

TRUCKEE TAHOE AIRPORT DISTRICT 10356 Truckee Airport Rd.
Truckee, CA 96161 (530) 587-4119 tel (530) 587-2984 fax
www.TruckeeTahoeAirport.com

**DIRECTORS** 

DAVID DIAMOND

MARY HETHERINGTON

TERESA O'DETTE

KAT ROHLF

RICK STEPHENS

#### Dear Sir/Madam:

The Truckee Tahoe Airport District is planning to complete by purchase order the re-marking of airfield and landside markings on the surface of the Taxiway A Complex, East Ramp, West Ramp, Executive Hangar Area, Terminal Parking Lot, Helicopter Parking Area, Warehouse Parking Lot, Airport Road, East Hangar Access Road, Chandelle Lane, and parking circles at the Truckee Tahoe Airport. This marking shall meet the requirements set forth on the attached plans and specifications.

The District would appreciate receiving a quote from your office for furnishing and installing this airfield and landside marking and providing the stencils as noted in the bid documents. Prices quoted shall include the total cost of furnishing all materials, including stencils, paint and glass beads, and for all labor equipment, tools, and incidentals necessary to complete the work, including paying applicable California state sales taxes. A Proposal Form is attached for your use. This project is a unit price contract, the Truckee Tahoe Airport District reserves the right to increase/decrease quantities based on their available budget. The airport anticipates completing this work as soon as possible after bids are opened based on the low bidder's availability.

Please send questions to Damon Brandley, Brandley Engineering, <a href="mailto:dave.hoffman@truckeetahoeairport.com">dbrandley@rwbrandley.com</a> Proposals are due either by e-mail to <a href="mailto:dave.hoffman@truckeetahoeairport.com">dave.hoffman@truckeetahoeairport.com</a> or by hard copy to Truckee Tahoe Airport, Attention: Dave Hoffman, Director of Operations and Maintenance, Truckee Tahoe Airport District, 10356 Truckee Airport Road, Truckee, California 96161, before 1:00 p.m. Tuesday April 26, 2022.

Very truly yours,

TRUCKEE TAHOE AIRPORT DISTRICT

Kevin Smith, General Manager

**Attachments** 

#### **PROPOSAL FORM**

#### TRUCKEE TAHOE AIRPORT REMARK AIRFIELD 2022

#### TRUCKEE TAHOE AIRPORT DISTRICT 10356 TRUCKEE AIRPORT ROAD, TRUCKEE, CALIFORNIA 96161

Proposal Due: <u>Tuesday April 26, 2022 at 1:00 p.m.</u>
Submit proposals to: <u>dave.hoffman@truckeetahoeairport.com</u> or a hard copy Attn: Dave Hoffman (address above).

Item		Unit of	Estimated		
No.	Item	Meas.	Quantity	Unit Price	Item Total
1	Mobilization*	L.S.	L.S.	L.S.	\$
2	Marking and Lighting of Closed Airport Facilities	L.S.	L.S.	L.S.	\$
3	Remark Landside Marking – 1 Coat with Type I				
	Beads	Sq. Ft.	6,500	\$	\$
4	Remark Airfield Marking – 1 Coat with Type III				
	Beads	Sq. Ft.	46,000	\$	\$
5	New Airfield Marking – 2 Coats with Type III Beads	Sq. Ft.	1,250	\$	\$
6	'M', 'N', '0', "1", "2", "3", "4", "5", "6", "7", "8"				
	Aluminum Stencils – 36" Letter Height	L.S.	L.S.	L.S.	\$
	Total	\$			

<sup>\*</sup>Mobilization limited to 10% of Total Project Cost

Note: The estimate of quantities of work to be done under the specifications is approximate and is given only as a basis of calculation upon which the award of the contract will be made. The contractor will be paid for the actual work done including materials and equipment actually installed at the contract unit price. The Owner reserves the right to increase or decrease the amount of any class of work or material deemed necessary without restrictions. Bidders must submit balanced bids in order that they may not be affected adversely by an increase or decrease of quantities.

decrease or quantities.	BY:(Signature of Authorized	l Official)	
	NAME:		
	TITLE:		_
	DATE:day of	, 2022	
STATE IN WHICH II	NCORPORATED:		
will be required for a	contractor to bid the job and	Contractor's License classifica complete the work.	
MEMBERS OF FIRM	M IF PARTNERSHIP:	ADDRESS:	

## GENERAL CONSTRUCTION ITEMS FOR REMARK AIRFIELD 2022

#### TRUCKEE TAHOE AIRPORT DISTRICT 10356 TRUCKEE AIRPORT ROAD TRUCKEE, CALIFORNIA 96161

#### **ITEM C-105 MOBILIZATION**

- **105-1 Description.** This item of work shall consist of, but is not limited to, work and operations necessary for the movement of personnel, equipment, material and supplies to and from the project site for work on the project except as provided in the contract as separate pay items.
- **105-2 Mobilization limit.** Mobilization shall be limited to 10 percent of the total project cost.
- **105-3 Posted notices.** Prior to commencement of construction activities, the Contractor must post the following documents in a prominent and accessible place where they may be easily viewed by all employees of the prime Contractor and by all employees of subcontractors engaged by the prime Contractor: Equal Employment Opportunity (EEO) Poster "Equal Employment Opportunity is the Law" in accordance with the Office of Federal Contract Compliance Programs Executive Order 11246, as amended. These notices must remain posted until final acceptance of the work by the Owner.
- **105-4 Engineer/RPR field office.** An Engineer/RPR field office is not required.

#### METHOD OF MEASUREMENT

**105-5** The method of measurement for Mobilization shall be lump sum. This contract lump sum price paid for mobilization shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in mobilization as specified. No separate payment will be made for demobilization.

#### **BASIS OF PAYMENT**

**105-6** Payments will be made for mobilization on a monthly basis with the monthly progress payments. The percentage of the mobilization payment made will be equal to the percentage of total project completed, as determined by the Engineer.

Payment will be made under:

Mobilization - Lump Sum

#### **REFERENCES**

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

Office of Federal Contract Compliance Programs (OFCCP)

Executive Order 11246, as amended

EEOC-P/E-1 – Equal Employment Opportunity is the Law Poster

United States Department of Labor, Wage and Hour Division (WHD)

WH 1321 - Employee Rights under the Davis-Bacon Act Poster

#### **END OF ITEM C-105**

#### ITEM C-106 MARKING AND LIGHTING OF CLOSED AIRPORT FACILITIES

#### **Description**

**106-1.0 General.** The construction of this project requires certain areas of the airfield to be closed to aircraft and operational traffic. Closure of these areas shall be in accordance with construction plans. Marking of closed airfield facilities, temporary facilities, and contractor haul routes shall be in accordance with these specifications and F.A.A. Advisory Circulars No. 150/5340-1, current edition, "Standards for Airport Markings", 150/5370-2, current edition, "Operational Safety on Airports During Construction" and the Construction Safety and Phasing Plan. The airport will not be closed during construction of this project and aircraft operations on active Runway 2-20, Runway 11-29 and associated taxiways must be allowed and protected.

All existing runway lights, taxiway lights, navaids, and all power, control, and communication cables shall be maintained in operation at all times for those facilities which are not closed under this contract.

#### **Closed Airport Facility Marking**

**106-2.1 Barricades.** Any area that is closed for aircraft or vehicular traffic shall have lighted barricades placed across the pavement as shown on the plans. These barricades must be maintained in good condition at all times during the closure or they shall be repaired or replaced as directed by the Engineer.

In accordance with the Construction Safety and Phasing Plan, the Contractor shall designate haul roads to construction areas and block access to construction areas by use of suitable lighted barricades. On all airfield pavement, no part of the barricade or light shall extend ten (10) inches above the paved surface. Maximum spacing between barricades shall be four (4) feet. Each barricade shall have two solar-powered lights with red lenses each controlled by photocells such that they are on at night and off during the day. Barricades shall be painted alternate orange and white diagonal striping. These lighted barricades shall remain in place until such time as the new construction is open to traffic.

The Contractor must place and maintain all Airport furnished barricades and flashing units for this project. Contractor shall provide any maintenance required to maintain the barricades.

Barricades shall be securely fastened or weighted so that they will not be disturbed by high winds or jet blast.

Barricades shall be located as shown on the plans and as directed by the Resident Project Representative (RPR). At the completion of the project, all barricades shall be drained of water and removed from the site.

#### **Method of Measurement**

**106-3.1** Method of measurement for marking and lighting of closed Airport facilities shall be Lump Sum.

#### **Basis of Payment**

**106-4.1** Payment shall be made at the contract lump sum price for marking and lighting of closed airport facilities.

This lump sum price shall be full compensation for furnishing all labor, materials, tools, and incidentals necessary to perform this item of work including but not limited to placing, maintaining, and removing airport furnished barricades.

Payment will be made under:

Marking and Lighting of Closed Airport Facilities - Lump Sum

**END OF ITEM C-106** 

# TECHNICAL SPECIFICATION FOR REMARK AIRFIELD 2022 TAXIWAY A COMPLEX, EAST RAMP, WEST RAMP, EXECUTIVE HANGAR AREA, TERMINAL PARKING LOT, AND PARKING CIRCLES

#### TRUCKEE TAHOE AIRPORT DISTRICT 10356 TRUCKEE AIRPORT ROAD TRUCKEE, CALIFORNIA 96161

<u>1.0 – DESCRIPTION</u>. This item shall consist of the preparation and painting of numbers, markings, and stripes on the surface of the Taxiway A Complex, East Ramp, West Ramp, Executive Hangar Area, Terminal Parking Lot, Helicopter Parking Area, Warehouse Parking Lot, Airport Road, East Hangar Access Road, Business Park Drive, and parking circles in accordance with these specifications and at locations shown on the plans or as directed by the Engineer. The terms "paint" and "marking material" as well as "painting" and "application of markings" are interchangeable throughout this specification.

#### <u>2.0 – MATERIALS.</u>

- **2.1 Materials Acceptance.** The Contractor shall furnish manufacturer's certified test reports for materials shipped to the project. The certified test reports shall include a statement that the materials meet the specification requirements. The reports can be used for material acceptance or the Engineer may perform verification testing. The reports shall not be interpreted as a basis for payment. The Contractor shall notify the Engineer upon arrival of a shipment of materials to the site. All material shall arrive in sealed containers 55 gallons or smaller for inspection by the Engineer. Material shall not be loaded into the equipment until inspected by the Engineer.
- **2.2 Marking Materials.** Paint shall be Waterborne. Paint shall be furnished in the following colors in accordance with Federal Standard No. 595:
  - White 37925
  - Yellow 33538 or 33655
  - Black 37038
  - Blue Per ADA Requirements

Paint shall meet the requirements of Federal Specification TT-P-1952F and be furnished in Type I or II - Standard drying time for no-pick-up - when tested in accordance with ASTM D 711. The non-volatile portion of the vehicle for all paint types shall be composed of a 100% acrylic polymer as determined by infrared spectral analysis.

**2.3 Reflective Media.** Glass beads shall meet requirements of Federal Specification TT-B-1325D, Type I Gradation A or Type III, High Index of Refraction as called for on the plans. Glass beads shall be treated with all compatible coupling agents recommended by the manufacturers of the paint and reflective media to ensure adhesion and embedment.

**2.4 Aluminum Stencils.** The Contractor shall provide new aluminum stencils at 0.08" thickness with rolled/raised edges for each numeral in the dimensions shown on the plans. 'M', 'N', '0', "1", "2", "3", "4", "5", "6", "7", "8" are 36-inch-tall lettering. See details on the plans. Stencil and layout shall be approved by the RPR prior to placement of any paint. The "6" stencil shall be capable of using it as a "9" when rotated 180°. Stencils shall be delivered to Airport Maintenance at the completion of the project.

#### 3.0 CONSTRUCTION METHODS.

- **3.1 Weather Limitations.** The painting shall be performed only when surfaces are dry, atmospheric temperature is above 45 degrees F and rising and the pavement surface temperature is at least 5 degrees F above the dew point, and the weather is not foggy or windy. Markings shall not be applied when the pavement temperature is greater than 120°F. Markings shall not be applied when the wind speed exceeds 10 mph unless windscreens are used to shroud the material guns.
- **3.2 Equipment.** The equipment shall be approved by the Engineer and shall include all apparatus necessary to properly clean existing surfaces, a mechanical marking machine, a bead dispensing machine, and such auxiliary hand painting equipment as may be necessary to satisfactorily complete the job.

The mechanical marker shall be an atomizing spray-type or airless type marking machine suitable for application of traffic paint. Air compressor shall have a minimum capacity of 50 cubic feet per minute. Machine shall be equipped with a positive "on/off" control device. It shall produce an even and uniform film thickness at required coverage and shall apply markings of uniform cross sections and clear-cut edges without running or spattering and without overspray.

**3.3 Preparation of Surface.** Immediately before application of paint, the surface shall be dry and free from dirt, grease, oil, laitance, or other foreign materials that would reduce bond between paint and pavement. The areas to be painted shall be cleaned by air blasting, waterblasting, shotblasting, grinding, or sandblasting or by other methods as required to remove all contaminants without damage to the pavement surface. Use of any chemicals or impact abrasives during surface preparation shall be approved in advance by the Engineer. After the cleaning operations, sweeping, blowing, or rinsing with pressurized water shall be performed to ensure the surface is clean and free of grit or other debris left from the cleaning process. The equipment used for sweeping shall incorporate a vacuum device capable of picking up loose aggregate.

Prior to the initial application of markings, the Contractor shall certify in writing that the surface has been prepared in accordance with the paint manufacturer's requirements, that the application equipment is appropriate for the type of marking paint and that environmental conditions are appropriate for the material being applied. This certification along with a copy of the paint manufacturer's surface preparation and application requirements must be submitted and approved by the Engineer prior to the initial application of markings.

**3.4 Layout of Markings.** The proposed markings shall be laid out in advance of paint application and shall be approved by the Engineer prior to painting. The locations of markings to receive glass beads shall be as shown on the plans.

Any existing markings that extend outside specified dimensions plus allowable tolerances shall be obliterated prior to placing the new markings.

The Airport will provide stencils for any existing lettering to be remarked. Contractor shall return the stencils to the Airport after use, clean and in the same condition as they were provided to the Contractor.

**3.5 Application.** The paint shall be applied at locations and to dimensions and spacing shown on the plans. The paint shall not be applied until layout and condition of the surface have been approved by the Engineer.

The edges of the markings shall not vary from a straight line more than ½ inch in 50 feet and marking dimensions and spacings shall be within the following tolerances:

Dimension and Spacing	Tolerance
36 inches or less	± ½ inch
greater than 36 inches to 6 feet	± 1 inch
greater than 6 feet to 60 feet	± 2 inches
greater than 60 feet	± 3 inches

The paint shall be mixed in accordance with the manufacturer's instructions and applied to the pavement with a marking machine at the rate(s) shown in Table 1. The addition of thinner will not be permitted. A period of 10 days shall elapse between placement of a bituminous surface course or seal coat and application of the paint.

TABLE 1. APPLICATION RATES FOR PAINT AND GLASS BEADS						
Paint Type	Paint Square feet per gallon, ft²/gal (Square meters per liter, m²/l)	Glass Beads, Type I Gradation A, Pounds per gallon of paintlb./gal.	Glass Beads, Type III, Pounds per gallon of paintlb./gal.			
Waterborne, Type I or II	115 ft <sup>2</sup> /gal. max.	7 lb./gal. min.	10 lb./gal. min.			

In some areas as shown on the plans, the paint shall be applied in one coat where new markings are applied over existing markings. Prior to restriping, any loose paint on existing marking shall be removed. The glass beads shall be distributed to marked areas immediately after application of the coat of paint.

All paint in areas of existing marking shall be applied in one coat with beads. Prior to restriping, any loose paint on existing marking shall be removed.

All paint in areas of new marking shall be applied in two coats at separate times. The first coat of paint, the "fog" coat, shall be applied at 50 percent of the specified coverage. The final coat may be placed after the fog coat has been placed and cured. No beads shall be applied to the "fog" coat.

The glass beads shall be distributed to marked areas at the locations shown on the plans to receive glass beads immediately after application of the final coat of paint. A dispenser shall be furnished that is properly designed for attachment to the marking machine and suitable for dispensing glass beads. Glass beads shall be applied at the rate(s) shown in Table No. 1. Glass beads shall not be applied to black paint. Glass beads shall adhere to the cured paint or all marking operations shall cease until corrections are made. Glass beads shall be applied uniformly on all painted surfaces.

All lines shall be clean and sharp. Ragged edges of segments, fogginess along sides, or objectionable drizzling along unpainted portions will not be permitted. Any smears or other defects shall be painted out with black paint. The finished marking shall have an opaque, well-painted appearance, with no black or other discoloration showing through.

The Contractor shall furnish certified test reports for materials shipped to the project. The reports shall not be interpreted as a basis for final acceptance. The Contractor shall notify the Engineer upon arrival of paint to the job site.

All emptied containers shall be returned to the paint storage area for checking by the Engineer. The containers shall not be removed from the airport or destroyed until authorized by the Engineer.

- **3.6 Test Strip.** Prior to the full application of airfield markings, the Contractor shall produce a test strip in the presence of the Engineer. The test strip shall include the application of a minimum of 5 gallons of paint and application of 35 lbs of Type I/50 lbs of Type III glass beads. The test strip shall be used to establish thickness/darkness standard for all markings. The test strip shall cover no more than the maximum area prescribed in Table 1 (e.g., for 5 gallons of waterborne paint shall cover no more than 575 square feet).
- **3.7 Protection and Clean Up.** After application of the markings, all markings shall be protected from damage until dry. All surfaces shall be protected from excess moisture and/or rain and from disfiguration by spatter, splashes, spillage, or drippings. The Contractor shall remove from the work area all debris, waste, loose or unadhered reflective media, and by-products generated by the surface preparation and application operations to the satisfaction of the Engineer. The Contractor shall dispose of these wastes in strict compliance with all applicable state, local, and Federal environmental statutes and regulations.
- **4.0 METHOD OF MEASUREMENT.** The quantity of airfield marking shall be the number of square feet of new marking or remarking performed in accordance with the specifications and accepted by the Engineer.

The furnishing of the stencils and delivery to the Airport will be measured on a lump sum basis.

**5.0 BASIS OF PAYMENT.** Payment will be made at the contract unit price per square foot for airfield marking. These prices shall be full compensation for furnishing all materials including paint, glass beads, and for all labor, equipment, tools, and incidentals necessary to complete the items.

Payment will be made at the contract lump sum price for the aluminum stencils. This price shall be full compensation for furnishing all materials, equipment, tools, and incidentals necessary to manufacture and deliver the stencils to the Airport.

Payment will be made under:

Remark Landside Marking – 1 Coat

With Type I Beads - per Square Foot

Remark Airfield Marking – 1 Coat

With Type III Beads - per Square Foot

New Airfield Marking – 2 Coats

With Type III Beads - per Square Foot

'M', 'N', '0', "1", "2", "3", "4", "5", "6", "7", "8" Aluminum Stencils –

36" Letter Height - Lump Sum

#### **END OF SPECIFICATION**

## TRUCKEE TAHOE AIRPORT DISTRICT

# CONSTRUCTION PLANS FOR:

TRUCKEE-TAHOE AIRPORT TRUCKEE, CALIFORNIA

## **REMARK AIRFIELD 2022**

## **APRIL 2022**

### SHEET INDEX

- 1 TITLE AND INDEX SHEET
- 2 CONSTRUCTION SAFETY AND PHASING PLAN
- 3 BARRICADE PLAN PHASE 1 AND 2
- 4 BARRICADE PLAN PHASE 3 AND 4
- 5 BARRICADE PLAN PHASE 5
- 6 BARRICADE PLAN PHASE 6, 7, 8 AND 9
- 7 MARKING PLAN TAXIWAY A STA. 98+00 TO STA. 124+00
- 8 MARKING PLAN TAXIWAY A STA. 124+00 TO STA. 151+25
- 9 MARKING PLAN TAXIWAY A STA. 151+25 TO STA. 170+80
- 10 MARKING PLAN WEST APRON
- 11 MARKING PLAN TERMINAL APRON
- 12 MARKING PLAN EAST APRON
- 13 MARKING PLAN CHANDELLE ROAD
- 14 MARKING PLAN HANGAR L THRU M
- 15 MARKING DETAILS

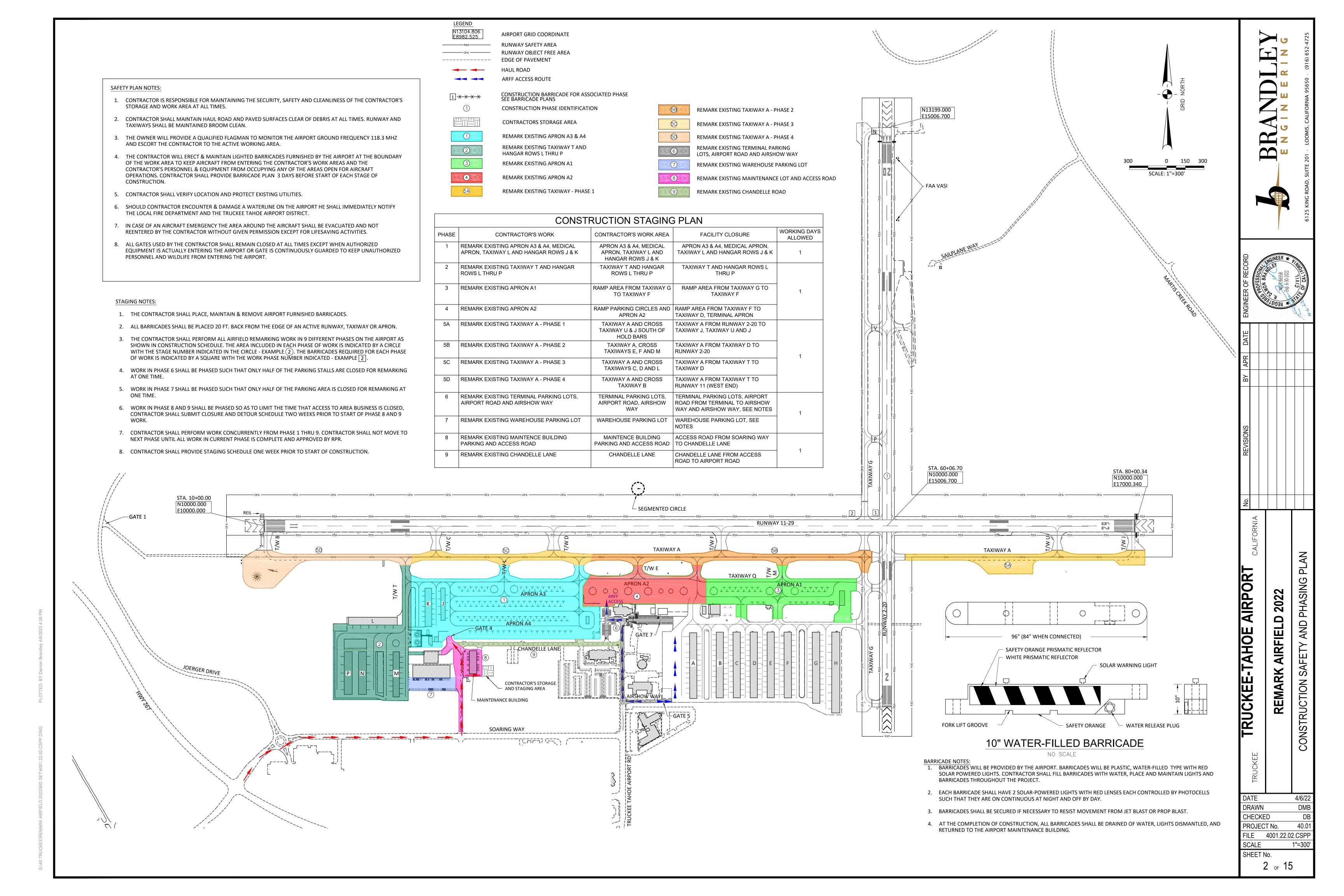
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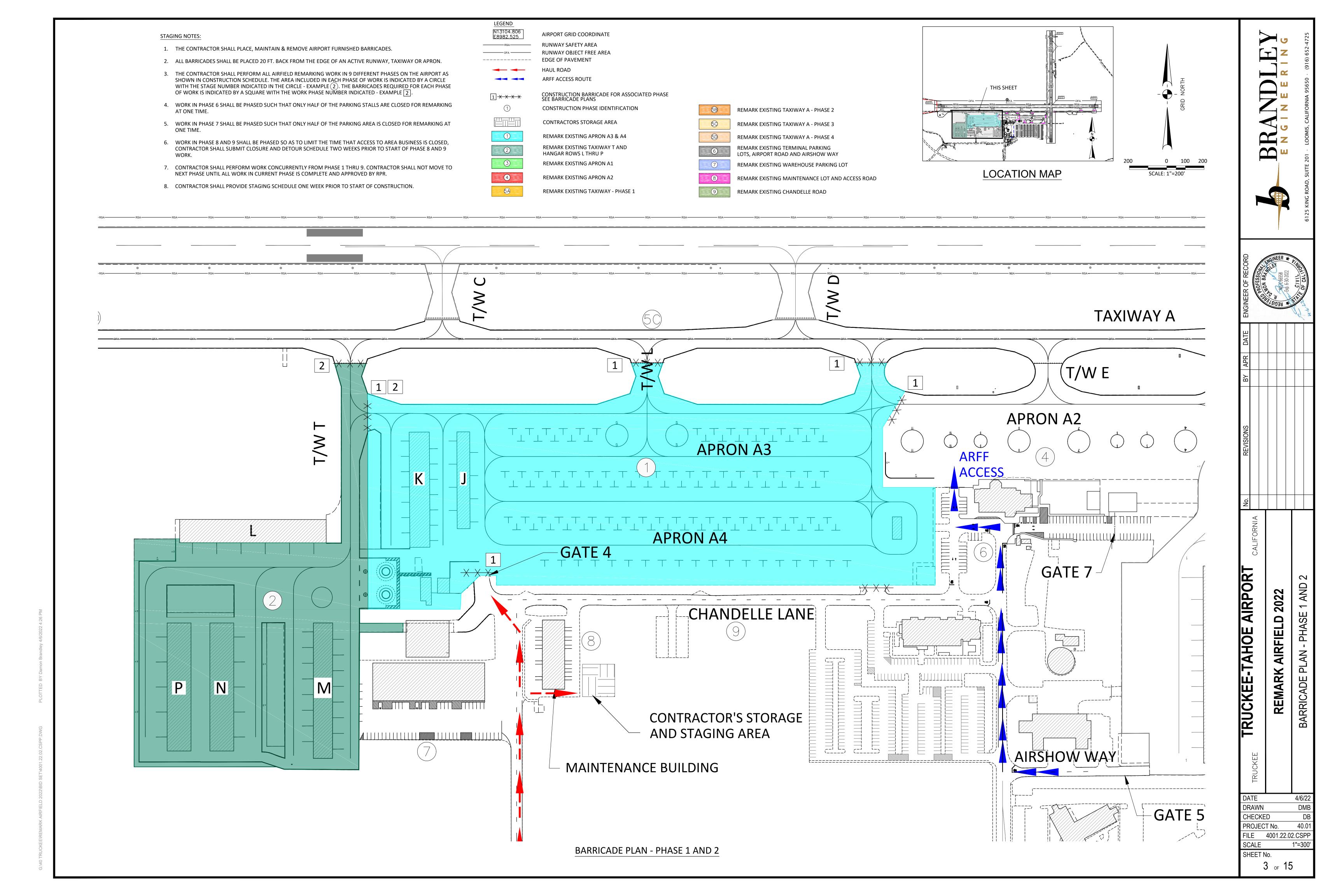
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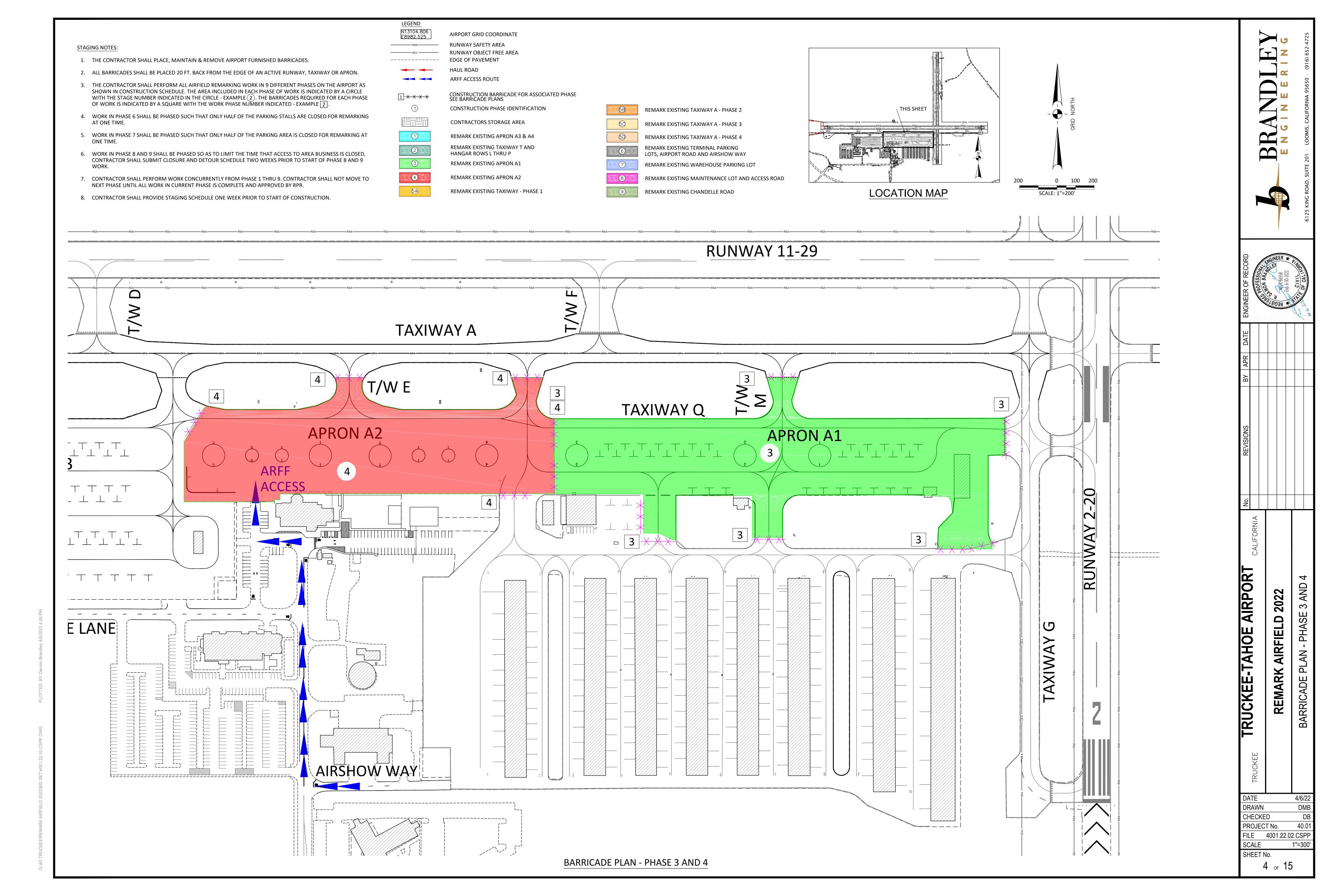
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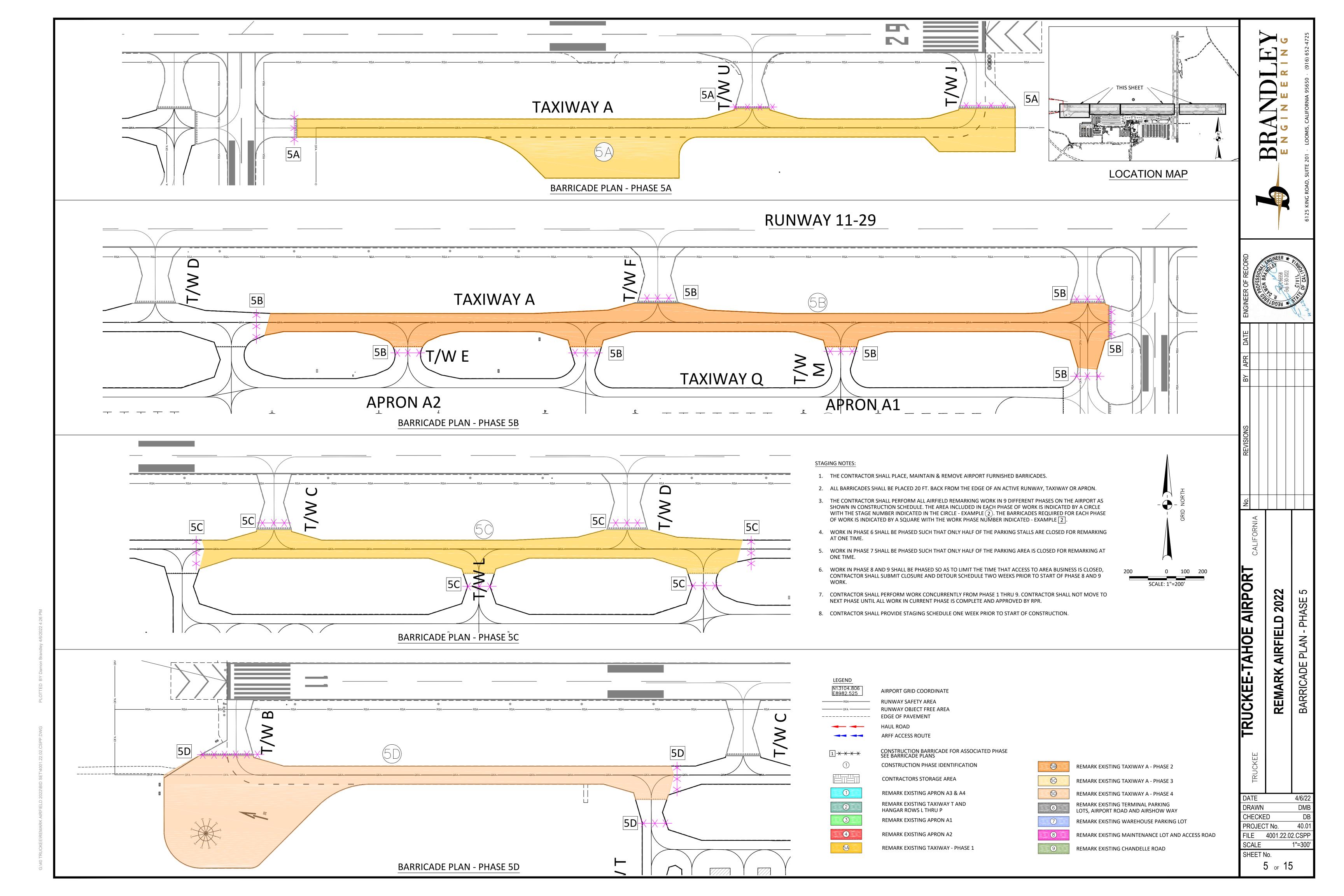


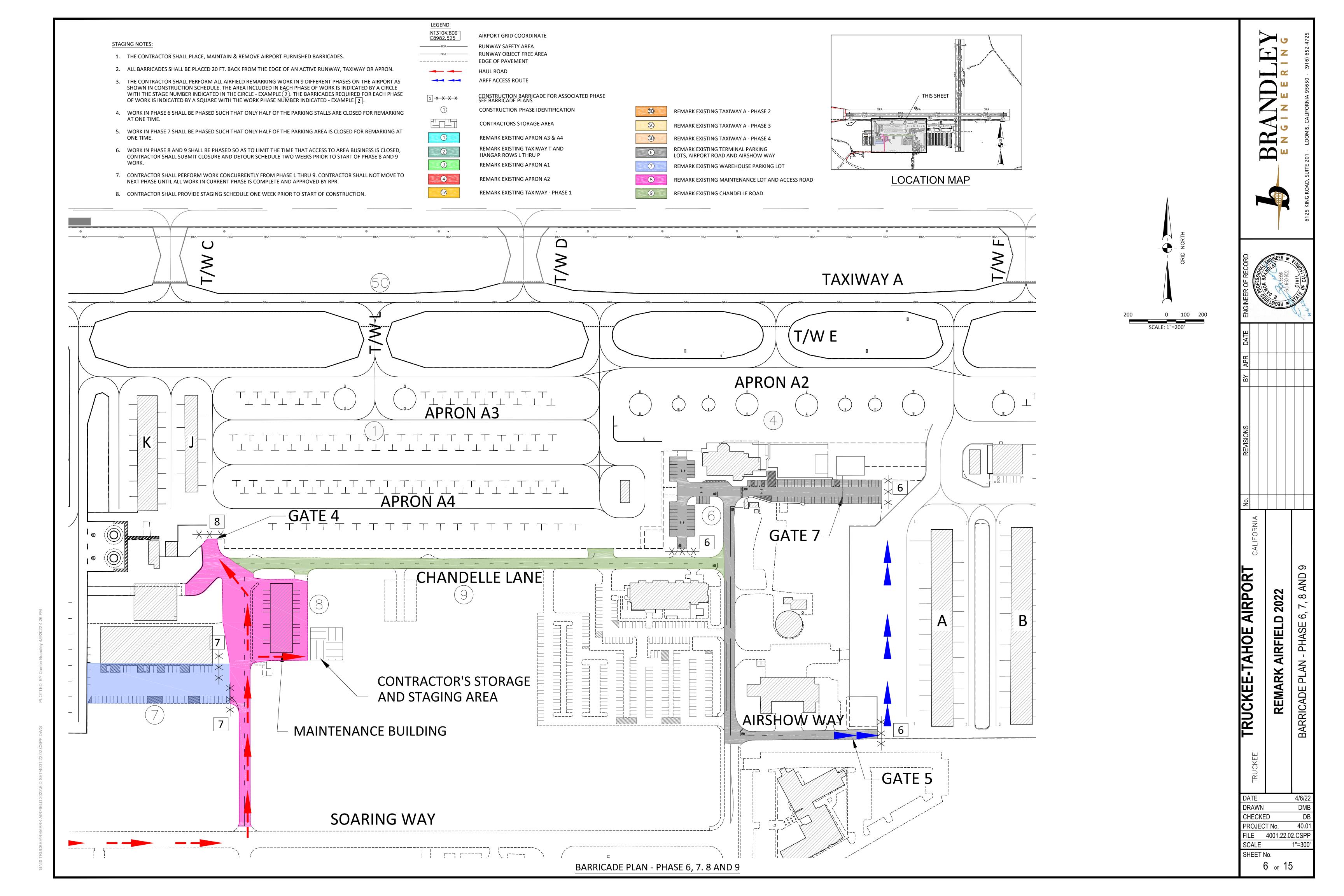


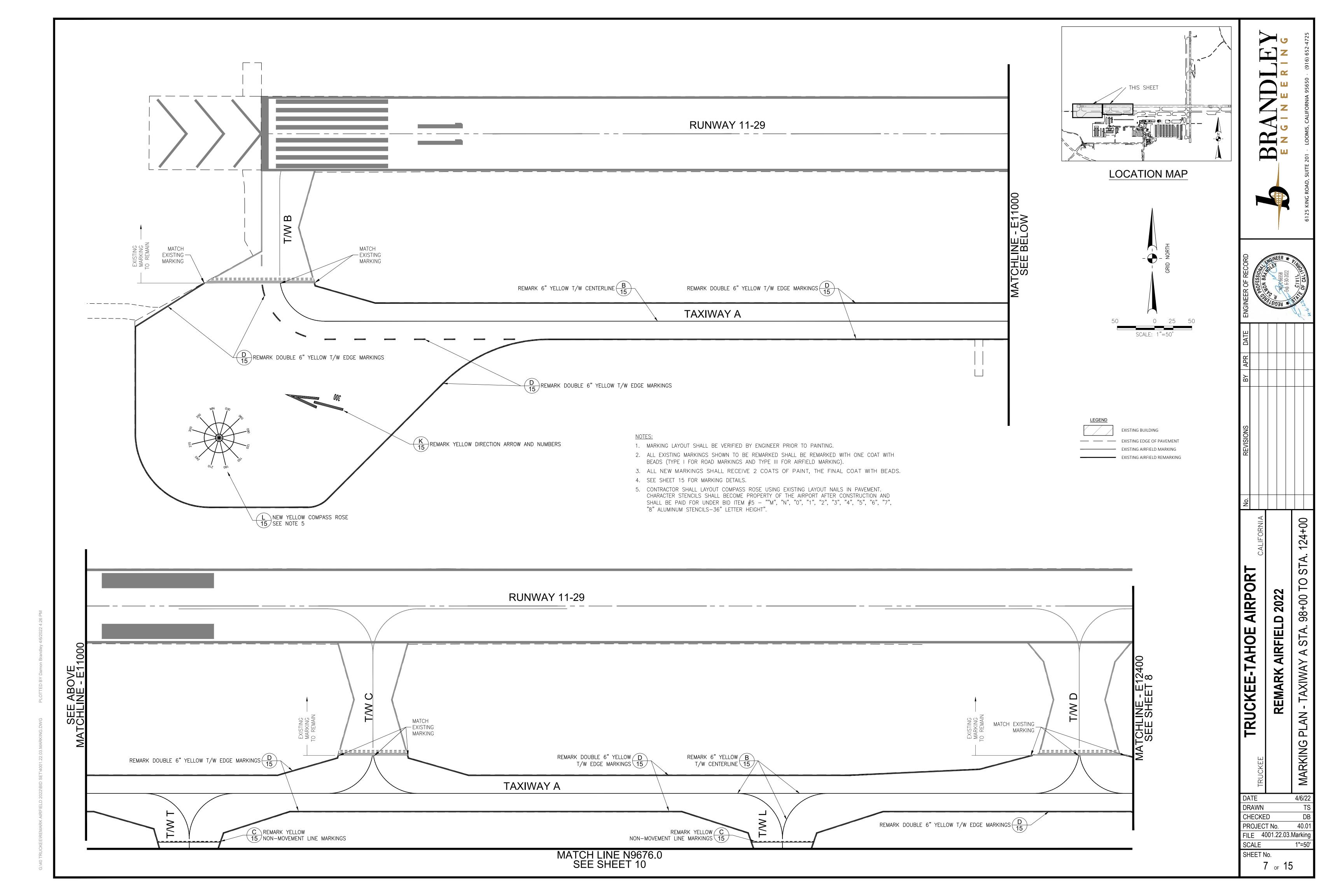


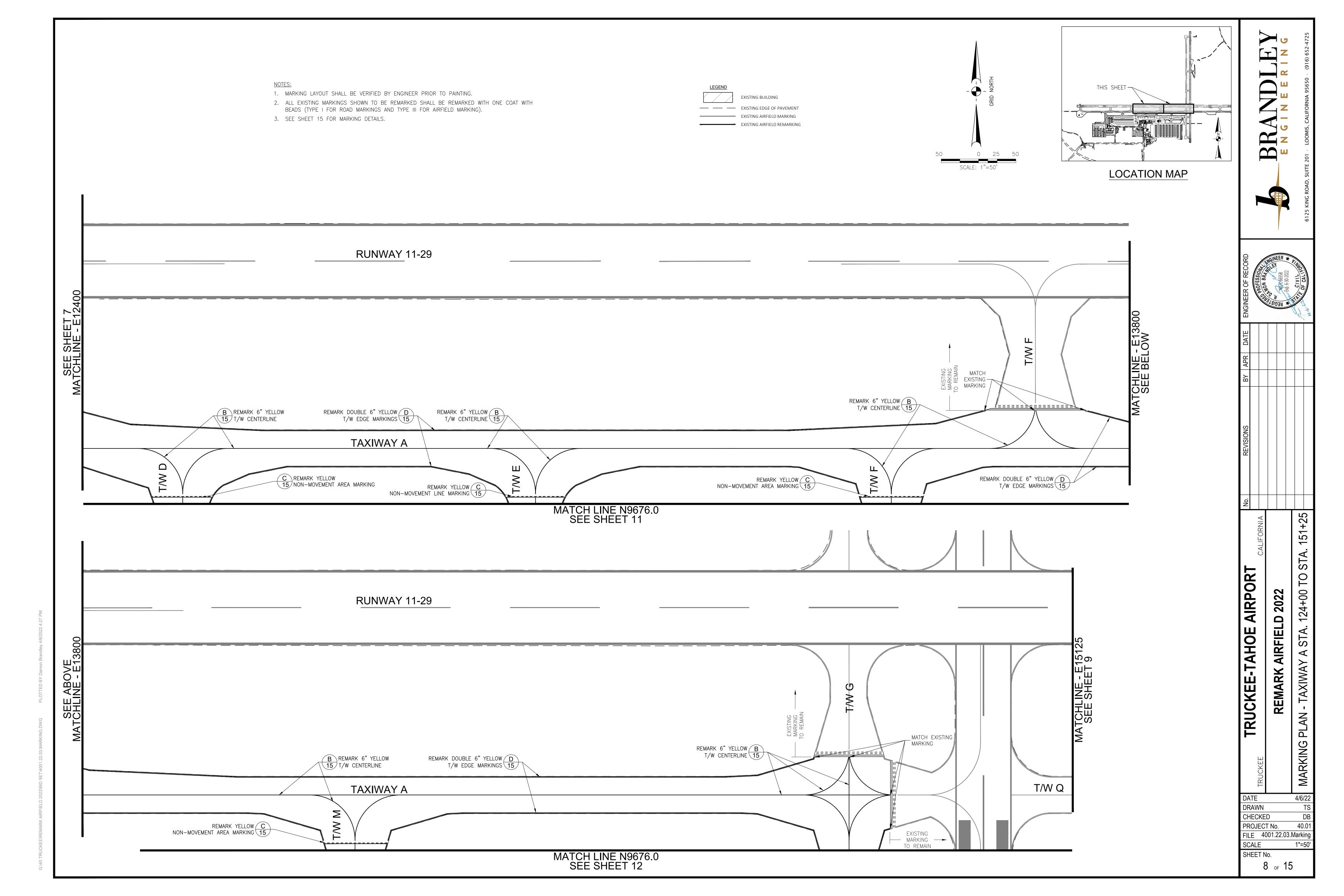


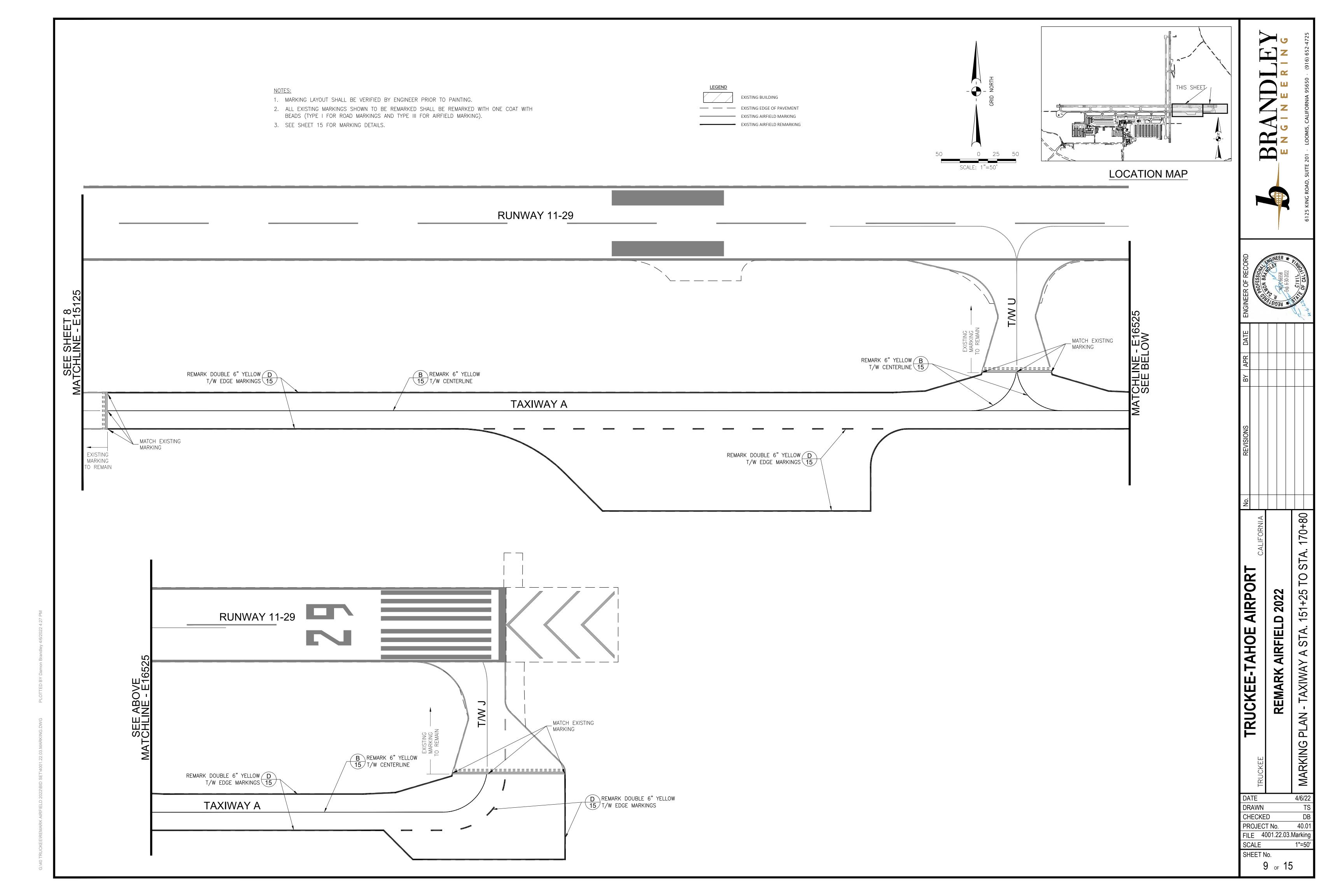


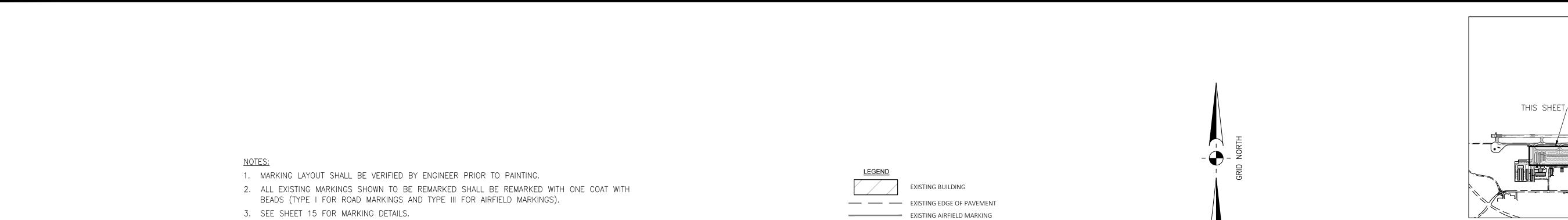










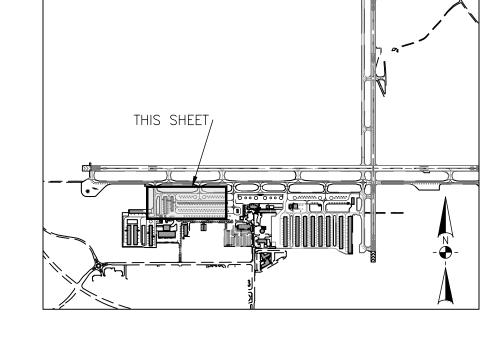


EXISTING AIRFIELD REMARKING

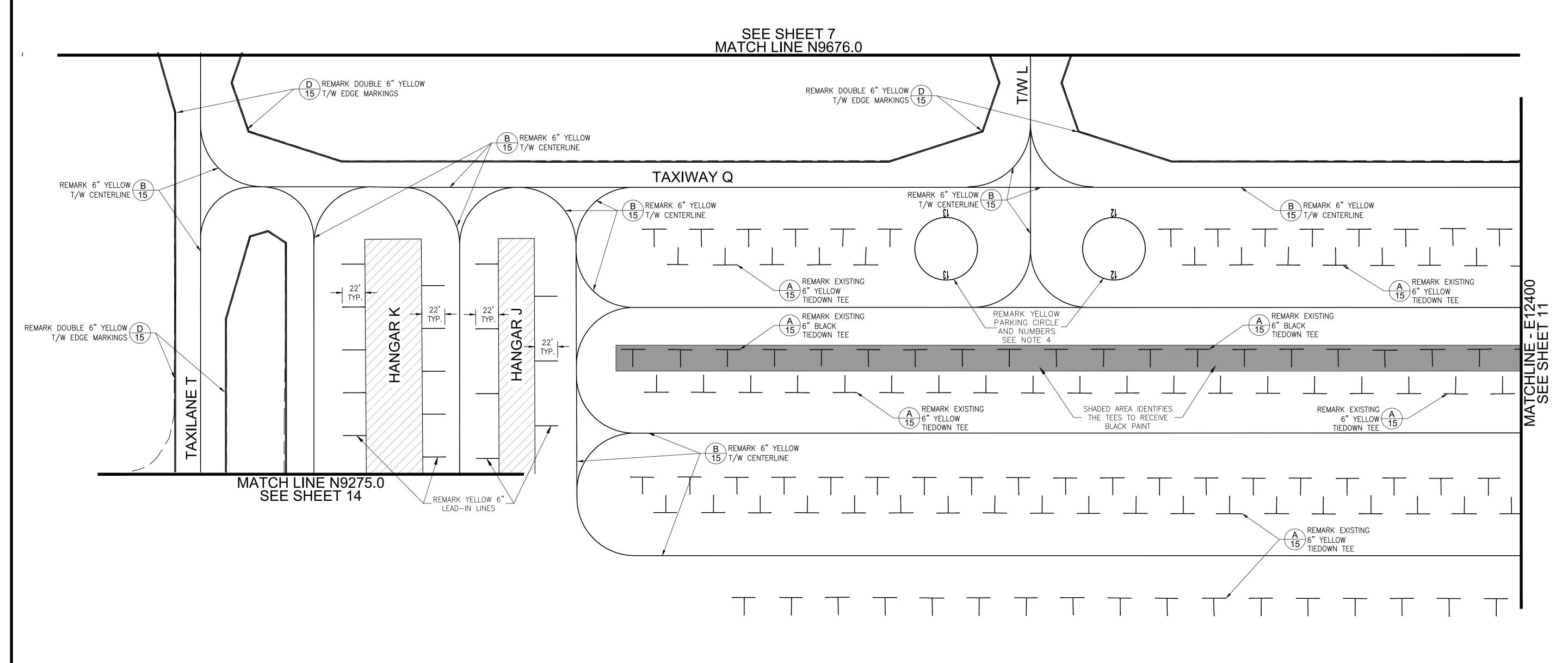
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4. STENCILS SHALL BE PROVIDED BY AIRPORT FOR PARKING CIRCLE NUMBER REMARKING.



LOCATION MAP



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TRUCKEE-TAHOE AIRPORT MARKING PLAN - WEST APRON REMARK AIRFIELD 2022

4/6/22 DMB CHECKED PROJECT No. 40.01 FILE 4001.22.03.Marking

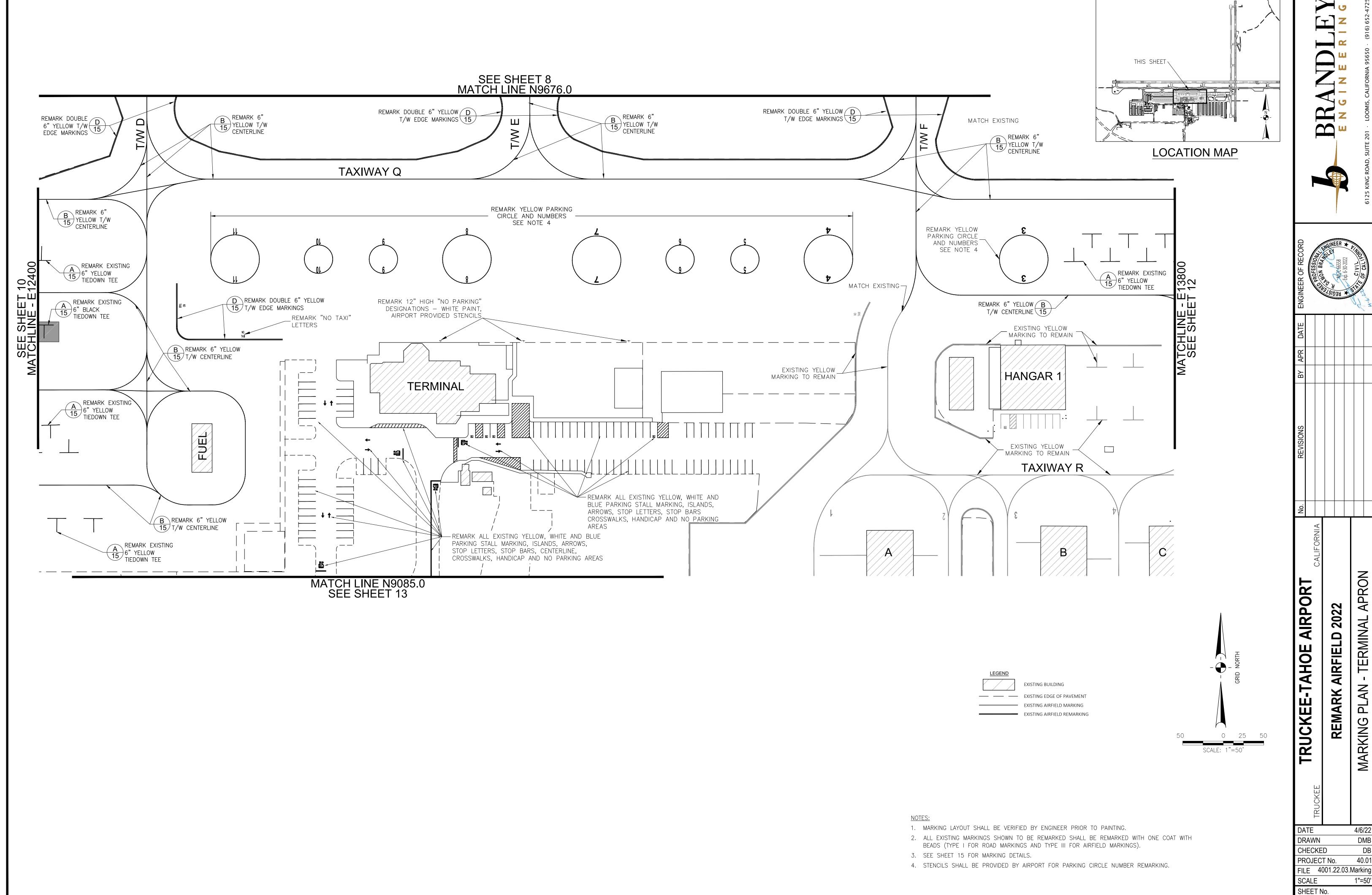
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DATE

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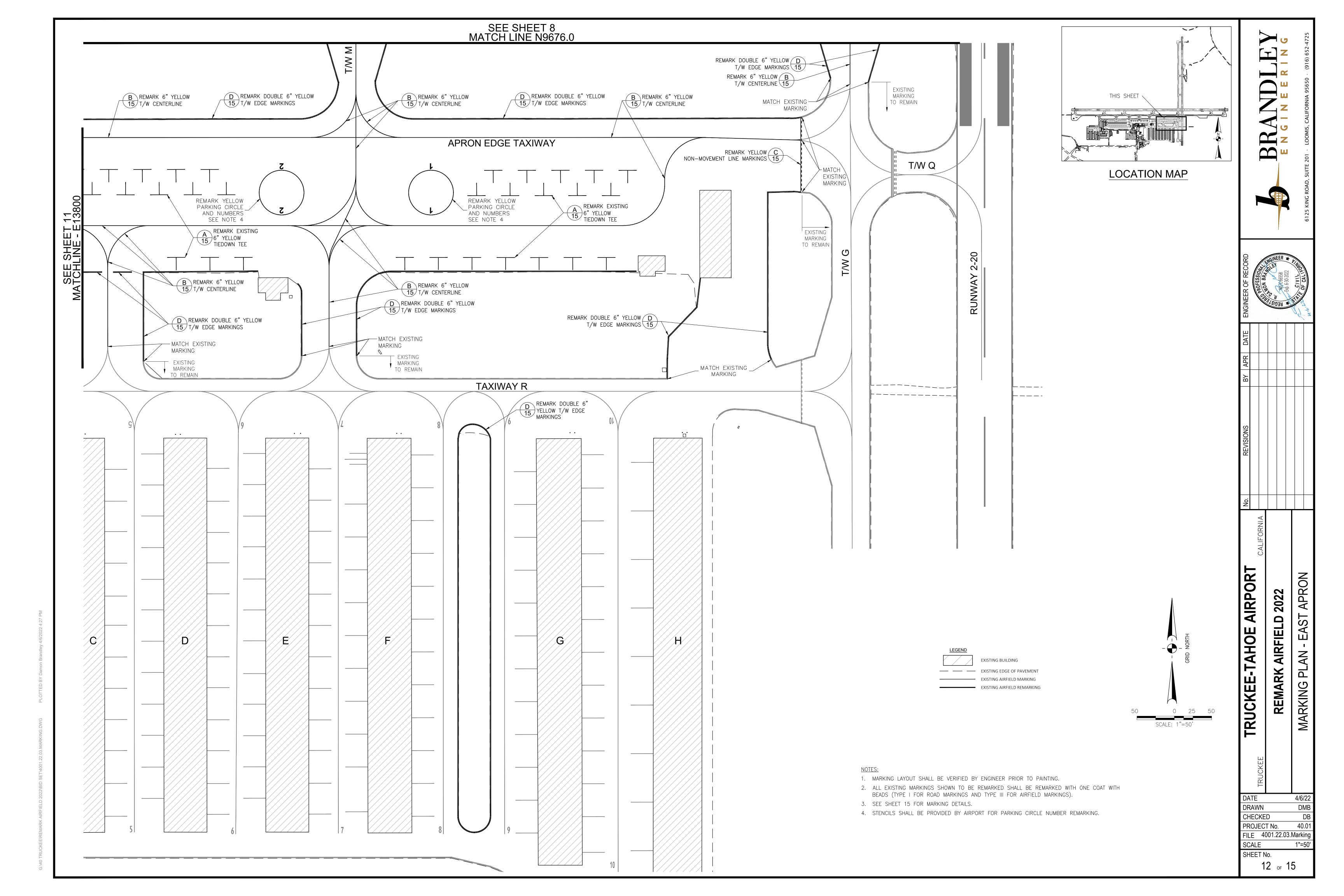


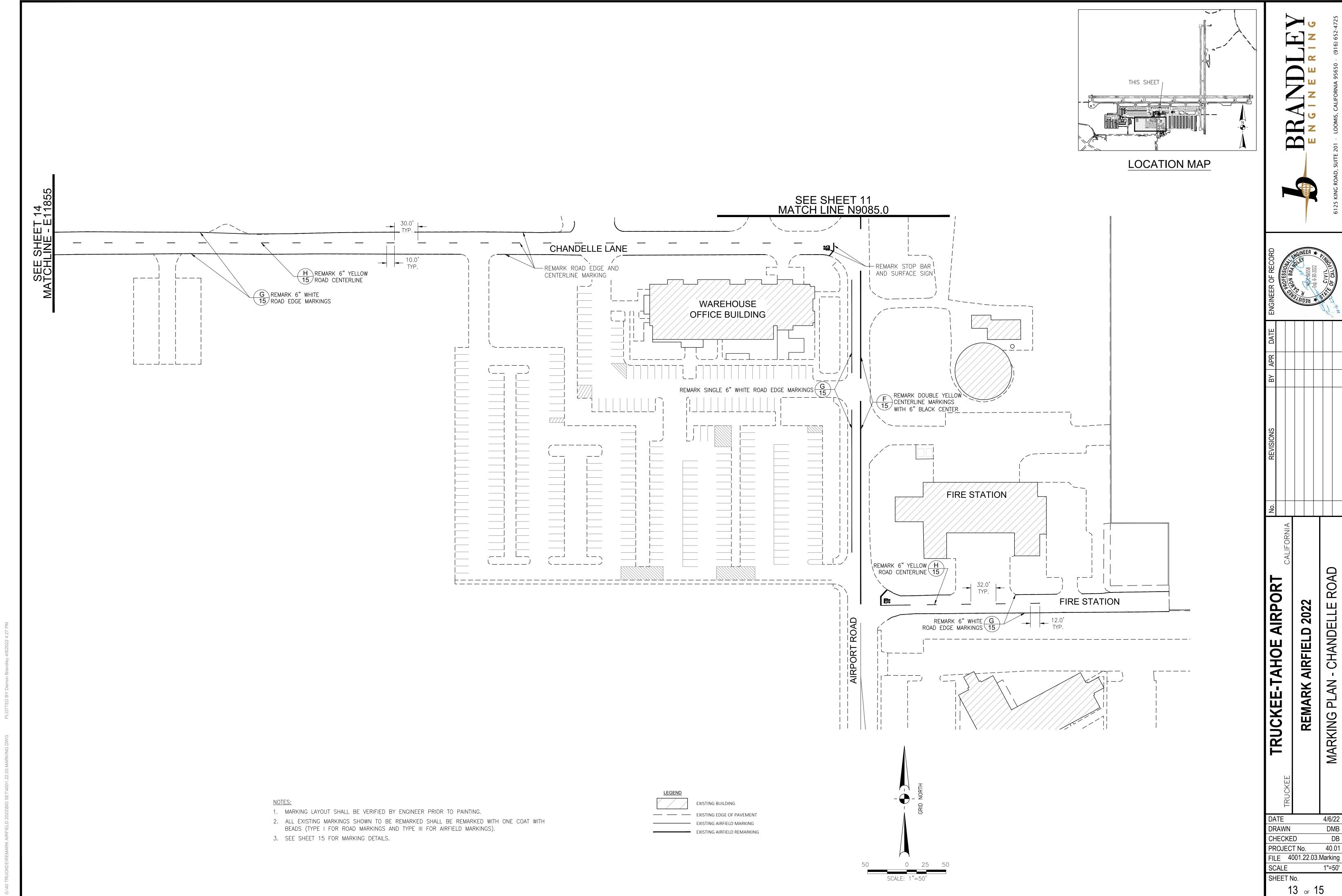
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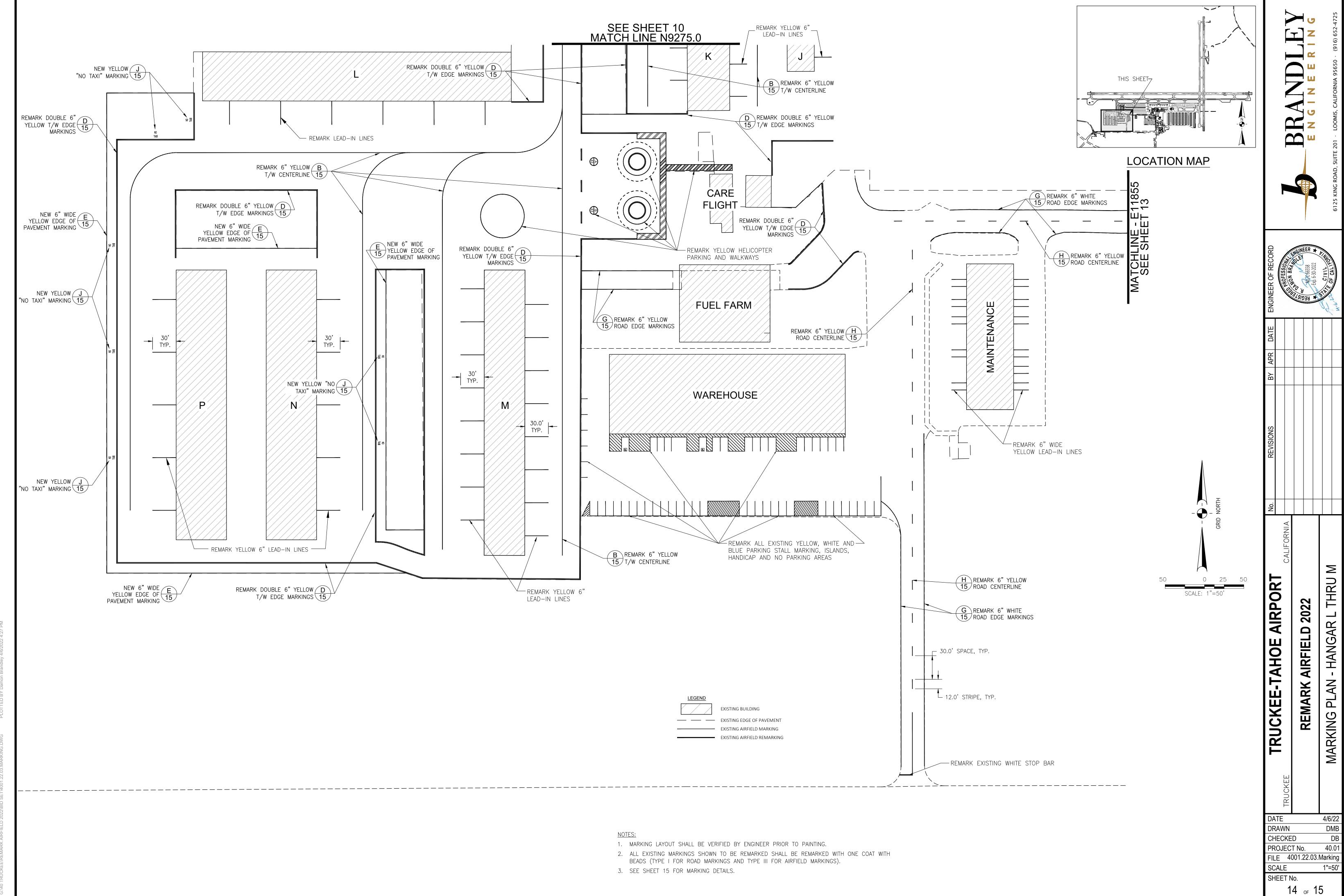
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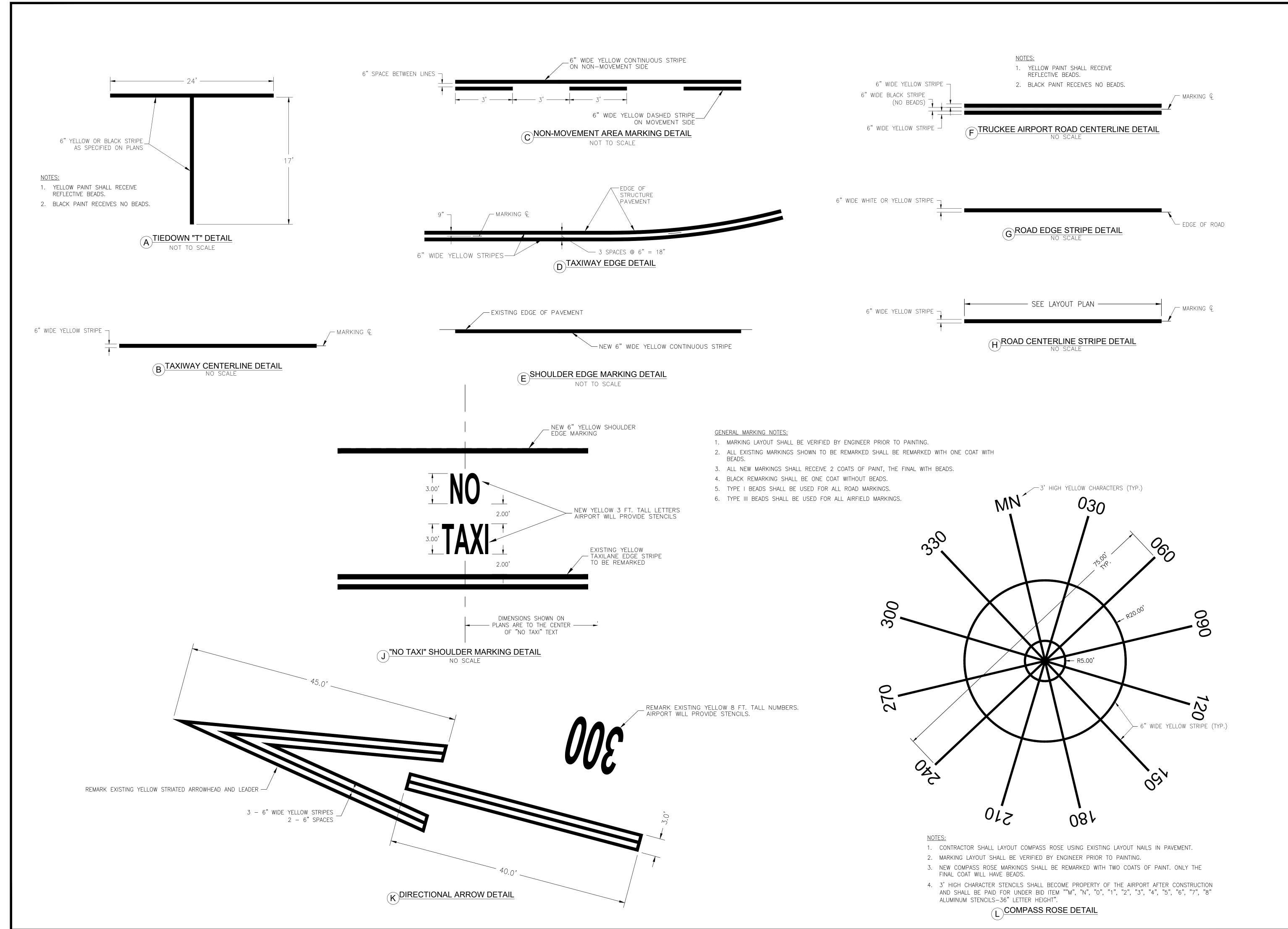
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TRUCKEE-TAHOE AIRPORT REMARK AIRFIELD 2022 MARKING DETAILS

DRAWN CHECKED PROJECT No. FILE 4001.22.03.Marking SCALE

SHEET No. 15 OF 15