

Presentation for

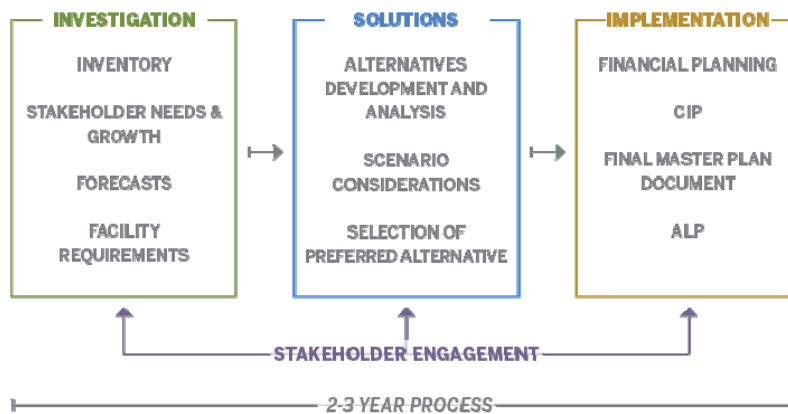
Windom Municipal Airport Master Plan & Airport Layout Plan Update

Building a Better World for All of Us®



July 16, 2019

Master Plan Stages



Airport Inventory

- Runway 17/35: 3,599' x 75'
 - Concrete Paved
 - Non-precision approach
 - MIRLs (runway lighting)
 - REILs (runway end flashing lights)
- Taxiways
- AWOS (weather station)
- Beacon



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Building Area

- A/D Building
- Auto Parking
- Self-Service Fuel
 - 100LL & Jet A
- 3 T-Hangar Buildings
- 60' x 100' Box Hangar
- 3 Tiedowns



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Based Aircraft Forecast

Based Aircraft	2018	2023	2028	3038
Single-Engine	14	17	17	18
Multi-Engine	1	2	3	3
Turbo Prop	1	1	1	1
Jet	1	1	1	1
Other	0	0	0	0
Grand Total	17	21	22	23



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Operations and RDC Forecast



RDC	Operations Per Year				
	2018	2023	2028	2033	2038
A-I (18.0%)	1,501	1,563	1,710	1,644	1,667
B-I (74.0%)	7,131	7,426	7,550	7,810	7,917
B-II (6.9%)	648	674	695	709	719
>B-II (0.1%)	9	10	10	10	10
Helicopter (1.0%)	94	98	101	103	93
TOTAL OPS	9,383	9,771	10,066	10,276	10,417

Typical B-II aircraft include King Air and Pilatus



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Determining Critical Aircraft (RDC)

A-I Beech Baron 55 Cessna 180 Beech Bonanza Cirrus SR-22 Piper Warrior		B-I King Air 90/100 Piper Navajo Cessna Cessna Citation I Beech Baron 58 Cessna 402 Cessna 421	
A-II and B-II DHC Twin Otter Cessna Caravan Cessna Citation III King Air C90 Super King Air 300, 300, 350 Beech 1900 Falcon 20		A-III and B-III Fokker F28 DHC Dash 7 DHC Dash 8 DC-3 Convair 580	
C-II and D-II Gulfstream III Cessna 450 Gulfstream IV Canadair 400 Cessna Citation X Cessna Citation Sovereign Hawker 800XP		C-III and D-III Boeing 737 Bombardier CRJ-700 Gulfstream V Global Express MD-80 DC-9	
C-IV and D-IV Boeing 737-200 DC-10 Boeing 747 MD-11		D-V Boeing 747 Series Boeing 777 Series	



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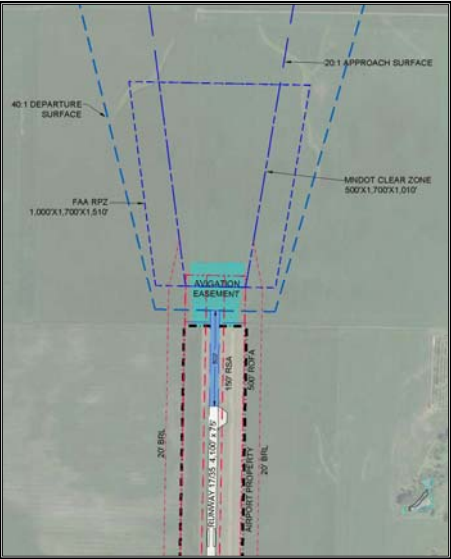


Facility Recommendations



KMN1

Runway 17/35 Extension

- Ultimate Length of 4,400'
- 802' Extension to North
- FAA recommended length for Small Airplanes with 10 Passenger seats
 - Example King Air 200


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Wind Coverage

Runway		10.5 Knots	13 Knots	16 Knots
Runway 17/35	All	85.23%	91.12%	96.01%
	VFR	85.97%	91.59%	96.25%
	IFR	79.59%	87.64%	94.39%

Wind coverage of Runway 17/35 is below the recommended 95% wind coverage. **Crosswind runway recommended.**

- Runway orientation of 12/30 provides the maximum combined wind coverage of 97,48%;
- Length of 2,500 feet accommodates the majority of A/B-I aircraft at MWM

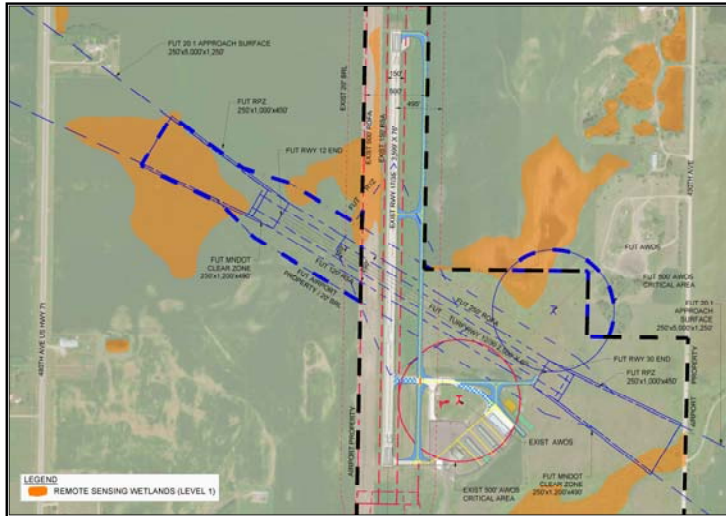


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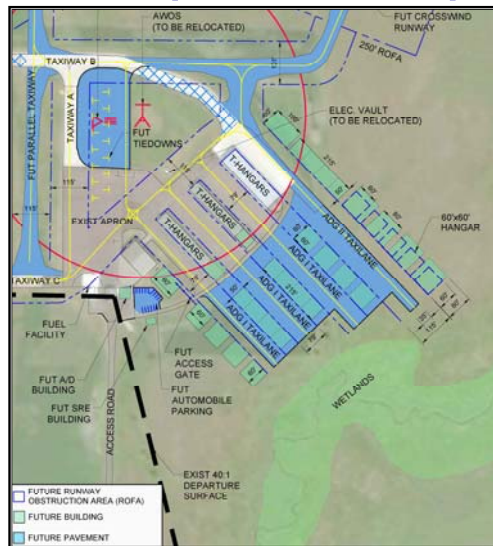
KMN1 Kaci M. Nowicki, 7/10/2019

Crosswind Runway 12/30



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Hangar and Apron Development



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Update Airport Zoning Ordinance

- Existing Ordinance:
 - Runway 17/35: 3,600' x 75'
 - Runway 10/28: 3,200 x 75'
- Future Ordinance:
 - Runway 17/35: 4,400' x 75'
 - Runway 12/30: 2,500' x 60'
- Safety Zones
 - Zone A: No buildings or temporary structures are permitted (Inner 2/3rd Portion)
 - Zone B: Restricted to sites of >3 acres, will not attract population (Outer 1/3rd Portion)
 - Zone C: Height Zoning (150')



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Capital Improvement Plan



Potential Funding Sources

- FAA - Airport Improvement Program (AIP)
 - Match 90% of eligible project costs
(90% FAA | 5% MnDOT | 5% Local)
 - Additional funding from MnDOT is available to cover up to 5% of the remaining portion of federally eligible projects.
 - Entitlement Funds
 - \$150,000 Annually
 - Discretionary – For high priority projects



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Potential Funding Sources

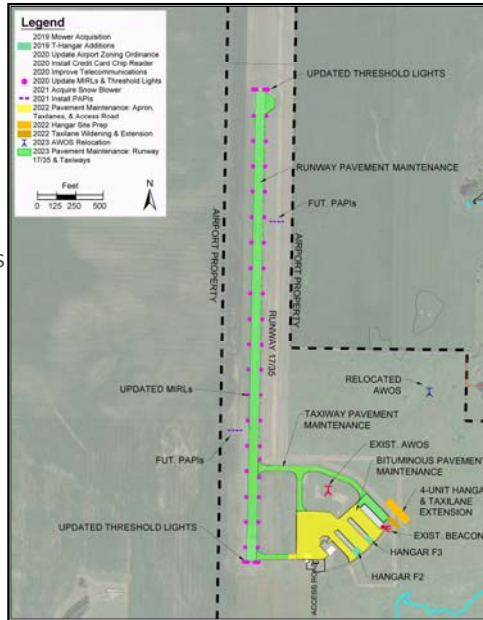
- Minnesota State Airport Funding
 - Airport Construction Grant Program
 - State Only Projects (No Federal Funds)
 - 75% State / 25% Local
 - 70% / 30% for Revenue Generating Projects
 - » (e.g. Fuel Farm)
 - Airport Maintenance and Operations Program
 - 75% State / 25% Local Reimbursement for Routine Maintenance
 - Hangar Loan Revolving Account Program
 - Up to 80% of cost for hangar construction



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5-Year CIP

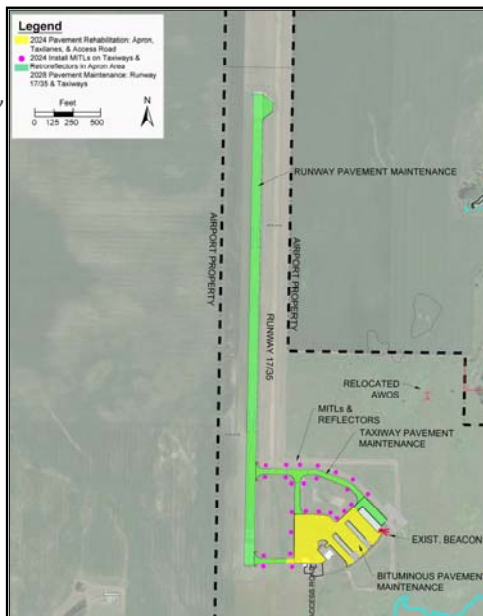
- 2019 Mower Acquisition
- 2019 T-Hangar Additions
- 2020 Update Airport Zoning
- 2020 Install Credit Card Chip Reader
- 2020 Install Fiber
- 2020 Update MIRLs & Threshold Lights
- 2021 Acquire Snow Blower
- 2021 Install PAPIs
- 2022 Pavement Maintenance - Apron, Taxilanes, & Access Road
- 2022 Hangar Site Prep
- 2022 Taxilane Widening & Extension
- 2023 AWOS Relocation
- 2023 Pavement Maintenance – Runway 17/35 & Taxiways



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10-Year CIP

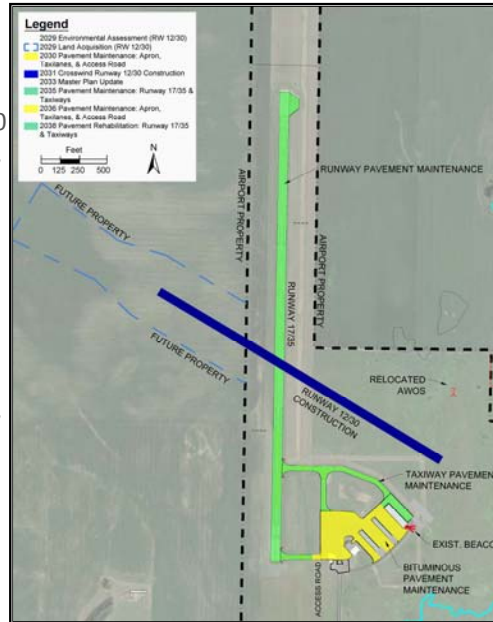
- 2024 Pavement Rehabilitation - Apron, Taxilanes, & Access Road
- 2024 Install MITLs on Taxiways & Retroreflectors in Apron Area
- 2025 Entitlement Payback (SRE)
- 2026 Entitlement Payback (SRE)
- 2027 Entitlement Payback (SRE)
- 2028 Pavement Maintenance – Runway 17/35 & Taxiways



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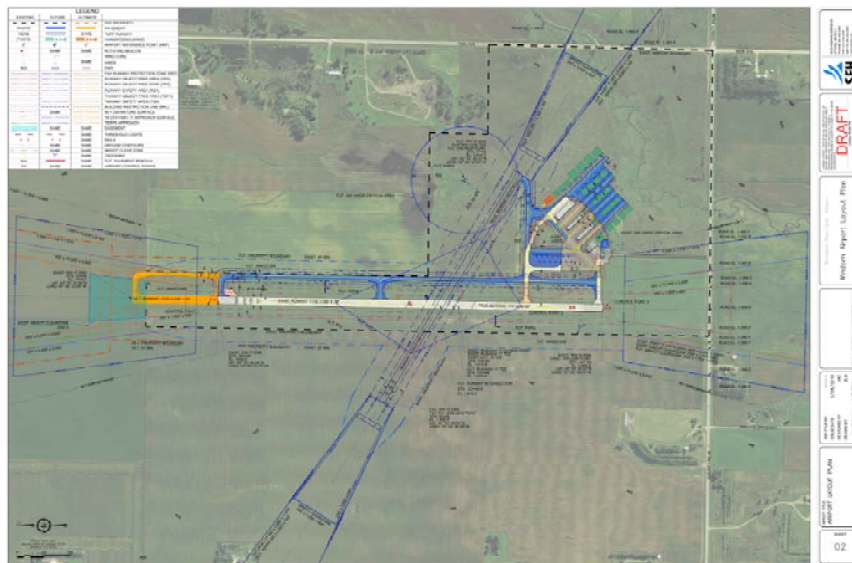
20-Year CIP

- 2029 EA - Crosswind Runway 12/30
- 2029 Land Acquisition - Runway 12/30
- 2030 Pavement Maintenance - Apron, Taxilanes, & Access Road
- 2031 Construction - Runway 12/30
- 2032 No Project - Save Entitlements
- 2033 Master Plan Update
- 2034 No Project - Save Entitlements
- 2035 Pavement Maintenance - Runway 17/35 & Taxiways
- 2036 Pavement Maintenance - Apron, Taxilanes, & Access Road
- 2037 No Project - Save Entitlements
- 2038 Pavement Rehabilitation - Runway 17/35 & Taxiways
- 2039 No Project - Save Entitlements



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Airport Layout Plan



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Next Steps

- FAA & MnDOT Review and Approval of Master Plan and ALP



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Questions?

Thank you!

