Flight Procedures Cover Page	Task Action: FLIGHT CHECK	Task Type: SID	Estimated Chart Date: 05/16/2024	APWS Task ID: B46C9089EAC74F75AA2AD81467062EFC	APWS Project ID: BEE9A4783EBE4340BBEA5B4391CB2132
Procedure: SID SNDRS THREE (RNAV)		Enroute: YES	Specialist: Sarmento, April		Agreement Number:
Airport ID: KDTW			Airport City: DETROIT		State: MI
Facility ID:	Facility Type:	Flight Inspection Remark Type: New FC Slot			

Procedure Comments:
FULL AMENDMENT.

PENDING AIRPORT DATA FOR KYIP. ACTIVE DATA FOR ALL OTHER AIRPORTS.

WAIVERS (2):
1. TO NOT CHART IF ALTITUDE AT IF FOR RADAR VECTORS.
2. AFS-420 MEMO "WAIVER TO FAA ORDER 8260.58C PARAGRAPH 1-2-5.C.(3), MAXIMUM BANK ANGLE" DATED 01/31/2023.

KYIP: RWY 27 CONTROLLING OBSTACLE 903 FT MSL TOWER (26-002998) LAT/LONG CHANGED FROM 421431.78N/0833411.47W TO 421431.80N/0833411.49W (MOVED 2.52 FT NORTHWEST); TAKEOFF MINIMUMS DID NOT CHANGE.

KVLL: RWY 28 CONTROLLING OBSTACLES CHANGED FROM 940 FT MSL BLDG 423234.20N/0831235.50 (CLIMB GRADIENT), 1749 FT MSL TOWER 422858.00N/0831219.00W (CLIMB-TO ALTITUDE) TO 905 FT MSL BUILDING (26-003210) 423232.54N/0831234.07W; RETAINED CURRENT TAKEOFF MINIMUMS TO MATCH PUBLISHED ODP.

KMTC: RWY 19 CLIMB GRADIENT INCREASED FROM 234 FT/NM TO 235 FT/NM. CONTROLLING OBSTACLE DID NOT CHANGE 1246 FT MSL TOWER (26-001410) 423312.00N/0825315.00W (4D).

CONTACT: CASIMIR TABAKA, (405) 954-7931

04/03/2024: THIS IS A CORRECTED COPY OF THE FORM APPROVED ON 01/26/2024.
DP ROUTE DESCRIPTION: KDTW TAKEOFF RWY 3L/3R CHANGE FIX NAME SWINDL TO SWNDL.

J ZEDER 04/03/2024 16

QUALITY 16 CHECKED

04/9/2024: THIS IS A CORRECTED COPY OF THE FORM APPROVED ON 01/262024.
BGHRT TRANSITION: CORRECTED SPELLING OF "KRNKO" TO "KNRKO" ON THE KNRKO TO BGHRT TRACK .

J ZEDER 04/09/2024 16

QUALITY 16 CHECKED

QUALITY 41 CHECKED

QUALITY 8 CHECKED

Data as of: 11/21/2023 10:48:56 CST

FIPC DME/DME FORM

PROCEDURE:	AIRPORT NAME:	AIRPORT ID:	SPECIAL CONTROL NO:
SNDRS THREE (RNAV) DEPARTURE	DETROIT METRO WAYNE COUNTY	KDTW	BG-01-223-24

FAC ID: SNDRS3	CITY: DETROIT	ST: MI	ORIG CHART DATE: 05/16/2024

DFL TYPE:	THIRD PARTY:	EST. TIME ON SITE:	REIMB. NUMBER:	PTS TASK ID:
PROC/D	☐ YES	1.0		B46C9089EAC74F75AA2AD81467062EFC

PREFLIGHT NOTES

REVIEWER: scott wiebe

DATE: 03/07/2024

COMMENTS:

CHECK ONE:
☒ FLT CK REQ ☐ NFCR ☐ REJECT

	YES	NO
CPV COMPLETE?	X	

PROCEDURE RESULTS

INSPECTION DATE:	CREW #:	N #:	INSTRUMENT PROCEDURE STATUS:	ARINC CODING:
03/07/2024	VN219	N69	☒ SAT ☐ SAT W/CHANGES ☐ UNSAT	☐ SAT ☐ SAT/GOLD ☐ UNSAT

FLIGHT INSPECTOR SIGNATURE:	PRINTED NAME:	NOTAM INITIATED?
scott wiebe @ 03/07/2024 18:27	WIEBE, GREGORY SCOTT	☐ YES ☒ NO

FLIGHT INSPECTOR REMARKS:
Procedure Satisfactory for GNSS operations, DME/DME awaiting approval by the applicable AJV Operations Support Group.

RBS DME not available – NOTAM “12/186 RBS NAV DME U/S 2312121929-2512122000EST” in place

DME/DME STATUS:	SPECIALIST SIGNATURE:	PRINTED NAME:
☒ SAT ☐ UNSAT	steven s-ctr rager @ 03/19/2024 14:53	Steven Rager

SPECIALIST REMARKS:
Procedure SAT for DME/DME/IRU NAV. All DME ESV’s for legs flown recorded by Inspection Aircraft all other ESV’s certified by TARGETS.

IN-FLIGHT OBSTACLE REPORT

OBSTRUCTION ID #:	COORDINATES OR LOCATION:	GNSS ALTITUDE (MSL):	BAROMETRIC ALTITUDE (MSL):	HEIGHT ABOVE GROUND LEVEL:

FIPC DME/DME FORM

PROCEDURE:	AIRPORT NAME:	AIRPORT ID:	SPECIAL CONTROL NO:
SNDRS THREE (RNAV) DEPARTURE	DETROIT METRO WAYNE COUNTY	KDTW	BG-01-223-24

FAC ID: SNDRS3	CITY: DETROIT	ST: MI	ORIG CHART DATE: 05/16/2024

DFL TYPE:	THIRD PARTY:	EST. TIME ON SITE:	REIMB. NUMBER:	PTS TASK ID:
PROC/D	☐ YES	1.0		B46C9089EAC74F75AA2AD81467062EFC

PREFLIGHT NOTES

REVIEWER: scott wiebe

DATE: 03/07/2024

COMMENTS:

CHECK ONE:
☒ FLT CK REQ ☐ NFCR ☐ REJECT

	YES	NO
CPV COMPLETE?	X	

PROCEDURE RESULTS

INSPECTION DATE:	CREW #:	N #:	INSTRUMENT PROCEDURE STATUS:	ARINC CODING:
03/07/2024	VN219	N69	☒ SAT ☐ SAT W/CHANGES ☐ UNSAT	☐ SAT ☐ SAT/GOLD ☐ UNSAT

FLIGHT INSPECTOR SIGNATURE:	PRINTED NAME:	NOTAM INITIATED?
scott wiebe @ 03/07/2024 18:27	WIEBE, GREGORY SCOTT	☐ YES ☒ NO

FLIGHT INSPECTOR REMARKS:
Procedure Satisfactory for GNSS operations, DME/DME awaiting approval by the applicable AJV Operations Support Group.

RBS DME not available – NOTAM “12/186 RBS NAV DME U/S 2312121929-2512122000EST” in place

DME/DME STATUS:	SPECIALIST SIGNATURE:	PRINTED NAME:
☐ SAT ☐ UNSAT		

SPECIALIST REMARKS:

IN-FLIGHT OBSTACLE REPORT

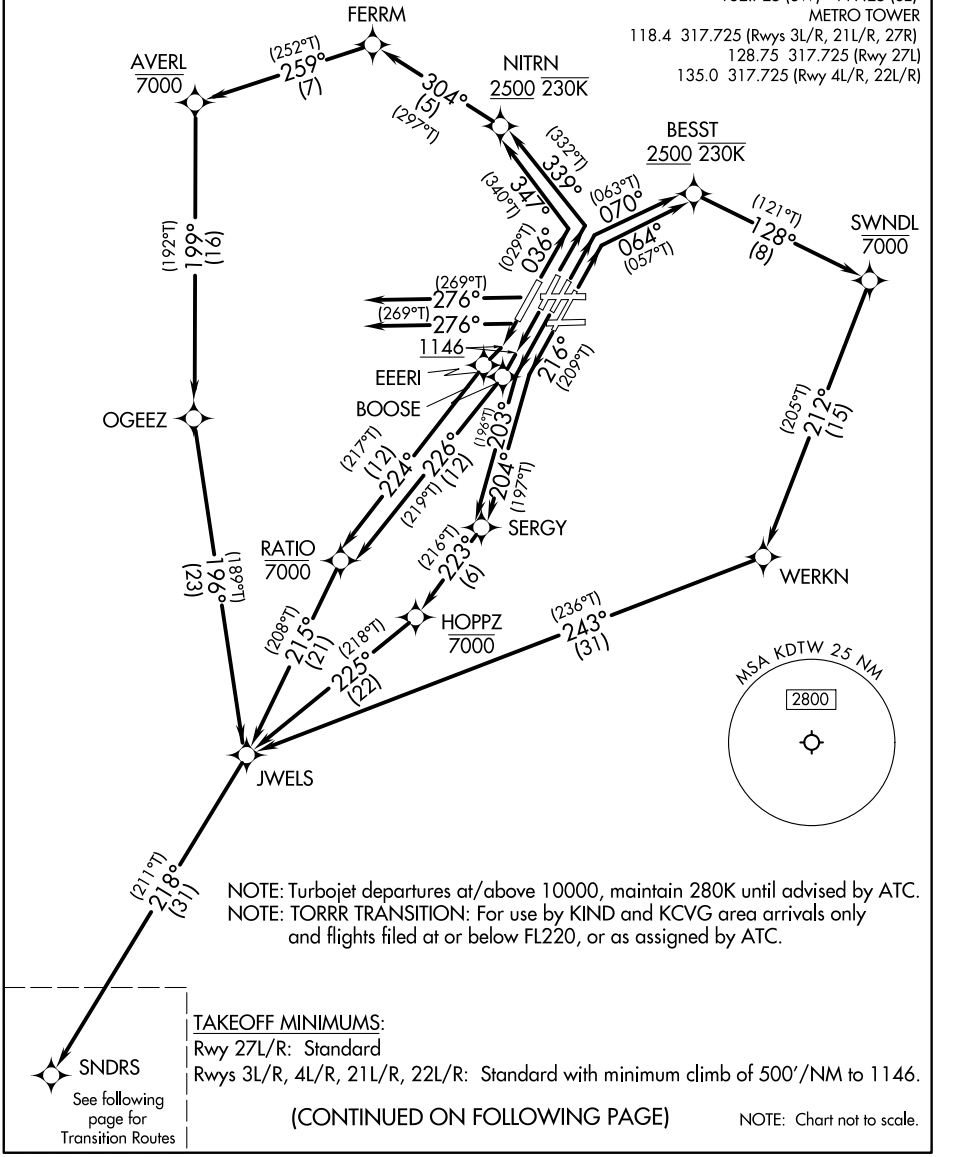
OBSTRUCTION ID #:	COORDINATES OR LOCATION:	GNSS ALTITUDE (MSL):	BAROMETRIC ALTITUDE (MSL):	HEIGHT ABOVE GROUND LEVEL:

SNDRS THREE DEPARTURE (RNAV) Departure Routes

TOP ALTITUDE: 17000

RNAV-1 DME/DME/IRU or GPS.
RADAR required.

DETROIT DEP CON
125.525 284.0 (Rwys 22L/R, 4L/R)
132.025 284.0 (Rwys 3L/R, 21L/R, 27L/R)
D-ATIS 118.125
CLNC DEL 120.65
CPDLC
GND CON
121.8 (NW) 119.45 (NE)
132.725 (SW) 119.25 (SE)
METRO TOWER
118.4 317.725 (Rwys 3L/R, 21L/R, 27R)
128.75 317.725 (Rwy 27L)
135.0 317.725 (Rwy 4L/R, 22L/R)



NOTE: Turbojet departures at/above 10000, maintain 280K until advised by ATC.
NOTE: TORRR TRANSITION: For use by KIND and KCVG area arrivals only and flights filed at or below FL220, or as assigned by ATC.

SNDRS
See following page for Transition Routes

TAKEOFF MINIMUMS:
Rwy 27L/R: Standard
Rwys 3L/R, 4L/R, 21L/R, 22L/R: Standard with minimum climb of 500'/NM to 1146.

(CONTINUED ON FOLLOWING PAGE)

NOTE: Chart not to scale.

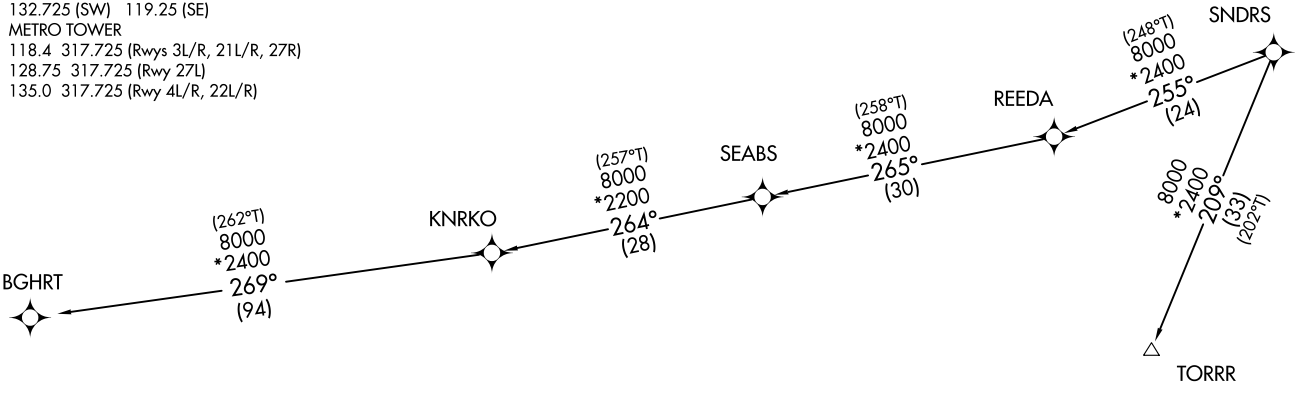
(SNDRS3.SNDRS) FIG
SNDRS THREE DEPARTURE (RNAV) Transition Routes
AL-119 (FAA)
DETROIT METRO WAYNE COUNTY (DTW)
DETROIT, MICHIGAN

DETROIT DEP CON
125.525 284.0 (Rwys 22L/R, 4L/R)
132.025 284.0 (Rwys 3L/R, 21L/R, 27L/R)
D-ATIS 118.125
CLNC DEL 120.65
CPDLC
GND CON
121.8 (NW) 119.45 (NE)
132.725 (SW) 119.25 (SE)
METRO TOWER
118.4 317.725 (Rwys 3L/R, 21L/R, 27R)
128.75 317.725 (Rwy 27L)
135.0 317.725 (Rwy 4L/R, 22L/R)

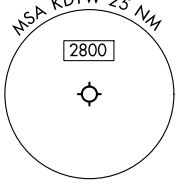
PROTOTYPE-NOT FOR NAVIGATION

RNAV-1 DME/DME/IRU or GPS.
RADAR required.

TOP ALTITUDE: 17000



TAKEOFF MINIMUMS:
Rwy 27L/R: Standard
Rwys 3L/R, 4L/R, 21L/R, 22L/R: Standard with minimum climb of 500'/NM to 1146.



NOTE: Turbojet departures at/above 10000, maintain 280K until advised by ATC.
NOTE: TORRR TRANSITION: For use by KIND and KCVG area arrivals only and flights filed at or below FL220, or as assigned by ATC.

NOTE: Chart not to scale.

(CONTINUED ON FOLLOWING PAGE)

▼

DEPARTURE ROUTE DESCRIPTION

SEE ADDITIONAL REQUIREMENTS ON AAUP.

TAKEOFF RUNWAY 3L: Climb on heading 036° to intercept course 070° to cross BESST at or above 2500 and at or below 230K, then on track 128° to cross SWNDL at or below 7000, then on track 212° to WERKN, then on track 243° to cross JWELS, thence...

TAKEOFF RUNWAY 3R: Climb on heading 036° to intercept course 064° to cross BESST at or above 2500 and at or below 230K, then on track 128° to cross SWNDL at or below 7000, then on track 212° to WERKN, then on track 243° to cross JWELS, thence...

TAKEOFF RUNWAY 4L: Climb on heading 036° to intercept course 347° to cross NITRN at or above 2500 and at or below 230K, then on track 304° to cross FERRM, then on track 259° to cross AVERL at or below 7000, then or track 199° to OGEEZ, then on track 196° to cross JWELS, thence...

TAKEOFF RUNWAY 4R: Climb on heading 036° to intercept course 339° to cross NITRN at or above 2500 and at or below 230K, then on track 304° to cross FERRM, then on track 259° to cross AVERL at or below 7000, then or track 199° to OGEEZ, then on track 196° to cross JWELS, thence....

TAKEOFF RUNWAY 21L: Climb on heading 216° to intercept course 204° to SERGY, then on track 223° to cross HOPPZ at or below 7000, then on track 225° to cross JWELS, thence....

TAKEOFF RUNWAY 21R: Climb on heading 216° to intercept course 203° to SERGY, then on track 223° to cross HOPPZ at or below 7000, then on track 225° to cross JWELS, thence....

TAKEOFF RUNWAY 22L: Climb on heading 216° to 1146, then direct BOOSE, then on track 226° to cross RATIO at or below 7000, then on track 215° to cross JWELS, thence....

TAKEOFF RUNWAY 22R: Climb on heading 216° to 1146, then direct EEERI, then on track 224° to cross RATIO at or below 7000, then on track 215° to cross JWELS, thence....

TAKEOFF RUNWAYS 27L/27R: Climb on heading 276° or as assigned by ATC, for RADAR vectors to JWELS, thence....

....on track 218° to SNDRS, then on (transition). Maintain 17000, expect filed altitude 10 minutes after departure.

BGHRT TRANSITION (SNDRS3.BGHRT):
TORRR TRANSITION (SNDRS3.TORRR):

PROTOTYPE-NOT FOR NAVIGATION

Federal Aviation Administration

Memorandum

Date: January 31, 2023

To: Instrument Flight Procedure Service Providers

WADE EK TERRELL Digitally signed by WADE EK TERRELL Date: 2023.01.31 09:21:16 -06'00'

From: Wade E.K. Terrell, Manager, Flight Procedures and Airspace Group

Subject: Waiver to FAA Order 8260.58C paragraph 1-2-5.c.(3), Maximum bank angle

Background: The Performance Based Navigation (PBN) Aviation Rulemaking Committee (PARC) made a recommendation that the FAA adjust the turn parameters used in PBN instrument flight procedure (IFP) design to reflect modern avionics values. The Flight Procedures and Airspace Group analyzed current avionics specifications with the help of several FAA offices and RTCA SC-227 to identify the new bank angles necessary for current IFP design. The Flight Procedures and Airspace Group then conducted an Operational Safety Review (OSR) for this amendment to bank angle criteria. The outcome of the OSR was that no new hazard is introduced into the National Aerospace System (NAS).

Purpose: This memorandum waives FAA Order 8260.58C, United States Standard for Performance Based Navigation (PBN) Instrument Procedure Design, paragraph 1-2-5.c.(3) and authorizes use of a maximum bank angle of 23 degrees above FL195 up to FL245 and a maximum bank angle of 16 degrees above FL245.

This waiver remains in effect until rescinded. No additional waiver request action is required. Please direct all inquiries to Thomas J. Nichols, Standards Section Manager, Flight Procedures and Airspace Group at 405-954-1171 or thomas.j.nichols@faa.gov

FLIGHT PROCEDURE STANDARDS WAIVER

1. FLIGHT PROCEDURE IDENTIFICATION:

Detroit, MI (KDTW)
SNDRS (RNAV) SID

2. WAIVER REQUIRED AND APPLICABLE STANDARD:

Waiver required to not chart IF altitude at the IF for radar vectors (RV). Order 8260.46J Appendix E, Section 1, para 2m(3). "Document the minimum crossing altitude at the IF on RNAV Radar departure procedures as follows: CHART: MINIMUM CROSSING ALTITUDE AT (RNAV IF)-(Altitude)."

3. REASON FOR WAIVER (JUSTIFICATION FOR NONSTANDARD TREATMENT):

Adding unnecessary altitudes at the "IF" on procedures when they are not needed creates unnecessary workload based on the type of climb clearance that is issued. If the altitude restriction at the "IF" is to be adhered to for aircraft departing from DETROIT METRO WAYNE COUNTY AIRPORT (DTW), then after the aircraft is airborne ATC must issue "CLIMB VIA SID EXCEPT MAINTAIN (altitude)". With this procedure, it's unnecessary to add an altitude restriction at JWELS as the aircraft will be issued an initial departure clearance containing an altitude "AS ASSIGNED BY ATC" and will be receiving radar vectors to the waypoint JWELS to join the procedure. When aircraft depart, ATC must ensure they are at or above the Minimum Vectoring Altitudes (MVA), therefore the aircraft is always operating in airspace at an altitude above any terrain obstacles.

Adding an unnecessary altitude at JWELS creates workload for pilots as it could create a climb gradient higher than 200 feet per NM depending on where ATC vectors the aircraft before clearing them to JWELS and it could increase communication between ATC and pilots who will be asking questions about the altitude restriction, which ties up the radios. It also adds pilot workload once airborne when ATC issues a higher altitude by stating "CLIMB AND MAINTAIN (altitude)". The use of "CLIMB AND MAINTAIN (altitude) deletes any published altitude restrictions, therefore pilots will be heads down deleting the restriction from the FMC.

AFS has approved other procedures within the NAS provided an evaluation has been completed. In this case, the evaluation has been accomplished and is contained under number 4 below.

4. EQUIVALENT LEVEL OF SAFETY PROVIDED:

With a standard climb gradient of 200 ft/nm all surfaces are clear to IF (JWELS) which is 21.15 nm from the closest DER. The departure route description for all runways will provide instruction for the aircraft to conduct an uninterrupted climb to an altitude "AS ASSIGNED BY ATC" which is above the MVA from the airport to the IF.

ATC will ensure aircraft departing will cross the IF at or above 3000 ft MSL. An OCS with a starting elevation of 2000 ft (3000 MVA-1000 ROC) was evaluated for the route starting at JWELS and the surface was clear.

5. ALTERNATIVE ACTIONS DEEMED NOT FEASIBLE:

Modifying all runway SIDs to replace the radar vectors segment with RNAV OTG would be incompatible with procedure efficiency in a constrained airspace and cause environmental issues and delays.

6. COORDINATION WITH USER ORGANIZATIONS (SPECIFY):

Central Service Area PBN FAA and NATCA Leads
ZOB ARTCC
D21 TRACON
Detroit Metro Tower

7. SUBMITTED BY:

DATE	OFFICE IDENTIFICATION	TITLE	SIGNATURE
1/26/2024	AJV-A432	MGR	*Digitally signed by* ***CASIMIR L TABAKA*** Jan 26, 2024

8. FLIGHT STANDARDS ACTIONS:

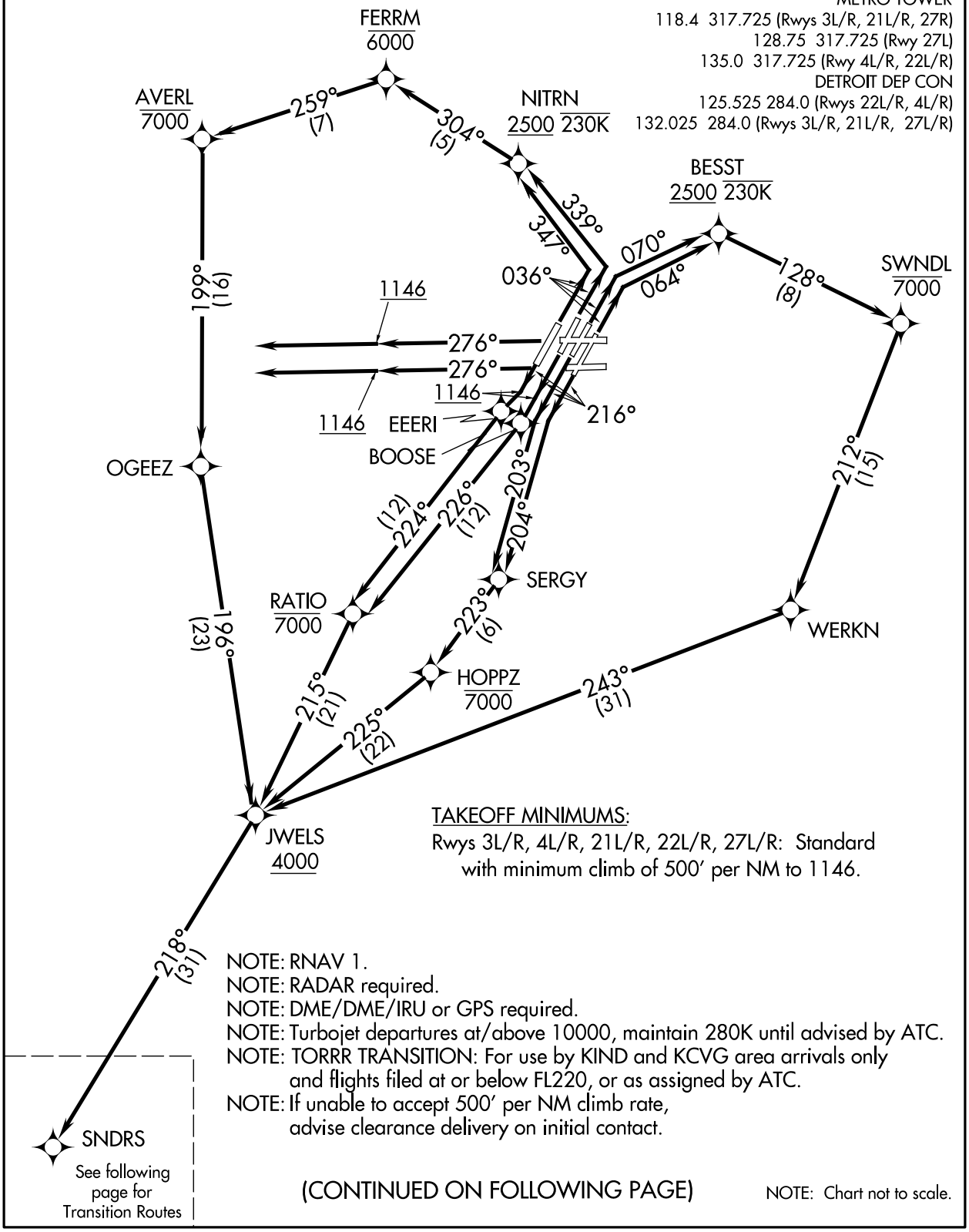
☐ **APPROVED** ☐ **DISAPPROVED** ☐ **NOT REQUIRED**

COMMENTS:

DATE **ROUTING SYMBOL** **SIGNATURE**

TOP ALTITUDE: 17000

D-ATIS 118.125
CLNC DEL 120.65
CPDLC
GND CON
121.8 (NW) 119.45 (NE)
132.725 (SW) 119.25 (SE)
METRO TOWER
118.4 317.725 (Rwys 3L/R, 21L/R, 27R)
128.75 317.725 (Rwy 27L)
135.0 317.725 (Rwy 4L/R, 22L/R)
DETROIT DEP CON
125.525 284.0 (Rwys 22L/R, 4L/R)
132.025 284.0 (Rwys 3L/R, 21L/R, 27L/R)



TAKEOFF MINIMUMS:
Rwys 3L/R, 4L/R, 21L/R, 22L/R, 27L/R: Standard with minimum climb of 500′ per NM to 1146.

NOTE: RNAV 1.
NOTE: RADAR required.
NOTE: DME/DME/IRU or GPS required.
NOTE: Turbojet departures at/above 10000, maintain 280K until advised by ATC.
NOTE: TORRR TRANSITION: For use by KIND and KCVG area arrivals only and flights filed at or below FL220, or as assigned by ATC.
NOTE: If unable to accept 500′ per NM climb rate, advise clearance delivery on initial contact.

See following page for Transition Routes

(CONTINUED ON FOLLOWING PAGE)

NOTE: Chart not to scale.

EC-1, 20 APR 2023 to 18 MAY 2023

EC-1, 20 APR 2023 to 18 MAY 2023

DEPARTURE ROUTE DESCRIPTION

NOTE:See additional requirements in RNAV departure AAUP.

TAKEOFF RUNWAY 3L: Climb on heading 036° to intercept course 070° to cross BESST at or above 2500 and at or below 230K, then on track 128° to cross SWNDL at or below 7000, then on track 212° to WERKN, then on track 243° to cross JWELS at or above 4000, thence...

TAKEOFF RUNWAY 3R: Climb on heading 036° to intercept course 064° to cross BESST at or above 2500 and at or below 230K, then on track 128° to cross SWNDL at or below 7000, then on track 212° to WERKN, then on track 243° to cross JWELS at or above 4000, thence...

TAKEOFF RUNWAY 4L: Climb on heading 036° to intercept course 347° to cross NITRN at or above 2500 and at or below 230K, then on track 304° to cross FERRM at or below 6000, then on track 259° to cross AVERL at or below 7000, then or track 199° to OGEEZ, then on track 196° to cross JWELS at or above 4000, thence...

TAKEOFF RUNWAY 4R: Climb on heading 036° to intercept course 339° to cross NITRN at or above 2500 and at or below 230K, then on track 304° to cross FERRM at or below 6000, then on track 259° to cross AVERL at or below 7000, then or track 199° to OGEEZ, then on track 196° to cross JWELS at or above 4000, thence....

TAKEOFF RUNWAY 21L: Climb on heading 216° to intercept course 204° to SERGY, then on track 223° to cross HOPPZ at or below 7000, then on track 225° to cross JWELS at or above 4000, thence....

TAKEOFF RUNWAY 21R: Climb on heading 216° to intercept course 203° to SERGY, then on track 223° to cross HOPPZ at or below 7000, then on track 225° to cross JWELS at or above 4000, thence....

TAKEOFF RUNWAY 22L: Climb on heading 216° to 1146, then direct BOOSE, then on track 226° to cross RATIO at or below 7000, then on track 215° to cross JWELS at or above 4000, thence....

TAKEOFF RUNWAY 22R: Climb on heading 216° to 1146, then direct EEERI, then on track 224° to cross RATIO at or below 7000, then on track 215° to cross JWELS at or above 4000, thence....

TAKEOFF RUNWAYS 27L/27R: Climb on heading 276° to 1146, then on heading 276° or as assigned for RADAR vectors to cross JWELS at or above 4000, thence....

....on track 218° to SNDRS, then on (transition). Maintain 17000 or as assigned by ATC, expect filed altitude 10 minutes after departure.

BGHRT TRANSITION (SNDRS2.BGHRT):

TORRR TRANSITION (SNDRS2.TORRR):

(SNDRS2.SNDRS) 21112

AL-119 (FAA)

SNDRS TWO DEPARTURE (RNAV) Transition Routes

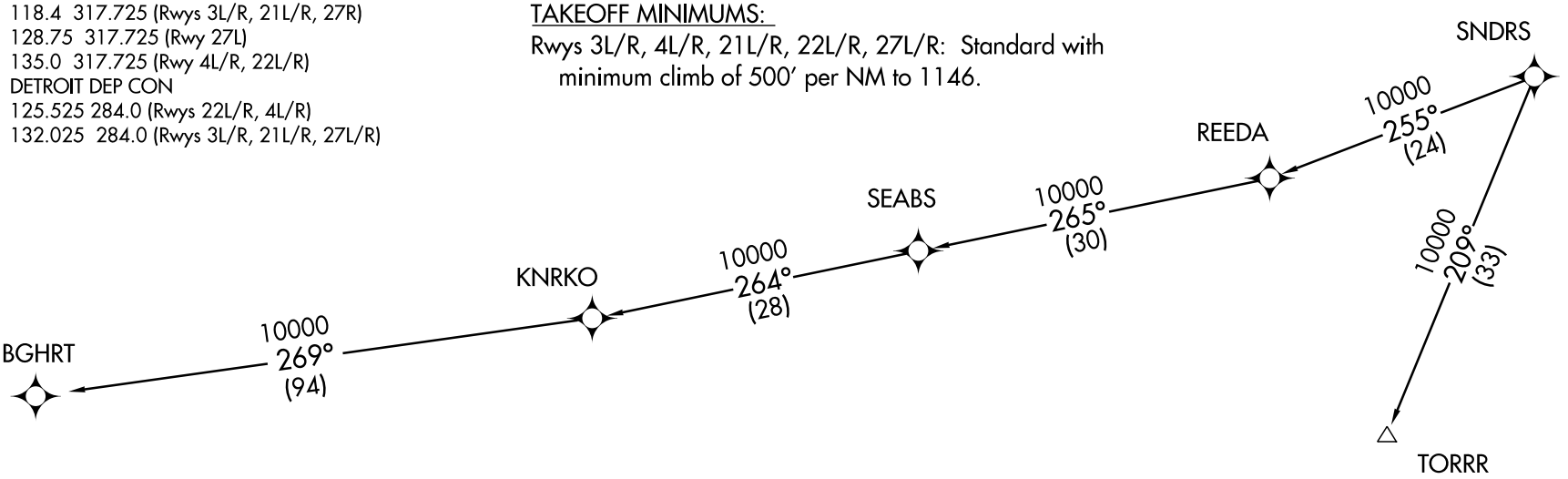
DETROIT METRO WAYNE COUNTY (DTW)

DETROIT, MICHIGAN

TOP ALTITUDE: 17000

D-ATIS 118.125
CLNC DEL 120.65
CPDLC
GND CON
121.8 (NW) 119.45 (NE)
132.725 (SW) 119.25 (SE)
METRO TOWER
118.4 317.725 (Rwys 3L/R, 21L/R, 27R)
128.75 317.725 (Rwy 27L)
135.0 317.725 (Rwy 4L/R, 22L/R)
DETROIT DEP CON
125.525 284.0 (Rwys 22L/R, 4L/R)
132.025 284.0 (Rwys 3L/R, 21L/R, 27L/R)

TAKEOFF MINIMUMS:
Rwys 3L/R, 4L/R, 21L/R, 22L/R, 27L/R: Standard with minimum climb of 500′ per NM to 1146.



NOTE: RNAV 1.
NOTE: RADAR required.
NOTE: DME/DME/IRU or GPS required.
NOTE: Turbojet departures at/above 10000, maintain 280K until advised by ATC.
NOTE: TORRR TRANSITION: For use by KIND and KCVG area arrivals only and flights filed at or below FL220, or as assigned by ATC.
NOTE: If unable to accept 500′ per NM climb rate, advise clearance delivery on initial contact.

N

NOTE: Chart not to scale.

(NARRATIVE ON FOLLOWING PAGE)

(SNDRS2.SNDRS) 15AUG19

SNDRS TWO DEPARTURE (RNAV) Transition Routes

DETROIT METRO WAYNE COUNTY (DTW)

DETROIT, MICHIGAN

ATTENTION ALL USERS PAGE (AAUP)

SIMULTANEOUS RNAV DEPARTURES

The purpose of this briefing is to provide guidance, safe operating practices, and phraseology that will help ensure heightened awareness when conducting parallel RNAV departures at the Detroit Metro Wayne County Airport (DTW). Where applicable, pilots should comply with established company procedures for RNAV operations.

1. **PREFLIGHT:** Expect clearance for RNAV Standard Instrument Departure (SID), if capable of terminal RNAV procedures. If unable to accept the assigned RNAV SID, advise Clearance Delivery on initial contact. Upon assignment of an RNAV SID, crosscheck the charted RNAV SID with the aircraft navigation system against the ATC clearance. Consider the following cross items:
- Ensure correct departure runway is loaded
- Ensure all transitions are loaded correctly
- Ensure sequence of waypoints match the appropriate charts
- Use the LEGS page to verify routing (for navigation systems with ROUTE and LEGS pages)
- Ensure altitude set in the altitude window matches the TOP ALTITUDE of the SID (unless amended by ATC)
- Do not modify or manually construct RNAV procedures
- Advise ATC prior to takeoff if unable verify correct loading or if unable to comply with the SID

2. **BEFORE TAKEOFF:** Ensure the departure runway assigned on taxi is depicted by the navigation system.
- Verify all modifications, including runway changes, in the navigation system with the RNAV SID
- Verify aircraft symbol relative to the runway symbol, lateral track, and depicted route agree with the ATC clearance (electronic navigation map displays)

3. **LINE UP/TAKEOFF:** Expect a takeoff clearance that will include "RNAV to" the first waypoint on the SID, or a heading. If issued a heading, do not delete the SID from the navigation system.
- Clearance: "Delta 123, RNAV to SAAMS, Runway 22L, Cleared for Takeoff"
- Response: "Delta 123, RNAV to SAAMS, Runway 22L, Cleared for Takeoff"
- Verify the correct runway and SID are loaded and the correct lateral navigation mode is available and ready for use after takeoff
- If the takeoff clearance does not match the planned/loaded procedure, request an initial heading from tower or refuse the takeoff clearance until the discrepancy is resolved.

4. **AFTER TAKEOFF:** Unless issued a heading, engage lateral navigation flight guidance as soon as practical and fly the departure precisely.
- Parallel RNAV departures must not encroach on the airspace between parallel runway centerlines without specific ATC clearance
- When possible, track the runway centerline until reaching the departure end of runway
- Strict compliance with the lateral and vertical tracks and charted speed restrictions is imperative
- Once established on the procedure, maintain route centerline, as depicted by onboard lateral navigation indicators and/or flight guidance
- Manually intervene if necessary, to stay on track to avoid transgressing in the direction of a parallel runway, track, or aircraft
- If unable to comply with the SID profile, either laterally or vertically, immediately notify ATC

(CONTINUED ON FOLLOWING PAGE)

EC-1, 05 OCT 2023 to 02 NOV 2023

ATTENTION ALL USERS PAGE (AAUP)

(CONTINUED FROM PREVIOUS PAGE)

5. **SPECIFIC INFORMATION:** Runway assignments will be issued on initial contact with Ground Control and will be based on traffic conditions, runway closures, and other operational requirements.

For planning purposes, pilots can anticipate a runway assignment based upon the information below.

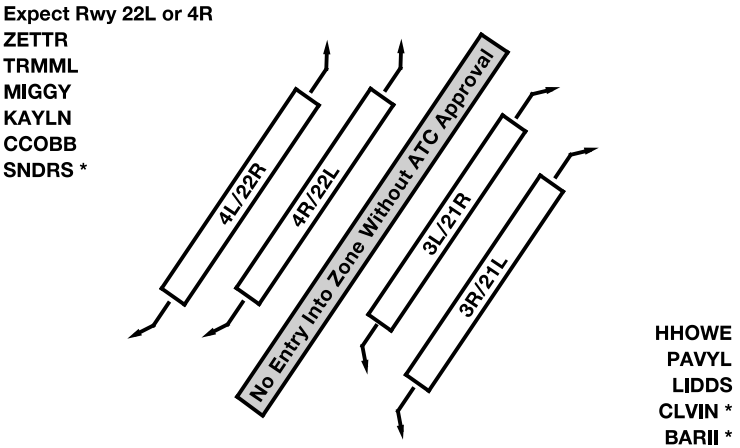
Runway Assignment for Dual Departure Operations

Departing Runways 22L/R, 21L/R
SNDRS, CCOBB, KAYLN, MIGGY, TRMML, ZETTR - Expect Runway 22L
HHOWE, PAVYL, LIDDS, BARII, CLVIN - Expect Runway 21R

Departing Runways 4L/R, 3L/R
SNDRS, CCOBB, KAYLN, MIGGY, TRMML, ZETTR - Expect Runway 04R
HHOWE, PAVYL, LIDDS, BARII, CLVIN - Expect Runway 03L

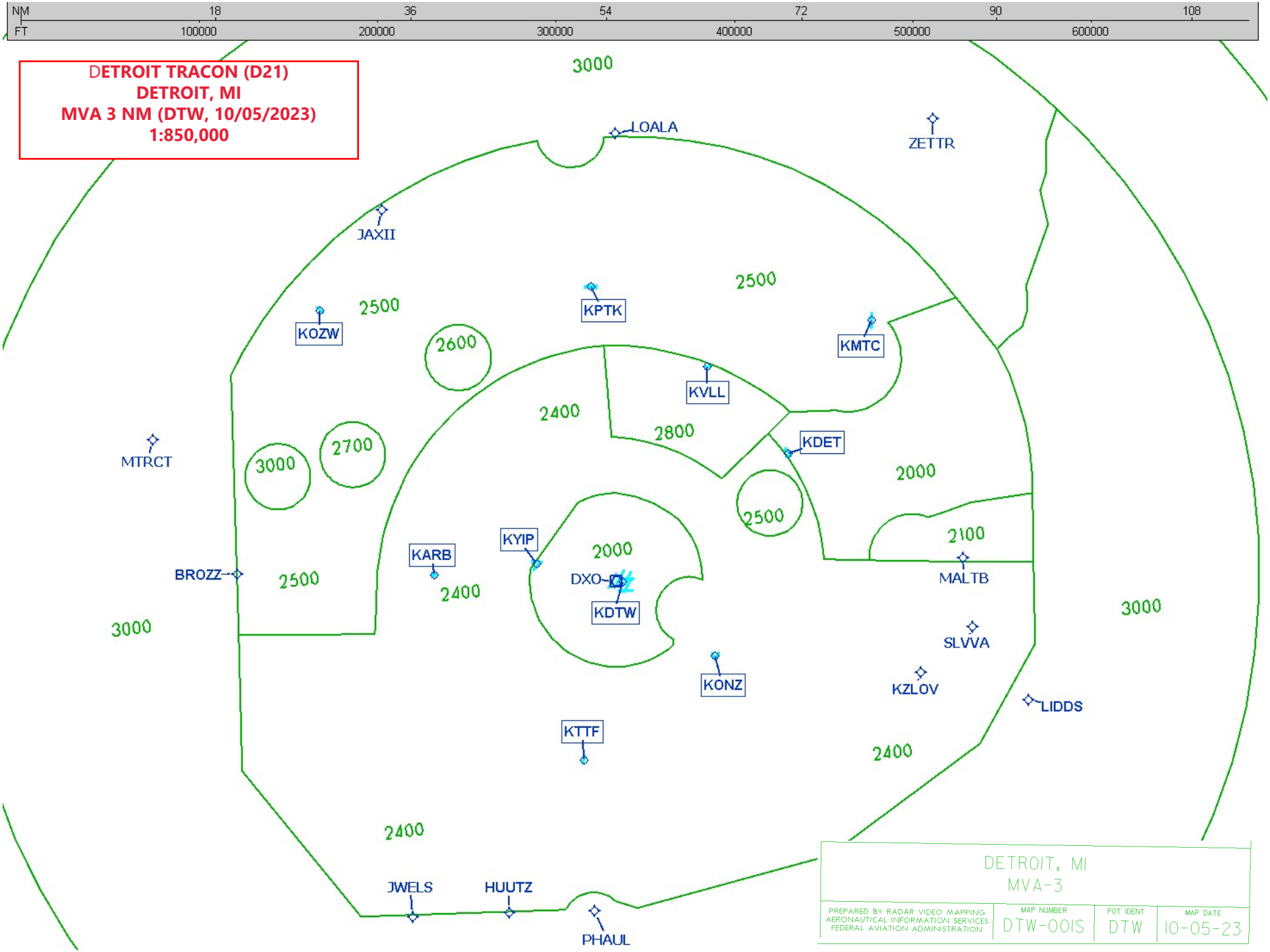
Departing Runways 27L/R (not depicted below)
KAYLN, MIGGY, TRMML, ZETTR, HHOWE - Expect Runway 27R
CCOBB, SNDRS, BARII, CLVIN, LIDDS, PAVYL - Expect Runway 27L

DTW Dual RNAV Departures

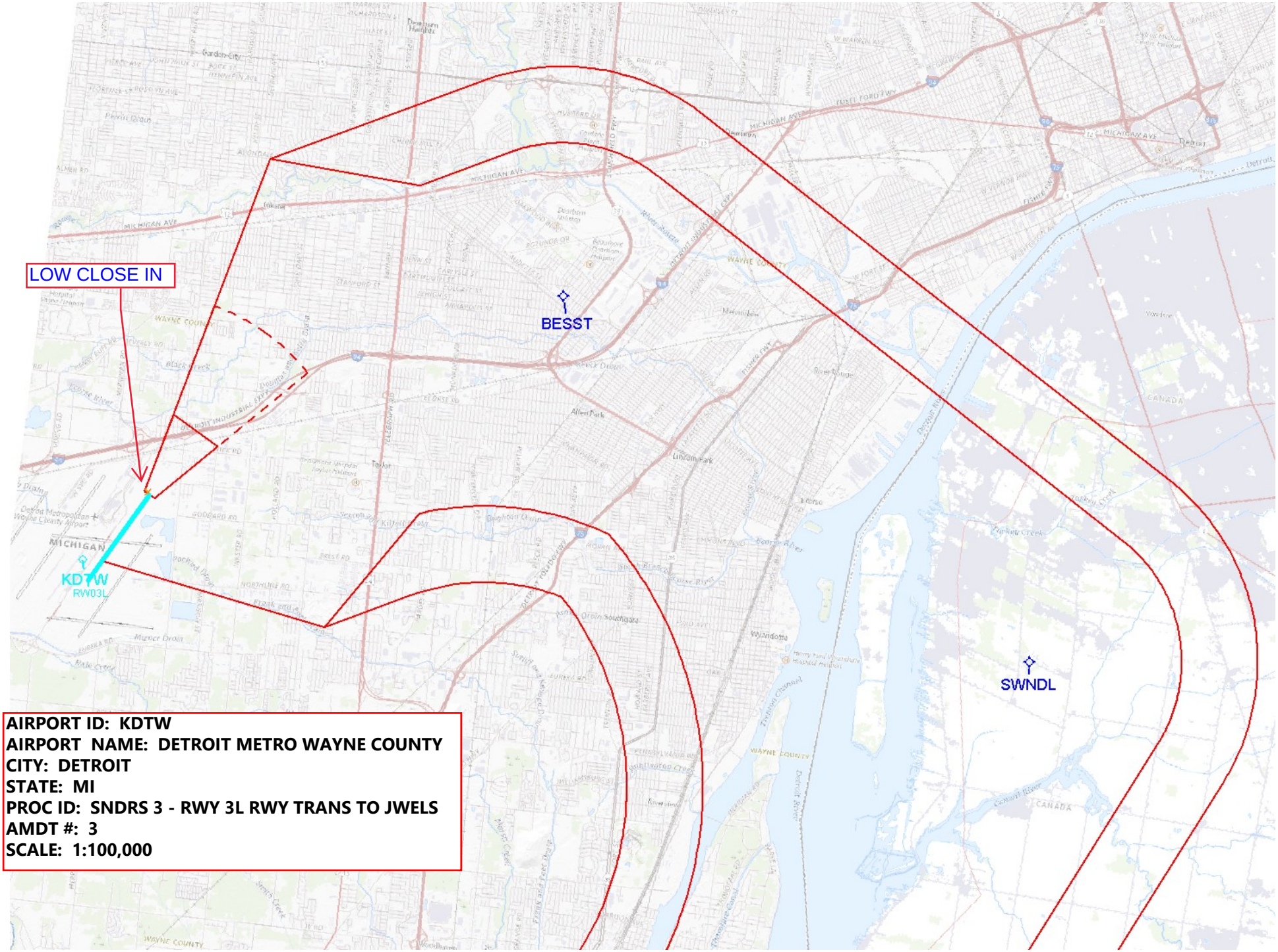


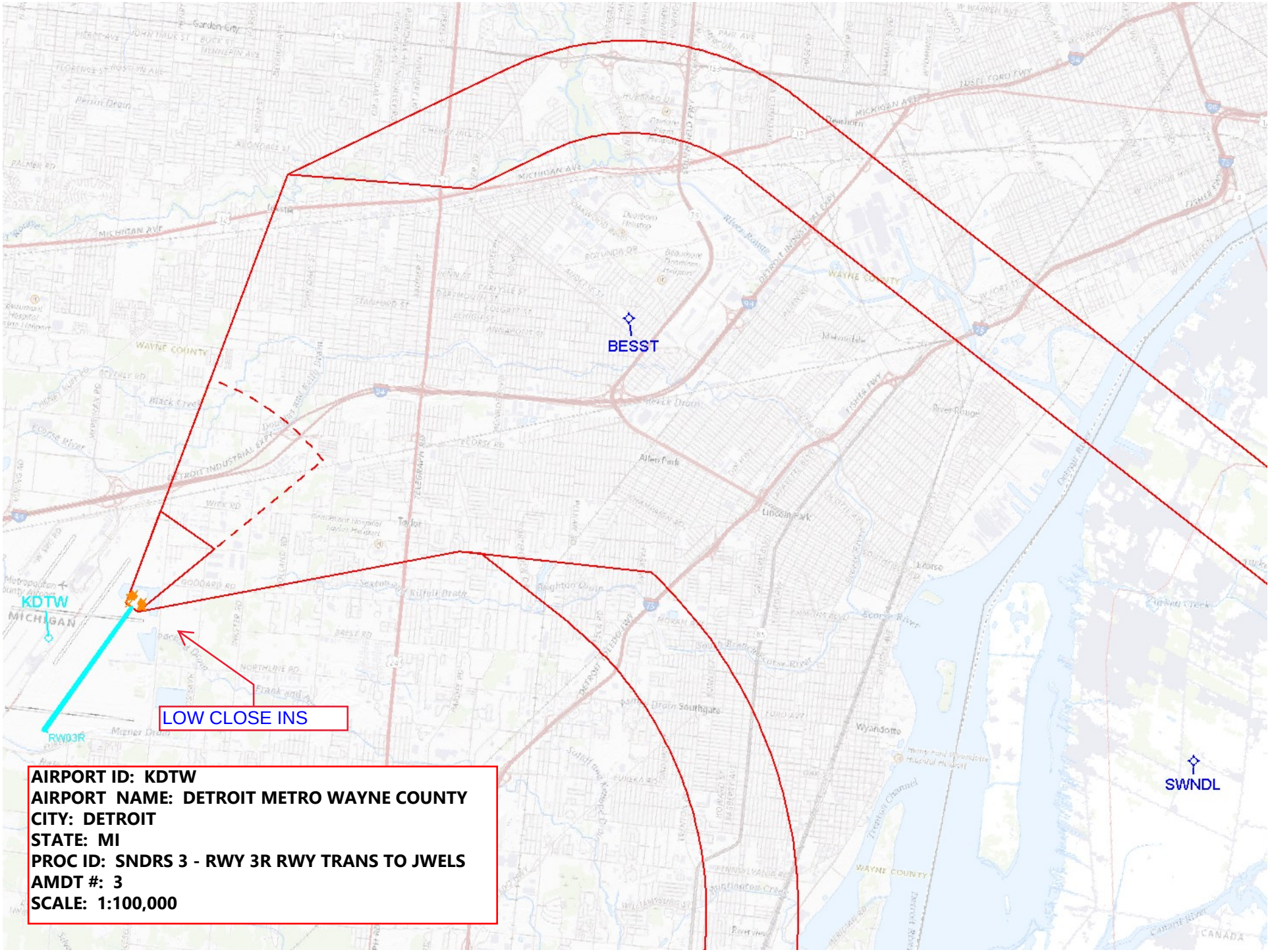
*** Runway assignment may vary depending on traffic and runway closures**

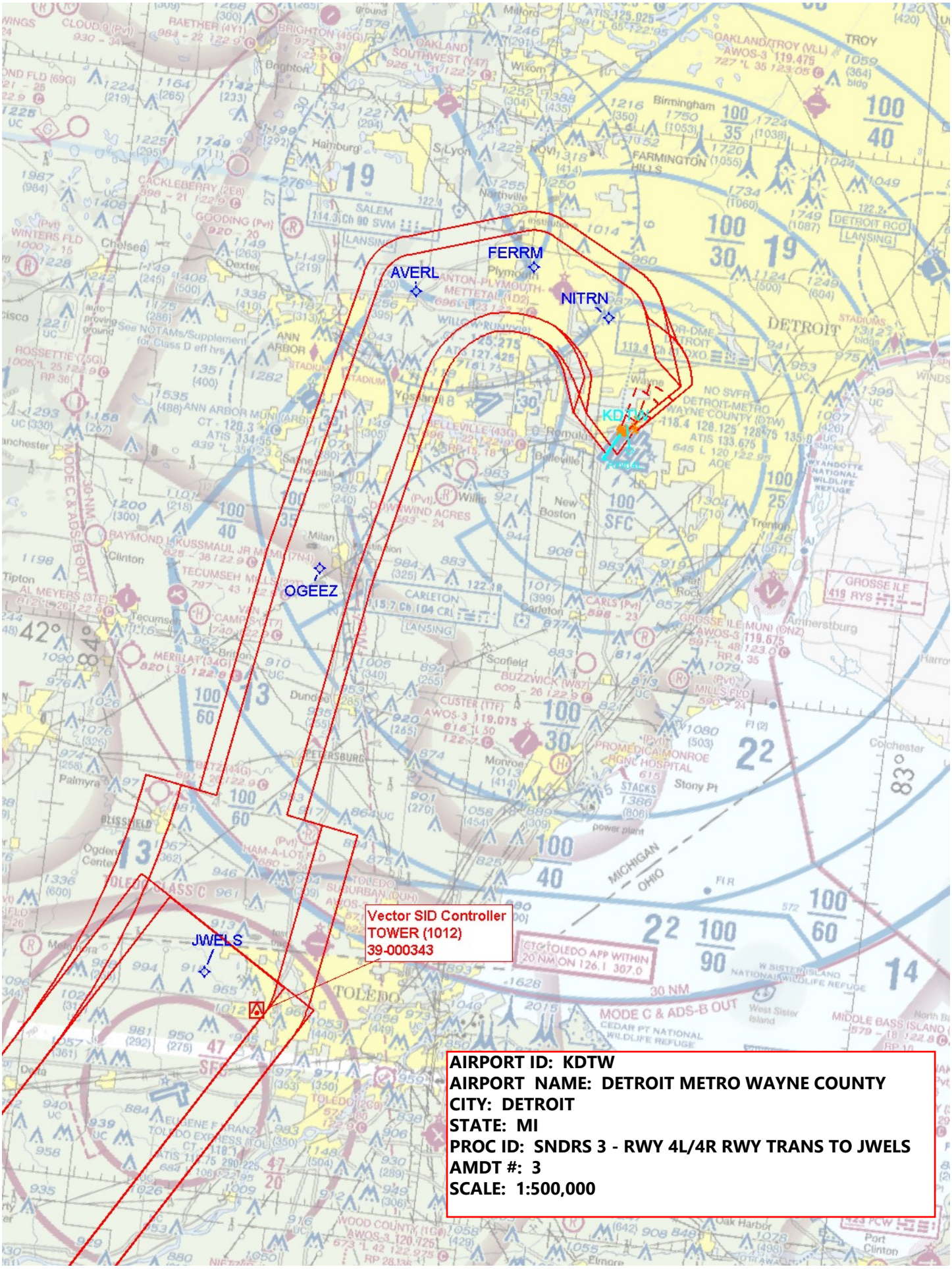
EC-1, 05 OCT 2023 to 02 NOV 2023
EC-1, 05 OCT 2023 to 02 NOV 2023

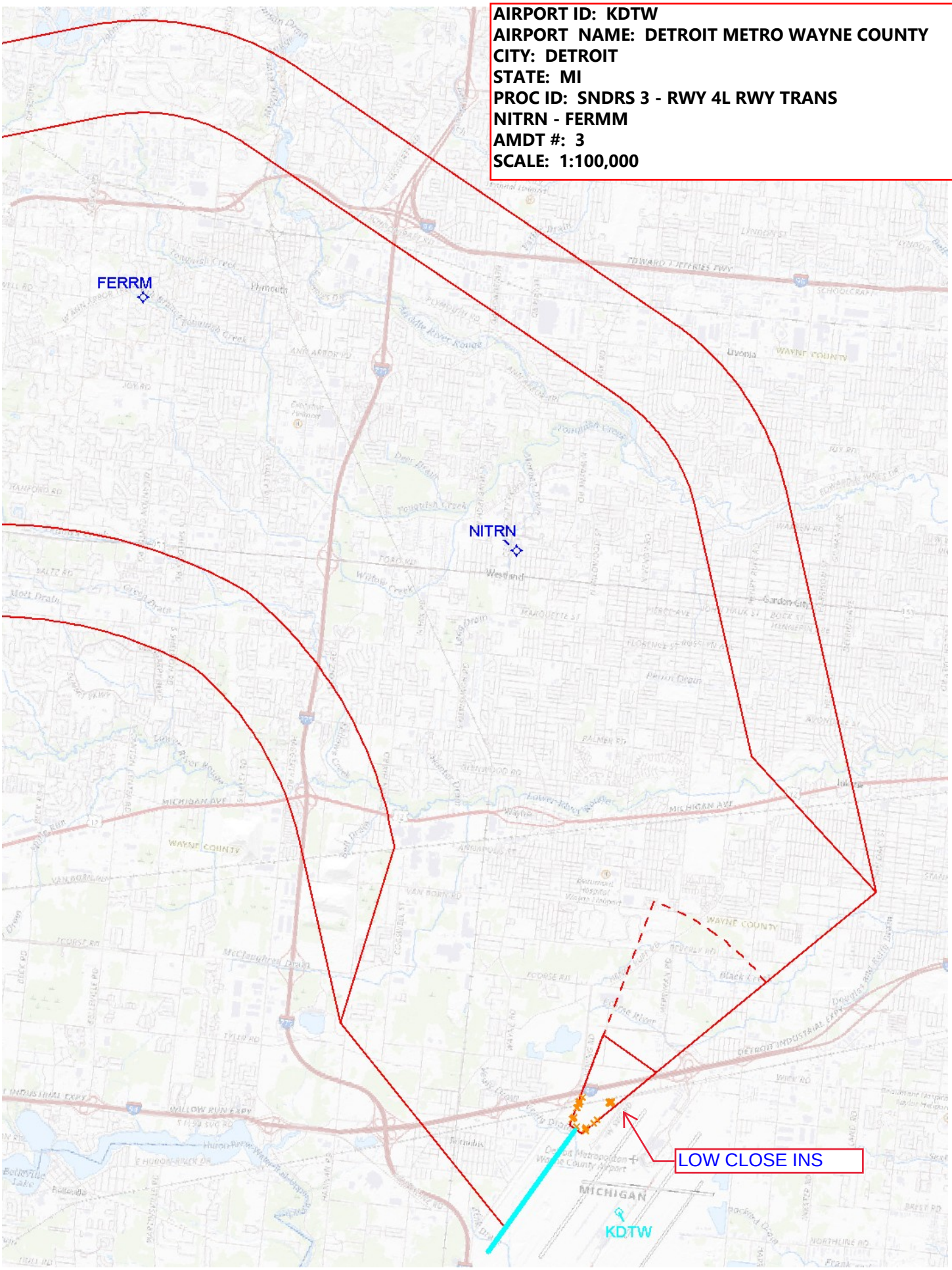

NM 18 36 54 72 90 108
FT 100000 200000 300000 400000 500000 600000
DETROIT TRACON (D21)
DETROIT, MI
MVA 3 NM (DTW, 10/05/2023)
1:850,000
3000
LOALA
ZETTR
JAXII
2500
KPTK
KOZW
2500
2600
KMTC
KVLL
2400
2800
KDET
MTRCT
3000
2700
2000
2500
KYIP
2100
KARB
2000
BROZZ
2500
DXO
MALTB
2400
KDTW
3000
3000
SLVVA
KONZ
KZLOV
LIDDS
KTTF
2400
2400
JWELS
HUUTZ
PHAUL
DETROIT, MI
MVA-3
PREPARED BY RADAR VIDEO MAPPING
AERONAUTICAL INFORMATION SERVICES
FEDERAL AVIATION ADMINISTRATION
MAP NUMBER
DTW-00IS
POT IDENT
DTW
MAP DATE
10-05-23

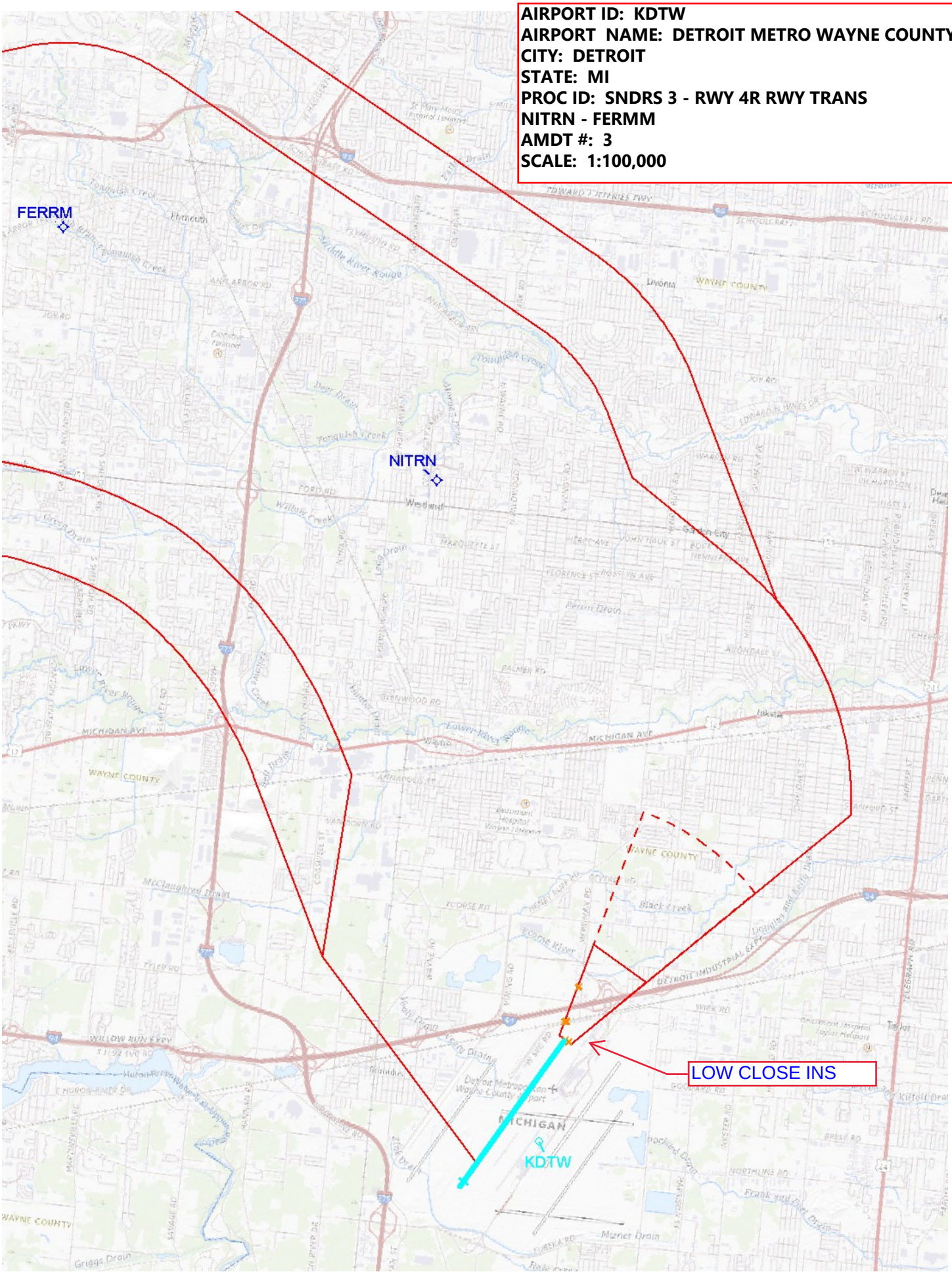

AIRPORT ID: KDTW
AIRPORT NAME: DETROIT METRO WAYNE COUNTY
CITY: DETROIT
STATE: MI
PROC ID: SNDRS 3 - RWY 3L/3R RWY TRANS TO JWELS
AMDT #: 3
SCALE: 1:500,000
KDTW
BESST
SWNDL
WERKN
JWELS
Vector SID Controller
TOWER (1012)
39-000343

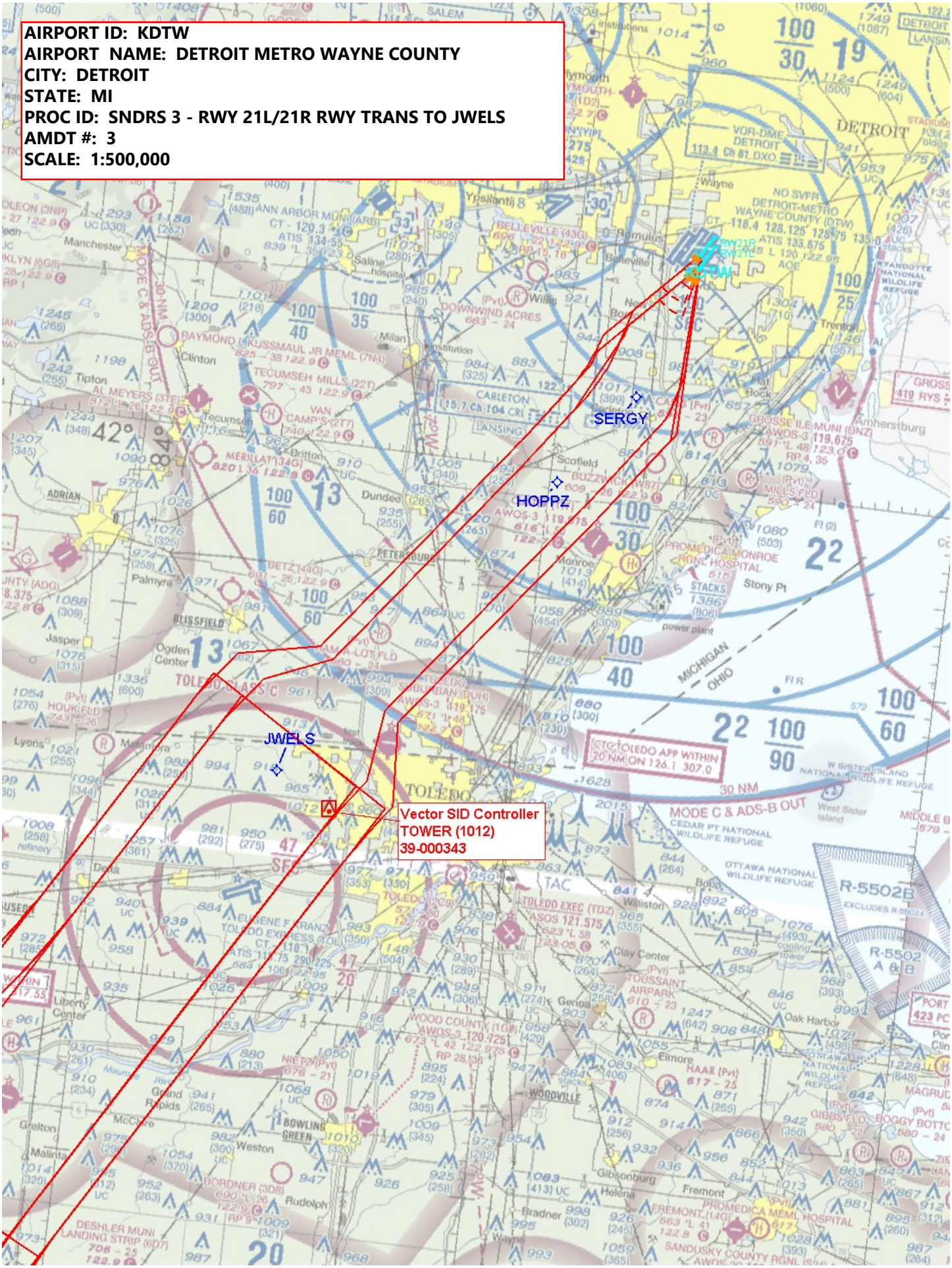

LOW CLOSE IN
BESST
SWNDL
KDTW
RW03L
MICHIGAN
AIRPORT ID: KDTW
AIRPORT NAME: DETROIT METRO WAYNE COUNTY
CITY: DETROIT
STATE: MI
PROC ID: SNDRS 3 - RWY 3L RWY TRANS TO JWELS
AMDT #: 3
SCALE: 1:100,000

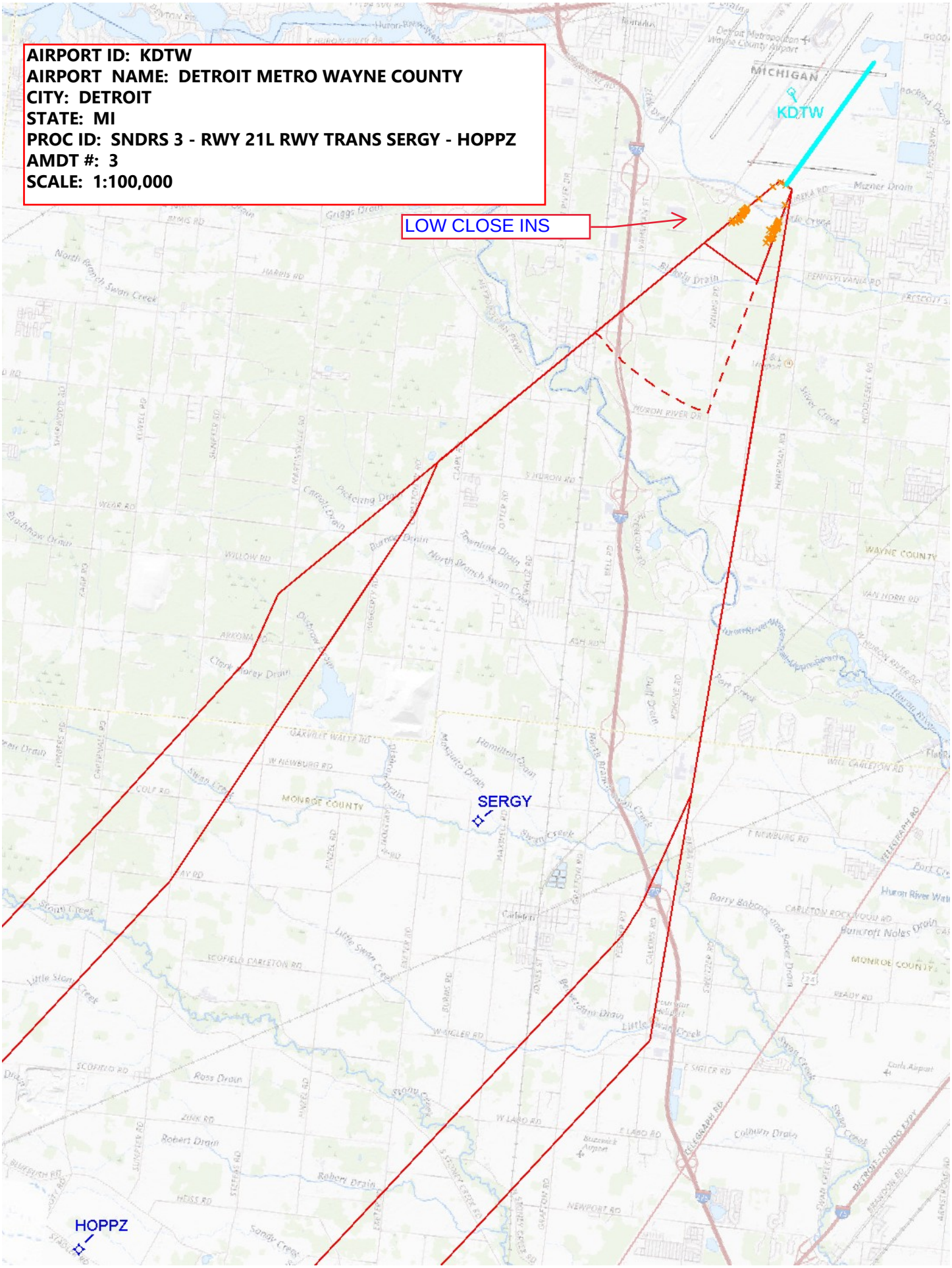

BESST
KDTW
MICHIGAN
RW03R
LOW CLOSE INS
SWNDL
AIRPORT ID: KDTW
AIRPORT NAME: DETROIT METRO WAYNE COUNTY
CITY: DETROIT
STATE: MI
PROC ID: SNDRS 3 - RWY 3R RWY TRANS TO JWELS
AMDT #: 3
SCALE: 1:100,000

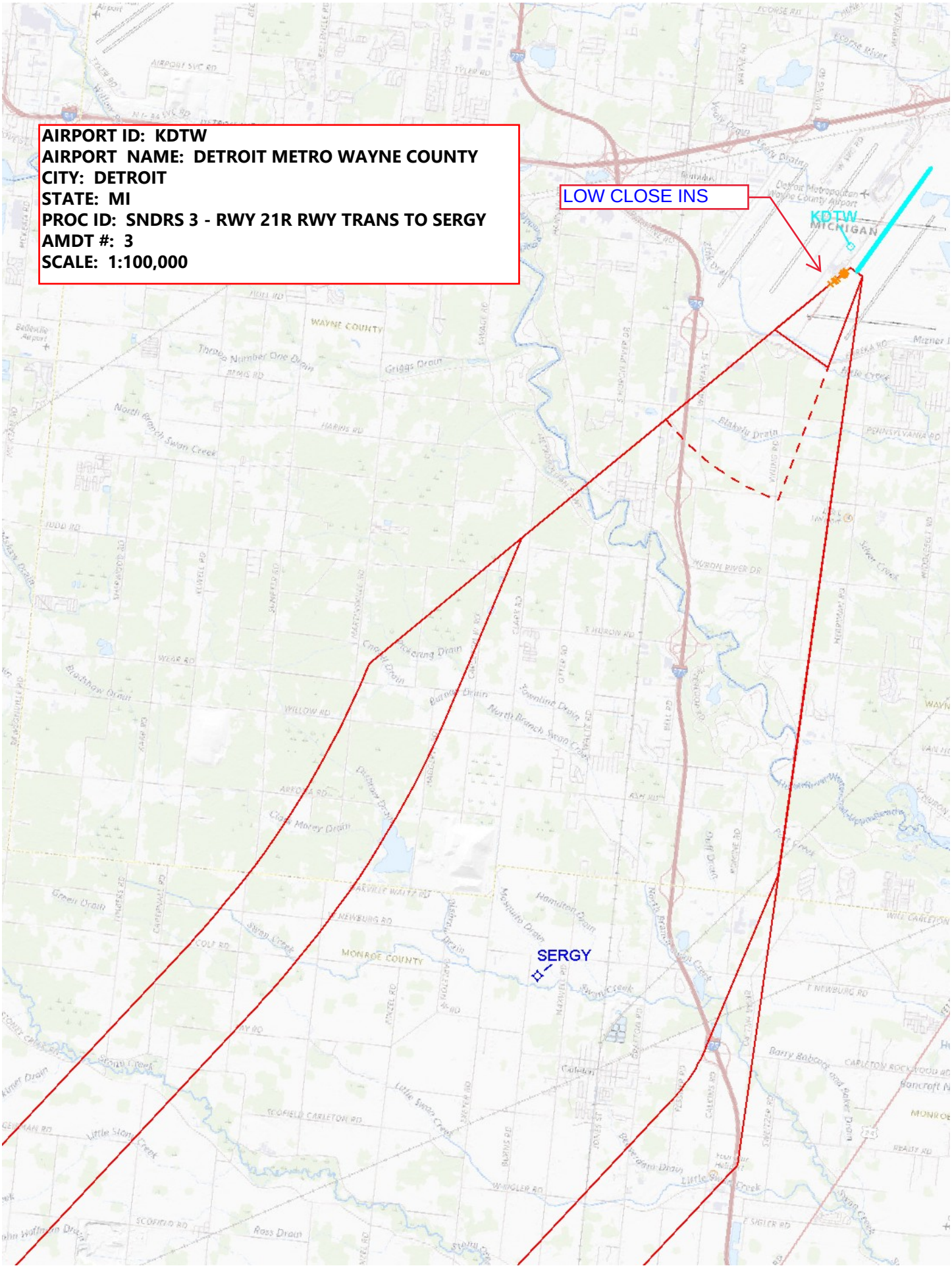

FERRM
AVERL
NITRN
KDTW
OGEEZ
JWELS
Vector SID Controller
TOWER (1012)
39-000343
AIRPORT ID: KDTW
AIRPORT NAME: DETROIT METRO WAYNE COUNTY
CITY: DETROIT
STATE: MI
PROC ID: SNDRS 3 - RWY 4L/4R RWY TRANS TO JWELS
AMDT #: 3
SCALE: 1:500,000

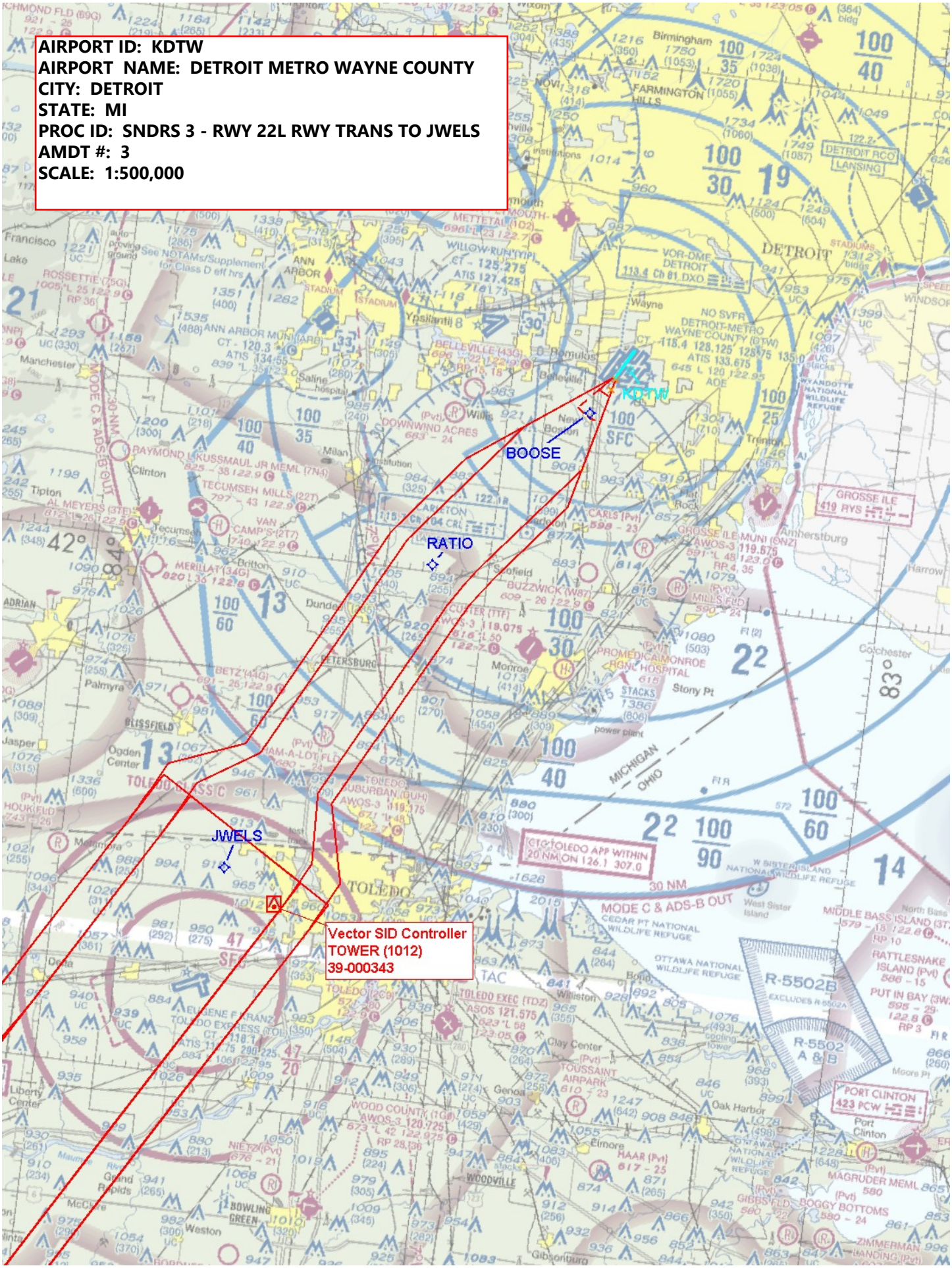

AIRPORT ID: KDTW
AIRPORT NAME: DETROIT METRO WAYNE COUNTY
CITY: DETROIT
STATE: MI
PROC ID: SNDRS 3 - RWY 4L RWY TRANS
NITRN - FERMM
AMDT #: 3
SCALE: 1:100,000
FERRM
NITRN
LOW CLOSE INS
KDTW

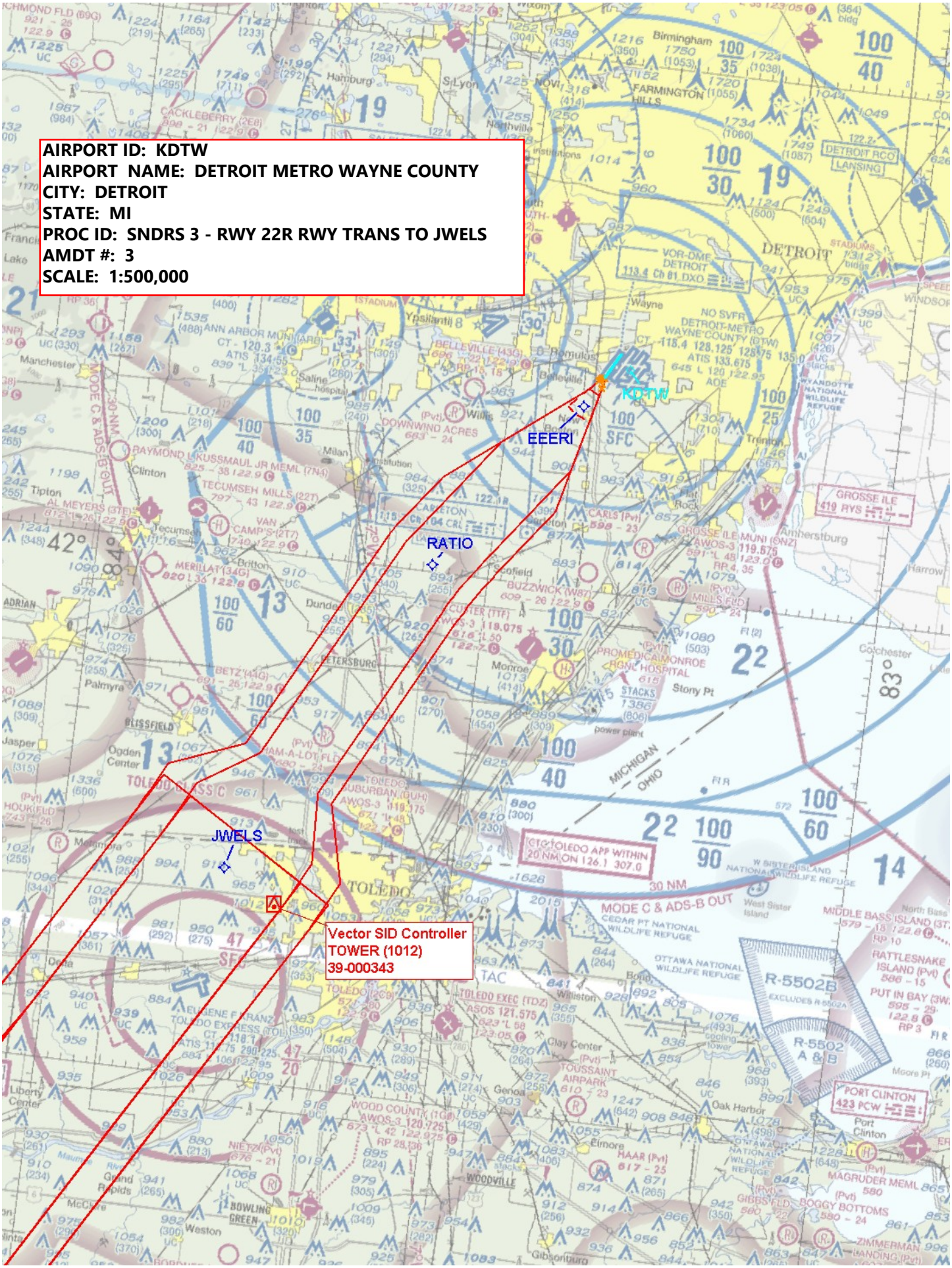

AIRPORT ID: KDTW
AIRPORT NAME: DETROIT METRO WAYNE COUNTY
CITY: DETROIT
STATE: MI
PROC ID: SNDRS 3 - RWY 4R RWY TRANS
NITRN - FERMM
AMDT #: 3
SCALE: 1:100,000
FERRM
NITRN
LOW CLOSE INS
KDTW

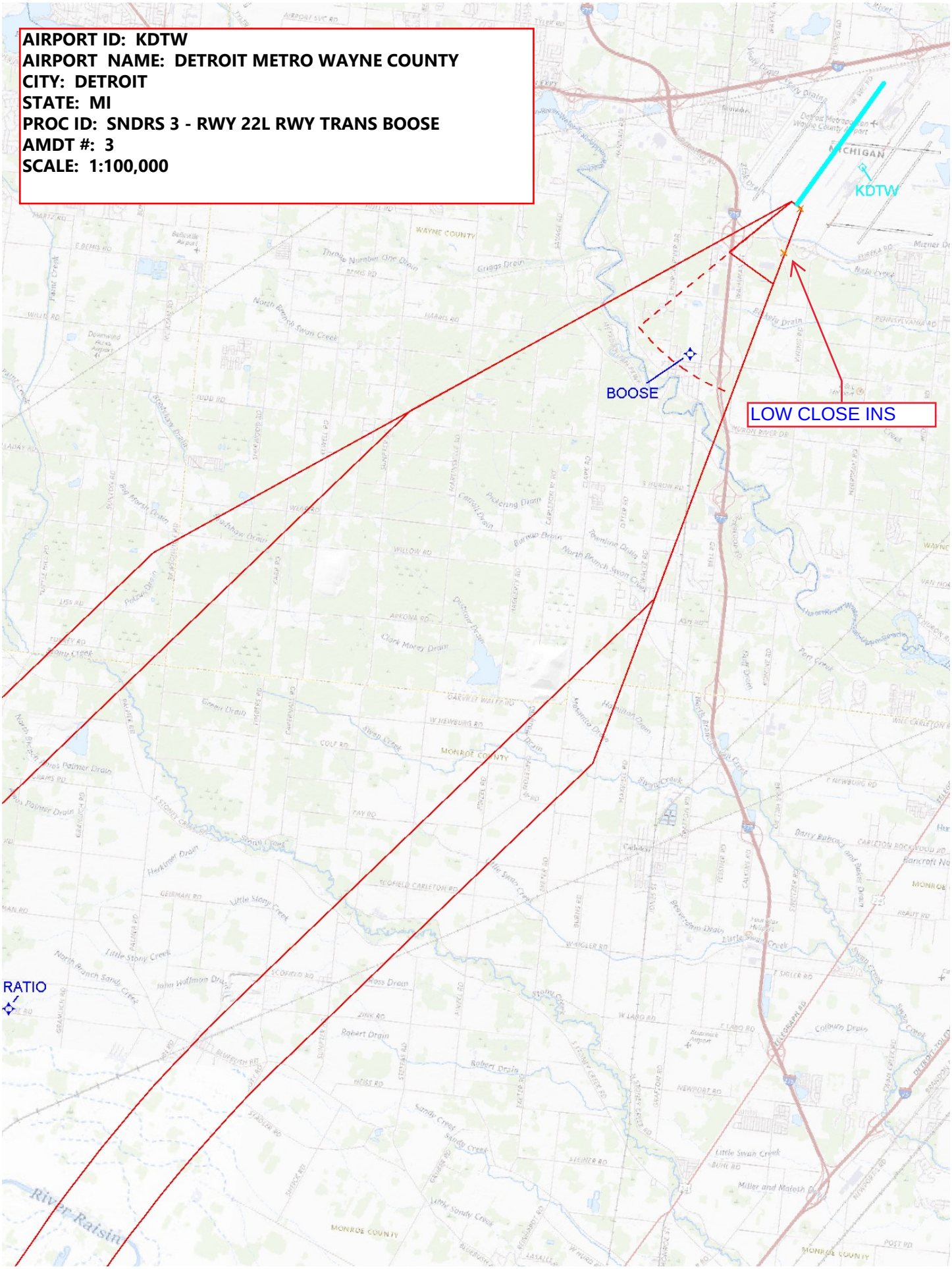

AIRPORT ID: KDTW
AIRPORT NAME: DETROIT METRO WAYNE COUNTY
CITY: DETROIT
STATE: MI
PROC ID: SNDRS 3 - RWY 21L/21R RWY TRANS TO JWELS
AMDT #: 3
SCALE: 1:500,000
SERGY
HOPPZ
JWELS
Vector SID Controller
TOWER (1012)
39-000343
DETROIT
TOLEDO
MODE C & ADS-B OUT
30 NM
MICHIGAN
OHIO
FIR
R-5502B
R-5502 A & B

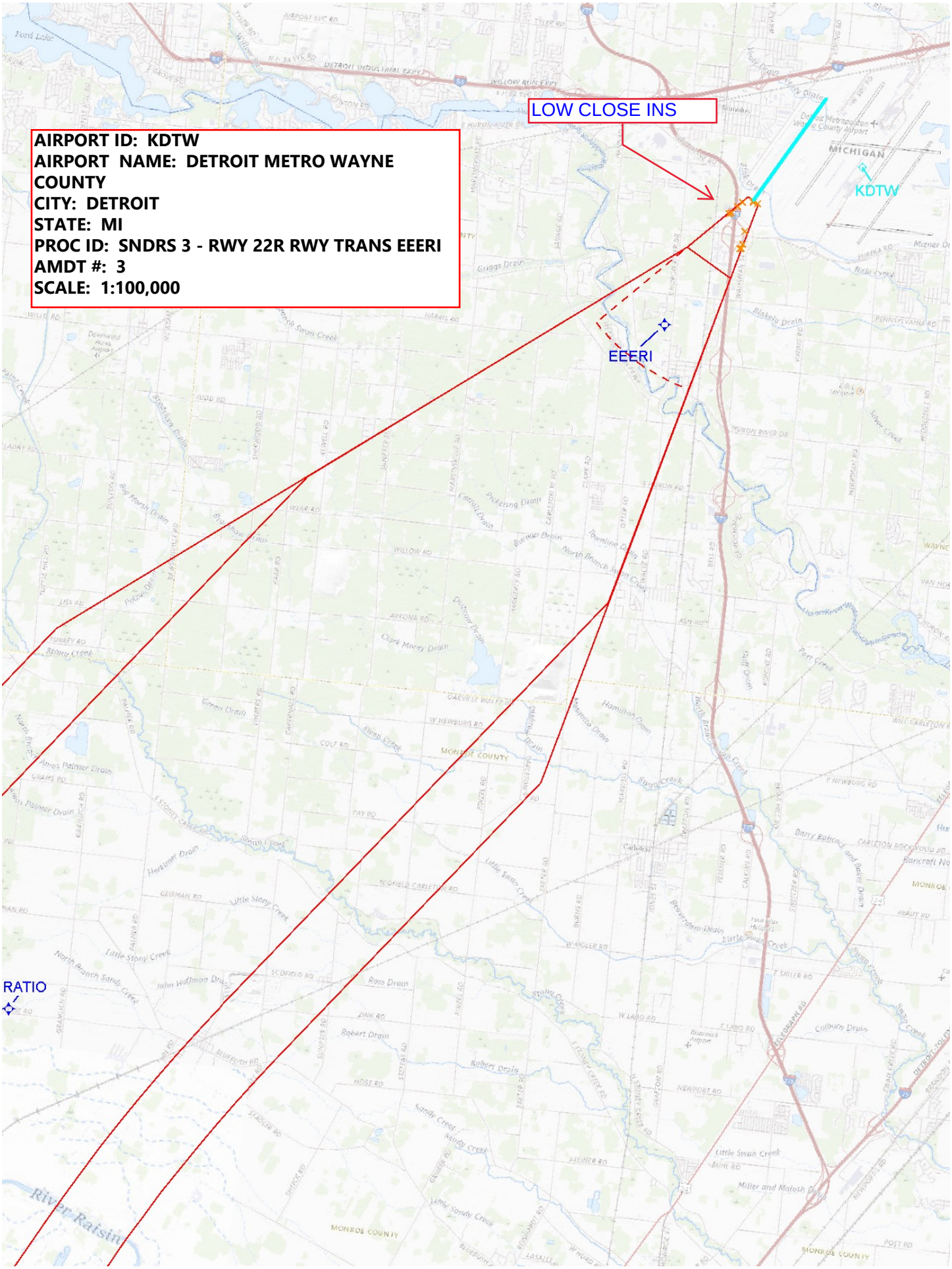

AIRPORT ID: KDTW
AIRPORT NAME: DETROIT METRO WAYNE COUNTY
CITY: DETROIT
STATE: MI
PROC ID: SNDRS 3 - RWY 21L RWY TRANS SERGY - HOPPZ
AMDT #: 3
SCALE: 1:100,000
LOW CLOSE INS
MICHIGAN
KDTW
SERGY
HOPPZ
MONROE COUNTY
WAYNE COUNTY

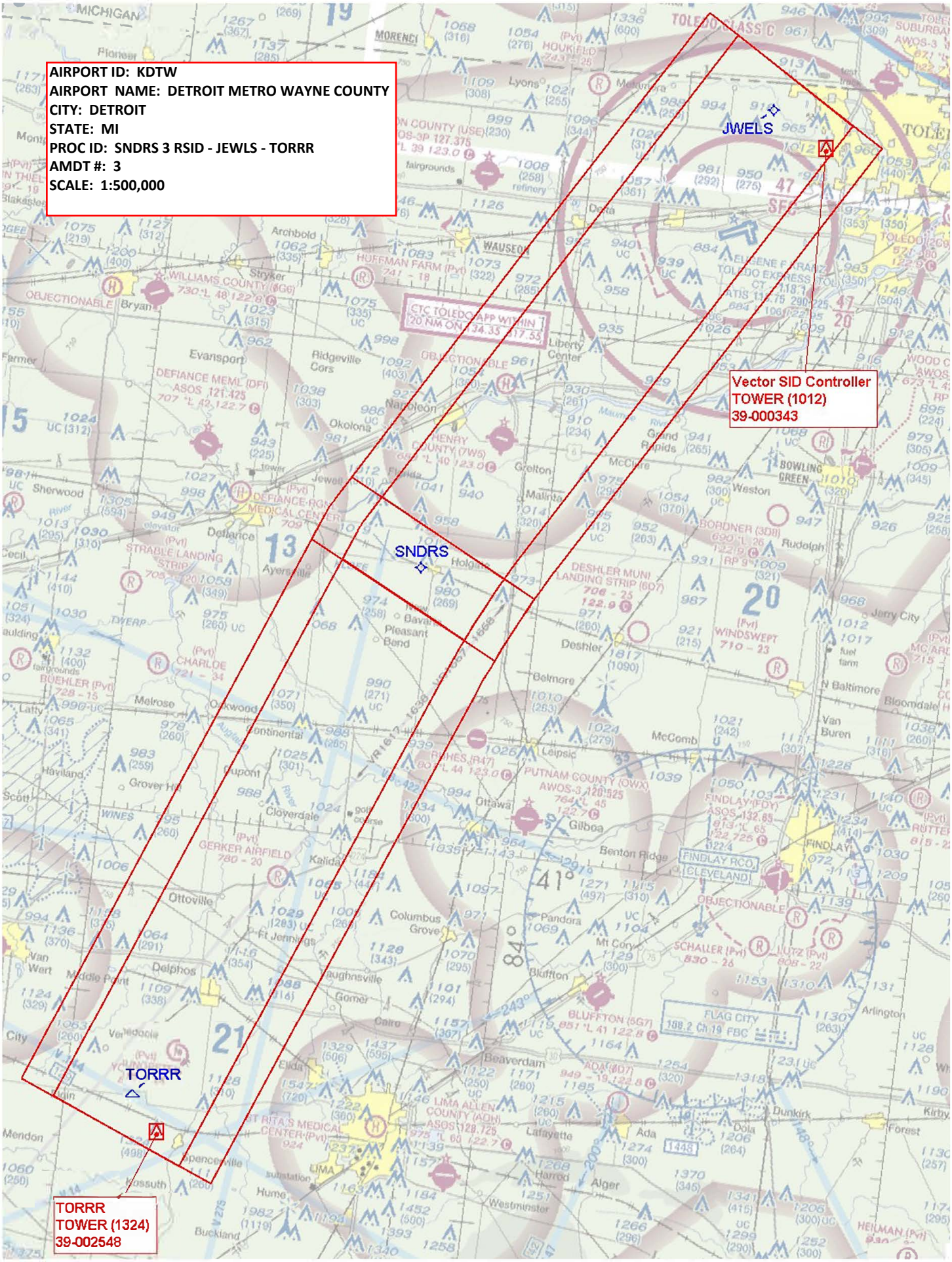

AIRPORT ID: KDTW
AIRPORT NAME: DETROIT METRO WAYNE COUNTY
CITY: DETROIT
STATE: MI
PROC ID: SNDRS 3 - RWY 21R RWY TRANS TO SERGY
AMDT #: 3
SCALE: 1:100,000
LOW CLOSE INS
KDTW
MICHIGAN
SERGY
WAYNE COUNTY
MONROE COUNTY

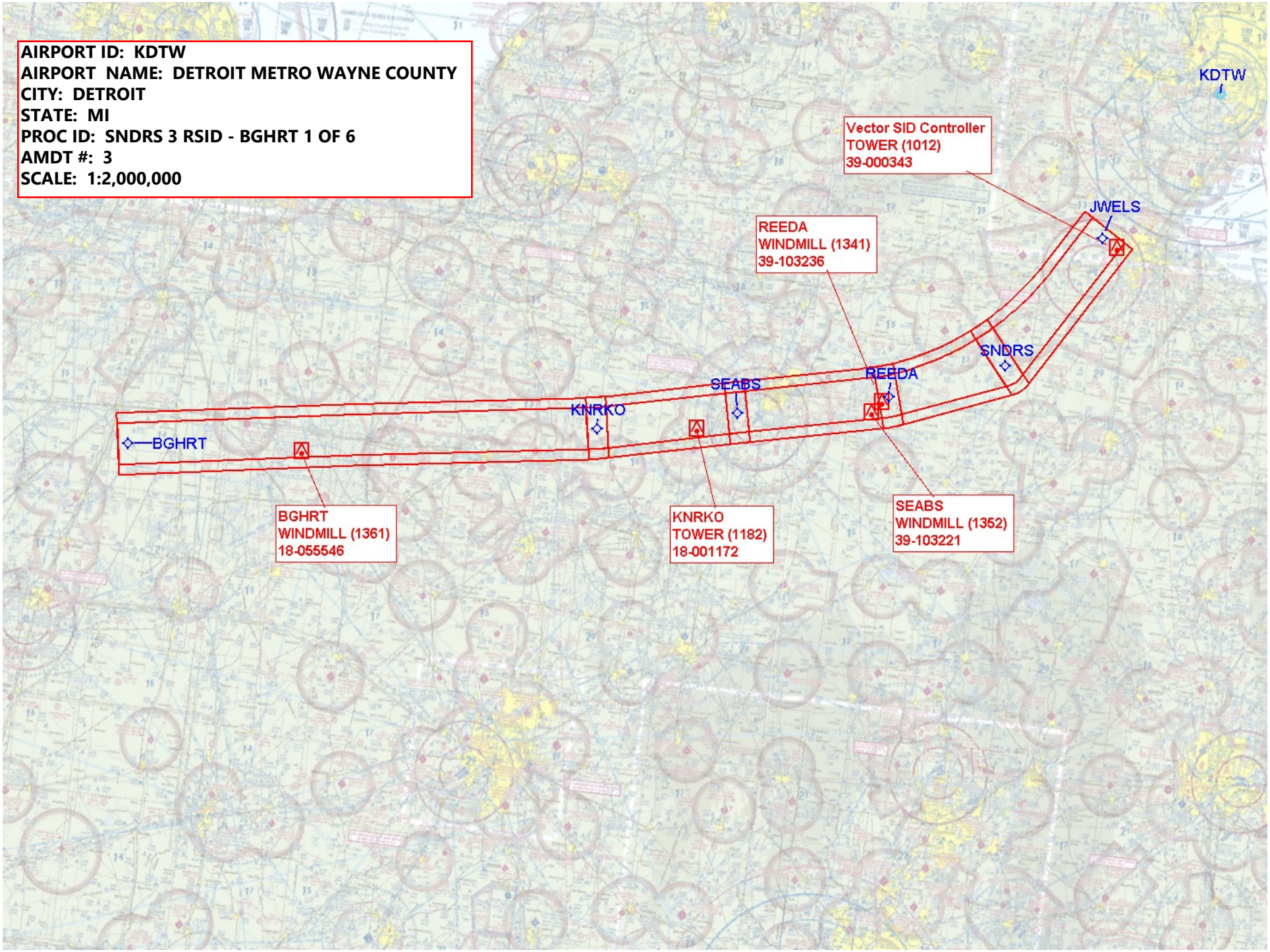

AIRPORT ID: KDTW
AIRPORT NAME: DETROIT METRO WAYNE COUNTY
CITY: DETROIT
STATE: MI
PROC ID: SNDRS 3 - RWY 22L RWY TRANS TO JWELS
AMDT #: 3
SCALE: 1:500,000
KDTW
BOOSE
RATIO
JWELS
Vector SID Controller
TOWER (1012)
39-000343


AIRPORT ID: KDTW
AIRPORT NAME: DETROIT METRO WAYNE COUNTY
CITY: DETROIT
STATE: MI
PROC ID: SNDRS 3 - RWY 22R RWY TRANS TO JWELS
AMDT #: 3
SCALE: 1:500,000
KDTW
EEERI
RATIO
JWELS
Vector SID Controller
TOWER (1012)
39-000343

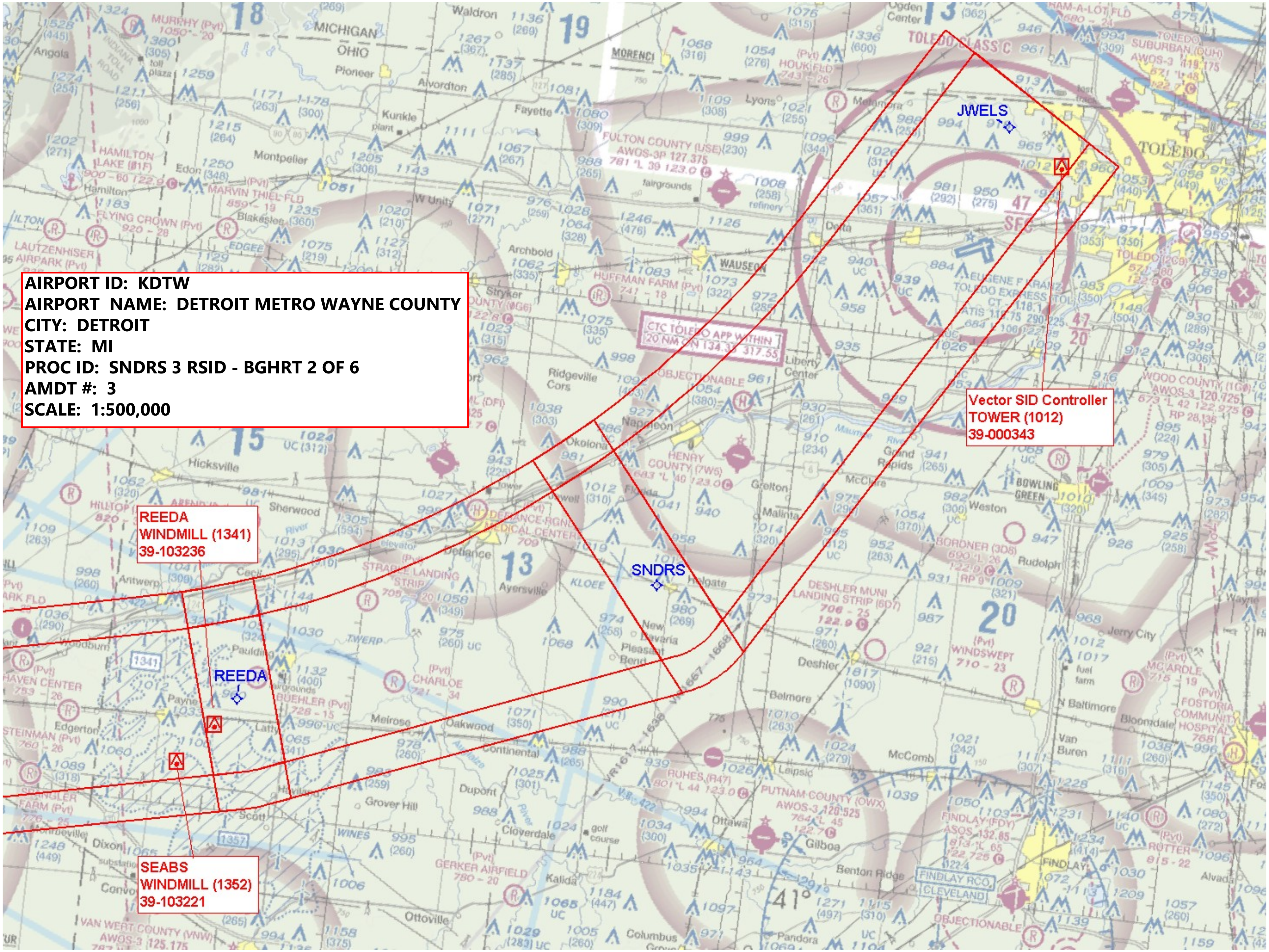

AIRPORT ID: KDTW
AIRPORT NAME: DETROIT METRO WAYNE COUNTY
CITY: DETROIT
STATE: MI
PROC ID: SNDRS 3 - RWY 22L RWY TRANS BOOSE
AMDT #: 3
SCALE: 1:100,000
KDTW
BOOSE
LOW CLOSE INS
RATIO

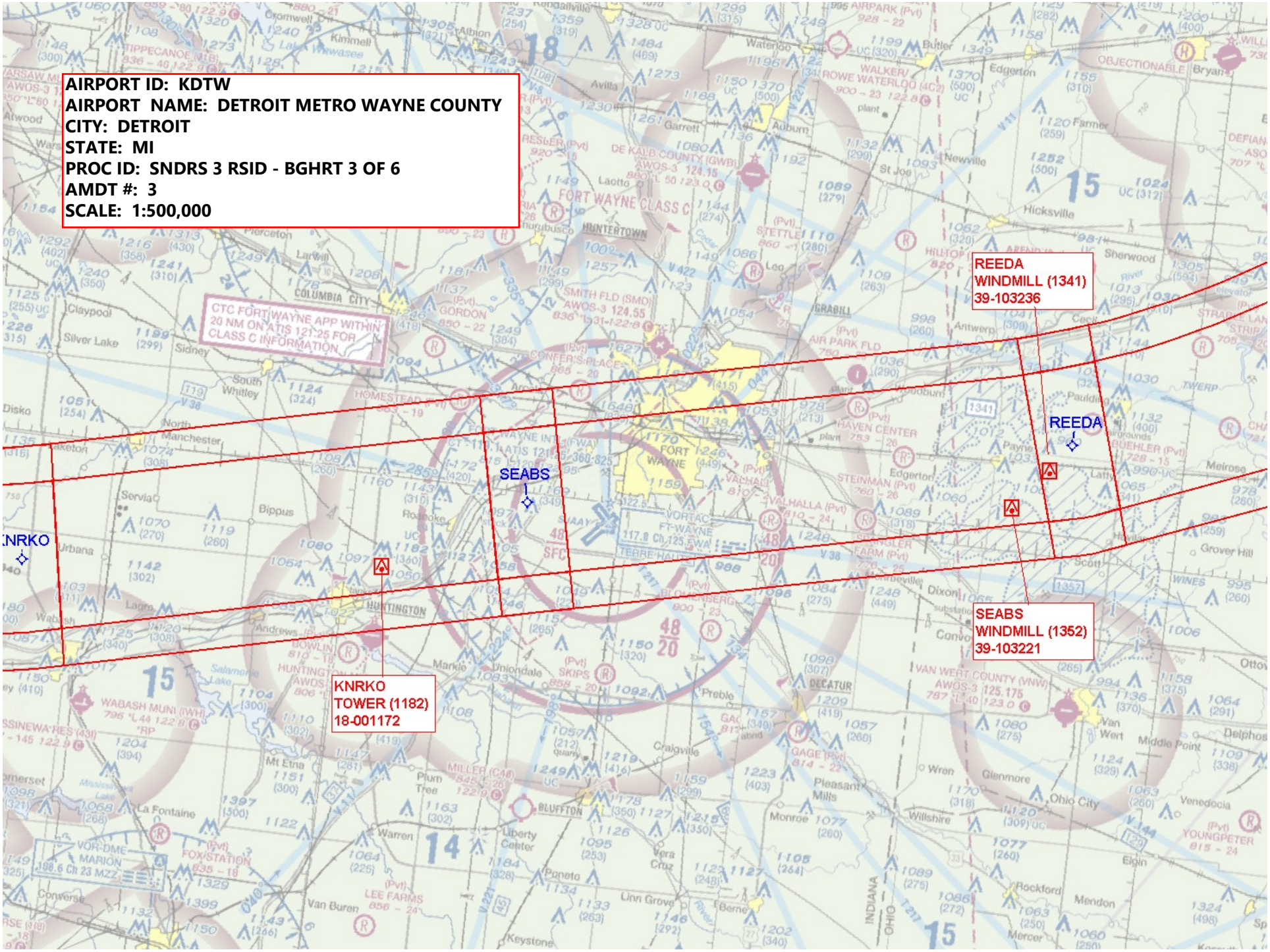

LOW CLOSE INS
AIRPORT ID: KDTW
AIRPORT NAME: DETROIT METRO WAYNE COUNTY
CITY: DETROIT
STATE: MI
PROC ID: SNDRS 3 - RWY 22R RWY TRANS EEERI
AMDT #: 3
SCALE: 1:100,000
MICHIGAN
KDTW
EEERI
RATIO
MONROE COUNTY
River Raisin

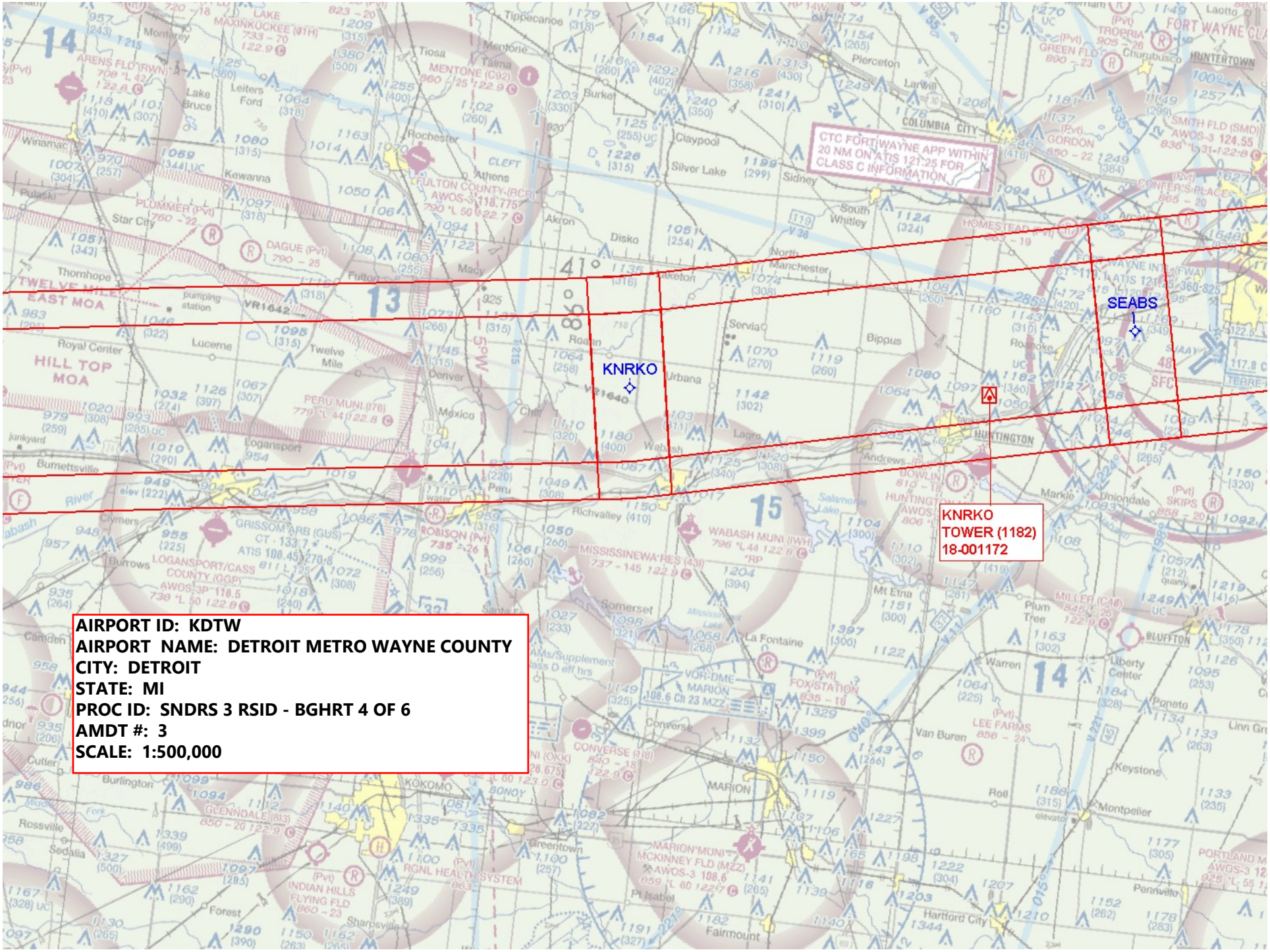

AIRPORT ID: KDTW
AIRPORT NAME: DETROIT METRO WAYNE COUNTY
CITY: DETROIT
STATE: MI
PROC ID: SNDRS 3 RSID - JEWLS - TORRR
AMDT #: 3
SCALE: 1:500,000
JWELS
SNDRS
TORRR
Vector SID Controller
TOWER (1012)
39-000343
TORRR
TOWER (1324)
39-002548

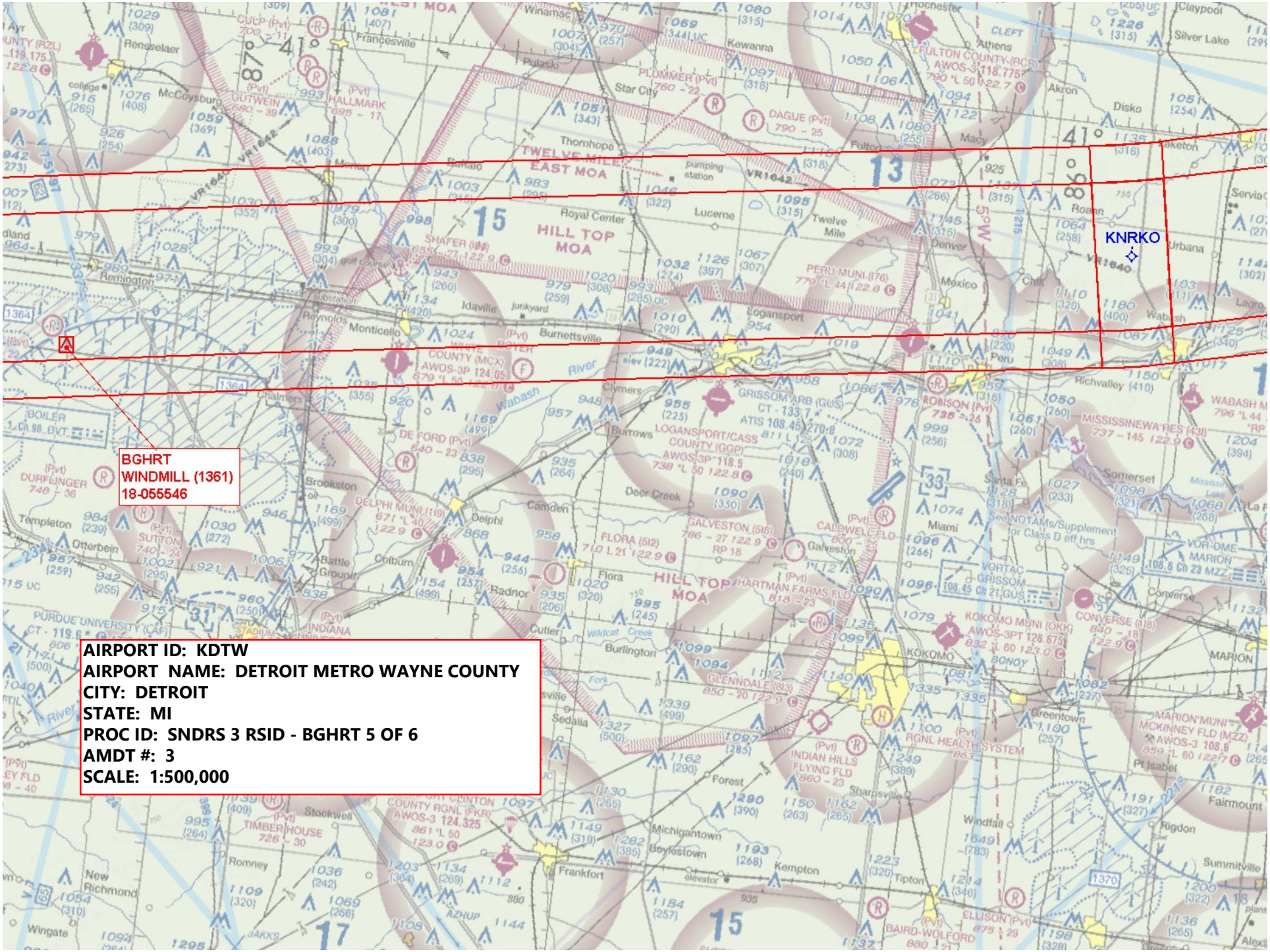

AIRPORT ID: KDTW
AIRPORT NAME: DETROIT METRO WAYNE COUNTY
CITY: DETROIT
STATE: MI
PROC ID: SNDRS 3 RSID - BGHRT 1 OF 6
AMDT #: 3
SCALE: 1:2,000,000
KDTW
Vector SID Controller
TOWER (1012)
39-000343
JWELS
REEDA
WINDMILL (1341)
39-103236
SNDRS
REEDA
SEABS
KNRKO
BGHRT
BGHRT
WINDMILL (1361)
18-055546
KNRKO
TOWER (1182)
18-001172
SEABS
WINDMILL (1352)
39-103221

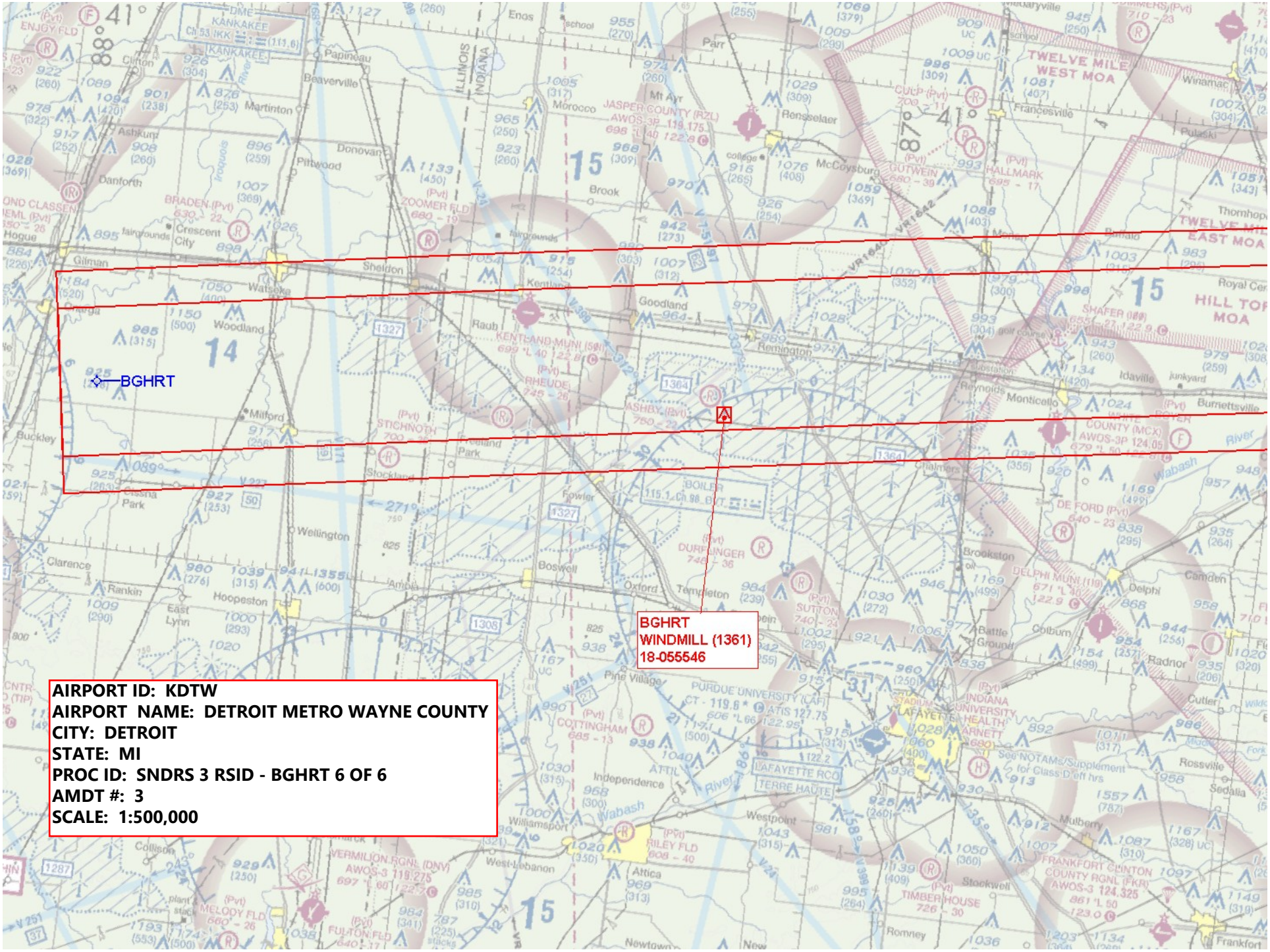
AIRPORT ID: KDTW
AIRPORT NAME: DETROIT METRO WAYNE COUNTY
CITY: DETROIT
STATE: MI
PROC ID: SNDRS 3 RSID - BGHRT 2 OF 6
AMDT #: 3
SCALE: 1:500,000

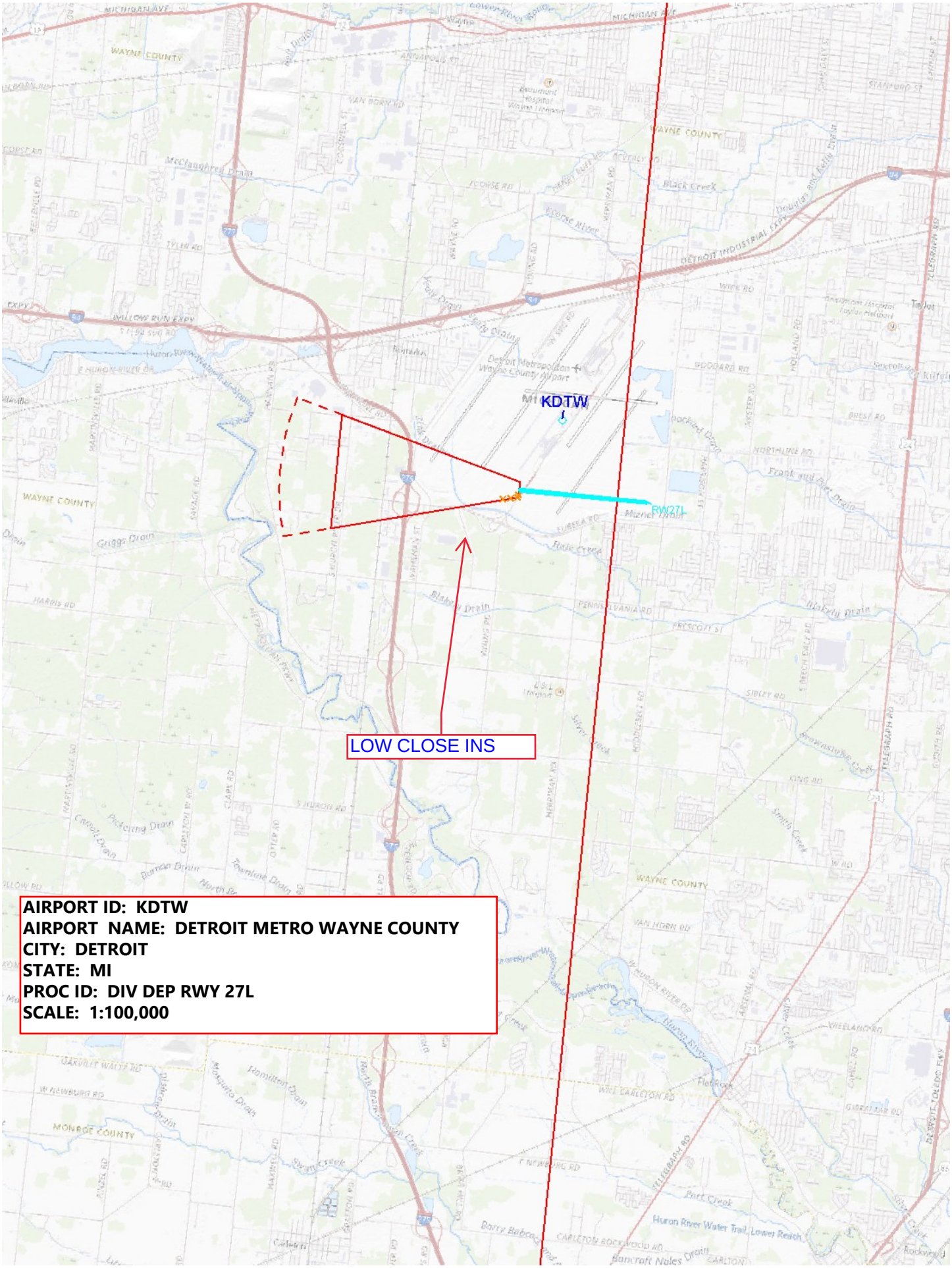


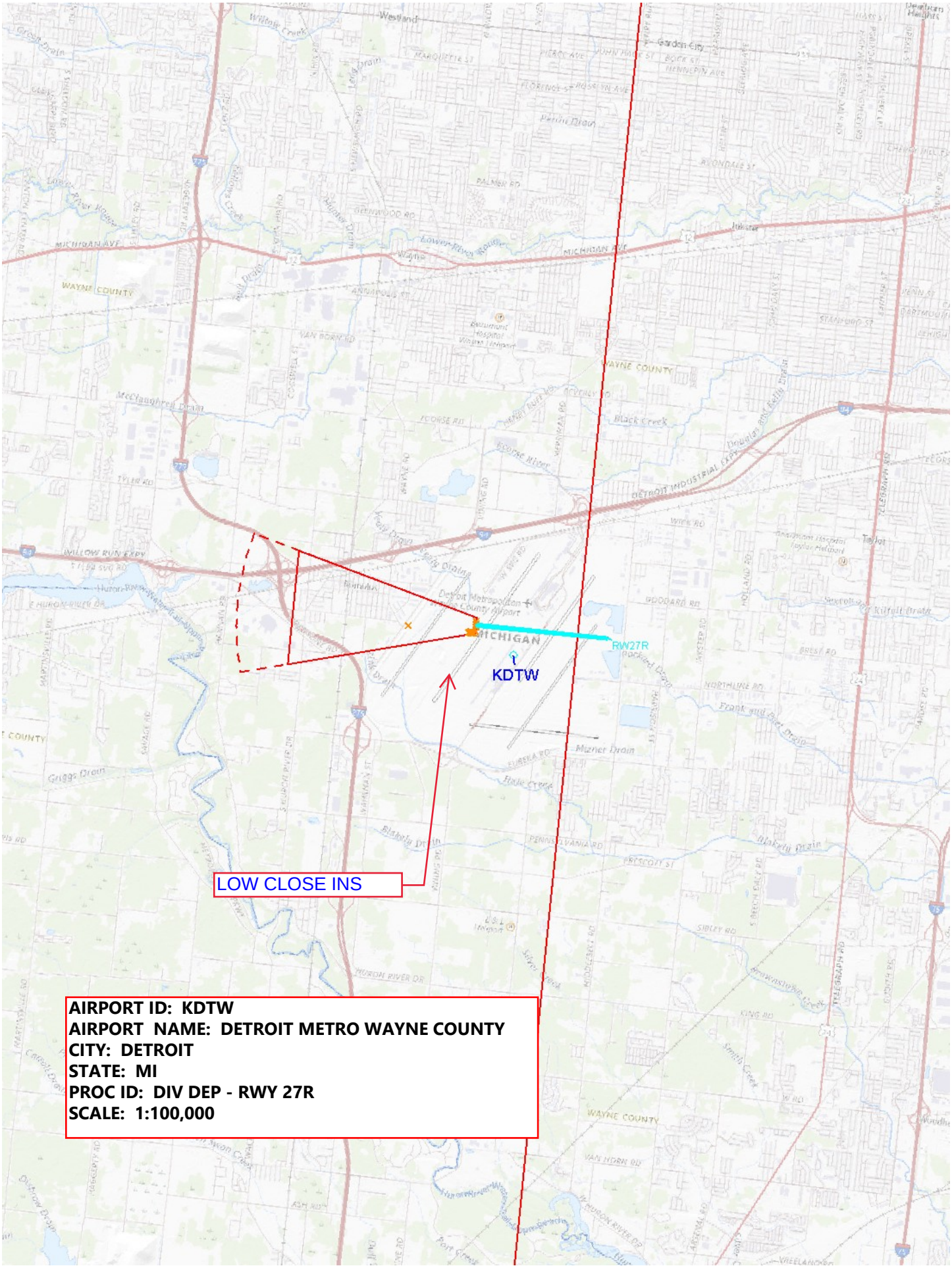

AIRPORT ID: KDTW
AIRPORT NAME: DETROIT METRO WAYNE COUNTY
CITY: DETROIT
STATE: MI
PROC ID: SNDRS 3 RSID - BGHRT 3 OF 6
AMDT #: 3
SCALE: 1:500,000
CTC FORT WAYNE APP WITHIN 20 NM ON ATIS 121.25 FOR CLASS C INFORMATION
REEDA
WINDMILL (1341)
39-103236
REEDA
SEABS
SEABS
WINDMILL (1352)
39-103221
KNRKO
KNRKO
TOWER (1182)
18-001172


CTC FORT WAYNE APP WITHIN 20 NM ON ATIS 121.25 FOR CLASS C INFORMATION
SEABS
KNRKO
KNRKO
TOWER (1182)
18-001172
AIRPORT ID: KDTW
AIRPORT NAME: DETROIT METRO WAYNE COUNTY
CITY: DETROIT
STATE: MI
PROC ID: SNDRS 3 RSID - BGHRT 4 OF 6
AMDT #: 3
SCALE: 1:500,000


BGHRT
WINDMILL (1361)
18-055546
KNRKO
AIRPORT ID: KDTW
AIRPORT NAME: DETROIT METRO WAYNE COUNTY
CITY: DETROIT
STATE: MI
PROC ID: SNDRS 3 RSID - BGHRT 5 OF 6
AMDT #: 3
SCALE: 1:500,000

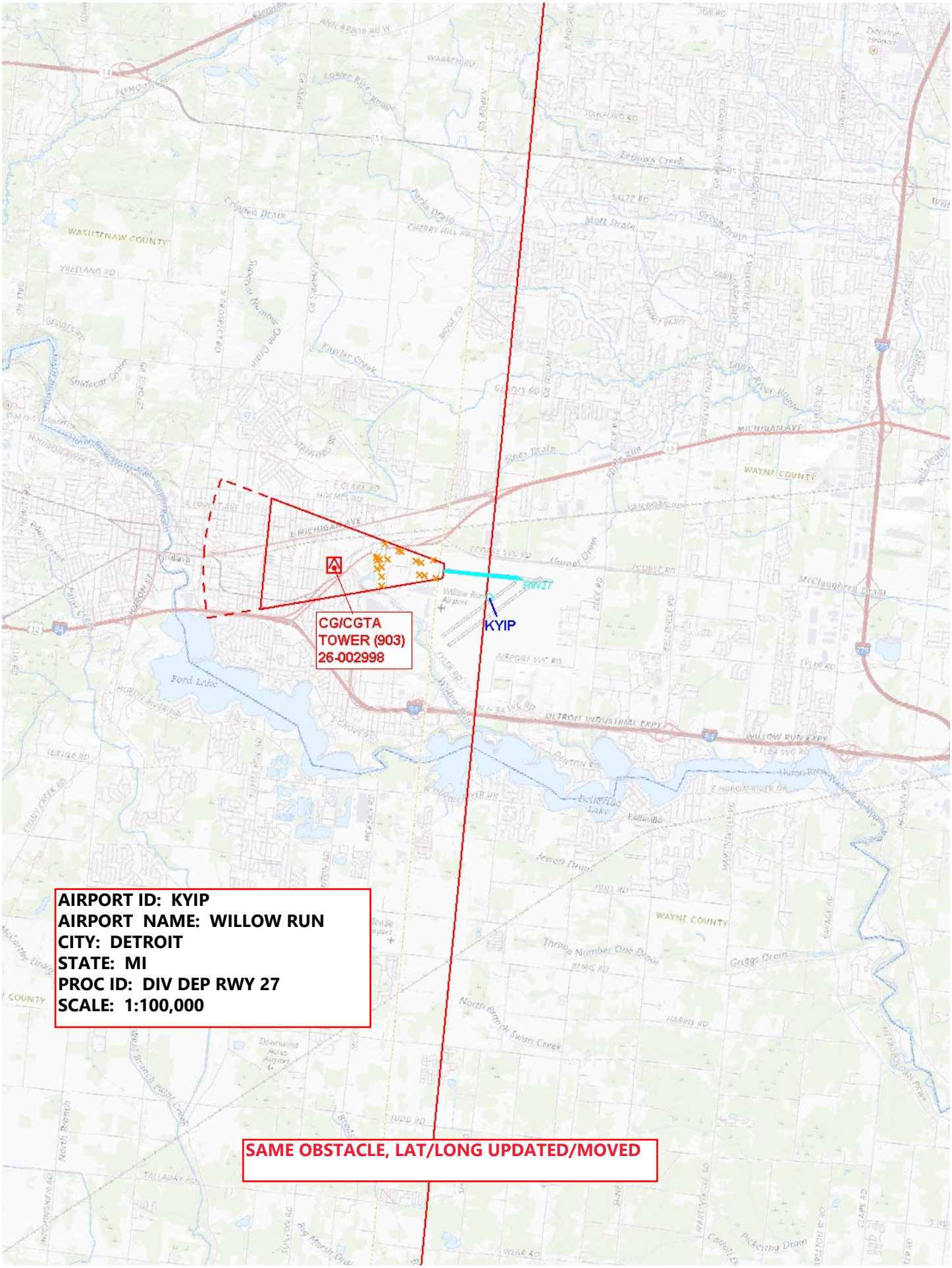

BGHRT
BGHRT
WINDMILL (1361)
18-055546
AIRPORT ID: KDTW
AIRPORT NAME: DETROIT METRO WAYNE COUNTY
CITY: DETROIT
STATE: MI
PROC ID: SNDRS 3 RSID - BGHRT 6 OF 6
AMDT #: 3
SCALE: 1:500,000


KDTW
RW27L
LOW CLOSE INS
AIRPORT ID: KDTW
AIRPORT NAME: DETROIT METRO WAYNE COUNTY
CITY: DETROIT
STATE: MI
PROC ID: DIV DEP RWY 27L
SCALE: 1:100,000

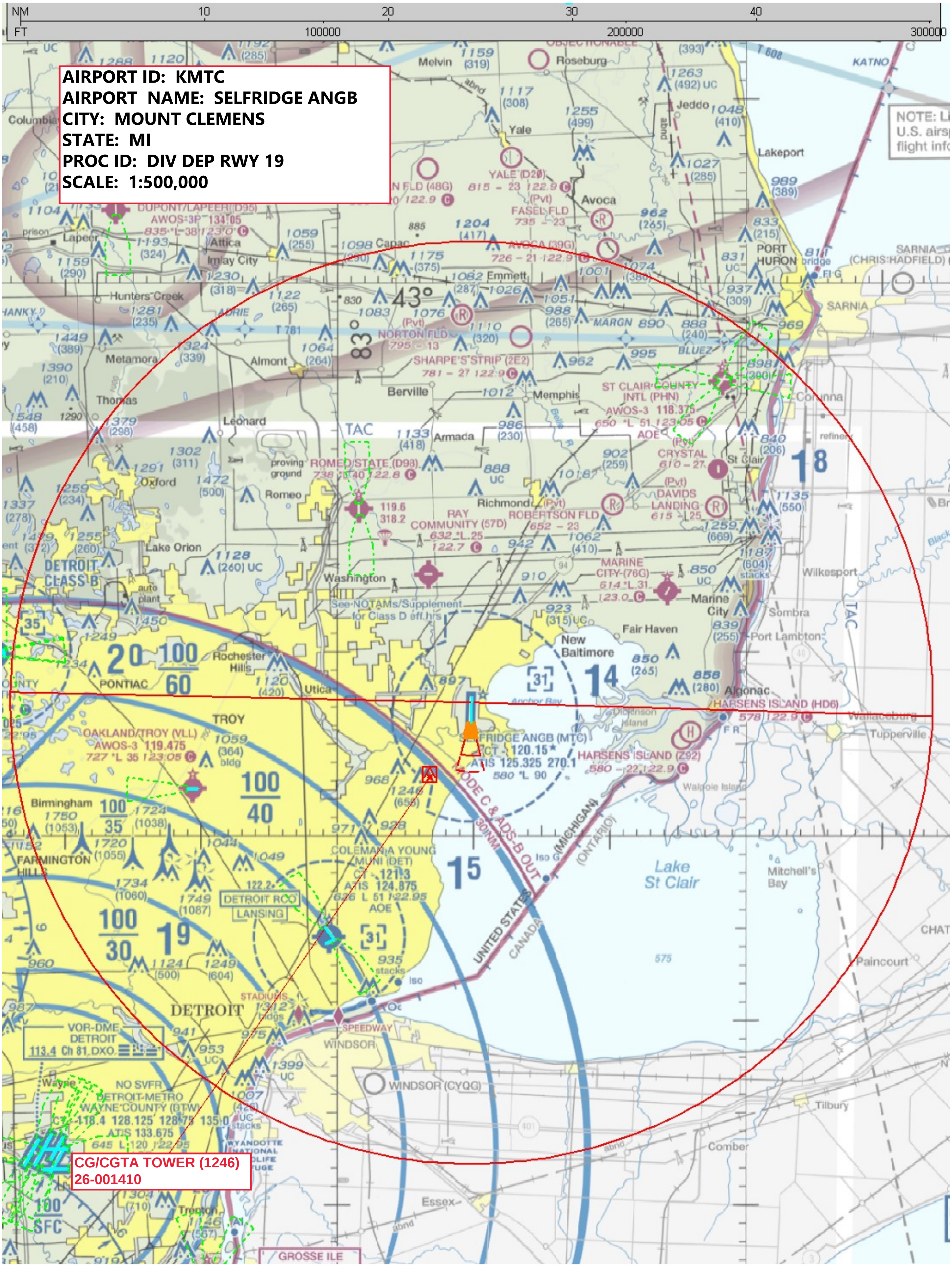


AIRPORT ID: KDTW
AIRPORT NAME: DETROIT METRO WAYNE COUNTY
CITY: DETROIT
STATE: MI
PROC ID: DIV DEP - RWY 27R
SCALE: 1:100,000

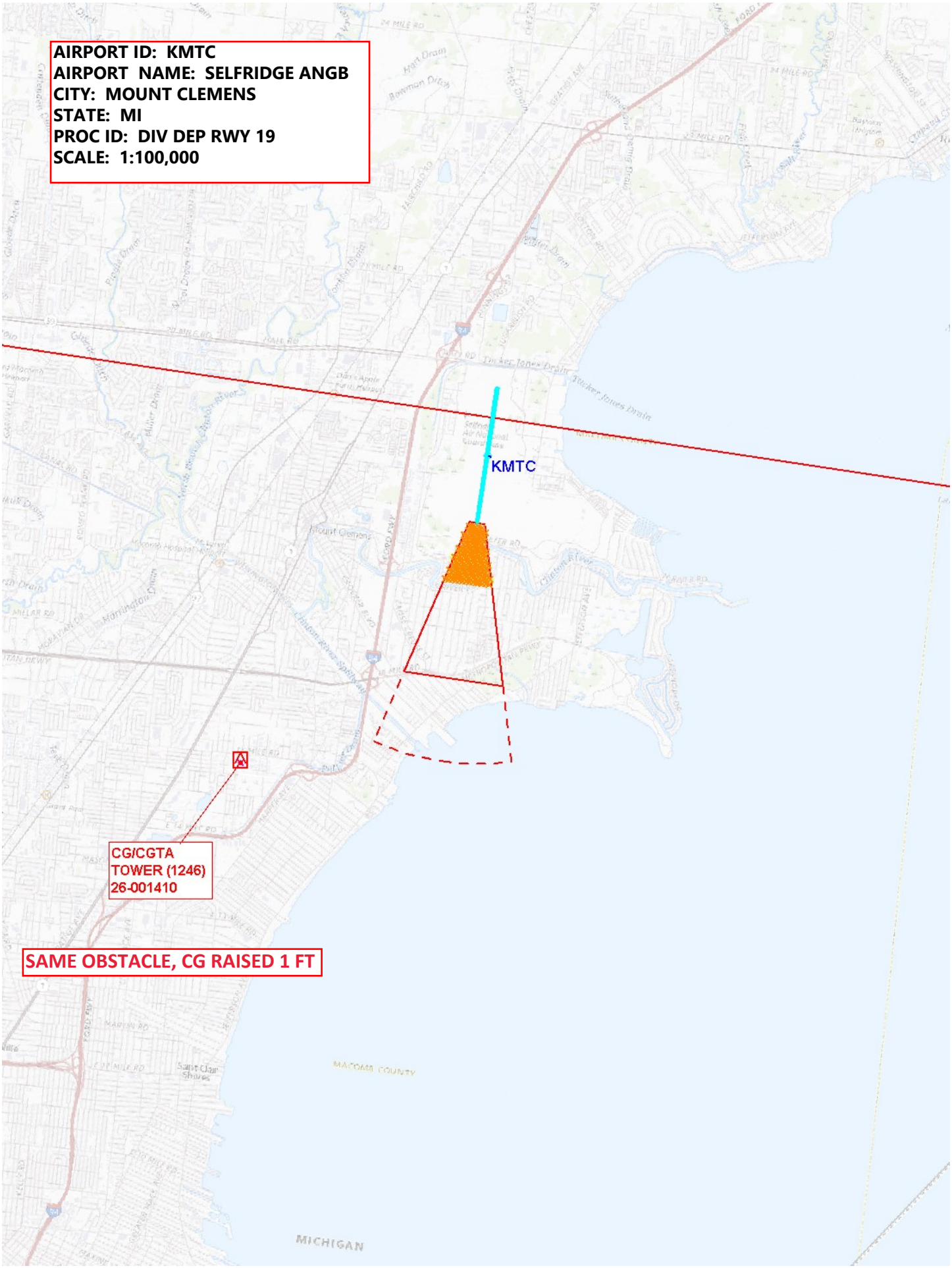

AIRPORT ID: KYIP
AIRPORT NAME: WILLOW RUN
CITY: DETROIT
STATE: MI
PROC ID: DIV DEP RWY 27
SCALE: 1:500,000
CG/CGTA TOWER (903)
26-002998


CG/CGTA
TOWER (903)
26-002998
KYIP
RW27
AIRPORT ID: KYIP
AIRPORT NAME: WILLOW RUN
CITY: DETROIT
STATE: MI
PROC ID: DIV DEP RWY 27
SCALE: 1:100,000
SAME OBSTACLE, LAT/LONG UPDATED/MOVED

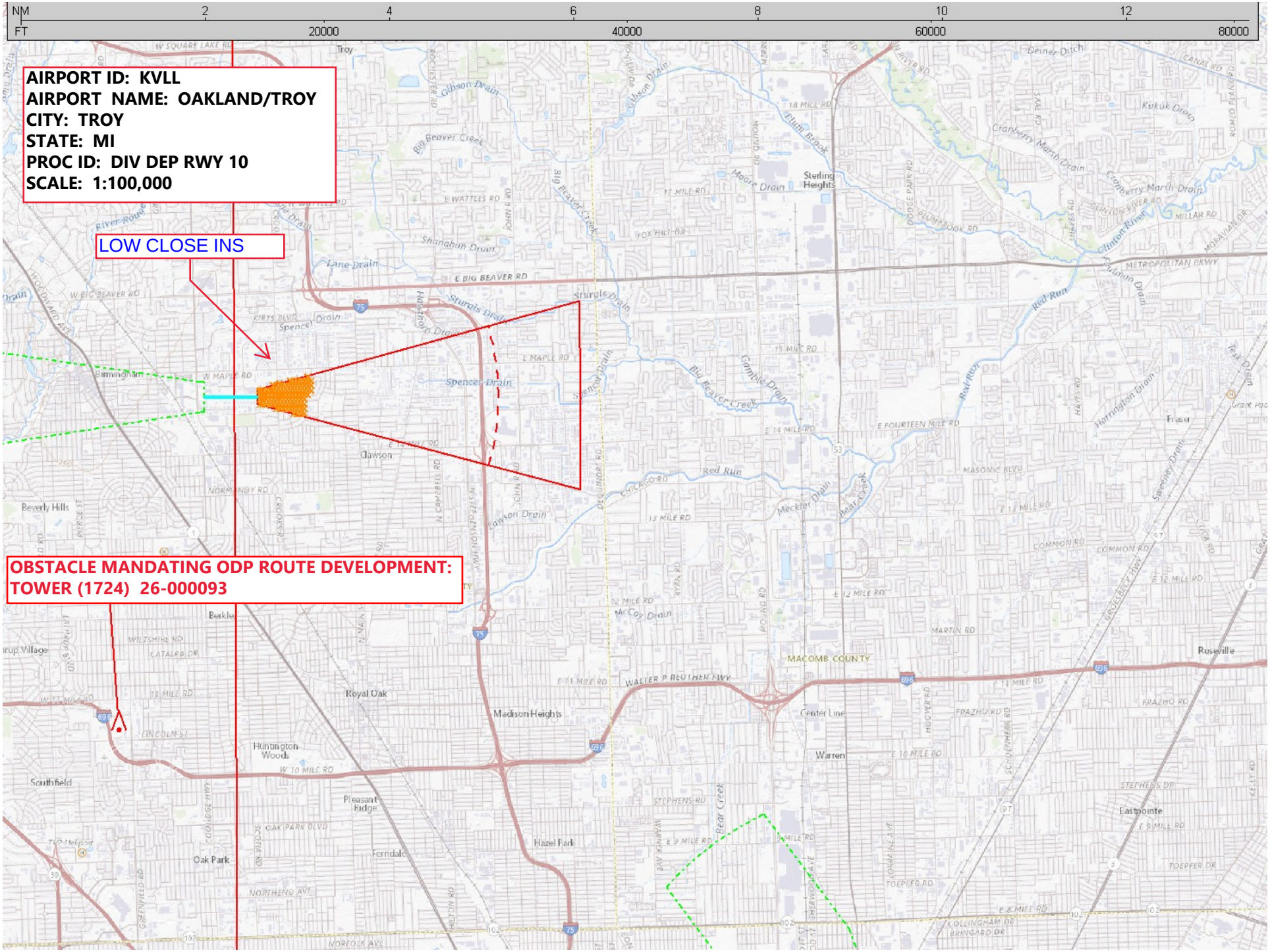
AIRPORT ID: KMTC
AIRPORT NAME: SELFRIDGE ANGB
CITY: MOUNT CLEMENS
STATE: MI
PROC ID: DIV DEP RWY 19
SCALE: 1:500,000

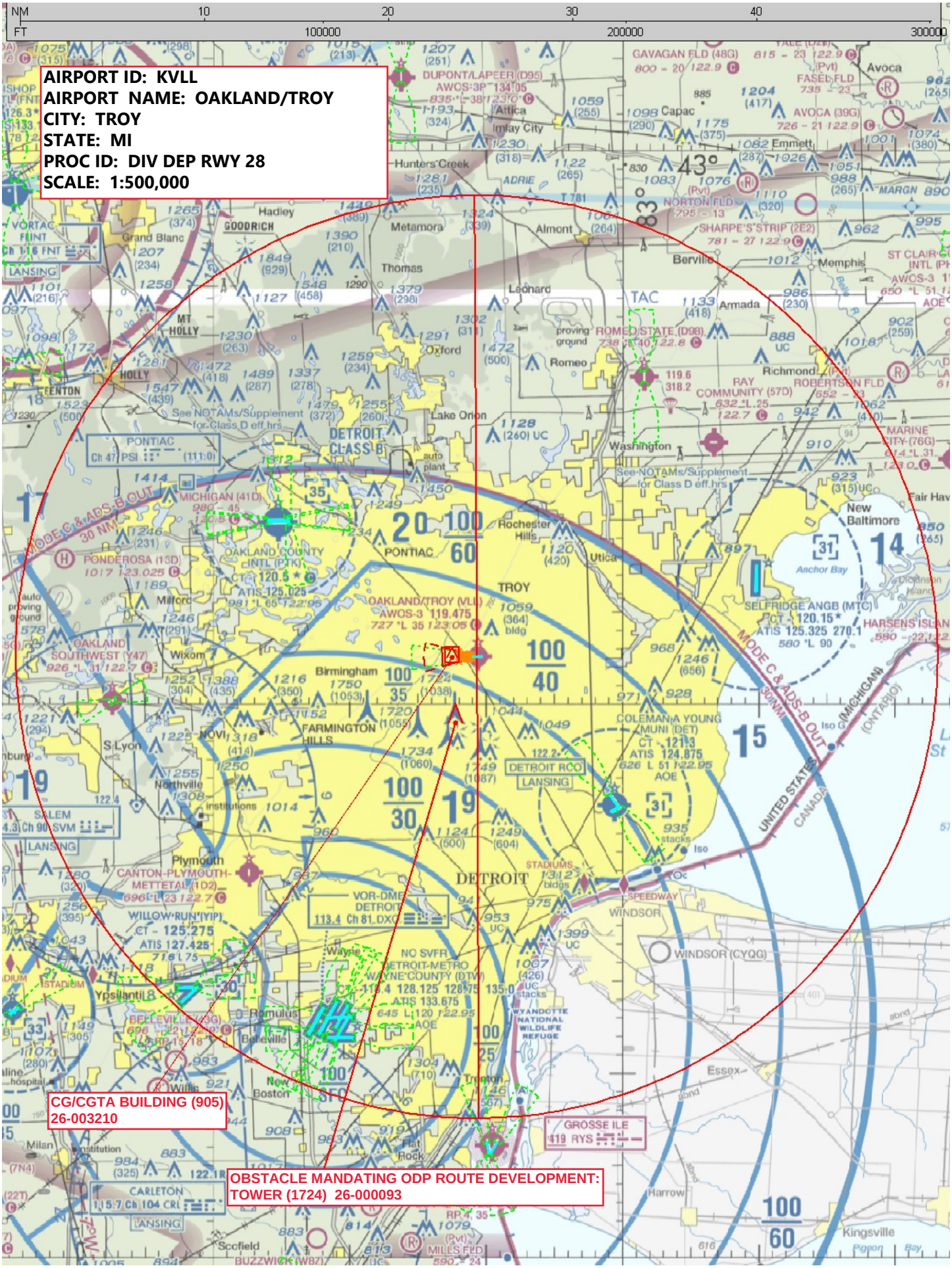


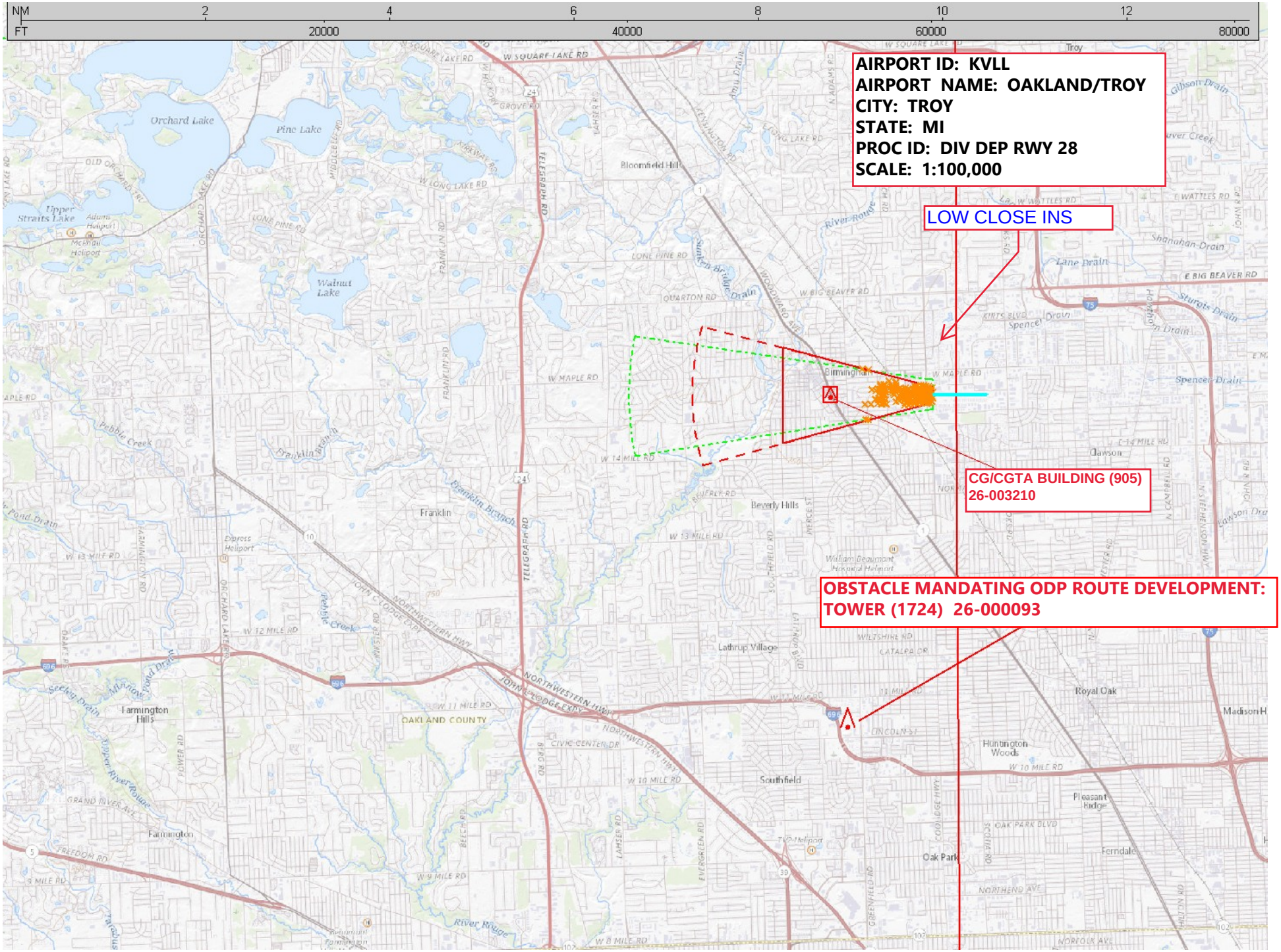
CG/CGTA TOWER (1246)
26-001410


AIRPORT ID: KMTC
AIRPORT NAME: SELFRIDGE ANGB
CITY: MOUNT CLEMENS
STATE: MI
PROC ID: DIV DEP RWY 19
SCALE: 1:100,000
KMTC
CG/CGTA
TOWER (1246)
26-001410
SAME OBSTACLE, CG RAISED 1 FT
MICHIGAN


AIRPORT ID: KVLL
AIRPORT NAME: OAKLAND/TROY
CITY: TROY
STATE: MI
PROC ID: DIV DEP RWY 10
SCALE: 1:500,000
NM 10 20 30 40
FT 100000 200000 300000
OBSTACLE MANDATING ODP ROUTE DEVELOPMENT:
TOWER (1724) 26-000093
DETROIT CLASS B
MODE C & ADS-B OUT 30 NM
OAKLAND COUNTY INTL (PTK)
OAKLAND/TROY (VLL)
DETROIT METRO WAYNE COUNTY (DTW)
DETROIT (DET)
WINDSOR (CYQG)
UNITED STATES
CANADA
(MICHIGAN)
(ONTARIO)


NM 2 4 6 8 10 12
FT 20000 40000 60000 80000
AIRPORT ID: KVLL
AIRPORT NAME: OAKLAND/TROY
CITY: TROY
STATE: MI
PROC ID: DIV DEP RWY 10
SCALE: 1:100,000
LOW CLOSE INS
OBSTACLE MANDATING ODP ROUTE DEVELOPMENT:
TOWER (1724) 26-000093
Troy
Birmingham
Beverly Hills
Berkley
Royal Oak
Madison Heights
Huntington Woods
Southfield
Pleasant Ridge
Oak Park
Ferndale
Hazel Park
Clawson
Sterling Heights
Warren
Center Line
Roseville
Eastpointe
Fraser
MACOMB COUNTY
Big Beaver Creek
Spencer Drain
Sturgis Drain
Lane Drain
Shanahan Drain
Gibson Drain
Plum Brook
Moore Drain
Cranberry Marsh Drain
Cranberry March Drain
Kukuk Drain
Gamble Drain
Red Run
Bear Creek
Meckler Drain
Lawson Drain
McCoy Drain
Horrington Drain
Sweeney Drain
Clinton River
E BIG BEAVER RD
W BIG BEAVER RD
E MAPLE RD
W MAPLE RD
17 MILE RD
15 MILE RD
E FOURTEEN MILE RD
E 14 MILE RD
E 13 MILE RD
13 MILE RD
12 MILE RD
E 12 MILE RD
E 11 MILE RD
11 MILE RD
W 10 MILE RD
E 10 MILE RD
9 MILE RD
E 9 MILE RD
8 MILE RD
E 8 MILE RD
MARTIN RD
COMMON RD
FRAZHO RD
TOEPFER DR
STEPHENS RD
STEPHENS DR
WALTER P REUTHER FWY
METROPOLITAN PKWY
MASONIC BLVD
CHICAGO RD
NORTHEND AVE
NORFOLK AVE
OAK PARK BLVD
COLLINGHAM DR
BRINGARD DR


AIRPORT ID: KVLL
AIRPORT NAME: OAKLAND/TROY
CITY: TROY
STATE: MI
PROC ID: DIV DEP RWY 28
SCALE: 1:500,000
CG/CGTA BUILDING (905)
26-003210
OBSTACLE MANDATING ODP ROUTE DEVELOPMENT:
TOWER (1724) 26-000093


NM 2 4 6 8 10 12
FT 20000 40000 60000 80000
AIRPORT ID: KVLL
AIRPORT NAME: OAKLAND/TROY
CITY: TROY
STATE: MI
PROC ID: DIV DEP RWY 28
SCALE: 1:100,000
LOW CLOSE INS
CG/CGTA BUILDING (905)
26-003210
OBSTACLE MANDATING ODP ROUTE DEVELOPMENT:
TOWER (1724) 26-000093
Orchard Lake
Pine Lake
Walnut Lake
Upper Straits Lake
Bloomfield Hills
Birmingham
Beverly Hills
Franklin
Lathrup Village
Southfield
Farmington Hills
Farmington
Royal Oak
Huntington Woods
Pleasant Ridge
Oak Park
Ferndale
Dawson
Troy
OAKLAND COUNTY
W SQUARE LAKE RD
W LONG LAKE RD
LONE PINE RD
QUARTON RD
W BIG BEAVER RD
W MAPLE RD
W 14 MILE RD
W 13 MILE RD
W 12 MILE RD
W 11 MILE RD
W 10 MILE RD
W 9 MILE RD
W 8 MILE RD
E BIG BEAVER RD
E 14 MILE RD
TELEGRAPH RD
NORTHWESTERN HWY
JOHN C LODGE EXPY
WOODWARD AVE
ORCHARD LAKE RD
FRANKLIN RD
LAHSER RD
Pebble Creek
Franklin Branch
Sunset Brook Drain
Lane Drain
Spencer Drain
Sturgis Drain
River Rouge
Upper River Rouge
Seeley Drain
Millpond Drain
Express Heliport
William Beaumont Hospital Heliport
TVO-Heliport
Adams Heliport
McHaul Heliport