#### STATE OF HAWAII DEPARTMENT OF TRANSPORTATION AIRPORTS DIVISION

#### ADDENDUM NO. 1

TO

SPECIAL PROVISIONS, SPECIFICATIONS, AND PROPOSAL

**FOR** 

EWA & DH CONCOURSE ROADWAY IMPROVEMENTS PHASE 1
AT
DANIEL K. INOUYE INTERNATIONAL AIRPORT
HONOLULU, OAHU, HAWAII

STATE PROJECT NO. AO1043-32

OCTOBER 20, 2022

The following amendments shall be made to the Bid Documents:

#### A. PRE-BID MEETING MINUTES

1. Attached are the October 10, 2022 pre-bid meeting minutes and attendance sheet for information.

#### B. **SPECIFICATIONS**

- 1. <u>TABLE OF CONTENTS</u>. Replace the Table of Contents dated September 2022 and replace with the attached Table of Contents dated October 2022.
- 2. <u>Federal Wage Rate Schedule</u>. Replace the Federal Wage Rate Schedule dated 09/09/2022 with the attached Federal Wage Rate Schedule dated 10/14/2022.
- 3. Type I, II, III Equipment/Building, and IV Buy American Waivers Issued. In Part 0.E REQUIRED FEDERAL AIRPORT IMPROVEMENT PROGRAM (AIP) CONTRACT PROVISIONS, replace the Type I, II, III Equipment/Building, and IV Buy American Waivers Issued dated 9/15/2022 with the attached Type I, II, III Equipment/Building, and IV Buy American Waivers Issued dated 10/7/2022.
- 4. SECTION 01010 DESCRIPTION OF WORK
  - a. 1.06 <u>HOURS OF WORK</u>. Paragraph A. Delete the paragraph in its entirety and replace with the following paragraph:
    - "A. Work shall be performed to minimize the impact to the operation of Wiki Wiki bus

system and the traveling public.

- 1. Work activities at the Ewa Concourse 2<sup>nd</sup> level roadway shall occur between 8:00 p.m. and 5:00 a.m. During non-working hours, safe access to the Ewa Concourse must be provided for Wiki Wiki bus operations.
- 2. Working hours at the Ewa Concourse 2<sup>nd</sup> level turnaround area shall be limited to 12:01 a.m. to 5:00 a.m. The turnaround must always be open for Wiki Wiki bus operations during non-working hours.
- 3. Work activities at the Ewa Concourse 3<sup>rd</sup> level roadway shall be performed as noted below. During non-working hours, safe access to the Ewa Concourse must be provided for Wiki Wiki bus operations.
  - a. Any work that will impact both the 2<sup>nd</sup> and 3<sup>rd</sup> level roadways simultaneously, such as the trellis removal, shall be performed between 12:01 a.m. and 5:00 a.m.
  - b. Any work that will impact the use of the 3<sup>rd</sup> level roadway must be performed between 3:00 p.m. and 11:00 p.m.
  - c. Any work that will not impact use of the 3<sup>rd</sup> level roadway can be performed at the construction site at anytime over a 24 hour period, provided that vehicular access is safely maintained at all times.
- 4. Work activities at the Diamond Head Concourse 2<sup>nd</sup> level roadway, including the turnaround, shall be performed between 3:00 p.m. and 11:00 p.m. During non-working hours, safe access to the Diamond Head Concourse must be provided for Wiki Wiki bus operations.
- 5. Work activities at the Diamond Head Concourse 3<sup>rd</sup> level roadway shall be performed as noted below. During non-working hours, safe access to the Diamond Head Concourse must be provided for Wiki Wiki bus operations.
  - a. Any work that will impact both the 2<sup>nd</sup> and 3<sup>rd</sup> level roadways simultaneously, such as the trellis removal, shall be performed between 12:01 a.m. and 5:00 a.m.
  - b. All other work that will not have an impact on the 2<sup>nd</sup> level roadway, such as light fixture replacement, shall occur between 3:00 p.m. and 11:00 p.m.
- 6. In the event of an emergency, airport operations shall take precedence over all construction activities.
- 7. Contractor shall submit a proposed construction schedule to DOT-A for review and approval no later than 30 days after award of the contract. The Contractor shall coordinate their schedule with the DOT-A if rescheduling of work or intermittent work is required, such work shall be performed at no extra cost to the State. If the Contractor elects to work overtime,

compensation for State employees and for construction management consultant as authorized by DOT-A shall be the Contractor's obligation to pay in accordance with Section 7.6 of the General Provisions."

b. 1.11 <u>SPECIAL PROJECT REQUIREMENTS</u>. Paragraph B. Delete first sentence and replace with the following:

"The State intends to issue the Notice to Proceed for the Project to the Contractor immediately after contract execution."

#### 5. SECTION 01433 - MOCKUPS

- a. Page 01433-2, Paragraph 1.06.C.1. Delete the paragraph in its entirety and replace with the following paragraph:
  - "1. Reference Specification Section 07916 EXPANSION JOINT"
- b. On Page 01433-3, add the following paragraph:
  - "E. Fast Setting Concrete Trial Pour. A 4 feet minimum width by 4 feet minimum length of Fast Setting Concrete shall be poured over a previously cast and cured concrete pad with fluid applied waterproofing at a location selected by the Contractor and as approved by DOT-A. The purpose of the trial pour is to mimic field conditions and ensure turn around sections can be completed and reopened by the end of the work shift. Attendance of the trial pour is mandatory for all personnel who will perform the work contained in this section.
    - 1. Reference Specification Section 03310 FAST SETTING CONCRETE."
- c. On Page 01433-3, change numbering of Paragraph 1.06.E to Paragraph 1.06.F.

#### 6. SECTION 01533 – BARRICADES

- a. 1.02 <u>BARRICADES</u>. Paragraph A. Delete the paragraph in its entirety and replace with the following paragraph:
  - "A. The contractor shall take precaution to protect people and property from injury and damage. He shall erect barricades to delineate his work areas and provide the appropriate signing, hazard lights, and temporary paint striping per the safety plan as approved by the Engineer, to aid public and airport pedestrian and vehicular traffic around his work areas. Barricades shall be traffic cones, delineators, blinker barricades, caution tape, sawhorses, plywood barricades or other barriers as approved by the Engineer to effectively provide proper protection."

#### 7. <u>SECTION 03300 – STRUCTURAL CONCRETE</u>

a. 4.02 <u>BASIS OF PAYMENT</u>. Delete the paragraph in its entirety and replace with the following paragraph:

#### "4.02 BASIS OF PAYMENT

Structural Concrete work involving the Roadway Deck Replacement along the Second level Ewa Concourse Roadway, and the Second level Diamond Head Concourse Roadway, shall be paid for at the contract Lump Sum prices for the <a href="Ewa Concourse Second Level Roadway Deck Replacement">Ewa Concourse Second Level Roadway Deck Replacement</a>, <a href="Diamond Head Concourse Second Level Roadway Deck Replacement">Ewa Concourse Second Level Roadway Deck Replacement</a>, <a href="Ewa and DH Concourse Misc. Concrete Work">Ewa and DH Concourse Misc. Concrete Work</a>, and for the <a href="Ewa and DH Concourse Drain Replacement Interior Work">Ewa and DH Concourse Drain Replacement Interior Work</a>. The contract prices paid shall be full compensation for all labor, tools, equipment, and all other incidentals necessary to complete the work.

For ALLOWANCE items in the Proposal Schedule, the allowance is an estimate, and the amount shall not exceed the maximum amount shown in the Proposal Schedule. Payment shall be the actual cost as invoiced by the Contractor and approved by the DOT-A Engineer. The Contractor shall be allowed to include overhead, profit, insurance and/or other mark-ups, as stipulated in Section 9.5 of the 2016 General Provisions for Construction Projects, Air and Water Transportation Facilities Divisions.

Ewa and Diamond Head Concourse Drain Replacement Interior Work shall be covered by allowance funds. This work includes necessary removal and replacement of interior furnishing to access drain openings, and coordination efforts with the tenants within the spaces. Interior furnishing may only be disrupted as approved by the tenant and DOT-A. This work does not include materials, labor, or equipment required for modification of the structural concrete slab.

Item No.	Description	Unit
03300.1	Ewa Concourse Second Level Roadway Deck Replacement	Lump Sum
03300.2	DH Concourse Second Level Roadway Deck Replacement	Lump Sum
03300.3	Ewa Concourse Third Level Structural Deck at Drains	Lump Sum
03300.4	Ewa and DH Concourse Misc. Concrete Work	Lump Sum
03300.5	Ewa and DH Concourse Drain Replacement Interior Work	Allowance

All other structural concrete work specified in this section shall be considered incidental to and included in the bid prices for the various items of work in the project."

- 8. <u>SECTION 03310 FAST SETTING CONCRETE</u>. Add new Specification Section dated October 2022.
- 9. <u>SECTION 03730 CONCRETE REPAIRS</u>
  - a. 1.04 <u>REFERENCES</u>. On page 03730-2, delete Paragraph B.2 in its entirety.
  - b. 1.05 SUBMITTALS
    - 1. On page 03730-3, delete Paragraph C.1.b in its entirety.
    - 2. On page 03730-3, delete Paragraph E in its entirety and replace with the following paragraph:
      - "E. Documentation of Repairs: Include records of each repaired concrete area including spalls. Documentation shall include the following:
        - 1. The date of concrete repair mortar placement.
        - 2. The location of the center of each repair rectangle as indicated by distance from two nearest column lines.
        - 3. Dimension of the spall repair rectangle."
  - c. 2.01 MATERIALS. On page 03730-5, delete Paragraph E in its entirety.
  - d. 3.05 CONCRETE REPAIR INSTALLATION
    - A. On page 03730-8, delete Paragraph H in its entirety and replace with the following paragraph:
      - "H. At the Ewa Third Level Roadway the Contractor shall patch the spall and delamination area of the roadway deck. If size or location of the spalls differ from the construction drawings, notify the DOT-A prior to commencing concrete repair work."
  - e. 3.07 CRACK REPAIR BY GRAVITY FLOW. Delete paragraph in its entirety.
  - f. 3.08 CRACK REPAIR BY PRESSURE INJECTION. Delete paragraph in its entirety.
  - g. 3.09 CLEANING. On page 03730-10, delete Paragraphs D and E in their entirety.
  - h. 4.02 <u>BASIS OF PAYMENT</u>. Delete the paragraph in its entirety and replace with the following paragraph:
    - "4.02 BASIS OF PAYMENT

Concrete Repairs involving spall repairs shall be measured and paid for, at the contract unit price bid. The contract unit price paid shall be full compensation for all labor, tools, equipment, and all other incidentals necessary to complete the work.

For ALLOWANCE items in the Proposal Schedule, the allowance is an estimate, and the amount shall not exceed the maximum amount shown in the Proposal Schedule. Payment shall be the actual cost as invoiced by the Contractor and approved by the DOT-A Engineer. The Contractor shall be allowed to include overhead, profit, insurance and/or other mark-ups, as stipulated in Section 9.5 of the 2016 General Provisions for Construction Projects, Air and Water Transportation Facilities Divisions.

Structural Slab Repairs of moisture related spalls shall be covered by allowance funds. Areas of the structural concrete slab damaged by the contractor's demolition of the work shall be repaired at the contractor's expense and is not covered by allowance funds.

Additional Unforeseen Spall Repairs shall be covered by allowance funds. Spalls found on site that either exceed original scope quantities, or other spalls not shown on the drawings that are approved by DOT-A for repair, will be paid by allowance funds.

Item No.	Description	Unit
03730.1	Included Spall Repair for Third Level Roadway Deck	Square Feet
03730.2	Curb Spall Repair	Linear Feet
03730.3	Structural Slab Spall Repairs	Allowance
03730.4	Additional Unforeseen Spall Repair	Allowance

All other concrete repairs specified in this section shall be considered incidental to and included in the bid prices for the various items of work in this project."

#### 10. <u>SECTION 07140 – FLUID-APPLIED MEMBRANE WATERPROOFING</u>

- a. 3.08 <u>FLOOD TEST</u>. Delete the paragraph in its entirety.
- b. On Page 07140-10, add the following paragraph:

#### "3.08 ELECTRONIC LEAK DETECTION TEST

- A. Contractor shall engage an Independent Testing Agency to provide a Certified Electronic Leak Detection (ELD) Technician to perform ELD to verify that the waterproofing membrane system is free of any holes, open seams or capillary defects that will allow water to pass. ELD Detection shall include:
  - 1. High Voltage Electronic Leak Detection for waterproofing membranes.

- B. Field Quality Control Reports: Prepare and submit hard copy and digital reports with a description of the ELD techniques employed, summary of findings, and scaled sketches of the tested areas with the locations of all defects (and trace wire and connection boxes if provided) accurately mapped on the drawing).
- C. Testing Agency Qualifications: The approved Independent Testing Agency shall have a minimum three-year record of satisfactory experience providing High Voltage ELD services on projects of similar size and scope.
- D. Breach-Free Certification of Membrane Integrity: At the conclusion of the testing, the testing agency shall provide a Breach-Free Certification of Membrane Integrity, provided the following conditions are met:
  - 1. Contractor provides personnel and materials to repair any defects located with the testing.
  - 2. Repair materials have sufficient time to set up to allow the ELD Technician to utilize High Voltage ELD to retest any problem areas.
  - 3. All repairs pass retesting.
- E. Perform a High Voltage ELD survey on all testable membrane areas in the Contract; includes all horizontal membrane areas and all vertical surfaces such as sidewalk curbs, and transitions from the horizontal surfaces to the vertical surfaces. High Voltage ELD shall be performed on a dry membrane surface.
- F. ELD Technician shall meet with the Installer and review the sizes and locations of areas to be tested.
- G. Test equipment shall consist of conductive phosphor bronze brush electrodes and a portable battery powered generator capable of providing variable DC current from 1,000-30,000 volts at low amperage.
- H. Connect one terminal of the generator to a ground in the assembly (typically a steel or concrete deck, or alternative grounding medium such as a conductive primer or metal grid). Connect the other terminal to the phosphor bronze brush. Calibrate the voltage level to the thickness of the membrane being tested.
- I. The ELD Technician shall methodically pass the brush electrode over all testable horizontal and vertical membrane surfaces in the contract. Successive passes with overlap previous passes by a minimum of 3 inches. Breaches will be identified when an audible alarm indicates that the electric current has passed through a defect and grounded to the conductive material beneath the membrane.

- J. ELD Technician shall mark break locations on the membrane with spray paint, chalk, tape or other approved method.
- K. The ELD Technician shall maintain communication with the Contractor's representative regarding the number and locations of breaches detected.
- L. Contractor shall repair or remove and replace components of membrane system where test results indicate holes, open seams or capillary defects that will allow water to pass.
- M. After repairs are complete as per waterproofing membrane manufacturer's requirements, retesting in repaired areas will be performed at Contractor's expense to verify the integrity of the membrane."
- 11. <u>SECTION 07680 EPOXY SURFACE TREATMENT</u>. Delete Section in its entirety and replace with <u>SECTION 07680 EPOXY SURFACE TREATMENT</u> dated October 2022.
- 12. <u>SECTION 07916 EXPANSION JOINT WATERPROOFING</u>. Delete Section in its entirety and replace with <u>SECTION 07916 EXPANSION JOINT</u> dated October 2022.

#### C. PROPOSAL SCHEDULE

- 1. Replace Proposal Schedule, pages P-8, P-9, and P-10, with the attached Proposal Schedule, pages P-8, P-9, and P-10, dated October 2022.
- D. <u>REVISED DRAWINGS</u>: The following previously issued drawings dated September 2022 are revised and reissued. These revised drawings superseded the previously issued drawings.
  - 1. Sheet S-001, Revised Fast-Setting Concrete Note B.1. to 3,000 psi to match specification requirements.
  - 2. Sheet S-202, Detail 1, Revised detail for Crack Penetrating Sealant application method to replace gravity feed repair method.
  - 3. Sheet S-300, Detail 2, Added note to field verify expansion joint width to ensure correct material is ordered.
  - 4. Sheet S-301, Details 1 and 3, Added note to field verify expansion joint width to ensure correct material is ordered.
  - 5. Sheet S-302, Detail 1, Added note to field verify expansion joint width to ensure correct material is ordered; Added Detail 4 for clarity of the expansion joint at the Ewa 3<sup>rd</sup> Level Planters.
  - 6. Sheet S-E-201, Added a note to clarify which curb will require spall repairs per Detail 5/S-200.

- 7. Sheet S-E-202, Added a note to clarify which curb will require spall repairs per Detail 5/S-200.
- 8. Sheet S-E-203, Added a note to clarify which curb will require spall repairs per Detail 5/S-200.
- 9. Sheet S-E-204, Added a note to clarify which curb will require spall repairs per Detail 5/S-200.
- 10. Sheet S-E-205, Added a note to clarify which curb will require spall repairs per Detail 5/S-200.
- 11. Sheet S-E-206, Added a note to clarify which curb will require spall repairs per Detail 5/S-200.
- 12. Sheet S-E-207, Added a note to clarify which curb will require spall repairs per Detail 5/S-200.
- 13. Sheet S-E-208, Added a note to clarify which curb will require spall repairs per Detail 5/S-200.
- 14. Sheet S-E-209, Added a note to clarify which curb will require spall repairs per Detail 5/S-200.
- 15. Sheet S-E-210, Added a note to clarify which curb will require spall repairs per Detail 5/S-200.
- 16. Sheet S-E-211, Added a note to clarify which curb will require spall repairs per Detail 5/S-200.
- 17. Sheet S-E-212, Added a note to clarify which curb will require spall repairs per Detail 5/S-200.
- 18. Sheet S-E-213, Added a note to clarify which curb will require spall repairs per Detail 5/S-200.
- 19. Sheet S-E-302, Added a note for expansion joint terminations for the Ewa 3<sup>rd</sup> Level planter side and trellis side.
- 20. Sheet S-E-303, Added a note for expansion joint terminations for the Ewa 3<sup>rd</sup> Level planter side and trellis side.
- 21. Sheet S-E-305, Added a note for expansion joint terminations for the Ewa 3<sup>rd</sup> Level planter side and trellis side.

- 22. Sheet S-E-306, Added a note for expansion joint terminations for the Ewa 3<sup>rd</sup> Level planter side and trellis side.
- 23. Sheet S-E-308, Added a note for expansion joint terminations for the Ewa 3<sup>rd</sup> Level planter side and trellis side.
- 24. Sheet S-E-310, Added a note for expansion joint terminations for the Ewa 3<sup>rd</sup> Level planter side and trellis side.
- 25. Sheet S-E-312, Added a note for expansion joint terminations for the Ewa 3<sup>rd</sup> Level planter side and trellis side.
- 26. Sheet S-E-314, Added a note for expansion joint terminations for the Ewa 3<sup>rd</sup> Level planter side and trellis side.
- 27. Sheet S-E-500, Revised Note 6 for work at the turnaround area.
- 28. Sheet S-D-201, Added a note to clarify which curb will require spall repairs per Detail 5/S-200
- 29. Sheet S-D-202, Added a note to clarify which curb will require spall repairs per Detail 5/S-200
- 30. Sheet S-D-203, Added a note to clarify which curb will require spall repairs per Detail 5/S-200
- 31. Sheet S-D-204, Added a note to clarify which curb will require spall repairs per Detail 5/S-200
- 32. Sheet S-D-205, Added a note to clarify which curb will require spall repairs per Detail 5/S-200
- 33. Sheet S-D-206, Added a note to clarify which curb will require spall repairs per Detail 5/S-200
- 34. Sheet S-D-207, Added a note to clarify which curb will require spall repairs per Detail 5/S-200
- 35. Sheet S-D-208, Added a note to clarify which curb will require spall repairs per Detail 5/S-200
- 36. Sheet S-D-306, Changed note to callout correct detail number.
- 37. Sheet S-D-307, Changed note to callout correct detail number.

- 38. Sheet S-D-308, Changed note to callout correct detail number.
- 39. Sheet S-D-309, Changed note to callout correct detail number.
- 40. Sheet S-D-500, Revised Note 6 for work at the turnaround area.

#### E. RESPONSES TO WRITTEN QUESTIONS RECEIVED IN HIEPRO

Question 1: With reference to the General Provisions, page 7-4 and 7-5, row #120-130, and Supplemental Provisions please confirm (or clarify) the project's

and Supplemental Provisions please confirm (or clamy) the proje

requirement for Builder's Risk Insurance.

Response: The General Provisions state "The Contractor shall take out a policy of

builder's risk insurance for the full replacement value of the project work."

The likelihood of fire damage for the concourse work is unlikely and

vandalism in the secured area is remote but this is a State requirement that

cannot be waived.

Question 2: What is the anticipated start date for this project.

Response: April 2023

Question 3: Concrete will most likely have to be pumped from the first level. Need to

confirm there will be areas we can stage pump truck and concrete trucks.

Response: Contractor is responsible for traffic control devices and coordination should

they decide to use pump at the first floor.

Question 4: With reference to Spec Section 01010, paragraph 1.06, Hours of Work, will

the Ewa & DH Concourse roadway work hours for the first level be same as

for the 2<sup>nd</sup> level?

Response: For bidding purposes, assume the 1<sup>st</sup> level hours will be the same as the 2<sup>nd</sup>

level. Work within the tenant space will cause disruptions and will need to be

coordinated with the tenants.

Question 5: Sheet S-600 note (bottom of sheet) that says tent cannot be removed until

concrete repair is complete. Concrete will not be able to be poured with tent in place. Tent must be removed prior to concrete pour. Need to confirm this

is okay.

Response: Dust tent is not needed after waterproofing is completed, as long as other

necessary dust control is in place for potential remnant dust.

Question 6: With reference to detail 4/S-500, Drain Demo Plan thru Structural Slab, and

Ewa & DH Typical Demo Sections, SE-214 to SE-216, SD-209 to SD-210,

please confirm (or clarify) that there will be work access to for the demo and shoring within "interior spaces" as noted in the referenced detail.

Response: The drains are above interior spaces occupied by tenants. Coordination with

the tenants will be required for access to the space.

Question 7: With reference to plan notes S-001, & S-002, notes sections for demolition

and concrete repair, request bidder access to view "interior spaces" so they may ascertain existing conditions to be dealt with for drain demo and

replacement work.

Response: Allowance Item 03300.5 has been added to the proposal schedule. See

revised Proposal Schedule pages issued in this Addendum No. 1.

Question 8: With reference to plan sheets S-503 to S-505, request as-built drawings for

the trellis demolition work only.

Response: For the Ewa Concourse, see enclosed Sheet S-54 from Project "O-90-2(11)

GULL WING GATE POSITIONS EWA WING - GATES 25, 26, & 27".

For the Diamond Head Concourse, see enclosed Sheet S-47 from Project "O-

90-2(12)B DIAMOND HEAD CONCOURSE - GATES 7, 8, & 9".

Question 9: With reference to plan sheet SE-308, is there an expansion joint curb

transition (sim. to 2<sup>nd</sup> level) at the east side termination?

Response: Yes, all Ewa 3<sup>rd</sup> level expansion joints should continue through the planters

on the building side. Sheets S-E-302, S-E-303, S-E-305, S-E-306, S-E-308, S-E-310, S-E-312, and S-E-314 have been updated to reflect the extent of the expansion joint. Detail 4 in Sheet S-302 has been added and issued in

this Addendum No. 1.

Question 10: Spec Section 07410 Fluid Applied Membrane Waterproofing Paragraph 3.08

requires a flood test to be performed. For past projects in the area (IIT project), we were able to perform an electrical test to verify water tightness.

Will this be acceptable for this project?

Response: Paragraph 3.08 of Specification Section 07140 has been revised to reflect the

use of an electronic leak detection test instead of the flood test. Reference

revisions in this Addendum No. 1.

Question 11: With reference to bid item #03730.1, "Spall Repair", respectfully request the

proposal schedule quantity be revised to the quantity indicated on plan sheet SE-300 (1793 SF). Artificially overstating quantities creates unbalanced unit prices that are unfair to the bidder as well as unusable in the event of quantity

overruns.

Response: Quantity for Item No. 03730.1 in the Proposal Schedule has been revised to

match the plans. See revised Proposal Schedule pages issued in this

Addendum No. 1.

Question 12: With reference to bid item #03730.2, "Curb Spall Repair", where is this work located on the plans?

Response: Curb spalls are generally limited to Ewa and DH 2<sup>nd</sup> Level roadways.

Callouts identifying the curbs are to be repaired have been added to Sheets S-E-201 through S-E-213 and Sheets S-D-201 through S-D-208 and issued in this Addendum No. 1. However exact locations of the curb spalls will not be shown. Prior to the start of construction, contractor and DOT-A will survey

the area to confirm which curb spalls are to be repaired.

Question 13: With reference to specification section 01533, "Barricades" the requirements of paragraph 1.02.A, requires the contractor to "...erect barricades, appropriate signing, hazardous lights, and temporary paint striping as directed by the Engineer." Respectfully request the cost for this work section be covered in a separate allowance item as there is no bid basis for this work to be priced on.

Response: Barricades are considered incidental costs to Contractor's means and methods. Language has been revised in paragraph 1.02.A. Reference revisions to Specification Section 01533 in this Addendum No. 1.

Question 14: With reference to Ewa Concourse, 3rd Level expansion joint repair, det. 4/S-301, where is the cost for this work to be included? Item #03730.1 covers the 3rd Level roadway but is a unit-priced item for spall repair.

Response: Item Nos. 07916.1, 07916.2, and 07916.3 have been added to the Proposal Schedule for the expansion joint repair work at Ewa 2<sup>nd</sup> level, DH 2<sup>nd</sup> level and Ewa 3<sup>rd</sup> level. See revised Proposal Schedule pages issued in this Addendum No. 1. The cost of any other items not specified in the revised Proposal Schedule shall be considered incidental to the prices of other bid items.

Question 15: With reference to Ewa Concourse, 3rd Level deck drain repair, plan sheet S-403, where is the cost for this work to be included?

Response: Item No. 03300.3 has been added to the Proposal Schedule. See revised Proposal Schedule pages issued in this Addendum No. 1.

Question 16: With reference to specification section 01700-4.01.B, and 4.02.B, is this additional demob requirement in place of the General Provision payment retention requirements (pg. 9-21, row #642-676, or in addition to the existing General Provision requirements. Additionally, if this demob requirement is on top of the existing payment retention requirements it will have an effect the General Provision requirement for prompt payment to Subcontractors (pg 9-16, row #482-494).

Response: The demobilization requirement listed in Specification Section 01700 Paragraph 4.01B is in place of the General Provision payment retention requirements.

Question 17: With reference to Spec Section 01010, paragraph 1.06, Hours of Work, please confirm (or clarify) that the DH Concourse 3rd level roadway work hours will be the same as the 2nd level roadway work hours.

Response: Working hours for light fixture replacement work at the DH Concourse 3<sup>rd</sup> level roadway will be from 3pm to 11pm. Removal of the DH trellises shall be between midnight and 5am. Reference revisions to Specification Section 01010 in this Addendum No. 1.

Question 18: Regarding question #12 about the curb spall location is this related to the drain demo & repair details #1 & 2/S-402? Please confirm or clarify as applicable.

Response: Curb spall repair is separate from the drain demo and repair details.

Question 19: May I get the attendees list from the pre-bid meeting?

Response: Attendance list will be included with the meeting minutes.

Question 20: With reference to expansion joint repair detail 4/S-301, and 1/S-302, (Ewa 3rd Level Roadway), how wide is the joint width at the Ewa 3rd Level Roadway?

Response: Joints vary between 1.5 inches to 3 inches. To be verified in the field.

Question 21: With reference to detail 3/S-401, and sheet S-001 structural notes on leveling concrete, what is the depth bid-basis for this leveling concrete, and is it required for the entire roadway deck?

Response: The leveling concrete is applied as needed to achieve an adequate surface and slope for applying waterproofing. Depth will depend on removal methods.

Question 22: With reference to SE-500, and SD-500, note #6 for phase 3 turnaround pavement removal and reinstallation work: 1. What is the required leveling concrete compressive strength development or minimum cure time required for start of waterproofing work? 2. What is the required fast-set concrete compressive strength development or minimum cure time required for reopening the lane?

Response: 1. Leveling concrete cure time will depend on the waterproofing manufacturer's requirements.

2. Fast set concrete compressive strength shall be a minimum 3000 psi.

Question 23: With reference to Typical Detail 4/S-201, Cathodic Rebar Protection Option.

As this work option is not called out for on repair plans or in any specification section, please confirm this option detail is not applicable to this bid.

Response: See Detail 3 on Sheet S-405 for the reference to Detail 4 on Sheet S-201.

Question 24: With reference to the crack repair using the gravity method, plan sheet SE-300, note #4, "Gravity Feed Epoxy Resin", typical detail 1/S-202, notes #1-7, and specification section 03730-2.01.E, "Crack Repair Epoxy"3.07, "Crack Repair by Gravity", and 4.02, "Basis of Payment". Please confirm (or clarify) that this work will be paid for under bid item 03730.3, "Structural Slab Spall Repairs". If it is not the intent to pay for this work as an allowance cost, respectfully request that the basis of payment be revised to an estimated square foot quantity addressing situations A & B as indicated on typical detail 1/S-202, as well as situation A where a crack must be sealed from the underside - separately. Please provide an estimated square foot quantities for situations A & B and the amount of underside crack sealing that will be required on the job. The reason for these requests is that the crack repair material volumes and labor required for each of these situations will vary greatly. To address payment for this significant amount of work based on the information provided as incidental will be problematic and likely to inflate the costs. Providing a more equitable form of payment will result in better bids.

#### Response:

Specification Section 03730 Concrete Repairs has been revised in this Addendum No. 1 to exclude the crack repair scope of work. Instead of repairing the Ewa 3<sup>rd</sup> level roadway cracks with gravity fed resin, the project now calls for a crack penetrating sealer prior to the final epoxy surface treatment. Reference revised Detail 1 on Sheet S-202, issued in this Addendum No. 1. The crack repair sealant shall be considered incidental to the work in Specification Section 07680 Epoxy Surface Treatment.

- Question 25: It appears there are several sheets missing, please provide drawing S212 and S410.
- Response: Call-outs on Sheets S-D-306 through S-D-309 will be revised to reference the correct detail number. Additional drawing sheets are not necessary.
- Question 26: With reference to detail 3/S-405 circle B, and 4/S-201, please indicate anode size for cathodic rebar protection.
- Response: The anodes are to be located at the top of the 14"x14" wide columns; size to be determined by the manufacturer.
- Question 27: Please provide permanent pavement marking design or as-builts to match existing.
- Response: Contractor shall measure and document existing pavement markings prior to the start of construction; and restore permanent pavement markings to match.
- Question 28: The repair drawings only reference Details 1 & 2 on Sheet S-200. Please confirm details 3-5 on sheet S-200 are not applicable.

Response: References to Detail 5 on Sheet S-200 have been added to the Ewa and

Diamond Head second floor demolition plans, issued in this Addendum No. 1.

These spall repair details were prepared in anticipation of encountering

unforeseen spalls; Allowance Items for the unforeseen spall repair work have

been added to the revised Proposal Schedule.

Question 29: Please clarify extents of where cathodic rebar protection is required.

Response: Cathodic rebar protection is identified in Detail 3 on Sheet S-405.

Question 30: Please confirm the temporary dust confinement tent is only required for

demolition and abatement scopes.

Response: Temporary dust confinement tent is only required for demolition and

abatement scopes.

Question 31: Please confirm all of Phase 1 and 2 limits can be shut down at a time to

perform each phase of work.

Response: All of Phase 1 and 2 cannot be shut down at one time. The Contractor shall

submit a proposed sequencing plan for each phase to the DOT-A for review

and approval prior to the start of work.

Question 32: Please confirm references to asphalt pavement work in notes on Sheet C-001

is not applicable to this project being there is not asphalt scope of work.

Response: References to asphalt pavement work in the notes on Sheet C-001 are not

applicable to this project.

Question 33: Additional as-built information is required to quantify volume of existing

wearing surface demolition and concrete roadway repair. The current plans only provide callouts of 4" min. Recommend providing as-built elevations of

existing structural concrete deck for both DH & Ewa level 2 roadway.

Response: As-built elevations are not available at this time.

Question 34: Please revise Sheet S-100 Detail 4 to match single rebar matt as called out

on Sheet S-400.

Response: Detail 4 on Sheet S-100 is a typical detail. Only rebar required by plan

should be installed at construction joints.

Question 35: For Section 07140 Fluid-Applied Membrane Waterproofing, is a top coat of 15

mils tack coat with aggregate (to protect the membrane and allow concrete

toping adhesion) required?

Response: A 15 mil sacrificial coat will not be required because the system includes a

protection and drainage board.

Question 36: For Section 07140 Fluid-Applied Membrane Waterproofing, paragraph 2.05, is a moisture vapor reduction primer required? In our experience with other HNL roadways, a moisture vapor reduction primer is required to prevent issues with the waterproofing.

Response: The need for the moisture vapor reduction primer will depend on the moisture content of the existing concrete and should be applied as recommended by the waterproofing manufacturer.

Question 37: With reference to specification section 07680-1.03.A.2, request that the minimum project experience requirements be revised to apply to liquid-applied traffic coatings so that the local subcontractors can qualify to do this work.

Response: Specification Section 07680 has been revised and reissued in this Addendum No. 1 to address this concern.

Question 38: Please clarify the intended use and required limits of the leveling concrete specified in Specification Section 03300 and Sheets S-001 and S-401.

Response: The leveling concrete shall be used over the structural slab shown in Detail 3 on Sheet S-401, as needed to provide a slope to drain and a surface adequate for waterproofing installation.

Question 39: Please provide "Contractors Training Guide" referenced in Special Provisions Paragraph 8.21 H.

Response: The "Contractors Training Guide" can be found at the following link: <a href="https://hidot.hawaii.gov/airports/files/2012/12/Contractors-Training-Guide-July-2013.pdf">https://hidot.hawaii.gov/airports/files/2012/12/Contractors-Training-Guide-July-2013.pdf</a>

Question 40: Please confirm the states intent is to issue NTP within 35 calendar days of bid opening as stated in Specification Section 01010 Paragraph 1.11 B.

Response: Specification Section 01010 Paragraph 1.11.B. has been revised in this Addendum No. 1.

Question 41: Full closure of DH & Ewa 2nd level roadways will be required to safely demolition trellis. Please provide working hours for full closures of DH & Ewa 2nd level roadways to complete this scope of work.

Response: The working hours specified in Specification Section 01010 has been modified in this Addendum No. 1.

Question 42: Please provide overtime rates for State Employees and construction management consultant as referenced in Specification Section 01010 Paragraph 1.06 A.6.

Response: Approximate overtime rate is \$150 per hour.

Question 43: Please clarify the scarification requirement of Specification Section 03730 Paragraph 3.05 H. The contract drawings to not show scarification Ewa Third

Level Roadway.

Response: Paragraph 3.05.H of Specification Section 03730 has been revised in this

Addendum No. 1.

The contract drawings show crack repair via gravity flow. Please confirm Question 44:

Specification Section 03730 Paragraph 3.08 "Crack Repair by Pressure

Injection" is obsolete.

Response: Crack Repair by Pressure injection is not relevant to the project. Section

03730 has been revised in this Addendum No. 1.

Question 45: Specification Section 07680 Paragraph 3.01 references "Surface preparation

for concrete decks with penetrating sealer and aggregate topping". Please revise contract drawings to detail the limits of penetrating sealer or revise the

surface preparation requirement for concrete substrate.

Response: See the response to Question 24.

Question 46: Specification Section 07680 Paragraph 3.04 requires continues, self

propelled application equipment to apply the epoxy overlay. No continuous, self propelled application equipment that meets the requirements of this section is within the allowable construction load limits on Sheet S-001. Recommend revising Paragraph 3.04 to remove the continuous, self

propelled application equipment requirement.

Paragraph 3.04 of Specification Section 07680 has been revised and the Response:

section reissued in this Addendum No. 1.

Please acknowledge receipt of this Addendum No. 1 by recording the date of its receipt in the space provided on Page P-4 of the Proposal.

JADE T. BUTAY

**Director of Transportation** 

# STATE OF HAWAII DEPARTMENT OF TRANSPORTATION AIRPORTS DIVISION

#### **MEETING MINUTES**

**DATE**: October 10, 2022 **TIME**: 10:00 a.m.

**LOCATION:** Online/Microsoft Teams Meeting

**PROJECT:** Ewa & DH Roadway Improvements Phase 1

Daniel K. Inouye International Airport

State Project No. AO1043-32 AIP Project No. 3-15-0005-xxx

**PRESENT:** See attached list

**SUBJECT:** Pre-Bid Meeting

#### **MEETING SUMMARY:**

#### I. INTRODUCTIONS

- 1. Introduction of participants involved with the project (State, Design Consultant, CM Consultant).
- 2. Attendees asked to email the State Project Manager, Ms. Valerie Sasuga (valerie.sh.sasuga@hawaii.gov) their contact information (name, company, address, phone number, and email). This information will be used to generate the pre-bid meeting attendance sheet, which will be included with the meeting minutes.

#### II. GENERAL DISCUSSION

1. Bidding Schedule:

• Oct 3, 2022 Advertisement

Oct 17, 2022 @ 4:00pm HST
 Last Day to submit Questions and Substitution Paguests via Heppo

Substitution Requests via HIePRO

• Nov 3, 2022 @ 2:00pm HST Deadline to submit Bids via HlePRO

2. All questions, including substitution requests, must be submitted in writing no less than 17 calendar days before bid opening, or October 17, 2022 by 4:00 p.m. As noted in Special Provisions Paragraph 2.7, substitution requests shall be submitted via email to the contact person listed in HIePRO for the solicitation and also posted as a question in HIePRO under the question/answer tab referencing the email with the request.

- 3. A valid State of Hawaii General Engineering "A" License is required prior to the award of the contract.
- 4. Project duration is 335 calendar days from the Notice to Proceed (NTP) date.
- 5. Liquidated damages shall be TWO THOUSAND DOLLARS (\$2,000.00) per calendar day for failure to complete the work within the duration noted.
- 6. A complete Proposal package (pages P-1 through P-20) shall be submitted at the time of bid. These forms can be found in Part 0.B of the project specifications. Proposal Schedule must be completely filled in, even if the proposed cost is \$0 for a line item. Failure to fill in all forms or failure to submit all proposal pages shall result in rejection of the bid.
- 7. Any changes to the bid documents will be issued through an addendum. Bidders are reminded to acknowledge receipt of any addendum(s) on page P-4 of the Proposal.
- 8. This is a state project utilizing FAA funds. Prospective bidders are reminded to comply with all federal requirements, such as using the correct federal wage rates and labor classifications.
- 9. Additionally, bidders are reminded to comply with all Part 0.E Required Federal Airport Improvement Program (AIP) Contract Provisions of the project specifications. This includes, but is not limited to, the Equal Employment Opportunity Clause, Disadvantaged Business Enterprise (DBE) Requirements, Buy American Preferences, General Civil Rights Provisions, and Civil Rights Title VI Assurances.
- 10. This project is subject to a DBE goal of 0.4%. All bidders must email completed DBE forms, included in Part 0.F of the project specifications, to the State Project Manager at <a href="mailto:valerie.sh.sasuga@hawaii.gov">valerie.sh.sasuga@hawaii.gov</a> by the close of business (4:30pm) on November 8, 2022. Failure to provide these documents shall be cause for rejection of the bid.
- 11. Subject to approval by the Airport Manager and the availability of parking spaces, parking may be purchased at a monthly rate of \$175.00 plus a one-time fee of \$25.00 for a parking access card. All costs associated with obtaining parking passes shall be the responsibility of the Contractor.
- 12. Pending the availability of space on airport property, the State will issue a Revocable Permit to the Contractor for the use of the space, assessed at a monthly fee of \$25 for each Revocable Permit issued. The space may be used for a field office, staging of materials and equipment, vehicle parking or other uses subject to the approval of the State. All spaces shall be

subject to the requirements of Section 01561 Construction Site Runoff Control Program.

Since space on airport property is extremely limited, the State does not guarantee that the space provided to the Contractor will be in close proximity to the project site. The State will make every effort to provide the Contractor with space on airport property, however, should the State determine that no space is available for such use(s), the responsibility shall then be on the Contractor to find space outside of airport property.

- 13. Due to the need to minimize impacts to operations, working hours shall be as defined in Section 01010.
- 14. Per Section 01561 Construction Site Runoff Control Program, Contractor will have to prepare and submit a site-specific BMP plan within 30 calendar days of contract execution. Contractor may use the SSBMP Plan template included in Section 01561 as a starting point and update as needed. Note that there are liquidated damages associated with non-compliance of the BMP requirements.
- 15. All of the work is in a secured area. Due to heightened security requirements, there are new security procedures in place. The contractor shall ensure that all access gates are secured at all times. Under no circumstances shall tools, equipment or materials be left in areas where the public can gain access to these items. Other security requirements are stated in Section 01565, Security Measures.
- 16. Security plan shall be submitted within 14 calendars days after award of contract as specified in Paragraph 1.03 of Section 01565.
- 17. Subject to approval from the Airport Manager, access to the project site will probably be limited through either Access Checkpoint 'A' or Checkpoint 'C'. All vehicles entering the AOA may be subject to search.
- 18. Requests for AOA badges, AOA stickers, ramp licenses, etc. shall be submitted within 14 calendar days after award of contract. In addition to the requirements stated in the Contract Bid Documents, all Contractors shall comply with the requirements and procedures of the Contractor's Training Guide.
- 19. Monthly billings are required if any work is performed during the month.

#### III. PROJECT SCOPE OF WORK

Design Consultant, KAI Hawaii, to provide a brief description of the scope of work.

- 1. The location overview was shown in google earth. Link to the location is provided here:
  - https://earth.google.com/web/search/hnl+airport/@21.33042467,-157.91999598,15.30645464a,1202.46219872d,35y,0h,0t,0r/data=CigiJgok CS7I5VVp5jRAEc35QmCz4zRAGcFTBeqRj2PAlccfZcLkj2PA
  - a. The scope of work will be within the Ewa and Diamond Head Second and Third Level Roadways. The roadways are staggered each level and below the second and third level are interior spaces within the concourse. The roadways mainly serve the Wiki Wiki Shuttle operations to transport passengers from one terminal to the other. Wiki wiki shuttle operations must be maintained throughout the length of construction.
- 2. The overall project scope of work was described as follows:
  - a. Ewa and Diamond Head Trellis Demolition
    - i. Half of the Diamond Head Trellises have already been removed. This project's scope of work will remove the remaining half on the Diamond Head side and all of the trellises on the Ewa side.
    - ii. The railing will need to be built up where the trellises are removed. It will match the areas where the trellis removal work was previously completed.
    - iii. The horizontal continuous beam will remain in place on the Ewa side, so as to not disrupt the existing metal fence. But the horizontal continuous beam will be removed on the Diamond Head side, similar to the previous trellis removal work.
  - b. Ewa and Diamond Head 3<sup>rd</sup> Floor Light Fixture Column Replacement
    - i. All of the concrete lighting columns and bases on the outer perimeter of the 3<sup>rd</sup> floor Ewa and Diamond Head concourse will be demolished and replaced with a new steel pole.
    - ii. The lighting fixture at the top is to be removed and salvaged to be installed onto the new pole with all necessary electrical wiring
  - c. Ewa and Diamond Head 2<sup>nd</sup> Floor Roadway Demolition and Repairs
    - i. Concrete Pavement and Asbestos Waterproofing Removal
      - 1. Remove the pavement concrete and the existing waterproofing between the pavement concrete and structural slab.

2. Ensure bids include costs for proper handling and disposal of hazardous materials.

#### ii. Curb spall repairs.

 Curb spalls adjacent to the roadway will be repaired. Concrete repair on the sidewalks is limited to curb spalls and expansion joint nosing.

#### iii. Storm Drains and Inlet Replacement

- 1. Storm drain inlet and piping will be replaced.
- 2. Modifications to the structural slab to support the new drain size will need to be completed from the 1<sup>st</sup> floor and coordinated with the tenants occupying the spaces.
- 3. Structural slab will have leveling concrete poured on top to achieve slope for drainage.

#### iv. Waterproofing Installation

1. New waterproofing will be installed over the structural slab.

#### v. Pavement slab

1. New pavement slab will be cast with synthetic fibers in the mix design.

#### vi. Expansion Joints

- 1. Expansion joint waterproofing will be installed starting from the parallel expansion joint on the terminal side and extend to the outer vertical face of the planter side.
- 2. Existing expansion joint waterproofing and concrete nosing will have to be demolished where not already replaced in the roadway (sidewalks, through columns, and planters).

#### vii. Epoxy Overlay Coating

 Once roadway repairs are complete, an epoxy coating will be installed over the new pavement slab to increase durability of the roadway.

#### d. Ewa 3rd Floor Isolated Repairs and Drains

- i. Isolated pavement slab spall repairs will be made as indicated on the drawings.
- ii. Drain inlet and piping will be replaced. Modifications to the structural slab to accommodate the different inlet size, will need to be completed from the 2<sup>nd</sup> floor.
- iii. Expansion joint waterproofing and nosing will be removed and replaced from the existing planter to the outer vertical face on the exterior side.
- 3. The 3-D scans of the Ewa and Diamond Head roadways that were shared during the pre-bid meeting can be accessed in the matter port at the links below. The links will expire on 11/4/22.

Ewa 2<sup>nd</sup> Level: <a href="https://my.matterport.com/show/?m=CExvT2M4zfC">https://my.matterport.com/show/?m=CExvT2M4zfC</a>
Ewa 3<sup>rd</sup> Level: <a href="https://my.matterport.com/show/?m=ENXJrkKeuFn">https://my.matterport.com/show/?m=ENXJrkKeuFn</a>
DH 2<sup>nd</sup> Level: <a href="https://my.matterport.com/show/?m=GB2B9bzooXZ">https://my.matterport.com/show/?m=GB2B9bzooXZ</a>
DH 3<sup>rd</sup> Level: <a href="https://my.matterport.com/show/?m=9U7vA3twEDF">https://my.matterport.com/show/?m=9U7vA3twEDF</a>

The temporary password to access the links is: HNLrdwy2&3

- 4. Work hours were discussed. Work hours may be referenced in Section 01010 DESCRIPTION OF WORK. For reference they are as follows:
  - a. Ewa 2<sup>nd</sup>:

8:00 p.m. and 5:00 a.m

Roadway in front of turn around: 12:01 a.m. to 5:00 a.m.

b. DH 2<sup>nd</sup>:

3:00 p.m. and 11:00 pm

c. DH and Ewa 3<sup>rd</sup>:

Traffic Inhibiting Work: 3:00 p.m. and 11:00 p.m.

All other work: 24 hour Period

- 5. Storage locations were discussed:
  - a. Materials may be stored on the 2<sup>nd</sup> level turn around areas on the Ewa and DH concourse where it will not impede traffic and meet the load limits.
  - b. Based on space availability storage for large equipment and trucks will be determined closer to start of construction.
  - c. Load limit for ramps and concourse roadways is provided in the structural notes. In general, heavy equipment, concrete trucks, hauling trucks, roll off bins are not permitted on the roadways.

- 6. Project Phasing and Limitations were discussed. In general, the phasing will be the most challenging part of the project due to the requirement of continuous Wiki Wiki shuttle operations.
  - a. Dust control must be implemented continuously through work and nonwork hours. The intent is to prevent dust kick-up from happening not only during construction, but also during non-work hours while unsupervised.
    - i. It is recommended to use a tent with adequate filtration system to contain the dust as the concrete is demolished.
    - ii. Once the leveling concrete and waterproofing is set, there should be minimal concrete dust and the tent can be removed to pour the pavement slab.
  - b. Construction sequence and phasing from contractor are to be submitted for review and approval.
  - c. The recommended sequence is:
    - i. Phase 1 to demolish and repair half of the roadway in sections, excluding the part of the road in front of the turnaround.
    - ii. Phase 2 to demolish and repair remaining half of the roadway in sections, excluding the part of the road in front of the turnaround.
    - iii. Phase 3 to demolish and repaid the turn around area in sections that can be demolished and repaired and reopened to traffic at the end of the work shift. Fast setting concrete must be used here to achieve 3-hour cure time.

#### **IV. QUESTIONS**

Q: Is any of the work to be performed at night?
 A: Per the Project Scope – Work Hours slide (reference Spec Section 01010 Description of Work):

Ewa 2<sup>nd</sup> Level

8:00pm - 5:00am

Roadway in front of the turn around 12:01am – 5:00am

<u>Diamond Head 2<sup>nd</sup> Level</u> 3:00pm – 11:00 pm

Ewa 3rd Level

Traffic inhibiting work 3:00pm – 11:00pm

Meeting Minutes Page 8 October 10, 2022

All other work: Anytime over a 24 hours period

- 2. Q: Will we have access to the presentation slides? A: Yes.
- 3. Q: What is the estimated start date:
  A: Start date is contingent on contract execution. Based on typical processing times, we are anticipating pre-construction in February 2023 with actual construction in April 2023.

Please inform us of any omissions or corrections to the minutes of the meeting.

Meeting adjourned at: 10:34 a.m.

### MEETING ATTENDANCE SHEET Pre-Bid Meeting

Project Name: Ewa & DH Roadway Improvements Phase 1

Daniel K. Inouye International Airport

Project No. AO1043-32
AIP Project No: 3-15-0005-xxx
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Meeting Location: Microsoft Teams Date: October 10, 2022

Meeting Location: Microsoft Teams		Date: October 10, 2022
Name: Saeid Pourjalali	Company: KAI Hawaii	Phone: (808) 791-3959
Title: Structural Engineer	Address: 50 S. Beretania Street #C-119C	Fax: (808) 533-2686
	Honolulu, HI 96813	E-Mail: saeid@kaihawaii.com
Name: Michelle Goo	Company: KAI Hawaii	Phone: (808) 791-3941
Title: Structural Engineer	Address: 50 S. Beretania Street #C-119C	Fax: (808) 533-2686
	Honolulu, HI 96813	E-Mail: mgoo@kaihawaii.com
Name: Jason Soriano	Company: Okahara & Associates	Phone: (808) 807-0297
Title: Mechanical Engineer	Address: 201 Merchant Street, Suite 1650	Fax:
	Honolulu, HI 96813	E-Mail: jsoriano@okahara.com
Name: Gregg Kuwahara	Company: Okahara & Associates	Phone: (808) 807-0297
Title: Civil Engineer	Address: 201 Merchant Street, Suite 1650	Fax:
Thue. Own Linguises	Honolulu, HI 96813	E-Mail: gkuwahara@okahara.com
Name: Irene Nohara	Company: Engineers Surveyors Hawaii	Phone: (808) 554-0883
Title: Construction Manager	Address: 1320 N. School Street	Fax:
The Contraction Manager	Honolulu, HI 96817	E-Mail: irene@esh-inc.com
Name: Darek Kawamoto	Company: Engineers Surveyors Hawaii	Phone: (808) 479-0686
Title: Sr. Project Manager	Address: 1320 N. School Street	Fax:
This on the spect manager	Honolulu, HI 96817	E-Mail: darek@esh-inc.com
Name: Daryl Fujita	Company: DOTA	Phone: (808) 838-8884
Title: Civil Rights Specialist	Address:	Fax:
That of the raginal openion		E-Mail: daryl.a.fujita@hawaii.gov
Name: Dan Williams	Company: DOT	Phone: (808) 831-7914
Title: Civil Rights Specialist	Address:	Fax:
That of the raginal openion		E-Mail: Daniel.k.williams@hawaii.gov
Name: Diana Lee	Company: DOTA	Phone:
Title:	Address:	Fax:
1100.		E-Mail: diana.lee@hawaii.gov
Name: Gary Yokoyama	Company: DOTA	Phone:
Title:	Address:	Fax:
Tido.		E-Mail: gary.yokoyama@hawaii.gov
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### MEETING ATTENDANCE SHEET Pre-Bid Meeting

Project Name: Ewa & DH Roadway Improvements Phase 1

Daniel K. Inouye International Airport

Project No. AO1043-32 AIP Project No: 3-15-0005-xxx

Meeting Location: Microsoft Teams Date: October 10, 2022

Meeting Location: Microsoft Leams		Date: October 10, 2022
Name: Valerie Sasuga	Company: DOTA	Phone: (808) 838-8824
Title:	Address:	Fax:
		E-Mail: valerie.sh.sasuga@hawaii.gov
Name: Sean O'Kelly	Company: Global Specialty Contractors	Phone: (808) 551-5565
Title:	Address: 94-978 Pakela Street	Fax:
1140.	Waipahu, HI 96797	E-Mail: seano@globalspecialty.net
Name: Emmanuel Minde	Company: Global Specialty Contractors	Phone:
Title:	Address: 94-978 Pakela Street	Fax:
1140.	Waipahu, HI 96797	E-Mail: eminde@globalspecialty.net
Name: Delwyne Lau	Company: Hawaiian Dredging Construction	Phone: (808) 306-4744
Title:	Co.	Fax:
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Name: Colin Ching	Company: Hawaiian Dredging Construction	Phone: (808) 479-5739
Title:	Co.	Fax:
Tido.	Address:	E-Mail: cching@hdcc.com
Name: Dylan Kuwabe	Company: Hawaiian Dredging Construction	Phone: (808) 282-8735
Title:	Co.	Fax:
1140.	Address:	E-Mail: dkuwabe@hdcc.com
Name: Robert Weigel	Company: Unitek Insulation, LLC	Phone: (808) 352-2836
Title: Vice President/Chief	Address:	Fax:
Estimator		E-Mail: bob@unitekinsulation.com
Name: Jasmine Dela Cruz	Company: Triton Marine Construction Corp.	Phone: (808) 488-0854
Title:	Address: 2889 Mokumua Street	Fax:
Tido.	Honolulu, HI 96819	E-Mail: jdelacruz@tritonmarine.us
Name: Brett Gordon	Company: Triton Marine Construction Corp.	Phone:
Title:	Address: 2889 Mokumua Street	Fax:
TIUC.	Honolulu, HI 96819	E-Mail: bgordon@tritonmarine.us
Name: Ed Cubacub	Company: Ralph S. Inouye Co. Ltd.	Phone: (808) 330-4006
Title: Senior Estimator	Address: 500 Alakawa St. #220E	Fax:
Tide. Oction Estimator	Honolulu, HI 96817	E-Mail: ed@rsinouye.com
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### MEETING ATTENDANCE SHEET Pre-Bid Meeting

Project Name: Ewa & DH Roadway Improvements Phase 1

Daniel K. Inouye International Airport

Project No. AO1043-32 AIP Project No: 3-15-0005-xxx

Meeting Location: Microsoft Teams Date: October 10, 2022

Meeting Location. Microsoft reams		Date. October 10, 2022
Name: Randall Belmonte	Company: Pacific Industrial Coatings	Phone: (808) 341-2947
Title: Director of Preconstruction and Technical Services	Address: 1815 Hau Street	Fax:
	Honolulu, HI 96819	E-Mail: rbelmonte@pichawaii.us
Name: Robert Johnson	Company: Pacific Industrial Coatings	Phone: (808) 271-4180
Title:	Address: 1815 Hau Street	Fax:
	Honolulu, HI 96819	E-Mail: bjohnson@pichawaii.us
Name:	Company:	Phone:
Title:	Address:	Fax:
		E-Mail:
Name:	Company:	Phone:
Title:	Address:	Fax:
THE.		E-Mail:
Name:	Company:	Phone:
Title:	Address:	Fax:
THIO.		E-Mail:
Name:	Company:	Phone:
Title:	Address:	Fax:
1140.		E-Mail:
Name:	Company:	Phone:
Title:	Address:	Fax:
		E-Mail:
Name:	Company:	Phone:
Title:	Address:	Fax:
		E-Mail:
Name:	Company:	Phone:
Title:	Address:	Fax:
		E-Mail:
Name:	Company:	Phone:
Title:	Address:	Fax:
1100.		E-Mail:

# State Project No. AO1043-32 Ewa & DH Roadway Improvements Phase 1

Pre-Bid Meeting
October 10, 2022 @ 10am

### INTRODUCTIONS

- Design Consultant KAI Hawaii
- CM Consultant Engineers Surveyors Hawaii
- DOTA
- Bidders
  - Email contact information (name, company, address, phone number & email) to State Project Manager (valerie.sh.sasuga@hawaii.gov)

- Bidding Schedule
  - October 3, 2022 Advertisement
  - October 17, 2022 @ 4:00p.m. HST Last day to submit questions and substitution requests via HIePRO
  - November 3, 2022 @2:00p.m. HST Deadline to submit bids via HIePRO

- State of Hawaii General Engineering "A" License
- Project duration 335 calendar days
- Liquidated damages \$2,000 per calendar day
- Proposal package (reference Part 0.B of project specifications)
  - Failure to complete all forms or submit all proposal pages shall result in rejection of the bid
  - Receipt of addendums shall be acknowledged on page P-4

- FAA funded project, must comply with all Federal Requirements (Reference Parts 0.C and 0.E)
  - Federal wage rates & classifications
  - Equal Employment Opportunity Clause
  - Disadvantaged Business Enterprise (DBE) Requirements
  - Buy American Preferences
  - General Civil Rights Provisions
  - Civil Rights Title VI Assurances

### DBE

- Project Goal 0.4%
- Completed DBE forms (reference Part 0.F) must be emailed to the State Project Manager by 4:30p.m. on November 8, 2022
- Failure to submit forms shall be cause for rejection of the bid

- General Project Information
  - Parking for Contractor
  - Revocable Permit
  - Working Hours
  - Construction Site Runoff Control Program
  - Security Requirements
  - Monthly Billings

## PROJECT SCOPE – LOCATION OVERVIEW

- Ewa and Diamond Head Concourse 2<sup>nd</sup> and 3<sup>rd</sup> Level Roadways.
- Roadways are staggered each level, and are above interior spaces.
- Roadways mainly service Wiki Wiki Shuttle operations.

## PROJECT SCOPE — REPAIR DETAILS

- Ewa and DH Trellis Demolition
- Ewa and DH 3<sup>rd</sup> Floor Light Fixture Column Replacement
- Ewa and DH 2<sup>nd</sup> Floor Roadway Demolition and Repairs
  - Concrete Pavement and Asbestos Waterproofing Removal
  - Storm Drains and Inlet Replacement
  - Waterproofing Installation
  - Pavement Cast and Reinstallation
  - Expansion Joints
  - Epoxy Overlay Coating
- Ewa 3<sup>rd</sup> Floor Isolated Repairs and Drains
  - Deck Spall Repairs
  - Storm Drain and Inlet Replacement

## PROJECT SCOPE – WORK HOURS

- Ewa 2<sup>nd</sup>:
  - 8:00 p.m. and 5:00 a.m
  - Roadway in front of turn around: 12:01 a.m. to 5:00 a.m.
- DH 2<sup>nd</sup>:
  - 3:00 p.m. and 11:00 pm
- DH and Ewa 3<sup>rd</sup>:
  - Traffic Inhibiting Work: 3:00 p.m. and 11:00 p.m.
  - All other work: 24 hour Period
- Referenced in Specification Section 01010 DESCRIPTION OF WORK

## PROJECT SCOPE — STORAGE-LOAD LIMIT

- Materials may be stored in 2<sup>nd</sup> level turn around areas on Ewa and DH concourse where it will not impede traffic and meet the load limits.
- Based on space availability storage for large equipment and trucks will be determined closer to start of construction.
- Load limit for ramps and concourse roadways is provided in the structural notes.
   In general, heavy equipment, concrete trucks, hauling trucks, roll off bins are not permitted

## PROJECT SCOPE — PHASING

- Wiki Wiki Shuttle Operations must be maintained throughout construction process.
- Construction sequence and phasing to submitted for review and approval.
- The main length of the roadways shall be done in sections leaving at least one road open to traffic.
  - Traffic control will be needed during both construction and non-construction hours.
- Continuous dust control is needed for entirety of construction during both construction and non-construction hours.
- Turn around area roadway sections must be demolished and repaired and reopened to traffic at the end of the work shift
- Fast-setting concrete must be used here to achieve 3 hour cure time.

# QUESTIONS?

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"General Decision Number: HI20220001 10/14/2022

Superseded General Decision Number: HI20210001

State: Hawaii

Construction Types: Building, Heavy (Heavy and Dredging),

Highway and Residential

Counties: Hawaii Statewide.

BUILDING CONSTRUCTION PROJECTS; RESIDENTIAL CONSTRUCTION PROJECTS (consisting of single family homes and apartments up to and including 4 stories); HEAVY AND HIGHWAY CONSTRUCTION PROJECTS AND DREDGING

Note: Contracts subject to the Davis-Bacon Act are generally required to pay at least the applicable minimum wage rate required under Executive Order 14026 or Executive Order 13658. Please note that these Executive Orders apply to covered contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but do not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(2)-(60).

IIf the contract is entered into on or after January 30, 2022, or the contract is renewed or extended (e.g., an |. The contractor must pay option is exercised) on or after January 30, 2022:

- l. Executive Order 14026 generally applies to the contract.
- all covered workers at least \$15.00 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in 2022.

If the contract was awarded on . or between January 1, 2015 and January 29, 2022, and the contract is not renewed or extended on or after January 30, 2022:

- Executive Order 13658 generally applies to the contract.
- |. The contractor must pay all| covered workers at least \$11.25 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on that contract in 2022.

The applicable Executive Order minimum wage rate will be adjusted annually. If this contract is covered by one of the Executive Orders and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must still submit a conformance request.

Additional information on contractor requirements and worker protections under the Executive Orders is available at https://www.dol.gov/agencies/whd/government-contracts.

Modification	Number	Publication	Date
0		01/07/2022	
1		01/14/2022	
2		02/18/2022	
3		02/25/2022	
4		03/04/2022	
5		03/11/2022	
6		03/18/2022	
7		03/25/2022	
8		04/15/2022	
9		07/08/2022	
10		08/19/2022	
11		08/26/2022	
12		09/02/2022	
13		09/09/2022	
14		09/30/2022	
15		10/14/2022	

#### ASBE0132-001 06/05/2022

	Rates	Fringes
Asbestos Workers/Insulator Includes application of all insulating materials, protective coverings, coatings and finishes to all types of mechanical systems. Also the application of firestopping material for wall openings and penetrations in walls, floors, ceilings and curtain walls	· · · · · · · · · · · · · · · · · · ·	25.85
BOIL0627-005 01/01/2021		
	Rates	Fringes
BOILERMAKER	\$ 37.25	31.25
BRHI0001-001 08/30/2021		
	Rates	Fringes
BRICKLAYER  Bricklayers and Stonemasons Pointers, Caulkers and Weatherproofers		30.43 30.43
BRHI0001-002 08/30/2021		
	Rates	Fringes
Tile, Marble & Terrazzo Worker Terrazzo Base Grinders Terrazzo Floor Grinders and Tenders Tile, Marble and Terrazzo		32.57 32.57
Workers	\$ 44.40	32.57
CARP0745-001 10/01/2021		

	Rates	Fringes	
Carpenters: Carpenters; Hardwood Floor Layers; Patent Scaffold Erectors (14 ft. and over); Piledrivers; Pneumatic Nailers; Wood			
<pre>Shinglers and Transit and/or Layout Man\$ Millwrights and Machine</pre>	51.25	24.84	
Erectors\$ Power Saw Operators (2	51.50	24.84	
h.p. and over)\$	51.40	24.84	
CARP0745-002 10/01/2021			
	Rates	Fringes	
Drywall and Acoustical Workers and Lathers\$	51.50	24.84	
ELEC1186-001 08/22/2022			
	Rates	Fringes	
Electricians:			
Cable Splicers\$		30.90	
Electricians\$ Telecommunication worker\$		30.69 13.69	
ELEC1186-002 08/22/2022			
	Rates	Fringes	
Line Construction: Cable Splicers\$ Groundmen/Truck Drivers\$ Heavy Equipment Operators\$ Linemen\$ Telecommunication worker\$	40.16 48.20 53.55	30.90 25.34 28.43 30.69 13.69	
ELEV0126-001 01/01/2022			
	Rates	Fringes	
ELEVATOR MECHANIC\$	65.33	6.885+a+b	
<ul><li>a. VACATION: Employer contributes 8% of basic hourly rate for</li><li>5 years service and 6% of basic hourly rate for 6 months to</li><li>5 years service as vacation pay credit.</li></ul>			
<ul> <li>b. PAID HOLIDAYS: New Year's Day, Memorial Day, Independence Day, Labor Day, Veterans' Day, Thanksgiving Day, the Friday after Thanksgiving Day and Christmas Day.</li> </ul>			
ENGI0003-002 09/03/2018			
	Rates	Fringes	
Diver (Aqua Lung) (Scuba)) Diver (Aqua Lung) (Scuba)		0	
(over a depth of 30 feet)\$ Diver (Aqua Lung) (Scuba)	66.00	31.26	

(up to a depth of 30 feet)\$	56.63	31.26
Stand-by Diver (Aqua Lung) (Scuba)\$	<i>4</i> 7 25	31.26
Diver (Other than Aqua Lung)	47.23	31.20
Diver (Other than Aqua		
Lung)\$	66.00	31.26
Diver Tender (Other than		
Aqua Lung)\$	44.22	31.26
Stand-by Diver (Other than	47.05	24 26
Aqua Lung)\$	4/.25	31.26
Helicopter Work Airborne Hoist Operator		
for Helicopter\$	45 80	31.26
Co-Pilot of Helicopter\$		31.26
Pilot of Helicopter\$		31.26
Power equipment operator -		
tunnel work		
GROUP 1\$		31.26
GROUP 2\$		31.26
GROUP 3\$		31.26
GROUP 4\$		31.26
GROUP 5\$		31.26
GROUP 6\$		31.26
GROUP 7\$ GROUP 8\$		31.26 31.26
GROUP 9\$		31.26
GROUP 9A\$		31.26
GROUP 10\$		31.26
GROUP 10A\$		31.26
GROUP 11\$		31.26
GROUP 12\$		31.26
GROUP 12A\$	45.60	31.26
Power equipment operators:		
GROUP 1\$		31.26
GROUP 2\$		31.26
GROUP 3\$		31.26
GROUP 4\$		31.26
GROUP 5\$		31.26
GROUP 6\$ GROUP 7\$		31.26 31.26
GROUP 8\$		31.26
GROUP 9\$		31.26
GROUP 9A\$		31.26
GROUP 10\$		31.26
GROUP 10A\$		31.26
GROUP 11\$	44.58	31.26
GROUP 12\$		31.26
GROUP 12A\$		31.26
GROUP 13\$		31.26
GROUP 13A\$		31.26
GROUP 13B\$		31.26
GROUP 13C\$		31.26
GROUP 13D\$ GROUP 13E\$		31.26 31.26
allool Tor	TJ.00	21.20

#### POWER EQUIPMENT OPERATORS CLASSIFICATIONS

GROUP 1: Fork Lift (up to and including 10 tons); Partsman (heavy duty repair shop parts room when needed).

GROUP 2: Conveyor Operator (Handling building material); Hydraulic Monitor; Mixer Box Operator (Concrete Plant).

GROUP 3: Brakeman; Deckhand; Fireman; Oiler;
Oiler/Gradechecker; Signalman; Switchman; Highline Cableway

Signalman; Bargeman; Bunkerman; Concrete Curing Machine (self-propelled, automatically applied unit on streets, highways, airports and canals); Leveeman; Roller (5 tons and under); Tugger Hoist.

GROUP 4: Boom Truck or dual purpose ""A"" Frame Truck (5 tons or less); Concrete Placing Boom (Building Construction); Dinky Operator; Elevator Operator; Hoist and/or Winch (one drum); Straddle Truck (Ross Carrier, Hyster and similar).

GROUP 5: Asphalt Plant Fireman; Compressors, Pumps, Generators and Welding Machines (""Bank"" of 9 or more, individually or collectively); Concrete Pumps or Pumpcrete Guns; Lubrication and Service Engineer (Grease Rack); Screedman.

GROUP 6: Boom Truck or Dual Purpose ""A""Frame Truck (over 5 tons); Combination Loader/Backhoe (up to and including 3/4 cu. yd.); Concrete Batch Plants (wet or dry); Concrete Cutter, Groover and/or Grinder (self-propelled unit on streets, highways, airports, and canals); Conveyor or Concrete Pump (Truck or Equipment Mounted); Drilling Machinery (not to apply to waterliners, wagon drills or jack hammers); Fork Lift (over 10 tons); Loader (up to and including 3 and 1/2 cu. yds); Lull High Lift (under 40 feet); Lubrication and Service Engineer (Mobile); Maginnis Internal Full Slab Vibrator (on airports, highways, canals and warehouses); Man or Material Hoist; Mechanical Concrete Finisher (Large Clary, Johnson Bidwell, Bridge Deck and similar); Mobile Truck Crane Driver; Portable Shotblast Concrete Cleaning Machine; Portable Boring Machine (under streets, highways, etc.); Portable Crusher; Power Jumbo Operator (setting slip forms, etc., in tunnels); Rollers (over 5 tons); Self-propelled Compactor (single engine); Self-propelled Pavement Breaker; Skidsteer Loader with attachments; Slip Form Pumps (Power driven by hydraulic, electric, air, gas, etc., lifting device for concrete forms); Small Rubber Tired Tractors; Trencher (up to and including 6 feet); Underbridge Personnel Aerial Platform (50 feet of platform or less).

GROUP 7: Crusher Plant Engineer, Dozer (D-4, Case 450, John Deere 450, and similar); Dual Drum Mixer, Extend Lift; Hoist and/or Winch (2 drums); Loader (over 3 and 1/2 cu. yds. up to and including 6 yards.); Mechanical Finisher or Spreader Machine (asphalt), (Barber Greene and similar) (Screedman required); Mine or Shaft Hoist; Mobile Concrete Mixer (over 5 tons); Pipe Bending Machine (pipelines only); Pipe Cleaning Machine (tractor propelled and supported); Pipe Wrapping Machine (tractor propelled and supported); Roller Operator (Asphalt); Self-Propelled Elevating Grade Plane; Slusher Operator; Tractor (with boom) (D-6, or similar); Trencher (over 6 feet and less than 200 h.p.); Water Tanker (pulled by Euclids, T-Pulls, DW-10, 20 or 21, or similar); Winchman (Stern Winch on Dredge).

GROUP 8: Asphalt Plant Operator; Barge Mate (Seagoing); Cast-in-Place Pipe Laying Machine; Concrete Batch Plant (multiple units); Conveyor Operator (tunnel); Deckmate; Dozer (D-6 and similar); Finishing Machine Operator (airports and highways); Gradesetter; Kolman Loader (and similar); Mucking Machine (Crawler-type); Mucking Machine (Conveyor-type); No-Joint Pipe Laying Machine; Portable Crushing and Screening Plant; Power Blade Operator (under 12); Saurman Type Dragline (up to and including 5 yds.);

Stationary Pipe Wrapping, Cleaning and Bending Machine; Surface Heater and Planer Operator, Tractor (D-6 and similar); Tri-Batch Paver; Tunnel Badger; Tunnel Mole and/or Boring Machine Operator Underbridge Personnel Aerial Platform (over 50 feet of platform).

GROUP 9: Combination Mixer and Compressor (gunite); Do-Mor Loaderand Adams Elegrader; Dozer (D-7 or equal); Wheel and/or Ladder Trencher (over 6 feet and 200 to 749 h.p.).

GROUP 9A: Dozer (D-8 and similar); Gradesetter (when required by the Contractor to work from drawings, plans or specifications without the direct supervision of a foreman or superintendent); Push Cat; Scrapers (up to and including 20 cu. yds); Self-propelled Compactor with Dozer; Self-Propelled, Rubber-Tired Earthmoving Equipment (up to and including 20 cu. yds) (621 Band and similar); Sheep's Foot; Tractor (D-8 and similar); Tractors with boom (larger than D-6, and similar).

GROUP 10: Chicago Boom; Cold Planers; Heavy Duty Repairman or Welder; Hoist and/or Winch (3 drums); Hydraulic Skooper (Koehring and similar); Loader (over 6 cu. yds. up to and including 12 cu. yds.); Saurman type Dragline (over 5 cu. yds.); Self-propelled, rubber-tired Earthmoving Equipment (over 20 cu. yds. up to and including 31 cu. yds.) (637D and similar); Soil Stabilizer (P & H or equal); Sub-Grader (Gurries or other automatic type); Tractors (D-9 or equivalent, all attachments); Tractor (Tandem Scraper); Watch Engineer.

GROUP 10A: Boat Operator; Cable-operated Crawler Crane (up to and including 25 tons); Cable-operated Power Shovel, Clamshell, Dragline and Backhoe (up to and including 1 cu. yd.); Dozer D9-L; Dozer (D-10, HD41 and similar) (all attachments); Gradall (up to and including 1 cu. yd.); Hydraulic Backhoe (over 3/4 cu. yds. up to and including 2 cu. yds.); Mobile Truck Crane Operator (up to and including 25 tons) (Mobile Truck Crane Driver Required); Self-propelled Boom Type Lifting Device (Center Mount) (up to and including 25 tons) (Grove, Drott, P&H, Pettibone and similar; Trencher (over 6 feet and 750 h.p. or more); Watch Engineer (steam or electric).

GROUP 11: Automatic Slip Form Paver (concrete or asphalt); Band Wagon (in conjunction with Wheel Excavator); Cable-operated Crawler Cranes (over 25 tons but less than 50 tons); Cable-operated Power Shovel, Clamshell, Dragline and Backhoe (over 1 cu. yd. up to 7 cu. yds.); Gradall (over 1 cu. yds. up to 7 cu. yds.); DW-10, 20, etc. (Tandem); Earthmoving Machines (multiple propulsion power units and 2 or more Scrapers) (up to and including 35 cu. yds.,"" struck"" m.r.c.); Highline Cableway; Hydraulic Backhoe (over 2 cu. yds. up to and including 4 cu. yds.); Leverman; Lift Slab Machine; Loader (over 12 cu. yds); Master Boat Operator; Mobile Truck Crane Operator (over 25 tons but less than 50 tons); (Mobile Truck Crane Driver required); Pre-stress Wire Wrapping Machine; Self-propelled Boom-type Lifting Device (Center Mount) (over 25 tons m.r.c); Self-propelled Compactor (with multiple-propulsion power units); Single Engine Rubber Tired Earthmoving Machine (with Tandem Scraper); Tandem Cats; Trencher (pulling attached shield).

Multi-Propulsion Earthmoving Machines (2 or more Scrapers) (over 35 cu. yds ""struck""m.r.c.); Operators (Derricks, Piledrivers and Cranes); Power Shovels and Draglines (7 cu. yds. m.r.c. and over); Self-propelled rubber-tired Earthmoving equipment (over 31 cu. yds.) (657B and similar); Wheel Excavator (up to and including 750 cu. yds. per hour); Wheel Excavator (over 750 cu. yds. per hour).

GROUP 12A: Dozer (D-11 or similar or larger); Hydraulic Excavators (over 4 cu. yds.); Lifting cranes (50 tons and over); Pioneering Dozer/Backhoe (initial clearing and excavation for the purpose of providing access for other equipment where the terrain worked involves 1-to-1 slopes that are 50 feet in height or depth, the scope of this work does not include normal clearing and grubbing on usual hilly terrain nor the excavation work once the access is provided); Power Blade Operator (Cat 12 or equivalent or over); Straddle Lifts (over 50 tons); Tower Crane, Mobile; Traveling Truss Cranes; Universal, Liebher, Linden, and similar types of Tower Cranes (in the erection, dismantling, and moving of equipment there shall be an additional Operating Engineer or Heavy Duty Repairman); Yo-Yo Cat or Dozer.

#### GROUP 13: Truck Driver (Utility, Flatbed, etc.)

GROUP 13A: Dump Truck, 8 cu.yds. and under (water level); Water Truck (up to and including 2,000 gallons).

GROUP 13B: Water Truck (over 2,000 gallons); Tandem Dump Truck, over 8 cu. yds. (water level).

GROUP 13C: Truck Driver (Semi-trailer. Rock Cans, Semi-Dump or Roll-Offs).

GROUP 13D: Truck Driver (Slip-In or Pup).

GROUP 13E: End Dumps, Unlicensed (Euclid, Mack, Caterpillar or similar); Tractor Trailer (Hauling Equipment); Tandem Trucks hooked up to Trailer (Hauling Equipment)

#### BOOMS AND/OR LEADS (HOURLY PREMIUMS):

The Operator of a crane (under 50 tons) with a boom of 80 feet or more (including jib), or of a crane (under 50 tons) with leads of 100 feet or more, shall receive a per hour premium for each hour worked on said crane (under 50 tons) in accordance with the following schedule:

Booms of 80 feet up to but
not including 130 feet or
Leads of 100 feet up to but
not including 130 feet

Booms and/or Leads of 130 feet
up to but not including 180 feet
0.75
Booms and/or Leads of 180 feet up
to and including 250 feet
1.15
Booms and/or Leads over 250 feet
1.50

The Operator of a crane (50 tons and over) with a boom of 180 feet or more (including jib) shall receive a per hour premium for each hour worked on said crane (50 tons and over) in accordance with the following schedule:

-----

#### ENGI0003-004 09/04/2017

	Rates	Fringes
Dredging: (Boat Operators)		
Boat Deckhand	\$ 41.22	30.93
Boat Operator		30.93
Master Boat Operator		30.93
Dredging: (Clamshell or		
Dipper Dredging)		
GROUP 1	\$ 43.94	30.93
GROUP 2	\$ 43.28	30.93
GROUP 3		30.93
GROUP 4	\$ 41.22	30.93
Dredging: (Derricks)		
GROUP 1	\$ 43.94	30.93
GROUP 2	\$ 43.28	30.93
GROUP 3	\$ 42.88	30.93
GROUP 4	\$ 41.22	30.93
Dredging: (Hydraulic Suction		
Dredges)		
GROUP 1		30.93
GROUP 2		30.93
GROUP 3		30.93
GROUP 4		30.93
GROUP 5		26.76
Group 5		30.93
GROUP 6		26.76
Group 6		30.93
GROUP 7		26.76
Group 7	§ 41.22	30.93

#### CLAMSHELL OR DIPPER DREDGING CLASSIFICATIONS

GROUP 1: Clamshell or Dipper Operator.

GROUP 2: Mechanic or Welder; Watch Engineer.

GROUP 3: Barge Mate; Deckmate.

GROUP 4: Bargeman; Deckhand; Fireman; Oiler.

#### HYDRAULIC SUCTION DREDGING CLASSIFICATIONS

GROUP 1: Leverman.

GROUP 2: Watch Engineer (steam or electric).

GROUP 3: Mechanic or Welder.

GROUP 4: Dozer Operator.

GROUP 5: Deckmate.

GROUP 6: Winchman (Stern Winch on Dredge)

GROUP 7: Deckhand (can operate anchor scow under direction of Deckmate); Fireman; Leveeman; Oiler.

#### DERRICK CLASSIFICATIONS

GROUP 1: Operators (Derricks, Piledrivers and Cranes).

GROUP 2: Saurman Type Dragline (over 5 cubic yards).

GROUP 3: Deckmate; Saurman Type Dragline (up to and including 5 yards).

GROUP 4: Deckhand, Fireman, Oiler.

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	Rates	Fringes
Power Equipment Operators (PAVING)		
Asphalt Concrete Material		
Transfer	.\$ 42.92	32.08
Asphalt Plant Operator	.\$ 43.35	32.08
Asphalt Raker		32.08
Asphalt Spreader Operator		32.08
Cold PlanerCombination Loader/Backhoe	.\$ 43.75	32.08
<pre>(over 3/4 cu.yd.) Combination Loader/Backhoe</pre>	.\$ 41.96	32.08
(up to 3/4 cu.yd.) Concrete Saws and/or	.\$ 40.98	32.08
Grinder (self-propelled		
unit on streets, highways,		
airports and canals)	.\$ 42.92	32.08
Grader		32.08
Laborer, Hand Roller Loader (2 1/2 cu. yds. and	.\$ 41.46	32.08
under) Loader (over 2 1/2 cu.	.\$ 42.92	32.08
yds. to and including 5		
cu. yds.) Roller Operator (five tons	.\$ 43.24	32.08
and under) Roller Operator (over five	.\$ 41.69	32.08
tons)	.\$ 43.12	32.08
Screed Person	.\$ 42.92	32.08
Soil Stabilizer	.\$ 43.75	32.08
* IRON0625-001 09/01/2022		
	Rates	Fringes

		J
Ironworkers:	45.00	39.00

a. Employees will be paid \$.50 per hour more while working in tunnels and coffer dams; \$1.00 per hour more when required to work under or are covered with water (submerged) and when they are required to work on the summit of Mauna Kea, Mauna Loa or Haleakala.

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#### LAB00368-001 09/05/2022

ı	Rates	Fringes
Laborers:  Driller\$  Final Clean Up\$  Gunite/Shotcrete Operator  and High Scaler\$  Laborer I\$  Mason Tender/Hod Carrier\$  Powderman\$  Window Washer (bosun chair).\$	30.45 40.50 40.00 37.40 40.50 41.00	24.25 19.57 24.25 24.25 24.25 24.25 24.25 24.25

#### LABORERS CLASSIFICATIONS

Laborer I: Air Blasting run by electric or pneumatic compressor; Asphalt Laborer, Ironer, Raker, Luteman, and Handroller, and all types of Asphalt Spreader Boxes; Asphalt Shoveler; Assembly and Installation of Multiplates, Liner Plates, Rings, Mesh, Mats; Batching Plant (portable and temporary); Boring Machine Operator (under streets and sidewalks); Buggymobile; Burning and Welding; Chainsaw, Faller, Logloader, and Bucker; Compactors (Jackson Jumping Jack and similar); Concrete Bucket Dumpman; Concrete Chipping; Concrete Chuteman/Hoseman (pouring concrete) (the handling of the chute from ready-mix trucks for such jobs as walls, slabs, decks, floors, foundations, footings, curbs, gutters, and sidewalks); Concrete Core Cutter (Walls, Floors, and Ceiling); Concrete Grinding or Sanding; Concrete: Hooking on, signaling, dumping of concrete for treme work over water on caissons, pilings, abutments, etc.; Concrete: Mixing, handling, conveying, pouring, vibrating, otherwise placing of concrete or aggregates or by any other process; Concrete: Operation of motorized wheelbarrows or buggies or machines of similar character, whether run by gas, diesel, or electric power; Concrete Placement Machine Operator: operation of Somero Hammerhead, Copperheads, or similar machines; Concrete Pump Machine (laying, coupling, uncoupling of all connections and cleaning of equipment); Concrete and/or Asphalt Saw (Walking or Handtype) (cutting walls or flatwork) (scoring old or new concrete and/or asphalt) (cutting for expansion joints) (streets and ways for laying of pipe, cable or conduit for all purposes); Concrete Shovelers/Laborers (Wet or Dry); Concrete Screeding for Rough Strike-Off: Rodding or striking-off, by hand or mechanical means prior to finishing; Concrete Vibrator Operator; Coring Holes: Walls, footings, piers or other obstructions for passage of pipes or conduits for any purpose and the pouring of concrete to secure the hole; Cribbers, Shorer, Lagging, Sheeting, and Trench Jacking and Bracing, Hand-Guided Lagging Hammer Whaling Bracing; Curbing (Concrete and Asphalt); Curing of Concrete (impervious membrane and form oiler) mortar and other materials by any mode or method; Cut Granite Curb Setter (setting, leveling and grouting of all precast concrete or stone curbs); Cutting and Burning Torch (demolition); Dri Pak-It Machine; Environmental Abatement: removal of asbestos, lead, and bio hazardous materials (EPA and/or OSHA certified); Falling, bucking, yarding, loading or burning of all trees or timber on construction site; Forklift (9 ft. and under); Gas, Pneumatic, and Electric tools; Grating and Grill work for drains or other purposes; Green Cutter of concrete or aggregate in any form, by hand, mechanical means, grindstone or air and/or water; Grout: Spreading for any purpose; Guinea Chaser (Grade Checker) for general utility trenches, sitework, and excavation; Headerboard Man (Asphalt or Concrete); Heat Welder of Plastic (Laborers' AGC certified workers) (when work involves waterproofing for waterponds, artificial lakes and reservoir) heat welding for sewer pipes and fusion of HDPE pipes; Heavy Highway Laborer (Rigging, signaling, handling, and installation of pre-cast catch basins, manholes, curbs and gutters); High Pressure Nozzleman - Hydraulic Monitor (over 100# pressure); Jackhammer Operator; Jacking of slip forms: All semi and unskilled work connected therewithin; Laying of all multi-cell conduit or multi-purpose pipe; Magnesite and Mastic Workers (Wet or Dry)(including mixer operator); Mortar Man; Mortar Mixer (Block, Brick, Masonry, and Plastering); Nozzleman (Sandblasting and/or Water Blasting): handling, placing and operation of nozzle; Operation, Manual or Hydraulic jacking of shields and the use of such other mechanical equipment as may be necessary; Pavement Breakers; Paving, curbing and surfacing of streets, ways, courts, under and overpasses, bridges,

approaches, slope walls, and all other labor connected therewith; Pilecutters; Pipe Accessment in place, bolting and lining up of sectional metal or other pipe including corrugated pipe; Pipelayer performing all services in the laying and installation of pipe from the point of receiving pipe in the ditch until completion of operation, including any and all forms of tubular material, whether pipe, HDPE, metallic or non-metallic, conduit, and any other stationary-type of tubular device used for conveying of any substance or element, whether water, sewage, solid, gas, air, or other product whatsoever and without regard to the nature of material from which tubular material is fabricated; No-joint pipe and stripping of same, Pipewrapper, Caulker, Bander, Kettlemen, and men applying asphalt, Laykold, treating Creosote and similar-type materials (6-inch) pipe and over); Piping: resurfacing and paving of all ditches in preparation for laying of all pipes; Pipe laying of lateral sewer pipe from main or side sewer to buildings or structure (except Contactor may direct work be done under proper supervision); Pipe laying, leveling and marking of the joint used for main or side sewers and storm sewers; Laying of all clay, terra cotta, ironstone, vitrified concrete, HDPE or other pipe for drainage; Placing and setting of water mains, gas mains and all pipe including removal of skids; Plaster Mortar Mixer/Pump; Pneumatic Impact Wrench; Portable Sawmill Operation: Choker setters, off bearers, and lumber handlers connected with clearing; Posthole Digger (Hand Held, Gas, Air and Electric); Powderman's Tender; Power Broom Sweepers (Small); Preparation and Compaction of roadbeds for railroad track laying, highway construction, and the preparation of trenches, footings, etc., for cross-country transmission by pipelines, electrical transmission or underground lines or cables (by mechanical means); Raising of structure by manual or hydraulic jacks or other methods and resetting of structure in new locations, including all concrete work; Ramming or compaction; Rigging in connection with Laborers' work (except demolition), Signaling (including the use of walkie talkie) Choke Setting, tag line usage; Tagging and Signaling of building materials into high rise units; Riprap, Stonepaver, and Rock Slinger (includes placement of stacked concrete, wet or dry and loading, unloading, signaling, slinging and setting of other similar materials); Rotary Scarifier (including multiple head concrete chipping Scarifier); Salamander Heater, Drying of plaster, concrete mortar or other aggregate; Scaffold Erector Leadman; Scaffolds: (Swing and hanging) including maintenance thereof; Scaler; Septic Tank/Cesspool and Drain Fields Digger and Installer; Shredder/Chipper (tree branches, brush, etc.); Stripping and Setting Forms; Stripping of Forms: Other than panel forms which are to be re-used in their original form, and stripping of forms on all flat arch work; Tampers (Barko, Wacker, and similar type); Tank Scaler and Cleaners; Tarman; Tree Climbers and Trimmers; Trencher (includes hand-held, Davis T-66 and similar type); Trucks (flatbed up to and including 2 1/2 tons when used in connection with on-site Laborers'work; Trucks (Refuse and Garbage Disposal) (from job site to dump); Vibra-Screed (Bull Float in connection with Laborers' work); Well Points, Installation of or any other dewatering system.

Laborer II: Asphalt Plant Laborer; Boring Machine Tender; Bridge Laborer; Burning of all debris (crates, boxes, packaging waste materials); Chainman, Rodmen, and Grade

Markers; Cleaning, clearing, grading and/or removal for streets, highways, roadways, aprons, runways, sidewalks, parking areas, airports, approaches, and other similar installations; Cleaning or reconditioning of streets, ways, sewers and waterlines, all maintenance work and work of an unskilled and semi-skilled nature; Concrete Bucket Tender (Groundman) hooking and unhooking of bucket; Concrete Forms; moving, cleaning, oiling and carrying to the next point of erection of all forms; Concrete Products Plant Laborers; Conveyor Tender (conveying of building materials); Crushed Stone Yards and Gravel and Sand Pit Laborers and all other similar plants; Demolition, Wrecking and Salvage Laborers: Wrecking and dismantling of buildings and all structures, with use of cutting or wrecking tools, breaking away, cleaning and removal of all fixtures, All hooking, unhooking, signaling of materials for salvage or scrap removed by crane or derrick; Digging under streets, roadways, aprons or other paved surfaces; Driller's Tender; Chuck Tender, Outside Nipper; Dry-packing of concrete (plugging and filling of she-bolt holes); Fence and/or Guardrail Erector: Dismantling and/or re-installation of all fence; Finegrader; Firewatcher; Flagman (Coning, preparing, stablishing and removing portable roadway barricade devices); Signal Men on all construction work defined herein, including Traffic Control Signal Men at construction site; General Excavation; Backfilling, Grading and all other labor connected therewith; Digging of trenches, ditches and manholes and the leveling, grading and other preparation prior to laying pipe or conduit for any purpose; Excavations and foundations for buildings, piers, foundations and holes, and all other construction. Preparation of street ways and bridges; General Laborer: Cleaning and Clearing of all debris and surplus material. Clean-up of right-of-way. Clearing and slashing of brush or trees by hand or mechanical cutting. General Clean up: sweeping, cleaning, wash-down, wiping of construction facility and equipment (other than ""Light Clean up (Janitorial) Laborer. Garbage and Debris Handlers and Cleaners. Appliance Handling (job site) (after delivery unlading in storage area); Ground and Soil Treatment Work (Pest Control); Gunite/Shotcrete Operator Tender; Junk Yard Laborers (same as Salvage Yard); Laser Beam ""Target Man"" in connection with Laborers' work; Layout Person for Plastic (when work involves waterproofing for waterponds, artificial lakes and reservoirs); Limbers, Brush Loaders, and Pilers; Loading, Unloading, carrying, distributing and handling of all rods and material for use in reinforcing concrete construction (except when a derrick or outrigger operated by other than hand power is used); Loading, unloading, sorting, stockpiling, handling and distribution of water mains, gas mains and all pipes; Loading and unloading of all materials, fixtures, furnishings and appliances from point of delivery to stockpile to point of installation; hooking and signaling from truck, conveyance or stockpile; Material Yard Laborers; Pipelayer Tender; Pipewrapper, Caulker, Bander, Kettlemen, and men applying asphalt, Laykold, Creosote, and similar-type materials (pipe under 6 inches); Plasterer Laborer; Preparation, construction and maintenance of roadbeds and sub-grade for all paving, including excavation, dumping, and spreading of sub-grade material; Prestressed or precast concrete slabs, walls, or sections: all loading, unloading, stockpiling, hooking on of such slabs, walls or sections; Quarry Laborers; Railroad, Streetcar, and Rail Transit Maintenance and Repair; Roustabout; Rubbish Trucks in connection with

Building Construction Projects (excluding clearing, grubbing, and excavating); Salvage Yard: All work connected with cutting, cleaning, storing, stockpiling or handling of materials, all cleanup, removal of debris, burning, back-filling and landscaping of the site; Sandblasting Tender (Pot Tender): Hoses and pots or markers; Scaffolds: Erection, planking and removal of all scaffolds used for support for lathers, plasters, brick layers, masons, and other construction trades crafts; Scaffolds: (Specially designed by carpenters) laborers shall tend said carpenter on erection and dismantling thereof, preparation for foundation or mudsills, maintenance; Scraping of floors; Screeds: Handling of all screeds to be reused; handling, dismantling and conveyance of screeds; Setting, leveling and securing or bracing of metal or other road forms and expansion joints; Sheeting Piling/trench shoring (handling and placing of skip sheet or wood plank trench shoring); Ship Scalers; Shipwright Tender; Sign Erector (subdivision traffic, regulatory, and street-name signs); Sloper; Slurry Seal Crews (Mixer Operator, Applicator, Squeegee Man, Shuttle Man, Top Man); Snapping of wall ties and removal of tie rods; Soil Test operations of semi and unskilled labor such as filling sand bags; Striper (Asphalt, Concrete or other Paved Surfaces); Tool Room Attendant (Job Site); Traffic Delineating Device Applicator; Underpinning, lagging, bracing, propping and shoring, loading, signaling, right-of-way clearance along the route of movement, The clearance of new site, excavation of foundation when moving a house or structure from old site to new site; Utilities employees; Water Man; Waterscape/Hardscape Laborers; Wire Mesh Pulling (all concrete pouring operations); Wrecking, stripping, dismantling and handling concrete forms an false work.

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#### LAB00368-002 09/05/2022

	Rates	Fringes
Landscape & Irrigation		
Laborers GROUP 1	\$ 27.25	15.80
GROUP 2		15.80
GROUP 3	\$ 22.15	15.80

#### LABORERS CLASSIFICATIONS

GROUP 1: Installation of non-potable permanent or temporary irrigation water systems performed for the purposes of Landscaping and Irrigation architectural horticultural work; the installation of drinking fountains and permanent or temporary irrigation systems using potable water for Landscaping and Irrigation architectural horticultural purposes only. This work includes (a) the installation of all heads, risers, valves, valve boxes, vacuum breakers (pressure and non-pressure), low voltage electrical lines and, provided such work involves electrical wiring that will carry 24 volts or less, the installation of sensors, master control panels, display boards, junction boxes, conductors, including all other components for controllers, (b) and metallic (copper, brass, galvanized, or similar) pipe, as well as PVC or other plastic pipe including all work incidental thereto, i.e., unloading, handling and distribution of all pipes fittings, tools, materials and equipment, (c) all soldering work in connection with the

above whether done by torch, soldering iron, or other means; (d) tie-in to main lines, thrust blocks (both precast and poured in place), pipe hangers and supports incidental to installation of the entire irrigation system, (e) making of pressure tests, start-up testing, flushing, purging, water balancing, placing into operation all irrigation equipment, fixtures and appurtenances installed under this agreement, and (f) the fabrication, replacement, repair and servicing oflandscaping and irrigation systems. Operation of hand-held gas, air, electric, or self-powered tools and equipment used in the performance of Landscape and Irrigation work in connection with architectural horticulture; Choke-setting, signaling, and rigging for equipment operators on job-site in the performance of such Landscaping and Irrigation work; Concrete work (wet or dry) performed in connection with such Landscaping and Irrigation work. This work shall also include the setting of rock, stone, or riprap in connection with such Landscape, Waterscape, Rockscape, and Irrigation work; Grubbing, pick and shovel excavation, and hand rolling or tamping in connection with the performance of such Landscaping and Irrigation work; Sprigging, handseeding, and planting of trees, shrubs, ground covers, and other plantings and the performance of all types of gardening and horticultural work relating to said planting; Operation of flat bed trucks (up to and including 2 1/2 tons).:

GROUP 2. Layout of irrigation and other non-potable irrigation water systems and the layout of drinking fountains and other potable irrigation water systems in connection with such Landscaping and Irrigation work. This includes the layout of all heads, risers, valves, valve boxes, vacuum breakers, low voltage electrical lines, hydraulic and electrical controllers, and metallic (coppers, brass, galvanized, or similar) pipe, as well as PVC or other plastic pipe. This work also includes the reading and interpretation of plans and specifications in connection with the layout of Landscaping, Rockscape, Waterscape, and Irrigation work; Operation of Hydro-Mulching machines (sprayman and driver), Drillers, Trenchers (riding type, Davis T-66, and similar) and fork lifts used in connection with the performance of such Landscaping and Irrigation work; Tree climbers and chain saw tree trimmers, Sporadic operation (when used in connection with Landscaping, Rockscape, Waterscape, and Irrigation work) of Skid-Steer Loaders (Bobcat and similar), Cranes (Bantam, Grove, and similar), Hoptos, Backhoes, Loaders, Rollers, and Dozers (Case, John Deere, and similar), Water Trucks, Trucks requiring a State of Hawaii Public Utilities Commission Type 5 and/or type 7 license, sit-down type and ""gang"" mowers, and other self-propelled, sit-down operated machines not listed under Landscape & Irrigation Maintenance Laborer; Chemical spraying using self-propelled power spraying equipment (200 gallon capacity or more).

GROUP 3: Maintenance of trees, shrubs, ground covers, lawns and other planted areas, including the replanting of trees, shrubs, ground covers, and other plantings that did not ""take"" or which are damaged; provided, however, that re-planting that requires the use of equipment, machinery, or power tools shall be paid for at the rate of pay specified under Landscape and Irrigation Laborer, Group 1; Raking, mowing, trimming, and runing, including the use of ""weed eaters"", hedge trimmers, vacuums, blowers, and other

hand-held gas, air, electric, or self-powered tools, and the operation of lawn mowers (Note: The operation of sit-down type and ""gang"" mowers shall be paid for at the rate of pay specified under Landscape & Irrigation Laborer, Group 2); Guywiring, staking, propping, and supporting trees; Fertilizing, Chemical spraying using spray equipment with less than 200 gallon capacity, Maintaining irrigation and sprinkler systems, including the staking, clamping, and adjustment of risers, and the adjustment and/or replacement of sprinkler heads, (Note: the cleaning and gluing of pipe and fittings shall be paid for at the rate of pay specified under Landscape & Irrigation Laborer(Group 1); Watering by hand or sprinkler system and the peformance of other types of gardening, yardman, and horticultural-related work.

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#### LAB00368-003 09/05/2022

	Rates	Fringes
Underground Laborer		
GROUP 1	.\$ 40.60	24.25
GROUP 2	.\$ 42.10	24.25
GROUP 3	.\$ 42.60	24.25
GROUP 4	.\$ 43.60	24.25
GROUP 5	.\$ 43.95	24.25
GROUP 6	.\$ 44.20	24.25
GROUP 7	.\$ 44.65	24.25

GROUP 1: Watchmen; Change House Attendant.

GROUP 2: Swamper; Brakeman; Bull Gang-Muckers, Trackmen; Dumpmen (any method); Concrete Crew (includes rodding and spreading); Grout Crew; Reboundmen

GROUP 3: Chucktenders and Cabletenders; Powderman (Prime House); Vibratorman, Pavement Breakers

GROUP 4: Miners - Tunnel (including top and bottom man on shaft and raise work); Timberman, Retimberman (wood or steel or substitute materials thereof); Blasters, Drillers, Powderman (in heading); Microtunnel Laborer; Headman; Cherry Pickerman (where car is lifted); Nipper; Grout Gunmen; Grout Pumpman & Potman; Gunite, Shotcrete Gunmen & Potmen; Concrete Finisher (in tunnel); Concrete Screed Man; Bit Grinder; Steel Form Raisers & Setters; High Pressure Nozzleman; Nozzleman (on slick line); Sandblaster-Potman (combination work assignment interchangeable); Tugger

GROUP 5: Shaft Work & Raise (below actual or excavated ground level); Diamond Driller; Gunite or Shotcrete Nozzleman; Rodman; Groundman

GROUP 6: Shifter

GROUP 7: Shifter (Shaft Work & Raiser)

#### PAIN1791-001 07/01/2022

	Rates	Fringes
Painters:		
Brush\$	40.00	30.59
Sandblaster; Spray\$	40.00	30.59

PAIN1889-001 07/01/2022		
	Rates	Fringes
Glaziers		38.37
PAIN1926-001 02/27/2022		
	Rates	Fringes
Soft Floor Layers	.\$ 38.77	33.31
PAIN1944-001 01/02/2022		
	Rates	Fringes
Taper	.\$ 43.85	32.65
PLAS0630-001 09/05/2022		
	Rates	Fringes
PLASTERER	.\$ 45.00	33.58
PLAS0630-002 08/31/2020		
	Rates	Fringes
Cement Masons: Cement Masons Trowel Machine Operators		32.29 32.29
PLUM0675-001 07/03/2022		
	Rates	Fringes
Plumber, Pipefitter, Steamfitter & Sprinkler Fitter		29.05
ROOF0221-001 09/05/2021		
	Rates	Fringes
Roofers (Including Built Up, Composition and Single Ply)	.\$ 42.55	20.78
SHEE0293-001 02/27/2022		
	Rates	Fringes
Sheet metal worker	.\$ 46.22	30.64
* SUHI1997-002 09/15/1997		
	Rates	Fringes
Drapery Installer	.\$ 13.60 **	1.20
FENCE ERECTOR (Chain Link Fence)	.\$ 9.33 ** 	1.65

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

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\*\* Workers in this classification may be entitled to a higher minimum wage under Executive Order 14026 (\$15.00) or 13658 (\$11.25). Please see the Note at the top of the wage determination for more information.

Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at

https://www.dol.gov/agencies/whd/government-contracts.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)).

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The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of ""identifiers"" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

#### Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than ""SU"" or ""UAVG"" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

#### Survey Rate Identifiers

Classifications listed under the ""SU"" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

#### Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

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#### WAGE DETERMINATION APPEALS PROCESS

- 1.) Has there been an initial decision in the matter? This can be:
- \* an existing published wage determination
- \* a survey underlying a wage determination
- \* a Wage and Hour Division letter setting forth a position on a wage determination matter
- $^st$  a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour National Office because National Office has responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations Wage and Hour Division

U.S. Department of Labor 200 Constitution Avenue, N.W. Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator U.S. Department of Labor 200 Constitution Avenue, N.W. Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board U.S. Department of Labor 200 Constitution Avenue, N.W. Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

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END OF GENERAL DECISIO"



The following manufacturer's equipment was issued a Buy American Waiver under 49 U.S.C. 50101(b) and can be used on AIP Funded Projects.

**NOTICE:** L-823 Connectors do not have independent utility needed to consider it as a component that warrants a Buy American waiver. For purposes of Buy American Preferences, the FAA considers these products as sub-components of the larger airfield lighting equipment being installed.

Waiver Type	Manufacturer	Product	Effective Date
		Reflective Media TTB 13215D Type IA	
Type III Equipment/Building	Potters Industries (Flex-O-Lite)	(Flex-O-Lite) Glass Beads	8/27/2022
Type III Equipment/Building	GBA Components, LLC	Inpavement Light EB-83A Coated Bolts	8/7/2022
		L-850D(L) RSRT212XXXFXXXX1	
Type III Equipment/Building	ADB Safegate Americas, LLC	Inpavement Runway Threshold Light	7/30/2022
		L-852A (LED) Model	
		RSTA21XXXNXXX2X1 Inpavement	
Type III Equipment/Building	ADB Safegate Americas, LLC	Taxiway Centerline Light	7/17/2022
		L-852B (LED) Model	
		RSTB21XXXNXXX2X1 Inpavement	
Type III Equipment/Building	ADB Safegate Americas, LLC	Centerline Light	7/17/2022
		L-852C (LED) Model	
		RSTC21XXXNXXX2X1 Inpavement	
Type III Equipment/Building	ADB Safegate Americas, LLC	Taxiway Centerline Light	7/17/2022
		L-852D (LED) Model	
		RSTD21XXXNXXX2X1 Inpavement	
Type III Equipment/Building	ADB Safegate Americas, LLC	Centerline Light	7/17/2022
		L-852J (LED) Model	
		RSTJ21XXXCXXX2X1 Inpavement	
Type III Equipment/Building	ADB Safegate Americas, LLC	Taxiway Centerline Light	7/17/2022
		L-852K(LED) Inpavement Taxiway	
		Centerline Light Model	
Type III Equipment/Building	ADB Safegate Americas, LLC	RSTK21XXXCXXX2X1	7/17/2022

Waiver Type	Manufacturer	Product	Effective Date
		L-852S (LED) Model	
T W.F /D . ! . !	ABB Cafeer to Associate 11.0	RSSB21XXXNRNX2X1 Inpavement Stop	7/47/2022
Type III Equipment/Building	ADB Safegate Americas, LLC	Bar Light	7/17/2022
		L-880 (LED) Precision Approach Path	
Type III Equipment/Building	FLash Technology	Indicator	7/17/2022
		Flash Technology L-881 (LED) Precision	
Type III Equipment/Building	Flash Technology	Approach Path Indicator	7/17/2022
		Reflective Media TT-B 1325D Type III	
		(Flex-O-Lite) Glass Beads, 1.9 Index of	
Type III Equipment/Building	Potters Industries (Flex-O-Lite)	Refraction	7/17/2022
		L-850A(L) RSRC11XXXNXXXXX1	
Type III Equipment/Building	ADB Safegate	Inpavement Runway Centerline Light	6/18/2022
		L-850B(L) RSRZ11XX1XWNXXX1	
Type III Equipment/Building	ADB Safegate	Inpavement Touchdown Zone Light	6/18/2022
		L-850C (L) RSRE11XXXCXXXXX1	
Type III Equipment/Building	ADB Safegate	Inpavement Runway Edge Light	6/18/2022
		L-850D(L) RSRN212XXXRXXXX1	
Type III Equipment/Building	ADB Safegate	Inpavement Runway End Light	6/18/2022
		L-850T(L) RSRS21XX1NRNRXX1	
Type III Equipment/Building	ADB Safegate	Runway Status Light	6/18/2022
Type III Equipment/Building	M-B Companies, Inc.	Carrier Vehicle and Broom Attachment	5/21/2022
Type III Equipment/Building	Airport Lighting Company	L-821 Airport Lighting Control Panel	2/26/2022
		L-880 LED Precision Approach Path	
Type III Equipment/Building	Airport Lighting Company	Indicator	2/26/2022

Waiver Type	Manufacturer	Product	Effective Date
Type III Equipment/Building	Airport Lighting Company	L-881 LED Abbreviated Precision Approach Path Indicator	2/26/2022
Type III Equipment/Building	ADB Safegate	High Intensity Runway Edge L-862(L) ERES2YW33S00002	11/27/2021
Type III Equipment/Building	ADB Safegate	High Intensity Runway Edge Light L- 862(L) ERES2GR13SF0002	11/27/2021
Type III Equipment/Building	ADB Safegate	High Intensity Runway Edge Light L- 862(L) ERES2WY33S00002	11/27/2021
Type III Equipment/Building	Webasto Charging Systems Incorportated	Posicharge DVS 300 Electric Vehicle Charger	11/27/2021
Type III Equipment/Building	Multi-Electric Manufacturing	LED E Runway Elevated Threshold End Light	9/18/2021
Type III Equipment/Building	Multi-Electric Manufacturing	LED Runway Elevated Edge - L-862 (L)	9/18/2021
Type III Equipment/Building	Airport Lighting Company	L-890 Lighting Control & Monitoring System	7/17/2021
Type III Equipment/Building	Airport Lighting Company	High Intensity Runway Edge Light, L- 862 LED	5/8/2021
Type III Equipment/Building	Airport Lighting Company	L-861SE LED Medium Intensity Runway & Taxiway Edge Light	5/8/2021
Type III Equipment/Building	Airport Lighting Company	L-862 E LED High Intensity Runway Threshold Light	5/8/2021
Type III Equipment/Building	Hali-Brite Incorporated	L-801 A (LED) Medium Intensity Beacon	4/24/2021
Type III Equipment/Building	Hali-Brite Incorportated	L-802 A (LED) High Intensity Beacon	4/24/2021

Waiver Type	Manufacturer	Product	Effective Date
Type III Equipment/Building	Musco Lighting	TLC for LED <sup>®</sup> Light-Structure System™ Apron Flood Lighting	4/11/2021
Type III Equipment/Bunuing	Widseo Lighting	L-810 Obstruction Light Single Head	4/11/2021
Type III Equipment/Building	Flight Light Inc.	LED	4/3/2021
		L-810 Obstuctruction Light Double	
Type III Equipment/Building	Flight Light Inc.	Head LED	4/3/2021
Type III Equipment/Building	Airport Lighting Company	L-847 Switch, Circuit Selector	3/20/2021
Type III Fauinment/Duilding	ADD Cofogato	L-849 -L Runway End Identification	9/9/2020
Type III Equipment/Building	ADB Safegate	Lights - E1101012	8/8/2020
Type III Equipment/Building	Webasto Charging Systems, Incorporated	DVS 400 Electric Charging Station	5/2/2020
	Webasto Charging Systems,		- 4- 4
Type III Equipment/Building	Incorporated	MVS 400 Electric Charging Station	5/2/2020
Type III Equipment/Building	Webasto Charging Systems, Incorporated	MVS800 Electric Charging Station	5/2/2020
Type III Equipment/Building	Hali-Brite Incorporated	L-893, Lighted Visual Aid to Indicate Temporary Runway Closure LED RCM- D L-893 (L)	4/26/2020
Type in Equipment, building	Tidil Brite meer peraced	L-893, Lighted Visual Aid to Indicate Temporary Runway Closure, LED RCM-	1, 20, 2020
Type III Equipment/Building	Hali-Brite incorporated	D	4/26/2020
Type III Faviament/Duilding	ADD Coforato	L-861 Lights, Runway & Taxiway Edge,	4/11/2020
Type III Equipment/Building	ADB Safegate	Medium Intensity EMIS2NG01S00000	4/11/2020
Type III Equipment/Building	ADB Safegate	L-861 Lights, Runway & Taxiway Edge, Medium Intensity EMIS2NG01S00100	4/11/2020

Waiver Type	Manufacturer	Product	Effective Date
Type III Equipment/Building	ADB Safegate	L-861 Lights, Runway & Taxiway Edge, Medium Intensity EMIS2NG01SF0000	4/11/2020
Type III Equipment/Building	ADB Safegate	L-861 Lights, Runway & Taxiway Edge, Medium Intensity EMIS2NG02S00000	4/11/2020
Type III Equipment/Building	ADB Safegate	L-861 Lights, Runway & Taxiway Edge, Medium Intensity EMIS2NG0ASL0000	4/11/2020
Type III Equipment/Building	ADB Safegate	L-861 Lights, Runway & Taxiway Edge, Medium Intensity EMIS2NG0BSL0000	4/11/2020
Type III Equipment/Building	ADB Safegate	L-861 Lights, Runway & Taxiway Edge, Medium Intensity EMIS2NG0CSL0000	4/11/2020
Type III Equipment/Building	ADB Safegate	L-861 Lights, Runway & Taxiway Edge, Medium Intensity EMIS2NG0CSM0000	4/11/2020
Type III Equipment/Building	ADB Safegate	L-861 Lights, Runway & Taxiway Edge, Medium Intensity EMIS2RG01S00100	4/11/2020
Type III Equipment/Building	ADB Safegate	L-861 Lights, Runway & Taxiway Edge, Medium Intensity EMIS2RG01SF0000	4/11/2020
Type III Equipment/Building	ADB Safegate	L-861 Lights, Runway & Taxiway Edge, Medium Intensity EMIS2RG02S00000	4/11/2020
Type III Equipment/Building	ADB Safegate	L-861 Lights, Runway & Taxiway Edge, Medium Intensity EMIS2RG02S00100	4/11/2020
Type III Equipment/Building	ADB Safegate	L-861 Lights, Runway & Taxiway Edge, Medium Intensity EMIS2RG03S00000	4/11/2020
Type III Equipment/Building	ADB Safegate	L-861 Lights, Runway & Taxiway Edge, Medium Intensity EMIS2RG03S00100	4/11/2020

Waiver Type	Manufacturer	Product	Effective Date
Type III Equipment/Building	ADB Safegate	L-861 Lights, Runway & Taxiway Edge, Medium Intensity EMIS2RG03SF0000	4/11/2020
Type III Equipment/Building	ADB Safegate	L-861 Lights, Runway & Taxiway Edge, Medium Intensity EMIS2RG03SF0100	4/11/2020
Type III Equipment/Building	ADB Safegate	L-861 Lights, Runway & Taxiway Edge, Medium Intensity EMIS2RG04S00000	4/11/2020
Type III Equipment/Building	ADB Safegate	L-861 Lights, Runway & Taxiway Edge, Medium Intensity EMIS2RG04S00100	4/11/2020
Type III Equipment/Building	ADB Safegate	L-861 Lights, Runway & Taxiway Edge, Medium Intensity EMIS2RG04SF0000	4/11/2020
Type III Equipment/Building	ADB Safegate	L-861 Lights, Runway & Taxiway Edge, Medium Intensity EMIS2RG04SF0100	4/11/2020
Type III Equipment/Building	ADB Safegate	L-861 Lights, Runway & Taxiway Edge, Medium Intensity EMIS2RG05S00000	4/11/2020
Type III Equipment/Building	ADB Safegate	L-861 Lights, Runway & Taxiway Edge, Medium Intensity EMIS2RG05SC0000	4/11/2020
Type III Equipment/Building	ADB Safegate	L-861 Lights, Runway & Taxiway Edge, Medium Intensity EMIS2RG05SC0100	4/11/2020
Type III Equipment/Building	ADB Safegate	L-861 Lights, Runway & Taxiway Edge, Medium Intensity EMIS2RG06SC0000	4/11/2020
Type III Equipment/Building	ADB Safegate	L-861 Lights, Runway & Taxiway Edge, Medium Intensity EMIS2RG07S00000	4/11/2020
Type III Equipment/Building	ADB Safegate	L-861 Lights, Runway & Taxiway Edge, Medium Intensity EMIS2RG07SC0000	4/11/2020

Waiver Type	Manufacturer	Product	Effective Date
Type III Equipment/Building	ADB Safegate	L-861 Lights, Runway & Taxiway Edge, Medium Intensity EMIS2RG07SF0000	4/11/2020
Type III Equipment/Building	ADB Safegate	L-861 Lights, Runway & Taxiway Edge, Medium Intensity EMIS2RG09S00000	4/11/2020
Type III Equipment/Building	ADB Safegate	L-861 Lights, Runway & Taxiway Edge, Medium Intensity EMIS2RG0BSM0000	4/11/2020
Type III Equipment/Building	ADB Safegate	L-861 Lights, Runway & Taxiway Edge, Medium Intensity EMIS2RG0CSL0000	4/11/2020
Type III Equipment/Building	ADB Safegate	L-861 Lights, Runway & Taxiway Edge, Medium Intensity EMIS2RN09SL0000	4/11/2020
Type III Equipment/Building	ADB Safegate	L-861 Lights, Runway & Taxiway Edge, Medium Intensity EMIS2YG01S00100	4/11/2020
Type III Equipment/Building	ADB Safegate	L-861 Lights, Runway & Taxiway Edge, Medium Intensity EMIS2YR01S00100	4/11/2020
Type III Equipment/Building	ADB Safegate	L-861 Lights, Runway & Taxiway Edge, Medium Intensity EMIS2YR03S00100	4/11/2020
Type III Equipment/Building	ADB Safegate	L-861 Lights, Runway & Taxiway Edge, Medium Intensity EMIS2YY02S00100	4/11/2020
Type III Equipment/Building	ADB Safegate	L-861 Lights, Runway & Taxiway Edge, Medium Intensity EMIS6WY09S00000	4/11/2020
Type III Equipment/Building	ADB Safegate	L-861 Lights, Runway & Taxiway Edge, Medium Intensity EMIS8RG05SC0000	4/11/2020
Type III Equipment/Building	ADB Safegate	L-861 Lights, Runway & Taxiway Edge, Medium Intensity EMIS8RN05SC0000	4/11/2020

Waiver Type	Manufacturer	Product	Effective Date
Type III Equipment/Building	ADB Safegate	L-861 Lights, Runway & Taxiway Edge, Medium Intensity EMIS8RR05S00000	4/11/2020
Type III Equipment/Building	ADB Safegate	L-862 Lights, Runway Edge, High Intensity ERES2RG28SF0002	4/11/2020
Type III Equipment/Building	ADB Safegate	L-862 Lights, Runway Edge, High Intensity ERES2RN01S00002	4/11/2020
Type III Equipment/Building	ADB Safegate	L-862 Lights, Runway Edge, High Intensity ERES2RR03S00102	4/11/2020
Type III Equipment/Building	ADB Safegate	L-862 Lights, Runway Edge, High Intensity ERES2RR35S00002	4/11/2020
Type III Equipment/Building	ADB Safegate	L-862 Lights, Runway Edge, High Intensity ERES2RR38S00002	4/11/2020
Type III Equipment/Building	ADB Safegate	L-862 Lights, Runway Edge, High Intensity ERES2RY28S00002	4/11/2020
Type III Equipment/Building	ADB Safegate	L-862 Lights, Runway Edge, High Intensity ERES2RY31S00002	4/11/2020
Type III Equipment/Building	ADB Safegate	L-862 Lights, Runway Edge, High Intensity ERES2RY33S00002	4/11/2020
Type III Equipment/Building	ADB Safegate	L-862 Lights, Runway Edge, High Intensity ERES2RY33S00102	4/11/2020
Type III Equipment/Building	ADB Safegate	L-862 Lights, Runway Edge, High Intensity ERES2RY35S00002	4/11/2020
Type III Equipment/Building	ADB Safegate	L-862 Lights, Runway Edge, High Intensity ERES2WW31S00002	4/11/2020

Waiver Type	Manufacturer	Product	Effective Date
Type III Equipment/Building	ADB Safegate	L-862 Lights, Runway Edge, High Intensity ERES2WW31S00102	4/11/2020
Type III Equipment/Building	ADB Safegate	L-862 Lights, Runway Edge, High Intensity ERES2WW33S00002	4/11/2020
Type III Equipment/Building	ADB Safegate	L-862 Lights, Runway Edge, High Intensity ERES2WW33S00102	4/11/2020
Type III Equipment/Building	ADB Safegate	L-862 Lights, Runway Edge, High Intensity ERES2YG31SF0002	4/11/2020
Type III Equipment/Building	ADb Safegate	L-862 Lights, Runway Edge, High Intensity ERES2RR03S00002	4/11/2020
Type III Equipment/Building	ADB Safegate	L-862 Lights, Runway Edge, High Intensity EREL2GN05MI0002	4/4/2020
Type III Equipment/Building	ADB Safegate	L-862 Lights, Runway Edge, High Intensity EREL2GN05SF0002	4/4/2020
Type III Equipment/Building	ADB Safegate	L-862 Lights, Runway Edge, High Intensity EREL2GN05SF0102	4/4/2020
Type III Equipment/Building	ADB Safegate	L-862 Lights, Runway Edge, High Intensity EREL2GN09MI0002	4/4/2020
Type III Equipment/Building	ADB Safegate	L-862 Lights, Runway Edge, High Intensity EREL2GN09MI002	4/4/2020
Type III Equipment/Building	ADB Safegate	L-862 Lights, Runway Edge, High Intensity EREL2GN11SF0002	4/4/2020
Type III Equipment/Building	ADB Safegate	L-862 Lights, Runway Edge, High Intensity EREL2GN15SF0002	4/4/2020

Waiver Type	Manufacturer	Product	Effective Date
Type III Equipment/Building	ADB Safegate	L-862 Lights, Runway Edge, High Intensity EREL2GR08SF0002	4/4/2020
Type III Equipment/Building	ADB Safegate	L-862 Lights, Runway Edge, High Intensity EREL2GR11MF0102	4/4/2020
Type III Equipment/Building	ADB Safegate	L-862 Lights, Runway Edge, High Intensity EREL2GR11SF0002	4/4/2020
Type III Equipment/Building	ADB Safegate	L-862 Lights, Runway Edge, High Intensity EREL2GR13MF0102	4/4/2020
Type III Equipment/Building	ADB Safegate	L-862 Lights, Runway Edge, High Intensity EREL2GR13SF0102	4/4/2020
Type III Equipment/Building	ADB Safegate	L-862 Lights, Runway Edge, High Intensity EREL2GR13SM0102	4/4/2020
Type III Equipment/Building	ADB Safegate	L-862 Lights, Runway Edge, High Intensity EREL2GR15MF0002	4/4/2020
Type III Equipment/Building	ADB Safegate	L-862 Lights, Runway Edge, High Intensity EREL2GR15SF0002	4/4/2020
Type III Equipment/Building	ADB Safegate	L-862 Lights, Runway Edge, High Intensity EREL2GR19SF0002	4/4/2020
Type III Equipment/Building	ADB Safegate	L-862 Lights, Runway Edge, High Intensity EREL2GR25MF0002	4/4/2020
Type III Equipment/Building	ADB Safegate	L-862 Lights, Runway Edge, High Intensity EREL2GR25SF0002	4/4/2020
Type III Equipment/Building	ADB Safegate	L-862 Lights, Runway Edge, High Intensity EREL2GR29SF0002	4/4/2020

Waiver Type	Manufacturer	Product	Effective Date
Type III Equipment/Building	ADB Safegate	L-862 Lights, Runway Edge, High Intensity EREL2GW31SF0002	4/4/2020
Type III Equipment/Building	ADB Safegate	L-862 Lights, Runway Edge, High Intensity EREL2GY33SF0102	4/4/2020
Type III Equipment/Building	ADB Safegate	L-862 Lights, Runway Edge, High Intensity EREL2GY35SF0002	4/4/2020
Type III Equipment/Building	ADB Safegate	L-862 Lights, Runway Edge, High Intensity EREL2NG21SF0002	4/4/2020
Type III Equipment/Building	ADB Safegate	L-862 Lights, Runway Edge, High Intensity EREL2NG23SF0102	4/4/2020
Type III Equipment/Building	ADB Safegate	L-862 Lights, Runway Edge, High Intensity EREL2NG25SF0002	4/4/2020
Type III Equipment/Building	ADB Safegate	L-862 Lights, Runway Edge, High Intensity EREL2NG25SF0102	4/4/2020
Type III Equipment/Building	ADB Safegate	L-862 Lights, Runway Edge, High Intensity EREL2RG21MF0102	4/4/2020
Type III Equipment/Building	ADB Safegate	L-862 Lights, Runway Edge, High Intensity EREL2RG21SF0102	4/4/2020
Type III Equipment/Building	ADB Safegate	L-862 Lights, Runway Edge, High Intensity EREL2RG23MF0102	4/4/2020
Type III Equipment/Building	ADB Safegate	L-862 Lights, Runway Edge, High Intensity EREL2RG23SF0102	4/4/2020
Type III Equipment/Building	ADB Safegate	L-862 Lights, Runway Edge, High Intensity EREL2RG25SF0102	4/4/2020

Waiver Type	Manufacturer	Product	Effective Date
Type III Equipment/Building	ADB Safegate	L-862 Lights, Runway Edge, High Intensity EREL2RG29SF0002	4/4/2020
Type III Equipment/Building	ADB Safegate	L-862 Lights, Runway Edge, High Intensity EREL2RG31SF0002	4/4/2020
Type III Equipment/Building	ADB Safegate	L-862 Lights, Runway Edge, High Intensity EREL2RN01M00002	4/4/2020
Type III Equipment/Building	ADB Safegate	L-862 Lights, Runway Edge, High Intensity EREL2RN05S00002	4/4/2020
Type III Equipment/Building	ADB Safegate	L-862 Lights, Runway Edge, High Intensity EREL2RN09M00002	4/4/2020
Type III Equipment/Building	ADB Safegate	L-862 Lights, Runway Edge, High Intensity EREL2RR01S00002	4/4/2020
Type III Equipment/Building	ADB Safegate	L-862 Lights, Runway Edge, High Intensity EREL2RR03S00102	4/4/2020
Type III Equipment/Building	ADB Safegate	L-862 Lights, Runway Edge, High Intensity EREL2RR15S00002	4/4/2020
Type III Equipment/Building	ADB Safegate	L-862 Lights, Runway Edge, High Intensity EREL2RR25S00002	4/4/2020
Type III Equipment/Building	ADB Safegate	L-862 Lights, Runway Edge, High Intensity EREL2RR31M00002	4/4/2020
Type III Equipment/Building	ADB Safegate	L-862 Lights, Runway Edge, High Intensity EREL2RR31S00002	4/4/2020
Type III Equipment/Building	ADB Safegate	L-862 Lights, Runway Edge, High Intensity EREL2RR35S00002	4/4/2020

Waiver Type	Manufacturer	Product	Effective Date
Type III Equipment/Building	ADB Safegate	L-862 Lights, Runway Edge, High Intensity EREL2RW31S00002	4/4/2020
Type III Equipment/Building	ADB Safegate	L-862 Lights, Runway Edge, High Intensity EREL2RY23S00102	4/4/2020
Type III Equipment/Building	ADB Safegate	L-862 Lights, Runway Edge, High Intensity EREL2RY31M00002	4/4/2020
Type III Equipment/Building	ADB Safegate	L-862 Lights, Runway Edge, High Intensity EREL2RY31S00002	4/4/2020
Type III Equipment/Building	ADB Safegate	L-862 Lights, Runway Edge, High Intensity EREL2RY35S00002	4/4/2020
Type III Equipment/Building	ADB Safegate	L-862 Lights, Runway Edge, High Intensity EREL2WG31SF0002	4/4/2020
Type III Equipment/Building	ADB Safegate	L-862 Lights, Runway Edge, High Intensity EREL2WR31S00002	4/4/2020
Type III Equipment/Building	ADB Safegate	L-862 Lights, Runway Edge, High Intensity EREL2WW31M00002	4/4/2020
Type III Equipment/Building	ADB Safegate	L-862 Lights, Runway Edge, High Intensity EREL2WW31S00002	4/4/2020
Type III Equipment/Building	ADB Safegate	L-862 Lights, Runway Edge, High Intensity EREL2WW31S00102	4/4/2020
Type III Equipment/Building	ADB Safegate	L-862 Lights, Runway Edge, High Intensity EREL2WW33M00102	4/4/2020
Type III Equipment/Building	ADB Safegate	L-862 Lights, Runway Edge, High Intensity EREL2WW33S00002	4/4/2020

Waiver Type	Manufacturer	Product	Effective Date
Type III Equipment/Building	ADB Safegate	L-862 Lights, Runway Edge, High Intensity EREL2WW33S00102	4/4/2020
Type III Equipment/Building	ADB Safegate	L-862 Lights, Runway Edge, High Intensity EREL2WW35M00002	4/4/2020
Type III Equipment/Building	ADB Safegate	L-862 Lights, Runway Edge, High Intensity EREL2WW35S01102	4/4/2020
Type III Equipment/Building	ADB Safegate	L-862 Lights, Runway Edge, High Intensity EREL2WW39M00002	4/4/2020
Type III Equipment/Building	ADB Safegate	L-862 Lights, Runway Edge, High Intensity EREL2WY31M00002	4/4/2020
Type III Equipment/Building	ADB Safegate	L-862 Lights, Runway Edge, High Intensity EREL2WY31S00002	4/4/2020
Type III Equipment/Building	ADB Safegate	L-862 Lights, Runway Edge, High Intensity EREL2WY31S00102	4/4/2020
Type III Equipment/Building	ADB Safegate	L-862 Lights, Runway Edge, High Intensity EREL2WY33M00102	4/4/2020
Type III Equipment/Building	ADB Safegate	L-862 Lights, Runway Edge, High Intensity EREL2WY33S00102	4/4/2020
Type III Equipment/Building	ADB Safegate	L-862 Lights, Runway Edge, High Intensity EREL2WY39M00002	4/4/2020
Type III Equipment/Building	ADB Safegate	L-862 Lights, Runway Edge, High Intensity EREL2WY39S00002	4/4/2020
Type III Equipment/Building	ADB Safegate	L-862 Lights, Runway Edge, High Intensity EREL2YG33SF0102	4/4/2020

Waiver Type	Manufacturer	Product	Effective Date
Type III Equipment/Building	ADB Safegate	L-862 Lights, Runway Edge, High Intensity EREL2YG35SF0002	4/4/2020
Type III Equipment/Building	ADB Safegate	L-862 Lights, Runway Edge, High Intensity EREL2YR13S00102	4/4/2020
Type III Equipment/Building	ADB Safegate	L-862 Lights, Runway Edge, High Intensity EREL2YR31M00002	4/4/2020
Type III Equipment/Building	ADB Safegate	L-862 Lights, Runway Edge, High Intensity EREL2YR31S00002	4/4/2020
Type III Equipment/Building	ADB Safegate	L-862 Lights, Runway Edge, High Intensity EREL2YR35S00002	4/4/2020
Type III Equipment/Building	ADB Safegate	L-862 Lights, Runway Edge, High Intensity EREL2YR39M00002	4/4/2020
Type III Equipment/Building	ADB Safegate	L-862 Lights, Runway Edge, High Intensity EREL2YR39S00002	4/4/2020
Type III Equipment/Building	ADB Safegate	L-862 Lights, Runway Edge, High Intensity EREL2YW31S00002	4/4/2020
Type III Equipment/Building	ADB Safegate	L-862 Lights, Runway Edge, High Intensity EREL2YW33M00102	4/4/2020
Type III Equipment/Building	ADB Safegate	L-862 Lights, Runway Edge, High Intensity EREL2YW33S00102	4/4/2020
Type III Equipment/Building	ADB Safegate	L-862 Lights, Runway Edge, High Intensity EREL2YW35M00002	4/4/2020
Type III Equipment/Building	ADB Safegate	L-862 Lights, Runway Edge, High Intensity EREL2YW39M00002	4/4/2020

Waiver Type	Manufacturer	Product	Effective Date
Type III Equipment/Building	ADB Safegate	L-862 Lights, Runway Edge, High Intensity EREL2YW39S00002	4/4/2020
Type III Equipment/Building	ADB Safegate	L-862 Lights, Runway Edge, High Intensity ERES2GN05SI0002	4/4/2020
Type III Equipment/Building	ADB Safegate	L-862 Lights, Runway Edge, High Intensity ERES2GN11SF0002	4/4/2020
Type III Equipment/Building	ADB Safegate	L-862 Lights, Runway Edge, High Intensity ERES2GN13SF0002	4/4/2020
Type III Equipment/Building	ADB Safegate	L-862 Lights, Runway Edge, High Intensity ERES2GN13SF0102	4/4/2020
Type III Equipment/Building	ADB Safegate	L-862 Lights, Runway Edge, High Intensity ERES2GN18SF0002	4/4/2020
Type III Equipment/Building	ADB Safegate	L-862 Lights, Runway Edge, High Intensity ERES2GR05SI0002	4/4/2020
Type III Equipment/Building	ADB Safegate	L-862 Lights, Runway Edge, High Intensity ERES2GR11SF0002	4/4/2020
Type III Equipment/Building	ADB Safegate	L-862 Lights, Runway Edge, High Intensity ERES2GR11SF0102	4/4/2020
Type III Equipment/Building	ADB Safegate	L-862 Lights, Runway Edge, High Intensity ERES2GR12SF0002	4/4/2020
Type III Equipment/Building	ADB Safegate	L-862 Lights, Runway Edge, High Intensity ERES2GR13SF0102	4/4/2020
Type III Equipment/Building	ADB Safegate	L-862 Lights, Runway Edge, High Intensity ERES2GR15SF0002	4/4/2020

Waiver Type	Manufacturer	Product	Effective Date
Type III Equipment/Building	ADB Safegate	L-862 Lights, Runway Edge, High Intensity ERES2GR18SF0002	4/4/2020
Type III Equipment/Building	ADB Safegate	L-862 Lights, Runway Edge, High Intensity ERES2GY31SF0002	4/4/2020
Type III Equipment/Building	ADB Safegate	L-862 Lights, Runway Edge, High Intensity ERES2GY33SF0002	4/4/2020
Type III Equipment/Building	ADB Safegate	L-862 Lights, Runway Edge, High Intensity ERES2GY33SF0102	4/4/2020
Type III Equipment/Building	ADB Safegate	L-862 Lights, Runway Edge, High Intensity ERES2GY35SF0002	4/4/2020
Type III Equipment/Building	ADB Safegate	L-862 Lights, Runway Edge, High Intensity ERES2NG21SF0002	4/4/2020
Type III Equipment/Building	ADB Safegate	L-862 Lights, Runway Edge, High Intensity ERES2NG23SF0002	4/4/2020
Type III Equipment/Building	ADB Safegate	L-862 Lights, Runway Edge, High Intensity ERES2NG23SF0102	4/4/2020
Type III Equipment/Building	ADB Safegate	L-862 Lights, Runway Edge, High Intensity ERES2NG28SF0002	4/4/2020
Type III Equipment/Building	ADB Safegate	L-862 Lights, Runway Edge, High Intensity ERES2RG21SF0102	4/4/2020
Type III Equipment/Building	ADB Safegate	L-862 Lights, Runway Edge, High Intensity ERES2RG22SF0002	4/4/2020
Type III Equipment/Building	ADB Safegate	L-862 Lights, Runway Edge, High Intensity ERES2RG23SF0002	4/4/2020

Waiver Type	Manufacturer	Product	Effective Date
Type III Equipment/Building	ADB Safegate	L-862 Lights, Runway Edge, High Intensity ERES2RG23SF0102	4/4/2020
Type III Equipment/Building	ADB Safegate	L-862 Lights, Runway Edge, High Intensity ERES2RG25SF0002	4/4/2020
Type III Equipment/Building	ADB Safegate	L-862 Lights, Runway Edge, High Intensity ERES2RN05S00002	4/4/2020
Type III Equipment/Building	ADB Safegate	L-862 Lights, Runway Edge, High Intensity ERES2RR01S00002	4/4/2020
Type III Equipment/Building	ADB Safegate	L-862(L) High Intensity Runway Edge Light EREL2GN13SF0102	4/4/2020
Type III Equipment/Building	ADB Safegate	L-862 Lights, Runway Edge, High Intensity EREL2RG21SF0002	4/4/2020
Type III Equipment/Building	ADB Safegate	L-862 Lights, Runway Edge, High Intensity EREL2WW35S00002	4/4/2020
Type III Equipment/Building	ADB Safegate	L-862 Lights, Runway Edge, High Intensity EREL2WY35S00002	4/4/2020
Type III Equipment/Building	ADB Safegate	L-862 Lights, Runway Edge, High Intensity EREL2YW35S00002	4/4/2020
Type III Equipment/Building	ADB Safegate	L-862 Lights, Runway Edge, High Intensity ERES2RG21SF0002	4/4/2020
Type III Equipment/Building	ADB safegate	L-862 Lights, Runway Edge, High Intensity EREL2RG25SF0002	4/4/2020

Waiver Type	Manufacturer	Product	Effective Date
Type III Equipment/Building	ADB Safegate	L-826 L L-862 Lights, Runway Edge, High Intensity EREL 24 IN N/G W/ARC 1.5 CPLG 12 FAA	3/15/2020
	1006	L-862 Lights, Runway Edge, High Intensity EREL 14 IN G/N N/ARC 2	2/45/2000
Type III Equipment/Building	ADB Safegate	CPLG 11.5 L-862 Lights, Runway Edge, High	3/15/2020
	1000	Intensity EREL 14 IN G/N W/ARC 2	2/17/2020
Type III Equipment/Building	ADB Safegate	CPLG 11.5 L-862 Lights, Runway Edge, High	3/15/2020
		Intensity EREL 14 IN G/R W/ARC 2	
Type III Equipment/Building	ADB Safegate	CPLG 11.5 FAA	3/15/2020
		L-862 Lights, Runway Edge, High Intensity EREL 24 IN G/N W/ARC 1.5	
Type III Equipment/Building	ADB Safegate	CPLG 12	3/15/2020
		L-862 Lights, Runway Edge, High Intensity EREL 24 IN G/Y W/ARC 1.5	
Type III Equipment/Building	ADB Safegate	CPLG 12 FAA	3/15/2020
Type III Equipment/Building	Safety Coatings Inc	Marking TTP-1952F Type I Black	3/15/2020
Type III Equipment/Building	Safety Coatings Inc	Marking TTP-1952F Type I Blue	3/15/2020
Type III Equipment/Building	Safety Coatings Inc	Marking TTP-1952F Type I Red	3/15/2020
Type III Equipment/Building	Safety Coatings Inc	Marking TTP1952F Type I L.F. Yellow	3/15/2020
Type III Equipment/Building	Safety coatings Inc	Marking Type 1952F Type I White	3/15/2020
Type III Equipment/Building	Diamond Vogel	Marking - 7503 Blue Waterborne Traffic Paint	2/17/2020

Waiver Type	Manufacturer	Product	Effective Date
Type III Equipment/Building	Diamond Vogel	Marking - UC 1509 White Waterborne Traffic Paint	2/17/2020
Type III Equipment/Building	Diamond Vogel	Marking - UC 3584 Yellow Waterborne Traffic Paint	2/17/2020
Type III Equipment/Building	Diamond Vogel	Marking - UC 5503 Red Waterborne Traffic Paint	2/17/2020
Type III Equipment/Building	Diamond Vogel	Marking - UC 9507 Black Waterborne Traffic Paint	2/17/2020
Type III Equipment/Building	Avlite Systems	L-880 LED Precision Approach Path Indicator	1/24/2020
Type III Equipment/Building	Avlite Systems	L-881 LED Abbreviated Precision Approach Path Indicator	1/24/2020
Type III Equipment/Building	ADB Safegate	L-861 Lights, Runway & Taxiway Edge, Medium Intensity EMIS2WG04S00000	12/7/2019
Type III Equipment/Building	ADB Safegate	L-861 Lights, Runway & Taxiway Edge, Medium Intensity EMIS2WG04S00100	12/7/2019
Type III Equipment/Building	ADB Safegate	L-861 Lights, Runway & Taxiway Edge, Medium Intensity EMIS2WG07S00000	12/7/2019
Type III Equipment/Building	ADB Safegate	L-861 Lights, Runway & Taxiway Edge, Medium Intensity EMIS2WR01S00000	12/7/2019
Type III Equipment/Building	ADB Safegate	L-861 Lights, Runway & Taxiway Edge, Medium Intensity EMIS2WR01S00100	12/7/2019
Type III Equipment/Building	ADB Safegate	L-861 Lights, Runway & Taxiway Edge, Medium Intensity EMIS2WR03S00000	12/7/2019

Waiver Type	Manufacturer	Product	Effective Date
Type III Equipment/Building	ADB Safegate	L-861 Lights, Runway & Taxiway Edge, Medium Intensity EMIS2WR03S00100	12/7/2019
Type III Equipment/Building	ADB Safegate	L-861 Lights, Runway & Taxiway Edge, Medium Intensity EMIS2WR04S00000	12/7/2019
Type III Equipment/Building	ADB Safegate	L-861 Lights, Runway & Taxiway Edge, Medium Intensity EMIS2WR07S00000	12/7/2019
Type III Equipment/Building	ADB Safegate	L-861 Lights, Runway & Taxiway Edge, Medium Intensity EMIS2WW01S00000	12/7/2019
Type III Equipment/Building	ADB Safegate	L-861 Lights, Runway & Taxiway Edge, Medium Intensity EMIS2WW01S00100	12/7/2019
Type III Equipment/Building	ADB Safegate	L-861 Lights, Runway & Taxiway Edge, Medium Intensity EMIS2WW02S00000	12/7/2019
Type III Equipment/Building	ADB Safegate	L-861 Lights, Runway & Taxiway Edge, Medium Intensity EMIS2WW02S00100	12/7/2019
Type III Equipment/Building	ADB Safegate	L-861 Lights, Runway & Taxiway Edge, Medium Intensity EMIS2WW03S00000	12/7/2019
Type III Equipment/Building	ADB Safegate	L-861 Lights, Runway & Taxiway Edge, Medium Intensity EMIS2WW03S00100	12/7/2019
Type III Equipment/Building	ADB Safegate	L-861 Lights, Runway & Taxiway Edge, Medium Intensity EMIS2WW04S00000	12/7/2019
Type III Equipment/Building	ADB Safegate	L-861 Lights, Runway & Taxiway Edge, Medium Intensity EMIS2WW04S00100	12/7/2019
Type III Equipment/Building	ADB Safegate	L-861 Lights, Runway & Taxiway Edge, Medium Intensity EMIS2WW05S00000	12/7/2019

Waiver Type	Manufacturer	Product	Effective Date
Type III Equipment/Building	ADB Safegate	L-861 Lights, Runway & Taxiway Edge, Medium Intensity EMIS2WW05S00100	12/7/2019
Type III Equipment/Building	ADB Safegate	L-861 Lights, Runway & Taxiway Edge, Medium Intensity EMIS2WW06S00000	12/7/2019
Type III Equipment/Building	ADB Safegate	L-861 Lights, Runway & Taxiway Edge, Medium Intensity EMIS2WW07S00000	12/7/2019
Type III Equipment/Building	ADB Safegate	L-861 Lights, Runway & Taxiway Edge, Medium Intensity EMIS2WW09S00000	12/7/2019
Type III Equipment/Building	ADB Safegate	L-861 Lights, Runway & Taxiway Edge, Medium Intensity EMIS2WW09SL0000	12/7/2019
Type III Equipment/Building	ADB Safegate	L-861 Lights, Runway & Taxiway Edge, Medium Intensity EMIS2WW09SM0000	12/7/2019
Type III Equipment/Building	ADB Safegate	L-861 Lights, Runway & Taxiway Edge, Medium Intensity EMIS2WW0ASL0000	12/7/2019
Type III Equipment/Building	ADB Safegate	L-861 Lights, Runway & Taxiway Edge, Medium Intensity EMIS2WW0ASM0000	12/7/2019
Type III Equipment/Building	ADB Safegate	L-861 Lights, Runway & Taxiway Edge, Medium Intensity EMIS2WW0BSL0000	12/7/2019
Type III Equipment/Building	ADB Safegate	L-861 Lights, Runway & Taxiway Edge, Medium Intensity EMIS2WW0BSM0000	12/7/2019
Type III Equipment/Building	ADB Safegate	L-861 Lights, Runway & Taxiway Edge, Medium Intensity EMIS2WW0CSL0000	12/7/2019

Waiver Type	Manufacturer	Product	Effective Date
		L-861 Lights, Runway & Taxiway Edge,	
T III F /D . ! . !	ADD 6.5	Medium Intensity	42/7/2040
Type III Equipment/Building	ADB Safegate	EMIS2WW0CSM0000	12/7/2019
_		L-861 Lights, Runway & Taxiway Edge,	
Type III Equipment/Building	ADB Safegate	Medium Intensity EMIS2WY01S00000	12/7/2019
		L-861 Lights, Runway & Taxiway Edge,	
Type III Equipment/Building	ADB Safegate	Medium Intensity EMIS2WY01S00100	12/7/2019
		L-861 Lights, Runway & Taxiway Edge,	
Type III Equipment/Building	ADB Safegate	Medium Intensity EMIS2WY02S00000	12/7/2019
· · · · · · · · · · · · · · · · · · ·	- J	L-861 Lights, Runway & Taxiway Edge,	
Type III Equipment/Building	ADB Safegate	Medium Intensity EMIS2WY02S00100	12/7/2019
Type in Equipment, Bunding	, ibb baregate	•	12///2013
Type III Equipment/Building	ADB Safegate	L-861 Lights, Runway & Taxiway Edge, Medium Intensity EMIS2WY03S00000	12/7/2010
Type III Equipment/Building	ADB Salegate	•	12/7/2019
		L-861 Lights, Runway & Taxiway Edge,	!
Type III Equipment/Building	ADB Safegate	Medium Intensity EMIS2WY03S00100	12/7/2019
		L-861 Lights, Runway & Taxiway Edge,	
Type III Equipment/Building	ADB Safegate	Medium Intensity EMIS2WY04S00000	12/7/2019
		L-861 Lights, Runway & Taxiway Edge,	
Type III Equipment/Building	ADB Safegate	Medium Intensity EMIS2WY04S00100	12/7/2019
		L-861 Lights, Runway & Taxiway Edge,	
Type III Equipment/Building	ADB Safegate	Medium Intensity EMIS2WY05S00000	12/7/2019
71		L-861 Lights, Runway & Taxiway Edge,	==,:,=5=5
Type III Equipment/Building	ADB Safegate	Medium Intensity EMIS2WY05S00100	12/7/2019
Type in Equipment banding	ADD Salegate	·	12/1/2019
- W	1000	L-861 Lights, Runway & Taxiway Edge,	10/7/0010
Type III Equipment/Building	ADB Safegate	Medium Intensity EMIS2WY06S00000	12/7/2019

Waiver Type	Manufacturer	Product	Effective Date
Type III Equipment/Building	ADB Safegate	L-861 Lights, Runway & Taxiway Edge, Medium Intensity EMIS2WY07S00000	12/7/2019
Type III Equipment/Building	ADB Safegate	L-861 Lights, Runway & Taxiway Edge, Medium Intensity EMIS2WY09S00000	12/7/2019
Type III Equipment/Building	ADB Safegate	L-861 Lights, Runway & Taxiway Edge, Medium Intensity EMIS2YG01S00000	12/7/2019
Type III Equipment/Building	ADB Safegate	L-861 Lights, Runway & Taxiway Edge, Medium Intensity EMIS2YG02S00000	12/7/2019
Type III Equipment/Building	ADB Safegate	L-861 Lights, Runway & Taxiway Edge, Medium Intensity EMIS2YG03S00000	12/7/2019
Type III Equipment/Building	ADB Safegate	L-861 Lights, Runway & Taxiway Edge, Medium Intensity EMIS2YG03S00100	12/7/2019
Type III Equipment/Building	ADB Safegate	L-861 Lights, Runway & Taxiway Edge, Medium Intensity EMIS2YG04S00000	12/7/2019
Type III Equipment/Building	ADB Safegate	L-861 Lights, Runway & Taxiway Edge, Medium Intensity EMIS2YG04S00100	12/7/2019
Type III Equipment/Building	ADB Safegate	L-861 Lights, Runway & Taxiway Edge, Medium Intensity EMIS2YN03S00100	12/7/2019
Type III Equipment/Building	ADB Safegate	L-861 Lights, Runway & Taxiway Edge, Medium Intensity EMIS2YR01S00000	12/7/2019
Type III Equipment/Building	ADB Safegate	L-861 Lights, Runway & Taxiway Edge, Medium Intensity EMIS2YR03S00000	12/7/2019
Type III Equipment/Building	ADB Safegate	L-861 Lights, Runway & Taxiway Edge, Medium Intensity EMIS2YR04S00000	12/7/2019

Waiver Type	Manufacturer	Product	Effective Date
Type III Equipment/Building	ADB Safegate	L-861 Lights, Runway & Taxiway Edge, Medium Intensity EMIS2YY01S00000	12/7/2019
Type III Equipment/Building	ADB Safegate	L-861 Lights, Runway & Taxiway Edge, Medium Intensity EMIS2YY01S00100	12/7/2019
Type III Equipment/Building	ADB Safegate	L-861 Lights, Runway & Taxiway Edge, Medium Intensity EMIS2YY03S00000	12/7/2019
Type III Equipment/Building	ADB Safegate	L-861 Lights, Runway & Taxiway Edge, Medium Intensity EMIS2YY03S00100	12/7/2019
Type III Equipment/Building	ADB Safegate	L-861 Lights, Runway & Taxiway Edge, Medium Intensity EMIS2YY04S00000	12/7/2019
Type III Equipment/Building	ADB Safegate	L-861 Lights, Runway & Taxiway Edge, Medium Intensity EMIS2YY04S00100	12/7/2019
Type III Equipment/Building	ADB Safegate	L-861 Lights, Runway & Taxiway Edge, Medium Intensity EMIS6NG09S00000	12/7/2019
Type III Equipment/Building	ADB Safegate	L-861 Lights, Runway & Taxiway Edge, Medium Intensity EMIS6NR09S00000	12/7/2019
Type III Equipment/Building	ADB Safegate	L-861 Lights, Runway & Taxiway Edge, Medium Intensity EMIS6RG09S00000	12/7/2019
Type III Equipment/Building	ADB Safegate	L-861 Lights, Runway & Taxiway Edge, Medium Intensity EMIS6WW09S00000	12/7/2019
Type III Equipment/Building	ADB Safegate	L-861 Lights, Runway & Taxiway Edge, Medium Intensity EMIS8RR05SC0000	12/7/2019
Type III Equipment/Building	ADB Safegate	L-861 Lights, Runway & Taxiway Edge, Medium Intensity EMIS8WW05S00000	12/7/2019

Waiver Type	Manufacturer	Product	Effective Date
Type III Equipment/Building	ADB Safegate	L-861 Lights, Runway & Taxiway Edge, Medium Intensity EMIS8WY05S00000	12/7/2019
Type III Equipment/Building	ADB Safegate	L-861 Lights, Runway & Taxiway Edge, Medium Intensity EMIS2RG09SM0000	11/23/2019
Type III Equipment/Building	ADB Safegate	L-861 Lights, Runway & Taxiway Edge, Medium Intensity EMIS2RN09SM0000	11/23/2019
Type III Equipment/Building	ADB Safegate	L-861 Lights, Runway & Taxiway Edge, Medium Intensity EMIS2RN0ASL0000	11/23/2019
Type III Equipment/Building	ADB Safegate	L-861 Lights, Runway & Taxiway Edge, Medium Intensity EMIS2RN0ASM0000	11/23/2019
Type III Equipment/Building	ADB Safegate	L-861 Lights, Runway & Taxiway Edge, Medium Intensity EMIS2RN0BSL0000	11/23/2019
Type III Equipment/Building	ADB Safegate	L-861 Lights, Runway & Taxiway Edge, Medium Intensity EMIS2RN0BSM0000	11/23/2019
Type III Equipment/Building	ADB Safegate	L-861 Lights, Runway & Taxiway Edge, Medium Intensity EMIS2RN0CSL0000	11/23/2019
Type III Equipment/Building	ADB Safegate	L-861 Lights, Runway & Taxiway Edge, Medium Intensity EMIS2RN0CSM0000	11/23/2019
Type III Equipment/Building	ADB Safegate	L-861 Lights, Runway & Taxiway Edge, Medium Intensity EMIS2RR01S00000	11/23/2019
Type III Equipment/Building	ADB Safegate	L-861 Lights, Runway & Taxiway Edge, Medium Intensity EMIS2RR01S00100	11/23/2019
Type III Equipment/Building	ADB Safegate	L-861 Lights, Runway & Taxiway Edge, Medium Intensity EMIS2RR02S00000	11/23/2019

Waiver Type	Manufacturer	Product	Effective Date
Type III Equipment/Building	ADB Safegate	L-861 Lights, Runway & Taxiway Edge, Medium Intensity EMIS2RR03S00000	11/23/2019
Type III Equipment/Building	ADB Safegate	L-861 Lights, Runway & Taxiway Edge, Medium Intensity EMIS2RR03S00100	11/23/2019
Type III Equipment/Building	ADB Safegate	L-861 Lights, Runway & Taxiway Edge, Medium Intensity EMIS2RR04S00000	11/23/2019
Type III Equipment/Building	ADB Safegate	L-861 Lights, Runway & Taxiway Edge, Medium Intensity EMIS2RR04S00100	11/23/2019
Type III Equipment/Building	ADB Safegate	L-861 Lights, Runway & Taxiway Edge, Medium Intensity EMIS2RR07S00000	11/23/2019
Type III Equipment/Building	ADB Safegate	L-861 Lights, Runway & Taxiway Edge, Medium Intensity EMIS2RR09S00000	11/23/2019
Type III Equipment/Building	ADB Safegate	L-861 Lights, Runway & Taxiway Edge, Medium Intensity EMIS2RW09SL0000	11/23/2019
Type III Equipment/Building	ADB Safegate	L-861 Lights, Runway & Taxiway Edge, Medium Intensity EMIS2RW09SM0000	11/23/2019
Type III Equipment/Building	ADB Safegate	L-861 Lights, Runway & Taxiway Edge, Medium Intensity EMIS2RW0ASL0000	11/23/2019
Type III Equipment/Building	ADB Safegate	L-861 Lights, Runway & Taxiway Edge, Medium Intensity EMIS2RW0ASM0000	11/23/2019
Type III Equipment/Building	ADB Safegate	L-861 Lights, Runway & Taxiway Edge, Medium Intensity EMIS2RW0BSL0000	11/23/2019
Type III Equipment/Building	ADB Safegate	L-861 Lights, Runway & Taxiway Edge, Medium Intensity EMIS2RW0BSM0000	11/23/2019

Waiver Type	Manufacturer	Product	Effective Date
Type III Equipment/Building	ADB Safegate	L-861 Lights, Runway & Taxiway Edge, Medium Intensity EMIS2RW0CSL0000	11/23/2019
Type III Equipment/Building	ADB Safegate	L-861 Lights, Runway & Taxiway Edge, Medium Intensity EMIS2RW0CSM0000	11/23/2019
Type III Equipment/Building	ADB Safegate	L-861 Lights, Runway & Taxiway Edge, Medium Intensity EMIS2WG01S00000	11/23/2019
Type III Equipment/Building	ADB Safegate	L-861 Lights, Runway & Taxiway Edge, Medium Intensity EMIS2WG01S00100	11/23/2019
Type III Equipment/Building	ADB Safegate	L-861 Lights, Runway & Taxiway Edge, Medium Intensity EMIS2WG03S00000	11/23/2019
Type III Equipment/Building	ADB Safegate	L-861 Lights, Runway & Taxiway Edge, Medium Intensity EMIS2WG03S00100	11/23/2019
Type III Equipment/Building	ADB Safegate	L-861 Lights, Runway & Taxiway Edge, Medium Intensity EMIS2WR04S00100	11/23/2019
Type III Equipment/Building	ADB Safegate	L-861(L) Medium Intensity Runway Edge Light EMIS2NG03S00100	11/16/2019
Type III Equipment/Building	ADB Safegate	L-861(L) Medium Intensity Runway Edge Light EMIS2NG03S00000	11/16/2019
Type III Equipment/Building	ADB Safegate	L-861(L) Medium Intensity Runway Edge Light EMIS2NG03SF0000	11/16/2019
Type III Equipment/Building	ADB Safegate	L-861(L) Medium Intensity Runway Edge Light EMIS2NG04S00000	11/16/2019
Type III Equipment/Building	ADB Safegate	L-861(L) Medium Intensity Runway Edge Light EMIS2NG04S00100	11/16/2019

Waiver Type	Manufacturer	Product	Effective Date
Type III Equipment/Building	ADB Safegate	L-861(L) Medium Intensity Runway Edge Light EMIS2NG07S00000	11/16/2019
Type III Equipment/Building	ADB Safegate	L-861(L) Medium Intensity Runway Edge Light EMIS2NG09SL0000	11/16/2019
Type III Equipment/Building	ADB Safegate	L-861(L) Medium Intensity Runway Edge Light EMIS2NG09SM0000	11/16/2019
Type III Equipment/Building	ADB Safegate	L-861(L) Medium Intensity Runway Edge Light EMIS2NR01S00000	11/16/2019
Type III Equipment/Building	ADB Safegate	L-861(L) Medium Intensity Runway Edge Light EMIS2NR01S00100	11/16/2019
Type III Equipment/Building	ADB Safegate	L-861(L) Medium Intensity Runway Edge Light EMIS2NR03S00000	11/16/2019
Type III Equipment/Building	ADB Safegate	L-861(L) Medium Intensity Runway Edge Light EMIS2NR03S00100	11/16/2019
Type III Equipment/Building	ADB Safegate	L-861(L) Medium Intensity Runway Edge Light EMIS2NR04S00000	11/16/2019
Type III Equipment/Building	ADB Safegate	L-861(L) Medium Intensity Runway Edge Light EMIS2NR04S00100	11/16/2019
Type III Equipment/Building	ADB Safegate	L-861(L) Medium Intensity Runway Edge Light EMIS2RG0ASL0000	11/16/2019
Type III Equipment/Building	ADB Safegate	L-861(L) Medium Intensity Runway Edge Light EMIS2RG0ASM0000	11/16/2019
Type III Equipment/Building	ADB Safegate	L-861(L) Medium Intensity Runway Edge Light EMIS2RG0BSL0000	11/16/2019

Waiver Type	Manufacturer	Product	Effective Date
		L-861(L) Medium Intensity Runway	
Type III Equipment/Building	ADB Safegate	Edge Light EMIS2RG0CSM0000	11/16/2019
		In-Pavement Stationary Runway	
Type III Equipment/Building	Vaisala	Weather Information System RWS200	11/16/2019
		L-852S Inpavement Taxiway Lights L-R-	
Type III Equipment/Building	Astronics DME	1-0	10/26/2019
		L-852T-L 1 G2 Inpavement Taxiway	
Type III Equipment/Building	Astronics DME	Lights	10/26/2019
		L-852X Inpavement Taxiway Lights L-	
Type III Equipment/Building	Astronics DME	G2	10/26/2019
		L-852X-L G2 Inpavement Taxiway	
Type III Equipment/Building	Astronics DME	Lights	10/26/2019
T		L-862L High Intensity runway Edge	10/25/2010
Type III Equipment/Building	Astronics DME	Lights	10/26/2019
Type III Equipment/Building	Franklin Paint Company	P-620 Black Waterborne Traffic Paint	10/26/2019
Type III Equipment/Building	Franklin Paint Company	P-620 Green Waterborne Traffic Paint	10/26/2019
Type III Equipment/Building	Franklin Paint Company	P-620 Red Waterborne Traffic Paint	10/26/2019
Type III Equipment/Building	Franklin Paint Company	P-620 White Waterborne Traffic Paint	10/26/2019
Type III Equipment/Building	Franklin Paint Company	P-620 Yellow Waterborne Traffic Paint	10/26/2019
	Millerbernd Manufacturing		
Type III Equipment/Building	Company	L-867 Light Base, Non-Load Bearing	10/26/2019
	Millerbernd Manufacturing	_	
Type III Equipment/Building	Company	L-868 Light Base, Load Bearing	10/26/2019
	Millerbernd Manufacturing		
Type III Equipment/Building	Company	L-894 Elevated Light Cover 12"	10/26/2019

Waiver Type	Manufacturer	Product	Effective Date
	Millerbernd Manufacturing		
Type III Equipment/Building	Company	L-894 Elevated Light Cover 16"	10/26/2019
Type III Equipment/Building	Wix Support Equipment	Electric Vehicle Charging Station Cable Mangement System	10/26/2019
Type III Equipment/Building	ADB Safegate	L-862 (L) High Intensity Runway Edge Light EREL2GN13SF0102	10/19/2019
Type III Equipment/Building	ADB Safegate	L-862 Lights, Runway Edge, High Intensity EREL2GN13SF0102	10/19/2019
Type III Equipment/Building	ADB Safegate	L-862 Lights, Runway Edge, High Intensity EREL2GN15SF0002	10/19/2019
Type III Equipment/Building	ADB Safegate	L-862 Lights, Runway Edge, High Intensity EREL2GN15SF0102	10/19/2019
Type III Equipment/Building	ADB Safegate	L-862 Lights, Runway Edge, High Intensity EREL2GR15SF0102	10/19/2019
Type III Equipment/Building	ADB Safegate	L-862 Lights, Runway Edge, High Intensity EREL2GY33SF0102	10/19/2019
Type III Equipment/Building	ADB Safegate	L-862 Lights, Runway Edge, High Intensity EREL2NG23SF0102	10/19/2019
Type III Equipment/Building	ADB Safegate	L-861 L Runway & Taxiway Edge Medium Intensity Lights	10/1/2019
Type III Equipment/Building	ADB Safegate	L-862 E L Runway Edge High Intensity Lights ERES2WW35S00002	10/1/2019
Type III Equipment/Building	ADB Safegate	L-862 Runway Edge High Intensity Lights EREL2RG21SF0002	10/1/2019

Waiver Type	Manufacturer	Product	Effective Date
Type III Equipment/Building	ADB Safegate	L-862 Runway Edge High Intensity Lights EREL2WW35S00002	10/1/2019
		ALT22-480-1 Altus 22kW Dual Port	
Type III Equipment/Building	Minit charger, LLC	Charger with BIW Cables	10/1/2019
Type III Equipment/Building	Multi-Electric Mfg., Inc.	L-852 E LED Inpavement Taxiway Light	10/22/2018
Type III Equipment/Building	Multi-Electric Mfg., Inc.	L-852 F LED Inpavement Taxiway Light	10/22/2018
Type III Equipment/Building	Multi-Electric Mfg., Inc.	L-852 S LED Inpavement Taxiway Light	10/22/2018
Type III Equipment/Building	Multi-Electric Mfg., Inc.	L-852 T LED Inpavement Taxiway Light	10/22/2018
Type III Equipment/Building	Astronics DME Corporation	L-804 V Holding Poisition Edge Light	8/27/2018
Type III Fauinment/Duilding	Actronics DMF Corneration	L-829 Monitored Constant Current	0/27/2010
Type III Equipment/Building	Astronics DME Corporation	Regulator	8/27/2018
Type III Equipment/Building	Astronics DME Corporation	L-849 I LED Runway End Indentification Lights	8/27/2018
Type III Equipment/Building	Astronics DME Corporation	L-850 A LED Runway Inpavement Lights	8/27/2018
Type III Equipment/Building	Astronics DME Corporation	L-850 B LED Runway Inpavement Lights	8/27/2018
Type III Equipment/Building	Astronics DME Corporation	L-850 T Runway Inpavement Light	8/27/2018
Type III Equipment/Building	Astronics DME Corporation	L-858 Runway and Taxiway Signs	8/27/2018
		Snow Removal Equipment - Dual Engine Chassis w/ Rwy Broom & Air	
Type III Equipment/Building	Kodiack America, LLC	Blast	8/27/2018
Type III Equipment/Building	Multi-Electric Mfg., Inc.	L-850 A LED Inpavement Runway Light	8/27/2018
Type III Equipment/Building	Multi-Electric Mfg., Inc.	L-850 B LED Inpavement Runway Light	8/27/2018
Type III Equipment/Building	Multi-Electric Mfg., Inc.	L-850 C LED Inpavement Runway Light	8/27/2018

Waiver Type	Manufacturer	Product	Effective Date
Type III Equipment/Building	Multi-Electric Mfg., Inc.	L-850 D LED Inpavement Runway Light	8/27/2018
Type III Equipment/Building	Multi-Electric Mfg., Inc.	L-850 E LED Inpavement Runway Light	8/27/2018
Type III Equipment/Building	Multi-Electric Mfg., Inc.	L-850 T LED Inpavement Runway Light	8/27/2018
		P-620 AirMark Preformed	
Type III Equipment/Building	Ennis-Flint Company	Thermoplastic Pavement Markings	8/4/2018
Type III Equipment/Building	Multi-Electric Mfg., Inc.	L-852 A LED Inpavement Taxiway Light	7/29/2018
Type III Equipment/Building	Multi-Electric Mfg., Inc.	L-852 B LED Inpavement Taxiay Light	7/29/2018
Type III Equipment/Building	Multi-Electric Mfg., Inc.	L-852 C LED Inpavement Taxiway Light	7/29/2018
Type III Equipment/Building	Multi-Electric Mfg., Inc.	L-852 D LED Inpavement Taxiway Light	7/29/2018
Type III Equipment/Building	Multi-Electric Mfg., Inc.	L-852 J LED Inpavement Taxiway Light	7/29/2018
Type III Equipment/Building	Multi-Electric Mfg., Inc.	L-852 K LED Inpavement Taxiway Light	7/29/2018
Type III Equipment/Building	Airport Lighting Company	L-828 Constant Current Regulator	7/24/2018
		L-829 Monitored Constant Current	
Type III Equipment/Building	Airport Lighting Company	Regulator	7/24/2018
Turn III Farriage and / Duilding	Fator Carres Hinds	L-852 G LED Inpavement Taxiaway	7/22/2010
Type III Equipment/Building	Eaton Crouse-Hinds	Light	7/22/2018
Type III Equipment/Building	Hughey & Phillips	L-810 Low Intensity LED , Double, VAC	1/21/2017
Type III Equipment/Building	Hughey & Phillips	L-810 Low Intensity LED, Single, VAC	1/21/2017
		L-858 B LED Runway Runway &	
Type III Equipment/Building	Astronics DME Corporation	Taxiway Signs	10/17/2016
Type III Equipment/Building	Astronics DME Corporation	L-858 L LED Runway & Taxiway Signs	10/17/2016
Type III Equipment/Building	Astronics DME Corporation	L-858 R LED Runway & Taxiway Signs	10/17/2016
Type III Equipment/Building	Eaton Crouse-Hinds	L-850 C Runway Inpavement Lights	10/10/2016
Type III Equipment/Building	Vaisala	AW20, AWOS III	8/1/2016

Waiver Type	Manufacturer	Product	Effective Date
Type III Equipment/Building	Vaisala	AW20-SPLIT, AWOS A	8/1/2016
Type III Equipment/Building	Vaisala	AW20-SPLIT, AWOS AV	8/1/2016
Type III Equipment/Building	Vaisala	AW20-SPLIT, AWOS I	8/1/2016
Type III Equipment/Building	Vaisala	AW20-SPLIT, AWOS II	8/1/2016
Type III Equipment/Building	Vaisala	AW20-SPLIT, AWOS III	8/1/2016
Type III Equipment/Building	Vaisala	AW20-SPLIT, AWOS IIIP	8/1/2016
Type III Equipment/Building	Vaisala	AW20-SPLIT, AWOS IIIPT	8/1/2016
Type III Equipment/Building	Vaisala	AW20-SPLIT, AWOS IIIT	8/1/2016
Type III Equipment/Building	Vaisala	AW20-SPLIT, AWOS IV Z	8/1/2016
Type III Equipment/Building	Vaisala	AW20-STA, AWOS A	8/1/2016
Type III Equipment/Building	Vaisala	AW20-STA, AWOS AV	8/1/2016
Type III Equipment/Building	Vaisala	AW20-STA, AWOS II	8/1/2016
Type III Equipment/Building	Vaisala	AW20-STA, AWOS IIIP	8/1/2016
Type III Equipment/Building	Vaisala	AW20-STA, AWOS IIIPT	8/1/2016
Type III Equipment/Building	Vaisala	AW20-STA, AWOS IIIT	8/1/2016
Type III Equipment/Building	Vaisala	AW20-STA, AWOS IV Z	8/1/2016
Type III Equipment/Building	Vaisala	AW20-STA, AWS I	8/1/2016
		L-894 12" Elevated Light Cover	
Type III Equipment/Building	Jaquith Industries	Baseplate	5/17/2016
		L-894 16" Elevated Light Cover	- 1 - 1 - 1 - 1
Type III Equipment/Building	Jaquith Industries	Baseplate	5/17/2016
Type III Equipment/Building	Jaquith Industries	L-895 Light Mounting Stake	5/17/2016

Waiver Type	Manufacturer	Product	Effective Date
Type III Equipment/Building	The Sherwin-Williams Company	P-620, 1952, TT-P-Hotline Waterborne Durable Type III - White Marking Paint TM2452	5/14/2016
Type III Equipment/Building	The Sherwin-Williams Company	P-620, 1952, TT-P-Hotline Waterborne Durable Type III - Yellow Marking Paint TM2453	5/14/2016
Type III Equipment/Building	The Sherwin-Williams Company	P-620, TT-P- 1952, Hotline Waterborne Type I/II - Yellow Marking Paint TM2259	5/14/2016
Type III Equipment/Building	The Sherwin-Williams Company	P-620, TT-P-1952 Hotline Waterborne Type I/II w Algaecide, Fungicide, & Rust Inhibitor - Red Marking Paint TM2544	5/14/2016
Type III Equipment/Building	The Sherwin-Williams Company	P-620, TT-P-1952 Hotline Waterborne Type I/II - White Marking Paint TM2152	5/14/2016
Type III Equipment/Building	The Sherwin-Williams Company	P-620, TT-P-1952 Hotline Waterborne Type III w Algaecide, Fungicide, & Rust Inhibitor - White Marking Paint TM2564	5/14/2016
Type III Equipment/Building	The Sherwin-Williams Company	P-620, TT-P-1952, Hotline Waterborne Durable Type III - Black Marking Paint TM2140	5/14/2016
Type III Equipment/Building	The Sherwin-Williams Company	P-620, TT-P-1952, Hotline Waterborne Durable Type III - Blue Marking Paint TM2142	5/14/2016

Waiver Type	Manufacturer	Product	Effective Date
Type III Equipment/Building	The Sherwin-Williams Company	P-620, TT-P-1952, Hotline Waterborne Durable Type III - Green Marking Paint TM2143	5/14/2016
Type III Equipment/Building	The Sherwin-Williams Company	P-620, TT-P-1952, Hotline Waterborne Durable Type III - Red Marking Paint TM2141	5/14/2016
Type III Equipment/Building	The Sherwin-Williams Company	P-620, TT-P-1952, Hotline Waterborne Type I/II - Black Marking Paint TM2221	5/14/2016
Type III Equipment/Building	The Sherwin-Williams Company	P-620, TT-P-1952, Hotline Waterborne Type I/II - Blue Marking Paint TM2224	5/14/2016
Type III Equipment/Building	The Sherwin-Williams Company	P-620, TT-P-1952, Hotline Waterborne Type I/II - Green Marking Paint TM2226	5/14/2016
Type III Equipment/Building	The Sherwin-Williams Company	P-620, TT-P-1952, Hotline Waterborne Type I/II - Red Marking Paint TM2222	5/14/2016
Type III Equipment/Building	The Sherwin-Williams Company	P-620, TT-P-1952, Hotline Waterborne Type I/II - Yellow Marking Paint TM2153	5/14/2016
Type III Equipment/Building	The Sherwin-Williams Company	P-620, TT-P-1952, Hotline Waterborne Type I/II w Algaecide, Fungicide, & Rust Inhibitor - Black Marking Paint TM2543	5/14/2016
Type III Equipment/Building	The Sherwin-Williams Company	P-620, TT-P-1952, Hotline Waterborne Type III w Algaecide, Fungicide, & Rust Inhibitor - Blue Marking Paint TM2545	5/14/2016

Waiver Type	Manufacturer	Product	Effective Date
		P-620, TT-P-1952, Hotline Waterborne	
		Type III w Algaecide, Fungicide, & Rust	
T	TI 61 : WIII: 0	Inhibitor - Yellow Marking Paint	5 /4 A /2 0 4 C
Type III Equipment/Building	The Sherwin-Williams Company	TM2565	5/14/2016
		P-620, TT-P-1952, Hotline Waterborne, Type I/II - White Marking Paint	
Type III Equipment/Building	The Sherwin-Williams Company	TM2248	5/14/2016
Type in Equipment/ Building	The Sherwin Williams company	P-620, TT-P-1952, Type III w Agaecide	3/14/2010
		& Rust Inihibitor - Black Marking Paint	
Type III Equipment/Building	The Sherwin-Williams Company	TM2540	5/14/2016
		P-620, TT-P-1952, Type III w Algaecide,	
		Fungicide & Rust Inhibitor - White	
Type III Equipment/Building	The Sherwin-Williams Company	Marking Paint TM2538	5/14/2016
		P-620, TT-P-1952, Type III w Algaecide,	
		Fungicide, & Rust Inihibitor - Yellow	
Type III Equipment/Building	The Sherwin-Williams Company	Marking Paint TM2539	5/14/2016
		Airport Winter Safety and Operations,	
Type III Equipment/Building	Boshchung America, LLC	RWIS	1/2/2016
Type III Equipment/Building	Astronics DME Corporation	L-804 Holding Position Edge Light	8/4/2015
Type III Equipment/Building	ADB Safegate	L-806 LED, Wind Cones-Frangible	5/15/2015
Type III Equipment/Building	ADB Safegate	L-806 Wind Cones - Frangible	5/15/2015
		L-850 D, Incandescent Inpavement	
Type III Equipment/Building	ADB Safegate	Lights	5/15/2015
		L-850 E, Incandescent Inpavement	- 1 - 1 - 5 : -
Type III Equipment/Building	ADB Safegate	Lights	5/15/2015

Waiver Type	Manufacturer	Product	Effective Date
		L-850 F, Incandescent Inpavement	
Type III Equipment/Building	ADB Safegate	Lights	5/15/2015
		L-861 E, LED Runway Edge, Medium	
Type III Equipment/Building	ADB Safegate	Intensity Lights	5/15/2015
		L-861 LED, Medium Intensity Runway	
Type III Equipment/Building	ADB Safegate	Edge Lights	5/15/2015
Type III Equipment/Building	ADB Safegate	L-804 LED, Holding Position Edge Light	5/5/2015
Type III Equipment/Building	ADB Safegate	L-810 LED, Obstruction Lights	5/5/2015
		L-849 C, LED, Runway End	
Type III Equipment/Building	ADB Safegate	Identification Lights	5/5/2015
		L-849 E, LED, Runway End	
Type III Equipment/Building	ADB Safegate	Identification Lights	5/5/2015
		L-850 A, Q/I, Runway, Inpavement	
Type III Equipment/Building	ADB Safegate	Lights	5/5/2015
		L-850 B, Q/I Runway, Inpavement	
Type III Equipment/Building	ADB Safegate	Lights	5/5/2015
		L-850 C LED, Runway, Inpavement	- /- /
Type III Equipment/Building	ADB Safegate	Lights	5/5/2015
Type III Equipment/Building	ADD Safagato	L-850 C, Q/I Runway, Inpavement Lights	E /E /201E
Type III Equipment/Building	ADB Safegate	L-850 D, LED Runway, Inpavement	5/5/2015
Type III Equipment/Building	ADB Safegate	Lights	5/5/2015
Type in Equipment Building	, IDD Suicgute	L-852 A, LED, Taxiway, Inpavement	3,3,2013
Type III Equipment/Building	ADB Safegate	Lights	5/5/2015
Type III Equipment/Building	ADB Safegate	L-852 A, Q, Taxiway, Inpavement Lights	5/5/2015

Waiver Type	Manufacturer	Product	Effective Date
		L-852 B, LED Taxiway, Inpavement	
Type III Equipment/Building	ADB Safegate	Lights	5/5/2015
Type III Equipment/Building	ADB Safegate	L-852 B, Q, Taxiway, Inpavement Lights	5/5/2015
		L-852 C, LED Taxiway, Inpavement	
Type III Equipment/Building	ADB Safegate	Lights	5/5/2015
Type III Equipment/Building	ADB Safegate	L-852 C, Q, Taxiway, Inpavement Lights	5/5/2015
		L-852 D, LED Taxiway, Inpavement	
Type III Equipment/Building	ADB Safegate	Lights	5/5/2015
		L-852 D, Q, Taxiway, Inpavement	
Type III Equipment/Building	ADB Safegate	Lights	5/5/2015
Type III Equipment/Building	ADB Safegate	L-852 E, Q, Taxiway, Inpavement Lights	5/5/2015
		L-852 G, LED, Taxiway, Inpavement	
Type III Equipment/Building	ADB Safegate	Lights	5/5/2015
		L-852 G, Q, Taxiway, Inpavement	
Type III Equipment/Building	ADB Safegate	Lights	5/5/2015
		L-852 J, LED Taxiway, Inpavement	- /- /
Type III Equipment/Building	ADB Safegate	Lights	5/5/2015
Type III Equipment/Building	ADB Safegate	L-852 S, Q, Taxiway, Inpavement Lights	5/5/2015
		L-852 T, LED Taxiway, Inpavement	
Type III Equipment/Building	ADB Safegate	Lights	5/5/2015
Type III Equipment/Building	ADB Safegate	L-858, LED, Runway and Taxiway Signs	5/5/2015
		L-861 SE, Q, Runway Edge, Medium	
Type III Equipment/Building	ADB Safegate	Intensity Lights	5/5/2015
		L-861 T, LED Taxiway Edge, Medium	
Type III Equipment/Building	ADB Safegate	Intensity Lights	5/5/2015

Waiver Type	Manufacturer	Product	Effective Date
Type III Equipment/Building	ADB Safegate	L-861, Q, Runway Edge, Medium Intensity Lights	5/5/2015
Type III Equipment/Building	ADB Safegate	L-861E, Q, Runway Edge, Medium Intensity Lights	5/5/2015
Type III Equipment/Building	ADB Safegate	L-862 E, Q, Runway Edge, High Intensity Lights	5/5/2015
Type III Equipment/Building	ADB Safegate	L-862, Q, Runway Edge, High Intensity Lights	5/5/2015
Type III Equipment/Building	ADB Safegate	L-880 LED, Precision Approach Path Indicator	5/5/2015
Type III Equipment/Building	ADB Safegate	L-881 LED, Abbreviated Precision Approach Path Indicator	5/5/2015
Type III Equipment/Building	Atg Airports, Ltd.	L-850 B Runway Inpavement Lights	2/2/2015
Type III Equipment/Building	Atg Airports, Ltd.	L-850 A Runway Inpavement Lights	1/20/2015
Type III Equipment/Building	Atg Airports, Ltd.	L-850 C Runway Inpavement Lights	1/17/2015
Type III Equipment/Building	Astronics DME Corporation	L-849 A LED Runway End Identification Lights	10/27/2014
Type III Equipment/Building	Rheinmetall Defence	DEBRA FOD	10/21/2014
Type III Equipment/Building	Ennis-Flint Company	A-A-2886B Black Runway Marking Paint	8/16/2014
Type III Equipment/Building	Ennis-Flint Company	A-A-2886B Blue Runway Marking Paint	8/16/2014
Type III Equipment/Building	Ennis-Flint Company	A-A-2886B Red Runway Marking Paint	8/16/2014
Type III Equipment/Building	Ennis-Flint Company	A-A-2886B White Runway Marking Paint	8/16/2014

Waiver Type	Manufacturer	Product	Effective Date
Type III Equipment/Building	Ennis-Flint Company	A-A-2886B Yellow Runway Marking Paint	8/16/2014
Type III Equipment/Building	Ennis-Flint Company	TT-P-1952E Black Type I/II Fast Dry Runway Marking Paint	8/16/2014
Type III Equipment/Building	Ennis-Flint Company	TT-P-1952E Black Type III Runway Marking Paint	8/16/2014
Type III Equipment/Building	Ennis-Flint Company	TT-P-1952E Blue Type I/II Fast Dry Runway Marking Paint	8/16/2014
Type III Equipment/Building	Ennis-Flint Company	TT-P-1952E Blue Type III Runway Marking Paint	8/16/2014
Type III Equipment/Building	Ennis-Flint Company	TT-P-1952E Green Type I/II Fast Dry Runway Marking Paint	8/16/2014
Type III Equipment/Building	Ennis-Flint Company	TT-P-1952E Green Type III Runway Marking Paint	8/16/2014
Type III Equipment/Building	Ennis-Flint Company	TT-P-1952E Red Type I/II Fast Dry Runway Marking Paint	8/16/2014
Type III Equipment/Building	Ennis-Flint Company	TT-P-1952E Red Type III Runway Marking Paint	8/16/2014
Type III Equipment/Building	Ennis-Flint Company	TT-P-1952E White Type I/II Fast Dry Runway Marking Paint	8/16/2014
Type III Equipment/Building	Ennis-Flint Company	TT-P-1952E White Type III Runway Marking Paint	8/16/2014
Type III Equipment/Building	Ennis-Flint Company	TT-P-1952E Yellow Type I/II Fast Dry Runway Marking Paint	8/16/2014

Waiver Type	Manufacturer	Product	Effective Date
Type III Equipment/Building	Ennis-Flint Company	TT-P-1952E Yellow Type III Runway Marking Paint	8/16/2014
Type III Equipment/Building	Manairco	L-861 T LED Runway & Taxiway Edge, Medium Intensity Lights	6/27/2014
Type III Equipment/Building	Eaton Crouse-Hinds	L-850 A LED Runway Inpavement Lights	6/16/2014
Type III Equipment/Building	Eaton Crouse-Hinds	L-850 B LED Runway Inpavement Lights	6/16/2014
Type III Equipment/Building	Containment Solutions	CSI Tank 10 - 10,000 Gallon Tank DWT Fuel Storage Tank	5/13/2014
Type III Equipment/Building	Containment Solutions	CSI Tank 10 - 12,000 Gallon Tank DWT Fuel Storage Tank	5/13/2014
Type III Equipment/Building	Containment Solutions	CSI Tank 10 - 15,000 Gallon Tank DWT Fuel Storage Tank	5/13/2014
Type III Equipment/Building	Containment Solutions	CSI Tank 10 - 2,000 Gallon DWT Fuel Storage Tank	5/13/2014
Type III Equipment/Building	Containment Solutions	CSI Tank 10 - 20,000 Gallon Tank DWT Fuel Storage Tank	5/13/2014
Type III Equipment/Building	Containment Solutions	CSI Tank 10 - 25,000 Gallon Tank DWT Fuel Storage Tank	5/13/2014
Type III Equipment/Building	Containment Solutions	CSI Tank 10 - 30,000 Gallon Tank DWT Fuel Storage Tank	5/13/2014
Type III Equipment/Building	Containment Solutions	CSI Tank 10 - 35,000 Gallon DWT Fuel Storage Tank	5/13/2014

Waiver Type	Manufacturer	Product	Effective Date
Type III Equipment/Building	Containment Solutions	CSI Tank 4 - 1,000 Gallon DWT Fuel Storage Tank	5/13/2014
Type III Equipment/Building	Containment Solutions	CSI Tank 4 - 600 Gallon DWT Fuel Storage Tank	5/13/2014
Type III Equipment/Building	Containment Solutions	CSI Tank 6 - 4,000 Gallon DWT Fuel Storage Tank	5/13/2014
Type III Equipment/Building	Containment Solutions	CSI Tank 6 - 2,500 Gallon DWT Fuel Storage Tank	5/13/2014
Type III Equipment/Building	Containment Solutions	CSI Tank 6 - 3,000 Gallon DWT Fuel Storage Tank	5/13/2014
Type III Equipment/Building	Containment Solutions	CSI Tank 6 - 5,000 Gallon DWT Fuel Storage Tank	5/13/2014
Type III Equipment/Building	Containment Solutions	CSI Tank 6 - 6,000 Gallon DWT Fuel Storage Tank	5/13/2014
Type III Equipment/Building	Containment Solutions	CSI Tank 8 - 12,000 Gallon Tank DWT Fuel Storage Tank	5/13/2014
Type III Equipment/Building	Containment Solutions	CSI Tank 8 - 8,000 Gallon DWT Fuel Storage Tank	5/13/2014
Type III Equipment/Building	Containment Solutions	CSI Tank 8 -15,000 Gallon Tank DWT Fuel Storage Tank	5/13/2014
Type III Equipment/Building	Containment Solutions	CSI Tank 8 -5,000 Gallon DWT Fuel Storage Tank	5/13/2014
Type III Equipment/Building	Service Wire Company	L-824, Underground Electrical Cables for Airfield Circuits	5/4/2014

Waiver Type	Manufacturer	Product	Effective Date
		L-861 LED Runway & Taxiway Edge,	
Type III Equipment/Building	Airport Lighting Company	Medium Intensity Lights	3/29/2014
		A-A-2886B Black Runway Marking	
Type III Equipment/Building	Davies Imperial Coatings, Inc.	Paint (5385)	3/24/2014
		L-852 A LED Taxiway Inpavement	
Type III Equipment/Building	Eaton Crouse-Hinds	Lights	2/25/2014
		L-852 B LED Taxiway Inpavement	
Type III Equipment/Building	Eaton Crouse-Hinds	Lights	2/25/2014
		L-852 C LED Taxiway Inpavement	
Type III Equipment/Building	Eaton Crouse-Hinds	Lights	2/25/2014
		L-852 D LED Taxiway Inpavement	
Type III Equipment/Building	Eaton Crouse-Hinds	Lights	2/25/2014
Type III Equipment/Building	Eaton Crouse-Hinds	L-852 J LED Taxiway Inpavement Lights	2/25/2014
		L-852 K LED Taxiway Inpavement	
Type III Equipment/Building	Eaton Crouse-Hinds	Lights	2/25/2014
		L-852 B LED Taxiway, Inpavement	
Type III Equipment/Building	Astronics DME Corporation	Lights	11/16/2013
		L-852 C LED Taxiway, Inpavement	
Type III Equipment/Building	Astronics DME Corporation	Lights	11/16/2013
		L-861 E LED Runway & Taxiway Edge,	
Type III Equipment/Building	Astronics DME Corporation	Medium Intensity Lights	11/16/2013
		L-861 SE LED Runway & Taxiway Edge,	
Type III Equipment/Building	Astronics DME Corporation	Medium Intensity Lights	11/16/2013
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Type III Equipment/Puilding	Davies Imperial Coatings Inc	A-A-2886B Black Runway Marking	10/19/2013
Type III Equipment/Building	Davies Imperial Coatings, Inc.	Paint (5383)	10/19/2013

Waiver Type	Manufacturer	Product	Effective Date
Type III Equipment/Building	Davies Imperial Coatings, Inc.	A-A-2886B Blue Runway Marking Paint (5274)	10/19/2013
Type III Equipment/Building	Davies Imperial Coatings, Inc.	A-A-2886B Blue Runway Marking Paint (5344)	10/19/2013
Type III Equipment/Building	Davies Imperial Coatings, Inc.	A-A-2886B Blue Runway Marking Paint (5384)	10/19/2013
Type III Equipment/Building	Davies Imperial Coatings, Inc.	A-A-2886B Green Runway Marking Paint (5376)	10/19/2013
Type III Equipment/Building	Davies Imperial Coatings, Inc.	A-A-2886B Green Runway Marking Paint (5386)	10/19/2013
Type III Equipment/Building	Davies Imperial Coatings, Inc.	A-A-2886B Red Runway Marking Paint (5345)	10/19/2013
Type III Equipment/Building	Davies Imperial Coatings, Inc.	A-A-2886B Red Runway Marking Paint (5375)	10/19/2013
Type III Equipment/Building	Davies Imperial Coatings, Inc.	A-A-2886B White Runway Marking Paint (5281)	10/19/2013
Type III Equipment/Building	Davies Imperial Coatings, Inc.	A-A-2886B Yellow Runway Marking Paint (5342)	10/19/2013
Type III Equipment/Building	Davies Imperial Coatings, Inc.	A-A-2886B Yellow Runway Marking Paint (5372)	10/19/2013
Type III Equipment/Building	Davies Imperial Coatings, Inc.	A-A-2886B Yellow Runway Marking Paint (5382)	10/19/2013
Type III Equipment/Building	Davies Imperial Coatings, Inc.	IL SPEC Red Runway Marking Paint (5408)	10/19/2013

Waiver Type	Manufacturer	Product	Effective Date
Type III Equipment/Building	Davies Imperial Coatings, Inc.	IL SPEC Yellow Runway Marking Paint (4636)	10/19/2013
Type III Equipment/Building	Davies Imperial Coatings, Inc.	TT-P-1952E Type II Blue Runway Marking Paint (4834)	10/19/2013
Type III Equipment/Building	Davies Imperial Coatings, Inc.	TT-P-1952E Type II Green Runway Marking Paint (5192)	10/19/2013
Type III Equipment/Building	Davies Imperial Coatings, Inc.	TT-P-1952E Type II Red Runway Marking Paint (4836)	10/19/2013
Type III Equipment/Building	Davies Imperial Coatings, Inc.	TT-P-1952E Type II Yellow Runway Marking Paint (4477)	10/19/2013
Type III Equipment/Building	Davies Imperial Coatings, Inc.	TT-P-1952E Type II Yellow Runway Marking Paint (8511)	10/19/2013
Type III Equipment/Building	Davies Imperial Coatings, Inc.	TT-P-1952E Type II Yellow Runway Marking Paint (9511)	10/19/2013
Type III Equipment/Building	Davies Imperial Coatings, Inc.	TT-P-1952E Type III Blue Runway Marking Paint (5433)	10/19/2013
Type III Equipment/Building	Davies Imperial Coatings, Inc.	TT-P-1952E Type III Green Runway Marking Paint (5435)	10/19/2013
Type III Equipment/Building	Davies Imperial Coatings, Inc.	TT-P-1952E Type III Red Runway Marking Paint (5434)	10/19/2013
Type III Equipment/Building	Davies Imperial Coatings, Inc.	TT-P-1952E Type III Yellow Runway Marking Paint (5431)	10/19/2013
Type III Equipment/Building	Airport Lighting Company	L-804, Holding Position Edge Light	9/21/2013
Type III Equipment/Building	Honeywell Airport Systems	L-828 F20 Constant Current Regulator	9/21/2013

Waiver Type	Manufacturer	Product	Effective Date
		L-828 W10 Constant Current	
Type III Equipment/Building	Honeywell Airport Systems	Regulator	9/21/2013
		L-829 S04 Constant Current Regulator	
Type III Equipment/Building	Honeywell Airport Systems	with Monitor	9/21/2013
Type III Equipment/Building	Honeywell Airport Systems	L-829-F04, Constant Current Regulator	9/9/2013
Type III Equipment/Building	Honeywell Airport Systems	L-829-F30, Constant Current Regulator	9/9/2013
Type III Equipment/Building	Honeywell Airport Systems	L-829-F70, Constant Current Regulator	9/9/2013
Type III Equipment/Building	Honeywell Airport Systems	L-829-S30, Constant Current Regulator	9/9/2013
Type III Equipment/Building	Honeywell Airport Systems	L-829-S70, Constant Current Regulator	9/9/2013
	Amerace - Thomas & Betts	L-830-16 Isolation Transformer, 60Hz,	
Type III Equipment/Building	Corporation	10/15 Watts, 6.6/6.6 Amperes	7/9/2013
	Amerace - Thomas & Betts	L-830-17 Isolation Transformer, 60Hz,	
Type III Equipment/Building	Corporation	20/25 Watts, 6.6A/6.6A Amperes	7/9/2013
		L-852 D LED Taxiway, Inpavement	
Type III Equipment/Building	Astronics DME Corporation	Lights	7/7/2013
		L-852 A LED Taxiway, Inpavement	
Type III Equipment/Building	Astronics DME Corporation	Lights	3/26/2013
Type III Equipment/Building	Astronics DME Corporation	L-861 E Halogen Edge Light	3/26/2013
Type III Equipment/Building	Astronics DME Corporation	L-861 Halogen Lights	3/26/2013
		L-861 LED Runway & Taxiway Edge,	
Type III Equipment/Building	Astronics DME Corporation	Medium Intensity Lights	3/26/2013
Type III Equipment/Building	Astronics DME Corporation	L-861 T - Halogen Taxiway Light	3/26/2013
		L-861 T LED Runway & Taxiway Edge,	
Type III Equipment/Building	Astronics DME Corporation	Medium Intensity Lights	3/26/2013

Waiver Type	Manufacturer	Product	Effective Date
Type III Equipment/Building	Point Light Corporation	L-861 E LED Runway & Taxiway Edge, Medium Intensity Lights	3/26/2013
Type III Equipment/Building	Point Light Corporation	L-861 SE LED Runway & Taxiway Edge, Medium Intensity Lights	3/26/2013
Type III Equipment/Building	Point Light Corporation	L-861 T LED Runway & Taxiway Edge, Medium Intensity Lights	3/26/2013
Type III Equipment/Building	Point Light Corporation	L-862 E LED Runway & Taxiway Edge, Medium Intensity Lights	3/26/2013
Type III Equipment/Building	Advanced Drainage Systems (ADS)	D-705 10" Pipe Underdrain w/sock	3/10/2013
Type III Equipment/Building	Advanced Drainage Systems (ADS)	D-705 4" Pipe Underdrain w/sock	3/10/2013
Type III Equipment/Building	Advanced Drainage Systems (ADS)	D-705 6" Pipe Underdrain w/sock	3/10/2013
Type III Equipment/Building	Advanced Drainage Systems (ADS)	D-705 8" Pipe Underdrain w/sock	3/10/2013
Type III Equipment/Building	DME (Astronics)	L-852T-L-X LED, Inpavement, OMNI	3/9/2013
Type III Equipment/Building	Vaisala	AWOS A	1/6/2013
Type III Equipment/Building	Vaisala	AWOS A/V	1/6/2013
Type III Equipment/Building	Vaisala	AWOS I	1/6/2013
Type III Equipment/Building	Vaisala	AWOS II	1/6/2013
Type III Equipment/Building	Vaisala	AWOS III, III-T, III-P, III-PT, III-PTZ	1/6/2013
		Snow Blower & Runway Broom	
Type III Equipment/Building	Kodiack America, LLC	Equipment	10/10/2012
Type III Equipment/Building	ADB Safegate	L-830, Isolation Transformer, 60Hz	7/28/2012
Type III Equipment/Building	TREX Aviation Systems	FOD Finder XM-Mobile	5/25/2012
Type III Equipment/Building	Stratech Systems Limited	iFerret TM FOD System	5/5/2012

Waiver Type	Manufacturer	Product	Effective Date
		L-849 A, LED Runway End Identification	
Type III Equipment/Building	ADB Safegate	Lights	5/4/2012
		L-850 A, LED Runway Inpavement	
Type III Equipment/Building	ADB Safegate	Lights	5/4/2012
		L-850 B, LED Runway Inpavement	
Type III Equipment/Building	ADB Safegate	Lights	5/4/2012
	_	L-852 K, LED Taxiway Inpavement	
Type III Equipment/Building	ADB Safegate	Lights	5/4/2012
		L-852 S, LED Taxiway Inpavement	
Type III Equipment/Building	ADB Safegate	Lights	5/4/2012
Type III Equipment/Building	Vaisala	Inpavement Runway Sensors	5/4/2012
		L-890, Lighting Control & Monitoring	
Type III Equipment/Building	Precision Control Systems	System	4/3/2012
Type III Equipment/Building	All Weather, Inc.	AWOS I - 900 Series	11/27/2011
Type III Equipment/Building	All Weather, Inc.	AWOS II - 900 Series	11/27/2011
Type III Equipment/Building	All Weather, Inc.	AWOS III - 3000 Series	11/27/2011
Type III Equipment/Building	All Weather, Inc.	AWOS III - 900 Series	11/27/2011
Type III Equipment/Building	FlexStake, Inc.	L-853, Retro reflective Markers	9/11/2011
Type III Equipment/Building	QinetiQ	Tarsier FOD System	9/11/2011
Type III Equipment/Building	TREX Aviation Systems	FOD Finder XF -Fixed	9/11/2011
Type III Equipment/Building	X-Sight	FODetect Systems	7/26/2011
		L-856, High Intensity Obstruction	
Type III Equipment/Building	Flash Technology	Lights	3/28/2011
Type III Equipment/Building	Flash Technology	L-864, Red Obstruction Lights	3/28/2011

Waiver Type	Manufacturer	Product	Effective Date
		L-893, Lighted Visual Aid for Runway	
Type III Equipment/Building	Sherwin Industries, Inc.	Closure	3/28/2011
Type III Equipment/Building	ADB Safegate	L-854, Radio Controls	2/1/2011
Type III Equipment/Building	ADB Safegate	L-860, Low Intensity Runway Edge Lights	2/1/2011
Type III Equipment/Building	Flight Light	L-810, Lights-Obstruction (Various Types)*	1/18/2011
Type III Equipment/Building	Flight Light	L-828, Constant Current Regulators (Various Types)*	1/18/2011
Type III Equipment/Building	Flight Light	L-861 LED Runway & Taxiway Edge, Medium Intensity Lights	1/18/2011
Type III Equipment/Building	Southwire Company	L-824, Underground Electrical Cables for Airfield Circuits	1/16/2011
Type III Equipment/Building	Nehring Electrical Works	L-824, Underground Electrical Cables for Airfield Circuits	11/23/2010
Type III Equipment/Building	Point Light Corporation	L-806, Wind Cones-Frangible	11/20/2010
Type III Equipment/Building	Point Light Corporation	L-807, Wind Cones-Rigid	11/20/2010
Type III Equipment/Building	Point Light Corporation	L-810, Lights-Obstruction	11/20/2010
Type III Equipment/Building	Point Light Corporation	L-861 LED Runway & Taxiway Edge, Medium Intensity Lights	11/20/2010
Type III Equipment/Building	Point Light Corporation	L-862, Runway Edge-Threshold-Stop Bar Lights	11/20/2010
Type III Equipment/Building	Point Light Corporation	L-864, Red Obstruction Lights	11/20/2010
Type III Equipment/Building	Amerace - Thomas & Betts Corporation	L-830-1, Isolation Transformer, 60Hz 30/45 Watts, 6.6/6.6A	9/19/2010

Waiver Type	Manufacturer	Product	Effective Date
Type III Equipment/Building	Tenco Industries Inc.	202 LMM Snow Blower	8/27/2010
Type III Equipment/Building	Flash Technology	L-865, White Obstruction Lights	8/17/2010
Type III Equipment/Building	Rural Electric	L-854, Radio Controls	8/17/2010
Type III Equipment/Building	ADB Safegate	L-821, Airport Lighting Control Panel	8/7/2010
		L-849, Runway End Identification	
Type III Equipment/Building	Flash Technology	Lights	6/21/2010
Type III Equipment/Building	Flash Technology	L-859, Flashing Omnidirectional Lights	6/21/2010
		L-880, Precision Approach Path	
Type III Equipment/Building	Airport Lighting Company	Indicator	4/27/2010
		L-881, Abbreviated Precision	
Type III Equipment/Building	Airport Lighting Company	Approach Path Indicator	4/27/2010
Type III Equipment/Building	Neubert Aero Corp	Dynamic Friction Decelerometer	4/27/2010
Type III Equipment/Building	Neubert Aero Corp	Dynamic Friction Tester	4/27/2010
Type III Equipment/Building	Rural Electric	L-821, Airport Lighting Control Panel	4/27/2010
		L-890, Lighting Control & Monitoring	
Type III Equipment/Building	Rural Electric	System	4/27/2010
Type III Equipment/Building	Safe-Hit	L-853, Retroreflective Markers	3/20/2010
Type III Equipment/Building	Daimler	Freightliner M2 Carrier Vehicle	1/12/2010
		L-891 - Low Impact Resistant	
Type III Equipment/Building	Millard Towers Limited	Structures	12/22/2009
Type III Equipment/Building	Millard Towers Limited	L-892 - Frangible Support Structure	12/22/2009
Type II - Insufficient Quantity and/or			
Quality	OCEM	L-852 S LED Taxiway Inpavement Lights	12/1/2009
		L-824, Underground Electrical Cables	
Type III Equipment/Building	Prysmian Cables and Systems, Inc.	for Airfield Circuits	10/4/2009

Waiver Type	Manufacturer	Product	Effective Date
Type III Equipment/Building	Airport Lighting Company	L-861 Runway & Taxiway Edge, Medium Intensity Lights	9/13/2009
Type III Equipment/Building	Airport Lighting Company	L-862, Runway Edge-Threshold-Stop Bar Lights	9/13/2009
Type III Equipment/Building	Strobe Approach Lighting Technology, LLC	L-849, Runway End Identification Lights	8/25/2009
Type III Equipment/Building	Strobe Approach Lighting Technology, LLC	L-859, Flashing Omnidirectional Lights P-632, Bituminous Pavement	8/25/2009
Type III Equipment/Building	LoneStar	Rejuvenator	8/17/2009
Type III Equipment/Building	Pavement Rejuvenation International, LP	P-632, Bituminous Pavement Rejuvenator	8/16/2009
Type III Equipment/Building	Soundproof Windows	Single Hung 36 X 72 Window	8/14/2009
Type III Equipment/Building	ADB Safegate	L-828, Constant Current Regulators	7/28/2009
Type III Equipment/Building	ADB Safegate	L-829, Monitored Constant Current Regulators L-890, Lighting Control & Monitoring	7/28/2009
Type III Equipment/Building	ADB Safegate	System	7/28/2009
	Airfield Guidance Sign	,	
Type III Equipment/Building	Manufacturers, Inc.	L-858, Runway & Taxiway Signs	7/28/2009
Type III Equipment/Building	Rural Electric	L-867, Non-Load Bearing Light Box	7/24/2009
Type III Equipment/Building	Rural Electric	L-868, Load Bearing Light Box	7/24/2009
Type III Equipment/Building	ADB Safegate	L-890, Lighting Control & Monitoring System	7/20/2009
Type III Equipment/Building	Olson Industries	L-867, Non-Load Bearing Light Box	7/19/2009

Waiver Type	Manufacturer	Product	Effective Date
Type III Equipment/Building	Olson Industries	L-868, Load Bearing Light Box	7/19/2009
Type III Equipment/Building	Standard Signs, Inc.	L-858, Runway & Taxiway Signs	7/10/2009
		L-890, Lighting Control & Monitoring	
Type III Equipment/Building	Eaton Crouse-Hinds	System	6/30/2009
Type III Equipment/Building	Airport Lighting Equipment	L-867, Non-Load Bearing Light Box	6/29/2009
Type III Equipment/Building	Airport Lighting Equipment	L-868, Load Bearing Light Box	6/29/2009
Type III Equipment/Building	Eaton Crouse-Hinds	L-801, Beacons-Medium Intensity	6/28/2009
Type III Equipment/Building	Eaton Crouse-Hinds	L-802, Beacons-High Intensity	6/28/2009
Type III Equipment/Building	Eaton Crouse-Hinds	L-804 Holding Position Edge Light	6/28/2009
Type III Equipment/Building	Eaton Crouse-Hinds	L-806, Wind Cones-Frangible	6/28/2009
Type III Equipment/Building	Eaton Crouse-Hinds	L-807, Wind Cones-Rigid	6/28/2009
Type III Equipment/Building	Eaton Crouse-Hinds	L-823, Primary Connector Kits	6/28/2009
Type III Equipment/Building	Eaton Crouse-Hinds	L-828, Constant Current Regulators	6/28/2009
		L-829, Regulators, Constant Current	
Type III Equipment/Building	Eaton Crouse-Hinds	with Monitor	6/28/2009
Type III Equipment/Building	Eaton Crouse-Hinds	L-830, Isolation Transformers, 60Hz	6/28/2009
Type III Equipment/Building	Eaton Crouse-Hinds	L-847, Circuit Selector Switch	6/28/2009
Type III Equipment/Building	Eaton Crouse-Hinds	L-852, Taxiway Inpavement Lights	6/28/2009
Type III Equipment/Building	Eaton Crouse-Hinds	L-858, Runway & Taxiway Signs	6/28/2009
		L-861 LED Runway & Taxiway Edge,	
Type III Equipment/Building	Eaton Crouse-Hinds	Medium Intensity Lights	6/28/2009
		L-862, Runway Edge-Threshold-Stop	
Type III Equipment/Building	Eaton Crouse-Hinds	Bar Lights	6/28/2009

Waiver Type	Manufacturer	Product	Effective Date
		L-880, Precision Approach Path	
Type III Equipment/Building	Eaton Crouse-Hinds	Indicator	6/28/2009
		L-881, Abbreviated Precision	
Type III Equipment/Building	Eaton Crouse-Hinds	Approach Path Indicator	6/28/2009
Type III Equipment/Building	Eaton Crouse-Hinds	L-884, Power & Control Unit	6/28/2009
Type III Equipment/Building	ADB Safegate	L-804, Holding Position Edge Light	6/26/2009
Type III Equipment/Building	ADB Safegate	L-807, Wind Cones-Rigid	6/26/2009
Type III Equipment/Building	ADB Safegate	L-810, Lights-Obstruction	6/26/2009
Type III Equipment/Building	ADB Safegate	L-827, Monitors-Regulator	6/26/2009
Type III Equipment/Building	ADB Safegate	L-828, Constant Current Regulators	6/26/2009
		L-829, Monitored Constant Current	
Type III Equipment/Building	ADB Safegate	Regulators	6/26/2009
Type III Equipment/Building	ADB Safegate	L-847, Circuit Selector Switch	6/26/2009
Type III Equipment/Building	ADB Safegate	L-853, Retroreflective Markers	6/26/2009
Type III Equipment/Building	ADB Safegate	L-858, Runway & Taxiway Signs	6/26/2009
		L-861 Runway & Taxiway Edge,	
Type III Equipment/Building	ADB Safegate	Medium Intensity Lights	6/26/2009
		L-862, Runway Edge-Threshold-Stop	
Type III Equipment/Building	ADB Safegate	Bar Lights .	6/26/2009
		L-880, Precision Approach Path	
Type III Equipment/Building	ADB Safegate	Indicator	6/26/2009
		L-881, Abbreviated Precision Approach	
Type III Equipment/Building	ADB Safegate	Path Indicator	6/26/2009
Type III Equipment/Building	ADB Safegate	L-884, Power & Control Unit	6/26/2009

Waiver Type	Manufacturer	Product	Effective Date
Type III Equipment/Building	Halibrite	L-801, Beacons-Medium Intensity	6/23/2009
Type III Equipment/Building	Halibrite	L-802, Beacons-High Intensity	6/23/2009
Type III Equipment/Building	Halibrite	L-806, Wind Cones-Frangible	6/23/2009
Type III Equipment/Building	Halibrite	L-807, Wind Cones-Rigid	6/23/2009
		L-893, Lighted Visual Aid for Runway	
Type III Equipment/Building	Halibrite	Closure	6/23/2009
Type III Equipment/Building	Manairco	L-801, Beacons-Medium Intensity	6/23/2009
Type III Equipment/Building	Manairco	L-828, Constant Current Regulators	6/23/2009
Type III Equipment/Building	Manairco	L-861 Runway & Taxiway Edge, Medium Intensity Lights	6/23/2009
Type III Equipment/Building	Multi-Electric	L-804, Holding Position Edge Light	6/23/2009
Type III Equipment/Building	Multi-Electric	L-861 LED Runway & Taxiway Edge, Medium Intensity Lights	6/23/2009
Type III Equipment/Building	Multi-Electric	L-862, Runway Edge-Threshold-Stop Bar Lights	6/23/2009
Type III Equipment/Building	Multi-Electric	L-880, Precision Approach Path Indicator	6/23/2009
Type III Equipment/Building	Multi-Electric	L-881, Abbreviated Precision Approach Path Indicator	6/23/2009
Type III Equipment/Building	DME	L-861 LED Runway & Taxiway Edge, Medium Intensity Lights	6/21/2009
Type III Equipment/Building	DME	L-862, Runway Edge-Threshold-Stop Bar Lights	6/21/2009
Type III Equipment/Building	Integro	L-830, Isolation Transformers, 60Hz	6/21/2009

The following manufacturer's equipment was issued a Buy American Waiver under 49 U.S.C. 50101(b) and can be used on AIP Funded Projects.

Waiver Type	Manufacturer	Product	Effective Date
Type III Equipment/Building	Jaquith Industries	L-867, Non-Load Bearing Light Box	6/21/2009
Type III Equipment/Building	Jaquith Industries	L-868, Load Bearing Light Box	6/21/2009
		L-891 - Low Impact Resistant	
Type III Equipment/Building	Jaquith Industries	Structures	6/21/2009
Type III Equipment/Building	Jaquith Industries	L-892 - Frangible Support Structure	6/21/2009

The following components or subcomponents are steel or manufactured goods that have an FAA specification number and have been determined to be 1) 100% United States product and 2) produced in the United States.

Waiver Type	Manufacturer	Product	Effective Date
100% US and US Final Assembly	Integro	L-823 Plug and Receptacle, Cable Connectors	6/10/2009
	MCB		
100% US and US Final Assembly	Industries	EB-83 bolts	1/31/2011
	MCB		
100% US and US Final Assembly	Industries	2-part washers (used with 3/8" x 16 by various length bolts)	10/14/2015
	MCB		
100% US and US Final Assembly	Industries	18-8 fasteners (various length bolts)	12/27/2016

#### SECTION 03310 – FAST SETTING CONCRETE

### PART 1 – GENERAL

## 1.01 RELATED DOCUMENTS

A. The General Provisions of the contract, including the General Provisions for Construction Projects (2016), Special Provisions, and General Requirements of the Specifications, apply to the work specified in this Section.

### 1.02 SUMMARY

- A. Section includes the furnishing of all labor, materials, equipment and any other related miscellaneous items necessary to completely construct all Fast Setting Concrete as shown on the plans. In the specification, fast-setting concrete and Hybrid Polymer Concrete (HPC) are used and refer to the same material. HPC shall be used for the Second Level Roadway sections in front of the turn-around area on the Ewa and Diamond Head Concourse.
- B. HPC shall be 100% Solids, thermosetting hybrid-polymer concrete, and composed of the following three components: two-component reactive hybrid polymer resin binder and blend of specified aggregates.

# 1.03 SUBMITTALS

- A. Submit in accordance with Section 01300 SUBMITTALS.
- B. General:
  - 1. Prior to the start of this work, provide the following submittals in one complete set for acceptance. Indicate clearly the name of the product and its manufacturer on pertinent submittals. No work that is related to these submittals shall be performed until written acceptance has been received.
- C. Detailed step by step procedures for all aspects of the work including determining surface profiles and compressive strengths, cleaning and roughening substrata, placement (handling, mixing, consolidating, finishing, curing, and texturing) of HPC, and testing for delaminations. The procedure shall include the method and materials used to contain, collect and dispose of the concrete debris generated by the scarifying process, including provisions for protecting adjacent traffic from flying debris.
- D. The HPC mix design and the estimated curing time based on the anticipated temperatures.
- E. Certificates of compliance and test reports for all materials used in the HPC mix.

- F. The name of the manufacturer of the HPC materials including the name and phone number of the Manufacturer's Technical Representative.
- G. Information on the HPC including shelf life, working times, and placement rates.
- H. Detailed information on the HPC on all equipment and materials that will be used for all aspects of the work including but not limited to determining surface profiles and compressive strength, quality control (QC) plan, placing (handling, mixing consolidating, finishing, curing, and texturing) of HPC, and testing for delaminations.
- I. Detailed plans and procedures including complying to noise variances, and controlling the work to appropriately minimize dust and air borne debris from cleaning and roughening the substrata, mixing and placing concrete, and cleaning operations and to prevent water runoffs following Section 01560 ENVIORNMENTAL CONTROLS, Section 01561 CONSTRUCTION SITE RUNOFF CONTROL PROGRAM, and Section 01562 MANAGEMENT OF CONTAMINATED MEDIAS.
- J. Planned actions to maintain adherence to limitations and requirements of the following variables with regards to HPC work:
  - 1. Equipment and traffic control near or on work areas during placement and curing operations.
  - 2. Rain
- K. Test reports of compressive strengths, tensile strengths, bond strengths, and maturity readings during the progress of the work.

# 1.04 QUALITY CONTROL

- A. Pre-Activity Meeting:
  - 1. Schedule a meeting with the Contractor, and supplier's representatives involved in construction operation for the HPC and DOT-A, at a mutually agreed time, to discuss and verify the methods of accomplishing all phases of the HPC operations, contingency planning, and standards of workmanship for the completed items of work. Include the Contractor's superintendents, foremen, subcontractors, and supplier's technical representatives, and all key personnel involved with the HPC work as attendees of the pre-operation conference. Do not begin placement of HPC before DOT-A accepts the pre-activity meeting as completed.

#### B. Trial Pour:

- 1. The contractor shall place a trial pour of HPC using the equipment selected by the Contractor and the production mix and procedure as approved by DOT-A. The Contractor shall notify DOT-A of the time and location of the trial pour at least seven calendar days prior to the scheduled trial pour. Attendance of the trial pour is mandatory for all personnel who will perform the work contained in this section.
- 2. The trial pour shall be placed on a previously cast and cured concrete pad at a location selected by the Contractor and as approved by DOT-A. The trial pour of HPC shall be 4 feet minimum in width by 4 feet minimum in length.
- 3. The contractor shall clean the concrete pad surface and prepare the concrete substrate similar to the conditions in the field. Contractor shall mix, place, finish, and cure the HPC. The HPC is to be placed using the same equipment at the production work and replicate the field conditions for the production work. The Contractor is to demonstrate to DOT-A the suitability of the proposed means and methods.
- 4. The Contractor shall not begin construction operations at the site receiving the HPC until receiving approval of the completed trial pour.
- 5. After receiving approval of the completed trial pour, the concrete pad and trial pour shall become the Contractor's property and shall be removed and disposed of in accordance with all applicable local, state and federal laws, rules and ordinances.

### 1.05 DELIVERY, STORAGE AND HANDLING

- A. All materials shall be delivered in their original containers bearing the manufacturer's label, specifying date of manufacturing, batch number, trade name, and quantity. Each shipment of resin binder shall be accompanied by a Safety Data Sheet (SDS).
- B. The material shall be stored to prevent damage by the elements and to ensure the preservation of their quality and fitness for the work. The storage space shall be kept clean and dry.
- C. Stored materials shall be inspected prior to their use, and shall meet the requirements of this Specification at the time of use.
- D. Any material which is rejected because of failure to meet the required tests or that has been damaged so as to cause rejection shall be immediately replaced at no additional expense to DOT-A.

- E. Sufficient material to perform the entire HPC application shall be in storage at the site prior to any field application, so that there shall be no delay in procuring the material for each day's application.
- F. The contractor shall arrange to have the material supplier furnish technical service related to application of material and health and safety training for personnel who are to handle the HPC.

# PART 2 – PRODUCTS

# 2.01 TWO COMPONENT RESIN BINDER

A. The resin binder shall be solvent-free, moisture-insensitive, two-component reactive thermoset polymer binder conforming to the following requirements in Table 1:

Table 1. Physical Requirements for HPC Resin Binder

Quality Characteristic	Test Method	Requirement
Viscosity (RV2 @ 20 RPM)	ASTM C881	1000 − 1500 cP
Flash Point	ASTM D3278	>250°F
VOC Content	ASTM D2369	<10 g/L
	(Method E, 55-60 mil	
	thickness)	
Gel Time	C881	10 minutes minimum
Tensile Strength (7 days)	ASTM D638, Type I	1500 – 2500 psi
- ' - '	Specimen	_
Tensile Elongation	ASTM D638	50% minimum at 7 days
Water Absorption (24 hrs.)	ASTM D570	0.5% maximum
Type D Hardness	ASTM D2240	60 - 80
Thermal Compatibility	ASTM C884	PASS
Chloride Ion Permeability	ASTM C 1202	<10.0 Coulombs
NT 1 /'1 1 ' 1 1	•	•

<sup>-</sup>No volatile chemical odors

# 2.02 AGGREGATES

A. The aggregate for the HPC shall conform to this section and shall be provided by the HPC supplier and conform to the following:

<sup>-</sup>No explosive catalysts or ingredients allowed

<sup>-</sup>Material must be MADE IN THE USA

1. Gradation following Table 2:

Table 2. Aggregate Gradation

	0
Sieve Size	Percent Passing
1/2"	100
3/8"	98-100
No. 4	77-100
No. 8	60-82
No. 16	34-56
No. 30	5-25
No. 50	0-15
No. 100	0-7
No. 200	0-3

- 2. The aggregate absorption shall not exceed 1.5% as determined by ASTM C 127 or as otherwise approved by DOT-A.
- 3. At the time of mixing with the resin, the moisture content of the aggregate, as determined by ASTM C 566, shall not exceed on half of the aggregate absorption.
- 4. The aggregate temperature shall be between 45 deg. F and 100 deg. F at the time of mixing.

# PART 3 – EXECUTION

### 3.01 GENERAL

- A. The HPC Manufacturer shall have a representative on the job site for the startup of the project scope involving HPC on both the Ewa and Diamond Head Concourse who, upon consultation with the DOT-A, may suspend any item of work that is suspect and does not meet the requirements of this specification. Resumption of work will occur only after the manufacturer's representative and DOT-A are satisfied that appropriate remedial action has been taken by the Contractor. No work shall proceed and materials will not be accepted if manufacturer's technical representative is not on site for the startup of the project.
- B. During surface preparation and application, precaution shall be taken to assure that traffic is protected from rebound, dust and construction activities. Appropriate shielding shall be provided as required and as directed by DOT-A at no additional cost. The Contractor shall provide suitable protection as needed to protect all exposed areas not to receive HPC such as parapets, drains, etc. All damage and defacement resulting from the application shall be cleaned and, or repaired to DOT-A's satisfaction at no additional cost.

### 3.02 EQUIPMENT

- A. Use a continuous automated volumetric mixer. Mechanically operated mixers or hand mixing may only be used as a backup during repairs, or for applications less than a cubic yard. Follow manufacturer's recommendations.
- B. When mixing and applying manually, mix only the amount of material that can be used within its pot life. Proportion each liquid component carefully into a clean pail or drum. Mix thoroughly for 3 minutes with a Jiffy mixer on low speed (400-600 rpm). To prepare a repair mortar, slowly add 200-250 pounds of the engineered aggregate to every 4-gal of mixed polymer. Mix only until all aggregate is wetted out. Manufacturer's representative shall be present during hand mixing operations.

## 3.03 <u>SURFACE PREPARATION</u>

- A. Use the procedures of ICRI (International Concrete Repair Institute) Guideline No. 03730 "Guide for Surface Preparation for the Repair of Deteriorated Concrete Resulting from Reinforcement Steel Corrosion", ICRI Guideline 03732 "Selecting and Specifying Concrete Surface, Surface Preparation for Sealers, Coatings and Polymer Overlays" sections of ACI 546.1R-80 (Reapproved 1997) "Guide for Repair of Concrete Bridge Superstructures". The Contractor shall be responsible for any falsework requirements, debris, noise and pollution control on and below the repair area
- B. The concrete surface shall be prepared by removing all material which may act as a bond breaker between the surface and the HPC.
- C. The textured or scarified pavement preparation method shall remove all dirt, oil and other foreign materials, as well as any unsound concrete or laitance from the surface and edges against which new HPC is to be placed. The concrete surface may require retexturing where penetration of foreign material is evident. No contamination of the retextured or scarified concrete surface shall be permitted.
- D. Surface preparation shall meet the following requirements:
  - 1. Existing Pavement or Elevated Deck. On existing concrete, the surface shall be prepared by shot blasting or approved equal. Pneumatic tools weighing 15 pounds or less may be used for areas where the Contractor is unable to shot blast upon approval of DOT-A. Produce a concrete substrate surface with a minimum roughness of approximately 1/8-inch amplitude or an ICRI concrete surface profile (CSP) of 7. The preparation method shall not produce a polish or slick surface.

## 3.04 TRAFFIC AND EQUIPMENT CONTROL ON ROADWAY

- A. Construction vehicles shall not exceed a 5-mph speed limit within 200 feet of the placement area in both directions during HPC placement and curing.
- B. Equipment, vehicles, and personnel, etc. shall not contaminate the prepared deck surface.
- Equipment shall not be located on bays undergoing deck HPC unless approved by DOT-A.
- D. The Contractor shall not permit compressors or other equipment that produce vibrations on the bay undergoing deck HPC work.
- E. The roadway shall not be used as a storage area for equipment or for stockpiling materials. Follow construction documents for proper storage locations and weight limitations.

# 3.05 PLACEMENT OF HPC

- A. Time for placement of the HPC shall be in accordance with the recommendation of the manufacturer and within the contract work hours. After surface preparation concrete surfaces shall be structurally sound, clean, free of dirt, powdered concrete, loose mortar particles, paint, film, protective coatings, efflorescence, laitance, and other matter detrimental to proper adhesion of the new HPC. Contractor shall use methods such as pressure washing or approved equal to ensure proper cleanliness. Work surfaces must be free of ridges, fins or sharp projections. All reinforcing bars in the repair area shall be made free of all scale and loose rust by using either powered rotary wire bristle brush or abrasive blasting. Needle gunning may be used as preliminary step for removal of loose rust. Do not overly vibrate the reinforcing bars.
- B. Expansion joints, drains and grates shall be adequately isolated prior to placing the HPC as approved. HPC shall not affect the design and function of the expansion joints, drains, and grates. Do not place HPC within 6 feet of another area where the deck surface is being prepared with pneumatic tools.
- C. The HPC discharged from the mixer shall be uniform in composition and consistency. Mixing capability shall be such that initial and final finishing operations can proceed at a steady pace.
- D. The hybrid polymer resin binder in the HPC shall be 12-15 percent by weight of the dry aggregate. The contractor shall determine the exact percentage as approved by DOT-A.
- E. Any falsework and formwork required shall be considered incidental to this work.

## 3.06 HOT WEATHER CONCRETING

A. Do not place concrete where temperature is above 90 degrees F unless design mix and placement method conform to ACI 305 R-91 Hot Weather Concreting. When ambient temperature is above 90 degrees F, cool reinforcing steel, forms, and other surfaces to below 90 degrees F with water spray or other acceptable methods before placing of concrete.

# 3.07 FINISHING HPC

- A. Finishing equipment shall be capable of consolidating the HPC and striking off the HPC to the final grade, thickness and cross-sections as shown in the contract documents.
- B. For repairs or placements of less than 2 cubic yards or areas inaccessible to self-propelled finishing equipment, finish while the HPC is plastic and workable using a roller screed or air screed approved by DOT-A. Contractor has the option of using other methods of finishing HPC as long as the selected method leaves a uniform, level finish, free of slick or puddled resin areas. DOT-A must approve methods prior to constructing trial overlay. Finish the concrete to meet the requirements of Paragraph 3.10 Surface Testing.

# 3.08 CURING

A. Traffic and construction equipment shall not be permitted on the HPC for at least 3 hours and until the HPC surface is tack free. Refer to HPC technical data sheet curing schedule for estimated cure times.

### 3.09 CONSTRUCTION JOINTS

A. Use construction joints only with the acceptance of DOT-A and in accordance with the Contract documents.

# 3.10 SURFACE TESTING

- A. The finished HPC shall conform to the following requirements when tested by the Contractor in the presence of DOT-A within 14 days following the placement of concrete:
  - 1. Surface Flatness. The surface of the HPC shall not vary more than 1/8 inch under a 10-foot straightedge placed parallel to the traffic lanes.
  - 2. Surface Condition. The surface of the HPC shall be sound and free from delaminations and cracks greater than 0.01 inch in width.

### 3.11 HPC SAMPLING AND TESTING

- A. Perform QC concrete sampling and testing in accordance with the QC plan and following requirements:
  - 1. QC tests shall include temperature and preparing compressive strength cubes for testing. Perform HPC tests on the initial delivery for each mix each day. Ensure that QC technicians are certified, and the materials testing laboratory are accredited in the test method being used. Ensure all technician that are performing the sampling and performing the testing are certified in the test placement operation at each placement site and the testing is done in an accredited material testing laboratory. A LOT shall be one day's production, once every maximum of 20 cubic yards of HPC. Cast a set of cubes representing the LOT from the same sample of HPC.
  - 2. Maintain a logbook with records of relevant details of all tests. Provide a copy of new entries at the end of each work day. Make available for inspection by the Engineer during the normal working hours of construction. At the end of the project, deliver the original logbook to the Engineer. The original logbook will become property of the Engineer.
- B. Compressive strength shall be in accordance with ASTM C 579 Standard Test Methods for Compressive Strength of Chemical-375 Resistant Mortars, Grouts, Monolithic Surfacing's, and Polymer Concretes. The compressive strength shall be at least 3000 psi prior to opening to traffic.

# 3.12 ACCEPTANCE

A. The completed HPC must be uniform in texture and appearance. HPC shall meet the compressive strength and bond strength requirements. Contractor shall repair all HPC that does not meet the approval of DOT-A at no additional cost. Repair HPC according to the manufacturer's recommendations.

# 3.13 VERIFICATION AND INDEPENDENT ASSURANCE

A. DOT-A may perform Verification sampling and testing for its own use for internal assurance and acceptance testing. Furnish sufficient quantities of each mix for verification and independent assurance sampling and testing as required by DOT-A. When DOT-A performs verification, the Contractor may perform the same tests on the HPC at the same time.

### PART 4 – MEASUREMENT AND PAYMENT

# 4.01 <u>METHOD OF MEASUREMENT</u>

No measurement shall be made for the items in this Section.

# 4.02 BASIS OF PAYMENT

Fast-setting concrete work involving the Roadway Deck Replacement in front of the turn around area at the Second level Ewa Concourse Roadway, and the Second level Diamond Head Concourse Roadway, shall be paid for at the contract Lump Sum prices for the <a href="Ewa Concourse Second Level Roadway Deck Replacement Near Turn Around">Ewa Concourse Second Level Roadway Deck Replacement Near Turn Around</a> and for the <a href="Diamond Head Concourse Second Level Roadway Deck Replacement Near Turn Around">Diamond Head Concourse Second Level Roadway Deck Replacement Near Turn Around</a>. The contract prices paid shall be full compensation for all labor, tools, equipment, and all other incidentals necessary to complete the work.

Item No.	Description	Unit
03310.1	Ewa Concourse Second Level Roadway Deck Replacement Near Turn Around	Lump Sum
03310.2	DH Concourse Second Level Roadway Deck Replacement Near Turn Around	Lump Sum

All other structural concrete work specified in this section shall be considered incidental to and included in the bid prices for the various items of work in the project.

END OF SECTION

## SECTION 07680 - EPOXY SURFACE TREATMENT

### PART 1 – GENERAL

## 1.01 RELATED DOCUMENTS

A. The General Provisions of the contract, including the General Provisions for Construction Projects (2016), Special Provisions, and General Requirements of the Specifications, apply to the work specified in this Section.

# 1.02 SUMMARY

A. Section includes work for applying surface treatment by spreading resin binder and aggregate on Portland cement concrete surfaces. The Ewa and Diamond Head Concourse Second Level Roadways will receive Epoxy Surface Treatment after new concrete pavement has been placed. The Ewa Concourse Third Level Roadway will receive Crack Penetrating Sealer and then Epoxy Surface Treatment.

#### B. Related Sections

- 1. Section 03300 STRUCTURAL CONCRETE for pavement slab cast-inplace concrete at the second levels of the Ewa and Diamondhead concourse roadways
- 2. Section 03730 CONCRETE REPAIR for defective concrete repairs at the third level of the Ewa concourse roadway prior to receiving surface treatment

# 1.03 SUBMITTALS

- A. Epoxy Surface Treatment Submittal Requirements: Prior to the start of this work, provide six copies of the following submittals in one complete set for acceptance. Indicate clearly the name of the product and its manufacturer on pertinent submittals. No work that is related to these submittals shall be performed until written acceptance has been received.
  - 1. The name and contact information of the resin binder and aggregate manufacturer's technical representative and other key personnel.
  - 2. A list of projects with owner' contact information on which a minimum of 10,000 square yards of surfacing treatment has been installed within the past five years.
    - a. List the following for each project submitted:
      - 1) Project Name
      - 2) Locations (state, routes, and Identifiers)

- 3) Scope of work
- 4) Products used
- 5) Approximate date of the system was completed, accepted, and opened to traffic
- b. If the minimum installation requirement is not met, manufacturer's representative must be present at all times during installation to ensure proper workmanship. In lieu of list of projects, submit the following information of the manufacturer's representative who will be on site during installation:
  - 1) First and last name
  - 2) Company
  - 3) Email address
  - 4) Phone number.
- B. Crack Penetrating Sealer Submittal Requirements. Prior to the start of this work, provide six copies of the name and contact information of the resin binder and aggregate manufacturer's technical representative and other key personnel in one complete set for acceptance. Indicate clearly the name of the product and its manufacturer on pertinent submittals. No work that is related to these submittals shall be performed until written acceptance has been received.
- C. Quality Control (QC) Plan: Submit a QC Plan in accordance with Paragraph 1.04.A.
- D. Work Plan: Submit a Work Plan in accordance with Paragraph 1.04.B.

# 1.04 QUALITY CONTROL

- A. Submit a QC Plan to DOT-A for acceptance a minimum of 30 days prior to the installation and the Just-In-Time-Training (JITT). Resubmittal of the document will require another 30 days for each resubmittal. Discuss the QC Plan requirements at the JITT, pre-construction, pre-installation, and progress meetings. The JITT shall not be held unless the QC Plan is accepted 30 days before it is held. Work shall not start on the surface treatment including the test strip until the JITT has been completed, QC Plan, and the Work Plan have both been accepted. The QC Plan shall contain at a minimum the following information:
  - 1. Names and contact information for key personnel, project superintendent, and lead technician responsible for field quality control sampling and testing.
  - 2. Location of resin binder production plants and batch production records.

- 3. Location of aggregate production plants and batch production records.
- 4. Proposed method of installation at each location identified to receive surfacing.
- 5. Resin binder and aggregate manufacturer's material information including:
  - a. Recommended placement instructions
  - b. Mixing Instructions
  - c. Recommended installation temperatures
  - d. Anticipated gel and cure times at various expected ambient temperatures for all sites.
  - e. Methods of safe storage and handling
  - f. Applicable installation and material limitations
  - g. Disposable methods for excess missed resin binder and associated components
  - h. Production plant location contact information for the quality control/quality assurance (OC/OQ) personnel where additional information can be requested concerning record keeping methods, inspection methods, equipment calibration records, and accreditation certificates.
- 6. The QC Plan shall designate a QC Manager, who shall be present at the jobsite and have a full authority to request any action necessary for the operation of the QC Plan providing it complies with the contract documents and acceptance of DOT-A.
  - a. The QC Manager shall be certified in all test methods used and be responsible for the required field quality control in sampling and testing in conformance with the accepted quality control plan, test methods, and contract documents. All sampling shall be performed in the presence of and with no direction by DOT-A. DOT-A is not responsible or shall be regarded as part of the contractor's QC team. It is the responsibility of the contractor and the QC Manager to ensure that the test procedure being used is compliant with the test method standard. Inspections are performed for the exclusive benefit of the state. The inspection of or the failure to inspect the work shall not relieve the Contractor of obligations to fulfill the contract as prescribed, to correct defective work, and to replace unsuitable or rejected materials regardless of whether payment for such work has been made. DOT-A has the right to reject the test if it

feels that it is non-compliant, e.g., the technician that performed the test if not certified or the material testing laboratory accredited to the tests performed. DOT-A is under no obligation to correct or direct non-compliant procedures if observed. Maintain and have available upon request, the current test standard methods documentation being used, referenced documents, complete records of sampling, testing, corrective actions, and quality control inspection results.

- b. A technical representative from the resin binder manufacturer shall be present at the JITT, Test Application, e.g., deck repair, surface preparation, installation and acceptance of the surface treatment, and at the construction site for the first two days of the surface treatment.
- B. Work Plan: Submit a Work Plan for both the epoxy surface treatment and crack penetrating sealer to DOT-A for approval 14 days prior to the installation. Discuss the Work Plan requirements at the pre-construction, pre-installation, and progress meetings. The Work Plan shall contain at a minimum the following information:
  - 1. Method of surface preparation and required surface condition for adequate bonding.
  - 2. Method of crack repair/defective concrete repair of existing concrete deck.
  - 3. Construction during inclement weather, Plan for the occurrence of rain, moisture and temperature requirements for the materials being used.
  - 4. Mixing ratio and application rates for resin binder and aggregate.
  - 5. Application Method
  - 6. Curing time and requirements for opening to traffic.
  - 7. Corrective actions that will be taken for unsatisfactory installation practices.

### 1.05 DELIVERY, STORAGE AND HANDLING

- A. Storage and Handling. All materials shall be delivered in their original containers bearing the manufacturer's label, specifying date of manufacturing, batch number, trade name, and quantity. Each shipment of resin binder shall be accompanied by a Safety Data Sheet (SDS).
- B. The material shall be stored to prevent damage by the elements and to ensure the preservation of their quality and fitness for the work. The storage space shall be kept clean and dry.
- C. Stored materials shall be inspected prior to their use, and shall meet the requirements of this Specification at the time of use.

- D. Any material which is rejected because of failure to meet the required tests or that has been damaged so as to cause rejection shall be immediately replaced at no additional expense to the State.
- E. Sufficient material to perform the entire penetrating sealer application shall be in storage at the site prior to any field application, so that there shall be no delay in procuring the material for each day's application.
- F. The contractor shall arrange to have the material supplier furnish technical service related to application of material and health and safety training for personnel who are to handle the penetrating sealer.

# PART 2 – PRODUCTS

# 2.01 PENETRATING CRACK SEALER

A. Epoxy Sealer shall be a solvent-free 0-VOC, two-component, 100% solids, moisture insensitive, low viscosity, low modulus epoxy flood-coat penetrating sealer. Epoxy shall meet the current ASTM C881, Type III, Grade 1, Classes B & C specifications and the requirements listed in Table 1 below.

Table 1. Penetrating Crack Sealer Requirements

Property	Requirement
Viscosity (ASTM D2393)	<50 cps
Gel Time (60 g mass)	45 minutes
Tack Free Time (73° F or 23° C)	3 to 5 hours
Tensile Properties (ASTM D638), 7	Tensile Strength 1,800 psi
day cure	Tensile Elongation: 75%
Bond Strength (ASTM C882)	2 day cure: 1,500 psi
	14 day cure: 2,000 psi
Compressive Properties (ASTM D695)	7 day cure Compressive Strength:
	3,000 psi
	Compressive Modulus: 90,000 psi
Bond Strength (ASTM C1583/ACI	300 psi
503R)	
Shrinkage on Cure (ASTM D2566)	0.002
Thermal Compatibility (ASTM C884)	Pass
Water Absorption (ASTM D570)	0.2% (24 hr)
Chloride Ion Permeability (ASTM	0.0 coulomb
C1202)	

B. Topping Aggregate. Furnish aggregate meeting the requirements listed in tables below unless otherwise specified by DOT-A. Deliver the aggregate to the construction site in bags or super sacks labeled clearly for identification. Provide aggregate that is virgin, clean, dry, and free from foreign matter. Ensure aggregate

meets the requirements in Table 2 and Table 3. Ensure aggregate is angular, consists of natural silica sand, basalt, or other nonfriable aggregate, and contains less than 0.2 percent moisture when tested in accordance with ASTM C 566. A sample of the aggregate lot/batch shall be supplied upon request.

Table 2. Topping Aggregate Requirements

Property	<b>Test Method</b>	Testing Lab. Results
Gradation	ASTM C136	See Table 3
Moisture	ASTM C566	NCAT 0.0%
MOHS Hardness	MOHS Scale	7+
Aggregate Soundness	AASHTO T104	NCAT 0.2%
LA Abrasion	AASHTO T96	NCAT 14.6%
Micro-Deval	AASHTO T327	ODOT 2.6%
Absorption	ASTM C127	NCAT 1.0%
Fractured Faces	ASTM D5821	NCAT 100%

Table 3. Aggregate Gradation Requirements

Sieve size	Percentage Passing
No. 10	100
No. 12	99
No. 14	98
No. 16	84
No. 20	37
No. 30	9
No. 40	2
No. 50	0.5
No. 60	0.1
No. 100	0.1
Pan	0

### 2.02 EPOXY SURFACE TREATMENT RESIN BINDER SYSTEM

- A. Provide a resin binder system meeting the requirements of Table 1 below, recommended by the manufacturer as suitable for use on the intended pavement surface. A sample of the resin binder system for reach lot/batch shall be supplied upon request.
  - 1. Note: All materials shall be virgin; free of secondary components, volatile solvents, and external/conventional flexibilizers. Component batches shall be interchangeable.

Table 4. Two Component Resin Requirements

Property	Requirement	Test Method
Viscosity	10-30 Poise	ASTM D2556 <sup>*1</sup>
Cure Rate (Set to Touch)	3 hours max	ASTM D1640 <sup>*2</sup>
Shore D Durometer Hardness	60-80	ASTM D2240
Compressive Modulus	130,000 psi maximum	ASTM D695
Ultimate Tensile Strength		ASTM D638 <sup>*3</sup>
Elongation at Break Point	40%-70%	ASTM D638 <sup>*3</sup>
Adhesive Strength (Bond to Concrete at 24 hrs)	250 psi min. or 100% concrete substrate failure	ASTM C1583*4
Thermal Compatibility	PASS	ASTM C88
Water Absorption	1% max	ASTM D570

<sup>\*</sup>ASTM Material Properties Test Method Table Notes:

- 1. Mix test sample for 2 minutes. Test at a temperature of  $73 \pm 1^{\circ}$ F.
- 2. Prepare specimens of 50-55 wet mil thickness.
- 3. Prepare Type I specimens.
- 4. Follow manufacturer's recommendation for curing before testing.
- 2. A test report, dated within 90 days of contract award, consisting of a certification by an AASHTO recourse/CCRL accredited independent testing laboratory showing compliance with the requirements of this specification and material properties. Include the accredited laboratory's test results with the certification.
- 3. Product data sheets and specifications from the manufacturer showing instructions, application recommendations and methods, product properties.

Table 5. Epoxy Working Time

WORKING TIME		
Surface Temperature (°F) Maximum Working Time* (minutes)		
50	45	
60	35	
70	20	

80	11
90	9
100	7
110	6
120	4

<sup>\*</sup>Include mix time, resin binder and aggregate placement.

Note: Consult manufacturer for surface temperatures exceeding 120°F

# 2.03 <u>EPOXY SURFACE TREATMENT AGGREGATE</u>

A. Furnish aggregate meeting the requirements listed in the tables below unless otherwise specified by DOT-A. Deliver the aggregate to the construction site in bags or super sacks labeled clearly for identification. Provide aggregate that is virgin, clean, dry, and free from foreign matter. A sample of the aggregate lot/batch shall be supplied upon request.

Table 6. Aggregate Requirements

Test Data Description	Test Procedure	Testing Lab. Requirements
Gradation	ASTM C136	See Table 4
Moisture	ASTM C566	NCAT 0.0%
Micro-Deval	AASHTO T327	ODOT 2.6%
Absorption	ASTM C127	NCAT 1.0%

Table 7. Aggegate Gradation

Sieve size	Percentage passing
No. 4	100
No. 8	30-75
No. 16	0-5

# PART 3 – EXECUTION

# 3.01 CRACK PENETRATING SEALER EQUIPMENT

A. For the epoxy healer sealer, provide a distribution system or distributor capable of accurately blending the epoxy resin and hardening agent, and uniformly and accurately applying the epoxy materials at the specified rate to the bridge deck in such a manner as to cover 100 percent of the work area, including 1 inch of the vertical face of curb/barrier. Provide a fine aggregate spreader capable of uniformly

and accurately applying dry aggregate to cover 100 percent of the epoxy material. Provide a self-propelled vacuum truck.

- 1. For hand applications, provide calibrated containers, a Jiffy® type mixer for mixing and stiff bristle brooms suitable for applying the epoxy. Aggregate shall be hand broadcast to refusal onto the wet epoxy.
- 2. For mechanical applications, provide meter-mixing equipment that will automatically and accurately proportion the components in accordance with the manufacturer's recommendations and will mix and continuously place the penetrating sealer. Ensure the operation proceeds in such a manner that will not allow the mixed materials to segregate, dry, be exposed or otherwise harden in such a way as to impair the retention and bonding of broadcasted aggregate.
- 3. Coverage is approximate depending on surface profile and volume of cracks.

#### 3.02 CRACK PENETRATING SEALER SURFACE PREPARATION

- A. Surface preparation shall conform to the following requirements:
  - 1. Sweep the surface clean.
  - 2. Blow the surface clean to remove dust and laitance.
  - 3. Clean cracks greater than 0.25-inch-wide and pretreat per resin binder manufacturer's recommendations.
  - 4. All laitance, contaminants, paint, markers and foreign material, must be removed from the surface.
  - 5. If the prepared surface is contaminated prior to installing the surface treatment, abrasive blast, sweep and blow the surface clean.
  - 6. Placement.

# 3.03 CRACK PENETRATING SEALER MIXING

A. Precondition material to 65°-85°F (18°-29°C) before using. Measure and mix one part by volume of Part A with one part by volume of Part B for three minutes with a low speed (< 450 rpm) drill using a jiffy mixer or paddle. Mix only as much material as can be used within the pot life. Air, material, and surface temperature must be 50°F (10°C) and rising prior to mixing or installation. For mechanical applications consult material manufacturer for proper mixing and dispensing equipment.

### 3.04 CRACK PENETRATING SEALER APPLICATION

- A. Ensure handling and mixing of the epoxy resin and hardening agent is performed in a safe manner to achieve the desired results in accordance with the manufacturer's recommendations or as directed by the Engineer. Do not place penetrating sealer when the concrete surface is less than 50 degrees Fahrenheit (F) or ambient air temperature is forecast to fall below 50 degrees F within 8 hours of application. Do not place healer sealer materials if weather or surface conditions are such that the material cannot be properly handled, placed, and cured according to the manufacturer's requirements and the specified requirements for traffic control.
- B. At the start of each shift and prior to application of the Penetrating Sealer and following the surface prep, all expansion joints, drains and grates shall be adequately isolated utilizing construction paper to prevent any penetrating sealer from entering drainage and joint systems. The construction paper will then be removed prior to full cure of the epoxy.
- C. The Penetrating Sealer will be applied utilizing an epoxy pump system specially designed for epoxies. The epoxy pump is mounted on the rear of a truck which also houses two 250 Gallon totes of material. The totes to be used will be between 65°-85°F. The pump is equipped with a detailed digital read out displaying the gallons per minute and total volume of both part A and B. It also gives the total volume of material pumped. This allows for easy verification of the correct amount of material applied to the surface and at the correct ratio of 1:1.
- D. The mixed epoxy will be dispensed onto the concourse deck surface, this will be followed by a ground laborer(s) using a saw-toothed/notched squeegee to spread the sealer meeting the 25-30 mill wet thickness. Any variation in the surface (i.e., cracks) surface conditions will result in penetrating sealer being spread until refusal.
- E. Following 5 minutes of the material being worked into the surface, the topping aggregate / sand application will start. Adjacent to the sealer application will be a truck with a bulk sand pot with the topping sand. Special care will be given as to not direct the hose directly to the surface disrupting or causing the epoxy material to disperse. Special care will also be taken to minimize dust during the process. DOT-A will approve the method. The topping sand will be applied to the point of refusal.
- F. Hand broadcasting of the topping sand is allowed provided the sand can be applied over the wet resin within 10 minutes of the resin having been placed. Spike shoes will need to be worn by any person who may come in contact with wet placed sealer without aggregate.
- G. To ensure no wet spots exist, a final walk of the surface will be done immediately behind the sand application to ensure no wet areas of epoxy shining through are present. In the case wet areas are visible, additional sand will be applied to these

- areas manually to the point of refusal. Once all material has cured and inspected, a full sweep/vacuum will commence prior to opening to traffic.
- H. Ensure application of aggregate is of sufficient quantity so the entire surface is covered in excess. Ensure no bleed through or wet spots are visible in the overlay. Remove and replace any areas with wet spots or where epoxy has bled through. Minimize all foot traffic on the uncured epoxy and ensure any foot traffic will only be done with steel spiked shoes approved by the Engineer. Do not allow traffic or equipment on the penetrating sealer surface during the curing period. Remove all loose aggregate after the curing period with a vacuum or broom without tearing or damaging the surface. Ensure all expansion joints are free of loose aggregate, epoxy and other debris.

# 3.05 CRACK PENETRATING SEALER CURING

A. Refer to manufacturer's curing schedule for estimated cure times.

### 3.06 EPOXY SURFACE PROTECTION PREPARATION

- A. Surface Preparation for concrete decks with a crack penetrating sealer and aggregate topping overlay shall conform to the following requirements:
  - 1. Sweep the surface clean with a vacuum sweeper.
  - 2. Below the surface clean using oil-free air to remove dust, laitance, and other deleterious material that may affect the bonding of the surface treatment from the surface.
  - 3. All laitance, contaminants, paint, markers, and foreign material that may inhibit the bond of the surface treatment, shall be removed from the surface before sweeping with vacuum sweeper.
  - 4. If the prepared surface is contaminated prior to installing the surface treatment, abrasive blast, sweep and blow the surface clean.
- B. Surface Preparation for on new concrete shall be abrasive blast, sweep and blow the surface clean. Abrasive blast shall create a surface profile to CSP-3.

# 3.07 EPOXY SURFACE PROTECTION TEST APPLICATION

- A. The test application shall be a part of the production location before starting production work. Resin binder manufacturer's representative shall be present during the test application. The test application shall meet the following requirements:
  - 1. Install a minimum of 200 square yards.

- 2. Shall be constructed using the same method and equipment as the production work.
- 3. Shall construct an additional test application for each method proposed for the production work.
- 4. Shall replicate field conditions, including ambient and surface temperatures, time period, anticipated for production work.
- 5. Shall demonstrate surface preparation method as outlined in the QC Plan
- 6. Shall demonstrate that the data management system is capable of documenting ambient and surface temperatures, quantities of resin binder and aggregate, coverage rates, and reporting application rates in real time.
- 7. Determine the initial set time for the resin binder.

# 3.08 EPOXY SURFACE PROTECTION SURFACE APPLICATION

- A. The following information is required in a real time reporting method:
  - 1. The volume of mixed resin binder per square yard being applied.
  - 2. The mixed resin binder mil thickness on average throughout the application width per square yard.
  - 3. The volume of aggregate applied throughout the application width per square yard.
  - 4. The ambient and pavement surface temperature during the application period.
- B. Apply the blended resin binder on the pavement surface plane in a uniform application with a minimum thickness of 60 mils. Verify thickness using a Wet-Mil fil thickness gauge every 75-100 lineal feet of application. Ensure the surfacing aggregate is applied uniformly at a rate of 14-17 pounds per square yard within the working time per Table 2.

# 3.09 EPOXY SURFACE PROTECTION APPLICATION METHOD

- A. Expansion Joints, drains and grates shall be adequately isolated to prevent any surface treatment from entering drainage and joint systems. The surface treatment discharged from the mixer shall be uniform in composition and consistency. Mixing capability shall be such that initial and final finishing operations can proceed at a steady pace.
- B. Continuous application must be applied utilizing an epoxy pump system specially designed for epoxies. The epoxy pump is mounted on the rear of a truck which also

houses two 250 Gallon totes of material. The totes to be used will be between 65°-85°F. The pump is equipped with a detailed digital read out displaying the gallons per minute and total volume of both part A and B. It also gives the total volume of material pumped. This allows for easy verification of the correct amount of material applied to the surface and at the correct ratio of 1:1. The mixed epoxy will be dispensed onto the concourse deck surface, this will be followed by a ground laborer(s) using a saw-toothed/notched squeegee to spread the sealer meeting the manufacturer specified wet mil thickness.

- C. Adjacent to the sealer application will be a truck with a bulk sand pot with the topping sand. Special care will be given as to not direct the hose directly to the surface disrupting or causing the epoxy material to disperse. The application equipment shall install the surfacing at a minimum application rate of 20 linear feet per minute. Perform a final sweep of loose aggregates and debris from the areas adjacent to the applied surface treatment within end of work shift. Ensure all expansion joints are free of loose aggregate, epoxy, and other debris.
- D. For small, odd shaped areas inaccessible to the continuous applicator truck, mixed epoxy is dispensed from the truck by hand through a mixing wand onto the area to be treated, Contractor shall use a notched squeegee to evenly spread the epoxy according to the manufacturer's recommendations. Broadcast aggregate by hand onto the wet epoxy until rejection and epoxy surface is completely covered with aggregate. Spike shoes will need to be worn by any person who may come in contact with wet placed sealer without aggregate.

#### 3.10 EPOXY SURFACE PROTECTION CURING

A. Traffic and construction equipment shall not be permitted on the completed surface treatment overlay for 2 hours or until the surface treatment is tack free, whichever is later.

#### 3.11 ACCEPTANCE AND CORRECTIVE ACTION

- A. The completed crack penetration and epoxy surface treatment shall be free of any smooth or wet areas such as those resulting from insufficient quantities of topping aggregate. Completed overlay surface must be uniform in thickness, texture and appearance.
- B. At the discretion of DOT-A, Tensile Bond testing shall be performed for each placement per day. Testing may be conducted on a separate concrete substrate representing the field conditions upon approval of DOT-A. Testing will be performed in accordance with ASTM C 1583 and the manufacturer's recommendations. A passing test is the failure of the concrete substrate or bond strength above 250 psi at 24 hours. Fill cored holes with approved material specified in Section 03730 –Concrete Repairs.

- C. Correct all defects in material and work, as directed, at no additional cost to the State, according to the following:
  - 1. Remove and replace surfacing treatment that DOT-A determines has any raveling, delamination, streaking, or bond test failure.
  - 2. Replace with acceptable surface treatment at the installer's expense. Replaced areas will be retested and evaluated for acceptance or further corrective action.
  - 3. Any roadway features disturbed by the work or the installer's operations shall be restored with the same materials and design as directed by DOT-A at no additional cost to the State.

#### PART 4 – MEASUREMENT AND PAYMENT

#### 4.01 METHOD OF MEASUREMENT

Surface Treatment will be measured per square foot as shown on the plans or as specified in the proposal.

#### 4.02 BASIS OF PAYMENT

Surface treatment shall be measured and paid for, at the contract unit price bid. The contract unit priced paid shall be full compensation for all labor, tools, equipment, and all other incidentals necessary to complete the work.

Item No.	Description	Unit
07680.1	Ewa Concourse Second Level Roadway Overlay	Square Feet
07680.2	DH Concourse Second Level Roadway Overlay	Square Feet
07680.3	Ewa Concourse Third Level Roadway Overlay	Square Feet

All other work specified in this section shall be considered incidental to and included in the bid prices for the various items of work in this project.

#### END OF SECTION

#### SECTION 07916 – EXPANSION JOINT

#### PART 1 – GENERAL

#### 1.01 RELATED DOCUMENTS

A. The General Provisions of the contract, including the General Provisions for Construction Projects (2016), Special Provisions, and General Requirements of the Specifications, apply to the work specified in this Section.

#### 1.02 ADMINISTRATIVE REQUIREMENTS

#### A. Pre-Installation Conference:

- 1. Convene at Project site 2 weeks prior to beginning work of this Section.
- 2. Attendance: Contractor, Construction Manager, joint seal installer, joint seal manufacturer representative, and related trades.
- 3. Review and discuss:
  - a. Joint seal manufacturer's requirements, project conditions, substrate requirements allowable structural movement at joints, and protection of completed work.
  - b. Transitions in plane and direction, and requirement for continuity of seal through watertight transitions from wall expansion joint to other interfacing expansion joint systems at adjacent construction.

#### 1.03 <u>SUBMITTALS</u>

#### A. Action Submittals:

- 1. Shop Drawings:
  - a. Indicate joint locations, dimensions, and adjacent construction.
  - b. Provide details for transitions in plane and direction for continuity of seal through watertight transitions from wall expansion joint to other interfacing expansion joint systems at adjacent construction.
- 2. Product Data: Material description and application instructions.
- 3. Samples:
  - a. Minimum 6 inch long samples of each joint seal.

#### B. Informational Submittals:

- 1. Manufacturer's certification that:
  - a. Products are capable of withstanding temperature of 150 degrees F (65 degrees C) for 3 hours while compressed to minimum of movement capability dimension without evidence of bleeding of impregnation medium from material.
  - b. Same material after heat stability test and after cooling to room temperature will self-expand to maximum of movement capability dimension within 24 hours at 68 degrees F (20 degrees C).

#### 1.04 QUALITY CONTROL

- A. Manufacturer Qualifications:
  - 1. Minimum 10 years documented experience in production of specified materials.
  - 2. Certified to ISO 9001 and 14001.
- B. Installer Qualifications: Minimum 2 years documented experience in work of this Section.

#### 1.05 DELIVERY, STORAGE AND HANDLING

A. In accordance with manufacturer's instructions.

#### PART 2 – PRODUCTS

#### 2.01 MATERIALS

- A. Roadway Expansion Joint Seal, Main Waterproofing:
  - 1. System: Extruded sealing gland with punched flanges embedded in high-strength, flexible, impact-absorbing elastomeric concrete nosing.
  - 2. Gland:
    - a. Description: Extruded thermoplastic vulcanizate gland with punched flanges and heat welded transitions.
    - b. Shore A hardness: Minimum 65, tested to ASTM D 2240.

- c. Tensile strength: Minimum 1,000 PSI, tested to ASTM D 412.
- d. Ultimate elongation, Minimum 400 percent, tested to ASTM D 412.

#### 3. Nosing:

- a. Description: High strength, flexible, impact-absorbing elastomeric concrete material composed of two-part polyurethane resin reinforced with silica free aggregate.
- b. Tensile strength: 490 PSI, tested to ASTM D638.
- c. Compressive strength: Minimum 4,000 PSI, tested to ASTM D695.
- d. Adhesion to primed concrete: Minimum 400 PSI, tested to ASTM D2734.
- e. Impact resistance: No cracking at 19 inches, tested to ASTM D5628.
- f. Shore A hardness: 54.0, tested to ASTM D2240.
- 4. Color: Black.
- B. Roadway Expansion Joint Seal, Secondary Waterproofing:
  - 1. System: Precompressed, silicone coated and acrylic impregnated-foam hybrid installed into field-applied epoxy adhesive, with silicone sealant band on joint faces.
  - 2. Form: Procompressed to less than nominal material size for installation into designed joint size equal to material nominal size.
  - 3. Movement capability: Plus or minus 50 percent, total 100 percent; pass ASTM E1399.
  - 4. Adhesive: Epoxy type, furnished by joint seal manufacturer.
  - 5. Silicone: Field applied sealant band at face of seal so substrate interface, furnished by joint seal manufacturer; same material and color as factory coating.
    - a. Abrasion resistance: Maximum 1 percent wight loss, tested to ASTM D4060.

#### b. Fuel resistance: Pass ASTM C719 and ASTM C1135

#### PART 3 – EXECUTION

#### 3.01 <u>PREPARATION</u>

A. Clean joints thoroughly; remove loose and foreign matter that could impair adhesion or performance.

#### 3.02 INSTALLATION

- A. Install joint seal in accordance with manufacturer's instructions and approved Shop Drawings.
- B. Remove joint seal from precompressed packaging, immediately insert into joint, and allow to expand.
- C. Use temporary retainers if required to maintain joint seals in position until expansion is complete.
- D. Secondary Waterproofing:
  - 1. To be installed after pavement slab is demolished, but before new pavement slab is cast.
- E. Main Waterproofing:
  - 1. To be installed after new pavement slab is cast.

#### PART 4 – MEASUREMENT AND PAYMENT

#### 4.01 BASIS OF MEASUREMENT

No measurement shall be made for the items in this Section

#### 4.02 BASIS OF PAYMENT

Work involving the reinstallation of the expansion joint waterproofing for the Second level Ewa Concourse, Second level Diamond Head Concourse, and Third Level Ewa Concourse, shall be paid for at the contract Lump Sum prices for the <a href="Ewa Concourse">Ewa Concourse</a>
Second Level Expansion Joint Waterproofing, Diamond Head Concourse Second Level <a href="Expansion Joint Waterproofing">Expansion Joint Waterproofing</a>, and for the <a href="Ewa Concourse Third Level Expansion Joint Waterproofing">Expansion Joint Waterproofing</a>, and for the <a href="Ewa Concourse Third Level Expansion Joint Waterproofing">Ewa Concourse Third Level Expansion Joint Waterproofing</a>. The contract prices paid shall be full compensation for all labor, tools, equipments, and all other incidentals necessary to complete the work.

Item No.	Description	Unit
07916.1	Ewa Concourse Second Level Expansion Joint	Lump Sum
07916.2	DH Concourse Second Level Expansion Joint	Lump Sum
07916.3	Ewa Concourse Third Level Expansion joint	Lump Sum

END OF SECTION

# EWA & DH CONCOURSE ROADWAY IMPROVEMENTS PHASE I DANIEL K. INOUYE INTERNATIONAL AIRPORT HONOLULU, OAHU, HAWAII

#### STATE PROJECT NO. AO1043-32 AIP PROJECT NO. 3-15-0005-XX

#### **PROPOSAL SCHEDULE**

Item No.	Description	Approx. Quantity	Unit	Unit Price	Total
<u>I.</u>	General Requirements				
01561.1	Construction Site Runoff Program	L.S.	L.S.		\$
II	Site Work				
02222.2	Selective Demolition	L.S.	L.S.		\$
02577	Pavement Marking	L.S.	L.S.		\$
III.	<u>Concrete</u>				
03300.1	Ewa Concourse Second Level Roadway Deck Replacement	L.S.	L.S.		\$
03300.2	DH Concourse Second Level Roadway Deck Replacement	L.S.	L.S.		\$
03300.3	Ewa Concourse Third Level Structural Deck at Drains	L.S.	L.S.		\$
03300.4	Ewa and DH Concourse Misc. Concrete Work	L.S.	L.S.		\$
03730.1	Included Spall Repair for Third Level Roadway Deck	1,794	S.F.	\$	\$
03730.2	Curb Spall Repair	476	L.F.	\$	\$

IV.	Thermal and Moisture Protect	etion_			
07680.1	Ewa Concourse Second Level Roadway Overlay	48,352	S.F.	\$	\$
07680.2	DH Concourse Second Level Roadway Overlay	29,847	S.F.	\$	\$
07680.3	Ewa Concourse Third Level Roadway Overlay	36,909	S.F.	\$	\$
07916.1	Ewa Concourse Second Level Expansion Joint	L.S.	L.S.		\$
07916.2	DH Concourse Second Level Expansion Joint	L.S.	L.S.		\$
07916.3	Ewa Concourse Third Level Expansion Joint	L.S.	L.S.		\$
V.	Mechanical				
15400	Plumbing	L.S.	L.S.		\$
VI.	<u>Electrical</u>				
16500.1	Ewa and DH Concourse Exterior Lighting	L.S.	L.S.		\$
VII.	Allowances				
01562.1	Management of Contaminated Medias	Allowance	Allowand	ce	\$ 50,000
01565.1	Security Measures	Allowance	Allowand	ce	\$ 80,000
02222.1	Unforeseen Demolition Conditions	Allowance	Allowand	ce	\$ 50,000
03300.5	Ewa and DH Concourse Drain Replacement Interior Work	Allowance	Allowand	ce	\$ 309,000
03730.3	Structural Slab Spall Repairs	Allowance	Allowand	ce	\$ 250,000
03730.4	Additional Unforeseen Spall Repair	Allowance	Allowand	ce	\$ 458,000
13282.1	RCRA Hazardous Waste Disposal	Allowance	Allowand	ce	\$ 50,000
	<u>F</u>				

The bid prices herein shall include all labor, materials, equipment, and incidentals necessary to construct all items in place, including installation and testing of equipment, complete and ready for operation, all in accordance with the plans and specifications.

TOTAL AMOUNT FOR COMPARISON OF BIDS

#### Notes:

- 1. Bid shall include all Federal, State, County and other applicable taxes.
- 2. The TOTAL AMOUNT FOR COMPARISON OF BIDS will be used to determine the lowest responsible bidder.
- 3. Bidders must complete all unit prices and amounts. Failure to do so may be grounds for rejection of bid.
- 4. If a discrepancy occurs between the unit price and the total, the unit price shall govern.
- 5. The State reserves the right to reject any or all Bids and to waive any defects in said Bids in the best interest of the State.
- 6. Submission of a Bid is a warranty that the bidder has made an examination of the project site and is fully aware of all conditions to be encountered in performing the work and the requirements of the plans and specifications.
- 7. The bidder's attention is directed to Section 2.11 BID SECURITY and Section 2.24 REQUIREMENTS OF CONTRACT BONDS of the "General Provisions", as amended by the Special Provisions.
- 8. Bidders shall be paid for actual work performed as directed by the Engineer for allowance items. Bidder will not be paid overhead and profit for unused allowance funds.
- 9. If the TOTAL AMOUNT FOR COMPARISON OF BIDS exceeds the funds available for the project, then the State reserves the right to negotiate with the lowest, responsive, responsible bidder as permitted under Section 103D-302, Hawaii Revised Statutes (HRS), to further reduce the scope of work and award a contract thereafter.
- 10. Proposal Sheets P-1 through P-20 shall be submitted at the time of bid. Failure to submit all pages shall result in rejection of bid.

#### **GENERAL NOTES:**

- A. WORKMANSHIP AND MATERIALS SHALL CONFORM TO THE BUILDING CODE AS STATED BELOW. HOWEVER, WHERE REFERENCE IS MADE TO PERFORMANCE CONFORMING TO OTHER STANDARDS THE MORE STRINGENT SHALL APPLY.
  - 1. STATE OF HAWAII: AMENDED IBC, 2018
- B. THE CONTRACTOR SHALL COMPARE ALL THE CONTRACT DOCUMENTS WITH EACH OTHER AND REPORT IN WRITING TO DOT-A ALL INCONSISTENCIES AND OMISSIONS.
- C. THE CONTRACTOR SHALL TAKE FIELD MEASUREMENTS AND VERIFY FIELD CONDITIONS AND SHALL COMPARE SUCH FIELD MEASUREMENTS AND CONDITIONS WITH THE DRAWINGS BEFORE COMMENCING WORK. REPORT IN WRITING TO DOT-A ALL INCONSISTENCIES AND OMISSIONS.
- D. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE WORK OF ALL TRADES.
- E. THE CONTRACTOR SHALL BE RESPONSIBLE FOR METHODS OF CONSTRUCTION, WORKMANSHIP AND JOB SAFETY. THE CONTRACTOR SHALL PROVIDE TEMPORARY SHORING AND BRACING AS REQUIRED FOR STABILITY OF STRUCTURAL MEMBERS AND SYSTEMS.
- F. CONSTRUCTION LOADING SHALL NOT EXCEED DESIGN LIVE LOAD UNLESS SPECIAL SHORING IS PROVIDED. ALLOWABLE LOADS SHALL BE REDUCED IN AREAS WHERE THE STRUCTURE HAS NOT ATTAINED FULL DESIGN STRENGTH.
- G. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTION OF THE ADJACENT PROPERTIES, STRUCTURES, STREETS AND UTILITIES DURING THE CONSTRUCTION PERIOD.
- H. DETAILS NOTED AS TYPICAL ON THE STRUCTURAL DRAWINGS SHALL APPLY IN ALL CONDITIONS UNLESS SPECIFICALLY SHOWN OR NOTED
- I. CONTRACTOR SHALL ENSURE CONSTRUCTION MATERIALS, EQUIPMENT, AND VEHICLES ARE STORED IN THE DESIGNATED STORAGE AREAS APPROVED BY DOT-A PRIOR TO CONSTRUCTION. MATERIALS SHALL BE SECURED SUCH THAT NO DUST OR DEBRIS CAN BE BLOWN INTO THE AIRPORT APRON OR NEIGHBORING FACILITIES.

#### **DESIGN CRITERIA**

#### A. FLOOR LIVE LOADS

- 1. EWA AND DH 2ND LEVEL ROADWAYS: AASHTO HS-20
- 2. EWA THIRD FLOOR ROADWAYS: 125 PSF OR 2000 LBF CONCENTRATED LOAD
- B. CONSTRUCTION LOAD LIMITS
  - 1. EWA AND DH 2ND LEVEL ROADWAYS INCLUDING TURN AROUND AREAS: 5,400 LBS. AXLE.
  - 2. EWA CONCOURSE 3RD LEVEL: 19,000 G.W.V.

#### **DEMOLITION AND REMOVAL WORK:**

- A. THE CONSTRUCTION DRAWINGS INDICATE THE GENERAL EXTENT OF REQUIRED DEMOLITION AND REMOVAL WORK. SEE STRUCTURAL DRAWINGS FOR DEMOLITION DRAWINGS.
- B. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS (PRIOR TO BID) TO DETERMINE THE EXTENT OF ALL REQUIRED DEMOLITION WORK. THE REMOVAL OR DEMOLITION OF MATERIALS, ACCESSORIES, FIXTURES, ETC., SHALL BE COMPLETE AND INCLUDE ALL RELATED ITEMS TO THE EXTENT THAT FUTURE CONSTRUCTION CAN BE PERFORMED AND COMPLETED WITHOUT ADDITIONAL COST TO DOT-A.
- C. ALL NECESSARY PRECAUTIONS SHALL BE TAKEN TO INSURE AGAINST DAMAGE TO EXISTING ITEMS AND FEATURES REMAINING IN PLACE.
  - 1. CONTRACTOR SHALL NOT DAMAGE, CUT OR DRILL THROUGH EXISTING REINFORCING THAT IS TO REMAIN AND AS NOTED ON PLANS. IF REINFORCING IS DAMAGED, THE CONTRACTOR SHALL INFORM DOT-A IMMEDIATELY AND SHALL BE RESPONSIBLE FOR REPAIRING THE DAMAGE AT CONTRACTOR'S SOLE EXPENSE AND TO THE SATISFACTION OF DOT-A.
- 2. CONTRACTOR SHALL NOT DAMAGE, CUT OR DRILL THROUGH EXISTING PRECAST CONCRETE DOUBLE-TEES, OR CONCRETE CURB WHEN REMOVING THE ROADWAY PAVEMENT SLAB EXCEPT WHERE INDICATED ON THE PLANS OR IF PRIOR APPROVAL WAS GIVEN BY DOT-A. ANY DAMAGE TO THE STRUCTURAL CONCRETE SLAB OR CONCRETE CURB NOT INDICATED ON THE DRAWINGS NOR PREVIOUSLY APPROVED BY DOT-A SHALL BE REPAIRED AT THE CONTRACTOR'S SOLE EXPENSE AND TO THE SATISFACTION OF DOT-A
- D. THE CONTRACTOR SHALL REMOVE EXISTING ITEMS AS DEEMED NECESSARY SO THAT FUTURE WORK CAN BE PERFORMED AND ALSO, SO THAT ANY EXISTING ITEM IS NOT DAMAGED WHEN FUTURE WORK IS PERFORMED. THE CONTRACTOR SHALL ALSO INSTALL ANY OR ALL OF THE ITEMS, PATCH AND RESTORE SURROUNDING SURFACES AS REQUIRED AS PART OF THE WORK ACCEPTABLE TO DOT-A.

- E. LOCATION OF CAST-IN-PLACE UTILITIES AND PIPES SHOWN ON THE PLANS ARE APPROXIMATE ONLY. THE CONTRACTOR SHALL VERIFY THE EXACT LOCATIONS OF THE EXISTING UTILITIES AND SHALL BE RESPONSIBLE FOR ANY DAMAGES TO THEM. ANY PORTION OF THE EXISTING UTILITIES THAT MUST BE REMOVED OR OTHERWISE DISTURBED TO ACCOMPLISH THIS WORK CALLED FOR ON THE PLANS SHALL BE RECONSTRUCTED, REPLACED OR RESTORED TO THE ORIGINAL CONDITION AT THE CONTRACTOR'S OWN EXPENSE.
- F. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING THAT EFFECTIVE CONTROL MEASURES ARE PROVIDED TO MINIMIZE OR PREVENT ANY VISIBLE DUST EMISSION CAUSED BY THE DEMOLITION AND CONSTRUCTION WORK FROM IMPACTING THE SURROUNDING AREAS INCLUDING THE OFF-SITE ROADWAYS USED TO ENTER/EXIT THE PROJECT AND OCCUPIED SPACES. THESE MEASURES INCLUDED BUT ARE NOT LIMITED TO, DUST CONTROL TENTS WITH APPROPRIATE FILTRATION SYSTEM TO CONTAIN DUST DURING DEMOLITION, AND PROTECTIVE COVERS TO CONTAIN DUST IN COMPLETED DEMOLISHED AREAS AS NEEDED. SEE ENVIRONMENTAL NOTES ON SHEET C-001 AND SHEET S-600 TO S-603 FOR DUST CONTAINMENT DETAILS.
- G. VEHICULAR TRAFFIC SHALL NOT BE ALLOWED ON ANY LOCATION OF THE ROADWAY WHERE THE PAVEMENT SLAB HAS BEEN DEMOLISHED AND THE STRUCTURAL SLAB IS EXPOSED. ENSURE NEW PAVEMENT SLAB CONCRETE HAS CURED TO SPECIFIED TIMEFRAME FOR VEHICULAR USE BEFORE ALLOWING TRAFFIC TO RESUME OVER REPAIRED ROADWAY LOCATIONS.
- H. USAGE OF JACKHAMMERS AND OTHER HIGH NOISE EQUIPMENT TO REMOVE CONCRETE PAVEMENT IS PROHIBITED DURING NORMAL WORK HOURS AND PEAK AIRLINE PASSENGER TRANSIT TIMES.

#### SPECIAL INSPECTIONS:

- A. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING THAT SPECIAL INSPECTION OF PORTIONS OF THE WORK AS REQUIRED BY THE BUILDING CODE IS MADE AT THE APPROPRIATE TIME. THE CONTRACTOR SHALL SUBMIT STATEMENT OF RESPONSIBILITY TO THE STATE PROJECT MANAGER AND DOTA PRIOR TO THE COMMENCEMENT OF WORK. THE CONTRACTOR SHALL GIVE TIMELY NOTICE OF WHEN AND WHERE INSPECTIONS ARE TO BE MADE AND PROVIDE ACCESS FOR THE INSPECTOR. FREQUENCY OF INSPECTION IS DEFINED IN THE IBC, SECTION 1705 TABLES, AS AMENDED BY DOTA. THE CONTRACTOR SHALL CORRECT DEFECTIVE WORK AT NO ADDITIONAL COST TO DOTA AND PAY FOR RE-INSPECTION AS REQUIRED.
- B. SPECIAL INSPECTORS SHALL KEEP RECORDS OF INSPECTIONS. REPORTS SHALL INDICATE THAT WORK INSPECTED WAS DONE IN CONFORMANCE WITH APPROVED CONSTRUCTION DOCUMENTS. THE INSPECTOR SHALL SUBMIT A FINAL SIGNED REPORT TO THE CONSTRUCTION MANAGER WHO IN TURN SHALL SUBMIT A WRITTEN STATEMENT TO DOTA CERTIFYING RECEIPT OF THE FINAL INSPECTION LETTER AND DOCUMENTING THAT THERE ARE NO KNOWN UNRESOLVED CODE REQUIREMENTS.
- C. THE FOLLOWING TYPE OF WORK LISTED IN THE IBC, SECTION 1705, AS AMENDED BY THE STATE, REQUIRES SPECIAL INSPECTION:
  - 1. CONCRETE CONSTRUCTION
  - a. PLACEMENT OF CONCRETE REINFORCING
  - b. PLACEMENT OF STRUCTURAL CONCRETE
  - c. PLACEMENT OF FAST-SETTING CONCRETEd. POST INSTALLED CONCRETE BOLTS

### LEVELING CONCRETE:

- A. LEVELING CONCRETE BENEATH THE SECOND FLOOR DIAMOND HEAD AND EWA CONCOURSE SHALL MEET THE FOLLOWING:
  - 1. THE LEVELING CONCRETE SHALL BE A BLEND OF SELECTED PORTLAND CEMENTS, SPECIALLY GRADED AGGREGATES, ADMIXTURES, FOR CONTROLLING SETTING TIME, AND WATER REDUCERS FOR WORKABILITY AND AN ORGANIC ACCELERATOR.
- 2. THE MATERIALS SHALL BE NON-COMBUSTIBLE BEFORE AND AFTER CURE.
- 3. THE MATERIALS SHALL BE SUPPLIED AS A FACTORY-BLENDED UNIT
- 4. THE PORTLAND CEMENT MORTAR SHALL BE PLACEABLE FROM  $\frac{1}{4}$ " TO 1" IN DEPTH PER LIFT FOR HORIZONTAL APPLICATIONS.

#### REINFORCING STEEL:

- A. REINFORCING STEEL SHALL BE DEFORMED BARS CONFORMING TO ASTM A1035/A1035M GRAE100.
- B. CLEAR CONCRETE COVER FOR REINFORCING BARS SHALL BE 2" UNLESS OTHERWISE NOTED.
- C. CLEAR DISTANCE BETWEEN THE SURFACE OF A BAR AND ANY SURFACE OF A MASONRY UNIT SHALL BE NOT LESS THAN 1/2 INCH, UNLESS OTHERWISE NOTED.

#### CONCRETE:

- A. CONCRETE CONSTRUCTION SHALL CONFORM TO AMERICAN CONCRETE INSTITUTE ACI 318
- B. CONCRETE SHALL BE REGULAR WEIGHT HARD ROCK CONCRETE AND SHALL HAVE 5000 PSI MINIMUM 28 DAY COMPRESSIVE STRENGTH.
- C. CONCRETE DELIVERY TICKETS SHALL RECORD ALL FREE WATER IN THE MIX: AT BATCHING BY PLANT, FOR CONSISTENCY BY DRIVER, AND ANY ADDITIONAL REQUEST BY CONTRACTOR IF PERMITTED BY THE MIX DESIGN.
- D. WATER USED IN MIXING CONCRETE SHALL BE CLEAN AND FREE FROM INJURIOUS AMOUNTS OF OILS, ACIDS, ALKALIS, SALTS, ORGANIC MATERIALS OR OTHER SUBSTANCES THAT ARE DELETERIOUS TO CONCRETE OR STEEL REINFORCEMENT.
- E. FREQUENCY OF CONDUCTING STRENGTH TESTS SHALL BE AS FOLLOWS:
- 1. SAMPLES FOR STRENGTH OF EACH CLASS OF CONCRETE PLACED EACH DAY SHALL BE TAKEN NOT LESS THAN ONCE A DAY, NOR LESS THAN ONCE FOR EACH 150 CUBIC YARDS OF CONCRETE, NOR LESS THAN ONCE FOR EACH 5,000 SQUARE FEET OF SURFACE AREA FOR SLABS OR WALLS.
- 2. IF THE TOTAL VOLUME OF CONCRETE IS SUCH THAT THE FREQUENCY OF TESTING WOULD PROVIDE LESS THAN FIVE STRENGTH TESTS FOR A GIVEN CLASS OF CONCRETE, TESTS SHALL BE MADE FROM AT LEAST FIVE RANDOMLY SELECTED BATCHES OR FROM EACH BATCH IF FEWER THAN FIVE BATCHES ARE USED.
- F. ALL INSERTS, ANCHOR BOLTS, PLATES, AND OTHER ITEMS TO BE CAST IN THE CONCRETE SHALL BE HOT-DIPPED GALVANIZED ACCORDING TO ASTM A153 UNLESS OTHERWISE NOTED.
- G. REINFORCING BARS, ANCHOR BOLTS, INSERTS, AND OTHER ITEMS TO BE CAST IN THE CONCRETE SHALL BE SECURED IN POSITION PRIOR TO PLACEMENT OF CONCRETE.
- H. CONDUITS, PIPES, AND SLEEVES PASSING THROUGH A SLAB OR FOOTING AND NOT CONFORMING TO TYPICAL DETAILS SHALL BE LOCATED AND SUBMITTED TO THE CONTRACTING OFFICER FOR APPROVAL.
- I. CONDUITS AND PIPES, WITH THEIR FITTINGS, EMBEDDED WITHIN A COLUMN SHALL NOT DISPLACE MORE THAN 4 PERCENT OF THE AREA OF CROSS SECTION ON WHICH STRENGTH IS CALCULATED OR WHICH IS REQUIRED FOR FIRE PROTECTION.
- J. THE CONTRACTOR SHALL LOCATE CONSTRUCTION JOINTS SO AS NOT TO IMPAIR THE STRENGTH OF THE STRUCTURE AND TO MINIMIZE SHRINKAGE STRESSES. SUBMIT LOCATION OF CONSTRUCTION JOINTS TO THE CONTRACTING OFFICER FOR APPROVAL, UNLESS OTHERWISE NOTED.
- K. LEAVE FORMWORK FOR SOFFITS, SLABS, AND OTHER STRUCTURAL ELEMENTS THAT SUPPORT WEIGHT OF CONCRETE IN PLACE UNTIL CONCRETE HAS ACHIEVED ITS 28 DAY DESIGN COMPRESSIVE STRENGTH.
- L. CONCRETE SHALL BE PUMPED FROM THE FIRST FLOOR OF THE EWA AND DH CONCOURSE. NO CONCRETE TRUCK SHALL BE ALLOWED ON THE 2ND FLOOR ROADWAYS.

#### MACRO-SYNTHETIC FIBERS

- A. CONCRETE FOR ROADWAY SLAB SHALL CONTAIN MACRO-SYNTHETIC FIBERS. MACRO-SYNTHEIC FIBERS SHALL CONFORM TO THE FOLLOWING REQUIREMENTS:
  - 1. MACRO-SYNTHETIC FIBERS SHALL BE MANUFACTURED FROM VIRGIN POLYOLEFINS (POLYPROPYLENE AND POLYETHYLENE) AND COMPLY WITH ASTM C 1116-4-1-3.
  - 2. FIBERS SHALL BE ½ TO 1 ½ INCH LONG.
  - 3. THE QUANTITY OF FIBERS USED AND THEIR POINT OF INTRODUCTION INTO THE MIX SHALL BE CONFIRM TO THE FIBER MANUFACTURER'S RECOMMENDATION AND TESTED PER ASTM C 1399.
  - 4. CONTRACTOR TO ASSURE THE FIBERS ARE WELL DISPERSED AND PREVENT FIBER BALLING DURING PRODUCTION.

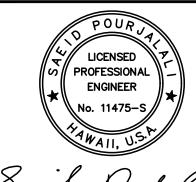
#### **FAST-SETTING CONCRETE**

- A. TO PREPARE A FAST-SETTING PORTLAND CEMENT CONCRETE: AGGREGATE SHALL CONFORM TO ASTM C-33. THE MATERIAL SHALL BE EXTENDED WITH 30-LB OF A 3/8" (NO. 8 DISTRIBUTION PER ASTM C-33, TABLE II) CLEAN, WELL-GRADED, SATURATED SURFACE DRY AGGREGATE, HAVING LOW ABSORPTION, HIGH DENSITY AND NON-REACTIVE (REFERENCE ASTM C-1260, C-227, C-289). AGGREGATE MUST BE APPROVED FOR USE BY DOT-A.
- B. REQUIRED MECHANICAL PROPERTIES:
  - COMPRESSIVE STRENGTH (ASTM C-109) 3 HOURS (3,000 PSI)
  - 2. 1 DAY 4,000 PSI
  - 3. 7 DAYS 5,000 PSI
  - 4. 28 DAYS 7,000 PSI
  - 5. FLEXURAL STRENGTH (ASTM C-293) 28 DAY 1,000 PSI6. SPLITTING TENSILE STRENGTH (ASTM C-496) 28 DAYS 500 PSI
  - 7. SLANT SHEAR (ASTM C-882 MODIFIED) 28 DAYS 2,500 PSI (17.2 MPA)
  - 8. PERMEABILITY (ASTM C-1202) 28 DAYS < 1,000 C
  - 9. SHRINKAGE (157 MODIFIED PER ASTM C-928) 28 DAYS 0.06%
  - 10. MODULUS OF ELASTICITY (ASTM C-469) 28 DAYS 4.6 X 106



Airports Division

DEPARTMENT OF TRANSPORTATION
STATE OF HAWAII



04/30/2024

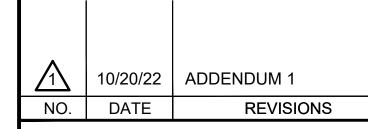
This work was prepared by me or under my supervision

DSGN. DRWN. CHKD. APPD.

MG MG SP

Licensed Expiration Date

**KEY PLAN / NOTES:** 



# CONSTRUCTION DOCUMENTS

SEPTEMBER, 2022 DATE

PROJECT TITLE:

EWA AND DH CONCOURSE ROADWAY IMPROVEMENTS PHASE 1

AT DANIEL K. INOUYE INTERNATIONAL AIRPORT HONOLULU, OAHU, HAWAII

PROJECT NO.:

AO1043-32

SHEET TITLE:

STRUCTURAL NOTES

DATE: SEPTEMBER, 2022

SHEET

S-001

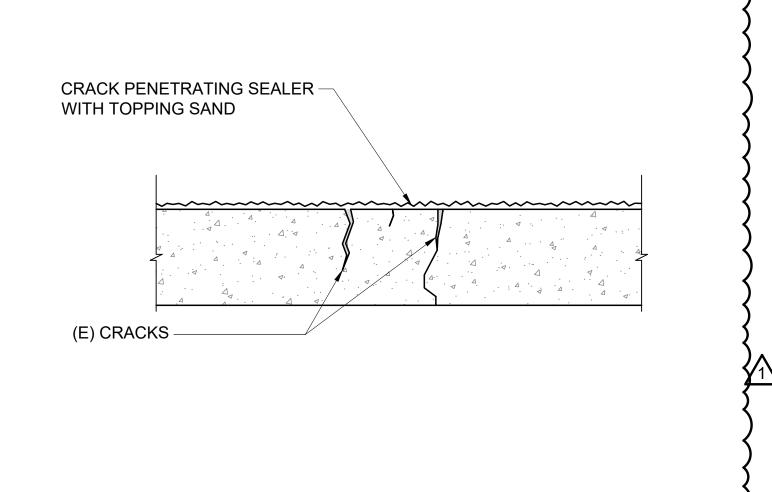
DWG. NO.

20 OF 247 SHEETS

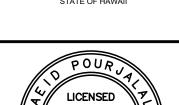
#### **CRACK REPAIR NOTES:**

DRAINS AND GRATES SHALL BE ADEQUATELY ISOLATED UTILIZING CONSTRUCTION PAPER TO PREVENT ANY PENETRATING SEALER FROM ENTERING DRAINAGE AND JOINT SYSTEMS. THE CONSTRUCTION PAPER WILL THEN BE REMOVED PRIOR TO FULL CURE OF THE EPOXY.

- THE PENETRATING SEALER WILL BE APPLIED UTILIZING AN EPOXY PUMP SYSTEM SPECIALLY DESIGNED FOR EPOXIES. THE EPOXY PUMP IS MOUNTED ON THE REAR OF A TRUCK WHICH ALSO HOUSES TWO 250 GALLON TOTES OF MATERIAL. THE TOTES TO BE USED WILL BE BETWEEN 65°- 85°F. THE PUMP IS EQUIPPED WITH A DETAILED DIGITAL READ OUT DISPLAYING THE GALLONS PER MINUTE AND TOTAL VOLUME OF BOTH PART A AND B. IT ALSO GIVES THE TOTAL VOLUME OF MATERIAL PUMPED.
- 3. THE MIXED EPOXY WILL BE DISPENSED ONTO THE CONCOURSE DECK SURFACE, THIS WILL BE FOLLOWED BY A GROUND LABORER(S) USING A SAW-TOOTHED/NOTCHED SQUEEGEE TO SPREAD THE SEALER MEETING THE MANUFACTURER'S WET THICKNESS. ANY VARIATION IN THE SURFACE (I.E., CRACKS) SURFACE CONDITIONS WILL RESULT IN PENETRATING SEALER BEING SPREAD UNTIL REFUSAL.
- FOLLOWING 5 MINUTES OF THE MATERIAL BEING WORKED INTO THE SURFACE, THE TOPPING AGGREGATE / SAND APPLICATION WILL START. ADJACENT TO THE SEALER APPLICATION WILL BE A TRUCK WITH A BULK SAND POT WITH THE TOPPING SAND. SPECIAL CARE WILL BE GIVEN AS TO NOT DIRECT THE HOSE DIRECTLY TO THE SURFACE DISRUPTING OR CAUSING THE EPOXY MATERIAL TO DISPERSE. SPECIAL CARE WILL ALSO BE TAKEN TO MINIMIZE DUST DURING THE PROCESS. DOT-A WILL APPROVE THE METHOD.
- 5. HAND BROADCASTING OF THE TOPPING SAND IS ALLOWED PROVIDED THE SAND CAN BE APPLIED OVER THE WET RESIN WITHIN 10 MINUTES OF THE RESIN HAVING BEEN PLACED. SPIKE SHOES WILL NEED TO BE WORN BY ANY PERSON WHO MAY COME IN CONTACT WITH WET PLACED SEALER WITHOUT AGGREGATE.
- 6. THE TOPPING SAND WILL BE APPLIED TO THE POINT OF REFUSAL. TO ENSURE NO WET SPOTS EXIST, A FINAL WALK OF THE SURFACE WILL BE DONE IMMEDIATELY BEHIND THE SAND APPLICATION TO ENSURE NO WET AREAS OF EPOXY SHINING THROUGH ARE PRESENT. IN THE CASE WET AREAS ARE VISIBLE, ADDITIONAL SAND WILL BE APPLIED TO THESE AREAS MANUALLY TO THE POINT OF REFUSAL.
- ONCE ALL MATERIAL HAS CURED AND INSPECTED, A FULL SWEEP/VACUUM WILL COMMENCE PRIOR TO OPENING TO TRAFFIC.







**PROFESSIONAL** ENGINEER

Licensed Expiration Date

This work was prepared by me or under my supervision DSGN. DRWN. CHKD.

**KEY PLAN / NOTES:** 

NO. DATE

10/20/22 | ADDENDUM 1

CONSTRUCTION **DOCUMENTS** 

SEPTEMBER, 2022

PROJECT TITLE:

**EWA AND DH CONCOURSE ROADWAY IMPROVEMENTS** PHASE 1

AT DANIEL K. INOUYE INTERNATIONAL AIRPORT HONOLULU, OAHU, HAWAII

PROJECT NO.:

AO1043-32

SHEET TITLE:

**TYPICAL CRACK REPAIR DETAILS** 

DATE: SEPTEMBER, 2022 SHEET:

25 OF 247 SHEETS

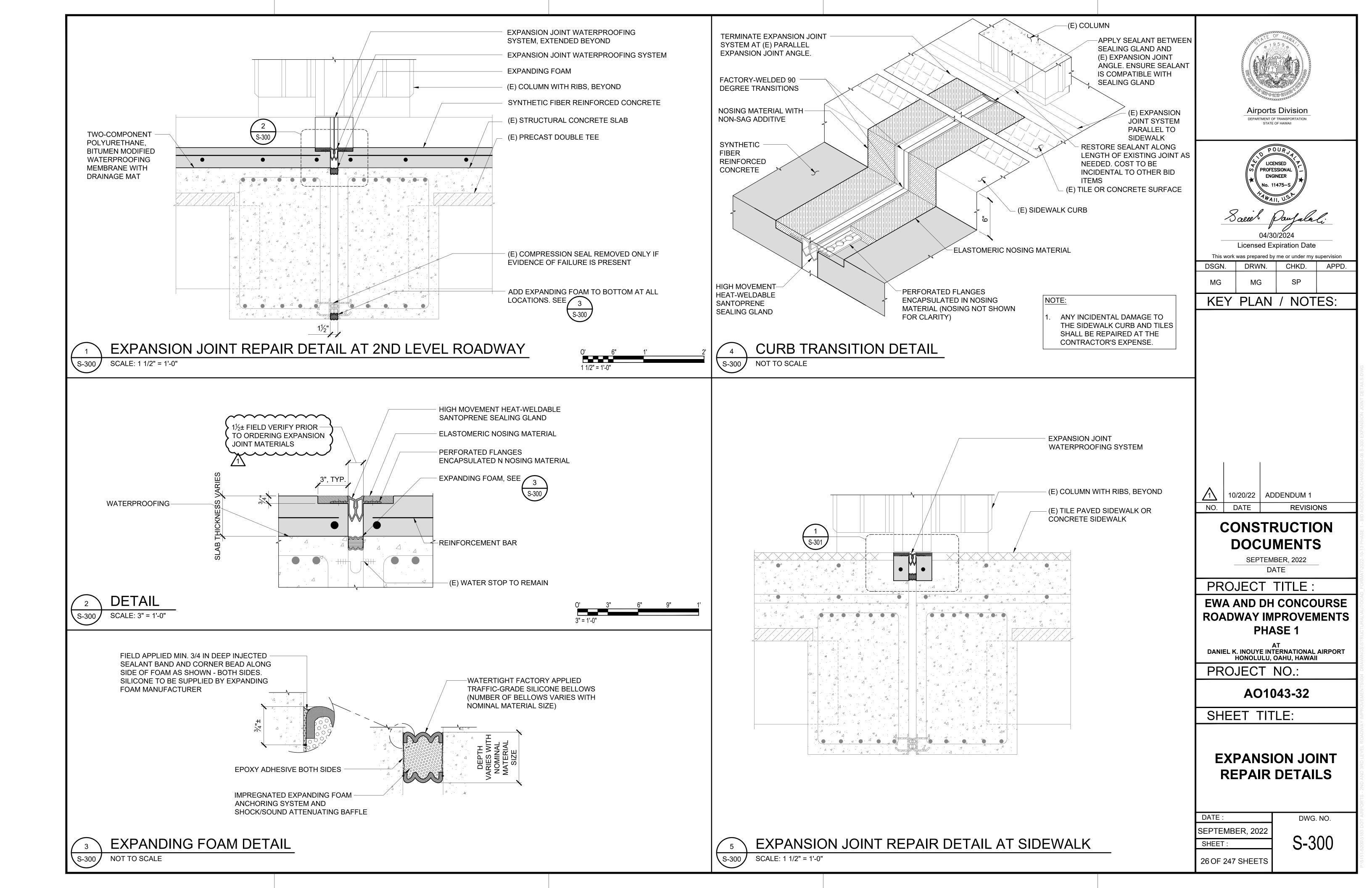
S-202

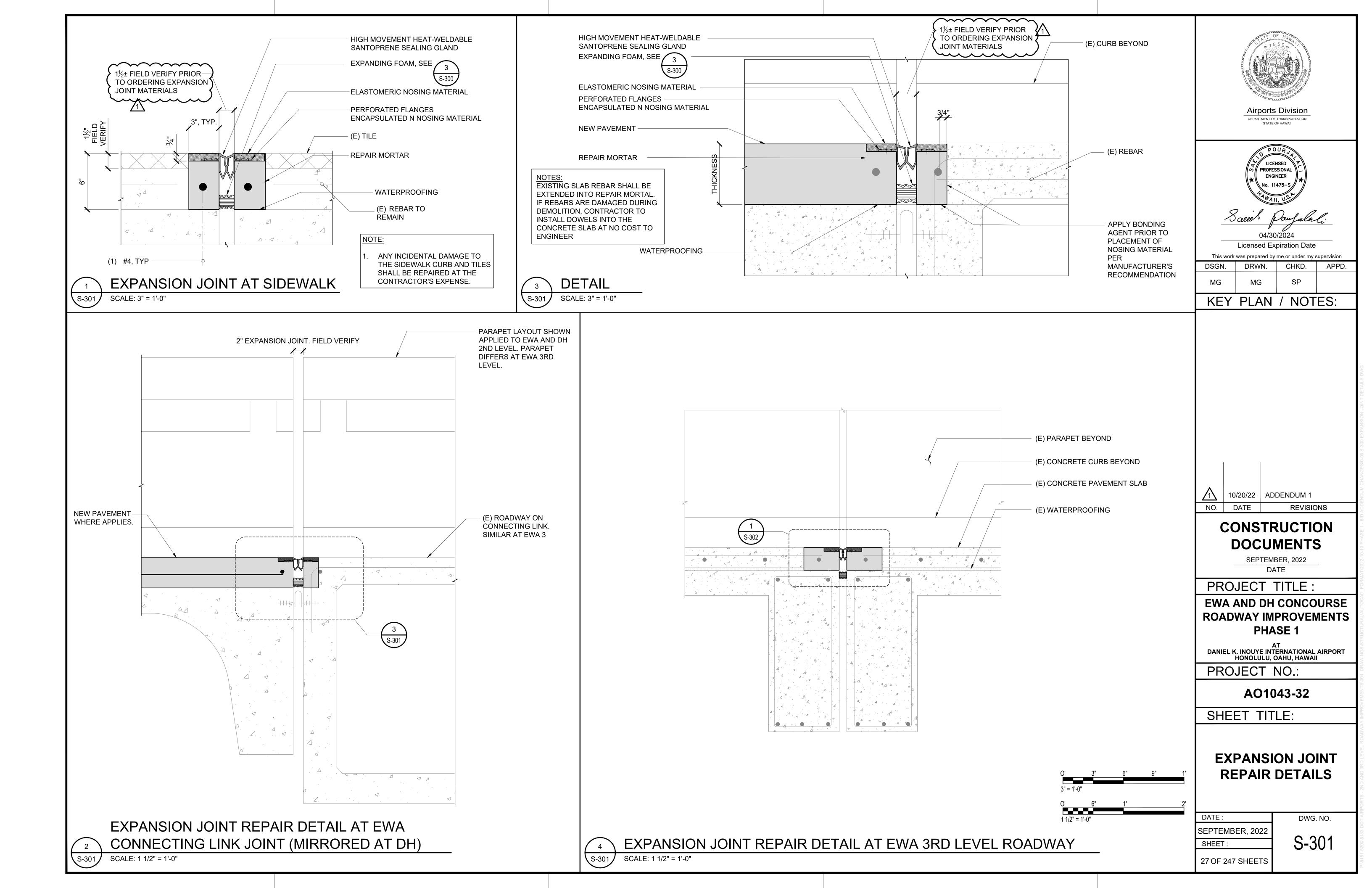
DWG. NO.

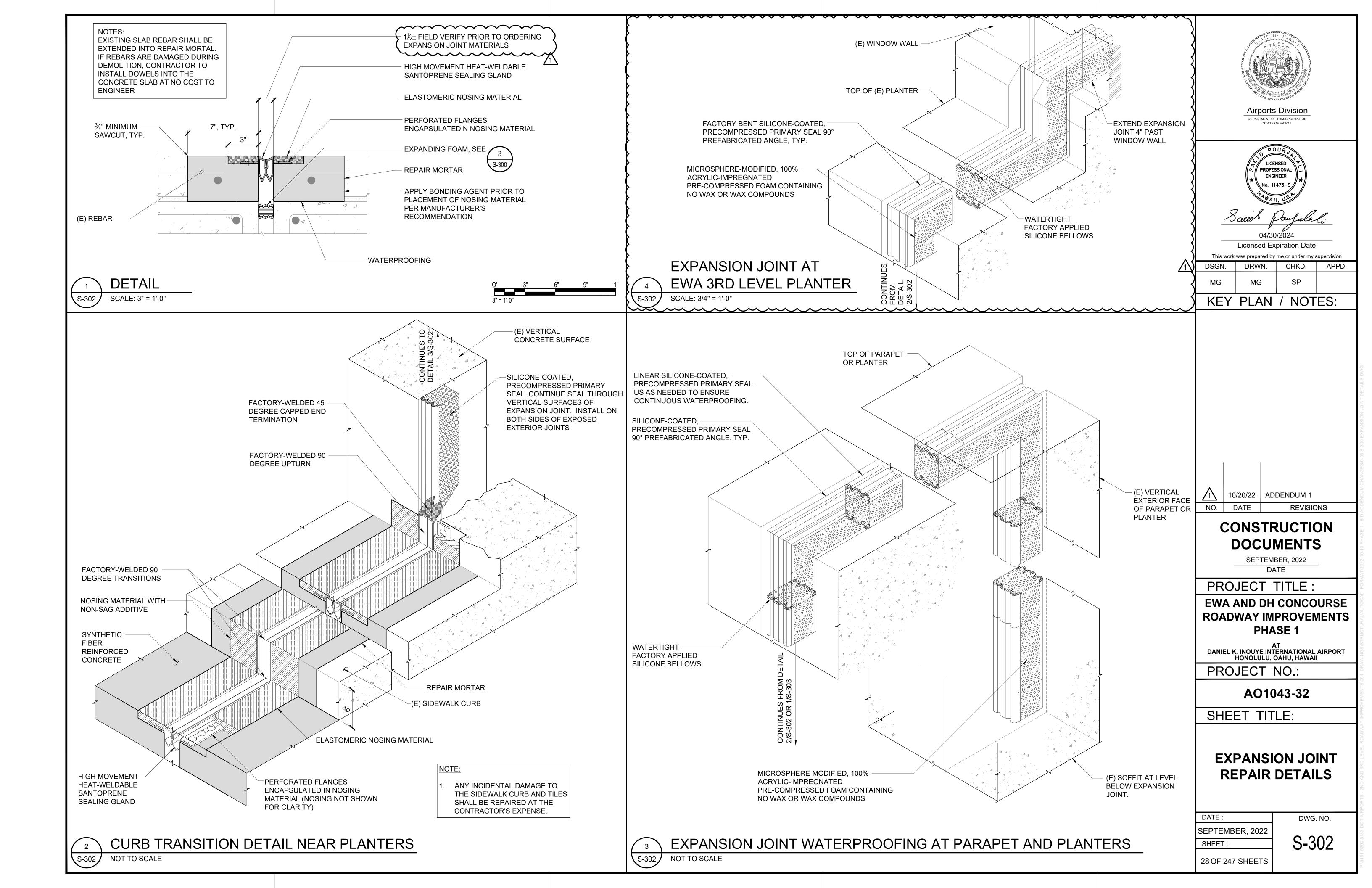
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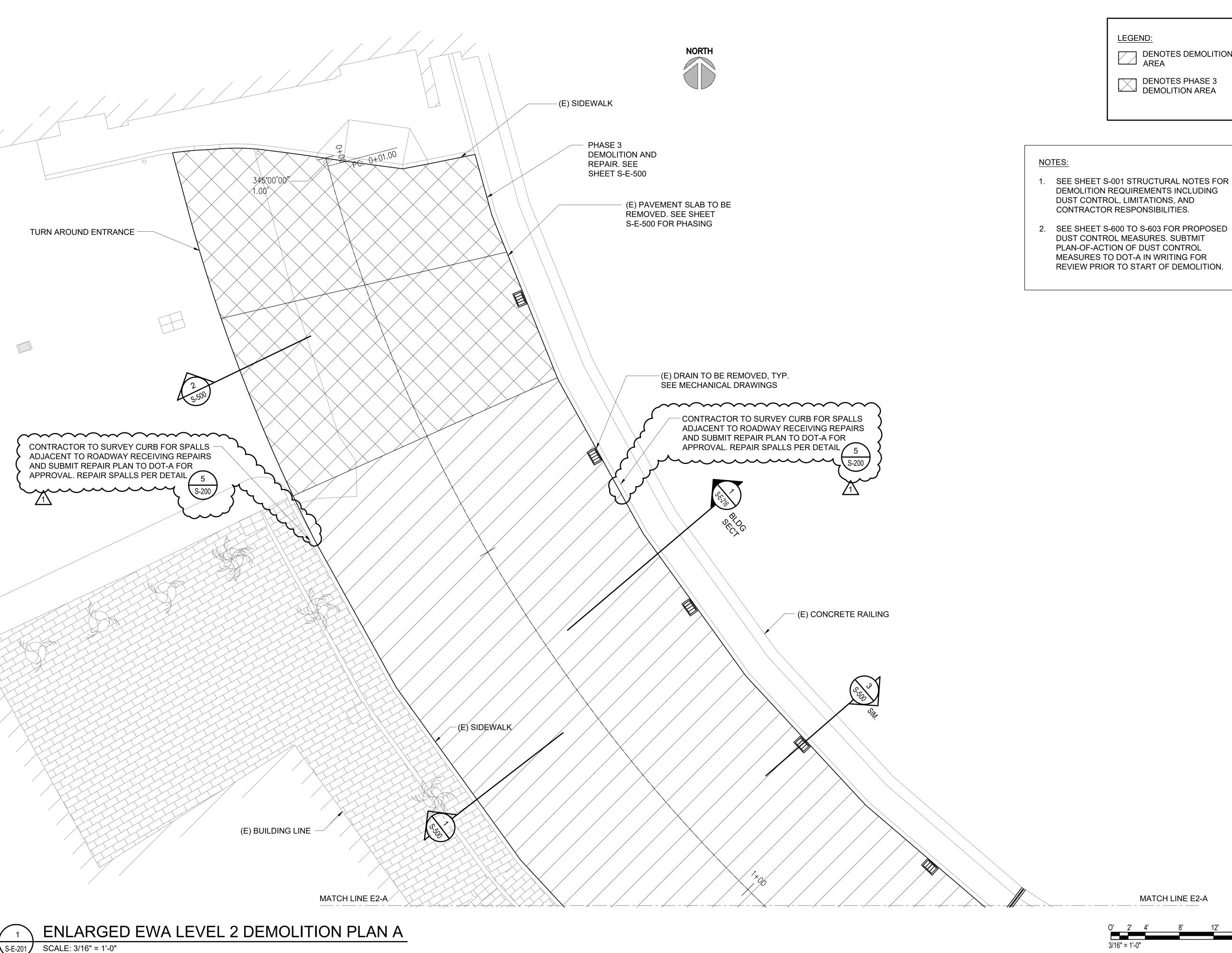
**\**S-202 /

NOT TO SCALE





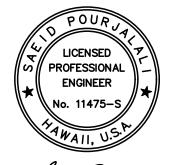




DENOTES DEMOLITION

DENOTES PHASE 3 DEMOLITION AREA

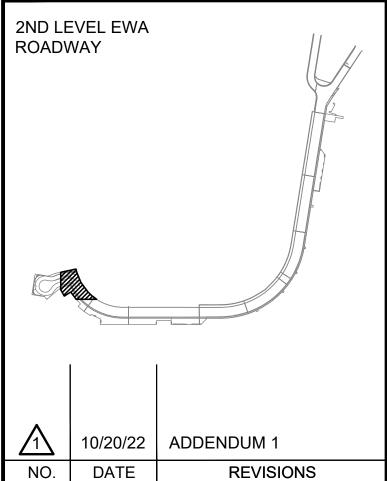
Airports Division DEPARTMENT OF TRANSPORTATION STATE OF HAWAII



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MG	MG	SP		

# **KEY PLAN / NOTES:**



# CONSTRUCTION **DOCUMENTS**

SEPTEMBER, 2022

# PROJECT TITLE:

## **EWA AND DH CONCOURSE ROADWAY IMPROVEMENTS** PHASE 1

AT DANIEL K. INOUYE INTERNATIONAL AIRPORT HONOLULU, OAHU, HAWAII

PROJECT NO.:

AO1043-32

SHEET TITLE:

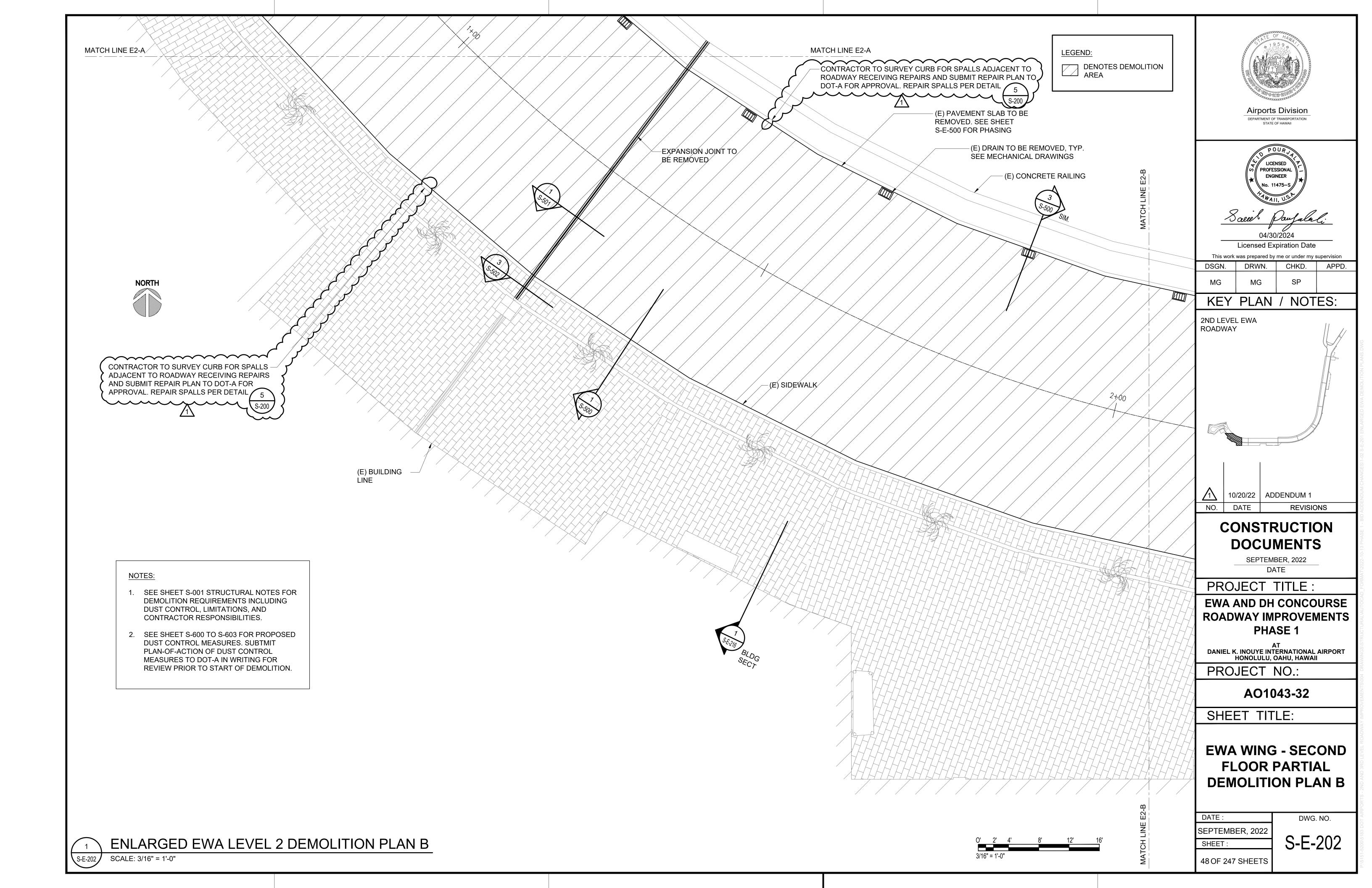
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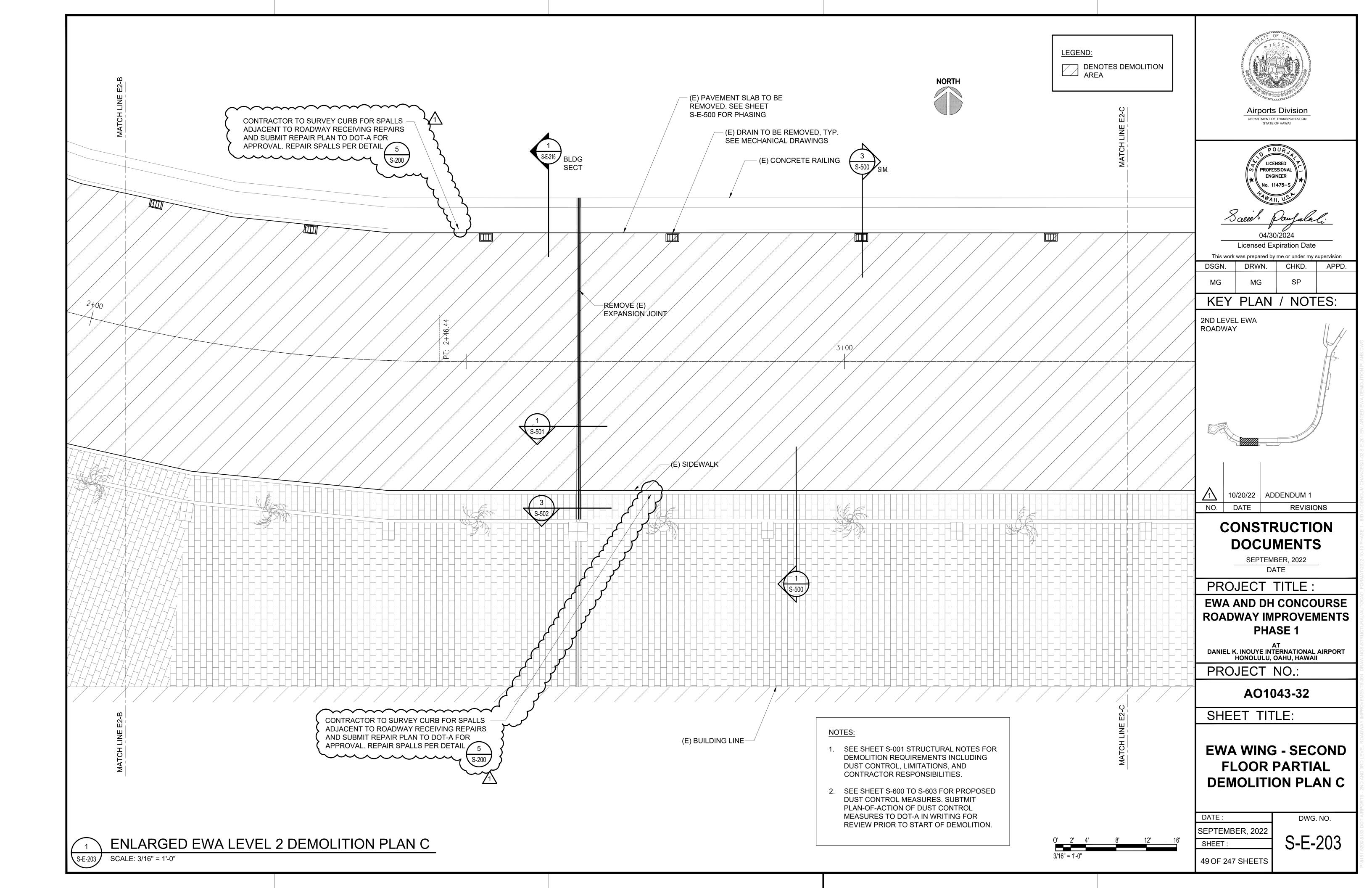
DATE :
SEPTEMBER, 2022
SHEET:

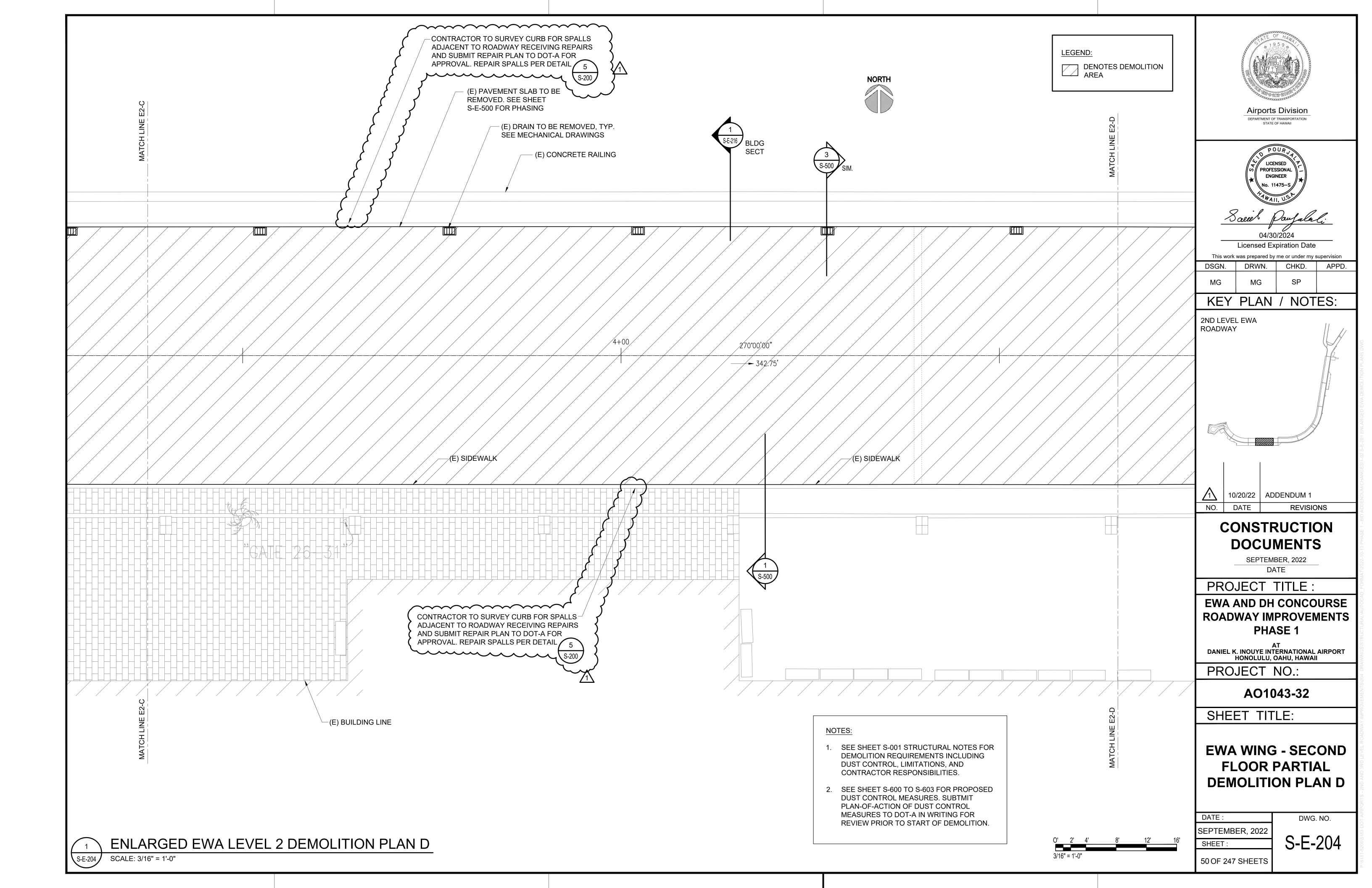
47 OF 247 SHEETS

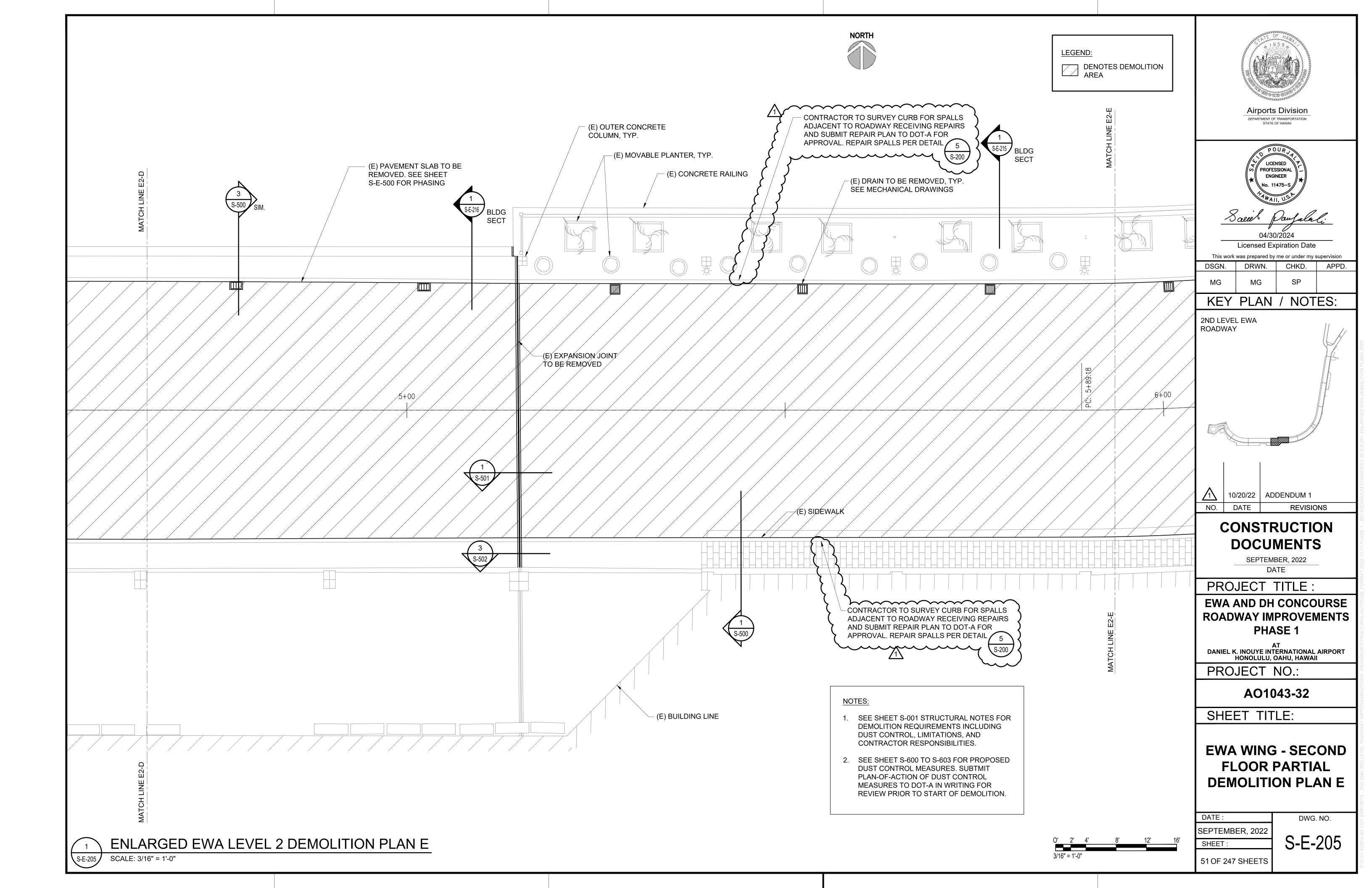
S-E-201

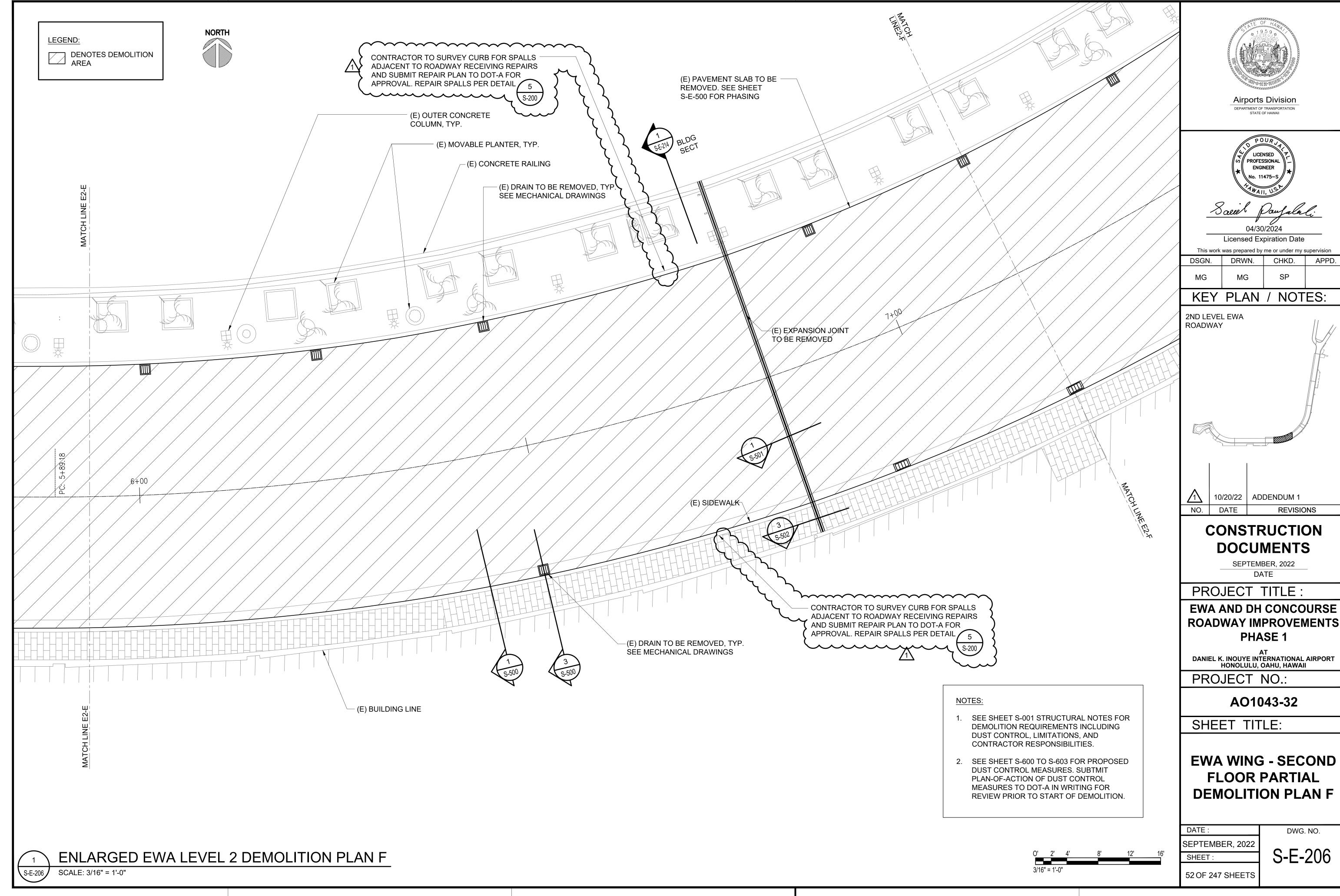
DWG. NO.





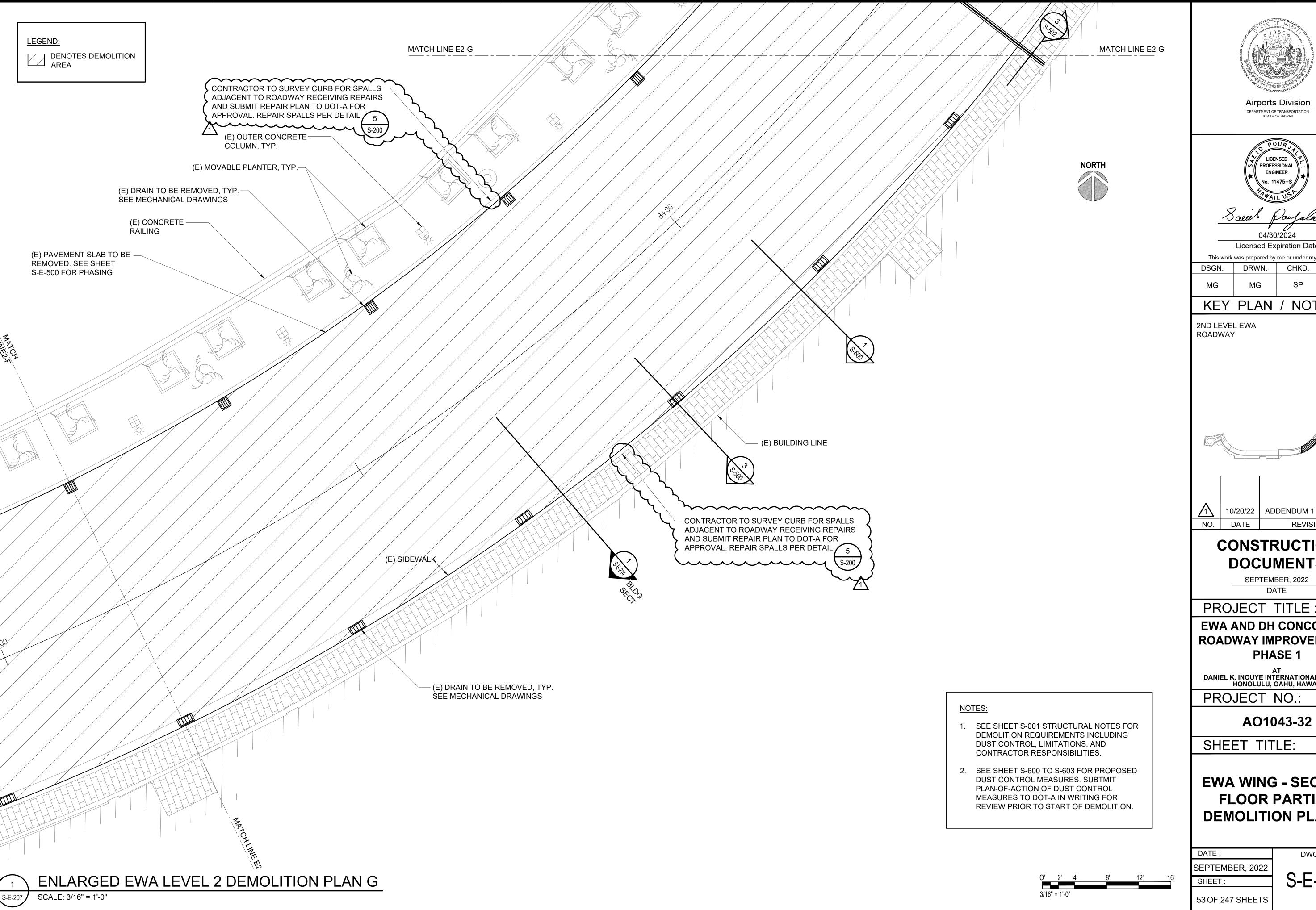






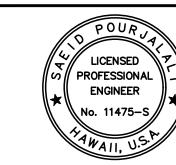
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MG	MG	SP		

# **ROADWAY IMPROVEMENTS**





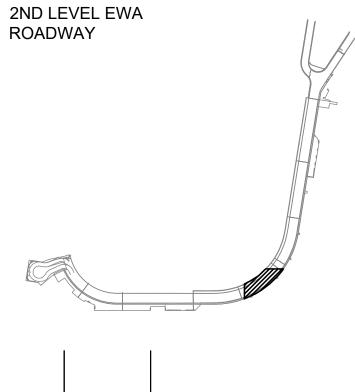
Airports Division DEPARTMENT OF TRANSPORTATION STATE OF HAWAII



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# **KEY PLAN / NOTES:**



NO. DATE CONSTRUCTION **DOCUMENTS** 

SEPTEMBER, 2022

PROJECT TITLE:

**EWA AND DH CONCOURSE ROADWAY IMPROVEMENTS** PHASE 1

AT DANIEL K. INOUYE INTERNATIONAL AIRPORT HONOLULU, OAHU, HAWAII

PROJECT NO.:

AO1043-32

SHEET TITLE:

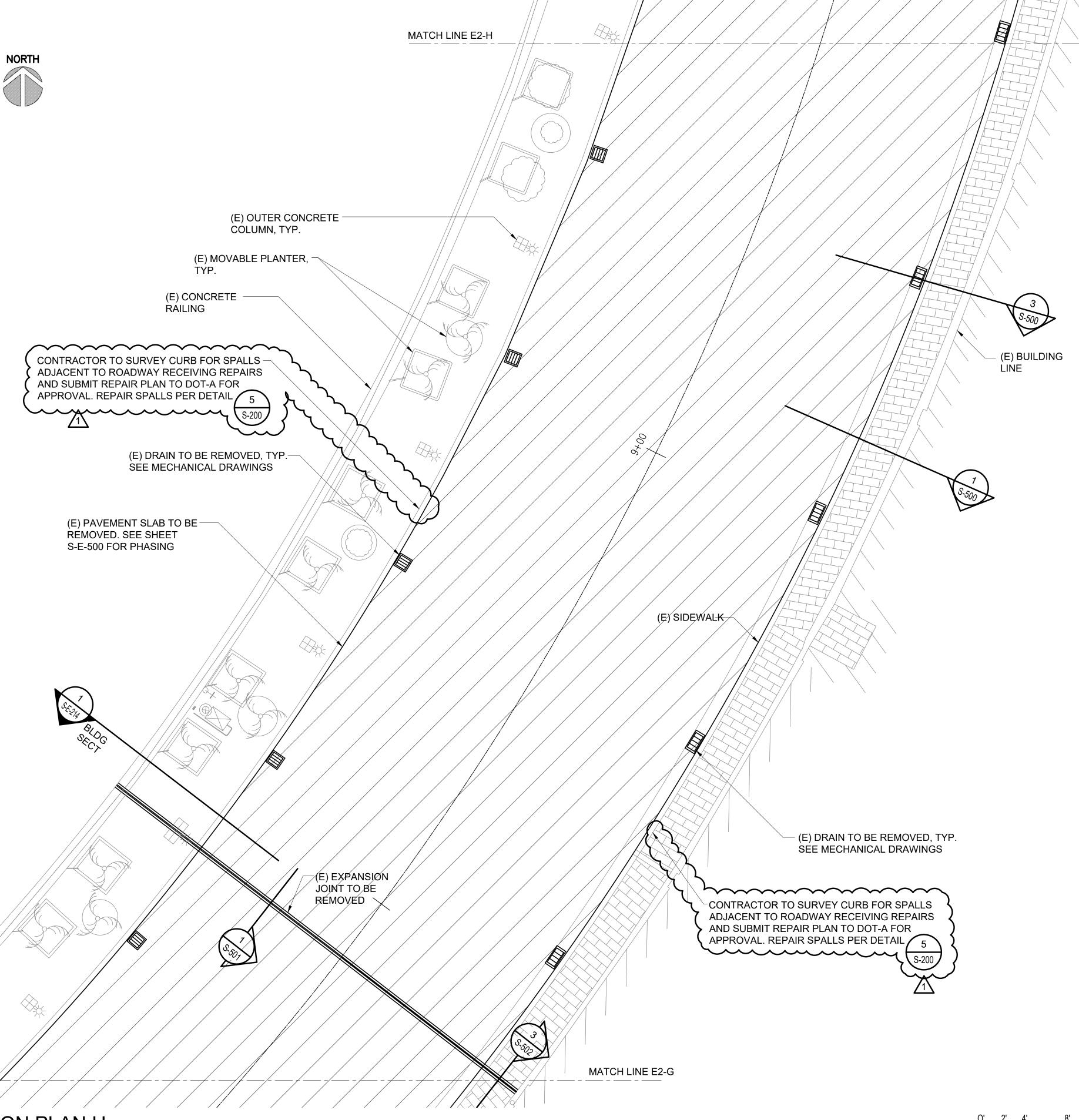
**EWA WING - SECOND FLOOR PARTIAL DEMOLITION PLAN G** 

DATE: SEPTEMBER, 2022 SHEET:

S-E-207

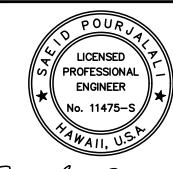
DWG. NO.

# LEGEND: DENOTES DEMOLITION AREA NOTES: 1. SEE SHEET S-001 STRUCTURAL NOTES FOR DEMOLITION REQUIREMENTS INCLUDING DUST CONTROL, LIMITATIONS, AND CONTRACTOR RESPONSIBILITIES. 2. SEE SHEET S-600 TO S-603 FOR PROPOSED DUST CONTROL MEASURES. SUBTMIT PLAN-OF-ACTION OF DUST CONTROL MEASURES TO DOT-A IN WRITING FOR REVIEW PRIOR TO START OF DEMOLITION.





MATCH LINE E2-H

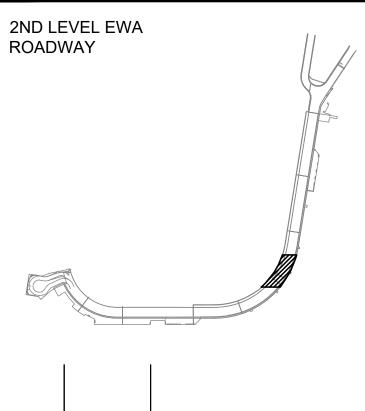


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04/30/2024
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MG	MG	SP	

# KEY PLAN / NOTES:



CONSTRUCTION			
NO.	DATE	REVISIONS	
<u></u>	10/20/22	ADDENDUM 1	

DOCUMENTS
SEPTEMBER, 2022

PROJECT TITLE:

# EWA AND DH CONCOURSE ROADWAY IMPROVEMENTS PHASE 1

AT DANIEL K. INOUYE INTERNATIONAL AIRPORT HONOLULU, OAHU, HAWAII

PROJECT NO.:

AO1043-32

SHEET TITLE:

# EWA WING - SECOND FLOOR PARTIAL DEMOLITION PLAN H

DATE :	
SEPTEMBER, 2022	
SHEET:	,
54 OF 247 SHEETS	

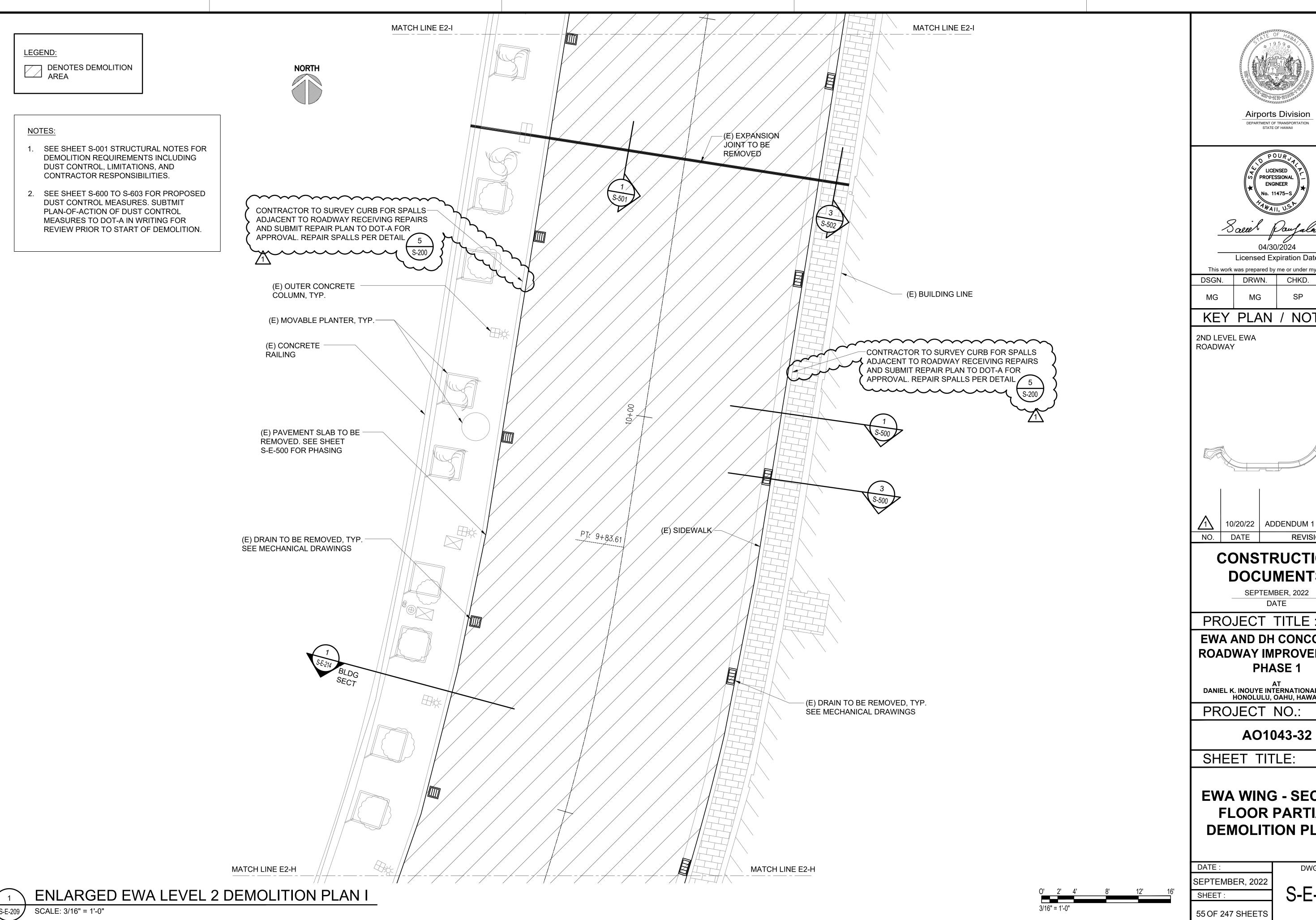
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DWG. NO.

MBER, 2022

S-E-208

MATCH LINE E2-G



Airports Division DEPARTMENT OF TRANSPORTATION STATE OF HAWAII

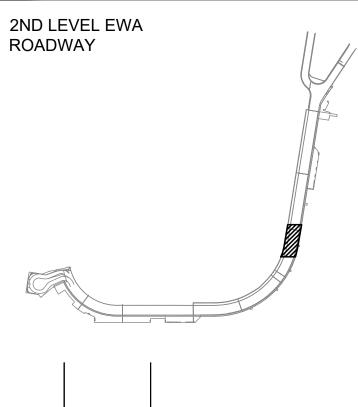


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MG	MG	SP	

# KEY PLAN / NOTES:



NO.	DATE	REVISIONS
	CONS	TRUCTION
	DOC	UMENTS

SEPTEMBER, 2022

# PROJECT TITLE:

## **EWA AND DH CONCOURSE ROADWAY IMPROVEMENTS** PHASE 1

AT DANIEL K. INOUYE INTERNATIONAL AIRPORT HONOLULU, OAHU, HAWAII

PROJECT NO.:

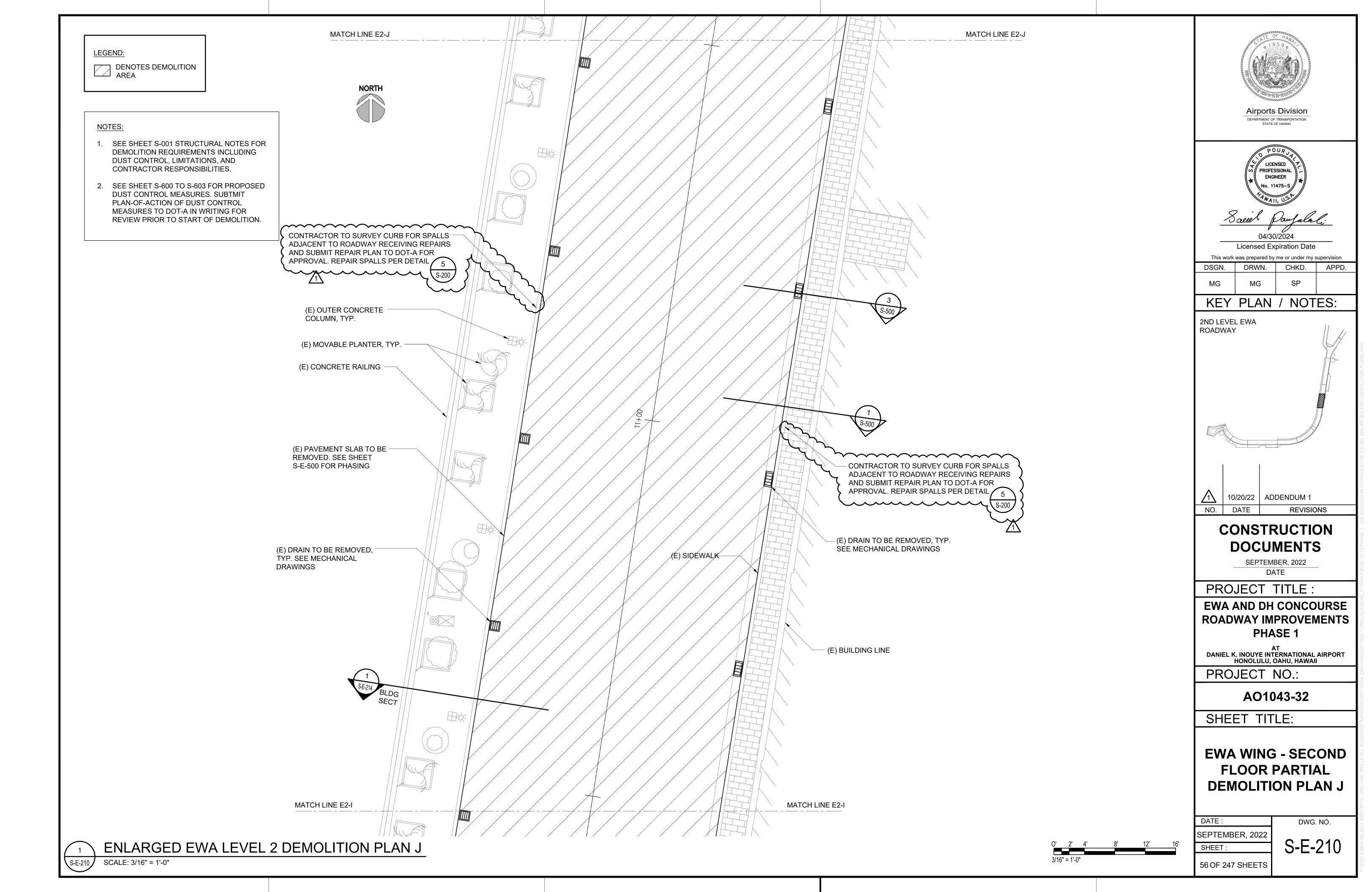
AO1043-32

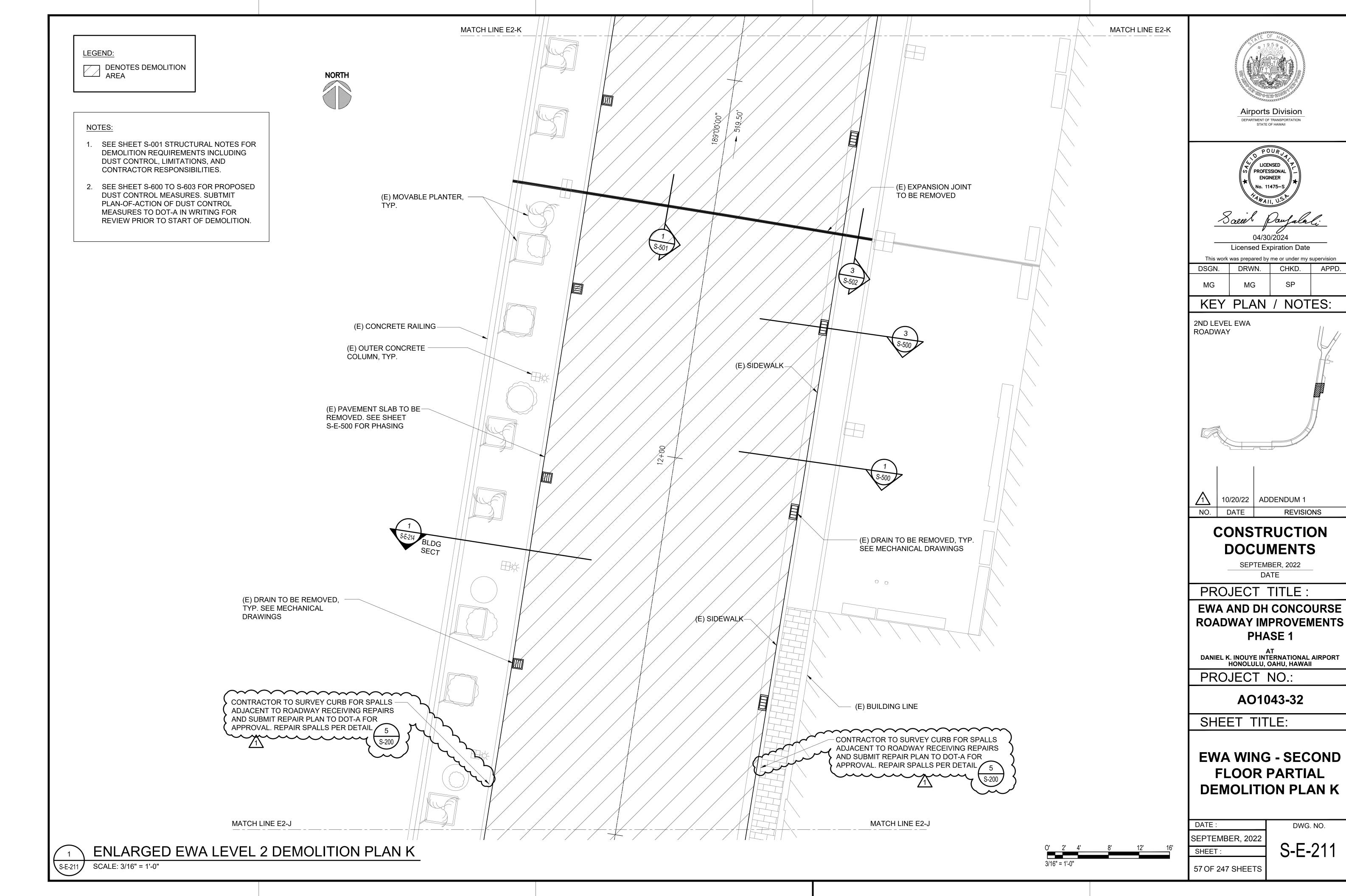
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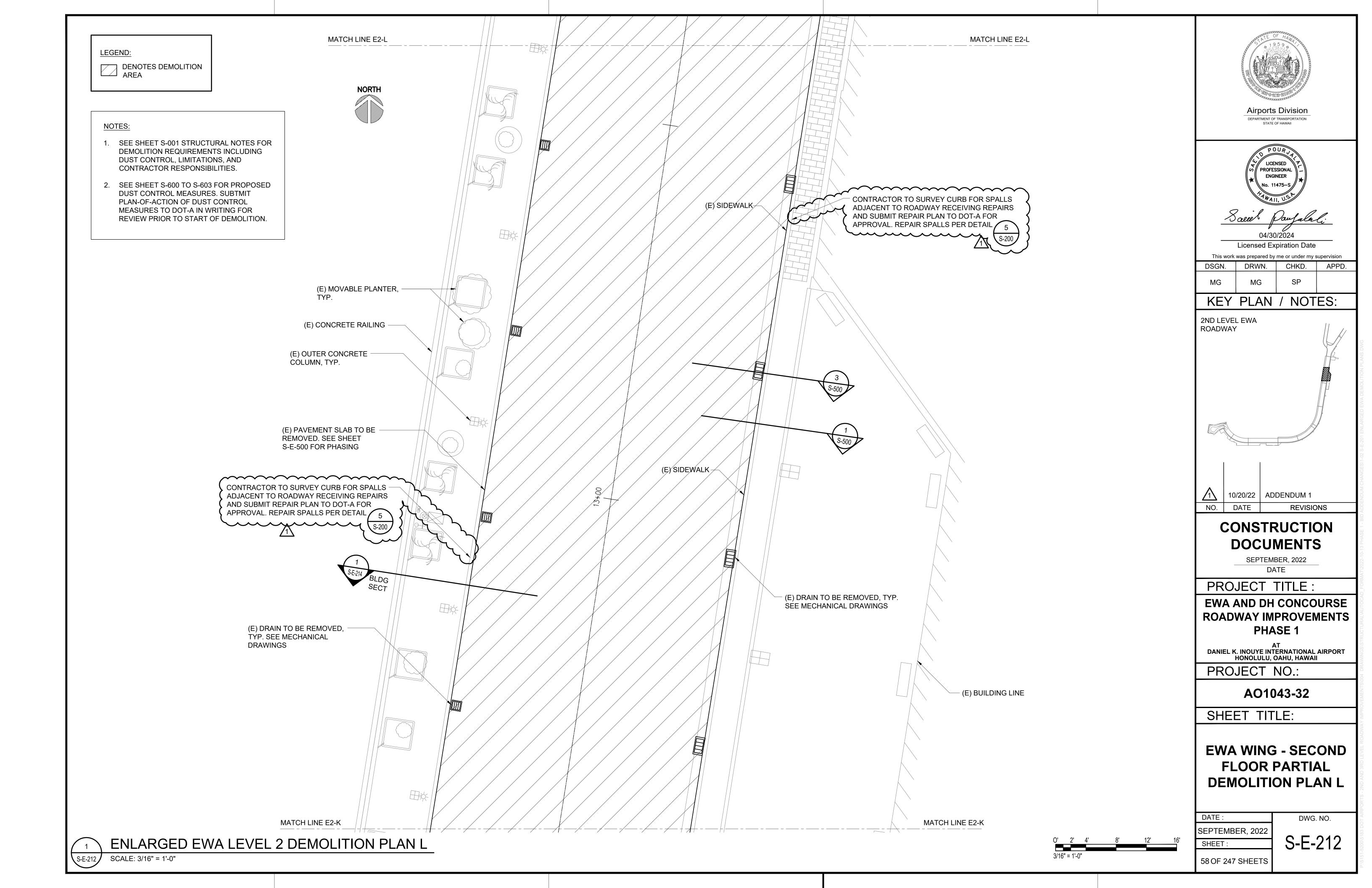
**EWA WING - SECOND FLOOR PARTIAL DEMOLITION PLAN I** 

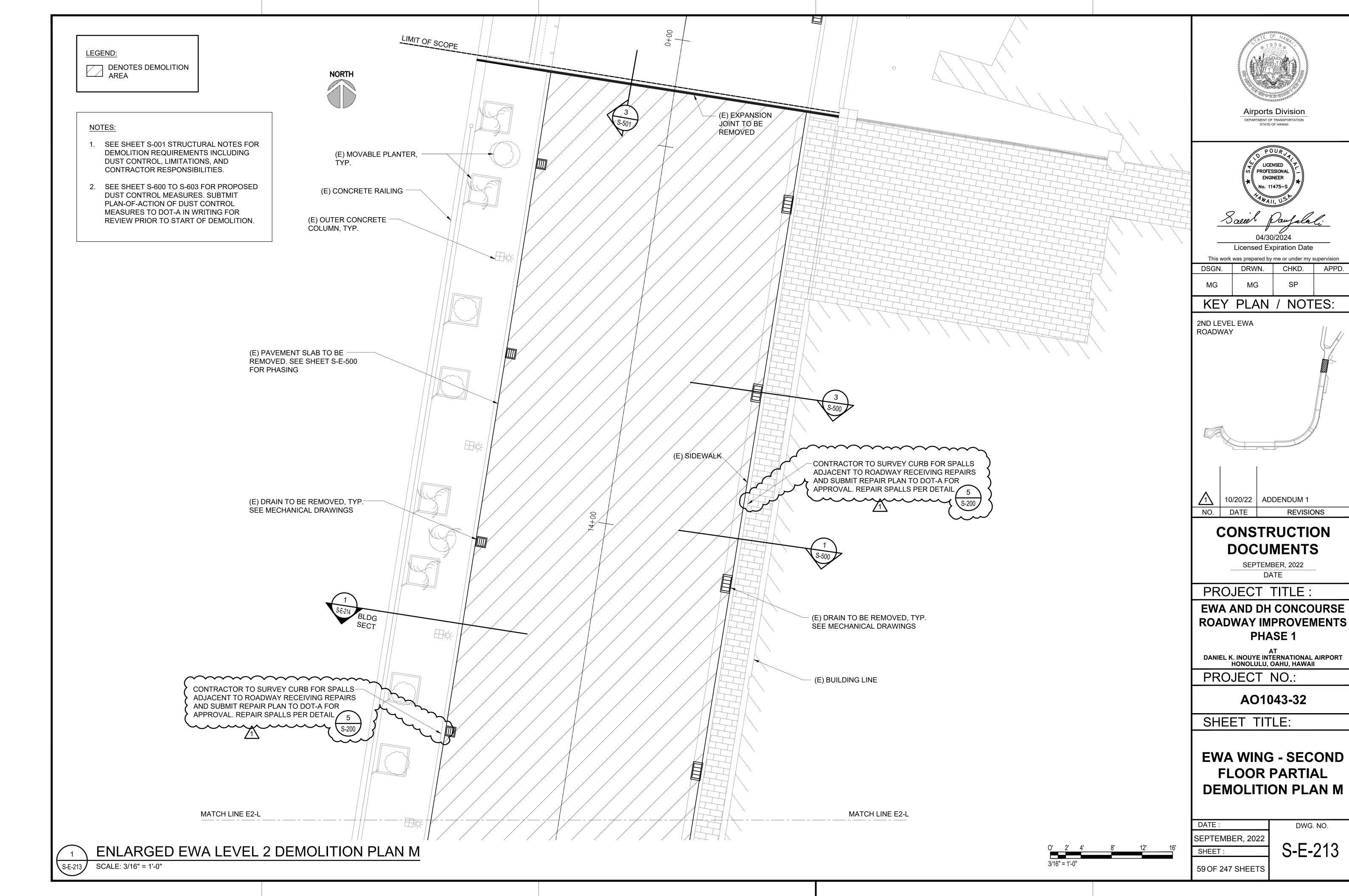
DATE :	
SEPTEME	BER, 2022
SHEET:	

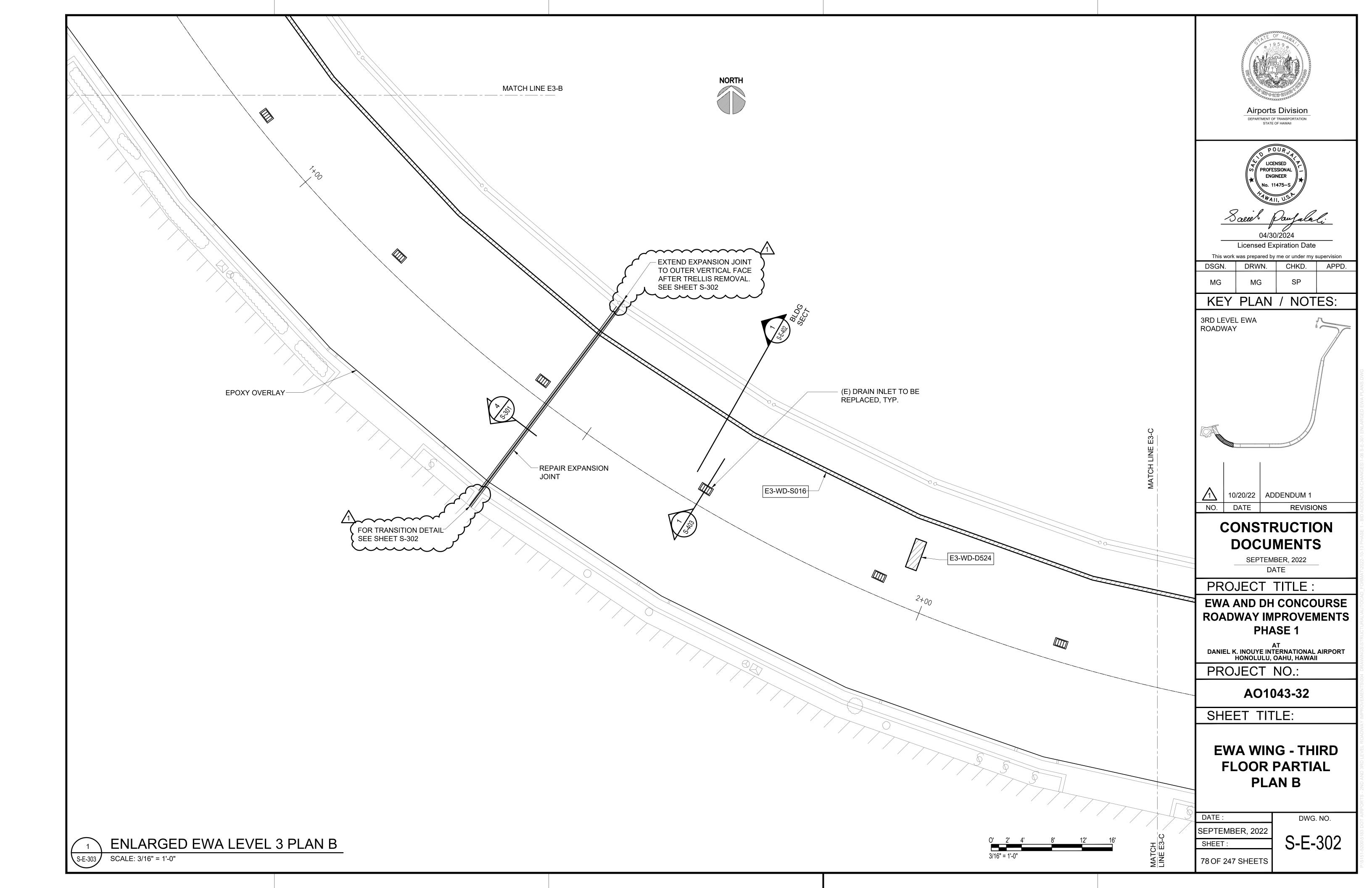
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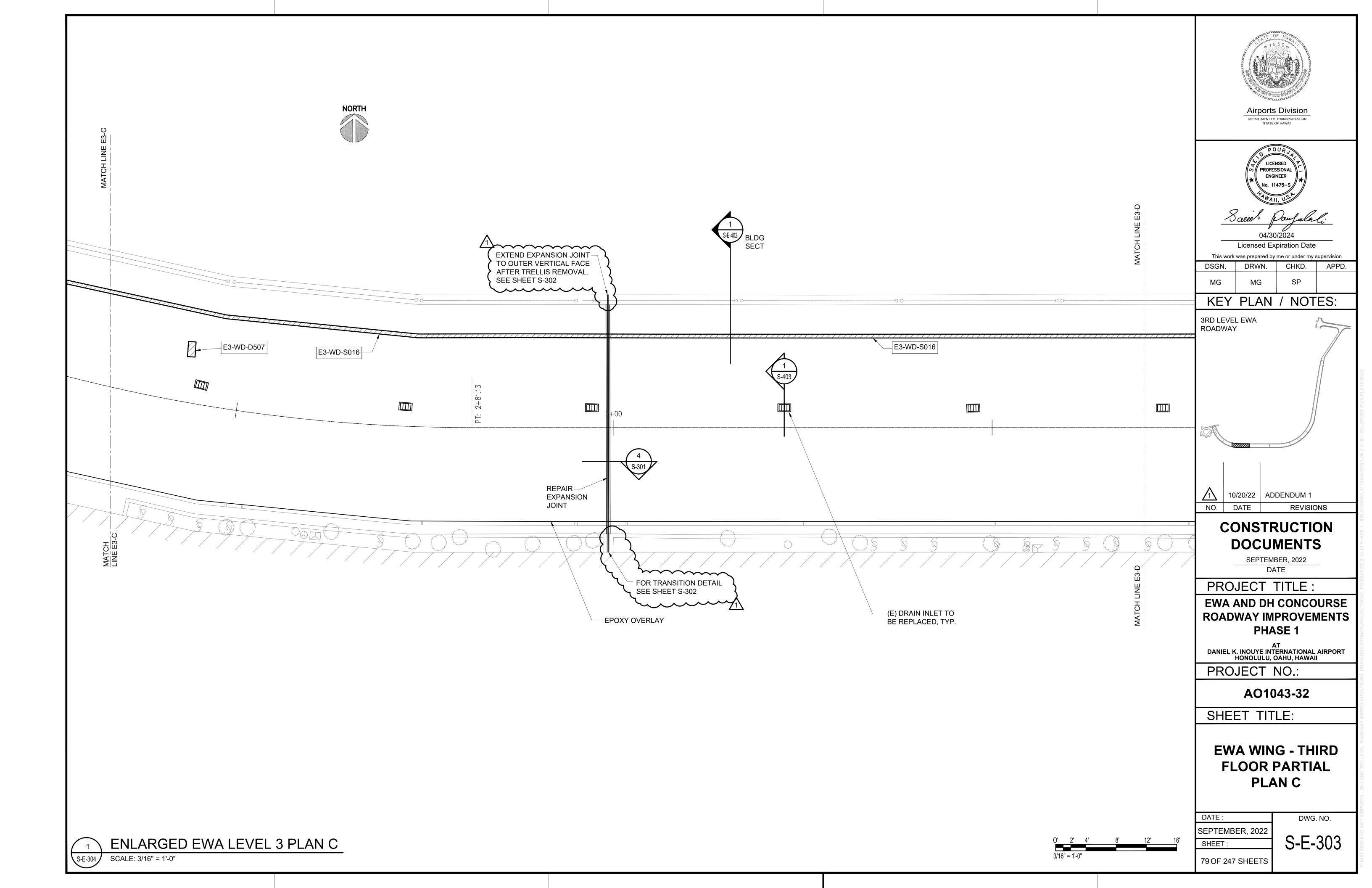


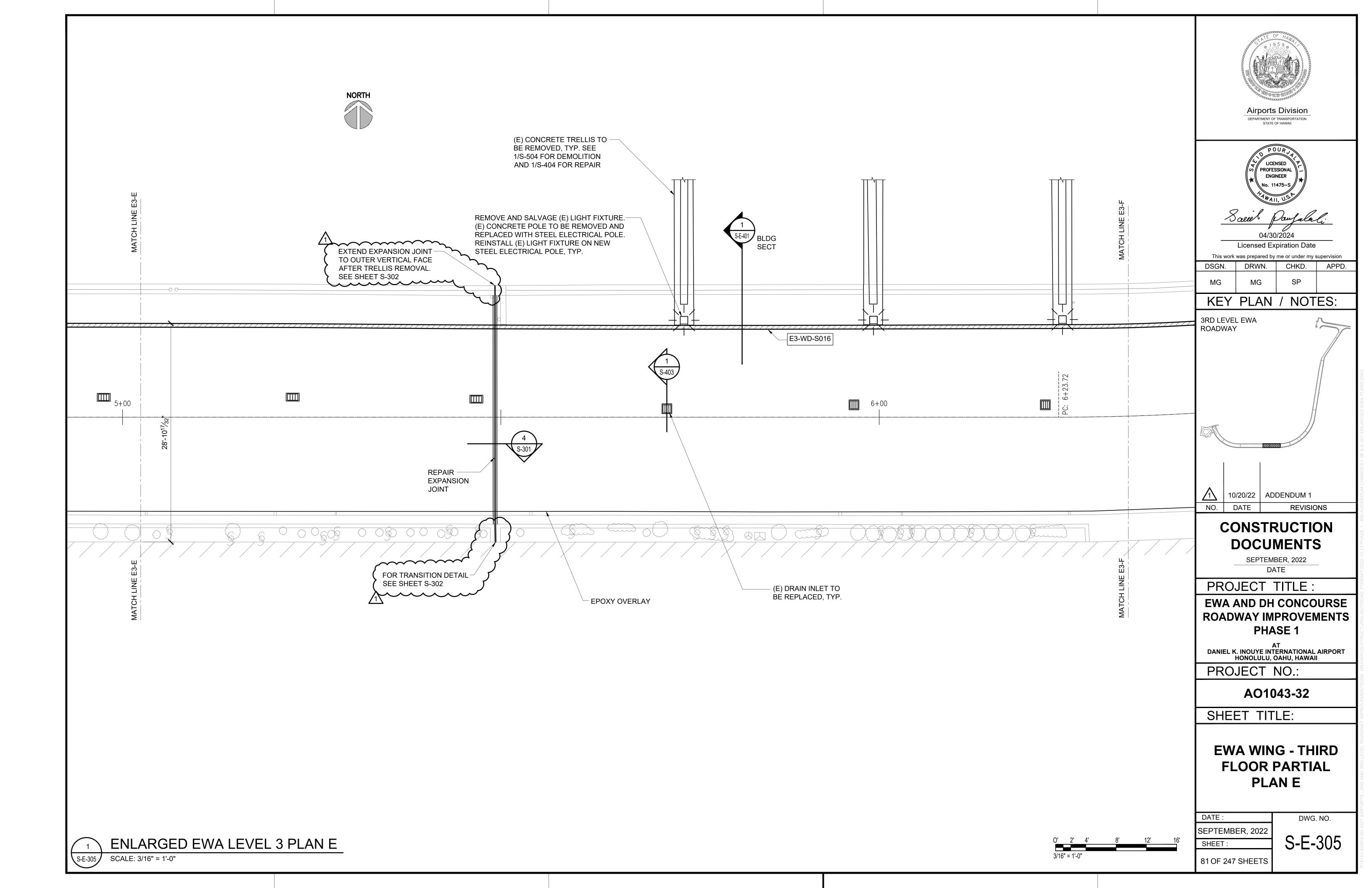


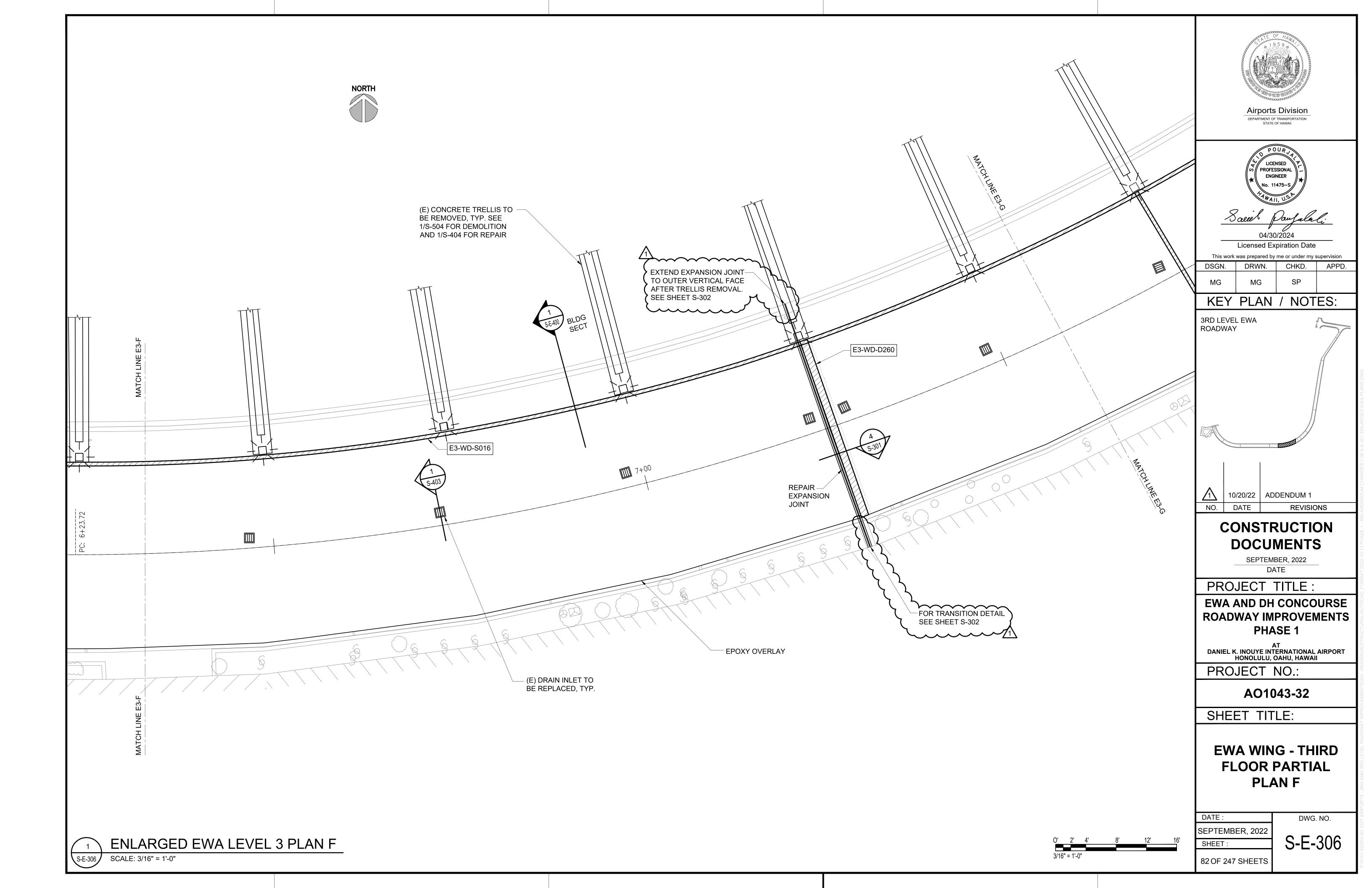


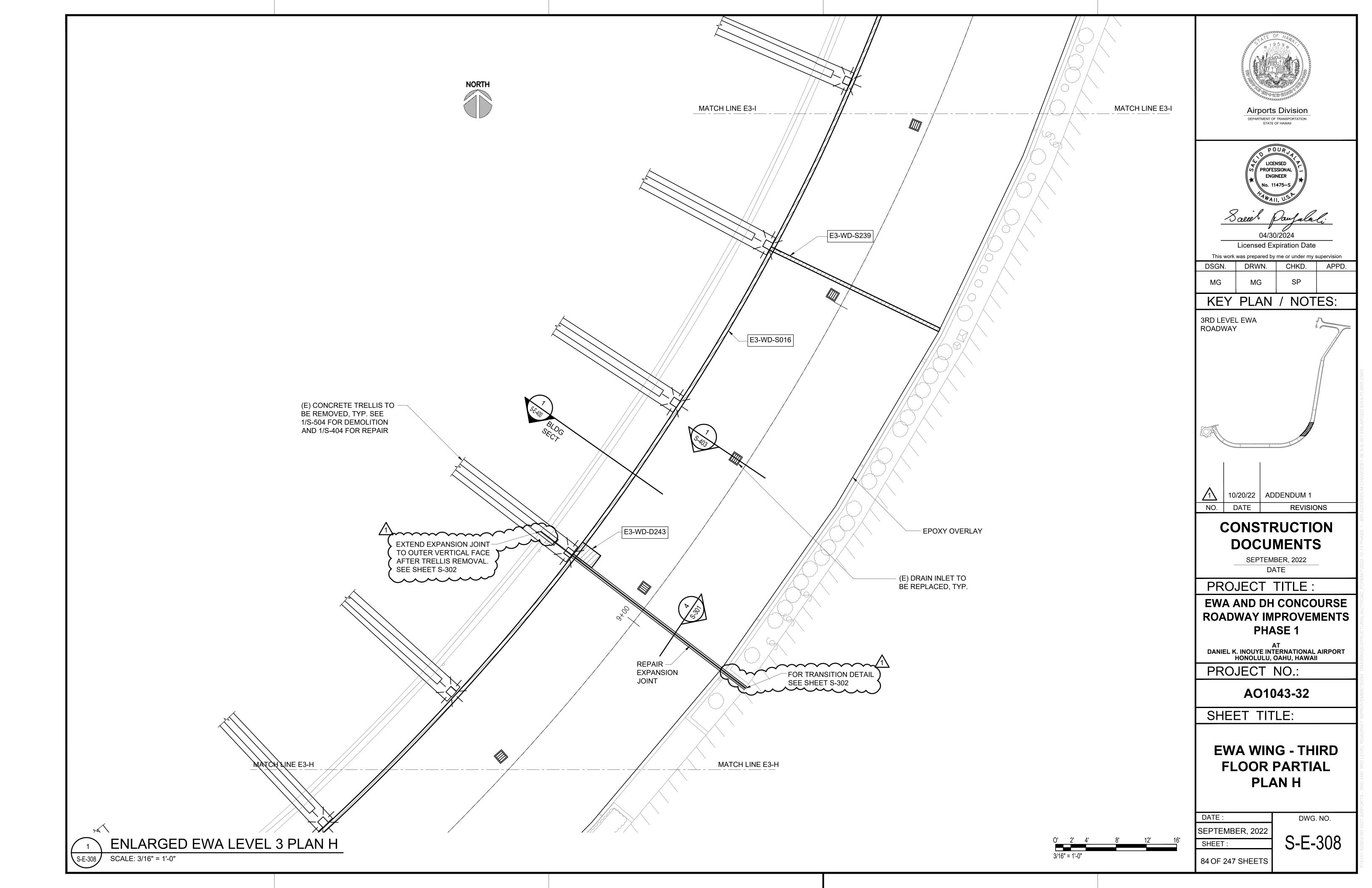


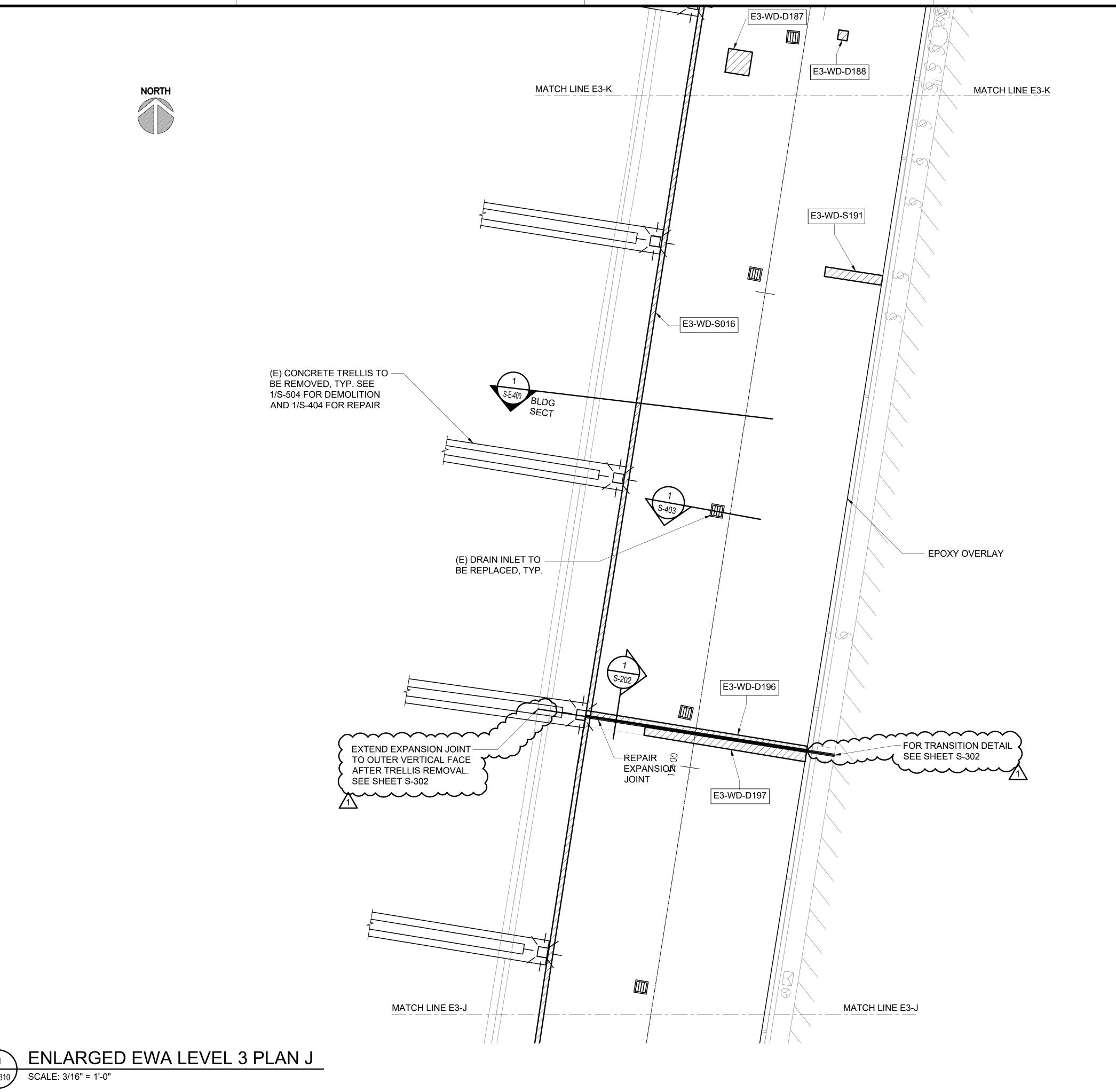




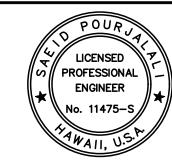








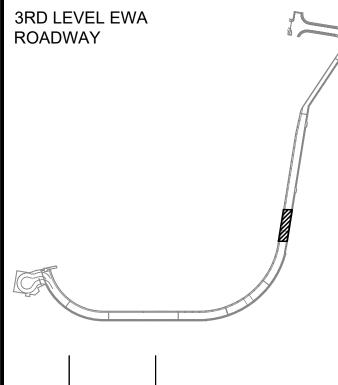




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MG	MG	SP	

# KEY PLAN / NOTES:



$\Lambda$	10/20/22	ADDENDUM 1
NO.	DATE	REVISIONS

**DOCUMENTS** SEPTEMBER, 2022

CONSTRUCTION

# PROJECT TITLE:

# **EWA AND DH CONCOURSE ROADWAY IMPROVEMENTS** PHASE 1

AT DANIEL K. INOUYE INTERNATIONAL AIRPORT HONOLULU, OAHU, HAWAII

PROJECT NO.:

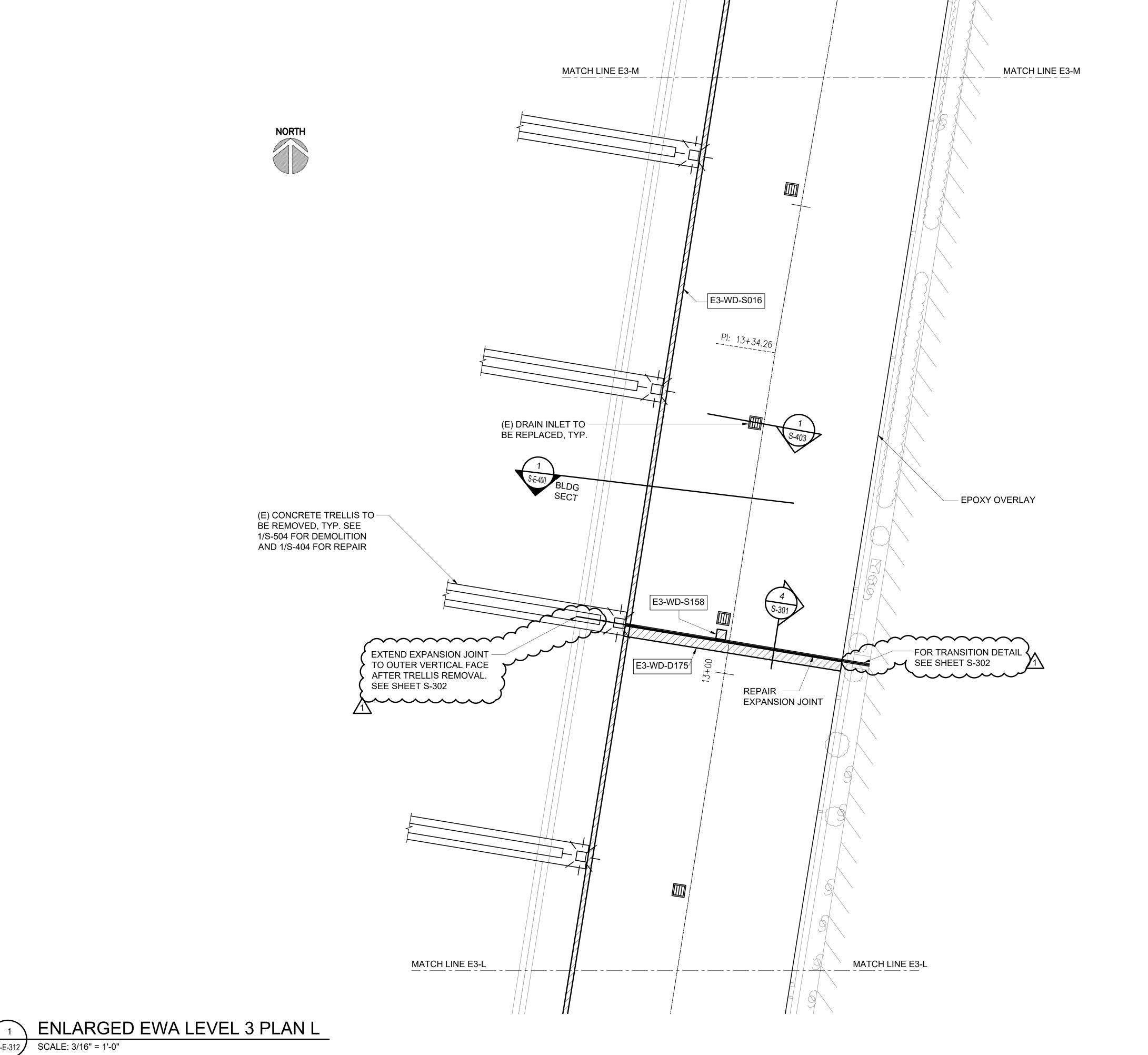
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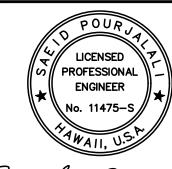
**EWA WING - THIRD FLOOR PARTIAL PLAN J** 

DATE:	
SEPTEMBER, 202	22
SHEET:	
86 OF 247 SHEET	ſS

DWG. NO. S-E-310



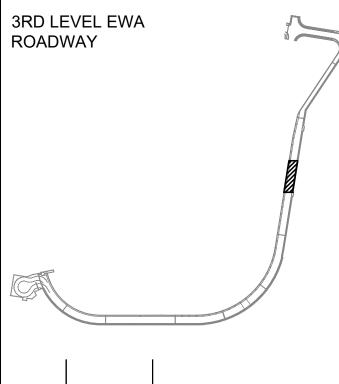




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# KEY PLAN / NOTES:



$\triangle$	10/20/22	ADDENDUM 1
NO.	DATE	REVISIONS

# CONSTRUCTION **DOCUMENTS**

SEPTEMBER, 2022

# PROJECT TITLE:

# **EWA AND DH CONCOURSE ROADWAY IMPROVEMENTS** PHASE 1

AT DANIEL K. INOUYE INTERNATIONAL AIRPORT HONOLULU, OAHU, HAWAII

PROJECT NO.:

AO1043-32

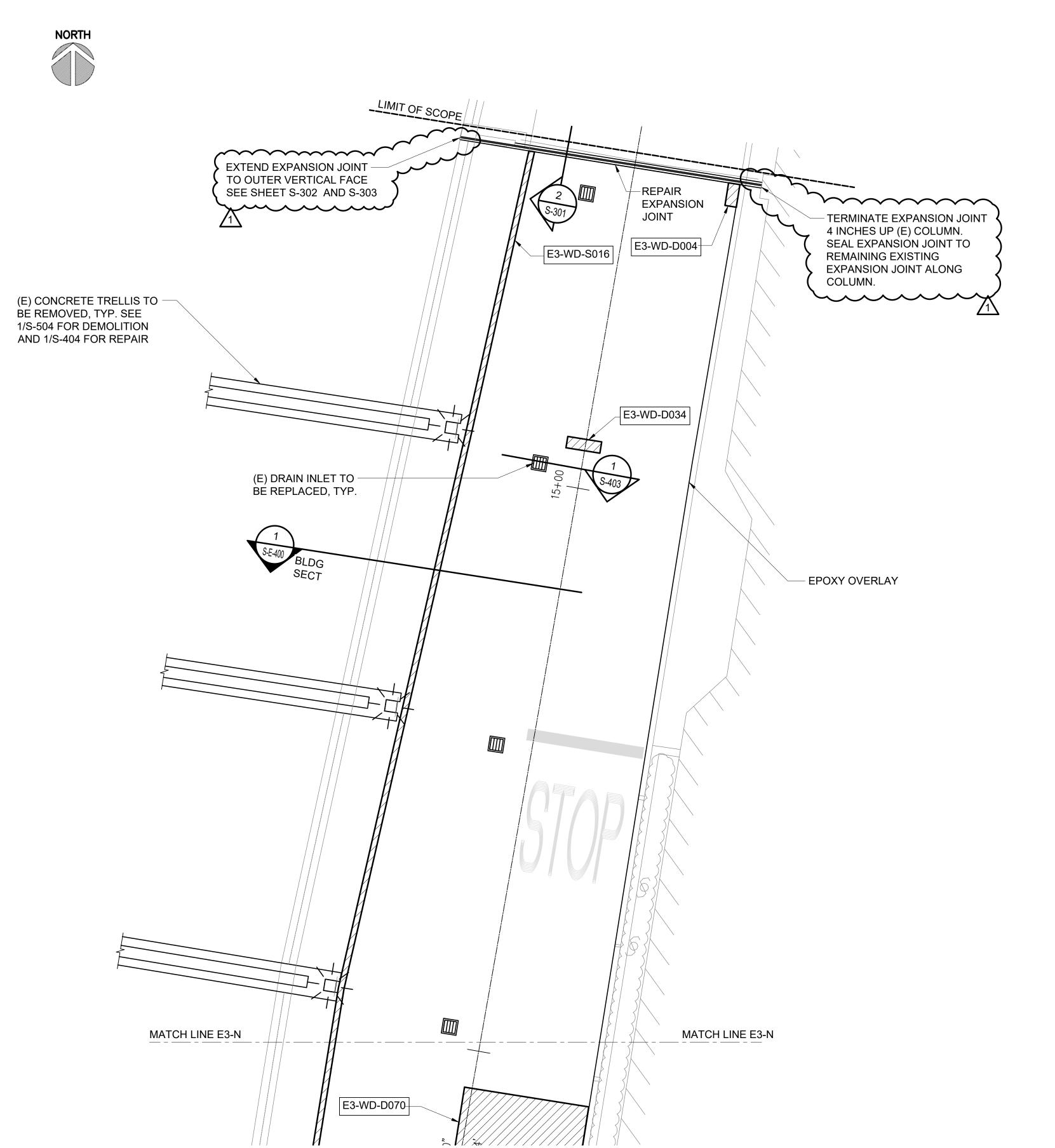
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**EWA WING - THIRD FLOOR PARTIAL** PLAN L

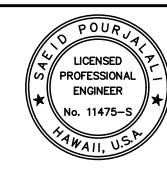
DATE :
SEPTEMBER, 2022
SHEET:

88 OF 247 SHEETS

DWG. NO. S-E-312





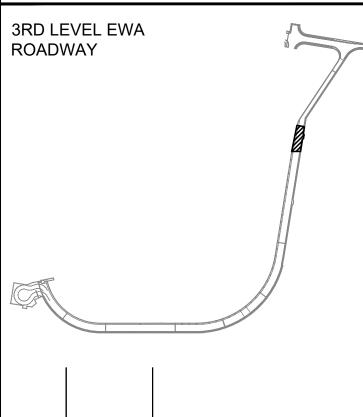


04/30/2024

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MG	MG	SP	

# KEY PLAN / NOTES:



# CONSTRUCTION **DOCUMENTS**

REVISIONS

10/20/22 | ADDENDUM 1

NO. DATE

SEPTEMBER, 2022

# PROJECT TITLE:

## **EWA AND DH CONCOURSE ROADWAY IMPROVEMENTS** PHASE 1

AT DANIEL K. INOUYE INTERNATIONAL AIRPORT HONOLULU, OAHU, HAWAII

PROJECT NO.:

AO1043-32

SHEET TITLE:

**EWA WING - THIRD FLOOR PARTIAL** PLAN N

DATE :
SEPTEMBER, 2022
SHEET:
90 OF 247 SHEETS

DWG. NO. S-E-314

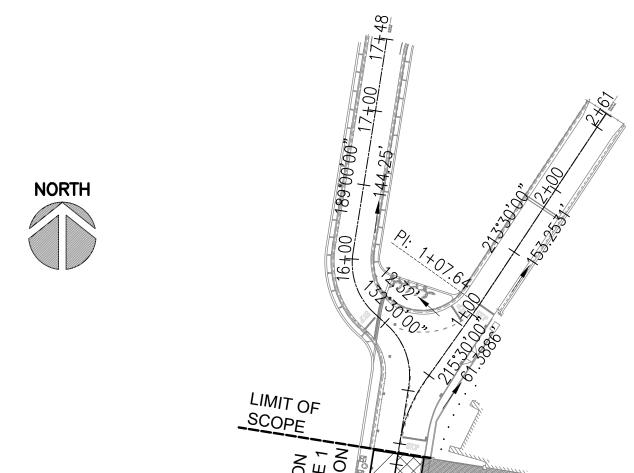
ENLARGED EWA LEVEL 3 PLAN N

SCALE: 3/16" = 1'-0"

#### DESCRIPTION OF EWA CONCOURSE SECOND LEVEL WORK:

- 1. REMOVE EXISTING TRELLIS BEAMS WHERE SHOWN IN S-E-301 THROUGH S-E-314 PRIOR TO SECOND LEVEL DECK REPAIR.
- 2. DURING SECOND LEVEL DECK REPAIR WIKI WIKI SHUTTLE SERVICE SHALL BE MAINTAINED DURING ALL OPERATING HOURS. CONSTRUCTION WORKING HOURS SHALL BE AS DEFINED IN SPECIFICATION SECTION 01010 - DESCRIPTION OF WORK.
- EXISTING ROADWAY TRAFFIC MARKINGS ARE TO BE REPAINTED AFTER CONSTRUCTION. NOTE OF ROADWAY TRAFFIC MARKINGS SHALL BE RECORDED PRIOR TO DEMOLITION
- 4. PHASE 1 PAVEMENT DEMOLITION AND RECONSTRUCTION -REMOVE HALF OF THE PAVEMENT LEAVING 1 LANE AVAILABLE FOR WIKI WIKI SHUTTLE OPERATION. COMPLETE DEMOLITION AND REPAIR IN SECTIONS AS FEASIBLE.
- a. SUBMIT A PLAN OF PROPOSED REPAIR SECTIONS ALONG PHASE 1 TO DOT-A FOR REVIEW AND APPROVAL PRIOR TO STARTING WORK.
- b. INDIVIDUAL SECTIONS MAY NOT BE OPENED TO VEHICULAR TRAFFIC TILL CONCRETE REACHES MINIMUM 3000 PSI COMPRESSIVE STRENGTH. PROOF OF CONCRETE STRENGTH WILL BE DETERMINED BY CONCRETE SAMPLES AS DESCRIBED IN SPECIFICATION 03300 - STRUCTURAL CONCRETE.
- c. PHASE 1 IS RECOMMENDED TO START FROM THE NORTH END OF THE ROADWAY AND CONTINUE DOWN TO THE TURN AROUND AREA. SEE SHEET S-600 TO S-603 FOR DUST CONTROL PLAN. DRAIN INLETS WILL BE REMOVED AND BUILT-UP SECTION FOR DRAIN INLETS INSTALLED.

- 5. PHASE 2 PAVEMENT DEMOLITION AND RECONSTRUCTION-REMOVE AND RECONSTRUCT REMAINING HALF OF ROADWAY EXCLUDING PHASE 3 SECTIONS TO ALLOW WIKI WIKI SHUTTLE TO TURN AROUND. COMPLETE DEMOLITION AND REPAIR IN SECTIONS AS FEASIBLE
  - a. SUBMIT A PLAN OF PROPOSED REPAIR SECTIONS ALONG PHASE 2 TO DOT-A FOR REVIEW AND APPROVAL PRIOR TO STARTING WORK.
  - b. INDIVIDUAL SECTIONS MAY NOT BE OPENED TO VEHICULAR TRAFFIC TILL CONCRETE REACHES MINIMUM 3000 PSI COMPRESSIVE STRENGTH. PROOF OF CONCRETE STRENGTH WILL BE DETERMINED BY CONCRETE SAMPLES AS DESCRIBED IN SPECIFICATION 03300 - STRUCTURAL CONCRETE
  - c. PHASE 2 IS RECOMMENDED TO START FROM THE TURN AROUND END OF THE ROADWAY AND CONTINUE NORTH. DRAIN INLETS WILL BE REMOVED AND DRAIN BUILT-UP SECTIONS INSTALLED. SEE SHEET S-600 TO S-603 FOR DUST CONTROL PLAN.
- 6. PHASE 3 TURN AROUND PAVEMENT REMOVAL AND REINSTALLATION - SUBMIT A SEQUENCING PLAN FOR PHASE 3 WORK TO DOT-A FOR REVIEW AND APPROVAL PRIOR TO STARTING WORK. WIKI WIKI SHUTTLE OPERATIONS MUST BE ABLE TO RESUME AT 5:00 AM EACH MORNING. THE WORK FOR THESE PHASES CANNOT START EARLIER THAN 12:01 A.M. FAST-SETTING CONCRETE WILL BE USED IN THESE AREAS. STEEL PLATES OR OTHER MEANS MAY BE REQUIRED TO ALLOW SHUTTLE OPERATIONS TO DRIVE OVER DEMOLISHED AND **CURING SECTIONS OF PHASE 3.**



PHASE 1 PAVEMENT-DEMOLITION.

MATCH LINE E2-J

MATCH LINE E2-L

MATCH LINE E2-K

MATCH LINE E2-I

MATCH LINE E2-H

MATCH LINE E2-G

MATCH LINE E2-A

PHASE 3 PAVEMENT

PHASE 2 PAVEMENT DEMOLITION

LEGEND:

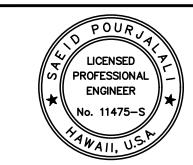
PHASE 1 PAVEMENT SLAB DEMO

PHASE 2 PAVEMENT SLAB DEMO

PHASE 3 PAVEMENT SLAB DEMO



DEPARTMENT OF TRANSPORTATION
STATE OF HAWAII

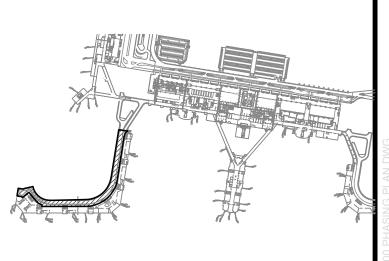


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MG	MG	SP		

#### **KEY PLAN / NOTES:**

**EWA WING** 



1	10/20/22	ADDENDUM 1
NO.	DATE	REVISIONS

### CONSTRUCTION **DOCUMENTS**

SEPTEMBER, 2022

PROJECT TITLE:

#### **EWA AND DH CONCOURSE ROADWAY IMPROVEMENTS** PHASE 1

AT
DANIEL K. INOUYE INTERNATIONAL AIRPORT
HONOLULU, OAHU, HAWAII

PROJECT NO.:

AO1043-32

SHEET TITLE:

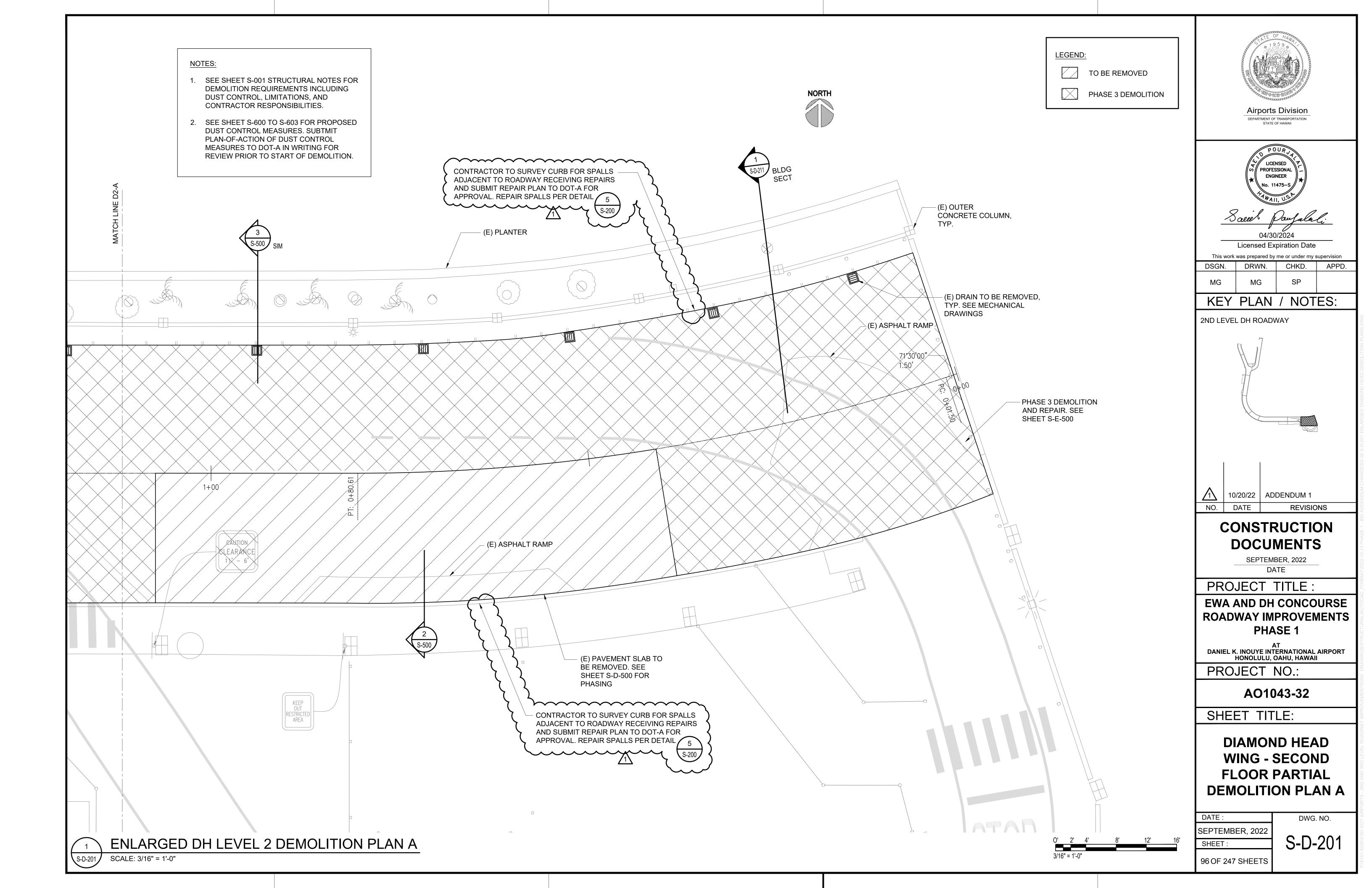
**EWA - SECOND FLOOR PHASING PLAN** 

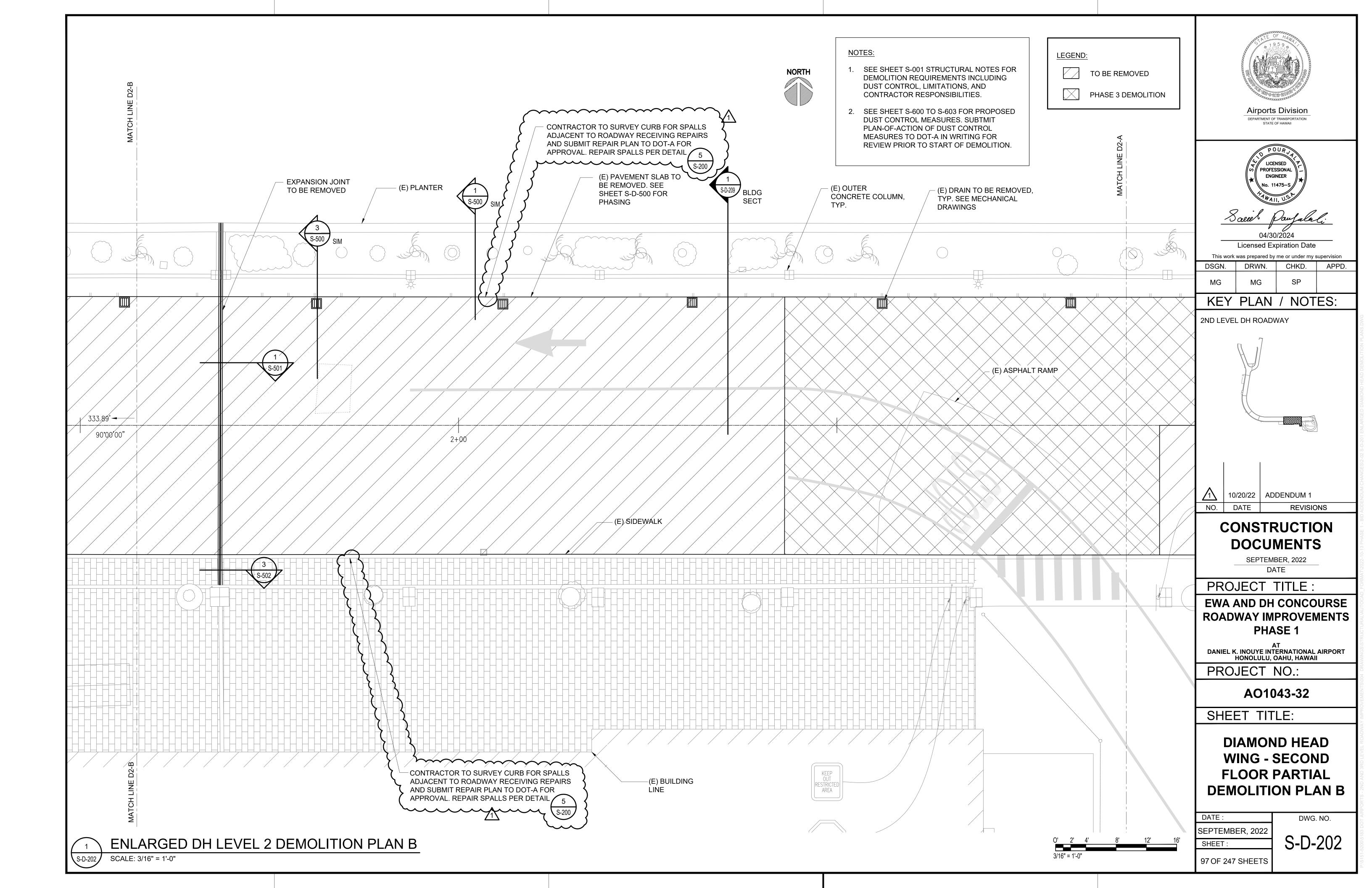
DATE:

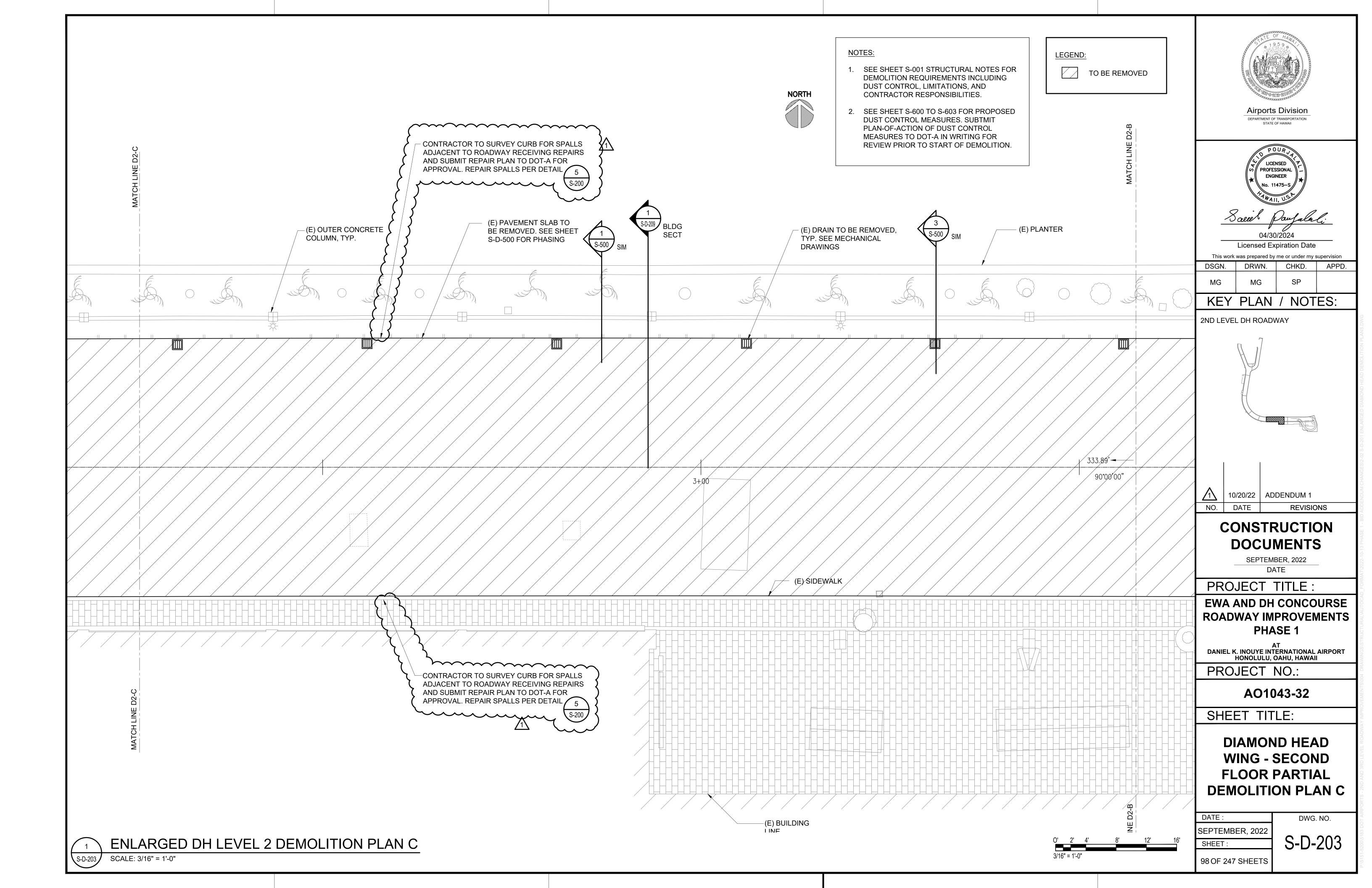
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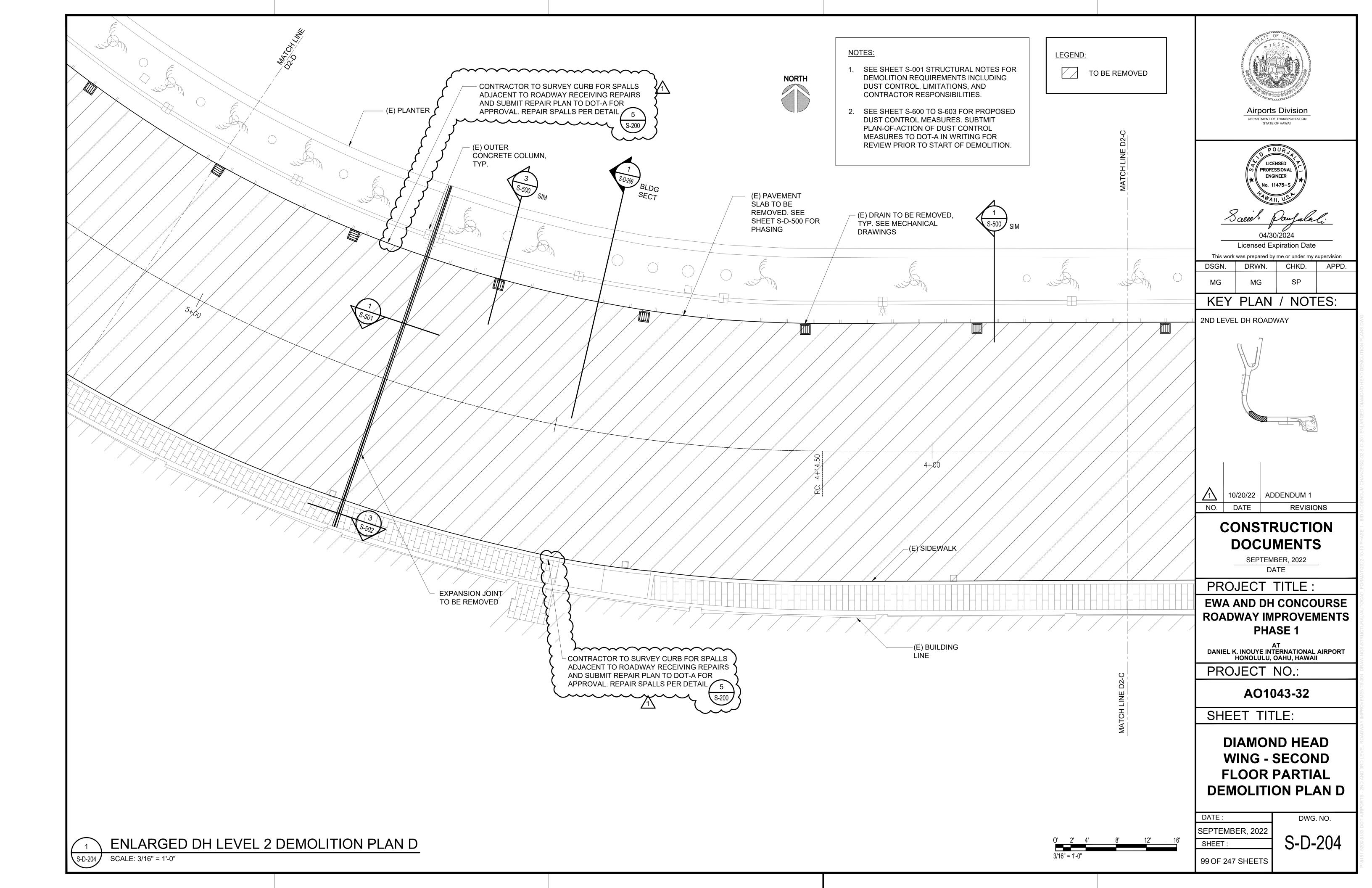
94 OF 247 SHEETS

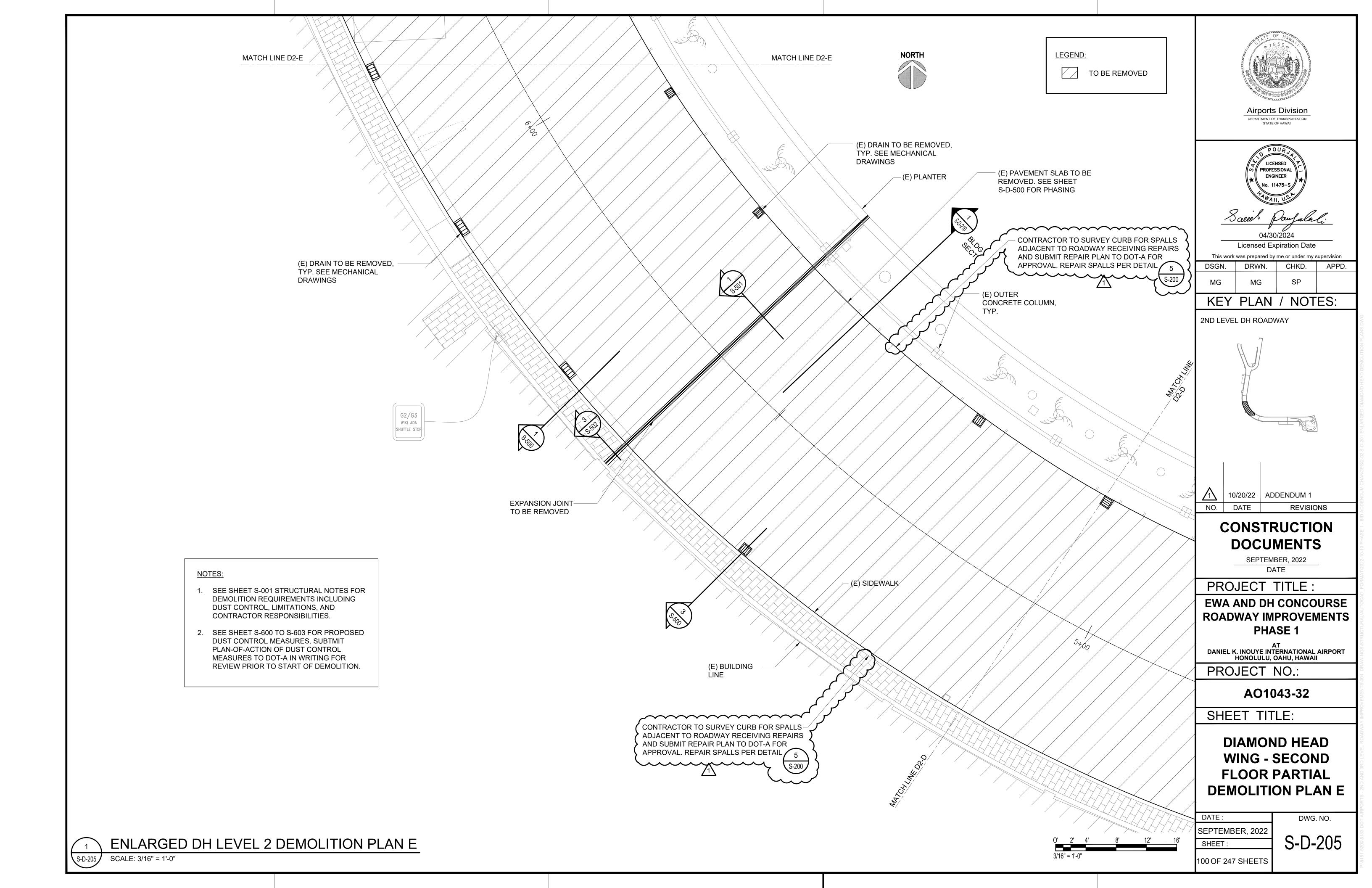
DWG. NO. S-E-500

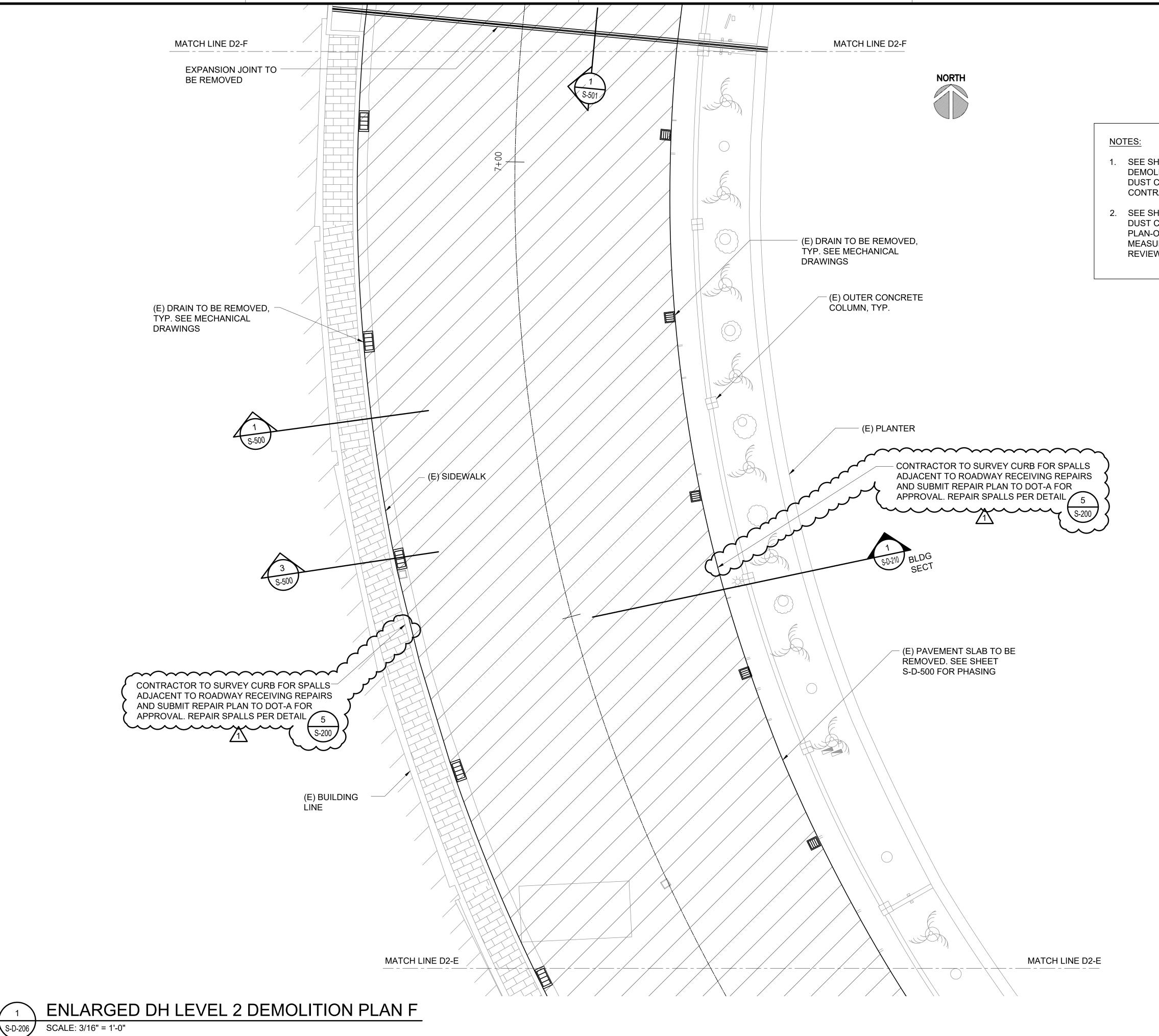












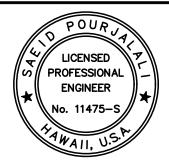
LEGEND:

TO BE REMOVED

- 1. SEE SHEET S-001 STRUCTURAL NOTES FOR DEMOLITION REQUIREMENTS INCLUDING DUST CONTROL, LIMITATIONS, AND CONTRACTOR RESPONSIBILITIES.
- 2. SEE SHEET S-600 TO S-603 FOR PROPOSED DUST CONTROL MEASURES. SUBTMIT PLAN-OF-ACTION OF DUST CONTROL MEASURES TO DOT-A IN WRITING FOR REVIEW PRIOR TO START OF DEMOLITION.



**Airports Division** DEPARTMENT OF TRANSPORTATION STATE OF HAWAII

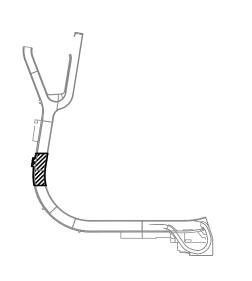


04/30/2024

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#### **KEY PLAN / NOTES:**

2ND LEVEL DH ROADWAY



10/20/22 ADDENDUM 1 NO. DATE REVISIONS

#### CONSTRUCTION **DOCUMENTS**

SEPTEMBER, 2022

#### PROJECT TITLE:

#### **EWA AND DH CONCOURSE ROADWAY IMPROVEMENTS** PHASE 1

AT DANIEL K. INOUYE INTERNATIONAL AIRPORT HONOLULU, OAHU, HAWAII

PROJECT NO.:

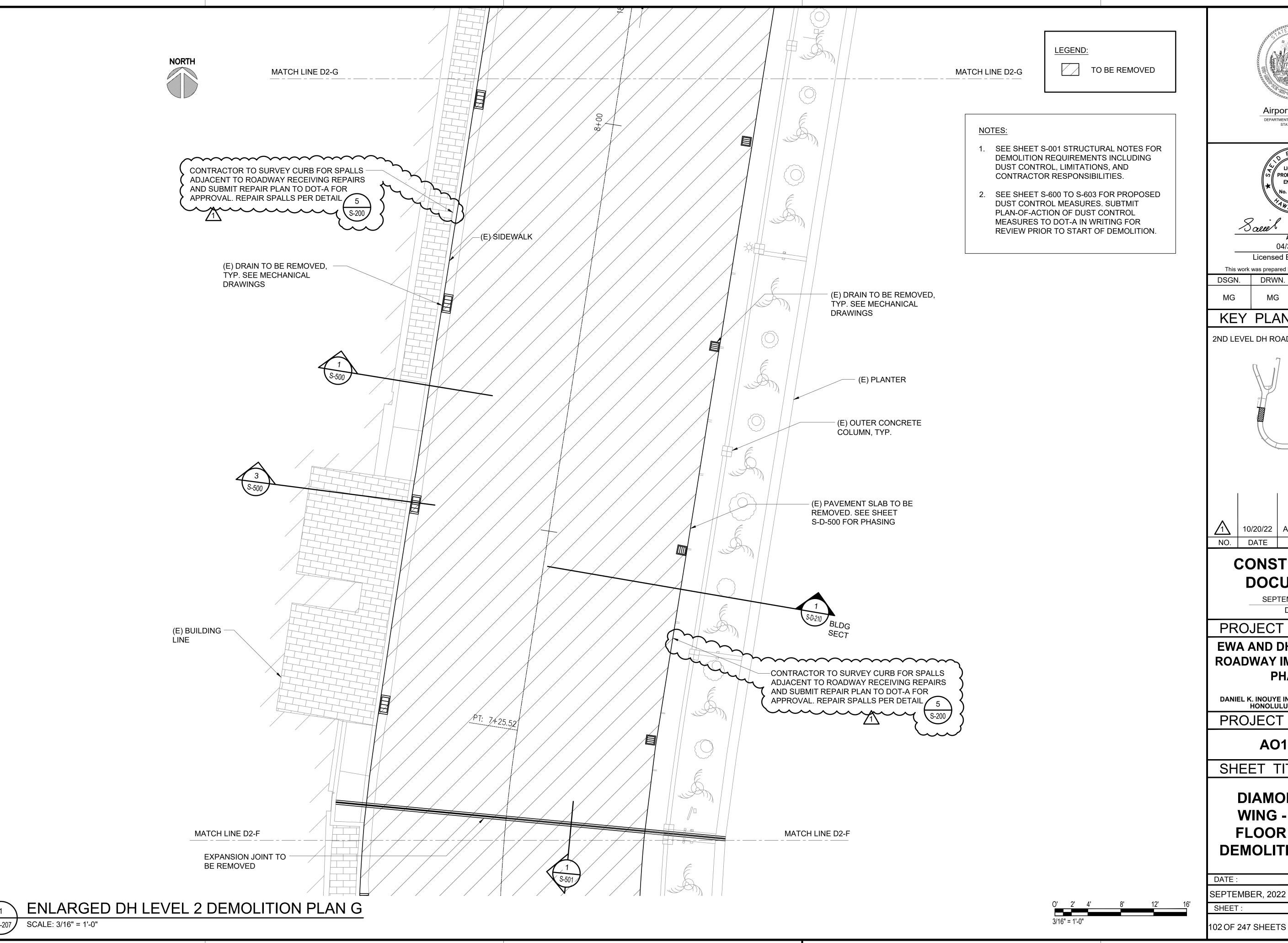
AO1043-32

SHEET TITLE:

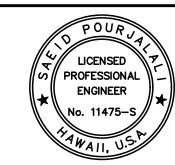
**DIAMOND HEAD** WING - SECOND **FLOOR PARTIAL DEMOLITION PLAN F** 

ľ	DATE :
	SEPTEMBER, 2022
	SHEET:

DWG. NO. S-D-206 101 OF 247 SHEETS







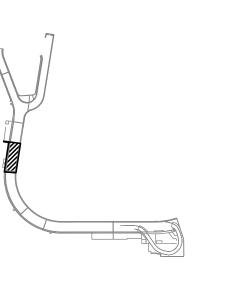
04/30/2024

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MG	MG	SP		

#### KEY PLAN / NOTES:

2ND LEVEL DH ROADWAY



1	10/20/22	ADDENDUM 1
NO	DATE	REVISIONS

**DOCUMENTS** 

CONSTRUCTION

SEPTEMBER, 2022

PROJECT TITLE:

**EWA AND DH CONCOURSE ROADWAY IMPROVEMENTS** PHASE 1

AT DANIEL K. INOUYE INTERNATIONAL AIRPORT HONOLULU, OAHU, HAWAII

PROJECT NO.:

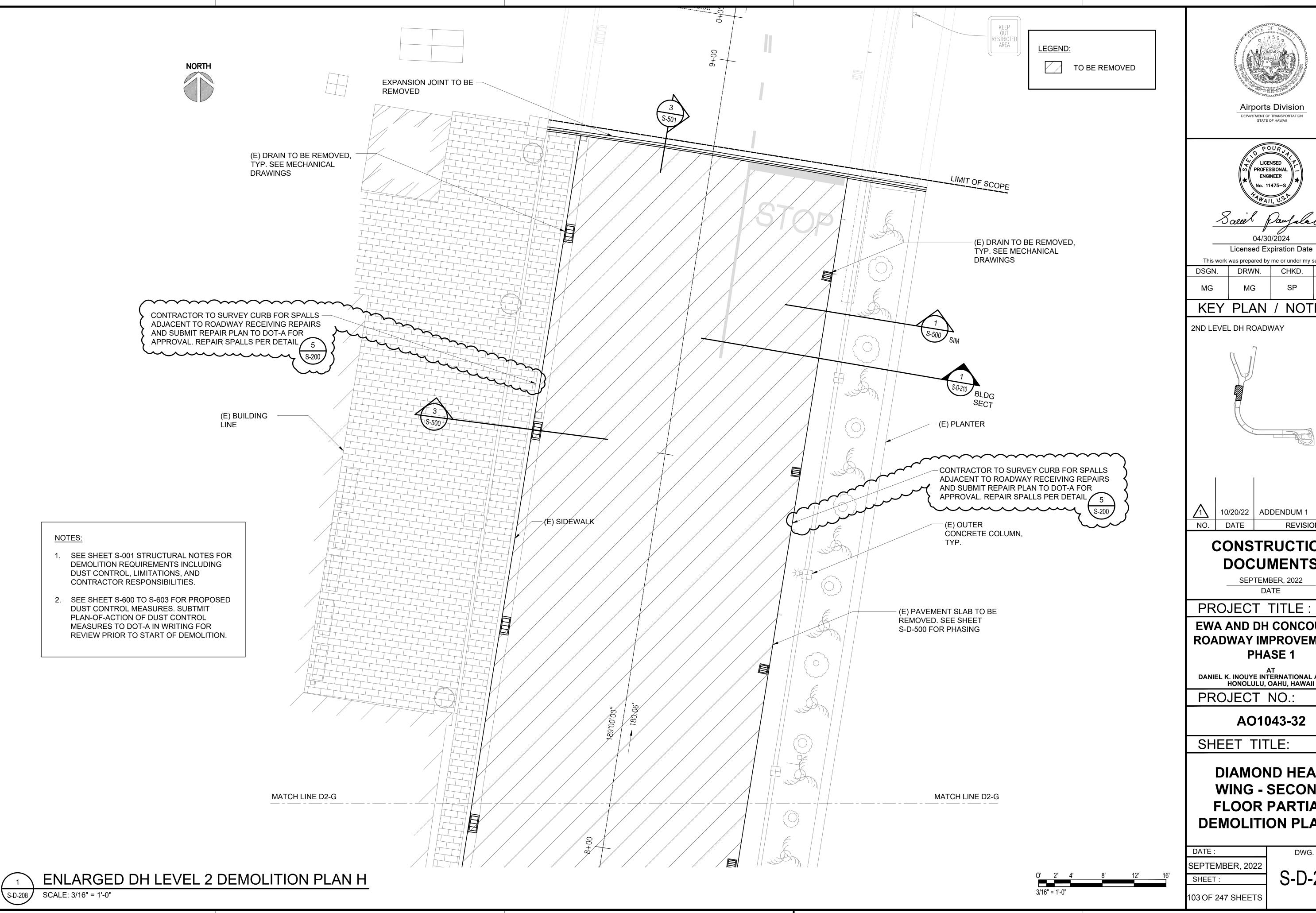
AO1043-32

SHEET TITLE:

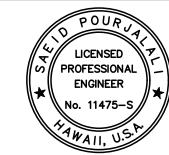
**DIAMOND HEAD** WING - SECOND **FLOOR PARTIAL DEMOLITION PLAN G** 

DATE :	
SEPTEMBER, 2022	
SHEET:	
400.05.047.0115570	

S-D-207





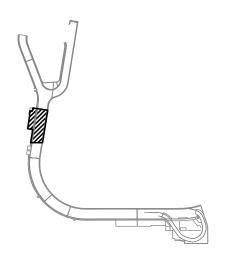


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#### KEY PLAN / NOTES:

2ND LEVEL DH ROADWAY



10/20/22 ADDENDUM 1 **REVISIONS** 

#### CONSTRUCTION **DOCUMENTS**

SEPTEMBER, 2022

#### **EWA AND DH CONCOURSE** ROADWAY IMPROVEMENTS PHASE 1

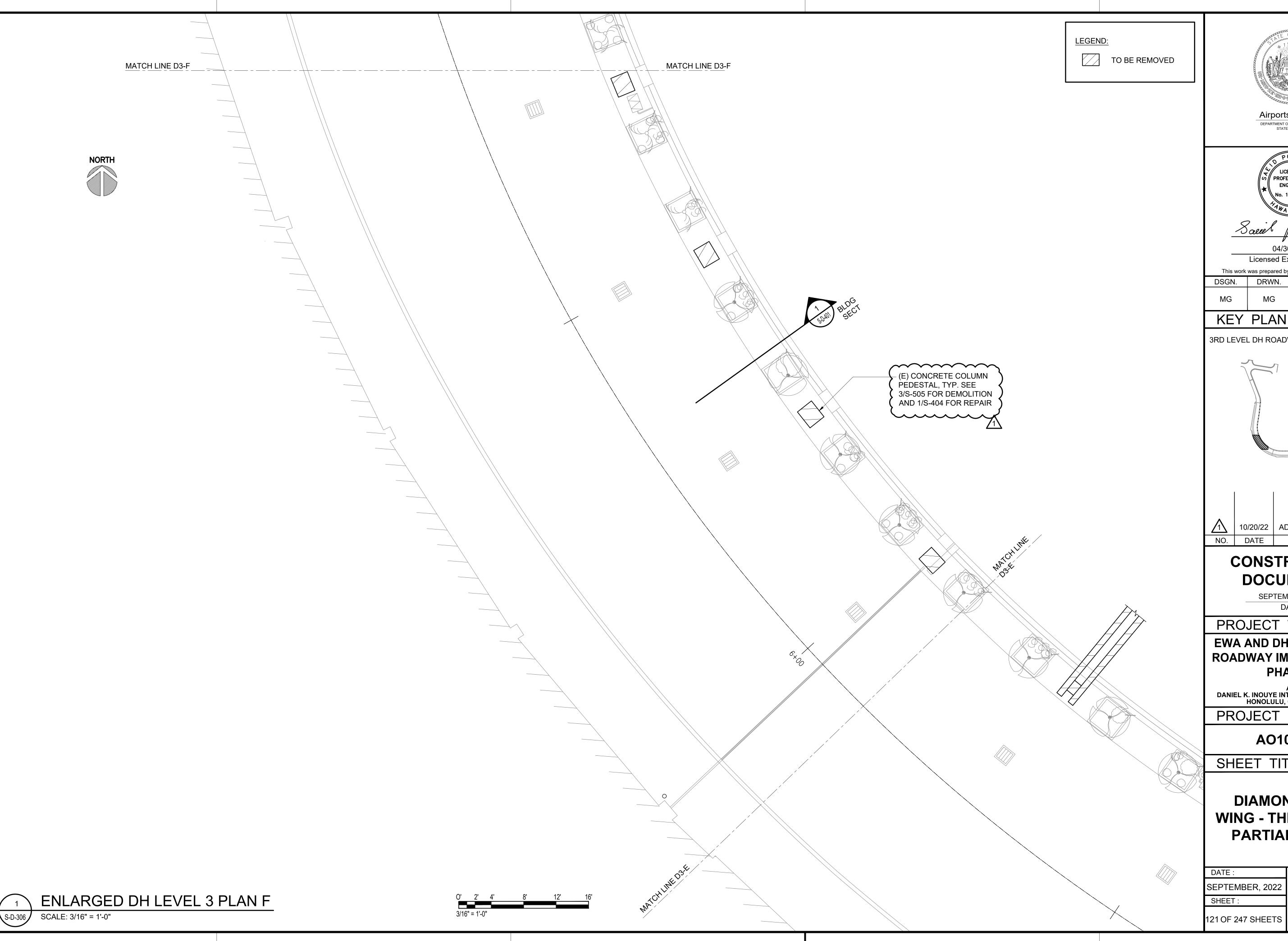
AT DANIEL K. INOUYE INTERNATIONAL AIRPORT HONOLULU, OAHU, HAWAII

AO1043-32

**DIAMOND HEAD** WING - SECOND **FLOOR PARTIAL DEMOLITION PLAN H** 

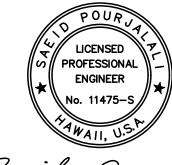
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S-D-208





DEPARTMENT OF TRANSPORTATION STATE OF HAWAII

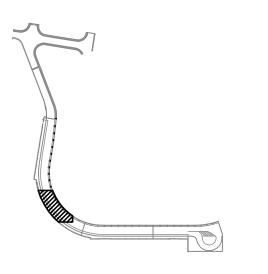


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DSGN.	DRWN.	CHKD.	APPD.
MG	MG	SP	

#### KEY PLAN / NOTES:

3RD LEVEL DH ROADWAY



10/20/22 | ADDENDUM 1 NO. DATE REVISIONS

#### CONSTRUCTION **DOCUMENTS**

SEPTEMBER, 2022

#### PROJECT TITLE:

#### **EWA AND DH CONCOURSE** ROADWAY IMPROVEMENTS PHASE 1

PROJECT NO.:

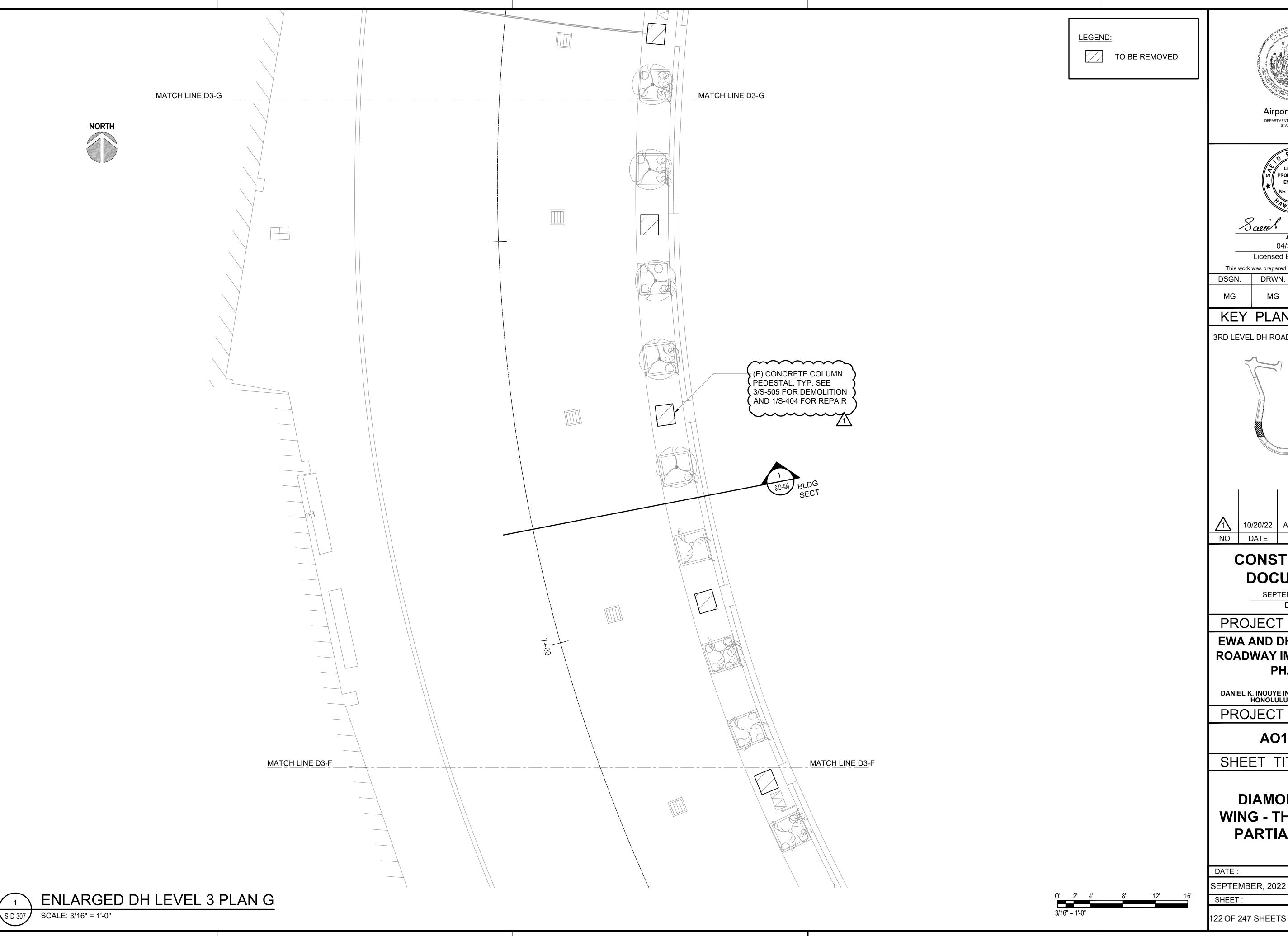
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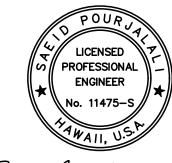
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**DIAMOND HEAD** WING - THIRD FLOOR **PARTIAL PLAN F** 

DATE :
SEPTEMBER, 2022
SHEET:

S-D-306



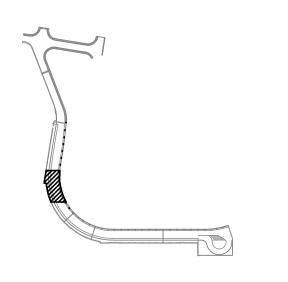


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#### KEY PLAN / NOTES:

3RD LEVEL DH ROADWAY



10/20/22 | ADDENDUM 1 NO. DATE REVISIONS

### CONSTRUCTION **DOCUMENTS**

SEPTEMBER, 2022

## PROJECT TITLE:

#### **EWA AND DH CONCOURSE ROADWAY IMPROVEMENTS** PHASE 1

PROJECT NO.:

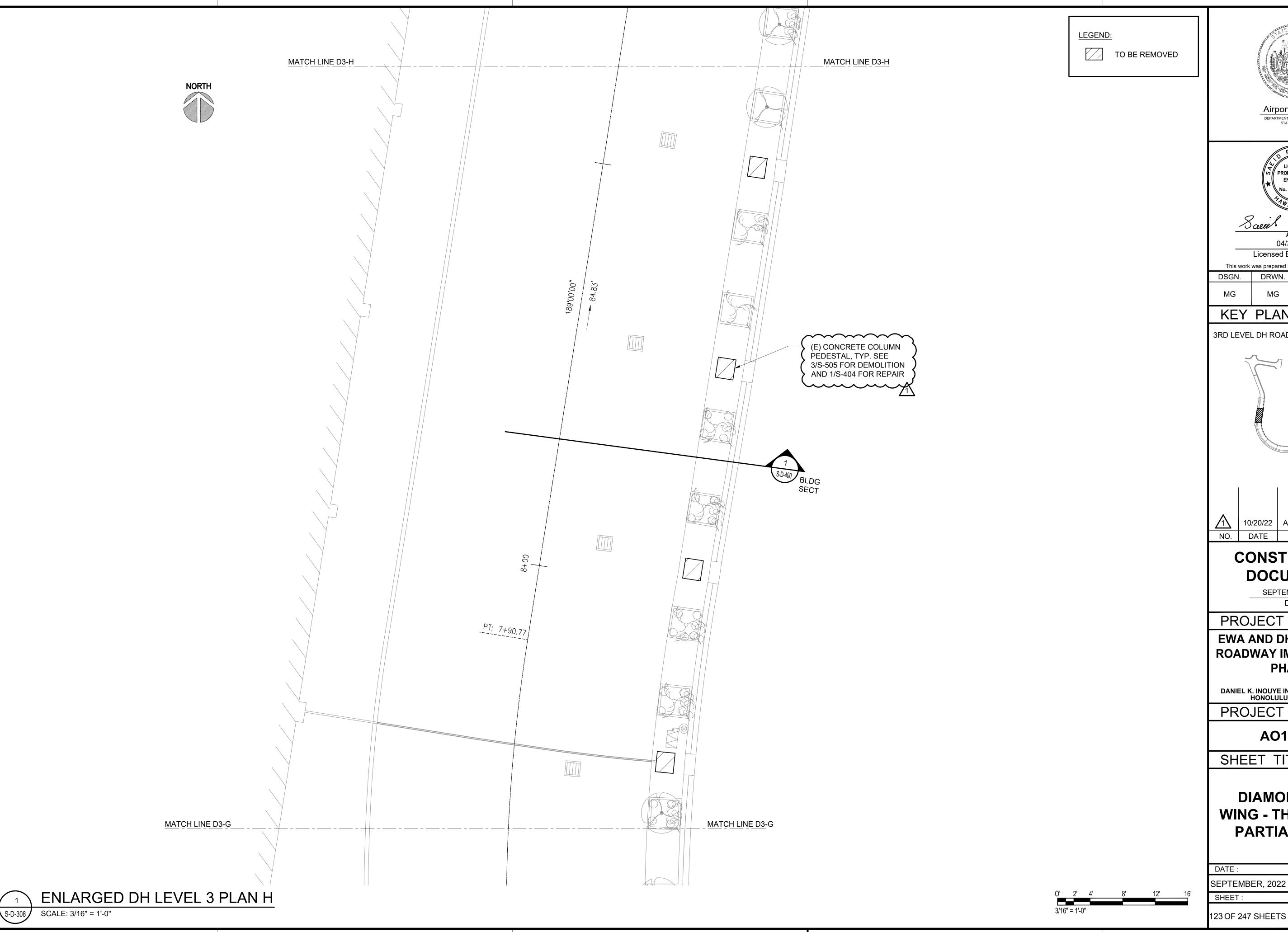
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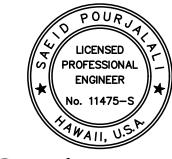
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DIAMOND HEAD WING - THIRD FLOOR PARTIAL PLAN G

DATE :
SEPTEMBER, 2022
SHEET:

S-D-307



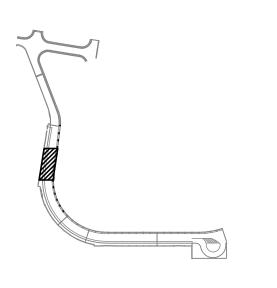


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#### KEY PLAN / NOTES:

3RD LEVEL DH ROADWAY



10/20/22 | ADDENDUM 1 NO. DATE REVISIONS

#### CONSTRUCTION **DOCUMENTS**

SEPTEMBER, 2022

### PROJECT TITLE:

**EWA AND DH CONCOURSE ROADWAY IMPROVEMENTS** PHASE 1

AT DANIEL K. INOUYE INTERNATIONAL AIRPORT HONOLULU, OAHU, HAWAII

PROJECT NO.:

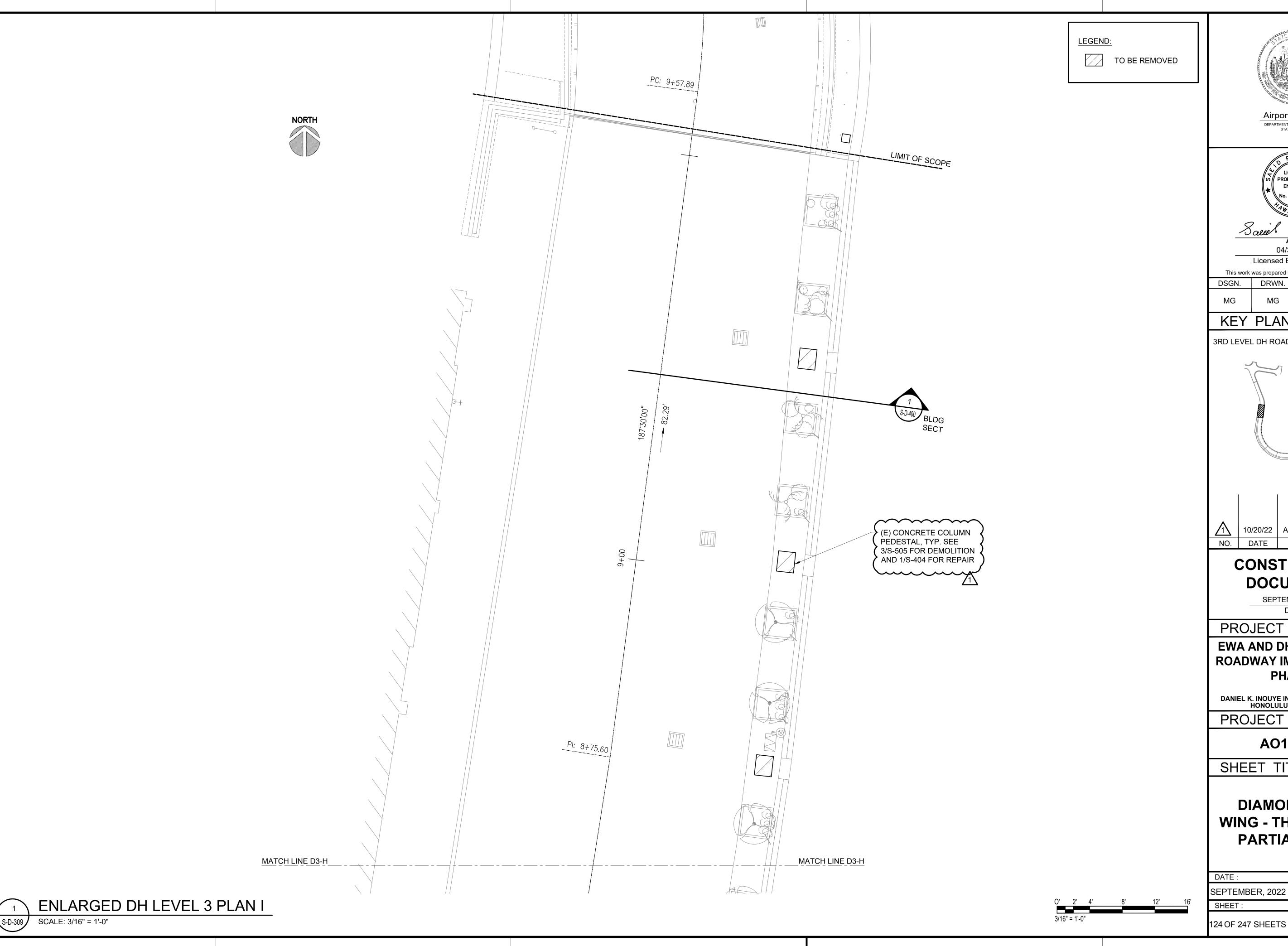
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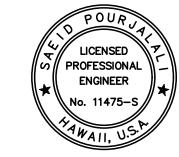
DIAMOND HEAD WING - THIRD FLOOR **PARTIAL PLAN H** 

DATE :
SEPTEMBER, 2022
SHEET:

S-D-308





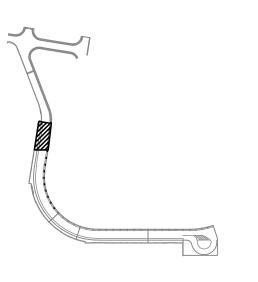


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MG	MG	SP		

# KEY PLAN / NOTES:

3RD LEVEL DH ROADWAY



10/20/22 ADDENDUM 1 NO. DATE REVISIONS

#### CONSTRUCTION **DOCUMENTS**

SEPTEMBER, 2022

### PROJECT TITLE:

#### **EWA AND DH CONCOURSE ROADWAY IMPROVEMENTS** PHASE 1

AT DANIEL K. INOUYE INTERNATIONAL AIRPORT HONOLULU, OAHU, HAWAII

PROJECT NO.:

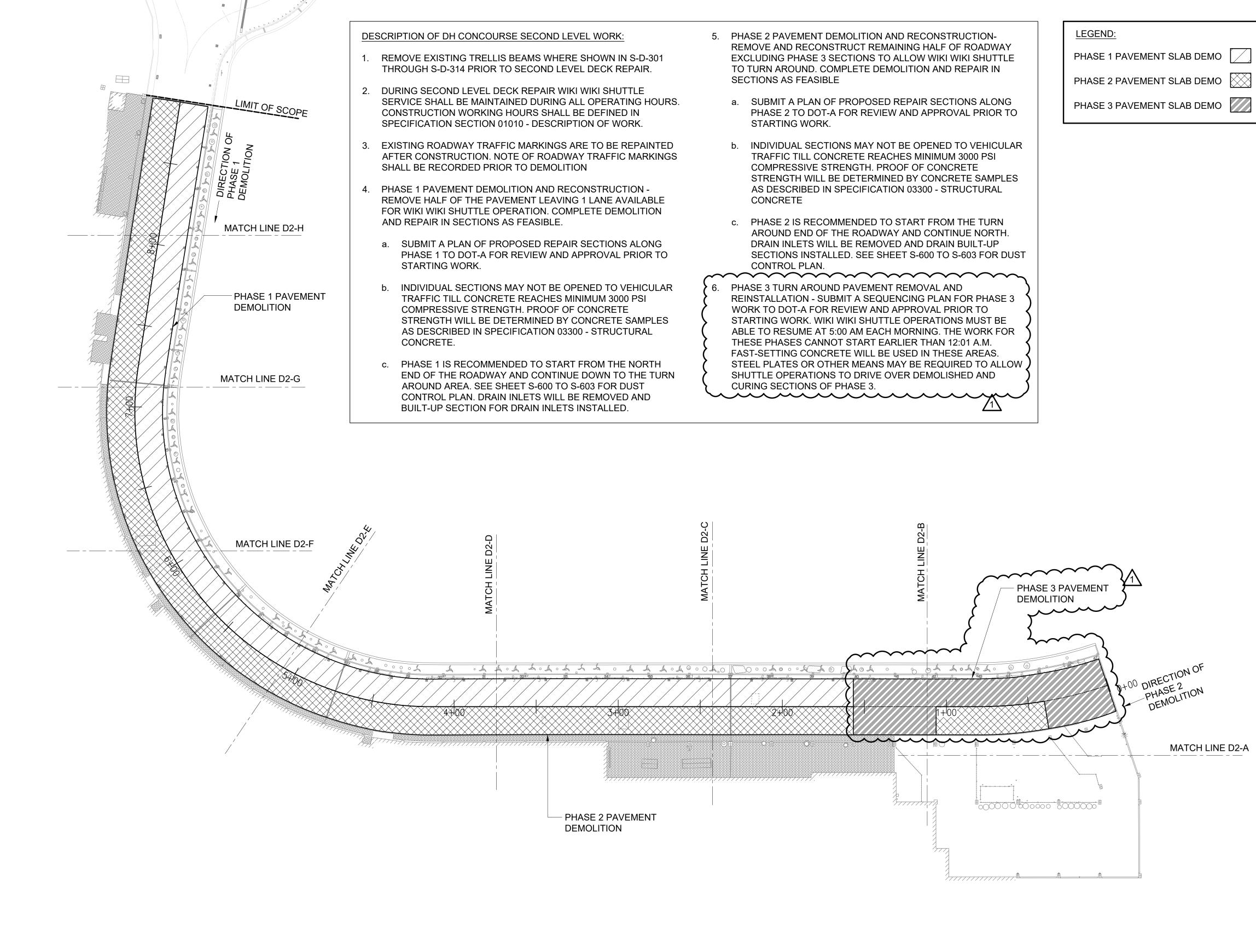
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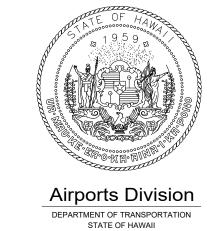
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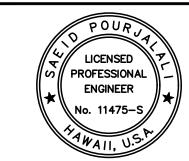
DIAMOND HEAD WING - THIRD FLOOR PARTIAL PLAN I

DATE:
SEPTEMBER, 2022
SHEET:

S-D-309





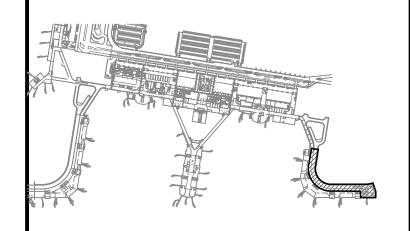


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KEY PLAN / NOTES:

DIAMOND HEAD WING



NO. DATE **REVISIONS** 

#### CONSTRUCTION **DOCUMENTS**

SEPTEMBER, 2022

PROJECT TITLE:

**EWA AND DH CONCOURSE ROADWAY IMPROVEMENTS** PHASE 1

AT DANIEL K. INOUYE INTERNATIONAL AIRPORT HONOLULU, OAHU, HAWAII

PROJECT NO.:

AO1043-32

SHEET TITLE:

DIAMOND HEAD WING - SECOND **FLOOR PHASING PLAN** 

DATE: SEPTEMBER, 2022 SHEET

128 OF 247 SHEETS

DWG. NO. S-D-500



