AGRICULTURAL IMPACT STATEMENT





US 12/18: Interchange with CTH AB Dane County WisDOT # 3080-01-05



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AGRICULTURAL IMPACT STATEMENT

DATCP #4350 US 12/18: Interchange with CTH AB Dane County

WISCONSIN DEPARTMENT OF AGRICULTURE, TRADE AND CONSUMER PROTECTION

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Dear Reader,

In the 1970's, Wisconsin farmers and many local governments located between Green Bay and Milwaukee overwhelmingly opposed the planned creation of Interstate 43 (I-43). As originally planned, the I-43 project would run about 2 miles west of and parallel to Hwy-57 and be constructed primarily on farmland, as opposed to utilizing the existing Hwy-57 right of way. These farmers organized and staged protest rallies on the Wisconsin State Capitol grounds, including bringing cows to graze on the capital lawn. The strong opposition these farmers and local governments demonstrated prompted a compromise that would relocate the interstate to run along the US 141 corridor between Milwaukee and Manitowoc. This same opposition also prompted the Wisconsin legislature in 1978 to establish the Agricultural Impact Statement (AIS) statute, Wis. Stat. § 32.035, as part of Wisconsin's Eminent Domain law.

Holding onto the spirit and purpose of the farmer led protests of the 1970's, the mission of the AIS program is **to provide agricultural landowners and operators an opportunity to be heard** *in matters that impact their lands and an opportunity to voice for alternatives in order to preserve farmland under the framework of Wis. Stat.* § 32.035. Through the AIS program, agricultural landowners have the opportunity to provide feedback, document impacts, and advocate for alternative solutions any time agricultural lands are significantly affected by an entity with the potential powers of eminent domain. The AIS program also provides affected landowners the time to gather information in order to make well informed decisions before the potential project begins. Lastly, the AIS program makes suggestions and recommendations to project initiators to promote project alternatives and management practices that would reduce the potential impacts to agricultural lands and operations.

The AIS program has responsibilities to both the impacted landowners and the project initiator. The AIS program serves as an advocate to the affected agricultural landowners and will contact each affected landowner and operator in order to listen, learn and document the impacts the project poses to their agricultural lands and operations. Based on this feedback, the program will also identify and recommend project alternatives, best management & oversight practices and remediation practices to the project initiator, landowner(s) and operator(s) to reduce potential agricultural impacts. The AIS program serves the needs of the project initiator by conducting the AIS analysis and publishing the statement within a timely manner as required by Wis. Stat. § 32.035. In addition, the AIS program provides a continuing presence throughout project development and oversight processes in order to advocate for agricultural landowners and support the statewide priority to preserve prime farmland.

The Agricultural Impact Statement program and the WI Department of Agriculture, Trade and Consumer Protection are honored to provide this essential state service to the agricultural landowners and operators of the state.

Thank you

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The Wisconsin Department of Agriculture, Trade and Consumer Protection (the Department) has prepared Agricultural Impact Statement (AIS) #4350 for the proposed acquisition of land by the Wisconsin Department of Transportation (WisDOT) along a 1.9 mile corridor of US Highway (US) 12/18 between Millpond Rd and County Highway (CTH) AB in the City of Madison and the Town of Cottage Grove in Dane County, WI. WisDOT has indicated the foremost reason for the improvements to US 12/18 between Millpond Rd and CTH AB is to improve safety. This 1.9 mile corridor of US12/18 is known to contain some of the most hazardous at-grade intersections within the City of Madison and across Wisconsin. Between 2015 – 2019 the intersections of US 12/18 at Millpond Rd/Long Dr. and US 12/18 at CTH AB are responsible for a combined 81 crashes and 79 injuries, with 1 fatality at the intersection of US 12/18 at CTH AB (WisDOT, 2021; TOPS, 2021). Through the selected preferred alternative, WisDOT would consolidate the US 12/18 at-grade intersections of Millpond Rd, two US 12/18 access roads and CTH AB into a single grade-separated interchange (Figure 1 and Appendix A – Figure 1).

WisDOT evaluated a total of four project alternatives, including a no-build alternative for a base line comparison to the other three alternatives. Based on the four alternatives WisDOT has selected a preferred alternative, which calls for improvements along US 12/18 and the creation of a gradeseparated US 12/18 and CTH AB interchange. WisDOT indicated the selected alternative would significantly improve safety, while retaining connectivity and access along the US 12/18 corridor and had the support of several local stakeholders including the Ho-Chunk Nation, the City of Madison and the Town of Cottage Grove. Under the selected alternative, WisDOT would replace the existing US 12/18 and CTH AB at-grade intersection with a grade-separated diamond interchange that consists of roundabouts and an overpass structure. Several existing at-grade intersections (CTH AB, Millpond Rd, US 12/18 access roads) would be removed and realigned to connect with the newly realigned CTH AB (Figure 1). As proposed, the selected alternative will impact 17.2 acres of agricultural lands and one agricultural landowner.

In accordance with <u>Wis. Stat. §32.035(3)</u>, WisDOT has provided the Department with the necessary information and materials to conduct an AIS. The Department has also contacted the agricultural property owner(s) and operator(s) impacted by the selected alternative. In accordance with <u>Wis. Stat. §32.035(4)(b)</u>, the Department has reviewed and analyzed WisDOT materials and comments from the affected agricultural property owner(s) and operator(s) of the selected alternative to assess the agricultural impacts of the proposed US 12/18 and CTH AB interchange. Through the AIS analysis, the Department offers a set of recommendations and conclusions to WisDOT and the agricultural land owner(s) and operator(s) to help mitigate current and future impacts on agricultural lands and agricultural operations at the selected sites.

The set of recommendations are located within the AIS Recommendation Section beginning on page 3. The AIS analysis begins on page 5 with information on the project located in Section II. Information and conclusions on the agricultural setting of Dane County and impacted area can be found in Section III. The agricultural impacts of the project on the impacted land, landowner(s) and operator(s) in Section IV. Appendices for AIS #4350 contain additional project maps from WisDOT (Appendix A), information on the appraisal and compensation process (Appendix B), a copy of Wisconsin's agricultural impact statement statute (Appendix C) and various additional sources of related information for agricultural landowners and operators (Appendix D).

If WisDOT deviates from the selected alternative or the selected sites, WisDOT shall re-notify the Department. The Department shall review the re-notification for new potential impacts to agricultural lands and may determine to generate an addendum to this AIS.

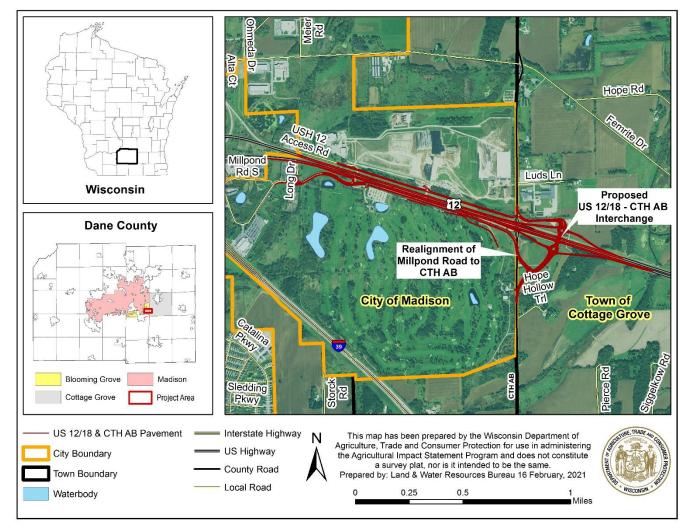


Figure 1: Proposed improvements along US Highway (US) 12/18 and a new US 12/18 and County Highway (CTH) AB interchange in the City of Madison and the Town of Cottage Grove in Dane County, WI.

AGRICULTURAL IMPACT STATEMENT RECOMMENDATIONS

The Wisconsin Department of Agriculture, Trade and Consumer Protection (the Department) has reviewed and analyzed the materials provided by the Wisconsin Department of Transportation (WisDOT) and comments from the affected agricultural property owner(s) and operator(s) regarding the proposed US 12/18 and CTH AB interchange. In accordance with <u>Wis. Stat.</u> §32.035(4)(b), the Department provides the following recommendations to WisDOT and agricultural land owner(s) and operator(s) to help mitigate impacts on agricultural lands and agricultural operations.

Recommendations to the WisDOT

- As the proposed project will impact two drainage districts overseen by the Drainage Board for Dane County, WisDOT shall notify and consult with the Board in order to meet WisDOT's legal obligations under <u>Wis. Stat. § 86.075</u>, <u>ATCP 48.40</u> and <u>FDM 5-15-1</u>.
- If there is adequate growing season for a crop to mature and be harvested after WisDOT acquires the impacted land, but before construction of the new US 12/18 and CTH AB interchange begins, WisDOT should allow the current agricultural operator(s) to harvest a crop for that season.
- While not required under its Wisconsin Pollutant Discharge Elimination System (WPDES) permit, during project design WisDOT should continue to consult with the Dane County Stormwater Engineer and the Dane County Conservation Engineer to assess whether the project design contains sufficient measures and infrastructure to manage increased stormwater runoff, minimizes drainage problems, and mitigates impacts to agricultural lands as well as adjacent properties.
- While not required under its WPDES permit, during project design WisDOT may wish to consult with the Dane County Conservationist for input on whether planned land restoration and planting of the landscape around the new interchange minimize drainage problems, soil erosion and soil compaction on the remaining remnant agricultural lands as well as adjacent properties.
- WisDOT should consult with agricultural landowner(s) and operator(s) whom have historical knowledge of flooding and runoff problems, to ensure that new or replacement culverts, ditches, and other runoff management structures for the interchange are adequate for anticipated storm events.
- WisDOT should consult with the affected agricultural landowner(s) and operator(s) to ensure any relocated or newly established agricultural land access points are located in areas that provide safe and efficient access to remnant agricultural properties.

- As proposed, WisDOT will sever cropland located on parcel ID 071130382116 into two smaller remnant fields. The smaller (4.6 acres) of the two fields may no longer be economically viable agricultural land given its' future size, potential loss of drainage capacity, access limitations, and the potential for increased stormwater impacts. Given these circumstances, the smaller remnant field could be considered an uneconomic remnant according to <u>Wis. Stat. 32.05(3m)</u> and WisDOT should consider offering to purchase this remnant agricultural field.
- WisDOT should provide agricultural landowner(s) and operator(s) advanced notice of acquisition and construction schedules so that agricultural activities can be adjusted accordingly.

Recommendations to Agricultural Land Owners and Operators

- The affected agricultural landowner(s) should fully describe and discuss property improvements and agricultural operations with appraisers so that the appropriate value of the affected property can be established.
- Given the proposed project will sever agricultural parcel ID 071130382116 into two smaller remnant fields where at least one may be considered an uneconomic remnant according to <u>Wis. Stat. 32.05(3m)</u>, WisDOT may be obligated to extend an offer to purchase the affected agricultural land. Should the affected agricultural landowner be interested in selling the remnant agricultural field(s) to WisDOT, the landowner should consider opening a dialogue now so that the property valuation reflects its current condition.
- Prior to the start of construction, landowners should identify for WisDOT where construction activities may interfere with farm operations, farm building/facilities or farming infrastructure including but not limited to drain tiles, wells, watering systems, drainage ditches, culverts, fencing, farm access roads, or grain bins.
- After construction is completed, landowners and WisDOT should carefully monitor for the emergence of drainage problems. If problems are observed that can be attributed to roadway construction, the landowner and WisDOT should work together to develop a mutually agreeable solution.

I. INTRODUCTION

The Wisconsin Department of Agriculture, Trade and Consumer Protection (the Department) has prepared Agricultural Impact Statement (AIS) #4350 in accordance with <u>Wis. Stat. §32.035</u> for the proposed new US Highway (US) 12/18 and County Highway (CTH) AB interchange in the City of Madison and the Town of Cottage Grove in Dane County, WI (Figure 1 and Figure 2) by the Wisconsin Department of Transportation (WisDOT). In Wisconsin, WisDOT is responsible for planning, building and maintaining Wisconsin's network of state highways and Interstate highway system. WisDOT also collaborates with counties to share the costs of building and operating Wisconsin's county highways. In order to achieve its responsibilities to the residents of Wisconsin, WisDOT may be required to draw upon its vested authority of condemnation granted under <u>Wis.</u> <u>Stat. §84.09</u>. Vested with the power of condemnation, WisDOT projects that impact agricultural lands are also subject to Wisconsin's AIS statute <u>Wis. Stat. §32.035</u>.

According to <u>Wis. Stat. §32.035</u>, the AIS is designed to be an informational and advisory document that describes and analyzes the potential effects of a proposed project on agricultural operations and agricultural resources, but it cannot stop a project. The Department is required to prepare an AIS when the actual or potential exercise of eminent domain powers involves an acquisition of any interest in more than 5 acres of land from any agricultural operation. The term agricultural operation includes all owned and rented parcels of land, buildings, equipment, livestock, and personnel used by an individual, partnership, or corporation under single management to produce agricultural commodities.

The AIS reflects the general objectives of the Department in its recognition of the importance of conserving vital agricultural resources and maintaining a healthy rural economy. The Department is not involved in determining whether or not eminent domain powers will be used or the amount of compensation to be paid for the acquisition of any property.

As established under <u>Wis. Stat. §32.035(4)(d)</u>, if WisDOT intends to actualize its powers of condemnation at any point during the project through a jurisdictional offer(s), WisDOT may not negotiate with an owner or make a jurisdictional offer under until 30 days after the agricultural impact statement has been published. If WisDOT deviates from the selected alternative or the selected sites, WisDOT shall re-notify the Department. The Department shall review the re-notification for new potential impacts to agricultural lands and may determine to generate an addendum to this AIS.

The full text of <u>Wis. Stat. §32.035</u> is included in Appendix C. Additional references to statutes that govern eminent domain and condemnation processes and other sources of information are also included in Appendices B and D.

II. PROJECT DESCRIPTION

Project Summary

The Wisconsin Department of Transportation (WisDOT) has provided the Wisconsin Department of Agriculture, Trade and Consumer Protection (the Department) with an agricultural impact notification (AIN) and requested spatial materials for analysis for the proposed project (WisDOT, 2021). The AIN and requested materials serve as the main reference documents for the project, the existing roadway, the project need and project alternatives. WisDOT has already selected its preferred project alternative and the proposed project presented here represents WisDOT's selected alternative along the preferred route.

WisDOT has proposed improvements along US Highway (US) 12/18 and County Highway (CTH) AB in the City of Madison and the Town of Cottage Grove in Dane County, WI (Figure 1 and Appendix A – Figure 1). Through the selected alternative, WisDOT would consolidate the US 12/18 at-grade intersections of Millpond Road, two US 12/18 access roads and CTH AB into a single grade-separated interchange. This interchange would consist of an overpass structure and grade-separated access to CTH AB (Figure 2 and Appendix A – Figure 1). The aforementioned US 12/18 intersections are known to WisDOT to pose a significant safety concern to motorists and impede the further growth of the City of Madison. As proposed, the selected alternative will impact one agricultural landowner and a total of 17.2 acres of agricultural lands through a feesimple purchase (i.e to purchase full ownership and rights). WisDOT anticipates beginning land acquisitions for the selected alternative in April 2021 and construction is expected to start in Fall of 2022. A full list of the impacted acres for each agricultural landowner is provided in Table 5 of Section IV: Landowner Impacts.

Project Design

Following the selected alternative, WisDOT has denoted that the proposed improvements to US 12/18 and CTH AB will begin within the municipal boundary of the City of Madison at the intersection of US 12/18 and Millpond Rd (Figure 1). WisDOT plans to remove the existing US 12/18 at-grade intersections with Millpond Rd (south of US 12/18) and the two US 12/18 access roads (north of US 12/18). In turn, both Millpond Rd and the two US 12/18 access roads would be realigned to run approximately 1 mile eastward and parallel to US 12/18 until they each intersect with the newly realigned CTH AB. The two US 12/18 access roads would be combined into a single new road called Long Drive.

The intersection of US 12/18 and CTH AB, which runs along the municipal boarders of the City of Madison and the Town of Cottage Grove, will be realignment approximately 1,000 ft eastward and solely into the Town of Cottage Grove (Figure 1). In addition to its realignment, WisDOT proposes to replace the current CTH AB at-grade intersection with a grade-separated interchange consisting

of an overpass structure and on/off ramps. WisDOT also proposes to implement a diamond interchange system consisting of roundabouts as the prefer alternative to control the flow of traffic on the interchange.

WisDOT evaluated three traffic control alternatives (traffic signals, roundabouts, and a diverging diamond), prior to selecting the preferred alternative to control the flow of traffic in the CTH AB interchange. While WisDOT determined all of the alternatives would provide an acceptable level of service, roundabouts would provide the best level of service, the lowest likelihood of injury-related crashes and are the most compatible with connecting into the existing northbound alignment of CTH AB. Based on their analysis, WisDOT selected a diamond interchange with roundabouts as the preferred alternative for the grade-separated US 12/18 and CTH AB interchange (Appendix A – Figure 1). WisDOT stated the preferred alternative addressed both the operational and safety concerns for the project and is supported by several local governments including the Ho-Chunk Nation, the City of Madison and the Town of Cottage Grove.

In order to avoid significant impacts to existing commercial infrastructure located to the north of CTH AB, the realignment of the northbound leg of CTH AB would use a series of reverse curves until it returns to its existing alignment near Luds Lane. The southbound leg of CTH AB would utilize agricultural land from parcel ID 071130382116 and 071130383008 to directly realign with the existing CTH AB near Hope Hollow Trail (Appendix A – Figure 1). The eastern on/off ramps of the proposed realigned CTH AB grade-separated interchange will extend approximately 1/2 mile eastward of the realigned interchange and mark the end point of the proposed improvements to US 12/18 and CTH AB. The eastern on/off ramps would also remove the at-grade access point utilized by agricultural parcel ID 071130383008 (Figure 2).

Project Right-of-Way (ROW)

In order to accommodate the US 12/18 and CTH AB interchange and realignment of Millpond Rd and the two US 12/18 access roads, new right-of-ways (ROW) will be acquired along the entire length of the project. In total, the project will acquire 71.18 acres of new ROW's, with 43.02 acres coming from fee-simple acquisitions and another 28.16 acres from temporary easements. While the realignment of Millpond Rd and the two US 12/18 access roads will utilize ROW's already held by WisDOT along US 12/18, additional ROW's ranging from 32 to 520 ft (measured from the existing ROW) will be acquired from 27.73 acres of temporary easements and 7.60 acres of fee-simple acquisitions. The realignment of CTH AB and the creation of the US 12/18 and CTH AB interchange will primarily be constructed outside of existing WisDOT ROW's. Additional ROW's ranging from 0.43 acres of temporary easements and 35.42 acres (17.2 acres being agricultural lands) of fee-simple acquisitions (Figure 2). The width of ROW will vary to accommodate the variety of design factors along the proposed US 12/18 and CTH AB interchange including roundabouts, on/off ramps and curve realignments.

Existing Roadway

US 12/18 is a four-lane principal arterial connecting the City of Madison and communities to the east. It is part of the National Highway System, is an acceptable route for permitted over-sized over-weight vehicles and is a designated long truck route meaning that it can accommodate the large turning radii of longer vehicles. Within the proposed project area, US 12/18 has a posted speed limit of 55 mph and existing ROW widths, measured from the center of median, ranging from 125 to 200 ft.

CTH AB is a two-lane minor arterial (i.e providing intra-regional and inter-area traffic mobility) with a posted speed limit of 45 mph that provides an important north-south route for the area. The existing right of way along CTH AB, as measured from the centerline of the roadway, is 40 feet. The at-grade intersection of CTH AB and US 12/18 (Figure 2) is designed to serve as a rural stop sign controlled intersection. WisDOT has indicated that this intersection ranks fourth highest for the severity of crashes within the City of Madison (Appendix A – Figure 3).

Millpond Road is a two-lane urban collector (i.e neighborhood road collecting and distributing traffic between streets and arterials) with a posted speed limit of 35 mph that provides access to a number of commercial establishments to the west, including Ho-Chunk Gaming Madison and Yahara Hills Golf Course. The existing right of way along Millpond Road, as measured from the centerline of the roadway, is 32 ft. The at-grade intersection of Millpond Rd and US 12/18 (Figure 1) is designed to serve as a rural stop sign controlled intersection. WisDOT has indicated that this intersection ranks second highest for the severity of crashes within the City of Madison (Appendix A – Figure 3).

Long Drive is one of two US 12/18 access roads impacted by the proposed project. Long Dr. is a two-lane US 12/18 access road with a posted speed limit of 35 mph that provides access to America's Best Value Inn. It intersects with US 12/18 from the north at the same at-graded stop sign controlled intersection as Millpond Rd and US 12/18. As Long Dr. shares the at-grade intersection with Millpond Rd and US 12/18, this intersection likewise shares the second highest ranking for the severity of crashes within the City of Madison (Appendix A – Figure 3). Long Drive runs parallel to US 12/18 and is located within the existing right of way for the highway. The impacted US 12/18 access road is a private road that provides access to the Dane County Sanitary Landfill to the north of US 12/18. This access road contains an at-grade intersection with US 12/18 located mid-way between Millpond Rd and CTH AB (Figure 1).

Project Need

WisDOT has indicated the foremost reason for the improvements to US 12/18 between Millpond Rd and CTH AB in Dane County is to improve safety (WisDOT, 2021). In addition, WisDOT has indicated the improvements will advance US 12/18 toward a conversion to a freeway, accommodate local and regional growth, and provide local connectivity and access. Regarding the

foremost concern for safety, WisDOT stated its awareness to the significant safety hazards the US 12/18 intersections pose (WisDOT, 2021). Within the City of Madison, the at-grade intersections of US 12/18 at Millpond Rd and US 12/18 at CTH AB (Figure 1) rank second and fourth, respectively, in severity for intersection crash history (WisDOT, 2021). Statewide, the intersection of US 12/18 and Millpond Rd/Long Dr. ranks third highest for potential safety improvements among stop sign controlled intersections (WisDOT, 2021). Vehicle crash data from WisDOT and the Traffic Operations and Safety (TOPS) laboratory provides further support for WisDOT's concern that these intersections are in fact a safety concern. As shown in Appendix A – Figure 3, from 2015 – 2019 the intersections of US 12/18 at Millpond Rd/Long Dr. and US 12/18 at CTH AB are responsible for a combined 81 crashes and 79 injuries, with 1 fatality at the intersection of US 12/18 at CTH AB (WisDOT, 2021).

The urban growth potential for this area of US 12/18 stems from the continued growth of the Madison metropolitan area and Interstate (I) 39/90 corridor. Furthermore, WisDOT's long-range transportation plan, Connections 2030, identified this section of US 12/18 as a connector route and important link to I-39/90, connecting the far eastside of the City of Madison to the Village of Cambridge, and the Town of Cottage Grove (WisDOT, 2009). The area surrounding the intersections of US 12/18 at Millpond Rd and US 12/18 at CTH AB has seen increased development with future development plans including the expansion of the Ho-Chunk Nation's gaming facility and the expansion of the City of Madison's municipal boundary eastward to CTH AB (WisDOT, 2021).

The purpose of the proposed improvements to US 12/18 between Millpond Rd and CTH AB in Dane County is to reduce the overall number and severity of crashes along this 1.9 mile corridor of US 12/18 and improve overall safety. Second to addressing the immediate safety concerns, the improvements are expected to decrease travel time delays, expand bike/pedestrian access, and support community cohesion and economic development in the region.

Alternatives

As part of the agricultural impact notification (AIN) WisDOT has submitted to the Department, WisDOT indicated and described all alternatives that were evaluated during the design process for the proposed project. During the design process, WisDOT evaluated a total of four alternatives (denoted here as A, B, C, D), as described below, to address the primary safety concerns and other objectives related to the existing intersections of US 12/18 at Millpond Rd and US 12/18 at CTH AB in Dane County. Broadly speaking, WisDOT evaluated each alternative's ability to meet the project's primary goal of improving safety as well as the project's secondary goals including conversion towards a freeway, accommodating local and regional growth, and providing local connectivity and access. Through their analysis, the WisDOT selected alternative D "US 12/18 and CTH AB Grade-Separated Interchange" as their preferred alternative, as it best addresses the needs of the project. ■ *Alternative A*: No-Build Alternative (Dismissed)

A "No-Build" alternative was included for a baseline comparison. Under the No-Build alternative, the highway would continue to receive regularly scheduled maintenance (such as filling potholes and sealing cracks), but no significant improvements would be performed. At-grade access to US 12/18 from Millpond Rd, CTH AB and various access roads would not be restricted, the aforementioned existing intersections would not be modified, and none of the operational and safety concerns would be addressed. No new right of way would be acquired. As the no-build alternative did not address the project's primary safety needs or other project objectives, WisDOT determined the no-build alternative is not viable and eliminated the alternative from further consideration.

■ *Alternative B*: At-Grade Intersection Alternatives (Dismissed)

WisDOT considered several at-grade intersection alternatives for the existing intersections of US 12/18 at Millpond Rd and US 12/18 at CTH AB as listed below. In order to implement the at-grade intersection alternatives, WisDOT proposed acquiring up to 8.06 acres of land by fee-simple acquisitions and another 27.44 acres by temporary easements.

- 1) Right turn in only intersections at Millpond Road and Long Drive with frontage roads to connect local traffic to CTH AB
- 2) Restricted crossing (J-turn) intersections
- 3) Traffic signals
- 4) Roundabouts

From their analysis, WisDOT determined the at-grade intersection alternatives shown above did not address the project's primary safety needs, secondary objectives, nor provide the necessary capacity for the expected increased future traffic volumes on US 12/18. As the at-grade intersection alternatives do not meet the project's primary safety needs or other project objectives, WisDOT determined the at-grade intersection alternatives are not a viable alternative and eliminated it from further consideration.

■ *Alternative C*: Grade-Separated US 12/18 without CTH AB Interchange (Dismissed)

Under this alternative, WisDOT would remove all at-grade access points along the 1.9 mile US 12/18 project corridor at Millpond Rd, CTH AB and the various access roads. The existing intersection of US 12/18 and CTH AB would be realigned approximately 1,000 feet eastward of the existing intersection, where a new CTH AB overpass structure would be constructed that would not provide access from CTH AB to US 12/18. A series of reverse curves would return the north leg of CTH AB to its existing alignment immediately north of US 12/18. Through their analysis, WisDOT determined the removal of all at-grade intersections would significantly improve safety; however the lack of connectivity between US 12/18 and CTH AB would force motorist to find alternative connection points to US 12/18 (e.g Femrite Drive

and Siggelkow Road), resulting in additional travel time and increased traffic volumes on the alternate routes. In order to implement this alternative WisDOT proposed acquiring up to 35.68 acres of land by fee-simple acquisitions and another 0.77 acres by temporary easements.

While the grade-separated US 12/18 without CTH AB interchange would significantly improve safety and thus meet the project's primary goal, the alternative would not provide local connectivity nor access, increase travel times and increase traffic volumes on alternate routes. Furthermore, WisDOT stated the alternative was not supported by local stakeholders including the Ho-Chunk Nation, Dane County, the City of Madison and the Town of Cottage Grove and is not consistent with WisDOT long range plans. For the previously stated reasons, WisDOT determined the grade-separated US 12/18 without a CTH AB interchange alternative was not viable and eliminated it from further consideration.

 Alternative D: US 12/18 and CTH AB Grade-Separated Interchange (Selected Preferred Alternative, see Figure 1, Figure 2, Appendix A - Figure 1)

Briefly, the US 12/18 and CTH AB grade-separated interchange would provide a diamond interchange with roundabouts and an overpass structure on a new CTH AB alignment that is shifted approximately 1,000 ft eastward. The north leg of CTH AB would then use a series of reverse curves to return to its existing alignment immediately north of US 12/18 in order to avoid significant impacts to existing commercial infrastructure. In order to implement this alternative, WisDOT proposed acquiring up to 43.74 acres of land by fee-simple acquisitions and another 28.21 acres by temporary easements. Full details of the grade-separated US 12/18 and CTH AB interchange alternative are included above within Section II: Project Design. WisDOT stated this alternative would significantly improve safety, while retaining connectivity and access along the US 12/18 corridor between Millpond Rd and CTH AB and had the support of several local stakeholders including the Ho-Chunk Nation, City of Madison and the Town of Cottage Grove, and is consistent with the WisDOT long-range plan. As this alternative meets the project's primary and secondary goals and has the support of local stakeholders, WisDOT selected alternative D: US 12/18 and CTH AB grade-separated interchange as the preferred alternative.

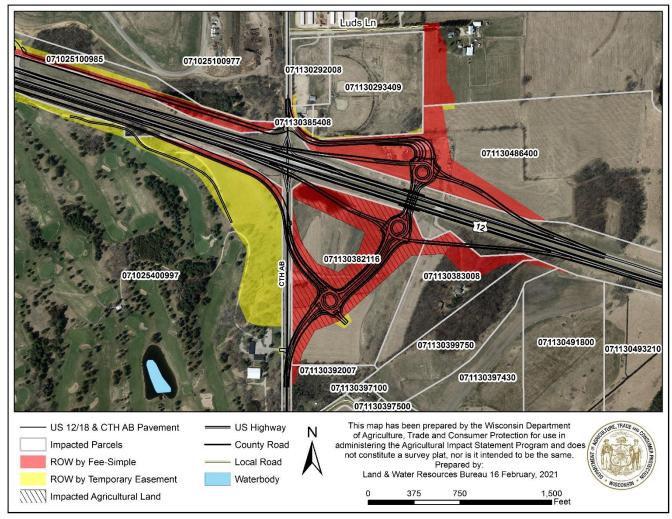


Figure 2: Realignment of County Highway (CTH) AB and creation of US Highway 12/18 and CTH AB interchange in the Town Cottage Grove in Dane County. Proposed new Right-of-Ways identified by acquisition type (fee-simple or easement) to be obtained by WisDOT are also shown.

III. AGRICULTURAL SETTING

The agricultural setting of a county has the potential to broadly impact agricultural land valuations. For example, counties with productive lands and/or urban counties with increased developmental pressures are generally known to result in higher sale prices for agricultural lands (Borchers *et al.*, 2014; Nantel, 2020). As the impacted agricultural lands for the new US 12/18 and CTH AB interchange reside within Dane County, the agricultural setting of Dane County will be analyzed to provide baseline information to assess the productivity and valuation of agricultural lands within the County. Section IV, *Agricultural Impacts* will analyze and discuss the potential impacts of the project on impacted agricultural lands.

Land in Agriculture

Dane County, with an estimated population of 543,408 residents (WisDOA, 2020) is classified as a Central Metropolitan Statistical Area (MSA) (WisDOA, 2013a). Metropolitan Statistical Areas (MSA) are generally defined as areas that contain central urbanized population area(s) of at least 50,000 people as well as the adjacent counties that are socially and economically integrated with a large population cluster (Standards, 2010). The Dane County MSA is also part of the Wisconsin's second largest Core Statistical Area (CSA), the Madison-Janesville-Beloit CSA as designated by the US Census Bureau (WisDOA, 2013a). The Madison-Janesville-Beloit CSA is home to an estimated 654,200 residents or 11.3% of the state's total population (WisDOR, 2019) and encompasses five other adjoining counties including Columbia, Green, Iowa, Rock and Sauk Counties (WisDOA, 2013a). The largest urbanized area or urban cluster that accounts for the population within a CSA (Standards, 2010).

Urban development pressures on agricultural lands are known to increase the rate of farmland conversion and increase agricultural land sale values (Azadi *et al.*, 2010; Borchers *et al.*, 2014). The following analysis will identify if agricultural lands within Dane County are exhibiting signs of urban pressure and development. In 2017, Dane County had 506,688 acres of land in farms or 66.2% of the county, which is higher than the statewide average of 41.3% (USDA, 2017a). However, between 1997 and 2017 (1.2%) of agricultural lands within Dane County were converted out of agricultural use, a proportion that is lower than the statewide average (3.9%) (Table 1) (USDA, 2017a). During this same time-period (1997 – 2017) Dane County also lost 29 farming operations (1.1% decrease), which is relatively equal to the average 1.2% loss experienced across all counties in Wisconsin (Table 2) (USDA, 2017a).

Location	Acres of Agricult	Agricultural Land	
Location	<u>1997</u>	<u>2017</u>	Converted (%)
Dane County	512,971	506,688	1.2%
Wisconsin	14,900,205	14,318,630	3.9%

Table 1: Agricultural land in production within Dane County and Wisconsin (USDA, 1997; USDA, 2017a).

Table 2: Change in the number of farms between 1997 and 2017 within Dane County and Wisconsin (USDA, 1997; USDA, 2017a).

Location	Number of Farm	ning Operations	Change in Farming	Percent Change (%)	
Location	<u>1997</u>	<u>2017</u>	Operations		
Dane County	2,595	2,566	-29	-1.1%	
Wisconsin	65,602	64,793	-809	-1.2%	

It is apparent from this analysis that agricultural lands within Dane County are resilient and have only experienced about 1/3 the rate of farmland conversion (by acre) as compared to the state wide average over the 1997 – 2017 period. Likewise, the rate of farming operation losses (1.1% loss) over the same 20 year period in Dane County is relatively the same as the statewide averaged loss of 1.2%. Nonetheless, the loss of farming operations within the County is not occurring evenly across all sizes of operations. Based on data between 2012 – 2017, farming operations lost within Dane County all came from small to mid-sized (1 – 499 acre) operations, while the number of large operations (500 + acres) increased (USDA, 2017a). The consolidation of agricultural operations seen in Dane County could be one explanation for farming operation losses relatively equal to the statewide average loss, yet a far lower rate of agricultural land conversion.

Albeit, the pressures of urban development and urban population growth on farmland conversion may not be as readily apparent in Table 1 and Table 2 across Dane County, the County is still facing immense local, county and regional development pressures. Going forward at the county level, the Wisconsin Department of Administration (WisDOA) predicts that Dane County will see a 24% population increase (118,547 persons) by 2040, which ranks first by the number of persons gained and sixth by percentage within the state (WisDOA, 2013b). The City of Madison is likely the driving force behind the County's' future growth, as the City of Madison is predicted to see the state's largest population increase of 43,150 persons by 2040 with a total population of 281,150 (WisDOA, 2013c).

Regional pressures from the Madison-Janesville-Beloit CSA may also influence urban development and farmland conversion in Dane County. The neighboring Madison-Janesville-Beloit CSA counties are also expected to all see population increases by 2040 ranging from 14 – 26% (WisDOA, 2013b) and this may in-turn generate additional future growth, urban development and farmland conversion. Given the strong potential for local, county and regional urban development pressures and urban population growth, Dane County is vulnerable to farmland conversion. Agricultural lands within or abutting incorporated municipal boundaries such as the City of Madison or agricultural lands along transportation corridors that link the adjoining Madison-Janesville-Beloit MSA counties would be at the highest risk of future farmland conversion.

Property Valuation

The valuation of agricultural lands is a key component of a county's agricultural settings. This valuation broadly serves as an indicator for the demand of agricultural land as well as its market value. Circumstances that impact the land such as agricultural productivity, urban development pressures and the intended future use of the land also factor into agricultural land valuation. Nonetheless, market conditions for agricultural land sales may vary from year to year and may not be apparent at the local scale.

The analysis of agricultural land value performed here encompassed agricultural land sales for both continued agricultural use and agricultural land diverted to other land uses, at the county scale over a three year time-period. The results of the agricultural land sale value analysis are shown in Table 3. The average (\$ /acre) sale price for agricultural land sold for continued agriculture use between 2017 – 2019 in Dane County was \$9,628. In comparison to the statewide averages, agricultural land sold for agricultural uses in Dane County sold for 82.6% more than the statewide average sale price. Across the state, agricultural lands sold and diverted for development to non-agricultural uses averaged sale values of \$10,005 per acre. However, over the same 2017 – 2019 time-period, the average sale price for agricultural land sales for development to non-agricultural uses in Dane County was \$17,042 per acre or 70.3% higher than the statewide average.

The average sale price for agricultural lands either sold for continued agriculture use or diverted to non-agricultural uses within Dane County are both nearly double the statewide average price (Table 3). The exceedingly high sale prices for agricultural land shown in this area indicates there is a strong level of demand for both agricultural land for the purpose of agricultural use as well as lands for development. The below average rate of agricultural land conversions as shown in Table 1, provides further evidence that agricultural land owners within Dane County have a strong desire to resist demands to sell agricultural land for non-agricultural uses. Conversely, strong urban development pressures have the ability to find market based price points as shown in Table 3 to purchase and divert agricultural lands to other uses. The robust forecast for population growth in Dane County would elude to the fact that strong urban pressure will continue within Dane County, in-turn this could continue to spur high demand and high prices to divert agricultural land.

Given WisDOT proposes to convert the acquired agricultural lands, the estimate of agricultural land valuation in this analysis is based on the 2017-2019 average sale price for agricultural lands sold for development in Dane County. As such, the analysis has established an average valuation of \$17,042 per acre for agricultural land sold for development in this area. The estimated valuation proposed within this analysis is not a valuation of any particular agricultural land or property and is only intended to establish an estimated average valuation for agricultural lands sold and diverted to non-agricultural uses within Dane County, WI. As the data used within the analysis is an average over the 2017 – 2019 time period, it is likely the average sale valuation for agricultural lands sold and diverted for development to non-agricultural uses in 2021 for Dane County is different from the estimate presented here.

Table 3: Agricultural land sales from 2017 – 2019 in Dane County and the Wisconsin State average (USDA, 2018; USDA, 2019a; USDA, 2020).

Agricultural Land Sale* (\$ / acre)						
Location	20:	2017 20		18	2019	
	Sold for Ag^{ϕ}	Diverted [∓]	Sold for Ag^{ϕ}	$Diverted^{T}$	Sold for Ag^{ϕ}	$Diverted^{T}$
Dane County	8,458	16,122	8,912	21,004	11,513	14,000
Wisconsin Average	4,960	10,794	5,587	13,280	5,269	5,942

*Sales based on "arms length" transactions, not including sales outside of market conditions (e.g. family sales or foreclosures)

 $\boldsymbol{\varphi}$ Agricultural land sold for continued agricultural use

 $\ensuremath{\mathbbmath$\mathbbms$}$ Agricultural land sold and diverted to other use outside of agriculture

Farmland Preservation

Wisconsin's farmland preservation (FP) program provides local governments and landowners with tools to aid in protecting agricultural land for continued agricultural use and to promote activities that support the larger agricultural economy. Through this program, counties adopt a state-certified farmland preservation plan that maps areas identified as important for farmland preservation and agricultural development based upon reasonable criteria. Based on the plan, local governments may choose to adopt a FP zoning ordinance or designate Agricultural Enterprise Areas (AEA) to achieve further land protections and ensure that farmland covered by the plan is eligible for farmland preservation tax credits. Such ordinances and AEA's must also be certified by the Department of Agriculture, Trade and Consumer Protection (the Department). Landowners who are eligible in either or both AEA and FP zoning areas <u>and</u> claim the tax credit are required to follow the state soil and water conservation standards to protect water quality and soil health.

Farmland Preservation Zoning

Dane County has maintained a Department certified FP plan since 1978 and the current plan was certified in 2012 (Dane County, 2012). Lands that are planned for farmland preservation by the county and included in a certified zoning district are afforded land use protections intended to support agriculture, and are eligible for the farmland preservation tax credit. A review of the Departments FP program participation map shows that Dane County has certified FP zoning in the Town of Cottage Grove (DATCP, 2020a). However, Dane County's FP zone does not have authority within incorporated areas (villages and cities) within the County, leaving the authority to zone for agriculture with the incorporated areas (i.e the City of Madison). While Dane County does not have the authority within the City of Madison, the proposed project does not affect any agricultural lands within the City of Madison. Therefore, the FP zoning analysis will focus on the impacted agricultural land within the Town of Cottage Grove that is under the Dane County zoning authority.

FP zoning throughout the Town of Cottage Grove is administered by Dane County and the FP-1 *Small-Lot Farmland Preservation*, FP-35 *General Farmland Preservation*, and FP-B *Farmland*

Preservation Business zoning districts serve as the three certified FP zoning districts throughout Dane County and the Town of Cottage Grove (Dane County, 2020). A review of the Dane County zoning map indicates that the impacted agricultural lands are not zoned for farmland preservation and are currently zoned as either HC - *Heavy Commercial* or RR-8 *Rural Residential-8* (Dane County, 2021).

Regardless of whether or not FP zoned agricultural lands were impacted by the proposed project, under <u>Wis. Stats. § 84.01(34)</u>, WisDOT funded projects possess a broad exemption to Wisconsin's Farmland Preservation statute, Wis. Stat. Chp. 91, unless the intended purpose of the project is to construct a building or facility for the motor vehicle emission inspection and maintenance program under Wis. Stats. § 110.20. As WisDOT's proposed improvements along US 12/18 and the US 12/18 and CTH AB interchange are unrelated to the Wis. Stats. § 110.20, the proposed project is also exempt from the FP zoning criteria under <u>Wis. Stats. § 91.46(4)</u>.

Analysis of transportation uses such as the proposed project within Dane County's HC and RR-8 zoning districts are beyond the scope of the farmland preservation analysis. Hence, WisDOT holds the responsibility to evaluate whether or not any conditional use permits are required prior to completing the necessary easements and fee-simple purchases of the agricultural lands within the Town of Cottage Grove.

Agricultural Enterprise Areas

AEA are community-led efforts to establish designated areas important to Wisconsin's agricultural future. This designation highlights the importance of the area for local agriculture and further supports local farmland preservation and agricultural development goals. Designation as an AEA also enables eligible landowners to enter into FP agreements. Through an FP agreement, a landowner agrees to voluntarily restrict the use of his/her land to agriculture for fifteen years in exchange for eligibility for the farmland preservation tax credit.

A review of the Department's AEA program shows that Dane County contains three designated AEAs (DATCP, 2020b): the Town of Dunn, Vienna-Dane-Westport and Windsor AEA's. The Vienna-Dane-Westport AEA is located in the Towns of Vienna, Dane and Westport in northern Dane County. The Windsor AEA is located within the Town of Windsor, also in northern Dane County. The Town of Dunn AEA is located in south central Dane County within the Town of Dunn. As the proposed improvements along US 12/18 and the US 12/18 and CTH AB interchange are located within the City of Madison and the Town of Cottage Grove, none of Dane County's three AEAs are impacted by the WisDOT project.

Drainage Districts

Drainage districts are local governmental entities governed under Wis. Stat. Ch. 88 and organized under a county drainage board and for the primary purpose of draining of lands for agricultural use (DATCP, 2019a). Landowners who benefit from drainage pay assessments to cover the cost to

construct, maintain, and repairing the district's drains. According to the Department, approximately 190 active districts exist within 27 of Wisconsin's 72 counties (DATCP, 2019a).

A review of the Department's Drainage Program database indicates that Dane County has 33 active drainage districts that are managed under the Drainage Board for Dane County. Of the active drainage districts, the proposed improvements along US 12/18 and the US 12/18 and CTH AB interchange will impact the Blooming Grove (#13106) and Door Creek (#13108a) drainage districts (Figure 3), both of which are listed as "active-no record of recent assessment." Under <u>Wis. Stat. §</u> 86.075 and <u>ATCP 48.40</u> WisDOT is required to notify a county drainage board whenever a highway project impacts a drainage district and furthermore consult with the drainage board on the design implications to existing drainage infrastructure. The AIN WisDOT (2021) submitted to the Department did not indicate whether the WisDOT has already informed the Drainage Board for Dane County of this project. To that end, the Department reiterates that WisDOT shall inform the Drainage Board for Dane County of the proposed project and work with the Board to mitigate potential impacts to existing drainage infrastructure.

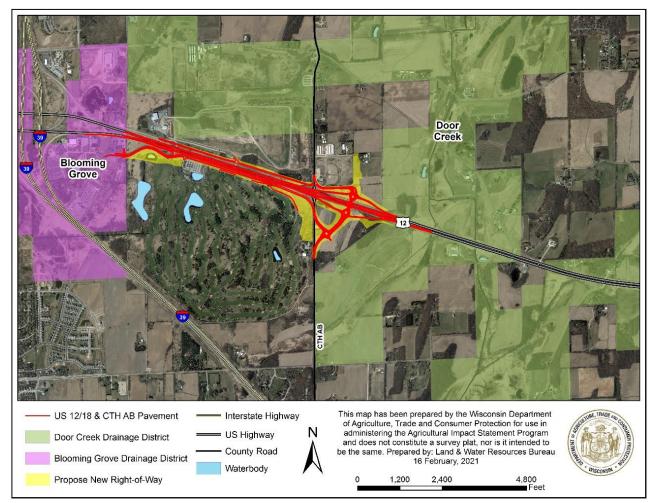


Figure 3: Active drainage districts relative to the location of the proposed improvements along US Highway 12/18 and the County Highway AB interchange in Dane County, WI.

Conservation Programs

Voluntary conservation programs such as the USDA Conservation Reserve Enhancement Program (CREP) and the USDA Conservation Reserve Program (CRP) are financial incentive programs to help agricultural landowners meet their conservation goals. The USDA and the Department jointly administer the CREP program in Wisconsin. The CREP program pays eligible agricultural landowners enrolled within the program to install filter strips along waterways or to return continually flooded fields to wetlands while leaving the remainder of the adjacent land in agricultural production. To be eligible for CREP payments, a recipient must have agricultural lands in crop production that are within 150 ft of a stream or water body or 1,000 ft from a grassland project area (DATCP, 2019b).

Conservation Reserve Enhancement Program (CREP)

A review of the Departments CREP records indicated that the proposed improvements along US 12/18 and the US 12/18 and CTH AB interchange would not impact any current CREP fields or easements.

Conservation Reserve Program (CRP)

The CRP program is a land conservation program administered by the Farm Service Agency of the USDA. In exchange for a yearly rental payment, eligible agricultural landowners enrolled in the program agree to remove highly erodible land from agricultural production and plant resource-conserving plant species such as grasses or trees that will improve environmental health and quality (USDA, 2019b). Eligible agricultural landowners must possess lands with the potential for long-term improvements to water quality, prevent soil erosion or establish beneficial wildlife habitats according to the USDA Environmental Benefits Index (USDA, 2019b). CRP enrollment information is privileged to the USDA and CRP program participants. The Department is therefore unable to determine if any of the impacted agricultural parcels are enrolled within the CRP program.

IV. AGRICULTURAL IMPACTS

In addition to being a key component of <u>Wis. Stat. §32.035</u>, documenting the agricultural impacts of a project provides the project initiator and the agricultural landowner the opportunity to better understand the project in its own right as well as learn how the project will impact agriculture. Furthermore, the documentation of agricultural impacts by agricultural landowners and operators creates the opportunity for them to advocate for alternatives that may reduce impacts to agricultural lands. In order to promote the opportunity for alternatives, the Department has used information provided by WisDOT for this AIS and information gathered by the Department from agricultural landowner(s) to analyze the potential agricultural impacts of the new US 12/18 and CTH AB interchange in the City of Madison and the Town of Cottage Grove in Dane County, WI. The analysis of the agricultural impacts and conclusions drawn from the analysis form the basis of the Department's recommendations within the Agricultural Impact Statement Recommendation Section above.

The Department's examination did identify some additional lands impacted by the proposed project that could be considered agricultural lands based on land cover information. However, the Department omitted these lands from the analysis as they represented narrow bands of lands that are closely aligned with existing commercial infrastructure and are zoned for heavy commercial use by the Town of Cottage Grove.

Prime Farmland and Soils

As proposed by WisDOT, the improvements along US 12/18 and the US 12/18 and CTH AB interchange will impact a total of 17.2 acres of agricultural lands and agricultural soils using feesimple acquisitions. The soils impacted by the proposed project were cataloged by soil map unit and soil texture (Figure 4; Table 4) using the Departments 2016 prime farmland soils GIS layer. These soils were analyzed for impacts to soils designated as prime farmland, prime farmland if drained or farmland of statewide importance (Table 4). Prime farmland is designated by the USDA according to section 622.3 of the National Soil Survey Handbook (USDA, 2017b) and is based on the ability of the land and soil to produce crops. Definitions of prime farmland, prime farmland if drained and farmlands of statewide importance are provided under Table 4.

Nearly all of the agricultural lands (98% or approximately 16.8 acres) impacted by the improvements along US 12/18 and the US 12/18 and CTH AB interchange hold some level of Federal or State priority designation. Specifically, the USDA has designated approximately 15.5 acres as prime farmland, while the State of Wisconsin has designated approximately another 1.4 acres as farmland of statewide importance (Table 4). Across the impacted agricultural parcels, the soils consists of silt loam textured soils of various soil series (Figure 4). Silt loam soils are mediumtextured (Cornell, 2017) soils with good soil structure, possess an ideal ability to hold onto water without becoming excessively wet and are usually best suited for crop production (UW-Extension, 2005). This soils analysis shows that WisDOT's proposed US 12/18 and CTH AB interchange has the potential to remove both high quality soils and prime farmland from production.

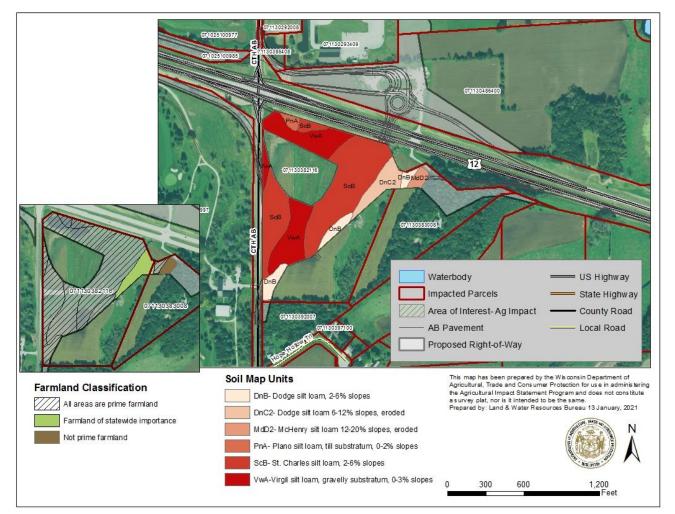


Figure 4: Soil map units impacted by the propose improvements along US Highway 12/18 and County Highway AB interchange within Dane County, WI.

Table 4: Agricultural soils impacted by the WisDOT proposed improvements along US 12/18 and the US 12/18
and CTH AB interchange the City of Madison and the Town of Cottage Grove in Dane County.

Soil Texture	Prime Farmland* (acre)	Prime Farmland if Drained [°] (acre)	Farmland of Statewide Importance [∓] (acre)	Not Prime Farmland [¢] (acre)	Total (acre)
Silt Loam	15.5	0.0	1.4	0.4	17.2
Project Total					17.2

***Prime farmland** is land that has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops, and may be utilized for cropland, pastureland, rangeland, forest land, or other lands excluding urban built-up land or water. It has the soil quality, growing season, and moisture supply needed to produce economically sustained high yields of crops when treated and managed according to acceptable farming methods, including water management.

^oPrime farmland if drained, indicates that if farmland is drained it would meet prime farmland criteria.

⁺**Farmlands of statewide importance** are set by state agency(s). Generally, these farmlands are nearly prime farmland and economically produce high yields of crops when treated and managed according to acceptable farming methods. Some may produce yields high as prime farmlands under proper conditions.

***Not Prime farmland**, indicates farmland is neither prime farmland nor of designated importance.

Landowner Impacts

WisDOT improvements along US 12/18 and the US 12/18 and CTH AB interchange will affect two parcels of agricultural property through fee-simple acquisitions. The Department contacted the single agricultural landowner whom had agricultural impacts of one or more acres as shown in Table 5. WisDOT has also contacted various stakeholders and landowners and has provided the Department a summary of those interactions within the AIN submitted to the Department (WisDOT, 2021). The following section relays the feedback and comments received from stakeholders and agricultural landowner through the Department's efforts as well as WisDOT. The obtained information will help form the basis of the Department's analysis of agricultural impacts to specific landowners and agricultural landowners in general.

WisDOT

Within the AIN submitted to the Department, WisDOT stated they are working with affected stakeholders and impacted landowners to ensure they have an opportunity to provide feedback and have their concerns addressed. Furthermore, WisDOT has stated the Ho-Chunk Nation, the City of Madison, and the Town of Cottage Grove all agree with the selected preferred alternative to create a US 12/18 and CTH AB interchange (WisDOT, 2021). WisDOT (2021) also stated they made efforts to minimize the overall impacted land area including:

- 1) Adding a concrete barrier along US 12/18
- 2) Adding curb & gutters along the frontage roads with storm sewer in place of open ditches
- 3) Proposed retaining walls along the US 12/18 and CTH AB overpass interchange to reduce span lengths and overall impacts

Despite the aforementioned mitigation efforts, fee acquisitions and temporary limited easements are required to complete the project. Once temporary easements are no longer utilized, WisDOT stated they would restore the land to the condition in which they were originally found (WisDOT, 2021).

C&L Investment Partnership

C&L Investment Partnership (C&L) own approximately 59 acres of agricultural land, some of which they rent to another agricultural producer. Their agricultural operation primarily consists of cropland for corn and hay, agricultural woodlands, and fallow farmland. Of the agricultural parcels owned by C&L Investment Partnership, parcel numbers 071130382116 and 071130383008 (Figure 2) are impacted by the US 12/18 and CTH AB interchange. These parcels are located within the Town of Cottage Grove and have been zoned as Heavy Commercial (HC) and Rural Residential (RR-8) respectively by the Dane County zoning authority (Dane County, 2021). In order to implement the US 12/18 and CTH AB interchange, WisDOT is proposing to acquire 17.2 acres of agricultural land (cropland or open/idle fields) from C&L.

C&L has indicated several concerns over WisDOT's proposed acquisition to the Department. C&L has stated the proposed acquisition will essentially acquire most of their farmland. The acquisition will also sever the cropland on parcel ID 071130382116 into several smaller remnant fields that C&L does not believe are economically viable to continue farm. C&L is also concerned the new interchange roadway will generate additional runoff that will flow onto remnant fields, impact the existing wetland soils, cause the removal of grassed waterways, impact the existing drainage system and fill in an existing retention pond. Lastly, C&L is concerned the residence will lose direct access to US 12/18, potential impacts to or the removal of an existing septic system and removal of a new paved driveway.

As shown in Figure 2, the proposed US 12/18 and CTH AB interchange would sever the existing cropland located on parcel number 071130382116 into two separate remnant fields of approximately 4.6 and 8 acres and fill in an existing retention pond. The smaller of the two remnant fields would be completely encompassed by the new realignment of CTH AB and lose stormwater drainage capacity afforded to it by the existing retention pond. The existing access point to the field would also be removed and it is unclear where WisDOT would provide C&L new access points to the remnant fields. In order to accommodate field access to the remnant fields, the Department recommends that WisDOT work with C&L and any agricultural tenant operators to determine safe new access points to the two remnant fields. Given the circumstances surrounding the smaller remnant field (i.e size of 4.6 acres, loss of drainage capacity, access limitations, and potential for increased stormwater from the US 12/18 and CTH AB interchange), it's unclear whether the remaining acreage would remain viable agricultural land. Consequently, the smaller (4.6 acre) remnant field may be considered an "uneconomic remnant" agricultural property according to Wis. Stat. 32.05(3m) and WisDOT should consider offering to purchase this remnant field. The circumstances surrounding the larger remnant field (i.e 8 acres, greater access, comparably less drainage impacts) would appear supportive of agricultural production in the near future. However, WisDOT plans do indicate the potential for an eastbound exit and road from the CTH AB and newly aligned Mill Pond Rd roundabout. Provided a new road develops, it's uncertain how long the larger remnant 8 acre field or even the other agricultural parcel number 071130383008 would remain viable agricultural uses.

As a result of the US 12/18 and CTH AB interchange, C&L Investment Partnership and their agricultural tenant operator will be losing approximately 16.8 acres of prime farmland or farmland of statewide importance and possibly more due to the impacts of the project and future expansion. The Department advises WisDOT to work within the bounds of Wis. Stat. § 88.87 to build adequate ditches, culverts, and other facilities to prevent obstruction of drainage, protect property owners from damage to lands caused by unreasonable diversion or retention of surface water, and maintain, as nearly as possible, the original drainage flow patterns to ensure stormwater and drainage impacts are mitigated on the remnant fields.

Table 5: Acres of agricultural lands, listed by agricultural landowner, impacted by the WisDOT proposed improvements along US 12/18 and the US 12/18 and CTH AB interchange in the City of Madison and the Town of Cottage Grove in Dane County.

Agricultural	Acres of Impacted Agricultural Land (acres)				
Landowner	<u>Fee-simple*</u>	<u>Permanent</u> <u>Easement</u>	<u>Temporary</u> <u>Easement</u>	<u>Total</u>	
C&L Investment Partnership	17.2	0.0	0.0	17.2	
Project Totals				17.2	

* Fee-simple purchase is to transfer full ownership of a property, including the underlying title, to another party

Drainage and Soil Health

Maintaining proper field drainage and preserving soil health is vital to the success of an agricultural operation. If drainage is impaired, water can settle in fields and cause substantial damage, such as reducing soil health, harming or killing crops and other vegetation, concentrating mineral salts, flooding farm buildings, or causing hoof rot and other diseases that affect livestock. Soil structure, texture, organic matter and microorganisms are all important factors that influence soil health (Wolkowski and Lowery, 2008). The winter application of sodium chloride (salt) to roadways and the salt rich runoff that leaves the roadway can have potentially detrimental impacts to the health of nearby soils, ecosystems and surface waters (Richburg *et al.*, 2001; Kelly *et al.*, 2008; Corsi *et al.*, 2010).

While the improvements along US 12/18 and the US 12/18 and CTH AB interchange extend along a 1.9 mile corridor of US 12/18, agricultural impacts will be concentrated directly to the south of the proposed US 12/18 and CTH AB interchange (Figure 2). Therefore, the drainage and soil health analysis will focus on two agricultural parcels ID 071130382116 and 071130383008 that are impacted by the proposed US 12/18 and CTH AB interchange. WisDOT (2021) provided the Department with geospatial data to located wetlands that are present within the proposed project area. WisDOT's wetland data indicated that the northwestern corner of parcel ID 071130382116 contains drained wetlands as seen in Figure 5. As proposed, the realignment of Mill Pond Rd and CTH AB as part of the interchange would cross through these drained wetlands. Based on aerial imagery and topography, the realignment of Mill Pond Rd and CTH AB could affect the existing drainage pattern of parcel 071130382116 and 071130383008. Furthermore, filling the retention pond on parcel ID 071130382116 and severing the existing flow pathways between the two parcels could affect existing drainage patterns as well. The additional new impermeable roadway surfaces on parcel ID 071130382116 will also increase the potential for overland runoff that will funnel into the field.

WisDOT holds a general permit to discharge under the Wisconsin Pollutant Discharge Elimination System (WPDES), which supersedes local ordinances. WisDOT's current WPDES permit <u>No. WI-</u>

<u>S066796-1</u>, ensures that WisDOT is compliant with provisions of Wis. Stat. ch. 283, ch NR 151, Wis. Adm. Code, ch NR 216, Wis. Adm. Code, and Wis. Stat. 30.2022(2) when WisDOT engages in land disturbance construction activities including clearing, grading and/or excavating that affects one acre or more of land (WisDNR, 2018). The permit only authorizes WisDOT to discharge stormwater from land disturbing construction activities that may become mixed with other stormwater discharges and the WisDNR may require individual permits for constructions sites under section 1.1.4 of WPDES permit <u>No. WI-S066796-1</u> (WisDNR, 2018).

WisDOT has indicated within the AIN to the Department (WisDOT, 2021), the preferred alternative project design will address drainage concerns and improve drainage to the regional area. WisDOT stated the various existing ponds located along the south side of US 12/18 can currently only handle a one or two-year storm event before overtopping. Once overtopped, the overflows from these ponds often impact the City of Madison owned Yahara Hills Golf Course and cause limited play or closures. WisDOT also recognized the existing capacity of a stormwater management pond owned and maintained by Dane County would be reduced to accommodate the proposed project; however, new ponds owned and maintained by the City of Madison will be constructed to mitigate this impact. WisDOT stated they have been communicating with the Dane County Land and Water Resources Department to plan for stormwater as well as stormwater detention capacity to accommodate the project. As a whole, WisDOT anticipates the creation of the new City of Madison ponds will have a positive effect on overall water quality and directly improve the current land use in the area (WisDOT, 2021).

It is apparent from this analysis that the improvements along US 12/18 and the US 12/18 and CTH AB interchange has the potential to impact the drainage and soil health of the surrounding agricultural fields. The drainage improvements WisDOT proposed, including the new stormwater retention ponds the City of Madison would construct may help mitigate the potential increased runoff volumes coming from the interchange. Conversely, the loss of a retention pond and the presence of wetland soils in parcel 071130382116 in combination with the severance of agricultural lands could create new drainage patterns that may overwhelm the soil's ability to infiltrate runoff. As a result, the soils within parcel IDs 071130382116 and 071130383008 may be wetter and less favorable for agricultural cropping because of the proposed project. The application of salt to the roadway in the winter also creates the potential for additional detrimental impacts to the health of the receiving agricultural soils and wetlands.

Wis. Stat. § 88.87 of the Wisconsin Statutes requires highways to be built with adequate ditches, culverts, and other facilities to prevent obstruction of drainage, protect property owners from damage to lands caused by unreasonable diversion or retention of surface water, and maintain, as nearly as possible, the original drainage flow patterns. Refer to Appendix C Section III for the statutes pertaining to drainage rights. Landowners whose property is damaged by improper construction or maintenance of highway facilities and highway drainage structures may file a claim with WisDOT within three years after the damage occurs (Appendix C Section III).

Wisconsin Department of Agriculture, Trade and Consumer Protection

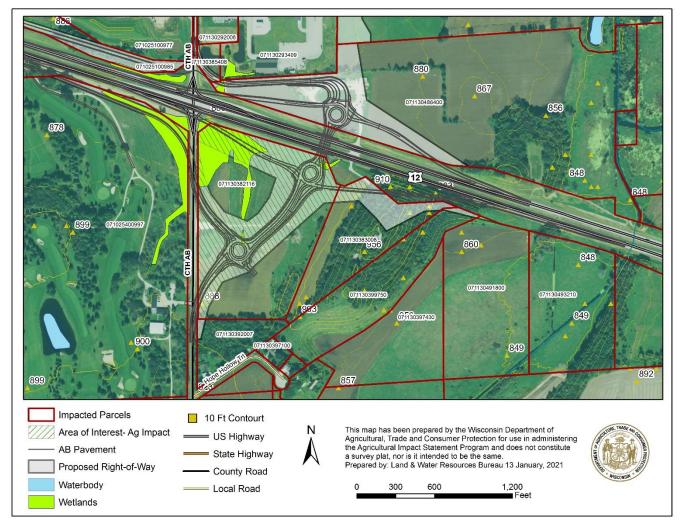


Figure 5: Wetlands and topography of agricultural lands affected by the proposed improvements along US Highway 12/18 and County Highway AB interchange within Dane County, WI.

V. REFERENCES

- Azadi, H., P. Ho, and L. Hasfiat. 2010. Agricultural land conversion drivers: A comparison between less developed, developing and developed countries. *Land Degradation & Development*. doi:10.1002/ldr.1037
- Dane County. 2012. Dane County Farmland Preservation Plan. Retrieved from <u>https://plandev.countyofdane.com/documents/pdf/Dane-County-Farmland-Preservation-Plan-08-16-2012.pdf</u> (accessed 11 Feb. 2021).
- Dane County. 2020. Chapter 10: Zoning. Retrieved from https://www.countyofdane.com/ordinances#zoning (accessed 11 Feb. 2021).
- Dane County. 2021. Dance County on-line Interactive Mapping Application. Retrieved from https://lio.countyofdane.com/ (accessed 11 Feb. 2021).
- Borchers, A., J. Ifft, and T. Kuethe. 2014. Linking the Price of Agricultural Land to Use Values and Amenities. *American Journal of Agricultural Economics*. 96(5): 1307–1320. doi:10.1093/ajae/aau041
- Cornell University (Cornell). 2017. Soil Health Manual Series Fact Sheet Number 16-04: Soil Texture. Retrieved from <u>https://cpb-us-</u> <u>e1.wpmucdn.com/blogs.cornell.edu/dist/f/5772/files/2016/12/04 CASH SH Series Texture</u> <u>Fact Sheet 072717-286kw9f.pdf</u> (accessed 15 Feb. 2021).
- Corsi S. R., D. Graczyk, S. Geis, N. Booth and K. Richards. 2010. A fresh look at road salt: Aquatic toxicity and water-quality impacts on local, regional, and national scales. *Environ Sci Technol.* 44:7376–7382. doi.org/10.1021/es101333u
- Kelly, V., G. Lovett, K. Weathers, S. Findlay, D. Strayer, D. Burns and G. Likens. 2008. *Environmental Science & Technology*. 42 (2), 410-415 doi: 10.1021/es071391
- Nantel, S. 2020. Wisconsin Agricultural Land Prices. University of Wisconsin-Extension. Madison, WI. Retrieved from <u>https://farms.extension.wisc.edu/articles/wisconsin-agricultural-land-prices/</u> (accessed 28 Jan. 2021).
- Richburg, J. A., W. A. Patterson III and F. Lowenstein. 2001. Effects of road salt and *Phragmites australis* invasion on the vegetation of a western MA calcareous lake-basin fen. *Wetlands*. 21, 247–255. doi.org/10.1672/0277-5212(2001)021[0247:EORSAP]2.0.CO;2
- Standards for Delineating Metropolitan and Micropolitan Statistical Areas (Standards); Notice. 2010. Vol. 75 Federal Register No. 123. 28 June 2010. Retrieved from https://www.govinfo.gov/content/pkg/FR-2010-06-28/pdf/2010-15605.pdf (accessed 15 Feb. 2021).
- Traffic Operations and Safety (TOPS) Laboratory (TOPS). 2021. Community Maps Wisconsin County TSC Crash Mapping. Retrieved from <u>https://transportal.cee.wisc.edu/partners/</u> <u>community-maps/crash/search/BasicSearch.do</u> (accessed 15 Feb, 2021)
- U.S. Department of Agriculture (USDA). 1997. 1997 Census Volume 1, Chapter 2: County Data: *Table 6. Farms, Land in Farms, Value of Land and Buildings, and Land Use: 1997 and 1992.*
- U.S. Department of Agriculture (USDA). 2017a. 2017 Census Volume 1, Chapter 2: State Level Data: *Table 8. Farms, Land in Farms, Value of Land and Buildings, and Land Use: 2017 and 2012*. Retrieved from <u>https://www.nass.usda.gov/Publications/AgCensus/2017/</u> <u>Full Report/Volume 1, Chapter 2 County Level/Wisconsin/st55 2 0008 0008.pdf</u> (accessed 8 Feb. 2021).

- U.S. Department of Agriculture (USDA). 2017b. Title 430 National Soil Survey Handbook: Part 622 Interpretive Groups. Retrieved from <u>https://directives.sc.egov.usda.gov/</u> <u>OpenNonWebContent.aspx?content=41985.wba</u> (accessed 8 Feb. 2021).
- U.S. Department of Agriculture (USDA). 2018. 2018 Wisconsin Agricultural Statistics. Retrieved from https://www.nass.usda.gov/Statistics by State/Wisconsin/ Publications/Annual Statistics by State/Wisconsin/ Publications/Annual Statistics by State/Wisconsin/ Publications/Annual Statistics by State/Wisconsin/ Publications/Annual Statistical Bulletin/2018AgStats-WI.pdf (accessed 8 Feb. 2021).
- U.S. Department of Agriculture (USDA). 2019a. 2019 Wisconsin Agricultural Statistics. Retrieved from <u>https://www.nass.usda.gov/Statistics by State/Wisconsin/</u> <u>Publications/Annual Statistical Bulletin/2019AgStats-WI.pdf</u> (accessed 8 Feb. 2021).
- U.S. Department of Agriculture (USDA). 2019b. Farm Service Agency: Conservation Reserve Program. Retrieved from <u>https://www.fsa.usda.gov/Assets/USDA-FSA-Public/usdafiles/</u> <u>FactSheets/2019/conservation-reserve program-fact sheet.pdf</u> (accessed 8 Feb. 2021).
- U.S. Department of Agriculture (USDA). 2020. 2020 Wisconsin Agricultural Statistics. Retrieved from <u>https://www.nass.usda.gov/Statistics by State/Wisconsin/Publications/</u><u>Annual Statistical Bulletin/2020AgStats-WI.pdf</u> (accessed 8 Feb. 2021).
- University of Wisconsin-Extension (UW-Extension). 2005. A3588: Management of Wisconsin Soils. Madison, WI. Retrieved from <u>https://soilsextension.webhosting.cals.wisc.edu/wpcontent/uploads/sites/68/2014/02/A3588.pdf</u> (accessed 12 Feb. 2021).
- Wisconsin Department of Agriculture, Trade and Protection (DATCP). 2019a Drainage Districts in Wisconsin. Retrieved from <u>https://datcp.wi.gov/Documents/DrainageFactsheet.pdf</u> (accessed 28 Jan. 2021).
- Wisconsin Department of Agriculture, Trade and Protection (DATCP). 2019b. CREP: Conservation Reserve Enhancement Program. Retrieved from <u>https://datcp.wi.gov/Documents/ CREPBrochure.pdf</u> (accessed 28 Jan. 2021).
- Wisconsin Department of Agriculture, Trade and Protection (DATCP). 2020a. Farmland Preservation Program: Farmland preservation program participation map. Retrieved from <u>https://datcp.wi.gov/Documents/FPParticapationMap.pdf</u> (accessed 11 Feb. 2021).
- Wisconsin Department of Agriculture, Trade and Protection (DATCP). 2020b. Designated Agricultural Enterprise Areas (AEAs). <u>https://datcp.wi.gov/Pages/Programs_Services/</u> <u>DesignatedAEAs.aspx</u> (accessed 11 Feb. 2021).
- Wisconsin Department of Natural Resources (WisDNR). 2018. General permit to discharge under the Wisconsin Pollutant Discharge Elimination System WPDES Permit No. WI-S066796-1. <u>https://dnr.wi.gov/topic/Sectors/documents/FINALsignedWisDOTCSGPWI-</u> <u>S066796-1Apr2018.pdf</u> (accessed 9 March, 2021).
- Wisconsin Department of Administration (WisDOA). 2013a. Wisconsin Geography Maps and Graphics: Core based and combined Metropolitan Statistical Areas. Retrieved from https://doa.wi.gov/DIR/CoreBasedCombinedStAreas.xlsx (accessed 9 Feb. 2021).
- Wisconsin Department of Administration (WisDOA). 2013b. County Age-Sex Population Projections, 2010-2040. Retrieved from <u>https://doa.wi.gov/DIR/Proj_cofinal_2010_2040Web.xlsx</u> (accessed 9 Feb. 2021).
- Wisconsin Department of Administration (WisDOA). 2013c. Wisconsin's Future Population: Projections for the State, Its Counties and Municipalities, 2010-2040. Retrieved from <u>https://doa.wi.gov/DIR/FinalProjs2040_Publication.pdf</u> (accessed 9 Feb. 2021).

- Wisconsin Department of Administration (WisDOA). 2020. Wisconsin Geography, Maps and Graphics: 2020 Population Density. Retrieved from https://doa.wi.gov/DIR/Pop_Density_2020.xlsx (accessed 8 Feb. 2021).
- Wisconsin Department of Revenue (WisDOR). 2019. Wisconsin MSA Outlook. Retrieved from <u>https://www.revenue.wi.gov/DORReports/WI-MSA-Outlook-0519.pdf</u> (accessed 9 February, 2021)
- Wisconsin Department of Transportation (WisDOT). 2009. Connections 2030: Statewide Long-Range Transportation Solutions. Retrieved from <u>https://wisconsindot.gov/Pages/projects/multimodal/conn2030.aspx</u> (accessed 8 February, 2021)
- Wisconsin Department of Transportation (WisDOT). 2021. Agricultural Impact Notice for Highway Projects: USH 12; Madison to Cambridge. Department of Agriculture, Trade and Protection. Madison, WI, USA.
- Wolkowski, R., and B. Lowery. 2008. A3367: Soil Compaction: Causes, concerns, and cures. University of Wisconsin-Extension. Retrieved from <u>https://cdn.shopify.com/s/files/1/</u>0145/8808/4272/files/A3367.pdf (accessed 28 Jan. 2021)

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Governor

Governor Tony Evers

State Senators

Honorable Joan Ballweg (Committee on Agriculture)

Honorable Melissa Agard (Senate District 16)

State Assembly

Honorable Gary Tauchen (Committee on Agriculture) Honorable Jimmy Anderson (Assembly District 47)

Federal, State and Local Units of Government

The Ho-Chunk Nation
Ho-Chunk Nation Executive Director of Administration – Phyllis Smoke
Wisconsin Department of Agriculture, Trade and Consumer Protection (DATCP)
DATCP Public Information Officer – Kevin Hoffman
DATCP Legislative Liaison - Bradford Steine
DATCP Administrator, Agricultural Resource Management Division - Sara Walling
DATCP Director, Bureau of Land and Water - Lacey Cochart
Wisconsin Department of Transportation (WisDOT)
Jennifer Grimes - Environmental Coordinator
Derek Potter - Project Manager
Scott Schoenmann - Project Supervisor
Dane County Wisconsin
Dane County Director Land & Water Resources Department - Laura Hicklin
Dane County Conservationist – Amy Piaget
Dane County Conservation Engineer – Elliott Mergen
Dane County Stormwater Engineer – Theresa Nelson
Dane County Highway Commissioner – Gerald Mandli
Drainage Board for Dane County Chair - Scott Ringelstetter
Towns, Cities and Villages
Town of Cottage Grove Chair – Kris Hampton
Town of Cottage Grove Clerk – Kim Banigan
City of Madison Mayor – Satya Rhodes-Conway
City if Madison Clerk – Office of the Clerk
Universities
University of Wisconsin-Extension: Dane County - Carrie Edgar

News Media, Public Libraries and Repositories

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 - Hawthorne Branch
 - Lakeview Branch
 - Meadowridge Branch
 - Monroe Street Branch
 - Pinney Branch
 - Sequoya Branch
 - Goodman South Madison Branch
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- South Central Library System
- Monona Public Library
- Sun Prairie Public Library

Newspapers

- Wisconsin State Journal
- Herald-Independent and McFarland Thistle
- Sun Prairie Star
- Agri-View Newspaper
- Country Today Newspaper
- Wisconsin Document Depository Program
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Interest Groups, Entities and Individuals

Oneida Engineering Services – Lisa Dreifuerst Ayres Associates – Kevin Kuhlow Curtis Hanson



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