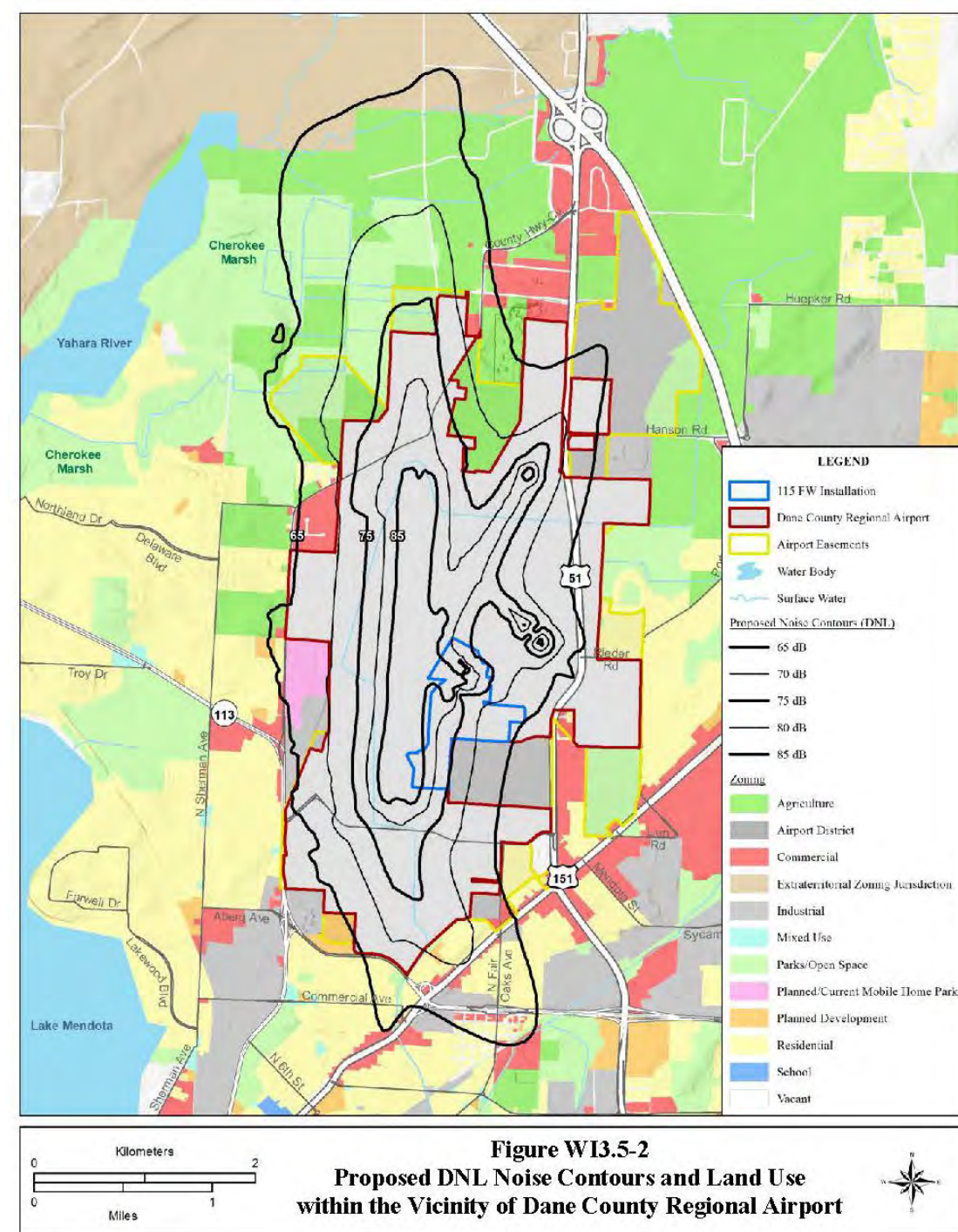


# Modeled DNL Contours and Adopted Plans



# DNL Contour Modeling



**+** Quantify of flights **+**



Figure A-12. Modeled Flight Tracks for F-35A at Truax Field

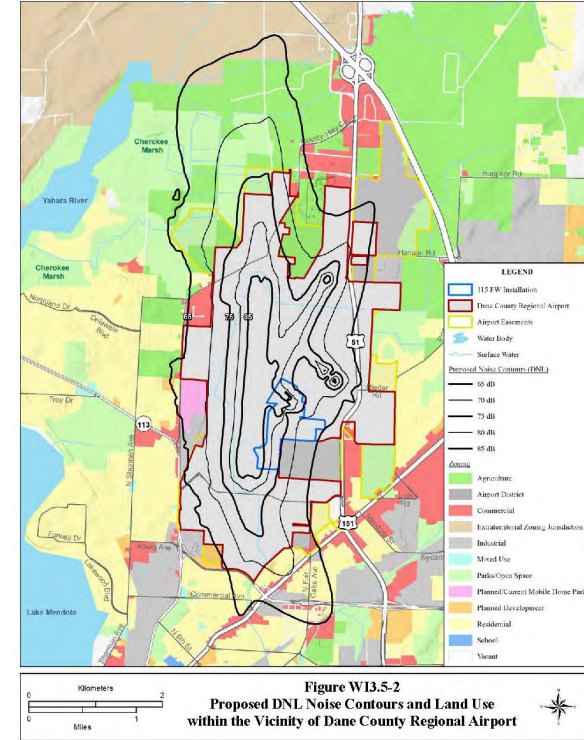
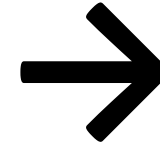


Figure W13.5-2  
Proposed DNL Noise Contours and Land Use  
within the Vicinity of Dane County Regional Airport

**Sound profiles  
of aircraft**

**Flight paths**

# Sound Profiles of Aircraft

- Most locations at or below threshold of differentiation
- Largest 8 db difference
- Sound model includes F-35 afterburner use
- *afterburner use not needed*

**Table WI3.1-12. Loudest Events at Each POI, Measured in SEL – Proposed Action Alternative**

<i>Map ID</i>	<i>Named Point of Interest</i>	<i>Current DNL</i>	<i>Current SEL (dBA)</i>	<i>Current Average Events Per Week (Daytime)</i>	<i>Current Average Events Per Week (Night)</i>	<i>Proposed Action DNL</i>	<i>Proposed Action SEL (dBA)</i>	<i>Proposed Action Average Events Per Week (Daytime)</i>	<i>Proposed Action Average Events Per Week (Night)</i>
1	Play Haven Child Care	56	95	3.6	0.1	56	98	0.7	0
2	Northside Kinder Care	62	105	0.1	0	64	106	0.6	0
3	Smartie Pants Early Learning Center (former)	55	98	0.1	0	56	98	0.1	0
4	UW Health at the American Center	52	100	1.8	0	53	100	1.8	0
5	Holy Transfiguration Orthodox Mission	53	97	0.1	0	55	97	0.1	0
6	Bashford United Methodist Church	55	100	0.1	0	58	101	0.1	0
7	Burke Lutheran Church	54	102	1.8	0	56	103	1.8	0
8	Ridgeway Church	61	107	5.4	0.1	70	114	7.4	0.2
9	Chapel of Faith Anglican Church	60	105	5.4	0.1	63	107	7.4	0.2
10	Lake View Elementary	58	100	0.1	0	57	100	0.1	0
11	Portage Road at Hoepker Road	53	103	1.8	0	56	105	1.8	0
12	Packers Avenue at Wheeler Road	62	105	6.7	0.1	64	105	0.7	0
13	Milwaukee Street at Farwell Street	56	100	0.1	0	60	104	0.8	0
14	The Richardson School	68	110	0.1	0	70	111	1.1	0
15	Madison Baptist Academy	57	97	3.6	0.1	58	97	0.5	0
16	Quincy Avenue and Carpenter Street	62	108	5.4	0.1	71	116	7.4	0.2

*Legend:* dBA = A-weighted decibel; DNL = Day-Night Average Sound Level; POI = Point of Interest; SEL = Sound Exposure Level.

WI-35

# Quantity of flights

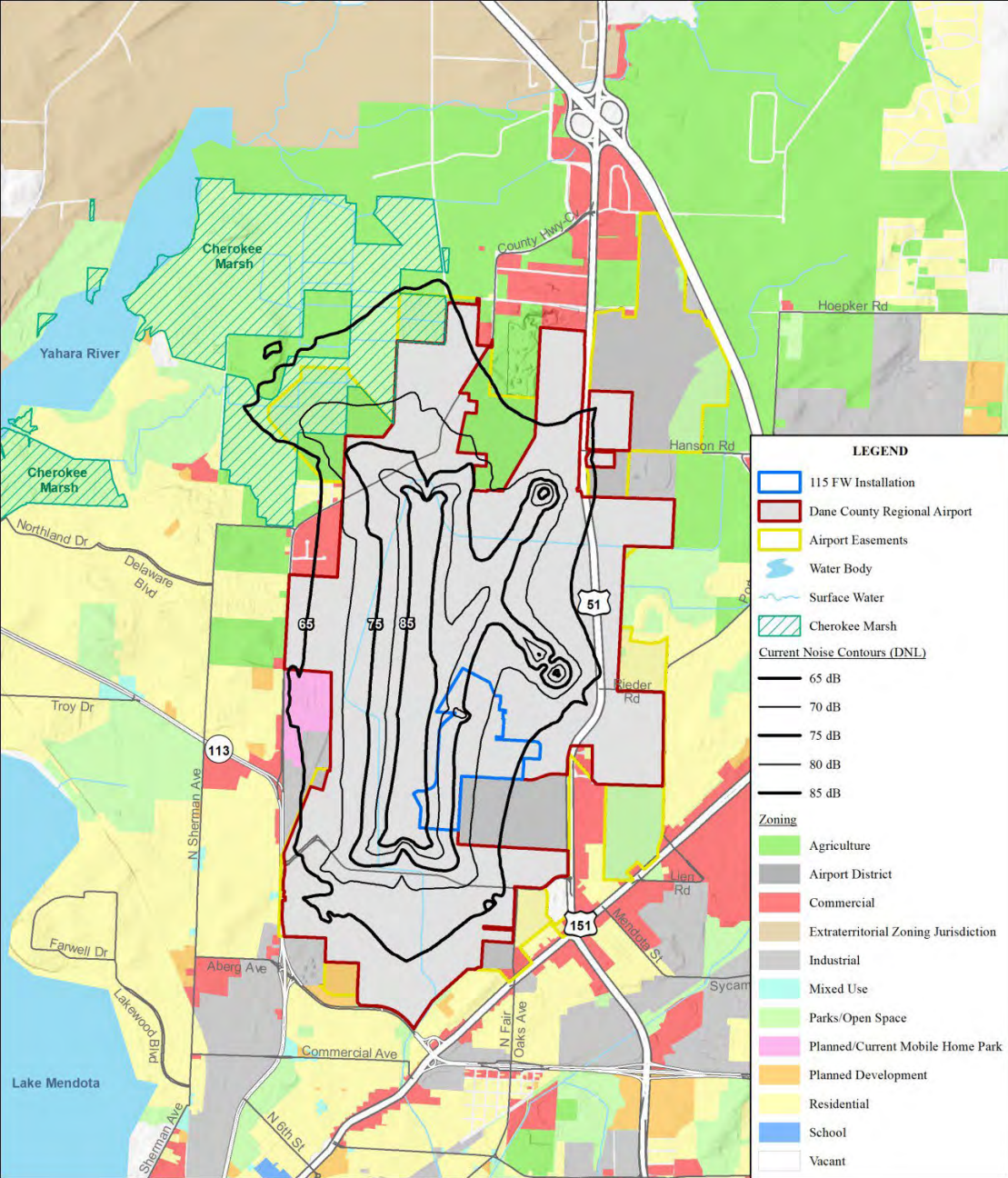
- Modeled based on 47% increase in military flights
  - 27% increase based on flying hour program assumptions
  - Assumes no off-base operations (Volk Field, Milwaukee 128<sup>th</sup> Air Refueling Wing)
  - 20% temporary increase to maintain alert mission while transitioning to F-35
  - No additional pilots, no additional aircraft

**Table 2.2-2. Current and Estimated Proposed Annual Home Field Airfield Sorties**

<i>ANG Unit and Airfield</i>	<i>Total Current Annual Legacy Aircraft Sorties</i>	<i>Proposed F-35A Sorties</i>
115 FW, Wisconsin	2,400	3,061
124 FW, Idaho	2,500	3,061
125 FW, Florida	2,400	3,061
127 WG, Michigan	2,388	3,061
187 FW, Alabama	3,076	3,061

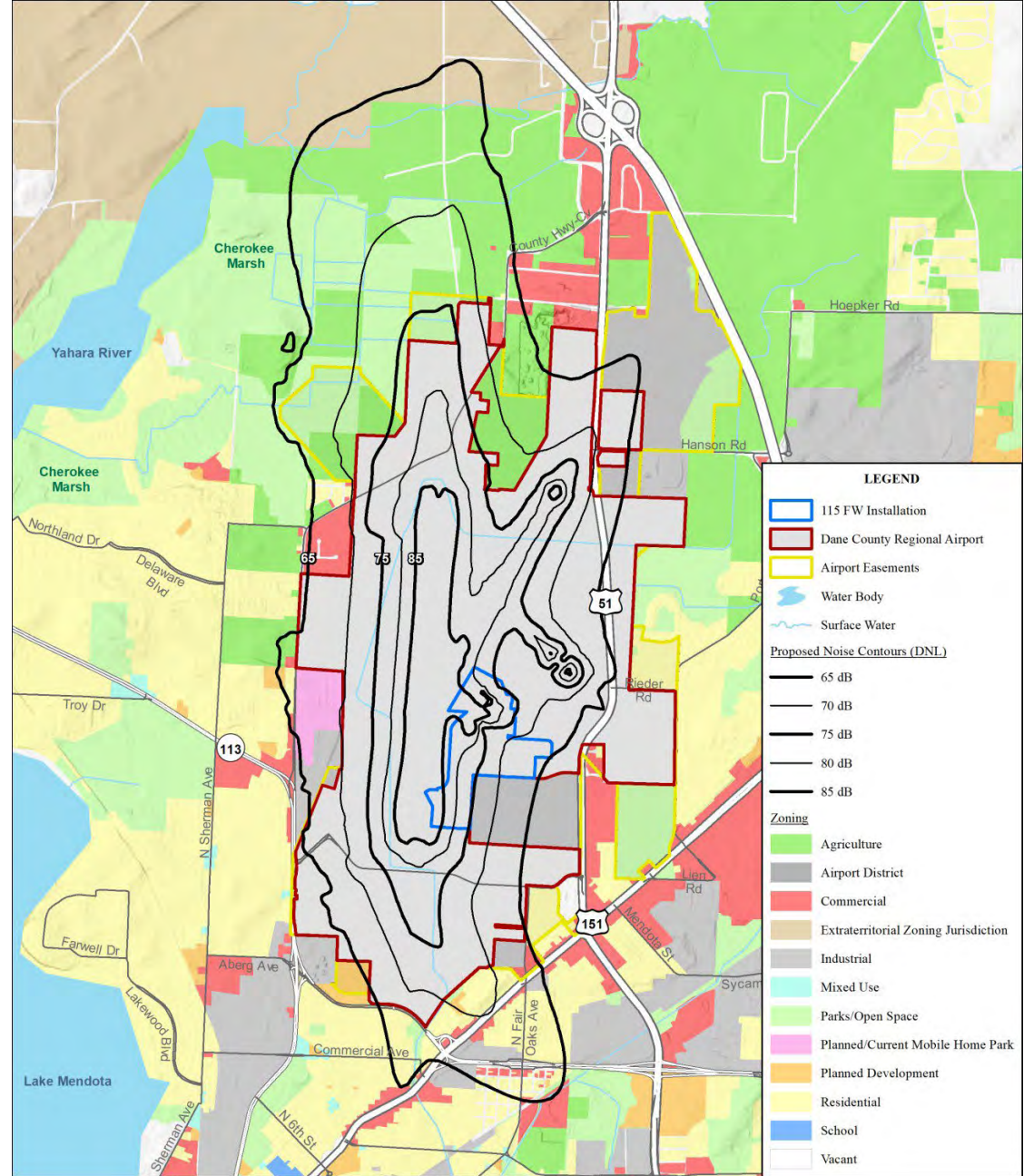
*Legend:* 115 FW = 115<sup>th</sup> Fighter Wing; 124 FW = 124<sup>th</sup> Fighter Wing; 125 FW = 125<sup>th</sup> Fighter Wing; 127 WG = 127<sup>th</sup> Wing; 187 FW = 187<sup>th</sup> Fighter Wing.

*Source:* ANG 2018.



0 2 Kilometers  
0 1 Miles

**Modeled Existing Condition**



0 2 Kilometers  
0 1 Miles

**Modeled F-35 contours**

# DNL & FAA Part 150 Noise Compatibility Program

<i>Land Use</i>	<65 dB DNL	65-70 dB DNL	70-75 dB DNL	75-80 dB DNL	80-85 dB DNL	>85 dB DNL
<b>Residential</b>						
Residential, other than mobile homes and transient lodgings	Y	N(1)	N(1)	N	N	N
Mobile home parks	Y	N	N	N	N	N
Transient lodgings	Y	N(1)	N(1)	N(1)	N	N
<b>Public Use</b>						
Schools	Y	N(1)	N(1)	N	N	N
Hospitals and nursing homes	Y	25	30	N	N	N
Churches, auditoriums, and concert halls	Y	25	30	N	N	N
Governmental services	Y	Y	25	30	N	N
Transportation	Y	Y	Y(2)	Y(3)	Y(4)	Y(4)
Parking	Y	Y	Y(2)	Y(3)	Y(4)	N
<b>Commercial Use</b>						
Offices, business and professional	Y	Y	25	30	N	N
Wholesale and retail - building materials, hardware and farm equipment	Y	Y	Y(2)	Y(3)	Y(4)	N
Retail trade - general	Y	Y	25	30	N	N
Utilities	Y	Y	Y(2)	Y(3)	Y(4)	N
Communication	Y	Y	25	30	N	N
<b>Manufacturing and Production</b>						
Manufacturing, general	Y	Y	Y(2)	Y(3)	Y(4)	N
Photographic and optical	Y	Y	25	30	N	N
Agriculture (except livestock) and forestry	Y	Y(6)	Y(7)	Y(8)	Y(8)	Y(8)
Livestock farming and breeding	Y	Y(6)	Y(7)	N	N	N
Mining and fishing, resource production and extraction	Y	Y	Y	Y	Y	Y
<b>Recreational</b>						
Outdoor sports arenas and spectator sports	Y	Y(5)	Y(5)	N	N	N
Outdoor music shells, amphitheaters	Y	N	N	N	N	N
Nature exhibits and zoos	Y	Y	N	N	N	N
Amusements, parks, resorts and camps	Y	Y	Y	N	N	N
Golf courses, riding stables and water recreation	Y	Y	25	30	N	N

# Existing Land Use

		Day Night Average Noise Levels					
		Current			Proposed		
Residential Units		65-70 db	70-75 db	75-80 db	65-70 db	70-75 db	75-80 db
Not compatible		312			312		
Conditionally compatible					1,025	142	
Employees		4,498	936		8,299	2,737	589
Zoning Districts (acres)							
Residential	TR-C1				52.3	14.4	
	TR-C2				17.6		
	TR-C4				14.1	0.7	
	TR-V1				27.8	7.0	
	TR-V2				7.4		
	SR-C3					0.6	
	SR-V1				14.6	0.3	
	SR-V2				16.7	2.2	
	PMHP	44.7			59.3	0.9	
Commercial, Employment	CC-T				33.0	0.2	
	SE	64.5	34.3		78.8	44.0	11.7
	IL	80.0	14.5		169.7	30.2	0.3
	TE				22.7		
Special	AP	215.9	266.3	290.9	172.6	217.5	269.4
	CI	19.3	12.7	0.2	27.5	10.9	
	PD				6.9	3.2	
Open Spaces	A	9.9			29.2	0.2	
	PR	153.0	27.3		157.2	141.9	52.8
	CN	0.1		9.5	13.0	6.4	

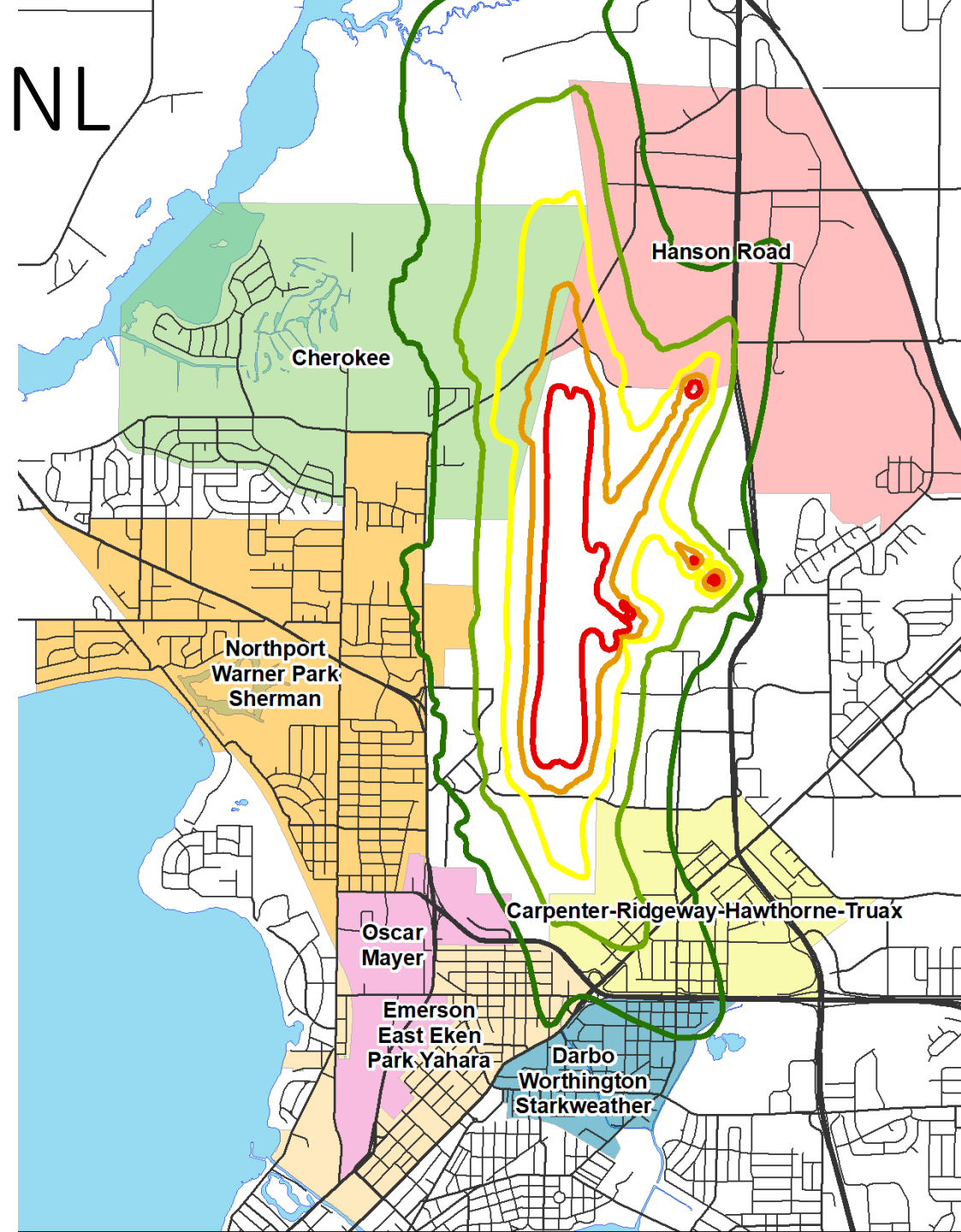
- Compatible
- Compatible with noise level reduction techniques integrated into building design
- Where the land use must be allowed, noise level reductions of 25-30 db should be incorporated
- Not compatible
- PD districts in this area are predominately commercial and office, however approximately 4 acres of residential are included in the Carpenter Ridgeway area

Notes: Residential unit count based on City of Madison parcel data, using parcel centroid and sound curves  
 Employment counts from Census OnTheMap, 2015 data, all jobs

Chart from draft EIS analysis - September 2019.  
 Minor changes may have occurred since creation

# Adopted Plans inside 65 db DNL

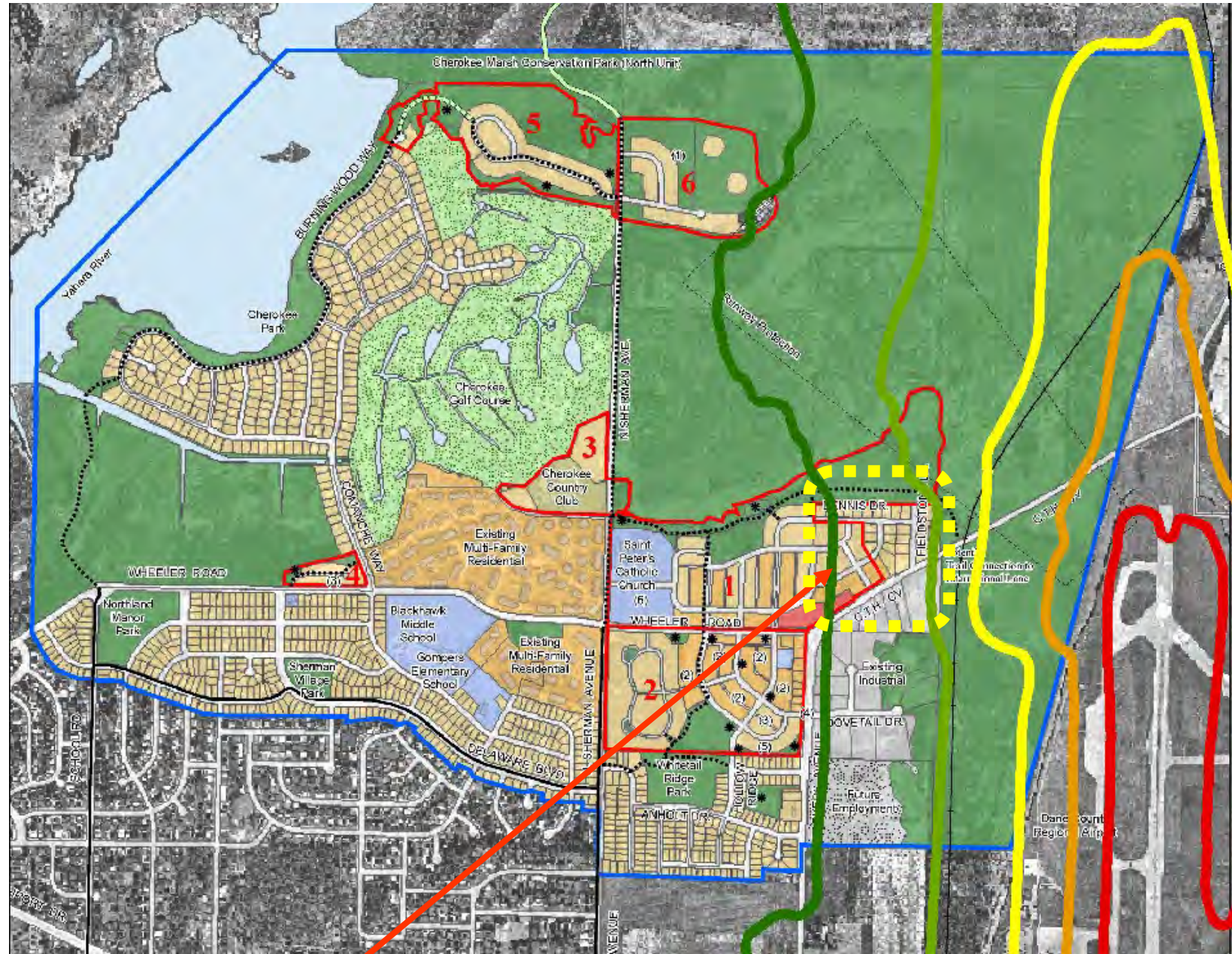
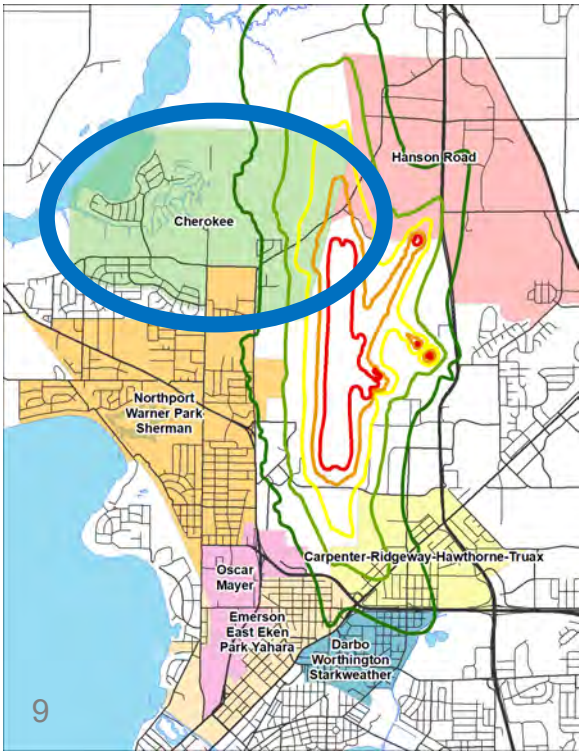
- **Cherokee** Neighborhood Development Plan
- **Northport Warner Sherman** Neighborhood Plan
- **Oscar Mayer** Special Area Plan  
*(no residential in contour)*
- **Emerson East Eken Park Yahara** Neighborhood Plan
- **Darbo Worthington Starkweather** Neighborhood Plan
- **Carpenter Hawthorne Ridgeway Sycamore Truax** Neighborhood Plan
- **Hanson Road** Neighborhood Development Plan  
*(no residential in contour)*
- **Comprehensive Plan**





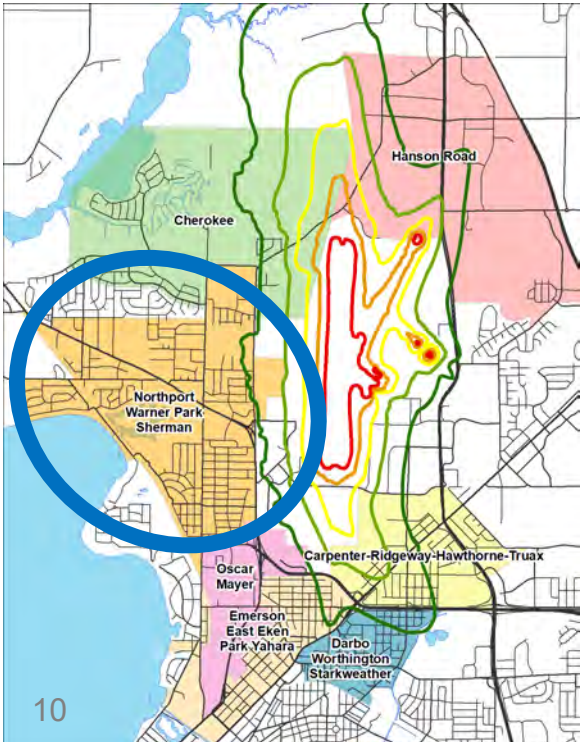
# Cherokee NDP

- Low density residential north of County CV - compatible with soundproofing



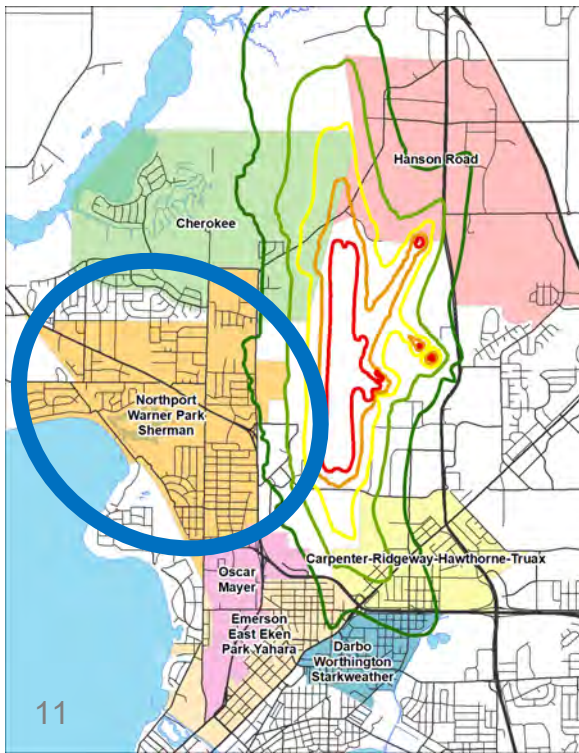
**Potential Development Site**

# Northport Warner Sherman NP

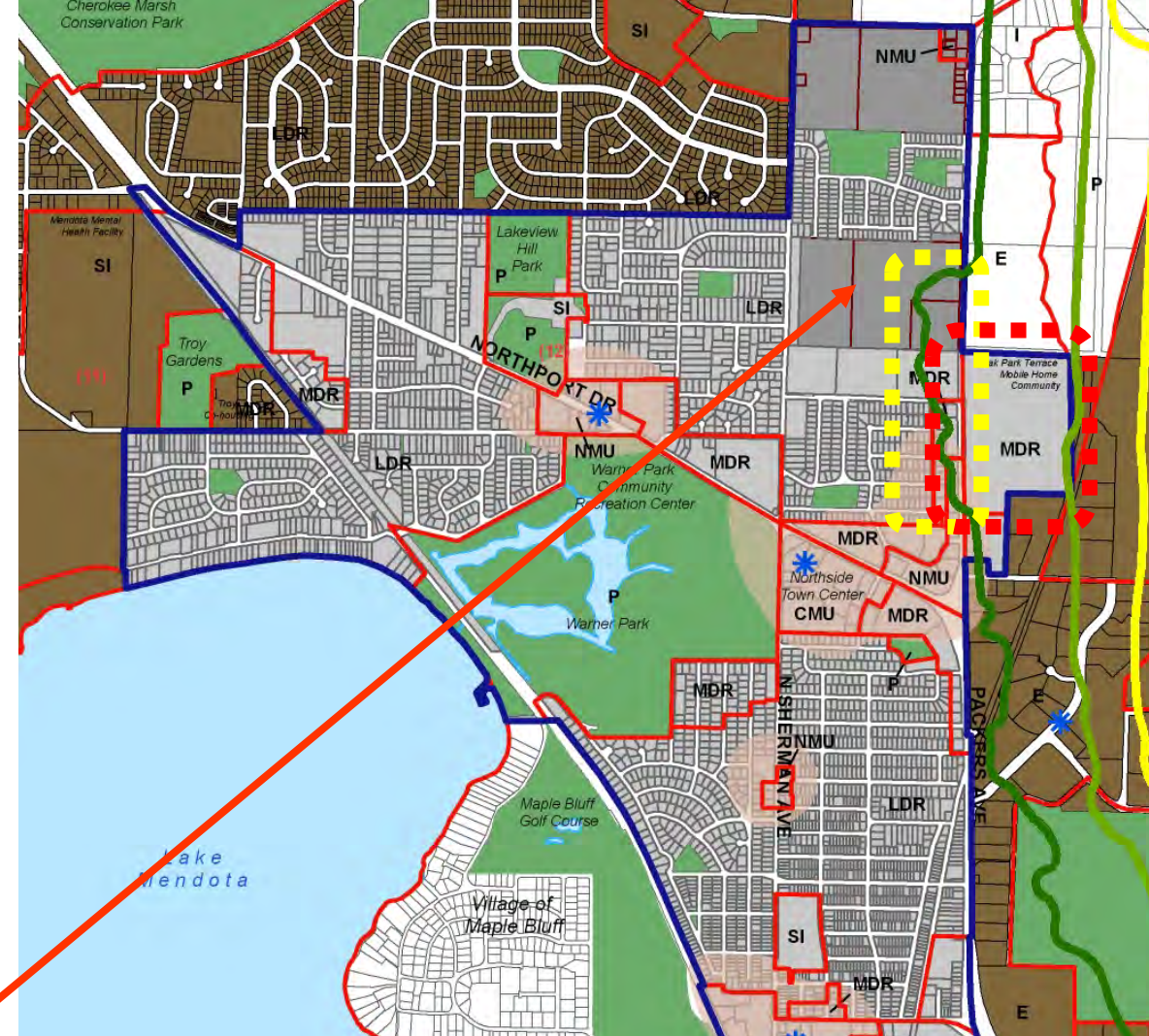


# Northport Warner Sherman

- Oak Park Terrace - Not Compatible
  - Existing plan recommendation - transition to employment if change in land use occurs
- Medium/Low Density Residential west of Packers Ave: Compatible with/not compatible without Soundproofing



**Potential  
Development  
Site (Raemish)**



## Northport-Warner Park-Sherman Neighborhood Planning Area

### Comprehensive Plan Recommended Land Use

Study Area Boundary
Study Area - City Parcels
Study Area - County Parcels
City Parcels Outside of Study Area
Dane County Parcels Outside of Study Area

City of Madison Residential Parcels: 2,844  
 Dane County Residential Parcels: 11  
 The Department of Planning & Community & Economic Development, Madison, WI  
 Source: City of Madison Planning Division, September 2008

Possible Infill or Redevelopment Areas  
Comprehensive Plan

Proposed Land Use  
(Comprehensive Plan)

**RESIDENTIAL DISTRICTS**  
 LDR Low Density (0 - 15 units/acre)  
 MDR Medium Density (16 - 40 units/acre)  
 HDR High Density (41 - 60 units/acre)

**MIXED USE DISTRICTS**  
 NMU Neighborhood Mixed-Use  
 CMU Community Mixed-Use  
 RMU Regional Mixed-Use

**COMMERCIAL/EMPLOYMENT DISTRICTS**  
 GC General Commercial  
 RC Regional Commercial  
 E Employment  
 I Industrial

NPA Neighborhood Planning Area  
(TND Encouraged)

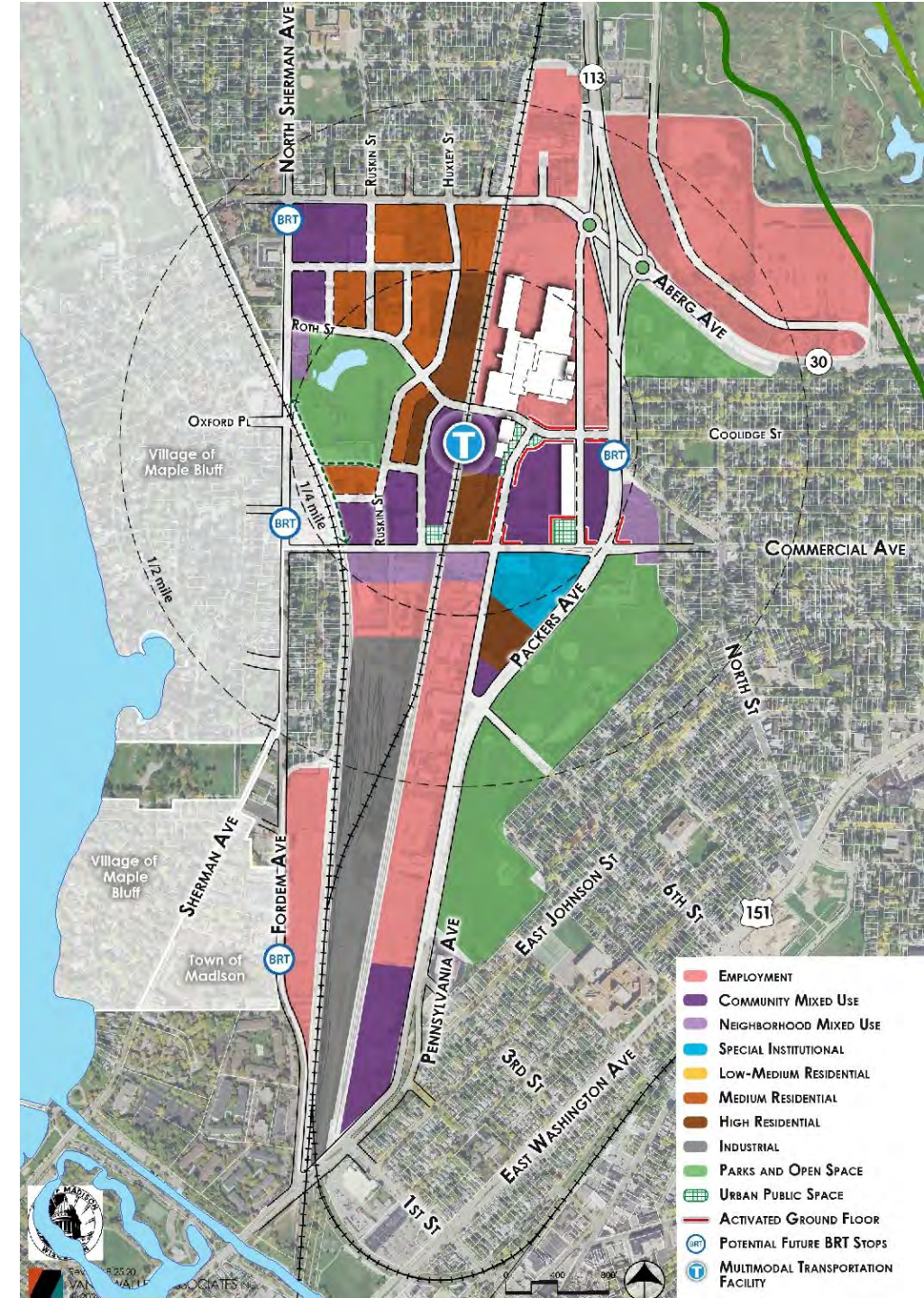
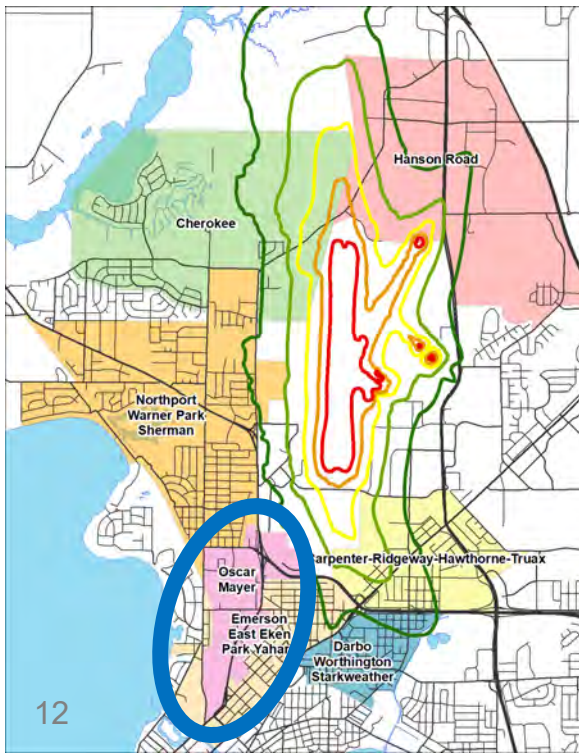
**OPEN SPACE - AGRICULTURE DISTRICTS**  
 P Park and Open Space  
 A Agriculture/Rural Uses

**SPECIAL DISTRICTS**  
 SI Special Institutional  
 AP Airport  
 C Campus

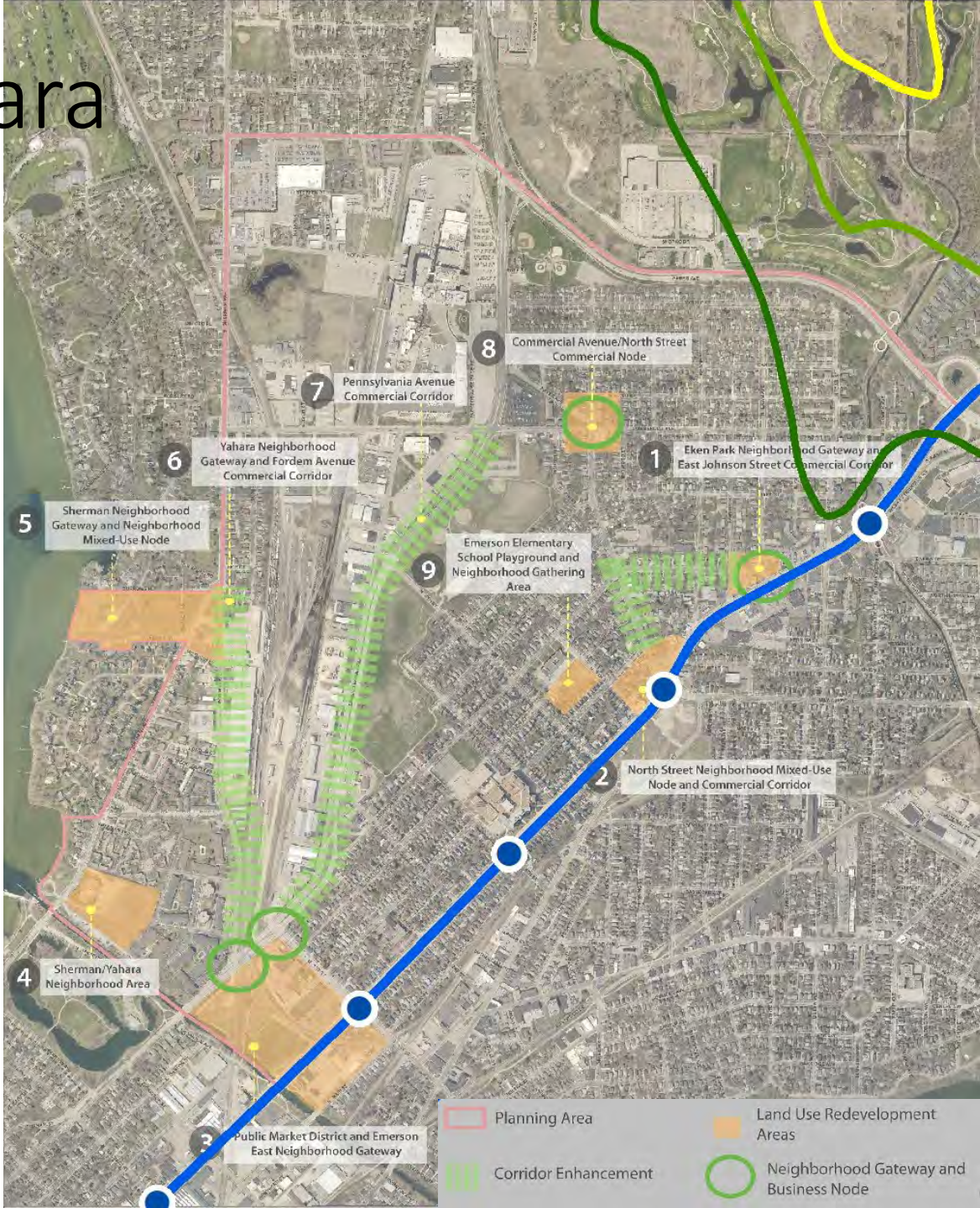
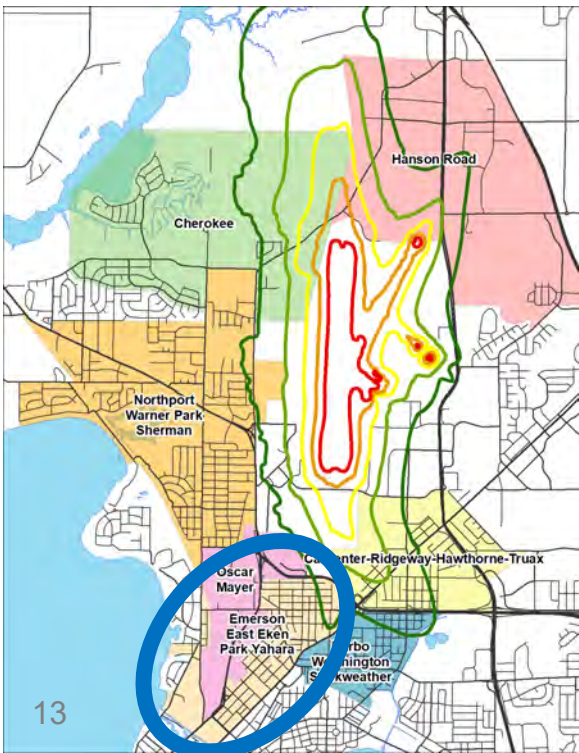
**SPECIAL OVERLAY DESIGNATIONS**  
 TOD Transit-Oriented Development  
(Conceptual Locations)  
 TND Traditional Neighborhood Development  
(Conceptual locations. TND may be applied to NPA and residential districts as specified in neighborhood and special area plans.)  
 (0) Land Use Note Reference Number

# Oscar Mayer SAP

- No incompatible or conditionally compatible uses

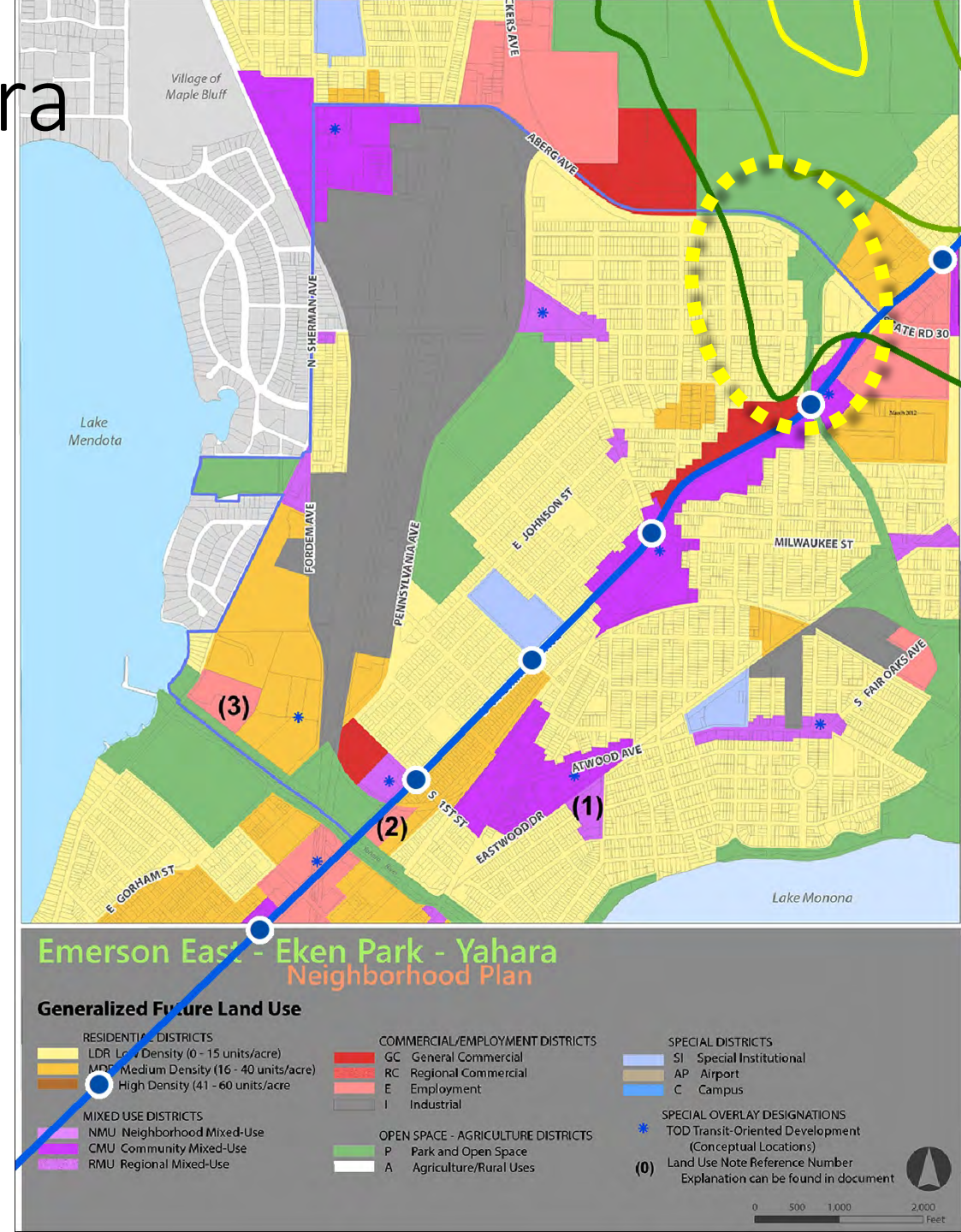
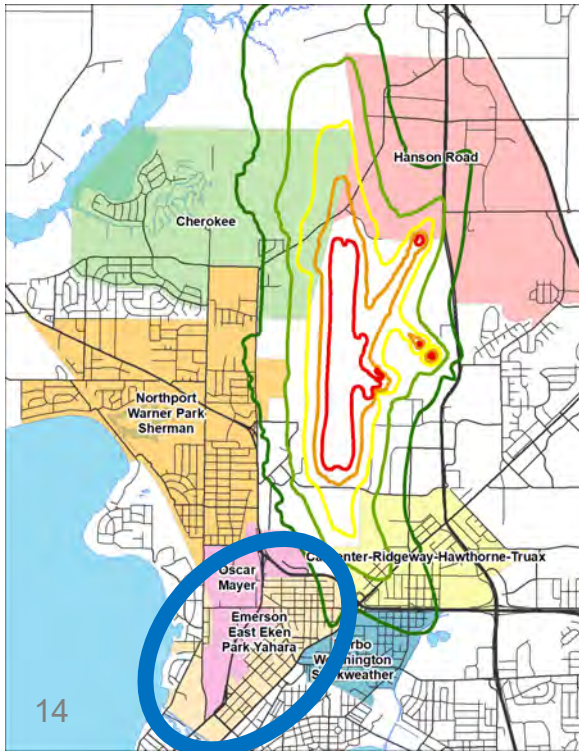


# Emerson East Eken Park Yahara



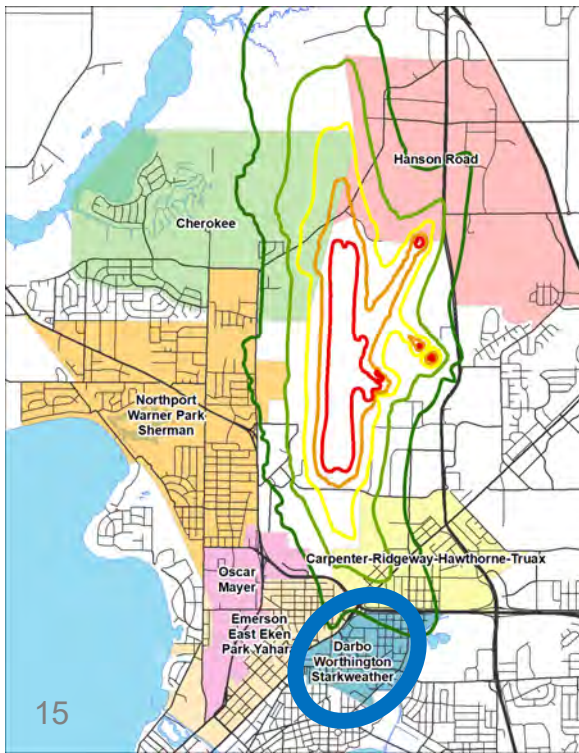
# Emerson East Eken Park Yahara

- Low density residential - compatible with soundproofing



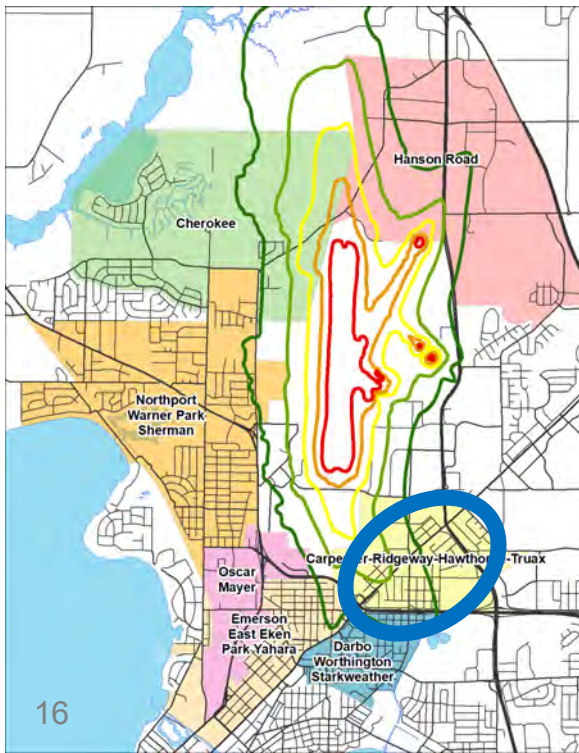
# Darbo Worthington Starkweather NP

- Low density residential and mixed use areas south of Hwy 30 - compatible with soundproofing
- Outside City of Madison

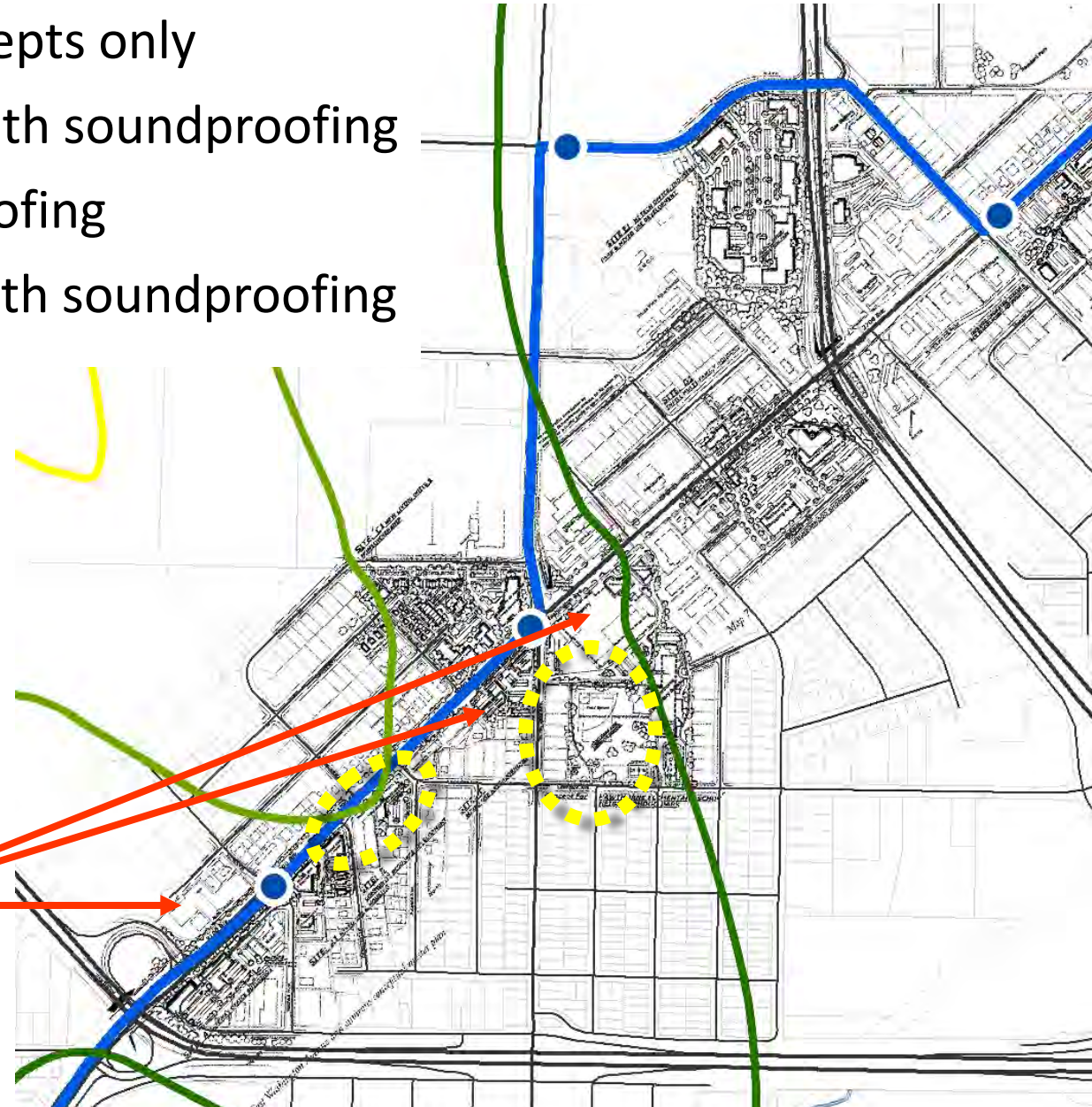


# Carpenter Hawthorne Ridgeway Sycamore Truax NP

- No future land use map - redevelopment concepts only
- Hawthorne Elementary School - Compatible with soundproofing
- Ridgeway Church - Compatible with soundproofing
- Residential in 65 and 70 db dnl - compatible with soundproofing



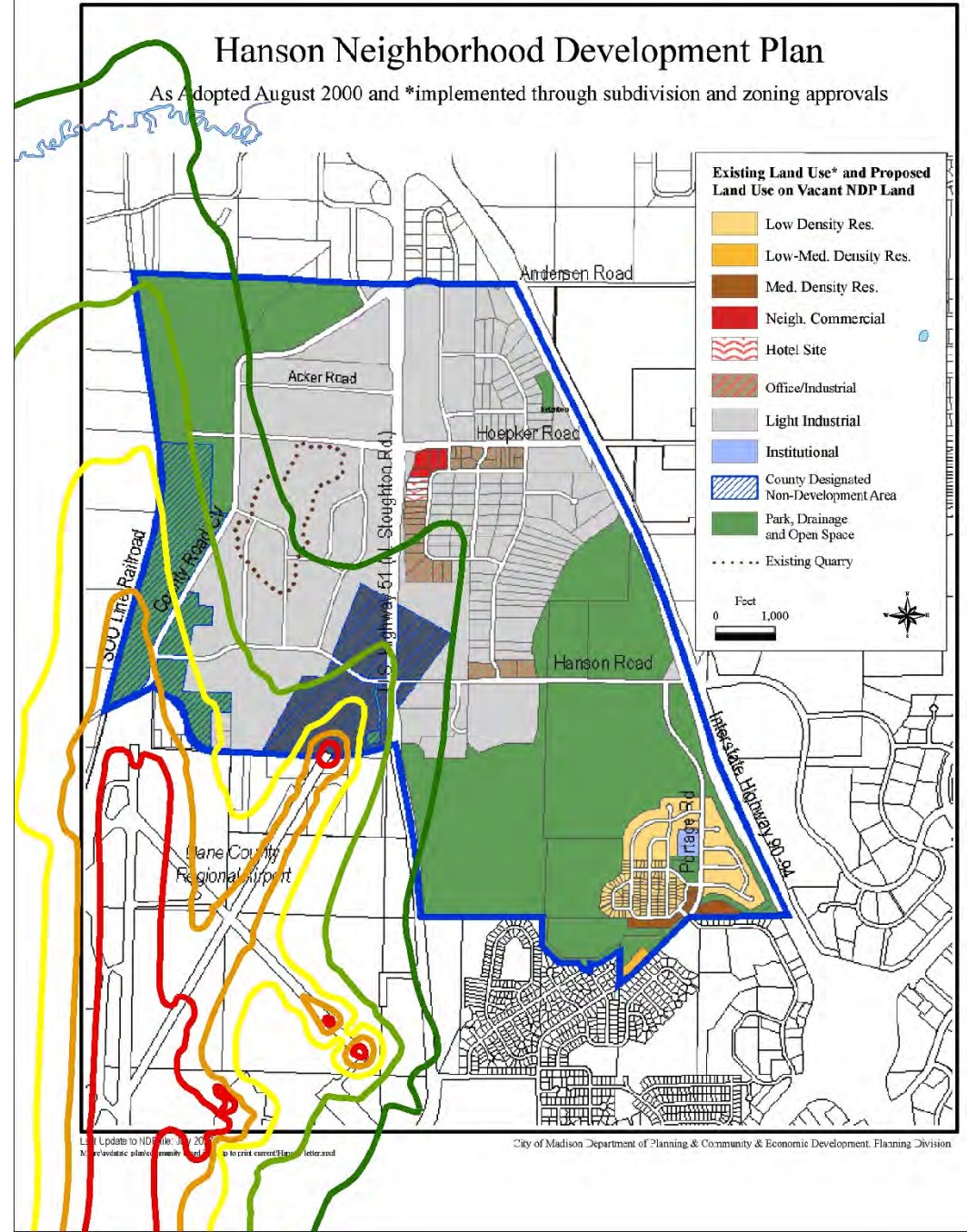
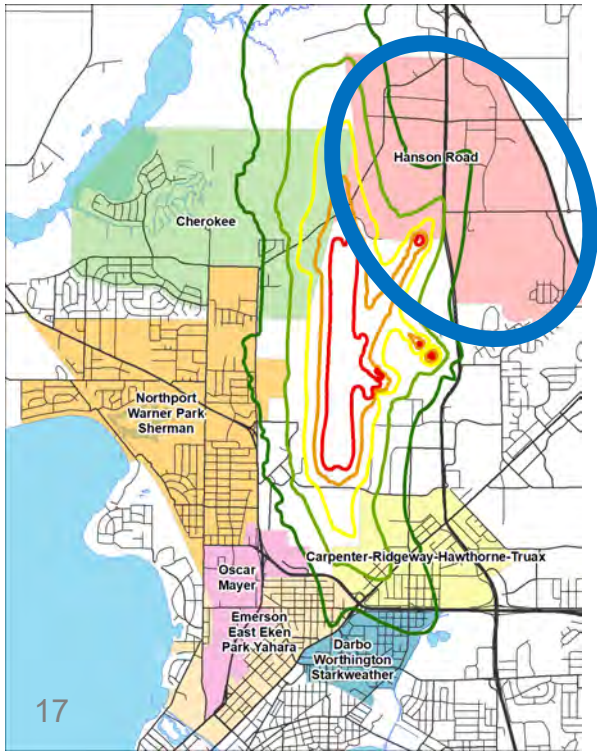
**Potential  
Redevelopment  
Sites**



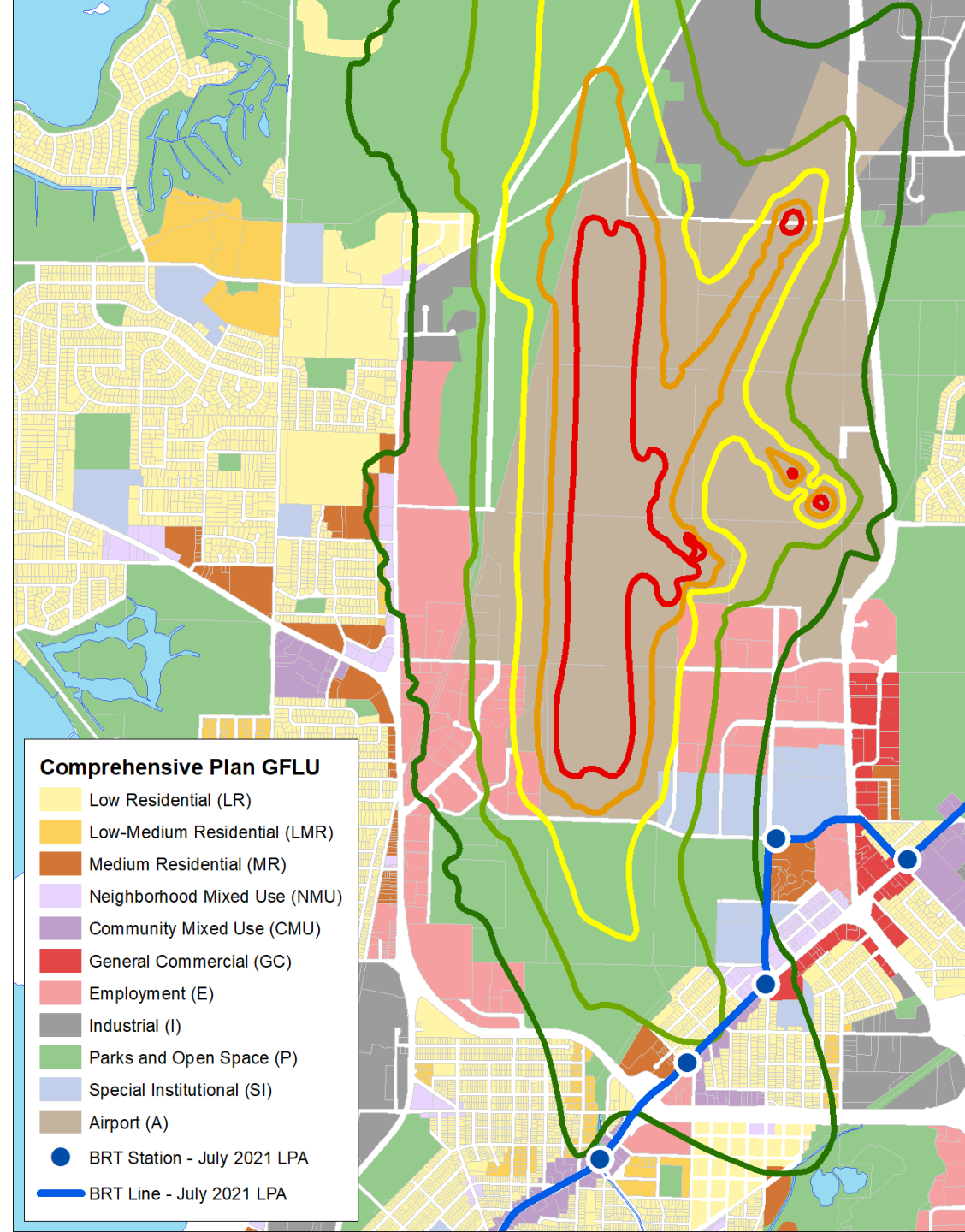


# Hanson Road NDP

- No incompatible or conditionally compatible uses



# Comprehensive Plan



# Comprehensive Plan

- Almost all future land uses compatible or conditionally compatible (soundproofing) per FAA recommended land use table

