

CHA Project No.: 075494.000

Project: Fort Wayne International Airport Construct Taxiway G Extension & Demolish Taxiway C2 AIP No. 3-18-0022-XX

Date: June 20, 2024

The following addendum items modify, change, delete from or add to, the requirements of the contract documents for this project. The articles contained in the addendum take precedence over the requirements of the previously published contract documents. Where any article of the contract specifications or any detail of the contract drawings is modified or any paragraph, subparagraph or clause thereof is modified or deleted by the articles contained in this addendum, the unaltered provisions of that article, paragraph, subparagraph or clause shall remain in effect.

ITEM NO. 1 – SPECIFICATIONS

General Note – Unless noted to be reissued with this addendum, the following specifications revisions will be incorporated as part of the "Issued for Construction" specification booklet.

Table of Contents

Revision: The Table of Contents has been revised to account for addition of new Itemized Proposal sheets in Section P, as well as new Supplemental Technical Provisions PST-505 within Section SP.

Section IB – Instructions to Bidders

Revision: Under Qualification of Bidders, the first sentence of the first paragraph has been revised as follows:

A/C 150/5370-10G10H (or newest version) requires each bidder to furnish the Owner satisfactory evidence of his/her competency to perform the proposed work. In addition to the information submitted above, the bidder shall provide a list of key personnel that would be available. Each bidder shall also furnish the owner satisfactory evidence of his/her financial responsibility. Such evidence of financial responsibility, unless otherwise specified, shall consist of a confidential statement or report of the bidder's financial resources and liabilities as of the last calendar year or the Contractor's last fiscal year. Such statements or reports shall be certified by a public accountant. At the time of submitting such financial responsibility is approximately the same as stated or reported by the public accountant. If the bidder's responsibility has changed, the bidder shall qualify the public accountant's statement or report to reflect his/her (bidders) true financial condition at the time such qualified statement or report is submitted to the Owner.

Revision: Under Award or Rejection, the third paragraph has been revised as follows:

The award determination for the lowest responsive and responsible bidder will be made on the basis of the lowest aggregate amount of either the Base Bid or Base Bid plus one or both more of Additive Alternate No. 1, and Additive Alternate No. 2, and/or Additive Alternate No. 3, for which the Owner elects to award based on the total amount of federal funding grant. It is the intention of the Owner to award the Base Bid plus both all Additive Alternates, if sufficient funding is granted. A contract shall be deemed as having been unconditionally awarded when formal notice of award shall have been duly served upon the intended awardee (i.e., the bidder to whom the Owner intends awarding the contract) by some officer or agent of the respective Owner duly authorized to give such notice.

Section C – Contract Document

Revision: Article IV, Item No. 4.1 has been revised as follows:

4.1 The work will be substantially completed in 110 consecutive calendar days for the Base Bid or the Base Bid plus Additive Alternate No. 1 (should the Owner elect to award)-from the date the Contract *time for which it* commences to run, as provided in the Notice to Proceed (Paragraph 80-02 of the General Provisions) *based on the following options that the Owner may elect to award:*

Bid Schedule	Contract Time
Base Bid	110 Consecutive Calendar Days
Base Bid + Additive Alternate No. 1	110 Consecutive Calendary Days
Base Bid + Additive Alternate No. 1 & 2	115 Consecutive Calendar Days
Base Bid + Additive Alternate No. 1 & 3	120 Consecutive Calendar Days
Base Bid + Additive Alternate No. 1, 2, & 3	125 Consecutive Calendar Days

Should the Owner elect to award Additive Alternate No. 2, an additional 20 consecutive calendar days shall be added to the Base Bid (including Additive Alternate No. 1, if awarded) contract time for a total of 130 consecutive calendar days.

Revision: Article IX, Item No. 9.2 has been revised as follows:

9.2 Contractor's Bid forms 96 (latest revision) and the Itemized Proposal (pages P 1 to P-24 26 inclusive), attached hereto and made a part hereof, as Exhibit A.

Revision: Article XI, Item No. 11.7, Equal Employment Opportunity Clause has been revised as follows:

11.7 <u>Equal Employment Opportunity Clause</u>. During the performance of this contract, the Contractor agrees as follows:

(a.) The Contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, sexual orientation, gender identity, or national origin. The Contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, color, religion, sex, sexual orientation, gender identify, or national origin. Such action shall include, but not be limited to, the following: employment, upgrading,



demotion, or transfer; recruitment or recruitment advertising; layoff, or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.

(b.) The Contractor will, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, state that all qualified applicants will receive considerations for employment without regard to race, color, religion, sex, or national origin.

(c) The Contractor will send to each labor union or representative of workers with which it has a collective bargaining agreement or other contract or understanding, a notice to be provided advising the said labor union or workers' representatives of the Contractor's commitments under this section and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

(d) The Contractor will comply with all provisions of Executive Order 11246 of September 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.

(e) The Contractor will furnish all information and reports required by Executive Order 11246 of September 24, 1965, and by rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his books, records, and accounts by the administering agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.

(f.) In the event of the Contractor's noncompliance with the nondiscrimination clauses of this contract or with any of the said rules, regulations, or orders, this contract may be canceled, terminated, or suspended in whole or in part and the Contractor may be declared ineligible for further Government contracts or federally assisted construction contracts in accordance with procedures authorized in Executive Order 11246 of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order 11246 of September 24, 1965, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.

(g) The Contractor will include the portion of the sentence immediately preceding paragraph (a) and the provisions of paragraphs (a) through (f) in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to section 204 of Executive Order 11246 of September 24, 1965, so that such provisions will be binding upon each subcontractor or vendor. The Contractor will take such action with respect to any subcontract or purchase order as the administering agency may direct as a means of enforcing such provisions, including sanctions for noncompliance: *Provided, however*, that in the event a contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the administering agency the Contractor may request the United States to enter into such litigation to protect the interests of the United States.

(1) The Contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, sexual orientation, gender identity, or national origin. The Contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, color, religion, sex, sexual orientation, gender identify, or national origin. Such action shall include, but not be limited to, the following: employment, upgrading,



demotion, or transfer; recruitment or recruitment advertising; layoff, or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.

(2) The Contractor will, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity, or national origin.

(3) The contractor will not discharge or in any other manner discriminate against any employee or applicant for employment because such employee or applicant has inquired about, discussed, or disclosed the compensation of the employee or applicant or another employee or applicant. This provision shall not apply to instances in which an employee who has access to the compensation information of other employees or applicants as a part of such employee's essential job functions discloses the compensation of such other employees or applicants to individuals who do not otherwise have access to such information, unless such disclosure is in response to a formal complaint or charge, in furtherance of an investigation, proceeding, hearing, or action, including an investigation conducted by the employer, or is consistent with the contractor's legal duty to furnish information.

(4) The Contractor will send to each labor union or representative of workers with which it has a collective bargaining agreement or other contract or understanding, a notice to be provided by the agency contracting officer, advising the labor union or workers' representative of the Contractor's commitments under this section 202 of Executive Order 11246 of September 24, 1965, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

(5) The Contractor will comply with all provisions of Executive Order 11246 of September 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.

(6) The Contractor will furnish all information and reports required by Executive Order 11246 of September 24, 1965, and by the rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his books, records, and accounts by the contracting agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.

(7) In the event of the Contractor's noncompliance with the nondiscrimination clauses of this contract or with any such rules, regulations, or orders, this contract may be canceled, terminated, or suspended in whole or in part and the Contractor may be declared ineligible for further Government contracts in accordance with procedures authorized in Executive Order 11246 of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order 11246 of September 24, 1965, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.

(8) The Contractor will include the provisions of paragraphs (1) through (8) in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to section 204 of Executive Order 11246 of September 24, 1965, so that such provisions will be binding upon each subcontractor or vendor. The Contractor will take such action with respect to any subcontract or purchase order as may be directed by the Secretary of Labor as a means of enforcing such provisions, including sanctions for noncompliance: Provided, however, that in the event the



contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction, the Contractor may request the United States to enter into such litigation to protect the interests of the United States.

Section P – Itemized Proposal

- Reissued: Remove Section P in its entirety and replace with the enclosed version. Main revisions related to:
 - > Additional language for Trade Restriction Certification
 - > Revised contract time schedule to align with possible award scenarios
 - Edits to pages P-17 thru P-24 shall be removed in their entirety and replaced new pages P-17 thru P-26, issued with this Addendum.

A revised Excel spreadsheet will be made available on Eastern Engineering's website in conjunction with this Addendum.

Section LP – Labor Provisions

Revision: Breach of Contract section title has been revised as follows:

BREACH OF CONTRACT

(CONSTRUCTION COTNRACTS \$150,000 \$250,000 AND OVER)

Revision: Davis Bacon Requirements section, specifically paragraph 2.(ii).(A) the Wage and Hour Division website has been revised as follows:

www.dol.gov/whd/forms/wh347instr.htm

<u>https://www.dol.gov/agencies/whd/government-contracts/construction/payroll-certification</u>

Revision: Contract Workhours and Safety Standards has been revised as follows:

CONTRACT WORKHOURS AND SAFETY STANDARDS

(CONSTRUCTION CONTRACTS EXCEEDING \$100,000.00)

(1) Overtime Requirements.

No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic, including watchmen and guards, in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.

(2) Violation; Liability for Unpaid Wages; Liquidated Damages.

In the event of any violation of the clause set forth in paragraph (1) above of this clause, the contractor or any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (1) of this clause.



above, in the sum of \$10 **\$29** for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph **(1)** of this clause. above.

(3) <u>Withholding for Unpaid Wages and Liquidated Damages</u>.

The Federal Aviation Administration *(FAA)* or the Sponsor *Owner* shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any monies payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other Federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph *(2) of this clause* above.

(4) Subcontractors.

The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraphs (1) through (4) and also a clause requiring the subcontractor to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs (1) through (4) of this clause.

Section GP – General Provisions

Item GP-80, Execution and Progress

Revision: Paragraph 80-08, replace the section in its entirety to read as follows:

80-08 Failure to complete on time. For each calendar day or working day, as specified in the contract, that any work remains uncompleted after the contract time (including all extensions and adjustments as provided in paragraph 80-07, Determination and Extension of Contract Time) the sum specified in the contract and proposal as liquidated damages (LD) will be deducted from any money due or to become due the Contractor or their own surety. Such deducted sums shall not be deducted as a penalty but shall be considered as liquidation of a reasonable portion of damages including but not limited to additional engineering services that will be incurred by the Owner should the Contractor fail to complete the work in the time provided in their contract.



Schedule	Liquidated Damages Cost	Allowed Construction Time
Sequence 1A	\$2,500.00 per Calendar Day	Base Bid & Additive Alternate No. 1 – 110 Consecutive Calendar Days*
		Base Bid & Additive Alternate No. 1 & 2 – 110 Consecutive Calendar Days**
		Base Bid & Additive Alternate No. 1, 2, & 3 – 120 Consecutive Calendar Days***
Sequence 1B	\$5,000.00 per Calendar Day	Base Bid & Additive Alternate No. 1 – 50 Consecutive Calendar Days*
		Base Bid & Additive Alternate No. 1 & 2 – 65 Consecutive Calendar Days**
Sequence 2	\$5,000.00 per Calendar Day	Additive Alternate No. 2 – 5 Consecutive Calendar Days**

*The maximum construction time allowed for the Base Bid (including Additive Alternates 1 if awarded) will be the sum of time allowed for Sequences 1A and 1B but not more than 110 consecutive calendar days. Within the overall 110 consecutive calendar day contract time, up to 50 consecutive calendar days to be included for completion of Sequence 1B.

**Should the Owner elect to award Additive Alternate No. 2, the maximum contract time for the Base Bid and Additive Alternate No. 2 (including Additive Alternate No. 1, if awarded) will be the sum of time allowed for Sequences 1A, 1B, and 2 but not more than 115 consecutive calendar days. Within the overall 115 consecutive calendar day contract time, up to 65 consecutive calendar days to be included for completion of Sequence 1B.

***Should the Owner elect to award Additive Alternate No. 3, the maximum contract time for the Base Bid and Additive Alternate No. 3 (including Additive Alternate No. 1 and 2, if awarded) will be the sum of time allowed for Sequences 1A, 1B, and 2 but not more than 125 consecutive calendar days. Within the overall 125 consecutive calendar day contract time, up to 65 consecutive calendar days to be included for completion of Sequence 1B. In the event that Additive Alternate No. 2 is not awarded, the sum of time allowed for Sequences 1A and 1B will reduce to 120 consecutive calendar days.

Permitting the Contractor to continue and finish the work or any part of it after the time fixed for its completion, or after the date to which the time for completion may have been extended, will in no way operate as a wavier on the part of the Owner of any of its rights under the contract.



Section SP – Special Provisions

Item SGP-3, Scope of Work

Revision: The last paragraph of this section has been revised to read as follows:

The Base Bid and Additive Alternate No. 1 *through 3* and 2 are generally defined as follows:

- Base Bid work limits generally include construction of Taxiway G Extension beginning at approximately Sta. 155+59 to 159+84, Line G and between Taxiway C and Runway 5-23.
- Additive Alternate No. 1 work limits generally include demolition of Taxiway C2 beginning at approximately Sta.13+00 to Sta. 17+25, Line C2.
- Additive Alternate No. 2 work limits generally include hold positions marking, signage, and lighting on Runway 9-27 and Taxiways C1, M, Y, C3, B1, C4 and B2.
- Additive Alternate No. 3 work limits generally include the rehabilitation of Taxiway C pavements between the West Apron and Runway 14-32.

Item SGP-5, Notice to Proceed

Revision: Paragraph has been revised to read as follows:

Upon award of contract by the Authority, a conditional Notice to Proceed will be issued for development of shop drawings, mix designs, etc. and other pre-construction activities. A second Notice to Proceed for start of construction is anticipated to be issued on **August 25, 2024** *March 17, 2025* (weather pending). Contract calendar days will not begin until the second Notice to Proceed is issued. The anticipated construction start date above is provided for bidding purposes only and is subject to change due to weather or other unforeseen conditions.

Item MST-04, Project Security

Clarification: Addendum No. 1 noted changes to MST-04, but inadvertently used the provision title (Item MST-04, Preparation/Removal of Existing Pavements'. This should have referenced (Item MST-04, Project Security'.

Item PST-505, Rehabilitation and Repair of PCCP Airfield Pavements

Issued: New supplemental technical provision has been issued with this addendum related to repair and rehabilitation work associated with Taxiway C between the West Apron and Runway 14-32.



ITEM NO. 2 – PLANS

General Note – Unless noted to be reissued with this addendum, the following plan revisions will be incorporated as part of the "Issued for Construction" plan set.

Sheet G1.0.1 – Title Sheet

Revision: Sheet revised to include AIP grant number.

<u>Sheet G1.3.1 – Sheet Index and Estimate of Quantities</u>

- Revision: Estimate of Quantity Tables have been updated to reflect changes outlined in Item No. 1 for Section P, Itemized Proposal.
- Revision: General Note 12 has been revised to read as follows:

12. THERE SHALL BE NO HAULING ON AIRPORT PAVEMENTS OTHER THAN ON DESIGNATED ROUTES. HAULING SHALL BE CONDUCTED ALONG HAUL ROUTES APPROVED BY THE AUTHORITY. EXISTING CONDITIONS OF ALL DESIGNATED HAUL ROUTES DENOTED IN THE FOLLOWING PLANS SHALL BE DOCUMENTED BY THE CONTRACTOR AND THE RPR PRIOR TO CONSTRUCTION. PAVEMENT REPAIR, REGRADING, AND SEEDING OF HAUL ROUTES (IF NECESSARY) SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND APPROVED BY THE AUTHORITY. SHOULD IT BE DETERMINED BY THE RPR AND/OR AUTHORITY THAT DAMAGE TO EXISTING PAVEMENTS REQUIRE REPAIRS THAT HAVE NOT BEEN CAUSED BY THE CONTRACTOR'S FORCES, THESE REPAIRS SHALL BE MADE IN ACCORDANCE WITH SUPPLEMENTAL TECHNICAL PROVISION ITEM MST-06. THE USE OF ITEM MST-06 DOES NOT RELIEVE THE CONTRACTOR FROM USING EXTREME CAUTION WHEN USING PUBLIC OR PRIVATE/AIRPORT-OWNED ROUTES FROM DAMAGE AS A RESULT OF THIS PROJECT.

Sheet G2.0.1 - Scope of Work

Reissued: Scope of Work plan has been reissued with this Addendum to convey the addition of Additive Alternate No. 3 related to the repairs and rehabilitation of Taxiway C between the West Apron and Runway 14-32.

Sheet G4.0.1 – Overall Construction Safety and Phasing and Site Logistics Plan

Reissued: This sheet as been revised to include the delineation of the work area associated with Additive Alternate No. 3, located between the West Apron and Runway 14-32 on Taxiway C.

Sheet G5.1.1 – Detailed CSPP – Sequence 1A

Revision: The sheet title has been revised to read as follows:

Detailed CSPP – Sequence 1A (Base Bid and Additive Alternate No. 1)

Revision: Detailed Safety Note 11 has been revised to read as follows:

11. THE CONTRACTOR SHALL INSTALL ORANGE PLASTIC OR VINYL SNOW FENCE WITH STAKE-MOUNTED STEEL POSTS SILT FENCE WITH WOOD STAKES (MAXIMUM 18" HEIGHT ABOVE GRADE) SPACED SUFFICIENTLY TO PREVENT SAGGING OR DEFLECTION OF FENCE MATERIAL. ADDITIONALLY, STAKE MOUNTED STEEL POSTS WOOD STAKES SHALL BE PLACED SUCH THAT THEY ALTERNATE ON EACH SIDE OF THE FENCE TO MINIMIZE DAMAGE DUE TO WIND OR JET BLAST. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN THE TEMPORARY FENCE TO THE SATISFACTION OF THE OWNER. ALL UNDERGROUND UTILITIES SHALL BE



PROTECTED DURING INSTALLATION OF FENCE STAKES. ANY DAMAGE CAUSED BY THE CONTRACTOR'S FORCES SHALL BE REPAIRED AT THEIR OWN EXPENSE. ALL COSTS ASSOCIATED WITH INSTALLATION, MAINTENANCE, AND REMOVAL OF THE TEMPORARY FENCE SHALL BE INCIDENTAL TO ITEM MST-02. NO FURTHER MEASUREMENT SHALL BE MADE FOR PAYMENT.

New Sheet G5.1.2 – Detailed CSPP – Sequence 1A (Base Bid & Additive Alternate No. 3)

Issued: This new sheet as been issued to include the combination of Base Bid plus Additive Alternate No.1 (if awarded) and addition of Additive Alternate No. 3 work areas in Sequence 1A.

<u>Sheet G5.1.3 – Detailed CSPP – Sequence 1B (Sheet 1 of 2)</u>

- Revision: The sheet number has been revised from G5.1.2 to new sheet G5.1.3 to account for addition of new Sheet G5.1.2 as described above.
- Revision: Additive Alternate No. 3 work limits reflected in Legend as well as Plan View adjacent to Sequence 1A work limits.
- Revision: Detailed Safety Note 1 has been revised to read as follows:
 - 1. THE TOTAL CONTRACT TIME FOR SEQUENCE 1B SHALL BE 50 CONSECUTIVE CALENDAR DAYS AND IS TO BE CONDUCTED INCLUSIVELY WITHIN THE 110 CONSECUTIVE CALENDAR DAYS OF SEQUENCE 1A (OR 120 CONSECUTIVE CALENDAR DAYS SHOULD ADDITIVE ALTERNATE NO. 3 BE AWARDED). SHOULD THE AIRPORT AUTHORITY ELECT TO AWARD ADDITIVE ALTERNATE NO. 2, AN ADDITIONAL 15 CONSECUTIVE CALENDAR DAYS SHALL BE ADDED TO SEQUENCE 1A AND 1B MAKING THE TOTAL CONTRACT TIME 125 65 CONSECUTIVE CALENDARS DAYS FOR SEQUENCE 1/1A 1B, WITH AN OVERALL CONTRACT TIME OF THE 115 CONSECUTIVE CALENDAR DAYS (OR 125 CONSECUTIVE CALENDAR DAYS SHOULD ADDITIVE ALTERNATE NO. 3 BE AWARDED +, AND 50 CONSECUTIVE CALENDAR DAYS FOR SEQUENCE 1B, RESPECTIVELY. THE CONTRACTOR SHALL COORDINATE WITH THE AIRPORT AUTHORITY AT LEAST TWO WEEKS AHEAD OF ANTICIPATED CLOSURE OF RUNWAY 5-23 FOR SEQUENCE 1B. AT THAT TIME, A SEQUENCE SPECIFIC CONSTRUCTION NOTICE TO PROCEED WILL BE ISSUED WITH ANTICIPATED SUBSTANTIAL COMPLETION DATE FOR SEQUENCE 1B. THESE DATES ARE PROVIDED FOR BIDDING PURPOSES ONLY AND ARE SUBJECT TO CHANGE DUE TO WEATHER OR OTHER UNFORESEEN CONDITIONS. LIQUIDATED DAMAGES (IN ACCORDANCE WITH SECTION 80-08 OF THE GENERAL PROVISIONS) PER SEQUENCE WILL BE ASSESSED FOR FAILURE TO COMPLETE THIS PROJECT WITHIN THE CONTRACT TIME FOR EACH SEQUENCE OF THE WORK.
- Revision: Detailed Safety Note 11 has been revised to read as follows:

11. THE CONTRACTOR SHALL INSTALL ORANGE PLASTIC OR VINYL SNOW FENCE WITH STAKE-MOUNTED STEEL POSTS SILT FENCE WITH WOOD STAKES (MAXIMUM 18" HEIGHT ABOVE GRADE) SPACED SUFFICIENTLY TO PREVENT SAGGING OR DEFLECTION OF FENCE MATERIAL. ADDITIONALLY, STAKE-MOUNTED STEEL POSTS WOOD STAKES SHALL BE PLACED SUCH THAT THEY ALTERNATE ON EACH SIDE OF THE FENCE TO MINIMIZE DAMAGE DUE TO WIND OR JET BLAST. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN THE TEMPORARY FENCE TO THE SATISFACTION OF THE OWNER. ALL UNDERGROUND UTILITIES SHALL BE PROTECTED DURING INSTALLATION OF FENCE STAKES. ANY DAMAGE CAUSED BY THE CONTRACTOR'S FORCES SHALL BE REPAIRED AT THEIR OWN EXPENSE. ALL COSTS ASSOCIATED WITH INSTALLATION,



MAINTENANCE, AND REMOVAL OF THE TEMPORARY FENCE SHALL BE INCIDENTAL TO ITEM MST-02. NO FURTHER MEASUREMENT SHALL BE MADE FOR PAYMENT.

Sheet G5.1.4 - Detailed CSPP - Sequence 1B (Sheet 2 of 2)

Reissued: The sheet number has been revised from G5.1.3 to new sheet G5.1.4 to account for addition of new Sheet G5.1.2 as described above. Additional information also reflected for Additive Alternate No. 3 and other associated updates.

Sheet G5.1.5 – Detailed CSPP – Sequence 2 (Additive Alternate No. 2)

- Revision: The sheet number has been revised from G5.1.4 to new sheet G5.1.5 to account for addition of new Sheet G5.1.2 as described above.
- Revision: Work limits for the southeast side of Runway 5-23 at Taxiway Y have been modified to avoid projection into the runway safety area (RSA) for Runway 14-32.
- Revision: Operational Restrictions Terminal table has been updated to reflect Gates 1A, 1B, 2, and 3 to be closed due to ongoing Terminal Building construction.
- Revision: Detailed Safety Note 1 has been revised to read as follows:
 - IF ADDITIVE ALTERNATE NO. 2 IS AWARDED, THE TOTAL CONTRACT TIME FOR SEQUENCE 2 (ADDITIVE ALTERNATE NO. 2) SHALL BE 5 CONSECUTIVE CALENDAR DAYS WITH AN ANTICIPATED SEQUENCE SPECIFIC CONSTRUCTION NOTICE TO PROCEED OF JULY 21, 2025, WITH ALL ITEMS COMPLETED AND ACCEPTED BY THE RPR AND AIRPORT AUTHORITY BY JULY 25, 2025 AND AN ANTICIPATED COMPLETION DATE. IN NO INSTANCE SHALL SEQUENCE 2 BE CONDUCTED CONCURRENTLY WITH SEQUENCE 1A OR 1B. THE ADDITIONAL CONTRACT TIME FOR AWARD OF ADDITIVE ALTERNATE NO. 2 SHALL BE IN ADDITION TO THE 110 CONSECUTIVE CALENDAR DAYS PROVIDED FOR UNDER SEQUENCE 1B 1A (OR 120 CONSECUTIVE CALENDAR DAYS SHOULD ADDITIVE ALTERNATE NO. 3 BE AWARDED). IN NO INSTANCE SHALL SEQUENCE 2 BE CONDUCTED CONCURRENTLY WITH ANY OTHER SEQUENCE. THESE DATES ARE PROVIDED FOR BIDDING PURPOSES ONLY AND ARE SUBJECT TO CHANGE DUE TO WEATHER OR OTHER UNFORESEEN CONDITIONS. LIQUIDATED DAMAGES (IN ACCORDANCE WITH SECTION 80-08 OF THE GENERAL PROVISIONS) PER SEQUENCE WILL BE ASSESSED FOR FAILURE TO COMPLETE THIS PROJECT WITHIN THE CONTRACT TIME FOR EACH SEQUENCE OF THE WORK.

<u>Sheet C1.1.7 – Storm Sewer Plan and Profile (Base Bid)</u>

Revision: The Storm Structure Data Table, under 'Casting' column has been revised to read as follows for Structure 303 and 304, respectively:

Neenah R-3475-H (or approved equal)

Neenah R-3475-F (or approved equal)



Sheet C4.1.1 – Pavement Rehabilitation Plan (Additive Alternate No. 3)

Issued: New sheet has been added to reflect proposed pavement repairs to Taxiway C between the West Apron and Runway 14-32.

Sheet C4.1.2 – Pavement Rehabilitation Plan (Additive Alternate No. 3)

- Issued: New sheet has been added to reflect proposed pavement repairs to Taxiway C between the West Apron and Runway 14-32.
- Sheet C4.2.1 Pavement Rehabilitation Details (Additive Alternate No. 3)
- Issued: New sheet has been added to reflect proposed pavement repair details to coincide with new sheets C2.1.1 and C2.1.2 for work required on Taxiway C between the West Apron and Runway 14-32.

Sheet C4.3.1 – Pavement Rehabilitation Spall Repair Summary Table (Additive Alternate No. 3)

Issued: New sheet has been added to reflect proposed pavement spall repair locations that coincide with new sheets C2.1.1 and C2.1.2 for work required on Taxiway C between the West Apron and Runway 14-32.

Sheet E2.1.1 – Airfield Electrical Plan (Base Bid)

Reissued: Plan sheet reissued to reflect installation of new hold position location, and conversion of former hold position location to instrument landing system (ILS) hold position.

Sheet E3.2.1 – Guidance Sign Summary Table (Base Bid & Additive Alternate No. 2)

Reissued: Plan sheet reissued to reflect addition of ILS Boundary and Runway Hold Position Signage updates at Taxiway C5 (proposed Taxiway C4).

Sheet E4.2.1 – Pavement Marking Details

Reissued: Plan sheet reissued to reflect addition of ILS Boundary pavement marking detail.



ITEM NO. 3 – QUESTIONS

- Question #1: Spec page L-125-3. Item **125-2.8 Runway & Taxiway Signs** notes: *Number of Modules as Indicated on the Plans*. However, we typically manufacture signs with the shortest length needed to fit the required legend. Can the manufacturer determine the number of modules, or must the number of modules match the plans exactly?
- Response #1: The manufacturer can determine the number of modules as long as the signs and panels meet the FAA requirements for respective sign messaging in accordance with Advisory Circular (AC) 150/5345-44 (including other referenced Acs therewith). Refer to Sheet E3.2.1 Guidance Sign Summary Table for sign size, style and class requirements for this project.
- Question #2: Can the owner please add an estimated quantity to line items 70 & 71 Lime Treated Subgrade and Lime? It is next to impossible to give a unit price without a clear understanding of the scope that may be added.
- Response #2: Please refer to the revisions made in Item No. 1 for Section P. These quantities were inadvertently altered by Addendum No. 1 and have been corrected with this Addendum.

ammunun Sincerely, B SIAL NDIANA COUNT NONAL ENGINE Nathan Lienhart, P.E. Senior Project Manager



Project Name: Construct Taxiway G Extension and Demolish Taxiway C2 Project No.: AIP No. 3-18-0022-XX

Supplementing the enclosed Contractor's Indiana Bid Form No. 96, latest revision, the undersigned submits the following Itemized Proposal upon which the bid is based. The undersigned further acknowledges that he is fully aware of all conditions existing regarding the project, and has full understanding of all work to be done as outlined in the plans and specifications for the project; and further agrees that any change orders to the contract authorized by the Sponsor shall be based on the following schedule of unit prices where applicable.

NOTICE OF REQUIREMENT FOR AFFIRMATIVE ACTION to ENSURE EQUAL EMPLOYMENT OPPORTUNITY

1. The Offeror's or Bidder's attention is called to the "Equal Opportunity Clause" and the "Standard Federal Equal Employment Opportunity Construction Contract Specifications" set forth herein.

2. The goals and timetables for minority and female participation, expressed in percentage terms for the Contractor's aggregate workforce in each trade on all construction work in the covered area, are as follows:

Timetables

Goals for minority participation for each trade:	4.4%
Goals for female participation in each trade:	6.9%

These goals are applicable to all of the Contractor's construction work (whether or not it is Federal or federally assisted) performed in the covered area. If the Contractor performs construction work in a geographical area located outside of the covered area, it shall apply the goals established for such geographical area where the work is actually performed. With regard to this second area, the Contractor also is subject to the goals for both its federally involved and non-federally involved construction.

The Contractor's compliance with the Executive Order and the regulations in 41 CFR Part 60-4 shall be based on its implementation of the Equal Opportunity Clause, specific affirmative action obligations required by the specifications set forth in 41 CFR 60-4.3(a) and its efforts to meet the goals. The hours of minority and female employment and training must be substantially uniform throughout the length of the contract, and in each trade, and the Contractor shall make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees from Contractor to Contractor or from project to project

for the sole purpose of meeting the Contractor's goals shall be a violation of the contract, the Executive Order and the regulations in 41 CFR Part 60-4. Compliance with the goals will be measured against the total work hours performed.

3. The Contractor shall provide written notification to the Director of the Office of Federal Contract Compliance Programs (OFCCP) within 10 working days of award of any construction subcontract in excess of \$10,000 at any tier for construction work under the contract resulting from this solicitation. The notification shall list the name, address, and telephone number of the subcontractor; employer identification number of the subcontractor; estimated dollar amount of the subcontract; estimated starting and completion dates of the subcontract; and the geographical area in which the subcontract is to be performed.

4. As used in this notice and in the contract resulting from this solicitation, the "covered area" is Indiana, Allen County, Fort Wayne.

DISADVANTAGED BUSINESS ENTERPRISE GOAL ASSURANCE

The requirements of 49 CFR Part 26, Regulations of the U.S. Department of Transportation, apply to this contract. It is the policy of the Fort Wayne-Allen County Airport Authority to practice nondiscrimination based on race, color, sex or national origin in the award or performance of this contract. All firms qualifying under this solicitation are encouraged to submit bids/proposals. Award of this contract will be conditioned upon satisfying the requirements of this bid specification. These requirements apply to all bidders/offerors, including those who quality as a DBE. A DBE contract goal of nine and fifty-seven hundredths percent (9.57%) has been established for this contract. The bidder/offeror shall make good faith efforts, as defined in Appendix A, 49 CFR Part 26, to meet the contract goal for DBE participation in the performance of this contract.

The apparent successful bidder/offeror will be required to submit the following information within 5 days of the bid opening: (1) the names and addresses of DBE firms that will participate in the contract; (2) a description of the work that each DBE firm will perform. To count toward meeting a goal, each DBE firm must be certified in a NAICS code applicable to the kind of work the firm would perform on the contract; (3) the dollar amount of the participation of each DBE firm participating; (4)written documentation of the bidder/offeror's commitment to use a DBE subcontractor whose participation it submits to meet the contract goal; (5) written confirmation from the DBE that it is participating in the contract as provided in the commitment made under (4); and (6) if the contract goal is not met, evidence of good faith efforts.

The undersigned bidder/offeror has satisfied the requirements of the bid specification in the follow manner (please check the appropriate space)

_____ The bidder/offeror is committed to a minimum of _____% DBE utilization on this contract.

_____ The bidder/offeror (if unable to meet the DBE goal of 9.57%) is committed to a minimum of _____% DBE utilization on this contract and will submit documentation demonstrating good faith efforts.

CERTIFICATE OF BIDDER for the above.

BIDDER'S NAME
IGNATURE
ADDRESS
RS NUMBER

DBE COMPLIANCE CERTIFICATION

The contractor, sub recipient or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR part 26 in the award and administration of DOT-assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the Authority deems appropriate, which may include, but is not limited to: (1) Withholding monthly progress payments; (2) Assessing sanctions; (3) Liquidated damages; and/or (4) Disqualifying the contractor from future bidding as non-responsible.

The certification will be included in every subcontract entered into by the prime contractor

CERTIFICATE OF BIDDER for the above.

BIDDER'S NAME

SIGNATURE _____

CERTIFICATION OF NONSEGREGATED FACILITIES

(a) The Contractor agrees that it does not and will not maintain or provide for its employees any segregated facilities at any of its establishments, and that it does not and will not permit its employees to perform their services at any location under its control where segregated facilities are maintained. The Contractor agrees that a breach of this clause is a violation of the Equal Employment Opportunity clause in this contract.

(b) "Segregated facilities," as used in this clause, means any waiting rooms, work areas, rest rooms and wash rooms, restaurants and other eating areas, time clocks, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing facilities provided for employees that are segregated by explicit directive or are in fact segregated on the basis of race, color, religion, sex, sexual orientation, gender identity, or national origin because of written or oral policies or employee custom. The term does not include separate or single-user rest rooms or necessary dressing or sleeping areas provided to assure privacy between the sexes.

(c) The Contractor shall include this clause in every subcontract and purchase order that is subject to the Equal Employment Opportunity clause of this contract.

CERTIFICATE OF BIDDER for the above.

BIDDER'S NAME	

SIGNATURE _____

CERTIFICATION REGARDING LOBBYING

The Bidder or Offeror certifies by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:

(1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the Bidder or Offeror, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

- (2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.
- (3) The undersigned shall require that the language of this certification be included in the award documents for all sub-awards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all sub-recipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

(Date)

Corporate Officer

CERTIFICATION OF OFFERER/BIDDER REGARDING TAX DELINQUENCY AND FELONY CONVICTIONS

The bidder must complete the following two certification statements. The bidder must indicate its current status as it relates to tax delinquency and felony conviction by inserting a checkmark (\checkmark) in the space following the applicable response. The bidder agrees that, if awarded a contract resulting from this solicitation, it will incorporate this provision for certification in all lower tier subcontracts.

Certifications

- 1) The bidder represents that it is () is not () a corporation that has any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability.
- 2) The biddr represents that it is () is not () is not a corporation that was convicted of a criminal violation under any Federal law within the preceding 24 months.

Note

If a bidder responds in the affirmative to either of the above representations, the bidder is ineligible to receive an award unless the sponsor has received notification from the agency suspension and debarment official (SDO) that the SDO has considered suspension or debarment and determined that further action is not required to protect the Government's interests. The bidder therefore must provide information to the owner about its tax liability or conviction to the Owner, who will then notify the FAA Airports District Office, which will then notify the agency's SDO to facilitate completion of the required considerations before award decisions are made.

Term Definitions

Felony conviction: Felony conviction means a conviction within the preceding twentyfour (24) months of a felony criminal violation under any Federal law and includes conviction of an offense defined in a section of the U.S. code that specifically classifies the offense as a felony and conviction of an offense that is classified as a felony under 18 U.S.C. § 3559.

Tax Delinquency: A tax delinquency is any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted, or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability.

CERTIFICATE OF BIDDER for the above.

BIDDER'S NAME

SIGNATURE _____

CERTIFICATION REGARDING DOMESTIC PREFERENCES FOR PROCUREMENTS

The Bidder or Offeror certifies by signing and submitting this bid or proposal that, to the greatest extent practicable, the Bidder or Offeror has provided a preference for the purchase, acquisition, or use of goods, products, or materials produced in the United States (including, but not limited to, iron, aluminum, steel, cement, and other manufactured products) in compliance with 2 CFR § 200.322.

CERTIFICATE OF BIDDER for the above.

BIDDER'S NAME

SIGNATURE _____

FAA BUY AMERICAN PREFERENCE

The Contractor certifies that its bid/offer is in compliance with 49 USC § 50101, BABA and other related Made in America Laws,¹ U.S. statutes, guidance, and FAA policies, which provide that Federal funds may not be obligated unless all iron, steel and manufactured goods used in AIP funded projects are produced in the United States, unless the Federal Aviation Administration has issued a waiver for the product; the product is listed as an Excepted Article, Material Or Supply in Federal Acquisition Regulation subpart 25.108; or is included in the FAA Nationwide Buy American Waivers Issued list.

The bidder or offeror must complete and submit the certification of compliance with FAA's Buy American Preference, BABA and Made in America laws included herein with their bid or offer. The Airport Sponsor/Owner will reject as nonresponsive any bid or offer that does not include a completed certification of compliance with FAA's Buy American Preference and BABA.

The bidder or offeror certifies that all constructions materials, defined to mean an article, material, or supply other than an item of primarily iron or steel; a manufactured product; cement and cementitious materials; aggregates such as stone, sand, or gravel; or aggregate binding agents or additives that are or consist primarily of: non-ferrous metals; plastic and polymer-based products (including polyvinylchloride, composite building materials, and polymers used in fiber optic cables); glass (including optic glass); lumber; or drywall used in the project are manufactured in the U.S.

Certification of Compliance with FAA Buy American Preference – Construction Projects

As a matter of bid responsiveness, the bidder or offeror must complete, sign, date, and submit this certification statement with its proposal. The bidder or offeror must indicate how it intends to comply with 49 USC § 50101, BABA and other related Made in America Laws, U.S. statutes, guidance, and FAA policies, by selecting one of the following certification statements. These statements are mutually exclusive. Bidder must select one or the other (i.e., not both) by inserting a checkmark (\checkmark) or the letter "X".

- □ Bidder or offeror hereby certifies that it will comply with 49 USC § 50101, BABA and other related U.S. statutes, guidance, and policies of the FAA by:
 - a) Only installing iron, steel and manufactured products produced in the United States;

¹ Per Executive Order 14005 "Made in America Laws" means all statutes, regulations, rules, and Executive Orders relating to federal financial assistance awards or federal procurement, including those that refer to "Buy America" or "Buy America," that require, or provide a preference for, the purchase or acquisition of goods, products, or materials produced in the United States, including iron, steel, and manufactured products offered in the United States.

- b) Only installing construction materials defined as: an article, material, or supply other than an item of primarily iron or steel; a manufactured product; cement and cementitious materials; aggregates such as stone, sand, or gravel; or aggregate binding agents or additives that are or consist primarily of non-ferrous metals; plastic and polymer-based products (including polyvinylchloride, composite building materials, and polymers used in fiber optic cables); glass (including optic glass); lumber or drywall that have been manufactured in the United States.
- c) Installing manufactured products for which the Federal Aviation Administration (FAA) has issued a waiver as indicated by inclusion on the current FAA Nationwide Buy American Waivers Issued listing; or
- d) Installing products listed as an Excepted Article, Material or Supply in Federal Acquisition Regulation Subpart 25.108.

By selecting this certification statement, the bidder or offeror agrees:

- a) To provide to the Airport Sponsor or the FAA evidence that documents the source and origin of the iron, steel, and/or manufactured product.
- b) To faithfully comply with providing U.S. domestic products.
- c) To refrain from seeking a waiver request after establishment of the contract, unless extenuating circumstances emerge that the FAA determines justified.
- d) Certify that all construction materials used in the project are manufactured in the U.S.
- □ The bidder or offeror hereby certifies it cannot comply with the 100 percent Buy American Preferences of 49 USC § 50101(a) but may qualify for a Type 3 or Type 4 waiver under 49 USC § 50101(b). By selecting this certification statement, the apparent bidder or offeror with the apparent low bid agrees:
 - a) To the submit to the Airport Sponsor or FAA within 15 calendar days of being selected as the responsive bidder, a formal waiver request and required documentation that supports the type of waiver being requested.
 - b) That failure to submit the required documentation within the specified timeframe is cause for a non-responsive determination that may result in rejection of the proposal.
 - c) To faithfully comply with providing U.S. domestic products at or above the approved U.S. domestic content percentage as approved by the FAA.
 - d) To furnish U.S. domestic product for any waiver request that the FAA rejects.
 - e) To refrain from seeking a waiver request after establishment of the contract, unless extenuating circumstances emerge that the FAA determines justified.

Required Documentation

Type 2 Waiver (Nonavailability) - The iron, steel, manufactured goods or construction materials or manufactured goods are not available in sufficient quantity or quality in the United States. The required documentation for the Nonavailability waiver is

- a) Completed Content Percentage Worksheet and Final Assembly Questionnaire
- b) Record of thorough market research, consideration where appropriate of qualifying alternate items, products, or materials including;
- c) A description of the market research activities and methods used to identify domestically manufactured items capable of satisfying the requirement, including the timing of the research and conclusions reached on the availability of sources.

Type 3 Waiver – The cost of components and subcomponents produced in the United States is more than 60 percent of the cost of all components and subcomponents of the "facility/project." The required documentation for a Type 3 waiver is:

- a) Completed Content Percentage Worksheet and Final Assembly Questionnaire including;
- b) Listing of all manufactured products that are not comprised of 100 percent U.S. domestic content (excludes products listed on the FAA Nationwide Buy American Waivers Issued listing and products excluded by Federal Acquisition Regulation Subpart 25.108; products of unknown origin must be considered as non-domestic products in their entirety).
- c) Cost of non-domestic components and subcomponents, excluding labor costs associated with final assembly and installation at project location.
- d) Percentage of non-domestic component and subcomponent cost as compared to total "facility" component and subcomponent costs, excluding labor costs associated with final assembly and installation at project location.

Type 4 Waiver (Unreasonable Costs) - Applying this provision for iron, steel, manufactured goods or construction materials would increase the cost of the overall project by more than 25 percent. The required documentation for this waiver is:

- a) A completed Content Percentage Worksheet and Final Assembly Questionnaire from
- b) At minimum two comparable equal bids and/or offers;
- c) Receipt or record that demonstrates that supplier scouting called for in Executive Order 14005, indicates that no domestic source exists for the project and/or component;
- d) Completed waiver applications for each comparable bid and/or offer.

False Statements: Per 49 USC § 47126, this certification concerns a matter within the jurisdiction of the Federal Aviation Administration and the making of a false, fictitious, or

fraudulent certification may render the maker subject to prosecution under Title 18, United States Code.

Date

Signature

Company Name

Title

CERTIFICATION OF OFFERER/BIDDER REGARDING DEBARMENT

By submitting a bid/proposal under this solicitation, the bidder or offeror certifies that neither it nor its principals are presently debarred or suspended by any Federal department or agency from participation in this transaction.

CERTIFICATION OF LOWER TIER CONTRACTORS REGARDING DEBARMENT

The successful bidder, by administering each lower tier subcontract that exceeds \$25,000 as a "covered transaction", must verify each lower tier participant of a "covered transaction" under the project is not presently debarred or otherwise disqualified from participation in this federally assisted project. The successful bidder will accomplish this by:

- 1. Checking the System for Award Management at website: http://www.sam.gov.
- 2. Collecting a certification statement similar to the Certification of Offerer /Bidder Regarding Debarment, above.
- 3. Inserting a clause or condition in the covered transaction with the lower tier contract.

If the Federal Aviation Administration later determines that a lower tier participant failed to disclose to a higher tier participant that it was excluded or disqualified at the time it entered the covered transaction, the FAA may pursue any available remedies, including suspension and debarment of the non-compliant participant.

So certified:

Signature

Check one: ___ Organization ___ Individual

Title

Organization name (or DBA if an individual)

Date

TRADE RESTRICTION CERTIFICATION

By submission of an offer, the Offeror certifies that with respect to this solicitation and any resultant contract, the Offeror –

- is not owned or controlled by one or more citizens of a foreign country included in the list of countries that discriminate against U.S. firms as published by the Office of the United States Trade Representative (USTR);
- 2) has not knowingly entered into any contract or subcontract for this project with a person that is a citizen or national of a foreign country included on the list of countries that discriminate against U.S. firms as published by the USTR; and
- 3) has not entered into any subcontract for any product to be used on the Federal project that is produced in a foreign country included on the list of countries that discriminate against U.S. firms published by the USTR.

This certification concerns a matter within the jurisdiction of an agency of the United States of America and the making of a false, fictitious, or fraudulent certification may render the maker subject to prosecution under Title 18 USC Section 1001.

The Offeror/Contractor must provide immediate written notice to the Owner if the Offeror/Contractor learns that its certification or that of a subcontractor was erroneous when submitted or has become erroneous by reason of changed circumstances. The Contractor must require subcontractors provide immediate written notice to the Contractor if at any time it learns that its certification was erroneous by reason of changed circumstances.

Unless the restrictions of this clause are waived by the Secretary of Transportation in accordance with 49 CFR § 30.17, no contract shall be awarded to an Offeror or subcontractor:

- 1) who is owned or controlled by one or more citizens or nationals of a foreign country included on the list of countries that discriminate against U.S. firms published by the USTR; or
- 2) whose subcontractors are owned or controlled by one or more citizens or nationals of a foreign country on such USTR list; or
- 3) who incorporates in the public works project any product of a foreign country on such USTR list.

Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render, in good faith, the certification required by this provision. The knowledge and information of a contractor is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

The Offeror agrees that, if awarded a contract resulting from this solicitation, it will

incorporate this provision for certification without modification in all lower tier subcontracts. The Contractor may rely on the certification of a prospective subcontractor that it is not a firm from a foreign country included on the list of countries that discriminate against U.S. firms as published by USTR, unless the Offeror has knowledge that the certification is erroneous.

This certification is a material representation of fact upon which reliance was placed when making an award. If it is later determined that the Contractor or subcontractor knowingly rendered an erroneous certification, the Federal Aviation Administration (FAA) may direct through the Owner cancellation of the contract or subcontract for default at no cost to the Owner or the FAA.

So certified:

Signature

Check one: ____Organization ____Individual

Title

Organization name (or DBA if an individual)

INDIANA LEGAL EMPLOYMENT DECLARATION

The State of Indiana has enacted a law (I.C. 22-5-1.7) requiring the Fort Wayne-Allen County Airport Authority to require the following before renewing or entering into contracts for services:

This Declaration serves as notice that all Contractors performing services must, as a term of their contract:

- 1. Enroll in and verify the work eligibility status of newly hired employees of the contractor through the E-Verify programs (but is not required to do this if the E-Verify program no longer exists); and
- 2. Verify, by signature below, that the Contractor does not knowingly employ unauthorized aliens.

By signing below, this affidavit becomes a part of and is incorporated into any contract for services that your firm currently has with the Fort Wayne-Allen County Airport Authority.

I,, a duly authorized agent of	_(name	of
Company), declare under penalties of perjury that	_(name	of
Company) does not employ unauthorized aliens to the best of its knowledge and belief.		

(Name of Company) By: (Authorized Representa	ative of Company)
day of	, 20
-	
-	
-	
	By:day of

Notary Public – Printed Name

PLEASE SEE http://www.uscis.gov/e-verify INSTRUCTIONS AND ELECTRONIC REGISTRATION FOR E-VERIFY.

IC 5-16-13 also requires that any contractor (including subcontractors) submit, before work begins on a project, the E-verify case verification number for each individual who is required to be verified under IC 22-5-1.7.

SUBCONTRACTOR BID LISTING

49 CFR 26.11 requires that the Airport Authority obtain from each prime bidder a list that includes the following information for each contractor/subcontractor submitting bids or quotes on any AIP funded project. Complete information for your own firm as well.

Firm Name	Firm Address/ Phone #	DBE or Non- DBE Status (verify via State's UCP Directory)	Age of Firm	Annual Gross Receipts
			 Less than 1 year 1 - 3 years 4-7 years 8-10 years More than 10 years 	 Less than \$500K \$500K - \$1 million \$1-2 million \$2-5 million Greater than \$5 million
			 Less than 1 year 1 - 3 years 4-7 years 8-10 years More than 10 years 	 Less than \$500K \$500K - \$1 million \$1-2 million \$2-5 million Greater than \$5 million
			 Less than 1 year 1 - 3 years 4-7 years 8-10 years More than 10 years 	 Less than \$500K \$500K - \$1 million \$1-2 million \$2-5 million Greater than \$5 million
			 Less than 1 year 1 - 3 years 4-7 years 8-10 years More than 10 years 	 Less than \$500K \$500K - \$1 million \$1-2 million \$2-5 million Greater than \$5 million
			 Less than 1 year 1 - 3 years 4-7 years 8-10 years More than 10 years 	 Less than \$500K \$500K - \$1 million \$1-2 million \$2-5 million Greater than \$5 million
			 Less than 1 year 1 - 3 years 4-7 years 8-10 years More than 10 years 	 Less than \$500K \$500K - \$1 million \$1-2 million \$2-5 million Greater than \$5 million

BIDDERS LIST COLLECTION FORM

FOSTERING SMALL BUSINESS PARTICIPATION

In order to promote the participation of small businesses, including DBE firms, the prime contract shall list elements of the prime contract or specific subcontracts that are of a size that small businesses, including DBE's, can reasonably perform:

Bidders will complete the work in accordance with the Contract Documents for the following prices *listed on* Refer to pages P-16 17 through P-24 26 for detailed work items associated with this project. The undersigned further agrees to complete the work according to the terms of the entire contract *based upon the following combination of the Base Bid plus Additive Alternates for which the Owner elects to award:* in 110 calendar days for the Base Bid or the Base Bid plus Additive Alternate No. 1 (should the Owner elect to award). Should the Owner elect to award Additive Alternate No. 2, the undersigned further agrees to complete the work in Additive Alternate No. 2 in additional 20 consecutive calendar days to the Base Bid (including Additive Alternate No. 1, if awarded) contract time, for a total contract time of 130 consecutive calendar days.

Bid Schedule	Contract Time
Base Bid	110 Consecutive Calendar Days
Base Bid + Additive Alternate No. 1	110 Consecutive Calendary Days
Base Bid + Additive Alternate No. 1 & 2	115 Consecutive Calendar Days
Base Bid + Additive Alternate No. 1 & 3	120 Consecutive Calendar Days
Base Bid + Additive Alternate No. 1, 2, & 3	125 Consecutive Calendar Days

The undersigned hereby acknowledges receipt of the following Addenda:

No	dated
No	dated
No	dated

IN TESTIMONY WHEREOF, the bidder has hereunto set his hand this ____ day of

(Individual, Firm or Corporation) (Seal By):

Title: _____ ATTEST: _____ Federal-FWA

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Fort Wayne-Allen County Airport Authority Fort Wayne International Airport Fort Wayne, Indiana

FWA Construct Taxiway G Extension & Demolish Taxiway C2 Base Bid - Construct Taxiway G Extension

P-101

P-101

20

REMOVE STORM STRUCTURE

REMOVE UNDERDRAIN PIPE (4"-6" DIA.)

					Project Milestone:	Addendu	um No. 2
					Date:	June 20	0, 2024
ITEM NO.	PROJECT SPEC. REF.	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE (WORDS)	UNIT PRICE	EXTENSION
			St	andard I	Pay Items		
1	C-100	CONTRACTOR QUALITY CONTROL PROGRAM	1	LS			
2	C-102	INSTALLATION AND REMOVAL OF SILT FENCE	400	LFT			
3	C-102	INSTALLATION AND REMOVAL OF FABRIC DROP INLET PROTECTION	5	EACH			
4	C-105	MOBILIZATION	1	LS			
5	C-105	ENGINEER'S FIELD OFFICE	5	MO			
6	P-101	PAVEMENT REMOVAL - FULL DEPTH HMA SHOULDER (±8" HMA ON VARIABLE DEPTH AGGREGATE BASE AND 9" SOIL-CEMENT BASE)	1,030	SYD			
7	P-101	PAVEMENT REMOVAL - PCCP (±15" PCCP WITH ±6" HMA BASE)	1,900	SYD			
8	P-101	REMOVE MITL ASSEMBLY, SALVAGE FIXTURE	15	EACH			
9	P-101	REMOVE MITL FIXTURE, ISOLATION TRANSFORMER, AND COVER BASE CAN WITH SOLID LID	25	EACH			
10	P-101	REMOVE L-850C HIRL FIXTURE AND ISOLATION TRANSFORMER, ABANDON FOUNDATION BASE CAN IN PLACE	2	EACH			
11	P-101	REMOVE ELEVATED HIRL ASSEMBLY, SALVAGE FIXTURE	2	EACH			
12	P-101	REMOVE ELEVATED RGL ASSEMBLY, SALVAGE FIXTURE	1	EACH			
13	P_101	REMOVE ELEVATED RGL FIXTURE AND TRANSFORMER, CAP BASE CAN WITH L-867B STEEL LID	2	EACH			
14	P-101	REMOVE AIRFIELD GUIDANCE SIGN AND TRANSFORMER, SALVAGE SIGN AND ABANDON FOUNDATION IN PLACE	6	EACH			
15	P-101	REMOVE AIRFIELD GUIDANCE SIGN AND FOUNDATION, SALVAGE PANELS AND SIGN FRAMES	5	EACH			
16	P-101	REMOVE CONDUIT AND CABLE	1,820	LFT			
17	P-101	REMOVE CABLE	410	LFT			
18	P-101	REMOVE REINFORCED CONCRETE PIPE (UP TO 30-INCH DIAMETER)	818	LFT			

EACH

LFT

2

1,080

Fort Wayne-Allen County Airport Authority Fort Wayne International Airport Fort Wayne, Indiana

FWA Construct Taxiway G Extension & Demolish Taxiway C2 Base Bid - Construct Taxiway G Extension

Addendum No. 2

Project Milestone:

					Date:	June 20), 2024
ITEM NO.	PROJECT SPEC. REF.	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE (WORDS)	UNIT PRICE	EXTENSION
21	P-101	REMOVE UNDERDRAIN CLEANOUT	3	EACH			
22	P-152	UNCLASSIFIED EXCAVATION	7,964	CYD			
23	P-154	SUBBASE COURSE	3,170	CYD			
24	P-307	CEMENT-TREATED PERMEABLE BASE COURSE (6" DEPTH)	15,100	SYD			
25	P-307	GEOTEXTILE SOIL-SEPARATION LAYER	5,300	SYD			
26	P-307	BOND BREAKER	10,000	SYD			
27	P-403	HOT-MIX ASPHALT (HMA) PAVEMENT - 2" SURFACE COURSE (GRADATION 2)	590	TON			
28	P-403	HOT-MIX ASPHALT PAVEMENT - 3" BINDER COURSE (GRADATION 1)	885	TON			
29	P-501	CEMENT CONCRETE PAVEMENT (16" DEPTH)	9,280	SYD			
30	P-501	REINFORCEMENT FOR ODD SHAPED PANELS	1,750	SYD			
31	P-603	EMULSIFIED TACK COAT	400	GAL			
32	P-605	JOINT SEALING FILLER	10,100	LFT			
33	P-620	REMOVAL OF EXISTING PAVEMENT MARKINGS	7,000	SFT			
34	P-620	SURFACE PREPARATION FOR APPLICATION OF NEW PAVEMENT MARKINGS	18,100	SFT			
35	P-620	RUNWAY AND TAXIWAY MARKING - YELLOW (FULL APPLICATION)	5,000	SFT			
36	P-620	RUNWAY AND TAXIWAY MARKING - BLACK (FULL APPLICATION)	10,300	SFT			
37	P-620	RUNWAY AND TAXIWAY MARKING - THERMOPLASTIC SURFACE PAINTED RUNWAY HOLD POSITION SIGN	1,300	SFT			
38	P-620	PAVEMENT MARKING - WHITE (FULL APPLICATION)	1,500	SFT			
39	P-620	REFLECTIVE MEDIA	720	LBS			
40	D-701	REINFORCED CONCRETE PIPE - 45 INCH x 29 INCH, ELLIPTICAL, CLASS IV	449	LFT			

Fort Wayne-Allen County Airport Authority Fort Wayne International Airport Fort Wayne, Indiana

FWA Construct Taxiway G Extension & Demolish Taxiway C2 Base Bid - Construct Taxiway G Extension

ITEM NO.

L-125

FOUNDATION

L-858, INSTALL NE W LED 2-MODULE SIZE 3 GUIDANCE SIGN ON NEW

					Project Milestone:	Addendum No. 2	
					Date:	June 20, 2024	
I	PROJECT SPEC. REF.	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE (WORDS)	UNIT PRICE	EXTENSION
		REINFORCED CONCRETE PIPE - 53 INCH x 34 INCH, ELLIPTICAL, CLASS IV	369	LFT			
	D-705	PERFORATED UNDERDRAIN, 6- INCH PVC, COMPLETE	2,150	LFT			
	D-705	UNDERDRAIN CLEANOUT, TYPE I	4	EACH			
	D-705	UNDERDRAIN CLEANOUT, TYPE II	5	EACH			
	D-751	INDOT TYPE D MANHOLE	1	EACH			
	D-751	INDOT TYPE M MANHOLE	1	EACH			
	T-901	HYDROMULCH SEEDING	400	KSFT			
	1-108	NO. 8 AWG, 5KV, L824, TYPE C CABLE, INSTALLED IN DUCT BANK OR CONDUIT	6,000	LFT			
	L-108	NO. 6 AWG, SOLID, BARE COPPER COUNTERPOISE WIRE, INSTALLED IN TRENCH, ABOVE THE DUCT BANK OR CONDUIT, INCLUDING CONNECTIONS/TERMINATIONS	3,600	LFT			
	L-110	NON-ENCASED, ELECTRICAL CONDUIT, 1-WAY, 2-INCH, IN TURF	1,100	LFT			
	L-110	CONCRETE ENCASED, ELECTRICAL CONDUIT, 1-WAY, 2-INCH	2,200	LFT			
	L-110	CONCRETE ENCASED, ELECTRICAL CONDUIT, 4-WAY, 2-INCH	330	LFT			
	L-115	L-867E BASE CAN HANDHOLE, ELECTRIC OR CONTROL	2	LFT			
	L-125	L-861T, INSTALL NEW ELEVATED LED TAXIWAY MITL FIXTURE ON NEW BASE, IN SHOULDER PAVEMENT	39	EACH			
	L-125	L-861T, INSTALL ELEVATED LED TAXIWAY MITL FIXTURE ON NEW BASE, IN TURF	7	EACH			
Ī	L-125	INSTALL SALVAGED L-862 ELEVATED FIXTURE AND NEW L-830 ISOLATION TRANSFORMER WITH ADAPTER RING (L-868 TO L-867) ON EXISTING BASE CAN	2	EACH			
	L-125	INSTALL NEW L-850C INCANDESCENT HIRL FIXTURES ON NEW BASE CAN, IN TAXIWAY PAVEMENT	2	EACH			
T	L-125	L-858, INSTALL NEW LED 1-MODULE SIZE 3 GUIDANCE SIGN ON NEW FOUNDATION	3	EACH			

EACH

Fort Wayne-Allen County Airport Authority Fort Wayne International Airport Fort Wayne, Indiana

FWA Construct Taxiway G Extension & Demolish Taxiway C2 Base Bid - Construct Taxiway G Extension

					Project Milestone:	Addendum No. 2		
					Date:	June 20, 2024		
ITEM NO.	PROJECT SPEC. REF.	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE (WORDS)	UNIT PRICE	EXTENSION	
60	L-125	L-858, INSTALL NEW LED 3-MODULE SIZE 3 GUIDANCE SIGN ON NEW FOUNDATION	4	EACH				
61	L-125	L-858, INSTALL NEW LED 3-MODULE SIZE 3 GUIDANCE SIGN ON EXISTING FOUNDATION	1	EACH				
62	L-125	REPLACE PANELS ON EXISTING GUIDANCE SIGNS	15	EACH				
63	L-125	L-804, INSTALL NEW ELEVATED LED RGL ASSEMBLY ON NEW BASE IN NEW TAXIWAY SHOULDER HMA PAVEMENT	3	EACH				
64	MST-02	MAINTENANCE OF TRAFFIC	1	LS				
65	MST-03	CONSTRUCTION ENGINEERING	1	LS				
66	MST-04	PROJECT SECURITY	1	LS				
	[1					
		Standard Pay Item Subtotal						
Undistributed Pay Items								
67	MST-06	HAUL ROUTE REPAIR (ALLOWANCE)	1	ALLOW	Forty-thousand dollars and zero cents	\$40,000.00	\$40,000.00	
68	P-152	UNDERCUT UNSUITABLE MATERIAL (UNDISTRIBUTED)	800	CYD				
69	P-152	SPECIAL SUBGRADE TREATMENT (UNDISTRIBUTED)	400	CYD				
70	P-155	LIME TREATED SUBGRADE (UNDISTRIBUTED)	15,100	SYD				
71	P-155	LIME (UNDISTRIBUTED)	640	TON				
						· · · · · · · · · · · · · · · · · · ·		
		Undistributed Pay Item Subtotal						
		Tatal Data Did Amarint						
		Total Base Bid Amount						

Fort Wayne-Allen County Airport Authority Fort Wayne International Airport Fort Wayne, Indiana

FWA Construct Taxiway G Extension & Demolish Taxiway C2 Additive Alternate No. 1 - Demolish Taxiway C2

Project Milestone: Addendum No. 2

					Date:	te: June 20, 2024				
ITEM NO.	PROJECT SPEC. REF.	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE (WORDS)	UNIT PRICE	EXTENSION			
	Standard Pay Items									
72	P-101	PAVEMENT REMOVAL - PCCP (±15" PCCP WITH ±6" HMA BASE)	6,900	SYD						
73	P-101	PAVEMENT REMOVAL - FULL DEPTH HMA SHOULDER (±8" HMA ON VARIABLE DEPTH AGGREGATE BASE AND ±9" SOIL-CEMENT BASE)	2,150	SYD						
74	P-101	REMOVE IN-PAVEMENT HIRL BASE CAN ASSEMBLY	2	EACH						
75	P-101	REMOVE MITL BASE CAN ASSEMBLY IN TURF	13	EACH						
76	P-101	REMOVE MITL BASE CAN ASSEMBLY IN SHOULDER PAVEMENT	12	EACH						
77	P-101	REMOVE CONDUIT AND CABLE	2,000	LFT						
78	P-101	REMOVE AIRFIELD GUIDANCE SIGN FOUNDATION ASSEMBLY	6	EACH						
79	P-101	REMOVE 4"-4 WAY DUCT BANK	170	LFT						
80	P-101	REMOVE ELECTRICAL HANDHOLE	2	EACH						
81	P-101	REMOVE RGL BASE CAN ASSEMBLY	2	EACH						
82	P-152	BORROW EXCAVATION	6,932	CYD						
83	P-154	SUBBASE COURSE	600	CYD						
84	P-403	2" BITUMINOUS ASPHALT MIXTURE SURFACE COURSE (GRADATION 2)	140	TON						
85	P-403	3" BITUMINOUS ASPHALT MIXTURE BINDER COURSE (GRADATION 1)	210	TON						
86	P-603	EMULSIFIED TACK COAT	100	GAL						
87	P-605	JOINT SEALING FILLER	500	LFT						
88	D-705	PERFORATED UNDERDRAIN, 6- INCH PVC, COMPLETE	400	LFT						
89	D-705	UNDERDRAIN CLEANOUT, TYPE I	2	LFT						
90	T-901	HYDROMULCH SEEDING	200	KSFT						
91	MST-03	ADDITIONAL CONSTRUCTION ENGINEERING	1	LS						

Fort Wayne-Allen County Airport Authority Fort Wayne International Airport Fort Wayne, Indiana

FWA Construct Taxiway G Extension & Demolish Taxiway C2 Additive Alternate No. 1 - Demolish Taxiway C2

Project Milestone: Addendum No. 2

June 20. 2024 Date: ITEM PROJECT DESCRIPTION QUANTITY UNIT UNIT PRICE (WORDS) UNIT PRICE EXTENSION SPEC. REF. NO. 92 L-108 NO. 8 AWG, 5KV, L824, TYPE C CABLE, INSTALLED IN DUCT BANK OR CONDUIT 600 LFT NO. 6 AWG, SOLID, BARE COPPER COUNTERPOISE WIRE, INSTALLED IN TRENCH, 93 L-108 600 LFT ABOVE THE DUCT BANK OR CONDUIT, INCLUDING CONNECTIONS/TERMINATIONS 94 L-110 CONCRETE-ENCASED, ELECTRICAL CONDUIT, 1-WAY, 2-INCH 400 LFT INSTALL SALVAGED L-862 ELEVATED FIXTURE AND NEW L-830 ISOLATION 95 L-125 2 EACH TRANSFORMER ON NEW BASE CAN 96 L-125 BASE BID CREDIT - EXISTING MITL SOLID LID INSTALLATION -25 EACH 97 L-125 BASE BID CREDIT - EXISTING GUIDANCE SIGN SOLID LID INSTALLATION -6 EACH 98 L-125 BASE BID CREDIT - RGL SOLID LID INSTALLATION -2 EACH BASE BID CREDIT - INSTALL L-862 ELEVATED FIXTURE WITH ADAPTER RING ON 99 L-125 -2 EACH EXISTING BASE CAN Standard Pay Item Subtotal **Undistributed Pay Items** Undistributed Pay Item Subtotal **Total Additive Alternate No. 1 Amount**

ITEMIZED PROPOSAL

Fort Wayne-Allen County Airport Authority Fort Wayne International Airport Fort Wayne, Indiana

FWA Construct Taxiway G Extension & Demolish Taxiway C2 Additive Alternate No. 2 - Relocate Runway 5-23 Hold Position Locations

Project Milestone: Addendum No. 2

					Date:	June 20	0, 2024
	PROJECT SPEC. REF.	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE (WORDS)	UNIT PRICE	EXTENSION
		Standard Pay Items					
100	P-101	REMOVE ELEVATED RGL ASSEMBLY, SALVAGE FIXTURE	18	EACH			
101	P-101	REMOVE AIRFIELD GUIDANCE SIGN AND FOUNDATION, SALVAGE PANELS AND SIGN FRAMES	12	EACH			
102	P-101	REMOVE CONDUIT AND CABLE	5,400	LFT			
103	P-620	REMOVAL OF EXISTING PAVEMENT MARKINGS	24,000	SFT			
104	P-620	SURFACE PREPARATION FOR NEW MARKINGS	35,300	SFT			
105	P-620	RUNWAY AND TAXIWAY MARKING - YELLOW (FULL APPLICATION)	9,300	SFT			
106	P-620	RUNWAY AND TAXIWAY MARKING - BLACK (FULL APPLICATION)	18,900	SFT			
107	P-620	RUNWAY AND TAXIWAY MARKING - THERMOPLASTIC SURFACE PAINTED RUNWAY HOLD POSITION SIGN	4,600	SFT			
108	P-620	PAVEMENT MARKING - WHITE (FULL APPLICATION)	2,500	SFT			
109	P-620	REFLECTIVE MEDIA	1,300	LBS			
110	L-108	NO. 8 AWG, 5KV, L824, TYPE C CABLE, INSTALLED IN TRENCH, DUCT BANK, OR CONDUIT	2,800	LFT			
111	L-108	NO. 6 BDSC COUNTERPOISE, INSTALLED IN TRENCH	1,200	LFT			
112	L-110	NON-ENCASED, ELECTRICAL CONDUIT, 1-WAY, 2-INCH, IN TURF	1,200	LFT			
113	L-115	INSTALL NEW L-867B BASE CAN HANDHOLE, ELECTRIC OR CONTROL	10	EA			
114	L-125	L-858, INSTALL NEW LED 1-MODULE SIZE 3 ILS BOUNDARY SIGN ON EXISTING FOUNDATION	1	EACH			
115	L-125	L-858, INSTALL NEW LED 2-MODULE SIZE 3 GUIDANCE SIGN ON NEW FOUNDATION	2	EACH			
116	L-125	L-858, INSTALL NEW LED 3-MODULE SIZE 3 GUIDANCE SIGN ON NEW FOUNDATION	7	EACH			
117	L-125	L-858, RELOCATE LED 3-MODULE SIZE 3 GUIDANCE SIGN ON NEW FOUNDATION	1	EACH			
118	L-125	L-804, INSTALL NEW ELEVATED LED RGL ASSEMBLY ON NEW BASE IN NEW TAXIWAY SHOULDER HMA PAVEMENT	6	EACH			
119	L-125	L-804, INSTALL NEW ELEVATED LED RGL ASSEMBLY ON NEW BASE IN TURF	12	EACH			
120	L-125	REPLACE PANELS ON EXISTING GUIDANCE SIGNS	1	EACH			
121	MST-02	ADDITIONAL MAINTENANCE OF TRAFFIC	1	LS			
122	MST-03	ADDITIONAL CONSTRUCTION ENGINEERING	1	LS			
123	MST-04	ADDITIONAL PROJECT SECURITY	1	LS		ĺ	
124	L-125	BASE BID CREDIT - REPLACE PANELS ON EXISTING GUIDANCE SIGNS	-20	EACH			
L,							
		Standard Pay Item Subtotal					

		ITEMIZED P	ROPOSAL				
	Fort Wayne-Allen County Airport Authority Fort Wayne International Airport Fort Wayne, Indiana						
	FWA Construct Taxiway G Extension & Demolish Taxiway C2 Additive Alternate No. 2 - Relocate Runway 5-23 Hold Position Locations						
					Project Milestone Date		lum No. 2 20, 2024
	PROJECT SPEC. REF.	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE (WORDS)	UNIT PRICE	EXTENSION
NO.	SI EC. KET.						
		Undistributed	Pay Iter	ns			
		Undistributed Pay Item Subtotal					
		Total Additive Alternate No. 2 Amount					

ITEMIZED PROPOSAL

Fort Wayne-Allen County Airport Authority Fort Wayne International Airport Fort Wayne, Indiana

FWA Construct Taxiway G Extension & Demolish Taxiway C2 Additive Alternate No. 3 - Rehabilitate Taxiway C Between West Apron and Runway 14-32

Project Milestone: Addendum No. 2

					Date:	June 2), 2024	
ITEM NO.	PROJECT SPEC. REF.	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE (WORDS)	UNIT PRICE	EXTENSION	
	Standard Pay Items							
125	P-605	JOINT SEALING FILLER	3,190	LFT				
126	P-620	REMOVAL OF EXISTING PAVEMENT MARKINGS	5,240	SFT				
127	P-620	SURFACE PREPARATION FOR NEW MARKINGS	5,240	SFT				
128	P-620	RUNWAY AND TAXIWAY MARKING - YELLOW (FULL APPLICATION)	2,600	SFT				
129	P-620	RUNWAY AND TAXIWAY MARKING - BLACK (FULL APPLICATION)	2,700	SFT				
130	P-620	REFLECTIVE MEDIA	300	LBS				
131	MST-02	ADDITIONAL MAINTENANCE OF TRAFFIC	1	LS				
132	MST-03	ADDITIONAL CONSTRUCTION ENGINEERING	1	LS				
133	MST-04	ADDITIONAL PROJECT SECURITY	1	LS				
134	PST-505	WELDED WIRE FABRIC	390	SYD				
135	PST-505	REMOVE EXISITNG PCCP 15"-16" DEPTH ISOLATED PANEL	1,180	SYD				
136	PST-505	PORTLAND CEMENT CONCRETE PAVEMENT - 15" - 16" DEPTH ISOLATED PANEL	1,180	SYD				
137	PST-505	EXISTING PCCP JOINT SPALL REPAIR (EQUAL TO OR LESS THAN 4" DEPTH)	72	SFT				
138	PST-505	EXISTING PCCP CORNER SPALL REPAIR (EQUAL TO OR LESS THAN 4" DEPTH)	17	SFT				
139	PST-505	EXISTING PCCP POPOUT/CORE HOLE REPAIR (EQUAL TO OR LESS THAN 4" DEPTH)	1	SFT				
140	PST-505	CLEAN AND RESEAL JOINTS - LONGITUDINAL AND TRANSVERSE IN EXISTING PCCP - JOINT WIDTH 1" OR LESS	17,620	LFT				
141	PST-505	CLEAN AND RESEAL JOINTS - LONGITUDINAL AND TRANSVERSE IN EXISTING PCCP - JOINT WIDTH GREATER THAN 1" AND NOT GREATER THAN 2"	2,080	LFT				
142	PST-505	CLEAN AND RESEAL JOINTS - EXPANSION AND ISOLATION JOINTS - JOINT WIDTH NOT GREATER THAN 2"	1,040	LFT				
143	PST-505	HMA PAVEMENT TO PCCP INTERFACE JOINT (TYPE "Y")	920	LFT				
			I			1		
		Standard Pay Item Subtotal						

ITEMIZED PROPOSAL Fort Wayne-Allen County Airport Authority Fort Wayne International Airport Fort Wayne, Indiana FWA Construct Taxiway G Extension & Demolish Taxiway C2 Additive Alternate No. 3 - Rehabilitate Taxiway C Between West Apron and Runway 14-32 Project Milestone: Addendum No. 2 Date: June 20, 2024 ITEM PROJECT NO. SPEC. REF. QUANTITY UNIT UNIT PRICE EXTENSION DESCRIPTION UNIT PRICE (WORDS) **Undistributed Pay Items** 144 P-152 UNDERCUT UNSUITABLE MATERIAL (UNDISTRIBUTED) 20 CYD 145 P-152 SPECIAL SUBGRADE TREATMENT (UNDISTRIBUTED) 20 CYD 146 PST-505 WELDED WIRE FABRIC (UNDISTRIBUTED) 40 SYD 147 PST-505 WELDED WIRE FABRIC (UNDISTRIBUTED) 40 SYD 148 PST-505 REMOVE EXISTING PCCP 15"-16" DEPTH ISOLATED PANEL (UNDISTRIBUTED) 150 SYD PORTLAND CEMENT CONCRETE PAVEMENT - 15" - 16" DEPTH ISOLATED PANEL 149 PST-505 150 SYD (UNDISTRIBUTED) 150 PST-505 EXISTING PCCP JOINT SPALL REPAIR (EQUAL TO OR LESS THAN 4" DEPTH) (UNDISTRIBUTED) 10 SFT PORTLAND CEMENT CONCRETE PAVEMENT - 15" - 16" DEPTH ISOLATED PANEL 151 PST-505 150 SYD (UNDISTRIBUTED) Undistributed Pay Item Subtotal **Total Additive Alternate No. 3 Amount** SUBMITTED BY: TITLE: ADDRESS: END OF ITEMIZED PROPOSAL

Item PST-505 Rehabilitation and Repair of PCCP Airfield Pavements

DESCRIPTION

505-1.1 This work shall consist of pavement composed of cement concrete with reinforcement or without reinforcement constructed on a prepared underlying surface in accordance with these specifications and shall conform to the lines, grades, thickness, and typical cross-sections shown on the plans. The terms cement concrete, hydraulic cement concrete, and concrete are interchangeable in this specification. This work shall also consist of rehabilitation and/or repair of existing PCC pavement (PCCP) including, but not limited to: spall repair, joint sealant restoration, isolated panel replacement, partial depth repairs, full depth repairs and stabilized base course repair as enumerated herein.

MATERIALS

505-2.1 Aggregates for PCCP

- a. Reactivity. See technical provision Item P-501.
- **b. Fine Aggregate.** See technical provision Item P-501.
- c. Coarse Aggregate. See technical provision Item P-501.
- **d. Combined Aggregate Gradation.** See technical provision Item P-501.
- 505-2.2 Cement. See technical provision Item P-501.
- **505-2.3 Cementitious Materials.** See technical provision Item P-501.

505-2.4 Joint seal. The joint seal for the joints in the concrete pavement shall meet the requirements of the type specified below and as designated on the plans.

a. Sealant Material for New Joints and Existing Joint and Crack Widths Equal to or Less Than 1". Sealant material for longitudinal, transverse, and expansion/isolation joints 1" in width or less in rigid pavement shall be DOWSIL 890-SL as manufactured by The Dow Chemical Company, DSB 900 ULM-SL Class 5 Silicone as manufactured by D.S. Brown, RoadSaver Silicone Sealant as manufactured by Crafco, Inc., or approved equal and shall be provided in accordance with technical specification Item P-605.

Preparation of materials, if required, shall be in accordance with manufacturer recommendations.

b. Sealant Material for Existing Joint Widths Greater Than 1" and Not Greater Than 2". Joint sealant for longitudinal, transverse, and expansion/isolation joints greater than 1" and not greater than 2" in width in rigid pavement shall be DOWSIL 890-SL as manufactured by The Dow Chemical Company, or approved equal and shall be provided in accordance with technical specification Item P-605.

Preparation of materials, if required, shall be in accordance with manufacturer recommendations.

c. Sealant Material for Existing Joint Widths Greater Than 2" and Not Greater Than 3". Not applicable to this project.

d. Backer Rod Material. The backer rod shall be compatible with the sealant. The backer rod shall be non-reactive and non-adhesive with the pavement or the sealant. The backer rod shall conform to the requirements of ASTM D 5249.

e. Minimum Requirements. Joint sealant minimum requirements are as follows:

(1) A manufacturer's representative must be on-site during initial installation of the product.

(2) Product must be resistant to jet-fuel, aircraft deicing chemicals (propylene and/or ethylene), and airfield pavement deicing chemicals (urea, potassium acetate, sodium acetate, UCAR, sodium formate, and calcium magnesium acetate).

(3) Material shall be capable of movements +50%, -50% (100% total) of the material nominal size.

(4) Deliver products to the site in Manufacturer's original, intact labeled containers. Handle and protect as necessary to prevent damage or deterioration during shipment, handling, and storage. Store in accordance with the manufacturer's installation instructions.

(5) Alternate manufacturers must demonstrate that their products meet or exceed the design criteria and must submit certified performance test reports by nationally recognized independent laboratories. It shall be the Contractor's responsibility to demonstrate "or equal" to the Engineer and Owner. A sample of the proposed alternate material is required at the time of shop drawing submittal review.

505-2.5 Isolation Joint Filler – New Joints. See technical provision Item P-501.

505-2.6 Steel Reinforcement. See technical provision Item P-501.

505-2.7 Dowel and Tie Bars. See technical provision Item P-501.

505-2.8 Water. See technical provision Item P-501.

505-2.9 Material for Curing Concrete. See technical provision Item P-501.

505-2.10 Admixtures for PCCP. See technical provision Item P-501.

505-2.11 Epoxy-Resin. See technical provision Item P-501.

501-2.12 Bond Breaker. See technical provision Item P-501.

505-2.13 Isolated Pavement Repair – Less Than or Equal to 4" Depth.

a. Rapid Setting Repair Material. Repair material for spalls, core holes, popouts, and other minor patching shall be elastomeric concrete such as Delpatch as manufactured by D.S. Brown, WABO-Crete II as manufactured by Watson Bowman Acme, or an approved equal. The elastomeric concrete material shall be a flexible concrete repair material with high tensile strength and strong bonding with existing PCC. Elastomeric concrete material shall remain flexible throughout anticipated temperature extremes to avoid cracking, delaminating and premature material loss due to thermal climatic changes and traffic loadings. Elastomeric concrete material shall be capable of supporting aircraft loads (250 psi tires), within 1 hour of placement. Elastomeric concrete material shall be gray in color and shall not be adversely affected by jet fuel or de-icing fluids. An approved equal material to Delpatch or WABO-Crete II must be submitted <u>prior</u> to the bid for acceptance by the Engineer. The material shall have the same or better performance characteristics and shall have a documented history of successful performance at airports in Indiana and/or its bordering states that has been in service for a minimum of 3 years with satisfactory performance as provided by at least 3 references for the locations provided.

Preparation of materials, if required, shall be in accordance with manufacturer recommendations.

b. Non-Absorbent Board. The nonabsorbent board shall be used as a joint form for the joint reservoir to be protected. The nonabsorbent board shall be a standard 1/2-inch asphalt impregnated fiberboard. For joint widths greater than 1/2-inch, the width of the nonabsorbent board shall be adjusted to fit the larger joint width.

505-2.14 Isolated Pavement Repair – Greater Than 4" Depth. Repairs for spalls, core holes and popouts greater than 4" depth shall be treated as a full panel replacement as directed by the RPR.

505-2.15 Isolated Pavement Repair – Partial Slab Replacement (Full Depth). Not applicable to this project.

505-2.16 Stabilized Base Course Repair. Distresses in stabilized base material less than or equal to 2" depth underlying PCCP shall be removed to a depth of at least 2" and patched or repaired with HMA stabilized base course (gradation 2) in accordance with Item P-403. Distresses in stabilized base material in excess of 2" depth underlying PCCP shall be removed to the depth of the distress and also patched or repaired with HMA stabilized base course (gradation 1) in accordance with Item P-403.

Material shall be placed in lifts not to exceed 3 inches (75 mm).

505-2.17 Crushed Aggregate Base Course Repair. Crushed aggregate base course shall be in accordance with technical provision Item P-154 (Indiana Department of Transportation (INDOT) 301, #53 Crushed Aggregate Base Course).

505-2.18 Material Acceptance. Prior to use of materials, the Contractor shall submit certified test reports to the Engineer for those materials proposed for use during construction. The certification shall show the appropriate ASTM test for each material, the test results, and a statement that the material passed or failed.

The Engineer may request samples for testing, prior to and during production, to verify the quality of the materials and to ensure conformance with the applicable specifications.

MIX DESIGN FOR PCCP

See technical provision Item P-501.

CONSTRUCTION METHODS

505-4.1. Control Panel. Upon acceptance of the mix design, but prior to the start of production, the Contractor shall prepare a test batch and place a control panel as described below.

a. Test Batch. The test batch shall be prepared at the concrete plant proposed for use in the production of the concrete mix for the project and the test batch proportions shall be in accordance with the approved mixture for the Contractor's predominate method of proposed placement. The plant shall have been surveyed and reviewed by the RPR or the RPR's designated representative prior to preparation of the test batch. The Contractor shall provide all quality control for production of the concrete. The test batch shall be prepared as follows:

(1) Proportioning. The Contractor shall proportion the plant in accordance with "Contractor Quality Control (CQC)" described herein prior to preparation of the mix.

(2) Preparation of the Mix.

i. Prepare a minimum test batch of at least four (4) cubic yards of concrete in accordance with the accepted mixture.

ii. Mixing

(a). Stationary Plant: Minimum of 90 seconds unless historical plant data or the uniformity test demonstrates otherwise

(b). Transit Mixer: 70-100 Revs. @ 5-16 RPM

iii. After initial mixing, agitate mix at 2-5 RPM for the approximate time anticipated from when the water contacts the cement and deposit of the concrete in the forms.

iv. Check slump and air. If the air content is approximately equal to the designated percent and the slump is approximately equal to the designated slump, the Contractor Quality Control Lab will make cylinders for testing while the RPR observes. Cylinders will be made for testing when the designated slump is obtained at approximately the designated percent air content.

v. The concrete compressive strength cylinders shall be tested at 7, 14 and 28 days and evaluated in accordance with the prescribed mix design.

b. Placement of Control Panel. The Contractor shall place a control panel at a location on the Airport selected by the RPR and approved by the Owner. The Contractor shall demonstrate in the presence of the RPR, that the materials, concrete mix, equipment, construction processes, and quality control processes meet the full panel replacement of existing PCCP in accordance with the specifications. Minor adjustments to the mix design may be required to place an acceptable test panel. The production mix will be the adjusted mix design used to place the acceptable control panel.

The Contractor shall demonstrate the newly placed concrete meets the minimum strength level outlined in paragraph 505-3.3. Removal and replacement shall be in accordance with paragraph 505-4.4.

Upon acceptance of the control panel by the RPR, the Contractor must use the same equipment, materials, and construction methods for the remainder of concrete paving. Any adjustments to processes or materials must be approved in advance by the RPR.

The Contractor shall demonstrate the ability to perform removal and replacement, including all required quality control testing in accordance with paragraph 505-4.4

Performance of the control panel, all ancillary items, and quality control testing required thereto shall be considered incidental to the project. No further measurement for payment will be made.

505-4.3 Equipment. The Contractor is responsible for the proper operation and maintenance of all equipment necessary for handling materials and performing all parts of the work to meet this specification.

a. Plant and Equipment. The plant and mixing equipment shall conform to the requirements of ASTM C94 and/or ASTM C685. Each truck mixer shall have attached in a prominent place a manufacturer's nameplate showing the capacity of the drum in terms of volume of mixed concrete and the speed of rotation of the mixing drum or blades. The truck mixers shall be examined daily for changes in condition due to accumulation of hard concrete or mortar or wear of blades. The pickup and throwover blades shall be replaced when they have worn down 3/4 inch (19 mm) or more. The Contractor shall have a copy of the manufacturer's design on hand showing dimensions and arrangement of blades in reference to original height and depth.

Equipment for transferring and spreading concrete from the transporting equipment to the paving lane in front of the paver or finishing equipment shall be provided. The equipment shall be specially manufactured, self-propelled transfer equipment which will accept the concrete outside the paving lane or repair area and will spread it evenly across the paving lane in front of the paver or finishing equipment and strike off the surface evenly to a depth which permits the paver to operate efficiently.

b. Finishing Equipment.

(2) Fixed-form. On projects requiring less than 1,000 cubic yards (765 cubic meters) of concrete pavement or irregular areas at locations inaccessible to slip-form paving equipment, Concrete pavement shall be placed with equipment specifically designed for placement and finishing using stationary side forms (or existing PCCP as side forms), supplemented with hand screeding and float finishing on small irregular areas as allowed by the RPR. Methods and equipment shall be reviewed and accepted by the RPR.

d. Concrete Saws. The Contractor shall provide sawing equipment adequate in number of units and power to complete the sawing to the required dimensions. The Contractor shall provide at least one standby saw in good working order and a supply of saw blades at the site of the work at all times during sawing operations.

(1) Random Saws for Cracks. Manually operated, powered random crack sawing equipment capable providing uniform sealant reservoirs to the dimensions shown on the construction plans.

505-4.4 Existing PCCP Replacement – Full Panel. Existing PCCP slabs that are designated for replacement shall be removed and replaced as specified herein. Removal shall be full depth, shall be full width of the slab, and the limit of removal shall be normal to the paving lane and to each original transverse joint.

a. Saw-Cut Pavement. Prior to performing demolition of pavement adjacent to existing concrete pavement to remain, the existing pavement shall be cut by a power-driven diamond-type concrete saw along designated lines as indicated in the plans, or where directed by the RPR. The sawing shall be such that any portion of the pavement to remain shall not be damaged. Any portion that is damaged or removed outside of the designated lines shall be replaced at no additional cost to the Owner. Sawing of

the existing concrete pavement to be removed will not be paid for directly but shall be considered incidental to the item to which it applies.

A secondary saw-cut shall be made around the perimeter of the panel, approximately 18"-24" inside the existing joint line to remain, and at least 12" (300 mm) from the end of any dowels. The secondary saw-cut shall remain at least 6" clear of an in-pavement light fixture. This secondary saw-cut is intended to relieve stress created by the removal of the panel and provide expansion for pavement during demolition of the panel.

The main slab shall be further divided by sawing full depth, at appropriate locations, and each piece lifted out and removed. Suitable equipment shall be used to provide a truly vertical lift and approved safe lifting devices used for attachment to the slabs. The narrow strips along doweled edges shall be carefully broken up and removed using approved equipment described in paragraph 505-4.4.b below.

b. Pavement Removal. Use appropriate-sized impact equipment (e.g., jackhammer, hoe ram) to remove material within the limits of the secondary saw-cuts. All pavement between the secondary saw-cut and the existing joint line shall be carefully broken up and removed using hand-held jackhammers, 30 lb. or less, or other approved light-duty equipment which will not cause stress to propagate across the joint saw-cut and cause distress in the pavement which is to remain in place.

No mechanical impact breakers, other than the above hand-held equipment shall be used for any removal of slabs. In no instance shall the use of a guillotine-type breaker be permitted. Remove by hand any loose materials that remain.

The Contractor shall exercise caution when removing the PCCP so as to minimize any disturbance to the subgrade soils and to protect the underlying base course(s). Damage to the stabilized base course, which in the opinion of the RPR, has jeopardized the structural integrity of the material due to the Contractor's forces, shall be removed and replaced at no additional cost to the Owner.

If underbreak between 1-1/2 and 4 inches (38 and 100 mm) deep occurs at any point along any edge, the area shall be repaired as directed before replacing the removed slab. Procedures directed will be similar to those specified for surface spalls, modified as necessary. If underbreak over 4 inches (100 mm) deep occurs, the entire slab containing the underbreak shall be removed and replaced at no additional cost to the Owner.

Where encountered, the Contractor shall exercise extreme caution when working around existing airfield lighting equipment. In-pavement lights consist of a 12" nominal diameter steel base can (24" depth) with conduits entering and exiting the base can roughly 20" below the surface elevation. To protect the existing fixture and base can, the Contractor shall core over the base using a 20" minimum diameter core bit. The concrete encasement remaining around the light base shall be protected and remain in place.

Damaged in-pavement light bases shall be removed and replaced at no additional cost to the Owner.

c. Stabilized Base Removal and Crushed Aggregate Base Placement Beneath PCCP Panels to be **Replaced.** The contract documents designate existing PCCP panels for replacement. The contract documents designate the treatment of material beneath PCCP panels to be replaced as designated by the RPR during construction. Each condition is described below.

(1) Planned Repair of Stabilized Base Course and Crushed Aggregate Base Course Placement. Not applicable to this project. (2) Repair Stabilized Base Course as Designated by the RPR During Construction. Where removal of existing stabilized base course beneath existing PCCP panels planned for replacement is not identified in the contract documents, the RPR shall evaluate the condition of the existing underlying stabilized base course and determine if corrective action is required to restore or repair the stabilized base course. If patching, repair, or complete replacement of the underlying stabilized base course is required, it shall be conducted with material described under paragraph 505-2.16 and as described below. Undistributed quantities of existing stabilized base course to be removed and replaced are provided in the contract documents in the event a yielding or deteriorated stabilize base course is discovered.

Should the RPR determine that the underlying base course within the area of a full panel replacement requires patching, partial repair, or entire replacement, the Contractor shall remove stabilized base course as directed. Sufficient material shall be kept in place outside the joint line to prevent disturbance (or sloughing) of material under the pavement that is to remain in place. Any material under the portion of the concrete pavement to remain in place, which is disturbed or loses its compaction/integrity shall be carefully removed and replaced as directed. Low areas shall be filled and compacted to a condition similar to that of the surrounding grade.

Should the RPR determine that the complete replacement of a PCCP panel's underlying base course is required, the Contractor, shall measure and verify the existing panel depth prior to the base course removal. Measurements shall be reported to the RPR prior to material removal. Upon construction of the new base course, measurements shall be taken by the Contractor and provided to the RPR, verifying that the surface elevation of the base course will not result in a thinner PCCP panel replacement. Should it be determined that the surface elevation of the replacement material is has changed by more than 1/4 inch (6.25 mm), the Contractor shall remove and replace the base course in order to maintain less than a 1/4 inch (6.25 mm) differential in the base course surface elevation. Corrective action shall not be measured for payment but shall be considered incidental to the base course replacement material.

i. Edge Repair. Edge spalls shall be repaired where indicated and where directed by the RPR. Repair materials and procedures shall be in accordance with paragraph 505-4.7.

ii. Underbreak repair. All underbreak shall be repaired. First, all delaminated and loose material shall be carefully removed. Next, the underlying material shall be recompacted, without addition of any new material. Finally, the void shall be completely filled with approved materials, thoroughly consolidated. Care shall be taken to produce an even joint face from top to bottom. Prior to placing concrete, the underlying material shall be thoroughly moistened. After placement, the exposed surface shall be heavily coated with bond breaking material.

d. Preparation for PCCP Placement. A suitable bond-breaking material shall be applied to the surface of the stabilized base prior to placement of new PCCP in accordance with this specification. The prepared underlying surface shall be moistened with water, without saturating, immediately ahead of concrete placement to prevent rapid loss of moisture from the concrete. Damage caused by hauling or usage of other equipment shall be corrected and retested at the option of the RPR. If damage occurs to a stabilized base, it shall be corrected by the Contractor at no additional cost. All excess material shall be removed and wasted. The underlying surface shall be protected so that it will be entirely free from frost when the concrete is placed. The use of chemicals to eliminate frost in the underlying surface shall not be permitted. The underlying stabilized base course material adjacent to the edge of existing pavement which is to remain in place shall be protected from damage or disturbance during removal operations and until placement of new PCCP.

e. Form Setting. When required, forms shall be set sufficiently in advance of the concrete placement to ensure continuous paving operation. After the forms have been set to correct grade, the underlying surface shall be thoroughly tamped, either mechanically or by hand, at both the inside and outside edges of the base of the forms. Forms shall be staked into place sufficiently to maintain the form in position for the method of placement.

Form sections shall be tightly locked and shall be free from play or movement in any direction. The forms shall not deviate from true line by more than 1/8 inch (3 mm) at any joint. Forms shall be so set that they will withstand, without visible spring or settlement, the impact and vibration of the consolidating and finishing equipment. Forms shall be cleaned and oiled prior to the placing of concrete.

The alignment and grade elevations of the forms shall be checked, and corrections made by the Contractor immediately before placing the concrete.

e. Dowel Bar Placement. Dowel bars shall be epoxy-coated and of the type, size, and spacing noted in the construction plans shall be installed in all longitudinal and transverse joints. Installation of dowel bars shall be considered incidental to this specification. No further measurement for payment will be made.

Dowels shall be held rigidly in place, located within the middle of the slab depth in the proper horizontal and vertical alignments (as further described below) by an approved assembly device to be permanently left in place. The dowel (or load-transfer/joint devices) shall be rigid enough to permit complete assembly as a unit ready to be lifted and placed into position.

(1) Placing Dowel or Tie Bars – In Existing PCCP. Dowel bars to be installed in existing PCCP shall be offset from existing dowels by at least 3" and shall be located no closer than 12" to an intersecting joint.

Install dowels in hardened (or existing) concrete by bonding the dowels into holes drilled into the hardened concrete. Where required to install in newly placed PCCP, it shall have cured for seven (7) days or reached a minimum compressive strength of 3,100 psi (21.4 MPa), or a flexural strength of 450 psi (3.1 MPa) before drilling commences. Holes 1/8 inch (3 mm) greater in diameter than the dowels shall be drilled into the hardened concrete using rotary-core drills. Rotary-percussion drills may be used, provided that excessive spalling does not occur to the concrete joint face. Modification of the equipment and operation shall be required if, in the RPR's opinion, the equipment and/or operation is causing excessive damage. Depth of dowel hole shall be within a tolerance of $\pm 1/2$ inch (12 mm) of the dimension shown on the drawings. On completion of the drilling operation, the dowel hole shall be blown out with oil-free, compressed air. Dowels shall be bonded in the drilled holes using epoxy resin. Epoxy resin shall be injected at the back of the hole before installing the dowel and extruded to the collar during insertion of the dowel so as to completely fill the void around the dowel. Application by buttering the dowel will not be permitted. The dowels shall be held in alignment at the collar of the hole, after insertion and before the grout hardens, by means of a suitable metal or plastic grout retention ring fitted around the dowel. Dowels required to be installed in any joints between new and existing concrete shall be grouted in holes drilled in the existing concrete, all as specified above. One half of each dowel bar exposed to the new work shall be coated with bond breaking material (a thin, even film of curing compound, lubricating oil, or light grease).

Dowel or tie bars installed in existing PCCP shall be subject to the same vertical and horizontal alignment tolerances as noted below in subparagraph (2) below.

(2) Placing Dowel or Tie Bars – In New PCCP. See technical provision Item P-501.

i. Contraction Joints. Dowels (or tie) bars in longitudinal and transverse contraction joints within the paving lane shall be held securely in place, as indicated, by means of rigid metal frames or basket assemblies of an approved type. The basket assemblies shall be held securely in the proper location by means of suitable pins or anchors. Do not cut or crimp the dowel basket tie wires.

ii. Construction Joints. Install dowels (or tie) bars by the cast-in- place or the drill-and-dowel method. Installation by removing and replacing in preformed holes will not be permitted. Dowels and tie bars shall be prepared and placed across joints where indicated, correctly aligned, and securely held in the proper horizontal and vertical position during placing and finishing operations, by means of devices fastened to the forms. The spacing of dowels and tie bars in construction joints shall be as indicated.

f. Bond Breaker. The bond breaking material may not be placed when rainfall is occurring or where rain is imminent. Bond breaker shall be applied in accordance with paragraph 505-2.12.

g. PCCP Placement. Prepare, place, and finish the PCCP in the replacement area in accordance with requirements provided below for PCCP placement.

(1) Handling, Measuring, and Batching Material. Aggregate stockpiles shall be constructed and managed in such a manner that prevents segregation and intermixing of deleterious materials. Aggregates from different sources shall be stockpiled, weighed and batched separately at the concrete batch plant. Aggregates that have become segregated or mixed with earth or foreign material shall not be used. All aggregates produced or handled by hydraulic methods, and washed aggregates, shall be stockpiled or binned for draining at least 12 hours before being batched. Store and maintain all aggregates at a uniform moisture content prior to use. A continuous supply of materials shall be provided to the work to ensure continuous placement.

(2) Mixing Concrete. The concrete may be mixed at the work site, in a central mix plant or in truck mixers. The mixer shall be of an approved type and capacity. Mixing time shall be measured from the time all materials, except water, are emptied into the drum. All concrete shall be mixed and delivered to the site in accordance with the requirements of ASTM C94 or ASTM C685.

Mixed concrete from the central mixing plant shall be transported in truck mixers, truck agitators, or non-agitating trucks. The elapsed time from the addition of cementitious material to the mix until the concrete is deposited in place at the work site shall not exceed 30 minutes when the concrete is hauled in non-agitating trucks, nor 90 minutes when the concrete is hauled in truck mixers or truck agitators. In no case shall the temperature of the concrete when placed exceed 90°F (32°C). Retempering concretes by adding water or by other means will not be permitted. With transit mixers additional water may be added to the batch materials and additional mixing performed to increase the slump to meet the specified requirements provided the addition of water is performed within 45 minutes after the initial mixing operations and provided the water/cementitious ratio specified in the approved mix design is not exceeded and approved by the RPR.

(3) Weather Limitations on Mixing and Placing. See technical provision Item P-501.

(4) Placing Concrete. At any point in concrete conveyance, the free vertical drop of the concrete from one point to another or to the underlying surface shall not exceed 3 feet (1 m). The finished concrete product must be dense and homogeneous, without segregation and conforming to the standards in this specification. Backhoes, front end loaders, and grading equipment shall not be used to distribute the concrete in front of the paver and/or consolidation equipment. All concrete shall be consolidated without voids or segregation, including under and around all load-transfer devices, joint assembly units, and other features embedded in the pavement. Hauling equipment or other

mechanical equipment can be permitted on adjoining previously constructed pavement when the concrete strength reaches a flexural strength of 450 psi (3.1 MPa), or a compressive strength of 3,100 psi (21.4 MPa), based on the average of four field cured specimens representative of the concrete placed. The contractor must determine that the above minimum strengths are adequate to protect the pavement from overloads due to the construction equipment proposed for the project.

The Contractor shall have available materials for the protection of the concrete during cold, hot and/or inclement weather in accordance with paragraph 505-4.4.g(3).

i. Side-Form Construction (When Required). Side form sections shall be straight, free from warps, bends, indentations, or other defects. Defective forms shall be removed from the work. Metal side forms shall be used except at end closures and transverse construction joints where straight forms of other suitable material may be used.

Side forms may be built up by rigidly attaching a section to either top or bottom of forms. If such build-up is attached to the top of metal forms, the build-up shall also be metal.

Width of the base of all forms shall be equal to or greater than the specified pavement thickness.

Side forms shall be of sufficient rigidity, both in the form and in the interlocking connection with adjoining forms, that springing will not occur under the weight of subgrading and paving equipment or from the pressure of the concrete. The Contractor shall provide sufficient forms so that there will be no delay in placing concrete due to lack of forms.

Before placing side forms, the underlying material shall be at the proper grade. Side forms shall have full bearing upon the foundation throughout their length and width of base and shall be placed to the required grade and alignment of the finished pavement. They shall be firmly supported during the entire operation of placing, compacting, and finishing the pavement.

Forms shall be drilled in advance of being placed to line and grade to accommodate tie bars where these are specified.

Immediately in advance of placing concrete and after all subbase operations are completed, side forms shall be trued and maintained to the required line and grade for a distance sufficient to prevent delay in placing.

Side forms shall remain in place at least 12 hours after the concrete has been placed, and in all cases until the edge of the pavement no longer requires the protection of the forms. Curing compound shall be applied to the concrete immediately after the forms have been removed.

Side forms shall be thoroughly cleaned and oiled each time they are used and before concrete is placed against them.

Concrete shall be spread, screeded, shaped and consolidated by one or more self-propelled machines. These machines shall uniformly distribute and consolidate concrete without segregation so that the completed pavement will conform to the required cross-section with a minimum of handwork.

The number and capacity of machines furnished shall be adequate to perform the work required at a rate equal to that of concrete delivery. The equipment must be specifically designed for placement and finishing using stationary side forms. Methods and equipment shall be reviewed and accepted by the RPR.

ii. Consolidation. Concrete shall be consolidated with a hand-operated immersion-type vibrating equipment mounted in front of the paver, supplemented, in rare instances as specified, by hand-operated vibrators. The vibrator(s) shall be inserted into the concrete to a depth that will provide the best full-depth consolidation but not closer to the underlying material than 2 inches (50 mm). Excessive vibration shall not be permitted. If the vibrators cause visible tracking in the paving lane, the paving operation shall be stopped, and equipment and operations modified to prevent it. Concrete in small, odd-shaped slabs or in isolated locations shall be vibrated with an approved hand-operated immersion vibrator operated from a bridge spanning the area. Vibrators shall not be used to transport or spread the concrete. Hand-operated vibrators shall not be operated in the concrete at one location for more than 20 seconds. Insertion locations for handoperated vibrators shall be between 6 to 15 inches (150 to 400 mm) on centers. For each paving train, at least one additional vibrator spud, or sufficient parts for rapid replacement and repair of vibrators shall be maintained at the paving site at all times. Any evidence of inadequate consolidation (honeycomb along the edges, large air pockets, or any other evidence) shall require the immediate stoppage of the paving operation and adjustment of the equipment or procedures as approved by the RPR.

If a lack of consolidation of the concrete is suspected by the RPR, referee testing may be required. Referee testing of hardened concrete will be performed by the RPR by cutting cores from the finished pavement after a minimum of 24 hours curing. Density determinations will be made by the RPR based on the water content of the core as taken. ASTM C642 shall be used for the determination of core density in the saturated-surface dry condition. When required, referee cores will be taken at the minimum rate of one for each 250 cubic yards (191 m³) of pavement, or fraction. The Contractor shall be responsible for all referee testing cost if they fail to meet the required density, as further defined below.

The average density of the cores shall be at least 97% of the original mix design density, with no cores having a density of less than 96% of the original mix design density. Failure to meet the referee tests will be considered evidence that the minimum requirements for vibration are inadequate for the job conditions. Additional vibrating units or other means of increasing the effect of vibration shall be employed so that the density of the hardened concrete conforms to the above requirements.

(5) Strike-Off of Concrete and Placement of Reinforcement. Following the placing of the concrete, it shall be struck off to conform to the cross-section shown on the plans and to an elevation that when the concrete is properly consolidated and finished, the surface of the pavement shall be at the elevation shown on the plans. When reinforced concrete pavement is placed in two layers, the bottom layer shall be struck off to such length and depth that the sheet of reinforcing steel fabric or bar mat may be laid full length on the concrete in its final position without further manipulation. The reinforcement shall then be placed directly upon the concrete, after which the top layer of the concrete shall be placed, struck off, and screeded. If any portion of the bottom layer of concrete has been placed more than 30 minutes without being covered with the top layer or if initial set has taken place, it shall be removed and replaced with freshly mixed concrete at the Contractor's expense. When reinforced concrete is placed in one layer, the reinforcement may be positioned in advance of concrete placement or it may be placed in plastic concrete by mechanical or vibratory means after spreading.

Reinforcing steel, at the time concrete is placed, shall be free of mud, oil, or other organic matter that may adversely affect or reduce bond. Reinforcing steel with rust, mill scale or a combination of

both will be considered satisfactory, provided the minimum dimensions, weight, and tensile properties of a hand wire-brushed test specimen are not less than the applicable ASTM specification requirements.

h. Finishing. Finishing operations shall be a continuing part of placing operations starting immediately behind the strike-off of the paver or consolidation/strike-off equipment. Initial finishing shall be provided by the transverse screed or extrusion plate. The sequence of operations shall be transverse finishing, longitudinal machine floating if used, straightedge finishing, texturing, and then edging of joints. Finishing shall be by the machine method. The hand method shall be used only on isolated areas of odd slab widths or shapes and in the event of a breakdown of the mechanical finishing equipment. Supplemental hand finishing for machine finished pavement shall be kept to an absolute minimum. Any machine finishing operation which requires appreciable hand finishing, other than a moderate amount of straightedge finishing, shall be immediately stopped and proper adjustments made or the equipment replaced. Any operations which produce more than 1/8 inch (3 mm) of mortar-rich surface shall be halted immediately and the equipment, mixture, or procedures modified as necessary. Compensation shall be made for surging behind the screeds or extrusion plate and settlement during hardening and care shall be taken to ensure that paving and finishing machines are properly adjusted so that the finished surface of the concrete (not just the cutting edges of the screeds) will be at the required line and grade. Finishing equipment and tools shall be maintained clean and in an approved condition. At no time shall water be added to the surface of the slab with the finishing equipment or tools, or in any other way, except for fog (mist) sprays specified to prevent plastic shrinkage cracking, approved by the RPR, may be used in accordance with the manufacturer's requirements.

(1) Machine Finishing with Fixed Forms. The machine shall be designed to straddle the forms (or existing PCCP) and shall be operated to screed and consolidate the concrete. Machines that cause displacement of the forms shall be replaced. The machine shall make only one pass over each area of pavement. If the equipment and procedures do not produce a surface of uniform texture, true to grade, in one pass, the operation shall be immediately stopped and the equipment, mixture, and procedures adjusted as necessary.

Clary screeds, other rotating tube floats, and bridge deck finishers are acceptable finishing equipment. Bridge deck finishers shall have a minimum operating weight of 7,500 pounds (3,400 kg) and shall have a transversely operating carriage containing a knock-down auger and a minimum of two immersion vibrators. Vibrating screeds or pans shall be used only for isolated slabs where hand finishing is permitted as specified, and only where specifically approved.

(2) Hand Finishing. Hand finishing methods will not be permitted, except under the following conditions: (1) in the event of breakdown of the mechanical equipment, hand methods may be used to finish the concrete already deposited on the grade and (2) in areas of narrow widths or of irregular dimensions where operation of the mechanical equipment is impractical. Use hand finishing operations only as specified below.

i. Equipment and Screed. In addition to approved mechanical internal vibrators for consolidating the concrete, provide a strike-off and tamping screed and a longitudinal float for hand finishing. The screed shall be at least one foot (30 cm) longer than the width of pavement being finished, of an approved design, and sufficiently rigid to retain its shape, and shall be constructed of metal or other suitable material shod with metal. The longitudinal float shall be at least 10 feet (3 m) long, of approved design, and rigid and substantially braced, and shall maintain a plane surface on the bottom. Grate tampers (jitterbugs) shall not be used.

ii. Finishing and Floating. As soon as placed and vibrated, the concrete shall be struck off and screeded to the crown and cross-section and to such elevation above grade that when consolidated and finished, the surface of the pavement will be at the required elevation. In addition to previously specified complete coverage with handheld immersion vibrators, the entire surface shall be tamped with the strike-off and tamping template, and the tamping operation continued until the required compaction and reduction of internal and surface voids are accomplished. Immediately following the final tamping of the surface, the pavement shall be floated longitudinally from bridges resting on the side forms and spanning but not touching the float operated until a satisfactory surface has been produced. The floating operation shall be advanced not more than half the length of the float and then continued over the new and previously floated surfaces.

(3) Straightedge Testing and Surface Correction. After the pavement has been struck off and while the concrete is still plastic, it shall be tested for trueness with a Contractor furnished 12-foot (3.7-m) straightedge swung from handles 3 feet (1 m) longer than one-half the width of the slab. The straightedge shall be held in contact with the surface in successive positions parallel to the centerline and the whole area gone over from one side of the slab to the other, as necessary. Advancing shall be in successive stages of not more than one-half the length of the straightedge. Any excess water and laitance in excess of 1/8 inch (3 mm) thick shall be removed from the surface of the pavement and wasted. Any depressions shall be immediately filled with freshly mixed concrete, struck off, consolidated, and refinished. High areas shall be cut down and refinished. Special attention shall be given to assure that the surface across joints meets the smoothness requirements of paragraph 505-5.2e(3). Straightedge testing and surface corrections shall continue until the entire surface is found to be free from observable departures from the straightedge and until the slab conforms to the required grade and cross-section. The use of long-handled wood floats shall be confined to a minimum; they may be used only in emergencies and in areas not accessible to finishing equipment. This straightedge is not a replacement for the straightedge testing of paragraph 505-5.2e(3), Smoothness.

i. Surface Texture. See technical provision Item P-501.

j. Curing. See technical provision Item P-501.

k. Removing Forms. Unless otherwise specified, when utilized, forms shall not be removed from freshly placed concrete until it has hardened sufficiently to permit removal without chipping, spalling, or tearing. After the forms have been removed, the sides of the slab shall be cured as per the methods indicated in paragraph 505-4.2.j above.

If honeycombed areas are evident when the forms are removed, materials, placement, and consolidation methods must be reviewed, and appropriate adjustments made to assure adequate consolidation at the edges of future concrete placements. Honeycombed areas that extend into the slab less than approximately 1 inch (25 mm), shall be repaired with an approved grout, as directed by the RPR. Honeycombed areas that extend into the slab greater than a depth of 1 inch (25 mm) shall be considered as defective work and shall be removed and replaced in accordance with paragraph 501-4.4.

I. Joint Sawing and Sealing. See technical provision Item P-501.

m. Saw-Cut Grooving. Not applicable to this project.

n. Protection of Pavement. The Contractor shall protect the pavement and its appurtenances against both public traffic and traffic caused by the Contractor's employees and agents until accepted by

the RPR. This shall include watchmen to direct traffic and the erection and maintenance of warning signs, lights, pavement bridges, crossovers, and protection of unsealed joints from intrusion of foreign material, etc. Any damage to the pavement occurring prior to final acceptance shall be repaired or the pavement replaced at the Contractor's expense.

Aggregates, rubble, or other similar construction materials shall not be placed on airfield pavements. Construction equipment, construction vehicles, and aircraft traffic shall be excluded from the new pavement by erecting and maintaining barricades and signs until the concrete is at least seven (7) days old, or for a longer period if directed by the RPR.

In paving intermediate lanes between newly paved pilot lanes, operation of the hauling and paving equipment will be permitted on the new pavement after the pavement has been cured for seven (7) days and the joints have been sealed or otherwise protected, and the concrete has attained a minimum field cured strength as outlined in paragraph 505-4.4.g.(4).

All new and existing pavement carrying construction traffic or equipment shall be continuously kept completely clean, and spillage of concrete or other materials shall be cleaned up immediately upon occurrence.

Damaged pavements shall be removed and replaced at the Contractor's expense. Slabs shall be removed to the full depth, width, and length of the slab.

o. Opening to Construction Traffic. The pavement shall not be opened to traffic until test specimens have met the requirements outlined in paragraph 505-4.4.g.(4). If such tests are not conducted, the pavement shall not be opened to traffic until 14 days after the concrete was placed. Prior to opening the pavement to construction traffic, all joints shall either be sealed or protected from damage to the joint edge and intrusion of foreign materials into the joint. As a minimum, backer rod or tape may be used to protect the joints from foreign matter intrusion.

505-4.5 Repair, Removal, or Replacement of New Slabs. See technical provision Item P-501.

505-4.6 Existing PCCP Removal – Partial Panel. Not applicable to this project.

505-4.7 Isolated Pavement Repair – Spalls, Popouts and Core Holes (Equal to or Less Than 4" Depth).

a. Spall Repair.

(1) Make a vertical cut with a concrete saw 2" to 4" in depth and approximately 1 inch outside of the spalled area. Saw cuts shall be straight lines forming rectangular areas for joint spalls and triangular areas for corner spalls.

(2) Remove all unsound concrete until sound, intact material has been reached (into at least 1" of visually sound concrete). Break out the unsound concrete with air hammers or pneumatic drills and blow out the area with oil-free compressed air.

(3) Clean the area to be repaired with high-pressure water. Allow patch area to dry completely if required by the patch material specification.

(4) Treat the surface with a bond-promoting agent (all sides and bottom, except any joint face) in accordance with the manufacturer's recommendations. It is important to maintain the joint through the full depth of the spall repair and prevent a bond between the patch and the adjacent slab, thereby eliminating point-to-point loading. Apply the bond promoting agent immediately before placing the

repair mixture and spread with a stiff-bristle broom or brush. The use of liquid bonding agents shall be acceptable if recommended by the manufacturer's requirements.

(5) Place the nonabsorbent board in the joint groove and vibrate or tamp the new mixture into the old surface.

(6) After edging the patch, finish it to a texture matching the adjacent area. After a proper cure period, remove the nonabsorbent board by sawing. Saw and reseal the joint in accordance with the requirements provided above for joint sealing. Overcuts (produced during removal of unsound material) shall also be sealed.

(7) Repairs shall be filled with rapid setting repair material, refer to paragraph 505-2.12.a for rapid setting repair material requirements.

(8) When there are adjacent spall repair areas within a slab, the minimum distance between repair areas is 1-1/2 feet. Therefore, when repairs areas are less than 1-1/2 feet apart, combine the repair areas into one repair. When the repair areas are greater than 1-1/2 feet apart, maintain separate repair areas.

b. Minor Popout and Core Hole Repair. The procedure for the repair of minor popouts and previous pavement core holes is as follows:

(1) Make a vertical cut with a concrete core bit 2" larger in diameter than the nominal popout diameter or core hole area. Minimum core bit diameter shall be 8".

(2) Remove all unsound concrete until sound, intact material has been reached (into at least 1" of visually sound concrete). Break out the unsound concrete with air hammers or pneumatic drills and blow out the area with oil-free compressed air.

(3) Clean the area to be repaired with high-pressure water. Allow patch area to dry completely if required by the repair material specification.

(4) Repairs equal to or less than 4" in depth shall be filled with rapid setting repair material. Where depths of removal exceed 4", the void may be backfilled up to within 2" of the surface with a non-shrink grout. A minimum 2" cap of the rapid setting repair material shall be installed at the surface. Refer to paragraph 505-2.12.a for rapid setting repair material requirements.

(5) Treat the surface with a bond-promoting agent (all sides and bottom, except any joint face) in accordance with the manufacturer's recommendations. It is important to maintain the joint through the full depth of the spall repair and prevent a bond between the patch and the adjacent slab, thereby eliminating point-to-point loading. Apply the bond promoting agent immediately before placing the repair mixture and spread with a stiff-bristle broom or brush. The use of liquid bonding agents shall be acceptable if recommended by the manufacturer's requirements.

505-4.8 Isolated Pavement Repair – Spalls, Popouts and Core Holes (Greater Than 4" Depth). Spalls, popouts and core holes greater than 4" depth shall be repaired in accordance with paragraph 505-4.4.

505-4.9 Clean and Reseal Existing Joints.

a. Longitudinal and Transverse Joint Preparation

(1) Identification of Joint Width Prior to Clean and Reseal. Existing transverse and longitudinal joints are anticipated to be no greater than 3" in width. Prior to clean and reseal of longitudinal and transverse joints, the RPR and the Contractor shall identify the total length of transverse and

longitudinal joints with widths 1" or less, with widths greater than 1" but not greater than 2" and width widths greater than 2" but not greater than 3". The contract documents include an estimated quantity of longitudinal and transverse joints by joint width.

(2) Joint Width of 1" or Less

i. Removal of Existing Joint Sealant. All existing joint sealant and backer rod material shall be removed by plowing or use of hand tools. Any remaining sealant, backer rod, or other foreign debris shall be removed by use of wire brushes or other tools as necessary.

It may be necessary to re-saw or re-face the joints in order to achieve a satisfactory width to depth ratio (1 divided by the shape factor) or in areas where the existing joint faces cannot be thoroughly cleaned to satisfactorily promote the effectiveness and adherence of the new sealant. If re-sawing the joints is required to achieve a satisfactory shape factor, the Contractor shall also reestablish a ¼" chamfer on both faces of the joint. Immediately after sawing, the resulting slurry shall be completely removed from the joint and adjacent area by flushing with a jet of water, and by use of other tools as necessary. The joints shall be allowed sufficient time to dry prior to resealing. The joint reservoir width to depth ratio shall be 2:1 unless recommended otherwise by the joint sealant manufacturer. The use of backer material is recommended to obtain the desired ratio at the reservoir or as recommended by the sealant manufacturer.

ii. Sealing. Immediately before sealing, the joints shall be thoroughly cleaned of all remaining laitance and other foreign material. Cleaning shall be accomplished by sandblasting. Sandblasting shall be accomplished in a minimum of two passes. One pass per joint face with the nozzle held at an angle directly toward the joint face and not more than 3 inches from it. Upon completion of cleaning, the joints shall be blown out with compressed air free of oil and water. Only air compressors with operable oil and water traps shall be used to prepare the joints for sealing. The joint faces shall be surface dry when the seal is applied. The surface of the installed sealant material shall be 1/4-inch to 3/8-inch below the existing pavement surface, unless recommended otherwise by the joint sealant manufacturer.

(3) Joint Width Greater Than 1" and Not Greater Than 2"

i. Removal of Existing Joint Sealant. All existing joint sealant and backer rod material shall be removed by plowing or use of hand tools. Any remaining sealant, backer rod, or other foreign debris shall be removed by use of wire brushes or other tools as necessary.

It may be necessary to re-saw or re-face the joints in order to achieve a satisfactory width to depth ratio (1 divided by the shape factor) or in areas where the existing joint faces cannot be thoroughly cleaned to satisfactorily promote the effectiveness and adherence of the new sealant. If re-sawing the joints is required to achieve a satisfactory shape factor, the Contractor shall also reestablish a ¼" chamfer on both faces of the joint. Immediately after sawing, the resulting slurry shall be completely removed from the joint and adjacent area by flushing with a jet of water, and by use of other tools as necessary. The joints shall be allowed sufficient time to dry prior to resealing. The joint reservoir width to depth ratio shall be as recommended by the joint sealant manufacturer. The use of backer material is recommended to obtain the desired ratio at the reservoir or as recommended by the sealant manufacturer.

ii. Sealing. Immediately before sealing, the joints shall be thoroughly cleaned of all remaining laitance and other foreign material. Cleaning shall be accomplished by sandblasting. Sandblasting shall be accomplished in a minimum of two passes. One pass per joint face with the nozzle held

at an angle directly toward the joint face and not more than 3 inches from it. Upon completion of cleaning, the joints shall be blown out with compressed air free of oil and water. Only air compressors with operable oil and water traps shall be used to prepare the joints for sealing. The joint faces shall be surface dry when the seal is applied. The surface of the installed sealant material shall be 1/4-inch to 3/8-inch below the existing pavement surface, unless recommended otherwise by the joint sealant manufacturer.

(4) Joint Width Greater Than 2" and Not Greater Than 3". Not applicable to this project.

b. Expansion/Isolation Joint Preparation

(1) Identification of Joint Width Prior to Clean and Reseal. Existing expansion/isolation joints are anticipated to be no greater than 3" in width. Prior to clean and reseal of expansion/isolation joints, the RPR and the Contractor shall identify the total length of expansion/isolation joints with widths greater than 1" but not greater than 2" and width widths greater than 2" but not greater than 3". The contract documents include an estimated quantity of expansion/isolation joints by joint width.

(2) Joint Width of 1" or Less

i. Removal of Existing Joint Sealant. The upper silicone sealant and bond breaking material found in the expansion or isolation joint shall be removed by plowing or use of hand tools. Any remaining sealant, bond breaking material, or other foreign debris shall be removed by use of wire brushes or other tools as necessary. The remaining expansion joint material below the bond breaker shall remain in place.

It may be necessary to re-saw or re-face the joints in order to achieve a satisfactory width to depth ratio (1 divided by the shape factor) or in areas where the existing joint faces cannot be thoroughly cleaned to satisfactorily promote the effectiveness and adherence of the new sealant. If re-sawing the joints is required to achieve a satisfactory shape factor, the Contractor shall also reestablish a ¼" chamfer on both faces of the joint where practical as determined by the RPR. Immediately after sawing, the resulting slurry shall be completely removed from the joint and adjacent area by flushing with a jet of water, and by use of other tools as necessary. The joints shall be allowed sufficient time to dry prior to re-sealing. The joint reservoir width to depth ratio shall be 2:1 or in accordance with the joint sealant manufacturer's recommendations. The use of backer material is recommended to obtain the desired ratio at the reservoir or as recommended by the sealant manufacturer.

ii. Sealing. Immediately before sealing, the joints shall be thoroughly cleaned of all remaining laitance and other foreign material. Cleaning shall be accomplished by sandblasting. Sandblasting shall be accomplished in a minimum of two passes. One pass per joint face with the nozzle held at an angle directly toward the joint face and not more than 3 inches from it. Upon completion of cleaning, the joints shall be blown out with compressed air free of oil and water. Only air compressors with operable oil and water traps shall be used to prepare the joints for sealing. The joint faces shall be surface dry when the seal is applied. The surface of the installed sealant material shall be 1/4-inch to 3/8-inch below the existing pavement surface.

(3) Joints Width Greater Than 1" and Not Greater Than 2"

i. Removal of Existing Joint Sealant. The upper silicone sealant and bond breaking material found in the expansion or isolation joint shall be removed by plowing or use of hand tools to a depth recommended by the joint sealant manufacturer. Any remaining sealant, bond breaking material, or other foreign debris shall be removed by use of wire brushes or other tools as necessary. The remaining expansion joint material below the bond breaker shall remain in place.

It may be necessary to re-saw or re-face the joints in areas where the existing joint faces cannot be thoroughly cleaned to satisfactorily promote the effectiveness and adherence of the new sealant. Immediately after sawing, the resulting slurry shall be completely removed from the joint and adjacent area by flushing with a jet of water, and by use of other tools as necessary. The joints shall be allowed sufficient time to dry prior to re-sealing.

ii. Sealing. Immediately before sealing, the joints shall be thoroughly cleaned of all remaining laitance and other foreign material. Cleaning shall be accomplished by sandblasting. Sandblasting shall be accomplished in a minimum of two passes. One pass per joint face with the nozzle held at an angle directly toward the joint face and not more than 3 inches from it. Upon completion of cleaning, the joints shall be blown out with compressed air free of oil and water. Only air compressors with operable oil and water traps shall be used to prepare the joints for sealing. The joint faces shall be surface dry when the seal is applied. The surface of the installed sealant material shall be 1/2-inch below the existing pavement surface in accordance with the manufacturer's recommendations.

(4) Joint Width Greater Than 2" and Not Greater Than 3". Not applicable to this project.

c. Installation of Sealants. Joints shall be inspected for proper width, depth, and preparation, and shall be approved by the RPR before sealing is allowed. Sealants shall be installed in accordance with the following requirements:

(1) Silicone Sealant. The joint or crack sealant shall be applied uniformly solid from bottom to top and shall be filled without formation of entrapped air or voids. Backing rod material shall be placed as per sealant manufacturer's requirements and shall be both non-reactive and non-adhesive to the pavement and the sealant material. A direct connecting pressure type extruding device with nozzles shaped for insertion into the joint shall be provided. Any sealant spilled on the surface of the pavement, structures and/or lighting fixtures shall be removed immediately.

(2) Backer Rod Material. The use of backer rod material (for field-applied liquid sealant) or bond breaker in the bottom of the joint or crack is recommended to control the depth of the sealant, to achieve the desired shape factor, and to support the sealant against indentation and sag. Backer rod materials and bond breakers shall be compatible with the sealant, shall not adhere to the sealant, shall be compressible without extruding the sealant, and shall recover to maintain contact with the joint or crack faces when the joint or crack is open. The backer rod shall be at least 25 percent larger in diameter than the width of the reservoir or as recommended by the joint sealant manufacturer.

505-4.10 Clean and Seal Cracks in Existing PCCP.

a. Routing. All cracks shall be cleaned of any debris or laitance by use of wire brushes or other tools as necessary. The crack shall be routed to a uniform width in order to establish a width to depth ratio (shape factor) of 2:1. Immediately after sawing, the resulting slurry shall be completely removed from the crack and adjacent area by flushing with a jet of water, and by use of other tools as necessary. The

crack shall be allowed sufficient time to dry prior to sealing. The crack reservoir ratio should be 2:1 with a 3/8-inch minimum width.

b. Sealing. Immediately before sealing, the cracks shall be thoroughly cleaned of all remaining laitance and other foreign material. Cleaning shall be accomplished by sandblasting. Sandblasting shall be accomplished in a minimum of two passes. One pass per crack face with the nozzle held at an angle directly toward the crack face and not more than 3 inches from it. Upon completion of cleaning, the cracks shall be blown out with compressed air free of oil and water. Only air compressors with operable oil and water traps shall be used to prepare the cracks for sealing. The crack faces shall be surface dry when the seal is applied. The surface of the installed sealant material shall be 1/4-inch to 3/8-inch below the existing pavement surface.

Sealant shall be applied as described under paragraph 505-4.8.c.

c. Backer Rod Material. The use of backer rod material or bond breaker in the bottom of the joint or crack to be filled is recommended to control the depth of the sealant, to achieve the desired shape factor, and to support the sealant against indentation and sag. Backer rod materials and bond breakers shall be compatible with the sealant, shall not adhere to the sealant, shall be compressible without extruding the sealant, and shall recover to maintain contact with the joint or crack faces when the joint or crack is open. The backer rod shall be at least 25 percent larger in diameter than the width of the reservoir or as recommended by the joint sealant manufacturer.

CONTRACTOR QUALITY CONTROL (CQC)

505-5.1 Quality Control Program. See technical provision Item P-501.

505-5.2 Contractor Quality Control (CQC). See technical provision Item P-501.

505-5.3 Contractor QC testing. See technical provision Item P-501.

505-5.4 Control Charts. See technical provision Item P-501.

505-5.5 Corrective Action at Suspension Limit. See technical provision Item P-501.

MATERIAL ACCEPTANCE

505-6.1 Quality Assurance (QA) Acceptance Sampling and Testing. See technical provision Item P-501.

505-6.2 Quality Assurance (QA) Testing Laboratory. See technical provision Item P-501.

505-6.3 Lot Size. For isolated PCCP panel replacement only, concrete will be accepted for strength and thickness on a lot basis. A lot will consist of a day's production not to exceed 1,000 square yards (836 square meters). Each lot will be divided into approximately equal sublots as follows:

(a) Where a day's production is anticipated to exceed 500 square yards (418 square meters), the lot shall be divided into four (4) equal sublots.

(b) Where a day's production is anticipated to be more than 250 square yards (209 square meters) but equal to or less than 500 square yards (418 square meters), the lot shall be divided into three (3) equal sublots.

(c) Where a day's production is anticipated to be less than or equal to 250 square yards (209 square meters), the lot shall be divided into two (2) equal sublots. In this instance, the day's production shall be considered a partial lot as defined in paragraph 505-5.1.c below. The partial lots will be consolidated with the previous or next day's production to create one lot.

In the event that this occurs on the last day of production, the two (2) sublots will be added to the previous day's production to create one lot.

505-6.4 Partial Lots. When operational conditions cause a lot to be terminated before the specified number of tests have been made for the lot, for overages or minor placements to be considered as partial lots, a day's production does not exceed 250 square yards (209 square meters), or when the Contractor and the RPR agree in writing to allow overages or minor placements to be considered as partial lots, the following procedure will be used to adjust the lot size and the number of tests for the lot.

Where three sublots have been produced, they will constitute a lot. Where one or two sublots have been produced, they will be incorporated into the next lot or the previous lot and the total number of sublots will be used in the acceptance criteria calculation, that is, n=5 or n=6.

505-6.5 Acceptance Sampling and Testing.

a. Strength. See technical provision Item P-501.

b. Pavement Thickness. See technical provision Item P-501. Pavement thickness will only be measured for acceptance where removal of existing pavement and associated base course is designated in the contract documents.

505-6.6 Acceptance Criteria.

a. General. Acceptance will be based on the following characteristics of the completed pavement discussed in technical provision Item P-501 for:

- (1) Strength
- (2) Thickness ¹
- (3) Smoothness
- (4) Adjustment for repairs

¹ Pavement thickness will only be measured for acceptance where removal of existing pavement and associated base is designated on the plans.

b. Acceptance criteria. See technical provision Item P-501 with the following amendment for short sections of isolated PCCP replacement:

(i) Longitudinal Short Sections. Longitudinal Short Sections are when the longitudinal length is less than 200 feet (60m). When approved by the RPR, the first and last 15 feet (4.5m) of the lot can also be considered as short sections for smoothness. The finished surface shall not vary more than 1/4 inch (6mm) when evaluated with a 12-foot (3.7m) straightedge. Smoothness readings will not be made across grade changes or cross slope transitions, at these transition areas, the straightedge position shall be adjusted to measure surface smoothness and not design grade or cross slope transitions. Testing shall be continuous across all joints, starting with one-half the length of the straight edge at the edge of pavement section being tested and then moved ahead one-half the length of the straight edge for each successive measurement. The amount of surface irregularity shall be determined by placing the freestanding (unleveled) straightedge on

the pavement surface and allowing it to rest upon the two highest spots covered by its length, and measuring the maximum gap between the straightedge and the pavement surface in the area between these two high points. Deviations on final pavement surface > 1/4 inch (6mm) in longitudinal direction will be corrected with diamond grinding per paragraph 505-4.3.i or by removing and replacing full depth of surface. Grinding will be tapered in all directions to provide smooth transitions to areas not requiring grinding. The area corrected by grinding should not exceed 10% of the total area and these areas shall be retested after grinding.

(4) Adjustments for repair. See technical provision Item P-501.

(5) Adjustment for grinding. See technical provision Item P-501.

METHOD OF MEASUREMENT

505-7.1 PCCP shall be measured by the number of **square** yards (square meters) of either plain or reinforced pavement as specified in-place, completed and accepted.

505-7.2 The placement of welded wire fabric (WWF) associated with reinforced pavement, completed in place and accepted shall be measured by the square yard (meter) of the associated reinforced PCCP panel.

505-7.3 The cleaning and sealing of longitudinal and transverse joints in existing PCCP 1" width or less, completed in place and accepted shall be measured by the linear foot (meter).

505-7.4 The cleaning and sealing of longitudinal and transverse joints in existing PCCP greater than 1" width but not greater than 2" width, completed in place and accepted shall be measured by the linear foot (meter).

505-7.5 The cleaning and sealing of expansion/isolation joints in existing PCCP not greater than 2" width, completed in place and accepted shall be measured by the linear foot (meter).

505-7.6 The routing and sealing of cracks in existing PCCP, completed in place and accepted shall be measured by the linear foot (meter).

505-7.7 The removal of a full panel of existing PCCP shall be measured by the square yard (meter) for the material removed, completed, and accepted.

505-7.8 The repair of spalls (equal to or less than 4" depth) in existing PCCP shall be measured by the square foot (meter) for the material in place, completed, and accepted.

505-7.9 The repair of a minor popouts or core holes (equal to or less than 4" depth) in existing PCCP shall be measured per each for the material in place, completed, and accepted.

505-7.10 The removal of existing stabilized base course (6" average depth) of shall be measured by the square yard (meter) of the material removed, completed, and accepted.

505-7.11 The removal of existing stabilized base course (2" average depth) of shall be measured by the square yard (meter) of the material removed, completed, and accepted.

505-7.12 The placement of stabilized base course material shall be measured by the ton (kg) for the material in place, completed, and accepted in accordance with Item P-403.

505-7.13 The placement of crushed aggregate base course material shall be measured by the cubic yard (meter) for the material in place, completed, and accepted in accordance with Item P-154 (INDOT 301, #53 Crushed Aggregate Base Course).

505-7.14. The placement of a Special Reinforced Panel shall be measured per each completed, in place and accepted.

505-7.15 The placement of bond breaking material shall not be measured for payment but shall be considered incidental to the placement of the associated PCCP panel.

BASIS OF PAYMENT

505-8.1 Payment for Items Subject to PWL. Payment for concrete pavement meeting all acceptance criteria as specified in technical provision Item P-501. Acceptance Criteria shall be based on results of strength tests, including thickness if applicable to the repair. Payment for acceptable lots of concrete pavements shall be adjusted in accordance with technical provision Item P-501 for strength, subject to the limitation that:

The total project payment for concrete pavement shall not exceed 100 percent of the product of the contract unit price and the total number of square yards (square meters) of concrete pavement used in the accepted work (See Note 1 under the Price Adjustment Schedule table below).

Payment shall be full compensation for all labor, materials, tools, equipment, and incidentals required to complete the work as specified herein and on the drawings.

a. Basis of adjusted payment. See technical provision Item P-501.

b. Adjusted payment for repairs. See technical provision Item P-501.

c. Adjusted payment for grinding. See technical provision Item P-501.

e. Payment. Payment shall be made under:

Portland Cement Concrete Pavement – $15'' - 16''$ Depth Isolated Panel – per square yard (square meter)
Portland Cement Concrete Pavement – 15" – 16" Depth Isolated Panel (Undistributed) – per square yard (square meter)

505-8.2 Payment Items Not Subject to PWL.

a. Payment for cleaning and sealing longitudinal and transverse joints in existing PCCP equal to or less than 1" width shall be made at the contract unit price bid per linear foot (meter). This price shall be full compensation for furnishing all materials, for all preparation, delivering, and placing of these materials, and for all labor, equipment, tools, and incidentals necessary to complete the item.

b. Payment for cleaning and sealing of longitudinal and transverse joints in existing PCCP greater than 1" width and not greater than 2" width shall be made at the contract unit price bid per linear foot (meter). This price shall be full compensation for furnishing all materials, for all preparation, delivering, and placing of these materials, and for all labor, equipment, tools, and incidentals necessary to complete the item.

c. Payment for cleaning and sealing of longitudinal and transverse joints in existing PCCP greater than 2" width and not greater than 3" width shall be made at the contract unit price bid per linear foot (meter). This price shall be full compensation for furnishing all materials, for all preparation, delivering, and placing of these materials, and for all labor, equipment, tools, and incidentals necessary to complete the item.

d. Payment for cleaning and sealing of expansion/isolation joints in existing PCCP not greater than 2" width shall be made at the contract unit price bid per linear foot (meter). This price shall be full compensation for furnishing all materials, for all preparation, delivering, and placing of these materials, and for all labor, equipment, tools, and incidentals necessary to complete the item.

e. Payment for routing and sealing of cracks in existing PCCP shall be made at the contract unit price bid per linear foot (meter). This price shall be full compensation for furnishing all materials, for all preparation, delivering, and placing of these materials, and for all labor, equipment, tools, and incidentals necessary to complete the item.

f. Payment for removal of a full panel of existing PCCP shall be made at the contract unit price bid per square yard (meter). This price shall be full compensation for furnishing all materials, labor, equipment, tools, hauling, and incidentals necessary to complete the item.

g. Payment for repair of spalls (equal to or less than 4" depth) in existing PCCP shall be made at the contract unit price bid per square foot (meter). This price shall be full compensation for furnishing all materials, for all preparation, delivering, and placing of these materials, and for all labor, equipment, tools, and incidentals necessary to complete the item.

h. Payment for repair of a minor popouts or core holes (equal to or less than 4" depth) in existing PCCP shall be made at the contract unit price bid per each. This price shall be full compensation for furnishing all materials, for all preparation, delivering, and placing of these materials, and for all labor, equipment, tools, and incidentals necessary to complete the item.

i. Payment for removal of stabilized base course (6" average depth) shall be made at the contract unit price bid per square yard (meter). This price shall be full compensation for furnishing all materials, labor, equipment, tools, hauling, and incidentals necessary to complete the item.

j. Payment for removal of stabilized base course (2" average depth) shall be made at the contract unit price bid per square yard (meter). This price shall be full compensation for furnishing all materials, labor, equipment, tools, hauling, and incidentals necessary to complete the item.

k. Payment for stabilized base course material shall be made in accordance with Item P-403.

I. Payment for aggregate base course material shall be made at the contract unit price bid per cubic yard (meter). This price shall be full compensation for furnishing all materials, for all preparation, delivering, and placing of these materials, and for all labor, equipment, tools, and incidentals necessary to complete the item.

m. Payment for placement of WWF associated with reinforced pavement shall be made at the contract unit price per square yard (meter) of the associated reinforced PCCP panel. This price shall be full compensation for furnishing all materials, for all preparation, delivering, and placing of these materials, and for all labor, equipment, tools, and incidentals necessary to complete the item.

n. Payment for Special Reinforced Panel (15'' - 16'' PCCP panel with reinforcing steel) shall be made at the contract unit price for each. This price shall be full compensation for furnishing all materials, for all preparation, delivering, and placing of these materials, and for all labor, equipment, tools, and incidentals necessary to complete the item.

o. No direct payment will be made for placement of the bond breaking material, rather it shall be considered incidental to the placement of PCCP.

Payment will be made under:

Item PST-505-8.2.1	Welded Wire Fabric – per square yard (meter) of associated reinforced pavement panel
Item PST-505-8.2.2	Welded Wire Fabric (Undistributed) – per square yard (meter) of associated reinforced pavement panel
Item PST-505-8.2.3	Remove Existing PCCP (15" – 16" Depth) Isolated Panel – per square yard (meter)

Item PST-505-8.2.4	Remove Existing PCCP ($15'' - 16''$ Depth) Isolated Panel (Undistributed) – per square yard (meter)
Item PST-505-8.2.5	Existing PCCP Joint Spall Repair (equal to or less than 4" depth) – per square foot (meter)
Item PST-505-8.2.6	Existing PCCP Joint Spall Repair (equal to or less than 4" depth) (Undistributed) – per square foot (meter)
Item PST-505-8.2.7	Existing PCCP Corner Spall Repair (equal to or less than 4" depth) – per square foot (meter)
Item PST-505-8.2.8	Existing PCCP Corner Spall Repair (equal to or less than 4" depth) (Undistributed) – per square foot (meter)
Item PST-505-8.2.9	Existing PCCP Popout/Core Hole Repair (equal to or less than 4" depth) – per each
Item PST-505-8.2.10	Clean and Seal Longitudinal and Transverse Joints in Existing PCCP (Joint Width 1" or Less) – per linear foot (meter)
Item PST-505-8.2.11	Clean and Seal Longitudinal and Transverse Joints in Existing PCCP (Joint Width Greater Than 1" and Not Greater Than 2") – per linear foot (meter)
Item PST-505-8.2.12	Clean and Seal Expansion/Isolation Joints in Existing PCCP (Joint Width Not Greater than 2") – per linear foot (meter)
Item PST-505-8.2.13	HMA Pavement to PCCP Interface Joint (Type Y) – per linear feet (meter)
Item PST-505-8.2.14	Route and Seal Cracks in Existing PCCP (Undistributed) – per linear foot (meter)

REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only.

ASTM International (ASTM)

ASTM A184	Standard Specification for Welded Deformed Steel Bar Mats for Concrete Reinforcement
ASTM A615	Standard Specification for Deformed and Plain Carbon-Steel Bars for Concrete Reinforcement
ASTM A704	Standard Specification for Welded Steel Plain Bar or Rod Mats for Concrete Reinforcement
ASTM A706	Standard Specification for Low-Alloy Steel Deformed and Plain Bars for Concrete Reinforcement
ASTM A775	Standard Specification for Epoxy-Coated Steel Reinforcing Bars
ASTM A884	Standard Specification for Epoxy-Coated Steel Wire and Welded Wire Reinforcement

ASTM A934	Standard Specification for Epoxy-Coated Prefabricated Steel Reinforcing Bars
ASTM A996	Standard Specification for Rail-Steel and Axle-Steel Deformed Bars for Concrete Reinforcement
ASTM A1035	Standard Specification for Deformed and Plain, Low-Carbon, Chromium, Steel Bars for Concrete Reinforcement
ASTM A1064	Standard Specification for Carbon-Steel Wire and Welded Wire Reinforcement, Plain and Deformed, for Concrete
ASTM A1078	Standard Specification for Epoxy-Coated Steel Dowels for Concrete Pavement
ASTM C29	Standard Test Method for Bulk Density ("Unit Weight") and Voids in Aggregate
ASTM C31	Standard Practice for Making and Curing Concrete Test Specimens in the Field
ASTM C33	Standard Specification for Concrete Aggregates
ASTM C39	Standard Test Method for Compressive Strength of Cylindrical Concrete Specimens
ASTM C70	Standard Test Method for Surface Moisture in Fine Aggregate
ASTM C78	Standard Test Method for Flexural Strength of Concrete (Using Simple Beam with Third-Point Loading)
ASTM C88	Standard Test Method for Soundness of Aggregates by Use of Sodium Sulfate or Magnesium Sulfate
ASTM C94	Standard Specification for Ready-Mixed Concrete
ASTM C114	Standard Test Methods for Chemical Analysis of Hydraulic Cement
ASTM C117	Standard Test Method for Materials Finer than 75- μm (No. 200) Sieve in Mineral Aggregates by Washing
ASTM C123	Standard Test Method for Lightweight Particles in Aggregate
ASTM C136	Standard Test Method for Sieve Analysis of Fine and Coarse Aggregates
ASTM C131	Standard Test Method for Resistance to Degradation of Small-Size Coarse Aggregate by Abrasion and Impact in the Los Angeles Machine
ASTM C136	Standard Test Method for Sieve or Screen Analysis of Fine and Coarse Aggregates
ASTM C138	Standard Test Method for Density (Unit Weight), Yield, and Air Content (Gravimetric) of Concrete
ASTM C142	Standard Test Method for Clay Lumps and Friable Particles in Aggregates
ASTM C143	Standard Test Method for Slump of Hydraulic-Cement Concrete
ASTM C150	Standard Specification for Portland Cement

ASTM C171	Standard Specification for Sheet Materials for Curing Concrete
ASTM C172	Standard Practice for Sampling Freshly Mixed Concrete
ASTM C173	Standard Test Method for Air Content of Freshly Mixed Concrete by the Volumetric Method
ASTM C174	Standard Test Method for Measuring Thickness of Concrete Elements Using Drilled Concrete Cores
ASTM C192	Standard Practice for Making and Curing Concrete Test Specimens in the Laboratory
ASTM C227	Standard Test Method for Potential Alkali Reactivity of Cement-Aggregate Combinations (Mortar-Bar Method)
ASTM C231	Standard Test Method for Air Content of Freshly Mixed Concrete by the Pressure Method
ASTM C260	Standard Specification for Air-Entraining Admixtures for Concrete
ASTM C295	Standard Guide for Petrographic Examination of Aggregates for Concrete
ASTM C309	Standard Specification for Liquid Membrane-Forming Compounds for Curing Concrete
ASTM C311	Standard Test Methods for Sampling and Testing Fly Ash or Natural Pozzolans for Use in Portland Cement Concrete
ASTM C494	Standard Specification for Chemical Admixtures for Concrete
ASTM C566	Standard Test Method for Total Evaporable Moisture Content of Aggregates by Drying
ASTM C595	Standard Specification for Blended Hydraulic Cements
ASTM C618	Standard Specification for Coal Fly Ash and Raw or Calcined Natural Pozzolan for Use in Concrete
ASTM C642	Standard Test Method for Density, Absorption, and Voids in Hardened Concrete
ASTM C666	Standard Test Method for Resistance of Concrete to Rapid Freezing and Thawing
ASTM C685	Standard Specification for Concrete Made by Volumetric Batching and Continuous Mixing
ASTM C881	Standard Specification for Epoxy-Resin-Base Bonding Systems for Concrete
ASTM C989	Standard Specification for Slag Cement for Use in Concrete and Mortars
ASTM C1017	Standard Specification for Chemical Admixtures for Use in Producing Flowing Concrete

ASTM C1064	Test Method for Temperature of Freshly Mixed Hydraulic-Cement Concrete
ASTM C1077	Standard Practice for Agencies Testing Concrete and Concrete Aggregates for Use in Construction and Criteria for Testing Agency Evaluation
ASTM C1157	Standard Performance Specification for Hydraulic Cement
ASTM C1260	Standard Test Method for Potential Alkali Reactivity of Aggregates (Mortar-Bar Method)
ASTM C1365	Standard Test Method for Determination of the Proportion of Phases in Portland Cement and Portland-Cement Clinker Using X-Ray Powder Diffraction Analysis
ASTM C1567	Standard Test Method for Determining the Potential Alkali-Silica Reactivity of Combinations of Cementitious Materials and Aggregate (Accelerated Mortar-Bar Method)
ASTM C1602	Standard Specification for Mixing Water Used in the Production of Hydraulic Cement Concrete
ASTM D75	Standard Practice for Sampling Aggregates
ASTM D1751	Standard Specification for Preformed Expansion Joint Filler for Concrete Paving and Structural Construction (Nonextruding and Resilient Bituminous Types)
ASTM D1752	Standard Specification for Preformed Sponge Rubber and Cork and Recycled PVC Expansion Joint Fillers for Concrete Paving and Structural Construction
ASTM D2419	Standard Test Method for Sand Equivalent Value of Soils and Fine Aggregate
ASTM D3665	Standard Practice for Random Sampling of Construction Materials
ASTM D4791	Standard Test Method for Flat Particles, Elongated Particles, or Flat and Elongated Particles in Coarse Aggregate
ASTM E178	Standard Practice for Dealing with Outlying Observations
ASTM E1274	Standard Test Method for Measuring Pavement Roughness Using a Profilograph
ASTM E2133	Standard Test Method for Using a Rolling Inclinometer to Measure Longitudinal and Transverse Profiles of a Traveled Surface
American Concrete Institute (A	.CI)
ACI 305R	Guide to Hot Weather Concreting
ACI 306R	Guide to Cold Weather Concreting
ACI 309R	Guide for Consolidation of Concrete

Advisory Circulars (AC)

AC 150/5320-6 Airport Pavement Design and Evaluation

Federal Highway Administration (FHWA)

HIPERPAV 3, version 3.2

Portland Concrete Association (PCA)

PCA

CA Design and Control of Concrete Mixtures, 16th Edition

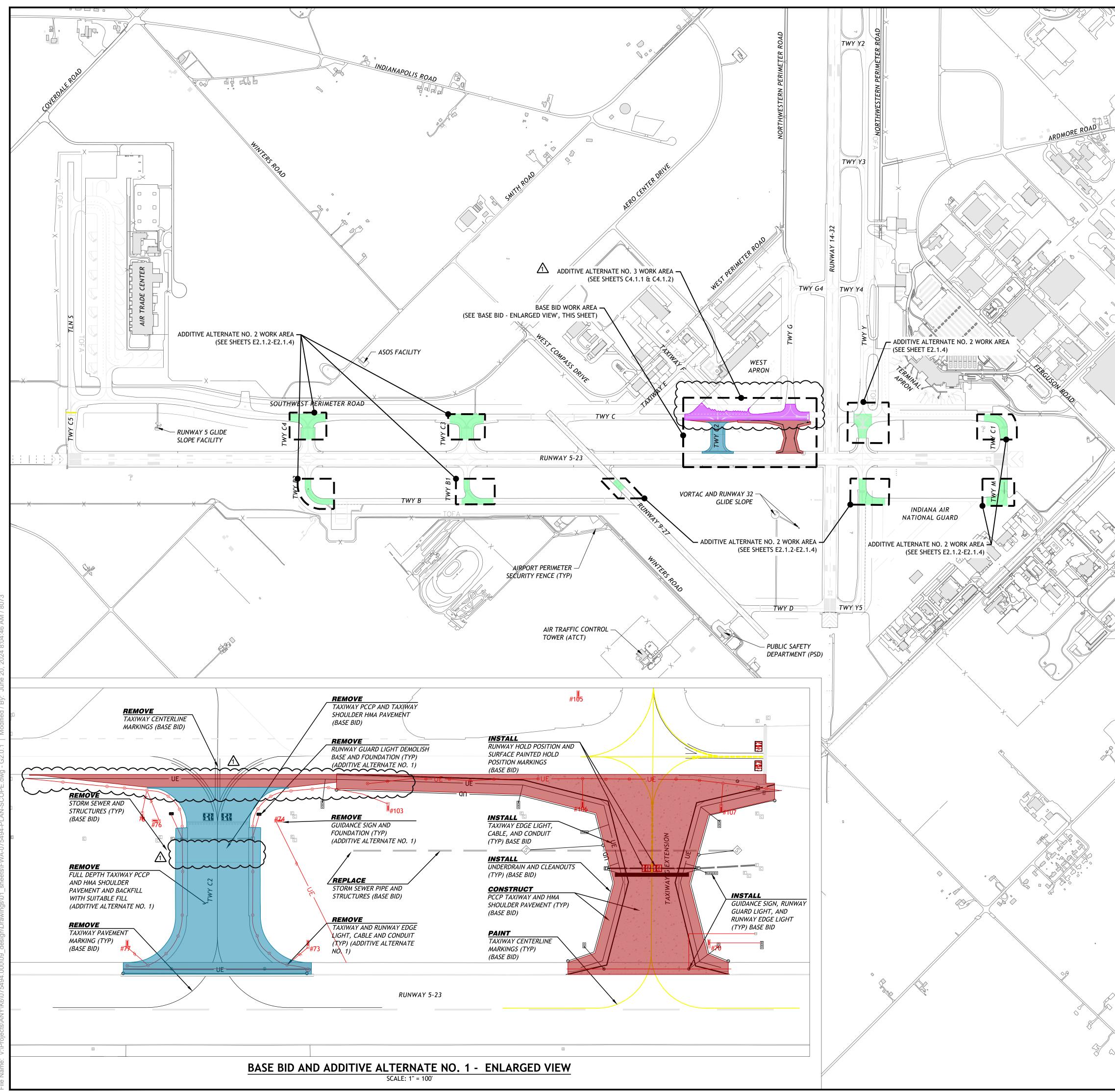
U.S. Army Corps of Engineers (USACE) Concrete Research Division (CRD)

CRD C662 Determining the Potential Alkali-Silica Reactivity of Combinations of Cementitious Materials, Lithium Nitrate Admixture and Aggregate (Accelerated Mortar-Bar Method)

United States Air Force Engineering Technical Letter (ETL)

ETL 97-5 Proportioning Concrete Mixtures with Graded Aggregates for Rigid Airfield Pavements

END ITEM PST-505



GRAPHIC SCALE (FEET)

	LEGEND				
	DESCRIPTION	PLAN			
	BASE BID WORK AREA				
	BID ADDITIVE ALTERNATE NO. 1 WORK AREA				
~	BID ADDITIVE ALTERNATE NO. 2 WORK AREA				
^ (`	BID ADDITIVE ALTERNATE NO. 3 WORK AREA				

SCOPE OF WORK NOTES

1. THE SCOPE OF WORK IS INTENDED ONLY AS A GENERAL DESCRIPTION OF WORK ITEMS AND THEIR APPROXIMATE LOCATIONS AND LIMITS, FOR THE PURPOSE OF UNDERSTANDING THE SCOPE OF THE PROJECT. IT SHALL NOT BE USED AS A CONSTRUCTION PLAN. REFER TO THE SHEETS WHICH FOLLOW FOR DETAILED CONSTRUCTION REQUIREMENTS, LOCATIONS, AND OTHER PERTINENT INFORMATION THESE DRAWINGS COVER SCOPE OF WORK FOR THIS PROJECT WHICH GENERALLY INCLUDES THE FOLLOWING:

BASE BID (CONSTRUCTION OF TAXIWAY G EXTENSION)

- SITE GRADING, DRAINAGE, AND EROSION CONTROL INSTALLATION OF NEW STORM SEWER PIPING AND STRUCTURES
- CONSTRUCTION OF NEW PCCP TAXIWAY PAVEMENT
- CONSTRUCTION OF NEW HMA TAXIWAY SHOULDER PAVEMENT
- INSTALLATION OF RUNWAY AND TAXIWAY LIGHTING AND GUIDANCE SIGNS PAINT NEW RUNWAY/TAXIWAY PAVEMENT MARKINGS

ADDITIVE ALTERNATE No. 1 (REMOVAL OF TAXIWAY C2)

- REMOVE TAXIWAY C2 HMA SHOULDER PAVEMENT
- REMOVE TAXIWAY C2 PCCP PAVEMENT REMOVE GUIDANCE SIGN AND FOUNDATIONS
- REMOVE RUNWAY GUARD LIGHT AND FOUNDATIONS
- REMOVE TAXIWAY MITL AND BASE CANS
- REMOVE ELEVATED RUNWAY HIRL AND BASE CANS
- REMOVE CABLE AND CONDUITS REMOVE UNDERDRAIN

ADDITIVE ALTERNATE No. 2 (AIRFIELD LIGHTING, SIGNAGE AND MARKING IMPROVEMENTS) RELOCATE AND INSTALL NEW RUNWAY GUARD LIGHTS ON NEW FOUNDATION

- RELOCATE AND INSTALL NEW GUIDANCE SIGNS ON NEW FOUNDATIONS
- INSTALL NEW CABLE/CONDUIT FOR RUNWAY GUARD LIGHTS AND GUIDANCE SIGNS
- REMOVE EXISTING HOLD LINE AND ENHANCED CENTERLINE PAVEMENT MARKING PAINT NEW HOLD LINE AND ENHANCED CENTERLINE PAVEMENT MARKINGS

ADDITIVE ALTERNATE No. 3 (REHABILITATE TAXIWAY C)

- **ROUTE, CLEAN AND SEAL TRANSVERSE AND LONGITUDINAL JOINTS** ROUTE, CLEAN AND SEAL CRACKS IN THE PCC PAVEMENT
- REPAIR CONCRETE SPALLS ON PCCP PANELS
- REMOVE AND REPLACE ISOLATED AND CONTIGUOUS PCCP PANELS 1

- 0 H ORK 0 ш \mathbf{O} U ONSTR FORT WAYNE-ALLEN COUNT **AIRPORT AUTHORITY** A Whole New Altitude awing Copyright Indianapolis, IN 46204 317.786.0461 . www.chasolutions.com 10707520 STATE OF 06/20/20 ether Jenha Designed By: Drawn By: Checked B KDR RB NSL Issue Date: Project No: Scale: 05/28/2024 075494 AS SHOW Drawing N

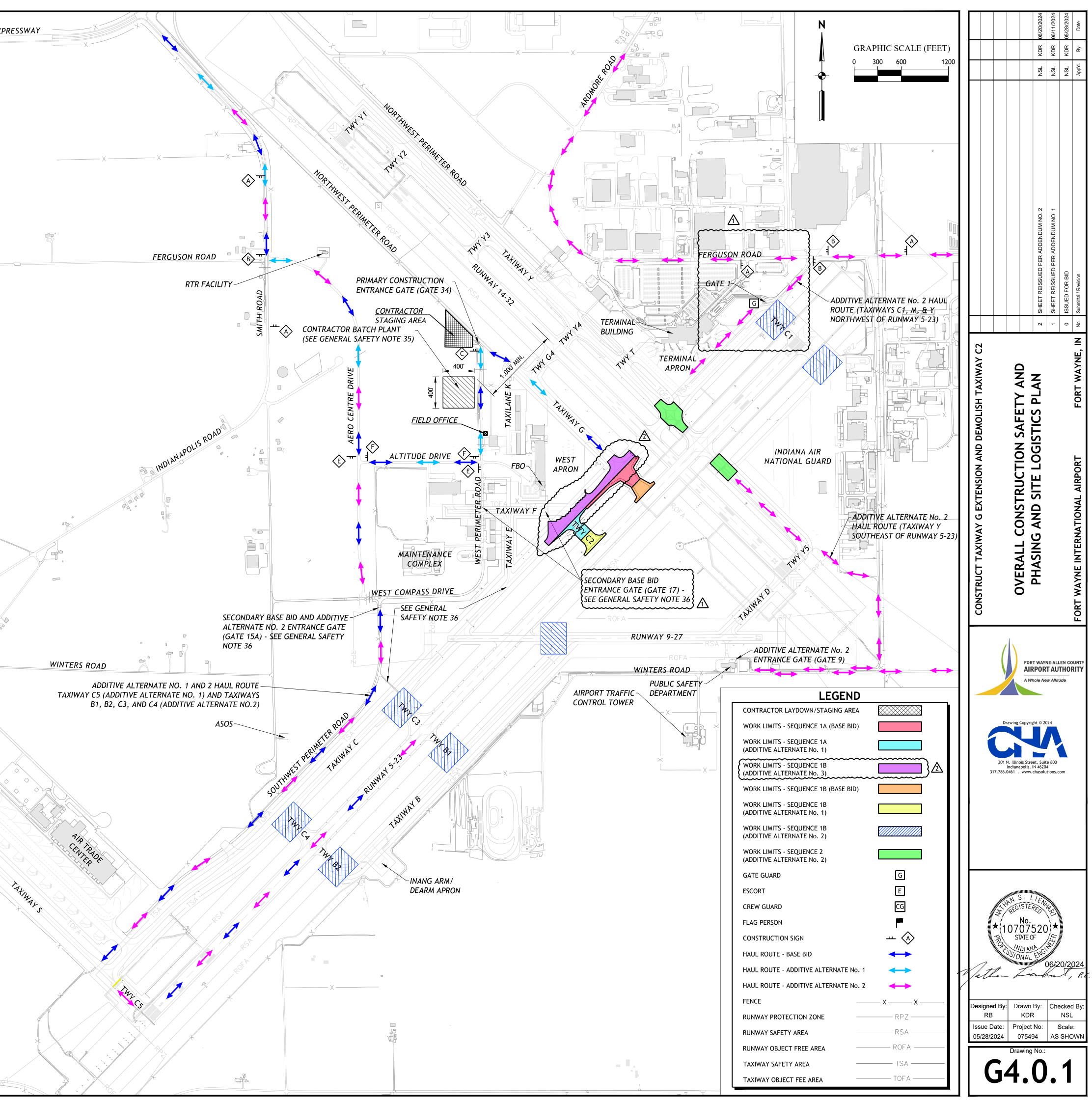
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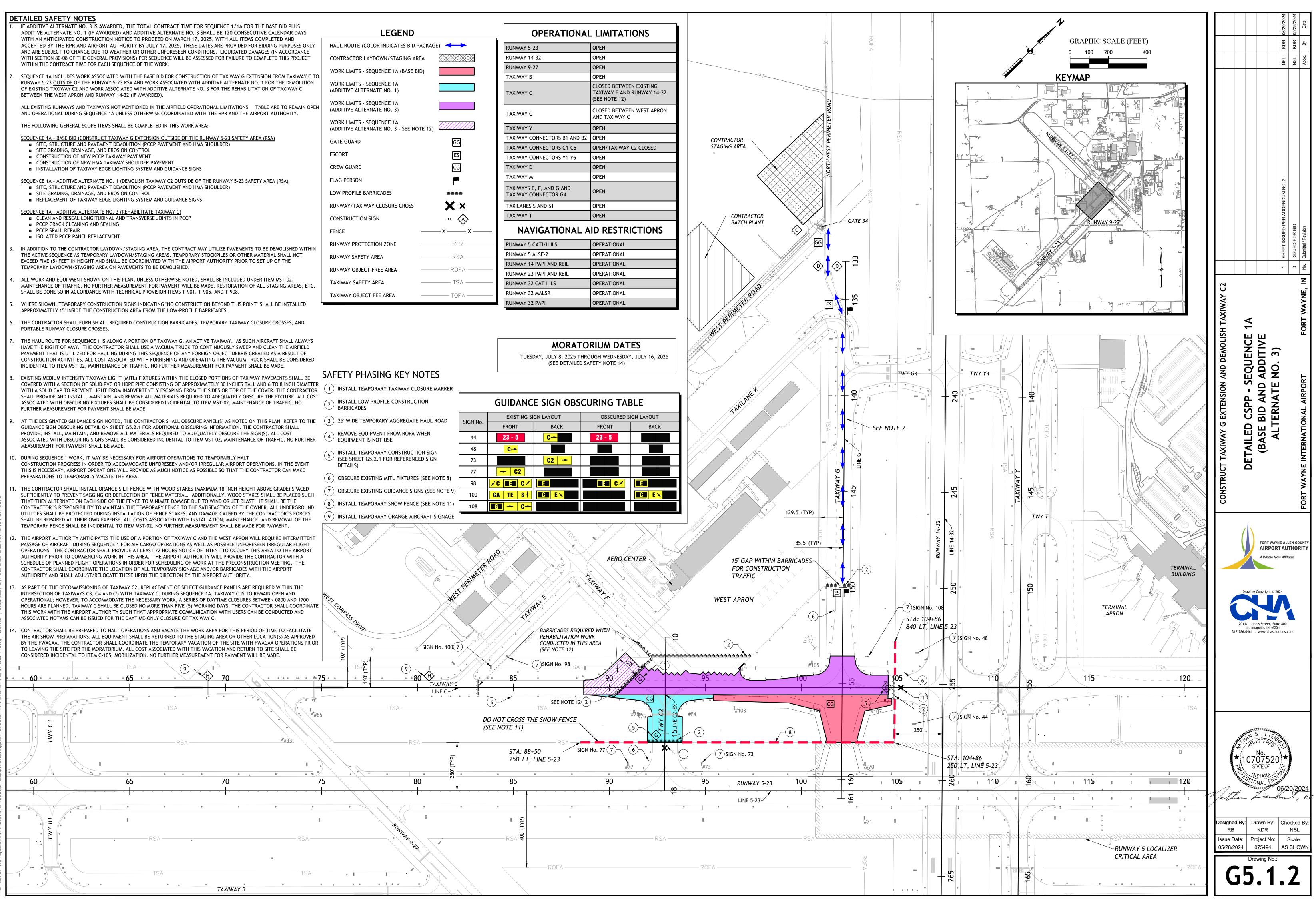
GENERAL SAFETY NOTES

ALL CONSTRUCTION ACTIVITIES SHALL CONFORM TO THE CURRENT EDITION OF FEDERAL AVIATION ADMINISTRATION (FAA) ADVISORY CIRCULAR (AC) 150/5370-2 AND THE AIRPORT SAFETY REQUIREMENTS INCLUDING A SAFETY PLAN COMPLIANCE DOCUMENT (SPCD) OUTLINING HOW THE CONTRACTOR WILL COMPLY WITH THE CONSTRUCTION SAFETY PHASING PLAN (CSPP). DAILY CONSTRUCTION SAFETY MEETINGS SHALL BE CONDUCTED AND DOCUMENTED BY THE CONTRACTOR PRIOR TO STARTING WORK EACH DAY.

- 2. AIRCRAFT OPERATIONS AND EMERGENCY VEHICLES SHALL HAVE THE RIGHT OF WAY AT ALL TIMES.
- 3. WHEN REQUIRED FOR CONSTRUCTION OPERATIONS, ONLY ESSENTIAL PERSONNEL, MATERIALS, AND EQUIPMENT SHALL BE ALLOWED WITHIN THE PROJECT AREA, GLIDE SLOPE, LOCALIZER, AND ASOS CRITICAL AREAS. WORK WITHIN THESE AREAS SHALL REQUIRE A MINIMUM OF 48 HOUR PRIOR NOTIFICATION TO THE ENGINEER AND AIRPORT OPERATIONS.
- 4. THE CONTRACTOR SHALL NOT ALLOW EMPLOYEES, INCLUDING SUBCONTRACTORS AND SUPPLIERS, TO CROSS OR PROCEED ON TO ANY ACTIVE RUNWAY, TAXIWAY, SAFETY AREA, OR AIRCRAFT MOVEMENT AREA WITHOUT PROPER AUTHORIZATION AND ESCORT BY AIRPORT PERSONNEL. THE FORT WAYNE-ALLEN COUNTY AIRPORT AUTHORITY HAS A ZERO TOLERANCE POLICY FOR RUNWAY OR TAXIWAY INCURSIONS; THEREFORE, A FINE SHALL BE LEVIED IN ACCORDANCE WITH THE AUTHORITY'S ORDINANCES PER OCCURRENCE AND PERSONNEL SHALL BE REMOVED FROM THE AIRCRAFT OPERATION AREA (AOA).
- 5. ALL DESIGNATED FENCING, SAFETY BARRICADES, SIGNAGE, AND OTHER MAINTENANCE OF TRAFFIC EQUIPMENT SHALL BE IN PLACE PRIOR TO STARTING WORK.
- 6. ALL SAFETY BARRICADES AND LIGHTING SHALL BE MAINTAINED AND IN PLACE, AS SPECIFIED, UNTIL COMPLETION OF WORK IN THAT AREA.
- 7. WHERE REQUIRED TO BE OPENED AT THE END OF EACH WORK DAY, ALL PAVEMENT SURFACES SHALL BE CLEANED CONTINUOUSLY THROUGHOUT THE WORK DAY AND AT THE END OF EACH WORK DAY, TO THE SATISFACTION OF THE AUTHORITY. THE PAVEMENT SHALL BE INSPECTED AND APPROVED BY THE AUTHORITY AND/OR ENGINEER PRIOR TO OPENING TO AIRCRAFT OPERATIONS.
- 8. THE CONTRACTOR SHALL REPAIR AND REPLACE, TO THE SATISFACTION OF THE RPR AND AUTHORITY, ANY DAMAGE TO AIRPORT PROPERTY BY ANY EMPLOYEES, SUBCONTRACTORS, OR SUPPLIERS AT HIS/HER OWN EXPENSE.
- 9. THE CONTRACTOR SHALL PROVIDE AND MAINTAIN RADIOS TO ALL GATE GUARDS AND CREW/AREA GUARDS THROUGHOUT THE DURATION OF THE PROJECT.
- 10. THE CONTRACTOR SHALL MONITOR THE FORT WAYNE INTERNATIONAL AIRPORT GROUND FREQUENCY (121.9 MHZ) CONTINUOUSLY WHEN WORKING ON AIRPORT PROPERTY.
- 11. THE CONTRACTOR SHALL REMOVE ALL RUBBISH AND DEBRIS RESULTING FROM THE WORK ON A CONTINUAL BASIS FROM THE SITE, STAGING AREA, AND STOCKPILE AREA.
- 12. NO STOCKPILES SHALL BE PERMITTED IN ACTIVE RUNWAY/TAXIWAY SAFETY AREAS, OBJECT FREE AREAS, OR ILS CRITICAL AREAS. ALL TEMPORARY STOCKPILES REQUIRED TO FACILITATE THE WORK SHALL HAVE A MAXIMUM HEIGHT OF 10'. IN NO INSTANCE SHALL TEMPORARY STOCKPILE(S) BE PLACED CLOSER THAN 100' FROM ACTIVE AIRFIELD PAVEMENTS DELINEATED BY LOW-PROFILE CONSTRUCTION BARRICADES, OR AS DIRECTED BY THE AIRPORT OPERATIONS AND/OR ENGINEER.
- 13. ALL EQUIPMENT AND VEHICLES SHALL BE FLAGGED AND/OR HAVE AMBER FLASHING CONSTRUCTION SAFETY LIGHTS AND SHALL HAVE THE CONTRACTOR'S LOGO ON BOTH SIDES OF THE VEHICLE.
- 14. NOTAMS (NOTICE TO AIRMEN) WILL BE ISSUED BY THE AUTHORITY AT LEAST 72 HOURS IN ADVANCE OF RUNWAY OR TAXIWAY CLOSINGS. UNFALTERING COORDINATION AMONG THE CONTRACTOR, THE ENGINEER, AND THE AUTHORITY SHALL BE REQUIRED TO ENSURE ACTIVE NOTAMS ARE CURRENT AND REFLECT FIELD CONDITIONS.
- 15. THE CONTRACTOR MAY BE REQUIRED TO COORDINATE WITH THE OTHER CONTRACTORS THAT MAY BE WORKING ON OTHER PROJECTS. COORDINATION AND COOPERATION AMONG CONTRACTORS WILL BE EXPECTED.
- 16. NO WEAPONS SHALL BE CARRIED ON PERSONS OR IN PERSONAL VEHICLES WHILE ON AIRPORT PROPERTY. THIS ALSO INCLUDES THOSE WITH PERSONAL PROTECTION PERMITS.
- 17. ALL PERSONNEL WORKING ON AIRPORT PROPERTY ARE SUBJECT TO SEARCH AT ANYTIME BY AIRPORT PUBLIC SAFETY OFFICERS AND/OR TRANSPORTATION SECURITY ADMINISTRATION PERSONNEL.
- 8. NO UNATTENDED VEHICLES ARE PERMITTED WITHIN THE AOA.
- 19. ON-SITE CONCRETE WASH OUT FACILITIES SHALL BE LOCATED AT THE CONTRACTOR'S STAGING AREA (OR BATCH PLANT SITE IF UTILIZED) AND IN ACCORDANCE WITH THE EROSION CONTROL DETAILS INCLUDED WITH THIS PLAN SET AS WELL AS NPDES GUIDELINES FOR CONSTRUCTION SITE STORM WATER RUNOFF BMP'S FOR GOOD HOUSE KEEPING / MATERIALS MANAGEMENT AND THE IDEM'S INDIANA STORM WATER QUALITY MANUAL, CHAPTER 7. A PROPOSED WASH OUT AREA PLAN SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.
- 20. EQUIPMENT FUELING AND MAINTENANCE OPERATIONS SHALL BE LOCALIZED TO THE STAGING AREA AS MUCH AS FEASIBLY POSSIBLE TO MINIMIZE POTENTIAL FOR FUEL OR OTHER HAZARDOUS MATERIAL SPILLS. ON-SITE FUEL STORAGE, IF REQUIRED, SHALL BE FURNISHED WITH CONTAINMENT PROVISIONS AS SHOWN ON THE EROSION CONTROL DETAILS INCLUDED WITH THIS PLAN SET AND IN ACCORDANCE WITH NPDES GUIDELINES FOR CONSTRUCTION SITE STORM WATER RUNOFF BMP'S FOR GOOD HOUSE KEEPING / MATERIALS MANAGEMENT AND THE IDEM'S INDIANA STORM WATER QUALITY MANUAL, CHAPTER 7. THE CONTRACTOR SHALL PROVIDE A SPILL PREVENTION AND CONTROL PROCEDURE TO THE ENGINEER IN ACCORDANCE WITH THE AIRPORT AUTHORITY'S CURRENT SWPPP DOCUMENT DATED MARCH 2021. A COPY OF THIS DOCUMENT WILL BE ON FILE FOR REFERENCE AT THE ENGINEER'S FIELD OFFICE.
- 21. HAUL ROUTE AND WAYFINDING SIGNAGE SHALL BE PROVIDED BY THE CONTRACTOR IN ACCORDANCE WITH APPLICABLE INDOT STANDARD DRAWINGS AND SPECIFICATIONS WITH LEGENDS AS NOTED ON THE SAFETY AND PHASING DETAILS.
- 22. WHERE NOTED, A GATE GUARD SHALL BE PROVIDED BY THE CONTRACTOR AT THE LOCATIONS SHOWN ON THIS PLAN EQUIPPED WITH A CONSTRUCTION FLAG, TWO-WAY RADIO, AND CELLULAR PHONE WHENEVER THE GATE IS OPEN. GATES MUST BE CLOSED (AND LOCKED IF NOT AN ELECTRICALLY OPERATED GATE) AT ALL TIME UNLESS REQUIRED FOR EQUIPMENT AND/OR MATERIAL DELIVERIES. ALL COST FOR GATE GUARD AND ASSOCIATED EQUIPMENT SHALL BE INCLUDED UNDER ITEM MST-04, PROJECT SECURITY.
- 23. THE MAXIMUM HEIGHT OF ALL CONSTRUCTION EQUIPMENT SHALL BE 25 FEET, UNLESS OTHERWISE NOTED. TEMPORARY STOCKPILES MUST NOT EXCEED 10 FEET IN HEIGHT AT THE CONTRACTOR'S STAGING AREA AND MUST NOT CREATE PONDING OF WATER OR OTHERWISE ATTRACT WILD LIFE. STAGING AND STOCKPILE AREAS SHALL MAINTAIN A 10 FOOT BUFFER WHEN ADJACENT TO THE PERMANENT OR TEMPORARY PERIMETER SECURITY FENCE.
- 24. AT THE COMPLETION OF EACH WORK DAY OR WHEN NOT IN USE, CONSTRUCTION EQUIPMENT SHALL BE STORED IN THE CONTRACTOR'S STAGING/LAYDOWN AREA, AND/OR DESIGNATED EQUIPMENT STAGING AREAS. CLOSED AREAS OF RUNWAY OR TAXIWAY PAVEMENT WITHIN THE WORK AREA MAY BE USED FOR EQUIPMENT STORAGE DURING NON-WORKING HOURS WITH APPROVAL FROM THE AUTHORITY. THE AUTHORITY RESERVES THE RIGHT TO DIRECT THE CONTRACTOR TO MOVE EQUIPMENT AT ANYTIME AT NO ADDITIONAL COST TO THE AUTHORITY.
- 25. ANY CONSTRUCTION ACTIVITY WITHIN 250 FEET OF AN ACTIVE RUNWAY CENTERLINE WILL REQUIRE THE TEMPORARY CLOSURE OF THE RUNWAY TO AIRCRAFT TRAFFIC.
- 26. NO CONSTRUCTION EQUIPMENT OR MATERIAL SHALL BE STOCKPILED WITHIN 160 FEET OF AN ACTIVE TAXIWAY CENTERLINE OR 400 FEET OF AN ACTIVE RUNWAY CENTERLINE.
- 27. THE CONTRACTOR SHALL NOTIFY THE AUTHORITY A MINIMUM OF 72 HOURS IN ADVANCE TO REQUEST A RUNWAY OR TAXIWAY CLOSURE. THE AUTHORITY RETAINS THE RIGHT TO DELAY OR CANCEL A RUNWAY OR TAXIWAY CLOSURE AT ANY TIME WITHOUT ANY ADDITIONAL COMPENSATION DUE TO THE CONTRACTOR. THE CONTRACTOR SHALL DEVELOP AND MAINTAIN ALTERNATE WORK PLANS TO BE UTILIZED WHEN THE RUNWAY OR TAXIWAY IS UNAVAILABLE.
- 28. THE CONTRACTOR SHALL MAN AND MAINTAIN VACUUM TRUCKS WHILE WORKING WITHIN THE AOA DURING THE COURSE OF THIS PROJECT. THE PAVEMENTS SHALL BE KEPT CLEAR OF DEBRIS CONTINUOUSLY TO THE SATISFACTION OF THE AUTHORITY. WHEN SO REQUIRED, OR DIRECTED BY THE AUTHORITY OR RPR, THE CONTRACTOR SHALL VACUUM/SWEEP/CLEAN PAVEMENTS, WHETHER PUBLIC OR PRIVATELY OWNED (I.E. WEST COMPASS DRIVE, AERO CENTER DRIVE, SMITH ROAD, FERGUSON ROAD, TERMINAL EGRESS ROAD, SERVICE ROAD, ETC.) WHERE DIRT, MUD, OR DEBRIS MAY ACCUMULATE DURING THE PROGRESSION OF THE WORK.
- 29. ANY PAVEMENT DAMAGE SHALL BE REMOVED AND REPLACED TO THE AUTHORITY'S SATISFACTION IN ACCORDANCE WITH ITEM MST-06. THE CONTRACTOR AND THE RPR SHALL DOCUMENT THE EXISTING CONDITIONS OF ALL ROADWAYS TO BE USED AS HAUL ROUTES BY VIDEO AND/OR STILL PHOTOGRAPHY.
- 30. THE AUTHORITY RETAINS THE RIGHT TO TEMPORARILY ALTER CONSTRUCTION IF NECESSARY TO ACCOMMODATE AIRCRAFT TRAFFIC DUE TO UNFORESEEN CONDITIONS SUCH AS, BUT NOT LIMITED TO, VISIBILITY OR SPECIAL AIRCRAFT OPERATIONAL NEEDS.
- 31. THE CONTRACTOR CROSSING OF ACTIVE RUNWAY AND/OR TAXIWAY PAVEMENT(S) IS NOT ANTICIPATED; HOWEVER, SHOULD SUCH CROSSING(S) BE REQUIRED, THE CONTRACTOR SHALL REQUEST CLEARANCE FROM THE ATCT PRIOR TO CROSSING ACTIVE RUNWAY AND/OR TAXIWAY PAVEMENT(S). THIS WILL REQUIRE PROPERLY BADGED CONSTRUCTION CREW MEMBERS OR BADGED ESCORTS TO INCLUDE MOVEMENT AREA AND DRIVING PRIVILEGES.
- 32. THE PROJECT INCLUDES PLANNED WORK INSIDE THE RUNWAY OBJECT FREE AREA (ROFA), BUT OUTSIDE THE RUNWAY SAFETY AREA (RSA) OF RUNWAYS 5-23 AND 14-32. EQUIPMENT SHALL BE REMOVED FROM THIS AREA WHEN NOT IN USE AND MATERIAL SHALL NOT BE STOCKPILED IN THIS AREA.
- 33. ONE (1) LOCATION HAS BEEN IDENTIFIED FOR USE AS CONTRACTOR STAGING AND LAYDOWN AREA FOR THIS PROJECT. A LOCATION HAS ALSO BEEN IDENTIFIED FOR THE CONTRACTOR'S AND ENGINEER'S FIELD OFFICE IDENTIFIED ON THIS PLAN AVAILABLE FOR USE ON THIS PROJECT.
- 34. OVERHEAD ELECTRIC ARE AVAILABLE ALONG WEST PERIMETER ROAD FOR USE ON THIS PROJECT. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE TEMPORARY SERVICE CONNECTIONS WITH THE APPROPRIATE AGENCY. ALL COST ASSOCIATED WITH TEMPORARY UTILITY CONNECTION AND USAGE SHALL BE CONSIDERED INCIDENTAL TO THE ITEM TO WHICH IT APPLIES. NO FURTHER MEASUREMENT FOR PAYMENT WILL BE MADE.
- 35. IF ELECTED TO FURNISH, AN ON-SITE BATCH PLANT MAY BE SET-UP IN CONTRACTOR LAYDOWN/STAGING AREAS. IF THE CONTRACTOR ANTICIPATES THAT THEIR BATCH PLANT WILL EXCEED 65 FEET, THE CONTRACTOR SHALL BE RESPONSIBLE FOR SUBMITTING INFORMATION TO THE FAA IN ORDER TO CONDUCT AN OBSTRUCTION ANALYSIS THROUGH ITS OE/AAA WEBSITE. THE EVALUATION CAN TAKE APPROXIMATELY 45-90 DAYS TO PROCESS AND RECEIVE A DETERMINATION. TWO (2) L-810 STEADY-BURN, AVIATION RED, OBSTRUCTION LIGHTS SHALL BE LOCATED AT THE HIGHEST POINT OF THE BATCH PLANT, AND SHALL BE OPERATIONAL 24 HOURS A DAY FOR THE DURATION OF THE PROJECT. ALL COSTS ASSOCIATED WITH THE BATCH PLANT, AND THE OPERATION AND MAINTENANCE OF THE LIGHTS SHALL BE CONSIDERED INCIDENTAL TO ITEM C-105, MOBILIZATION, NO FURTHER MEASUREMENT FOR PAYMENT WILL BE MADE.
- D. GATE 34 HAS BEEN IDENTIFIED AS THE PRIMARY ACCESS POINT FOR THIS PROJECT. IN THE EVENT TRACTOR-TRAILER AND/OR LOWBOY DELIVERIES OF MATERIAL AND/OR EQUIPMENT IS NOT PRACTICAL THROUGH GATE 34, THE FWACAA HAS IDENTIFIED TWO (2) ALTERNATIVES FOR ACCESS TO THE WORK AREAS WHEN SO REQUIRED TO ACCOMMODATE THESE TYPES OF DELIVERIES. THE CONTRACTOR SHALL COORDINATE THEIR USE OF EITHER GATE 15A OR GATE 17 ALONG WITH THE CORRESPONDING HAUL ROUTES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL ESCORTING, PAVEMENT CLEANING, AND COORDINATION OF THE ALTERNATIVE HAUL ROUTES. THE FWACAA RESERVES THE RIGHT TO HALT HAULING OPERATIONS FROM ANY GATE BASED ON AIRFIELD/AIRCRAFT OPERATIONAL

NEED.



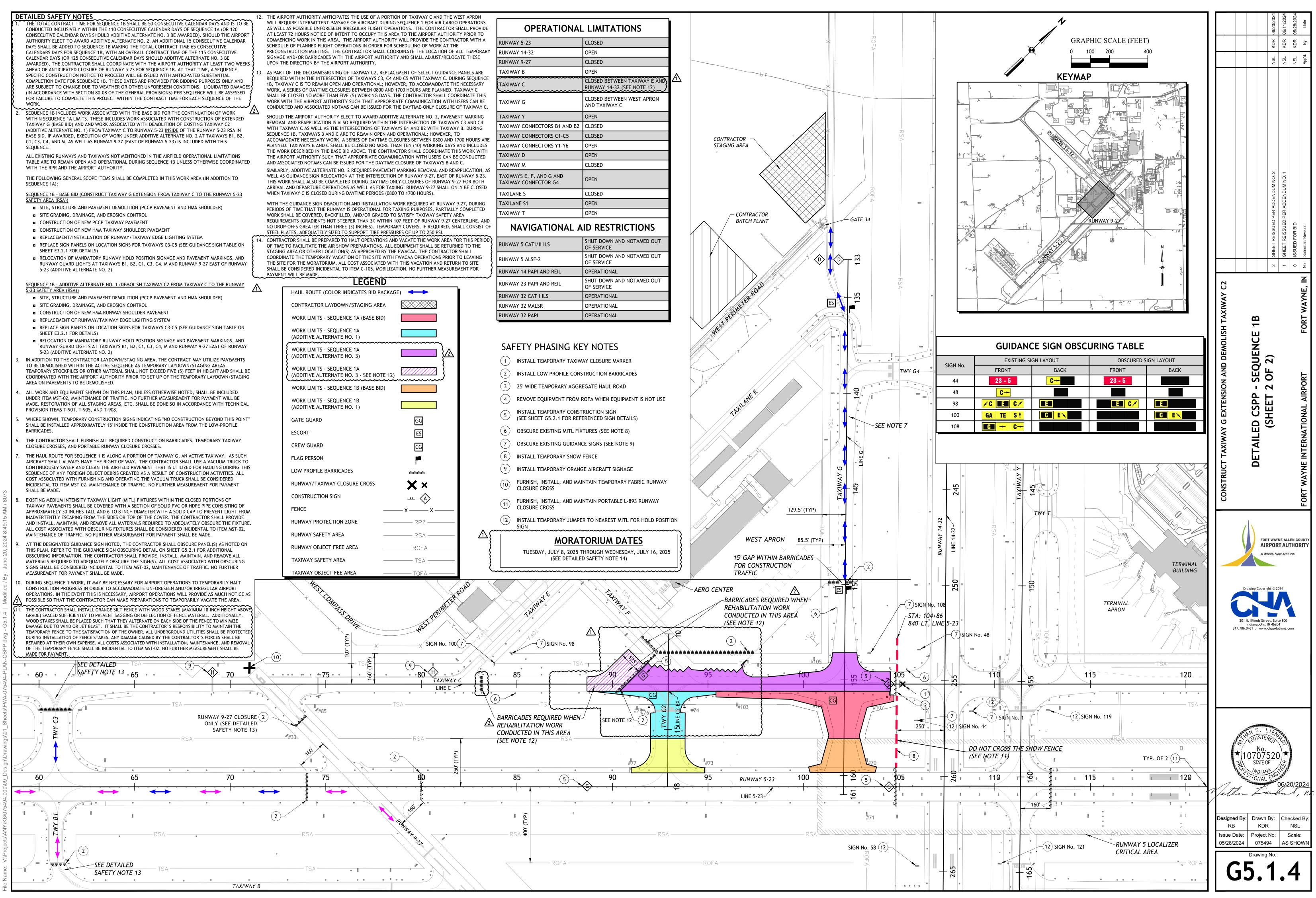


OPERATIONAL	LIMITATIONS
RUNWAY 5-23	OPEN
RUNWAY 14-32	OPEN
RUNWAY 9-27	OPEN
TAXIWAY B	OPEN
TAXIWAY C	CLOSED BETWEEN EXISTING TAXIWAY E AND RUNWAY 14-32 (SEE NOTE 12)
TAXIWAY G	CLOSED BETWEEN WEST APRON AND TAXIWAY C
TAXIWAY Y	OPEN
TAXIWAY CONNECTORS B1 AND B2	OPEN
TAXIWAY CONNECTORS C1-C5	OPEN/TAXIWAY C2 CLOSED
TAXIWAY CONNECTORS Y1-Y6	OPEN
TAXIWAY D	OPEN
TAXIWAY M	OPEN
TAXIWAYS E, F, AND G AND TAXIWAY CONNECTOR G4	OPEN
TAXILANES S AND S1	OPEN
TAXIWAY T	OPEN
NAVIGATIONAL A	ID RESTRICTIONS
RUNWAY 5 CATI/II ILS	OPERATIONAL
RUNWAY 5 ALSE-2	ΟΡΕΒΑΤΙΟΝΑΙ

RUNWAY 5 ALSF-2	OPERATIONAL
RUNWAY 14 PAPI AND REIL	OPERATIONAL
RUNWAY 23 PAPI AND REIL	OPERATIONAL
RUNWAY 32 CAT I ILS	OPERATIONAL
RUNWAY 32 MALSR	OPERATIONAL
RUNWAY 32 PAPI	OPERATIONAL

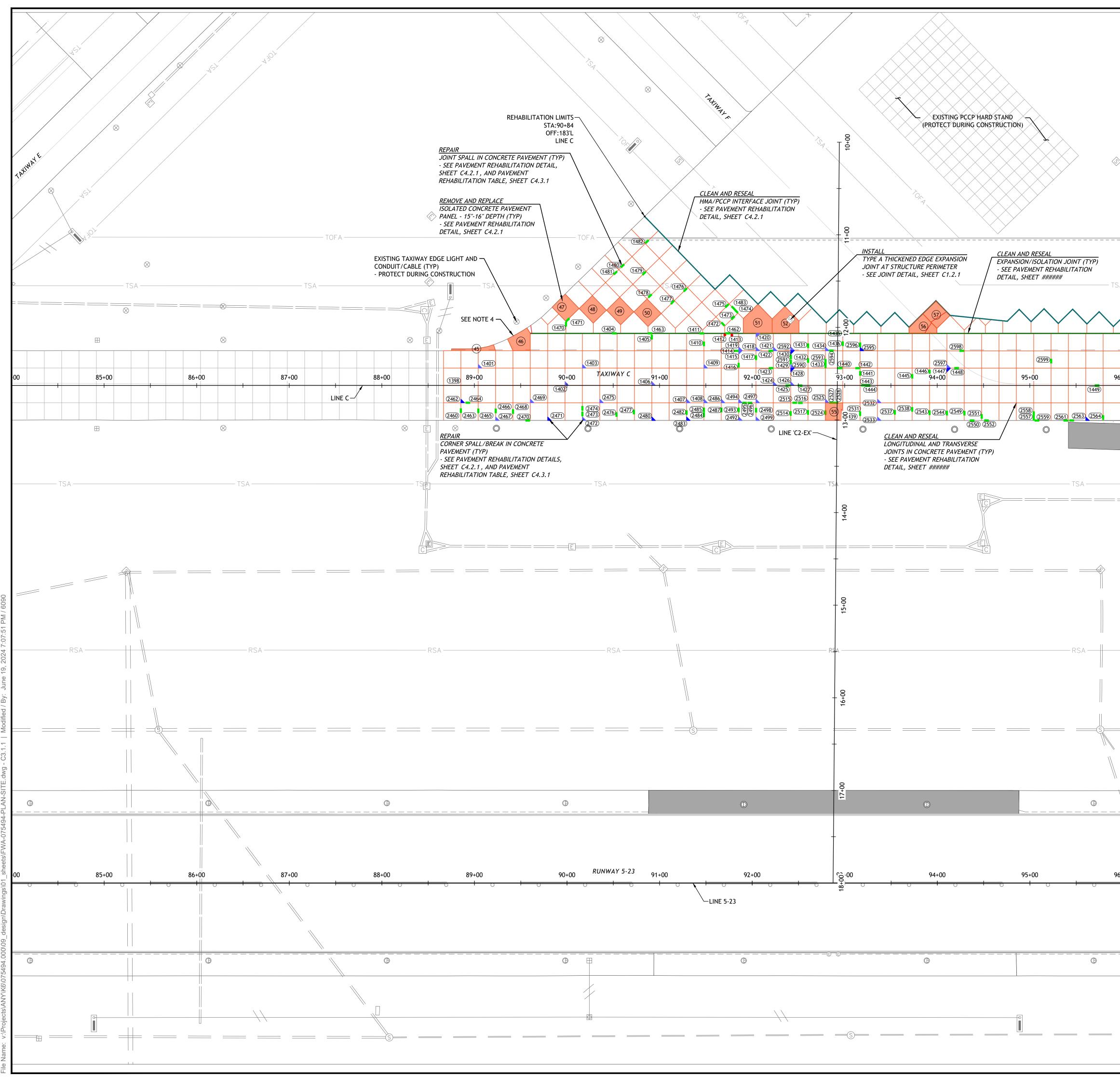


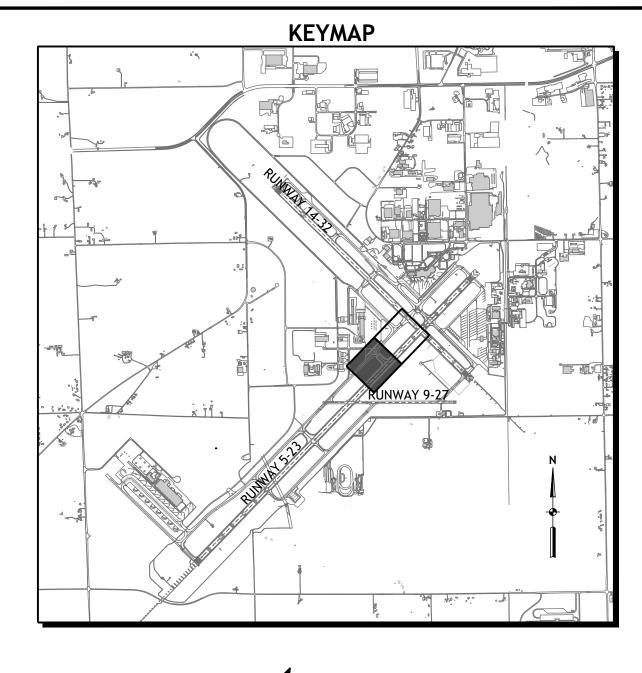
		GUIDANC	E SIGN OBS	CURING TAE	BLE				
ROAD		EXISTING SI	GN LAYOUT	OBSCURED SIGN LAYOUT					
	SIGN No.	FRONT	BACK	FRONT	BACK				
	44	23 - 5	C→	23 - 5					
GN	48	C→							
δN	73		C2 -						
	77	← C2							
NOTE 8)	98	✓C S C ✓	E		E				
E NOTE 9)	100	GA TE S 🛉	C EX		C EX				
NOTE 11)	108	G ← C→							

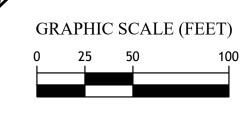


OPERATIONAL								
RUNWAY 5-23	CLOSED							
RUNWAY 14-32	OPEN							
RUNWAY 9-27	CLOSED							
TAXIWAY B	OPEN							
	CLOSED BETWEEN TAXIWAY E AND RUNWAY 14-32 (SEE NOTE 12)							
TAXIWAY G	CLOSED BETWEEN WEST APRON AND TAXIWAY C							
TAXIWAY Y	OPEN							
TAXIWAY CONNECTORS B1 AND B2	CLOSED CLOSED OPEN OPEN							
TAXIWAY CONNECTORS C1-C5								
TAXIWAY CONNECTORS Y1-Y6								
TAXIWAY D								
TAXIWAY M	CLOSED							
TAXIWAYS E, F, AND G AND TAXIWAY CONNECTOR G4	OPEN							
TAXILANE S	CLOSED							
TAXILANE S1	OPEN							
TAXIWAY T	OPEN							
NAVIGATIONAL A	ID RESTRICTIONS							
RUNWAY 5 CATI/II ILS	SHUT DOWN AND NOTAMED OUT OF SERVICE							
RUNWAY 5 ALSF-2	SHUT DOWN AND NOTAMED OUT OF SERVICE							
RUNWAY 14 PAPI AND REIL	OPERATIONAL							
RUNWAY 23 PAPI AND REIL	SHUT DOWN AND NOTAMED OUT OF SERVICE							
RUNWAY 32 CAT I ILS	OPERATIONAL							

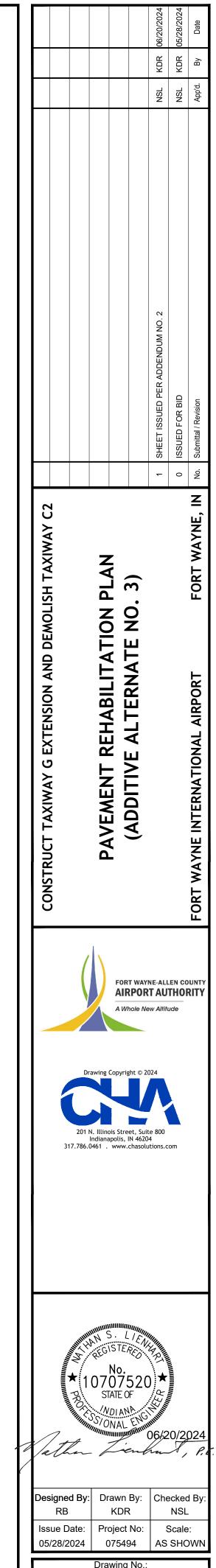






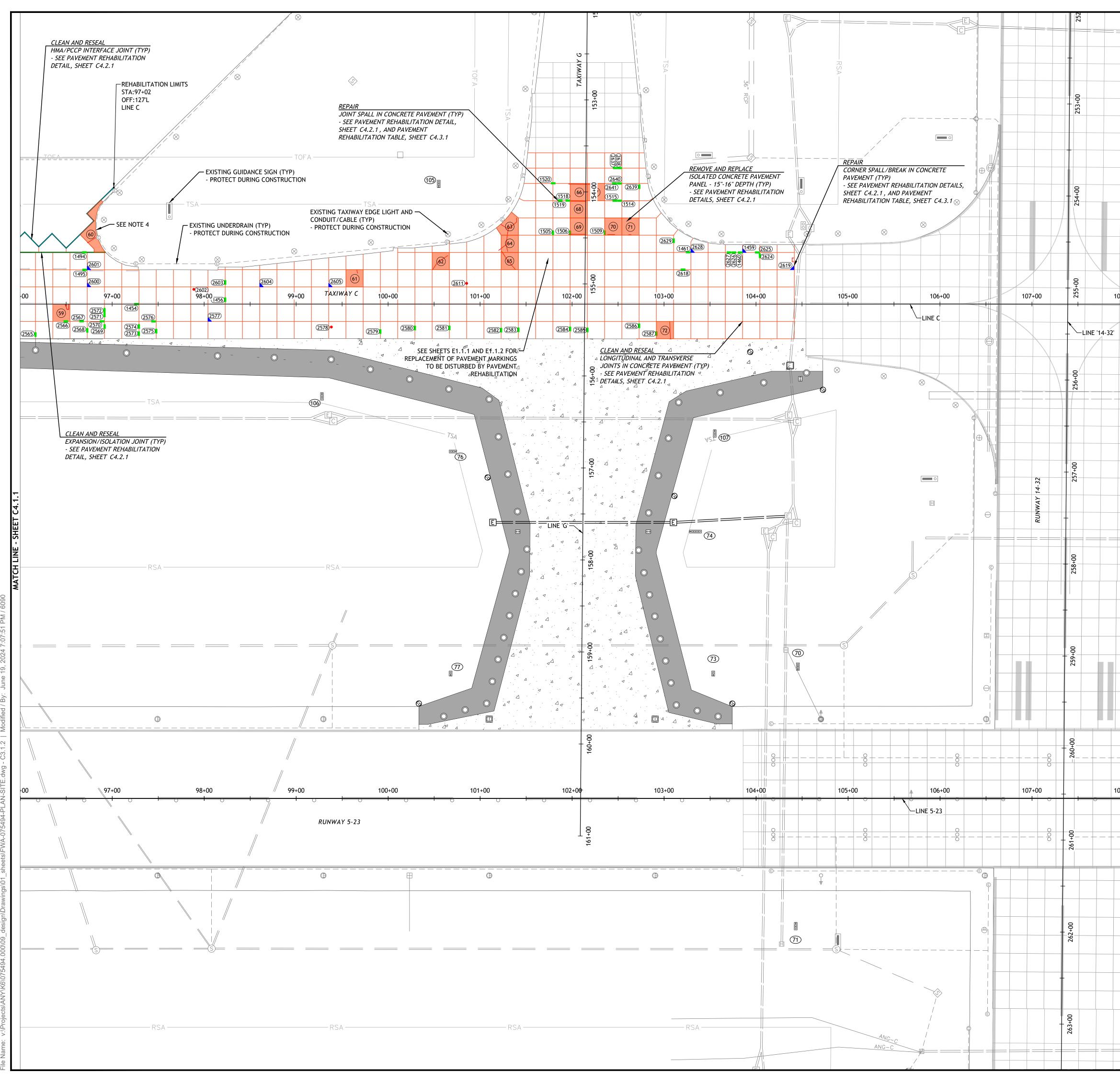


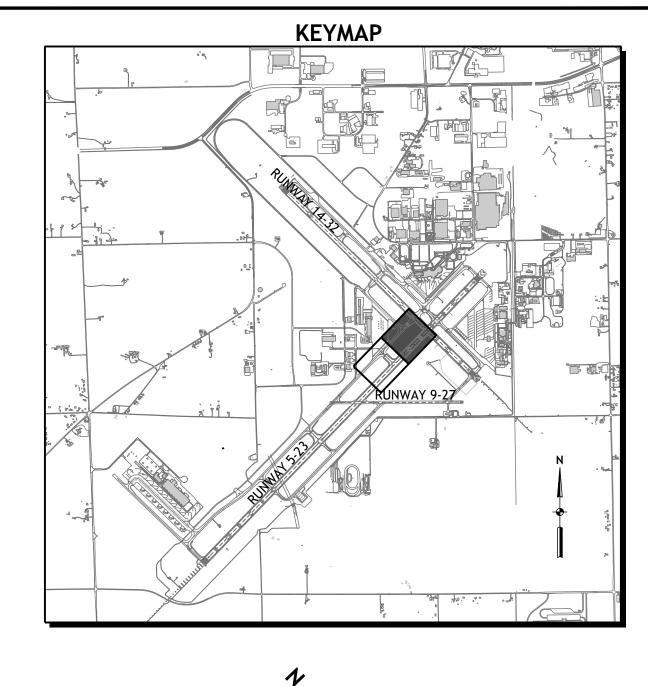
LEGEND		
DESCRIPTION	EXISTING	NEW
RUNWAY/TAXIWAY PAVEMENT		
SHOULDER/BLASTPAD PAVEMENT		
PCCP PAVEMENT JOINT		
CLEAN AND RESEAL PCCP JOINT		
PCCP PAVEMENT REPAIR (SEE NOTES)		1000
PCCP PANEL REPLACEMENT (15-16 INCHES)		#
REINFORCED PCCP REPLACED PANEL		
HMA REPLACEMENT		
CLEAN AND SEAL EXPANSION/ISOLATION JOINT		
CLEAN AND SEAL HMA/PCCP INTERFACE JOINT		
SAW-CUT INTERFACE JOINT		~~~~~~
ROUTING AND SEALING OF CRACK		$\sim\sim$
STORM SEWER		
STORM SEWER INLET/MANHOLE	S S	
UNDERDRAIN AND CLEANOUT	(C)	
DUCT BANK		
COMMUNICATION MANHOLE/HANDHOLE	СССН	
ELECTRIC MANHOLE/HANDHOLE	Е ен н	
UNDERGROUND ELECTRIC LINE	UE	
TAXIWAY EDGE REFLECTOR	\bigcirc	
TAXIWAY EDGE LIGHT	\otimes	
ELEVATED RUNWAY EDGE LIGHT	\bigcirc \bigcirc	
IN-PAVEMENT RUNWAY EDGE LIGHT	$\bigcirc \bigcirc \bigcirc$	
GUIDANCE SIGN	•	
UNDERGROUND TELEPHONE LINE	—— U T ——	
WATER LINE	— W —	
FENCE	— X —	
COMMUNICATION LINE	— с —	
GAS	——GAS——	
RUNWAY SAFETY AREA	——RSA——	
TAXIWAY SAFETY AREA	——TSA ——	
RUNWAY OBJECT FREE AREA	——ROFA——	
TAXIWAY OBJECT FREE AREA	—— TOFA ——	

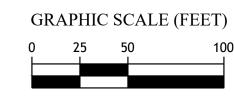


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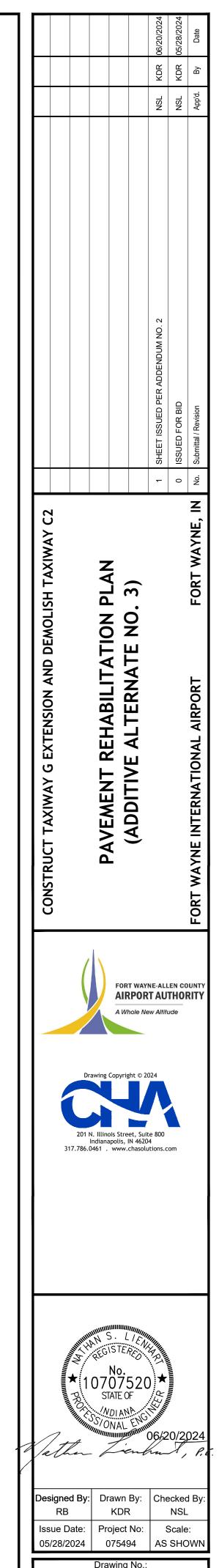
- 1. THE EXISTING CONDITIONS SHOWN ON THIS DRAWING ARE DERIVED PRIMARILY FROM THE FIELD SURVEY PERFORMED BY ALIGN CIVIL ENGINEERING CONSULTANTS IN OCTOBER 2022. TAXIWAY C SURVEY WAS PERFORMED BY ALIGN CIVIL ENGINEERING CONSULTANTS, FORMERLY CIVIL ENGINEERING CONSULTANTS (CECON), IN APRIL 2020. 30 DAYS PRIOR TO THE START OF CONSTRUCTION ACTIVITIES, THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES IN THE FIELD SURVEY REFLECTED IN THE PLANS.
- 2. UNDERGROUND UTILITIES ARE DEPICTED FROM AVAILABLE INFORMATION, BUT ARE NOT KNOWN TO BE ACCURATE OR COMPLETE. IF ACTIVE UNDOCUMENTED UNDERGROUND UTILITIES ARE ENCOUNTERED DURING CONSTRUCTION, IMMEDIATELY NOTIFY THE ENGINEER.
- 3. UPON REMOVAL OF THE PCCP, THE ENGINEER AND CONTRACTOR SHALL EVALUATE AND DETERMINE THE LIMITS OF BASE REMOVAL AND REPLACEMENT THAT ARE REQUIRED. UNDISTRIBUTED QUANTITIES OF BASE COURSE REMOVAL AND REPLACEMENT ARE INCLUDED UNDER ITEM PST-505.
- 4. REFER TO THE PAVEMENT REHABILITATION TABLE, SHEET C4.3.1, FOR A SUMMARY TABLE WHICH DENOTES DISTRESS AND ASSOCIATED REPAIRS FOR POINTS IDENTIFIED ON THE PLANS.
- 5. WHERE PANEL REPLACEMENT IS DESIGNATED OR REQUIRED ADJACENT TO A TURF SHOULDER, NECESSARY EXCAVATION REQUIRED TO SET FORM WORK AND THE ASSOCIATED RESTORATION SHALL BE CONSIDERED INCIDENTAL TO THE PANEL REPLACEMENT. CARE SHALL BE TAKEN TO PROTECT EXISTING CONDUIT, EDGE LIGHTS, AND UNDERDRAIN SYSTEMS DURING CONSTRUCTION. ANY DAMAGE TO EXISTING FACILITIES SHALL BE REPAIRED OR REPLACED TO THE SATISFACTION OF THE OWNER.
- 6. EXISTING TAXIWAY PAVEMENT EDGES ABUTTING PAVEMENT REHABILITATION WILL BE BRITTLE. THE CONTRACTOR SHALL PROTECT EXISTING PAVEMENT. ANY DAMAGE TO EXISTING PAVEMENT SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE. THE CONTRACTOR PROPOSED REPAIRS SHALL BE SUBMITTED TO ENGINEER FOR REVIEW AND APPROVAL BEFORE STARTING REPAIRS.







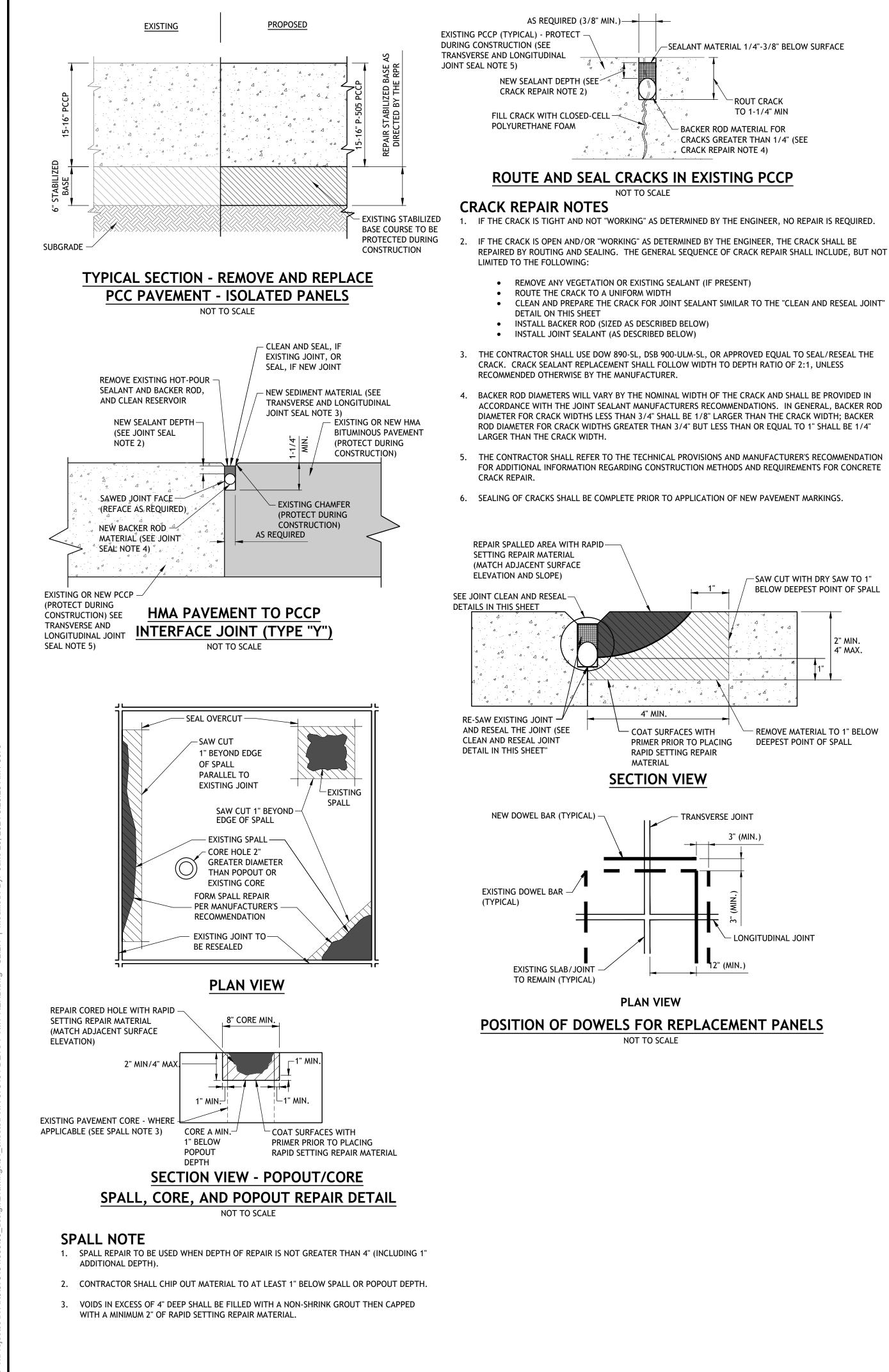
LEGEND		
DESCRIPTION	EXISTING	NEW
RUNWAY/TAXIWAY PAVEMENT		
SHOULDER/BLASTPAD PAVEMENT		
PCCP PAVEMENT JOINT		
CLEAN AND RESEAL PCCP JOINT		
PCCP PAVEMENT REPAIR (SEE NOTES)		1000
PCCP PANEL REPLACEMENT (15-16 INCHES)		#
REINFORCED PCCP REPLACED PANEL		
HMA REPLACEMENT		
CLEAN AND SEAL EXPANSION/ISOLATION JOINT		
CLEAN AND SEAL HMA/PCCP INTERFACE JOINT		
SAW-CUT INTERFACE JOINT		~~~~~~
ROUTING AND SEALING OF CRACK		$\sim\sim$
STORM SEWER		
STORM SEWER INLET/MANHOLE	S S	
UNDERDRAIN AND CLEANOUT	©	
DUCT BANK		
COMMUNICATION MANHOLE/HANDHOLE	СС	
ELECTRIC MANHOLE/HANDHOLE	Е ен н	
UNDERGROUND ELECTRIC LINE	UE	
TAXIWAY EDGE REFLECTOR	\bigcirc	
TAXIWAY EDGE LIGHT	\otimes	
ELEVATED RUNWAY EDGE LIGHT	\bigcirc \bigcirc	
IN-PAVEMENT RUNWAY EDGE LIGHT	$\bigcirc \bigcirc \bigcirc$	
GUIDANCE SIGN	0	
UNDERGROUND TELEPHONE LINE	—— U T ——	
WATER LINE	— W —	
FENCE	— X —	
COMMUNICATION LINE	— C —	
GAS	——GAS——	
RUNWAY SAFETY AREA	——RSA——	
TAXIWAY SAFETY AREA	——————————————————————————————————————	
RUNWAY OBJECT FREE AREA	——ROFA——	
TAXIWAY OBJECT FREE AREA	—— TOF A ——	

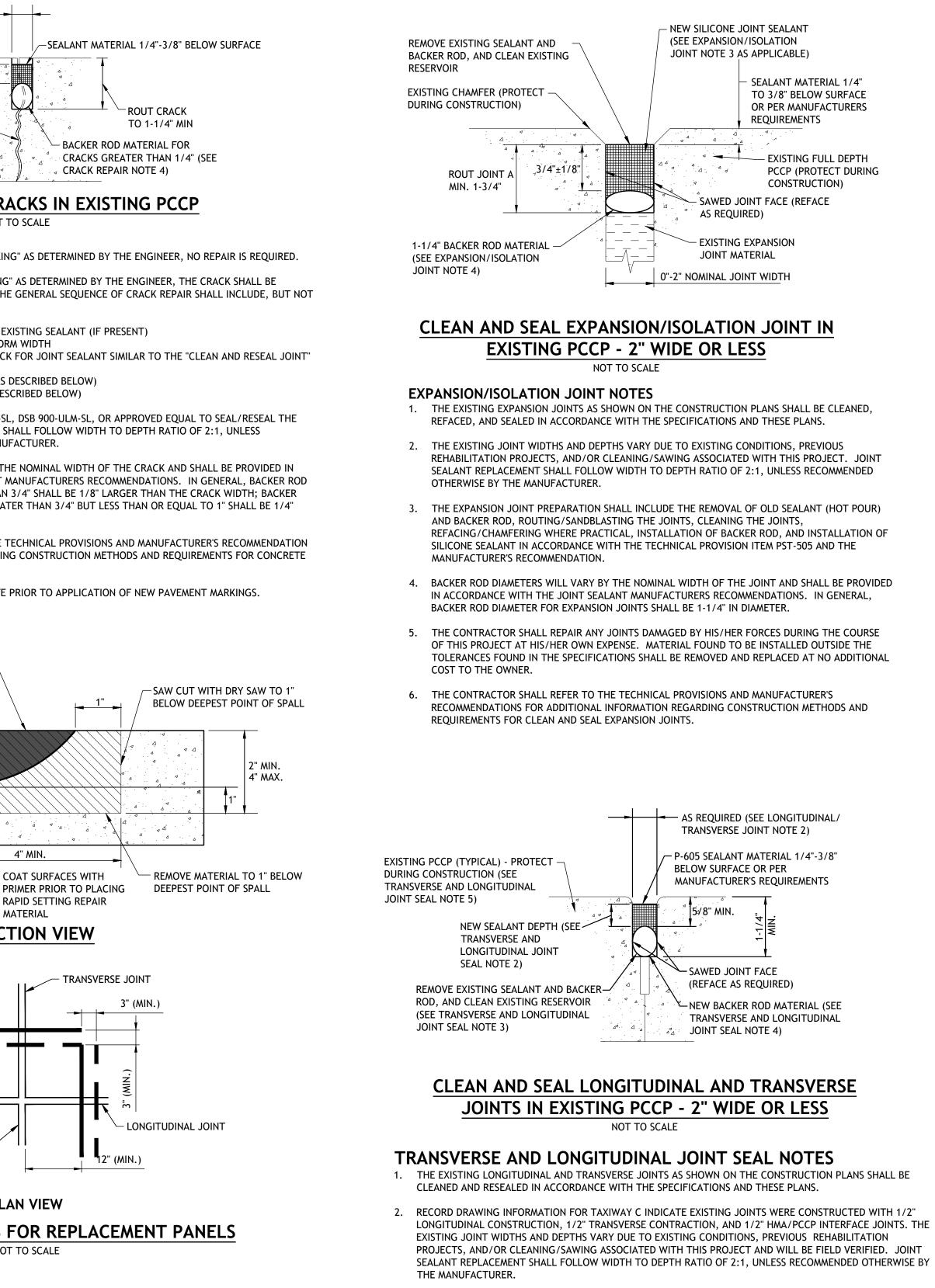


<u>NOTES</u>

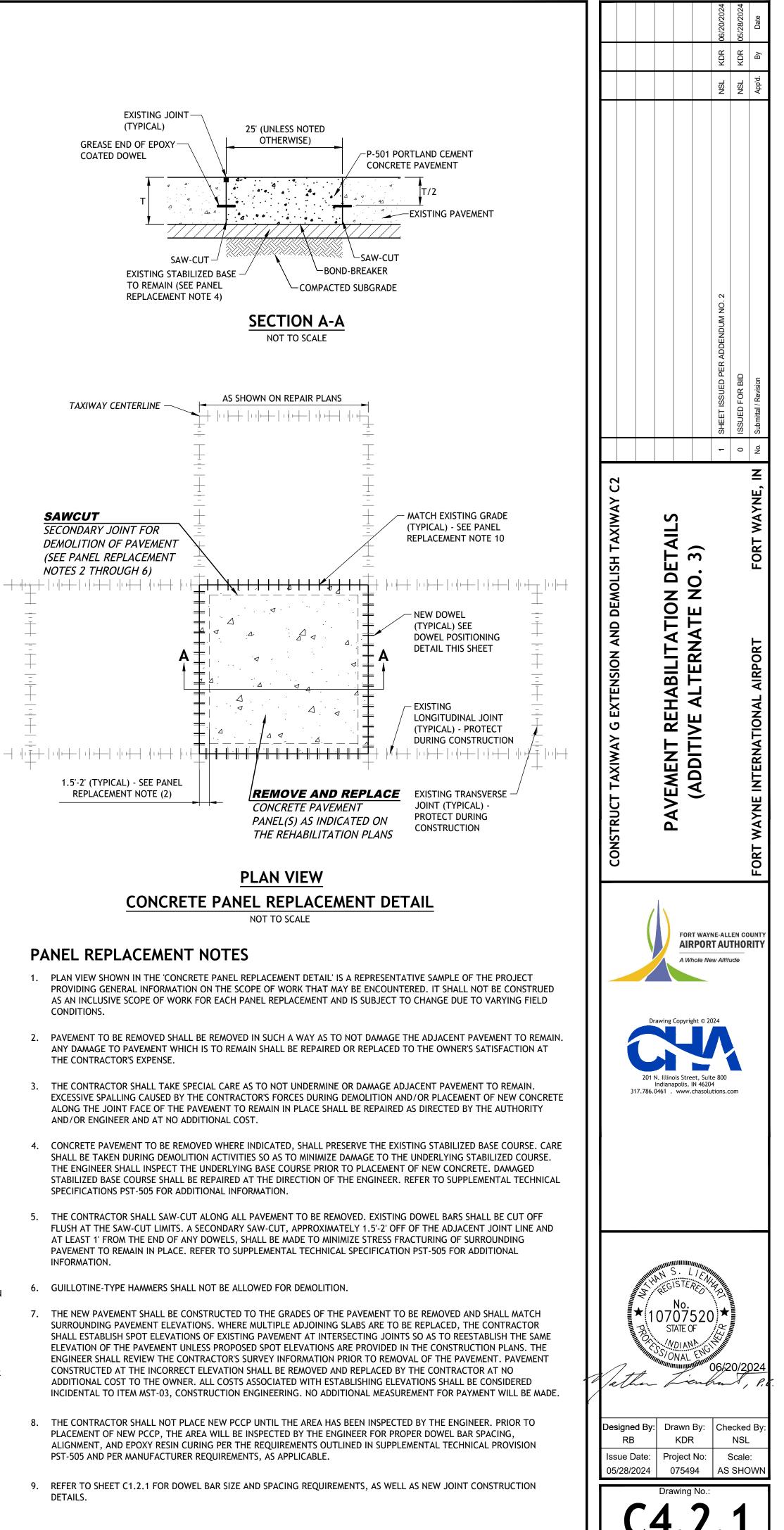
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- 1. THE EXISTING CONDITIONS SHOWN ON THIS DRAWING ARE DERIVED PRIMARILY FROM THE FIELD SURVEY PERFORMED BY ALIGN CIVIL ENGINEERING CONSULTANTS IN OCTOBER 2022. TAXIWAY C SURVEY WAS PERFORMED BY ALIGN CIVIL ENGINEERING CONSULTANTS, FORMERLY CIVIL ENGINEERING CONSULTANTS (CECON), IN APRIL 2020. 30 DAYS PRIOR TO THE START OF CONSTRUCTION ACTIVITIES, THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES IN THE FIELD SURVEY REFLECTED IN THE PLANS.
- 2. UNDERGROUND UTILITIES ARE DEPICTED FROM AVAILABLE INFORMATION, BUT ARE NOT KNOWN TO BE ACCURATE OR COMPLETE. IF ACTIVE UNDOCUMENTED UNDERGROUND UTILITIES ARE ENCOUNTERED DURING CONSTRUCTION, IMMEDIATELY NOTIFY THE ENGINEER.
- 3. UPON REMOVAL OF THE PCCP, THE ENGINEER AND CONTRACTOR SHALL EVALUATE AND DETERMINE THE LIMITS OF BASE REMOVAL AND REPLACEMENT THAT ARE REQUIRED. UNDISTRIBUTED QUANTITIES OF BASE COURSE REMOVAL AND REPLACEMENT ARE INCLUDED UNDER ITEM PST-505.
- 4. REFER TO THE PAVEMENT REHABILITATION TABLE, SHEET C4.3.1, FOR A SUMMARY TABLE WHICH DENOTES DISTRESS AND ASSOCIATED REPAIRS FOR POINTS IDENTIFIED ON THE PLANS.
- . WHERE PANEL REPLACEMENT IS DESIGNATED OR REQUIRED ADJACENT TO A TURF SHOULDER, NECESSARY EXCAVATION REQUIRED TO SET FORM WORK AND THE ASSOCIATED RESTORATION SHALL BE CONSIDERED INCIDENTAL TO THE PANEL REPLACEMENT. CARE SHALL BE TAKEN TO PROTECT EXISTING CONDUIT, EDGE LIGHTS, AND UNDERDRAIN SYSTEMS DURING CONSTRUCTION. ANY DAMAGE TO EXISTING FACILITIES SHALL BE REPAIRED OR REPLACED TO THE SATISFACTION OF THE OWNER.
- 6. EXISTING TAXIWAY PAVEMENT EDGES ABUTTING PAVEMENT REHABILITATION WILL BE BRITTLE. THE CONTRACTOR SHALL PROTECT EXISTING PAVEMENT. ANY DAMAGE TO EXISTING PAVEMENT SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE. THE CONTRACTOR PROPOSED REPAIRS SHALL BE SUBMITTED TO ENGINEER FOR REVIEW AND APPROVAL BEFORE STARTING REPAIRS.

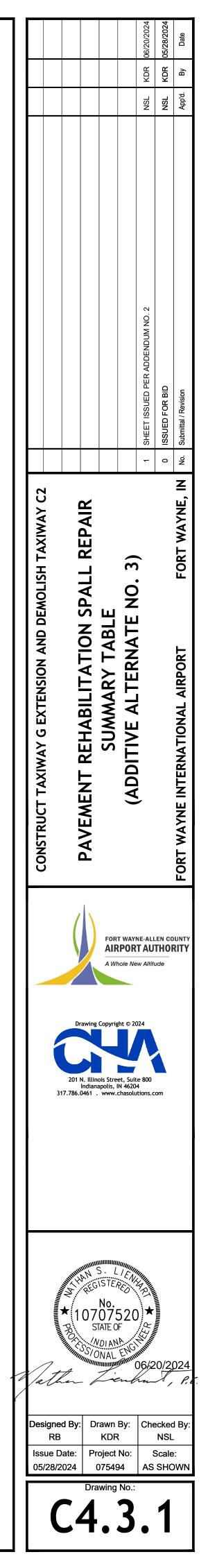


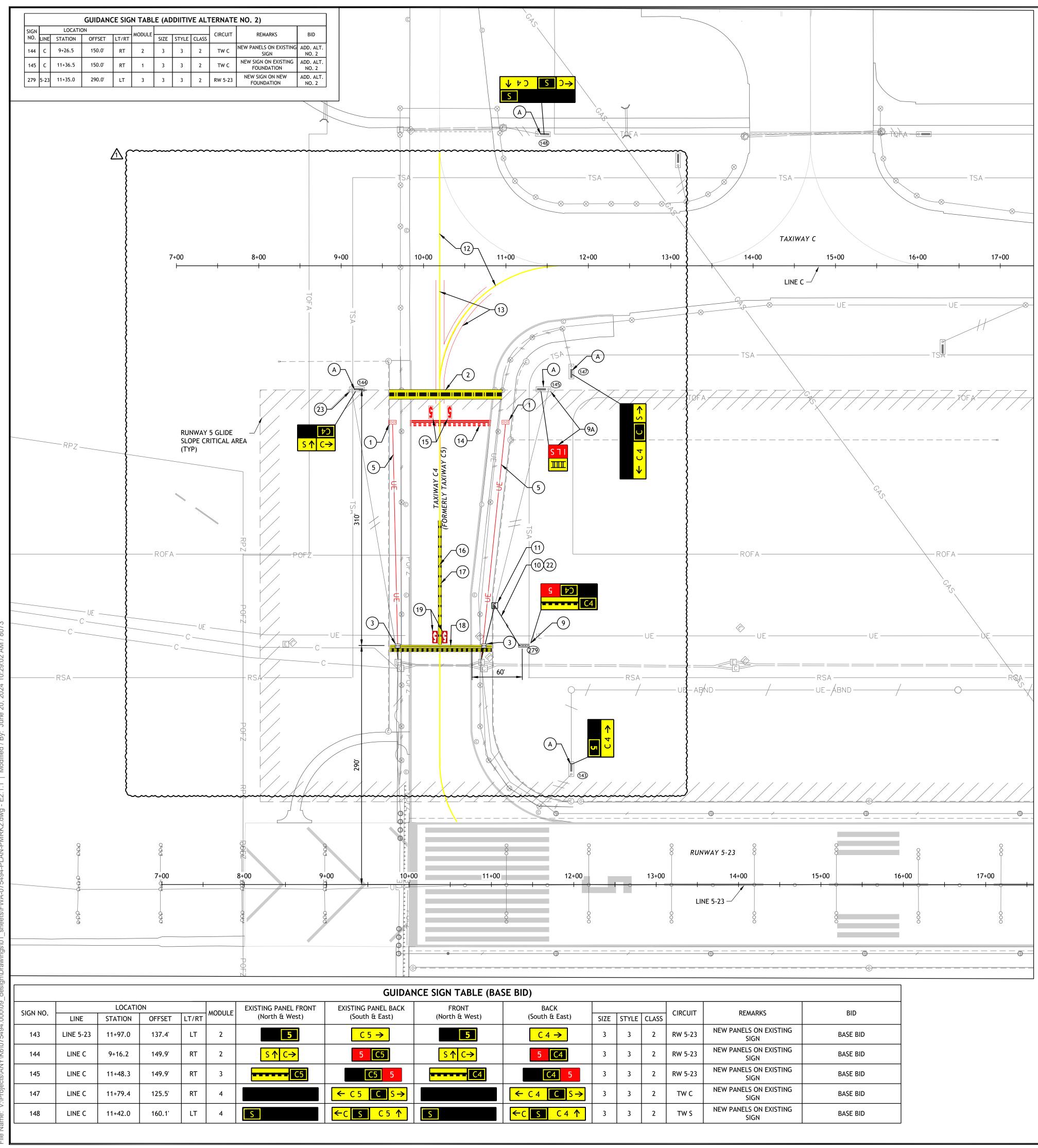


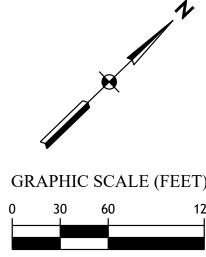
- 3. THE JOINT PREPARATION SHALL INCLUDE THE REMOVAL OF OLD SEALANT AND BACKER ROD, SANDBLASTING THE JOINTS, CLEANING THE JOINTS, INSTALLATION OF BACKER ROD, AND INSTALLATION OF SILICONE SEALANT IN ACCORDANCE WITH THE SUPPLEMENTAL TECHNICAL PROVISION ITEM PST-505 AND THE MANUFACTURER'S RECOMMENDATION. FOR HMA/PCCP INTERFACE JOINTS ONLY, THE CONTRACTOR MAY SUBSTITUTE SILICONE SEALANT FOR HOT-POUR SEALANT IN ACCORDANCE WITH SUPPLEMENTAL TECHNICAL PROVISION PST-105.
- 4. BACKER ROD DIAMETERS WILL VARY BY THE NOMINAL WIDTH OF THE JOINT AND SHALL BE PROVIDED IN ACCORDANCE WITH THE JOINT SEALANT MANUFACTURERS RECOMMENDATIONS. IN GENERAL, BACKER ROD DIAMETER FOR JOINT WIDTHS LESS THAN 3/4" SHALL BE 1/8" LARGER THAN THE JOINT WIDTH; BACKER ROD DIAMETER FOR JOINT WIDTHS GREATER THAN 3/4" BUT LESS THAN OR EQUAL TO 1" SHALL BE 1/4" LARGER THAN THE JOINT WIDTH.
- 5. THE CONTRACTOR SHALL REPAIR ANY JOINTS DAMAGED BY HIS/HER FORCES DURING THE COURSE OF THIS PROJECT AT HIS/HER OWN EXPENSE. MATERIAL FOUND TO BE INSTALLED OUTSIDE THE TOLERANCES FOUND IN THE SPECIFICATIONS SHALL BE REMOVED AND REPLACED AT NO ADDITIONAL COST TO THE OWNER.
- 6. THE CONTRACTOR SHALL REFER TO THE TECHNICAL PROVISIONS AND MANUFACTURER'S RECOMMENDATIONS FOR ADDITIONAL INFORMATION REGARDING CONSTRUCTION METHODS AND REQUIREMENTS FOR CLEAN AND RESEAL OF JOINTS.
- 7. CLEANING AND SEALING OF JOINTS SHALL BE COMPLETE PRIOR TO APPLICATION OF NEW PAVEMENT MARKINGS.
- 8. FOR JOINT WIDTHS GREATER THAN 2" AND NOT GREATER THAN 3" USE PREFORMED COMPRESSION SEAL IN ACCORDANCE WITH PST-505.



		_		_		_	_								_														
POINT No.	NORTHING	EASTING	DISTRESS DESCRIPTION	DISTRESS WIDTH (in)	DISTRESS LENGTH (in)	REPAIR WIDTH (in)	REPAIR LENGTH (in)) TOTAL REPAIR AREA (sq. in)	TOTAL REPAIR AREA (sq. ft)	POINT No.	NORTHING	EASTING	DISTRESS DESCRIPTION	DISTRESS WIDTH (in)	DISTRESS LENGTH (in)	REPAIR WIDTH (in)	REPAIR LENGTH (in)	TOTAL REPAIR AREA (sq. in)	TOTAL REPAIR AREA (sq. ft)	POINT No.	NORTHING	EASTING	DISTRESS DESCRIPTION	DISTRESS WIDTH (in)	DISTRESS LENGTH (in)	REPAIR WIDTH (in)	REPAIR LENGTH (in)	TOTAL REPAIR AREA (sq. in)	TOTAL REPAIR AREA (sq. ft)
1401	2087808.7	458547.4	CORNER BREAK	2	2	4	4	16	0.11	1482 1483	2088032.7 2088053.6	458577 458697.8	JOINT SPALL JOINT SPALL	2	5	4	7	28 72	0.19 0.50	2558	2088205.3	459000.5	JOINT SPALL	2	12	4	14	56	0.39
1402	2087863.2	458625.9	CORNER BREAK	4	4	6	6	36	0.25	1494	2088388.1	459054.1	JOINT SPALL	10	18	12	20	240	1.67	2559 2561	2088202.5 2088227.3	459005.2 459029.5	JOINT SPALL	2	10	4	8	32 48	0.22
1403	2087889.8	458625.5	CORNER BREAK	2	2	4	4	16	0.11	1495 1505	2088375.1 2088766.4	459067.6 459392.8	JOINT SPALL	12	18	14 4	20 12	280 48	1.94 0.33	2563	2088241.9	459043.4	CORNER	12	12	14	14	196	1.36
1404 1405	2087942.6 2087968.9	458624.7 458651.3	JOINT SPALL	2	4	4	6	24	0.17	1506	2088778.3	459404.4	JOINT SPALL	6	8	8	10	80	0.56	2564	2088258	459053.9	JOINT SPALL	2	24	4	26	104	0.72
1406	2087930.8	458690.9	CORNER BREAK	2	2	4	4	16	0.11	1509 1514	2088807.3 2088844.4	459432.9 459417.4	JOINT SPALL JOINT SPALL	2	7 10	4	9	36 72	0.25	2565 2566	2088286.1 2088319.4	459078.6 459092.4	JOINT SPALL JOINT SPALL	2	96	4	98 12	392 48	2.72 0.33
1407	2087944.6	458730.6	CORNER	2	2	4	4	16	0.11	1515	2088839.3	459412.5	JOINT SPALL	2	14	4	16	64	0.44	2567	2088331.8	459104.3	JOINT SPALL	2	16	4	18	72	0.50
1408	2087958.1	458743.6	BREAK CORNER	4	4	6	6	36	0.25	1518 1519	2088804.2 2088797.6	459378 459371.6	JOINT SPALL	8	16 20	10	18 22	180 88	1.25 0.61	2568 2569	2088330 2088345.9	459114.1 459124.5	JOINT SPALL	2	16 24	4	18 26	72 104	0.50
1409	2087984.2	458716.7	BREAK CORNER	2	2	4	4	16	0.11	1520	2088803.6	459351.7	JOINT SPALL	4	4	6	6	36	0.25	2570	2088343.9	459124.5		2	12	4	14	56	0.39
1410	2088003.2	458696.9	BREAK JOINT SPALL	2	6	4	8	32	0.22	2463 2464	2087764.1 2087773.6	458566.6 458565.9	JOINT SPALL JOINT SPALL	2	60 48	4	62 50	248 200	1.72 1.39	2571 2572	2088355.9 2088357.6	459114.2 459112.5		2	12 12	4	14 14	56 56	0.39
1411	2088009.4	458690.6	JOINT SPALL	2	6	4	8	32	0.22	2465	2087777.6	458579.6	JOINT SPALL	2	17	4	19	76	0.53	2572	2088337.0	459153.8	JOINT SPALL	2	12	4	14	56	0.39
1412 1413	2088027.4 2088032.5	458706.1 458710.9	POP-OUT POP-OUT	2	2	4	4	16 16	0.11	2466	2087791.6	458592.2	JOINT SPALL	2	17	4	19	76	0.53	2574	2088371	459148.6		2	12	4	14	56	0.39
1414	2088024.3	458729	CORNER BREAK	4	4	6	6	36	0.25	2467	2087783	458600.9	CORNER BREAK	12	12	14	14	196	1.36	2575	2088382.2	459162.9	JOINT SPALL	2	12	4	14	56	0.39
1415	2088023.4	458729.9	JOINT SPALL	2	4	4	6	24	0.17	2468	2087804.6	458605.7	JOINT SPALL	2	17	4	19	76	0.53	2576 2577	2088388.7 2088425.8	459156.2 459194.8	JOINT SPALL CORNER	2	8	4	10	40 25	0.28
1416 1417	2088011.9 2088033.3	458741.8 458746.9	JOINT SPALL	2	4	4	6	24	0.17	2469	2087823.3	458613.5	CORNER BREAK	2	2	4	4	16	0.11	2578	2088523.8	459297.7	SPALL POP-OUT	2	2	4	4	16	0.11
1418	2088037.7	458742	CORNER BREAK	2	2	4	4	16	0.11	2470	2087809.7	458627.5	JOINT SPALL	2	12	4	14	56	0.39	2579	2088555.6	459332.4	JOINT SPALL	2	24	4	26	104	0.72
1419	2088024.3	458729.2	CORNER BREAK	2	2	4	4	16	0.11	2471	2087823.6	458640	CORNER SPALL	10	10	12	12	144	1.00	2580 2581	2088586.6 2088615.7	459357.5 459384.7	JOINT SPALL JOINT SPALL	2	24 24	4	26 26	104 104	0.72
1420	2088050.7	458728.6	CORNER	4	4	6	6	36	0.25	2472	2087850.4	458666	CORNER BREAK	2	2	4	4	16	0.11	2582	2088653.2	459425.7	JOINT SPALL	2	24	4	26	104	0.72
1421	2088051.2	458755	BREAK CORNER	4	4	6	6	36	0.25	2473	2087855.9	458660.4	JOINT SPALL	2	30	4	32	128	0.89	2583 2584	2088667.2 2088707.6	459437.7 459476.5	JOINT SPALL JOINT SPALL	2	24	4	26 26	104 104	0.72
1422	2088051.1	458755.3	BREAK JOINT SPALL	2	4	4	6	24	0.17	2474	2087860.2	458655.9	JOINT SPALL	2	8	4	10	40	0.28	2585	2088720.4	459490.4	JOINT SPALL	2	24	4	26	104	0.72
1423	2088037.6	458768	JOINT SPALL	2	4	4	6	24	0.17	2475	2087876.8	458665.6	CORNER BREAK	2	2	4	4	16	0.11	2586	2088763.8	459526.5	JOINT SPALL	2	10	4	12	48	0.33
1424	2088025.2	458782	CORNER BREAK	4	4	6	6	36	0.25	2476	2087883.4	458685.9	JOINT SPALL	2	17	4	19	76	0.53	2587	2088771.5	459545	JOINT SPALL CORNER	2	10	4	12	48	0.33
1425	2088037.9 2088038.8	458794.2 458795	JOINT SPALL CORNER	2	4	4	6	24	0.17	2477	2087898.7	458697		2	17	4	19	76	0.53	2590	2088051.7	458781.7	SPALL	4	4	6	6	36	0.25
1420	2088038.8	458795	BREAK JOINT SPALL	2	4	4	6	24	0.11	2480	2087904.4	458718	CORNER SPALL	3	3	5	5	25	0.17	2591 2592	2088057.5 2088064.9	458775.6 458768	JOINT SPALL CORNER	2	12	6	6	56 36	0.39
1428	2088051.6	458781.8	CORNER BREAK	4	4	6	6	36	0.25	2482	2087937.5	458737.9	JOINT SPALL	2	12	4	14	56	0.39	2593	2088082.1	458803.9	SPALL JOINT SPALL			4	0	32	0.23
1429	2088056.2	458776.9	JOINT SPALL	2	17	4	19	76	0.53	2483	2087931.8	458744	CORNER SPALL	2	2	4	4	16	0.11	2593	2088095.4	458797.6	JOINT SPALL	2	6	4	8	32	0.22
1430	2088064.8	458768.2	CORNER BREAK	2	2	4	4	16	0.11	2484	2087947.3	458754.8	JOINT SPALL	2	12	4	14	56	0.39	2595	2088118.8	458820.2	CORNER	4	4	6	6	36	0.25
1431	2088082.7	458776.6	JOINT SPALL	2	4	4	6	24	0.17	2485	2087950.4	458751.5	JOINT SPALL	2	24	4	26	104	0.72	2596	2088119.7	458819.1	JOINT SPALL	2	6	4	8	32	0.22
1432 1433	2088071.9 2088082.1	458787.9 458804	JOINT SPALL JOINT SPALL	2	4	4 4	6	24 24	0.17 0.17	2486	2087971.4	458756.5	BREAK	2	2	4	4	16	0.11	2597	2088173	458898.9	CORNER SPALL	6	6	8	8	64	0.44
1434	2088091.7	458794.1	CORNER BREAK	2	2	4	4	16	0.11	2487	2087966.5	458761.9		2	17	4	19	76	0.53	2598	2088200.1	458897.8	JOINT SPALL	2	12	4	14	56	0.39
1435	2088118.3	458793.7	CORNER BREAK	2	2	4	4	16	0.11	2492	2087972.1	458782.9	CORNER BREAK	2	2	4	4	16	0.11	2599	2088260.4	458970.3	JOINT SPALL	2	12	4	14	56	0.39
1436	2088110.5	458801.6	JOINT SPALL	2	4	4	6	24	0.17	2493	2087979.9	458775.1	JOINT SPALL	2	17	4	19	76	0.53	2600	2088362	459081.1	CORNER SPALL	12	12	14	14	196	1.36
1439	2088053.3	458861	CORNER BREAK	4	4	6	6	36	0.25	2494	2087985.1	458769.9	CORNER BREAK	2	2	4	4	16	0.11	2601	2088375.2	459067.5	CORNER SPALL	12	12	14	14	196	1.36
1440	2088091.3	458821.6	JOINT SPALL	1	5	3	7	21	0.15	2495	2087989.7	458774.2	JOINT SPALL	2	6	4	8	32	0.22	2602	2088444.6	459164.4	POP-OUT	2	2	4	4	16	0.11
1441 1442	2088103 2088103.9	458836.5 458835.5	JOINT SPALL	1	5	3	7	40 21	0.28 0.15	2496	2087992	458776.3	JOINT SPALL CORNER	2	12	4	14	56	0.39	2603	2088468	459177.4	JOINT SPALL	2	24	4	26	104	0.72
1443	2088097.4	458851.5	JOINT SPALL	1	4	3	6	18	0.12	2497	2087998.9	458782.6	BREAK	2	2	4	4	16	0.11	2604	2088492.8	459206.9	CORNER	4	4	6	6	36	0.25
1444 1445	2088099.9 2088140.6	458854 458878.5	JOINT SPALL JOINT SPALL	2 2	20 10	4	22 12	88 48	0.61 0.33	2498	2087993.3	458788	JOINT SPALL	2	17	4	19	76	0.53	2605	2088547.4	459259.5	SPALL CORNER	4	4	6	6	36	0.25
1446	2088157.5	458888.1	JOINT SPALL	2	20	4	22	88	0.61	2499	2087985.9	458795.8	CORNER BREAK	2	2	4	4	16	0.11	2611	2088662.6	459365.6	SPALL POP-OUT	2	2	4	4	16	0.11
1447	2088173.1	458898.9	CORNER BREAK	4	3	6	5	30	0.21	2514 2515	2088018 2088029.3	458816.4 458812.5	JOINT SPALL JOINT SPALL	2	17 6	4	19 8	76 32	0.53	2618	2088842.4	459505.0	JOINT SPALL	2	36	4	38	152	1.06
1448 1449	2088180.9 2088277.4	458906.5 459025.5	JOINT SPALL JOINT SPALL	2	3	4	5	20 32	0.14 0.22	2516	2088030.6	458813.5	JOINT SPALL	2	6	4	8	32	0.22	2619	2088938.9	459611.4	CORNER	10	10	12	12	144	1.00
1454	2088388	459131.4	JOINT SPALL	2	4	4	6	24	0.17	2517 2524	2088032.6 2088045.2	458828.4 458842.3	JOINT SPALL	2	17	4	19 14	76 56	0.53	2624	2088914	459563.6	JOINT SPALL	2	4	4	6	24	0.17
1456 1459	2088456.7 2088898.4	459188.8 459548.2	JOINT SPALL	4	16 5	6	18	108 42	0.75 0.29	2524	2088045.2	458834.8	CORNER	2	12	4	Г Ч Л	16	0.39	2625	2088911.8	459560.3	JOINT SPALL	2	4	4	6	24	0.17
1460	2088892.5	459542.6	JOINT SPALL	1	3	3	5	15	0.10	2525	2088052.4	458834.8	BREAK	2	6	4	4	32	0.11	2626	2088898.5	459548.1	CORNER SPALL	4	4	6	6	36	0.25
1461 1462	2088858.9 2088027.4	459509.5 458706.1	JOINT SPALL	7	7	9	9 14	81 126	0.56 0.87	2527	2088056.9	458839	JOINT SPALL	2	8	4	10	40	0.22	2627	2088892.6	459542.5	JOINT SPALL CORNER	2	4	4	6	24	0.17
1463	2087969.7	458650.3	JOINT SPALL	3	5	5	7	35	0.24	2531	2088072.2	458868.3	JOINT SPALL	2	17	4	19	76	0.53	2628	2088858.9	459509.4	JOINT SPALL	4	4	6	6	36	0.25
1470 1471	2087912.6 2087913.7	458578.1 458578.1	JOINT SPALL	4	6	6	8	48	0.33	2532	2088093	458873.9	CORNER BREAK	6	6	8	8	64	0.44	2629 2637	2088855.6 2088866.1	459486.3 459387	JOINT SPALL	2	4 20	4	6 22	24 88	0.17
1471	2087913.7	458698	JOINT SPALL	12	12	14	14	196	1.36	2533	2088080.4	458887.1	CORNER BREAK	8	8	10	10	100	0.69	2638	2088869.7	459390.6	JOINT SPALL	2	12	4	14	56	0.39
1473 1474	2088044.1	458698 458697.9	JOINT SPALL JOINT SPALL	1 12	7	3	9	27	0.19	2537	2088100.1	458893.5	JOINT SPALL	2	17	4	19	76	0.53	2639	2088871.8	459418.4	JOINT SPALL	2	8	4	10	40	0.28
1474 1475	2088053.5 2088050.6		JOINT SPALL		12 7	4	9	196 36	1.36 0.25	2538 2543	2088115.8 2088127.2	458904 458919.5	JOINT SPALL JOINT SPALL	2	48 17	4	50 19	200 76	1.39 0.53										
1476	2088028.6		JOINT SPALL	2	10	4	12	48	0.33	2544	2088140			2	17	4	19	76	0.53										
1477 1478	2088010.1 2087996.3		JOINT SPALL JOINT SPALL	2	24 6	4	26 8	104 32	0.72 0.22	2549 2550	2088154.4 2088154.2		JOINT SPALL JOINT SPALL	2	17 17	4	19 19	76 76	0.53 0.53										
1479	2088011.4		JOINT SPALL	2	16	4	18	72	0.50	2551	2088164.4		JOINT SPALL	2	48	4	50	200	1.39										
1480 1481	2087997.1 2087987.1	_	JOINT SPALL	2	38 42	4	40	160 176	1.11 1.22	2552 2557	2088165.1 2088203		JOINT SPALL JOINT SPALL	2	48 24	4	50 26	200 104	1.39 0.72										
										L			• •		•				<u> </u>										







KEYNOTES - BASE BID

(A) REPLACE L-858 GUIDANCE SIGN PANEL(S) AS DESCRIBED IN THE GUIDANCE SIGN SUMMARY TABLE - SEE SHEET E3.2.1 FOR FULL SUMMARY

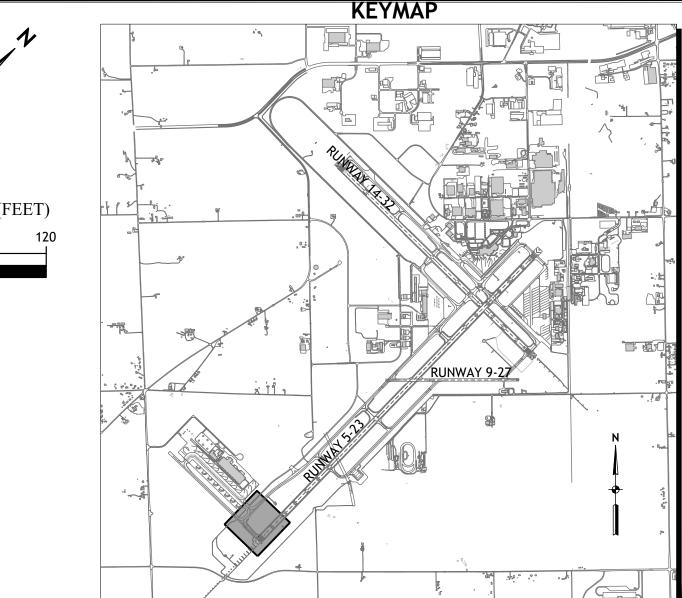
GENERAL NOTES

- ALTERNATE No. 2 AWARD.
- SIGNS.
- SURVEY REFLECTED IN THE PLANS.

- DEMOLITION.

KEYNOTES - ADDITIVE ALTERNATE NO. 2

(2) APPLY NEW P-620 ILS HOLD POSITION MARKING. 3 (4)(5) REMOVE CABLE FROM EXISTING CONDUIT, ABANDON CONDUIT (6) REMOVE CONDUIT AND CABLE (7) INTERCEPT EXISTING CONDUIT(S) AT MANHOLE/HANDHOLE (8) (9) INSTALL NEW L-125 L-858 LED GUIDANCE SIGN ON NEW FOUNDATION (9A) INSTALL NEW L-125 L-858 LED GUIDANCE SIGN ON EXISTING FOUNDATION (10) INSTALL NEW L-110 2" SCH. 40 PVC CONDUIT IN TURF (12) REMOVE TAXIWAY CENTERLINE MARKING (13) REMOVE ENHANCED TAXIWAY CENTERLINE MARKINGS (14) REMOVE RUNWAY HOLD POSITION MARKINGS (15) REMOVE THERMOPLASTIC SURFACE PAINTED HOLD POSITION MARKING (16) APPLY NEW P-620 TAXIWAY CENTERLINE MARKING (17) APPLY NEW P-620 ENHANCED TAXIWAY CENTERLINE MARKINGS (18) APPLY NEW P-620 RUNWAY HOLD POSITION MARKINGS (19)



1. THIS SHEET CONVEYS REQUIREMENTS FOR BOTH THE BASE BID AND ADDITIVE ALTERNATE NO. 2. IN GENERAL, THE BASE BID ONLY ENTAILS REPLACING PANELS ON EXISTING GUIDANCE SIGNS TO COINCIDE WITH THE CHANGES TO TAXIWAY DESIGNATIONS. SHOULD THE OWNER AWARD ADDITIVE ALTERNATE NO. 2, THE BASE BID PANEL REPLACEMENTS FOR MANDATORY HOLD POSITION SIGNS WILL BE NON-PERFORMED/DEDUCTED FROM THE WORK, AS THIS WORK WILL BE COVERED BY THE INSTALLATION OF THE NEW L-858 GUIDANCE SIGN IN ITS NEW LOCATION AS SHOWN. THE ONLY EXCEPTION TO THIS IS TAXIWAY C5 - BECAUSE THE MANDATORY HOLD POSITION SIGNS DO NOT MOVE, THE PANEL REPLACEMENTS NOTED ON THIS SHEET ARE REQUIRED REGARDLESS OF THE ADDITIVE

2. EXISTING GUIDANCE SIGNS ARE FAA L-858, SIZE 3, LOW VA HALOGEN, STYLE 2 OR 3 AS MANUFACTURED BY ADB/SIEMENS.

3. THE EXISTING RUNWAY 5-23 HIRL CIRCUIT IS A 20A SYSTEM, THEREFORE ISOLATION TRANSFORMER SHALL HAVE 20A/6.6A COMPATIBILITY FOR ALL GUIDANCE

4. THE EXISTING CONDITIONS SHOWN ON THIS DRAWING ARE APPROXIMATE. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES IN THE FIELD

5. UNDERGROUND UTILITIES ARE DEPICTED FROM AVAILABLE INFORMATION, BUT ARE NOT KNOWN TO BE ACCURATE OR COMPLETE. IF ACTIVE UNDOCUMENTED UNDERGROUND UTILITIES ARE ENCOUNTERED DURING CONSTRUCTION, IMMEDIATELY NOTIFY THE RESIDENT PROJECT REPRESENTATIVE (RPR).

6. THE CONTRACTOR SHALL PROTECT ALL EXISTING AIRFIELD LIGHTS, GUIDANCE SIGNS, AND NAVIGATIONAL AIDS THAT SHALL REMAIN. ANY DAMAGE TO AIRFIELD LIGHTING, GUIDANCE SIGNS, AND NAVIGATIONAL AIDS SHALL BE REPAIRED OR REPLACED AT THE CONTRACTOR'S EXPENSE.

7. THE CONTRACTOR SHALL COORDINATE WITH THE OWNER TO SHUT OFF POWER TO THE EXISTING RUNWAY AND/OR TAXIWAY EDGE LIGHTS BEFORE

8. ALL EXISTING ELECTRIC CONDUITS TO REMAIN SHALL BE CLEANED AND SWABBED IN ACCORDANCE WITH TECHNICAL PROVISION ITEM L-110, SECTION L-110-3.1. 9. WHERE REMOVAL OF STRUCTURE OR SIGNAGE IS INDICATED, ANY ASSOCIATED BASE AND/OR FOUNDATION SHALL BE REMOVED UNLESS OTHERWISE STATED 10. ANY FAA CABLES OR COMMUNICATIONS LINES DAMAGED DURING CONSTRUCTION ARE TO BE REMOVED AND REPLACED FROM BOTH TERMINATION POINTS AND SHALL NOT BE SPLICED. THE CONTRACTOR SHALL BACKFILL THE VOID IN ACCORDANCE WITH ITEM P-101 AND P-152.

11. ALL GUIDANCE SIGNS, RUNWAY GUARD LIGHT FIXTURES, RUNWAY EDGE LIGHTS (HIRL), AND TAXIWAY EDGE LIGHT FIXTURES (MITL) SHALL BE SALVAGED AND TURNED OVER TO THE OWNER. THE CONTRACTOR SHALL COORDINATE THE LOCATION OF THE DROP-OFF FOR OWNER STORAGE WITH THE RPR AND OWNER.

REMOVE AND SALVAGE LED RGL FIXTURE TO THE OWNER, REMOVE ISOLATION TRANSFORMER AND CABLING TO MANHOLE/HANDHOLE, INSTALL 3/8" SOLID STEEL LID ON EXISTING L-867B BASE CAN, AND ABANDONED CONDUIT UNDER SHOULDER PAVEMENT

CORE DRILL EXISTING HMA SHOULDER PAVEMENT AND INSTALL NEW L-804 LED RGL ON NEW L-867B BASE CAN WITH NEW ISOLATION TRANSFORMER AND NEW L-824 5KV #8 TYPE C CABLE IN NEW 2" SCH. 40 CONDUIT AND INTERCEPT/CONNECT TO EXISTING CONDUIT

INSTALL NEW L-125 L-804 LED RGL ON NEW BASE CAN IN EXISTING TURF SHOULDER WITH NEW ISOLATION TRANSFORMER AND L-824 5KV #8 TYPE C CABLE IN NEW 2" SCH. 40 CONDUIT AND CONNECT TO EXISTING MANHOLE/HANDHOLE OR EXISTING CONDUIT (AS APPROPRIATE)

REMOVE AND RETURN SALVAGED GUIDANCE SIGN ASSEMBLY TO OWNER, REMOVE FOUNDATION, BASE CAN, ISOLATION TRANSFORMER(S), AND CONDUIT(S), BACKFILL WITH SUITABLE SOIL MATERIAL, AND RESTORE WITH TOPSOIL AND HYDRO-MULCH SEED

(11) INSTALL NEW L-115 L-867B BASE CAN HANDHOLE, INTERCEPT EXISTING 2" CONDUIT

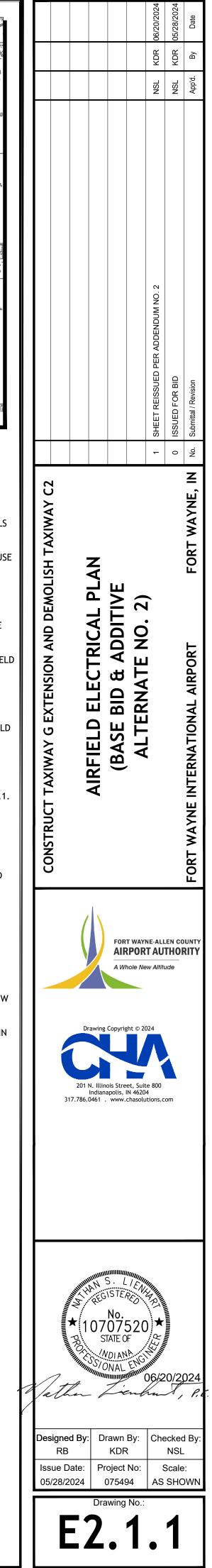
APPLY NEW P-620 THERMOPLASTIC SURFACE PAINTED HOLD POSITION MARKING

20 DIRECTIONAL BORE 2" CONDUIT AND INTERCEPT NEW L-804 LED RGL BASE IN EXISTING SHOULDER

21) REMOVE CABLE FROM CONDUIT, SALVAGE CONDUIT

(22) INSTALL NEW L-108 #8 L-824 5KV TYPE CABLE IN NEW OR EXISTING DUCT/CONDUIT (NUMBER OF CONDUCTORS AS INDICATED)

(23) REPLACE L-858 GUIDANCE SIGN PANEL(S) AS DESCRIBED IN THE GUIDANCE SIGN SUMMARY TABLE - SEE SHEET E3.2.1



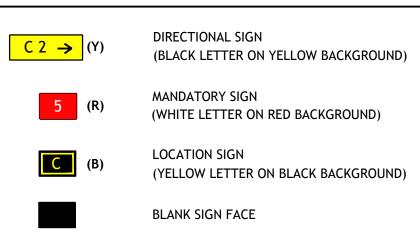
	1				, <u>,</u>			NCE SIGN TABLE (BA	'2E I
SIGN NO.	LINE	LOCATIO STATION	ON OFFSET	LT/RT	MODULE	EXISTING PANEL FRONT (North & West)	EXISTING PANEL BACK (South & East)	FRONT (North & West)	
70	LINE 5-23	104+45.4	135.0'	LT	2		14 - 32		\uparrow
71	LINE 5-23	104+43.1	135.0'	RT	2	14 - 32		14 - 32	+
73	LINE 5-23	103+53.4	135'	LT	1		G →		\top
74	LINE G	157+68.1	117.8'	LT	3	23 - 5 G	G	23 - 5 G	\top
76	LINE G	156+83.3	139.9'	RT	3		G ← C →		1
77	LINE 5-23	100+67.9	135'	LT	1	<mark>←</mark> G		← G	
103	LINE C	95+11.7	97.5'	RT	2	С	С F 7	С	\uparrow
105	LINE C	100+55.1	128.6'	LT	3	\leftarrow G \rightarrow C		\leftarrow G \rightarrow C	\square
106	LINE C	99+28.1	97.5'	RT	1		5 个		
107	LINE G	156+59.3	142.5'	LT	3		C ← G →		
143	LINE 5-23	11+97.0	137.4'	LT	2	5	C 5 →	5	
144	LINE C	9+16.2	149.9'	RT	2	S↑ C→	5 C5	S↑ C→	
145	LINE C	11+48.3	149.9'	RT	3	C5	C5 5	 C4	
147	LINE C	11+79.4	125.5'	RT	4		← C 5 C S→		
148	LINE C	11+42.0	160.1'	LT	4	S	<mark>←C S C 5 ↑</mark>	S	
152	LINE C	39+01.2	98.7	LT	3	C C 4 →		C C3 →	
154	LINE 5-23	58+25.2	136.2'	LT	2	← C 3		<mark>←</mark> C 2	
155	LINE 5-23	63+45.4	136.2'	LT	2		C 3 →		\square
157	LINE 5-23	62+09.0	247.2'	RT	3	C3	C3 23 - 5	<mark>C2</mark>	
158	LINE C	62+45.3	122.6'	RT	3	С	← C 3 C	С	1
160	LINE 5-23	42+51.0	139.3'	LT	2		C 4 →		
161	LINE C	41+87.7	247.3'	RT	3	C4	C4 23 - 5	<mark>C</mark> 3	\top
162	LINE C	42+21.2	125.1'	RT	3		← C 4 C		\top
163	LINE 5-23	38+71.3	138.6'	LT	2	← C 4		← C 3	T
164	LINE C	59+25.3	99'	LT	3	C C 3 →	С	C C2 →	\top

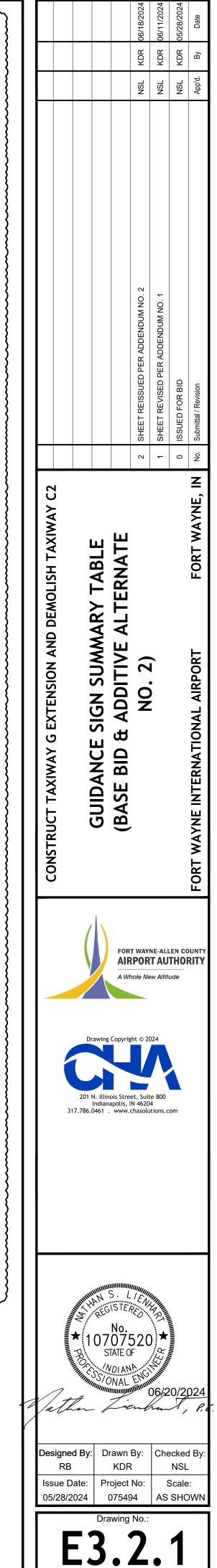
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							GUIDANCE SIGN T	ABLE (ADDITIVE AL	TERNATE NO. 2)						
SIGN NO.	LINE	LOCATIO STATION	ON OFFSET	LT/RT	MODULE	EXISTING PANEL FRONT (North & West)	EXISTING PANEL BACK (South & East)	FRONT (North & West)	BACK (South & East)	SIZE	STYLE	CLASS	CIRCUIT	REMARKS	BID
59	LINE 5-23	130+40.4	290'	LT	3	<mark></mark> C1	C1 23 - 5	<mark></mark> [C1]	C1 23 - 5	3	3	2	RW 5-23	NEW SIGN ON NEW FOUNDATION	ADDITIVE ALTERNATE NO.
62	LINE 5-23	128+16.2	290'	RT	3	M 5 - 23	M	M 5 - 23	M	3	3	2	RW 5-23	NEW SIGN ON NEW FOUNDATION	ADDITIVE ALTERNATE NO.
83	LINE 5-23	80+81.7	247.7	RT	2	5 - 23		5 - 23		3	3	2	RW 5-23	NEW SIGN ON NEW FOUNDATION	ADDITIVE ALTERNATE NO.
84	LINE 5-23	79+42.1	383.8'	RT	2	5 - 23		5 - 23		3	3	2	RW 5-23	NEW SIGN ON NEW FOUNDATION	ADDITIVE ALTERNATE NO.
119	LINE C	112+44.1	247.4	RT	3	<mark>Y</mark>	Y 23 - 5	Y	Y 23 - 5	3	3	2	RW 5-23	NEW SIGN ON NEW FOUNDATION	ADDITIVE ALTERNATE NO
121	LINE 5-23	110+37.0	290'	RT	3	Y 5 - 23	Y	Y 5 - 23	······································	3	3	2	RW 5-23	NEW SIGN ON NEW FOUNDATION	ADDITIVE ALTERNATE NO
129	LINE 5-23	59+90.3	290'	RT	3	B1 5 - 23	B1	B1 5 - 23	••••• <mark>B1</mark>	3	3	2	RW 5-23	NEW SIGN ON NEW FOUNDATION	ADDITIVE ALTERNATE NO
131	LINE 5-23	39+67.5	290'	RT	3	B2 5 - 23	B2	B2 5 - 23	 B2	3	3	2	RW 5-23	NEW SIGN ON NEW FOUNDATION	ADDITIVE ALTERNATE NO
144	С	9+26.5	150'	RT	2	S↑C→	5 C 5	<mark>S↑C→</mark>	C4	3	3	2	RW 5-23	NEW PANELS ON EXISTING SIGN	ADDITIVE ALTERNATE NO
145	С	11+36.5	150'	RT	1	<u>C</u> 5	C5 5	ILS		3	3	2	RW 5-23	NEW SIGN ON EXISTING FOUNDATION	ADDITIVE ALTERNATE NO
157	LINE 5-23	62+09.0	290'	RT	3	••••••	C2 23 - 5	C2	C2 23 - 5	3	3	2	RW 5-23	NEW SIGN ON NEW FOUNDATION	ADDITIVE ALTERNATE NO
161	LINE 5-23	41+87.6	290'	RT	3	•••••	C3 23 - 5	C3	C3 23 - 5	3	3	2	RW 5-23	RELOCATED SIGN ON NEW FOUNDATION	ADDITIVE ALTERNATE NO
279	LINE 5-23	11+35.3	290'	LT	3			C4	C4 5	3	3	2	RW 5-23	NEW SIGN ON NEW FOUNDATION	ADDITIVE ALTERNATE NO

SIZE	STYLE	CLASS	CIRCUIT	REMARKS	BID
3	3	2	RW 14-32	NEW SIGN ON NEW FOUNDATION	BASE BID
3	3	2	RW 14-32	NEW SIGN ON NEW FOUNDATION	BASE BID
3	3	2	RW 5-23	NEW SIGN ON NEW FOUNDATION	BASE BID
3	3	2	RW 5-23	NEW SIGN ON NEW FOUNDATION	BASE BID
3	3	2	TW C	NEW SIGN ON NEW FOUNDATION	BASE BID
3	3	2	RW 5-23	NEW SIGN ON NEW FOUNDATION	BASE BID
3	3	2	TW C	NEW SIGN ON NEW FOUNDATION	BASE BID
3	3	2	TW C	NEW SIGN ON EXISTING FOUNDATION	BASE BID
3	3	2	TW C	NEW SIGN ON NEW FOUNDATION	BASE BID
3	3	2	TW C	NEW SIGN ON NEW FOUNDATION	BASE BID
3	3	2	RW 5-23	NEW PANELS ON EXISTING SIGN	BASE BID
3	3	2	RW 5-23	NEW PANELS ON EXISTING SIGN	BASE BID
3	3	2	RW 5-23	NEW PANELS ON EXISTING SIGN	BASE BID
3	3	2	TW C	NEW PANELS ON EXISTING SIGN	BASE BID
3	3	2	TW S	NEW PANELS ON EXISTING SIGN	BASE BID
3	3	2	TW C	NEW PANELS ON EXISTING SIGN	BASE BID
3	3	2	RW 5-23	NEW PANELS ON EXISTING SIGN	BASE BID
3	3	2	RW 5-23	NEW PANELS ON EXISTING SIGN	BASE BID
3	3	2	RW 5-23	NEW PANELS ON EXISTING SIGN	BASE BID
3	3	2	TW C	NEW PANELS ON EXISTING SIGN	BASE BID
3	3	2	RW 5-23	NEW PANELS ON EXISTING SIGN	BASE BID
3	3	2	RW 5-23	NEW PANELS ON EXISTING SIGN	BASE BID
3	3	2	TW C	NEW PANELS ON EXISTING SIGN	BASE BID
3	3	2	RW 5-23	NEW PANELS ON EXISTING SIGN	BASE BID
3	3	2	TW C	NEW PANELS ON EXISTING SIGN	BASE BID
	3 3 <td< td=""><td>3 3 3</td><td>3 3 2 3 3 2</td><td>SIZE STYLE CLASS 3 3 2 RW 14-32 3 3 2 RW 14-32 3 3 2 RW 5-23 3 3 2 RW 5-23 3 3 2 TW C 3 3 2 RW 5-23 3 3 2 RW 5-23 3 3 2 TW C 3 3 2 TW C 3 3 2 TW S 3 3 2 RW 5-23 3 3 2 RW 5-23 3 3 2</td><td>SIZE STYLE CLASS RW INEW SIGN ON NEW FOUNDATION 3 3 2 RW 14-32 NEW SIGN ON NEW FOUNDATION 3 3 2 RW 5-23 NEW SIGN ON NEW FOUNDATION 3 3 2 RW 5-23 NEW SIGN ON NEW FOUNDATION 3 3 2 RW 5-23 NEW SIGN ON NEW FOUNDATION 3 3 2 TW C NEW SIGN ON NEW FOUNDATION 3 3 2 TW C NEW SIGN ON NEW FOUNDATION 3 3 2 TW C NEW SIGN ON NEW FOUNDATION 3 3 2 TW C NEW SIGN ON NEW FOUNDATION 3 3 2 TW C NEW SIGN ON NEW FOUNDATION 3 3 2 TW C NEW SIGN ON NEW FOUNDATION 3 3 2 TW C NEW SIGN ON NEW FOUNDATION 3 3 2 TW C NEW SIGN ON NEW FOUNDATION 3 3 2 RW 5-23 NEW SIGN ON NEW FOUNDATION 3</td></td<>	3 3 3	3 3 2 3 3 2	SIZE STYLE CLASS 3 3 2 RW 14-32 3 3 2 RW 14-32 3 3 2 RW 5-23 3 3 2 RW 5-23 3 3 2 TW C 3 3 2 RW 5-23 3 3 2 RW 5-23 3 3 2 TW C 3 3 2 TW C 3 3 2 TW S 3 3 2 RW 5-23 3 3 2 RW 5-23 3 3 2	SIZE STYLE CLASS RW INEW SIGN ON NEW FOUNDATION 3 3 2 RW 14-32 NEW SIGN ON NEW FOUNDATION 3 3 2 RW 5-23 NEW SIGN ON NEW FOUNDATION 3 3 2 RW 5-23 NEW SIGN ON NEW FOUNDATION 3 3 2 RW 5-23 NEW SIGN ON NEW FOUNDATION 3 3 2 TW C NEW SIGN ON NEW FOUNDATION 3 3 2 TW C NEW SIGN ON NEW FOUNDATION 3 3 2 TW C NEW SIGN ON NEW FOUNDATION 3 3 2 TW C NEW SIGN ON NEW FOUNDATION 3 3 2 TW C NEW SIGN ON NEW FOUNDATION 3 3 2 TW C NEW SIGN ON NEW FOUNDATION 3 3 2 TW C NEW SIGN ON NEW FOUNDATION 3 3 2 TW C NEW SIGN ON NEW FOUNDATION 3 3 2 RW 5-23 NEW SIGN ON NEW FOUNDATION 3

GUIDANCE SIGN LEGEND







- AREAS ON THE EXISTING PAVEMENTS.

TAXIWAY CENTERLINES.

