

**Re: Consideration of Resolution CARPC No. 2008-18 amending the *Dane County Land Use and Transportation Plan* and the *Dane County Water Quality Plan* by revising the Stoughton Urban Service Area boundary and environmental corridors in the City of Stoughton and Town of Dunkirk**

**Decision Items:**

1. Consideration of Resolution CARPC No. 2008-18

**Staff Comment on Item:** The proposed amendment would add 50.5 acres on the southwest side of the City of Stoughton, south of W. Milwaukee Street, southwest of Pleasant View Drive and north of CTH A. The addition includes 0.9 acres of environmental corridor for stormwater management facilities and 49.6 acres for residential development. The residential component includes 20.3 acres accommodating 80 single family residential units and 11.4 acres accommodating 89 units of other residential types. A total population of 410 persons, including 84 school-aged children, is estimated to be served by this development.

This amendment request was submitted to the Dane County Community Analysis and Planning Division by the City of Stoughton in Fall of 2006. The CAPD Administrator presided over a public hearing on the amendment held November 16, 2006. At that time, staff recommended continuation of the amendment review process and delay in approval of the amendment to allow the preparation of a stormwater and drainage concept plan for the amendment area with collaboration between the City of Stoughton, the engineer for the developer, and the staff of Dane County Land Conservation Department and CAPD. Staff concerns arose from planned discharges to a closed drainage basin area to the west that could result in off-site flooding , or discharge to the east that would be through farm fields with no defined drainage channel, potentially resulting in off-site flooding and erosion.

Those issues have now been addressed. The original staff analysis dated November 9, 2006, and an addendum addressing the subsequent information are included with this item.

**Staff Recommendations:** Staff recommends approval of the proposed amendment based on the land uses and provision of service outlined in the City of Stoughton submittal, and conditioned on the City of Stoughton pursuing the following:

1. Submit a detailed stormwater management plan for CARPC and DCL&WRD staff review and approval prior to land disturbing activities in the area. The stormwater management plan should include the following:
  - o Maintain the pre-development hydrologic regime (rates and volumes) for the west drainage area (area draining to the pothole wetland area) by maximizing infiltration, minimizing impervious surfaces, and through detention.

- Maintain pre-development rates of runoff for all storms up to and including the 100-year storm for all other areas; make every effort to reduce the volume of runoff in these areas by maximizing infiltration.
  - Prevent increased off-site flooding and erosion.
  - Provide aggressive construction erosion control practices and enforcement.
  - Install stormwater facilities prior to other land disturbing activities in the area.
  - Stormwater facilities to be publicly managed (privately owned facilities to have easements and legally enforceable maintenance agreement with the City).
  - Include stormwater facilities in environmental corridors.
2. Continue attempts to secure a drainage easement or an agreement with the land owners to the east to establish a stable greenway for the conveyance of stormwater. If attempts prove to be unsuccessful by the time when the stormwater review process has been completed, RPC staff will provide a status report to the CARPC and request a waiver from the easement condition.

**Materials Presented with Item:**

1. Staff Analysis dated November 9, 2006
2. Staff Analysis addendum dated July 3, 2008
3. Draft Resolution CARPC No. 2008-18

**Contact for Further Information:**

Kamran Mesbah, Deputy Director  
266-9283  
KamranM@CapitalAreaRPC.org

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**Staff Analysis of Proposed Amendment to the *Dane County*  
*Water Quality Plan*, Revising the  
 Stoughton Urban Service Area Boundary and Environmental Corridors in the  
 City of Stoughton (Nordic Ridge Development)**

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**1. Applicant:** City of Stoughton

**2. Description of Proposal**

The proposed amendment is located on the southwest side of the City of Stoughton, south of W. Milwaukee Street, southwest of Pleasant View Drive, and north of County Highway A. The City of Stoughton proposes to add 50.5 acres to the Stoughton Urban Service Area, including 0.9 acres of environmental corridors, resulting in a net developable area of 49.6 acres. The land use proposed for the addition is residential, accommodating 169 new housing units with an estimated population of 410, including 84 school age children (see Table 1, Maps 1 through 3).

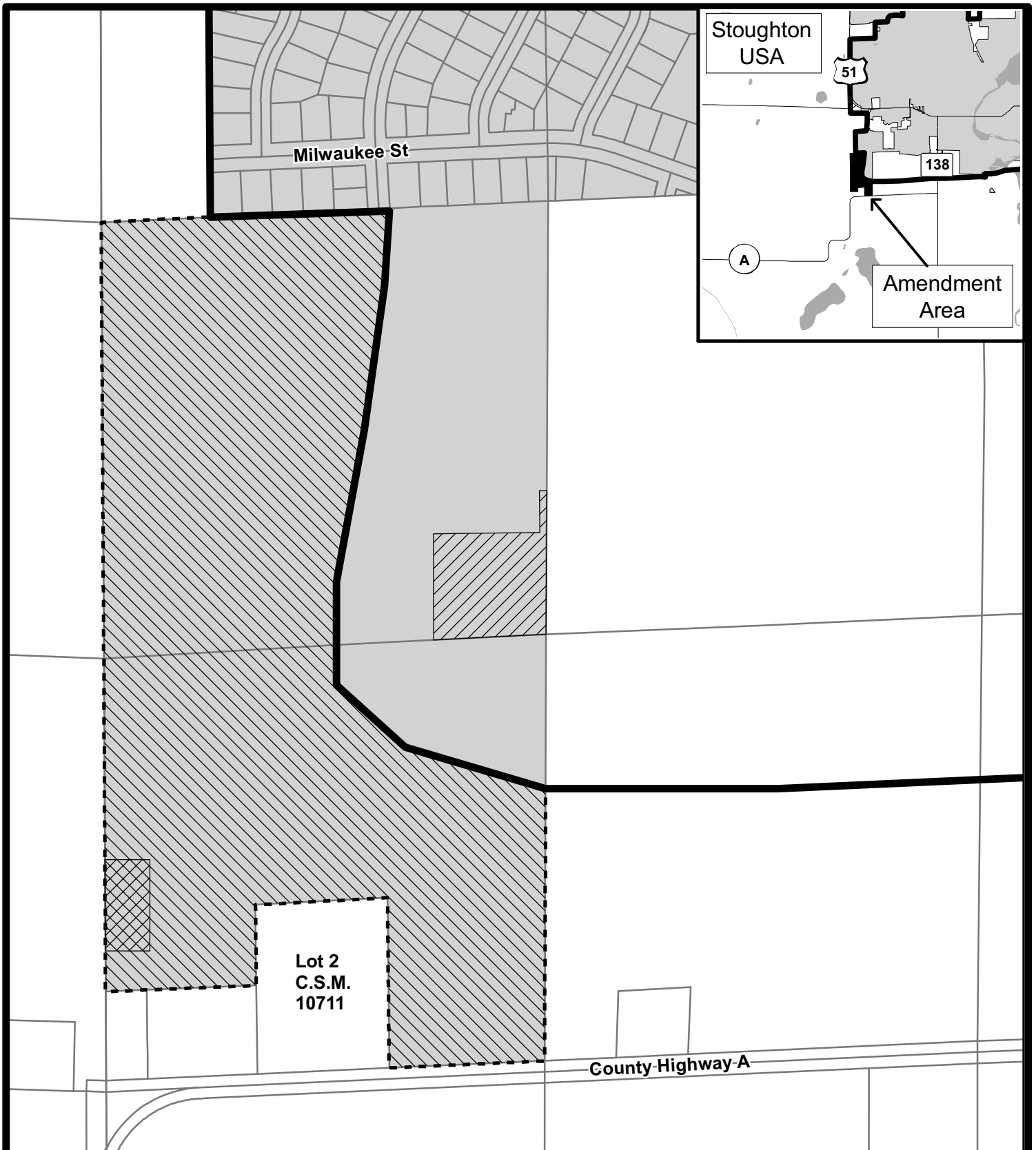
<b>Table 1: Stoughton Urban Service Area, Nordic Ridge Requested by the City of Stoughton</b>										
Proposed Land Use	Density (units/acre)		Total ( ac.)	% of Total	Housing Units	No. of Persons	No. of Students	Existing Develop.	Environ. Corridor	Develop- able
	Proposal	Stoughton								
Single Family	3.94	3.80	20.3	40.2%	80	228	56			
Other Residential	7.81	11.30	11.4	22.6%	89	182	28			
<b>Residential Total</b>	<b>5.33</b>	<b>5.13</b>	<b>31.7</b>	<b>62.8%</b>	<b>169</b>	<b>410</b>	<b>84</b>			
Street R-O-W			11.5	22.8%						
Stormwater Mgmt.			0.9	1.7%					0.9	
Parkland			6.4	12.7%						
<b>TOTAL</b>			<b>50.5</b>	<b>100.0%</b>				<b>0.0</b>	<b>0.9</b>	<b>49.6</b>
					Single Family Portion of DU's in Amendment = 47%					

Source: City of Stoughton Planning Submittal and Dane County Community Analysis and Planning

The proposed addition is contiguous to the Stoughton Urban Service Area and to urban development to the north.






**3. Existing Environment**

**Natural Resources.** The proposed amendment is located in two watersheds in the Lower Rock River Basin. The east half of the development is in the Lower Yahara River Watershed. Drainage is to the east, through City of Stoughton greenways, stormwater ponds, and storm sewers to the Lower Yahara River 1.25 miles away. Some of this part of the development is already within the urban service area. The Lower Yahara River supports a warm water sport fishery.




**Map 1**

**Amendment  
to the Stoughton  
Urban Service Area,  
City of Stoughton**

-  Service Area to be added
-  Proposed Environmental Corridor
-  Existing Urban Service Area Boundary
-  Proposed Urban Service Area Boundary
-  Incorporated Area

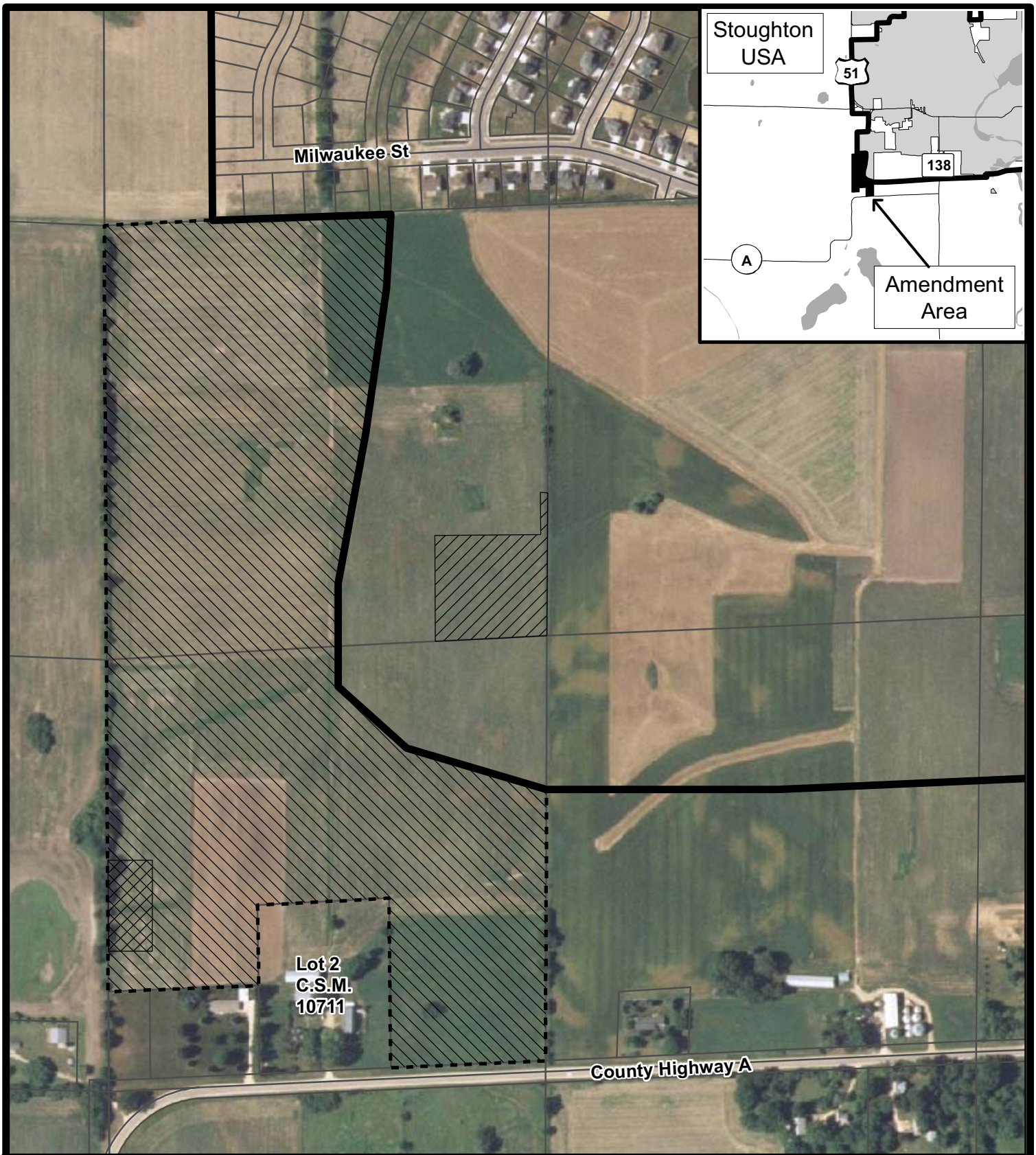
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of the CAPD.



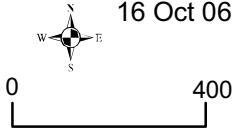
**Map 2 - 2005 Aerial**

**Amendment  
to the Stoughton  
Urban Service Area,  
City of Stoughton**

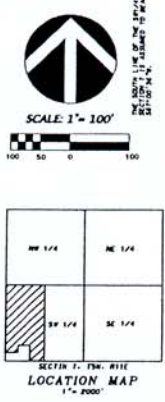
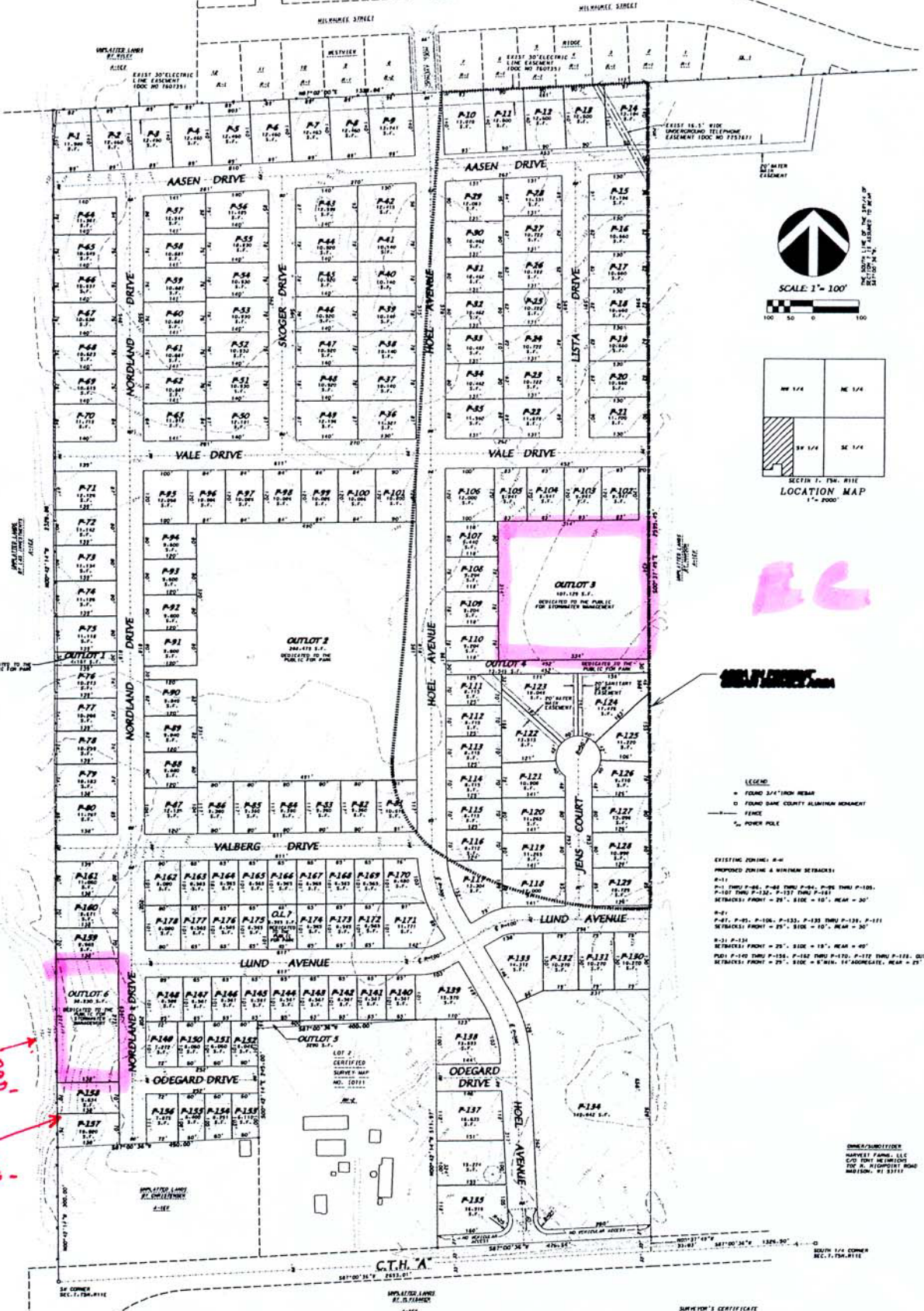
-  Service Area to be added
-  Proposed Environmental Corridor
-  Existing Urban Service Area Boundary
-  Proposed Urban Service Area Boundary
-  Incorporated Area

2005 aerial courtesy of FSA/NRCS

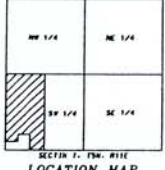
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SCALE 1" = 100'



- LEGEND:**
- FOUND 3/4" IRON NAIL
  - FOUND DUNE COUNTY ALUMINUM MARKER
  - FENCE
  - POWER POLE
- EXISTING ZONING: R-1**
- PROPOSED ZONING: A WITHIN TRACKS**
- P-11 TRACKS P-88, P-89, P-90, P-91, P-92, P-93, P-94, P-95, P-96, P-97, P-98, P-99, P-100, P-101, P-102, P-103, P-104, P-105, P-106, P-107, P-108, P-109, P-110, P-111, P-112, P-113, P-114, P-115, P-116, P-117, P-118, P-119, P-120, P-121, P-122, P-123, P-124, P-125, P-126, P-127, P-128, P-129, P-130, P-131, P-132, P-133, P-134, P-135, P-136, P-137, P-138, P-139, P-140, P-141, P-142, P-143, P-144, P-145, P-146, P-147, P-148, P-149, P-150, P-151, P-152, P-153, P-154, P-155, P-156, P-157, P-158, P-159, P-160, P-161, P-162, P-163, P-164, P-165, P-166, P-167, P-168, P-169, P-170, P-171, P-172, P-173, P-174, P-175, P-176, P-177, P-178, P-179, P-180, P-181, P-182, P-183, P-184, P-185, P-186, P-187, P-188, P-189, P-190, P-191, P-192, P-193, P-194, P-195, P-196, P-197, P-198, P-199, P-200, P-201, P-202, P-203, P-204, P-205, P-206, P-207, P-208, P-209, P-210, P-211, P-212, P-213, P-214, P-215, P-216, P-217, P-218, P-219, P-220, P-221, P-222, P-223, P-224, P-225, P-226, P-227, P-228, P-229, 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**ENGINEERS/SURVEYORS**

**D'AMICO ENGINEERING AND ASSOCIATES, INC.**  
 2510 Woodward Way, Madison, WI 53717  
 Phone: 608.833.7330 • Fax: 608.833.1080  
 TRUST NATIONAL PERFORMANCE FOR LAND DEVELOPMENT

**PRELIMINARY PLAT OF NORDIC RIDGE**  
 LOT 1, CERTIFIED SURVEY MAP NUMBER 10711,  
 LOCATED IN THE NW1/4 & SW1/4 OF THE SW1/4 OF SECTION 7,  
 T54N, R11E, CITY OF SOUGHTON, DANE COUNTY, WISCONSIN  
 (71.63 ACRES)

**SURVEYOR'S CERTIFICATE**

I, Kevin J. Papp, Registered Land Surveyor, S-2962, hereby certify that this preliminary plat is a true and correct representation of all of the adjacent existing land divisions and of the boundary of the subdivision and that I have fully complied with the provisions of the City of Soughton Subdivision and Platting Ordinance.

**Map 3**

The west half of the proposed development is in the Badfish Creek Watershed. Drainage from this portion of the amendment area is to the west and southwest. The topography of this area is hummocky with many low points and glacial kettles with no outlet. Runoff currently collects in these low areas and seeps into the ground or creates small pothole wetlands. There is a tributary of Badfish Creek located approximately one mile to the west of the amendment area. This tributary flows south approximately 1.7 miles to its confluence with Badfish Creek located two miles southwest of the proposed amendment. However, it is not clear that drainage from the amendment area ever gets to this tributary. There is a prior converted pothole wetland immediately to the west of the amendment area in the Town of Rutland. There are larger pothole kettles south-southwest of the amendment area in the Town of Rutland on both sides of CTH A. Drainage appears to be through ground seepage to Grass Lake wetlands located a half-mile south of the amendment area, and to Bass Lake to the southwest of Grass Lake. The ground elevation at the southwest corner of the amendment area is 900. The elevation of the pothole wetland immediately to the west is 890. The elevation of Grass Lake wetlands is 870, and water elevation in Bass Lake is 871. Bass Lake has an outfall creek which is a tributary of Badfish Creek. Badfish Creek supports a warm water sport fishery.

Depth to the water table in the amendment area is over 25 feet, except in the southeast corner where a small area has groundwater at a depth of 10 to 25 feet. There are no mapped wetlands or floodplains in the amendment area. Approximately 0.9 acres in the southwest corner of the amendment area is proposed for designation as environmental corridors for stormwater management purposes. Depth to bedrock is 10 to 50 feet throughout the amendment area. The bedrock type is fractured dolomite in the majority of the amendment area, with sandstone in the southwest corner.

The soils of the area are in the Plano-Ringwood-Griswold Association. These are soils that have been formed on sandy loam glacial till. They are moderately well drained and well drained, deep silt loams and loams. Detailed characteristics of the soils of the amendment area are shown in Table 2 (also see Map 4). Prime agricultural soils make up 56 percent of the proposed amendment area.

The applicant has provided an archaeological literature and records search prepared for the development site which concludes that no previously reported archaeological materials are reported for the project area or immediate vicinity, no Euro-American building sites are in the project area, and no buildings or structures are listed on the Wisconsin Architectural/Historical Inventory. The State Historical Society has reviewed the proposal and has determined it unlikely that unknown archaeological resources are present in the area (see comment letter attached).

The Natural Heritage Inventory, maintained by the Department of Natural Resources, does not record any citing of threatened or endangered species within the amendment area.

**Land Use.** The proposed amendment is primarily in agricultural use. Existing land uses adjacent to the amendment areas are as follows:

North: Residential (City of Stoughton), Agricultural (Town of Dunkirk)  
East: Agricultural (City of Stoughton, Town of Dunkirk)  
South: Agricultural (Town of Dunkirk)  
West: Agricultural (Town of Rutland)

**Table 2 – Soil Characteristics**

Soil	Percent of Area	Prime Agricultural Soils?	Characteristics
Griswold loam; GwB/C/D2	49	Yes, where slopes <6%	Deep, well-drained soils in glaciated uplands formed on thick glacial till. Soils have medium fertility and moderate permeability and pose moderate to very severe hazard of erosion. Pose moderate limitation for development where steep slopes are not present.
Plano silt loam; PnB	40	Yes	Deep, well-drained and moderately well drained soils on glaciated uplands. High fertility, moderate permeability. Poses slight to moderate limitation for development. 155 bu/acre corn yield. Prime agricultural soils.
Troxel Silt Loam; TrB	11	Yes	Deep, well-drained and moderately well drained soils in drainageways and small draws. Poses severe limitation for development due to low bearing capacity and flooding. 145 bu/acre corn yield. Prime agricultural soils.
<i>Source: Dane County Soil Survey</i>			

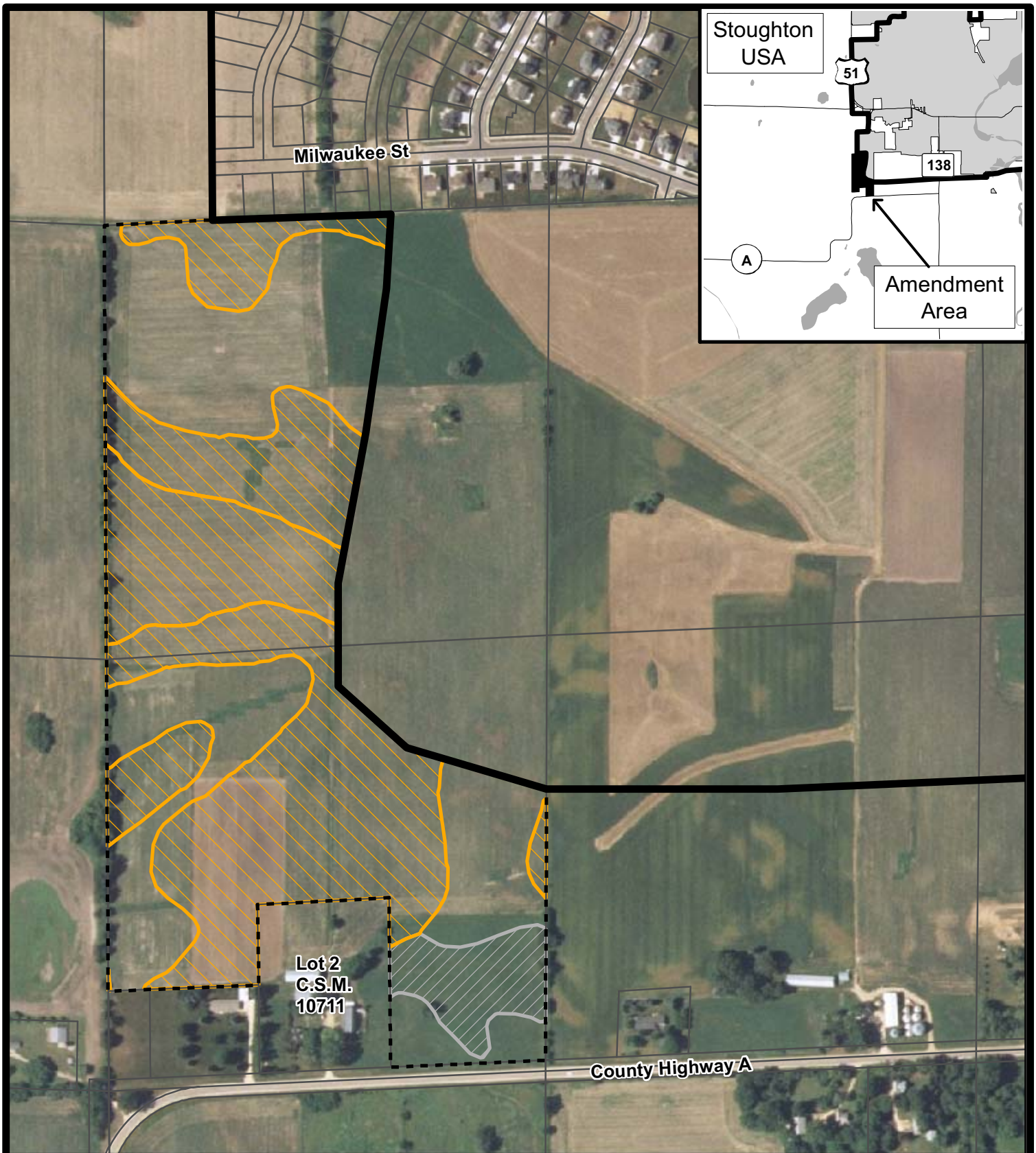
**4. Consistency or Conflict With Adopted Plans and Policies**

The Stoughton USA was established in 1977, and the environmental corridors were adopted in 1985. The urban service area was last amended in September 2006.

The proposed amendment is consistent with the City of Stoughton Comprehensive Plan which identifies this property as Planned Neighborhood.





The Stoughton USA has an estimated 2005 population of 13,070 and a 2030 population forecast of 19,160. The Stoughton Housing Unit and Land Area Analysis provides for a maximum urban service area of 4,750 acres. This represents a potential increase of 1,696 acres of developable land over the current urban service area size of 3,054 acres (including the September 2006 addition of approximately 10 acres). The proposed amendment would add 49.6 acres of developable land to the urban service area, well within the maximum allowable addition.

The land to be added to the urban service area is contiguous to the current urban service area and within 200 feet of existing City utilities, and is a logical expansion of the urban service area. The proposal in this request will add developable land to the urban service area to accommodate 169 additional housing units. The complete Nordic Ridge development totals approximately 70 acres, and is expected to be developed within the next seven years. Because the amendment involves less than 100 acres of developable land, no phasing of development is required.

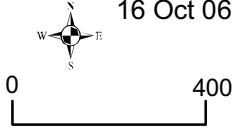


**Map 4 - Soils**

**Amendment  
to the Stoughton  
Urban Service Area,  
City of Stoughton**

-  Prime Farmland (28.0 acres)
-  Severe Limitations to Development (2.7 acres)
-  Existing Urban Service Area Boundary
-  Proposed Urban Service Area Boundary

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Prepared by staff  
of the CAPD.

2005 aerial courtesy of FSA/NRCS

The proposed amendment is consistent with most of the goals and policies of the *Dane County Land Use and Transportation Plan*. Table 3 presents the evaluation checklist for the proposed amendment regarding consistency or conflict with the 11 major goals of the *Plan*. The proposed amendment is supportive of the following three of the 11 goals of the *Plan*:

1. It promotes balanced communities with a mix of development by providing for 5.2 acres of planned unit development which the Stoughton Comprehensive Plan describes as including institutional, office, and neighborhood business uses.
2. It provides a range of safe and affordable housing choices by offering two-family and multifamily housing as well as single family housing.
3. It supports the development of a system of open space corridors by designating 0.9 acres of environmental corridors surrounding stormwater facilities within the amendment area, and an additional 2.5 acres in the existing USA.

The proposed amendment has offsetting effects for the goal of promoting compact urban development. Considered on its own, the amendment area has a proposed density of 5.33 units per acre and promotes compact urban development by exceeding the overall density of 5.13 in the Stoughton Urban Service Area. However, the overall plan for the Nordic Ridge development has a proposed density of 5.0 units per acre which is lower than the current USA density.

The proposed amendment is neutral with respect to another six goals of the *Plan*.

The proposed amendment conflicts with only one major goal: protecting agricultural lands by limiting non-farm development in agricultural areas. Fifty-six percent of the amendment area contains prime agricultural soils and is currently being farmed.

## 5. Proposed Urban Services

**Public Water System.** Stoughton water system includes five wells supplying a single pressure distribution system. The total pumping capacity is 4,815 gallons per minute (gpm). The North Elevated tank provides 300,000 gallons of storage, and the South Ground Reservoir provides 400,000 gallons of storage. The 2005 average daily water usage was 1,405,000 gallons and the maximum daily water usage was 2,368,000 gallons.

The proposed amendment is estimated to consume 37,000 gpd of potable water. Potable and fire fighting water will be supplied to the amendment area by looped water main from Milwaukee Street. No new equipment will be needed for the proposed USA expansion and the system can supply adequate pressure and capacity to provide 2,000 gpm for 2.5 hours during the peak hourly demand period for firefighting.

**Wastewater.** The Stoughton Wastewater Treatment Facility has a rated capacity of 1.65 million gallons per day (MGD). The 2005 average daily flow was 1.39 MGD, and the treatment plant has adequate capacity to treat the additional wastewater from the proposed development.

The proposed amendment is estimated to generate 34,000 gallons of wastewater per day. The USA expansion for Nordic Ridge is proposed to be served by a temporary sanitary sewer lift station with a forced main discharging to the sewer main on W. Milwaukee Street. The temporary sanitary sewer lift station is planned to be abandoned when gravity sanitary sewer service becomes available.

**Table 3**  
**Dane County Land Use and Transportation Plan**  
**Goals Achievement Checklist**

Goals	Strongly Conflicts	Conflicts	Neutral or Offsetting Effects	Supports	Strongly Supports
Promote balanced communities with a mix of development				X	
Promote compact urban development			X		
Promote distinct communities, mixed-use neighborhoods with a full range of public services			X		
Provide a range of safe and affordable housing choices				X	
Provide an integrated all-mode transportation system			X		
Concentrate employment and activity centers along transit corridors			X		
Maintain Downtown Madison as region's major activity center			X		
Provide employment opportunities and a diverse economic base			X		
Protect agricultural lands by limiting non-farm development in agricultural areas		X			
Protect environmental, cultural and historic resources			X		
Develop a system of open space corridors to preserve environmental functions, scenic value, and recreational opportunities				X	

**Proposal:** Stoughton Urban Service Area Amendment

**Applicant and Submittal Date:** City of Stoughton, October 2006

**Stormwater Management System.** Stormwater management will be provided through two stormwater management facilities. One facility is proposed on the east side of the Nordic Ridge development, within the current urban service area. A second facility is proposed for the rest of the amendment located in the southwest corner of the development, within the amendment area. Stormwater management areas will be designated as environmental corridors, including 2.5 acres within the USA and 0.9 acres in the amendment area. The proposal does not show a connection between stormwater facilities and greenway environmental corridors.

In May of 2006, the City of Stoughton amended its Erosion Control and Stormwater Management Ordinance to remain as restrictive as the Dane County standards. The proposed development will be reviewed in accordance with the City of Stoughton Erosion Control and Stormwater Management Ordinance by Dane County Land Conservation, under a contractual agreement with the City.

**Environmental Corridors.** Environmental corridors of 0.9 acres within the amendment area and 2.5 acres within the existing USA are proposed for stormwater management facilities. There are two greenway environmental corridors in the current urban service area near the amendment area. The proposal does not clearly tie the stormwater management areas to these environmental corridors. The purpose of these greenway corridors is to provide a natural, low cost, and flexible stormwater conveyance system for the City. It is important for the stormwater management facilities to connect to these greenway corridors, or to their extensions.

**Public Safety Services.** The distance from the police, fire and EMS services to the proposed amendment area is approximately 1.8 miles. The Police Department has total of 26 full-time equivalent staff serving the City providing 2 officers per 1,000 residents, more than adequate for a city of this size. Police response time to the proposed amendment area is estimated to be four minutes from the police headquarters.

The Fire Department has three full-time personnel and 30 part-time volunteers. The Fire Department contracts with the Towns of Dunn, Dunkirk, Pleasant Springs, Albion, Porter and Rutland. The response time to the proposed amendment area is anticipated to be between four and six minutes.

The Stoughton Area EMS is staffed by 30 volunteer members. The area serviced is about 105 square miles including the Towns of Dunkirk, Dunn, Pleasant Springs and Rutland. The response time to the amendment area is anticipated to be five minutes.

**Other Urban Services.** Other urban services, including street maintenance, snow removal, refuse collection and recycling pickup, will be provided through the existing City delivery systems.

**Parks and Open Space.** The City of Stoughton has over 140 acres of parkland, three recreation trails and marked bike lanes. The proposed amendment includes 6.4 acres of parkland and an additional 0.9 acres of environmental corridors for stormwater facilities. The Nordic Ridge development includes a total of 7.2 acres of parkland and 3.4 acres of environmental corridor for stormwater facilities. The nearest existing City park is approximately 0.2 miles away, located at Harvest Lane, Hilldale Lane and Valley View Drive.

## 6. Impacts or Effects of Proposal

**Surface and Ground Water Impacts.** The potential impacts of urban development in general include an increase in stormwater runoff volumes and rate, reduced groundwater recharge, and the introduction of contaminants from urban land uses to receiving waters. Some of these, notably increased pollutant loads, simply replace adverse impacts from agricultural land uses that preceded urbanization. However, the hydrologic and water quality impacts associated with urbanization have well documented short and long term adverse impacts on surface water and groundwater resources. This results from increased impervious ground cover from roadways, parking areas, and roofs; sedimentation and erosion associated with construction activities as well as with the long-term land use change to urban uses; and contaminants from landscaping, house keeping, street surfaces, and pets.

The City has updated its stormwater management ordinance to make it consistent with Dane County stormwater standards. This would provide adequate protection against short-term construction erosion impacts if the construction erosion control measures are aggressively enforced by the City Building Inspector. However, the standards would not protect adjacent downstream properties against increased flooding from larger storm events, and from increased runoff volumes. It is important that the stormwater plan for the proposed development maintain pre-development stormwater runoff rates for all storms up to the 100-year event.

Furthermore, because half of the amendment area drains to a closed pothole wetland immediately to the west of the amendment area, increased runoff volumes would cause flooding in neighboring parcel(s). It is crucial to include stable outlets in the stormwater plan for any closed basin that would receive runoff from the development.

Adverse impact from the proposed development on the groundwater should be minimal since the Dane County stormwater standard includes infiltration requirements, and because the development is not located in a sensitive, groundwater dependant area of the watershed. However, the area immediately to the west and south of the amendment area includes areas with seasonal flooding and shallow groundwater. Dramatically increased infiltration could result in local mounding of the water table and cause increased incidences of flooding.

The proposed amendment is expected to have negligible impacts on the water supply and the wastewater conveyance and treatment systems in the City of Stoughton.

The stormwater management standards proposed by the City would not adequately mitigate the expected impacts from this development. The City should work with the developer and the staff of the DCLCD and CAPD to evaluate possible solutions to the drainage issues of the site.

**School System Impacts.** The proposed amendment is in the Stoughton School District. The amendment area is anticipated to be developed with 169 housing units, adding an estimated 26 high school students, 13 seventh and eighth grade students, 13 fifth and sixth grade students, and 32 elementary students. The nearest school is Fox Prairies Elementary which is approximately 0.6 miles from the proposed development.

## **7. Alternatives**

Alternatives to expanding the urban service area to include this location are addition to the USA in another location, or no expansion of the USA. According to the standards outlined in NR 121, and the USA expansion flexibility standards of the current *Dane County Water Quality Plan*, the Stoughton Urban Service Area can expand up to a maximum of 1,696 developable acres by 2030. The *Water Quality Plan* does not provide for “no-growth” urban service areas if they fulfill the conditions, standards, and requirements of adding to the USA as outlined in the *Water Quality Plan*.

This amendment area is the only area adjacent to the Stoughton Urban Service Area which is in the Badfish Creek watershed. The Badfish Creek watershed does not create constraints to development in itself. However, the amendment area and its environs are in a poorly drained portion of the watershed, causing additional constraints to development and requiring comprehensive stormwater management planning prior to approval.

A detailed neighborhood plan is being developed for the Linnerud neighborhood in the northwest corner of the City, a newly annexed area of approximately 183 acres which is not currently included in the urban service area. This area is expected to include a mix of housing types as well as provide neighborhood shopping opportunities, employment opportunities, and educational facilities.

## **8. Controversies, Comments Received, Unresolved Issues**

The Dane County Community Analysis and Planning Division will hold a public hearing on this amendment on November 16, 2006, at 4:30 p.m. at the Stoughton Public Safety Building, 321 S. Fourth St., Stoughton, Wisconsin. No controversies are noted. The Town of Dunkirk has been provided notice of all Planning Commission and Council meetings related to the proposed Nordic Ridge development.

## **9. Conclusions and Staff Recommendation**

The proposal supports most of the goals and policies of the *Dane County Water Quality Plan*. The staff analysis finds that more information regarding stormwater management is needed to evaluate the adequacy of the plan to mitigate the adverse impacts of the development. Staff recommends continuation of the amendment review process and delay in approval of the amendment to allow the preparation of a stormwater and drainage concept plan for the amendment area. The concept plan should be developed through collaboration between the City of Stoughton staff, engineers for the developer, and the staff of DCLCD and CAPD.

*Report approved by Kamran Mesbah, Deputy Administrator/Director of Environmental Resources Planning, Dane County Community Analysis and Planning Division*

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## **Addendum to Staff Analysis of Proposed Amendment to the *Dane County Water Quality Plan* and the *Land Use and Transportation plan*, Revising the Stoughton Urban Service Area Boundary and Environmental Corridors in the City of Stoughton (Nordic Ridge Development)**

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### **1. Applicant:** City of Stoughton

### **2. Description of Proposal**

The proposed amendment is located on the southwest side of the City of Stoughton, south of W. Milwaukee Street, southwest of Pleasant View Drive and north of County Highway A. The City of Stoughton proposes to add 50.5 acres to the Stoughton Urban Service Area, including 0.9 acres of environmental corridors, resulting in a net developable area of 49.6 acres. The land use proposed for the addition is residential, accommodating 169 new housing units with an estimated population of 410, including 84 school age children.

The proposed addition is contiguous to the Stoughton Urban Service Area and to urban development to the north.

This amendment pre-dates the formation of the CARPC, and a public hearing has already been held for it. The staff analysis dated 11/9/06 found the potential for drainage from the development to result in flooding in a closed basin to the west, and potential for erosion in an unstable waterway through the farmland to the east. Staff decided to delay action on this amendment pending additional evaluation of the potential for infiltration in the area and negotiations with the land owner to the east so a grass swale can be constructed through the field to prevent erosion.

This addendum outlines the findings of the additional evaluation and the result of efforts for an agreement with neighboring land owner.

Although the amendment request pre-dates the formation of the CARPC, and therefore the request has been evaluated based on the old criteria, this amendment meets many of the new criteria as well. The City has been active in infill development and redevelopment in the downtown area, including the restoration of Main Street. The Stoughton USA has one of the highest existing densities among the outer urban service areas, and it has been very conservative with its growth. Its current area, therefore is well below the projected 2030 land demand (by about 600 acres). The amendment area is contiguous to the current USA and water and sanitary infrastructure.

### **3. Additional Drainage Analysis**

Soil borings in the amendment area have revealed many areas where a sandy substrate is present within a few feet from the surface. This provides many opportunities to maximize infiltration in the amendment area. Rear lot line infiltration swales and infiltration measures attached to stormwater facilities provide a feasible means, when combined with the diversion of flow from about 2 acres (as a result of grading), results in maintaining the

volume of stormwater discharge to the west (where a closed basin pothole wetland exists) at pre-development levels. This shows that it would be feasible to use infiltration practices to protect the wetland to the west of the amendment area from flooding. Rates of runoff have similarly been reduce compared to pre-development levels.

Drainage to the east currently discharges to a neighboring farm. This flow path is retained, and through infiltration practices the increase in the runoff volume has been controlled. However, the volume of runoff is likely to increase by 30% to 50%. Stormwater ponds will control the rate of runoff to pre-development rate. Therefore, the duration of wetness in the drainage to the east will increase resulting in potential for erosion.

The developer and the City of Stoughton have approached the land owner to the east in an effort to reach an agreement or establish an easement that would allow the construction of a stable grass swale. These attempts have not been successful. CARPC Staff has also tried to contact the land owner, with no success. Staff is in contact with the Town, making an effort to ask the Town to intervene, since the approach proposed by RPC staff will benefit the land owner and reduce future maintenance concerns. However, if all attempts fail, there is not much that can be done, because pre-development drainage is being maintained with no increase in rates of runoff.

#### **4. Conclusions and Staff Recommendation**

Staff recommends approval of the proposed amendment based on the land uses and provision of service outlined in the City of Stoughton submittal, and conditioned on the City of Stoughton pursuing the following:

1. Submit a detailed stormwater management plan for CARPC and DCL&WRD staff review and approval prior to land disturbing activities in the area. The stormwater management plan should include the following:
  - Maintain the pre-development hydrologic regime (rates and volumes) for the west drainage area (area draining to the pothole wetland area) by maximizing infiltration, minimizing impervious surfaces, and through detention.
  - Maintain pre-development rates of runoff for all storms up to and including the 100-year storm for all other areas; make every effort to reduce the volume of runoff in these areas by maximizing infiltration.
  - Prevent increased off-site flooding and erosion.
  - Provide aggressive construction erosion control practices and enforcement.
  - Install stormwater facilities prior to other land disturbing activities in the area.
  - Stormwater facilities to be publicly managed (privately owned facilities to have easements and legally enforceable maintenance agreement with the City).
  - Include stormwater facilities in environmental corridors.
2. Continue attempts to secure a drainage easement or an agreement with the land owners to the east to establish a stable greenway for the conveyance of stormwater. If attempts prove to be unsuccessful by the time when the stormwater review process has been completed, RPC staff will provide a status report to the CARPC and request a waiver from the easement condition.

**DRAFT Resolution CARPC No. 2008-18**

**Amending the *Dane County Land Use and Transportation Plan* and *Dane County Water Quality Plan* by Revising the Stoughton Urban Service Area Boundary and Environmental Corridors in the City of Stoughton and Town of Dunkirk**

WHEREAS, the Capital Area Regional Planning Commission has adopted, amended and reaffirmed the *Dane County Land Use and Transportation Plan* and *Water Quality Plan*; and

WHEREAS, said plans delineate urban service areas as amended through June 2008; and

WHEREAS, the City of Stoughton has requested an addition to the Stoughton Urban Service Area, and has based the request on the City of Stoughton Comprehensive Plan, adopted in May 2005; and

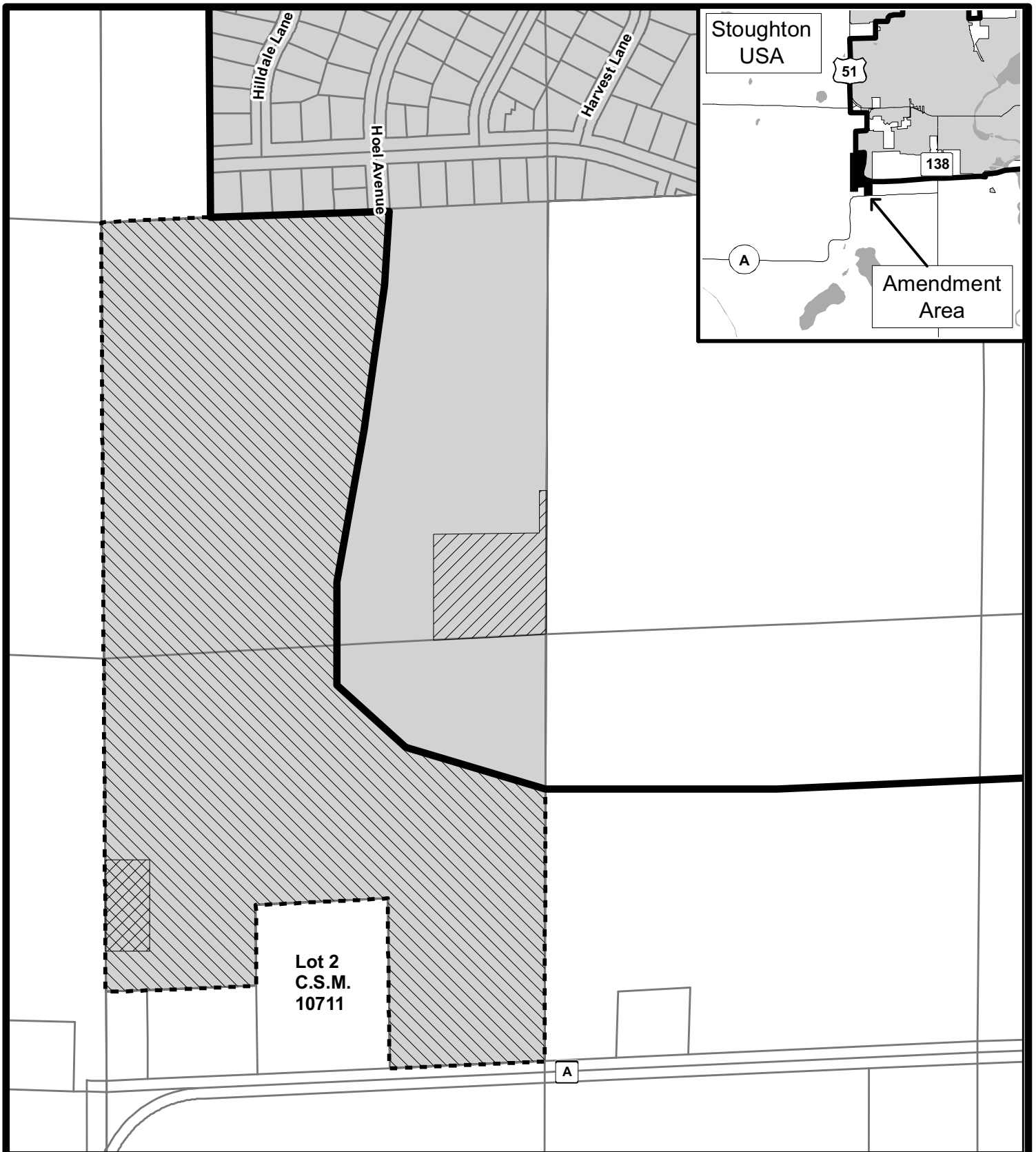
WHEREAS, a staff analysis of the proposed amendment has been prepared, which indicates that the amendment is generally consistent with adopted regional plans and policies;

NOW, THEREFORE, BE IT RESOLVED that in accordance with §66.0309, Wis. Stats., and Sec. 208 of Public Law 92-500, the Capital Area Regional Planning Commission amends the *Dane County Land Use and Transportation Plan* and recommends the amendment of the *Dane County Water Quality Plan* by revising the Stoughton Urban Service Area boundary and environmental corridors as shown on the attached map.

Adoption of this amendment is based on the land use and urban service plans submitted in support of this amendment, and conditioned on the City of Stoughton pursuing the following:






July 10, 2008  
Date Adopted

\_\_\_\_\_  
George Kamperschroer, Vice-Chairperson



**Map 1**

**Amendment  
to the Stoughton  
Urban Service Area,  
City of Stoughton**

-  Service Area to be added (50.5 acres)
-  Proposed Environmental Corridor (3.4 acres)
-  Existing Urban Service Area Boundary
-  Proposed Urban Service Area Boundary
-  Incorporated Area

10 June 2008



Feet

Prepared by staff  
of the CARPC.