



# Runway 5-23 Rehabilitation Project





# Why is this project necessary?

As part of Morristown Airport's Master Planning process (approved in 2013), RWY 5-23 and its components (MALSR Lighting System, Runway Safety Areas (RSA), etc.) were identified as areas in need of rehabilitation, allowing DM AIRPORTS, LTD. (DM), Operators of Morristown Airport (MMU) to continue to provide a premier general aviation airport for its tenants and transient users.

**Providing the best possible facility is  
the most important job DM has!**

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This RWY 5-23 Rehabilitation Project allow us to do that.



# A Major Project, Years in the Making!

## ✈ 2006 – 2015: Prep Work for RWY 5-23 Rehabilitation Project

- ✈ Investigation process of existing facilities
- ✈ Design process with DM, Delta Airports and McFarland Johnson
- ✈ Permitting applications and approvals
- ✈ Construction Safety Management coordination between the FAA and Airport Users
- ✈

**2015 – 2017:** New Keel section provided the proper structural integrity for future phases.

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- Milled out and repaved center 50' Keel Section of 5,800' of RWY 5-23
- Addressed depression on RWY 5-23 to provide pilots with a better operational surface



# RWY 5-23 Rehabilitation Project

## *DM's Project Motto:*

*“Complete the project as quickly as possible, or as long as it takes to maximize funding and minimize disruption”*

Received first funding in 2019 for remaining phases of project

Project includes Phases VI through XIV;  
*Phases VI through VIII have been completed*

Project phases separated over multiple years to minimize operational impact; maximizing efficiency of funding

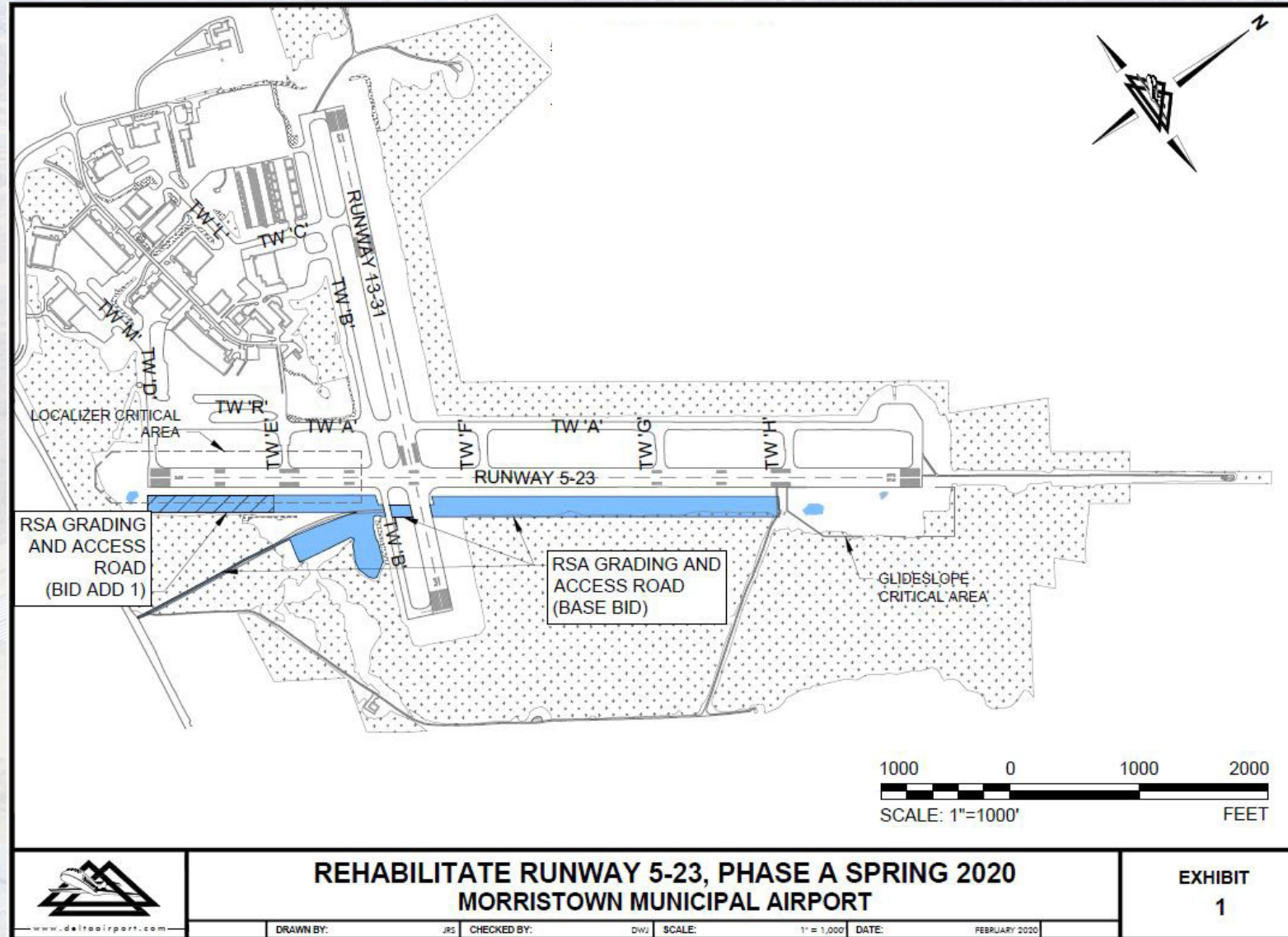
Phase Recaps for VI, VII & VIII discussed in this presentation

Phase Overview for Phase IX (2023) discussed as well

Remaining work summaries for Phases presented when available



# Phase VI: Completed



## ✈ Phase VI Work Summary:

- ✈ Construction Staging area built
  - ✈ *Completed in January 2020*
- ✈ Construction of access road along east side of RWY 23
- ✈ Grading in Runway Safety Areas



# Construction Staging Area (Completed in January 2020 as part of [Phase VI](#))



The staging area for all construction vehicle access during the RWY 5-23 Rehabilitation Project was completed in January 2020.

This area provides airport access via Columbia Turnpike, minimizing vehicle traffic operating on airfield.



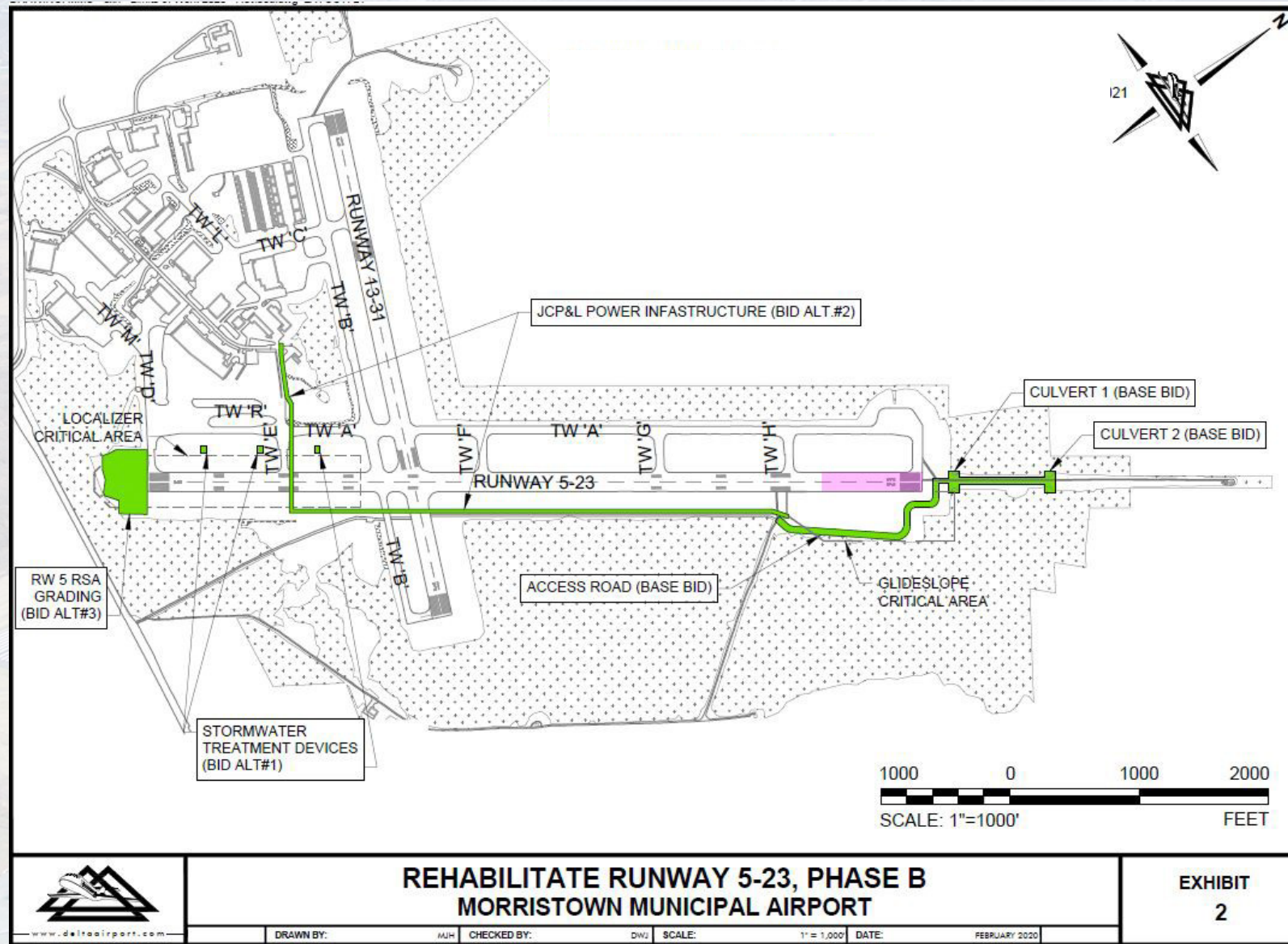
# Importance of Phase VI Construction

- ✈ Access road necessary for equipment to efficiently move to and from the RSA and ultimately to access the approach end of RWY 23 construction areas
- ✈ Grading of RSA enhances proper drainage away from RWY 5-23 providing a stable surface that does not retain water
- ✈ Grading of RSA reduces chance of aircraft damage when deviation from RWY occurs

## End of Phase VI Overview



# Phase VII: Completed Summer/Fall 2021



## ✈ Phase VII Work Summary:

- ✈ Relocated threshold was installed on RWY 23 approach end for culvert replacement on MALSR road
  - ✈ RWY 5-23 back to full length as of Nov. 7, 2021
- ✈ Completion of additional perimeter road

\*Timing of project dependent on availability of grant funding



# Importance of Phase VII Construction

- ✈ Significantly improved RSA by establishing weight-bearing structures under MALSR road for the first 1,000'

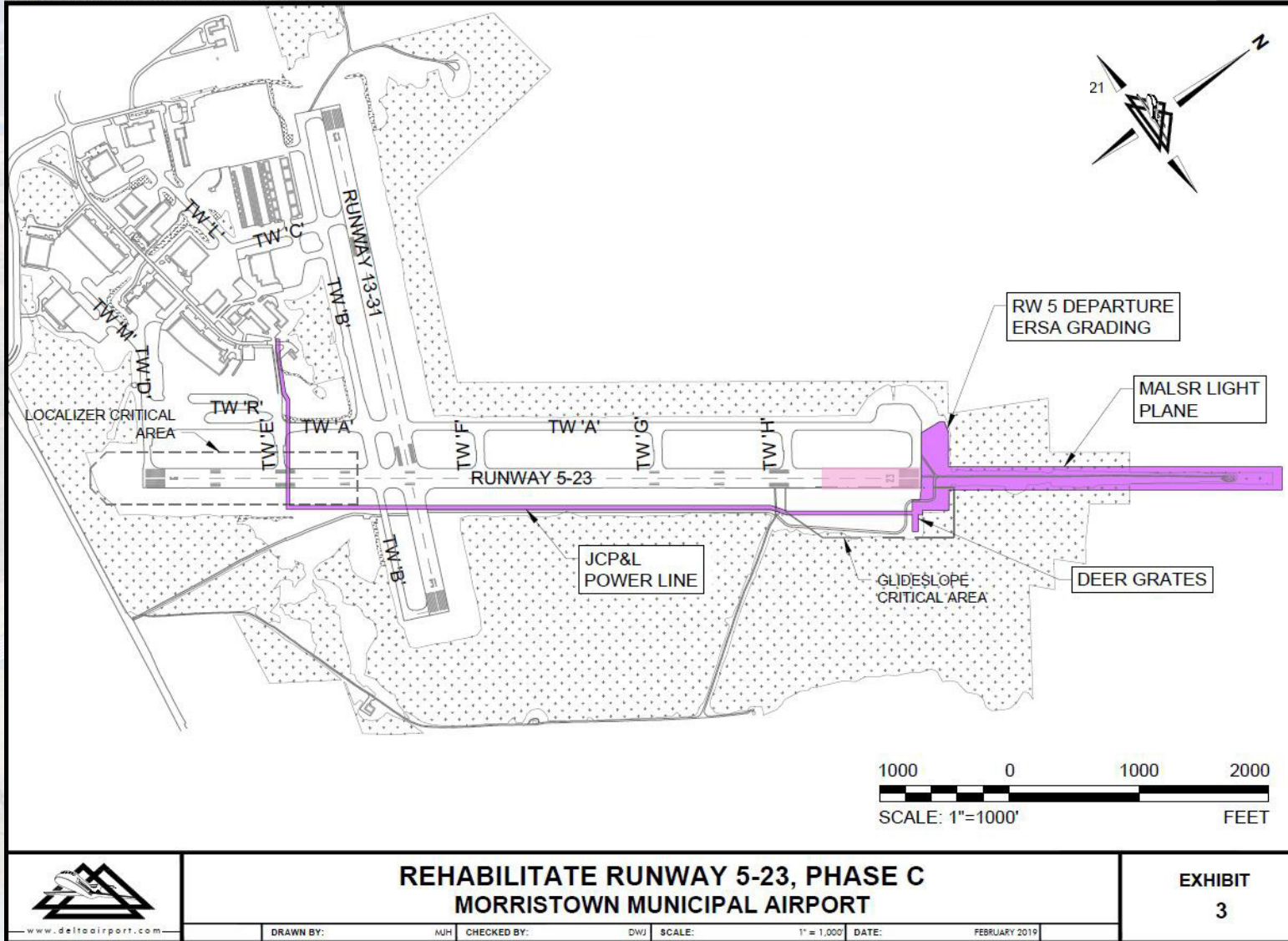


End of Phase VII Overview



# Phase VIII\* Completed in December 2023

DRAWING: MMU - exh - Limits of Work 2021.dwg LAYOUT: L1



## ✈ Phase VIII Summary:

- ✈ Relocated RWY 23 Threshold to allow:
  - ✈ Regrading of Runway End Safety Area
  - ✈ MALSR replacement
    - ✈ *Upgraded to rising lighting plane*
  - ✈ Installation of JCP&L Power Line
    - ✈ *If not completed in earlier phase*
- ✈ Replacement of deer grates

\* Timing dependent on Phase II, Stage B completion and funding availability



# Important Impacts of Phase VIII Construction

Current MALSR system was outdated and needed to be upgraded. New MALSR System installed on a rising plane and provides greater visibility during IFR conditions.

Grading work provides enhanced Runway Safety Area when departing RWY 5



## End of Phase II, Stage C Overview



# Phase IX: Summer/Fall 2023

## ✈ Phase IX Work Summary:

**Phase IX** of our Runway 5-23 Rehabilitation Project focuses on replacing the original drainage culvert that runs parallel to Taxiway Bravo and crosses underneath Taxiway Alpha and Runway 5-23 (Culvert replacement orange & blue area in left image).

To accommodate this work, the contractor will work in two stages; Work Area 1 & Work Area 2 to minimize the airfield impact as much as possible.



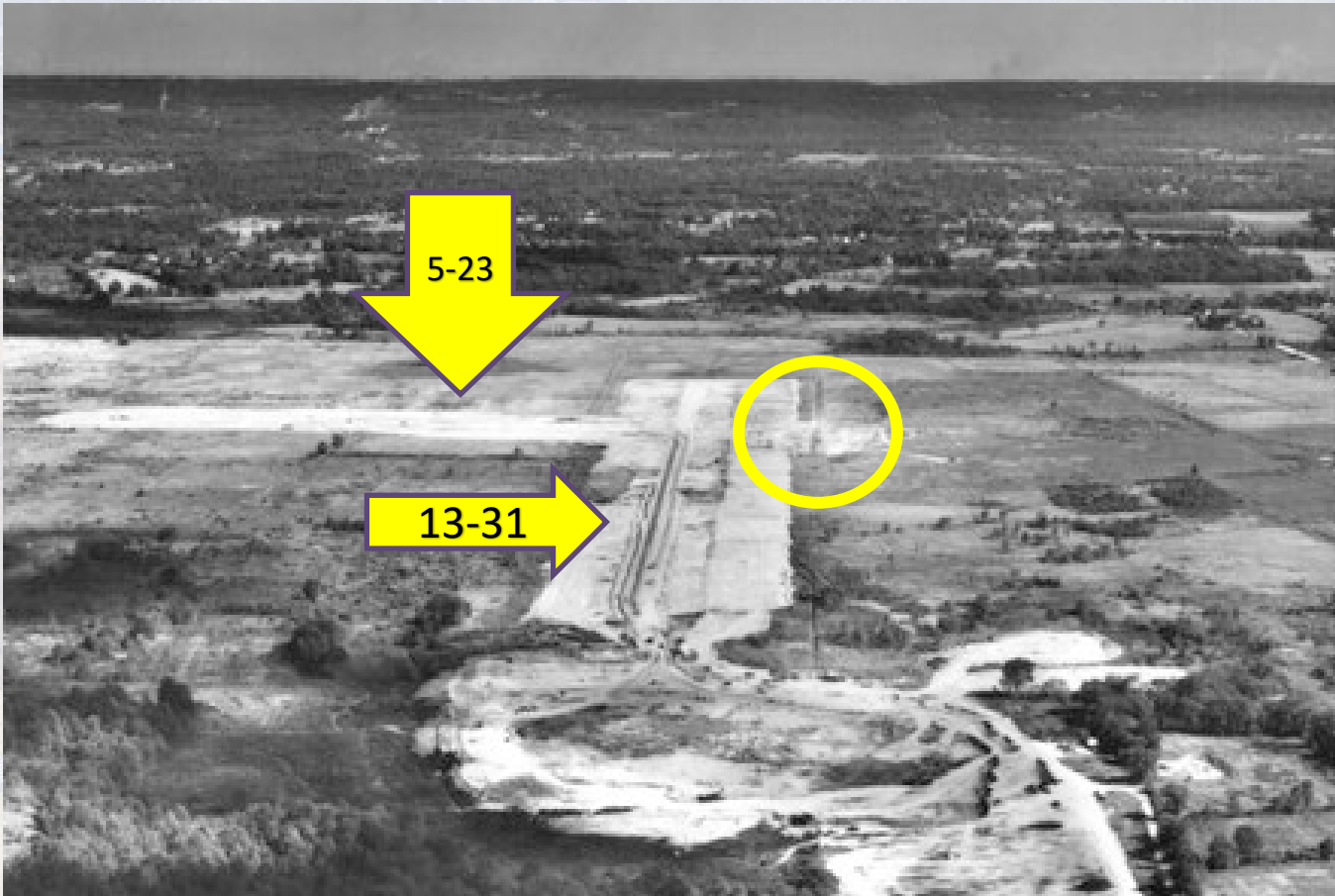
Culvert Replacement Area

The image is an aerial photograph of an airport. A rectangular area, divided into an orange left half and a blue right half, is highlighted and labeled 'Culvert Replacement Area'. This area is located between Runway 5-23 (top) and Taxiway Alpha (bottom), running parallel to Taxiway Bravo. The surrounding area includes various airport buildings, parking lots with many small aircraft, and other runways and taxiways. The background shows a mix of green fields and wooded areas.

*\*Timing of project dependent on availability of grant funding*



# Phase IX Reasoning



As part of the original development of Morristown Airport, a 36-inch drainage pipe was installed in order to allow water flow underneath Runway 5-23.

There are no records to indicate that this original drainage pipe has ever been replaced and was undersized from the start given the amount of water that has historically flowed on a seasonal basis from the West side of the airport towards the East.

Phase IX will replace the 36-inch drainage pipe with a 56"x72" concrete box culvert, like the culverts installed in 2021 shown on the previous slide.

The new box culvert will appropriately accommodate the expected flow of seasonal water and will mitigate flooding on the West side of the airport.



# Look Ahead: Phases X through XIV

Phase	Date	Project Work Areas
Phase X	2024 (TBD)	<ul style="list-style-type: none"><li>Runway 5: extended runway safety area work in preparation for new localizer and Engineered Material Arresting System (EMAS)</li></ul>
Phase XI	2025 (TBD)	<ul style="list-style-type: none"><li>Runway 5-23 paving and EMAS block purchase</li></ul>
Phase XII	2026 (TBD)	<ul style="list-style-type: none"><li>Runway 5-23 paving</li><li>Runway 5 EMAS bed paving and block purchase</li></ul>
Phase XIII	2027 (TBD)	<ul style="list-style-type: none"><li>Runway 5 EMAS bed block installation</li><li>Runway 5-23 paving</li></ul>
Phase XIV	2028 (TBD)	<ul style="list-style-type: none"><li>Runway 5-23 paving</li></ul>



## **Overall Runway 5-23 Rehabilitation Project Impacts Throughout Phases**

- Full Airport Closures
- Runway 5-23 Closures
- Runway 13-31 Closures
- Nightly Runway and Airport Closures
- Instrument Approach Impacts

## **Overall Runway 5-23 Rehabilitation Project Benefits**

- New Runway 5-23 surface
- New MALSR System
- Enhanced Runway safety areas
- EMAS installation
- Upgraded lighting



# Online Resources

[www.mmuair.com](http://www.mmuair.com)

- Airfield Alerts:
  - [www.mmuair.com](http://www.mmuair.com) home page
  - Enter email under “MMU Alerts”
- Follow [@MMUairport](https://twitter.com/MMUairport) on Twitter

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