



Public Facilities Needs Assessment

For the Valley View Road
Sewer and Drainage Improvement
Impact Fee District

May 6, 2005

Introduction

The City of Madison has prepared this public facilities needs assessment. Improvements to the stormwater management practices and the public sanitary sewer system are required to facilitate well-planned development within a portion of the Pioneer Neighborhood Development Plan. This portion of the proposed improvements is referred to as the Valley View Road Sewer and Drainage Improvement District.

The Improvement Impact Fee District consists of about 286 acres, and is located on the southwest side of the City of Madison and portions of the Town of Middleton (Refer to map; Exhibit C attached). Of the 285.9 acres, 253.12 acres are undeveloped and shall be assessed impact fees, 18.58 acres are already developed and shall receive a sanitary connection charge, and the remaining 14.2 acres is street rights of way. This area is generally unimproved and consists of mainly farmland, with the exception of some existing homes on Valley View Road and Westview Hills subdivision, located on the easterly side of County Highway M, near Valley View Road. The City of Madison is proposing to extend a new sanitary sewer interceptor and greenway to the north to serve developing lands.

A previous impact fee district was established for the Upper Badger Mill Creek (UMBC) watershed. As shown in Exhibit C, the 'Valley View Road Sewer and Drainage Impact Fee District' (VV) is also included within the UBMC Fee District. The UBMC Fee District was created for regional drainage improvements required to control for the entire UBMC watershed. These improvements included three retention ponds, three new roadway culvert crossings, and three segments of greenways.

The VV Impact Fee District was created to help finance more localized improvements that serve specific properties for the sanitary sewer and drainage improvements, and so were not included in the UBMC Impact Fee District, and are now in addition to those costs.

As the UBMC watershed continues development with public facilities, other areas may require establishment of additional impact fee districts, depending on timing, location, and specific improvements of each development. Rather than levying these specific improvements over the entire UBMC watershed, they shall be levied only to the specific properties impacted by these improvements.

Location Description of Impact Fee District

Any and all parcels (platted and/or metes and bounds), or portions thereof, that reside within, or is altered to discharge within the Valley View area of the Upper Badger Mill Creek Watershed. These lands are located within the City of Madison and Town of Middleton as follows:

Parts of the South ½ Section 27; Section 34; and the Northeast ¼ Section 33, all within Town 7 North, Range 8 East, located in the Town of Middleton and the City of Madison, including approximately 286 total acres.

Existing public facilities

Stormwater

The only existing improved stormwater management facility is a single detention basin downstream of the Valley View area located in the northern section of Hawks Landing. Currently, there is a storm sewer serving the Hawk's Landing Plat that drains southerly and eventually into the Upper Badger Mill Creek Watershed. The run-off to the north is generally by means of culverts and ditches in unimproved road corridors or farm fields. There is a 60-inch culvert that drains lands to the north of Valley View Road, and a second culvert of the same diameter which, in conjunction with a series of smaller culverts, drains lands to the east of County Highway M.

Sanitary

Existing sanitary sewer consists of a 15-inch sewer main on the northern portion of the Hawk's Landing Plat that shall be extended to serve the sewerage district to the north. Currently, the existing residential properties to the north of Hawk's Landing Plat, and within the Impact Fee District limits are served with onsite sewerage disposal systems. Properties within Hawk's Landing are currently all served with City of Madison sanitary sewer.

New public facilities required for land development

Stormwater

The proposed storm sewer improvements will be part permanent and part interim improvements. The interim consists of a 50-foot drainageway, which will eventually be converted to a 100-foot greenway section when the Vetter property is fully developed. The 50-foot drainage section shall also extend to the west to serve the eastern portion of the Ripp property (Linden Park subdivision). The permanent improvements consist of a new culvert crossing Valley View Road, discharging to the greenway and a storm pipe to connect the proposed drainageway to the existing storm pond in Hawk's Landing Golf Course.

Sanitary

Proposed sanitary sewer extensions include extending the existing 15-inch main to serve the future development of the Ripp land, development to the west of the proposed interceptor and greenway, and a portion of the Vetter land as it develops. A 12-inch main will continue to the north to serve the future Vetter land as it develops as well as land north of Valley View Road and lands east of County Highway M.

Project Funding

To finance these stormwater management and sanitary sewer improvements, the City of Madison, pursuant to Wis. Stats. § 66.0617(2), has passed an Impact Fee Ordinance (Chapter 20 of Madison Code of Ordinances) that can require fees to be paid by developers to compensate for the capital costs necessary to accommodate land development.

Impact Fee

To calculate the impact fees associated with the stormwater management portion of the project, first the total cost to complete the project was estimated to be \$1,076,655.37 (2005 dollars), in accordance with Exhibit A. This estimate reflects both sanitary and stormwater drainage improvements. Total sanitary costs are \$456,348.58; total stormwater costs are \$620,306.79. Refer to the attached tables (Exhibit A) for a detailed cost analysis for each segment of the project.

There will be 271.7 total acres benefiting from improvements (this does not include the area of existing streets). The City of Madison shall pay the stormwater management component for the 18.58 acres of existing development, which will be \$3,387.66 per acre, or \$62,942.64. This is because future developments or redevelopment of the existing developed lands will not impact the existing quantity or quality of runoff from a regional (Impact Fee) perspective.

The remaining 253.12 acres will receive both sanitary sewer and stormwater drainage improvements. A net developable area was calculated to determine the impact fee rate per acre of land. This net developable area is based on 65% of the parcel area, which would take into effect the loss of land to street rights of ways, public parks, public drainage lands, and other public natural areas. The net developable area was calculated to be 164.53 acres. Based on this, the sanitary and stormwater management fees would be charged at \$5,879.89 per acre for these parcels.

Sanitary Assessment

The 18.58 net acres already developed are not levied impact fees; rather they will be specially assessed or charged a connection fee for sanitary improvements at \$2,492.24 per net acre due at the actual time of connection. The lots within the Westview Hills Subdivision have recorded waiver forms acknowledging and agreeing with this future assessment. Assuming the average lot size is about 0.6 acre, a lot will be assessed approximately \$1,495.34 for these sanitary improvements. (They would incur additional assessment for the local main, lateral, etc.)

Adjustments to Impact Fee

The impact fee shall be adjusted annually for inflation (January 1st of each year), based on the Construction Cost Index as published in the *Engineering News Record*. The base month/year for calculating such adjustment shall be the month/year of final Common Council adoption of this Impact Fee Ordinance. Since the costs of this impact fee shall occur within a single project the City shall recalculate the initial rate upon completion of the projects and adjust the Impact Fees accordingly. This adjustment procedure shall also be used for sanitary connection charges or assessments that may be levied.

Effect of impact fees on housing costs

These Valley View Impact fees were estimated to be \$5,879.89 per net acre for sanitary and stormwater drainage improvements in accordance with Exhibit B. The effect on housing costs was also calculated, based on average housing densities for a variety of residential zones, including the examples that follow. The additional cost incurred for these sanitary and drainage impact fees for a 0.25-acre lot would be approximately \$1,469.97. In R-4, general residence district, medium-density housing, the minimum lot size per unit is 2,000 square feet, adding about \$269.97 per unit to the cost of housing. Additional impact fees may apply, such as those from the Upper Badger Mill Creek Watershed Fee District or the High Point-Raymond-Midtown Neighborhood Transportation Improvement Fee District.

**COST ESTIMATES FOR NEW PUBLIC FACILITIES REQUIRED FOR DEVELOPMENT IN THE
VALLEY VIEW ROAD SANITARY AND DRAINAGE IMPROVEMENT IMPACT FEE DISTRICT
(IN 2005 DOLLARS)**

GREENWAY IMPROVEMENTS				
BID ITEM	QUANTITY	UNIT	UNIT COST	TOTAL COSTS
Greenway excavation & grading	17,120	CY	\$6.00	\$102,720.00
Hauling	17,120	CY	\$2.00	\$34,240.00
Finish grading	1	LS	\$10,000.00	\$10,000.00
Erosion control	1	LS	\$28,198.75	\$28,198.75
Construction & field entrances	1	LS	\$5,340.00	\$5,340.00
Clearing & grubbing	5.75	STA	\$400.00	\$2,300.00
Seeding	20,300	SY	\$1.50	\$30,450.00
SUBTOTAL				\$213,248.75
20% ENGINEERING & CONTINGENCY				\$42,649.75
TOTAL				\$255,898.50

STORM SEWER SERVING RIPP PROPERTY				
BID ITEM	QUANTITY	UNIT	UNIT COST	TOTAL COSTS
Storm sewer pipe	283	LF	\$50.83	\$14,384.89
Storm sewer structures	2	Ea	\$1,725.50	\$3,451.00
SUBTOTAL				\$17,835.89
20% ENGINEERING & CONTINGENCY				\$3,567.18
TOTAL				\$21,403.07

CULVERT CROSSING AT VALLEY VIEW ROAD				
BID ITEM	QUANTITY	UNIT	UNIT COST	TOTAL COSTS
Storm sewer pipe	83	LF	\$80.00	\$6,640.00
Storm sewer structures	2	Ea	\$2,237.50	\$4,475.00
Riprap	25	Tons	\$28.00	\$700.00
Trench patch	30	TF	\$45.00	\$1,350.00
Traffic Control	1	LS	\$2,500.00	\$2,500.00
SUBTOTAL				\$15,665.00
20% ENGINEERING & CONTINGENCY				\$3,133.00
TOTAL				\$18,798.00

STORM SEWER DISCHARGING AT HAWK'S LANDING				
BID ITEM	QUANTITY	UNIT	UNIT COST	COSTS
Miscellaneous removals	1	LS	\$6,150.00	\$6,150.00
Storm sewer pipe & bedding	265	LF	\$105.00	\$27,825.00
Storm sewer structures	3	Ea	\$1,116.67	\$3,350.00
Restoration	1	LS	\$7,275.00	\$7,275.00
SUBTOTAL				\$44,600.00
20% ENGINEERING & CONTINGENCY				\$8,920.00
TOTAL				\$53,520.00
TOTAL FOR GREENWAY & STORM SEWER IMPROVEMENTS				\$349,619.57

SANITARY SEWER IMPROVEMENTS				
BID ITEM	QUANTITY	UNIT	UNIT COST	COSTS
Sanitary sewer main	3,619	LF	\$71.43	\$258,505.17
Sanitary sewer structures	12	Ea	\$1,937.50	\$23,250.00
Construction entrance, mobilization & traffic control	1	LS	\$6,400.00	\$6,400.00
SUBTOTAL				\$288,155.17
20% ENGINEERING & CONTINGENCY				\$57,631.03
TOTAL				\$345,786.20
TOTAL FOR SANITARY IMPROVEMENTS				\$345,786.20

TOTAL COSTS	
Storm Construction Costs	\$349,619.57
Storm Land Costs	\$270,687.22
STORM TOTAL	\$620,306.79
Sanitary Construction Costs	\$345,786.20
Sanitary Land Costs	\$110,562.38
SANITARY TOTAL	\$456,348.58
GRAND TOTAL FOR CONSTRUCTION AND LAND ACQUISITION	\$1,076,655.37

Valley View Impact Fee & Sewer Assessment Calculations

Total sanitary and stormwater improvement costs were estimated per Exhibit A (pg 6-7), and are reflected below. These totals were divided by the *net* acres which will receive the improvements. Net acreage for undeveloped land was calculated by multiplying the total acres by 65%. It is assumed that 35% of the area will not be developed due to loss of land from street rights of way, public parks, public drainage land, and other public natural areas. Net acres of developed land is the total area of the parcels, excluding street rights of way. The City of Madison is responsible for the cost of stormwater improvements in the developed areas.

<u>SANITARY IMPROVEMENTS</u>	
Land costs	\$110,562.38
Construction costs	\$345,786.20
Total for Sanitary Improvements	\$456,348.58
<i>NET* developed area-- SANITARY ASSESSMENT ONLY (acres)</i>	18.58 (developed)
Total undeveloped area receiving sanitary (acres)	253.12 (100% of undeveloped)
<i>NET* undeveloped area receiving Sanitary Improvements (acres)</i>	164.53 (65% of undeveloped)
Total NET area receiving Sanitary Improvements	183.11 (Net Total Acres)
Cost per acre for Sanitary Improvements	\$2,492.24

<u>STORMWATER IMPROVEMENTS</u>	
Land costs	\$270,687.22
Construction costs	\$349,619.57
Total for Stormwater Improvements	\$620,306.79
<i>NET developed area receiving Stormwater (acres)</i>	18.58 (developed)
Total undeveloped area receiving storm (acres)	253.12 (100% of undeveloped)
<i>NET undeveloped area receiving Stormwater (acres)</i>	164.528 (65% of undeveloped)
Total NET area receiving Drainage Improvements	183.108 (Net Total Acres)
Cost per acre for Stormwater Improvements	3,387.66

<u>PROJECT COST RECOVERY</u>			
	<u>Acres</u>	<u>Cost/Acre</u>	<u>Total Cost</u>
Recovered from Impact Fee	164.53	\$5,879.89	\$967,406.97
Sanitary Sewer Assessment or Connection Charge	18.58	\$2,492.24	\$46,305.77
<i>City of Madison Stormwater Cost Share for Developed Area</i>	18.58	\$3,387.66	\$62,942.64
Total Cost Recovery			\$1,076,655.37

The cost per acre for improvements has been rounded to the nearest cent for the purposes of this Public Facilities Needs Assessment; the actual rate charged will be per 1000 square feet, rounded to the nearest 1000th of a cent.

Valley View Road Sewer and Drainage Improvements Impact Fee District

