

Invoice Number	1784188
Invoice Date	May 5, 2021
Purchase Order	227702779
Customer Number	167501
Project Number	227702779

Bill To

Elm Creek Watershed Management Commission
Accounts Payable
3235 Fernbrook Lane
Plymouth MN 55447
United States

Please Remit To

Stantec Consulting Services Inc. (SCSI)
13980 Collections Center Drive
Chicago IL 60693
United States

Project Elm Creek Watershed 2021 Technical Services

Project Manager	Spector, Diane F	Contract Upset	128,344.00
Current Invoice Total (USD)	2,166.75	Amount Billed to Date	2,166.75
		For Period Ending	April 2, 2021

Update rates, Email invoices to Judie Anderson judie@jass.biz

Top Task 100 Pre-Project Reviews and Inquiries

Professional Services

Category/Employee	Current Hours	Rate	Current Amount
Wilkinson, Anne A	0.50	141.00	70.50
Matthiesen, Edward Armin (Ed)	0.25	205.00	51.25
Subtotal Professional Services	0.75		121.75

Top Task Subtotal	Pre-Project Reviews and Inquiries	121.75
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Top Task 300 Meetings

Professional Services

Category/Employee	Current Hours	Rate	Current Amount
Mullen, Ross S	0.50	165.00	82.50
Spector, Diane F	0.75	200.00	150.00
Matthiesen, Edward Armin (Ed)	0.75	205.00	153.75
Subtotal Professional Services	2.00		386.25

Top Task Subtotal	Meetings	386.25
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Top Task 400 Other Services

Professional Services

Category/Employee	Current Hours	Rate	Current Amount
Spector, Diane F	4.00	200.00	800.00
Subtotal Professional Services	4.00		800.00

Top Task Subtotal	Other Services	800.00
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INVOICE

Invoice Number	1784188
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Top Task 500 Project Review

Professional Services

Category/Employee		Current Hours	Rate	Current Amount
	Wilkinson, Anne A	5.00	141.00	705.00
	Matthiesen, Edward Armin (Ed)	0.75	205.00	153.75
	Subtotal Professional Services	<u>5.75</u>		<u>858.75</u>

Top Task Subtotal	Project Review	858.75
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Total Fees & Disbursements	<u>2,166.75</u>
INVOICE TOTAL (USD)	2,166.75

Due upon receipt or in accordance with terms of the contract

Project Task Billing Detail

Project: 227702779 - Elm Crk '21 Technical Services

Time Run: 2021-06-28 15:45:48

Top Task	Task Number	Task Name	Expenditure Category	Budget	Billed To Date	Current Month	Budget Remaining	% YTD Billed	% Budget Available
100 - Prereviews and Inq	100	Prereviews and Inq	Budget	15,000	1,518	925	12,557	16%	84%
			Direct Labor	11,000	1,518	413	9,070	14%	18%
			Subconsultants	4,000	0	513	3,488	0%	13%
300 - Meetings - Meetings	300	Meetings	Budget	20,900	5,226	3,459	12,215	42%	58%
			Direct Labor	15,160	5,226	2,178	7,756	34%	49%
			Subconsultants	5,740	0	1,281	4,459	0%	22%
500 - Project Reviews	500	Project Reviews	Budget	92,444	8,891	5,467	78,086	16%	84%
	500.012	Review-Oaks at Bauer	Direct Labor	0	2,617	0			
	500.012	Review-Oaks at Bauer	Subconsultants	0	0	3,216			
	500.016	Territorial Lofts	Direct Labor	0	2,213	2,045			
	500.017	The Park Group Billi	Direct Labor	0	1,778	0			
	500.020	Crew Carwash	Direct Labor	0	2,284	206			
600 - Other Services	600.000	Other Services	Budget	52,804	3,734	1,030	48,040	9%	91%
	400.000	Other Services DNU	Direct Labor	800	800	0	0	100%	100%
	600.000	Other Services	Direct Labor	39,204	583	183	38,439	2%	98%
	600.000	Other Services	Subconsultants	8,000	0	188	7,813	2%	98%
	600.001	HUC-8 Review	Direct Labor	4,800	2,351	660	1,789	63%	37%
				181,148	19,369	10,881	150,898	17%	83%

Note: BTB - Billed to Date

Note: Other Services DNU are services billed as task 400

Watershed Management Commission

ADMINISTRATIVE OFFICE
3235 Fernbrook Lane
Plymouth, MN 55447
PH: 763.553.1144
email: judie@jass.biz
www.elmcreekwatershed.org

Rush Creek Reserve Corcoran, Project #2021-013

Project Overview:

<i>Location:</i>	This is a 91 acres site located along the north side of CR 10, across from the Corcoran Community Park.		
<i>Purpose:</i>	The applicant is proposing to create a residential subdivision with 66 townhomes and 177 single family units and 24.2 acres of new impervious areas. The existing area is agricultural with 58 acres of cropland and 33 acres of wetlands/wooded areas. A small portion of the Rush Creek floodplain extends into this property. Four small wetlands will be filled during development, impacting 0.6 acres. Wetland replacement will be done on-site creating 8.55 acres of wetland restoration for banking and replacement credits. Six wet detention stormwater ponds are proposed on-site for stormwater management.		
<i>ECWMC</i>	X	Rule D	Stormwater Management
<i>Rules</i>	X	Rule E	Erosion and Sediment Control
<i>Triggered:</i>	X	Rule F	Floodplain Alterations
	X	Rule G	Wetland Alteration
		Rule H	Bridge and Culvert Crossings
	X	Rule I	Buffer Strips

<u>Applicant:</u>	M/I Homes of Minneapolis/St. Paul LLC	<i>Attention:</i>	Lauren Grouws
<i>Address:</i>	5354 Parkdale Drive, Suite 100 St. Louis Park, MN 55416	<i>Phone:</i>	763.586.7278
		<i>Email:</i>	lgrouws@mihomes.com
<u>Agent:</u>	Stantec Consulting	<i>Attention:</i>	Eric Lembke
<i>Address:</i>	733 S. Marquette, Suite 1000 Minneapolis, MN 55402	<i>Phone:</i>	612-712-2079
		<i>Email:</i>	Eric.lembke@stantec.com.

Exhibits:	Description	Date Received
<i>Application</i>	<input checked="" type="checkbox"/> Complete ECWMC Application	3/24/2021
	<input checked="" type="checkbox"/> ECWMC Request for Review and Approval	3/8/2021
	<input checked="" type="checkbox"/> City authorization: Maple Grove, MN	3/24/2021
	<input checked="" type="checkbox"/> Review fee: \$5,400	4/1/2021
	<input checked="" type="checkbox"/> Project Documents (site plans, reports, models, etc.)	4/2/2021

Submittals

1. M/I Homes Rush Creek Reserve Phase I Construction Plans for Grading and Erosion Control (31 sheets) by Stantec dated February 23, 2021, revised March 12, 2021.
2. Rush Creek Reserve, Stormwater Pollution Prevention Plan, by Stantec dated March 2021.
3. Rush Creek Reserve Stormwater Management Report by Stantec dated August 18, 2020, updated May 4, 2021. Including existing and proposed drainage area maps, curve number and time of concentration calculations, volume abstraction memo (dated May 3, 2021), existing and proposed P8 input and results, MIDS model for harvest and reuse, geotechnical evaluation report. Storm sewer sizing calculations, and XPSWMM model.
4. Minnesota Wetland Conservation Act Notice of Application, including MN joint application form, summary memo, and Rush Creek Reserve wetland banking prospectus application.

Findings

General

1. A complete application was received April 2, 2021. The initial 60-day decision period per MN Statute 15.99 expires June 1, 2021.
2. The application was extended for review on May 28, 2021 for 60 days, the decision period will expire June 12, 2021 however the commission will be expected to take action at their June 9, 2021 meeting.
3. This is an existing 91-acre agricultural parcel proposed to be developed into a residential subdivision. A wetland restoration and banking plan is also proposed as part of this development.
4. The project will disturb 31.0 acres during Phase I. The whole project proposes to create 24.2 acres of new impervious areas.
5. The ECWMC floodplain for Rush Creek extends into this property. The 100-year storm elevation of the Creek is 940.3.
6. Four wetlands are proposed to be filled impacting 0.6 acres of wetlands. A wetland replacement plan involving wetland banking is proposed for replacement. Estimated wetland replacement credits will be 8.55 acres. Required wetland buffer signage is shown in plan set.

Rule D – Stormwater Management

General

1. Existing drainage patterns on this site flow southwest (6.6 acres) and north (84.6 acres) into the South Fork of Rush Creek watershed. A large drainage area (224 acres) from the south drains through this site along the easterly side flowing north off site. Future drainage will remain essentially the same with the exception of the small area that flowed southwest (6.6 acres) from this property will be routed to the north, eliminating drainage toward the south under CR 10.
2. Six (6) stormwater ponds and restoration of one wetland basin are proposed to control flow rates and water quality for the change in land use on this site.
3. The soils on the site are predominantly Hydrologic Soil Groups Type C and D.
4. Geotechnical evaluation soil borings done in 2014 as part of the original Peachtree Partners site plans indicate high clay content soils.

5. Low Floor Elevations for Phase I grading meet the Commission's requirements to be than 2.0 feet above the 100-year elevation and 1.0 foot above the emergency overflow elevation to adjacent water features.
6. The City of Corcoran requires the landowners to operates and maintains stormwater facilities on their properties. This will include the irrigation system used for stormwater controls. An operation and maintenance agreement approved by the City and Watershed for the stormwater irrigation system and other stormwater facilities onsite must be recorded on the land title for this property within 90 days after final plat approvals.

Water Quality Controls

1. Water quality controls **will meet** Commission requirements.
2. Soils are not conducive for infiltration.
3. Water quality loads are estimated using the P8 model and MIDs for the re-use computation.
4. Table 1 summarizes TP and TSS from the proposed wet pond systems.
5. Filter bench and water reuse information were provided for review.

Table 1 Water Quality Summary

Condition	TP Load (lbs/year)	TSS Load (lbs/year) (1)
Pre-development	20.9	3,423
Post-development without BMPs	76.5	20,616
Post-development with BMPs	18.6	1,820
Net Change	-2.3	-1,603

Rate Controls

1. All runoff from the site drains to wetlands which discharge to Rush Creek. The offsite discharge rate comparison is based on the discharge to Rush Creek.
2. Rate controls for the 2-year and 10-year event **meet** Commission requirements.

Table 2 Rate of Discharge Leaving Site – Rush Creek Reserve

Outfall	Model ID	Condition	2-year (cfs)	10-year (cfs)	100-year (cfs)
North	LE-S1	Existing	17.5	32.8	50.7
	L.S3-A/L.S13-B	Proposed	8.6	16.6	32.6
	LE-S3	Existing	6.2	12.4	26.9
	L.S13-C	Proposed	5.9	11.1	20.7

	E-S4.Out	Existing	37.6	108.8	353.7
	swale-s	Proposed	35.1	75.8	185.4
		Change	-11.7	-50.5	-192.6
West	E-S6.Out	Existing	12.1	23.6	32.8
	N/A	Proposed	0	0	0
		Change	-12.1	-23.6	-32.8
East	LeE-S7	Existing	2.4	4.2	8.0
	NA	Proposed	0	0	0
		Change	-2.4	-4.2	-8.0

Abstraction Controls

1. Abstraction controls **meet** Commission requirements.
2. New impervious areas will be 24.2 acres requiring infiltration of 96,613 cubic feet.
3. Abstraction provided, summarized in the table below is 98,847 cubic feet, which exceeds the volume abstraction requirement for 1.1 inches of runoff by 2,243 cubic feet.

Table 3 Abstraction – Rush Creek Reserve

Abstraction Credit	Area (acres)	Credit (inches)	Volume (cubic feet)
Excess Wetland Buffer	1.20	0.75	3,260
Wetland Bank	4.19	0.75	11,399
Soil Amendment	1.2	0.50	2,208
Filtration Bench (Pond 4)			27,105
Water Reuse (Pond 5)			54,902
Total Abstraction			98,874

Recommendation

Staff approval for grading and erosion control is granted conditioned upon two items:

1. The applicant accepts all risks associated with final approval by the Elm Creek Watershed Commission.
2. That the City of Corcoran approves the grading plan.

Staff recommends approval of the permit application.

Rebecca Carlson, P.E. (MN)
Resilience Resources, LLC
Advisor to the Commission

June 10, 2021
Date

Attachments

- Figure 1 Site Location Map
- Figure 2 Aerial Imagery
- Figure 3 Existing Drainage Pattern Map
- Figure 4 Proposed Drainage Pattern Map
- Figure 5 Proposed Grading Plan

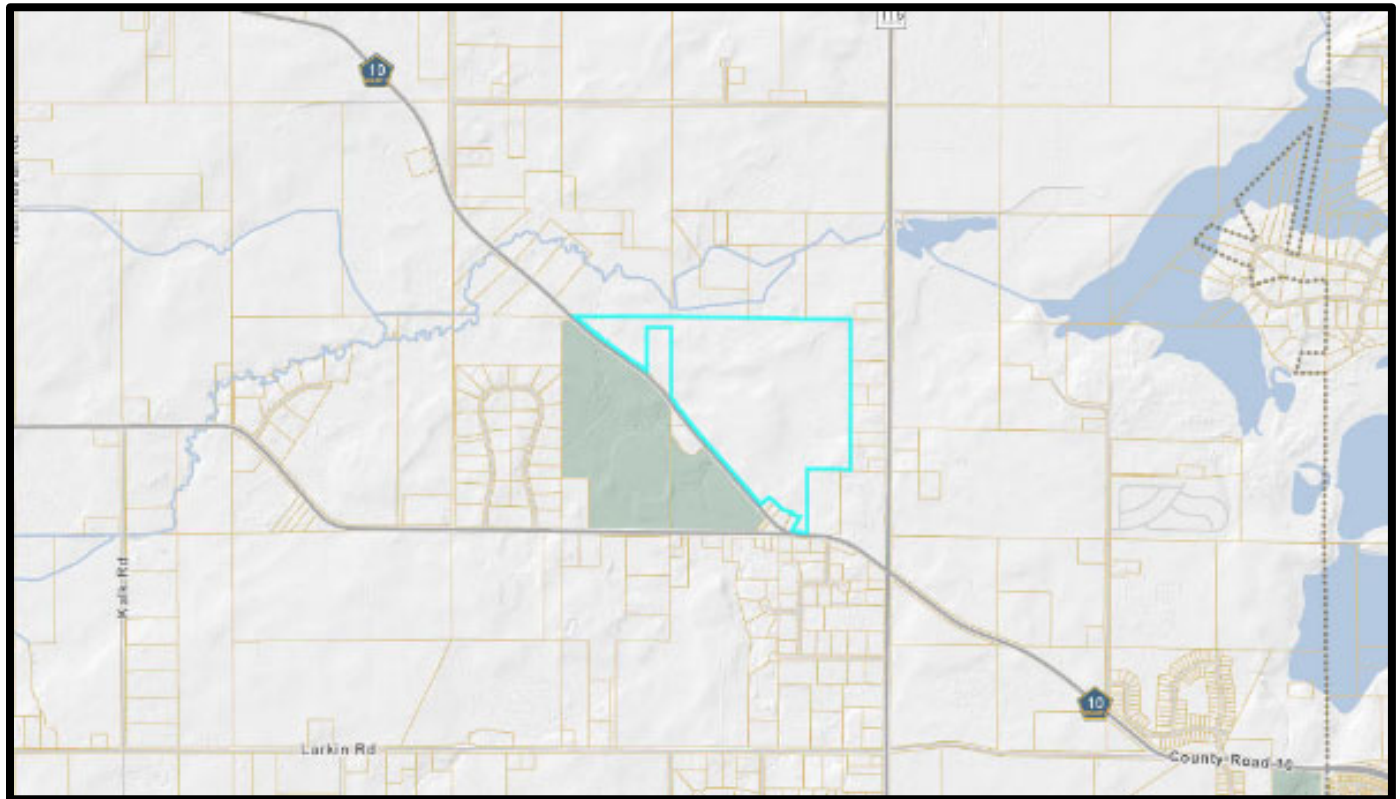


Figure 1 Site Location Map



Figure 2 Aerial Imagery



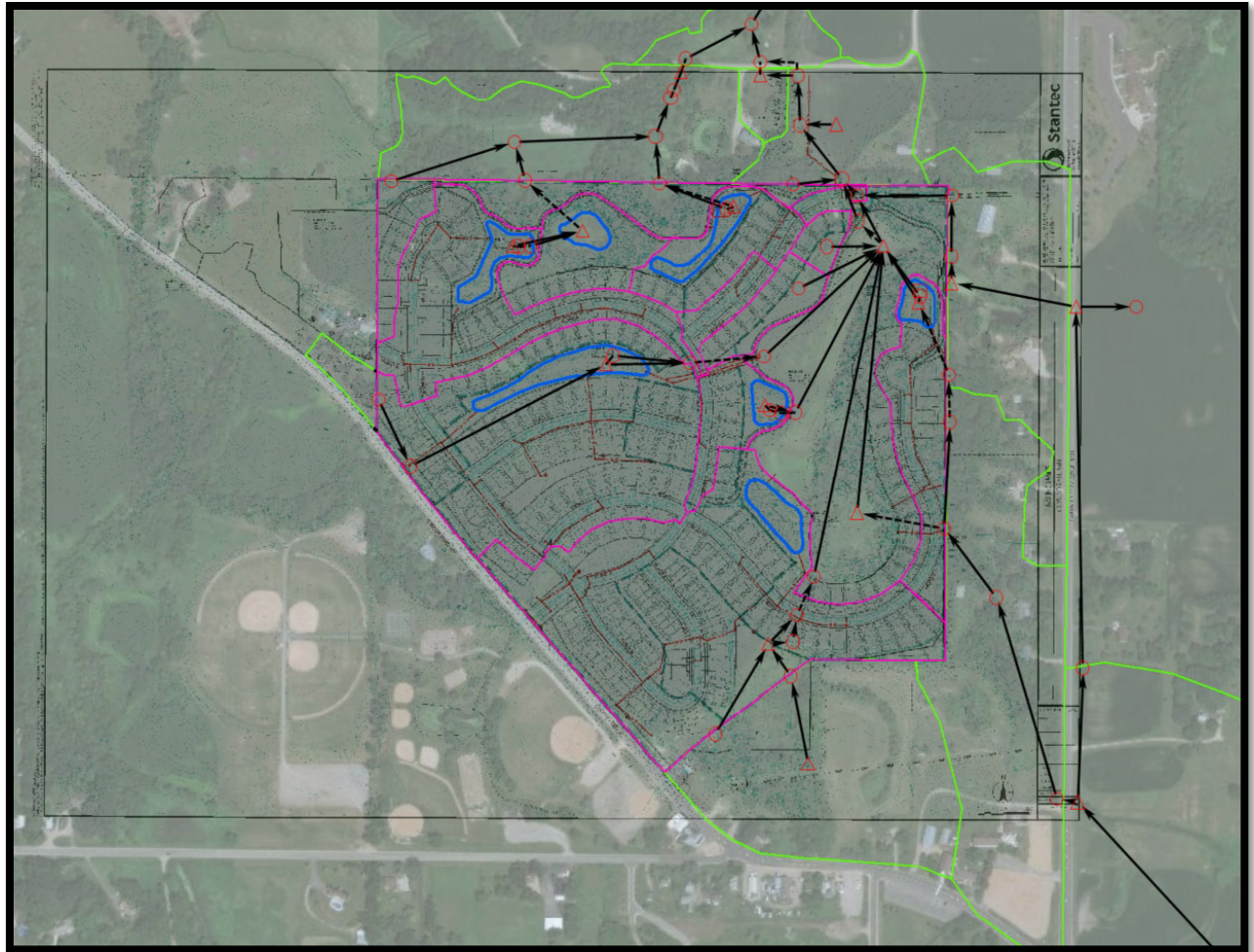


Figure 4 Proposed Drainage Pattern Map

