Drivers and Skid Rig; Post Hole Digger; Pre-Stress Machine; Pump Cretes Dual Ram; Pump Cretes: Squeeze Cretes-Screw Type Pumps; Gypsum Bulker and Pump; Raised and Blind Hole Drill; Roto Mill Grinder; Scoops - Tractor Drawn; Slip-Form Paver; Straddle Buggies; Operation of Tie Back Machine; Tournapull; Tractor with Boom and Side Boom; Trenching Machines.

Class 2. Boilers; Broom, All Power Propelled; Bulldozers; Concrete Mixer (Two Bag and Over); Conveyor, Portable; Forklift Trucks; Highlift Shovels or Front Endloaders under 2-1/4 yd.; Hoists, Automatic; Hoists, Inside Elevators; Hoists, Sewer Dragging Machine; Hoists, Tugger Single Drum; Laser Screed; Rock Drill (Self-Propelled); Rock Drill (Truck Mounted); Rollers, All; Steam Generators; Tractors, All; Tractor Drawn Vibratory Roller; Winch Trucks with "A" Frame.

Class 3. Air Compressor; Combination Small Equipment Operator; Generators; Heaters, Mechanical; Hoists, Inside Elevators (remodeling or renovation work); Hydraulic Power Units (Pile Driving, Extracting, and Drilling); Pumps, over 3" (1 to 3 not to exceed a total of 300 ft.); Low Boys; Pumps, Well Points; Welding Machines (2 through 5); Winches, 4 Small Electric Drill Winches.

Class 4. Bobcats and/or other Skid Steer Loaders; Oilers; and Brick Forklift.

Class 5. Assistant Craft Foreman.

Class 6. Gradall.

Class 7. Mechanics; Welders.

OPERATING ENGINEERS - HIGHWAY CONSTRUCTION

Class 1. Asphalt Plant; Asphalt Heater and Planer Combination; Asphalt Heater Scarfire; Asphalt Spreader; Autograder/GOMACO or other similar type machines; ABG Paver; Backhoes with Caisson Attachment; Ballast Regulator; Belt Loader; Caisson Rigs; Car Dumper; Central Redi-Mix Plant; Combination Backhoe Front Endloader Machine, (1 cu. yd. Backhoe Bucket or over or with attachments); Concrete Breaker (Truck Mounted); Concrete Conveyor; Concrete Paver over 27E cu. ft.; Concrete Placer; Concrete Tube Float; Cranes, all attachments; Cranes, Tower Cranes of all types; Creter Crane; Spider Crane; Crusher, Stone, etc.; Derricks, All; Derrick Boats; Derricks, Traveling; Dredges; Elevators, Outside type Rack & Pinion and Similar Machines; Formless Curb and Gutter Machine; Grader, Elevating; Grader, Motor Grader, Motor Patrol, Auto Patrol, Form Grader, Pull Grader, Subgrader; Guard Rail Post Driver Truck Mounted; Hoists, One, Two and Three Drum; Heavy Duty Self-Propelled Transporter or Prime Mover; Hydraulic Backhoes; Backhoes with shear attachments up to 40' of boom reach; Lubrication Technician; Manipulators; Mucking Machine; Pile Drivers and Skid Rig; Pre-Stress Machine; Pump Cretes Dual Ram; Rock Drill - Crawler or Skid Rig; Rock Drill - Truck Mounted; Rock/Track Tamper; Roto Mill Grinder; Slip-Form Paver; Snow Melters; Soil Test Drill Rig (Truck Mounted); Straddle Buggies; Hydraulic Telescoping Form (Tunnel); Operation of Tieback Machine; Tractor Drawn Belt Loader; Tractor Drawn Belt Loader (with attached pusher - two engineers); Tractor with Boom; Tractaire with Attachments; Traffic Barrier Transfer Machine; Trenching; Truck Mounted Concrete Pump with Boom; Raised or Blind Hole Drills (Tunnel Shaft); Underground Boring and/or Mining Machines 5 ft. in diameter and over tunnel, etc; Underground Boring and/or Mining Machines under 5 ft. in diameter; Wheel Excavator; Widener (APSCO).

Class 2. Batch Plant; Bituminous Mixer; Boiler and Throttle Valve; Bulldozers; Car Loader Trailing Conveyors; Combination Backhoe Front Endloader Machine (Less than 1 cu. yd. Backhoe Bucket or over or with attachments); Compressor and Throttle Valve; Compressor, Common Receiver (3); Concrete Breaker or Hydro Hammer; Concrete Grinding Machine; Concrete Mixer or Paver 7S Series to and including 27 cu. ft.; Concrete Spreader; Concrete Curing Machine, Burlap Machine, Belting Machine and Sealing Machine; Concrete Wheel Saw; Conveyor Muck Cars (Haglund or Similar Type); Drills, All; Finishing Machine - Concrete; Highlift Shovels or Front Endloader; Hoist - Sewer Dragging Machine; Hydraulic Boom Trucks (All Attachments); Hydro-Blaster; Hydro Excavating (excluding hose work); Laser Screed; All Locomotives, Dinky; Off-Road Hauling Units (including articulating) Non Self-Loading Ejection Dump; Pump Cretes: Squeeze Cretes - Screw Type Pumps, Gypsum Bulker and Pump; Roller, Asphalt; Rotary Snow Plows; Rototiller, Seaman, etc., self-propelled; Self-Propelled Compactor; Spreader - Chip - Stone, etc.; Scraper - Single/Twin Engine/Push and Pull; Scraper - Prime Mover in Tandem (Regardless of Size); Tractors pulling attachments, Sheeps Foot, Disc, Compactor, etc.; Tug Boats.

Class 3. Boilers; Brooms, All Power Propelled; Cement Supply Tender; Compressor, Common Receiver (2); Concrete Mixer (Two Bag and Over); Conveyor, Portable; Farm-Type Tractors Used for Mowing, Seeding, etc.; Forklift Trucks; Grouting Machine; Hoists, Automatic; Hoists, All Elevators; Hoists, Tugger Single Drum; Jeep Diggers; Low Boys; Pipe Jacking Machines; Post-Hole Digger; Power Saw, Concrete Power Driven; Pug Mills; Rollers, other than Asphalt; Seed and Straw Blower; Steam Generators; Stump Machine; Winch Trucks with "A" Frame; Work Boats; Tamper-Form-Motor Driven.

Class 4. Air Compressor; Combination - Small Equipment Operator; Directional Boring Machine; Generators; Heaters, Mechanical; Hydraulic Power Unit (Pile Driving, Extracting, or Drilling); Light Plants, All (1 through 5); Pumps, over 3" (1 to 3 not to exceed a total of 300

ft.); Pumps, Well Points; Vacuum Trucks (excluding hose work); Welding Machines (2 through 5); Winches, 4 Small Electric Drill Winches.

Class 5. SkidSteer Loader (all); Brick Forklifts; Oilers.

Class 6. Field Mechanics and Field Welders

Class 7. Dowell Machine with Air Compressor; Gradall and machines of like nature.

OPERATING ENGINEER - FLOATING

Diver. Diver Wet Tender, Diver Tender, ROV Pilot, ROV Tender

SURVEY WORKER - Operated survey equipment including data collectors, G.P.S. and robotic instruments, as well as conventional levels and transits.

TRUCK DRIVER - BUILDING, HEAVY AND HIGHWAY CONSTRUCTION

Class 1. Two or three Axle Trucks. A-frame Truck when used for transportation purposes; Air Compressors and Welding Machines, including those pulled by cars, pick-up trucks and tractors; Ambulances; Batch Gate Lockers; Batch Hopperman; Car and Truck Washers; Carry-alls; Fork Lifts and Hoisters; Helpers; Mechanics Helpers and Greasers; Oil Distributors 2-man operation; Pavement Breakers; Pole Trailer, up to 40 feet; Power Mower Tractors; Self-propelled Chip Spreader; Skipman; Slurry Trucks, 2-man operation; Slurry Truck Conveyor Operation, 2 or 3 man; Teamsters; Unskilled Dumpman; and Truck Drivers hauling warning lights, barricades, and portable toilets on the job site.

Class 2. Four axle trucks; Dump Crets and Adgetors under 7 yards; Dumpsters, Track Trucks, Euclids, Hug Bottom Dump Turnapulls or Turnatrailers when pulling other than self-loading equipment or similar equipment under 16 cubic yards; Mixer Trucks under 7 yards; Ready-mix Plant Hopper Operator, and Winch Trucks, 2 Axles.

Class 3. Five axle trucks; Dump Crets and Adgetors 7 yards and over; Dumpsters, Track Trucks, Euclids, Hug Bottom Dump Turnatrailers or turnapulls when pulling other than self-loading equipment or similar equipment over 16 cubic yards; Explosives and/or Fission Material Trucks; Mixer Trucks 7 yards or over; Mobile Cranes while in transit; Oil Distributors, 1-man operation; Pole Trailer, over 40 feet; Pole and Expandable Trailers hauling material over 50 feet long; Slurry trucks, 1-man operation; Winch trucks, 3 axles or more; Mechanic--Truck Welder and Truck Painter.

Class 4. Six axle trucks; Dual-purpose vehicles, such as mounted crane trucks with hoist and accessories; Foreman; Master Mechanic; Self-loading equipment like P.B. and trucks with scoops on the front.

TERRAZZO FINISHER

The handling of sand, cement, marble chips, and all other materials that may be used by the Mosaic Terrazzo Mechanic, and the mixing, grinding, grouting, cleaning and sealing of all Marble, Mosaic, and Terrazzo work, floors, base, stairs, and wainscoting by hand or machine, and in addition, assisting and aiding Marble, Masonic, and Terrazzo Mechanics.

Other Classifications of Work:

For definitions of classifications not otherwise set out, the Department generally has on file such definitions which are available. If a task to be performed is not subject to one of the classifications of pay set out, the Department will upon being contacted state which neighboring county has such a classification and provide such rate, such rate being deemed to exist by reference in this document. If no neighboring county rate applies to the task, the Department shall undertake a special determination, such special determination being then deemed to have existed under this determination. If a project requires these, or any classification not listed, please contact IDOL at 217-782-1710 for wage rates or clarifications.

LANDSCAPING

Landscaping work falls under the existing classifications for laborer, operating engineer and truck driver. The work performed by landscape plantsman and landscape laborer is covered by the existing classification of laborer. The work performed by landscape operators (regardless of equipment used or its size) is covered by the classifications of operating engineer. The work performed by landscape truck drivers (regardless of size of truck driven) is covered by the classifications of truck driver.

MATERIAL TESTER & MATERIAL TESTER/INSPECTOR I AND II

Notwithstanding the difference in the classification title, the classification entitled "Material Tester I" involves the same job duties as the classification entitled "Material Tester/Inspector I". Likewise, the classification entitled "Material Tester II" involves the same job duties as the classification entitled "Material Tester/Inspector II".

Agreement #: _____
Agreement Addendum #: _____
For Office Use Only

Agreement Between the City of Wheaton, IL
and _____

PARKING STRUCTURES MAINTENANCE REPAIRS

CHANGE ORDER # _____

Change Order required due to:

- Changed/Unforeseen Condition
- Change in Scope
- Errors and Omissions
- Other: _____

Type of Change Order:

- Fixed Cost of \$ _____
- Time & Materials, not to exceed: \$ _____
- Emergency Change, not to exceed \$ _____
- Extension of Completion Date

Attached is: Contractor's Proposal

Description of Change

Cost and Schedule Control Summary

If this section is left blank, Change Order will not result in additional charges:

If this section is left blank, Change Order will not result in additional time to complete the project:

Original Agreement Amount	\$ _____
Previous COs Adds/Deducts	\$ _____
This CO Add/Deduct	\$ _____
Revised Agreement Amount	\$ _____

Original Agreement Duration	_____ days
Previous COs Add/Deduct	_____ days
This CO Add/Deduct	_____ days
Revised Agreement Duration	_____ days
Revised Agreement Completion Date	_____

The compensation (time and cost set forth in this Change Order comprises the total compensation due the Contractor, all subcontractors, and all suppliers, for the work or change defined in this Change Order, including impact on the unchanged work. By signing the Change Order, the Contractor acknowledges and agrees on behalf of himself, all subcontractors, and all suppliers, that the stipulated compensation includes payment for all work contained in the Change Order, plus all payment interruptions of schedules, extended field overhead costs, delay, and all impact, ripple effect or cumulative impact on all other work under this Agreement. The signing of the Change Order indicates that the Change Order constitutes full mutual accord and satisfaction of subcontractors, and all suppliers, as a result of the change. The Contractor on behalf of himself, all subcontractors and all suppliers, agrees to waive all rights, without exception or reservation of any whatsoever to file any further claim related to the Change Order. No further claim or request for equitable adjustment of any type shall rise out of or as a result of this Change Order or the impact of this Change Order on the remainder of the work under this Agreement.

All terms and Conditions of the original Agreement apply to this Change Order and remain the same and in full force and effect.

For Budget Purposes

Project Manager: _____ Date: _____ Department Head: _____ Date: _____

Contractor: _____ Date: _____

Upon approval, forward this document to Procurement for Amendment of Agreement.