

**TOWN OF PLYMOUTH
PLYMOUTH MUNICIPAL AIRPORT**

CONSTRUCT, MARK, AND LIGHT TAXIWAY 'E' EXTENSION (APPROX. 500' X 35')

AIP No. 3-25-0042-53-2021

ADDENDUM No. 1

Date: December 9, 2020

The following is provided to clarify, add or delete information in the Contract Documents, Specifications and Plans for the above project. This information is required for bidding and construction, and the Bidder's acknowledgement of receipt of this Addendum is required on page B-1 of the BID PROPOSAL.

As a point of clarification, it should be understood that the Contract Documents govern all aspects of the project. Informal discussions held during the Pre-Bid Conference or over the telephone are informational only. All official changes to the Contract Documents are made only by addenda. The following changes and additional information are hereby made a part of the Contract Documents.

BID OPENING TIME CHANGE, AND VIDEOCONFERENCE INFORMATION

1. Sealed bids for "Construct, Mark, and Light Taxiway E (500LF X 35 FT);" at the Plymouth Municipal Airport, prepared in accordance with instructions and other provisions of the Contract Documents, will be received by the Plymouth Airport Commission at the office of the Airport Manager, Plymouth Airport, 246 South Meadow Road, Plymouth, Massachusetts 02360 until **11:00 AM** local time, on Wednesday, December 16, 2020 at which time and place all bids will be publicly opened and read aloud via a virtual video conference. Bids submitted after this time will not be accepted.

to Join the Video Conference, use the following Google Meet Meeting ID:

meet.google.com/rix-jmer-hdq

Phone Number: (US) +1 732-661-8091, PIN: 535 711 270#

CLARIFICATIONS

1. Site Visit:

Q: Will the bidders be afforded the opportunity to view the site prior to the bid?

A: Yes. Bidders may coordinate with the Airport Manager to arrange for a site visit.

2. Endangered Species Act Conservation and Management Permit

Q: What are the time of year restrictions associated with the NHESP Permit?

**PLYMOUTH MUNICIPAL AIRPORT
TW 'E' EXTENSION
ADDENDUM No. 1**

A: Enclosed in this Addendum is Conservation Permit No. 018-329.DFW. Special Conditions No. 15 states "To the maximum extent possible, all work within existing grasslands shall be conducted outside of the bird breeding season (May 1 to July 31)."

It is anticipated that the grant will be awarded which would allow the Contractor to mobilize within this time of year restriction. If this occurs, pre-construction surveys following necessary protocols will be conducted by an approved survey biologist. Please also note that Special Conditions No. 15 states "If nests are discovered within the proposed construction zone, no work will be allowed to occur within 200 feet of any nest.

The Owner's representative will be responsible for subcontracting the pre-construction surveys by the biologist, at no expense to the Owner. However, Construction crews will need to be educated on the presence of the species and potential limitations to work areas.

3. Retainage.

Q: Can you please confirm the amount of retainage that will be held on this project?

A: 10% Retainage as specified in the General Conditions.

4. DBE Participation.

Q: The bid documents require a 7.8% DBE participation. It is not clear if MBE/WBE contractors can be used to meet this goal. Can MBE/WBE contractors be used to meet this requirement?

A: Yes, MBE/WBE Contractors can be used to meet the requirement.

5. RW 6-24 Shutdown

Q: What is the expectation of how the runway is to be left at night once the pavement is removed to take out the in pavement threshold lights? Also, what is the expectation of the pavement markings in this area while we are working and how it is to be left at night?

A: The runway shutdown may not exceed 5 days for removal of existing threshold lights and repaving where the threshold lights were. All work will need to be completed to reopen the RW, including pavement markings.

PRE-BID MEETING MINUTES

1. The minutes from the pre-bid meeting are enclosed in this addendum.

SPECIFICATIONS

1. Bid Form:

Add the existing bid forms with the attached bid forms.

Revised Quantities for Bid Items as follows:

L-115-5.1 Electrical Handhole 7 EA

Additional Quantities for Bid Items include:

P-150-4.7	Remove Existing Flush Mounted RW Light With Base	6	EA
L-125-5.6	Item Relocate Existing REILS Circuit through new Duct Bank	1	LS
L-125-5.7	Install New L-858R Unlighted Instructional Sign	1	EA
L-125-5.8	Install New L-858Y Unlighted Instructional Sign	1	EA

2. Technical Specifications:

Revise Section P-150 to include:

Item P-150-4.7 Remove Existing Flush Mounted RW Light with Base EA

Revise Section L-125 to include:

Item L-125-5.6	Relocate Existing REILS Circuit through new Duct Bank	LS
Item L-125-5.7	Install New L-858R Unlighted Instructional Sign	EA
Item L-125-5.8	Install New L-858Y Unlighted Instructional Sign	EA

DRAWINGS

1. Drawing G1.2 has been revised to correct the gate number shown on the plans.
2. Drawing G1.3 has been revised to correct the gate number shown on the plans.
3. Drawing G1.4 has been revised to include revised quantities and new bid items.
4. Drawing S1.2 has been revised to clarify the RW 6-24 maximum consecutive day shutdown duration for removal of in-pavement threshold lights.
5. Drawing D1.1 has been revised to define existing REILS Circuit.
6. Drawing D1.2 has been revised to clarify existing fence removal area.
7. Drawing L1.1 has been revised to define routing of REILS Circuit through new duct bank, and modification of the proposed location of the associated duct bank. Sign 6 location has been added
8. Drawing L2.2 has been revised to include two new signs: ILS Hold sign and Noise Abatement sign. Additionally, new direction sign detail has been revised to specify I-LUX by AGM or approved equivalent.
9. Drawing M1.1 has been revised to add additional ILS Hold line and show the location of Sign 5.
10. Drawing M2.1 has been revised to add a detail for the ILS Holding position marking.



DIVISION OF FISHERIES & WILDLIFE

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p: (508) 389-6300 | f: (508) 389-7890
MASS.GOV/MASSWILDLIFE

MA ENDANGERED SPECIES ACT (G.L. c.131A) CONSERVATION AND MANAGEMENT PERMIT

DATE	September 19, 2018
CONSERVATION PERMIT NO.:	018-329.DFW
NHESP FILE NO.	17-36673
PERMIT HOLDER	Plymouth Airport Commission 246 South Meadow Road Plymouth, MA 02360
PROJECT	Plymouth Airport Taxiway D and Master Plan Improvements

Pursuant to the authority granted in the Massachusetts Endangered Species Act (“MESA”) (G.L. c. 131A) and its implementing regulations (321 CMR 10.23), the Director of the Massachusetts Division of Fisheries & Wildlife (the “Division”) hereby issues a Conservation and Management Permit (the “Permit”) to the Plymouth Airport Commission (the “Permit Holder”). This permit authorizes the Taking of the State-listed Grasshopper Sparrow (*Ammodramus savannarum*, “Threatened”), Upland Sandpiper (*Bartramia longicauda*, “Endangered”), Vesper Sparrow (*Poocetes gramineus*, “Threatened”) pursuant to the MESA, arising out of the construction of safety, infrastructure and development projects including; an extension of Taxiways D & E, relocation of Taxiway S, construction of a new Taxiway, SW Apron and hangers with associated site work (the “Project”), on a ± 735 acre site located west of Federal Furnace Road and East of South Meadow Road in the town of Plymouth, Massachusetts (Book 2517, Page 8 and Book 4907, Page 283, Plymouth County Registry of Deeds; the “Property”).

The Division has determined that the Project would result in a Take of Grasshopper Sparrow, Upland Sandpiper, and Vesper Sparrow (collectively herein “grassland birds”) through the loss of grassland habitat as well as the harassment of individual birds, that may lead to the loss of nests and unfledged chicks. A total of 9.37 acres of habitat will be permanently lost and 2.8 acres will be fragmented from adjacent grassland habitat. An additional 8.45 acres of primarily grassland bird habitat will be disturbed and potentially occupied or otherwise unavailable during grassland bird nesting season, however, will be restored upon completion of the work. The projects subject to this Permit represent safety, infrastructure and development projects at Plymouth Airport.

For this Property, the Permit Holder maintains two prior Permits issued by the Division (Permit 005-049.DFW as amended, and Permit 014-240.DFW) for a variety of safety, facilities, infrastructure, and development projects at Plymouth Airport; all requirements and conditions of the Permits and Amendments shall remain in effect.

Under the authority granted by and in accordance with MGL c131A§3 and 321 CMR 10.23, the Director may permit the Take of a State-listed species for conservation and management purposes provided that there is a long-term Net Benefit to the conservation of the impacted species. If the Director determines that the applicant for a permit has avoided, minimized and mitigated impacts to the State-listed species consistent with the following Performance Standards, then the Director may issue a conservation and management permit, provided:

- (a) the applicant has adequately assessed alternatives to both temporary and permanent impacts to State-listed species;
- (b) an insignificant portion of the local population would be impacted by the Project or Activity, and;
- (c) the applicant agrees to carry out a conservation and management plan that provides a long-term Net Benefit to the conservation of the State-listed species that has been approved by the Director, as provided in 321 CMR 10.23(5), and shall be carried out by the applicant.

The Director has determined that the applicant for this Permit has met the above noted Performance Standards and that the conservation and management plan described herein provides a long-term Net Benefit to the conservation of the Grasshopper Sparrow, Upland Sandpiper, and Vesper Sparrow.

Pursuant to this Permit, (a) approximately 13.3 acres of forest will be converted to grassland, incorporated into the grassland habitat management plan and maintained long-term as grassland bird habitat (b) 21.4 acres of existing grassland will be added into the grassland habitat management plan and maintained long-term as grassland bird nesting habitat. Together, these two efforts provide 34.7 acres of new areas that will be managed as grassland bird habitat. Further, an additional 2 acres of habitat converted to grassland (associated with MESA Conservation and Management Permit 014-240.DFW) will be added into the grassland habitat management plan for the long-term Net Benefit for state-listed grassland birds.

The total 36.7 acre long-term Net Benefit package includes additional acreage, a minimum of 2.95 acres and up to 10.33 acres, which could be considered as “credits” to be determined by the Division upon receiving and approving the final project designs, locations, and construction timing.

The Application submitted an *Environmental Notification Form* pursuant to the MA Environmental Policy Act for the Project and received Final Record of Decision on April 21, 2017 that determined no further MEPA review was required for the Project.

Therefore, the Project can be permitted pursuant to the MESA. This Permit is issued to condition the Project and to provide a long-term Net Benefit to Grasshopper Sparrow, Upland Sandpiper, and Vesper Sparrow.

In accordance with the documents submitted to the Division entitled:

- “Conservation and Management Permit Application” (dated 18 September 2018, prepared by Epsilon Associates, Inc.; the “Application”);
- “2018 Airport-wide Grassland Habitat Management Plan (dated 18 September 2018, prepared by Epsilon Associates, Inc.; the “GHMP”);
- “Tree Clearing Plan” (2 sheets, dated January 2018, prepared by Dubois and King, Inc.);
- “Plymouth Municipal Airport Proposed Conditions Plans” (6 sheets, dated January 2017, prepared by Dubois & King, Inc.; the “Project Plan”; Sheet 1 ([Attachment 1](#)), Plan of Record); and
- “Grassland Management and Mitigation Diagram, Updated September 2018 ” ([Attachment 2](#));

and any other plans and documents referenced herein, this Permit is issued with the following conditions:

General Conditions:

1.	The Project authorized by this Permit shall be completed within five (5) years from the date of issuance. If needed, the Permit Holder shall submit a written request to the Division for an extension of time to complete said Project and the Division will review the Project pursuant to MESA for any continuing impacts as described herein and for any new impacts to any State-listed species found subsequent to the issuance date of this Permit.
2.	This Permit shall not preclude the review of future projects on the Property that are subject to the Wetlands Protection Act regulations (310 CMR 10.37, 10.58(4)(b), 10.59), as applicable, by the Natural Heritage & Endangered Species Program (“NHESP”) of the Division.
3.	The work authorized by this Permit involves the construction of extensions for Taxiways D & E, relocation of Taxiway S, construction of a new Taxiway, SW Apron, and hangers with associated site work during four construction phases as shown on Project Plan (the “Work”; Attachment 1). The Work also includes any other on-site activity required by the Division as a condition of this Permit.
4.	Division representatives shall have the right to enter and inspect the Property subject to this Permit at reasonable hours to evaluate Permit compliance and require the submittal of any reasonable information not otherwise required by this Permit but deemed necessary by the Division to complete its evaluation.
5.	Any proposed change to any plan identified in this Permit, or to the State-listed species conservation plan required by way of this Permit, shall require the Permit Holder to inquire of the Division, in writing, whether the change is significant enough to require the filing of a new Conservation and Management Permit Application, and or require additional long-term Net Benefit for affected State-listed species. The Division retains the right to require the submittal of additional, reasonable information to evaluate the plan change.
6.	This Permit shall apply to, and inure to the benefit of, the Permit Holder and any successor-in-interest of the Permit Holder, or to a subsequent successor-in-control of the Property or portion thereof subject to this Permit should the Permit Holder convey its record ownership of the Property to said successor-in-control, as well as to any contractor or other person performing Work conditioned by this Permit. Within three (3) days of the transfer of an interest in the Property or a portion thereof, any successor-in-interest or subsequent successor-in-control [i.e., subsequent owners or operators] of the Property or a portion thereof shall provide the Division with a letter indicating (1) that the successor is the successor-in-interest of the Permit Holder or the successor-in-control [i.e., current owner or operator] of the Property or a portion thereof, and (2) that said successor will perform the obligations of the Permit Holder as set forth in this Permit.
7.	<u>Prior to the start of Work</u> , the Permit Holder shall notify the Division in writing of the name, address, email, business and home telephone numbers of the project supervisor(s) and/or contractor(s) responsible for compliance with this Permit. The Permit Holder shall provide updated information in writing to the Division should new or additional project supervisors and/or contractors be hired after Work has commenced. <u>Within three (3) days of the start of Work</u> , the Permit Holder shall send a letter to the Division stating the date upon which Work commenced.
8.	<u>Prior to the start of Work</u> , the text of this Permit shall be recorded by the Permit Holder in the Registry of Deeds or the Land Court for the district in which the Property is located so as to become a record part of the chain of title of the Property. In the case of recorded land, the Permit shall be noted in the Registry’s Grantor Index under the name of the owner of the Property upon which the proposed Work is to be done. In the case of registered land, the Permit shall be noted on the Land Court Certificate of Title of the owner

	of the Property upon which the proposed Work is done. The Permit Holder shall submit to the Division a date-stamped and signed copy of said recorded Permit showing the date and book and page of recording of said Permit within five (5) days after recording and/or filing, as applicable. No Work shall begin on the Property until the Permit is recorded and said recorded copy is submitted to the Division, except as otherwise approved by the Division in writing.
9.	At the <u>completion of Work</u> the Permit Holder shall submit to the Division a written request for a Certificate of Permit Compliance, including as-built plans and other supporting materials demonstrating the completion of Work and compliance with all conditions herein.
10.	Any land protected to achieve a long-term Net Benefit associated with this Permit, shall remain undeveloped and protected as habitat for State-listed species in perpetuity.
11.	The Permit Holder shall comply with all Conditions and Special Conditions contained within this Permit and complete the Project consistent with all Division-approved plans and supporting documents except as otherwise approved by the Division in writing.
12.	The Permit Holder shall submit in writing any documents, plans, reports, or other items required for submission in accordance with this Permit, for review and written approval by the Division, unless otherwise stipulated in this Permit or by the Division in writing.
13.	A violation of any condition of this Permit will result in an unauthorized Take pursuant to M.G.L. c. 131A and may be subject to civil and or criminal penalties pursuant to M.G.L. c. 131A.

Special Conditions:

14.	<u>Authorized Construction and Uses:</u> This Permit authorizes construction and uses on the Property as described above. All Work shall be confined to the area of the Property and within the Project limits as shown on the Project Plan, the Plan of Record (<i>Attachment 1</i>).
15.	<u>Construction Timing:</u> Construction phasing is outlined in Section 5.2.2 of the Application. To the maximum extent possible, all work within existing grasslands shall be conducted outside of the bird breeding season (May 1 to July 31). If work cannot adhere to this time of year restriction, pre-construction surveys shall be conducted as described in Section 5.3.2 of the Application or as otherwise approved by the Division and the required mitigation for the project shall be adjusted (see Condition #16). Prior to conducting surveys, written approval of the survey protocol and survey biologist shall be obtained from the Division. If nests are discovered within the proposed construction zone, no work shall occur within 200 feet of any nest.
16.	<u>Individual Project Coordination:</u> Prior to the start of work on any Project defined in the Application, the Permit Holder shall consult the GHMP, Section 5.4 Process for Projects and Table 5-1 (Application), and provide appropriate notice to the Division for review. The GHMP outlines all projects require notification to the Division and the Division's written response is required (within 30 days of receipt of the notification). If work cannot adhere to the time of year restriction, then mitigation shall be adjusted accordingly (see Table 5-1 (GHMP)) in consultation with the Division. For projects that are not described herein or deviate from the Plan of Record, consultation is required with the Division prior to any work for compliance with Condition #5, herein. We note that any such

	changes may also require consultation with the MEPA office.
17.	<p><u>Grassland Habitat Management Plan (GHMP):</u> The Permit Holder shall be responsible for managing state-listed grassland bird habitats in accordance with existing Permits (Permit # 005-049.DFW dated 10/25/2005, amendments dated 7/24/2007 and 4/22/2010, & # 014-240.DFW dated 9/11/2014), as described in Section 5.5.1 of the Application and the GHMP and as shown on Grassland Management and Mitigation Diagram, <i>Attachment 2</i>.</p> <p>Grassland Mitigation areas as shown in <i>Attachment 2</i>, shall not be managed during the bird breeding season (May 1 to July 31) unless otherwise approved by the Division. These dates are subject to change if the Division provides documentation to the Permit Holder that the grassland bird breeding period has shifted in Commonwealth (e.g. due to changes in climate, weather patterns). However, should this grassland breeding bird period change, the Division agrees that the maximum time of year restriction shall be no earlier than April 15 and no later than August 1.</p>
18.	<p><u>Grassland Habitat Creation & Improvement:</u></p> <ol style="list-style-type: none"> a. <u>Grassland Creation:</u> The Permit Holder shall convert approximately 13.3 acres of existing forested upland to grassland habitat as detailed in Sections 5.1 & 5.2 of the Application, this area will be managed in accordance with the GHMP. To ensure establishment of grassland habitat the conversion area will be monitored for target species coverage and invasive species with reports and photographs provided to the Division, as outlined in Section 5.2.1.1 of the Application. b. <u>Grassland Bird Viewshed Improvement:</u> The Permit Holder shall improve sight lines for grassland birds within existing grassland mitigation areas. Approximately 7.2 acres of selective upland tree cutting will be performed to enhance grassland bird viewsheds adjacent to existing grassland mitigation areas and creation/conversion areas. This work is described in the Application and shown on the "Tree Clearing Plan" included as Attachment C of the GHMP. c. <u>Grassland Improvement:</u> In compliance with Permit # 005-049.DFW and the GHMP, the Permit Holder shall improve an existing grassland mitigation area, totaling 5.28 acres, south and west of the airport access road and adjacent to the proposed grassland creation area. The improvement includes disking and re-seeding the mitigation area with a Division-approved seed mix, as outlined in Section 5.2.1 of the Application. <p>Within 30 days of completion of each of the above items, the Permit Holder shall submit written reports documenting the habitat creation and improvements to the Division and in compliance with this Permit, Application and GHMP with representative photographs demonstrating compliance with the conditions herein.</p>
19.	<p><u>Conversion of Frequently Mowed Areas to Grassland Bird Habitat:</u> The Permit Holder shall incorporate approximately 21.4 acres of existing frequently mown grassland into grassland mitigation areas for the benefit of grassland-nesting birds as described in Section 5.1.2 and shown on updated Grassland Management and Mitigation Diagram (<i>Attachment 2</i>). These areas shall be managed in accordance with the GHMP.</p>
20.	<p><u>Grassland Bird and Habitat Monitoring:</u> Grassland birds and their habitats shall be monitored in accordance with the schedule and protocols described in Sections 5.2, 5.3 & 5.4 of the Application (and in compliance with 014-240.DFW). Prior to conducting bird surveys, written approval of the survey protocol and surveying biologist shall be obtained from the Division. Monitoring protocols may be altered to be consistent with statewide survey protocols as they are revised; however, any alterations shall not significantly increase the currently described level of effort and associated cost.</p>

21.	<p><u>Construction Staff Education:</u> All construction, landscaping, and other sub-contractors associated with the Project shall be informed in writing of the likely presence of State-listed species on the Property and what measures should be implemented to minimize direct harm to State-listed species. Further, no wildlife shall be removed from the Property without approval of a qualified wildlife biologist or the Division except as necessary to receive veterinary treatment in the case of harm during construction, mowing, maintenance or other airport activities.</p>
22.	<p>The Division shall be notified, in the form of an NHESP Rare Animal or Plant Observation Form, within ten (10) days of the observation of any State-listed species within or outside the limits of Work. Preferably notification will be through the Division’s data submittal tool, the Vernal Pool & Rare Species (VPRS) Information System. VPRS and our paper observations forms can be found at: http://www.mass.gov/dfw/nhesp/vprs.</p>
23.	<p><u>Notice of Appeal Rights:</u> This Determination is a final decision of the Division of Fisheries and Wildlife pursuant to 321 CMR 10.23. Any person aggrieved by this decision shall have the right to an adjudicatory hearing at the Division pursuant to M.G.L. c. 30A, s.11 in accordance with the procedures for informal hearings set forth in 801 CMR 1.02 and 1.03.</p> <p>Any notice of claim for an adjudicatory hearing shall be made in writing and be accompanied by a filing fee in the amount of \$500.00. The notice of claim shall be sent to the Division by certified mail, hand delivered or postmarked within twenty-one (21) days of the date of the Division’s Determination to:</p> <p style="text-align: center;">Mark S. Tisa Acting Director Division of Fisheries and Wildlife Field Headquarters One Rabbit Hill Road Westborough, MA 01581</p> <p>Any notice of claim for an adjudicatory hearing shall include the following information:</p> <ol style="list-style-type: none"> 1. The file number for the project; 2. The complete name, address and telephone number of the person filing the request, and the name, address and telephone number of any authorized representative; 3. The specific facts that demonstrate that a party filing a notice of claim satisfies the requirements of an “aggrieved person,” including but not limited to (a) how they have a definite interest in the matters in contention within the scope of interests or area of concern of M.G.L. c. 131A or the regulations at 321 CMR 10.00 and (b) have suffered an actual injury which is special and different from that of the public and which has resulted from violation of a duty owed to them by the Division; 4. A clear statement that an adjudicatory hearing is being requested; 5. A clear and concise statement of facts which are grounds for the proceeding, the specific objections to the actions of the Division and the basis for those objections; and the relief sought through the adjudicatory hearing; and a statement that a copy of the request has been sent by certified mail or hand delivered to the applicant and the record owner, if different from the applicant.

Mark S. Tisa

Mark S. Tisa, Acting Director
Massachusetts Division of Fisheries & Wildlife

On this 19th day of September, 2018, before me, the undersigned notary public, personally appeared Mark S. Tisa, Acting Director, proved to me through satisfactory evidence of identification, which was personal knowledge, to be the person whose name is signed on the preceding or attached document, and who swore or affirmed to me that the contents of the document are truthful and accurate to the best of his/her knowledge and belief.

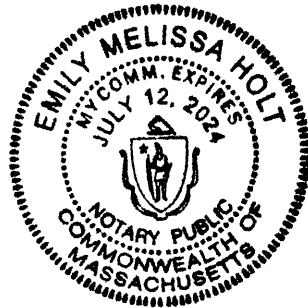
Emily Melissa Holt

Emily Melissa Holt, Notary Public
My Commission expires: July 12, 2024

Conservation Permit 018-329.DFW

Issued this 19th day of September, 2018

Work must be completed by: 19 September 2023



MASSWILDLIFE

ACKNOWLEDGEMENT AND ACCEPTANCE OF ALL TERMS OF THIS CONSERVATION PERMIT

The undersigned below agrees that commencement of any work authorized by and described in this Conservation and Management Permit constitutes acknowledgement and acceptance of all terms of this Permit.

Signatory 1 Organization

COMMONWEALTH OF MASSACHUSETTS

On this _____ day of _____, 20____, before me, the undersigned notary public, personally appeared _____, proved to me through satisfactory evidence of identification which was _____ to be the person whose name is signed on the preceding or attached document, and who swore or affirmed to me that the contents of the document are truthful and accurate to the best of his/her knowledge and belief.

Notary Public

SEAL

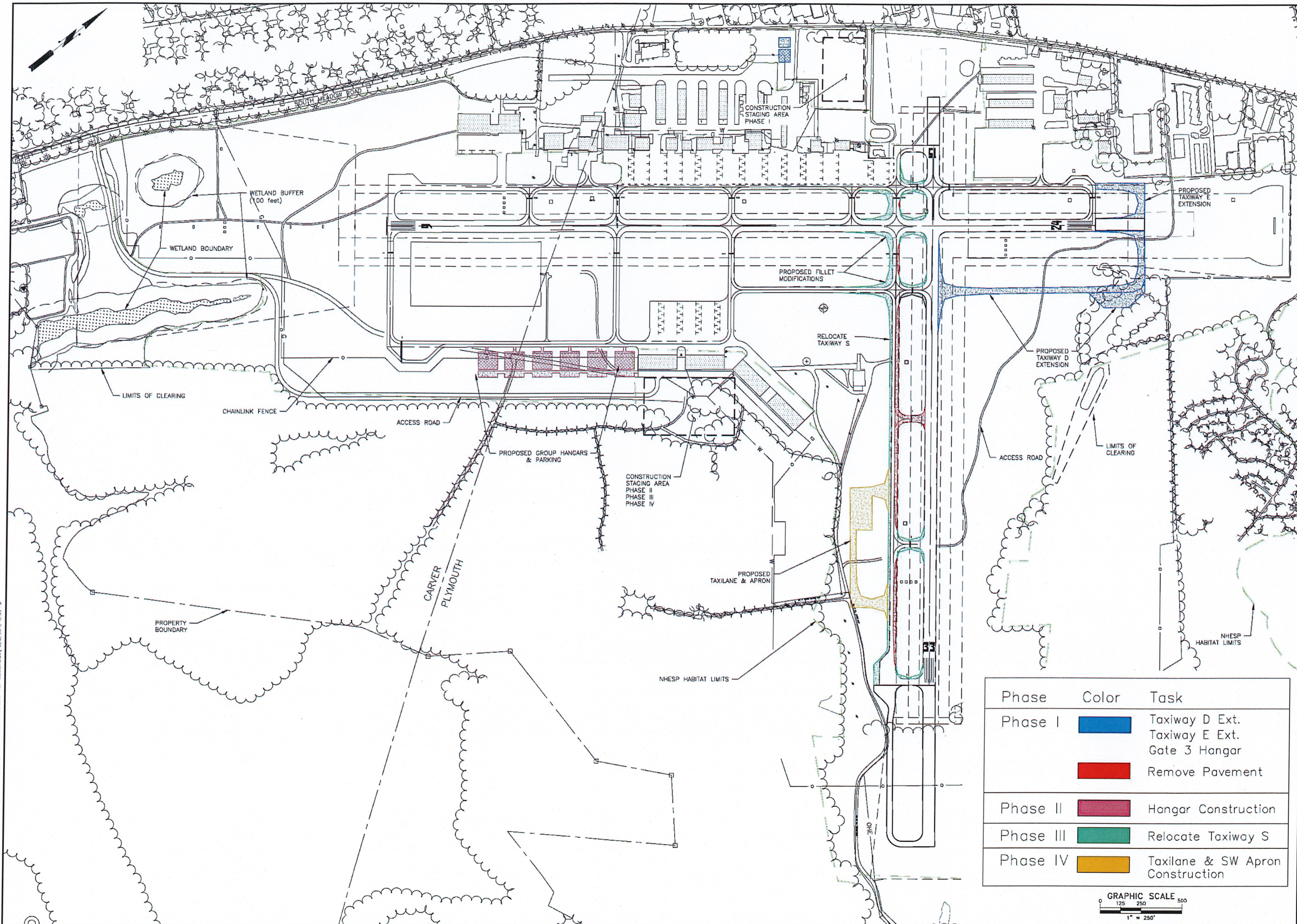
My commission expires: _____

Distribution List

Alyssa Jacobs, Epsilon Associates, Inc.
Plymouth Board of Selectmen
Plymouth Conservation Commission
Plymouth Planning Board
DEP Southeastern Regional Office, Wetlands Program
Erin Flaherty, MA Environmental Policy Act Office (EEA#15663)

Attachment 1

“Plymouth Municipal Airport Proposed Conditions Plans” (6 sheets, dated January 2017, prepared by Dubois & King, Inc.; the “Project Plan”; Sheet 1



DuBois & King inc.
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 MANAGEMENT • DEVELOPMENT
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 PROFESSIONAL SEAL

**NOT FOR
 CONSTRUCTION
 PRELIMINARY
 PLANS**

NO.	DATE	DESCRIPTION	BY	CHKD

PLYMOUTH
 MUNICIPAL AIRPORT
 PLYMOUTH
 MASSACHUSETTS

ENVIRONMENTAL
 PERMITTING
 FOR
 TAXIWAY D
 EXTENSION

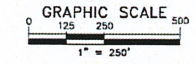
SHEET TITLE
 PROPOSED
 CONDITIONS PLAN

DRAWN BY	DATE
JAA	JAN. 2017
CHECKED BY	CHK PROJECT #
MCG	323510X
PROJ ENG.	CHK ARCHITECT #

SHEET NUMBER
A-4.0

SHEET 1 OF 6

Phase	Color	Task
Phase I		Taxiway D Ext. Taxiway E Ext. Gate 3 Hangar
		Remove Pavement
Phase II		Hangar Construction
Phase III		Relocate Taxiway S
Phase IV		Taxilane & SW Apron Construction



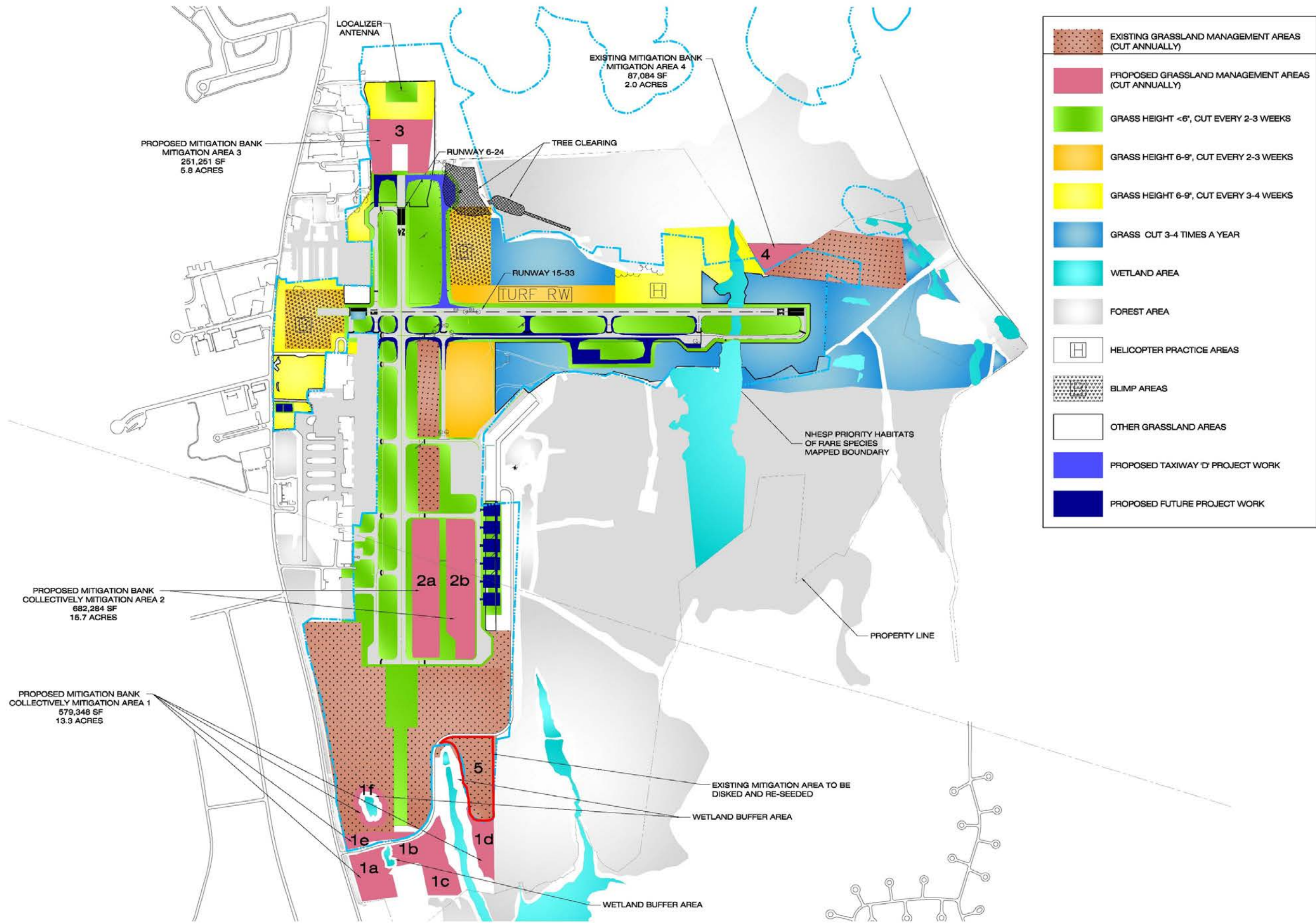
Plymouth Airport Plymouth, Massachusetts



Figure 3
 Proposed Conditions Plan

Attachment 2

“Grassland Management and Mitigation Diagram”, Updated September 2018



**Plymouth Municipal Airport
Plymouth, MA**

**CONSTRUCT, MARK and LIGHT
TAXIWAY E EXTENSION**

**Pre-Bid Meeting Minutes
December 1, 2020, 11:00 AM**

1. General Interest and Safety Items:

- a. This project involves the extension of Taxiway 'E' (500' x 35'). Demolition includes the removal of existing pavement, lighting and signage. New construction includes the installation of embankment, pavement, drainage, lighting, fencing, signage and pavement markings.
- b. The project is located along the northwest side of Runway 6-24 at the 24 end. Access to the site will be Gate 0.
- c. DuBois & King will be acting as the Owner's (Sponsor's) Authorized Representative. Our Resident Engineer has the expressed authority to act on the Sponsor's behalf. This authority includes the ability to halt construction activities, wholly or in part, when safety violations or nonconformance to the contract specifications are noted.
- d. The proposed project will be constructed under an FAA AIP grant. The Contractor will submit Pay Requests to the Engineer for submission/reimbursement from the FAA, the Commonwealth of Massachusetts and the Town of Plymouth.
- e. Various construction activities will require the airport manager to file Notice to Airmen (NOTAM's). The Contractor shall provide 48 hours notice to the airport manager prior to construction activities. Activities shall include proposed start and completion dates.
- f. Construction require an outage on the RW 6 ILS. An FAA Flight check will be required to restore the ILS to service. Outage duration needs to be coordinated with the FAA through the submittal of the SEC Form (Strategic Event Coordination) which is required 45 days prior to the outage start date.
- g. The Project has been broken into two phases: 1A and 1B.

1. Work will be performed within the taxiway and runway safety areas. This will require the closure of the portions of the taxiways and runways. This project will significantly impact airport operations, in particular, aircraft access to the operations area. In order to limit impacts to aircraft, each phase must be completed in the time allotted.
- h. The Contractor is reminded that construction will be performed on an active airport. The Contractor shall give way at all times to aircraft. Construction activities will require the lighting, marking, and barricading of the construction areas. Refer to the Construction Safety and Phasing Plan for more detailed information. Additional reference material for construction and safety on airports is identified in AC's 150/5370-1 and 5370-2. See additional construction safety plan enclosed in construction specifications.
- i. This is an active airport. The Contractor shall maintain their construction activities in a safe and secure measure. This requirement shall include maintaining a closed/fenced airfield. All gates and openings in fences shall be closed at the end of each business day. The CSPP identifies requirements for a gate guard to record all construction traffic in and out of the airport.
- j. The Contractor's attention is brought to the staging area. All construction vehicles, stockpiles, etc... shall be located within the staging area.
- k. Phases 1B will require work within the Runway 6-24 safety area. This phase will require closure of the runway. X's must be installed on the numbers.
- l. This project involves new fencing on adjacent property. Fencing installation must be coordinated with property owner by the Contractor.

2. Construction Items

- a. The Contractor is responsible for preparing SWPPP, performing SWPPP inspections, and filing of NOI. See Specifications.
- b. The existing REIL/PAPI power run will be impacted by the T/W extension. The 2013 as-built drawing indicate the cable is partially direct earth buried. The cable will be protected in a concrete encased duct bank under this project.
- c. The Contractor is responsible for verifying existing location of sanitary sewer force main. Main must be protected and maintained during construction. Investigative test pitting will be required.

- d. Particular attention is called to the infiltration media and underdrain system. The underdrains terminate at leaching catch basins. Basins will need to be cored in the field.
- e. The project involves a significant amount of borrow material for embankment (P-152-4.2. There are no borrow sources within the boundaries of the airport property. The Contractor shall locate and obtain borrow sources, subject to the approval of the RPR. (Specification P-152-2.3)
- f. The soil borings are located in the specifications. Existing soils in vicinity of Taxiway 'E' are sandy.
- g. Testing will be performed on construction materials. DuBois & King has hired Credere Associates, and ATC associates to perform conformance testing. It is expected that ATC will perform the following testing: HMA plant inspection, Washed Sieves, Moisture Density Relationships, HMA Core Densities, and Soils Inspection.
- h. In accordance with section GP section 60 of the specifications, the Contractor shall employ his own testing organization. The Contractor shall supply his test results to the Engineer.
- i. As a minimum, test results shall contain the following information: Test performed, applicable standard, test location, test result, and any action taken for a failing test.
- j. The resident engineer shall: ensure all required testing is performed, ensure tests are performed at the frequency stated, review test results, inform the Contractor of deficiencies, maintain a record of quantities and materials, maintain copies of test reports, and file construction reports. Reports shall be completed on the FAA's form 5370-1. The resident engineer shall also maintain a set of working drawings that record "as-built" information. He shall additionally be responsible for any Change Orders, Time Extensions, Cost Estimates and Liquidated Damages.

3. Labor Requirements

- a. This project is funded with federal and state monies. The Contractor shall provide to the engineer copies of his payrolls. Pay rolls will be reviewed for Minimum Wage Rates, Employee Classifications, etc... See AC 150/5100-15.

4. Civil Rights Requirements

- b. DBE / WBE / MBE
- c. Equal Employment Opportunity
- d. Certification of Non-Segregated Facilities.

5. Environmental

- a. Compliance with Federal, State, and local air and water quality standards
- b. Project will be inspected regularly by the local conservation commission agent. The Contractor will be expected to comply with the Standard Conditions to be issued from the Conservation Commission. Such Conditions may include watering seeded areas, silt control and other Best Management Practices (BMP's)
- c. Project involves impacts to grassland habitat. Construction cannot begin until after bird nesting season, on July 1.

6. Bidding Information

- a. Forms RC-1, 2 and RC-3 do not need to be completed as part of the bid process. RC-4 will need to be submitted with the bid package.
- b. Strongly discourage unbalanced bids. Significantly unbalanced bids may be rejected.

7. Engineer's Field Office

- a. Engineer's field office requirement is waived.

8. Incidental Costs:

- a. Aerial photographs, hand-held transceivers, runway closure markers, lighted barricades, escort vehicles, etc. are considered incidental to the work and no separate payment will be made for these items.

9. Paint:

- a. The 24-day curing period between placement of bituminous concrete and application of the paint (P-620) shall be waived due to the contact duration.
- b. Waterborne Paint material shall be acceptable for permanent Runway & Taxiway Painting for this project in accordance with section P-620-2.2a. of the technical specifications.

10. SWPPP: The Contractor shall prepare Stormwater Pollution Prevention Plan (SWPPP) and submit it to the Engineer for review and approval. Once finalized and approved, the Contractor shall prepare and file the NOI for coverage under the CGP. The Contractor is responsible for complying with SWPPP requirements and conducting inspections.

11. **No separate payment will be made for sawing and sealing of joints between existing and proposed bituminous concrete, but shall be incidental to saw cutting.**
12. No separate payment will be made for Resaw and Seal operations. Such costs are considered incidental to the project. The Contractor may distribute these costs under any pay item(s) he chooses.
13. **No separate payment shall be made for shoring, sheeting, and dewatering for work performed below the water table, or to accommodate incoming discharge during reconstruction of infiltration basin.**
14. **Work hours are restricted to 7 AM to 7 PM Monday through Saturday**
15. **All bales used for erosion control/mulch shall be straw, not hay.**
16. Water Sources:
 - a. The Contractor may NOT obtain water from the Airport spigots.
17. **There are no provisions in the contract for liquid asphalt escalation.**
18. **Bid bond form does not have a section for the principal to be named. Contractors may use standard AIA 310 Bid Bond form.**
 - a. The Contractor is not required to utilize the bid bond forms (BB-1 and BB-2) included in the specifications. The Contractor may utilize AIA 310 Bid Bond forms. If the Contractor utilizes a form other than BB-1 and BB-2, the Contractor shall staple the forms to BB-1 and BB-2 and enclose them in his bid package.

PLYMOUTH MUNICIPAL AIRPORT CONSTRUCT, MARK & LIGHT TAXIWAY 'E' EXTENSION (APPROX. 500' X 35')
AIP NO. 3-25-0042-53-2021
ADDENDUM 1

Bidder agrees to perform all of the work described in Specifications, shown on the drawings and tabulated below for the following unit and lump sum prices.
 The quantities are estimated and are provided for the purposes of comparison only.

ITEM NUMBER	DESCRIPTION	ESTIMATED QUANTITY	UNIT	PRICE PER UNIT WRITTEN IN WORDS	TOTAL ITEM PRICE WRITTEN IN WORDS
M-005-5.1	12" Stone Riprap	590	CY	_____ _____ (\$ _____)	_____ _____ (\$ _____)
M-209-5.1	3/8" Pea Stone for Infiltration Basin	90	CY	_____ _____ (\$ _____)	_____ _____ (\$ _____)
M-209-5.2	3/4" Crushed Stone for Infiltration Basin	280	CY	_____ _____ (\$ _____)	_____ _____ (\$ _____)
M-828-5.1	Install Retroreflective Metal Sign	1	EA	_____ _____ (\$ _____)	_____ _____ (\$ _____)
C-102-5.1	Silt Fence	120	LF	_____ _____ (\$ _____)	_____ _____ (\$ _____)
C-102-5.2	Catch Basin Inlet Protection	8	EA.	_____ _____ (\$ _____)	_____ _____ (\$ _____)
C-102-5.3	Erosion Control Matting	2,900	SY	_____ _____ (\$ _____)	_____ _____ (\$ _____)
C-102-5.4	Temporary Seed	2	AC	_____ _____ (\$ _____)	_____ _____ (\$ _____)
C-102-5.5	Stabilized Construction Entrance	1	LS	_____ _____ (\$ _____)	_____ _____ (\$ _____)
P-101-4.1	Pavement Removal	970	SY	_____ _____ (\$ _____)	_____ _____ (\$ _____)

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ADDENDUM 1

ITEM NUMBER	DESCRIPTION	ESTIMATED QUANTITY	UNIT	PRICE PER UNIT WRITTEN IN WORDS	TOTAL ITEM PRICE WRITTEN IN WORDS
P-151-4.1	Clearing and Grubbing	0.5	AC	_____ _____ (\$ _____)	_____ _____ (\$ _____)
P-152-4.1	Excavation to Embankment	3,050	CY	_____ _____ (\$ _____)	_____ _____ (\$ _____)
P-152-4.2	Borrow Excavation	19,000	CY	_____ _____ (\$ _____)	_____ _____ (\$ _____)
P-152.4.3	Unclassified Excavation	380	CY	_____ _____ (\$ _____)	_____ _____ (\$ _____)
P-150-4.1	Pavement Marking Removal	150	SF	_____ _____ (\$ _____)	_____ _____ (\$ _____)
P-150-4.2	Chain-Link Fence Removal	120	LF	_____ _____ (\$ _____)	_____ _____ (\$ _____)
P-150-4.3	Electrical Duct Removal	90	LF	_____ _____ (\$ _____)	_____ _____ (\$ _____)
P-150-4.4	Remove Existing 15" RCP End Section	1	EA.	_____ _____ (\$ _____)	_____ _____ (\$ _____)
P-150-4.5	Remove Existing Taxiway Edge Light - LED Lamp, Stake Mounted	12	EA	_____ _____ (\$ _____)	_____ _____ (\$ _____)

PLYMOUTH MUNICIPAL AIRPORT CONSTRUCT, MARK & LIGHT TAXIWAY 'E' EXTENSION (APPROX. 500' X 35')

AIP NO. 3-25-0042-53-2021

ADDENDUM 1

NUMBER	DESCRIPTION	QUANTITY	UNIT	WRITTEN IN WORDS	WRITTEN IN WORDS
P-150-4.6	Remove Existing Guidance Sign Foundation	2	EA	_____ _____ (\$ _____)	_____ _____ (\$ _____)
P-150-4.7	Remove Existing Flush Mounted RW Light with Base	6	EA	_____ _____ (\$ _____)	_____ _____ (\$ _____)
P-154-5.1	Subbase Course	2,200	CY	_____ _____ (\$ _____)	_____ _____ (\$ _____)
P-154-5.2	Geogrid	70	SY	_____ _____ (\$ _____)	_____ _____ (\$ _____)
P-209-5.1	Crushed Aggregate Base Course	730	CY	_____ _____ (\$ _____)	_____ _____ (\$ _____)
P-401-8.1	Bituminous Pavement - Binder Course	440	TON	_____ _____ (\$ _____)	_____ _____ (\$ _____)
P-401-8.2	Bituminous Pavement - Wearing Course	440	TON	_____ _____ (\$ _____)	_____ _____ (\$ _____)
P-603-5.1	Emulsified Asphalt Tack Coat	200	GAL	_____ _____ (\$ _____)	_____ _____ (\$ _____)
P-605-5.1	Sawcut Existing Pavement	380	LF	_____ _____ (\$ _____)	_____ _____ (\$ _____)
P-620-5.1	Yellow Paint	930	SF	_____ _____ (\$ _____)	_____ _____ (\$ _____)
P-620-5.2	White Paint	1,640	SF	_____ _____ (\$ _____)	_____ _____ (\$ _____)
P-620-5.3	Black Paint	1,570	SF	_____ _____ (\$ _____)	_____ _____ (\$ _____)

PLYMOUTH MUNICIPAL AIRPORT CONSTRUCT, MARK & LIGHT TAXIWAY 'E' EXTENSION (APPROX. 500' X 35')

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ADDENDUM 1

ITEM NUMBER	DESCRIPTION	ESTIMATED QUANTITY	UNIT	PRICE PER UNIT WRITTEN IN WORDS	TOTAL ITEM PRICE WRITTEN IN WORDS
F-162-5.1	6-ft High Chain-Link Fence	110	LF	_____ _____ (\$ _____)	_____ _____ (\$ _____)
D-701-5.1	15-inch HDPE Pipe	320	LF	_____ _____ (\$ _____)	_____ _____ (\$ _____)
D-701-5.2	15-inch Reinforced Concrete Pipe	32	LF	_____ _____ (\$ _____)	_____ _____ (\$ _____)
D-701-5.3	24-inch HDPE Pipe	208	LF	_____ _____ (\$ _____)	_____ _____ (\$ _____)
D-705-5.1	6-inch HDPE Perforated Underdrain Pipe	160	LF	_____ _____ (\$ _____)	_____ _____ (\$ _____)
D-751-5.1	Deep Sump Catch Basin, Frame and Grate	4	EA	_____ _____ (\$ _____)	_____ _____ (\$ _____)
D-751-5.2	Drainage Manhole, Frame and Cover	1	EA	_____ _____ (\$ _____)	_____ _____ (\$ _____)
D-751-5.3	Leaching Drainage Catch Basin, Frame and Grate	2	EA	_____ _____ (\$ _____)	_____ _____ (\$ _____)
D-751-5.4	Relocate Existing Leaching Catch Basin	2	EA	_____ _____ (\$ _____)	_____ _____ (\$ _____)

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ITEM NUMBER	DESCRIPTION	ESTIMATED QUANTITY	UNIT	PRICE PER UNIT WRITTEN IN WORDS	TOTAL ITEM PRICE WRITTEN IN WORDS
D-751-5.5	Leaching Drainage Manhole, Frame and Cover	1	EA	_____ _____ (\$ _____)	_____ _____ (\$ _____)
D-752-5.1	15-inch HDPE Flared End Section	1	EA	_____ _____ (\$ _____)	_____ _____ (\$ _____)
D-752-5.2	15-inch RCP Flared End Section	1	EA	_____ _____ (\$ _____)	_____ _____ (\$ _____)
D-752-5.3	24-inch HDPE Flared End Section	2	EA	_____ _____ (\$ _____)	_____ _____ (\$ _____)
T-901-5.1	General Seeding	3.0	AC	_____ _____ (\$ _____)	_____ _____ (\$ _____)
T-905-5.1	Topsoiling	1,340	CY	_____ _____ (\$ _____)	_____ _____ (\$ _____)
T-908-5.1	Mulching	2.5	AC	_____ _____ (\$ _____)	_____ _____ (\$ _____)
L-108-5.1	Cable Trench	1,670	LF	_____ _____ (\$ _____)	_____ _____ (\$ _____)
L-108-5.2	No. 8 AWG, 5 kV, Type C, 7 Strand, L-824 Cable, Installed in Trench, Duct Bank or Conduit	1,780	LF	_____ _____ (\$ _____)	_____ _____ (\$ _____)
L-108-5.3	No. 6 AWG, Solid, Bare Copper Counterpoise Wire, Installed in Trench, Including Connections/Terminations	1,780	LF	_____ _____ (\$ _____)	_____ _____ (\$ _____)

PLYMOUTH MUNICIPAL AIRPORT CONSTRUCT, MARK & LIGHT TAXIWAY 'E' EXTENSION (APPROX. 500' X 35')
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ITEM NUMBER	DESCRIPTION	ESTIMATED QUANTITY	UNIT	PRICE PER UNIT WRITTEN IN WORDS	TOTAL ITEM PRICE WRITTEN IN WORDS
L-110-5.1	4" 4-Way Concrete Encased Electrical Duct Bank	150	LF	_____ _____ (\$ _____)	_____ _____ (\$ _____)
L-110-5.2	Concrete Duct or Splice Marker	6	EA	_____ _____ (\$ _____)	_____ _____ (\$ _____)
L-110-5.3	2" PVC Electrical conduit	1,700	LF	_____ _____ (\$ _____)	_____ _____ (\$ _____)
L-115-5.1	Electrical Handhole	7	EA	_____ _____ (\$ _____)	_____ _____ (\$ _____)
L-125-5.1	Remove and Reset Existing Taxiway Edge Light - LED Lamp, Base Mounted	4	EA	_____ _____ (\$ _____)	_____ _____ (\$ _____)
L-125-5.2	Install New Taxiway Edge Light - LED Lamp, Base Mounted	24	EA	_____ _____ (\$ _____)	_____ _____ (\$ _____)
L-125-5.3	Relocate Existing Guidance Sign on New Foundation	2	EA	_____ _____ (\$ _____)	_____ _____ (\$ _____)
L-125-5.4	Install New Guidance Sign	1	EA	_____ _____ (\$ _____)	_____ _____ (\$ _____)
L-125-5.5	Runway Closure Markers	2	EA	_____ _____ (\$ _____)	_____ _____ (\$ _____)
L-125-5.6	Relocate Existing REILS Circuit through new Duct Bank	1	LS	_____ _____ (\$ _____)	_____ _____ (\$ _____)
L-125-5.7	Install New L-858R Unlighted Instructional Sign	1	EA	_____ _____ (\$ _____)	_____ _____ (\$ _____)
L-125-5.8	Install New L-8587 Unlighted Instructional Sign	1	EA	_____ _____ (\$ _____)	_____ _____ (\$ _____)

TOTAL BID: _____ (\$ _____)

Item P-150 Site Demolition

DESCRIPTION

150-1.1 This item shall consist of the demolishing and removal of structures, asphaltic and concrete pavements, and miscellaneous items as indicated on the Plans and in the manner indicated by the Plans and in these Specifications. The item includes all associated tasks required to dispose of the facilities intended for demolition, and to protect existing facilities which are to remain.

The Contractor shall not demolish or remove any existing work that would result in an interruption of any utility service until that service is relocated either by the Contractor or by others as noted on the Plans or directed by the Engineer. No pavement in use by aircraft traffic at the time of issuance of a Notice to Proceed will be removed without the written direction of the Engineer.

CONSTRUCTION METHODS

150-2.1 General. Should the Contractor encounter underground tanks or contaminated soils, he shall immediately cease his operations in the area and promptly notify the Engineer of his findings. The Engineer and Owner shall investigate the situation and determine the course of action.

150-2.2 Structure Removal. Prior to commencing the work, the Contractor shall submit to the Engineer in writing his method for demolishing and dismantling the structures specified, including equipment to be used and the sequence of operation. This shall include disposition of any affected utilities and the proposed method of truncating utility lines serving the structures to be demolished. The Contractor shall be responsible for determining affected utilities and for the shut down and termination of the utilities.

Demolition by the use of explosives will not be permitted. Demolition and removal shall progress in an orderly fashion without delays or suspension of operations. All portions of the structures specified for demolition shall be removed including all slabs and foundations associated therewith to a depth not less than 2 feet below natural grade.

150-2.4 Disposition Of Demolition Materials. All broken up pavements, masonry and concrete rubble shall be removed from the site. Demolished materials may not be reused as embankment or fill without the expressed, written consent of the Engineer. Burning of combustible materials is not allowed. All other items resulting from the demolition process shall be removed off airport property unless otherwise shown on the plans or directed by the Engineer.

All excavations caused by structure, drainage, structural, and foundation removal shall be backfilled with suitable material to a smooth level that provides positive drainage. The suitable materials shall be obtained from designated excavation areas and compacted in accordance with section P-152. Placement, compaction and grading of this material shall be paid for in accordance with Item P-152.

All salvageable materials produced by the demolition work, including but not limited to LED taxiway edge light fixtures, shall become the property of the Contractor unless specifically noted otherwise in these Specifications or in the Plans. The storage or sale of salvageable material produced by this demolition shall not be allowed within the Airport property.

Sites shall be left clean of rubble or debris after demolition to the satisfaction of the Engineer.

METHOD OF MEASUREMENT

150-4.1 The Quantity of Pavement Marking Removal to be paid for shall be the number of square feet removed by the contractor. Per FAA guidelines, the limits of pavement marking removal may exceed the limits of the existing paint markings. Please refer to the demolition plans for the limits of marking removal.

150-4.2 The Quantity of Chainlink Fence Removal to be paid for shall be the number of linear feet removed.

150-4.3 The Quantity of Electrical Duct Removal to be paid shall be the number of each type removed.

150-4.4 The Quantity of Existing 15" RCP End Section Removal to be paid shall be each type removed.

150-4.5 The Quantity of removal of Existing Taxiway Edge Light to be paid shall be the number of each type removed.

150-4.6 The Quantity of Guidance Sign Foundation Removal to be paid shall be each type removed.

150-4.7 The Quantity of Existing Flashed RW Light with base removal to be paid shall be each type removed.

BASIS OF PAYMENT

150-4.1 Payment shall be made at the Contract unit price per square foot for pavement marking removal. This price shall be full compensation for all preparation, removal, and disposal necessary for the completion of the item. It shall include all labor, equipment, materials and incidentals.

150-4.2 Payment shall be made at the Contract unit price per linear foot for chain-link fence removal. This price shall be full compensation for all preparation, removal, hauling, and disposal including all labor, equipment, tools, and incidentals necessary to complete the item.

150-4.3 Payment shall be made at the Contract unit price per linear foot for electrical duct removal. This price shall be full compensation for all preparation, removal, hauling, and disposal including all labor, equipment, tools, and incidentals necessary to complete the item.

150-4.4 Payment shall be made at the Contract unit price per each for RCP End Section removal. This price shall be full compensation for all preparation, removal, hauling, and disposal including all labor, equipment, tools, and incidentals necessary to complete the item.

150-4.5 Payment shall be made at the Contract unit price per each for taxiway edge light removal. This price shall be full compensation for all preparation, removal, hauling, and disposal including all labor, equipment, tools, and incidentals necessary to complete the item.

150-4.6 Payment shall be made at the Contract unit price per each for guidance sign foundation removal. This price shall be full compensation for all preparation, removal, hauling, and disposal including all labor, equipment, tools, and incidentals necessary to complete the item.

150-4.7 Payment shall be made at the Contract unit price per each for flush mounted RW light with base removal. This price shall be full compensation for all preparation, removal, hauling, and disposal including all labor, equipment, tools, and incidentals necessary to complete the item.

Payment will be made under:

- Item P-150-4.1 Pavement Marking Removal – per square foot
- Item P-150-4.2 Chain-Link Fence Removal – per linear foot
- Item P-150-4.3 Electrical Duct Removal – per linear foot
- Item P-150-4.4 Remove Existing 15” RCP End Section – per each
- Item P-150-4.5 Remove Existing Taxiway Edge Light - LED Lamp, Stake Mounted – per each
- Item P-150-4.6 Remove Existing Guidance Sign Foundation – per each
- Item P-150-4.7 Remove Existing Flush Mounted RW Light with Base – per each

END OF ITEM P-150

Item L-125 Installation of Airport Lighting Systems

DESCRIPTION

125-1.1 New Airport Lighting and Guidance Sign Installations. This item shall consist of airport lighting systems furnished and installed in accordance with this specification, the referenced specifications, and the applicable advisory circulars (ACs). The systems shall be installed at the locations and in accordance with the dimensions, design, and details shown in the plans. This item shall include the furnishing of all equipment, materials, services, and incidentals necessary to place the systems in operation as completed units to the satisfaction of the RPR.

125-1.2 Relocation of Airport Lighting This item shall consist of the relocation of existing taxiway edge lights. The Contractor shall exercise care when relocating equipment so as to avoid damage. Relocated elements such as fixtures, lamps, globes and signs damaged through the fault of the Contractor, shall be the responsibility of the Contractor to repair or replace to the satisfaction of the Engineer. The Contractor shall also be responsible for supplementing the existing fixtures and signs with new isolation transformers and cable connectors and shall include these items in the bid item for this work. Stakes may be reused if removed in good condition otherwise the old stakes shall be removed and disposed of off Airport property. The Contractor may reuse existing sign bases upon approval by the Engineer. Sign bases and quartz taxiway edge lights which are not reused shall be removed and disposed of in accordance with Specification P-150 – Demolition.

All existing LED runway edge lights that are removed during construction and not relocated (surplus) shall remain property of the airport, and shall be turned over to the airport for storage in accordance with Specification P-150 – Demolition.

EQUIPMENT AND MATERIALS

125-2.1 General.

a. Airport lighting equipment and materials covered by Federal Aviation Administration (FAA) specifications shall be certified under the Airport Lighting Equipment Certification Program in accordance with AC 150/5345-53, current version. FAA certified airfield lighting shall be compatible with each other to perform in compliance with FAA criteria and the intended operation. If the Contractor provides equipment that does not perform as intended because of incompatibility with the system, the Contractor assumes all costs to correct the system for to operate properly.

b. Manufacturer's certifications shall not relieve the Contractor of their responsibility to provide materials in accordance with these specifications and acceptable to the RPR. Materials supplied and/or installed that do not comply with these specifications shall be removed, when directed by the RPR and replaced with materials, which do comply with these specifications, at the sole cost of the Contractor.

c. All materials and equipment used shall be submitted to the RPR for approval prior to ordering the equipment. Submittals consisting of marked catalog sheets or shop drawings shall be provided. Clearly mark each copy to identify pertinent products or models applicable to this project. Indicate all optional equipment and delete non-pertinent data. Submittals for components of electrical equipment and systems shall identify the equipment for which they apply on each submittal sheet. Markings shall be clearly made

with arrows or circles (highlighting is not acceptable). The Contractor shall be responsible for delays in the project accruing directly or indirectly from late submissions or resubmissions of submittals.

d. The data submitted shall be sufficient, in the opinion of the RPR, to determine compliance with the plans and specifications. The Contractor's submittals shall be submitted in electronic PDF format, tabbed by specification section. The RPR reserves the right to reject any or all equipment, materials or procedures, which, in the RPR's opinion, does not meet the system design and the standards and codes, specified herein.

e. All equipment and materials furnished and installed under this section shall be guaranteed against defects in materials and workmanship for a period of at least twelve (12) months from final acceptance by the Owner. Where specified, all new LED light fixtures, with the exception of obstruction lighting, must be warranted by the manufacturer for a minimum of 4 years after date of installation inclusive of all electronics." Obstruction lighting warranty is set by the individual manufacturer. The defective materials and/or equipment shall be repaired or replaced, at the Owner's discretion, with no additional cost to the Owner.

EQUIPMENT AND MATERIALS

125-2.2 Conduit/Duct. Conduit shall conform to Specification Item L-110 Airport Underground Electrical Duct Banks and Conduits.

125-2.3 Cable and Counterpoise. Cable and Counterpoise shall conform to Item L-108 Underground Power Cable for Airports.

125-2.4 Tape. Rubber and plastic electrical tapes shall be Scotch Electrical Tape Numbers 23 and 88 respectively, as manufactured by 3M Company or an approved equal.

125-2.5 Cable Connections. Cable Connections shall conform to Item L-108 Installation of Underground Cable for Airports.

125-2.6 Retroreflective Markers. Not required.

125-2.7 Taxiway Lights. Medium Intensity taxiway lights shall conform to the requirements of AC 150/5345-46. Existing lamps specified on the plans for removal and reinstallation on the plans are LED type with Arctic Kit. All other lamps shall be quartz lights. Refer to the plans for the proposed locations of each type.

125-2.8 Runway and Taxiway Signs. Runway and Taxiway Guidance Signs should conform to the requirements of AC 150/5345-44. Hold signs shall be style L-858R, size 2, style 2, class 2.

125-2.9 Runway End Identifier Light (REIL). Not required.

125-2.10 Precision Approach Path Indicator (PAPI). Not required.

125-2.12 Light Base and Transformer Housings. Light Base and Transformer Housings should conform to the requirements of AC 150/5345-42. Light bases shall be Type L-867 Class 1A, Size B shall be provided as indicated or as required to accommodate the fixture or device installed thereon. Base plates, cover plates, and adapter plates shall be provided to accommodate various sizes of fixtures.

125-2.13 Isolation Transformers. Isolation Transformers shall be Type L-830, size as required for each installation. Transformer shall conform to AC 150/5345-47.

INSTALLATION

125-3.1 Installation. The Contractor shall furnish, install, connect and test all equipment, accessories, conduit, cables, wires, buses, grounds and support items necessary to ensure a complete and operable airport lighting system as specified here and shown in the plans.

The equipment installation and mounting shall comply with the requirements of the National Electrical Code and state and local code agencies having jurisdiction.

The Contractor shall install the specified equipment in accordance with the applicable advisory circulars and the details shown on the plans. Items not installed in accordance with the FAA Advisory Circulars, these specifications and drawings shall be replaced by and at the expense of the contractor.

- a. Assemble units and connect to the system in accordance with the manufacturer's recommendations and instructions.
- b. Provide three (3) feet of slack in each cable in each base can.
- c. Painted and galvanized surfaces that are damaged shall be repaired according to the manufacturer's recommendations, to the satisfaction of the Owner and Engineer.
- d. All airfield lighting bolting hardware and threaded connections, i.e. frangible couplings shall be coated with "Never-Seize" or "Ideal Noalox" compound before being screwed together

125-3.2 Testing. All lights shall be fully tested by continuous operation for not less than 24 hours as a completed system prior to acceptance. The test shall include operating the constant current regulator in each step not less than 10 times at the beginning and end of the 24-hour test. The fixtures shall illuminate properly during each portion of the test.

Up to two (2) walk-throughs may be initiated by the Owner or the Engineer during which the airfield lighting units would be required to be in operation. Additional walk-throughs may be necessary depending upon the number of discrepancies found on the previous walk-throughs.

The contractor is responsible for lamp replacements and necessary maintenance of airfield items during the testing, construction and walk-through periods.

Cables shall be tested per specification L-108.

The contractor shall perform the necessary inspection and tests for some items concurrently with the installation because of subsequent inaccessibility of some components. The Engineer shall be notified by the Contractor forty-eight (48) hours in advance of any testing.

125-3.3 Shipping and Storage. Equipment shall be shipped in suitable packing material to prevent damage during shipping. Store and maintain equipment and materials in areas protected from weather and physical damage. Any equipment and materials, in the opinion of the RPR, damaged during construction or storage shall be replaced by the Contractor at no additional cost to the owner. Painted or galvanized surfaces that are damaged shall be repaired in accordance with the manufacturer's recommendations.

125-3.4 Elevated and In-pavement Lights. Water, debris, and other foreign substances shall be removed prior to installing fixture base and light.

A jig or holding device shall be used when installing each light fixture to ensure positioning to the proper elevation, alignment, level control, and azimuth control. Light fixtures shall be oriented with the light beams parallel to the runway or taxiway centerline and facing in the required direction. The outermost edge of fixture shall be level with the surrounding pavement. Surplus sealant or flexible embedding material shall be removed. The holding device shall remain in place until sealant has reached its initial set.

BID SET

LEGEND

- EXISTING PAVEMENT EDGE
- - - EXISTING AIRPORT PROPERTY LINE
- ROFA — EXISTING RUNWAY OBJECT FREE AREA
- RSA — EXISTING RUNWAY SAFETY AREA
- TSA — EXISTING TAXIWAY SAFETY AREA
- - - PROPERTY LINE
- ▨ PROPOSED PAVEMENT LIMITS
- ▨ PROPOSED PAVEMENT REMOVAL
- ⊙ BENCHMARK AND DESIGNATION

NO.	DATE	DESCRIPTION	BY	CHK'D
1	12/8/2020	ADDENDUM 1		

PLYMOUTH MUNICIPAL AIRPORT
PLYMOUTH MASSACHUSETTS

CONSTRUCT, MARK,
AND LIGHT
TW 'E' EXTENSION
(APPROX. 500' x 35')

AIP NO. 3-25-0042-53-2021
SHEET TITLE

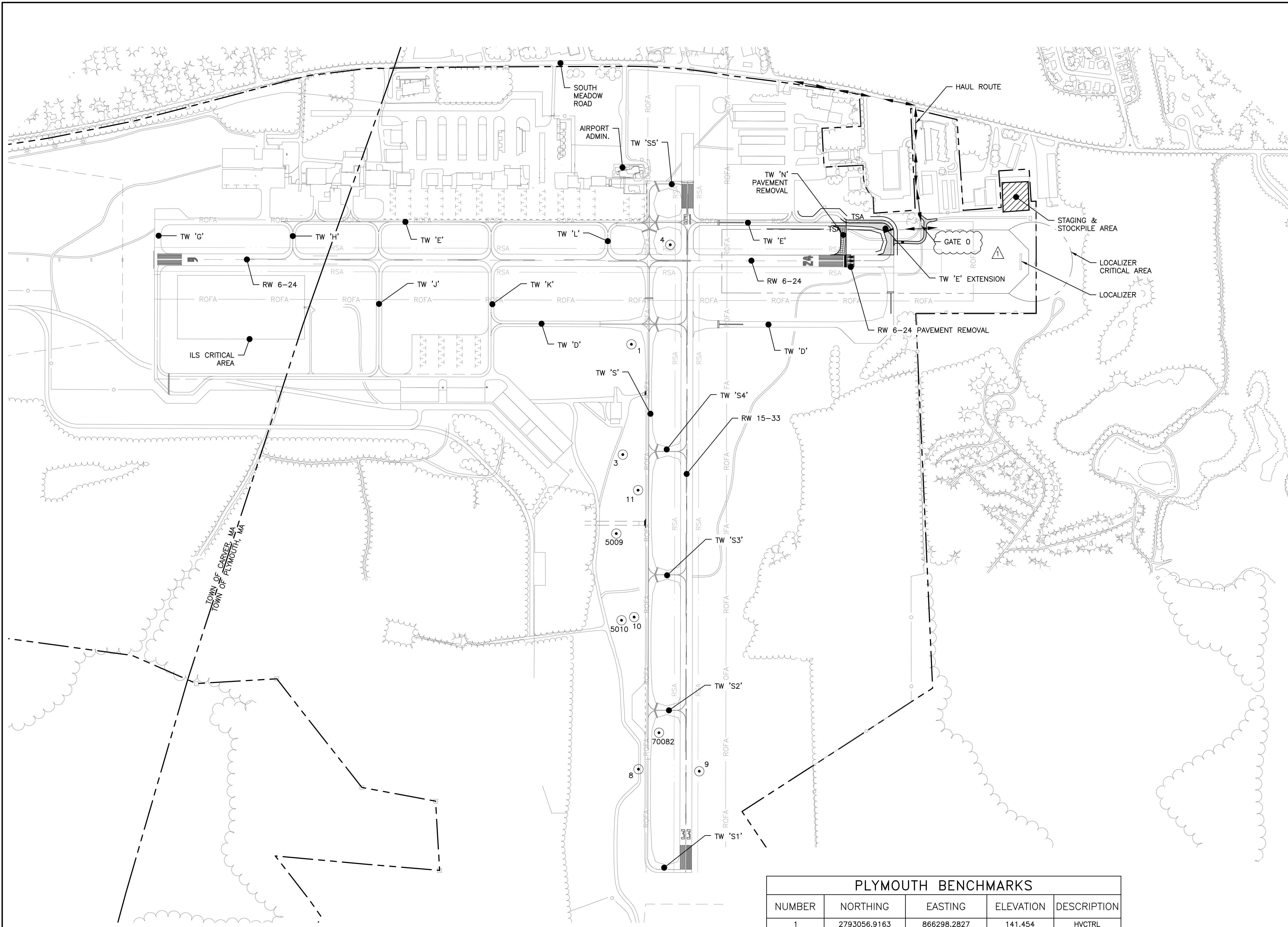
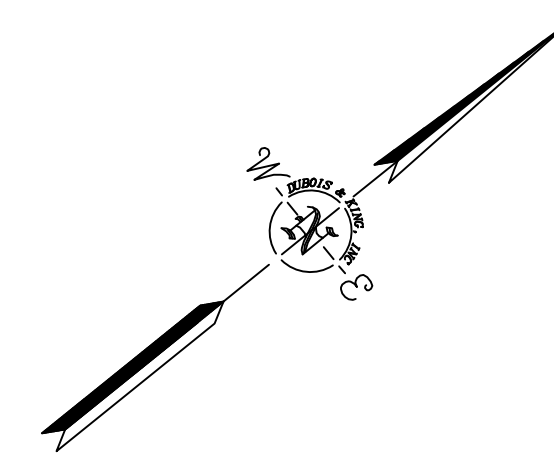
OVERALL GENERAL PLAN

DRAWN BY	DC	DATE	NOV 2020
CHECKED BY	MCG	D&K PROJECT #	326095
PROJ. ENG.	RLT	D&K ARCHIVE #	

DRAWING NO.

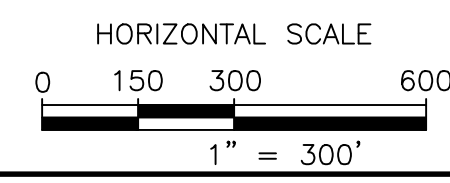
G1.2

SHEET 2 OF 26



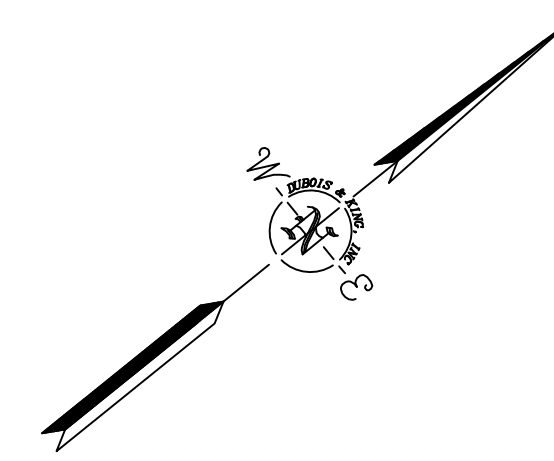
NUMBER	NORTHING	EASTING	ELEVATION	DESCRIPTION
1	2793056.9163	866298.2827	141.454	HVCTRL
3	2792578.6878	866804.0130	138.490	HVCTRL
4	2793640.6820	865964.6140	143.180	HVCTRL
8	2791411.4000	868406.2500	126.780	HVCTRL
9	2791700.9000	868656.5200	128.820	HVCTRL
10	2791991.8935	867644.3522	135.106	HVCTRL
11	2792512.6074	867038.6542	140.196	HVCTRL
5009	2792234.5077	867164.8654	140.427	HVCTRL
5010	2791917.2740	867610.3030	136.400	HVCTRL
70082	2791655.9994	868308.6150	127.086	HVCTRL

MASSACHUSETTS
STATE PLANE
COORDINATES NAD83



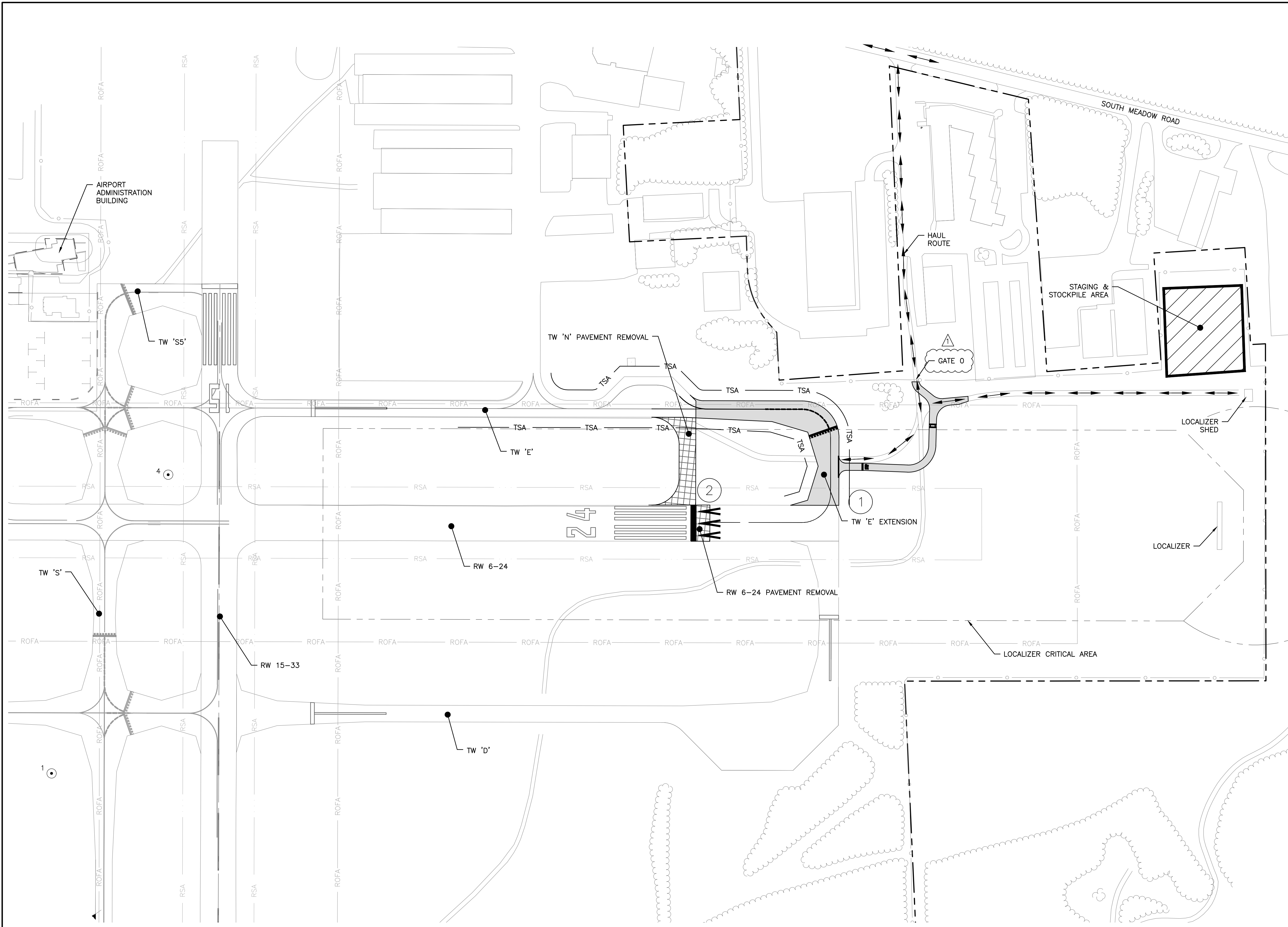
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BID SET



LEGEND

- EXISTING PAVEMENT EDGE
- - - EXISTING AIRPORT PROPERTY LINE
- ROFA — EXISTING RUNWAY OBJECT FREE AREA
- RSA — EXISTING RUNWAY SAFETY AREA
- - - TSA — EXISTING TAXIWAY SAFETY AREA
- - - PROPERTY LINE
- - - FENCE
- - - CRITICAL AREA
- ~ ~ ~ TREES
- ▬ PROPOSED PAVEMENT LIMITS
- ▬ PROPOSED PAVEMENT REMOVAL
- ⊙ BENCHMARK (SEE SHEET G1.2)



- PROJECT WORK ELEMENTS**
- ① CONSTRUCT, MARK AND LIGHT TAXIWAY 'E' EXTENSION
 - ② DEMOLISH TAXIWAY 'N', REMOVE EXISTING IN-GROUND RUNWAY THRESHOLD LIGHTS

NO.	DATE	DESCRIPTION	BY	CHK'D
1	12/8/2020	ADDENDUM 1		

**PLYMOUTH MUNICIPAL AIRPORT
PLYMOUTH MASSACHUSETTS**

CONSTRUCT, MARK, AND LIGHT
TW 'E' EXTENSION
(APPROX. 500' x 35')

AIP NO. 3-25-0042-53-2021
SHEET TITLE

PROJECT SITE PLAN

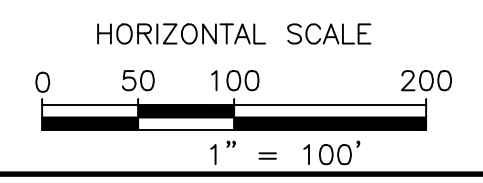
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DC	NOV 2020
CHECKED BY	D&K PROJECT #
MCG	326095
PROJ. ENG.	D&K ARCHIVE #
RLT	

DRAWING NO.

G1.3

SHEET 3 OF 26

MASSACHUSETTS STATE PLANE COORDINATES
NAD83



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BID SET

NO.	DATE	DESCRIPTION
1	12/8/2020	ADDENDUM 1

**PLYMOUTH MUNICIPAL AIRPORT
PLYMOUTH MASSACHUSETTS**

CONSTRUCT, MARK,
AND LIGHT
TW 'E' EXTENSION
(APPROX. 500' x 35')

AIP NO. 3-25-0042-53-2021
SHEET TITLE

QUANTITIES

DRAWN BY DC	DATE NOV 2020
CHECKED BY MCG	D&K PROJECT # 326095
PROJ. ENG. RLT	D&K ARCHIVE #

DRAWING NO.

G1.4

ITEM NO.	SPEC. SECTION	DESCRIPTION	UNIT	BID QUANTITY
1	M-005-5.1	12" Stone Rip Rap	CY	590
2	M-209-5.1	3/8" Pea Stone for Infiltration Basin	CY	90
3	M-209-5.2	3/4" Crushed Stone for Infiltration Basin	CY	280
4	M-828-5.1	Install Retroreflective Metal Sign	EA	1
5	C-102-5.1	Silt Fence	LF	120
6	C-102-5.2	Catch Basin Inlet Protection	EA	8
7	C-102-5.3	Erosion Control Matting	SY	2900
8	C-102-5.4	Temporary Seed	AC	2
9	C-102-5.5	Stabilized Construction Entrance	LS	1
10	P-101-4.1	Pavement Removal	SY	970
11	P-151-4.1	Clearing and Grubbing	AC	0.5
12	P-152-4.1	Excavation to Embankment	CY	3050
13	P-152-4.2	Borrow Excavation	CY	19000
14	P-152-4.3	Unclassified Excavation	CY	380
15	P-150-4.1	Pavement Marking Removal	SF	150
16	P-150-4.2	Chain-Link Fence Removal	LF	120
17	P-150-4.3	Electrical Duct Removal	LF	90
18	P-150-4.4	Remove Existing 15' RCP End Section	EA	1
19	P-150-4.5	Remove Existing Taxiway Edge Light - LED Lamp, Stake Mounted	EA	12
20	P-150-4.6	Remove Existing Guidance Sign Foundation	EA	2
21	P-150-4.7	Remove Existing Flush Mounted RW Light with Base	EA	6
22	P-154-5.1	Subbase Course	CY	2200
23	P-154-5.2	Geogrid	SY	70
24	P-209-5.1	Crushed Aggregate Base Course	CY	730
25	P-401-8.1	Bituminous Pavement - Binder Course	TON	440
26	P-401-8.2	Bituminous Pavement - Wearing Course	TON	440
27	P-603-5.1	Emulsified Asphalt Tack Coat	GAL	200
28	P-605-5.1	Sawcut Existing Pavement	LF	380
29	P-620-5.1	Yellow Paint	SF	930
30	P-620-5.2	White Paint	SF	1640
31	P-620-5.3	Black Paint	SF	1570
32	F-162-5.1	6-ft High Chain-Link Fence	LF	110
33	D-701-5.1	15-inch HDPE Pipe	LF	320
34	D-701-5.2	15-inch Reinforced Concrete Pipe	LF	32
35	D-701-5.3	24-inch HDPE Pipe	LF	208
36	D-705-5.1	6-inch HDPE Perforated Underdrain Pipe	LF	160
37	D-751-5.1	Deep Sump Catch Basin, Frame and Grate	EA	4
38	D-751-5.2	Drainage Manhole, Frame and Cover	EA	1
39	D-751-5.3	Leaching Drainage Catch Basin, Frame and Grate	EA	2
40	D-751-5.4	Relocate Existing Leaching Catch Basin	EA	2
41	D-751-5.5	Leaching Drainage Manhole, Frame and Cover	EA	1
42	D-752-5.1	15-inch HDPE Flared End Section	EA	1
43	D-752-5.2	15-inch RCP Flared End Section	EA	1
44	D-752-5.3	24-inch HDPE Flared End Section	EA	2
45	T-901-5.1	General Seeding	AC	3
46	T-905-5.1	Topsoiling	CY	1340
47	T-908-5.1	Mulching	AC	2.5
48	L-108-5.1	Cable Trench	LF	1670
49	L-108-5.2	No. 8 AWG, 5 kV, Type C, 7 Strand, L-824 Cable, Installed in Trench, Duct Bank or Conduit	LF	1780
50	L-108-5.3	No. 6 AWG, Solid, Bare Copper Counterpoise Wire, Installed in Trench, Including Connections/Terminations	LF	1780
51	L-110-5.1	4" 4-Way Concrete Encased Electrical Duct Bank	LF	150
52	L-110-5.2	Concrete Duct or Splice Marker	EA	6
53	L-110-5.3	2" PVC Electrical Conduit	LF	1700
54	L-115-5.1	Electrical Handhole	EA	7
55	L-125-5.1	Remove and Reset Existing Taxiway Edge Light - LED Lamp, Base Mounted	EA	4
56	L-125-5.2	Install New Taxiway Edge Light - LED Lamp, Base Mounted	EA	24
57	L-125-5.3	Relocate Existing Guidance Sign on New Foundation	EA	2
58	L-125-5.4	Install New Guidance Sign	EA	1
59	L-125-5.5	Runway Closure Markers	EA	2
60	L-125-5.6	Relocate Existing REILS Circuit through new Duct Bank	LS	1
61	L-125-5.7	Install New L-858R Unlighted Instructional Sign	EA	1
62	L-125-5.8	Install New L-858Y Unlighted Instructional Sign	EA	1

WORK AREA 1A

MAJOR WORK ITEMS

1. INSTALL EPSC MEASURES
2. REMOVE EXISTING PAVEMENT
3. CLEAR AND GRUB EXISTING VEGETATION
4. INSTALL DRAINAGE
5. INSTALL PAVEMENT, BASE AND SUBBASE MATERIALS
6. INSTALL LIGHTING, SIGNAGE AND PAVEMENT MARKINGS
7. INSTALL LOAM AND SEED

CONSTRUCTION SAFETY GENERAL NOTES:

1. CONTRACTOR SHALL INSTALL LIGHTED BARRICADES AS INDICATED IN THE SAFETY PLAN. BARRICADES SHALL BE LAID END TO END. SEE CSPP BARRICADE DETAILS.
2. NO SNOW FENCE OR DEMARCATION FENCE SHALL BE PLACED WITHIN THE RUNWAY SAFETY AREA OR TAXIWAY OBJECT FREE AREA UNLESS THOSE PAVEMENTS ARE CLOSED TO AIRCRAFT.
3. CONSTRUCTION ACTIVITIES MAY REQUIRE VEHICLES TO CROSS AIRPORT PAVEMENTS. CONTRACTOR SHALL MAINTAIN A VACUUM TRUCK ON SITE FOR REMOVING FOREIGN OBJECT DEBRIS (FOD).
4. SEE CONSTRUCTION SAFETY AND PHASING PLAN DOCUMENT IN PROJECT SPECIFICATIONS DOCUMENTS FOR ADDITIONAL INFORMATION.

WORK AREA 1A RESTRICTIONS ON CONSTRUCTION

1. WORK AREA 1A MAY BE WORKED ON CONCURRENTLY WITH WORK AREAS 1B
2. CONSTRUCTION OF WORK AREA 1A INCLUDES:
 - CONSTRUCTION OF TAXIWAY 'E' OUTSIDE OF RUNWAY 6-24 SAFETY AREA
 - REMOVAL OF TAXIWAY 'N' OUTSIDE OF RUNWAY 06-24 SAFETY AREA.
3. CONSTRUCTION ACTIVITIES ARE RESTRICTED TO BETWEEN 7:00 AM AND 7:00 PM MONDAY THROUGH SATURDAY. NO CONSTRUCTION MAY BE PERFORMED ON SUNDAY.

WORK AREA 1A NOTES:

LOCATION: TAXIWAY 'N', TAXIWAY 'E' LOCATED OUTSIDE OF RUNWAY 06-24 SAFETY AREA
DURATION: 45 DAYS

AIRPORT AREAS IMPACTED:

1. RUNWAY 6-24 MALIS, REILS AND PAPI SHALL BE DE-ENERGIZED FOR DURATION OF CONSTRUCTION IN WORK AREA. RUNWAY 6-24 LOCALIZER, GUIDESLOPE SHALL REMAIN DISABLED UNTIL PROJECT COMPLETION AND FAA FLIGHTCHECK IS PERFORMED.
2. PORTIONS OF TAXIWAY 'E' SHALL BE CLOSED DURING CONSTRUCTION.
3. TW 'N' WILL BE CLOSED DURING CONSTRUCTION.
4. BARRICADES SHALL BE PLACED AS NOTED ON PLANS.

WORK AREA 1B

MAJOR WORK ITEMS

1. INSTALL EPSC MEASURES
2. REMOVE EXISTING PAVEMENT
3. CLEAR AND GRUB EXISTING VEGETATION
4. INSTALL DRAINAGE
5. INSTALL PAVEMENT, BASE AND SUBBASE MATERIALS
6. INSTALL LIGHTING, SIGNAGE AND PAVEMENT MARKINGS
7. INSTALL LOAM AND SEED

CONSTRUCTION SAFETY GENERAL NOTES:

1. CONTRACTOR SHALL INSTALL LIGHTED BARRICADES AS INDICATED IN THE SAFETY PLAN. BARRICADES SHALL BE LAID END TO END. SEE CSPP BARRICADE DETAILS (THIS SHEET).
2. CONTRACTOR SHALL INSTALL RUNWAY CLOSURE MARKERS ON RUNWAY NUMERALS OF CLOSED RUNWAYS. SEE DETAILS (THIS SHEET).
3. NO SNOFENCE OR DEMARCATION FENCE SHALL BE PLACED WITHIN THE RUNWAY SAFETY AREA OR TAXIWAY OBJECT FREE AREA UNLESS THOSE PAVEMENTS ARE CLOSED TO AIRCRAFT.
4. CONSTRUCTION ACTIVITIES MAY REQUIRE VEHICLES TO CROSS AIRPORT PAVEMENTS. CONTRACTOR SHALL MAINTAIN A VACUUM TRUCK ON SITE FOR REMOVING FOREIGN OBJECT DEBRIS (FOD).
4. SEE CONSTRUCTION SAFETY AND PHASING PLAN DOCUMENT IN PROJECT SPECIFICATIONS DOCUMENTS FOR ADDITIONAL INFORMATION.

WORK AREA 1B RESTRICTIONS ON CONSTRUCTION

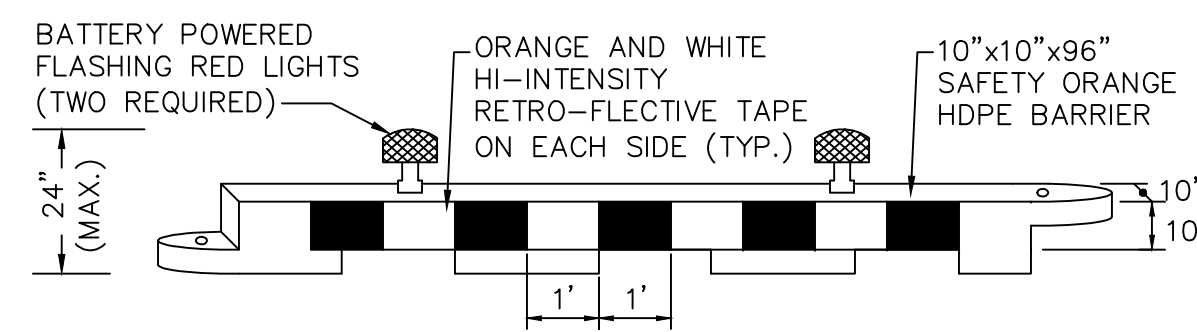
4. WORK AREA 1B MAY BE WORKED ON CONCURRENTLY WITH WORK AREAS 1A
5. CONSTRUCTION OF WORK AREA 1B INCLUDES:
 - CONSTRUCTION OF TAXIWAY 'E' INSIDE OF RUNWAY 6-24 SAFETY AREA
 - REMOVAL OF TAXIWAY 'N' INSIDE OF RUNWAY 6-24 SAFETY AREA.
6. CONSTRUCTION ACTIVITIES ARE RESTRICTED TO BETWEEN 7:00 AM AND 7:00 PM MONDAY THROUGH SATURDAY. NO CONSTRUCTION MAY BE PERFORMED ON SUNDAY.

WORK AREA 1B NOTES:

LOCATION: TAXIWAY 'N', TAXIWAY 'E' LOCATED INSIDE OF RUNWAY 6-24 SAFETY AREA
DURATION: 20 DAYS

AIRPORT AREAS IMPACTED:

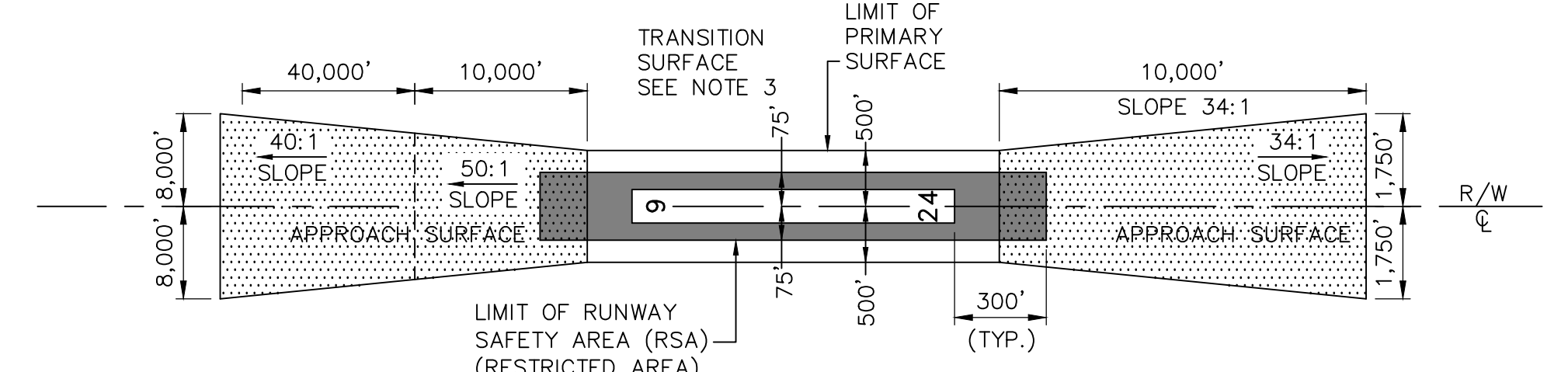
1. RUNWAY 6-24 MAY BE CLOSED FOR NO MORE THAN 5 CONSECUTIVE DAYS FOR REMOVAL OF IN-PAVEMENT THRESHOLD LIGHTING. OTHERWISE, RUNWAY 6-24 SHALL BE CLOSED DURING DAYLIGHT HOURS FOR ALL OTHER WORK.
2. RUNWAY 6-24 MALIS, REILS AND PAPI SHALL BE DE-ENERGIZED FOR DURATION OF CONSTRUCTION IN WORK AREA. RUNWAY 6-24 LOCALIZER, GUIDESLOPE SHALL REMAIN DISABLED UNTIL PROJECT COMPLETION AND FAA FLIGHTCHECK IS PERFORMED.
3. PORTIONS OF TAXIWAY 'E', 'F', 'J', 'K', 'L', 'I', AND 'S' SHALL BE CLOSED DURING CONSTRUCTION.
3. BARRICADES SHALL BE PLACED AS NOTED ON PLANS



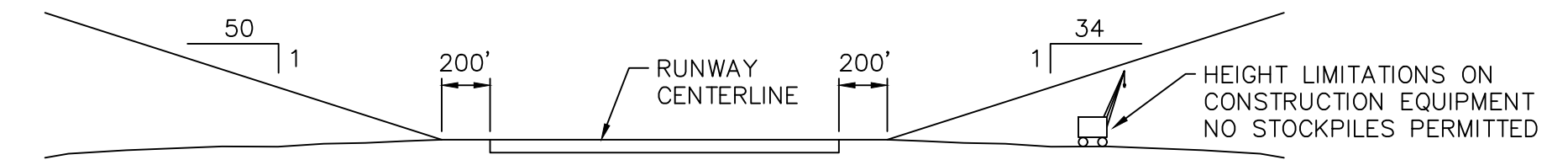
TYPICAL PLASTIC TYPE LIGHTED BARRICADE DETAIL
N.T.S.

BARRICADE NOTES:

1. BARRICADES SHALL BE LAID END TO END.
2. BARRICADES SHALL BE FILLED WITH WATER.
3. BARRICADE LIGHTS SHALL BE EQUIPPED WITH PHOTOCELL AND OPERATE FROM DUSK TO DAWN.



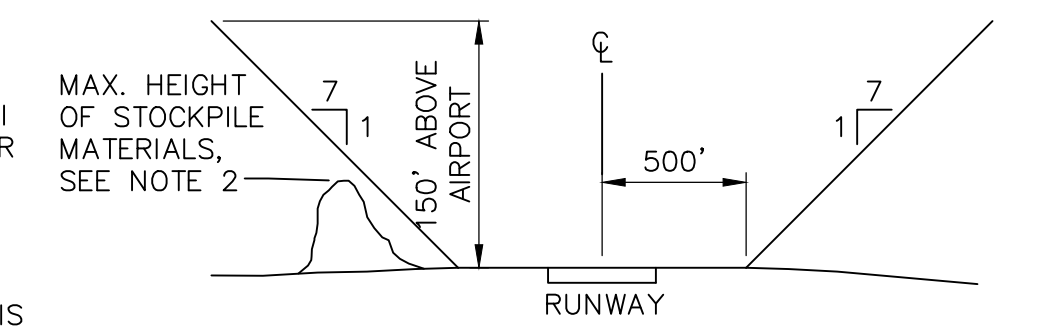
PLAN VIEW



APPROACH AND PRIMARY SURFACE PROFILE

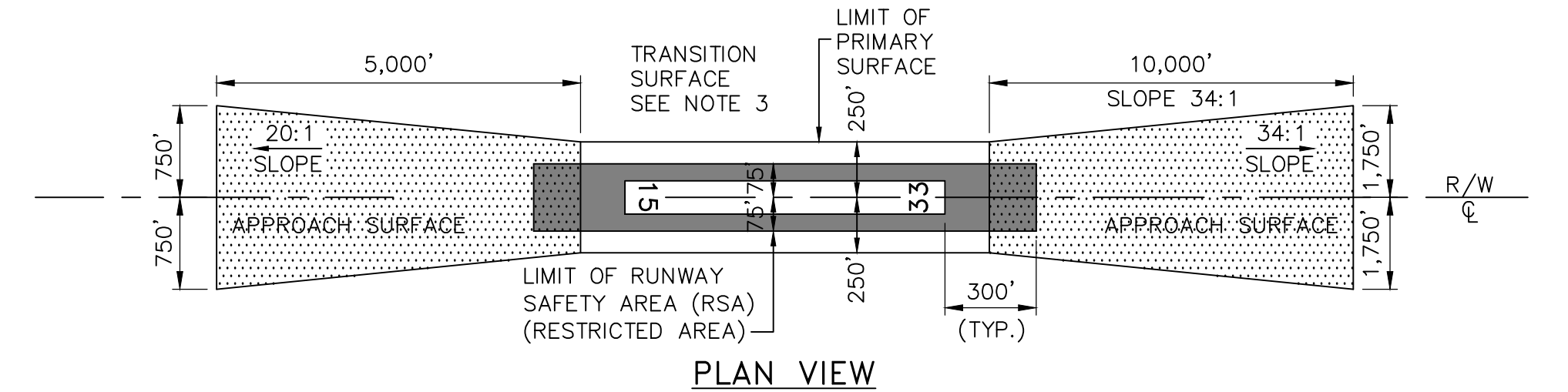
RESTRICTED RUNWAY, TAXIWAY, AND TAXILANE AREA NOTES:

1. RUNWAY 6-24 AT PLYMOUTH AIRPORT IS CLASSIFIED AS A B-II RUNWAY WITH ILS INSTRUMENT APPROACHES, GREATER THAN OR EQUAL TO 3/4 MILES.
2. NO STOCKPILES SHALL BE PLACED WITHIN THE RESTRICTED RUNWAY AREAS OR THE OBJECT FREE AREA OF A TAXIWAY/TAXILANE. THE TAXIWAY OBJECT FREE AREA (TOFA) IS 131' WIDE, CENTERED ON THE TAXIWAY CENTERLINE. THE TAXILANE OBJECT FREE AREA (TLOFA) IS 115' WIDE, CENTERED ON THE TAXILANE CENTERLINE.
3. TRANSITION SURFACE SLOPES 7:1 UPWARD AND OUTWARD, PERPENDICULAR TO THE RUNWAY CENTERLINE, TO 150' ABOVE AIRPORT ELEVATION (BOTH SIDES OF PRIMARY SURFACE)

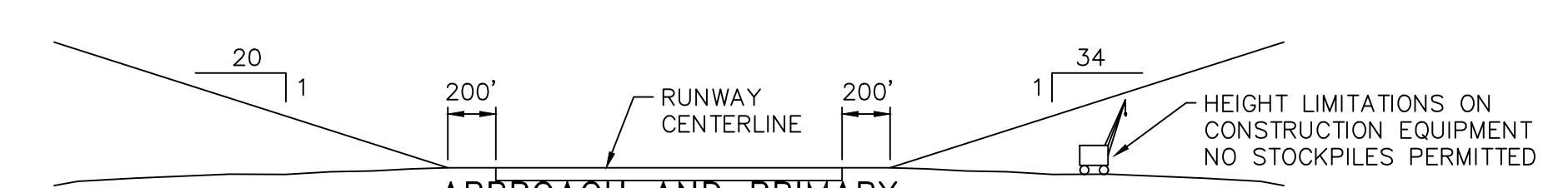


PRIMARY AND TRANSITIONAL SURFACE CROSS SECTION

RESTRICTED RUNWAY AREAS RUNWAY 6-24
N.T.S.



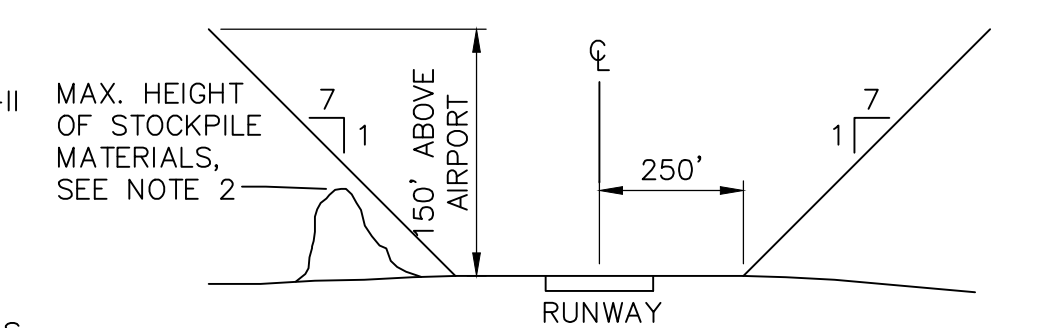
PLAN VIEW



APPROACH AND PRIMARY SURFACE PROFILE

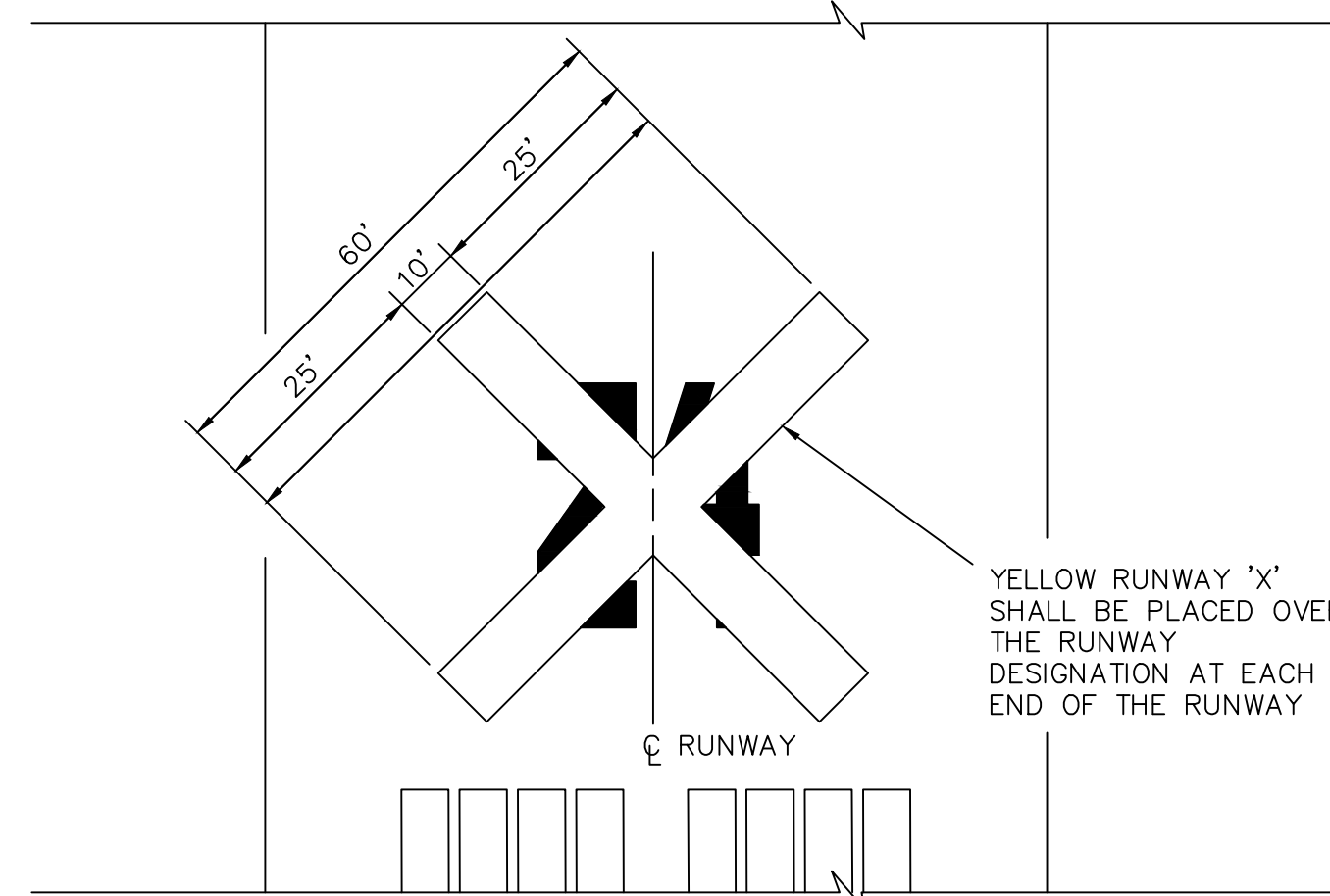
RESTRICTED RUNWAY, TAXIWAY, AND TAXILANE AREA NOTES:

1. RUNWAY 15-33 AT PLYMOUTH AIRPORT IS CLASSIFIED AS A B-II RUNWAY WITH NON-INSTRUMENT APPROACHES AT THE 33 END AND VISUAL APPROACHES AT THE 15 END, GREATER THAN OR EQUAL TO 3/4 MILES.
2. NO STOCKPILES SHALL BE PLACED WITHIN THE RESTRICTED RUNWAY AREAS OR THE OBJECT FREE AREA OF A TAXIWAY/TAXILANE. THE TAXIWAY OBJECT FREE AREA (TOFA) IS 131' WIDE, CENTERED ON THE TAXIWAY CENTERLINE. THE TAXILANE OBJECT FREE AREA (TLOFA) IS 115' WIDE, CENTERED ON THE TAXILANE CENTERLINE.
3. TRANSITION SURFACE SLOPES 7:1 UPWARD AND OUTWARD, PERPENDICULAR TO THE RUNWAY CENTERLINE, TO 150' ABOVE AIRPORT ELEVATION (BOTH SIDES OF PRIMARY SURFACE)



PRIMARY AND TRANSITIONAL SURFACE CROSS SECTION

RESTRICTED RUNWAY AREAS RUNWAY 15-33
N.T.S.



NOTES:

1. NO PHASE WORK SHALL BE ALLOWED UNTIL THE TEMPORARY RUNWAY CLOSURE MARKINGS HAVE BEEN INSTALLED, ALL RUNWAY LIGHTING AND NAVIGATIONAL POWER IS TURNED OFF AND ALL MEASURES ARE ACCEPTED BY THE ENGINEER.
2. RUNWAY X'S SHALL BE CONSTRUCTED OF YELLOW VINYL-COATED MESH OR OTHER APPROVED MATERIAL.
3. RUNWAY X'S SHALL BE SECURED IN PLACE WITH SAND BAGS.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE TEMPORARY RUNWAY CLOSURE MARKINGS FOR THE DURATION OF HIS WORK.

TEMPORARY RUNWAY CLOSURE DETAIL
N.T.S.

TEMPORARY RUNWAY CLOSURE MARKER NOTE:

1. THIS PROJECT INCLUDES A PAY ITEM FOR RUNWAY CLOSURE MARKERS. THE CONTRACTOR SHALL UTILIZE THE MARKERS IDENTIFIED IN THE SPECIFICATIONS.
2. CONTRACTOR MAY OPT TO USE L893 LIGHTED CLOSURE MARKERS.

BID SET

NO.	DATE	DESCRIPTION	BY	CHK'D
1	12/8/2020	ADDENDUM 1	RLT	MCG

PLYMOUTH MUNICIPAL AIRPORT PLYMOUTH MASSACHUSETTS

CONSTRUCT, MARK, AND LIGHT TW 'E' EXTENSION (APPROX. 500' x 35')

AIP NO. 3-25-0042-53-2021
SHEET TITLE

SAFETY PLAN DETAILS

DRAWN BY DC	DATE NOV 2020
CHECKED BY MCG	D&K PROJECT # 326095
PROJ. ENG. RLT	D&K ARCHIVE #

DRAWING NO.

S1.2

BID SET

NO.	DATE	DESCRIPTION	BY	MCC	CK'D
1	12/8/2020	ADDENDUM 1			

**PLYMOUTH MUNICIPAL AIRPORT
PLYMOUTH MASSACHUSETTS**

**CONSTRUCT, MARK,
AND LIGHT
TW 'E' EXTENSION
(APPROX. 500' x 35')**

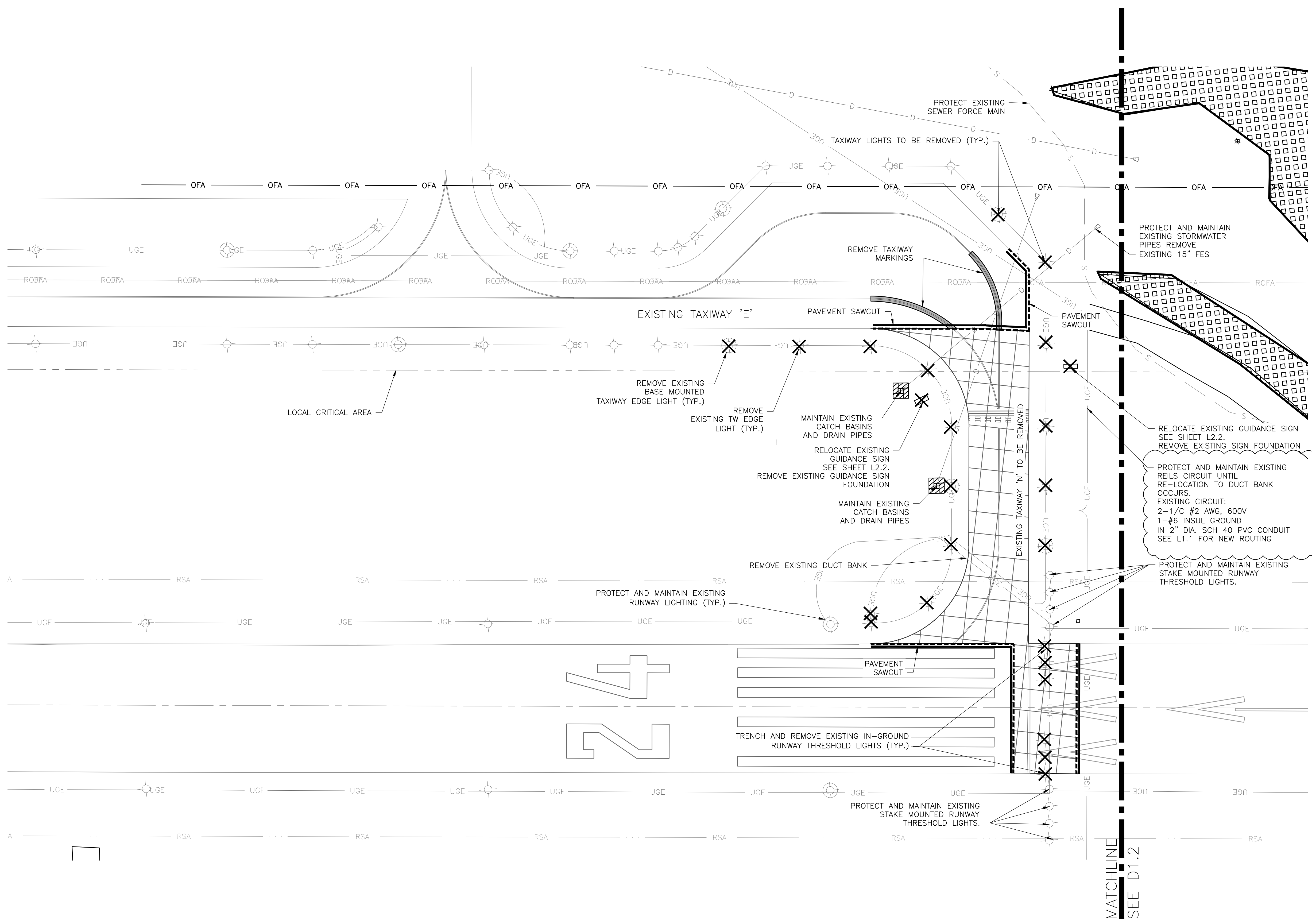
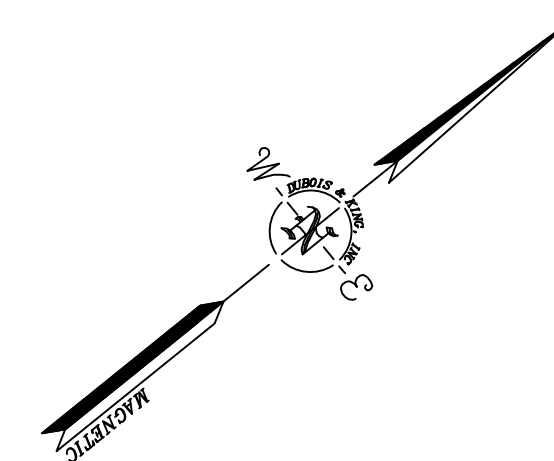
AIP NO. 3-25-0042-53-2021
SHEET TITLE

**DEMOLITION PLAN
(1 OF 2)**

DRAWN BY	DATE
DC	NOV 2020
CHECKED BY	D&K PROJECT #
MCG	326095
PROJ. ENG.	D&K ARCHIVE #
RLT	

DRAWING NO.

D1

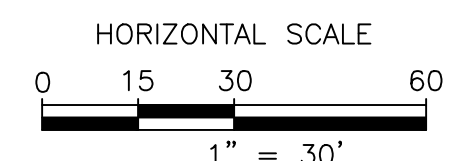


LEGEND

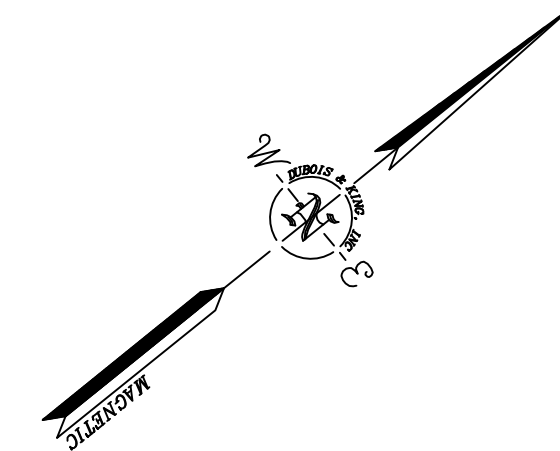
- EXISTING PAVEMENT EDGE
- D- EXISTING DRAIN PIPE
- ⊕ EXISTING CATCH BASIN
- ⊙ EXISTING DRAINAGE MANHOLE
- ▨ CLEARING AND GRUBBING AREA
- ▧ REMOVE EXISTING PAVEMENT
- - - PAVEMENT SAWCUT
- ✕ TO BE REMOVED
- ▩ PROPOSED INLET PROTECTION

DEMOLITION NOTES:

- CONTRACTOR SHALL PERFORM MULTIPLE TEST PITS (MINIMUM OF 2) TO DETERMINE DEPTH AND HORIZONTAL LOCATION OF EXISTING SEWER FORCE MAIN WITHIN VICINITY OF PROPOSED EARTHWORK AND STORM WATER INFRASTRUCTURE.
- BELOW GRADE UTILITY INFORMATION IS ONLY APPROXIMATE AND MAY NOT BE COMPLETE. PRIVATE UNDERGROUND UTILITIES SUCH AS, BUT NOT LIMITED TO, SEWER SERVICE LINES, WATER SERVICE LINES AND BURIED ELECTRICAL SERVICE ENTRANCES ARE NOT SHOWN. THE CONTRACTOR SHALL ASCERTAIN THE LOCATION AND SIZE OF EXISTING UTILITIES IN THE FIELD WITH THE RESPECTIVE UTILITY COMPANY REPRESENTATIVE PRIOR TO COMMENCING WORK. ADDITIONAL TEST PITS, BEYOND THOSE SHOWN, MAY BE REQUIRED.
- ALL EXISTING UTILITY LINES ENCOUNTERED DURING CONSTRUCTION ARE TO REMAIN IN SERVICE, UNLESS SPECIFICALLY IDENTIFIED AS BEING DEMOLISHED/ REPLACED IN THE PROJECT. ANY EXISTING UTILITIES DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED BY THE CONTRACTOR AT NO ADDITIONAL COST.
- ALL STRUCTURES AND PIPELINES LOCATED ADJACENT TO THE TRENCH EXCAVATION SHALL BE PROTECTED AND FIRMLY SUPPORTED BY THE CONTRACTOR UNTIL THE TRENCH IS BACKFILLED. DAMAGE TO ANY SUCH STRUCTURES AND PIPELINES CAUSED BY, OR RESULTING FROM, THE CONTRACTOR'S OPERATIONS SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE. ALL UTILITIES REQUIRING REPAIR, RELOCATION OR ADJUSTMENT AS A RESULT OF THE PROJECT SHALL BE COORDINATED THROUGH THE RESPECTIVE UTILITY.
- ALL REMOVED DRAINAGE PIPES, DUCTS, CABLES, STRUCTURES AND OTHER REMOVED ITEMS ARE TO BE DISPOSED OF LEGALLY OFF AIRPORT PROPERTY. NO SEPARATE MEASUREMENT FOR PAYMENT WILL BE MADE FOR DISPOSAL OF DEMOLITION MATERIALS. THEY ARE CONSIDERED INCIDENTAL TO THE ITEM GENERATING THE MATERIAL.
- THE AIRPORT HAS THE RIGHT TO RETAIN ANY FENCING, SIGNAGE, LIGHTING, ELECTRICAL EQUIPMENT, SURPLUS EXCAVATED MATERIALS, OR ANY OTHER ITEMS REMOVED AS PART OF THIS PROJECT.



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BID SET

LEGEND

- EXISTING PAVEMENT EDGE
- EXISTING DRAIN PIPE
- EXISTING CATCH BASIN
- CLEARING AND GRUBBING AREA
- REMOVE PAVEMENT MARKINGS
- PAVEMENT SAWCUT TO BE REMOVED

NO.	DATE	DESCRIPTION
1	12/8/2020	ADDENDUM 1

PLYMOUTH MUNICIPAL AIRPORT
PLYMOUTH MASSACHUSETTS

CONSTRUCT, MARK,
AND LIGHT
TW 'E' EXTENSION
(APPROX. 500' x 35')

AIP NO. 3-25-0042-53-2021
SHEET TITLE

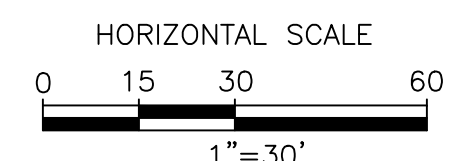
DEMOLITION PLAN
(2 OF 2)

DRAWN BY DC	DATE NOV 2020
CHECKED BY MCG	D&K PROJECT # 326095
PROJ. ENG. RLT	D&K ARCHIVE #

DRAWING NO.

D2

SHEET 9 OF 26



I:\A\26095 PAC Tomhey E Drawings - Copy (2)\08_D1_TW E Demolition Plans.dwg 12/8/2020 3:56 PM

MATCHLINE
SEE D1.1

BID SET

NO.	DATE	DESCRIPTION	BY	CHK'D
1	12/8/2020	ADDENDUM 1	RLT	MCC

**PLYMOUTH MUNICIPAL AIRPORT
PLYMOUTH MASSACHUSETTS**

**CONSTRUCT, MARK,
AND LIGHT
TW 'E' EXTENSION
(APPROX. 500' x 35')**

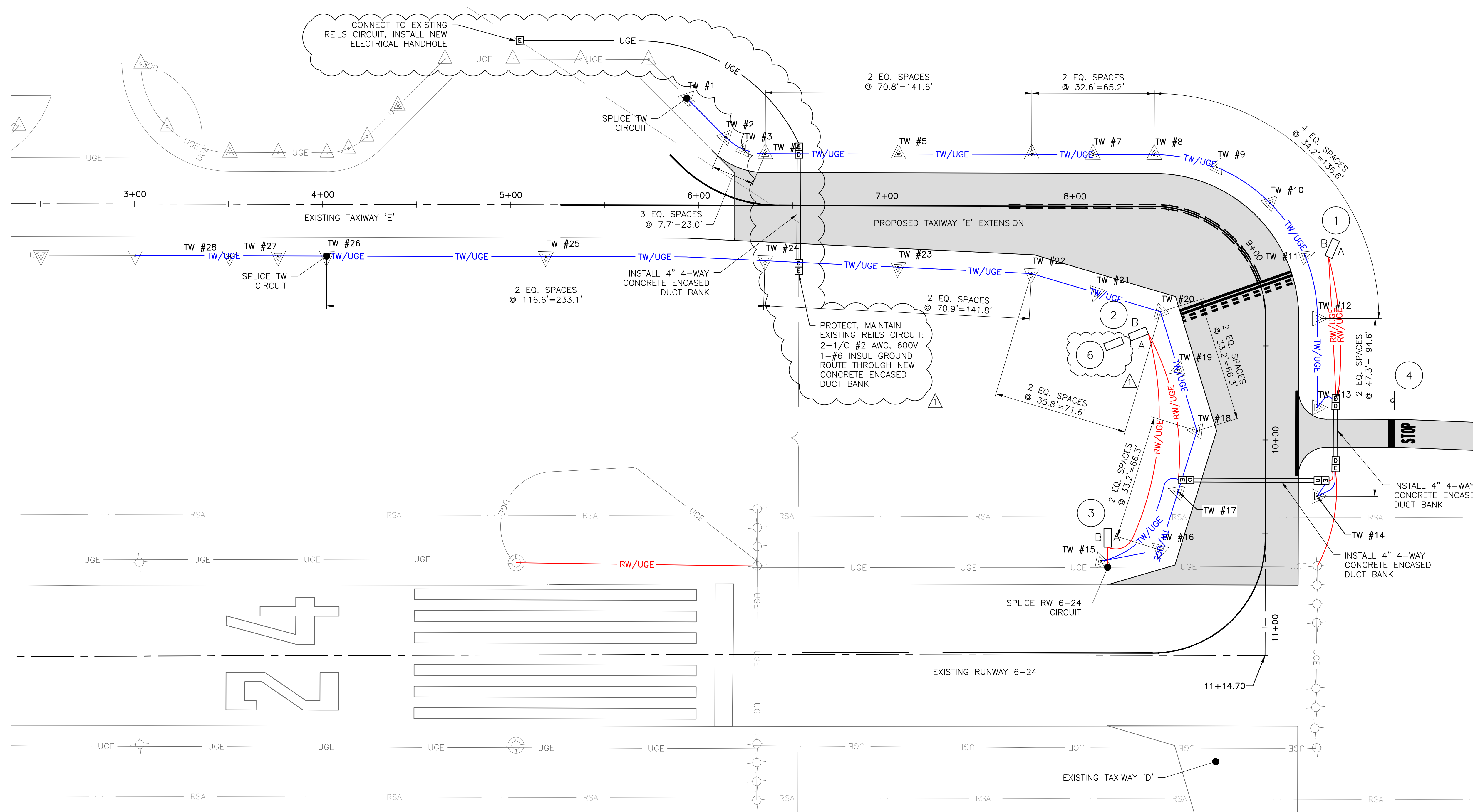
AIP NO. 3-25-0042-53-2021
SHEET TITLE

**TW 'E' LIGHTING AND
SIGNAGE PLAN**

DRAWN BY	DATE
DC	NOV 2020
CHECKED BY	D&K PROJECT #
MCG	326095
PROJ. ENG.	D&K ARCHIVE #
RLT	

DRAWING NO.

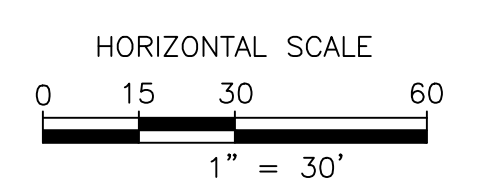
L1.1



LEGEND

- PROPOSED PAVEMENT EDGE
- EXISTING PAVEMENT EDGE
- RSA RUNWAY SAFETY AREA
- TSA TAXIWAY SAFETY AREA
- RW/UGE PROPOSED RUNWAY UNDERGROUND POWER AND COUNTERPOISE
- TW/UGE PROPOSED TAXIWAY UNDERGROUND POWER AND COUNTERPOISE
- ⊙ EXISTING BASE MOUNTED RW EDGE LIGHT
- ⊙ EXISTING STAKE MOUNTED RW EDGE LIGHT
- ⊙ TW # PROPOSED BASE MOUNTED TW EDGE LIGHT AND DESIGNATION
- ⊙ TW # PROPOSED STAKE MOUNTED TW EDGE LIGHT AND DESIGNATION
- ⊙ EXISTING BASE MOUNTED TW EDGE LIGHT
- ⊙ EXISTING STAKE MOUNTED TW EDGE LIGHT
- ▭ PROPOSED DUCT
- ⊕ ELECTRIC HANDHOLE
- ⊙ SIGN NUMBER (SEE SHEET L.2.2)

- NOTES:**
- ALL UNDERGROUND UTILITIES SHOWN ON THE DRAWINGS ARE SHOWN IN THEIR APPROXIMATE LOCATIONS ONLY. ADDITIONAL UNDERGROUND UTILITIES OTHER THAN THOSE SHOWN ON THESE DRAWING MAY EXIST. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND MARKING THE EXACT LOCATION AND DEPTH OF ALL UNDERGROUND UTILITIES PRIOR TO ANY EXCAVATION. HAND DIGGING SHALL BE PERFORMED AS NECESSARY TO AVOID DAMAGE TO UTILITIES. THE CONTRACTOR SHALL CONTACT DIGSAFE TEL. 888-DIGSAFE(344-7233). FOR ASSISTANCE IN LOCATING UTILITIES PRIOR TO THE COMMENCEMENT OF WORK, THE CONTRACTOR SHALL BE RESPONSIBLE TO REPAIR DAMAGED UTILITIES IMMEDIATELY AT NO ADDITIONAL COST TO THE OWNER.
 - REFER TO DEMOLITION PLANS FOR REMOVAL OF EXISTING ELECTRICAL ITEMS.
 - EXTEND DUCT BANK 5 FEET PAST EDGE OF PAVEMENT.
 - AT BASES REFERENCING THIS NOTE, CORE DRILL INTO EXISTING BASE AND INSTALL PROPOSED CONDUIT.



LIGHTING SCHEDULE				
LIGHT NO.	ALIGNMENT	STATION	OFFSET	TYPE
1	TW E	5+93.43	56.89' LT.	TW BASE MOUNT
2	TW E	6+14.04	36.29' LT.	TW BASE MOUNT
3	TW E	6+23.77	29.78' LT.	TW BASE MOUNT
4	TW E	6+35.25	27.50' LT.	TW BASE MOUNT
5	TW E	7+06.03	27.50' LT.	TW BASE MOUNT
6	TW E	7+76.93	27.50' LT.	TW BASE MOUNT
7	TW E	8+09.52	27.50' LT.	TW BASE MOUNT
8	TW E	8+41.94	27.50' LT.	TW BASE MOUNT
9	TW E	8+65.34	27.65' LT.	TW BASE MOUNT
10	TW E	8+88.72	27.71' LT.	TW BASE MOUNT
11	TW E	9+12.09	27.65' LT.	TW BASE MOUNT
12	TW E	9+35.49	27.50' LT.	TW BASE MOUNT
13	TW E	9+82.62	27.50' LT.	TW BASE MOUNT
14	TW E	10+29.91	27.50' LT.	TW BASE MOUNT
15	TW E	10+64.72	87.44' RT.	TW BASE MOUNT

LIGHTING SCHEDULE				
LIGHT NO.	ALIGNMENT	STATION	OFFSET	TYPE
16	TW E	10+58.61	55.97' RT.	TW BASE MOUNT
17	TW E	10+27.61	46.43' RT.	TW BASE MOUNT
18	TW E	9+95.26	36.46' RT.	TW BASE MOUNT
19	TW E	9+62.92	46.43' RT.	TW BASE MOUNT
20	TW E	8+89.53	54.38' RT.	TW BASE MOUNT
21	TW E	8+11.28	46.01' RT.	TW BASE MOUNT
22	TW E	7+76.94	35.93' RT.	TW BASE MOUNT
23	TW E	7+06.03	32.68' RT.	TW BASE MOUNT
24	TW E	6+35.25	29.42' RT.	TW BASE MOUNT
25	TW E	5+18.69	27.50' RT.	TW BASE MOUNT
26	TW E	4+02.12	27.50' RT.	TW BASE MOUNT
27	TW E	3+76.33	27.50' RT.	TW BASE MOUNT
28	TW E	3+50.54	27.50' RT.	TW BASE MOUNT

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NO.	DATE	DESCRIPTION	BY	CHK'D
1	12/8/2020	ADDENDUM 1	RLT	MCC

**PLYMOUTH MUNICIPAL AIRPORT
PLYMOUTH MASSACHUSETTS**

CONSTRUCT. MARK.
AND LIGHT
T/W 'E' EXTENSION
(APPROX. 500' x 35')

AIP NO. 3-25-0042-53-2021
SHEET TITLE

SIGNAGE DETAILS

DRAWN BY DC	DATE NOV 2020
CHECKED BY MCG	D&K PROJECT # 326095
PROJ. ENG. RLT	D&K ARCHIVE #

DRAWING NO.

L2.2

SIGN #	DESCRIPTION		LOCATION		COMMENTS
	PANEL "A"	PANEL "B"	STATION	OFFSET	
1	BLANK	E 24 W/R	9+15.3±	39.1± L	RELOCATED SIGN AND FOUNDATION
2	← E	24 E W/R	9+41.9±	63.1± R	RELOCATED SIGN AND FOUNDATION
3	← E B/Y	BLANK	10+57.2±	83.8± R	NEW LED SIGN AND FOUNDATION
4	VEHICLE SERVICE ROAD TAXIWAY INTERSECTION SIGNAGE (SEE DETAIL)		9+83.9±	66.5± L	NEW RETROREFLECTIVE METAL SIGNS WITH SUPPORTS
5	ILS	BLANK	101+53.2±	11.5± L	L-858R, SIZE 1, STYLE 4, UNLIGHTED INSTRUCTIONAL SIGN
6	NOISE ABATEMENT RUNWAY 24 (SEE DETAIL)		9+41.9±	67.1± R	L-858Y, STYLE 4. TEXT WILL BE BLACK ON YELLOW BACKGROUND

NOTES:

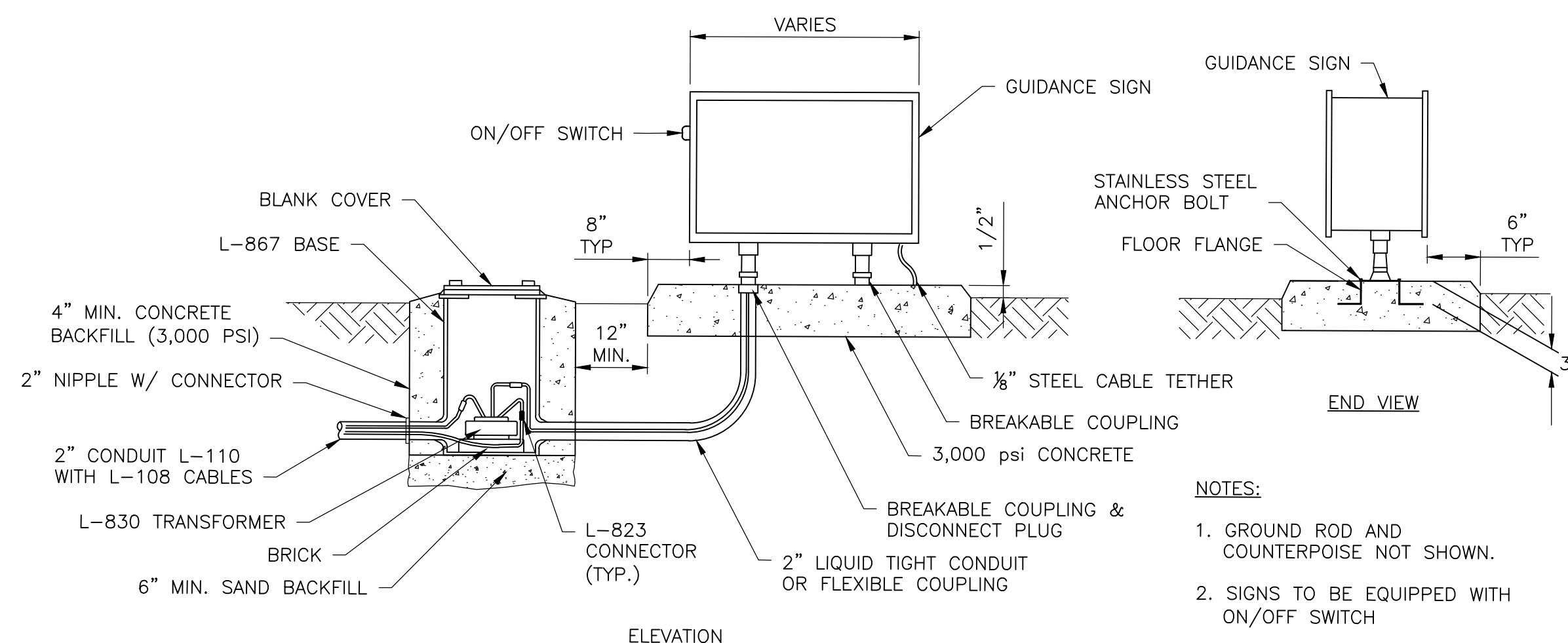
1. ALL GUIDANCE SIGNS SHALL BE CONNECTED TO THE RW 6-24 CIRCUIT.
2. REFERENCE INFORMATION FROM A/C 150/5345-44K "SPECIFICATIONS FOR RUNWAY AND TAXIWAY SIGNS (8 SEP 15)"

STYLE 2 = 3 STEPS 4.8-6.6 AMPS

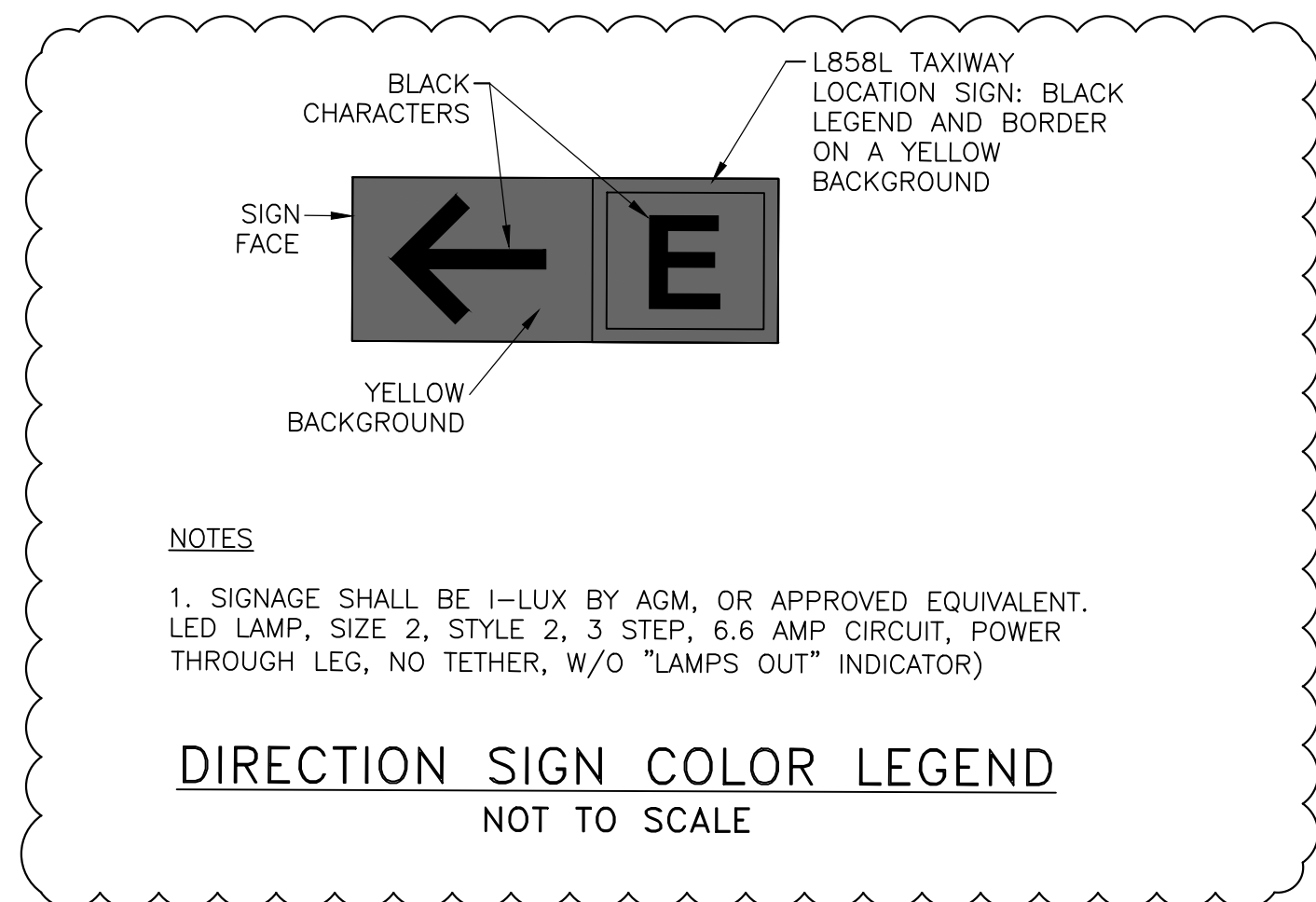
CLASS 2 = OPERATIONS TEMPERATURE FROM -40°F (-40°C) TO +131°F (55°C)

MODE 1 = WIND LOADING TO 100 MPH

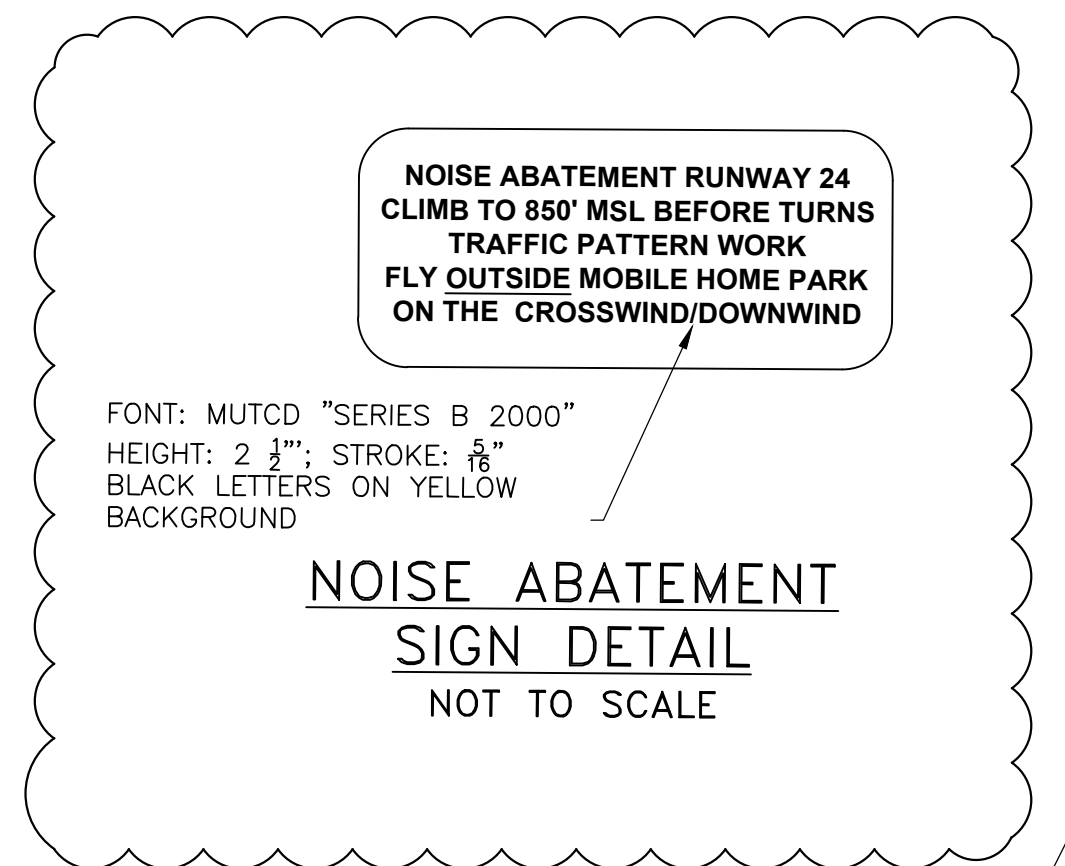
SIZE 2 = 24" HIGH PANEL WITH 15" CHARACTER



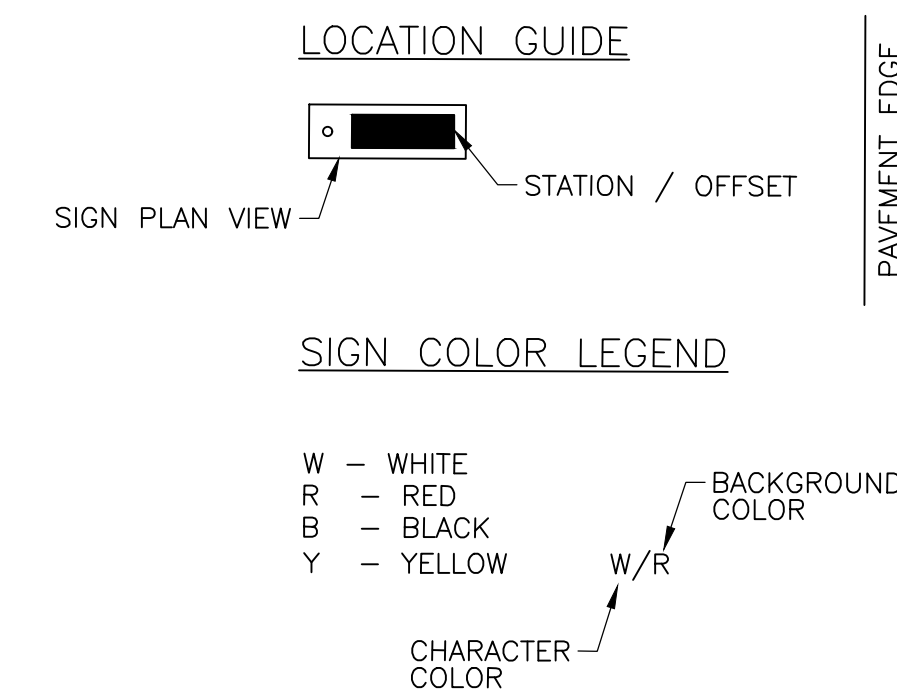
TAXIWAY GUIDANCE SIGN DETAIL
NOT TO SCALE



DIRECTION SIGN COLOR LEGEND
NOT TO SCALE



NOISE ABATEMENT SIGN DETAIL
NOT TO SCALE

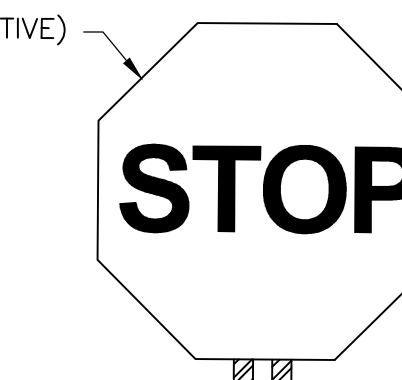


STOP SIGN

MUTCD
TYPE R1-1 STOP SIGN
24" WIDE (ALL FLAT FACES)

LEGEND : WHITE (RETROREFLECTIVE)

BACKGROUND : RED (RETROREFLECTIVE)



**DO NOT PROCEED
SELF-ANNOUNCE
ON CTAF 122.725**

INSTRUCTION SIGN

MUTCD
HORIZONTAL RECTANGLE SIGN
24" WIDE

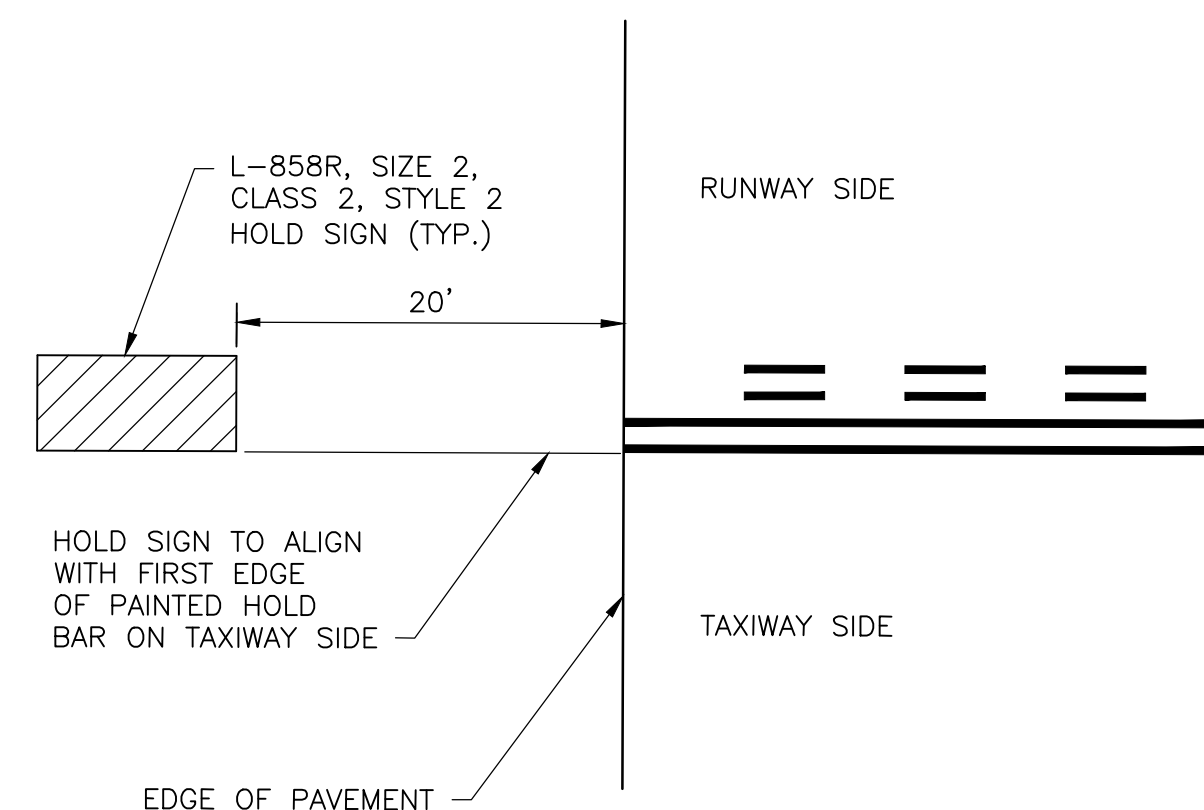
LEGEND : BLACK

BACKGROUND : WHITE (RETROREFLECTIVE)

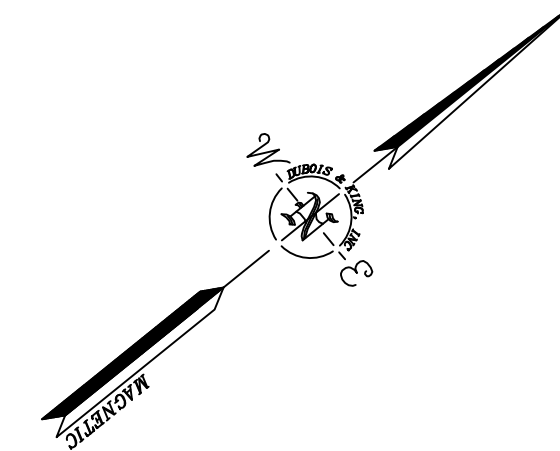
FONT: MUTCD "SERIES B 2000"
HEIGHT: 2 1/2"; STROKE: 5/16"

TWO SIGN POST SUPPORTS FOR ADDITIONAL WIND RESISTANCE

VEHICLE SERVICE ROAD TAXIWAY INTERSECTION SIGNAGE DETAIL
NOT TO SCALE



HOLD POSITION SIGN ALIGNMENT DETAIL
NOT TO SCALE



BID SET

NO.	DATE	DESCRIPTION	BY	CHK'D
1	12/8/2020	ADDENDUM 1		

PLYMOUTH
MUNICIPAL AIRPORT
PLYMOUTH
MASSACHUSETTS

CONSTRUCT, MARK,
AND LIGHT
TW 'E' EXTENSION
(APPROX. 500' x 35')

AIP NO. 3-25-0042-53-2021
SHEET TITLE

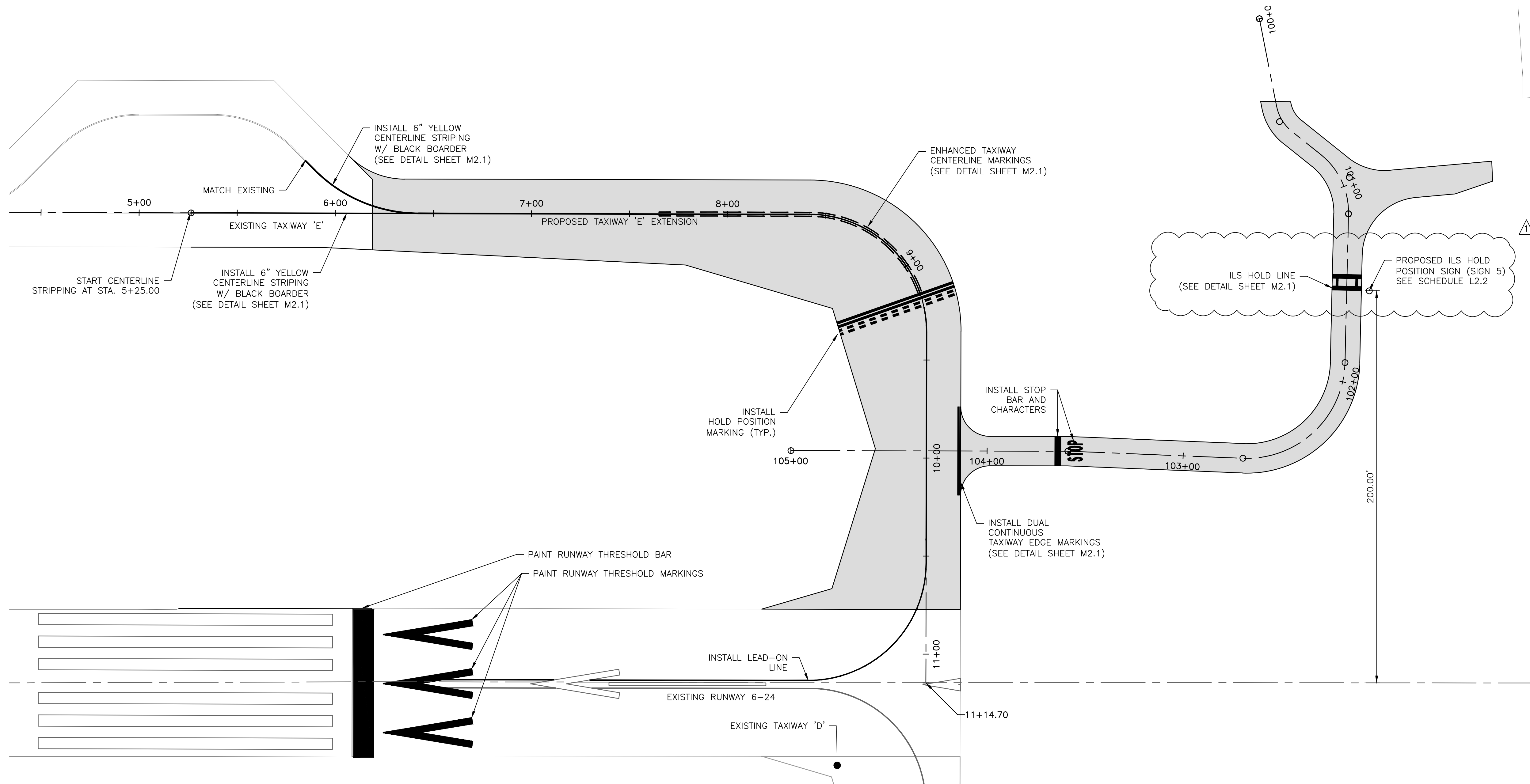
TW 'E' MARKING PLAN

DRAWN BY	DATE
DC	NOV 2020
CHECKED BY	D&K PROJECT #
MCG	326095
PROJ. ENG.	D&K ARCHIVE #
RLT	

DRAWING NO.

M1.1

SHEET 21 OF 26

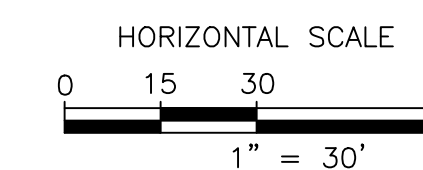


LEGEND

- PROPOSED PAVEMENT EDGE
- EXISTING PAVEMENT EDGE

NOTES:

1. REFER TO "MARKING NOTES & DETAILS" SHEET FOR MARKING NOTES.
2. REFER TO "DEMOLITION PLAN" SHEETS FOR REMOVAL OF EXISTING MARKINGS.
3. LOCATIONS OF EXISTING MARKINGS ARE APPROXIMATE AND SHALL BE VERIFIED IN THE FIELD BY THE CONTRACTOR.
4. TIE INTO EXISTING TAXIWAY CENTERLINE MARKINGS AS ORDERED BY THE ENGINEER.
5. ALL MARKINGS SHALL INCLUDE A 6" BLACK BORDER.



BID SET

NO.	DATE	DESCRIPTION	BY	CHK'D
1	12/8/2020	ADDENDUM 1	RLT	MCC

PLYMOUTH MUNICIPAL AIRPORT
PLYMOUTH MASSACHUSETTS

CONSTRUCT, MARK,
AND LIGHT
TW 'E' EXTENSION
(APPROX. 500' x 35')

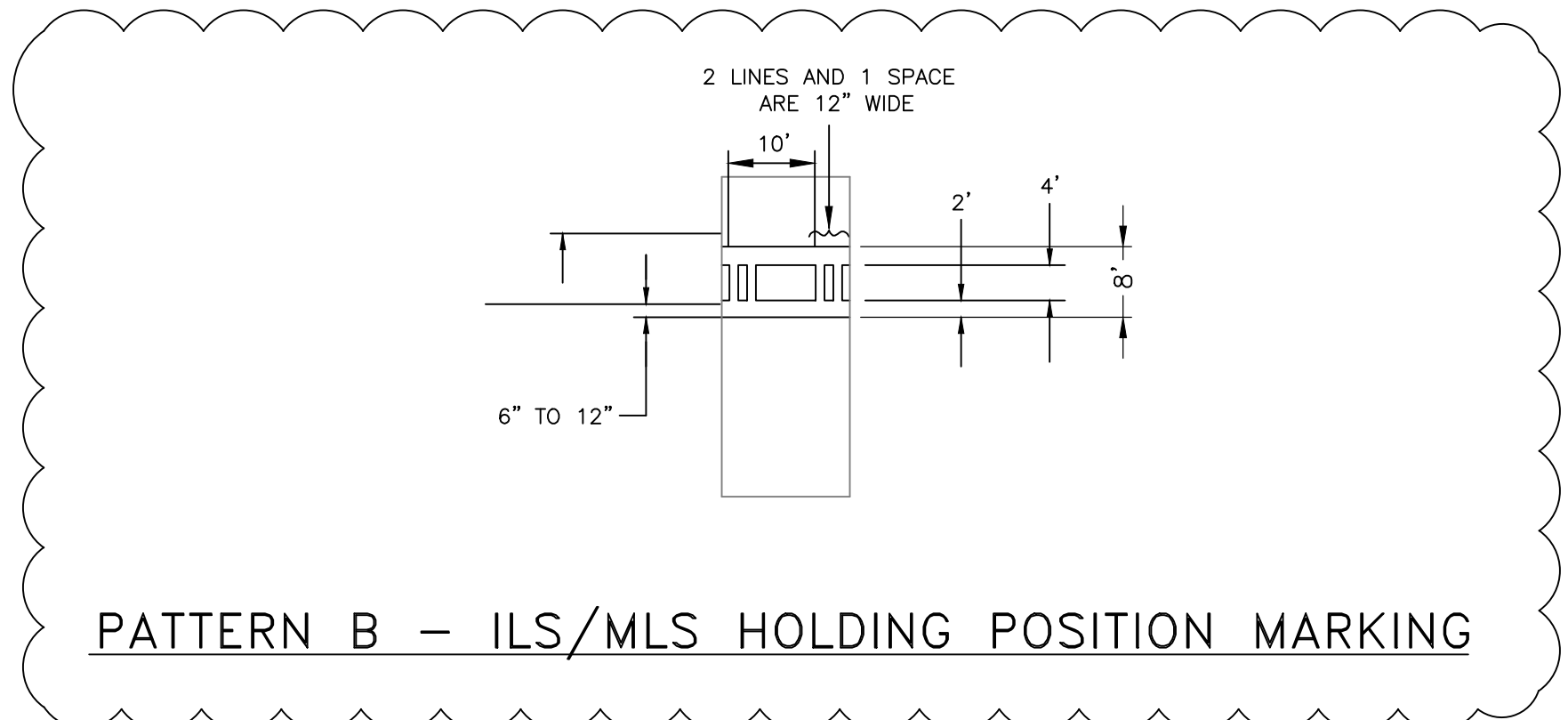
AIP NO. 3-25-0042-53-2021
SHEET TITLE

MARKING DETAILS

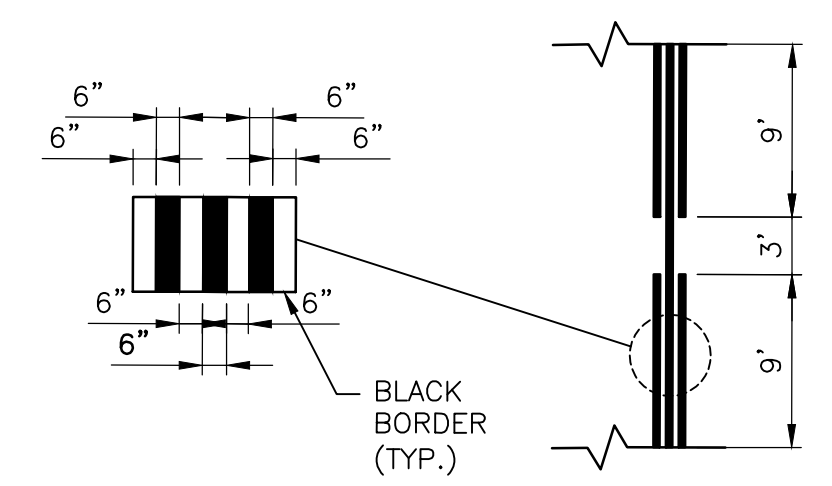
DRAWN BY DC	DATE NOV 2020
CHECKED BY MCG	D&K PROJECT # 326095
PROJ. ENG. RLT	D&K ARCHIVE #

DRAWING NO.

M2.1

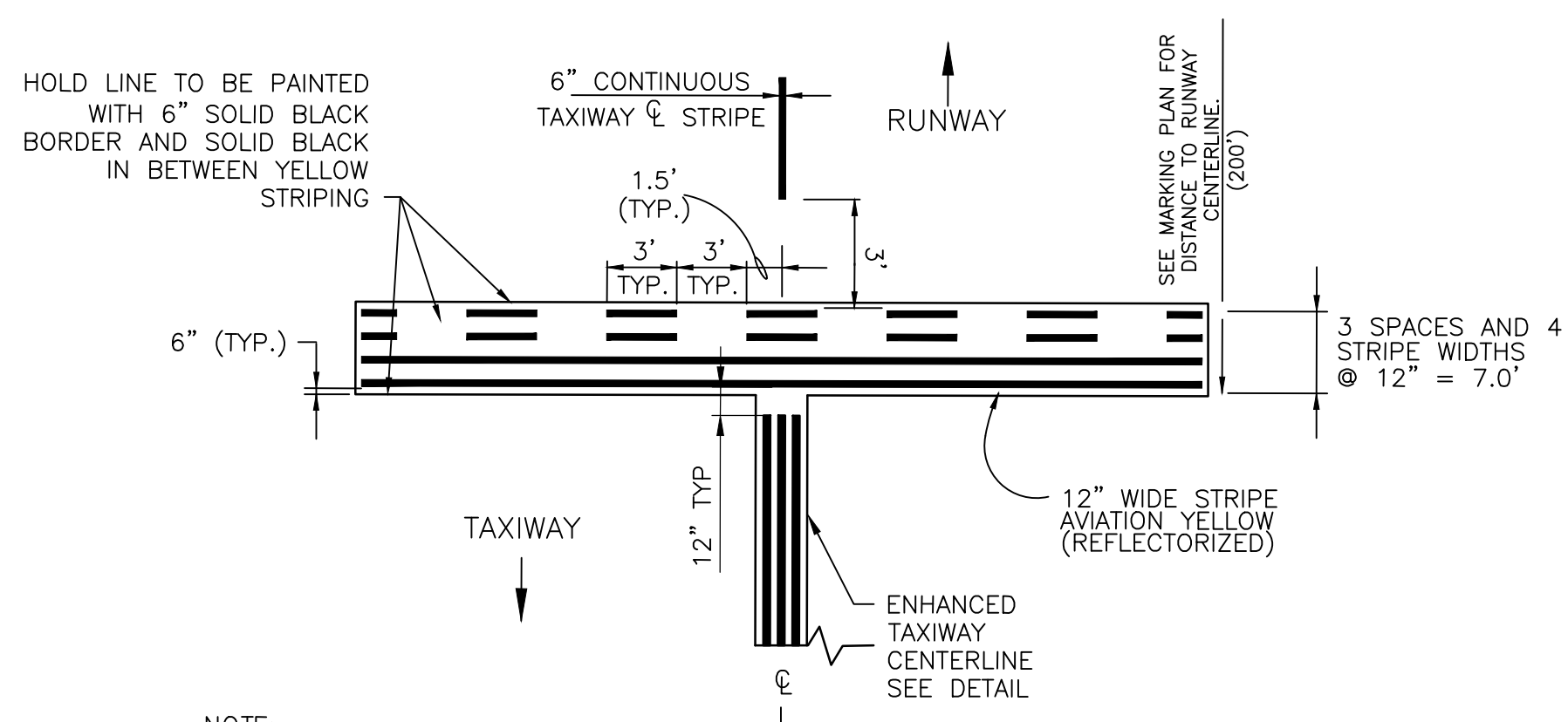


PATTERN B - ILS/MLS HOLDING POSITION MARKING



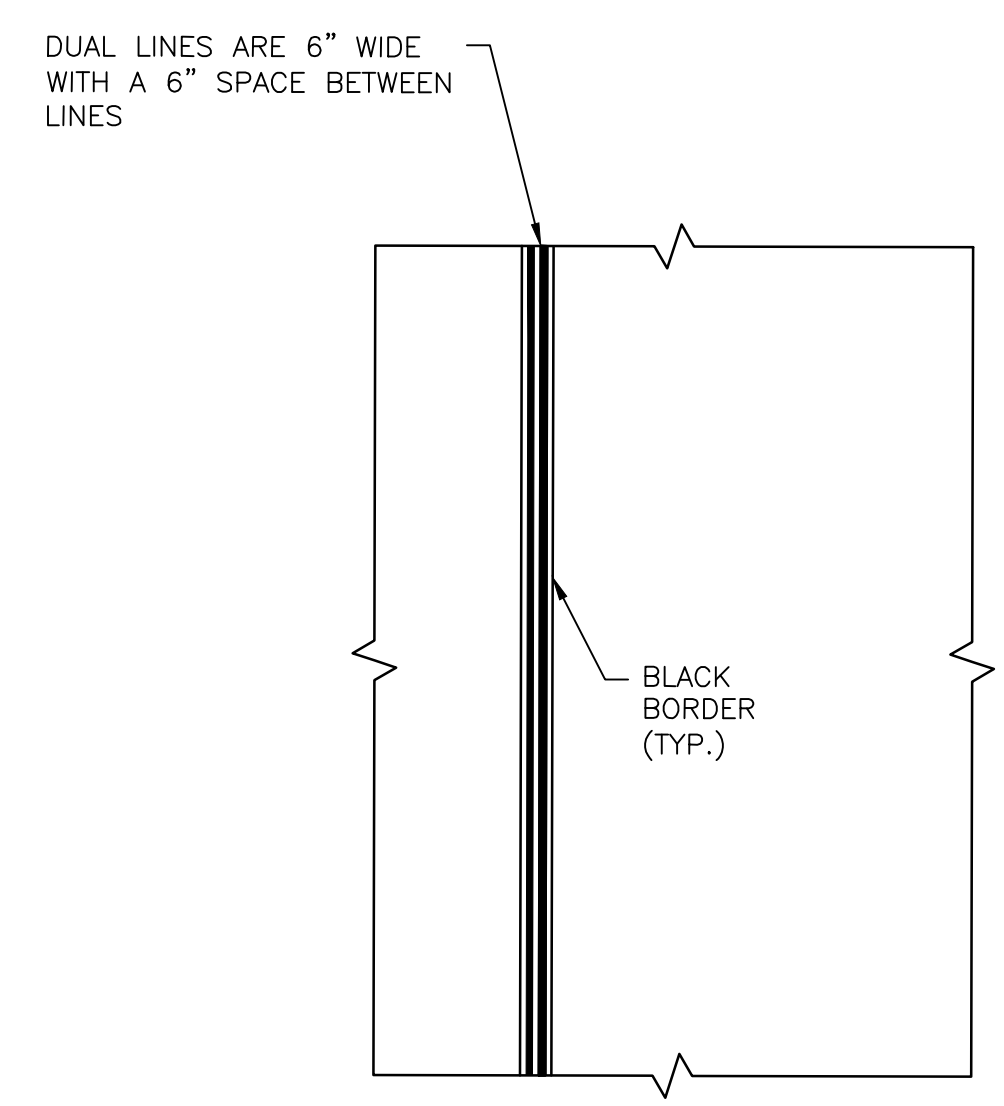
- NOTE:**
- DASHED LINES FOR THE ENHANCED TAXIWAY CENTERLINE MARKING ARE 6 INCHES IN WIDTH AND SEPARATED 6 INCHES FROM THE TAXIWAY CENTERLINE.
 - LINE MARKINGS SHALL BE AVIATION YELLOW, REFLECTORIZED, WITH SOLID BLACK BORDER.
 - ETCL TO EXTEND 150' FROM HOLDLINE, UNLESS SHOWN OTHERWISE.

ENHANCED TAXIWAY CENTERLINE MARKINGS DETAIL
NOT TO SCALE



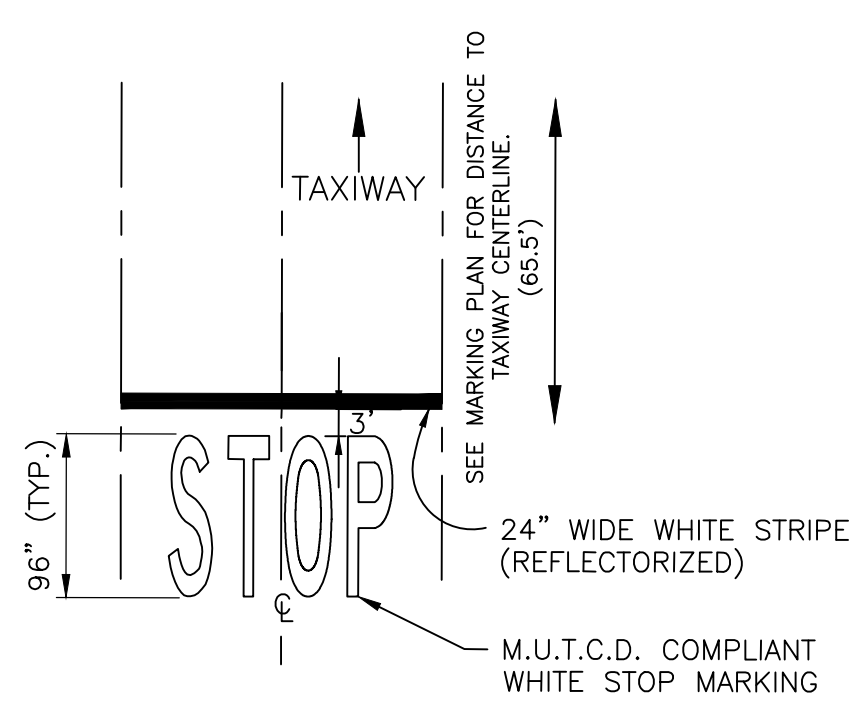
- NOTE:**
- THE 3' DASHED STRIPES SHALL BE CENTERED AND SPACED AS SHOWN FROM THE GEOMETRIC CENTERLINE. ALL HOLDING POSITION MARKINGS TO BE AVIATION YELLOW AND REFLECTORIZED. ALL SPACES TO BE PAINTED SOLID BLACK.

RUNWAY HOLDING POSITION MARKING DETAIL
NOT TO SCALE



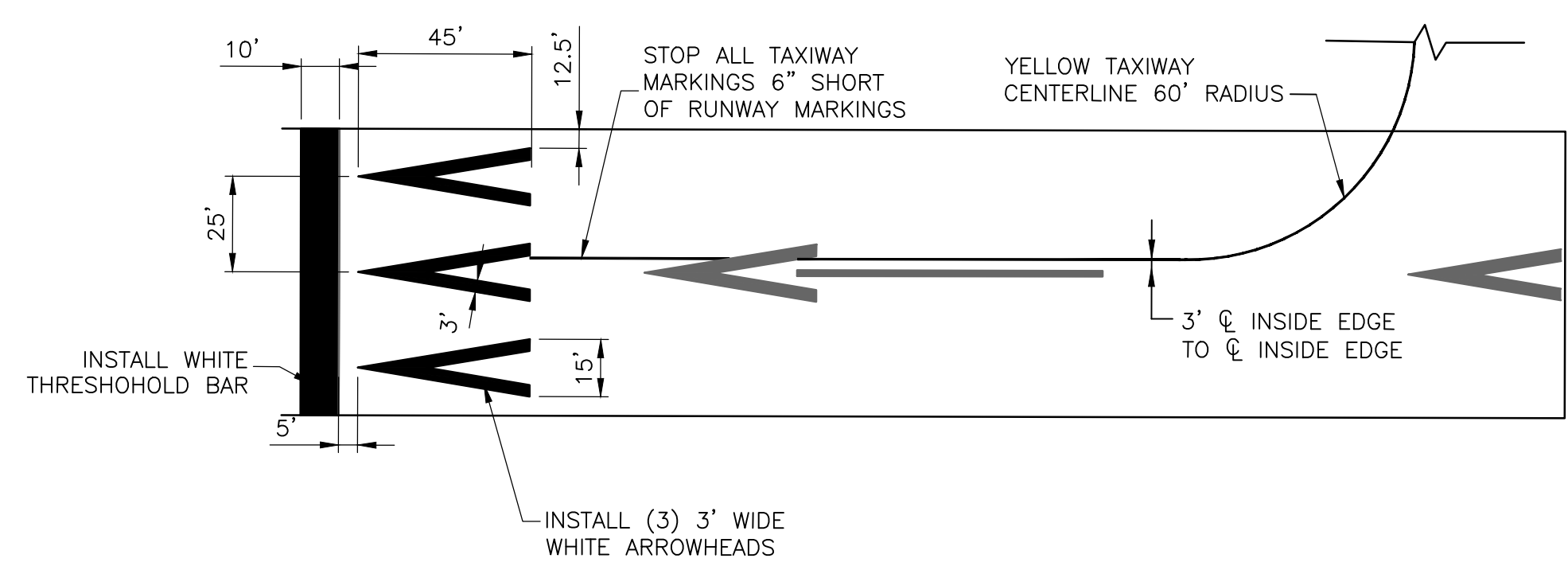
TAXIWAY EDGE MARKING

- NOTE:**
- UNLESS OTHERWISE NOTED ALL LINES ARE YELLOW.
 - DIMENSIONS SHOWN DO NOT ACCOUNT FOR BLACK OUTLINE OF ENHANCED TAXIWAY MARKING.
 - INSTALL 6" BLACK BORDER.



ACCESS ROAD STOP MARKING DETAIL
NOT TO SCALE

- NOTE:**
- ALL YELLOW, WHITE, & RED PAINT SHALL HAVE GLASS BEADS INSTALLED.
 - GLASS BEADS SHALL NOT BE INSTALLED IN BLACK PAINT.



**TAXIWAY CENTERLINE LEAD-ON LINE AND
RUNWAY DISPLACED THRESHOLD MARKING DETAIL**
NOT TO SCALE

METHOD OF MEASUREMENT

125-4.1 Remove and Reset Taxiway Edge Lights. Relocation of existing taxiway edge lights measured for payment under this item, shall be the number of taxiway edge lights, removed, stored and reinstalled in place, ready for operation, and accepted by the Engineer.

125-4.2 New Taxiway Edge Lights. The quantity of airfield lighting units to be paid for under this item shall be the number of each type installed, complete and in place, ready for operation, and accepted by the Engineer.

125-4.3 Relocate Existing Guidance Sign on New Foundation. The quantity of sign units relocated on new sign foundations to be paid for under this item shall be the number of each type installed, complete and in place, ready for operation, and accepted by the Engineer.

125-4.4 Install New Guidance Sign. The quantity of sign units to be paid for under this item shall be the number of each type installed, complete and in place, ready for operation, and accepted by the Engineer.

125-4.5 Runway Closure Markers. The quantity of runway closure markings to be paid for under this item shall be the number of each pair ready for use and accepted by the Engineer.

125-4.6 Relocate Existing REILS Circuit through new Duct. The quantity for relocation of existing REILS Circuit through new duct to be paid for under this item shall be a lump sum payment for completion of the work in place, ready for operation, and accepted by the Engineer.

125-4.7 Install New L-858R Unlighted Instructional Sign. The quantity of sign units to be paid for under this item shall be the number of each type installed, complete and in place, ready for operation, and accepted by the Engineer.

125-4.8 Install New L-858Y Unlighted Instructional Sign. The quantity of sign units to be paid for under this item shall be the number of each type installed, complete and in place, ready for operation, and accepted by the Engineer.

BASIS OF PAYMENT

125-5.1 Payment will be made at the Contract unit price for each item installed by the Contractor and accepted by the RPR. This payment will be full compensation for furnishing all materials and for all preparation, assembly, and installation of these materials, and for all labor, equipment, tools and incidentals necessary to complete this item.

Payment will be made under:

Item L-125-5.1	Remove and Reset Taxiway Edge Light – LED Lamp, Base Mounted – per each
Item L-125-5.2	Install New Taxiway Edge Light – LED Lamp, Base Mounted - per each
Item L-125-5.3	Relocate Existing Guidance Sign on New Foundation – per each
Item L-125-5.4	Install New Guidance Sign – per each
Item L-125-5.5	Runway Closure Markers – per each
Item L-125-5.6	Relocate Existing REILS Circuit through new Duct – per lump sum
Item L-125-5.7	Install New L-858R Unlighted Instructional Sign – per each
Item L-125-5.8	Install New L-858Y Unlighted Instructional Sign – per each

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.

Advisory Circulars (AC)

AC 150/5340-18	Standards for Airport Sign Systems
AC 150/5340-26	Maintenance of Airport Visual Aid Facilities
AC 150/5340-30	Design and Installation Details for Airport Visual Aids
AC 150/5345-5	Circuit Selector Switch
AC 150/5345-7	Specification for L-824 Underground Electrical Cable for Airport Lighting Circuits
AC 150/5345-26	Specification for L-823 Plug and Receptacle, Cable Connectors
AC 150/5345-28	Precision Approach Path Indicator (PAPI) Systems
AC 150/5345-39	Specification for L-853, Runway and Taxiway Retroreflective Markers
AC 150/5345-42	Specification for Airport Light Bases, Transformer Housings, Junction Boxes, and Accessories
AC 150/5345-44	Specification for Runway and Taxiway Signs
AC 150/5345-46	Specification for Runway and Taxiway Light Fixtures
AC 150/5345-47	Specification for Series to Series Isolation Transformers for Airport Lighting Systems
AC 150/5345-51	Specification for Discharge-Type Flashing Light Equipment
AC 150/5345-53	Airport Lighting Equipment Certification Program

Engineering Brief (EB)

EB No. 67	Light Sources Other than Incandescent and Xenon for Airport and Obstruction Lighting Fixtures
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END OF ITEM L-125