

REQUEST FOR BIDS

CONCORD-PADGETT AIRPORT PARKING DECK REPAIRS

Project No. 20024-002 Bid No. 2616

WGI, INC 14045 Ballantyne Corporate Pl, Suite 380 Charlotte, NC 28277 Tel: (704) 716-8000 WGI Project No. 28228417.01

Concord-Padgett Airport Parking Deck Repairs – Design Team

Restoration Consultant & Structural Engineer WGI, INC 14045 Ballantyne Corporate Pl, Suite 380 Charlotte, NC 28277 Tel: (704) 716-8000 Juan D. Sanchez, PE juan.sanchez@wginc.com 980-242-4373

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INVITATION TO BID

February 2024

Project Title: CONCORD-PADGETT AIRPORT PARKING DECK

REPAIRS

Project No. 20024-002- Bid No. 2616

Project Description: The work of this contract includes but is not limited to, concrete and waterproofing

repairs of the Concord-Padgett Airport Parking Deck.

Sealed Bids will be received by the City of Concord (Owner) at the address below. Please submit notarized bids in a sealed envelope by the bid opening time and date. All Bids must be in accordance with the Bidding Documents on file with the City of Concord Engineering Department. Bidders must be licensed contractors in the State of North Carolina. Bids will be received on a unit price basis. A Bid Bond must accompany each bid. The Successful Bidder will be required to furnish a Construction Performance Bond and a Construction Payment Bond as security for the faithful performance and the payment of all bills and obligations arising from the performance of the Contract. Contractor and all Subcontractors will be required to conform to the labor standards set forth in the Contract Documents. Owner reserves the right to reject any or all Bids, including without limitation the rights to reject any or all nonconforming, nonresponsive, unbalanced, or conditional Bids, and will award to lowest responsible Bidder taking into consideration quality, performance, and time specified in Bid Form for performance of Work. Owner also reserves the right to waive informalities.

Enrique A. Blat, PE Deputy City Engineer

Engineer:

WGI, INC

Juan D. Sanchez, PE 14045 Ballantyne Corporate Pl.

Suite 380

Charlotte, Nc. 28277 Juan.sanchez@wginc.com

Bid documents are available free of charge from the City of Concord website at: https://www.concordnc.gov/Departments/Finance/Purchasing/RFPs-and-Bids

Technical questions:

Juan D. Sanchez, PE Juan.sanchez@wginc.com

Prebid Meeting:

WGI will hold a **Prebid Meeting** for this project on **February 20th**, **2024 at 10:30 AM** at the top level of the parking deck located at 7425 Zephyr Place North West, Concord, NC 28027

Bid Due Date: March 5th, 2024 at 1:00 PM

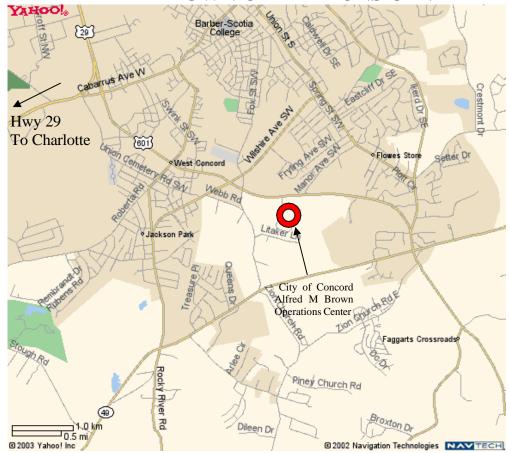
Location: City of Concord, Alfred M. Brown Operations Center

635 Alfred Brown Jr Court SW, Concord, NC 28026

Conference Room C

(See attached map/directions)

MAP AND DIRECTIONS TO CITY OF CONCORD ALFRED M BROWN OPERATIONS CENTER



Directions from Charlotte

- Take I-77 north to I-85 north from Charlotte to Concord.
- From I-85 north, take exit 49 to the right towards Lowe's Motor Speedway.
- At the Lowe's Motor Speedway, turn left onto Highway 29 (Concord Pkwy) north.
- Keep going north while you pass the Wal-Mart shopping center on your right.
- Turn right at the light at the Chevrolet dealership onto Cabarrus Avenue.
- Turn right at the next traffic light at the Walgreens onto Hwy 601 South (bypass) (Hwy 601 S is also Warren C. Coleman Boulevard).
- Go straight through two traffic lights at Old Charlotte Road and Wilshire Avenue.
- Pass the Golf Driving Range on your right.
- Turn right at the next traffic light at Manor Avenue (red & white sign on right for the City of Concord Alfred M. Brown Operations Center).
- You will be on the entrance road into our complex.
- Follow signs to the left to Visitor Parking.
- Proceed to the front desk at the Administration Building and sign in with the receptionist.

INSTRUCTIONS TO BIDDERS

1. <u>DEFINED TERMS</u>. Terms used in these Instructions to Bidders are meanings assigned to them in the General Conditions and the Supplementary Conditions. An additional term is defined as follows:

Successful Bidder - The lowest, qualified, responsible, and responsive Bidder to whom Owner (based on Owner's evaluation as herein provided) makes an award.

2. <u>COPIES OF BID DOCUMENTS</u>. Bid Documents which include all front-end documents may be obtained from Owner:

City of Concord Engineering Department Alfred M. Brown Operations Center 635 Alfred Brown Jr Court SW P O Box 308, Concord, NC 28026-0308 704-920-5425

Bid Documents may be obtained from the Owner via the link below for the City of Concord's website.

Complete set of Bid Documents - Free download

http://www.concordnc.gov/Departments/Finance/Purchasing/RFPs-and-Bids

Partial sets of Bid Documents will not be issued in response to requests by subject matter.

Complete sets of Bid Documents must be used in preparing Bids; neither Owner nor Engineer assumes any responsibility for errors or misrepresentations resulting from the use of incomplete sets of Quoting Documents.

Owner and Engineer, in making copies of Quoting Documents available on the above terms, do so only for obtaining Bids for the Work and do not confer a license or grant for any other use.

- 3. <u>QUALIFICATIONS OF Bidders</u>. To demonstrate qualifications to perform the Work, Bidder may be required to submit written evidence on financial data, previous experience, present commitments, and other such data as may be requested by Owner or Engineer. Each Bid must contain evidence of Bidder's qualification to do business in the state where the Project is located, or Bidder must agree to obtain such qualification prior to award of the Contract.
- 3.2. <u>Underground Facilities</u>. Information and data reflected in the Contract Documents with respect to underground facilities at or contiguous to the site are based upon information and data furnished to Owner and Engineer by owners of such underground facilities or others, and Owner and Engineer disclaim responsibility for the accuracy or completeness thereof unless it is expressly provided otherwise in the Supplementary Conditions.
- 3.3. Additional Information. Before submitting a Bid, each Bidder will, at Bidder's own expense, make or obtain any additional examinations, investigations, explorations, tests, and studies and obtain any additional information and data which pertain to the physical conditions (surface, subsurface, and underground facilities) at or contiguous to the site or otherwise which may affect cost, progress, performance, or furnishing of the Work and which Bidder deems necessary to determine its Bid for performing and furnishing the Work in accordance with the time, price, and other terms and conditions of the Contract Documents.

On request 24 hours in advance, Owner will provide each Bidder access to the site to conduct such explorations and tests as each Bidder deems necessary for submission of a Bid. Bidder shall fill all holes and clean up and

restore the site to its former condition upon completion of such explorations.

- 3.4. <u>Easements</u>. The lands upon which the Work is to be performed, rights-of-way and easements for access thereto, and other lands designated for use by Contractor in performing the Work are identified in the Contract Documents. All additional lands and access thereto required for temporary construction facilities or storage of materials and equipment are to be provided by Contractor. Easements for permanent structures or permanent changes in existing structures are to be obtained and paid for by Owner unless otherwise specified in the Contract Documents.
- 3.5. <u>Unit Price Contracts</u>. Bidders must satisfy themselves of the accuracy of the estimated quantities in the Bid schedule by examination of the site and a review of the drawings and the specifications, including the addenda. After Bids have been submitted, the Bidder shall not assert that there was a misunderstanding concerning the quantities of work or the nature of the work to be done.
- 3.6. <u>Bidder's Representation</u>. The submission of a Bid will constitute an incontrovertible representation by Bidder that Bidder has complied with every requirement concerning examination of the Contract Documents and the site, that without exception the Bid is premised upon performing and furnishing the Work required by the Contract Documents, and that the Contract Documents are sufficient in scope and detail to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.
- 4. <u>INTERPRETATIONS AND ADDENDA</u>. All questions about the meaning or intent of the Quoting Documents and the Contract Documents shall be submitted to Owner in writing. Interpretations or clarifications considered necessary by Owner in response to such questions will be issued by Addenda mailed or delivered to all parties recorded by Engineer as having received the Quoting Documents. Questions received less than 10 days prior to the date for opening of Bids may not be answered. Only answers issued by Addenda will be binding. Oral and other interpretations or clarifications will be without legal effect.
- 5. <u>BID SECURITY</u>. Each Proposal must be accompanied by a deposit equal to 5% of the net price bid. This deposit may consist of cash, or a Cashier's Check issued by, or a Certified Check drawn on a Bank or Trust Company authorized to do business in North Carolina, or on a Bank insured by the Federal Deposit Insurance Corporation, or a U.S. Money Order, payable to the City of Concord or 5% Bid Bond in the form required by G.S. 143-129 as amended, issued by an Insurance Company authorized to do business in North Carolina, said deposit to be retained in the event of failure of the successful bidder to execute a formal contract within ten (10) days after award or to give satisfactory surety required.

The Bid security of the Successful Bidder (if so required) will be retained until such Bidder has executed the Agreement, furnished the required contract security (if so required), and met the other conditions of the Notice of Award, whereupon the Bid security will be returned. If the Successful Bidder fails to execute and deliver the Agreement and furnish the required contract security within the number of days set forth in the Bid Form, Owner may annul the Notice of Award and the Bid security of that Bidder will be forfeited. The Bid security (if so required) of other Bidders whom Owner believes to have a reasonable chance of receiving the award may be retained by Owner until the earlier of 7 days after the Effective Date of the Agreement or the day after the last day the Bid remain subject to acceptance as set forth in the Bid Form, whereupon Bid security furnished by such Bidders will be returned. Bid security accompanying Bid which are deemed by Owner to be noncompetitive will be returned within 7 days after the designated Bid opening.

- 6. <u>CONTRACT TIMES</u>. The numbers of calendar days within which, or the dates by which, the Work is to be substantially completed and completed and ready for final payment (the Contract Times) are set forth in the Bid Form.
- 7. LIQUIDATED DAMAGES. Provisions for liquidated damages, if any, are set forth in the Agreement.
- 8. <u>SUBSTITUTES OR "OR-EQUAL ITEMS</u>. Bidder's attention is directed to Article 6.5 of the General Conditions concerning substitutes and "or-equal" items. Where an item or material is specified by a proprietary name, it is done for the purpose of establishing a basis of quality and not for the purpose of limiting competition. The Engineer's intent is to consider alternative products which have the desired essential characteristics. The Engineer will consider any such products offered. Requests for acceptance of alternative products shall be made through Bidders quoting as prime Contractors. Acceptances for substitutions will not be granted directly to suppliers, distributors, or subcontractors. Pursuant to Section 133-3, General Statutes of North Carolina, the following procedures shall be used:

Bidders desiring to submit alternative product proposals for prior acceptance of the Engineers shall submit, in writing, such proposals from $\underline{n/a}$, until $\underline{n/a}$. Applications received after this time will not be reviewed. Each such request shall include the name of the material or equipment for which it is to be substituted and a complete description of the proposed substitute, including drawings, cuts, performance and test data, and other information necessary for an evaluation. A statement setting forth any changes in other materials, equipment, or other work that incorporation of the substitute would require shall be included. The Engineer shall consider and either accept or reject all alternative product proposals submitted.

If, by the close of the fifth day prior to the deadline for receiving Bid, the Engineer has accepted any alternative product proposals, the Quoting Documents shall be modified to include the alternative products. The Engineer shall publish the modification in an Addenda at least 5 days prior to the deadline for receiving Bids. The Engineer's decision of acceptance or rejection of a proposed substitute shall be final.

9. <u>SUBCONTRACTORS</u>, <u>SUPPLIERS</u>, <u>AND OTHERS</u>. If the Supplementary Conditions require the identity of certain Subcontractors, Suppliers, and other persons and organizations (including those who are to furnish the principal items of material and equipment) to be submitted to Owner in advance of a specified date prior to the Effective Date of the Agreement, the apparent Successful Bidder, and any other Bidder so requested, shall within 3 days after the opening submit to Owner the List of Subcontractors completed with all such Subcontractors, Suppliers, and other persons and organizations proposed for those portions of the Work for which such identification is required. The list shall be accompanied by an experience statement with pertinent information regarding similar projects and other evidence of qualification for each such Subcontractor, Supplier, person, or organization, if requested by Owner. If Owner or Engineer after due investigation has reasonable objection to any proposed Subcontractor, Supplier, or other person or organization, Owner may, before the Notice of Award is given, request the apparent Successful Bidder to submit an acceptable substitute without an increase in the Bid.

All Subcontractors shall be a licensed contractor in the State of North Carolina.

10. <u>BID FORM</u>. The Bid Form is bound in the Contract Documents and shall not be removed therefrom. Bid Form must be completed in ink.

Bids by corporations must be executed in the corporate name by the president or vice-president (or other corporate officer accompanied by evidence of authority to sign for the corporation). Bids by partnerships must be executed in the partnership name and signed by a partner. Bids by joint ventures shall be signed by each participant in the joint venture or by a representative of the joint venture accompanied by evidence of authority to sign for the joint venture.

The names of all persons signing shall be legibly printed below the signature. A Bid by a person who affixes to his signature the word "president", "secretary", "agent", or other designation without disclosing his principal may be held to be the Bid of the individual signing. When requested by Owner, evidence of the authority of the person signing shall be furnished.

All blanks in the Bid Form shall be filled. A Bid price shall be indicated for each unit price item listed therein, or the words "No Bid", "No Charge", "No Change", or another appropriate phrase shall beentered.

The Bid shall contain an acknowledgment of receipt of all Addenda; the numbers and dates of which shall be filled in on the Bid Form.

No alterations in Bids, or in the printed forms therefore, by erasures, interpolations, or otherwise will be acceptable unless each such alteration is signed or initialed by the Bidder; if initialed, Owner may require the Bidder to identify any alteration so initialed.

- 11.01. <u>Contingency</u>. The Contingency is to be added to the Bid price and is to be used for minor change order items. If the Contingency is to be used, a scope of work and price would be negotiated. **The Contingency is for the sole use of Owner**. A change order will be issued to delete any unauthorized portion of the Contingency.
- 11. <u>SUBMISSION OF BIDS</u>. Bids shall be submitted at the time and place indicated in the Invitation to Bid, or the modified time and place indicated by Addendum. Bids shall be enclosed in a sealed envelope or wrapping, addressed to:

The City of Concord
Enrique Blat, PE, Deputy City Engineer
P.O. Box 308
635 Alfred Brown Jr Court SW
Concord, North Carolina 28026-0308

Bids shall be marked with the name, license number, and address of the Bidder and shall be accompanied by the Bid security (if required) and other required documents. If the Bid is sent through the mail or other delivery system, the sealed envelope shall be enclosed in a separate envelope with the notation "BID ENCLOSED" on the face of it.

Each Bid envelope shall be identified on the outside with the words 'CONCORD-PADGETT AIRPORT PARKING DECK REPAIRS – BIDNUMBER 2616'

Bidder shall assume full responsibility for timely delivery at the location designated for receipt of Bids. Bids received after the time and date for receipt of Bids will be returned unopened.

One copy of all pages of the BID FORM must be submitted with the Bid, as well as a Bid Bond, Debarred Firms Certification Form, and MINORITY AFFIDAVIT.

Oral, telephone, facsimile, or telegraph Bids are invalid and will not receive consideration.

No Bidder may submit more than one Bid. Multiple Bids under different names will not be accepted from one firm or association.

A conditional or qualified Bid will not be accepted.

- 12. <u>MODIFICATION AND WITHDRAWAL OF BIDS</u>. Bids may be modified or withdrawn by an appropriate document duly executed (in the manner that a Bid must be executed) and delivered to the place where Bids are to be submitted at any time prior to the opening of Bids.
- If, within 24 hours after Bids are opened, any Bidder files a duly signed, written notice with Owner and promptly thereafter demonstrates to the reasonable satisfaction of Owner that there was a material and substantial mistake in the preparation of its Bid, that Bidder may withdraw its Bid and the Bid security (if any) will be returned. Thereafter, that Bidder will be disqualified from further quoting on the Work to be provided under the Contract Documents.
- 13. <u>OPENING OF BIDS</u>. Bids will be opened at the office and at the discretion of the Director of Engineering and read aloud.

The procedure for opening Bids will follow guidelines issued by the State Building Commission dated December 10, 1990, and endorsed by the Consulting Engineers Council of North Carolina.

- 14. <u>BIDS TO REMAIN SUBJECT TO ACCEPTANCE</u>. All Bids will remain subject to acceptance for the number of days set forth in the Bid Form, but Owner may, in its sole discretion, release any Bid and return the security (if any) prior to that date.
- 15. <u>AWARD OF CONTRACT</u>. Owner reserves the right to reject any or all Bids, including without limitation the rights to reject any or all nonconforming, nonresponsive, unbalanced, or conditional Bids, and will award to lowest responsible Bidder taking into consideration quality, performance, and time specified in Bid Form for performance of Work. Owner also reserves the right to waive informalities.

In evaluating Bids, Owner will consider the qualifications of the Bidders, whether the Bids comply with the prescribed requirements, and such alternatives, unit prices, and other data, as may be requested in the Bid Form or prior to the Notice of Award.

Owner may consider the qualifications and experience of Subcontractors, Suppliers, and other persons and organizations proposed for those portions of the Work for which the identity of Subcontractors, Suppliers, and other persons and organizations must be submitted as provided in the Supplementary Conditions. Owner also may consider the operating costs, maintenance requirements, performance data, and guarantees of major items of materials and equipment proposed for incorporation in the Work when such data is required to be submitted prior to the Notice of Award.

Owner may conduct such investigations as Owner deems necessary to assist in the evaluation of any Bid and to establish the responsibility, qualifications, and financial ability of Bidders, proposed Subcontractors, Suppliers, and other persons and organizations to perform and furnish the Work in accordance with the Contract Documents to Owner's satisfaction within the prescribed time.

If the Contract is to be awarded, it will be awarded to the lowest Bidder whose evaluation by Owner indicates to Owner that the award will be in the best interests of Owner. If the Contract is to be awarded, Owner will give the Successful Bidder a Notice of Award within the number of days set forth in the Bid Form. The evaluation of Suppliers' or manufacturers' data submitted with the Bid, or submitted upon request prior to the Notice of Award, will include consideration of the following:

- Owner-required inventory of spare parts.
- Building design changes which would be required to accommodate the proposed materials and equipment.
- Installation requirements and related engineering, training, and operating costs.
- Experience and performance record of the Supplier or the manufacturer.
- Maintenance and frequency of inspections required to assure reliable performance of the equipment.
- Suppliers' or manufacturers' service facilities and availability of qualified field service personnel.
- Efficiency and related operating expense during the anticipated useful life of the equipment.

16. <u>CONTRACT SECURITY</u>. The General Conditions set forth Owner's requirements as to Performance and Payment Bonds (required). These Bonds shall be delivered to Owner with the executed Agreement.

17. <u>SIGNING OF AGREEMENT</u>. When Owner gives a Notice of Award to the Successful Bidder, it will be accompanied by two unsigned counterparts of the Agreement with all other written Contract Documents attached. Within the number of days set forth in the Bid Form, the Successful Bidder shall sign, leaving the dates blank, and deliver the required number of counterparts of the Agreement and attached documents to Owner with the required Bonds and power of attorney. Within 30 days thereafter, Owner shall execute all copies of the Agreement and other Contract Documents submitted by Contractor (Successful Bidder); shall insert the date of contract on the Agreement, Bonds, and power of attorney; and shall distribute signed copies as stipulated in the Agreement.

Should the Owner not execute the Contract within the period specified, the Successful Bidder may, by written notice, withdraw his signed Contract. Such notice or withdrawal shall be effective upon receipt of the notice by the Owner.

- 18. <u>SALES AND USE TAXES</u>. Provisions for sales and use taxes, if any, are set forth in the Supplementary Conditions.
- 19. RETAINAGE. Provisions concerning retainage are set forth in the Agreement.
- 20. <u>LAWS AND REGULATIONS</u>. Modifications, if any, to the General Conditions concerning Laws and Regulations are set forth in the Supplementary Conditions. Additional provisions, if any, concerning Laws and Regulations are set forth in the Agreement.
 - 21.01. <u>Collusive Bidding</u>. In accordance with Section 112(c) of Title 23 USC, and G.S. 75-5(b)(7) of the State of North Carolina, the Contractor (Bidder), by submission and execution of this bid or Bid, certifies that he has not entered any agreement, participated in any collusion, or project.

DEBARRED FIRMS CERTIFICATION FORM [MUST BE COMPLETED & SUBMITTED WITH BID]

Concord-Padgett Airport Parking Deck Repairs Project No. 20024-002

The undersigned hereby certifies that the been suspended by the State of North Ca or indictment or any of the offenses enurtier to firms that have been suspended for enumerated in G.S. 133-27.	arolina or any agency merated in G.S. 133-	27 nor will award subo	contracts of any
Name of Firm			
ATTEST	(SEAL)		
Signature of Authorized Official			
Title			
	S	Sworn and subscribed	before me this
	-	day of	, 2024.
	<u>-</u>	Notary Public	

DOCUMENT 00 2126 - BIDDERS REQUEST FOR INFORMATION FORM

Use this form to request information required for completing bid when information is not contained in the Bidding Documents. Response to request is a clarification only and does not constitute a change to the requirements of the Bidding Documents unless incorporated in a written Addendum.

Project:	<u>Concord-Padgett Airport PD Repairs</u> Project No.:		
To:	Specification Sec	tion#:	
	Contractor:		
Attn.:	Requestedby:		
Phone:	Phone:		
Email:	Email:		
	<u> </u>		
Bidder's l	Inquiry:		
	• •		
Signed:		Date:	
۸ robitoot'	's Paspansa: [Saa Addandum No: 1 [As follow	0.1	
AIGIIIEGI	's Response: [See Addendum No:] [As follows	5.]	
Cianad.		Data	

DOCUMENT 002600 - BIDDING SUBSTITUTION PROCEDURES

1.1 DEFINITIONS

- A. Bidding Substitution Requests: Requests for changes in products, materials, equipment, and methods of construction from those indicated in the Bidding and Contracting Documents, submitted prior to receipt of bids.
- B. Substitution Requests: Requests for changes in products, materials, equipment, and methods of construction from those indicated in the Contract Documents, submitted following Contract award. See Section 01 2500 "Substitution Procedures" for conditions under which Substitution requests will be considered following Contract award.

1.2 QUALITY ASSURANCE

A. Compatibility of Substitutions: Investigate and document compatibility of proposed substitution with related products and materials. Engage a qualified testing agency to perform compatibility tests recommended by manufacturers.

1.3 BIDDING SUBSTITUTIONS

- A. Bidding Substitutions, General: By submitting a bid, the Bidder represents that its bid is based on materials and equipment described in the Bidding and Contracting Documents, including Addenda. Bidders are encouraged to request approval of qualifying substitute materials and equipment when the Specifications Sections list materials and equipment by product or manufacturer name.
- B. Bidding Substitution Requests will be received and considered by Owner when the following conditions are satisfied, as determined by Architect; otherwise requests will be returned without action:
 - 1. Extensive revisions to the Contract Documents are not required.
 - 2. Proposed changes are in keeping with the general intent of the Contract Documents, including the level of quality of the Work represented by the requirements therein.
 - 3. The request is fully documented and properly submitted.

1.4 SUBMITTALS

- A. Bidding Substitution Request: Bidding Substitution Request must be made in writing Architect through Design-Builder in compliance with the following requirements:
 - 1. Requests for substitution of materials and equipment will be considered if received no later than 10 days prior to date of bid opening.
 - 2. Submittal Format: Submit single electronic copy of each written Bidding Substitution Request, using form provided by Design-Builder.
 - a. Identify the product or the fabrication or installation method to be replaced in each request. Include related Specifications Sections and drawing numbers.
 - b. Provide complete documentation on both the product specified and the proposed substitute, including the following information as appropriate:
 - Point-by-point comparison of specified and proposed substitute product data, fabrication drawings, and installation procedures.

- Copies of current, independent third-party test data of salient product or system characteristics.
- 3) Samples where applicable or when requested by Architect.
- 4) Detailed comparison of significant qualities of the proposed substitute with those of the Work specified. Significant qualities may include attributes such as performance, weight, size, durability, visual effect, sustainable design characteristics, warranties, and specific features and requirements indicated. Indicate deviations, if any, from the Work specified.
- 5) Material test reports from a qualified testing agency indicating and interpreting test results for compliance with requirements indicated.
- 6) Research reports, where applicable, evidencing compliance with building code in effect for Project, from ICC-ES.
- 7) Coordination information, including a list of changes or modifications needed to other parts of the Work and to construction performed by Owner and separate contractors, which will become necessary to accommodate the proposed substitute.
- c. Provide certification by manufacturer that the substitute proposed is equal to or superior to that required by the Bidding and Contracting Documents, and that its in-place performance will be equal to or superior to the product or equipment specified in the application indicated.
- d. Bidder, in submitting the Bidding Substitution Request, waives the right to additional payment or an extension of Contract Time because of the failure of the substitute to perform as represented in the Bidding Substitution Request.

B. Architect's Action:

- Architect may request additional information or documentation necessary for evaluation of the Bidding Substitution Request. Architect will notify all bidders of acceptance of the proposed substitute by means of an Addendum to the Bidding and Contracting Documents.
- C. Architect's approval of a substitute during bidding does not relieve Contractor of the responsibility to submit required shop drawings and to comply with all other requirements of the Contract Documents.

END OF DOCUMENT

Concord-Padgett Airport Parking Deck Repairs, City of Concord, NC

DOCUMENT 00 2601 - BIDDERS' REQUEST FOR SUBSTITUTION/PRIOR APPROVAL FORM

Use this form when use of specific manufacturers or products is required by the specifications to request consideration of an unnamed manufacturer or product. This form is not required when named products are introduced by the phrase "Available products include" Response will be in the form of a written Addendum.

Project:	ProjectNo.:	
То:	Attn.:	
Specification Section #:		
Prime:	Bidder:	
Requested by:		
Phone:		
Email:		
Specified Product/Fabrication Method (List na	me/description; model #; manufacturer):	
RequiredInformationforSpecifiedProduct:	Attached: Point by	_
Point Comparative Product Data	\sqcap	
Tests Reports		
Fabrication Drawings Samples (Where	Ä	
Applicable)	_	
	ade name/description; model no.; manufacturer) :	
RequiredInformationforProposedProduct:		
Comparative Product Data		
Fabrication Drawings Samples (Where		
Applicable)		
List of Related Changes/Modifications:		
S		
Differences between proposed substitution ar	nd specified product:	
	ffeete the garante of the Markey New New Year Francisco	
Proposed product/fabrication method at	ffects other parts of the Work No Yes: Explain:	

Concord-Padgett Airport Parking Deck Repairs, City of Concord, NC

Undersigned certifies:

Proposed substitution has been fully investigated and determined to be equal or superior in all respects to specified product as utilized for this project, except as noted herein.

Qualifications of manufacturer, installer, and other specified parties meet the specified qualifications. Same special warranty will be furnished for proposed substitution as for specified product, if applicable. Same maintenance service and source for replacement parts, as applicable, is available as that specified. Proposed substitution does not affect dimensions and functional clearances, except as noted herein.

For	the	Bidder:
Submitted by:		
Signed:		
Firm:		
Telephone:		
Email:		
For the Manufac	turer:	
Submitted by:		
Signed:		
Firm:		
Telephone:		
Fmail·		

END OF DOCUMENT

Exhibit A - BID FORM

PROJECT IDENTIFICATION:

Concord-Padgett Airport Parking Deck Repairs Project No 20024-002

THIS BID IS SUBMITTED TO:

Enrique Blat, PE, Deputy City Engineer City of Concord 635 Alfred Brown Jr Court SW P.O. Box 308 Concord, North Carolina 28026-0308

- 1. The undersigned Bidder proposes and agrees, if this Bid is accepted, to enter an agreement with Owner in the form included in the Contract Documents to perform and furnish all Work as specified or indicated in the Contract Documents within the specified time and for the amount indicated in this Bid and in accordance with the other terms and conditions of the Contract Documents.
- 2. Bidder accepts all the terms and conditions of the Invitation to Bid and the Instructions to Bid, including without limitation those dealing with the disposition of the Bid security (if security is required by the City Manager). This Bid will remain subject to acceptance for 60 days after the day designated for reception of Bids. Bidder will sign and submit the Agreement with the Bonds and other documents required by the Quoting Documents within 10 days after the date of Owner's Notice of Award.
- 3. In submitting this Bid, Bidder represents that:

a.	Bidder has examined copies of all the Quoting Documents and of the following Addenda (receipt of al
	which is hereby acknowledged):

No	Dated
No	Dated
No	Dated
No	Dated
No.	Dated

- b. Bidder has visited the site and become familiar with and satisfied itself as to the general, local, and site conditions that may affect cost, progress, performance, and furnishing of the Work.
- c. Bidder is familiar with and has satisfied itself as to all Federal, State, and Local Laws and Regulations that may affect cost, progress, performance, and furnishing of Work.
- d. Bidder has carefully studied all reports of explorations and tests of subsurface conditions at or contiguous to the site and all drawings of physical conditions in or relating to existing surface or subsurface structures at or contiguous to the site (except underground facilities) which have provided by the owner and under the conditions normally used and identified in the Supplementary Conditions and Special Conditions as provided in Paragraph 4.2.1 of the General Conditions. Bidder accepts the determination set forth in the Supplementary Conditions and Special Conditions of the extent of the "technical data" contained in such reports and drawings upon which Bidder is entitled to rely as provided in Paragraph 4.2

of the General Conditions. Bidder acknowledges that such reports and drawings are not a Contract

Documents and may not be complete for Bidder's purposes. Bidder acknowledges that Owner and Engineer do not assume responsibility for the accuracy or completeness of information and data shown or indicated in the Quoting Documents with respect to underground facilities at or contiguous to the site. Bidder has obtained and carefully studied (or assumes responsibility for having done so) all such additional or supplementary examinations, investigations, explorations, tests, studies, and data concerning conditions (surface, subsurface, and underground facilities) at or contiguous to the site or otherwise which may affect cost, progress, performance, or furnishing of the Work or which relate to any aspect of the means, methods, techniques, sequences, and procedures of construction to be employed by Bidder and safety precautions and programs incident thereto. Bidder does not consider that any additional examinations, investigations, explorations, tests, studies, or data are necessary for the determination of this Bid for performance and furnishing of the Work in accordance with the time, price, and other terms and conditions of the Contract Documents.

- e. Bidder is aware of the general nature of Work to be performed by Owner and others at the site that relates to Work for which this Bid is submitted as indicated in the Contract Documents.
- f. Bidder has correlated the information known to Bidder, information and observations obtained from visits to the site, reports and drawings identified in the Contract Documents, and all additional examinations, investigations, explorations, tests, studies, and data with the Contract Documents.
- g. Bidder has given Engineer written and verbal notice of all conflicts, errors, ambiguities, or discrepancies that Bidder has discovered in the Contract Documents and the written resolution thereof by Engineer is acceptable to Bidder, and the Contract Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performing and furnishing the Work for which this Bid is submitted.
- h. This Bid is genuine and not made in the interest of or on behalf of any undisclosed person, firm, or corporation and is not submitted in conformity with any agreement or rules of any group, association, organization, or corporation; Bidder has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid Bidder has not solicited or induced any person, firm, or corporation to refrain from quoting; and Bidder has not sought by collusion to obtain for itself any advantage over any other Bidder or over Owner.
- 4. The terms used in this BID, which are defined in the General Conditions, have the meanings assigned to them in the General Conditions.

DATE:	
NAME OF BIDDER:	
BUSINESS ADDRESS:	
PHONE:	
FAX:	
EMAIL:	
NC CONTRACTOR NO.: _	

In compliance with the Instructions to Bidders, the undersigned, having carefully examined the Bidding Documents, Scope of Work, Special Provisions, Drawings and Specifications, all subsequent Addenda as prepared by the Owner, visited the site and being familiar with all conditions and requirements of the work, hereby agrees to furnish all labor, materials, equipment and services, etc., to complete the work required in accordance with the Contract Documents for the consideration of the following amount/amounts.

Base Bid Table for Parking Deck Repairs						
Item	Description of Work	Reference	Units	Est. Quantity	Unit Price	Total Price
1	General Requirements	Spec 004100	LSUM	1	\$	\$
2	Contractor Mobilization	Spec 004100	LSUM	1	\$	\$
3	Owner's Contingency		LSUM	1	\$ 25,000	\$ 25,000
4	Topside Concrete Spall Repairs	Plan Note 4	S.F.	20	\$	\$
5	Overhead Concrete Spall Repairs	Plan Note 5	S.F.	60	\$	\$
6	Slab on Grade Concrete Spall Repairs	Plan Note 6	S.F.	30	\$	\$
7	Concrete Wall Spall Repairs	Plan Note 7	S.F.	10	\$	\$
8	Route and Seal Concrete Crack Repairs	Plan Note 8	L.F.	150	\$	\$
9	Epoxy Inject Overhead Concrete Crack Repairs	Plan Note 9	L.F.	100	\$	\$
10	Remove and Replace Exist. Tee-to-Tee Joint Sealants	Plan Note 10	L.F.	8,400	\$	\$
11	Remove and Replace Exist. Cove Joint Sealants	Plan Note 11	L.F.	710	\$	\$
12	Remove and Replace Exist. Façade Joint Sealants	Plan Note 12	L.F.	1,550	\$	\$
13	New Supplemental Floor Drain	Plan Note 13	-			
	New Floor Drain		EA	6	\$	\$
	New Cast Iron Piping		L.F.	360	\$	\$
14	Clean and Paint w/3 Coat System Exist. Steel Connections	Plan Note 14	EA	15	\$	\$
15	New Tee-to-Tee Supplemental Steel Supports	Plan Note 15	EA	5	\$	\$
16	New Supplemental Steel Connection	Plan Note 16	EA	2	\$	\$
					Total	\$

The undersigned further agrees that this proposal shall be valid for a period of ninety days from the date of receipt of the bids and that if this proposal is accepted by The City of Concord within this period, the Bidder will execute the contract form.

The undersigned further agrees to begin the work promptly upon receipt of Notice to Proceed and to pursue the work with an adequate, competent, commercial work force to complete the work within **160** calendar days from the Notice to Proceed. By submitting this bid, the Contractor agrees that the calendar days for construction stated above will be adequate for 100% completion of the project, and that he can deliver a Certificate of Occupancy within that period. Liquidated Damages of **\$200** per calendar day are hereby agreed upon as assessment from the Contractor for failure to complete the work within the time stated herein. In addition to Liquidated Damages, the Owner may also exercise their right to recover all otherlosses.

Accompanying this proposal is a bid security (5% of Contract Sum) in the form of:

as required by North Carolina General Statute.

TIME OF COMPLETION

The undersigned further agrees to begin work within ten (10) days after a "Notice to Proceed" with an adequate work force, carry the work forward as rapidly as possible and complete the work within **160** calendar days.

SIGNATURE OF BIDDER:		
	Contractor's License Number	
<u>If an Individual</u>	License Expiration Date	
Ву	(signature of individual)	
doing business as		
Business address		
Phone No.		
Date		, 20
ATTEST	TITLE.	

<u>If a Partnership</u>	
By(firm name)	
(signature of general partner)	
Business address	
Phone No.	
Date	0
ATTESTTITLE	
If a Corporation	
By	
(corporation name)	
By(signature of authorized person) (title)	
Business address	
Phone No	
Date	
ATTESTTITLE	
(Seal)	

<u>If a Joint Venture</u> (Other party must sign below.)

By (name)	
Contractor's License Number	
License Expiration Date	
If an Individual	
By	
(signature of individual) doing business as	
Business address	
Phone No.	
Date	
ATTESTTITLE	

By(firm name)	
(signature of general partner	•)
Business address	
Phone No	
Date	
ATTESTTITLE	<u> </u>
<u>rporation</u>	
By(corporation name)	
(corporation name)	
By(signature of authorized person)(ti	tle)
Business address	
Phone No	
Date	, 20_
ATTESTTITLE	_
(Seal)	

If a Partnership

STANDARD FORM OF PERFORMANCE BOND

That certain contract by and between the Principal and the Contracting Body above named dated
for

KNOW ALL MEN BY THESE PRESENTS, that we, the PRINCIPAL and SURETY above named, are held and firmly bound unto the above-named Contracting Body, hereinafter called the Contracting Body, in the penal sum of the amount stated above for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators, and successors, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH, that whereas the Principal entered a certain contract with the Contracting Body, identified as shown above and hereto attached;

NOW THEREFORE, if the Principal shall well and truly perform and fulfill all the undertakings, covenants, terms, conditions, and agreements of said contract during the original term of said contract and any extensions thereof that may be granted by the Contracting Body, with or without notice to the Surety, and during the life of any guaranty required under the contract, and shall also well and truly perform and fulfill all the undertakings, covenants, terms, conditions, and agreements of any and all duly authorized modifications of the contract that may hereafter be made, notice of which modifications to the Surety being hereby waived, then, this obligation to be void; otherwise, to remain in full force and virtue.

PERFORMANCE BOND: (Continued)

THIS PERFORMANCE BOND is made and given pursuant to the requirements and provisions of Section 129 of Chapter 143 of the General Statutes of North Carolina and pursuant to Article 3 of Chapter 44-A of the General Statutes of North Carolina, and each and every provision set forth and contained in Section 129 of Chapter 143 and in Article 3 of Chapter 44-A of the General Statutes of North Carolina is incorporated herein, made a part hereof, and deemed to be conclusively written into this Bond.

IN WITNESS WHEREOF, the above-bounden parties have executed this instrument under their several seals as of the date indicated above, the name and corporate seal of each corporate party being hereto affixed and these presents duly signed by its undersigned and representative, pursuant to authority of its governing body.

Principal (Name of individual and trade name, parti	nership, corporation, or joint venture)
(Proprietorship or Partnership)	
Printed Name	BY(SEAL)
	Printed Name
	TITLE(Owner, Partner, Office held in corporation, joint venture)
ATTEST: (Corporation)	(Corporate Seal of Principal)
BY Printed Name	
TITLE(Corporation Secretary or Assistant Secretary Only)	
WITNESS:	Surety (Name of Surety Company) BY
	Printed Name
	TITLE Attorney in Fact
COUNTERSIGNED:	(Corporate Seal of Surety)
N.C. Licensed Resident Agent	(Address of Attorney in Fact)

MINORITY INFORMATION AND AFFIDAVITS

1. All bidders for City of Concord Projects shall attempt to recruit and select Minority Businesses to participate in its Projects. Required affidavits shall be attached to all bids. See attached guidelines:

GUIDELINES FOR RECRUITMENT AND SELECTION OF MINORITY BUSINESSES FOR PARTICIPATION IN STATE CONSTRUCTION CONTRACTS

In accordance with G.S. 143-128.2 (effective January 1, 2002) these guidelines establish goals for minority participation in single-prime bidding, separate-prime bidding, construction manager at risk, and alternative contracting methods, on State construction projects in the amount of \$300,000 or more. The legislation provides that the State shall have a verifiable ten percent (10%) goal for participation by minority businesses in the total value of work for each project for which a contract or contracts are awarded. These requirements are published to accomplish that end.

SECTION A: INTENT

It is the intent of these guidelines that the State of North Carolina, as awarding authority for construction projects, and the contractors and subcontractors performing the construction contracts awarded shall cooperate and in good faith do all things legal, proper and reasonable to achieve the statutory goal of ten percent (10%) for participation by minority businesses in each construction project as mandated by GS 143-128.2. Nothing in these guidelines shall be construed to require contractors or awarding authorities to award contracts or subcontracts to or to make purchases of materials or equipment from minority- business contractors or minority-business subcontractors who do not submit the lowest responsible, responsive bid or bids.

SECTION B: DEFINITIONS

- 1. <u>Minority</u> a person who is a citizen or lawful permanent resident of the United States and who is:
 - a. Black, that is, a person having origins in any of the black racial groups in Africa;
 - b. Hispanic, that is, a person of Spanish or Portuguese culture with origins in Mexico, South or Central America, or the Caribbean Islands, regardless of race;
 - c. Asian American, that is, a person having origins in any of the original peoples of the Far East, Southeast Asia and Asia, the Indian subcontinent, the Pacific Islands;
 - d. American Indian, that is, a person having origins in any of the original peoples of North America; or
 - e. Female
- 2. Minority Business means a business:
 - a. In which at least fifty-one percent (51%) is owned by one or more minority persons, or in the case of a corporation, in which at least fifty-one percent (51%) of the stock is owned by one or more minority persons or socially and economically disadvantaged individuals; and
 - b. Of which the management and daily business operations are controlled by one or more of the minority persons or socially and economically disadvantaged individuals who own it.
- 3. Socially and economically disadvantaged individual means the same as defined in 15 U.S.C. 637. "Socially disadvantaged individuals are those who have been subjected to racial or ethnic prejudice or cultural bias because of their identity as a member of a group without regard to their individual qualities". "Economically disadvantaged individuals are those socially disadvantaged individuals whose ability to compete in the free enterprise system has been impaired due to diminished capital and credit opportunities as compared to others in the same business area who are not socially disadvantaged".
- 4. Public Entity means State and all public subdivisions and local governmental units.

- 5. Owner The State of North Carolina, through the Agency/Institution named in the contract.
- 6. <u>Designer</u> Any person, firm, partnership, or corporation, which has contracted with the State of North Carolina to perform architectural or engineering, work.
- 7. <u>Bidder</u> Any person, firm, partnership, corporation, association, or joint venture seeking to be awarded a public contract or subcontract.
- 8. <u>Contract</u> A mutually binding legal relationship or any modification thereof obligating the seller to furnish equipment, materials or services, including construction, and obligating the buyer to pay for them.
- 9. <u>Contractor</u> Any person, firm, partnership, corporation, association, or joint venture which has contracted with the State of North Carolina to perform construction work or repair.
- 10. <u>Subcontractor</u> A firm under contract with the prime contractor or construction manager at risk for supplying materials or labor and materials and/or installation. The subcontractor may or may not provide materials in his subcontract.

SECTION C: RESPONSIBILITIES

1. <u>Office for Historically Underutilized Businesses, Department of Administration</u> (hereinafter referred to as HUB Office).

The HUB Office has established a program, which allows interested persons or businesses qualifying as a minority business under G.S. 143-128.2, to obtain certification in the State of North Carolina procurement system. The information provided by the minority businesses will be used by the HUB Office to:

- a. Identify those areas of work for which there are minority businesses, as requested.
- b. Make available to interested parties a list of prospective minority business contractors and subcontractors.
- c. Assist in the determination of technical assistance needed by minority business contractors.

In addition to being responsible for the certification/verification of minority businesses that want to participate in the State construction program, the HUB Office will:

- (1) Maintain a current list of minority businesses. The list shall include the areas of work in which each minority business is interested.
- (2) Inform minority businesses on how to identify and obtain contracting and subcontracting opportunities through the State Construction Office and other public entities.
- (3) Inform minority businesses of the contracting and subcontracting process for public construction building projects.
- (4) Work with the North Carolina trade and professional organizations to improve the ability of minority businesses to compete in the State construction projects.
- (5) The HUB Office also oversees the minority business program by:
 - a. Monitoring compliance with the program requirements.
 - b. Assisting in the implementation of training and technical assistance programs.
 - c. Identifying and implementing outreach efforts to increase the utilization of minority businesses.
 - d. Reporting the results of minority business utilization to the Secretary of the Department of Administration, the Governor, and the General Assembly.

2. State Construction Office

The State Construction Office will be responsible for the following:

- a. Furnish to the HUB Office a minimum of twenty-one days prior to the bid opening the following:
 - (1) Project description and location;
 - (2) Locations where bidding documents may be reviewed:

- (3) Name of a representative of the owner who can be contacted during the advertising period to advise who the prospective bidders are;
- (4) Date, time and location of the bid opening.
- (5) Date, time and location of prebid conference, if scheduled.
- b. Attending scheduled prebid conference, if necessary, to clarify requirements of the general statutes regarding minority-business participation, including the bidders' responsibilities.
- c. Reviewing the apparent low bidders' statutory compliance with the requirements listed in the proposal, that must be complied with, if the bid is to be considered as responsive, prior to award of contracts. The State reserves the right to reject any or all bids and to waive informalities.
- d. Reviewing of minority business requirements at Preconstruction conference.
- e. Monitoring of contractors' compliance with minority business requirements in the contract documents during construction.
- f. Provide statistical data and required reports to the HUB Office.
- g. Resolve any protest and disputes arising after implementation of the plan, in conjunction with the HUB Office.

3. Owner

Before awarding a contract, owner shall do the following:

- a. Develop and implement a minority business participation outreach plan to identify minority businesses that can perform public building projects and to implement outreach efforts to encourage minority business participation in these projects to include education, recruitment, and interaction between minority businesses and non-minority businesses.
- b. Attend the scheduled prebid conference.
- c. At least 10 days prior to the scheduled day of bid opening, notify minority businesses that have requested notices from the public entity for public construction or repair work and minority businesses that otherwise indicated to the Office for Historically Underutilized Businesses an interest in the type of work being bid or the potential contracting opportunities listed in the proposal. The notification shall include the following:
 - 1. A description of the work for which the bid is being solicited.
 - 2. The date, time, and location where bids are to be submitted.
 - 3. The name of the individual within the owner's organization who will be available to answer questions about the project.
 4. Where bid documents may be reviewed.

 - 5. Any special requirements that may exist.
- d. Utilize other media, as appropriate, likely to inform potential minority businesses of the bid being sought.
- e. Maintain documentation of any contacts, correspondence, or conversation with minority business firms made in an attempt to meet the goals.
- Review, jointly with the designer, all requirements of G.S. 143-128.2(c) and G.S. 143-128.2(f) – (i.e. bidders' proposals for identification of the minority businesses that will be utilized with corresponding total dollar value of the bid and affidavit listing good faith efforts, or affidavit of self-performance of work, if the contractor will perform work under contract by its own workforce) - prior to recommendation of award to the State Construction Office.
- g. Evaluate documentation to determine good faith effort has been achieved for minority business utilization prior to recommendation of award to State Construction Office.
- h. Review prime contractors' pay applications for compliance with minority business utilization commitments prior to payment.
- i. Make documentation showing evidence of implementation of Owner's responsibilities available for review by State Construction Office and HUB Office, upon request

4. Designer

Under the single-prime bidding, separate prime bidding, construction manager at risk, or alternative contracting method, the designe₃r₁will:

- a. Attend the scheduled prebid conference to explain minority business requirements to the prospective bidders.
- b. Assist the owner to identify and notify prospective minority business prime and subcontractors of potential contracting opportunities.
- c. Maintain documentation of any contacts, correspondence, or conversation with minority business firms made in an attempt to meet the goals.
- d. Review jointly with the owner, all requirements of G.S. 143-128.2(c) and G.S.143-128.2(f)— (i.e. bidders' proposals for identification of the minority businesses that will be utilized with corresponding total dollar value of the bid and affidavit listing Good Faith Efforts, or affidavit of self-performance of work, if the contractor will perform work under contract by its own workforce) prior to recommendation of award.
- e. During construction phase of the project, review "MBE Documentation for Contract Payment" (Appendix E) for compliance with minority business utilization commitments. Submit Appendix E form with monthly pay applications to the owner and forward copies to the State Construction Office.
- f. Make documentation showing evidence of implementation of Designer's responsibilities available for review by State Construction Office and HUB Office, upon request.

5. Prime Contractor(s), CM at Risk, and Its First-Tier Subcontractors

Under the single-prime bidding, the separate-prime biding, construction manager at risk and alternative contracting methods, contractor(s) will:

- a. Attend the scheduled prebid conference.
- b. Identify or determine those work areas of a subcontract where minority businesses may have an interest in performing subcontract work.
- c. At least ten (10) days prior to the scheduled day of bid opening, notify minority businesses of potential subcontracting opportunities listed in the proposal. The notification will include the following:
 - (1) A description of the work for which the subbid is being solicited.
 - (2) The date, time and location where subbids are to be submitted.
 - (3) The name of the individual within the company who will be available to answer questions about the project.
 - (4) Where bid documents may be reviewed.
 - (5) Any special requirements that may exist, such as insurance, licenses, bonds and financial arrangements.

If there are more than three (3) minority businesses in the general locality of the project who offer similar contracting or subcontracting services in the specific trade, the contractor(s) shall notify three (3), but may contact more, if the contractor(s) so desires.

- d. During the bidding process, comply with the contractor(s) requirements listed in the proposal for minority participation.
- e. Identify on the bid, the minority businesses that will be utilized on the project with corresponding total dollar value of the bid and affidavit listing good faith efforts as required by G.S. 143-128.2(c) and G.S. 143-128.2(f).
- f. Make documentation showing evidence of implementation of PM, CM-at-Risk and First-Tier Subcontractor responsibilities available for review by State Construction Office and HUB Office, upon request.
- g. Upon being named the apparent low bidder, the Bidder shall provide one of the following: (1) an affidavit (Affidavit C) that includes a description of the portion of work to be executed by minority businesses, expressed as a percentage of the total contract price, which is equal to or more than the applicable goal; (2) if the percentage is not equal to the applicable goal, then documentation of all good faith efforts taken to meet the goal. Failure to comply with these requirements is grounds for rejection of the bid and award to the next lowest responsible and responsive bidder.
- h. The contractor(s) shall identify the name(s) of minority business subcontractor(s) and corresponding dollar amount of work on the schedule of values. The schedule of values shall be

- provided as required in Article 31 of the General Conditions of the Contract to facilitate payments to the subcontractors.
- i. The contractor(s) shall submit with each monthly pay request(s) and final payment(s), "MBE Documentation for Contract Payment" (Appendix E), for designer's review.
- j. During the construction of a project, at any time, if it becomes necessary to replace a minority business subcontractor, immediately advise the owner, State Construction Office, and the Director of the HUB Office in writing, of the circumstances involved. The prime contractor shall make a good faith effort to replace a minority business subcontractor with another minority business subcontractor. If during the construction of a project additional subcontracting opportunities become available, make a good faith effort to solicit subbids from minority businesses.
- k. It is the intent of these requirements apply to all contractors performing as prime contractor and first tier subcontractor under construction manager at risk on state projects.

6. Minority Business Responsibilities

While minority businesses are not required to become certified in order to participate in the State construction projects, it is recommended that they become certified and should take advantage of the appropriate technical assistance that is made available. In addition, minority businesses who are contacted by owners or bidders must respond promptly whether or not they wish to submit a bid.

SECTION 4: DISPUTE PROCEDURES

It is the policy of this state that disputes that involves a person's rights, duties or privileges, should be settled through informal procedures. To that end, minority business disputes arising under these guidelines should be resolved as governed under G.S. 143-128(g).

<u>SECTION 5</u>: These guidelines shall apply upon promulgation on state construction projects. Copies of these guidelines may be obtained from the Department of Administration, State Construction Office, (physical address) 301 North Wilmington Street, Suite 450, NC Education Building, Raleigh, North Carolina, 27601-2827, (mail address) 1307 Mail Service Center, Raleigh, North Carolina, 27699-1307, phone (919) 807-4100, Website: www.nc-sco.com

SECTION 6: In addition to these guidelines, there will be issued with each construction bid package provisions for contractual compliance providing minority business participation in the state construction program.

MINORITY BUSINESS CONTRACT PROVISIONS (CONSTRUCTION)

APPLICATION:

The Guidelines for Recruitment and Selection of Minority Businesses for Participation in State Construction Contracts are hereby made a part of these contract documents. These guidelines shall apply to all contractors regardless of ownership. Copies of these guidelines may be obtained from the Department of Administration, State Construction Office, (physical address) 301 North Wilmington Street, Suite 450, NC Education Building, Raleigh, North Carolina, 27601-2827, (mail address) 1307 Mail Service Center, Raleigh, North Carolina, 27699-1307, phone (919) 807-4100, Website: http://www.nc-sco.com

MINORITY BUSINESS SUBCONTRACT GOALS:

The goals for participation by minority firms as subcontractors on this project have been set at 10%.

The bidder must identify on its bid, the minority businesses that will be utilized on the project with corresponding total dollar value of the bid and affidavit (Affidavit A) listing good faith efforts <u>or</u> affidavit (Affidavit B) of self-performance of work, if the bidder will perform work under contract by its own workforce, as required by G.S. 143-128.2(c) and G.S. 143-128.2(f).

The lowest responsible, responsive bidder must provide Affidavit C, that includes a description of the portion of work to be executed by minority businesses, expressed as a percentage of the total contract price, which is equal to or more than the applicable goal.

OR

Provide Affidavit D, that includes a description of the portion of work to be executed by minority businesses, expressed as a percentage of the total contract price, with documentation of Good Faith Effort, if the percentage is not equal to the applicable goal.

OR

Provide Affidavit B, which includes sufficient information for the State to determine that the bidder does not customarily subcontract work on this type project.

The above information must be provided as required. Failure to submit these documents is grounds for rejection of the bid.

MINIMUM COMPLIANCE REQUIREMENTS:

All written statements, affidavits or intentions made by the Bidder shall become a part of the agreement between the Contractor and the State for performance of this contract. Failure to comply with any of these statements, affidavits or intentions, or with the minority business Guidelines shall constitute a breach of the contract. A finding by the State that any information submitted either prior to award of the contract or during the performance of the contract is inaccurate, false or incomplete, shall also constitute a breach of the contract. Any such breach may result in termination of the contract in accordance with the termination provisions contained in the contract. It shall be solely at the option of the State whether to terminate the contract for breach.

In determining whether a contractor has made Good Faith Efforts, the State will evaluate all efforts made by the Contractor and will determine compliance in regard to quantity, intensity, and results of these efforts. Good Faith Efforts include:

- (1) Contacting minority businesses that reasonably could have been expected to submit a quote and that were known to the contractor or available on State or local government maintained lists at least 10 days before the bid or proposal date and notifying them of the nature and scope of the work to be performed.
- (2) Making the construction plans, specifications and requirements available for review by prospective minority businesses, or providing these documents to them at least 10 days before the bid or proposals are due.
- (3) Breaking down or combining elements of work into economically feasible units to facilitate minority participation.
- (4) Working with minority trade, community, or contractor organizations identified by the Office for Historically Underutilized Businesses and included in the bid documents that provide assistance in recruitment of minority businesses.
- (5) Attending any prebid meetings scheduled by the public owner.
- (6) Providing assistance in getting required bonding or insurance or providing alternatives to bonding or insurance for subcontractors.
- (7) Negotiating in good faith with interested minority businesses and not rejecting them as unqualified without sound reasons based on their capabilities. Any rejection of a minority business based on lack of qualification should have the reasons documented in writing.
- (8) Providing assistance to an otherwise qualified minority business in need of equipment, loan capital, lines of credit, or joint pay agreements to secure loans, supplies, or letters of credit, including waiving credit that is ordinarily required. Assisting minority businesses in obtaining the same unit pricing with the bidder's suppliers in order to help minority businesses in establishing credit.
- (9) Negotiating joint venture and partnership arrangements with minority businesses in order to increase opportunities for minority business participation on a public construction or repair project when possible.
- (10) Providing quick pay agreements and policies to enable minority contractors and suppliers to meet cash-flow demands.

MBE DOCUMENTATION FOR CONTRACT PAYMENTS

Prime Contractor/Architec	t:			
Address & Phone:				
Project Name:				
Pay Application #:		Period:		
The following is a list of p mentioned period.	ayments made to	Minority Business I	Enterprises on this pr	oject for the above-
MBE FIRM NAME	* INDICATE TYPE OF MBE	AMOUNT PAID THIS MONTH	TOTAL PAYMENTS TO DATE	TOTAL AMOUNT COMMITTED
*Minority categories: l	Black. African	American (B), H	ispanic (H). Asian	American (A).
American Indian (I), F	emale (F), Soc	cial and Economi	cally Disadvantag	ge (D)
Date:	_ Approved/Ce	ertified By:	N	ame
			Т	itle
			Sig	nature

SUBMIT WITH EACH PAY REQUEST & FINAL PAYMENT

(Revised on 3/14/2003)

Identification of Minority Business Participation

I,		2
do hereby certify that on this project, we will use the follosubcontractors, vendors, suppliers or providers of profess	ome of Bidder) Dowing minority business enterior sional services.	terprises as construction
Firm Name, Address and Phone #	Work type	*Minority Category
*Minority categories: Black, African American (I	R) Hispanic (H) Asian Ameri	can (A) American Indian (I)
Female (F) Socially and	Economically Disadvantaged	(D)

The total value of minority business contracting will be (\$)______.

State of North Caro	lina AFFIDAVIT A – Listing of Good Faith Efforts
County of	
Affidavit of	(Name of Bidder)
	made a good faith effort to comply under the following areas checked:
	at least 50 points from the good faith efforts listed for their bid to be considered liministrative Code 30 I.0101)
D 1 – (10 pts) Contacte known to the contract	d minority businesses that reasonably could have been expected to submit a quote and that were tor, or available on State or local government maintained lists, at least 10 days before the bid date the nature and scope of the work to be performed.
	construction plans, specifications and requirements available for review by prospective minority ling these documents to them at least 10 days before the bids are due.
D 3 – (15 pts) Broken departicipation.	lown or combined elements of work into economically feasible units to facilitate minority
Underutilized Busine businesses.	with minority trade, community, or contractor organizations identified by the Office of Historically esses and included in the bid documents that provide assistance in recruitment of minority
_	prebid meetings scheduled by the public owner.
6 – (20 pts) Provided for subcontractors.	assistance in getting required bonding or insurance or provided alternatives to bonding or insurance
	ed in good faith with interested minority businesses and did not reject them as unqualified without on their capabilities. Any rejection of a minority business based on lack of qualification should umented in writing.
credit, or joint pay as	assistance to an otherwise qualified minority business in need of equipment, loan capital, lines of greements to secure loans, supplies, or letters of credit, including waiving credit that is ordinarily inority businesses in obtaining the same unit pricing with the bidder's suppliers in order to help in establishing credit.
9 – (20 pts) Negotiate opportunities for mir	ed joint venture and partnership arrangements with minority businesses in order to increase nority business participation on a public construction or repair project when possible.
D 10 - (20 pts) Provided demands.	d quick pay agreements and policies to enable minority contractors and suppliers to meet cash-flow
Identification of Minor the Owner. Substitution	parent low bidder, will enter into a formal agreement with the firms listed in the ity Business Participation schedule conditional upon scope of contract to be executed with n of contractors must be in accordance with GS143-128.2(d) Failure to abide by this I constitute a breach of the contract.
	y certifies that he or she has read the terms of the minority business commitment and is bidder to the commitment herein set forth.
Date:	_Name of Authorized Officer:
	Signature:
SEAL	State of North Carolina, County of Subscribed and sworn to before me this day of2024 Notary Public My commission expires

State of North Carolina --AFFIDAVIT B-- Intent to PerformContract with Own Workforce.

County of	
Affidavit of	
	(Name of Bidder) t to perform 100% of the work required forthe
	contract.
(Nan	ne of Project)
	idder states that the Bidder does not customarily subcontract elements of this ms and has the capability to perform and will perform all elements of the work urrent work forces; and
The Bidder agrees to provide any the above statement.	additional information or documentation requested by the owner in support of
The undersigned hereby certifies the commitments herein contained	that he or she has read this certification and is authorized to bind the Bidder to l.
Date: Name of Author	ring d Office and
Date:Name of Autho	rized Officer:
	Signature:
SEAL	Title:
State of North Carolina, County of	
Subscribed and sworn to beforeme this_	
Notary Public	
My commission expires	

Do not submit with bid Do not submit with bid Do not submit with bid Do not submit with bid

State of North Carolina - AFFIDAVIT C - Portion of the Work to be **Performed by Minority Firms** (Note this form is to be submitted only by the apparent lowest responsible, responsive bidder.) If the portion of the work to be executed by minority businesses as defined in GS143-128.2(g) is equal to or greater than 10% of the bidder's total contract price, then the bidder must complete this affidavit. This affidavit shall be provided by the apparent lowest responsible, responsive bidder within 72 hours after notification of being low bidder. Affidavit of (Name of Bidder) I do hereby certify that on the (Project Name) Project ID#_____Amount of Bid \$____ I will expend a minimum of ________% of the total dollar amount of the contract with minority business enterprises. Minority businesses will be employed as construction subcontractors, vendors, suppliers or providers of professional services. Such work will be subcontracted to the following firms listed below. Attach additional sheets if required Name and Phone Number *Minority Work description Dollar Value Category *Minority categories: Black, African American (B), Hispanic (H), Asian American (A) American Indian (I), Female (**F**) Socially and Economically Disadvantaged (**D**) Pursuant to GS143-128.2(d), the undersigned will enter into a formal agreement with Minority Firms for work listed in this schedule conditional upon execution of a contract with the Owner. Failure to fulfill this commitment may constitute a breach of the contract. The undersigned hereby certifies that he or she has read the terms of this commitment and is authorized to bind the bidder to the commitment herein set forth. Date: Name of Authorized Officer:

Subscribed and sworn to beforeme this ______day of _____2024

State of North Carolina, County of _____

Notary Public

My commissionexpires____

SEAL

ate of North Carolina forts County of	AFI	FIDAVIT D – Go	ood Faith	
• —	o be submitted only	by the apparer	nt lowest responsible	, responsive bidder)
the goal of 10% participate ocumentation to the Owner			ed, the Bidder shall pro	ovide the following
idavit of:				
idavit <u>oi.</u>	Nar	ne of Bidder		
I do certify the attach	ned documentation as (Attach addit if requ	ional sheets	e representation of my	good faith efforts.
Name and Phone Num		Minority Category	Work description	Dollar Value
provided by the S the source list). E location where bi	tate for each subcontract ach solicitation shall con	to be let under this c tain a specific descri wed, representative	ousiness firms from the sour ontract (if 3 or more firms a ption of the work to be sub- of the Prime Bidder to cont	are shown on contracted,
B. Copies of quotes of	r responses received from	each firm respondin	g to the solicitation.	
•	f follow-up calls to each f			
copies of quotes i	received from all firms su	bmitting quotes for t	d the lowest responsible sub hat particular subcontract.	
	any contacts or correspond an attempt to meet the goa		usiness, community, or con	tractor
F. Copy of pre-bidro	ster.			
	-		uired bonding or insurance f	for minority business.
=	asons for rejection of mine	-	=	
	joint pay agreements to se		siness in need of equipmen or letter of credit, including	
Failure to provide the the bid and award to		-	risions may result in rej nsive bidder.	jection of
Date <u>:</u>	_Name of Authorize	d Officer:		
				_

day of

2024

State of North Carolina, County of _____

NOTICE OF AWARD

TO:					
FROM:	City of Concord City Co P.O. Box 308 26 Union Street, South Concord, North Carolina				
PROJECT:	Concord-Padgett Airpor	rt Parking Deck Repairs			
	City Project No. 200	24-002			
		bmitted by you for the above-na , 2024 in the amount of		ject in response to the City	y of
		And	d		
(\$_) has be	een accepted.				
furnish al		he formal AGREEMENT with ificate of Insurance and Power y the City of Concord.			
work with consider	nin ten (10) days from the data all your rights arising out of	ENT and to furnish this and any te of delivery of this NOTICE of the Owner's acceptance of your to re-bid the work or otherwise	OF AWA ır bid as	RD, said Owner will be e abandoned and to award	ntitled to the work
Dated thi	is theday of	, 2024			
		City of Concord,	North Ca	arolina	
		Ву:			
		Title:	City Ma	nnager	
	ACCE	PTANCE OF NOTICE OF	AWAR	D	
Receipt o 2016.	f the above NOTICE OF AW	/ARD is hereby acknowledged	this th	neday of	,
		Ву:			
		Title:			

STANDARD FORM CONSTRUCTION CONTRACT

This contract (together with all exhibits and valid amendments, the "Agreement" or the "Contract") is made and entered	1
into as of theday of, 20, by the City of CONCORD ("City") and	_
("Contractor"), () a corporation, () a professional corporation, () a professional association, () a limited partnership, () a sole	е
proprietorship, or () a general partnership; organized and existing under the laws of the State of	

Sec. 1. Background and Purpose.

The work of this contract includes but is not limited to, construction of a restroom building, restroom renovation, picnic shelter renovation, playground graded pad, disc golf course, soccer field, stream restoration, pedestrian bridges, concrete sidewalks, parking lot extension, asphalt trails, gravel trails, tennis court resurfacing, fencing, sports netting all with the associated grading, stormwater infrastructure, utilities, erosion control, and plantings at Dorton Park.

Sec. 2. <u>Services and Scope to be Performed.</u> The Contractor shall provide the services at the charges set forth either in this paragraph or in Exhibit "A". Additional exhibits may be used to further define this Agreement when the Contractor and City so agree. Any additional exhibits shall be designated as exhibits to the Agreement with capitalized, sequential letters of the alphabet, shall be attached hereto and incorporated herein by reference as if the same were fully recited, and shall become terms of this Agreement upon execution by both parties.

In this Contract, "services" means the services that the Contractor is required to perform pursuant to this Contract and all of the Contractor's duties to the City that arise out of this Contract. Any amendments, corrections, or change orders by either party must be made in writing signed in the same manner as the original. (This form may be used for amendments and change orders.) The City reserves the right to refuse payment for any work outside that authorized herein or pursuant to a duly approved amendment or change order.

- **Sec. 3.** <u>Complete Work without Extra Cost</u>. Unless otherwise provided, the Contractor shall obtain and provide, without additional cost to the City, all labor, materials, equipment, transportation, facilities, services, permits, and licenses necessary to perform the Work.
- **Sec. 4.** <u>Compensation</u>. The City shall pay the Contractor for the Work as described in this paragraph below OR as described in Exhibit "A" attached. In the event of a conflict, the provisions of this paragraph shall control. Any additional expenses or charges shall only be paid after both the City and the Contractor agree to and execute a written change order. The City shall not be obligated to pay the Contractor any fees, payments, expenses or compensation other than those authorized in this Contract or in a duly-approved change order. All payments shall be deemed inclusive of tax and other obligations.
- Sec. 4a. Retainage. The City shall withhold no retainage on Contracts having a "total project cost" of less than \$100,000.00. The City may withhold retainage on contracts having a total project cost between \$100,000 and \$200,000. The City shall withhold retainage on contracts whose total project cost exceeds \$300,000. When withheld, retainage shall equal no more than five percent of each progress payment. When the project is fifty per cent complete, the City shall not retain anything from future project payments provided that (i) the surety concurs in writing, (ii) the Contractor continues to perform satisfactorily, (iii) any non-conforming work identified in writing by the architect, engineer(s) or City has been corrected by the Contractor and accepted by the architect, engineer(s) or City. However, if the City determines that the Contractor's performance is unsatisfactory, the City may withhold up to five percent retainage from each project payment. The City may withhold additional amounts above five percent for unsatisfactory job progress, defective construction not remedied, disputed work, third party claims filed against the owner or reasonable evidence that a third-party claim will be filed.

Definitions:

"Total Project Cost": Total value of the Contract and any approved change orders or amendments.

"Project is Fifty Percent Complete": When the Contractor's validly-issued gross project invoices (excluding the value of the materials stored off-site) equal or exceed fifty percent of the value of the Contract, except that the value of materials stored on-site shall not exceed twenty percent of the Contractor's gross project invoices for the purpose of determining whether the project is fifty percent complete.

Sec. 5. <u>Term.</u> The Contractor shall commence work within ten (10) days of the date of its receipt of written Notice to Proceed from the City. The date that is ten (10) days from the date of the Contractor's receipt of the Notice to Proceed shall be the "Commencement Date." All work as set forth in the Scope of Services in Exhibit "A" shall be completed within **One-hundred-sixty** (160) calendar days of the Commencement Date. The date that is **One-hundred-sixty** (160) calendar days from the Commencement Date shall be the "Completion Date." Time is of the essence with regard to this Project. If Contractor's obligations

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are not completed by the Completion Date, the City reserves the right to nullify this Agreement, order the Contractor to immediately cease all work under this Agreement and vacate the premises, and to seek professional services equivalent to those outlined in Exhibit "A." The Contractor shall be held accountable for all damages incurred by the City as a consequence of the missed Completion Date. The exercise of any of these rights by the City shall not be interpreted to prejudice any other rights the City may have under this Agreement or in law or equity. This Contract shall not be automatically extended unless agreed to in writing by the City or as provided in Exhibit "A".

Sec. 6. Contractor's Billings to City. Payments will be made in accordance with the schedule found in this section below OR attached at Exhibit "A". Contractor shall submit an original pay request (invoice) to the City Purchasing Agent by the first of each month in order to expedite payment. Upon receipt of the request the City Purchasing Agent shall verify the amounts and if correct forward the request to the Accounts Receivable Division of the Finance Dept. Final payment on the Contract shall be made in 45 days, except in the case of retainage. Within 60 days after the submission of the final pay request, the City (with the written consent of the surety) shall release to the Contractor all retainage payments IF the City receives a certificate of substantial completion from the architect, engineer or designer-in-charge of the project OR the City receives beneficial occupancy and use of the project. In either case, the City may retain up to 2.5 times the estimated value of the work to be completed or corrected.

Sec. 7. <u>Insurance.</u> Contractor shall maintain and cause all sub-contractors to maintain insurance policies at all times with minimum limits as follows:

<u>Coverage</u> Workers' Compensation	\$500,000	m Limits each accident, \$500,000 bodily injury by disease ployee, \$500,000 bodily injury by disease policy
General Liability	\$1,000,00	00 per occurrence regardless of the contract size
Automobile Liability	\$1,000,00	00 per occurrence regardless of the contract size
Umbrella	e	000,000 per occurrence if contract does not exceed 180 days and does not exceed \$500,000; otherwise,
	<u>\$</u>	62,000,000 per occurrence

Contractor shall provide a Certificate of Insurance to the City listing the City as an additional insured. Such Certificate shall be in a form acceptable to the City.

Sec. 8. <u>Documentation Requirements:</u>

A. Contractor shall provide the City with a **Certificate of Insurance** for review prior to the issuance of any contract or Purchase Order. All Certificates of Insurance will require written notice by the insurer or Contractor's agent in the event of cancellation, reduction or other modifications of coverage by the insurer. Such notice shall be not less than 30 days for nonrenewal by the insurer, not less than 10 days for cancellation due to nonpayment of the premium and as soon as possible for all other types of modifications. In addition to the notice requirement above, Contractor shall provide the City with written notice of cancellation, reduction, or other modification of coverage of insurance whether instigated by the insurer or by the Contractor immediately upon Contractor's receipt of knowledge of such modifications. Upon failure of the Contractor to provide such notice, Contractor assumes sole responsibility for all loses incurred by the City for which insurance would have provided coverage. The insurance certificate shall be for the insured period in which the initial contract period begins and shall be renewed by the Contractor for each subsequent renewal period of the insurance for so long as the contract remains in effect.

The City shall be named as an **additional insured** on all policies except Workers' Compensation and it is required that coverage be placed with "A" rated insurance companies acceptable to the City. Statement should read, "City of Concord is added as an additional insured as evidenced by an endorsement attached to this certificate." Failure to maintain the required insurance in force may be cause for termination of this Agreement. In the event that the Contractor fails to maintain and keep in force the insurance herein required, the City has the right to cancel and terminate the Agreement without notice.

B. Contractor shall provide a completed W-9 form to the City prior to execution by the City of this Agreement.

Sec. 9. Performance of Work by Contractor.

- (a) The Contractor warrants that all work performed under this Contract conforms to the Contract requirements and is free of any defect in equipment, material, or design furnished, or workmanship performed by the Contractor or any subcontractor or supplier at any tier. This warranty shall continue for a period of 1 year from the date of issuance by the City of written final completion of the work.
- (b) The Contractor shall remedy at the Contractor's expense any failure to conform, or any defect. In addition, the Contractor shall remedy at the Contractor's expense any damage to City owned or controlled real or personal property, when that damage is the result of--
 - (1) The Contractor's failure to conform to contract requirements; or
 - (2) Any defect of equipment, material, workmanship, or design furnished.
- (c) The Contractor shall restore any work damaged in fulfilling the terms and conditions of this clause. The Contractor's warranty with respect to work repaired or replaced will run for 1 year from the date of repair or replacement.
- (d) The City shall notify the Contractor, in writing, within a reasonable time, not to exceed 30 days, after the discovery of any failure, defect, or damage.
- (e) If the Contractor fails to remedy any failure, defect, or damage within a reasonable time, not to exceed 30 days unless otherwise agreed in writing and signed by the City Manager or his designee, after receipt of notice, the City shall have the right to replace repair, or otherwise remedy the failure, defect, or damage at the Contractor's expense.
- (f) With respect to all warranties, express or implied, from subcontractors, manufacturers, or suppliers for work performed and materials furnished under this Contract, the Contractor shall--
 - (1) Obtain all warranties that would be given in normal commercial practice,
 - (2) Require all warranties to be executed, in writing, for the benefit of the City, if directed to do so by the City; and
 - (3) Enforce all warranties for the benefit of the City, if directed to do so by the City
- (g) In the event the Contractor's warranty has expired, the City may bring suit at its expense to enforce a subcontractor's, manufacturer's, or supplier's warranty.
- (h) Unless a defect is caused by the negligence of the Contractor or subcontractor or supplier at any tier, the Contractor shall not be liable for the repair of any defects of material or design furnished by the City nor for the repair of any damage that results from any defect in City-furnished material or design.
- **Sec. 10.** Performance of Work by City. If the Contractor fails to perform the Work in accordance with the schedule referred to in Exhibit "A", the City may, in its discretion, perform or cause to be performed some or all of the Work, and doing so shall not waive any of the City's rights and remedies. Before doing so, the City shall give the Contractor reasonable notice of its intention. The Contractor shall reimburse the City for all costs incurred by the City in exercising its right to perform or cause to be performed some or all of the Work pursuant to this section.
- **Sec. 11.** <u>Attachments.</u> Additional exhibits may be used to further define this Agreement when the Contractor and City so agree. Any additional exhibits shall be designated as exhibits to the Agreement with capitalized, sequential letters of the alphabet, shall be attached hereto and incorporated herein by reference as if the same were fully recited, and shall become terms of this Agreement upon execution by both parties.

The following attachments are made a part of this Contract and incorporated herein by reference:

- (a) Exhibit "A" Bid Form
- (b) Exhibit "B" Standard Form of Performance Bond
- (c) Exhibit "C" Special Provisions
- (d) Exhibit "D" Contractor must execute the Affidavit attached as Exhibit D, attesting to compliance with state and federal laws related to E-Verify.
- (e) Exhibit "E" Tax Form(s).
- (f) Exhibit "F" Certificate of Insurance.
- (g) Exhibit "G" Drawings

In case of conflict between an attachment and the text of this contract excluding the attachment, the text of this contract shall control. Any attachment that materially alters the standard terms contained herein must be reviewed by the City Attorney and approved by the City in writing.

Sec. 12. <u>Notice</u>. (a) All notices and other communications required or permitted by this Contract shall be in writing and shall be given either by personal delivery, fax, or certified United States mail, return receipt requested, addressed as follows:

To the City:

To the Contractor:

Jacklyn Deal, Director of Engineering VaLerie Kolczynski, Esq.

City of Concord
P.O. Box 308
Concord, NC 28026
Concord, NC 28026
Concord, NC 28026

Fax Number: (704) 786-4521 Fax Number: (704) 784-1791

- (b) <u>Change of Address, Date Notice Deemed Given:</u> A change of address, fax number, or person to receive notice may be made by either party by notice given to the other party. Any notice or other communication under this Contract shall be deemed given at the time of actual delivery, if it is personally delivered or sent by fax. If the notice or other communication is sent by US Mail, it shall be deemed given upon the third calendar day following the day on which such notice or other communication is deposited with the US Postal Service or upon actual delivery, whichever first occurs.
- Sec. 13. <u>Indemnification.</u> To the maximum extent allowed by law, the Contractor shall defend, indemnify, and save harmless the City of Concord, its agents, officers, and employees, from and against all charges that arise in any manner from, in connection with, or out of this Contract as a result of the acts or omissions of the Contractor or subcontractors or anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable except for damage or injury caused solely by the negligence of the City its agents, officers, or employees. In performing its duties under this section, the Contractor shall at its sole expense defend the City of Concord, its agents, officers, and employees with legal counsel reasonably acceptable to City. As used in this subsection "Charges" means claims, judgments, costs, damages, losses, demands, liabilities, duties, obligations, fines, penalties, royalties, settlements, expenses, interest, reasonable attorney's fees, and amounts for alleged violations of sedimentation pollution, erosion control, pollution, or other environmental laws, regulations, ordinances, rules, or orders. Nothing in this section shall affect any warranties in favor of the City that are otherwise provided in or arise out of this Contract. This section is in addition to and shall be construed separately from any other indemnification provisions that may be in this Contract. This section shall remain in force despite termination of this Contract (whether by expiration of the term or otherwise) and termination of the services of the Contract under this Contract.
- **Sec. 14.** Corporate Status. If the Contractor is dissolved or suspended and the Contractor does not notify the City of such dissolution within three (3) business days from date of dissolution or suspension, and/or the corporate status is not reinstated within thirty (30) days, this Contract, at the sole option of the City and without prejudice to City's other remedies, shall be declared null and void or the Contractor shall execute a new contract showing the Contractor's correct legal entity.

Sec. 15. Miscellaneous.

- (a) Choice of Law and Forum. This Contract shall be deemed made in Cabarrus County, North Carolina. This Contract shall be governed by and construed in accordance with the laws of North Carolina. The exclusive forum and venue for all actions arising out of this Contract shall be the appropriate division of the North Carolina General Court of Justice, in Cabarrus County. Such actions shall neither be commenced in nor removed to federal court. This section shall not apply to subsequent actions to enforce a judgment entered in actions heard pursuant to this section.
- (b) <u>Waiver</u>. No action or failure to act by the City shall constitute a waiver of any of its rights or remedies that arise out this Contract, nor shall such action or failure to act constitute approval of or acquiescence in a breach thereunder, except as may be specifically agreed in writing.
- (c) <u>Performance of Government Functions.</u> Nothing contained in this Contract shall be deemed or construed so as to in any way estop, limit, or impair the City from exercising or performing any regulatory, policing, legislative, governmental, or other powers or functions.
- (d) <u>Severability</u>. If any provision of this Contract shall be unenforceable, the remainder of this Contract shall be enforceable to the extent permitted by law.
- (e) <u>Assignment, Successors and Assigns.</u> Without the City's written consent, the Contractor shall not assign (which includes to delegate) any of its rights (including the right to payment) or duties that arise out this Contract. Unless the City otherwise agrees in writing, the Contractor and all assigns shall be subject to all of the City's defenses and shall be liable for all of the Contractor's duties that arise out of this Contract and all of the City's claims that arise out of this Contract. Without granting the Contractor the right to assign, it is agreed that the duties of the Contractor that arise out of this Contract shall be binding upon it and its heirs, personal representatives, successors, and assigns.
- (f) <u>Compliance with Law.</u> In performing all of the Work, the Contractor shall comply with all applicable law. Without limitation, Contractor shall comply with the requirements of Article 2, Chapter 64 (Verification of Work Authorization) of the North Carolina General Statutes relating to E-Verify. Further, if Contractor utilizes a subcontractor, Contractor shall require the subcontractor to comply with the requirements of Article 2 of Chapter 64 of the General Statutes. Pursuant to the requirements of the Iran Divestment Act, N.C.G.S. § 143C-6A-1, et. seq., Contrac4to6r certifies that that as of the Effective Date of this Agreement,

Contractor is not on the Final Divestment List as created by the State Treasurer in compliance with N.C.G.S. § 143-6A-4 and located at www.nctreasurer.com/Iran. Furthermore, Contractor agrees that it will not enter into any subcontracts for the performance of this Agreement with any entity on the Final Divestment List.

- (g) <u>City Policy.</u> THE CITY OPPOSES DISCRIMINATION ON THE BASIS OF RACE AND SEX AND URGES ALL OF ITS CONTRACTORS TO PROVIDE A FAIR OPPORTUNITY FOR MINORITIES AND WOMEN TO PARTICIPATE IN THEIR WORK FORCE AND AS SUBCONTRACTORS AND VENDORS UNDER CITY CONTRACTS.
- (h) <u>EEO Provisions.</u> During the performance of this Contract the Contractor agrees as follows: (1) The Contractor shall not discriminate against any employee or applicant for employment because of race, color, religion, sex, national origin, political affiliation or belief, age, or disability. The Contractor shall take affirmative action to insure that applicants are employed and that employees are treated equally during employment, without regard to race, color, religion, sex, national origin, political affiliation or belief, age, or disability. The Contractor shall post in conspicuous places available to employees and applicants for employment, notices setting forth these EEO provisions. (2) The Contractor in all solicitations or advertisements for employees placed by or on behalf of the Contractor, state all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, national origin, political affiliation or belief, age, or disability.
- (i) No Third Party Right Created. This Contract is intended for the benefit of the City and the Contractor and not any other person.
- (j) <u>Principles of Interpretation.</u> In this Contract, unless the context requires otherwise the singular includes the plural and the plural the singular. The pronouns "it" and "its" include the masculine and feminine. Reference to statutes or regulations include all statutory or regulatory provisions consolidating, amending, or replacing the statute or regulation. References to contracts and agreements shall be deemed to include all amendments to them. The word "person" includes natural persons, firms, companies associations, partnerships, trusts, corporations, governmental agencies and units, and any other legal entities.
- (k) Modifications, Entire Agreement. A modification of this Contract is not valid unless signed by both parties and otherwise in accordance with requirements of law. Further, a modification is not enforceable against the City unless the City Manager or other duly authorized official signs it for the City. This Contract contains the entire agreement between the parties pertaining to the subject matter of this Contract. With respect to that subject matter, there are no promises, agreements, conditions, inducements, warranties, or understandings, written or oral, expressed or implied, between the parties, other than as set forth or referenced in this Contract.
- (l) <u>Corporate Seal.</u> If a corporate seal is included by any party to this Contract, it is only for authentication purposes. This Contract is not signed under seal.
- (m) No Employment Relationship. For all matters relating to this Agreement, Contractor shall be deemed an Independent Contractor. Nothing in this Agreement shall be construed in such a manner as to create an employee-employer relationship between City and Contractor.

(The following section applies to construction contracts only if the total amount of contracts awarded for the project is \$300,000 or more.)

Sec. 16. <u>Bonding.</u> Both performance and payment bonds for the full amount of this Contract are required to be attached. Instead of bonds, you may submit a deposit of money, certified check or government securities for the full amount of the Contract. The performance bond shall have a value equal to 100% of this Contract. This bond shall be conditioned upon faithful performance of the Contract in accordance with the plans, specifications and conditions of the Contract. The performance bond shall be solely for the protection of the City. The payment bond shall be in an amount equal to 100% of the Contract, and conditioned upon the prompt payment for all labor or materials for which a contractor or subcontractor is liable. The payment bond shall be solely for the protection of the persons furnishing materials or performing labor for which a contractor, subcontractor or construction manager at risk is liable.

When the total amount of contracts awarded for any project exceeds three hundred thousand dollars (\$300,000), performance and payment bonds are required from any contractor or construction manager at risk with a contract amount of or exceeding fifty thousand dollars (\$50,000).

Sec. 17. <u>Dispute Resolution</u>. It is understood and agreed that NCGS 143-128(f1-g) requires that disputes arising under an agreement for the erection, construction, alteration or repair of a building be subject to a dispute resolution process specified by the City. The amount in controversy shall be at least \$15,000.00 before this dispute resolution procedure may be used. In compliance with this statutory provision, the City specifies this Section as the dispute resolution process to be used on this Project. It is further understood and agreed that this dispute resolution process is based on non-binding mediation and will only be effective to the extent that the Parties to any mediated dispute participate in the mediation in good faith. It is also understood and agreed that the City is under no obligation under any circumstance to secure or enforce the participation of any other Party in the mediation of any dispute subject to this Section and NCGS 143-128(f1-g).

This Section 17 does not apply to:

- (a) The purchase and erection of prefabricated or relocatable buildings or portions of such buildings, except that portion of the work that must be performed at the construction site; or
- (b) The erection, construction alteration or repair of a building when the cost of such building is \$300,000 or less.

- 17.1 Any dispute arising between or among the Parties listed in Section 17.3 that arises from an agreement to construct the Project, including without limitation a breach of such agreement, shall be subject to non-binding mediation administered by the American Arbitration Association under its Construction Industry Mediation Rules ("Rules"), except as otherwise expressly set forth in this Section. To the extent any provision of the Rules is inconsistent with the provisions of this Section, the provisions of this Section shall control. The mediation provided in this Section shall be used pursuant to this Agreement and NCGS 143-128(f1-g) and is in lieu of any dispute resolution process adopted by the North Carolina State Building Commission, which process shall not apply to this Project.
 - 17.2 For purposes of this Section the following definitions shall apply:
 - a. Agreement to construct the Project means an agreement to construct the Project that is subject to the requirements of NCGS 143-128 and does not include any agreement related to the Project that is not subject to said statute.
 - b. *Construct* or *construction* refers to and includes the erection, construction, alteration or repair of the Project.
 - c. *Party* or *Parties* refers to the parties listed in Section 16.4.
 - d. *Project* means the building to be erected, constructed, altered or repaired pursuant to this Agreement.
 - 17.3 The City and any Party contracting with the City or with any first-tier or lower-tier subcontractor for the construction of the Project agree to participate in good faith in any mediation of a dispute subject to this Section and NCGS 143-128(f1-g), including without limitation the following Parties (if any): architect(s), engineer(s), surveyor(s), construction manager, construction manager at risk, prime contractor(s), surety(ies), subcontractor(s), and supplier(s).
 - 17.4 In order to facilitate compliance with NCGS 143-128(f1-g), the Contractor and all other Parties shall include this Section 17 in every agreement to which it (any of them) is a Party for the construction of the Project without variation or exception. Failure to do so will constitute a breach of this Agreement, and the Contractor or other Party failing to include this Section in any agreement required by this Section shall indemnify and hold harmless the remaining Parties from and against any and all claims, including without limitation reasonable attorney fees and other costs of litigation, arising in any manner from such breach. Notwithstanding the foregoing provisions of this Section, it is expressly understood and agreed that the Parties are intended to be and shall be third-party beneficiaries of the provisions of this Section and can enforce the provisions hereof.
 - 17.5 The following disputes are not subject to mediation: (i) a dispute seeking a non-monetary recovery; and (ii) a dispute seeking a monetary recovery of \$15,000 or less.
 - A dispute seeking the extension of any time limit set forth in an agreement to construct the Project shall be subject to mediation pursuant to this Section and NCGS 143-128(f1-g), but only if the damages which would be suffered by the Party seeking the extension would exceed \$15,000 if the disputed extension is denied. To the extent that liquidated damages are set forth in such agreement as the measurement of damages for failure by such Party to meet such time limit, such liquidated damages shall be the exclusive standard for determining the amount of damages associated with such dispute.
 - 17.7 For purposes of this Section, a dispute is limited to the recovery of monetary damages from the same transaction or occurrence against a single Party or two or more Parties alleged to be liable jointly, severally or in the alternative. Two or more disputes may not be consolidated or otherwise combined without the consent of all Parties to such disputes.
 - 17.8 In addition to such matters as are required by the Rules, a request for mediation shall include the amount of the monetary relief requested.
 - 17.9 Prior to requesting mediation, a Party must form a good faith belief that it is entitled under applicable law to recover the monetary amount to be included in the request from one or more of the remaining Parties. Such belief must be based on a reasonable and prudent investigation into the dispute that is the subject of the request. The request for mediation must be based on such investigation and may not include any amount or the name of any remaining Party, unless supported by such investigation and good faith belief by the Party requesting the mediation.
 - 17.10 If a Party breaches any provision of Section 17.9, it shall indemnify and hold harmless all other Parties from any costs, including reasonable attorney fees and other costs of litigation, and damages incurred by such other Parties that arise from such breach.
 - 17.11 All expenses incurred by a Party to a dispute in4p8reparing and presenting any claim or defense at the mediation

shall be paid by the Party. Such expenses include without limitation preparation and production of witnesses and exhibits and attorney fees. All other expenses of the mediation, including filing fees and required traveling and other expenses of the mediator, shall be borne as follows: one half by the Party requesting the mediation, with the remaining parties paying equal shares of the remaining expenses and costs; provided that, if the City is named as a party to the mediation, the City shall pay at least one-third of the mediation expenses and costs divided among the Parties. If more than one Party to a dispute requests a mediation, the mediation expenses and costs to be divided among the Parties shall be borne equally by the Parties to the dispute; provided that, if the City is named as a Party to the mediation, the City shall pay at least one-third of the mediation expenses and costs divided among the Parties.

- 17.12 The mediation shall be held at a location agreeable to the mediator and all of the Parties; provided that, if no agreement can be reached, the mediation will be held at such location in Cabarrus County as the mediator shall determine.
- 17.13 The provisions of this Section are subject to any other provision of this Agreement concerning the submission, documentation and/or proof of any claim or dispute. Such other provisions shall apply in full force and shall be satisfied as a condition precedent to mediation pursuant to this Section.
- 17.14 The Parties understand and agree that mediation in accordance with this Section shall be a condition precedent to institution of any legal or equitable proceeding seeking monetary recovery based on any dispute that is subject to mediation pursuant to this Section.

Sec. 18. Breach. In the event of a violation of any material term of this Agreement, the non-violating party may terminate the Agreement upon written notice. Such notice shall state the violation with specificity and shall give ten (10) days to cure the violation. The cure period shall be measured as ten (10) days from the date of receipt of notice by the violating party, or, if the date is not known, then thirteen (13) days from the date the notice is placed in the United States Post. If the violation remains uncorrected at the end of the cure period, the Agreement shall be terminated without any further action by the non-violating party. Any remaining disputes shall be subject to the dispute resolution procedure set forth above, if applicable.

[Signature Page to Follow]

IN WITNESS WHEREOF, the City of Concord and the Contractor have caused this Contract to be executed by their respective duly authorized agents or officers.

CITY OF CONCORD:		(Typed or Printed Legal Name of Contractor)
By:City Manager		By:
Date:		Printed Name:
	Title:	
ATTEST BY:		Date:
City Clerk		ATTEST:
	S	BY: ignature of Vice President, Secretary, or other officer
A DDD OVED A C TO FORM		Printed Name:
APPROVED AS TO FORM:		Title
Attorney for the City of Concord		SEAL
	<u>APPROV</u>	AL BY CITY FINANCE OFFICER
This instrument has been pre-	audited in the	manner required by the Local Government Budget and Fiscal Control Act.
		Signature

EXHIBIT "A"

BID FORM

EXHIBIT "B"

E-VERIFY

STATE OF NORTH CAROLINA	A EGID A VIIT
COUNTY OF CABARRUS	AFFIDAVIT

I, (the individual signing below), being duly authorized by and on b	behalfof
(the legal name	of the entity entering the contract, "Employer") after first being
duly sworn hereby swears or affirms as follows:	
1. Employer understands that <u>E-Verify</u> is the federal E-Veri	ify program operated by the United States Department of
Homeland Security and other federal agencies, or any successor or	equivalent program used to verify the work authorization
of newly hired employees pursuant to federal law in accordance w	rith NCGS §64-26.
2. Employer understands that Employers Must Use E-Verify	y. Each employer (as such term is defined in NCGS § 64-25),
after hiring an employee (as such term is defined in NCGS § 64-2:	5) to work in the United States, shall verify the work
authorization of the employee through E-Verify in accordance wit	h NCGS§64-26(a). Employer attests that Employer is
following the requirements of the federal and state laws relevant to	o E-verify.
3. <u>Employer</u> is a person, business entity, or other organization	on that transacts business in the State of North Carolina.
Employer employs 25 or more employees in this State. (mark Yes	or No)
a. YES, or b. NO	
4. Employer attests that all subcontractors employed by it a	s part of this contract comply with the requirements of E-Verify,
and Employer will ensure compliance with E-Verify by any subco	ontractors subsequently hired by Employer as part of any contract
with the City of Concord.	
 Employer shall have a continuing duty to inform the City 	of Concord of any changes to this sworn information.
This day of, 20	, ,
Signature of Affiant Print or Type Name:	
State of North Carolina County of Cabarrus	S ·
Signed and sworn to (or affirmed) before me, this the	ffix Off
day of, 20	icial
My Commission Expires:	Affix Official/Notarial Sea
	Se _z

Notary Public

EXHIBIT "C"

TAX FORM(S)

EXHIBIT "D"

CERTIFICATE OF INSURANCE

NOTICE TO PROCEED

TO:				
FROM:	City of Concord City Council (OWI P.O. Box 308 26 Union Street, South Concord, North Carolina 28026-030			
PROJECT:	Concord-Padgett Airport Parking I	Deck Repairs		
	City Project No. 20024-002			
Contract A	Amount:		D(OLLARS (\$).
You are he complete t	ereby notified to commence work on or he work by theday of	before the, 2024.	of	, 2024, and are to fully
Your proje	ect completion date is therefore theject's schedule unless an extension is gra	day of anted by the City of	, 2024, a of Concord Direc	and as set forth in the above- etor of Engineering in writing.
		City of Concor	rd, North Caroli	ina
		By:	City Manage	er
Dated this	the day of, 2024.			

For Office Use Only: Charge to P.O. # Due

Post Office Box 308 Concord, North Carolina 28026-0308

PROJECT: Date Notice to Proceed:			
Completion Date:			
Days Remaining in Contract:			
Percent Work Complete:			
Percent Time Complete:			
Percent Payment Complete:			
APPLICATION FOR PAYMENT	NOSHEE	T NOOF	
PERIOD FROM:		_TO:	
CERT	TIFICATE OF THE	<u>CONTRACTOR</u>	
To the best of my knowledge and be performed and materials supplied in between the undersigned contractor	full accordance wit	h the terms and conditions of the co	
GROSS AMOUNT OF PARTIAL	PAYMENT	<u>\$</u>	
LESS: RETAINAGE AT PERC PREVIOUS PAYMENT LIQUIDATION DAMAGE DAYS @ \$ OTHER DEDUCTIONS:	ES \$ \$		
TOTAL DEDUCTIONS		<u>\$</u>	
NET AMOUNT DUE THIS ESTI	MATE	<u>\$</u>	
Name of Contractor:		Address:	
Signed:	Title:	Date:	
CERTIFICATE OF C	CONSTRUCTION A	DMINISTRATOR/ENGINEER	
I certify that I have verified this period and correct statement of work performance of the statement of the			elief, it is a true
Consultant Engineer:		Date:	
Construction Administrator:		Date:	
APPROVED AND PAYMENT REC	COMMENDED:		
CITY OF CONCORD			
Signed:	Title	Date:	

PAY REQUEST

ITEM	DESCRIPTION	QUAN'	TITY	UNIT	TOTAL	QUANT.	TOTAL	QUANT.	TOTAL	QUANT.	TOTAL	QUANT.	TOTAL
				PRICE	PRICE	THIS EST.	THIS EST.	PREV. EST.	PREVIOUS	TO DATE	TO DATE	DIFF.	DIFF.
1	General Requirements	1	LS		\$ -		\$ -		\$ -	0.00	\$ -	0.00	\$0.00
2	Contractor Mobilization	1	LS		\$ -		\$ -		\$ -	0.00	\$ -	0.00	\$0.00
3	Owner's Contingency	1	LS		\$ -		\$ -		\$ -	0.00	\$ -	0.00	\$0.00
4	Topside Concrete Spall Repairs	20	S.F.		\$ -		\$ -		\$ -	0.00	\$ -	0.00	\$0.00
5	Overhead Concrete Spall Repairs	60	S.F.		\$ -		\$ -		\$ -	0.00	\$ -	0.00	\$0.00
6	Slab on Grade Concrete Spall Repairs	30	S.F.		\$ -		\$ -		\$ -	0.00	\$ -	0.00	\$0.00
7	Concrete Wall Spall Repairs	10	S.F.		\$ -		\$ -		\$ -	0.00	\$ -	0.00	\$0.00
8	Route and Seal Concrete Crack Repairs	150	L.F.		\$ -		\$ -		\$ -	0.00	\$ -	0.00	\$0.00
	Epoxy Inject Overhead Concrete Crack Repairs	100	L.F.		\$ -		\$ -		\$ -	0.00	\$ -	0.00	\$0.00
10	Joint Sealants	8,400	L.F.		\$ -		\$ -		\$ -	0.00	\$ -	0.00	\$0.00
	Remove and Replace Exist. Cove Joint Sealants	710	L.F.		\$ -		\$ -		\$ -	0.00	\$ -	0.00	\$0.00
12	Remove and Replace Exist. Façade Joint Sealants	1,550	L.F.		\$ -		\$ -		\$ -	0.00	\$ -	0.00	\$0.00
13	New Supplemental Floor Drain												
a	New Floor Drain	6	EA		\$ -		\$ -		\$ -	0.00	\$ -	0.00	\$0.00
b	New Cast Iron Piping	360	L.F.		\$ -		\$ -		\$ -	0.00	\$ -	0.00	\$0.00
14	Clean and Paint w/3 Coat System Exist. Steel Connections	15	EA		\$ -		\$ -		\$ -	0.00	\$ -	0.00	\$0.00
15	New Tee-to-Tee Supplemental Steel Supports	5	EA		\$ -		\$ -		\$ -	0.00	\$ -	0.00	\$0.00
16	New Supplemental Steel Connection	2	EA		\$ -		\$ -		\$ -	0.00	\$ -	0.00	\$0.00
	Base Bid \$				\$ -		\$ -		\$ -		\$ -		\$0.00
	Total Base Bid \$				\$ -								\$0.00

CITY OF CONCORD

CONCORD, NORTH CAROLINA CONTRACT CHANGE ORDER

Project:			Date:_	
Owner:	City of Concord	Ch	nange Order No	
To:	(CONTRACTOR)			
	reby requested to make the following changes in this		mply with	
Item No.	Description of Changes		Additions	Deductions
			\$0.00	\$0.00
	es this Change Order tract Amount		-	\$0.00 \$0.00
	act Time will be by etion Date as of this Change Orderis:	calendar da	ys.	
Accepted:	(Contractor)	Date:_		sy:
Accepted: By:	CITY OF CONCORD		Date:_	
	ment has been pre-audited in the manner required b I Fiscal Control Act.	y Local Goverr	nment	
By:	Finance Director		Date:_	

CITY OF CONCORD FIELD ORDER

ENGINEERING DEPARTMENT

FIELI	D ORDER NO	CONTRACT	DATE	
PRO	JECT			
LOC	ATION			
TO: _				
_				
ADD) TERN	ITIONS TO THE MS AND CONDIT	E WORK AS DESCRIBEI FIONS OF OUR STANDAI WORK:	CEED WITH THE ALTERAT D HEREIN, IN ACCORDANG RD FORM OF CONTRACT.	CE WITH THE
_	QUOTATION N		D BY THE CITY OF CONCORD URNISH QUOTATION IMMED ND APPROVAL.	
		TERIAL BASIS. FURNISH CONCORD FOR VERIFICA	TIME AND MATERIAL REPOI TION ANDSIGNATURE.	RTS DAILY TO
_	OTHER			
AUTI	HORIZED BY:			

NORTH CAROLINA SALES TAX REPORT

OWNER:			CONTRACTOR:					
PROJECT:_								
DATE	VENDOR NAME	INVOICE NO.	NET INVOICE AMOUNT	STATE TAX AMOUNT	COUNTY TAX AMOUNT	SPECIAL COUNTY TAX	COUN PAII	
"	TOTAL							
the Construction of this contra	ction Estimate, and act. No tax on pur	vendors were paid saled the property upon which the second of the chases or rentals of to the for is annexed to the	hich such taxes wer ols and/or equipme	e paid with or w	vill be used in the part the above list. All	erformance the		
	<u> </u>	,	_	SWORN AN	D SUBSCRIBED	BEFORE		
Contractor o (PRINT) Signature	or Subcontractor N	ame		ME THIS	DAY OF	·		
Name (print):								
Title:				NOTARY PUBLIC				
			MY COMMISSIO	ON EXPIRES	ON:			

North Carolina 811, Inc.

North Carolina One Call Center, Inc., a non-profit organization funded by participating utility companies and municipalities in the interest of community and job safety and improved service through damage reduction to the utilities.

A ONE CALL TOLL FREE TELEPHONE NUMBER, 1-800-632-4949, PROVIDES AN AVENUE TO ALL THE PARTICIPATING MEMBERS FROM ANY POINT WITHIN THE STATE OF NORTH CAROLINA.

Anyone proposing to excavate, dig, bore, tunnel, blast or disturb the earth in any way buried utilities may be damaged is requested to call the toll-free number between the hours of 7:00 a.m. and 7:00 p.m., Monday through Friday, three working days before starting the proposed work.

Within minutes of your telephone call, the participating members will be made aware of your plans and will be given pertinent information that has been provided by you about your planned work. You will be told the names of the participating members from whom you can expect a response - if there are buried facilities in the path of your activity, the route of the utilities will be staked and/or marked at no expense to you. If there are no facilities around the planned work, you will be called or notified by a representative of a participating company accordingly.

Should a non-participating utility operator be serving your area, we recommend that you call them on an individual basis. All utility operators, whether company or municipality, will be provided an opportunity to become a member of North Carolina One Call Center, Inc.

Naturally, knowing the route of utilities, the excavator is expected to exercise caution and to avoid damage as the project progresses.

Damage prevention does not just happen – it is a planned and orderly process through which each of us can participate - YES, WE CAN AND WE WILL DRAMATICALLY REDUCE DAMAGES TO THE UTILITIES IN THE STATE OF NORTH CAROLINA!! THANKS FOR YOUR HELP.

BEFORE YOU DIGIN THE INTEREST OF COMMUNITY AND JOB SAFETY AND IMPROVED SERVICE

CALL NORTH CAROLINA ONE CALL CENTER, INC. 1-800-632-4949 OR **811**

SECTION II GENERAL CONDITIONS

Please reference Horizontal Conditions online at:

 $\frac{https://concordnc.gov/Portals/0/Concord/Departments/Engineering/Documents/Old\%20Site\%20Standards/10\%2001\%2005\%20General\%20Conditions\%20Horizontal.pdf?ver=D9zcv1hzhy5VHaHl1P4Ntg\%3d\%3d$

Please reference Vertical Conditions online at:

 $\frac{https://concordnc.gov/Portals/0/Concord/Departments/Engineering/Documents/Old\%20Site\%20Standards/10\%2001\%2008\%20GENERAL\%20PROVISIONS\%20Vertical\%20Construction.pdf?ver=RFc9\\ \underline{qXcwcYckxj7yRIwJuA\%3d\%3d}$

SECTION 00 4513 - CONTRACTOR QUALIFICATIONS

PART 1 - GENERAL

1.1 Related Documents

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

1.2 Bidder Representation

- A. Contractor and/or selected Subcontractors must meet minimum qualification requirements as specified herein.
- B. By submitting a Bid, Bidder represents that minimum qualifications have been satisfied.
- C. Although Contractor's and Subcontractor's personnel qualifications are important, qualifications required within this section shall be qualifications of the Contractor, not specific Contractor personnel unless requested.

1.3 Minimum Contractor and/or Subcontractors Qualification Requirements

- A. Concrete Restoration
 - 1. Shall have not less than five (5) years experience in structural concrete restoration work with at least three (3) projects involving concrete repairs.
- B. Joint Sealants
 - Installer shall meet experience requirements specified in Section 07 9200, Joint Sealants.

1.4 Minimum Superintendent Qualifications

- A. Superintendent for project shall have a minimum of five (5) years of supervisory experience on similar projects.
- B. Superintendent shall have performed in supervisory role as Project Superintendent on at least two (2) projects, each with a construction budget of at least \$500,000.

1.5 Contractor Qualification Statement

- A. Contractor and selected Subcontractors shall complete the Qualification Statement provided in Section 00 4514, Contractor Qualification Statement, and submit to the Owner with Bid.
- B. The Bidder must answer all questions in the Section. The questions relate to the Bidder's eligibility to enter into a contract with Owner and to conditions which may affect the Bidder's ability to perform all contractual responsibilities undertaken in connection with this contract.
- C. The Owner will determine, prior to issuing documents for Bidding, from the above information and from other evidence obtained by it, whether the Bidder has satisfactorily pregualified to



submit a Bid for this project. The Owner's experience with a Bidder who has previously performed work for the Owner will be considered in prequalification of such Bidder. Unsatisfactory performance on previous projects may be sufficient cause for not prequalifying a Bidder; and satisfactory performance on previous projects may be used in lieu of meeting all specific requirements of this Section. Should the Bidder be judged "not prequalified" on the basis of data submitted and/or investigation completed, they will be notified prior to issuing of contract documents.

- D. Prequalification by a Bidder shall not constitute a final determination by Owner as to the responsibility of such Bidder. The Owner reserves the right to reevaluate the Bidder's qualifications and responsibility and to request additional information and substantiation at any time prior to the award of Contract.
- E. Owner reserves the right to waive any informality or irregularity in the qualifications. Owner also reserves the right to waive requirements for any specific qualification.

PART 2 - PRODUCTS

2.1 Not Used.

PART 3 - EXECUTION

3.1 Not Used.

END OF SECTION 00 4513



SECTION 00 4514 - CONTRACTOR QUALIFICATION STATEMENT
PROJECT NAME:
SUBMIT ORIGINAL TO: (Owner)
(Address)
SUBMIT COPY TO:
(Project Engineer)
(Address)
Qualification Submitted by:
Bidder:
Date:
Business Address:
Phone:

Notice: The qualification statement is to be submitted with bid.





GENERAL

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١	:KA	ИE	ᄓ	G	.1	1

- A. How many years has your organization been in business as a General Contractor?
- B. How many years has your organization been in business as a Restoration Contractor?
- C. Has the contractor ever completed work for (Owner)? [Yes / No] If yes, provide description of work, date and specific contract.

1.2 BUSINESS ORGANIZATION

- A. <u>Sole Proprietorship</u>: If the bidder is an individual, list the proprietor's name and address:
- B. Partnership: If the bidder is a partnership, provide the following information:
 - 1. Date of Organization:
 - 2. Partners authorized to submit proposals and sign contracts:
 - 3. Names of all other partners:
- C. Is your organization legally qualified to do business in the State of Nor Carolina?
 - 1. Indicate register or license number:
- D. Corporation: If the bidder is a corporation, provide the following information:
 - 1. Date of Incorporation:
 - 2. State in which incorporated:
 - If incorporated in another state, are you authorized to do business in the State of North Carolina Yes
 - 4. Name and address of corporation's registered agent in North Carolina
 - 5. Name and titles of officers authorized to submit proposals and sign contracts:
 - 6. Name and address of parent company, if firm is a subsidiary:



7. Name of shareholders having more than 10 percent ownership of the company:

SUMMARY OF CONTRACTOR WORK EXPERIENCE

E. Similar contracts completed within the last five to ten years. See requirements in Section 00 4513, Contractor Qualifications.

F.

Project & Location	Contract Type & Final Amount	Start & Completion Dates ¹	Name & Phone No. Owner & A/E References	Identify Type of Repair ²

- 1. Month/year
- 2. Concrete repairs, traffic bearing membrane, etc.



G. Contracts under construction

Project & Location	Contract Type, Current Amount & % Complete	Start & Completion Dates ¹	Name & Phone No. Owner & A/E References	Identify Type of Repair ²

- 1. Month/year
- 2. Concrete repairs, traffic bearing membrane, etc.

H. Contracts Pending

Project & Location	Contract Type, & Amount	Expected Start & Completion	Name & Phone No. of Owner & A/E References

1.3 CONTRACTOR SUPERINTENDENT WORK EXPERIENCE

A. Name of Proposed Superintendent



B. Provide a summary of appropriate projects completed within the last 5 years by the proposed superintendent; describe the level of responsibility for each project; provide at least two (2) Owner references.

1.4 KEY PERSONNEL

A.	Current Number of Project Managers:
B.	Current Number of Superintendents:

C. Provide Construction Experience of key individuals within your organization.

END OF SECTION 00 4514



SECTION 01 2900 - PAYMENT PROCEDURES

PART 1 - GENERAL

1.1 Related Documents

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

1.2 Project Pricing

- A. Bidder shall complete Bid Form Section, including all requested information.
- B. Project pricing is a combination of lump sum work items and unit price work items. Refer to below and Bid Form Section.

1.3 Unit Prices

A. Bidders shall submit unit prices for each unit price item listed in the Bid form Section. The amount of each unit price shall be stipulated in the space provided in the Bid Form.

1.4 Lump Sum Prices

A. Bidder shall submit lump sum prices for each lump sum item listed in the Bid Form Section. The amount of each lump sum price shall be stipulated in the space provided in the Bid Form.

1.5 Alternate Work Prices

A. Refer to Section 01 2300.

1.6 Unit Price Quantity Measurement

- A. The Owner reserves the right to reject the Contractor's measurement of work-in-place that involves use of established unit prices, and to have this Work measured by an independent surveyor acceptable to the Contractor at the Owner's expense.
- B. Contractor shall maintain plan drawings locating all unit price repairs performed. Location and size of patches, overlays, etc. must be located on clean drawings. Separate drawings shall be maintained for each level and ceiling plan. Contractor shall submit copy of drawing identifying current quantities with each payment request. Work being invoiced must be properly identified. These drawings shall be incorporated into "Record Drawings" set required per Division 1.
- C. Quantity measurements shall be performed as described in Specification or shown on Drawings.

1.7 Schedule of Values

- A. The Contractor shall prepare a Schedule of Values for his Work as required by Article 9.2 of the General Conditions.
- B. Submit the Schedule of Values to the Engineer at the earliest feasible date, but in no case later than seven (7) days before the date scheduled for submittal of the initial Application for Payments.
- C. Update and resubmit the Schedule of Values when change orders result in a change in the Contract Sum.
- D. Use the project Bid Form Section as a guide to establish the format for the Schedule of Values.

1.8 Application for Payment

- A. The form of Application for Payment shall be notarized AIA Document G702, "Application and Certification for Payment," supported by AIA Document G703, Continuation Sheet.
- B. Complete every entry on the form, including notarization and execution by person authorized to sign legal documents on behalf of the Owner. Incomplete applications will be returned without action.
 - 1. Entries shall match data on the Schedule of Values and Contractor's Construction Schedule. Use updated schedules if revisions have been made.
 - 2. Include amount of change orders issued prior to the last day of construction period covered by the application.
- C. Submit three (3) executed copies of each Application for Payment to the Engineer. One copy shall be complete, including waivers of lien and similar attachments, when required.
- D. Administrative actions and submittals that must precede or coincide with submittal of the first Application for Payment include the following:
 - 1. List of subcontractors
 - 2. List of principal suppliers and fabricators
 - 3. Schedule of Values
 - 4. Contractor's Construction Schedule (preliminary, if not final)
 - 5. Schedule of principal products
 - 6. Submittal Schedule (preliminary, if not final)



CONCORD-PADGETT AIRPORT PARKING DECK REPAIRS 2023

- 7. List of Contractor's staff assignments
- 8. List of Contractor's principal consultants
- 9. Copies of permits
- 10. Copies of authorizations and licenses from governing authorities for performance of the Work
- 11. Initial progress report
- 12. Certificates of insurance and insurance policies
- 13. Performance and payment bonds
- 14. Data needed to acquire Owner's insurance
- E. Administrative actions and submittals which must precede or coincide with submittal of the final payment Application for Payment include the following:
 - 1. Completion of Project closeout requirements
 - 2. Completion of items specified for completion after Substantial Completion
 - 3. Assurance that unsettled claims will be settled
 - 4. Assurance that Work not complete and accepted will be completed without undue delay
 - 5. Transmittal of required Project construction records to Owner
 - 6. Proof that taxes, fees and similar obligations have been paid
 - 7. Removal of temporary facilities and services
 - 8. Removal of surplus materials, rubbish and similar elements
 - 9. Warranties

1.9 Waivers of Mechanics Lien

- A. With each Application for Payment submit waivers of mechanics liens from subcontractors or sub-subcontractors and suppliers for the construction period covered by the previous application.
- B. Submit partial waivers on each item for the amount requested, prior to deduction for retainage, on each item.
- C. When an application shows completion of an item, submit final or full waivers.
- D. The Owner reserves the right to designate which entities involved in the Work must submit waivers.
- E. Submit waivers of lien on forms, and executed in a manner acceptable to the Owner.

PART 2 - PRODUCTS

2.1 Not used.

1

PART 3 - EXECUTION

3.1 Not used.

PART 4 -



CONCORD-PADGETT AIRPORT PARKING DECK REPAIRS 2023



SECTION 01 3300 - SUBMITTAL PROCEDURES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes requirements for the submittal schedule, construction schedule, and administrative and procedural requirements for submitting Shop Drawings, Product Data, Samples, and other submittals.
- B. Related Requirements:
 - 1. Submittals required for action and informational purposes are specified elsewhere.
- C. Submittals not requested from the Contractor will be returned stamped "No Architect/Engineer's Action Required."

1.3 DEFINITIONS

- A. Action Submittals: Written and graphic information and physical samples that require Engineer's responsive action. Action submittals are those submittals indicated in individual Specification Sections as "action submittals."
- B. Informational Submittals: Written and graphic information and physical samples that do not require Engineer's responsive action. Submittals may be rejected for not complying with requirements. Informational submittals are those submittals indicated in individual Specification Sections as "informational submittals." Informational submittals may also be referred to as submittals "for record."
- C. File Transfer Protocol (FTP): Communications protocol that enables transfer of files to and from another computer over a network and that serves as the basis for standard Internet protocols. An FTP site is a portion of a network located outside of network firewalls within which internal and external users are able to access files.
- D. Portable Document Format (PDF): An open standard file format licensed by Adobe Systems used for representing documents in a device-independent and display resolution-independent fixed-layout document format.



1.4 ACTION SUBMITTALS

- A. Submittal Schedule: Submit a schedule of submittals, arranged in chronological order by dates required by construction schedule. Include time required for review, testing, ordering, manufacturing, fabrication, and delivery when establishing dates. Include additional time required for making corrections or revisions to submittals noted by Engineer and additional time for handling and reviewing submittals required by those corrections.
 - Coordinate submittal schedule with list of subcontracts, the schedule of values, and Contractor's construction schedule.
 - List and identify those submittals required early because of long lead time for manufacture or fabrication.
 - 3. Submit concurrently with the first complete submittal of Contractor's construction schedule.
 - Submit revised submittal schedule regularly to reflect changes in current status and timing for submittals.
 - 4. Format: Arrange the following information in a tabular format:
 - a. Scheduled date for first submittal.
 - b. Specification Section number and title.
 - c. Submittal category: Action; informational.
 - d. Name of subcontractor.
 - e. Description of the Work covered.
 - f. Scheduled date for Engineer's final release or approval.
 - g. Scheduled date of fabrication.
 - h. Scheduled dates for purchasing.
 - i. Scheduled dates for installation.
 - j. Activity or event number

1.5 INFORMATIONAL SUBMITTALS

- A. Contractor's Construction Schedule: Prepare and submit within [10] days after [the execution of the Contract] a construction schedule using a time-scaled Critical Path Method (CPM) for the Work. Extend schedule from date established for [the execution of the Contract] to date of [final completion].
 - 1. Prepare a list of all activities required to complete the work. Identify critical path activities. Failure to include any work item required for performance of this Contract shall not excuse Contractor from completing all work within applicable completion dates.
 - 2. Each activity in schedule shall contain activity number, activity description, cost and resource loading, original duration, remaining duration, early start date, early finish date, late start date, late finish date, total float in calendar days, sequence requirements, and relationship of each activity in relation to other activities.
 - 3. Coordinate construction schedule with the schedule of values, submittal schedule, progress reports, payment requests, and other required schedules and reports.



- 4. Schedule shall include provisions for submittal review time, resubmittal review time, procurement time, material cure time, adverse weather, and constraints and work restrictions in the Contract Documents.
- 5. Schedules for restoration work shall indicate the areas to be closed during each phase of construction and shall indicate the proposed traffic flow for each phase.

1.6 SUBMITTAL ADMINISTRATIVE REQUIREMENTS

- A. Engineer's Digital Data Files: Electronic digital data files of the Contract Drawings will [**not**] be provided by Engineer for Contractor's use in preparing submittals.
- B. 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. Submit all submittal items required for each Specification Section concurrently unless partial submittals for portions of the Work are indicated on approved submittal schedule.
 - 3. Submit action submittals and informational submittals required by the same Specification Section as separate packages under separate transmittals.
 - 4. All submittals shall be received in an orderly sequence and sufficiently in advance of construction requirements to allow time for checking, resubmitting and rechecking.
 - 5. 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.
- C. Processing Time: Allow time for submittal review, including time for resubmittals, as follows. Time for review shall commence on Engineer's receipt of submittal. No extension of the Contract Time will be authorized because of failure to transmit submittals enough in advance of the Work to permit processing, including resubmittals.
 - 1. Submittal Review: Allow [5] days for review of each submittal. Allow additional time if coordination with subsequent submittals is required. Engineer will advise Contractor when a submittal being processed must be delayed for coordination.
 - 2. Resubmittal Review: Allow [5] days for review of each resubmittal.
 - 3. Sequential Review: Where sequential review of submittals by Engineer's consultants, Owner, or other parties is needed, allow [5] days for review of each submittal.
- D. Submittal Format:



- E. Electronic Submittals: Identify and incorporate information in each electronic submittal file as follows:
 - 1. Assemble complete submittal package into a single indexed file incorporating submittal requirements of a single Specification Section and transmittal form with links enabling navigation to each item.
 - 2. Name file with submittal number or other unique identifier, including revision identifier.
 - a. File name shall use project identifier and Specification Section number followed by a dash and then a sequential number (e.g., LNHS-03300-01). Resubmittals shall include an alphabetic suffix after another dash (e.g., LNHS-03300-01-A).
 - 3. Provide means for insertion to permanently record Contractor's review and approval markings and action taken by Engineer.
 - 4. Transmittal Form for Electronic Submittals: Use electronic form acceptable to Engineer and Owner, containing the following information:
 - a. Project name.
 - b. Date.
 - c. Name and address of Engineer.
 - d. Name of Construction Manager.
 - e. Name of Contractor.
 - f. Name of firm or entity that prepared submittal.
 - g. Names of subcontractor, manufacturer, and supplier.
 - h. Category and type of submittal.
 - i. Submittal purpose and description.
 - j. Specification Section number and title.
 - k. Specification paragraph number or drawing designation and generic name for each of multiple items.
 - I. Drawing number and detail references, as appropriate.
 - m. Location(s) where product is to be installed, as appropriate.
 - n. Related physical samples submitted directly.
 - o. Indication of full or partial submittal.
 - p. Transmittal number.
 - g. Submittal and transmittal distribution record.
 - r. Other necessary identification.
 - s. Remarks.
 - 5. Metadata: Include the following information as keywords in the electronic submittal file metadata:
 - a. Project name.
 - b. Number and title of appropriate Specification Section.
 - c. Manufacturer name.
 - d. Product name.
- F. Options: Identify options requiring selection by Engineer.
- G. Deviations and Additional Information: 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 in the Contract



Documents, including minor variations and limitations. Include same identification information as related submittal.

- H. Resubmittals: Make resubmittals in same form and number of copies as initial submittal.
 - 1. Note date and content of previous submittal.
 - 2. Note date and content of revision in label or title block and clearly indicate extent of revision. Clearly indicate all changes that have been made by clouding and use of revision number in a triangular symbol.
 - 3. Resubmit submittals until they are marked with approval notation from Engineer's action stamp.
- I. Distribution: Furnish final submittals to Engineer, Owner, manufacturers, subcontractors, suppliers, fabricators, installers, authorities having jurisdiction, testing agencies, and others as necessary for performance of construction activities. Show distribution on transmittal forms. Format and quantities of final submittals shall be coordinated with each recipient.
- J. Review of resubmittals by the Engineer shall be limited to required corrections only, and the Contractor by resubmitting shall represent that the resubmittals contain no other alternations, additions or deletions. If additional changes have been made, same shall be specifically noted and described on the resubmittal.
- K. Use for Construction: Retain complete copies of submittals on Project site available for review. Use only final action submittals that are marked with approval notation from Engineer's action stamp. Contractor shall provide "Issued for Construction for Field Use" drawings as required for all field construction activities which shall be based on and referenced to final action submittals marked with approval notation from Engineer's action stamp.

PART 2 - PRODUCTS

2.1 SUBMITTAL PROCEDURES

- A. General Submittal Procedure Requirements: Prepare and submit submittals required by individual Specification Sections. Types of submittals are indicated in individual Specification Sections.
 - 1. Submit electronic submittals via email as PDF electronic files.
 - a. If electronic file size of submittal exceeds email size limits of either Contractor or Engineer, Contractor shall post to Project Web Site and notify Engineer via email that submittal has been posted.
 - b. Engineer will return annotated file. Annotate and retain **[one]** copy of file as an electronic Project record document file.
 - Certificates and Certifications Submittals: Provide a statement that includes signature of entity responsible for preparing certification. Certificates and certifications shall be signed by an officer or other individual authorized to sign documents on behalf of that entity.



- B. Product Data: Collect information into a single submittal for each element of construction and type of product or equipment.
 - 1. If information must be specially prepared for submittal because standard published data are not suitable for use, submit as Shop Drawings, not as Product Data.
 - 2. Mark each copy of each submittal to show which products and options are applicable.
 - 3. Modify standard drawings to delete information which is not applicable to project.
 - 4. Show dimensions and clearances.
 - 5. Supplement standard information to provide additional information applicable to project.
 - 6. Include the following information, as applicable:
 - a. Manufacturer's catalog cuts.
 - b. Manufacturer's product specifications.
 - c. Standard color charts.
 - d. Statement of compliance with specified referenced standards.
 - e. Testing by recognized testing agency.
 - f. Application of testing agency labels and seals.
 - g. Notation of coordination requirements.
 - h. Availability and delivery time information.
 - 7. For equipment, include the following in addition to the above, as applicable:
 - a. Wiring diagrams showing factory-installed wiring.
 - b. Printed performance curves.
 - c. Operational range diagrams.
 - d. Clearances required to other construction, if not indicated on accompanying Shop Drawings.
 - 8. Submit Product Data before or concurrent with Samples.
- C. 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[, unless submittal based on Engineer's digital data drawing files is otherwise permitted].
 - 1. Preparation: Fully illustrate requirements in the Contract Documents. Include the following information, as applicable:
 - a. Identification of products.
 - b. Schedules.
 - c. Compliance with specified standards.
 - d. Notation of coordination requirements.
 - e. Notation of dimensions established by field measurement.
 - f. Relationship and attachment to adjoining construction clearly indicated.
 - g. Highlight with notation, encircle, or otherwise indicate deviations from Contract Documents.
 - h. Seal and signature of professional engineer if specified.
 - 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 42 inches.



- D. Samples: Submit Physical Samples for review and approval of kind, color, pattern, and texture for a check of these characteristics with other elements and for a comparison of these characteristics between submittal and actual component as delivered and installed.
 - 1. Transmit Samples that contain multiple, related components such as accessories together in one submittal package.
 - 2. Identification: Attach label on unexposed side of Samples that includes the following:
 - a. Generic description of Sample.
 - b. Product name and name of manufacturer.
 - c. Sample source.
 - d. Number and title of applicable Specification Section.
 - e. Specification paragraph number and generic name of each item.
 - 3. For projects where electronic submittals are required, provide corresponding electronic submittal of Sample transmittal, digital image file illustrating Sample characteristics, and identification information for record.
 - 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.
 - 5. The Engineer shall review and approve Contractor submittals such as schedules, products, materials, samples, and shop drawings for the limited purpose of conformance with the design concept and the information expressed in the Contract Documents.
 - 6. The Engineer shall not be responsible for any deviations from the Contract Documents not brought to the attention of the Engineer in writing by the Contractor.
 - 7. The Engineer shall not be required to review partial submittals or those for which submissions or correlated items have not been received. However, review of a specific item shall not indicate that the Engineer has reviewed the entire assembly of which the item is a component.
 - 8. 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.
 - a. Number of Samples: Submit [one] full set(s) of available choices where color, pattern, texture, or similar characteristics are required to be selected from manufacturer's product line. Engineer will return submittal with options selected.
 - 9. Samples for Verification: Submit full-size units or Samples of size indicated, prepared from same material to be used for the Work, cured and finished in manner specified, and physically identical with material or product proposed for use, and that show full range of color and texture variations expected. Samples include, but are not limited to, the following: partial sections of manufactured or fabricated components; small cuts or containers of materials; complete units of repetitively used materials; swatches showing



color, texture, and pattern; color range sets; and components used for independent testing and inspection.

- a. Number of Samples: Submit **[three]** sets of Samples. Engineer will retain **[two]** Sample sets; remainder will be returned.
 - Submit a single Sample where assembly details, workmanship, fabrication techniques, connections, operation, and other similar characteristics are to be demonstrated.
 - 2) If variation in color, pattern, texture, or other characteristic is inherent in material or product represented by a Sample, submit multiple units of the sample (not less than three (3) units) that show approximate limits of variations. Mount, display, or package samples in a manner to facilitate the review of indicated qualities.
- E. Product Schedule: As required in individual Specification Sections, 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 indicated in the Contract Documents or assigned by Contractor if none is indicated.
 - 2. Manufacturer and product name, and model number if applicable.
 - 3. Number and name of room or space.
 - 4. Location within room or space.
- F. Contractor's Construction Schedule:
 - 1. Contractor's Construction Schedule Updates: At [weekly] intervals, update schedule to reflect actual construction progress and activities. Issue schedule before each regularly scheduled progress meeting. Issue schedule concurrently with each payment request.
 - a. 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.
 - b. Include a report with updated schedule that indicates every change, including, but not limited to, changes in critical path, activities, durations, and total float or slack time.
 - c. As the Work progresses, indicate final completion percentage for each activity.
 - Recovery Schedule: When periodic updates indicates the Work is [14] or more calendar days behind the current approved schedule, submit a separate recovery schedule indicating means by which Contractor intends to regain compliance with the schedule. Indicate changes to working hours, working days, crew sizes, and equipment required to achieve compliance, and date by which recovery will be accomplished.
 - Distribution: Distribute copies of schedule to Engineer, Owner, separate contractors, testing and inspecting agencies, and other parties identified by Contractor with a need-to-know schedule responsibility.
 - a. Post copies in Project meeting rooms and temporary field offices.
 - b. 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.

- G. Application for Payment and Schedule of Values: Comply with requirements specified in [Section 01029 "Payment Procedures"]
 - Promptly submit a written report of each test and inspection for record required of the Contractor, PDF file and one (1) copy each to the Engineer and Owner. Each report shall include:
 - a. Date issued
 - b. Project title and number
 - c. Testing laboratory name, address, and telephone number
 - d. Name and signature of laboratory inspector
 - e. Date and time of sampling or inspection
 - f. Record of temperature and weather conditions
 - g. Date of test
 - h. Identification of product and Specification Section
 - i. Location of sample or test in the Project
 - j. Type of inspection or test
 - k. Results of tests and compliance with Contract Documents
 - I. Interpretation of test results, when requested by the Engineer.
- H. Closeout Submittals and Maintenance Material Submittals: Comply with requirements specified in [Section 01700 "Project Closeout and Warranties."]
- Qualification Data: Prepare written information that demonstrates capabilities and experience of firm or person. Include lists of completed projects with project names and addresses, contact information of Engineers and owners, and other information specified.
- J. Welding Certificates: Prepare written certification that welding procedures and personnel comply with requirements in the Contract Documents. Submit record of Welding Procedure Specification and Procedure Qualification Record on AWS forms. Include names of firms and personnel certified.
- K. Installer Certificates: Submit written statements on manufacturer's letterhead certifying that Installer complies with requirements in the Contract Documents and, where required, is authorized by manufacturer for this specific Project.
- L. Manufacturer Certificates: Submit written statements on manufacturer's letterhead certifying that manufacturer complies with requirements in the Contract Documents. Include evidence of manufacturing experience where required.
- M. Product Certificates: Submit written statements on manufacturer's letterhead certifying that product complies with requirements in the Contract Documents.
- N. Material Certificates: Submit written statements on manufacturer's letterhead certifying that material complies with requirements in the Contract Documents.
- O. Material Test Reports: Submit reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting test results of material for compliance with requirements in the Contract Documents.



- P. Product Test Reports: Submit written reports indicating that current product produced by manufacturer complies with requirements in the Contract Documents. Base reports on evaluation of tests performed by manufacturer and witnessed by a qualified testing agency, or on comprehensive tests performed by a qualified testing agency.
- Q. Research Reports: Submit written evidence, from a model code organization acceptable to authorities having jurisdiction, that product complies with building code in effect for Project. Include the following information:
 - 1. Name of evaluation organization.
 - 2. Date of evaluation.
 - 3. Time period when report is in effect.
 - Product and manufacturers' names.
 - 5. Description of product.
 - 6. Test procedures and results.
 - 7. Limitations of use.
- R. Preconstruction Test Reports: Submit reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting results of tests performed before installation of product, for compliance with performance requirements in the Contract Documents.
- S. Compatibility Test Reports: Submit reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting results of compatibility tests performed before installation of product. Include written recommendations for primers and substrate preparation needed for adhesion.
- T. Field Test Reports: Submit written reports indicating and interpreting results of field tests performed either during installation of product or after product is installed in its final location, for compliance with requirements in the Contract Documents.
- U. Design Data: Prepare and submit written and graphic information, including, but not limited to, performance and design criteria, list of applicable codes and regulations, and calculations. Include list of assumptions and other performance and design criteria and a summary of loads. Include load diagrams if applicable. Provide name and version of software, if any, used for calculations. Include page numbers.

2.2 DELEGATED-DESIGN SERVICES

A. Performance and Design Criteria: Where professional design services or certifications by a design professional are specifically required of Contractor by the Contract Documents, provide products and systems complying with specific performance and design criteria indicated.



- 1. If criteria indicated are not sufficient to perform services or certification required, submit a written request for additional information to Engineer.
- B. Delegated-Design Services Certification: In addition to Shop Drawings, Product Data, calculations, and other required submittals, submit digitally signed and sealed PDF electronic file and Contractor shall submit directly to authorities having jurisdiction three paper copies of certificate, signed and sealed by the responsible design professional, for each product and system specifically assigned to Contractor to be designed or certified by a design professional.
 - 1. Indicate that products and systems comply with performance and design criteria in the Contract Documents. Include list of codes, loads, and other factors used in performing these services.

PART 3 - EXECUTION

3.1 CONTRACTOR'S REVIEW AND RESPONSIBILITIES

- A. The submittals are not to be considered a part of the Contract Documents.
- B. Submittals shall demonstrate the Contractor understands and has interpreted the intent of the design as detailed and specified in the Contract Documents. The Contractor shall check and approve submittals for accuracy or completeness of details, such as quantities, dimensions, weights or gauges, fabrication processes, construction precautions and verification of field dimensions or conditions. The Contractor's responsibility for errors and omissions in submittals is not relieved by Engineer's review of submittals.
- C. All submittals to the Engineer shall be routed through the Contractor and bear the Contractor's Approval Stamp certifying they have been reviewed, checked, and approved for compliance with the Contract Documents. All submittals to the Engineer that are without this stamp of approval or that contain obvious errors or have not been checked or have been checked superficially will be returned unchecked and unstamped by the Engineer for resubmission by the Contractor.
 - 1. 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.
- D. Action and Informational Submittals: Review each submittal and check for coordination with other Work of the Contract and for compliance with the Contract Documents. Note corrections and field dimensions. Mark with approval stamp before submitting to Engineer.
- E. Project Closeout and Maintenance Material Submittals: See requirements in [Section 01700 "Project Closeout and Warranties."]



3.2 ENGINEER'S ACTION

- A. The Engineer shall review and approve or take other appropriate action on the Contractor's submittals, such as shop drawings, product data, samples and other data, which the Contractor is required to submit, but only for the limited purpose of checking for conformance with the design concept and the information shown in the Construction Documents. This review shall not include review of the accuracy or completeness of details, such as quantities, dimensions, weights or gauges, fabrication processes, construction means or methods, coordination of the work with other trades or construction safety precautions, all of which are the sole responsibility of the Contractor. Review of a specific item shall not indicate that the Engineer has reviewed the entire assembly of which the item is a component. The Engineer shall not be responsible for any deviations from the Construction Documents not brought to the attention of the Engineer in writing by the Contractor. The Engineer shall not be required to review partial submissions or those for which submissions of correlated items have not been received.
- B. Action Submittals: Engineer will review each submittal, make marks to indicate corrections or revisions required, and return it. Engineer will stamp each submittal with an action stamp and will mark stamp appropriately to indicate action, as follows:
 - 1. The "actions taken" appearing on the Engineer's Approval Stamp shall be defined as follows:
 - a. "Approved" Fabrication and/or installation may be undertaken. Approval does not authorize changes to the Contract Sum or Contract Time unless stated in separate letter or Change Order.
 - b. "Furnish as Corrected" Fabrication and/or installation may be undertaken. Exceptions as noted are to be incorporated. Approval does not authorize changes to the Contract Sum or Contract Time unless stated in separate letter or Change Order.
 - c. "Revise and Resubmit" Fabrication and/or installation MAY NOT be undertaken until exceptions as noted are incorporated and resubmitted for approval. Revision does not authorize changes to the Contract Sum or Contract Time.
 - d. "Rejected" Fabrication and/or installation MAY NOT be undertaken. Submittal is too incomplete or does not meet Contract Documents. Resubmit for approval.
 - e. "No Architect/Engineer's Action Required" Submittal not requested from the Contractor and was not reviewed.
- C. Informational (or For Record) Submittals: Engineer will review each submittal for conformance with submittal requirements only and not its content. Engineer will not return the submittal, or will return it if it does not comply with requirements. Engineer will forward each submittal to appropriate party.
- D. Partial submittals prepared for a portion of the Work will be reviewed when use of partial submittals has received prior approval from Engineer.
- E. Incomplete submittals are unacceptable, will be considered nonresponsive, and will be returned for resubmittal without review.
- F. Submittals not required by the Contract Documents may be returned by the Engineer without action.



CONCORD-PADGETT AIRPORT PARKING DECK REPAIRS 2023



CONTRACTOR SUBMITTAL REVIEW LABEL

Project: Project No: Subcontractor: Contractor: Supplier: Manufacturer: Date: Revision Date: Submitted Product: Specification Section: ASTM No or Federal Spec: Specified Material?: Yes / No Product Use: Ref Dwg # and Detail: Date Submittal Received by WGI, Inc: WGI, Inc. Comments: Contractor Comments: Contractor's Approval Stamp





SECTION 01 5000 - CONSTRUCTION FACILITIES AND TEMPORARY SERVICES

PART 1 - GENERAL

1.1 Related Documents

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

1.2 Temporary Services General

A. Maintain strict supervision of use of temporary services. Enforce conformance with applicable standards. Enforce safe practices. Prevent abuse of services and systems. Prevent damage to finishes.

1.3 Temporary Electric

- A. The Contractor shall provide temporary electrical service.
- B. Temporary power service shall comply with OSHA Standards. The Contractor shall maintain these temporary services in good order throughout the project until Work is complete. All extension cords shall be provided by the Contractor or Subcontractor requiring the power.
- C. Electrical service shall not be used for heating.

1.4 Temporary Lighting

- A. The Contractor shall provide all supplemental temporary lighting for the Project.
 - 1. Provide adequate illumination for Work being performed.
 - 2. Provide adequate illumination for safe movement of authorized persons through Project.
 - 3. Provide adequate illumination for public safety and special warning lighting for hazardous conditions.
 - 4. Provide adequate illumination required to protect the Project site from unauthorized entry.

1.5 Temporary Telephone Service

- A. No telephones will be provided by Owner.
- B. Contractor to provide telephone service as required.

1.6 Temporary Water

A. Sources of water are available at the site. The Owner will pay for reasonable amounts of water used for construction purposes.



- B. The Contractor shall provide, at the earliest possible date, temporary connections to the water supply sources and maintain adequate distribution for all construction requirements. The Contractor shall protect sources against contamination and damage.
- C. Methods of conveying this water shall be approved by the Engineer and shall not interfere with the Owner's operations.
 - Prevent wasteful use of water. Protect system from freezing.

1.7 Temporary Heat

A. Provide temporary heat required by construction activities, for storing temperature-sensitive materials, for installing materials, for curing or drying of completed installations or protection of installed construction from adverse effects of low temperatures or high humidity. Maintain air temperature at a minimum of 50°F inside parking structure. Select safe equipment that will not have a harmful effect on completed installations or elements being installed.

1.8 Temporary Sanitary Facilities

- A. Contractor shall not use Owner's sanitary facilities.
- B. Contractor shall provide, pay for, and maintain sufficient and approved toilets with weather-proof enclosures all satisfactory to the local board of health and the Owner. Keep clean and sanitary at all times. Location shall be approved by Owner.

1.9 Existing and Temporary Fire Protection

- A. Contractor shall provide adequate fire protection and fire prevention for the Project and in no case less than that required by applicable City, County, State, and Federal Laws.
- B. The existing fire protection sprinkler system is to remain operational for the duration of the Contract.
- C. Protect existing system from damage. Provide secure shoring where existing hangers are damaged or undermined.
- D. Damage to sprinkler system caused by the Contractor's failure to provide adequate shoring or protection will be repaired by the Owner. Contractor will be back charged for all related repair expenses.

1.10 Existing Utilities

- A. Do not disturb existing utilities servicing adjacent buildings without written permission from Owner.
 - 1. Request shall be in accordance with utility implementation and termination schedule. When an implementation and termination schedule are not required, request shall be made not less than 10 days prior to such request for interruption.
 - 2. Damage to utilities shall be repaired immediately, to the full satisfaction of the Owner.
 - 3. Unscheduled interruptions of utilities shall be corrected immediately, to the full satisfaction of the Owner.



1.11 **Protection of Existing Trees and Vegetation**

- Α. Protect existing trees and other vegetation indicated to remain in place, against damage to roots, trunks or branches. Do not stockpile construction materials or excavated materials within drip line. Provide temporary guards to protect trees and vegetation to be left standing.
- Repair or replace trees and vegetation damaged by construction operations, in a manner B. acceptable to the Engineer. Use a qualified tree surgeon to repair tree damage.

1.12 **Protection of Works**

- The Contractor shall obtain the advice and recommendations of his installers for procedures to Α. protect their work. Installers are responsible for protecting their work and that of other trades while working at the job site or in an area thereof. When the installer is no longer working in the area or at the job site, the Contractor shall provide protective measures and materials to assure that each element will be without damage or deterioration (other than normal weathering for exterior exposed materials) throughout the remainder of the construction period up to the date of substantial completion. Remove protective coverings and materials at the appropriate time, but no later than final cleaning operations.
- B. Provide protective coverings at walls, projections, jambs, sills, and soffits of openings. Protect finished floors and stairs from traffic, movement of heavy objects, and storage.
- The general contractor shall maintain work area free of water; provide, operate, and maintain C. pumping equipment. Discharge water in accordance with requirements of public authorities.

1.13 **Temporary Access**

- The Contractor shall not barricade, lock, or otherwise block Plaza Level emergency exiting from Α. the building during construction.
- Provide necessary signage at each building exit to notify Public "Exit closed due to construction B. - emergency exit only."
- C. Provide temporary timber ramps/stairs at each building entry/exit (following removal of existing stair or ramp) to remain in place at all times, except as required for construction (Replace after each shift).
- D. Construction temporary ramps and stairs to meet all code safety requirements, including handrails, etc. Maintain until no longer required.

First Aid 1.14

A. Contractor shall provide a first aid kit with adequate provisions for the materials being used on site. Contractor shall maintain an envelope to hang above the first aid kit which will contain all of the Health and Safety Data Sheets for materials being used on this Project.



1.15 Use of Parking Areas

A. The Contractor shall not provide parking for their employees and subcontractors on the premises outside their work areas without paying for the spaces.

1.16 Barricades

A. Refer to Section 01 5600.

1.17 Security

- A. The Contractor shall be responsible for the security of his work area and equipment.
- B. Adequate precautions shall be taken to prevent unauthorized personnel from entering the job site.

1.18 Dust and Fume Control

- A. Contractor shall take all necessary precautions to keep dust confined in the present work area.
- B. Contractor shall be responsible for any damage to vehicles due to the construction.
- C. Contractor shall submit to the Owner, for approval, proposed methods used to contain dust and fumes in work area.
- D. Prevent hazardous accumulations of dusts, fumes, mists, vapors or gases in areas occupied during construction. Provide local exhaust ventilation to prevent harmful dispersal of hazardous substances into atmosphere of occupied areas. Dispose in manner that will not result in harmful exposure to persons. Ventilate storage spaces containing hazardous or volatile materials.
- E. Water shall be used during concrete removal, saw cutting, etc. to contain dust.

1.19 Debris Control

A. Contractor shall remove all debris from areas exposed to public view on a weekly basis or more often as required to maintain a neat, clean site and dispose of same at authorized dump sites.

1.20 Construction Loads

A. Maximum construction loads of 30 pounds per square foot will be allowed on the parking ramp during construction.

1.21 Noise Control

A. Contractor shall review with the Owner the types of equipment which he proposes to use during normal business hours and obtain Owner's approval for such use.

B. Conform with local city noise ordinance.

1.22 Staging Area

A. Contractor shall provide staging area if outside the parking structure.

1.23 Temporary Field Offices and Buildings

- A. Contractor to provide temporary field offices and other temporary buildings for storage, tools, employee clothes, change convenience and other activities required. Location to be approved by the Owner.
- B. Temporary field office shall be equipped with telephone, answering machine, telefax, and plan layout table. The construction office and all storage shall be in temporary sheds or trailers. Provide and maintain fire-fighting equipment for all temporary buildings. Upon completion of the Project, remove temporary buildings and structures from this site assuming all costs in connection with their removal.
- C. Contractor's field office to have conference table and chairs sufficient for at least 12 persons.

1.24 Engineer's Field Office

A. Provide a separate space not less than 10 feet by 10 feet for the Engineer's use. Provide this office with a door lock, suitable window with screen, furnishings consisting of a work table approximately 4 feet by 8 feet, drawing racks, chair, file cabinet, telephone service, lamp and wastebasket. Supply the Engineer's representative with all necessary keys. Maintain the building, until the project is complete, including cleaning, furnishing, telephone service (not phone bills), heating, air conditioning, and lighting. Engineer will use credit card for all long distance phone calls.

1.25 Jobsite Documents

- A. The Contractor shall be provided with one set of the original drawings referenced in Section 00500 and five sets of construction Drawings and Specifications. Additional sets will be provided upon request at cost.
- B. The Contractor shall keep in the field office at all times, in addition to above, the following items:
 - 1. The most recent revision of the Drawings and specifications, including all changes made by addenda, sketches, bulletins, and change orders.
 - 2. Applicable American Concrete Institute (ACI) Standards, including:
 - ACI 301 Specification for Structural Concrete for Buildings
 - ACI 304 Recommended Practice for Measuring, Mixing, Transporting, and Placing Concrete
 - ACI 305 Hot Weather Concreting
 - ACI 306 Cold Weather Concreting
 - ACI 308 Standard Practice for Curing Concrete
 - ACI 309 Standard Practice for Consolidation of Concrete
 - ACI 347 Recommended Practice for Concrete Formwork
 - ACI 318 Building Codes Requirements for Reinforced Concrete
 - 3. Health and Safety Data Sheets



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- 4. The most recent issue of approved submittals. Obsolete or unapproved Submittals and Health and Safety Data Sheets shall not be kept at the jobsite.
- 5. All material evaluation reports.

1.26 Elevators

A. Contractor's personnel and subcontractor shall not use parking structure elevators for transportation of materials or equipment.

1.27 Thermometer

- A. Install an official project thermometer in a conveniently readable location, which will give reasonably accurate readings of the actual temperatures, and which can be reached easily for resetting. Instrument: Resettable type indicating daily maximum and minimum temperatures. Keep a permanent daily log of those readings; provide copy of this log in daily report.
- B. Install maximum/minimum thermometers in each work area. Keep a permanent daily log of readings, provide copy of log in daily report.

1.28 Video Tape Existing Conditions

A. Prior to beginning work, Contractor shall produce a video record of existing conditions in work areas, with emphasis on the commercial space. Provide three copies of video to the Owner. Coordinate walk-through production with Owner and Engineer.

SECTION 01 5526 - TEMPORARY TRAFFIC CONTROL

PART 1 - GENERAL

1.1 Related Documents

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

1.2 Traffic Control

- A. Within 15 days after execution of the Contract, determine the vehicle and pedestrian traffic flow and the signage for each phase of construction to maintain the traffic flow throughout the parking structure.
- B. Provide and maintain all drive lanes, entrances, exits, and safeguards required or necessary to the progress of the Work, and effectively control such traffic in a manner to provide minimum hazard to the Work and all persons.
- C. Route all construction equipment, trucks, and similar vehicles via existing public streets to and from the structure as approved by the governing authorities and the Owner.
- D. Maintain constant access for police, fire, and ambulance service.
- E. Provide and maintain proper control of traffic and safety of all concerned, including all necessary barricades, suitable and sufficient lights, reflectors and danger signals, warning and closure signs and directional signs.
- F. Indicate by day and by night all restricted and dangerous conditions existing on or adjacent to the structure. Illuminate at night all barricades and danger signals, warning signs and obstructions. Keep all lights burning from sunset until sunrise.
- G. Vehicle and pedestrian traffic flow inside and outside of the structure shall be maintained to provide easy entry and exit from the structure and to all parking areas.

1.3 Signage

- A. Provide and maintain traffic signs throughout the duration of the Project to assist in traffic direction.
- B. Provide signs necessary to inform visitors and employees of closings and traffic flow modifications, both inside and outside of the structure. Sign wording, appearance and placement shall be approved by Owner.
- C. Work will not be permitted to proceed until required signage is in place.

1.4 Reference Standards



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- A. Comply with the following reference standard; except where more stringent requirements are indicated on the Drawings or specified herein:
 - 1. Federal Highway Administration.
 - a. Part VI Standards and Guides for Traffic Controls for Street and Highway Construction, Maintenance, Utility and Incident Management Operations. Part VI of the Manual on Uniform Traffic Control Devices. (MUTCD).

PART 2 - PRODUCTS

- **2.1** Frames may be new or used, wood or metal, in sound condition and structurally adequate.
- 2.2 Signs shall be a minimum of half-inch exterior grade plywood.
- **2.3** Lettering shall be a minimum height of four inches and stenciled.
- 2.4 Paint shall be exterior quality and the color of the lettering shall be black on a highway orange background.

PART 3 - EXECUTION

- **3.1** Install at a height of optimum visibility, on frames or attached to structural surfaces.
- **3.2** Relocate support signs as required by progress of the Work.
- **3.3** Maintain signs and supports in a neat, clean condition; repair damages to support or sign.
- **3.4** Remove any signs, framing, and supports at completion of Project.



SECTION 01 5600 - TEMPORARY BARRIERS AND ENCLOSURES

PART 1 - GENERAL

1.1 Related Documents

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

1.2 Barricades

- Α. Provide and maintain suitable barricades as required to prevent public entry, and to protect the Work, existing facilities, trees and plants from construction operations; remove when no longer needed, or at completion of Work, Barricades shall conform to city and state laws, ordinances. permit requirements.
- B. The Contractor shall provide and maintain all necessary barricades for safe conduct of his work, or as required by federal, state, or local laws or ordinances and in accordance with OSHA requirements and other requirements of this Specification.
- C. Construct and maintain 5-foot-wide covered pedestrian walkways, railings, and fences in strict accordance with all applicable codes for protection of pedestrians and parking structure users. Automobile traffic on adjacent streets shall also be protected at all times.
- D. Provide and maintain suitable barricades as required for protection of open excavations and post with warning lights.

1.3 Enclosures

- Α. Enclosures shall be sufficient to prevent entrance/exit or infiltration of rain, water, wind, or other elements, and which will prevent undue heat loss from within an enclosed area.
- B. Provide adequate ventilation and protection to provide construction personnel with a safe working environment.
- C. Prevent hazardous accumulations of dusts, fumes, mists, vapors, or gases in areas occupied during construction. Provide local exhaust ventilation to prevent harmful dispersal of hazardous substances into the atmosphere of occupied areas. Dispose in a manner that will not result in harmful exposure to a person. Ventilate storage spaces containing hazardous or volatile materials.
- D. Contractor shall submit to the Owner, for approval, proposed methods used to contain dust and fumes in work area.
- E. Contractor shall be responsible for any damage to vehicles due to the construction.
- F. Enclosures shall not be placed at locations which cut off access to emergency exits or stairways without prior approval of the Engineer. The enclosure erected by the Contractor shall prevent unauthorized persons from entering the work area.



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G. It is the Contractor's responsibility to ventilate the work area. Exhaust air from the work area shall be filtered and forced into the existing building exhaust system which will be operating continuously during the construction period. The filters shall be changed daily or more frequently or as directed by the Owner. Equipment exhaust must be vented to the outside of the structure in a manner that does not violate air quality standards.

1.4 Construction/Maintenance

A. Contractor shall be responsible for design, construction and maintenance of all barricades and enclosures.

PART 2 - PRODUCTS

2.1 Materials may be new or used, suitable for intended purposes.

PART 3 - EXECUTION

3.1 Installation

- Α. Install barricades and enclosures of a neat and reasonable uniform appearance, structurally adequate for the required purposes.
- B. Maintain barricades and enclosures during the entire construction period. Relocate barricades and enclosures as required with progress of construction.

3.2 Removal

- Completely remove barricades and enclosures when construction has progressed to the point Α. that they are no longer needed.
- B. Clean and repair damage caused by installation of barricades and enclosures.



SECTION 01 7423 - FINAL CLEANING

PART 1 - GENERAL

1.1 Related Documents

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

1.2 Work Included

A. Facilities, equipment and labor for cleaning and waste disposal during construction and for final cleaning.

1.3 Responsibilities

- A. Contractor and each subcontractor and installer is responsible for specific cleaning operations of his work to the extent specified in the appropriate Specification Sections.
- B. Employ workmen or professional cleaners experienced in the specific cleaning operations.

1.4 Cleanup

- A. Conduct clean up and disposal operations to comply with applicable anti-pollution laws and local ordinances.
 - 1. Burning or burying of waste materials on the project site is not permitted.
 - 2. Disposal of volatile fluids and wastes in storm or sanitary sewers, or into streams or waterways, is not permitted.

PART 2 - PRODUCTS

2.1 Cleaning Materials

A. Use cleaning materials for surfaces as recommended by Manufacturer.

PART 3 - EXECUTION

3.1 Cleanup

- A. At the time each work task is completed, clean the area involved to a condition suitable for occupancy and restore minor or superficial damage. Replace units and elements which are damaged beyond successful repair.
- B. Oversee cleaning and ensure that building, grounds, and public properties are maintained free from accumulation of waste materials and rubbish.



- C. Take measures to prevent spread of trash, debris, cartons, packaging or other waste materials on or off the project site by wind.
- D. Sprinkle dusty debris with water.
- E. At reasonable intervals during progress of work, clean up site and access and dispose of waste materials, rubbish and debris.
- F. Clean adjacent and nearby streets of dirt occasioned by construction operations; frequency and methods as required by governing authority.
- G. Clean all surfaces of concrete paste.

3.2 Disposal

- A. Each Contractor or Subcontractor, in addition to the responsibilities set forth in the General Conditions, shall at all times keep the premises free from accumulation of waste materials or rubbish caused by the Work or his employees.
- B. Establish and enforce a daily system for collecting and disposing of waste materials from construction areas and elsewhere at the project site. Provide suitable trash containers at a central collection point on the site. Provide chutes or other suitable means for removing trash safely and cleanly from elevated portions of the work.
- C. Contractor and each Subcontractor and Installer is responsible for cleaning and removal of his trash and debris to the collection point.
- D. Do not hold collected materials at the site for periods of more than seven days. Handle hazardous, dangerous or unsanitary wastes separately from other waste materials, by containerizing properly. Dispose of each category of waste material in a lawful manner. Comply with federal, state, and local regulations for removal of combustible waste material and debris.
- E. Concrete debris shall be removed from the site and legally disposed of by concrete installer.

3.3 Project Closeout

- A. At the completion of the Project, the Contractor shall restore or replace all property damaged by his Work.
- B. Final cleaning shall include, as a minimum:
 - 1. Remove grease, paint, dust, soil, stains, labels, fingerprints, writing, and other foreign materials from sight-exposed interior and exterior finished surfaces.
 - 2. Clean all hardware.
 - 3. Clean all plumbing fixtures.
 - 4. Clean all lighting fixtures.
 - 5. Repair, patch and touch up marred surfaces to specified finish to match adjacent surfaces.
 - 6. Clean all maintenance, storage and mechanical rooms in parking structure.
 - 7. Water blast floor surfaces at all Levels of Work performed.



SECTION 01 7700 - CLOSEOUT PROCEDURES

PART 1 - GENERAL

1.1 Related Documents

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

1.2 Cleaning and Closeout

- A. Refer to Section 01 7423 Final Cleaning for final cleaning of jobsite.
- B. A punch list consisting of copies of the plans showing locations of unacceptable items and an attached explanation of the nature of the unacceptable work shall be delivered to the Contractor after substantial completion of the Project.
- C. The Contractor shall submit "Record Drawings" after substantial completion of the project. The "Record Drawings" shall include, but not be limited to, the copies of the Drawings incorporating all changes and bulletins (enclosed in clouds), all shop drawings incorporating all changes (enclosed in clouds), and all approved submittals. Any dimensions beyond the tolerances of those established by nationally recognized standards for the specific CSI division or section applicable shall be included on the record drawings.
- D. Record Drawings shall also include location and size of all concrete patches and cracks.
- E. Closeout submittals include, but are not limited to, the following:
 - 1. Project record documents
 - 2. Operation and maintenance data
 - 3. Keys and keying schedule
 - 4. Spare parts
 - 5. Maintenance manuals
 - 6. Extra stock
 - 7. Certificate of Inspection
 - 8. Warranties
- F. Evidence of payments and release of liens:
 - 1. Contractor's Affidavit of Payment of Debts and Claims: AIA G706.
 - 2. Contractor's Affidavit of Release of Liens: AIA G706A, with:
 - a. Consent of Surety to Final Payment: AIA G707
 - b. Contractor's release of waivers of lien for subcontractors, suppliers and others with lien rights against property of Owner, together with list of those parties.

1.3 Project Record Documents

- A. Maintain at Project site, one copy of:
 - 1. Contract Drawings (blueline prints)
 - 2. Project Manual, including agenda
 - 3. Approved Shop Drawings
 - 4. Change Orders and Field Change Authorization
 - 5. Other modifications to Contract
 - Field test records.



- B. Store documents in temporary field office apart from documents used for construction. Provide files and racks for storage of documents.
- C. Maintain documents in clean, dry, legible conditions; do not use record documents for construction purposes.
- D. Make documents available at all times for inspection by Engineer and Owner.
- E. Contract Drawings: Legibly mark using a red pencil for all graphic work and red ink for all written work to record actual construction:
 - 1. Depths of various elements of foundation in relation to first floor level.
 - 2. Field changes of dimension and detail.
 - 3. Changes not made by change order and field change authorization.
 - 4. Details not on original Contract Drawings.
- F. Specifications and Addenda: markup each Section to record:
 - 1. Manufacturer, trade name, catalog number and supplier of each product and item of equipment actually installed.
 - 2. Change made by change order, field change authorization and notice of clarification.
 - 3. Other matters not originally specified.
- G. Shop Drawings: Maintain as record documents; legibly annotate Shop Drawings to record changes made after approval.
- H. At completion of Project, deliver Record Documents to Engineer.

1.4 Warranties and Bonds

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

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

PART 2 - PRODUCTS Not used.

PART 3 - EXECUTION 3.1 Not used.



SECTION 02 4119 - SELECTIVE DEMOLITION

PART 1 - GENERAL

1.1 Related Documents

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

1.2 Work Included

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

1.3 Related Work

A. The following Work is related to this Section:

. Concrete Repair

2. Concrete Reinforcement

1.4 Quality Control

- A. After demolition is complete but prior to final cleaning, the cavities and all exposed reinforcement (including tendons) shall be reviewed by the Engineer. The review shall include sounding the exposed concrete to determine completeness of delamination removals, examination of dressed edges to verify depth and vertical edge of cut, and uniformity of excavation to insure compliance with minimum limits specified.
- B. The Engineer shall review all reinforcement exposed within the cavities for corrosion or damage resulting from Contractor's removal operations. Replacement of defective or damaged reinforcement bars shall be performed in accordance with Section 03 2000, Concrete Reinforcement.

1.5 Submittals

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

1.6 Basis of payment

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



Section 03 0130

Section 03 2000

PART 2 - PRODUCTS

2.1 Not Used

PART 3 - EXECUTION

3.1 Inspection

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

3.2 General

Adjacent buildings may be affected by construction fumes, dust, etc. Review with Owner.

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

3.3 Delaminated Concrete Surface Preparation

- A. Location and Marking of Work Areas
 - 1. Locate floor slab delaminations by sounding the surface with a hammer or rod, or dragging a chain. The Contractor shall sound all floor slabs. Delaminated areas once



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

B. Concrete Removal and Surface Preparation

- All concrete shall be removed from within the marked boundary to a minimum depth as
 indicated on the Drawings using 15 to 30 pound chipping hammers equipped with chisel point
 bits. Larger chipping hammers with a maximum stroke of 4 inches shall not be used without
 approval from the Engineer. If delaminations exist beyond the minimum removal depth, then
 chipping shall continue until all unsound and delaminated concrete has been removed from the
 cavity.
- Where reinforcing bars are exposed by concrete removal, extra caution shall be exercised to avoid damaging them during removal of additional unsound concrete. The minimum depth of concrete removal around and beyond the perimeter of the bar for the entire exposed length shall be as indicated on the Drawings.
- 3. If rust is present on reinforcing bars where they enter sound concrete, then additional removal of concrete along the reinforcement is required. Such additional removal shall continue until grey reinforcement is exposed. If rust persists beyond the removal limits, the Engineer shall be advised and will direct further removals.
- 4. Delaminated, spalled and unsound concrete shall have their marked boundaries sawcut to a depth as indicated on the Drawings. All edges shall be straight and patch areas polygon shaped. A diamond blade saw or grinder with abrasive disk suitable for cutting concrete is acceptable for performing this work. The edge cut at the delamination boundary shall be dressed perpendicular to the member face. It shall also be of uniform depth for the entire length of the cut.

C. Preparation of Concrete Bonding Surface

- 1. Abrasive blast or high pressure waterblast all exposed concrete surfaces to remove laitance and any foreign material that may impair bonding prior to concrete placement.
- D. Cleaning and Securing of Reinforcing
 - Refer to Section 03 2000, Concrete Reinforcement. Existing reinforcing and miscellaneous metals shall be cleaned of rust and laitance to near white metal.

E. Final Preparation

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

3.4 Stain Removal

A. Existing beams, columns, walls, and ceilings which have been stained by previous leaking or leaching should be cleaned through abrasive blasting, water blasting, grinding, or other mechanical means. All evidence of previous leaking and leaching is to be removed.



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3.5 Disposal

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



SECTION 03 0130 - CONCRETE REPAIR

PART 1 - GENERAL

1.1 Work Included

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

1.2 Related Work

- A. Related work specified elsewhere:
 - 1. Section 02 4119 Selective Demolition
 - 2. Section 07 9200 Joint Sealants

1.3 Reference Standards

- A. Comply with the following reference Standards; except where more stringent requirements are indicated on the Drawings or specified herein:
 - 1. American Concrete Institute (ACI)
 - a. ACI 117 Standard Tolerances for Concrete Construction and Materials.
 - b. ACI 201.2R Guide to Durable Concrete.
 - c. ACI 222R Corrosion of Metals in Concrete.
 - d. ACI-301 Specifications for Structural Concrete for Buildings.
 - e. ACI-302.1R Guide for Concrete Floor and Slab Construction.
 - f. ACI 304R Guide for Measuring, Mixing, Transporting and Placing Concrete.
 - g. ACI 305R Hot Weather Concreting.
 - h. ACI 306R Cold Weather Concreting.
 - i. ACI 306.1 Standard Specification for Cold Weather Concreting.
 - j. ACI 318 Building Code Requirements for Structural Concrete and Commentary.
 - k. ACI 347R Guide to Formwork for Concrete.
 - 2. International Concrete Repair Institute (ICRI)
 - a. ICRI Concrete Repair terminology
 - b. ICRI Technical Guideline No. 320.2R "Guide for Selecting and Specifying Materials for Repair of Concrete Surfaces".
 - c. ICRI Technical Guideline No. 320.1R "Guide for Surface Preparation for the Repair of Deteriorated Concrete from Reinforcing Steel Corrosion".

1.4 Quality Control

- A. The patched areas shall be sounded with a hammer 7 days after placement. Repair all detected hollowness by removing and replacing the patch or affected area at no extra cost to the Owner.
- B. If shrinkage cracks appear in the repair material within 72 hours after placement, the repairs shall be considered defective, and shall be removed and replaced at no extra cost to the Owner.



- C. Plan drawings shall be maintained locating all repairs performed under this Section. Location and size of patches, overlays, etc. must be located on clean drawings. Separate drawings shall be maintained for each Level and Ceiling plan. These drawings shall be incorporated into record set required per Division 1.
- D. The Contractor, or Restoration Subcontractors, shall have not less than five (5) years experience in the field of structural concrete restoration work.

1.5 Warranty

A. Contractor shall provide single source warranty against cracks, spalls or defects. Warranty duration shall be one (1) year from date of project acceptance.

1.6 Environmental Requirements

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

1.7 Submittals

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

1.8 Transportation and Handling

- A. Store materials on platforms off ground, protected from the elements.
- B. Handle and store aggregates in a manner to prevent intrusion of foreign material. Protect all material until used.
- C. Material which has deteriorated or which has been damaged shall not be used.

1.9 Basis of Payment

- A. All patching quantities shall be measured on a unit cost basis. Refer to Bid Forms.
- B. Depth of patches are as indicated on the Drawings. Minimum depth if not shown shall be 2 inches.



C. Submit copy of drawings identifying current quantities with each payment request. Work being invoiced must be properly identified. These drawings shall be incorporated into record set required per Division 1.

PART 2 - PRODUCTS

2.1 Horizontal Repair Mortar

- A. Repair mortar to be traffic bearing, polymer modified with corrosion inhibitor, cementitious, type and thickness to meet conditions as indicated on the Drawings.
- B. For deeper patches add aggregate per Manufacturer's recommendation.
- C. Acceptable repair mortar for patching horizontal surfaces is:
 - 1. Sikacrete 211 (pre-extended), with macro synthetic fibers, Sika Chemical Corp., Lyndhurst, NJ.
 - MasterEmaco T 1061EX (pre-extended), with macro synthetic fibers, BASF, Shakopee, MN
 - 3. MasterEmaco T 430, extended with stone aggregate, BASF, Shakoppe, MN.
 - 4. Planitop 11 (pre-extended), with macro synthetic fibers, Mapei, Deerfield Beach, FL

2.2 Horizontal Repair Mortar (Rapid Set for areas that need to turn around quicker)

- A. Repair mortar to be traffic bearing, rapid setting, polymer modified cementitious, type and thickness to meet conditions as indicated on the Drawings.
- B. For deeper patches add aggregate per Manufacturer's recommendations.
- C. Acceptable rapid setting repair mortar for patching horizontal surfaces are:
 - SikaQuick 2500 extended with stone aggregate and macro synthetic fibers, Sika Corp., Lyndhurst, NJ.
 - 2. MasterEmaco T 1060EX (pre-extended), with macro synthetic fibers, BASF, Shakopee, MN.
 - 3. Planitop 18ES extended with stone aggregate and macro synthetic fibers, Mapei, Deerfield Beach, FL

2.3 Vertical Overhead Repair Mortar

- A. Repair mortar to be polymer modified cementitious, with corrosion inhibitor, type and thickness to meet conditions as indicated on the Drawings.
- B. Trowel Applied Acceptable repair mortar with corrosion inhibitor for patching vertical surfaces are:
 - 1. Sika Monotop 615 or Sika Repair SHB with Sika Latex R, Sika Corp., Lyndhurst, NJ.
 - 2. MasterEmaco N 425, BASF, Shakopee, MN.
 - 3. Planitop XS, Mapei, Deerfield Beach, FL.



- Form and Pour Acceptable repair mortar with corrosion inhibitor for patching vertical surfaces are:
 - 1. MasterEmaco S 466CI or S 477CI, BASF, Shakopee, MN.
 - 2. Sikacrete 211 SCC Plus, Sika Corp., Lyndhurst, NJ
 - 3. Planitop 15 or FD, Mapei, Deerfield Beach, FL
 - 4. Or Approved Equivalent

2.4 Surface Applied Corrosion Inhibitor

- A. Field-applied epoxy modified coating with Anti-Corrosion Agent (two coats at 10 mils) for existing reinforcement and miscellaneous metals embedded in concrete.
- B. Acceptable surface applied corrosion inhibitors are:
 - 1. Sika Armatec 110 Epo Cem, Sika Corporation.
 - 2. MasterEmaco P 124, BASF, Shakopee, MN.
 - 3. Mapei Mapefer 1k, Mapei, Deerfield Beach, FL
- **2.5 Macro Synthetic Fibers –** Post Crack Control for concrete patches.
 - A. Monofilament Polypropylene/Polyethylene blend. 2" in length. Dosage rate of 5 lbs per cubic yard or as indicated on Drawings.
 - B. Tensile strength of fiber shall be a minimum of 90 ksi.
 - C. Modulus of Elasticity shall be a minimum of 1300 ksi.
 - D. Meet requirements of ASTM C 1609 and have a minimum Re3 Value of 20.
 - E. Acceptable materials are:
 - 1. STRUX 90/40 Synthetic Macro Fiber Reinforcement, W.R. Grace & Co.
 - 2. Fibermesh 650 Macrofibers, Propex Concrete Systems
 - 3. Tuf-Strand SF, Euclid Chemical Company
 - 4. Forta Ferro, Forta Corporation
 - 5. Or Approved Equivalent.

PART 3 - EXECUTION

3.1 Inspection

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

3.2 Surface Preparation

A. Refer to Section 02 4119, Selective Demolition



3.3 Surface Applied Corrosion Inhibitor

- A. Prior to placement of slab patch concrete, apply surface applied corrosion inhibitor evenly to the lean and dry patch perimeter surface using three applications. Each application shall be at a rate of 125 SF per gallon in accordance with Manufacturer's written procedures.
- B. Allow surface applied corrosion inhibitor to fully cure, and then remove any residual potentially bond-breaking inhibitor from the surface, prior to applying repair mortar, waterproof membrane, etc.

3.4 Existing Reinforcement

A. Must be cleaned to shiny metal and coated prior to concrete placement.

3.5 Placing Concrete Patching Materials

- A. The mixing and installing of the concrete patching materials and the priming of the existing concrete surface shall be in accordance with the Manufacturer's recommendations.
- B. Concrete patching materials shall be cured according to the Manufacturer's recommendations.

END OF SECTION 03 0130



SECTION 03 2000 - CONCRETE REINFORCEMENT

PART 1 - GENERAL

1.1 Related Documents

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.
- B. ACI 301 Standard Specifications for Structural Concrete and ACI 117 Standard Specifications for Tolerances for Concrete Construction and Materials are hereby a part of this Section. Specific project requirements or modifications are specified herein.
- C. A copy of ACI SP-15 Field Reference Manual; Standard Specifications for Structural Concrete ACI 301 with selected ACI and ASTM references shall be kept in Contractor's field office.

1.2 Work Included

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

1.3 Related Work

- A. Related work specified elsewhere:
 - 1. Section 03 0130 Concrete Repair

1.4 Reference Standards

- A. Comply with following reference standards, except where more stringent requirements are indicated on Drawings or specified herein.
 - 1. American Concrete Institute (ACI)
 - a. As indicated in Section 03 3000, Cast-In-Place Concrete and as specified herein.
 - 2. American Welding Society (AWS)
 - a. AWS D1.4 Structural Welding Code Reinforcing Steel, latest edition.
 - 3. Concrete Reinforcing Steel Institute (CRSI), latest edition.
 - a. Placing Reinforcing Bars
 - b. Reinforcement Anchorages and Splices
 - c. Fabrication of Epoxy-Coated Rebar
 - d. Field Handling Techniques for Epoxy-Coated Rebar at the Job Site
 - e. Manual of Standard Practice
 - 4. Wire Reinforcement Institute (WRI), latest edition.



- a. Manual of Standard Practice Structural Welded Wire Fabric
- b. Structural Detailing Manual
- 5. American Society for Testing and Materials (ASTM), latest edition.
 - As specified herein.

1.5 Quality Control

- A. Materials and installed Work may be reviewed by Engineer at any time during progress of Work. Allow free access to facilities for this purpose. Provide 48 hours notice to inspect completed reinforcing prior to placement of concrete.
- B. Refer to Section 01 4100 Testing Laboratory for inspection requirements of concrete reinforcement.
- C. If in opinion of Engineer, cross-sectional area loss of bars is greater than **15 percent**, Contractor shall splice as directed by Engineer. Minimal splice lap shall be as indicated on Drawings.

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

- A. For review and approval placing drawings complying with ACI SP-66 Detailing Manual.
- B. For review and approval, Health and Safety Data Sheets and Manufacturer's Spec Data Sheets for field-applied epoxy coating and cold galvanizing compound.
- For review and approval upon request certification that epoxy coating for steel reinforcement meets applicable standards.
- D. For review and approval certification that epoxy coating meets CRSI Epoxy Coating Plant Certification Program.

1.7 Samples

A. Submit minimum of one sample upon request for review and approval of each type and grade of bar support and splice device.

1.8 Transportation and Handling (ACI 301 3.12) Additional requirements as follows:

- A. Deliver all reinforcement to project site bundled, tagged and marked. Tags shall indicate bar sizes, lengths and other information corresponding to markings indicated on placing drawings.
- B. Store reinforcement on supports above ground level. Protect from weather.
- C. Deliver and store welding electrodes in accordance with AWS D1.4.
- D. Epoxy-coated reinforcement
 - Comply with requirements of ASTM D 3963/D 3963M-96 Fabrication and Jobsite Handling of Epoxy-Coated Reinforcing Steel Bars and CRSI Field Handling Techniques for Epoxy-Coated Rebar at the Job Site.



E. If reinforcement is to be stored on site for more than 1 month before placement, cover reinforcement with opaque polyethylene sheeting, properly secured. Do not store reinforcement at job site unprotected over winter.

1.9 Basis of Payment

- A. Reinforcement is to be included in cost of concrete placement.
- B. Provide additional pounds of placed reinforcement, for inclusion in project as Engineer directs. Refer to Bid Form.

PART 2 - PRODUCTS

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

- A. Reinforcement
 - 1. ASTM A615, grade 60, unless noted.
- B. Reinforcement to be welded.
 - 1. ASTM A706, Grade 60.
- C. Epoxy-Coated Reinforcement
 - 1. ASTM A775.
- D. Welded Wire Fabric Reinforcement (rolls not accepted)
 - 1. ASTM A1064, Carbon-Steel Wire and Welded Wire Reinforcement, Plain and Deformed
 - 2. ASTM A884, Epoxy-Coated Steel Wire and Welded Wire Reinforcement.
- E. Wire Reinforcement Supports (ACI 301 3.2.1.8)
 - 1. Provide CRSI Class 1 plastic-protected wire bar supports for reinforcement in contact with formwork, including bolsters, chairs, spacers and other devices for spacing, supporting, and fastening reinforcing bars in place.
 - 2. Provide CRSI Class 1-A epoxy, vinyl, or plastic-coated bright basic wire bar supports for epoxy reinforcement in contact with formwork, including bolsters, chairs, spacers and other devices for spacing, supporting, and fastening reinforcing bars in place.

F. Tie Wire

1. Tie wire shall be plastic or vinyl coated for all epoxy coated reinforcement, and post-tensioning tendons.

G. Splices

- 1. Mechanical splices as indicated on Drawings shall develop in tension or compression at least 125 percent of specified yield strength of bar.
- 2. Epoxy coat mechanical splices where required to match epoxy coated reinforcement.
- 3. Acceptable splices are:



- a. Lenton Taper Threaded Splices, Erico Products, Inc., Solon, OH
- b. Lenton Lock, , Erico Products, Inc., Solon, OH
- c. Bar Grip, Bar Splice Products, Inc., Dayton, OH
- d. Bar Lock mechanical coupler system, Dayton Superior, Miamisburg, OH.
- e. or Approved Equivalent.

H. Terminations

- 1. Reinforcement terminations shall develop a minimum of 125 percent of reinforcing steel strength.
- ASTM A 576.
- 3. Epoxy coat terminators where required to match epoxy coated reinforcement.
- 4. Acceptable terminations are:
 - a. Lenton Terminator, Erico Products, Inc., Solon, OH.
 - b. Taper-Lock End Anchor Disk, Dayton Superior, Miamisburg, OH.
 - c. BPI ButtonHead, Bar Splice Products, Inc., Dayton, OH.
 - d. Or Approved Equivalent.

I. Epoxy-Coating for Reinforcement

- 1. Location of epoxy-coated reinforcement is described in General Notes.
- 2. Brown or red coatings are not permitted.
- 3. Fabrication of epoxy-coated reinforcement shall conform to ASTM D 3963/D 3963M and CRSI Fabrication of Epoxy-Coated Rebar.
- 4. Acceptable shop-applied fusion-bonded epoxy coatings are:
 - a. Scotchkote 413, The 3M Company
 - b. NAP-GARD 7-2709 Rebar, DuPont Power Coatings
 - c. or Approved Equivalent.

J. Epoxy Patch Compound

- 1. Use patching compounds recommended by epoxy powder Manufacturer, compatible with shop applied epoxy coating and inert in concrete.
- 2. Acceptable patching compounds are:
 - a. Scotchkote 413PC, The 3M Company
 - b. NAP-GARD Rebar Repair Material 7-2727, DuPont Powder Coatings

K. Field-Applied Epoxy Coating

- 1. Field applied epoxy coating for existing reinforcement and miscellaneous metals embedded in concrete.
- 2. Acceptable field-applied epoxy coatings are:
 - a. Sikagard 62 with Tan, Grey, Yellow or Green Pigment, Sika Chemical Corp., Lyndhurst, NJ
 - b. Scotchkote 306, 312, The 3M Co.
 - c. Epogrip, Sonneborn Building Products, BASF.
 - d. or Approved Equivalent.

L. Field-Applied Epoxy Modified Coating



- 1. Field-applied epoxy modified coating with Anti-Corrosion Agent (two coats at 10 mils) for existing reinforcement and miscellaneous metals embedded in concrete.
- 2. Acceptable field applied epoxy modified coatings are:
 - a. Sika Armatec 110 Epo Cem, Sika Corporation.
 - b. MasterEmaco P 124, BASF, Shakopee, MN.
 - c. Mapei Mapefer 1k, Mapei, Deerfield Beach, FL
 - d. Dualprep A.C., Euclid Chemical Company, Cleveland, OH.

M. Field-Applied Cold Galvanizing

- 1. Acceptable Cold Galvanizing compounds are:
 - a. Z.R.C. Cold Galvanizing Compound, ZRC Worldwide, Marshfield, MA.
 - b. or Approved Equivalent.
- 2. Note: Cold galvanizing is not a substitute for epoxy coating. Use only where indicated on Drawings and Specifications.
- N. Reinforcement Chemical Anchorages
 - 1. Provide sizes and types of anchorages as indicated on Drawings.
 - 2. Acceptable embedded anchor systems are:
 - a. HILTI-HY HIT Fastening System, HILTI, Inc. Fastening Systems.
 - b. HILTI HVZ Adhesive Anchors, HILTI, Inc. Fastening Systems.
 - c. Power-Fast +, Power Fasteners.
 - d. Chem Stud, Power Fasteners.
 - e. or Approved Equivalent.

PART 3 - EXECUTION

3.1 Inspection

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

3.2 Fabrication

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

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

- A. Tolerances (ACI 301 3.3.2.1)
 - 1. Comply with Concrete Reinforcing Steel Institute's recommended practice for Placing Reinforcing Bars, for details and methods of reinforcement placement and supports, and as herein specified.
- B. Reinforcement supports (ACI 301 3.3.2.4)



- 1. Arrange, space, and securely tie bars and bar supports to hold reinforcement in position during concrete placement operations. Set wire ties so ends are directed into concrete, not toward exposed concrete surfaces so that concrete cover for tie wire matches cover for reinforcement.
- 2. Supports for bars shall be placed at 4'-0" maximum spacing. Supports shall be placed a maximum of 6 inches from ends of the reinforcement.
- C. Welded wire reinforcement (ACI 301 3.3.2.5)
 - 1. Install in lengths as long as practical. Offset end laps in adjacent widths to prevent continuous laps in either direction.
 - 2. Supports for welded wire fabric shall be placed at 2'-0" maximum spacing.

D. Splices

- 1. Mechanical splices shall be used in lieu of lap splices where specifically detailed on Drawings.
- 2. Welded splices approved by Engineer may be used provided following conditions are met:
 - a. Welders shall be AWS qualified.
 - b. Welded splices to be in accordance with AWS D1.4.
 - c. Contractor shall bear expense of hiring an independent testing agency (approved by Engineer) to inspect and verify quality of field welds.

3.4 Epoxy Coating Inspection and Repair

- A. Uncoated ends of reinforcement must be coated at job site.
- B. Repair is required of all visible damaged areas, if one percent or less of surface area of coating in any three (3) foot length of reinforcement is damaged. If more than one percent of surface area is damaged, reinforcement shall be replaced.
- C. Repair damaged epoxy coating as Engineer directs. Repair shall be performed a minimum of 24 hours prior to concrete placement, unless Contractor submits Manufacturer's data indicating lesser curing time.
- D. Repair of epoxy coating shall not be carried out when temperature of reinforcement or ambient air is 5 degrees C. or below, or when moisture is present.
- E. Inspection and acceptance of epoxy coated reinforcement will be per CRSI Guidelines for Inspection and Acceptance of Epoxy-Coated Reinforcing Bars at the Job site.

3.5 Existing Reinforcement

- A. Existing reinforcement and miscellaneous metal to remain shall be cleaned of rust and laitance to Near White Metal and field epoxy coated in accordance with epoxy coating Manufacturer's recommendations.
- B. Loose reinforcement bars shall be secured by either tying to bonded reinforcement or drilling supplemental anchors and installing tie downs. Lead anchors are not permitted.



- C. Field-applied epoxy cure time must be extended as directed by Engineer during cold weather application.
- D. Field-applied epoxy must be properly cured in a non "tacky" condition prior to concrete placement.
- E. Remove epoxy spillage from adjacent concrete surfaces.

END OF SECTION 03 2000



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SECTION 07 9200 - JOINT SEALANTS

PART 1 - GENERAL

1.1 Related Documents

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

1.2 Work Included

- A. Work of this Section shall include furnishing all labor, materials, equipment, and supervision to install joint sealants, including surface preparation.
- B. Work included by joint sealant Installer shall include deck coatings specified in Section 07 1800, Traffic Coatings.

1.3 Related Work

- A. Following Work is related to this Section:
 - 1. Pavement Markings

Section 32 1723

1.4 Quality Control

A. General

- 1. Joint sealant Installer shall be approved by joint sealant Manufacturer.
- 2. Joint sealant Installer shall have a minimum of five (5) years experience in application of one of approved joint sealant systems and have experience for a project in size of 5.000 LF or greater.
- 3. Manufacturer shall make available a qualified Representative to assist Installer and Engineer as specified herein. Representative shall be experienced in placement of sealant material.

B. Testing Requirements

- Installer to perform adhesion test in presence of Engineer at rate of one test per 1,000 lineal feet of joint. Adhesion test to be performed a minimum of 7 days after installation. Procedure per Manufacturer's standard or as follows:
 - a. Make a knife cut from one side of joint to other.
 - Make two cuts approximately two inches long at sides of joint, meeting first cut at top of two-inch cuts.
 - c. Grasp two-inch piece of sealant and try to pull uncut sealant out of joint.
 - d. If adhesion is adequate, sealant should tear cohesively in itself or be very difficult to adhesively remove from surface.
 - e. Sealant shall be replaced by applying more sealant in same manner as original.
- 2. If test results are unsatisfactory, more frequent testing will be required until satisfactory results are consistently obtained.
- 3. Replace all sealant which proves defective per above test at no additional cost to Owner.



- C. Flow/Leak Test: Contractor shall arrange for and wet all slabs with water for purpose of detecting any defects in waterproofing which would result in leaks and/or inadequate drainage. Slab surfaces shall be wetted until water flows freely to drains. No finished spaces shall be insulated or ceiling installed until drainage test has been completed on slab above and reviewed by Engineer for acceptance.
 - Caulked joints shall be checked for leaks. Potentially leaking joints are located by noting whether
 water from flood test is observed at underside of slabs or running down faces of walls. Leaking
 joints are to be corrected by repairing waterproofing.

1.5 Submittals

A. Action Submittals:

- 1. Manufacturer's Spec Data Sheets of each product to be used.
- 2. Samples of joint sealants, including color(s). Samples may also be requested for chemical analysis.
- 3. Complete description of the joint sealant system including primer, sealant material, and backer rods or bond breakers. Also indicate placement and installation procedures along with material working requirements, shelf life, and performance data.
- 4. Qualifications of Manufacturer's representative.
- 5. Qualification statement of Installer stating projects, size and location.
- 6. Sample Warranty prior to application.

B. Informational Submittals:

- Sequence of sealant placement in structure. The sealant installation shall be coordinated to allow required minimum concrete cure times.
- 2. Material Safety Data Sheets of each product, solvent, or related chemicals to be used and certification that materials conform to local, state and federal environmental and worker's safety laws and regulations.
- 3. Certification that joint sealant system is compatible with all products in Divisions 3, 7, and 9 to which it will come in contact.

1.6 Samples

A. Submit for review and approval, samples of joint sealants, including color(s). Samples may also be requested for chemical analysis.

1.7 Environmental Requirements

- A. Manufacturer and Installer are required to confirm that all materials used in accordance with this Section conform to local, state, and federal environmental and workers' safety laws and regulations.
 - VOC content of materials shall not exceed the limits per Environmental Protection Agency National Volatile Organic Compound Emission Standards for Architectural Coatings (40CFR59).

1.8 Transportation and Handling

- A. Deliver all materials to site in original, unopened containers, bearing following information:
 - 1. Name of product
 - 2. Name of Manufacturer
 - Date of manufacture



- 4. Lot or batch number
- 5. UL labels
- B. Store materials under cover and protected from weather, within Manufacturer's recommended temperature ranges.
- Replace packages or materials indicating any signs of damage with new material at no additional cost to Owner.
- D. At no time shall the weight of stored material placed on a slab area exceed 30 PSF or 2,000 lbs. over 20 square inches.

1.9 Warranty

- A. Provide to Owner a Warranty by Installer and Manufacturer that joint sealant system will be free of defects, water penetration, and chemical damage related to design, workmanship, or material deficiency, consisting of, but not limited to:
 - 1. Surface crazing or other weathering deficiency.
 - 2. Abrasion or tear failure resulting from normal traffic use.
 - 3. Tear failure resulting from anticipated movement.
 - 4. Debonding from substrate or delaminating between layers.
 - Defective installation.
- B. Warranty shall be "Joint and Several" in which Installer and Manufacturer will jointly and severally warrant and provide at no charge to Owner materials and labor needed to properly repair or replace product and replace parking stripes within duration of Warranty. In event of either party's non-performance, full burden and responsibility for any Warranty repair shall fall upon remaining party.
- C. Normal traffic is considered to include snow removal equipment with rubber tipped blades as described in the National Parking Association publication, *Parking Garage Maintenance Manual.*
- D. Vandalism, abrasive maintenance equipment, and construction traffic are not normal traffic use and are exempt from Warranty.

1.10 Warranty Duration

- A. Bid price shall include a five (5) year Warranty commencing with date of project acceptance in accordance with General Conditions.
- B. Although completed areas of facility may be opened to traffic and parking, commencement of Warranty period will not occur prior to acceptance of entire project.
- C. A single Warranty commencement date will apply to all waterproofing.
- D. Warranty shall include a transfer clause that allows Warranty to be transferred to a new Owner upon sale of property within Warranty period.

1.11 Basis of Payment



- A. Cove sealants, crack sealants, construction joint sealants, and precast joint sealants will be paid on a unit price or lump sum basis. Refer to Section 00 4100, Bid Form.
- B. Joint widening or other necessary modifications shall be incidental to system cost.

PART 2 - PRODUCTS

2.1 Joint Sealant System – Single-Component Polyurethane

- A. Horizontal Joint Sealant (except cove joints)
 - 1. Traffic-bearing, single-component, self-leveling or non-sag unmodified polyurethane sealant, gray in color unless noted otherwise, containing no coal tar, asphalt, or other adulterants and conforming to ASTM C 920, Standard Specification for Elastomeric Joint Sealants, Type M, Grade P or NS, Class 25, use T and Federal Specification TT-S-00230, Type I or II, Class A.
 - 2. On slopes greater than 2%, slope grade versions of specified self-leveling sealants or non-sag sealants, as specified for vertical and cove joint sealants, are to be used per Manufacturer's recommendations.
 - 3. Approved Horizontal Joint Sealants are:
 - a. Iso-Flex 830, LymTal International, Inc., Orion, Ml.
 - b. 300-SL, Pecora Corp., Harleysville, PA.
 - c. Sikaflex 1c SL, Sika Corp., Lyndhurst, NJ.
 - d. MasterSeal SL1, BASF, Shakopee, MN.
 - e. Vulkem 116, Tremco Inc., Cleveland, OH.
 - f. Dymonic 100, Tremco Inc., Cleveland, OH.
 - g. Chem-Calk 955 SL, Bostik, Middleton, MA

B. Vertical and Cove Joint Sealants

- Multi-component, non-sag unmodified polyurethane sealant, gray in color unless otherwise noted, containing no coal tar, asphalt, or other adulterants and conforming to ASTM C 920, Type M, Grade NS, Class 25, use NT and Federal Specification TT-S-00227E, Type II, Class A.
- 2. Approved Vertical and Cove Joint Sealants are:
 - a. Iso-Flex 830, LymTal International, Inc., Orion, Ml.
 - b. 301-NS, Pecora Corp., Harleysville, PA.
 - c. Sikaflex 1a, Sika Corp., Lyndhurst, NJ.
 - d. MasterSeal NP1, BASF, Shakopee, MN.
 - e. Vulkem 116, Tremco Inc., Cleveland, OH.
 - f. Dymonic 100, Tremco Inc., Cleveland, OH.
 - g. Chem-Calk 915, Bostik, Middleton, MA

2.2 Joint Sealant System – Multi-Component Polyurethane

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



- 3. Approved Horizontal Joint Sealants are:
 - a. Iso-Flex 880GB or 881, LymTal International, Inc., Orion, Ml.
 - b. Urexpan NR-200 or Dynatred, Pecora Corp., Harleysville, PA.
 - c. Sikaflex 2c NS/SL, Sika Corp., Lyndhurst, NJ.
 - d. MasterSeal SL2, Sonneborn Building Products, BASF Building Systems, Shakopee, MN.
 - e. THC-901, Tremco Inc., Cleveland, OH.
 - f. Vulkem 445SSL, Tremco Inc., Cleveland, OH.

B. Vertical and Cove Joint Sealants

- Multi-component, non-sag unmodified polyurethane sealant, gray in color unless otherwise noted, containing no coal tar, asphalt, or other adulterants and conforming to ASTM C 920, Type M, Grade NS, Class 25, use NT and Federal Specification TT-S-00227E, Type II, Class A.
- 2. Approved Vertical and Cove Joint Sealants are:
 - a. ISO-FLEX 881, LymTal International, Inc., Orion, MI.
 - b. Dynatrol II, Pecora Corp., Harleysville, PA.
 - c. Sikaflex 2c NS, Sika Corp., Lyndhurst, NJ.
 - d. MasterSeal NP2, Sonneborn Building Products, BASF Building Systems, Shakopee, MN.
 - e. Dymeric 240 FC, Tremco Inc., Cleveland, OH.

C. High Durometer Joint Sealant

- 1. Traffic-bearing, multi-component, self-leveling or non-sag unmodified polyurethane sealant, gray in color unless otherwise noted, containing no coal tar, asphalt or other adulterants and conforming to ASTM C 920, Type M, Grade NS, Class 12 ½, use T and Federal Specification TT-S-00227E, Type II, Class B.
- 2. Use this material only where specified on Drawings as High Durometer Joint Sealant.
- 3. Approved High Durometer Joint Sealants are:
 - a. Iso-Flex 980, LymTal International, Inc., Orion, Ml.
 - b. Dynaflex, Pecora Corp., Harleysville, PA.

D. High Movement Joint Sealant

- 1. Non-traffic-bearing, one or two component, self-leveling or non-sag polyurethane or silicone-based sealant, gray in color unless otherwise noted, containing no coal tar, asphalt, or other adulterants and conforming to ASTM C 920, Type M or S, Grade NS or P, Class 50, use T.
- 2. Use this material only where specified on Drawings as High Movement Joint Sealant.
- 3. Approved High Movement Joint Sealants are:
 - a. Iso-Flex 888 QC, LymTal International, Inc., Orion, Ml.
 - b. Sikaflex-15LM, Sika Corp., Lyndhurst, NJ.
 - c. MasterSeal NP 150 VLM, Sonneborn Building Products, BASF Building Systems, Shakopee, MN.

2.3 Backer Rod

A. Backer rod diameter shall be as recommended by Manufacturer for joint sizes indicated on Drawings.



- B. Backer rod shall be extruded round, closed cell or bi-cellular, low-density polyethylene or polyolefin foam material with a skin-like outer texture.
- C. Approved closed cell backer rods are:
 - 1. Mile High Foam Backer Rod, Backer Rod Manufacturing, Inc., Denver, CO.
 - 2. ITP Standard Backer Rod Insulation, Industrial Thermo Polymers Limited, Buffalo, NY.
 - 3. HBR, Nomaco, Inc., Zebulon, NC.
 - 4. MasterSeal 920 Closed-Cell Backer-Rod, BASF Building Systems, Shakopee, MN.
- D. Approved bi-cellular backer rods are:
 - 1. ITP Soft-Type Backer Rod, Industrial Thermo Polymers Limited, Buffalo, NY.
 - 2. SOF Rod, Nomaco, Inc., Zebulon, NC.
 - 3. MasterSeal 921 Soft Backer-Rod, BASF Building Systems, Shakopee, MN.

PART 3 - EXECUTION

3.1 Inspection

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

3.2 General

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

3.3 Preparation

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



3.4 Installation/Application

- A. Do all Work in strict accordance with Manufacturer's written instructions and specifications and as indicated on Drawings.
- B. Do not apply joint sealant system until concrete has been air dried at temperatures at or above 40 degrees F. for at least 28 days after curing period specified in Section 03 3000, Cast-In-Place Concrete, [Section 03 0130, Concrete Repair,]or as otherwise approved by Manufacturer.
- C. Install bond breaker or backer rod as indicated on Drawings.
- D. Prime all joints and cracks.
- E. Completely fill joint with sealant, without sagging or smearing onto adjacent surfaces.
- F. In areas not receiving deck coating, fill horizontal joints and cracks until slightly recessed to avoid direct contact with wheel traffic.
- G. Cease installation under adverse weather conditions, or when temperatures are below 40 degrees F or below or above Manufacturer's recommended limitations.
- H. Protect joint sealant as required until sealant is fully cured.

3.5 Cleanup

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

END OF SECTION 07 9200



SECTION 22 1400 - STORM DRAINAGE

PART 1 - GENERAL

1.1 Related Documents

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

1.2 Work Included

A. The Work of this Section shall include furnishing all permits, labor, materials, fabrication and installation of the supplementary storm drain system and the replacement of the existing floor drains as indicated on the Drawings.

1.3 Related Work

A. Related Work specified elsewhere:

Selective Demolition
 Joint Sealants
 Section 02 4119
 Section 07 9200

1.4 Reference Standards

- A. Comply with the following reference standards except where more stringent requirements are indicated on the Drawings or specified herein:
 - 1. American Society of Mechanical Engineers (ASME)
 - 2. American National Standards Institute (ANSI)
 - 3. American Society for Testing and Materials (ASTM)
- B. Contractor will be held responsible to complete all work necessary to meet the building codes. Should any change in the Drawings and Specifications be required to comply, notify the Engineer.

1.5 Quality Control

- A. Test the storm drain system under normal conditions of use per the requirements of the authorities having jurisdiction.
- B. Provide all instruments for making the tests.
- C. Test all parts of the system in the presence of the General Contractor and Engineer, for a sufficient period of time to permit a complete examination and inspection.
- D. Remedy all defects in materials or workmanship which appear during the test and retest the system.



1.6 Submittals

- A. Submit for record Manufacturer's "Spec. Data Sheets."
- B. Submit for record schedule of operations.
- C. Submit for review and approval shop drawings for the following:
 - Floor drains
 - 2. Cleanouts
 - 3. Plumbing line layout
 - 4. Plumbing line supports
 - 5. Pipes
- D. Prepare and submit plan drawing for record Indicating location of ponding and condition of each existing floor drain.
- E. Submit for record results of storm drain system testing.

1.7 Transportation and Handling

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

1.8 Basis of Payment

- A. Pay unit for supplementary floor drains is each (EA.). The demolition and patching of the concrete shall be included in the cost.
- B. Pay unit for replacing the existing floor drains is each (EA.). The demolition and patching of the concrete shall be included in the cost.
- C. Pay unit for piping is lineal feet (L.F.) and shall include all miscellaneous hardware and hangers.
- D. The above items will be paid on a unit price basis; refer to Section 00 4100, Bid Forms.
- E. No extra compensation will be allowed because of differences between actual measurements and dimensions indicated on the Drawings.

PART 2 - PRODUCTS

2.1 Pipe

A. Cast iron pipe: [No-hub], ASTM A74, 3-inch minimum inside diameter or as indicated on the Drawings.

2.2 Floor drains

A. Acceptable heavy-duty materials are:

1. Z-520, Zurn, Erie, PA



- 2. or Approved Equal
- B. Provide connection hardware as required to complete installation and as indicated on the Drawings.

2.3 Cleanouts

A. Cast iron.

2.4 Hangers

A. Adjustable malleable galvanized hangers of clevis type with adjustable galvanized steel rods.

PART 3 - EXECUTION

3.1 General

A. Inspect area to receive the work and report immediately in writing to the Engineer, as required in the General Conditions, any unacceptable conditions. Do not proceed with work until unsatisfactory conditions have been corrected in an acceptable manner. Commencement of erection implies acceptance of related work.

3.2 Preparation

- A. Take out all necessary permits, arrange for all required inspections and pay all fees and expenses associated with performing the Mechanical Work.
- B. Contractor shall locate objects suspended below ceiling, embedded electrical conduit and reinforcement. Cored holes shall be offset to miss existing items. Offset dimensions shall be approved by Engineer prior to coring.
- C. Before starting Work, prepare and submit to the General Contractor a schedule of operations outlining the proposed order of procedure giving the dates of execution and the estimated time required for the completion of each step.
- D. Verify dimensions in the field.
- E. Verify ceiling heights or other architectural and structural details before installing any piping.
- F. Contractor shall flood each floor slab column bay prior to installation in order to locate ponds and determine which existing drains are currently functioning (at slab low point). Coordinate flooding with Owner and Engineer.
- G. Coordinate Work so as to avoid interferences with other trades. Due to the small scale of the Drawings, it is not possible to indicate all offsets, fittings or valves which may be required. Investigate the structural and finish conditions affecting this Work. Plan accordingly, furnish such offsets, fittings and valves as may be required.

3.3 Installation



- A. This Contractor will be responsible for cutting openings in the slabs as required to install new floor drains.
- B. Install all piping parallel to building walls and column lines, maintaining clear height as to not interfere with doorways, stairway or traffic, while keeping a neat appearance.
- C. Install piping so as to occupy a minimum of space, close to walls, ceiling, columns, or other members providing proper space for covering or removal of pipes.
- D. Work pipe into place without springing.
- E. Install all piping such that it will drain and vent as indicated on the Drawings or required. Pitch all horizontal lines 1/8-inch per foot minimum at a uniform grade.
- F. Connect piping to existing drain system.
- G. Properly support all piping installed on suitable pipe hangers and supports. All equipment for permanent hangers, supports, and anchors shall be fabricated from durable materials suitable for the service conditions and in accordance with the details indicated on the Drawings.
- H. Base required strength of hangers on the combined weight of the piping filled with water.

3.4 Cleanup

- A. At the completion of Work under this Contract, remove from the building all rubbish and accumulated materials.
- B. Provide the entire installation thoroughly free from all oil and grease after successfully completing all tests and before the Work is turned over to the Owner.

END OF SECTION 22 1400

