DOWNERS GROVE SANITARY DISTRICT
GENERAL MANAGER'S REPORT
April 13, 2017

April Board Meeting
Copies of the following items are enclosed for the April 18, 2017 meeting:

1) Proposed Agenda
2) Minutes of March 21, 2017 regular meeting
3) Minutes of March 21, 2017 executive session – *Confidential under separate cover*
4) Claim Ordinance 1852
5) Insurance – Employee group coverage
6) Annual Newsletter Review
7) Unsewered Area Plan Update
8) General Manager's Compensation
9) Operations Report – Remote Lift Stations

BOLI Meeting
There is no BOLI meeting scheduled this month.

Operations Reports
Copies of the following are enclosed for March operations:

1) Progress Report from Clay on Administrative Services activities.
2) The WWTC Operations Report from Marc.
3) The WWTC/Lift Station Maintenance Report from Jeff.
4) Progress Report from Bob on Collection System Maintenance activities.
5) Progress Report from Ted on Collection System Construction activities.
6) Progress Report from Reese on Laboratory activities.

Infiltration/Inflow Removal Work
Inspection efforts on private property under the I/I program with the intention of conducting I/I removal is ongoing in the 1-K-028 (Cass and Burlington, WT) area. A map showing progress for this area is included here, as well as a status summary sheet.

Flow metering continues, including meters in the 1-M-049 (55th and Victor, DG) vicinity to evaluate post-rehabilitation performance.

Financial
A copy of the Investment Schedule as of March 31, 2017 is enclosed.

The Treasurer's Report for March, 2017 covering the first eleven months of FY16-17 is included here, along with a summary cover memo.

Meetings
I attended the following meetings since the March 17, 2017 General Manager's Report:

-March 28 chaired NACWA Energy Committee teleconference.
-March 28-30 attended IAWA Mini-conference in Springfield.

-April 5 attended IAWA collection system committee meeting in Warrenville. Bob also attended.
-April 11 attended CSWEA Education Seminar in Madison, Wisconsin.
-April 13 attended DRSCW Executive board meeting in Naperville. Larry also attended.

Miscellaneous

I took vacation April 6-10.

Copies of the following items are enclosed:

1) General Manager's Reports to Employees dated March 31 and April 13, 2017.
2) E-Mail correspondence from BSSRAP participant
3) Letter to Chairman Cronin's office dated March 24, 2017 transmitting financial documents in accordance with DuPage County Ordinance OCB-001-11
4) Manhole overflow notification letters to Illinois EPA for March 17 and 30, 2017 events.
5) DRSCW Membership Letter
6) DRSCW Annual NPDES Compliance Report

cc: WDVB, ASK, PWC, BOLI, TTC, WCC, MGP

DOWNERS GROVE SANITARY DISTRICT
BOARD OF TRUSTEES MEETING
APRIL 18, 2017 – 7:00 PM

PROPOSED AGENDA

I. APPROVAL OF MEETING MINUTES

   A. REGULAR MEETING – MARCH 21, 2017
   B. EXECUTIVE SESSION – MARCH 21, 2017

II. APPROVAL OF CLAIM ORDINANCE NO. 1852

III. PUBLIC COMMENT

IV. OLD BUSINESS

V. NEW BUSINESS

   A. INSURANCE – EMPLOYEE GROUP COVERAGE
   B. ANNUAL NEWSLETTER REVIEW
   C. UNSEWERED AREA PLAN UPDATE
   D. GENERAL MANAGER'S COMPENSATION
   E. OPERATIONS REPORT – REMOTE LIFT STATIONS

MINUTES

The monthly meeting of the Downers Grove Sanitary District Board of Trustees was held on Tuesday, March 21, 2017, convening at 7:00 p.m. The meeting was held at the District's Administration Center, 2710 Curtiss Street, Downers Grove. Present were President Wallace D. Van Buren, Trustee Amy S. Kovacevic, Trustee Paul W. Coultrap, General Manager Nick Menninga, Administrative Supervisor W. Clay Campbell, Sewer Construction Supervisor Ted Cherwak, Information Coordinator Alyssa J. Caballero, Inspector Keith W. Shaffner and Attorney Michael G. Philipp. Also present was Gary Pakel, the District's broker from Langan, Haeger, Vincent and Born, Inc.

Minutes of Regular Meeting – February 14, 2017

A motion was made by Trustee Coultrap seconded by Trustee Kovacevic approving the minutes of the regular meeting held on February 14, 2017 as presented and authorizing the President and Clerk to sign same. The motion carried. (Votes recorded: Ayes–Van Buren, Kovacevic and Coultrap.)

Claim Ordinance No. 1851

A motion was made by Trustee Kovacevic seconded by Trustee Coultrap adopting Claim Ordinance No. 1851 in the total amount of $1,253,145.63 as presented and authorizing the President and Clerk to sign same. The motion carried. (Votes recorded: Ayes–Van Buren, Kovacevic and Coultrap.)

Public Comment – None

Old Business – None

New Business:

Cyber Liability Insurance

Gary Pakel, the District's broker from Langan, Haeger, Vincent and Born, Inc., presented the proposal for the District's cyber-liability insurance coverage through Travelers Insurance effective April 14, 2017. Staff recommended that the District obtain cyber-liability insurance coverage with Travelers Insurance with a general coverage limit of $1,000,000 at a premium of $2,724. Staff, the Board and the District's broker discussed the cost and associated benefits of selecting a coverage limit of $2,000,000 at a premium of $3,835 and determined this to be a better course of action. A motion by Trustee Coultrap seconded by Trustee Kovacevic was made approving the cyber-liability insurance coverage through Travelers Insurance with a general coverage limit of $2,000,000 at a premium of $3,835 effective April 14, 2017. The motion carried. (Votes recorded: Ayes–Van Buren, Kovacevic and Coultrap.)

Amended Appropriation Ordinance for Fiscal Year 2016-17

The Fiscal Year 2016-17 Amended Appropriation Ordinance was reviewed at the January Board meeting and has been available for public review since January 18 following a public notice of availability. An increase of $500,000 in Treatment Center Capital Improvements was proposed

bringing the new grand total to $11,640,000. A motion was made by Trustee Kovacevic seconded by Trustee Coultrap adopting the Fiscal Year 2016-17 Amended Appropriation Ordinance as proposed and authorizing the President and Clerk to sign same. The motion carried. (Votes recorded: Ayes–Van Buren, Kovacevic and Coultrap.)

Five Year Financial Plan and Budget Approval – FY 2017-18

The Five Year Financial Plan and Budget were reviewed at the February Board meeting and have been available for public review since February 15 following a public notice of availability. A motion was made by Trustee Kovacevic seconded by Trustee Coultrap approving the Five Year Financial Plan for Fiscal Years 2017-18 to 2021-22 which includes the budget for Fiscal Year 2017-18. The motion carried. (Votes recorded: Ayes–Van Buren, Kovacevic and Coultrap.)

Adopt Appropriation Ordinance for Fiscal Year 2017-18

The Fiscal Year 2017-18 Appropriation Ordinance was reviewed at the February Board meeting and has been available for public review since February 15 following a public notice of availability. The Ordinance establishes the spending limits for the year including operation and maintenance and capital improvements for all areas of District operations. A motion was made by Trustee Kovacevic seconded by Trustee Coultrap adopting the Fiscal Year 2017-18 Appropriation Ordinance and authorizing the President and Clerk to sign same. The motion carried. (Votes recorded: Ayes–Van Buren, Kovacevic and Coultrap.)

Adopt Ordinance Amending Fees

General Manager Menninga presented Ordinance No. ORD 17-01. This ordinance increases various District fees and charges to the following amounts:

a) Permit inspection fees - $199 per building sanitary service for single family class or $330 per building sanitary service (or $190 per building sanitary service if no work on building sanitary service is required) for all other classes.
b) Tap-in fee - $858 per population equivalent (P.E.).
c) Trunk sewer service charges - $398 per P.E.
d) Lateral sewer charge - $11,070 per building drain to near side property and $8,020 per building drain to far side property.
e) Sewer construction inspection fee - $62 per hour straight time and $93 per hour overtime.
f) Monthly service fee - $15.00 per month.
g) Sampling and monitoring charge – This charge will vary from $5.13 per month to $113.86 per month depending on the type of user.

A motion was made by Trustee Coultrap seconded by Trustee Kovacevic adopting Ordinance No. ORD 17-01 and authorizing the President and Clerk to sign same. The motion carried. (Votes recorded: Ayes–Van Buren, Kovacevic and Coultrap.)

Contract Award – Building Service Repairs

General Manager Menninga reviewed the bid opening on March 16 for a term unit-price contract for building service repairs under the District Building Sanitary Service Repair Assistance Program, as well as other emergency sewer and manhole repair tasks. The contract is structured to allow annual renewals for up to five years, with annual price increases tied to the Consumer Price

Index. Four bids were received. He recommended award to the lowest responsive, responsible bidder, Uno Construction Company, for an annual estimated cost of $1,092,200 for the first year. A motion by Trustee Kovacevic seconded by Trustee Coultrap was made awarding the contract for the Building Sanitary Service Repairs project to the lowest responsive, responsible bidder, Uno Construction Company, in the estimated first year amount of $1,092,200 and authorizing the General Manager and Assistant Clerk to execute the contract documents. The motion carried. (Votes recorded: Ayes–Van Buren, Kovacevic and Coultrap.)

Operations Report – Monthly Treatment Plant Reporting

General Manager Menninga presented an operations report reviewing the Treatment Plant Monthly Operations reports. His report covered plant data reporting requirements, plant flows, sludge and biosolids, biological oxygen demand, temperature, suspended solids and pH and energy usage.

Annexation Ordinance No. AO 2017-04 – 1018 Palmer Street, Downers Grove

Sewer Construction Supervisor Cherwak presented Annexation Ordinance No. AO 2017-04 for the annexation of one lot located at 1018 Palmer Street, Downers Grove. A motion was made by Trustee Coultrap seconded by Trustee Kovacevic accepting the Petition for Annexation, adopting Annexation Ordinance No. AO 2017-04 as presented and authorizing the President and Clerk to sign same. The motion carried. (Votes recorded: Ayes–Van Buren, Kovacevic and Coultrap.)

Other New Business

Trustee Kovacevic inquired about the upcoming DuPage County River Sweep and employee CPR and AED Training. She also commended staff for their collaboration with School District 58.

Trustee Coultrap also commended staff for their work with School District 58 and using the social media tool, Nextdoor. He inquired about sewer construction inspections noted in Sewer Construction Supervisor Cherwak's monthly report.

Trustee Van Buren commented on the drop of kilowatt-hours produced in the month of March due to CHP engine maintenance. He also commended staff for their collaboration with School District 58.

General Manager Menninga discussed the treatment plant receiving brewery waste.

A motion was made by Trustee Kovacevic seconded by Trustee Coultrap to recess the regular meeting and convene an executive session at 8:25 p.m. under exception 2(c)1 of the Open Meetings Act to discuss the compensation and performance of specific employees of the District. The motion carried. (Votes recorded: Ayes–Van Buren, Kovacevic and Coultrap.)

A motion was made by Trustee Kovacevic seconded by Trustee Coultrap to reconvene the regular meeting at 8:35 p.m. The motion carried. (Votes recorded: Ayes–Van Buren, Kovacevic and Coultrap.)

A motion was made by Trustee Kovacevic seconded by Trustee Coultrap to adjourn the regular meeting at 8:36 p.m. The motion carried.

Approved: April 18, 2017

_____
President

Attest: _____
Clerk

This attachment has been removed for its contents are currently confidential.

Downers Grove, Illinois

Date: April 18, 2017

Claim Ordinance No. 1852

An Ordinance Providing for the Payment of Certain Claims.

WHEREAS, it appears to the Board of Trustees of the Downers Grove Sanitary District that there are certain claims against said District which would be allowed and paid therefore,

BE IT ORDAINED, by the Board of Trustees of the Downers Grove Sanitary District

That the following claims be and they are hereby approved and ordered paid and that an order be drawn on the Treasurer of said District out of the funds shown below. Said claims, totaling **$891,393.76** being in words and figures as follows:

Payroll Ending Date: 03-25-17
Payroll Paid Date: 03-31-17
GL Date: 04-30-17

G/L NUMBER	COST DESCRIPTION	DEBIT	CREDIT
01-00.1001	CASH - PAYROLL ACCOUNT		44725.34-
01-00.2000	FEDERAL TAX WITHHELD		9542.52-
01-00.2001	STATE TAX WITHHELD		2469.64-
01-00.2002	SOCIAL SECURITY WITHHELD		5232.42-
01-00.2003	IMRF WITHHELD		3058.39-
01-00.2005	CLEARING		30.00-
01-00.2012	WAGE DEDUCTION ORDER		627.23-
01-00.2013	CREDIT UNION WITHHELD		1621.31-
01-00.2014	VOLUNTARY ADDITIONAL PENSION CONTRIBUTION		827.13-
01-00.2020	DEFERRED COMPENSATION WITHHELD		161.41-
01-00.2021	FLEXIBLE ACCOUNT WITHHELD - MEDICAL		476.00-
01-00.2024	FLEXIBLE ACCOUNT WITHHELD - PREM CONVERSION		1085.28-
01-00.2025	EMPLOYEE INS PREM CONTRIBUTION - POST TAX		102.00-
01-11.A003	GENERAL MANAGEMENT	989.04	
01-11.A004	FINANCIAL RECORDS	6465.53	
01-11.A005	ADMINISTRATIVE RECORDS	1679.03	
01-11.A007	CODE ENFORCEMENT	4372.54	
01-11.A030	BUILDING & GROUNDS	107.00	
01-12.A011	MAINTENANCE - WWTC	11949.68	
01-12.A014	MAINTENANCE - ELECTRICAL	4317.97	
01-12.A021	WWTC OPERATIONS	10632.14	
01-12.A022	WWTC SLUDGE HANDLING	3613.19	
01-12.A023	WWTC ENERGY RECOVERY	55.70	
01-12.A030	BUILDING & GROUNDS	3169.98	
01-13.A041	LAB - WWTC	4333.12	
01-13.A042	LAB - PRETREATMENT	145.32	
01-14.A051	SEWER MAINTENANCE	4512.70	
01-14.A054	SEWER MAINTENANCE - BACK-UPS & HIGH FLOWS	1044.29	
01-14.A062	INSPECTION - CONSTRUCTION OF DGSD PROJECTS	969.75	
01-14.A063	INSPECTION - PERMIT INSPECTIONS	1272.00	
01-14.A064	INSPECTION - MISCELLANEOUS	3864.93	
01-14.A065	INSPECTION-CONSTR BY VILLAGES, UTILITIES	1742.77	
01-14.A066	INSPECTION - CODE ENFORCEMENT	683.33	
01-14.A072	SEWER INVESTIGATIONS	2090.92	
01-15.A030	BUILDING & GROUNDS	216.00	
01-15.A080	LIFT STATION MAINTENANCE	1731.74	
		69958.67	69958.67-

GENERAL LEDGER RECAP

DATE 04/04/17 PERIOD END 03/31/17 PAGE 4

Payroll Ending Date: 03-31-17
Payroll Paid Date: 04-04-17
GL Date: 04-30-17

G/L NUMBER	COST DESCRIPTION	DEBIT	CREDIT
01-00.1001	CASH - PAYROLL ACCOUNT		18043.64-
01-00.2000	FEDERAL TAX WITHHELD		3210.77-
01-00.2001	STATE TAX WITHHELD		968.02-
01-00.2002	SOCIAL SECURITY WITHHELD		2254.59-
01-00.2003	IMRF WITHHELD		1326.24-
01-00.2013	CREDIT UNION WITHHELD		750.00-
01-00.2014	VOLUNTARY ADDITIONAL PENSION CONTRIBUTION		1320.06-
01-00.2017	VOLUNTARY GROUP LIFE		80.00-
01-00.2020	DEFERRED COMPENSATION WITHHELD		1335.00-
01-00.2021	FLEXIBLE ACCOUNT WITHHELD - MEDICAL		173.59-
01-00.2024	FLEXIBLE ACCOUNT WITHHELD - PREM CONVERSION		208.00-
01-00.2025	EMPLOYEE INS PREM CONTRIBUTION - POST TAX		52.00-
01-11.A003	GENERAL MANAGEMENT	6305.98	
01-11.A004	FINANCIAL RECORDS	231.66	
01-11.A005	ADMINISTRATIVE RECORDS	36.81	
01-11.A007	CODE ENFORCEMENT	8406.56	
01-11.A008	SAFETY ACTIVITIES	9.20	
01-11.A030	BUILDING & GROUNDS	87.35	
01-12.A009	OPERATIONS MANAGEMENT	6963.96	
01-12.A011	MAINTENANCE - WWTC	2899.61	
01-12.A014	MAINTENANCE - ELECTRICAL	523.12	
01-12.A021	WWTC OPERATIONS	646.28	
01-12.A030	BUILDING & GROUNDS	65.39	
01-13.A009	OPERATIONS MANAGEMENT	1707.42	
01-13.A041	LAB - WWTC	569.27	
01-13.A042	LAB - PRETREATMENT	904.04	
01-13.A043	LAB - SURCHARGE PROGRAM	16.78	
01-13.A044	LAB - BOD	50.33	
01-13.A045	LAB - SOLIDS	67.11	
01-13.A046	LAB - AMMONIA	66.72	
01-14.A054	SEWER MAINTENANCE - BACK-UPS & HIGH FLOWS	132.07	
01-15.A009	OPERATIONS MANAGEMENT	32.25	
		29721.91	29721.91-

Downers Grove Sanitary District

01 GENERAL FUND STANDARD CHECK REGISTER FOR 04/18/17

Date: 04/13/17
Time: 3:32pm

VENDOR NAME	VENDOR NUMBER	INVOICE DATE	INVOICE NUMBER	G/L NUMBER	EXPENSE DESCRIPTION	EXPENSE	CHECK AMT	CHECK NO
A & A HYDRAULIC	A000055	03/20/17	372981	01-12.B512	Oil Evacuator Parts	47.20	47.20	059492
AT & T MOBILITY	A000085	04/03/17	831873915	01-15.B112	L/S Cell Dialer	51.17	51.17	059493
ADVOCATE OCCUPATIONAL HEALTH	A000150	04/05/17	650531	01-12.B117	Drug Screen	27.00	27.00	059494
ADVANCED DISPOSAL	A000153	03/31/17	80002108150	01-12.B102	Recycling-Extra PU	304.06	304.06	059495
ALEXANDER CHEMICAL CORPORATION	A000200	04/10/17	SLS10058096	01-12.B401	Hypochlorite Solution	2778.53	2778.53	059496
ALLIED WASTE SERVICE	A000255	03/15/17	013345678	01-12.B102	Grit/Scr PU-Dumpster Rent	1212.84		
		03/31/17	013375368	01-12.B102	Grit/Scr Pick Up	1131.84	2344.68	059497
SYNCHB/AMAZON	A000295	03/16/17	111908469357	01-11.B116	Supplies	7.75		
		03/16/17	111908469357	01-12.B116	Supplies	42.54		
		03/21/17	263494217163	01-12.B116	Printer for Ops Center	139.95	190.24	059498
ANALYTICAL SERVICES, INC.	A000380	04/05/17	30232	01-13.B123	Biosolids Samples	745.00	745.00	059499
ARAMARK	A000460	03/21/17	2080983452	01-12.B117	Uniform Rental WWTC	61.03		
		03/21/17	2080983452	01-14.B117	Uniform Rental Sewer Sys	23.94		
		03/28/17	2080992990	01-12.B117	Uniform Rental WWTC	61.03		
		03/28/17	2080992990	01-14.B117	Uniform Rental Sewer Sys	23.94		
		04/04/17	2081002553	01-12.B117	Uniform Rental WWTC	61.03		
		04/04/17	2081002553	01-14.B117	Uniform Rental Sewer Sys	23.94		
		04/11/17	2081011960	01-12.B117	Uniform Rental WWTC	61.03		
		04/11/17	2081011960	01-14.B117	Uniform Rental Sewer Sys	23.94	339.88	059500
BAXTER & WOODMAN, INC.	B000120	03/23/17	0191425	01-14.B124	Flow Monitoring	389.10		
		03/23/17	0191426	01-11.B124	Nutrient Study	3585.00		
		03/23/17	0191429	01-14.B901	Flow Basin Rehab	1077.50		
		03/23/17	0191430	01-11.B115	Server Replacement Proj	245.00		
		03/23/17	0191431	01-11.B124	Misc Engineering	3935.00		
		03/23/17	0191432	01-14.B910	BSSRP Contract Renew	3405.61		
		03/28/17	0191652	01-11.B115	NJM Desktop Replacement	983.62		
		03/30/17	0191700	01-11.B115	Support Services Admin	4000.00		
		03/30/17	0191700	01-12.B513	Support Services WWTC	4000.00		
		04/11/17	0191744	01-15.B529	LS Communication Upgrade	82.50	21703.33	059501
BIOTEK CORPORATION	B000220	03/21/17	70374	01-12.B116	Hand Cleaner-Bioscrub	286.67	286.67	059502
BORNQUIST, INC	B000300	03/17/17	5405696	01-12.B513	CHP 1 Parts	547.60	547.60	059503
CINTAS FIRST AID & SAFETY	C000320	03/22/17	5007546510	01-12.B113	First Aid Items	214.50	214.50	059504
COLLEY ELEVATOR CO.	C000370	04/01/17	159837	01-12.B805	6 Month Inspection Servic	713.00	713.00	059505
COMCAST	C000373	04/03/17	1200550568	01-11.B112	Internet	149.85	149.85	059506
COMED	C000380	03/16/17	0055025057	01-15.B100	College LS Elec	360.07		
		03/17/17	0068029014	01-15.B100	Centex LS Elec	95.93		
		03/16/17	0120089072	01-15.B100	Wroble LS Elec	551.24		
		03/17/17	0458029046	01-15.B100	Lib Park LS Elec	298.40		
		03/23/17	0562080004	01-15.B100	Venard LS Elec	377.52		
		03/16/17	1095091170	01-15.B100	NW LS Elec	801.92		
		03/27/17	1108062005	01-11.B100	Admin Elec	99.00		
		03/27/17	1108062005	01-12.B100	Plant Elec	7559.48		
		03/20/17	1810068039	01-15.B100	Earlston LS Elec	260.70		
		03/22/17	3240038012	01-15.B100	Bfield LS Elec	114.84		
		03/16/17	4657083017	01-15.B100	Hobson LS Elec	1993.97		
		03/27/17	6770572011	01-12.B100	Walnut House Elec	69.91		
		03/27/17	8762083052	01-12.B100	Big Top Elec	66.07	12649.05	059507
COMPBENEFITS	C000400	03/22/17	040430284	01-17.E455	Dental Insurance	2368.53	2368.53	059508
JOHN CRANE INC.	C000560	03/17/17	3337780	01-12.B512	Old RS Pump 1 Parts	784.33		
		04/06/17	3345440	01-12.B510	Sludge Pump Seal	658.06	1442.39	059509
CURTIS MARTIN GROUP, INC.	C000660	03/18/17	5759	01-11.B115	Billing/AP Projects	670.00		

VENDOR		INVOICE						
NAME	NUMBER	DATE	NUMBER	G/L NUMBER	EXPENSE DESCRIPTION	EXPENSE	CHECK AMT	CHECK NO
		03/25/17	5768	01-11.B115	AP Check Print Proj	180.00		
		04/01/17	5776	01-11.B115	PR System Project	180.00	1030.00	059510
DAHME MECHANICAL INDUSTRIES	D000030	04/12/17	20170104	01-12.B805	Roof Drain Piping	3629.58		
		04/12/17	20170104	01-12.B810	Tunnel Repair	1137.08		
		04/12/17	20170104	01-12.B812	CHP Piping	2412.09		
		04/12/17	20170105	01-12.B513	CHP Building Taps	1206.00	8384.75	059511
D.G. SANIT DIST #2695030211117	D000400	04/12/17	Reimburse	01-00.1001	Payroll Acct Reimburse	62768.98	62768.98	059512
D.G. SANIT DIST #2695031181114	D000420	03/31/17	Reimburse	01-05.3001	User Refund Acct Reimb	1770.19	1770.19	059513
VILLAGE OF DOWNERS GROVE	D000480	03/15/17	126732	01-11.B121	Meter Reads	398.71	398.71	059514
DRYDON EQUIPMENT INC.	D000540	03/13/17	18117	01-12.B512	Old RS Pump 1 Parts	248.01	248.01	059515
DUPAGE COUNTY RECORDER	D000620	03/01/17	201703010121	01-11.B124	Ted Docs	270.00		
		03/01/17	201703010121	01-14.B910	BSSRP Docs	512.00		
		03/01/17	201703010202	01-11.B124	Ted Docs	30.00		
		03/03/17	201703030084	01-11.B121	Recorded Docs	81.00		
		03/06/17	201703060153	01-11.B121	Recorded Docs	8.00		
		03/10/17	201703100115	01-11.B121	Recorded Docs	9.00		
		03/15/17	201703150142	01-11.B124	Ted Proj Docs	242.00		
		03/15/17	201703150142	01-14.B910	BSSRP Docs	120.00	1272.00	059516
DYNEGY ENERGY SERVICES	D000800	03/29/17	1108062005	01-11.B100	Admin Elec	147.09		
		03/29/17	1108062005	01-12.B100	Plant Elec	11231.32		
		04/12/17	Various	01-15.B100	LS Elec	4289.81	15668.22	059517
ECO INFRASTRUCTURE SOLUTIONS	E000005	03/20/17	8713	01-14.B115	Lateral Camera Repair	2750.24	2750.24	059518
EDWARD HOSPITAL SIMULATION & TRE	E000026	04/07/17	21359	01-11.B117	CPR Training Admin	450.00		
		04/07/17	21359	01-12.B117	CPR Training Plant	720.00		
		04/07/17	21359	01-13.B117	CPR Training Lab	135.00		
		04/07/17	21359	01-14.B117	CPR Training Sewer Sys	315.00	1620.00	059519
EJ EQUIPMENT, INC.	E000030	04/06/17	P00505	01-14.B115	Sewer Cleaning Parts	287.51	287.51	059520
EXODUS TECHNOLOGY SERVICE	E000480	04/01/17	17-124	01-11.B115	March Support Services	675.00	675.00	059521
EYE MED VISION CARE	E000600	04/01/17	163139918	01-17.E455	Vision Insurance	426.87	426.87	059522
FASTENAL COMPANY	F000060	03/17/17	ILWES52319	01-12.B504	Grit Removal Parts	34.36		
		03/17/17	ILWES52324	01-12.B810	Dig 1&2 Cntl Bldng Parts	32.76		
		03/17/17	ILWES52340	01-12.B113	Gloves	20.02		
		03/20/17	ILWES52350	01-12.B812	2016 Tun Light Upgrd Part	34.00		
		03/21/17	ILWES52387	01-12.B501	Auger #4 Part	8.00		
		03/24/17	ILWES52476	01-12.B116	Auger #1 Tool	49.26		
		03/24/17	ILWES52479	01-12.B513	CHP Parts	77.91		
		04/03/17	ILWES52631	01-12.B502	Misc Parts	52.70		
		04/04/17	ILWES52652	01-12.B812	Maintenance Parts	9.62	318.63	059523
FEDEX	F000070	04/03/17	3671047855	01-12.B513	CHP Overhaul	184.38	184.38	059524
FERGUSON ENTERPRISES #1550	F000090	04/03/17	0232501	01-12.B507	Aeration Blower Parts	1704.63	1704.63	059525
FIRST ADVANTAGE	F000130	03/31/17	2503001703	01-14.B117	Drug Screen	27.26	27.26	059526
FIRST ENVIRONMENTAL LAB	F000140	03/29/17	133654	01-13.B123	Cyanide Sample	21.60	21.60	059527
FOX VALLEY SANDBLASTING &	F000295	03/17/17	32268	01-12.B501	Auger Housing	750.00		
		04/05/17	32412	01-12.B504	Grit Classifier 2	270.00	1020.00	059528
FULLIFE LLC	F000440	03/31/17	35850	01-12.B113	Calibration Gas Monitor	192.20		
		04/11/17	35893	01-12.B113	02 Probe Repairs	77.50	269.70	059529
FULLSERV OIL CHANGE	F000500	03/21/17	0120139	01-14.C225	Vehicle #350 Oil Change	34.45	34.45	059530
GEE HEATING AND AIR	G000250	04/11/17	7194A	01-15.B824	Hobson LS Parts	2051.25	2051.25	059531
REVERE ELECTRIC	G000410	03/20/17	S3230575.001	01-11.B118	Admin Cntr Pole Lights	140.55		
		03/21/17	S3232119.001	01-12.B812	2016 Lighting Upgrd Parts	230.88		
		03/29/17	S3237372.001	01-12.B513	CHP Parts	295.10		

VENDOR NAME	VENDOR NUMBER	INVOICE DATE	INVOICE NUMBER	G/L NUMBER	EXPENSE DESCRIPTION	EXPENSE	CHECK AMT	CHECK NO
		03/30/17	S3237372.002	01-12.B513	Returned Part	222.12-		
		04/05/17	S3244090.001	01-12.B812	2016 Lighting Upgrade	364.92	809.33	059532
W. W. GRAINGER, INC.	G000520	03/15/17	9387862056	01-12.B807	See Sheet	446.25		
		03/16/17	9388561061	01-12.B812	See Sheet	262.88		
		03/16/17	9388561079	01-12.B512	See Sheet	9.09		
		03/17/17	9389746323	01-13.B114	See Sheet	489.52		
		03/17/17	9389746331	01-12.B812	See Sheet	40.80		
		03/21/17	9392198744	01-12.B116	See Sheet	37.95		
		03/22/17	9393567517	01-12.B512	See Sheet	475.22		
		03/22/17	9393621231	01-11.B116	See Sheet	6.00		
		03/24/17	9396930597	01-12.B502	See Sheet	143.98		
		03/28/17	9399489682	01-12.B513	See Sheet	25.20		
		03/29/17	9400990231	01-12.B513	See Sheet	29.03		
		04/07/17	9409814093	01-12.B512	See Sheet	1396.86		
		04/13/17	9410752712	01-12.B512	See Sheet	668.71-	2694.07	059533
HD SUPPLY WATERWORKS, LTD.	H000030	03/13/17	G890898	01-12.B501	Curtiss Lagoon parts	1165.00	1165.00	059534
HACH COMPANY	H000040	03/16/17	10367170	01-13.B114	High Rng Phos Kit for Lab	580.67		
		03/21/17	10373389	01-13.B122	Strainer For Lab Samples	286.45		
		03/31/17	10391104	01-14.B115	Logger Repair	1450.79		
		04/03/17	10393318	01-14.B115	Logger Repair	1450.79	3768.70	059535
HARRINGTON IND. PLASTICS LLC	H000090	03/28/17	023D1633	01-12.B502	Hypo Tank Piping Parts	71.23	71.23	059536
HOME DEPOT	H000400	04/03/17	0081132	01-12.B812	See Sheet	45.38		
		03/22/17	2011521	01-12.B116	See Sheet	76.54		
		03/22/17	2026817	01-12.B116	See Sheet	5.95		
		03/22/17	2134267	01-12.B116	See Sheet	4.79-		
		03/22/17	2224881	01-14.B116	See Sheet	83.84		
		04/10/17	3020594	01-13.B115	See Sheet	40.50		
		03/31/17	3027822	01-12.B812	See Sheet	36.00		
		03/31/17	3104219	01-14.B116	See Sheet	26.97		
		04/10/17	3322192	01-12.B812	See Sheet	86.98-		
		03/20/17	4051092	01-12.B812	See Sheet	19.40		
		03/30/17	4062271	01-12.B116	See Sheet	37.84		
		03/20/17	4092011	01-12.B513	See Sheet	75.21		
		03/20/17	4103330	01-14.B116	See Sheet	5.97		
		03/20/17	4320120	01-12.B810	See Sheet	52.60-		
		04/07/17	6062737	01-12.B116	See Sheet	53.96		
		04/07/17	6062737	01-12.B812	See Sheet	37.32		
		04/07/17	6081724	01-13.B115	See Sheet	72.58		
		04/06/17	7020106	01-13.B115	See Sheet	226.70		
		03/17/17	7061587	01-12.B116	See Sheet	49.47		
		03/17/17	7061587	01-12.B513	See Sheet	63.09		
		04/06/17	7094025	01-14.B910	See Sheet	14.54		
		03/15/17	9011123	01-12.B810	See Sheet	192.83		
		04/04/17	9022181	01-12.B812	See Sheet	123.24		
		04/04/17	9028310	01-12.B812	See Sheet	130.65	1273.61	059537
IL ENV PROTECTION AGENCY	I000260	03/15/17	12/	01-14.B929	ARRA Loan Payment	90795.59	90795.59	059538
ILLINOIS PUBLIC RISK FUND	I000350	04/13/17	41501	01-17.E452	Workers Comp	9070.00	9070.00	059539
INFOSEND, INC.	I000415	03/30/17	119035	01-11.B121	Mailing Service Cust Bill	3798.35	3798.35	059540
JOHNSTONE SUPPLY	J000140	03/31/17	4011907	01-12.B812	WWTC Comp Room AC	1729.50		
		04/11/17	4012221	01-12.B812	WWTC Comp Room A/C Parts	9.99	1739.49	059541
JULIE, INC.	J000250	04/01/17	2017-0417	01-14.B127	Quarterly Payment	4488.81	4488.81	059542

VENDOR		INVOICE						
NAME	NUMBER	DATE	NUMBER	G/L NUMBER	EXPENSE DESCRIPTION	EXPENSE	CHECK AMT	CHECK NO
KARA COMPANY INC.	K000053	04/10/17	326841	01-14.B116	Wire Flags Sewer Sys	93.74	93.74	059543
LAI, LTD	L000012	03/29/17	17-14597	01-12.B504	Grit Classifier 1 Parts	1606.10		
		04/11/17	17-14654	01-12.B501	Curtiss Lagoon Parts	974.00	2580.10	059544
LEE AUTO PARTS	L000150	03/17/17	470-110346	01-12.B116	Auto Parts	138.78	138.78	059545
MBM SERVICES INC.	M000010	04/01/17	28976	01-11.B118	Cleaning Service	331.00		
		04/07/17	29040	01-11.B116	Admin Supplies	77.00	408.00	059546
MARCOTT ENTERPRISES, INC.	M000115	03/14/17	17654	01-12.B509	Sand	898.70	898.70	059547
MCCAHILL PAINTING COMPANY	M000335	04/10/17	2812	01-12.B812	Tunnel Painting Proj	12560.00	12560.00	059548
MCMASTER-CARR SUPPLY COMPANY	M000360	03/29/17	21544614	01-12.B513	CHP 1 Parts	60.24		
		04/11/17	23748543	01-12.B501	Curtiss Lagoon Parts	194.56	254.80	059549
MENARDS - BOLINGBROOK	M000430	03/20/17	14484	01-12.B116	Storage Rack & BR Fridge	101.98	101.98	059550
NICK MENNINGA	M000450	03/31/17	Reimburse	01-11.B117	Travel Reimbursement	316.84		
		03/31/17	Reimburse	01-11.C222	Travel Reimbursement Fuel	10.00		
		04/12/17	Reimburse 2	01-11.B117	CSWEA Edu Seminar	179.16	506.00	059551
MICROBE DETECTIVES LLC	M000515	02/09/17	WEB6049	01-13.B123	Anaerobic Digester Study	2516.14	2516.14	059552
MICRO CENTER	M000550	03/15/17	4141712	01-12.B513	PLC Panel UPS Units	234.97	234.97	059553
MIDAMERICA ADMINISTRATIVE	M000556	03/21/17	3515	01-17.E455	Adm & Qtrly Fee-Flex Med	247.50	247.50	059554
MOTION INDUSTRIES, INC.	M000750	04/11/17	IL10-602802	01-12.B504	Grit Classifier 1 Parts	1888.37	1888.37	059555
MUNICIPAL MARKING	M000820	03/30/17	20491	01-14.B116	Julie Spray Paint	475.00	475.00	059556
3266-NCPERS - IL IMRF	N000010	03/23/17	32660417	01-00.2017	Voluntary Life	288.00	288.00	059557
NAPA AUTO PARTS	N000040	04/04/17	485188	01-12.B513	CHP 1 Overhaul Parts	13.13	13.13	059558
NAPCO STEEL, INC.	N000050	03/17/17	405133	01-12.B810	Dig 1&2 Cntrl Bldg Parts	274.75	274.75	059559
NEFCO SYSTEMS, INC.	N000180	04/10/17	17013	01-12.B502	Chlorine Tank Wiers	6602.00	6602.00	059560
NEUCO, INC.	N000260	03/20/17	2404520	01-12.B805	Exc Pmp Stn Boiler Parts	108.26		
		03/29/17	2418039	01-12.B505	Bar Scrn Rag Cmpctr Parts	132.00	240.26	059561
NICOR GAS	N000330	03/23/17	2833584	01-12.B101	Wal Hse Gas	89.46		
		03/23/17	3892638	01-11.B101	Admin Gas	131.43		
		03/23/17	4440979	01-12.B101	Plant Gas	296.79		
		03/22/17	4664113	01-12.B101	Chem Feed Gas	198.85		
		03/23/17	4782107	01-12.B101	Plant 2 Gas	184.35	900.88	059562
OFFICIAL PAYMENTS	O000300	02/28/17	3940167	01-11.B110	ACH Payment Service	25.80	25.80	059563
PATTEN INDUSTRIES, INC.	P000150	03/30/17	PM600263248	01-12.B513	Emer Gen 1 Replace	7496.87		
		03/30/17	PM600263249	01-12.B513	Emer Gen 2 Replace	7496.87		
		03/30/17	PM600263250	01-12.B513	Emer Gen 3 Replace	7496.87	22490.61	059564
PETTY CASH	P000350	04/13/17	Reimburse	01-11.B117	Sups Lunch	70.37		
		04/13/17	Reimburse	01-11.B119	Postage	6.33		
		04/13/17	Reimburse	01-13.B116	Lab Supplies	1.08		
		04/13/17	Reimburse	01-14.C225	Safety Lane Checks	74.50	152.28	059565
PHENOVA	P000360	03/29/17	129811	01-13.B114	Lab Chemicals	744.35	744.35	059566
POLYDYNE INC.	P000395	03/20/17	1123291	01-12.B402	Belt Press Polymer	1890.00		
		04/03/17	1127476	01-12.B402	Belt Press Polymer	1890.00	3780.00	059567
PORTER PIPE AND SUPPLY CO.	P000420	03/28/17	11568654-00	01-12.B502	Hypo Tank Piping Parts	399.52		
		03/28/17	11568693-00	01-12.B502	Hypo Tank Piping Parts	25.48	425.00	059568
PRINCIPAL LIFE INSURANCE CO	P000650	03/18/17	1053846	01-17.E455	Life Insurance	390.35	390.35	059569
RAPTOR TECH INC.	R000105	03/20/17	11717	01-12.B501	Auger Drive Hubs	2384.00	2384.00	059570
RED WING SHOE STORE	R000180	04/07/17	18-SD045	01-14.B117	ES Boots	155.00	155.00	059571
MARCO RENDON	R000230	04/13/17	Reimburse	01-12.B117	Safety Glasses	150.00	150.00	059572
RICMAR INDUSTRIES, INC.	R000300	03/31/17	325661	01-12.B103	Odor Control	1124.00	1124.00	059573
RICOH	R000305	03/22/17	5047710803	01-11.B115	Copies	170.27	170.27	059574
SEAWAY SUPPLY CO.	S000200	03/27/17	123695	01-12.B113	Gloves for Plant	87.45		
		03/27/17	123697	01-12.B116	Plant Supplies	251.55		

VENDOR		INVOICE						
NAME	NUMBER	DATE	NUMBER	G/L NUMBER	EXPENSE DESCRIPTION	EXPENSE	CHECK AMT	CHECK NO
		04/03/17	123697-01	01-12.B116	Plant Supplies	64.47		
		03/27/17	123698	01-13.B116	Lab Supplies	29.00		
		03/31/17	123721	01-12.B512	Maint Repair Supplies	275.80	708.27	059575
SHERWIN-WILLIAMS CO.	S000320	04/04/17	0875-1	01-12.B812	Paint for Garage	88.88		
		04/04/17	0899-1	01-12.B812	Paint for Garage	132.40	221.28	059576
SOUND INCORPORATED	S000480	03/24/17	D1314408	01-11.B115	Upgr Phone Sys Software	999.00	999.00	059577
SOUTHLAND ELECTRICAL SUPPLY	S000493	04/03/17	3046365	01-12.B503	Exc Flow Bridge Parts	167.01	167.01	059578
STAPLES INC.	S000640	04/01/17	8043890461	01-11.B116	Office Supplies	133.95	133.95	059579
STEPHENS PLUMBING AND	S000680	03/16/17	184882	01-14.B910	Sewer Repair 523 Austin	420.10	420.10	059580
STEVENSON CRANE SERVICE, INC.	S000720	03/30/17	37003	01-12.B513	H2S Tank Media Replace	1020.00	1020.00	059581
SUBURBAN LABORATORIES, INC.	S000865	03/17/17	143173	01-13.B123	Phosphorus Testing	220.00		
		03/23/17	143284	01-13.B123	NPDES Monthly Samples	131.50	351.50	059582
SUBURBAN LIFE PUBLICATIONS	S000867	03/31/17	10071278	01-11.B124	Legal Publications	2536.20	2536.20	059583
TECH 3 SOLUTIONS INC.	T000096	03/16/17	17-608	01-12.B513	CHP Parts	2260.43		
		03/20/17	17-609	01-12.B513	CHP Parts	639.47		
		03/27/17	17-611	01-12.B513	CHP Parts	10800.00		
		03/28/17	17-617	01-12.B513	CHP Parts - Freight Chrg	521.08		
		03/30/17	17-620	01-12.B513	CHP Parts	553.50	14774.48	059584
TERRACE SUPPLY COMPANY	T000250	03/31/17	00974595	01-12.B116	Cylinder Rental	54.22		
		03/16/17	70341986	01-12.B513	Mulitple Gas Cylinders	114.85		
		03/20/17	70342392	01-12.B513	Nitrogen Cylinder	106.65		
		03/21/17	70342581	01-12.B116	Propane	66.15		
		03/29/17	70343710	01-12.B116	Multiple Gas Cylinders	173.57		
		03/31/17	70344167	01-12.B513	Nitrogen Cylinder	17.00		
		04/06/17	70345124	01-12.B116	Propane Cylinder	44.20	576.64	059585
THOMAS C. WILSON, LLC	T000282	03/22/17	091130	01-12.B512	Boiler Cleaning Kit	4971.47	4971.47	059586
PERSONAL BEST	T000340	03/14/17	605490	01-11.B137	Top Health Renewal	119.75	119.75	059587
TRIO VISION, LLC	T000580	03/21/17	V026407	01-14.B117	TV Truck Software Train	850.00	850.00	059588
UNISON SOLUTIONS, INC.	U000192	03/15/17	2017-5538	01-12.B404	Gas Cleaning Media	38025.00		
		03/20/17	2017-5548	01-12.B513	Vessel Gaskets	222.00	38247.00	059589
UNITED PARCEL SERVICE	U000300	03/18/17	3Y0091117	01-13.B123	Lab Sample Shipped	26.13		
		04/01/17	3Y0091137	01-14.B115	Flow Meters Shipped	96.78		
		04/08/17	3Y0091147	01-13.B123	Overnight Sample Shipping	23.19	146.10	059590
UNO CONSTRUCTION CO., INC.	U000450	03/08/17	0307-17	01-12.B513	Hydrant Install Day 1	5480.00		
		03/08/17	0308-17	01-12.B513	Hydrant Install Day 2	5480.00		
		04/07/17	0408-16	01-11.B118	Electric Line-Admin Cntr	3472.50		
		03/31/17	Payment 9	01-14.B910	BSSRP	33591.09	48023.59	059591
VWR INTERNATIONAL INC.	V000030	03/15/17	8047929597	01-13.B114	Lab Chemicals	454.20		
		03/15/17	8047929597	01-13.B116	Lab Supplies	562.22		
		03/15/17	8047938214	01-13.B116	Lab Supplies	286.73		
		03/16/17	8047954154	01-13.B114	Lab Chemicals	231.91	1535.06	059592
VERIZON WIRELESS	V000135	03/28/17	9782975867	01-11.B112	Admin Service	163.17		
		03/28/17	9782975867	01-12.B112	Plant Service - RS Upgrd	951.39		
		03/28/17	9782975867	01-14.B112	Sewer Sys Service	488.73		
		03/28/17	9782975867	01-15.B112	LS Service	265.41		
		04/01/17	9783059209	01-12.B112	Plant Tablet Service	40.08		
		04/01/17	9783059209	01-14.B112	Sewer Sys Tablet Service	217.31		
		04/01/17	9783059209	01-15.B112	LS Tablet Service	10.02	2136.11	059593
WAGNER COMMUNICATIONS, INC	W000070	04/01/17	170400087	01-11.B112	Answering Service Fees	246.53	246.53	059594
WESTFAX	W000350	03/31/17	1294841	01-11.B112	EFax Service	8.99	8.99	059595
VILLAGE OF WESTMONT	W000450	04/04/17	79418	01-11.B121	Meter Reads	370.01	370.01	059596

VENDOR		INVOICE						
NAME	NUMBER	DATE	NUMBER	G/L NUMBER	EXPENSE DESCRIPTION	EXPENSE	CHECK AMT	CHECK NO
WILKENS-ANDERSON	W000600	01/09/17	S1167567.001	01-13.B116	Lab Supplies	837.70	837.70	059597
YRC FREIGHT	Y000200	03/24/17	546-538706-8	01-12.B513	CHP 1 Parts Shipping	295.05	295.05	059598
						452419.79	452419.79	

Downers Grove Sanitary District

01 GENERAL FUND MANUAL CHECK REGISTER FOR 04/18/17

Date: 04/13/17
Time: 3:32pm

VENDOR		INVOICE						
NAME	NUMBER	DATE	NUMBER	G/L NUMBER	EXPENSE DESCRIPTION	EXPENSE	CHECK AMT	CHECK NO
INVOICE CLOUD	I000750	03/07/17	607-2017-2	01-11.B121	Service Fees	228.60	228.60	020001
INVOICE CLOUD	I000750	04/07/17	607-2017-3	01-11.B121	Service Fees	180.30	180.30	020002
VANTAGEPOINT TRANSFER AGENTS-45	V000120	03/31/17	PR 03-25-17	01-00.2020	Def Comp	161.41	161.41	030001
VANTAGEPOINT TRANSFER AGENTS-45	V000120	04/04/17	SPR 03-31-17	01-00.2020	Def Comp	1335.00	1335.00	030002
DUPAGE CREDIT UNION	D000650	03/31/17	PR 03-25-17	01-00.2013	Empl Authorized W/Holding	1621.31	1621.31	055551
DUPAGE CREDIT UNION	D000650	04/04/17	SPR 03-31-17	01-00.2013	Empl Authorized W/Holding	750.00	750.00	055552
CALLONE	C000073	03/27/17	1139811	01-11.B112	Admin Phone Service	1017.26		
		03/27/17	1139811	01-12.B112	Plant Phone Service	362.62	1379.88	059487
HEALTH CARE SERVICE CORP.	H000190	03/27/17	165585	01-17.E455	Health Insurance Apr	36875.40	36875.40	059488
STATE DISBURSEMENT UNIT	S000650	03/31/17	PR 03-25-17	01-00.2012	Wage Deduction	627.23	627.23	059490
JOSEPH & DEBRA O'CONNOR	O000010	03/27/17	Reimburse	01-14.B129	Backup Reimburse	5000.00	5000.00	059491
U.S. POSTAL SERVICE	U000130	03/27/17	Meter Refill	01-11.B119	Postage Meter Refill	1000.00	1000.00	066661
ILLINOIS DEPARTMENT OF REVENUE	I000240	04/03/17	PR 03-25-17	01-00.2001	State Tax	2469.64	2469.64	077771
ILLINOIS DEPARTMENT OF REVENUE	I000240	04/06/17	SPR 03-31-17	01-00.2001	State Tax	968.02	968.02	077772
ILLINOIS MUNICIPAL	I000300	04/07/17	Pension	01-00.2003	Empl Pension Deposit	11792.89		
		04/07/17	Pension	01-00.2014	Vol Pension Deposit	5080.27		
		04/07/17	Pension	01-17.E460	Emplr Pension Deposit	30844.80	47717.96	088881
CHASE	B000050	04/03/17	PR 03-25-17	01-00.2000	Fed Tax	9542.52		
		04/03/17	PR 03-25-17	01-00.2002	Empl Soc Sec Tax	5232.42		
		04/03/17	PR 03-25-17	01-17.E461	Emplr Soc Sec Tax	5232.38	20007.32	099991
CHASE	B000050	04/06/17	SPR 03-31-17	01-00.2000	Fed Tax	3210.77		
		04/06/17	SPR 03-31-17	01-00.2002	Empl Soc Sec Tax	2254.59		
		04/06/17	SPR 03-31-17	01-17.E461	Emplr Soc Sec Tax	2254.59	7719.95	099992
						128042.02	128042.02	

Voided Checks - 59485, 59486, and 59489

VENDOR		INVOICE						
NAME	NUMBER	DATE	NUMBER	G/L NUMBER	EXPENSE DESCRIPTION	EXPENSE	CHECK AMT	CHECK NO
BAXTER & WOODMAN, INC.	B000120	03/23/17	0191427	02-36.0502	Lib Pk LS Upgrade Design	10099.37		
		03/23/17	0191435	02-74.0501	2017 Unsewered Area Plan	2832.50	12931.87	059599
IL ENV PROTECTION AGENCY	I000260	03/15/17	12	02-30.0515	ARRA Loan Payment	46595.52	46595.52	059600
						59527.39	59527.39	

VENDOR		INVOICE						
NAME	NUMBER	DATE	NUMBER	G/L NUMBER	EXPENSE DESCRIPTION	EXPENSE	CHECK AMT	CHECK NO
BAXTER & WOODMAN, INC.	B000120	03/23/17	0191428	03-35.0504	Phase 2 CHP	15926.98		
		03/23/17	0191433	03-33.0506	Dig 1 Mixing Proj	9383.15		
		03/23/17	0191434	03-37.0502	Grease Receiving 2 Design	8786.25		
		03/30/17	0191699	03-33.0506	Dig 1 Mixing Proj	1724.26	35820.64	059601
DAHME MECHANICAL INDUSTRIES	D000030	04/06/17	20170098	03-39.0506	Grit Blower Replacement	5376.25	5376.25	059602
IL ENV PROTECTION AGENCY	I000260	03/15/17	12-	03-30.0515	ARRA Loan Payment	14403.64	14403.64	059603
JOSEPH J. HENDERSON & SON, INC	J000200	03/24/17	14688	03-35.0506	Phase 2 CHP	175972.53	175972.53	059604
LAI, LTD	L000012	04/05/17	17-14565	03-39.0506	Grit Blower Replacement	17300.00	17300.00	059605
LANDIA, INC.	L000020	03/31/17	11248	03-33.0506	Retainage Payment	2531.50	2531.50	059606
						251404.56	251404.56	

DATE _____

REVIEWED _____

TRUSTEE APPROVAL _____

PRESIDENT

_____

CLERK

Downers Grove Sanitary District

ACCOUNTS PAYABLE GENERAL LEDGER RECAP FOR 04/18/17

Date: 04/13/17
Time: 3:32pm

G/L NUMBER	COST ACCTG DESCRIPTION	DEBIT	CREDIT
01-00.1000	CASH		580461.81-
01-00.1001	CASH - PAYROLL ACCOUNT	62768.98	
01-00.2000	FEDERAL TAX WITHHELD	12753.29	
01-00.2001	STATE TAX WITHHELD	3437.66	
01-00.2002	SOCIAL SECURITY WITHHELD	7487.01	
01-00.2003	IMRF WITHHELD	11792.89	
01-00.2012	WAGE DEDUCTION ORDER	627.23	
01-00.2013	CREDIT UNION WITHHELD	2371.31	
01-00.2014	VOLUNTARY ADDITIONAL PENSION CONTRIBUTION	5080.27	
01-00.2017	VOLUNTARY GROUP LIFE	288.00	
01-00.2020	DEFERRED COMPENSATION WITHHELD	1496.41	
01-05.3001	USER RECEIPTS	1770.19	
01-11.B100	ELECTRICITY	246.09	
01-11.B101	NATURAL GAS	131.43	
01-11.B110	BANK CHARGES	25.80	
01-11.B112	COMMUNICATION	1585.80	
01-11.B115	EQUIPMENT/EQUIPMENT REPAIR	8102.89	
01-11.B116	SUPPLIES	224.70	
01-11.B117	EMPLOYEE/DUTY COSTS	1016.37	
01-11.B118	BUILDING & GROUNDS	3944.05	
01-11.B119	POSTAGE	1006.33	
01-11.B121	USER BILLING MATERIALS	5073.97	
01-11.B124	CONTRACT SERVICES	10598.20	
01-11.B137	MEMBERSHIPS/SUBSCRIPTIONS	119.75	
01-11.C222	GAS/FUEL	10.00	
01-12.B100	ELECTRICITY	18926.78	
01-12.B101	NATURAL GAS	769.45	
01-12.B102	WATER, GARBAGE AND OTHER UTILITIES	2648.74	
01-12.B103	ODOR CONTROL	1124.00	
01-12.B112	COMMUNICATION	1354.09	
01-12.B113	EMERGENCY/SAFETY EQUIPMENT	591.67	
01-12.B116	SUPPLIES	1670.26	
01-12.B117	EMPLOYEE/DUTY COSTS	1141.12	
01-12.B401	CHEMICALS - DISINFECTION	2778.53	
01-12.B402	CHEMICALS - SLUDGE DEWATERING	3780.00	
01-12.B404	CHEMICALS - OTHER	38025.00	
01-12.B501	EQPT/EQPT REPAIR - BIOSOLIDS AGING & DISPOSAL	5475.56	
01-12.B502	EQPT/EQPT REPAIR - DISINFECTION	7294.91	
01-12.B503	EQPT/EQPT REPAIR - EXCESS FLOW	167.01	
01-12.B504	EQPT/EQPT REPAIR - GRIT REMOVAL	3798.83	
01-12.B505	EQPT/EQPT REPAIR - INFLUENT PUMPING	132.00	
01-12.B507	EQPT/EQPT REPAIR - SECONDARY TREATMENT	1704.63	
01-12.B509	EQPT/EQPT REPAIR - SLUDGE DEWATERING	898.70	
01-12.B510	EQPT/EQPT REPAIR - SLUDGE DIGESTION	658.06	
01-12.B512	EQPT/EQPT REPAIR - WWTC GENERAL	7539.27	
01-12.B513	EQPT/EQPT REPAIR - WWTC UTILITIES	56590.38	
01-12.B805	BLDG & GROUNDS - INFLUENT PUMPING	4450.84	
01-12.B807	BLDG & GROUNDS - SECONDARY TREATMENT	446.25	
01-12.B810	BLDG & GROUNDS - SLUDGE DIGESTION	1584.82	
01-12.B812	BLDG & GROUNDS - WWTC GENERAL	18180.97	
01-13.B114	CHEMICALS	2500.65	

Downers Grove Sanitary District

ACCOUNTS PAYABLE GENERAL LEDGER RECAP FOR 04/18/17

Date: 04/13/17
Time: 3:32pm

G/L NUMBER	COST ACCTG DESCRIPTION	DEBIT	CREDIT
01-13.B115	EQUIPMENT/EQUIPMENT REPAIR	339.78	
01-13.B116	SUPPLIES	1716.73	
01-13.B117	EMPLOYEE/DUTY COSTS	135.00	
01-13.B122	MONITORING EQUIPMENT	286.45	
01-13.B123	OUTSIDE LAB SERVICES	3683.56	
01-14.B112	COMMUNICATION	706.04	
01-14.B115	EQUIPMENT/EQUIPMENT REPAIR	6036.11	
01-14.B116	SUPPLIES	685.52	
01-14.B117	EMPLOYEE/DUTY COSTS	1443.02	
01-14.B124	CONTRACT SERVICES	389.10	
01-14.B127	JULIE SYSTEM	4488.81	
01-14.B129	REIMBURSEMENT PROGRAM/PUBLIC SEWER BLOCKAGES	5000.00	
01-14.B901	SEWER SYSTEM REPAIRS - I/I PROGRAM	1077.50	
01-14.B910	SEWER SYSTEM REPAIRS - BSSRAP PROGRAM	38063.34	
01-14.B929	ARRA LOAN PRINCIPAL REPAYMENT	90795.59	
01-14.C225	OPERATION/REPAIR	108.95	
01-15.B100	ELECTRICITY	9144.40	
01-15.B112	COMMUNICATION	326.60	
01-15.B529	EQUIP/EQUIP REPAIR - LIFT STATIONS GENERAL	82.50	
01-15.B824	BUILDING/GROUNDS - HOBSON	2051.25	
01-17.E452	LIABILITY/PROPERTY	9070.00	
01-17.E455	EMPLOYEE GROUP HEALTH	40308.65	
01-17.E460	IMRF	30844.80	
01-17.E461	SOCIAL SECURITY	7486.97	
02-00.1000	CASH		59527.39-
02-30.0515	PAYMENT ON LOAN PRINCIPAL	46595.52	
02-36.0502	DESIGN ENGINEERING/ARCHITECTURAL	10099.37	
02-74.0501	REPORT ENGINEERING/ARCHITECTURAL	2832.50	
03-00.1000	CASH		251404.56-
03-30.0515	PAYMENT ON LOAN PRINCIPAL	14403.64	
03-33.0506	CONSTRUCTION CONTRACTS/PURCHASES	13638.91	
03-35.0504	CONSTRUCTION ADMIN/RESIDENT ENG/ARCH. SUPER.	15926.98	
03-35.0506	CONSTRUCTION CONTRACTS/PURCHASES	175972.53	
03-37.0502	DESIGN ENGINEERING/ARCHITECTURAL	8786.25	
03-39.0506	CONSTRUCTION CONTRACTS/PURCHASES	22676.25	
		891393.76	891393.76-

Vendor	Invoice Date	Amount	Coding	Coding Description	Purchase Location	Emp.	Procurement	Project Name (If applicable)	Item Description
Grainger	03/15/17	$446.25	01-12.B807	BLDG & GROUNDS - SECONDARY TREATMENT	Delivered	JM		East Blower Building	Sewage Pump
Grainger	03/16/17	$262.88	01-12.B812	BLDG & GROUNDS - WWTC GENERAL	Delivered	NW		Lighting Upgrade	Ballast
Grainger	03/16/17	$9.09	01-12.B512	EQPT/EQPT REPAIR - WWTC GENERAL	Delivered	JPB		Maintenance Repair Supplies	Hardware & Plumbing Supplies
Grainger	03/14/17	$489.52	01-13.B114	CHEMICALS	Delivered	DRB	shopped, circle K	Lab Supplies and Chemicals	thermometers, sample cups, various agars/broth
Grainger	03/17/17	$40.80	01-12.B812	BLDG & GROUNDS - WWTC GENERAL	Delivered	MR		2016 Lighting Upgrades	Electrical Supplies
Grainger	03/21/17	$37.95	01-12.B116	WWTC SUPPLIES	Delivered	CP		Painting Supplies	Mini Rollers (3) 10 Packs
Grainger	03/20/17	$249.92	01-12.B512	EQPT/EQPT REPAIR - WWTC GENERAL	Delivered	CP	Same Invoice	Maintenance Repair Supplies	Metal Fabricating Supplies - Grinding, Cutting Disks, Saw Blades Etc.
Grainger	03/22/17	$102.60	01-12.B512	EQPT/EQPT REPAIR - WWTC GENERAL	Delivered	CP	Same Invoice	Maintenance Repair Supplies	Metal Fabricating Supplies - Grinding, Cutting Disks, Saw Blades Etc.
Grainger	03/21/17	$82.50	01-12.B512	EQPT/EQPT REPAIR - WWTC GENERAL	Delivered	CP	Same Invoice	Maintenance Repair Supplies	Metal Fabricating Supplies - Grinding, Cutting Disks, Saw Blades Etc.
Grainger	03/21/17	$40.20	01-12.B512	EQPT/EQPT REPAIR - WWTC GENERAL	Delivered	CP	Same Invoice	Maintenance Repair Supplies	Metal Fabricating Supplies - Grinding, Cutting Disks, Saw Blades Etc.
Grainger	03/22/17	$6.00	01-11.B116	ADMIN SUPPLIES	Delivered	JPB		Admin Supplies	Batteries
Grainger	03/24/17	$143.98	01-12.B502	EQPT/EQPT REPAIR - DISINFECTION	Delivered	CP		Chlorine Contact Tank Railing/Decking replacement	Torch Cutting Tips
Grainger	03/28/17	$25.20	01-12.B513	EQPT/EQPT REPAIR - WWTC UTILITIES	Delivered	MR		CHP Heat Recovery System	Electrical Supplies
Grainger	03/29/17	$29.03	01-12.B513	EQPT/EQPT REPAIR - WWTC UTILITIES	Delivered	NW		CHP Overhaul	Tire Pressure Gauge for Coolant System
Grainger	03/30/17	$1,389.74	01-12.B512	EQPT/EQPT REPAIR - WWTC GENERAL	Delivered	JPB	Same Invoice	Maintenance Repair Supplies	**********Hardware & Plumbing Supplies ********** Our new
Grainger	04/07/17	$7.12	01-12.B512	EQPT/EQPT REPAIR - WWTC GENERAL	Delivered	JPB	Same Invoice	Maintenance Repair Supplies	Hardware & Plumbing Supplies
Grainger	04/13/17	-$668.71	01-12.B512	EQPT/EQPT REPAIR - WWTC GENERAL	Delivered	JPB		Maintenance Repair Supplies	**********Hardware & Plumbing Supplies ********** Items
Home Depot	04/03/17	$45.38	01-12.B812	BLDG & GROUNDS - WWTC GENERAL	In-Store	MR		2016 Lighting Upgrades	Electrical Supplies
Home Depot	03/22/17	$76.54	01-12.B116	WWTC SUPPLIES	In-Store	JM		Operations Supplies	Brooms, Tool hooks, Hose adapter, Matches, Flashlights for Blanket finder
Home Depot	03/22/17	$5.95	01-12.B116	WWTC SUPPLIES	In-Store	JM		Operations Supplies	Dual Thread for Hose
Home Depot	03/22/17	-$4.79	01-12.B116	WWTC SUPPLIES	In-Store	JM		Operations Supplies	Returned hose adapter (originally purchased on 3/22 - $76.54 receipt)
Home Depot	03/23/17	$83.84	01-14.B116	SEWER SYSTEM SUPPLIES	In-Store	TF		Flow-Meters	6 Volt Batteries
Home Depot	04/10/17	$40.50	01-13.B115	EQUIPMENT/EQUIPMENT REPAIR	In-Store	BS		Lab Remodeling	Plumbing & Hardware Supplies for Autoclave
Home Depot	03/31/17	$36.00	01-12.B812	BLDG & GROUNDS - WWTC GENERAL	In-Store	BS		MSB Welding/Fabrication Room	Concrete
Home Depot	03/31/17	$26.97	01-14.B116	SEWER SYSTEM SUPPLIES	In-Store	CI		Garage Supplies	laundry soap
Home Depot	04/10/17	-$86.98	01-12.B812	BLDG & GROUNDS - WWTC GENERAL	In-Store	BS		2016 Tunnel Painting Project	Pipe Insulation (Returned)
Home Depot	03/20/17	$19.40	01-12.B812	BLDG & GROUNDS - WWTC GENERAL	In-Store	RS		2016 Lighting Upgrades	Electrical Supplies
Home Depot	03/30/17	$37.84	01-12.B116	WWTC SUPPLIES	In-Store	FF		Supplies	Spare Parts - Containers
Home Depot	03/20/17	$75.21	01-12.B513	EQPT/EQPT REPAIR - WWTC UTILITIES	In-Store	CP		CHP 20,000 Hour Overhaul	Storage Totes for Engine Parts
Home Depot	03/20/17	$5.97	01-14.B116	SEWER SYSTEM SUPPLIES	In-Store	AH		TV Truck	Carabiners
Home Depot	03/20/17	-$52.60	01-12.B810	BLDG & GROUNDS - SLUDGE DIGESTION	In-Store	CP		Digester 1&2 Control Building Plumbing	Pipe Insulation and Misc. Plumbing Supplies (Returned)
Home Depot	04/07/17	$53.96	01-12.B116	WWTC SUPPLIES	In-Store	JM	Same Trip/Receipt	Supplies	(2) Aluminum 2 Step Ladders
Home Depot	04/07/17	$37.32	01-12.B812	BLDG & GROUNDS - WWTC GENERAL	In-Store	JM	Same Trip/Receipt	MSB Welding/Fabrication Room	Lumber & Hardware
Home Depot	04/07/17	$72.58	01-13.B115	EQUIPMENT/EQUIPMENT REPAIR	In-Store	BS		Lab Remodeling	Plumbing & Hardware Supplies for Autoclave
Home Depot	04/06/17	$226.70	01-13.B115	EQUIPMENT/EQUIPMENT REPAIR	In-Store	CP		Lab Remodeling	Plumbing & Hardware Supplies for Autoclave
Home Depot	03/17/17	$49.47	01-12.B116	WWTC SUPPLIES	In-Store	FF	Same Trip/Receipt		Propane Torch
Home Depot	03/17/17	$63.09	01-12.B513	EQPT/EQPT REPAIR - WWTC UTILITIES	In-Store	FF	Same Trip/Receipt	Gas Cleaning Media Replacement	Fittings, Couplers, Plugs, Rubber air Hose
Home Depot	04/06/17	$14.54	01-14.B910	SEWER SYSTEM REPAIRS - BSSRAP PROGRAM	In-Store	ES		5714 Fairmount Avenue	4X3" Fittings, Glue
Home Depot	03/15/17	$192.83	01-12.B810	BLDG & GROUNDS - SLUDGE DIGESTION	In-Store	CP		Digester 1&2 Control Building Plumbing	Pipe Insulation and Misc. Plumbing Supplies
Home Depot	04/04/17	$123.24	01-12.B812	BLDG & GROUNDS - WWTC GENERAL	In-Store	CP		MSB Welding/Fabrication Room	OSB Plywood & Paint
Home Depot	04/04/17	$130.65	01-12.B812	BLDG & GROUNDS - WWTC GENERAL	In-Store	AC		MSB Welding/Fabrication Room	Concrete, Lumber, Saw Blade, Broom Handles

Date: 4/13/17 **Petty Cash Reimbursement** **P - 350**

Due Date: 04/18/17

Invoice #: Cash Box

Date	Purchased From	Reimbursed To	Description	Code	Amount
3/23/2017	Caribbean Corner		Sups Lunch	11.B117	70.37
3/24/2017	DG Post Office		Postage	11.B119	0.58
3/27/2017	Target	Reese Berry	Lab Supplies	13.B116	1.08
4/4/2017	Fosters Truck		Safety Lane Truck 353	14.C225	30.00
4/4/2017	DG Post Office		Postage	11.B119	1.16
4/5/2017	DG Post Office		Postage	11.B119	2.85
4/5/2017	DG Post Office		Postage	11.B119	0.58
4/7/2017	Fosters Truck		Safety Lane Truck 311	14.C225	44.50
4/7/2017	DG Post Office		Postage	11.B119	1.16
				Total Receipts	152.28

Expense by code

11.B117	70.37
11.B119	6.33
13.B116	1.08
14.C225	74.50
Total	152.28

DOWNERS GROVE SANITARY DISTRICT

M E M O

TO: Nicholas J. Menninga
General Manager

FROM: W. Clay Campbell
Administrative Services Director

DATE: April 13, 2017

RE: Employee Group Insurance Renewals

The purpose of this Memo is to review the District's employee group insurance benefits plan and provide a recommendation for the June 1, 2017 renewal. This past year, the District staff chose again to calculate and set a composite (standard) rate for each class of coverage rather than passing on to each employee the medical carrier's age-rated premiums that are billed to the District. This ultimately means that for a particular plan, each associated premium for any given tier of coverage is fixed regardless of the covered individuals' ages.

Three years ago we began collecting contributions from employees to help control the cost of coverage paid by the District, and to continue aligning ourselves with industry norms. The District began requiring premium contributions in June 2014 for those employees and eligible dependents that elected to take the PPO plan offered through Humana and in June 2015 we began requiring premium contributions for those employees and eligible dependents that elected to take either the PPO plan or a richer HMO plan offered through BlueCross BlueShield of Illinois (BCBSIL). This past year we offered four different plans (two HMO-styled plans and two PPO-styled plans).

To assist in analyzing the renewal and to provide a historical perspective, we prepared the attached History of Premiums and Benefits, along with a recommended benefit offering to employees for coverage for the next year (Options 1, 2, 3 & 4 as a package). The current employee census is applied to all plans on the sheet (including historical plans). The actual historical amounts paid varied with changes in our employee demographics. We again utilized the services of a consultant, GCG Financial, for this renewal, who has consulted on previous annual renewals since 2003.

History

A chronological summary of recent renewals is as follows:

2014 The District renewed its medical coverage with Humana with the rollout of two different plans for employees to choose from (a PPO option requiring employee premium contribution and HMO option at no cost to the employee), renewed the dental coverage with Humana CompBenefits and continued the vision coverage with EyeMed Vision Care for an overall percent change in health insurance (medical, dental and vision) premiums from the prior year at 7.26% after employee premium contributions were applied. After Humana Vitality premium reductions were applied, the final overall percent change shifted to 3.16%.

2015 The District switched its medical coverage from Humana to BCBSIL with the rollout of three different plans for employees to choose from (a PPO option requiring employee premium contribution, an HMO option at no cost to the employee, and a richer HMO requiring employee premium contribution), renewed the dental coverage with Humana CompBenefits and continued the vision coverage with EyeMed Vision Care for an overall percent change in health insurance (medical, dental and vision) premiums from the prior year at 2.13% after employee premium contributions were applied.

2016 The District maintained its medical coverage with BCBSIL and offered a total of four different plans for employees to choose from (an HMO option at no cost to the employee, a richer HMO requiring employee premium contribution, a PPO option with a narrower provider network offering requiring employee premium contribution, and a rich hybrid PPO option requiring employee premium contribution), renewed the dental coverage with Humana CompBenefits and continued the vision coverage with EyeMed Vision Care for an overall percent change in health insurance (medical, dental and vision) premiums from the prior year at -1.09% after employee premium contributions were applied.

Dental and Vision Coverage

For dental coverage, Humana CompBenefits provided an initial renewal increase of 2.90%. The District has been able to consistently maintain its dental coverage through Humana CompBenefits since 2013 with no rate increases or plan design changes at the board approval stage due to work by staff and our broker to consistently request rate relief and provide competing quotes from alternative carriers. For this renewal, the District received additional competitive quotes from Principal Insurance (typically a life and disability insurance carrier) and Unum Insurance (a new entry to the dental insurance market – also typically a life and disability insurance carrier). Staff asked our broker to inquire as to other covered groups' experience with Principal as a dental carrier and with Unum in general as a life/disability carrier. Overall, both Principal and Unum were characterized as good carriers when it comes to life and disability coverage, but Principal's claims administration feedback was mixed and Unum represents an unknown since they have only been in the dental market for less than a year. Principal also has a consistent practice in the insurance market of raising premiums sometimes as high as 10-15% in the subsequent year after gaining a new group's business (we are currently seeing a 4.3% proposed increase on the life insurance renewal after a two-year rate guarantee expired – the life insurance market tends to be typically flat).

The District's broker communicated to Humana CompBenefits that the District was aggressively shopping the dental coverage and Humana CompBenefits was provided with the quotes from competing carriers that would result in some decrease in premium costs but would require the group to potentially switch treatment providers. In response, Humana CompBenefits yet again approved a 0.0% increase in rates for dental coverage for the upcoming renewal. After consideration of some of the proposed drawbacks encountered with Principal and the unproven experience with Unum as a dental carrier, staff and the District's broker are both recommending a renewal with Humana CompBenefits with a 0.00% increase in rates for dental coverage.

For vision coverage, the District will be starting year 2 of a 4-year rate guarantee and thus requires no action.

Medical renewal with Alternate Carriers

This year, staff obtained information for medical renewals from the current provider, BCBSIL, and from competing carriers Aetna, Humana and UnitedHealthCare (UHC). On a straight renewal basis (minor changes were made to plan design or benefit levels by the carrier) and without considering employee premium contributions or setting composite rates at all, BCBSIL came in at a 5.5% increase over existing rates, Aetna with a 42% increase over existing rates, Humana with a 53% increase over existing rates and UHC with a 27% increase over existing rates. As a result of these rates, Aetna, Humana and UHC were immediately thrown out as considerations.

2017 Renewal Options

We have developed four plan options that are under the amount budgeted for group health insurance for fiscal year 2017-18. Our broker has informed us that we can offer all four medical options to our group with no minimum participation required for any one particular plan. The current less rich HMO plan (Option 1 in the current plan year) offered by the District to its employees had no participation this year – which is likely due to its $1,000 copay per day for inpatient hospital stays and high out-of-pocket maximum limits. As a result of the lack of interest in this one plan, staff investigated a potentially viable replacement in its place and is proposing the following four options be offered to employees this year:

1) Option 1 in the History table – Switch to a new HMO-styled plan offering through BCBSIL that is practically identical to the rich BCBSIL HMO plan offered below as Option 2 (which does not have the $1,000 copay per day for impatient hospital stays up to the maximum out-of-pocket amount), but instead offers a limited provider network as follows - the plan requires participants to utilize only Advocate providers as the "network." This could be an attractive plan for those employees and covered dependents that are very local and would be likely to utilize providers only associated with/or located at Advocate Good Samaritan Hospital in Downers Grove. This plan option continues to offer significant value to employees that need coverage, are likely to utilize only Advocate medical providers, or may plan on minimal utilization of the plan.

This plan would **not** require employees to share the premiums with the District. Staff felt that it continued to be important to offer a no-cost option for the employees. The premium is low enough that if all employees took this coverage, the District would pay less in premiums than the current year.

2) Option 2 in the History table – Renewal of existing coverage with continuing to offer the same very rich HMO styled plan through BCBSIL with a deductible of $0, even lower co-pays and lower out-of-pocket maximums. This plan **would** require employees to share the premiums with the District, at rates lower than last year for essentially the same plan design to correct for market pricing changes by BCBSIL.

3) Option 3 in the History table - Renewal of existing coverage with offering the same narrower PPO-styled plan through BCBSIL that would offer reasonable benefits on a smaller network. BCBSIL has slightly increased the family deductible and out-of-pocket limits (by $300) on this plan, but more noticeably has aligned the prescription drug copays in line with the HMO plans (a benefit reduction). Although the network is thinner than the full PPO network from BCBSIL, it is still robust enough to cover many providers in the area and offers better out-of-network benefits

than the other hybrid PPO plan in the event the covered individuals want to see a provider outside of the Blue Choice network. In receiving this year's renewal numbers, it was identified that this specific plan's premiums increased 8% with slight changes to plan design. As a result, staff determined that an increase in premium contributions for this plan was appropriate. This plan **would** require employees to share the premiums with the District, at rates higher than last year for essentially the same plan design to correct for market pricing changes by BCBSIL.

4) Option 4 in the History table - Renewal of existing coverage continuing to offer the hybrid PPO-styled plan through BCBSIL. This PPO plan does offer its participants the flexibility to utilize two different PPO networks – a thinner network with better co-pays, deductibles and out-of-pocket maximums and the full PPO network with high co-pays, deductibles and out-of-pocket maximums. This enables the employee to have some say in their costs in using this coverage while still providing the flexibility of the full BCBSIL PPO network. BCBSIL did increase the individual deductible/out-of-pocket limits for the thinner network by $200 which filters through to the family deductible/out-of-pocket limits as well. This plan **would** require employees share the premiums with the District, at rates identical to the current year's contribution rates.

Even with some changes to the benefit levels under this plan, it continues to offer significantly better benefits and a broader network than the other plan options.

Life Insurance Coverage

Staff received renewal rates from Principal Life Insurance for the District's life insurance coverage with a proposed increase of 4.3% for the same coverage. GCG Financial was able to shop this benefit coverage with Kansas City Life/NIS - a carrier that only quotes public sector business and has a good reputation with its life and disability products. Kansas City Life/NIS quoted a decrease in premiums of 0.9% compared to current rates and offered a three-year rate guarantee. Additional information about Kansas City Life/NIS can be found attached. Staff's recommendation is to switch the life insurance coverage from Principal Life Insurance to Kansas City Life/NIS considering the rates offered with a three-year rate guarantee.

Employee Premium Contributions

Below is a table highlighting the recommended employee premium contribution requirements for those employees that select Options 2 (richer HMO), 3 (narrower Blue Choice PPO) or 4 (richer hybrid PPO). Please note that these amounts are approximations at this time and staff may need to adjust these amounts prior to the first payroll for ease of administration and equity.

Also, please note that employees will be able to utilize the District's existing Flexible Savings Account to have their premium contributions deducted from their paychecks on a pre-tax basis.

OPTION 2 (Higher HMO)	Annual Employee Contribution	Per Paycheck for Hrly	Per Paycheck for Sups
Employee Only	$104.00	$4.00	$4.33
Employee Plus Spouse	$416.00	$16.00	$17.33
Employee Plus Children	$364.00	$14.00	$15.17
Family	$520.00	$20.00	$21.67

OPTION 3 (Blue Choice PPO)	Annual Emp. Contribution	Per Paycheck for Hrly	Per Paycheck for Sups
Employee Only	$208.00	$8.00	$8.67
Employee Plus Spouse	$832.00	$32.00	$34.67
Employee Plus Children	$728.00	$28.00	$30.33
Family	$1,040.00	$40.00	$43.33

OPTION 4 (Hybrid PPO)	Annual Employee Contribution	Per Paycheck for Hrly	Per Paycheck for Sups
Employee Only	$312.00	$12.00	$13.00
Employee Plus Spouse	$1,248.00	$48.00	$52.00
Employee Plus Children	$1,092.00	$42.00	$45.50
Family	$1,560.00	$60.00	$65.00

Recommendations for Renewal

For the June 1, 2017 renewal, I am recommending that the District offer the four options listed above in this memo dated April 13, 2017 for medical insurance coverage with BlueCross BlueShield of Illinois, renew the dental coverage with Humana CompBenefits and switch the life insurance coverage to Kansas City Life/NIS with an overall percent change of -3.59% in health insurance (medical, dental and vision) and life insurance premiums from the prior year. This percent change is calculated by comparing estimated premiums using the composite rates from one year to the next – when compared to the actual age-rated billed rates from BCBSIL, the overall expense may vary slightly considering the composition of the District's group being insured. The proportional change from one plan year to the next is still a largely accurate representation of the overall trend in increases and decreases.

By staff continuing to set composite rates and provide flexible plan offerings to our group, we are able to offset any anticipated overall medical increase that would normally occur with no changes. This number will vary depending upon plan selection by the employees, but staff has determined that the range of consequences for employees utilizing these specific plans using set rates is a range of costs where the highest decrease would cap out at -5.75% (all of the employees and eligible dependents take the new Advocate only HMO plan) and the highest increase would cap out at 1.75% (all of the employees and eligible dependents take the richer HMO plan – while it is less rich than the rich PPO plan, the cost to the District is potentially highest due to the reduced premium contributions for that plan option this coming year). All other possible enrollment scenarios fall within that window. Overall, the striking of composite rates and these related calculations have been made conservatively with an intent of tracking closely to the traditionally

budgeted 6% increase in these costs. Staff feels that this recommendation provides very slight shifts in the District's cost to provide this comprehensive benefit and continues to assist employees in making the transition to required premium contributions across 3 out of the 4 plan offerings.

As indicated in the attached History of Premiums and Benefits, by changing carriers and/or plan designs in each of the last six years, the annual average percentage premium increase for the employee group insurance benefit is 3.754%.

If you concur with this recommendation, this item will be placed on the agenda for the April 18 regular Board meeting.

Attachment

cc: WDVB, ASK, PWC, KJR, RTJ, MJS, MGP

DOWNERS GROVE SANITARY DISTRICT
HISTORY OF PREMIUMS AND BENEFITS

USING CURRENT EMPLOYEE CENSUS

APRIL 13, 2017

PREMIUMS

PROPOSED BENEFIT OFFERING
(06/01/17-05/31/18)

							EMPLOYEE OPTION 4		EMPLOYEE OPTION 3		EMPLOYEE OPTION 2		EMPLOYEE OPTION 1	
							BLUE CROSS BLUE SHIELD OF ILLINOIS		BLUE CROSS BLUE SHIELD OF ILLINOIS		BLUE CROSS BLUE SHIELD OF ILLINOIS		BLUE CROSS BLUE SHIELD OF ILLINOIS	
							WITH EMPLOYEE PREMIUM CONTRIBUTION		WITH EMPLOYEE PREMIUM CONTRIBUTION		WITH EMPLOYEE PREMIUM CONTRIBUTION		WITH NO EMPLOYEE PREMIUM CONTRIBUTION	
MEDICAL	ALL	WAIVE	PPO2	PPO1	HMO2	HMO1	Hybrid PPO PLAN		Blue Choice PPO PLAN		HIGHER HMO PLAN		LOWER HMO PLAN - ADVOCATE ONLY	
MED-CLASS 1-EMPLOYEE ONLY		0	2	1	8	0	506.85	$1,013.70	495.01	$495.01	483.01	$3,864.08	434.77	$0.00
MED-CLASS 2-EEE&SPOUSE		1	1	0	5	0	1,115.07	$1,115.07	1,089.03	$0.00	1,062.62	$5,313.10	956.49	$0.00
MED-CLASS 3-EEE&CHILD(REN)		0	1	1	1	0	963.01	$963.01	940.53	$940.53	917.72	$917.72	826.06	$0.00
MED-CLASS 4-FAMILY		0	3	4	6	0	1,571.23	$4,713.69	1,534.54	$6,138.16	1,497.33	$8,983.98	1,347.78	$0.00
	34	1	7	6	20	0		$7,805.47		$7,573.70		$19,078.88		$0.00
LIFE INSURANCE							11.50	$92.00		$69.00		$230.00		$0.00
ADMIN FEE PER MONTH							0.00	$0.00	0.00	$0.00	0.00	$0.00	0.00	$0.00
MONTHLY PREMIUM								$7,897.47		$7,642.70		$19,308.88		$0.00
ANNUAL PREMIUMS								$94,769.64		$91,712.40		$231,706.56		$0.00
FSA								$0.00		$0.00		$0.00		
EMPLOYEE CONTRIBUTIONS								($7,644.00)		($5,096.00)		($6,396.00)		
NET ANNUAL PREMIUM FOR PLANS WITH CONTRIBUTIONS								$87,125.64		$86,616.40		$225,310.56		
PERCENT CHANGE - MEDICAL AND LIFE INS. ONLY							0.76%	$399,052.60						
PERCENT CHANGE AFTER PREM. CONTRIBUTIONS							-3.85%							

		EMPLOYEE OPTION 4	
		HUMANA SPECIALTY BENEFITS 1 YR CONTRACT (06/01/17-05/31/18)	
DENTAL			
DENTAL-CLASS 1-EMPLOYEE ONLY	13	32.05	$416.65
DENTAL-CLASS 2-EEE&SPOUSE	7	65.66	$459.62
DENTAL-CLASS 3-EEE&CHILD(REN)	4	67.64	$270.56
DENTAL-CLASS 4-FAMILY	10	99.18	$991.80
MONTHLY PREMIUM	34		$2,138.63
ANNUAL PREMIUMS			$25,663.56
PERCENT CHANGE-DENTAL ONLY			0.00%

		EMPLOYEE OPTION 4	
		EYEMED 4 YEAR RATE GUARANTEE (06/01/16-05/31/20)	
VISION			
VISION-CLASS 1-EMPLOYEE ONLY	13	$6.22	$80.86
VISION-CLASS 2-EEE&SPOUSE	7	$11.82	$82.74
VISION-CLASS 3-EEE&CHILD(REN)	4	$12.44	$49.76
VISION-CLASS 4-FAMILY	10	$18.29	$182.90
MONTHLY PREMIUM	34		$396.26
ANNUAL PREMIUMS			$4,755.12
PERCENT CHANGE - VISION ONLY			0.00%
PERCENT CHANGE - ALL COVERAGES			
TOTAL MONTHLY PREMIUM			$35,789.27
TOTAL ANNUAL PREMIUMS			$429,471.28
PERCENT CHANGE - ALL COVERAGES			-3.59%
VITALITY REDUCTIONS			
RESULTING PERCENT CHANGE AFTER VITALITY REDUCTIONS			
ANNUAL AVERAGE PERCENT CHANGE OVER SIX YEARS			3.754%
ANNUAL PERCENT CHANGE AND ANNUAL PREMIUMS IF NO CARRIER OR BENEFIT CHANGES HAD BEEN MADE TO OFFSET INCREASE			6.56% $474,669.00

ESTIMATED USING COMPOSITE RATES - BILLED RATES WILL DIFFER

MEDICAL BENEFITS

	EMPLOYEE OPTION 4	EMPLOYEE OPTION 3	EMPLOYEE OPTION 2	EMPLOYEE OPTION 1
	BLUE CROSS BLUE SHIELD OF ILLINOIS	BLUE CROSS BLUE SHIELD OF ILLINOIS	BLUE CROSS BLUE SHIELD OF ILLINOIS	BLUE CROSS BLUE SHIELD OF ILLINOIS
	WITH EMPLOYEE PREMIUM CONTRIBUTION	WITH EMPLOYEE PREMIUM CONTRIBUTION	WITH EMPLOYEE PREMIUM CONTRIBUTION	WITH NO EMPLOYEE PREMIUM CONTRIBUTION
MEDICAL PLAN NAME	Blue Cross Blue Shield of Illinois G501OPT Blue Options	Blue Cross Blue Shield of Illinois G511BCE Blue CHOICE PREFERRED	Blue Cross Blue Shield of Illinois P502PSN HMO Blue Precision	Blue Cross Blue Shield of Illinois **P505BCH HMO-ADVOCATE ONLY**
ANNUAL DEDUCTIBLE-IN NETWORK - INDIVIDUAL	**$700 BC/$1,500 PPO**	$1,000	$0	$0
ANNUAL DEDUCTIBLE-IN NETWORK - FAMILY MAXIMUM	**$2,100 BC/$4,500 PPO**	**$3,300**	$0	$0
ANNUAL OUT OF POCKET-IN NETWORK - INDIVIDUAL	**$4,200 BC/$6,000 PPO**	**$3,300**	$1,500	**$1,500**
ANNUAL OUT OF POCKET-IN NETWORK - FAMILY MAXIMUM	**$12,600 BC/$13,200 PPO**	**$9,900**	$1,500 X 2 = $4,500	**$1,500 X 2 = $4,500**
ANNUAL DEDUCTIBLE-OUT OF NETWORK - INDIVIDUAL	$3,000	$2,000	N/A	N/A
ANNUAL DEDUCTIBLE-OUT OF NETWORK - FAMILY MAXIMUM	$9,000	**$6,600**	N/A	N/A
ANNUAL OUT OF POCKET-OUT OF NETWORK - INDIVIDUAL	$12,000	**$6,600**	N/A	N/A
ANNUAL OUT OF POCKET-OUT OF NETWORK - FAMILY MAXIMUM	$26,400	**$19,800**	N/A	N/A
OFFICE VISIT CO-PAY (PCP / SPECIALIST)	$20/$40 BC - $50/$100 PPO	$35 pcp/$60 specialist	**$10 pcp/$45 specialist**	**$10 pcp/$45 specialist**
INPATIENT HOSPITAL PER OCCURRENCE DEDUCTIBLE/COPAY	$250 BC/$500 PPO then Ded/Coins	$200 then Ded/Coins	$150 Copay then 0%	**$150 Copay then 0%**
OUTPATIENT HOSPITAL PER OCCURRENCE DEDUCTIBLE/COPAY	$200 BC/$400 PPO then Ded/Coins	$150 then Ded/Coins	$100 Copay then 0%	**$100 Copay then 0%**
INPATIENT HOSPITAL PER OCCURRENCE DEDUCTIBLE - OUT OF NETWORK	$600 then Ded/Coins	$300 then Ded/Coins	N/A	N/A
OUTPATIENT HOSPITAL PER OCCURRENCE DEDUCTIBLE - OUT OF NETWORK	$500 then Ded/Coins	$250 then Ded/Coins	N/A	N/A
ER CO-PAY	$400 then Ded/Coins	$400 then Ded/Coins	$300 Ded then 0%	**$300 Ded then 0%**
COINSURANCE PERCENTAGE	90/10 BC 70/30 PPO - OON - 50/50	80/20 - OON - 60/40	100/0	100/0
DISCOUNTED PHARMACY CO-PAYS	$0/$10/$35/$75/$150	**$0/$10/$50/$100/$150**	$0/$10/$50/$100/$150	$0/$10/$50/$100/$150
2ND TIER PHARMACY CO-PAYS	$5/$15/$45/$85/$150	**$5/$15/$60/$110/$150**		
LT MAX-IN NETWORK	NONE	NONE	NONE	NONE
LT MAX-OUT OF NETWORK	NONE	NONE	NONE	NONE
LIFE INSURANCE (BY ASSORTED CARRIERS)	$50,000	$50,000	$50,000	$50,000

CURRENT YEAR
(06/01/16-05/31/17)

							EMPLOYEE OPTION 4		EMPLOYEE OPTION 3		EMPLOYEE OPTION 2		EMPLOYEE OPTION 1	
							BLUE CROSS BLUE SHIELD OF ILLINOIS		BLUE CROSS BLUE SHIELD OF ILLINOIS		BLUE CROSS BLUE SHIELD OF ILLINOIS		BLUE CROSS BLUE SHIELD OF ILLINOIS	
							WITH EMPLOYEE PREMIUM CONTRIBUTION		WITH EMPLOYEE PREMIUM CONTRIBUTION		WITH EMPLOYEE PREMIUM CONTRIBUTION		WITH NO EMPLOYEE PREMIUM CONTRIBUTION	
MEDICAL	ALL	WAIVE	PPO2	PPO1	HMO2	HMO1	Hybrid PPO PLAN		HIGHER HMO PLAN		Blue Choice PPO PLAN		LOWER HMO PLAN	
MED-CLASS 1-EMPLOYEE ONLY		0	2	1	8	0	542.06	$1,084.12	511.65	$4,093.20	491.17	$491.17	449.78	$0.00
MED-CLASS 2-EEE&SPOUSE		1	1	0	5	0	1,192.54	$1,192.54	1,125.63	$5,628.15	1,080.57	$0.00	989.51	$0.00
MED-CLASS 3-EEE&CHILD(REN)		0	1	1	1	0	1,029.92	$1,029.92	972.13	$972.13	933.22	$933.22	854.57	$0.00
MED-CLASS 4-FAMILY		0	3	4	6	0	1,680.39	$5,041.17	1,586.11	$9,516.66	1,522.62	$6,090.48	1,394.31	$0.00
	34	1	7	6	20	0		$8,347.75		$20,210.14		$7,514.87		$0.00
LIFE INSURANCE							11.60	$92.80		$69.60		$232.00		$0.00
ADMIN FEE PER MONTH							0.00	$0.00	0.00	$0.00	0.00	$0.00	0.00	$0.00
MONTHLY PREMIUM								$8,440.55		$20,279.74		$7,746.87		$0.00
ANNUAL PREMIUMS								$101,286.60		$243,356.88		$92,962.44		$0.00
FSA								$0.00		$0.00		$0.00		
EMPLOYEE CONTRIBUTIONS								($6,724.00)		($13,312.00)		($2,548.00)		
NET ANNUAL PREMIUM FOR PLANS WITH CONTRIBUTIONS								$94,562.60		$230,044.88		$90,414.44		
PERCENT CHANGE - MEDICAL AND LIFE INS. ONLY							4.48%	$415,021.92						
PERCENT CHANGE AFTER PREM. CONTRIBUTIONS							-0.91%							

		EMPLOYEE OPTION 4	
		HUMANA SPECIALTY BENEFITS 1 YR CONTRACT (06/01/16-05/31/17)	
DENTAL			
DENTAL-CLASS 1-EMPLOYEE ONLY	13	32.05	$416.65
DENTAL-CLASS 2-EEE&SPOUSE	7	65.66	$459.62
DENTAL-CLASS 3-EEE&CHILD(REN)	4	67.64	$270.56
DENTAL-CLASS 4-FAMILY	10	99.18	$991.80
MONTHLY PREMIUM	34		$2,138.63
ANNUAL PREMIUMS			$25,663.56
PERCENT CHANGE-DENTAL ONLY			0.00%

		EMPLOYEE OPTION 4	
		EYEMED 4 YEAR RATE GUARANTEE (06/01/16-05/31/20)	
VISION			
VISION-CLASS 1-EMPLOYEE ONLY	13	$6.22	$80.86
VISION-CLASS 2-EEE&SPOUSE	7	$11.82	$82.74
VISION-CLASS 3-EEE&CHILD(REN)	4	$12.44	$49.76
VISION-CLASS 4-FAMILY	10	$18.29	$182.90
MONTHLY PREMIUM	34		$396.26
ANNUAL PREMIUMS			$4,755.12
PERCENT CHANGE - VISION ONLY			0.00%
PERCENT CHANGE - ALL COVERAGES			
TOTAL MONTHLY PREMIUM			$37,120.05
TOTAL ANNUAL PREMIUMS			$445,440.60
PERCENT CHANGE - ALL COVERAGES			-0.85%
VITALITY REDUCTIONS			
RESULTING PERCENT CHANGE AFTER VITALITY REDUCTIONS			
ANNUAL AVERAGE PERCENT CHANGE OVER SIX YEARS			
ANNUAL PERCENT CHANGE AND ANNUAL PREMIUMS IF NO CARRIER OR BENEFIT CHANGES HAD BEEN MADE TO OFFSET INCREASE			0.34% $450,770.54

ESTIMATED USING COMPOSITE RATES - BILLED RATES WILL DIFFER

	EMPLOYEE OPTION 4	EMPLOYEE OPTION 3	EMPLOYEE OPTION 2	EMPLOYEE OPTION 1
	BLUE CROSS BLUE SHIELD OF ILLINOIS	BLUE CROSS BLUE SHIELD OF ILLINOIS	BLUE CROSS BLUE SHIELD OF ILLINOIS	BLUE CROSS BLUE SHIELD OF ILLINOIS
	WITH EMPLOYEE PREMIUM CONTRIBUTION	WITH EMPLOYEE PREMIUM CONTRIBUTION	WITH EMPLOYEE PREMIUM CONTRIBUTION	WITH NO EMPLOYEE PREMIUM CONTRIBUTION
MEDICAL PLAN NAME	Blue Cross Blue Shield of Illinois PPO	Blue Cross Blue Shield of Illinois HMO	**Blue Cross Blue Shield of Illinois BLUE CHOICE PPO**	Blue Cross Blue Shield of Illinois HMO
ANNUAL DEDUCTIBLE-IN NETWORK - INDIVIDUAL	$500 BC/$1,500 PPO	$0	**$1,000**	$0
ANNUAL DEDUCTIBLE-IN NETWORK - FAMILY MAXIMUM	$1,500 BC/$4,500 PPO	$0	**$3,000**	$0
ANNUAL OUT OF POCKET-IN NETWORK - INDIVIDUAL	$4,000 BC/$6,000 PPO	$1,500	**$3,000**	**$6,850**
ANNUAL OUT OF POCKET-IN NETWORK - FAMILY MAXIMUM	$12,000 BC/$13,200 PPO	$1,500 X 2 = $4,500	**$9,000**	**$6,850 X 2 = $13,700**
ANNUAL DEDUCTIBLE-OUT OF NETWORK - INDIVIDUAL	$3,000	N/A	**$2,000**	N/A
ANNUAL DEDUCTIBLE-OUT OF NETWORK - FAMILY MAXIMUM	$9,000	N/A	**$6,000**	N/A
ANNUAL OUT OF POCKET-OUT OF NETWORK - INDIVIDUAL	$12,000	N/A	**$6,000**	N/A
ANNUAL OUT OF POCKET-OUT OF NETWORK - FAMILY MAXIMUM	$26,400	N/A	**$18,000**	N/A
OFFICE VISIT CO-PAY (PCP / SPECIALIST)	$20/$40 BC - $50/$100 PPO	$25 pcp/$45 specialist	**$35 pcp/$60 specialist**	**$35 pcp/$70 specialist**
INPATIENT HOSPITAL PER OCCURRENCE DEDUCTIBLE/COPAY	$250 BC/$500 PPO then Ded/Coins	$150 Copay then 0%	**$200 then Ded/Coins**	**$1000 Copay per day then 0%**
OUTPATIENT HOSPITAL PER OCCURRENCE DEDUCTIBLE/COPAY	$200 BC/$400 PPO then Ded/Coins	$100 Copay then 0%	**$150 then Ded/Coins**	$500 Ded then 0%
INPATIENT HOSPITAL PER OCCURRENCE DEDUCTIBLE - OUT OF NETWORK	$600 then Ded/Coins	N/A	**$300 then Ded/Coins**	N/A
OUTPATIENT HOSPITAL PER OCCURRENCE DEDUCTIBLE - OUT OF NETWORK	$500 then Ded/Coins	N/A	**$250 then Ded/Coins**	N/A
ER CO-PAY	$400 then Ded/Coins	$300 Ded then 0%	**$400 then Ded/Coins**	**$1,000 Ded then 0%**
COINSURANCE PERCENTAGE	90/10 BC 70/30 PPO - OON - 50/50	100/0	**80/20 - OON - 60/40**	100/0
DISCOUNTED PHARMACY CO-PAYS	$0/$10/$35/$75/$150	$0/$10/$50/$100/$150	**$0/$10/$35/$75/$150**	**$0/$10/$50/$100/$150**
2ND TIER PHARMACY CO-PAYS	$5/$15/$45/$85/$150		**$5/$15/$45/$85/$150**	
LT MAX-IN NETWORK	NONE	NONE	NONE	NONE
LT MAX-OUT OF NETWORK	NONE	NONE	NONE	NONE
LIFE INSURANCE (BY ASSORTED CARRIERS)	$50,000	$50,000	$50,000	$50,000

DOWNERS GROVE SANITARY DISTRICT
HISTORY OF PREMIUMS AND BENEFITS

USING CURRENT EMPLOYEE CENSUS

APRIL 13, 2017

PREMIUMS

HISTORICAL

(06/01/15-05/31/16)

							EMPLOYEE OPTION 3 BLUE CROSS BLUE SHIELD OF ILLINOIS WITH EMPLOYEE PREMIUM CONTRIBUTION HIGHER HMO PLAN		EMPLOYEE OPTION 2 BLUE CROSS BLUE SHIELD OF ILLINOIS WITH EMPLOYEE PREMIUM CONTRIBUTION PPO PLAN		EMPLOYEE OPTION 1 BLUE CROSS BLUE SHIELD OF ILLINOIS WITH NO EMPLOYEE PREMIUM CONTRIBUTION LOWER HMO PLAN	
MEDICAL	ALL	WAIVE	PPO2	PPO1	HMO2	HMO1						
MED-CLASS 1-EMPLOYEE ONLY		0	2	1	8	0	493.70	$3,949.60	511.68	$1,535.04	445.96	$0.00
MED-CLASS 2-EEE&SPOUSE		1	1	0	5	0	1,086.15	$5,430.75	1,125.71	$1,125.71	981.12	$0.00
MED-CLASS 3-EEE&CHILD(REN)		0	1	1	1	0	938.04	$938.04	972.20	$1,944.40	847.33	$0.00
MED-CLASS 4-FAMILY		0	3	4	6	0	1,530.48	$9,182.88	1,586.22	$11,103.54	1,382.49	$0.00
	34	1	7	6	20	0		$19,501.27		$15,708.69		$0.00
LIFE INSURANCE							11.60	$243.60		$150.80		$0.00
ADMIN FEE PER MONTH							0.00	$0.00	0.00	$0.00	0.00	$0.00
MONTHLY PREMIUM								$19,744.87		$15,859.49		$0.00
ANNUAL PREMIUMS								$236,938.44		$190,313.88		$0.00
FSA								$0.00		$0.00		
EMPLOYEE CONTRIBUTIONS								($5,200.00)		($3,224.00)		
NET ANNUAL PREMIUM FOR PLANS WITH CONTRIBUTIONS								$231,738.44		$187,089.88		
PERCENT CHANGE - MEDICAL AND LIFE INS. ONLY							2.88%	$418,828.32				
PERCENT CHANGE AFTER PREM. CONTRIBUTIONS							1.61%					

HUMANA
SPECIALTY BENEFITS
1 YR CONTRACT
(06/01/15-05/31/16)

DENTAL		
DENTAL-CLASS 1-EMPLOYEE ONLY	13	32.05 $416.65
DENTAL-CLASS 2-EEE&SPOUSE	7	65.66 $459.62
DENTAL-CLASS 3-EEE&CHILD(REN)	4	67.64 $270.56
DENTAL-CLASS 4-FAMILY	10	99.18 $991.80
MONTHLY PREMIUM	34	$2,138.63
ANNUAL PREMIUMS		$25,663.56
PERCENT CHANGE-DENTAL ONLY		0.00%

EYEMED
4 YEAR RATE GUARANTEE
(06/01/12-05/31/16)

VISION		
VISION-CLASS 1-EMPLOYEE ONLY	13	$6.22 $80.86
VISION-CLASS 2-EEE&SPOUSE	7	$11.82 $82.74
VISION-CLASS 3-EEE&CHILD(REN)	4	$12.44 $49.76
VISION-CLASS 4-FAMILY	10	$18.29 $182.90
MONTHLY PREMIUM	34	$396.26
ANNUAL PREMIUMS		$4,755.12
PERCENT CHANGE - VISION ONLY		-37.42%
PERCENT CHANGE - ALL COVERAGES		
TOTAL MONTHLY PREMIUM		$37,437.25
TOTAL ANNUAL PREMIUMS		$449,247.00
PERCENT CHANGE - ALL COVERAGES		5.36%
VITALITY REDUCTIONS		
RESULTING PERCENT CHANGE AFTER VITALITY REDUCTIONS		
ANNUAL AVERAGE PERCENT CHANGE OVER SIX YEARS		14.26%
ANNUAL PERCENT CHANGE AND ANNUAL PREMIUMS IF NO CARRIER OR BENEFIT CHANGES HAD BEEN MADE TO OFFSET INCREASE		$487,208.28

ESTIMATED USING COMPOSITE RATES - BILLED RATES WILL DIFFER

(06/01/14-05/31/15)

			EMPLOYEE OPTION 2 HUMANA WITH EMPLOYEE PREMIUM CONTRIBUTION PPO PLAN W/ FSA CONTRIBUTION		EMPLOYEE OPTION 1 HUMANA WITH NO EMPLOYEE PREMIUM CONTRIBUTION HMO PLAN	
MEDICAL	ALL	WAIVE				
MED-CLASS 1-EMPLOYEE ONLY		0	496.52	$1,489.56	472.64	$3,781.12
MED-CLASS 2-EEE&SPOUSE		1	1,092.34	$1,092.34	1,039.81	$5,199.05
MED-CLASS 3-EEE&CHILD(REN)		0	943.38	$1,886.76	898.02	$898.02
MED-CLASS 4-FAMILY		0	1,539.21	$10,774.47	1,465.19	$8,791.14
	34	1		$15,243.13		$18,669.33
LIFE INSURANCE			14.50	$203.00		$290.00
ADMIN FEE PER MONTH			0.00	$0.00	0.00	$0.00
MONTHLY PREMIUM				$15,446.13		$18,959.33
ANNUAL PREMIUMS				$185,353.56		$227,511.96
FSA				$6,250.00		
EMPLOYEE CONTRIBUTIONS				($6,942.00)		
NET ANNUAL PREMIUM FOR PLANS WITH CONTRIBUTIONS				$184,661.56		
PERCENT CHANGE - MEDICAL AND LIFE INS. ONLY				$412,173.52		

HUMANA
SPECIALTY BENEFITS
1 YR CONTRACT
(06/01/14-05/31/15)

DENTAL		
DENTAL-CLASS 1-EMPLOYEE ONLY	13	32.05 $416.65
DENTAL-CLASS 2-EEE&SPOUSE	7	65.66 $459.62
DENTAL-CLASS 3-EEE&CHILD(REN)	4	67.64 $270.56
DENTAL-CLASS 4-FAMILY	10	99.18 $991.80
MONTHLY PREMIUM	34	$2,138.63
ANNUAL PREMIUMS		$25,663.56
PERCENT CHANGE-DENTAL ONLY		0.00%

EYEMED
4 YEAR RATE GUARANTEE
(06/01/12-05/31/16)

VISION		
VISION-CLASS 1-EMPLOYEE ONLY	13	$6.22 $80.86
VISION-CLASS 2-EEE&SPOUSE	7	$11.82 $82.74
VISION-CLASS 3-EEE&CHILD(REN)	4	$12.44 $49.76
VISION-CLASS 4-FAMILY	10	$18.29 $182.90
MONTHLY PREMIUM	34	$396.26
ANNUAL PREMIUMS		$4,755.12
PERCENT CHANGE - VISION ONLY		0.00%
PERCENT CHANGE - ALL COVERAGES		
TOTAL MONTHLY PREMIUM		$36,882.68 $17,923.35 $18,959.33
TOTAL ANNUAL PREMIUMS		$215,080.24 $227,511.96
PERCENT CHANGE - ALL COVERAGES		$442,592.20
VITALITY REDUCTIONS		80.19%
RESULTING PERCENT CHANGE AFTER VITALITY REDUCTIONS		($16,200.00) 73.59% $426,392.20
ANNUAL AVERAGE PERCENT CHANGE OVER SIX YEARS		
ANNUAL PERCENT CHANGE AND ANNUAL PREMIUMS IF NO CARRIER OR BENEFIT CHANGES HAD BEEN MADE TO OFFSET INCREASE		$481,449.60

MEDICAL BENEFITS

MEDICAL PLAN NAME	Blue Cross Blue Shield of Illinois HMO	Blue Cross Blue Shield of Illinois PPO	Blue Cross Blue Shield of Illinois HMO	Humana Point of Service	Humana HMO
ANNUAL DEDUCTIBLE-IN NETWORK - INDIVIDUAL	$0	$500 BC/$1,500 PPO	$0	$2,000	$1,000
ANNUAL DEDUCTIBLE-IN NETWORK - FAMILY MAXIMUM	$0	$1,500 BC/$4,500 PPO	$0	$2,000 X 2 = $4,000	$1,000 X 2 = $2,000
ANNUAL OUT OF POCKET-IN NETWORK - INDIVIDUAL	$1,500	$4,000 BC/$6,000 PPO	$6,600	6350	4000
ANNUAL OUT OF POCKET-IN NETWORK - FAMILY MAXIMUM	$1,500 X 2 = $4,500	$12,000 BC/$13,200 PPO	$6,600 X 2 = $13,200	$6,350 X 2 = $12,700	$4000 X 2 = $8,000
ANNUAL DEDUCTIBLE-OUT OF NETWORK - INDIVIDUAL	N/A	$3,000	N/A	6000	N/A
ANNUAL DEDUCTIBLE-OUT OF NETWORK - FAMILY MAXIMUM	N/A	$9,000	N/A	$6,000 X 2 = $12,000	N/A
ANNUAL OUT OF POCKET-OUT OF NETWORK - INDIVIDUAL	N/A	$12,000	N/A	19050	N/A
ANNUAL OUT OF POCKET-OUT OF NETWORK - FAMILY MAXIMUM	N/A	$26,400	N/A	$19,050 X 2 = $38,100	N/A
OFFICE VISIT CO-PAY (PCP / SPECIALIST)	$25 pcp/$45 specialist	$20/$40 BC - $50/$100 PPO	$30 pcp/$60 specialist	$25 pcp/$40 specialist/$0 well/$100 uc	$25 pcp/$40 specialist/$0 well/$100 uc
INPATIENT HOSPITAL PER OCCURRENCE DEDUCTIBLE/COPAY	$150 Ded then 0%	$250 BC/$500 PPO then Ded/Coins	$750 Copay per day then 0%		
OUTPATIENT HOSPITAL PER OCCURRENCE DEDUCTIBLE/COPAY	$100 Ded then 0%	$200 BC/$400 PPO then Ded/Coins	$500 Ded then 0%		
INPATIENT HOSPITAL PER OCCURRENCE DEDUCTIBLE - OUT OF NETWORK	N/A	$600 then Ded/Coins	N/A		
OUTPATIENT HOSPITAL PER OCCURRENCE DEDUCTIBLE - OUT OF NETWORK	N/A	$500 then Ded/Coins	N/A		
ER CO-PAY	$300 Ded then 0%	$400 then Ded/Coins	$400 Ded then 0%		
COINSURANCE PERCENTAGE	100/0	90/10 BC 70/30 PPO - OON - 50/50	100/0	50/50	80/50
DISCOUNTED PHARMACY CO-PAYS	$0/$10/$50/$100/$150	$0/$10/$35/$75/$150	$0/$10/$35/$75/$150	$15/$40/$60/25%	$10/$40/$60/25%
2ND TIER PHARMACY CO-PAYS					
LT MAX-IN NETWORK	NONE	NONE	NONE	NONE	NONE
LT MAX-OUT OF NETWORK	NONE	NONE	NONE	NONE	NONE
LIFE INSURANCE (BY ASSORTED CARRIERS)	$50,000	$50,000	$50,000	50000	50000

Why Do 1,566 Public Sector Groups Trust National Insurance Services to Provide Their Employee Benefits?

We Know Your Business

Public sector business has little in common with commercial industry. You need a team that can handle your unique negotiated benefits. Since 1969, public sector business has been our exclusive focus. National Insurance Services (NIS) is trusted by 1,566 organizations and over 550,000 insured individuals in 20 states - one of the largest blocks of public sector business in the United States. In addition, 175 school districts have entrusted our Retirement Income Division with over 109 million dollars in public education deposits within the first years of its existence.

We Know *Our* Business So You Don't Have To

Sometimes insurance and financial material can be confusing. What looks like a policy match may be a crisis waiting to happen. With years of serving clients like you, we've seen it all. We know how to customize a solution, prevent claim issues and respond to your needs while respecting your budget. Whatever your needs, we can bring the marketplace to you and provide a custom crafted solution.

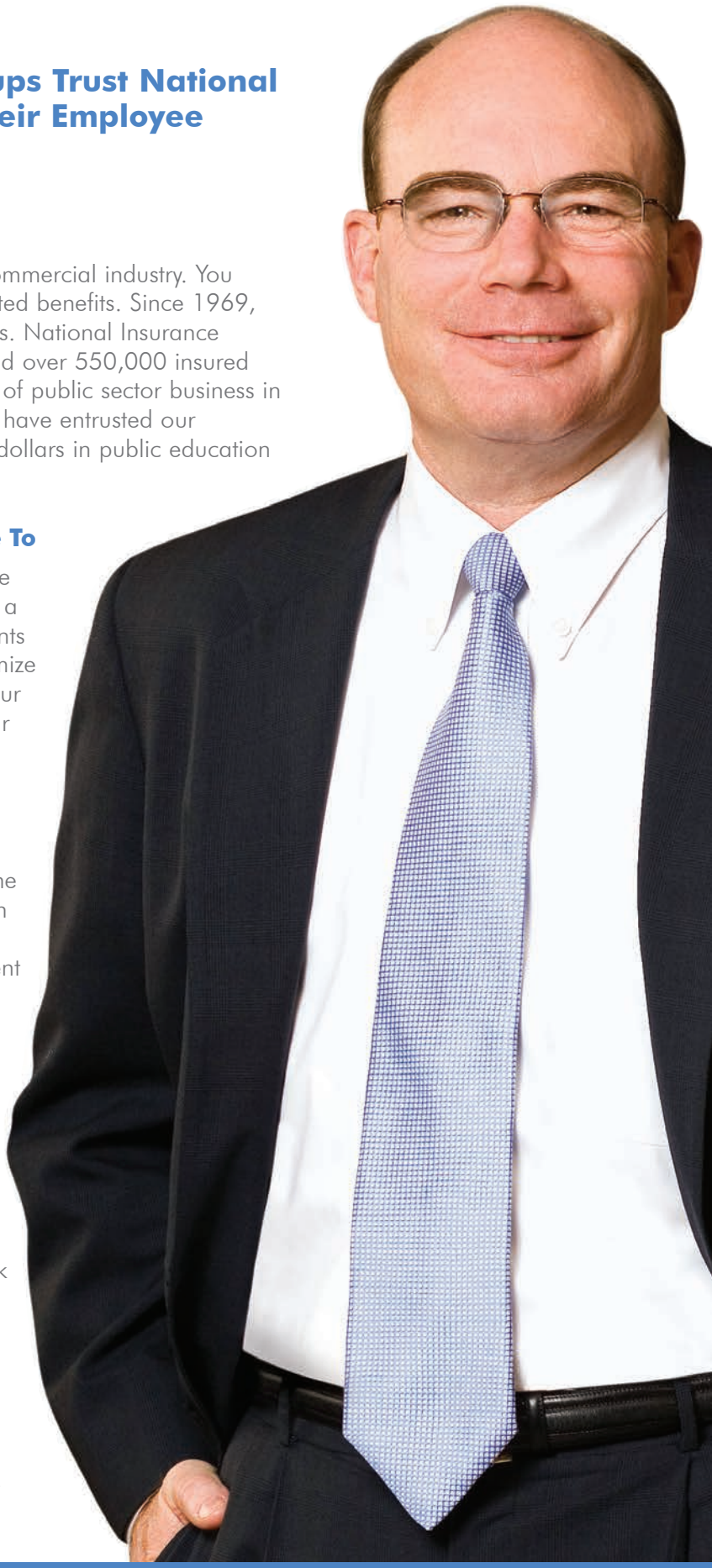
We're Good People to Work With

Even in the midst of our growth, NIS has upheld the high standards and family values we started with in 1969: ethics, compassion, hard work, passion, optimism and community altruism. Our commitment has always been to do the right thing for our clients, partners, employees and the community.

When you become a customer, your NIS service team includes a Sales Rep, Inside Service Rep, Field Service Rep and Billing Rep.

Annual measurement of our written customer standards show an average customer retention rate of 96%, placing NIS into a world-class category as compared with the industry benchmark of 84%. Plus, annual third-party customer service surveys show that an average of 98.6% of NIS' clients would recommend us to others in the public sector.

"Our commitment is to do the right thing for our clients, partners, employees and the community."
-Bruce Miller, President and CEO



Who is Kansas City Life Insurance Company?

Kansas City Life's Story

Since 1895, Kansas City Life Insurance Company (Kansas City Life) has been dedicated to the tradition of honesty, integrity and sound business practices upon which the company was founded. In this day and age, strong, family-owned companies are rare, but Kansas City Life is known for long-term relationships, high-quality work and high broker/associate loyalty. In fact, Kansas City Life is one of the few national financial-services companies to be led by the same family for four generations.

Kansas City Life's reputation is built on integrity. To Kansas City Life, integrity is not an outdated notion in today's fast-paced world. It is the guiding force behind every decision they make. Every product they sell is backed by more than a century of financial security.

Kansas City Life & National Insurance Services (NIS)

Partnering together, Kansas City Life and NIS help schools, cities, counties and municipalities with their unique issues by providing flexible plan designs at competitive prices.

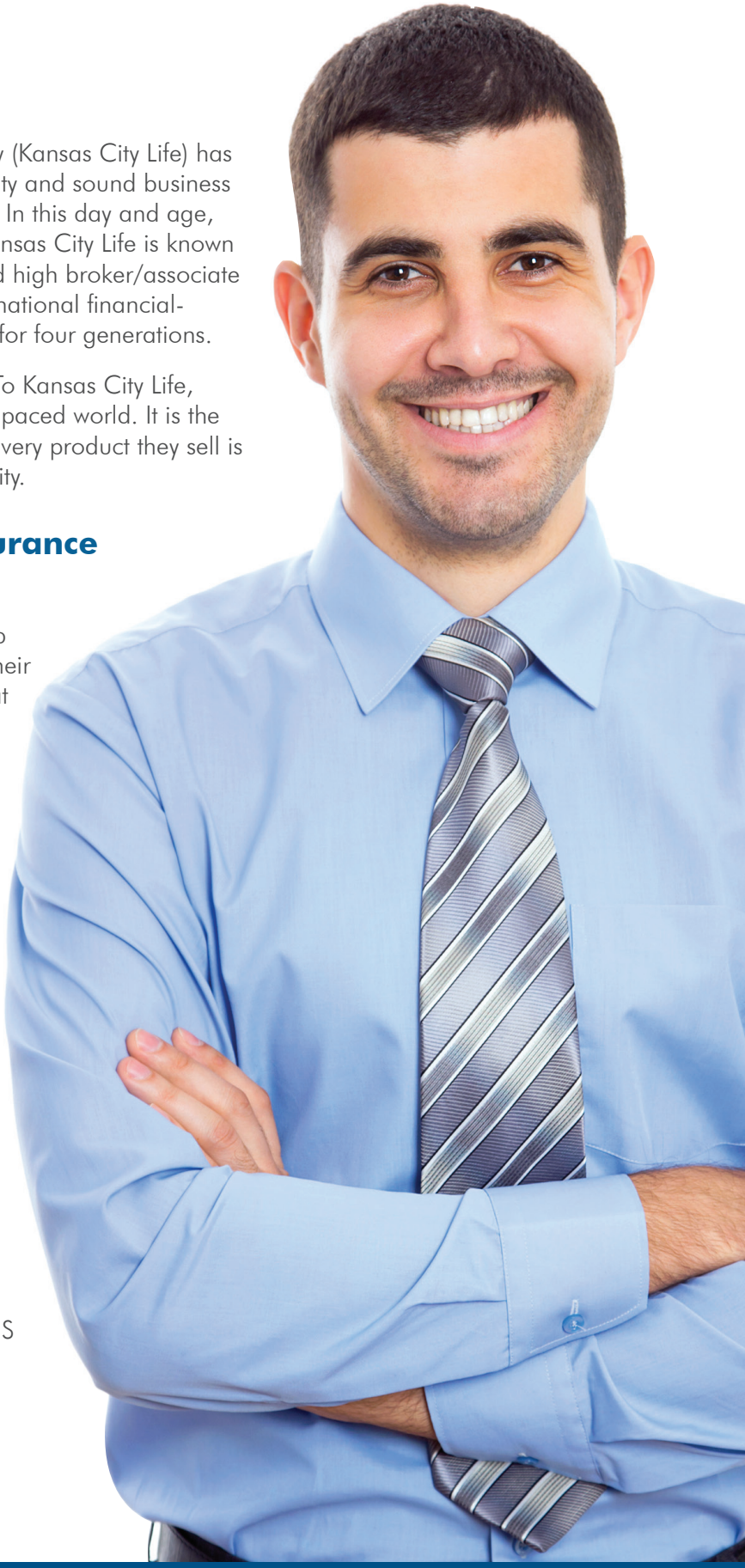
When you work with them, you will find yourself in good hands. They know your time is limited and valuable. Kansas City Life and NIS will guide you through the process of either purchasing insurance for the first time or replacing an existing Life or Disability policy.

Providing insurance for your employees should be a satisfying experience - not a stressful one. Your questions will be answered promptly and politely and they will work diligently to resolve your concerns and provide guidance when you need it.

Financial Outlook

As of June 2013, Kansas City Life has an "A" (excellent) rating from A.M. Best Company, an independent rating agency. There are 16 ratings from A.M. Best, ranging from A++ (Superior) to S (Suspended).

(over)



Who is Kansas City Life Insurance Company?

Quick Facts

- Kansas City Life Insurance Company was founded on May 1, 1895. It was originally chartered as Bankers Life Association.
- The company built a large home office building in 1924. It is the same building the company is housed in today. Additions were added in the 1950s and 1980s to accommodate growth.
- The home office is located in midtown Kansas City, Missouri. A staff of more than 400 associates provides support for our brokers and our policyholders.
- Kansas City Life has the authority to write in 48 states and the District of Columbia.
- Kansas City Life's in-force block of group premium totals more than $60 million.*
- Kansas City Life services 4,873 active Group policies as of July 2014.*

Kansas City Life Group Benefits Administration

NATIONAL INSURANCE SERVICES

Corporate Headquarters
250 South Executive Drive, Suite 300, Brookfield, WI 53005
Offices Nationwide
800.627.3660

KANSAS CITY LIFE

Kansas City Life Insurance Company
3520 Broadway
Kansas City, MO 64111
816-753-7000
www.kclife.com

©National Insurance Services of WI, Inc.

DOWNERS GROVE SANITARY DISTRICT

M E M O

TO: Board of Trustees

FROM: Alyssa Caballero, Information Coordinator

DATE: April 13, 2017

RE: DGSD Annual Newsletter

Copies of the following items are attached for the Board's review at the April 18 meeting:

1) DGSD Annual newsletter
2) WWTC Open House Invitation insert
3) Biosolids Distribution Program brochure
4) EasyPay Enrollment Form insert
5) Online Billing Portal insert

The newsletter this year has updated information and is in a full-color format like the last few years. We have included the EasyPay Enrollment Form again this year to promote customer participation as the program reduces customer call volume and office foot traffic regarding typical billing inquiries. We continue to experience an appreciable increase in enrollments when the EasyPay Enrollment Form is included with the Newsletter. We have also included an insert again promoting the existence of the District's new Online Billing Portal offered through the Invoice Cloud platform.

We have an estimated cost of $7,060.00 for this year's newsletter (for printing the newsletter and inserts, envelopes and stuffing of the newsletter and inserts). This is an increase of 1.44% over last year's cost of $6,960.00 due to a minor increase in the cost of printing the newsletter and biosolids brochure items. We budgeted $7,200 for this expense. Similar to last year, Royal Graphics will only print the newsletter and inserts and InfoSend (the District's third-party bill printing and mailing service) will stuff and mail the newsletters and inserts for us in envelopes they provide.

We plan to mail the newsletter with each user's regular bill during the months of May, June, and July.

Attachments

cc: BOLI, NJM, WCC, ICT, MGP

Downers Grove Sanitary District

May 2017

NEWSLETTER

"Providing a Better Environment for South Central DuPage County"

2710 Curtiss Street
P.O. Box 1412
Downers Grove, IL 60515
Phone: 630-969-0664
Fax: 630-969-0827
www.dgsd.org

Board of Trustees
Wallace D. Van Buren
President
Amy S. Kovacevic
Vice President
Paul W. Coultrap
Clerk

Staff
Nicholas J. Menninga
General Manager

Follow us on Facebook and Nextdoor for the District's latest news and information direct to you.

Find us on Facebook

Nextdoor

The Downers Grove Sanitary District is a separate unit of local government that provides sanitary sewerage service for you. We operate independently from your city or village. Our Board of Trustees meets monthly at the District office. These evening meetings are open to the public and include an opportunity for public comment. The District continues to evaluate and improve the transparency of its operations through increased reporting to the state and county, and provides extensive information on the District website, **www.dgsd.org**.

CUSTOMER SERVICE, OUR FIRST PRIORITY

For information on our services and programs, District residents should call the District office at 630-969-0664. Normal business hours are weekdays 8 a.m. to 4:30 p.m. Technicians are available at all hours to respond to emergencies, such as backups or sanitary manhole overflows.

Our programs are designed to help you with sanitary sewer backups or other problems with your sewer service.

Reporting of all sanitary sewer backups is essential to providing the information necessary for monitoring of sewer system conditions, identification of problem areas and eligibility for assistance programs. District personnel will investigate backups to determine the cause and appropriate corrective action. **Residents should note that charges by plumbers or sewer contractors for work performed prior to contacting the District are generally not eligible under our assistance programs.** The programs available to assist residents with prevention and correction of problems that may cause sanitary sewer backups include:

Building Sanitary Service Repair Assistance Program

If a repair to your building sanitary service is necessary, the work may be eligible under the Building Sanitary Service Repair Assistance Program. Under the Program, the District will repair, rehabilitate or replace a building sanitary service under certain conditions. The Program covers the entire building sanitary service from the building to the public sewer. To qualify for an initial investigation, property owners are usually only required to submit a Program Application and a sewer rodding or televising invoice that occurred within the previous 12 months. The District will determine if the cause of repeated maintenance activity is a problem eligible for participation and, if so, the appropriate corrective measures. This Program is not a substitute for and does not cover routine maintenance of the building sanitary service such as periodic rodding. This Program also does not transfer ownership of the building sanitary service to the District.

Reimbursement Program for Installation of Overhead Sewer or Backflow Prevention Devices

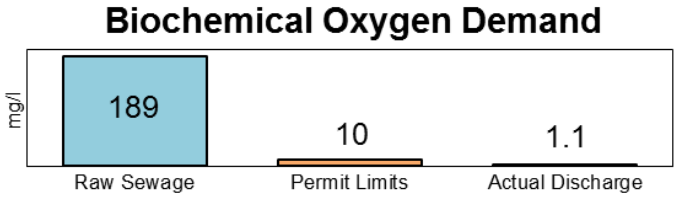
The District requires new construction to include plumbing features needed to protect property from backups that can occur at any time. Owners of older buildings should consider improvements needed to provide this level of protection. This cost sharing program is available for residents who have experienced sewer backup problems and desire to convert to an overhead sewer system or install backflow prevention devices., offering to pay half the project cost up to a limit of $3,000.

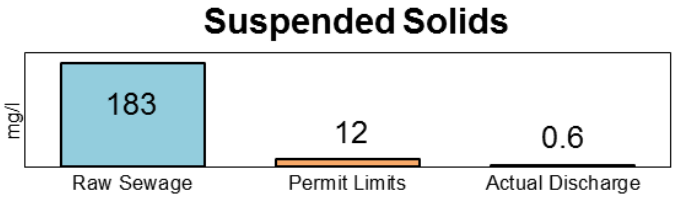
Reimbursement Program for Sanitary Sewer Backups Caused by Blockages of the Public Sanitary Sewer

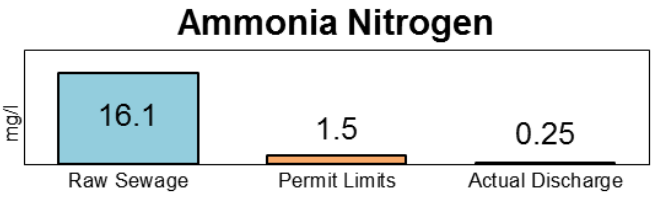
If District personnel determine that the sanitary sewer backup was caused by a blockage of the public sanitary sewer, the resident may be eligible for reimbursement of some costs associated with the backup. Please note that sanitary sewer backups occurring as a result of precipitation-related high flow conditions in the public sanitary sewer are not eligible for reimbursement under this Program. Blockages or problems of any nature in the building sanitary service are not eligible for reimbursement under this Program.

WASTEWATER TREATMENT

The District's Wastewater Treatment Center operates under a National Pollutant Discharge Elimination System (NPDES) permit issued by the Environmental Protection Agency. The District facility discharges treated water to the East Branch of the DuPage River that is significantly better than permit requirements establishing stringent protective criteria. The charts below indicate the successful treatment provided by the Wastewater Treatment Center during 2016 for three major NPDES permit parameters. The parameters are indicated in milligrams per liter (mg/l):







The District continues to track regulatory efforts to establish nutrient standards for wastewater treatment plants. With continuing uncertainty about the environmental benefits of nutrient controls, the District has negotiated a schedule with Illinois EPA that provides time for the District to develop low-cost nutrient control technologies. The schedule also increases our participation with the DuPage River Salt Creek Workgroup to better understand the impacts of nutrients in our watershed, and to help fund restoration projects in our receiving stream, with the goal of achieving the most cost-effective environmental improvements with limited available resources.

CARING FOR OUR INFRASTRUCTURE

The District's most valuable asset is the sewer collection system, including more than 250 miles of gravity sewers. Beyond these sewers, there are nearly 300 miles of privately owned building service pipes connecting buildings to the public mains owned by the District.

The system dates back as far as 1904 and requires a substantial commitment of resources to maintain in satisfactory working condition, meeting residents' expectations for service and regulatory requirements.

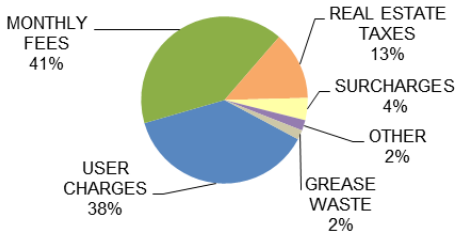
The most significant challenge is the appearance of ground and storm water, known as infiltration and inflow (I/I), in sewers intended to carry only sanitary waste from plumbing fixtures. This extraneous water can cause backups and overflows by exceeding the capacity to carry sanitary waste, and is costly to transport and treat.

The District has a comprehensive I/I removal and sewer system rehabilitation program. Priority is given to areas identified through flow monitoring, field observations and backup or surcharge reports. State-of-the-art techniques are employed, ranging from open-cut replacement to various trenchless technologies such as cured-in-place lining and grouting. Ordinances regulating private property I/I sources are enforced and rehabilitation is conducted on both public and private sources.

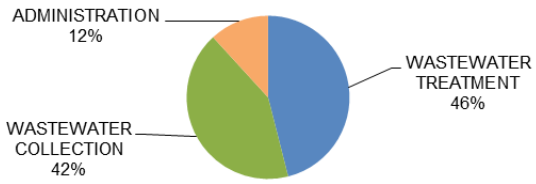
BUDGET AND FIVE-YEAR PLAN

The District has implemented a five-year plan, which projects revenues and expenses for all District activities, available for review on our website. For the current fiscal year, general corporate revenues are projected to be $8.698 million and expenses are projected to be $8.796 million. The expenses include $4,049,194 for the sewer system, $3,707,617 for wastewater treatment and $1,039,389 for administration. The amount of expenses greater than revenues will result in a decrease in the District's operating fund balance. The charts below show the major types of revenues and expenses necessary for operations.

Fiscal Year 2017-18
REVENUES



Fiscal Year 2017-18
EXPENSES



PAPERLESS BILLING & PAYMENT OPTIONS

In our efforts to control costs and improve the environment, we now offer paperless billing through the services offered by Invoice Cloud. Visit **www.invoicecloud.com/dgsd** to sign up, save paper and mailing costs, and access several convenient payment options. Paperless billing is free of charge and replaces your postcard bill with email reminders. Convenience fees apply to payments made through Invoice Cloud. Our postcard bill is still available for those not enrolled in paperless billing. The District's online billing portal offers a fee-based separate automatic payment option.

Other payment options include paying by mail, drop box, in person at the District's office or through EasyPay, a **free** automatic debiting of your checking account. Enrollment in EasyPay is easy and may be done online at the District's website or by returning the enclosed yellow enrollment form to the District. If you already participate in this program, a new authorization form is not required.

Moving? Be sure to contact the office to arrange for final billing.

USER CHARGE SYSTEM

The District's user charge consists of two components: a volume charge based on water consumption and a monthly service fee. The volume charge remains at $1.65 per 1,000 gallons of water consumption and the monthly fee was increased from $13.50 to $15.00 per account effective April 1, 2017. Surcharge and sampling and monitoring charges assessed to commercial and industrial users increased effective April 1, 2017. The user charge is evaluated annually and is set to collect the revenues needed to cover the cost of sewer system and treatment plant operation, maintenance and replacement and District administration.

REAL ESTATE TAXES

This year the District levied $1,184,000 for repairs to the sanitary sewer infrastructure, a 1.70% increase from last year. This levy results in a tax rate of $0.0413 per $100 of assessed value. A single-family residence with a market value of $300,000 will pay $41.30 in real estate taxes to the District in 2017.

STUDENTS LEARN ABOUT WASTEWATER

The District works with several local schools throughout the year including middle schools and high schools, as well as local colleges to educate students about wastewater treatment, the role of the sanitary district in the community and the value of water.

Most recently, the District teamed up with O'Neill Middle School in Downers Grove to teach students about biosolids. In April we also hosted tours of the wastewater treatment plant for students from Clarendon Hills Middle School. In May, students from Eisenhower Junior High School in Darien also visited the plant.

Interested in partnering with us? We would love to work with you and your education needs. Call us at 630-969-0664 or visit www.dgsd.org/contact-us.

NET-ZERO ENERGY FACILITY

In 2016, the District resolved to operate a net-zero energy wastewater treatment facility.

Historically, wastewater treatment plants have been heavy energy consumers because of the large motors needed to pump and treat the collected sewage. The District has been able to acquire multiple grant-funded high-technology devices that allow more efficient treatment, and to extract enough energy from sewage solids to meet the remaining energy needs of the plant. High-speed turbo -blowers and associated aeration equipment use about half as much energy to treat the sewage than the original 1970's-era equipment. A combined heat and power facility converts extracted sewer gas into electricity and hot water used to digest sewage sludge. The wastewater treatment plant now recovers valuable energy resources and produces as much energy as it uses.

The District has set up a monitoring portal on its website to keep a monthly tally of energy production and use. The District has also received recognition as a 'Utility of the Future Today' from the National Association of Clean Water Agencies, the Water Environment Federation, the Water Environment Research Foundation and the United States Environmental Protection Agency.

USED COOKING OIL RECYCLING PROGRAM

The District collects and recycles used cooking oil in partnership with SCARCE, a local environmental non-profit organization. Our customers and residents in the surrounding area are encouraged to recycle their used cooking oil instead of pouring it down the drain or disposing of it in the garbage.

Used cooking oil can be dropped off at the Administration Center at 2710 Curtiss Street in Downers Grove during business hours, Monday through Friday, 8 a.m. to 4:30 p.m. For more information, visit www.dgsd.org/maintain-sewer-line/#cook.

REDUCE INTERNAL PLUMBING PROBLEMS

To reduce the likelihood of plumbing problems in your home, in addition to service line backups and blockages in the public sewer, residents are reminded that most everyday use items should not be disposed of into the sanitary sewer system. These items include: disposable wipes (sometimes labeled 'flushable' which are not flushable in our system), personal hygiene products, disposable toilet bowl cleaner brushes and pads, disposable diapers, baby wipes, dental floss, razor blades and cat litter. Food grease, cooking oil and large quantities of food should also not be disposed through the garbage disposal or toilet. These items do not dissolve in water and can easily accumulate to cause blockages, equipment damage and sewer backups.

In addition, pharmaceuticals and all household hazardous wastes should be recycled at appropriate facilities and not be disposed of in the sanitary sewer system. Bulk solvent, paint, heavy duty cleaners or similar items cause hazards in the sewer system which can be dangerous for workers or the public, interfere with the operation of the treatment plant and pollute the river by passing through the plant because it is not treatable in our facilities.

For more tips on how to maintain your sewer line, visit www.dgsd.org/maintain-sewer-line. For more information on recycling resources in the community, visit www.dgsd.org/external-resources.

BIOSOLIDS PROGRAM

The District generates Class A biosolids as a byproduct of the treatment process. This product is a high quality fertilizer available to the public free of charge. Biosolids are available for pick-up at our pick-up station or delivery in larger quantities. A brochure is enclosed with more information.

WATERSHED CONSORTIUM

The District is a founding member and active participant in the DuPage River Salt Creek Workgroup. The Workgroup is a consortium of local governments dedicated to managing the valuable stream resources of the East and West Branches of the DuPage River and Salt Creek. The Workgroup conducts state-of-the-art monitoring of stream biology, chemistry and habitat, using the data to promote projects and activities to cost-effectively restore these urbanized streams for their intended uses. For more information, visit www.drscw.org.

We hope that you will attend the Wastewater Treatment Center Open House on Saturday, October 7, 2017, from 9 a.m. to noon. If you have any questions regarding any of the information contained in this newsletter, please feel free to contact the District office, view our website at **www.dgsd.org** or scan the QR code below.

BOARD OF TRUSTEES
DOWNERS GROVE SANITARY DISTRICT

JOIN US FOR OUR 28TH ANNUAL

OPEN HOUSE

SATURDAY, OCTOBER 7, 2017

FROM 9 A.M. TO NOON

The Wastewater Treatment Center
5003 Walnut Avenue, Downers Grove
(3 blocks north of Maple Avenue)

Join us for this unique opportunity to see firsthand how your local wastewater treatment plant operates!

Residents/homeowners, students, scout groups and the general public are all welcome. Admission is free!

FOR MORE INFORMATION, CALL **630-969-0664**
OR VISIT **WWW.DGSD.ORG.**

Are You Interested in a Program that Provides these Benefits?

- Lower Fertilizer Costs for Your Landscaping
- Greener, More Prolific Lawns, Flowers, Shrubs and Trees
- Less Need for Watering in the Summer
- Greater Soil Volume on Your Property
- Helping the Environment
- Helping To Keep Your Utility Costs Down

If so, then you are interested in the Biosolids Distribution Program at the Downers Grove Sanitary District.

Downers Grove Sanitary District

Providing a Better Environment for South Central DuPage County

For Further Information
Visit our Office:

2710 Curtiss Street
Downers Grove, Illinois 60515
or call us at 630 969 0664

Biosolids delivery recipients (3-yard minimum) who are also our sewer customers are eligible for a once-per-year $5 credit on their sewer bill.

Our normal business hours are
8:00 am to 4:30 pm, Monday-Friday

Additional information and forms are available at our web site:
www.dgsd.org

Rev. 04/13

Biosolids Distribution at the Downers Grove Sanitary District

Providing a Better Environment for South Central DuPage County

Homeowners Information Brochure

HOW ARE THESE BENEFITS ACHIEVED?

The Downers Grove Sanitary District treats much of the municipal wastewater from the Villages of Downers Grove and Westmont, and a small surrounding area.

We make a soil supplement material as the by-product of the wastewater treatment process. Our unique stabilization process creates a material that has been used for decades by local residents, landscaping contractors, municipalities, and State government agencies.

The material looks like black dirt, but has a softer consistency, carries a high fertilizer value, and retains more water than typical black dirt. Use of this material as a top dressing helps create a lush green lawn, and gives flowers, shrubs, and trees an excellent source of essential nutrients while providing the water-retention properties of mulch.

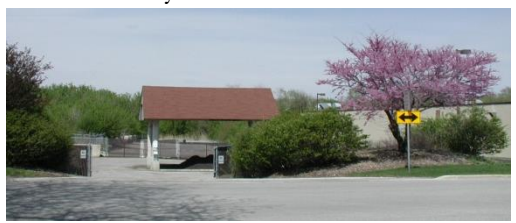
By giving away this material for beneficial use, we are freeing valuable landfill space and controlling escalating transportation costs, helping to preserve our land and energy resources.

HOW DO I GET SOME?

You can come and pick it up, or we'll deliver it to you.

Either way, it's **FREE**.

Our pick-up station is located on Curtiss Street, near Katrine Avenue (about ½ mile west of Belmont Road). The Village of Downers Grove also has woodchips available for pickup only (no deliveries). Take as much as you can use!



We are happy to deliver loads of biosolids that are 3 cubic yards and larger. This is enough to cover a lawn approximately 100 feet by 100 feet.

Call us at 630 969 0664 to arrange for a delivery today. Our office hours are 8:00 am to 4:30 pm weekdays.

FREQUENTLY ASKED QUESTIONS:

How much is 3 cubic yards?
Three cubic yards will fill about twenty 30-gallon garbage cans.

How far do you deliver?
We deliver to the area bounded by I-55 on the south, Roosevelt Road on the north, Route 83 on the east, and Naper Boulevard on the west.

Can I use Biosolids to fill in or build up a low area on my property?
We recommend that biosolids be mixed half and half with a suitable fill material, such as black dirt, prior to use as a fill material.

Can I use Biosolids on my vegetable garden?
At this point in time, the District is recommending that biosolids be used for landscaping purposes only. We do not recommend that it be used for growing edible crops.

Will my lawn be safe for children and pets?
Use the same precautions that you would follow with any other fertilizer product. For a general application to your lawn, a good rule of thumb would be to wait for at least one rainfall.

EasyPay Authorization & Information

I authorize the District to deduct my sanitary sewer user bill by electronically deducting each payment from my checking account. I agree that each payment shall be the same as if it were an instrument personally signed and authorized by me. I understand that each payment shall be electronically deducted from my checking account three business days or less before the due date of the bill. **This authority is to remain in effect until revoked by me in writing.**

I understand that my enrollment in this plan will be confirmed when I first receive a bill with the words "EasyPay DO NOT PAY." I agree to notify the District before moving to arrange for final billing and/or if I will be changing or closing the bank account being used.

I may stop payment of a charge or update my account information by notifying the District a minimum of **ten** business days **prior** to the due date on my bill. I understand that the District and the named financial institution reserve the right to terminate this electronic deduction or my participation at any time at their discretion. I agree to release the Downers Grove Sanitary District from any and all damages resulting from or in connection with my participation in the EasyPay Program.

Rev. 04/17

IF POSSIBLE, PLEASE ATTACH A VOIDED CHECK FOR ACCURACY

Name(s) on Sewer Bill	Sanitary District Account Number
Bank Name	Name(s) on Checking Account
Bank Routing Number	Checking Account Number
Daytime Telephone Number	Email Address
Signature	Date

EXISTING EasyPay CUSTOMERS – Please indicate effective date of the above changes: ____/____/____.

Return completed form to: Downers Grove Sanitary District
2710 Curtiss Street, P.O. Box 1412, Downers Grove, IL 60515

Or online registration available at www.dgsd.org/pay-your-bill/easypay-enrollment-form.

Register today!

ONLINE BILLING PORTAL

The Online Billing Portal offers the following benefits:

- View your bill and get email reminders for free
- Access and pay your sewer bill online, at your convenience
- Pay with credit or debit card (up to $150) or electronic check (fees apply)
- Receive online payment confirmations and notices
- Sign up to go paperless with e-billing

VISIT WWW.DGSD.ORG

VISA MasterCard DISCOVER NETWORK echeck

DOWNERS GROVE SANITARY DISTRICT
M E M O

To: Board of Trustees

From: Ted Cherwak, Sewer Construction Supervisor

Date: April 10, 2017

Subject: **Annual Unsewered Area Plan Update for 2017**

The annual update to the District's Unsewered Area Plan has been completed by Baxter and Woodman and District staff. The changes to the plan include a sewer main extension construction project at 5836 Janes Avenue by a private developer and the updating of the cost estimates. Baxter & Woodman has recommended that the cost estimates in the plan be updated to reflect increases in the construction cost index and the current construction bidding environment. See the attached letter dated March 31, 2017 from Shane M. Firsching at Baxter and Woodman for a more detailed review.

This annual update to the Unsewered Area Plan will be presented to the Board for approval at the April 18, 2017 Board Meeting.

As is our practice, we will review and update the plan again next spring.

CC: KJR, RTJ, MJS, NJM, WCC & MGP

BAXTER & WOODMAN
Consulting Engineers
8840 West 192nd Street, Mokena, IL 60448 • 815.459.1260 • baxterwoodman.com

March 31, 2017

Mr. Ted Cherwak
Downers Grove Sanitary District
2710 Curtiss Street
Downers Grove, Illinois 60515

Subject: Downers Grove Sanitary District – Unsewered Area Plan Update

Dear Mr. Cherwak:

The District typically completes an annual update to the Unsewered Area Plan (UAP) to reflect new sewer construction and changes in construction costs. The original plan was completed in December 2006 and last revised in March 2016. Since the last update, new sewer construction has occurred, and the construction cost index has increased.

We have completed the following modifications:

1. Evaluated unit prices using changes in the construction cost index and recent bidding trends to estimate the projected costs in 2017. The construction cost index experienced an insignificant increase since the last UAP update in March 2016 and current bidding trends show support of this insignificant construction cost index increase. Therefore, the 2017 unit prices were increased by 0.3 percent to reflect current and future construction costs. Due to the rounding used in our cost calculations, some unit prices remain the same as in March 2016.

2. Revised quantities and other related information in the Downers Grove Park sub-area to reflect 2016 new sewer construction in the Janes and College Street sub-basin along Janes Avenue.

We trust this information serves your needs at this time. Please call me if you have any questions.

Sincerely,

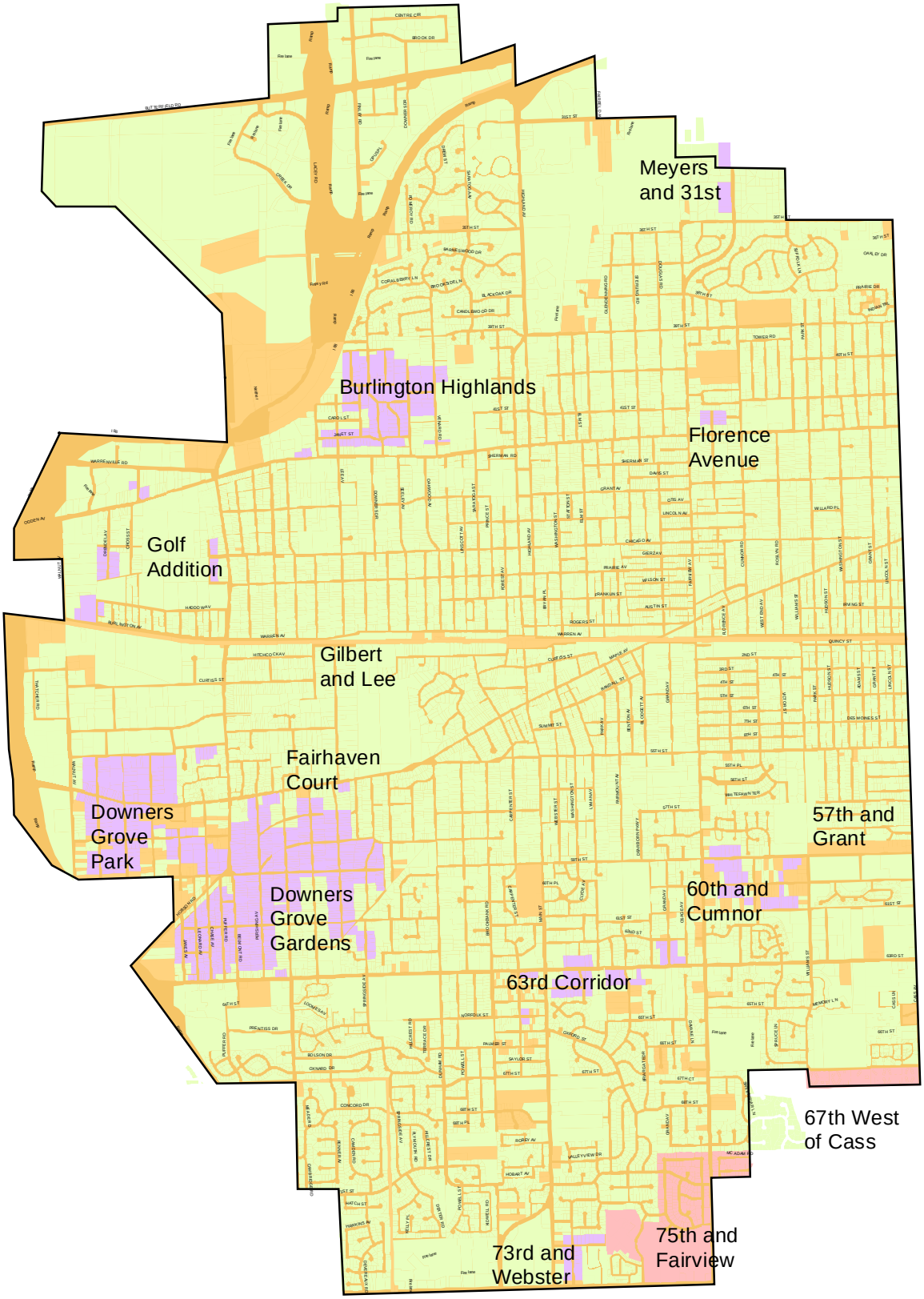
BAXTER & WOODMAN, INC.
CONSULTING ENGINEERS

Shane M. Firsching, P.E.

SMF:bjt

C: Nicholas Menninga, P.E., Downers Grove Sanitary District

Downers Grove Sanitary District
Unsewered Area Plan
MARCH 2017



Downers Grove Sanitary District

Unsewered Area Plan

March 2017

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1. Introduction

The ultimate service area of the Downers Grove Sanitary District (District) is defined by the Facility Planning Area (FPA) boundary. The District is responsible for planning sewer service for all property within its FPA. Currently, a majority of the area within the FPA is annexed to the District and receives sewer service. There are a few areas in the FPA served by septic systems that are not annexed into the District, and are therefore considered "unsewered." This report is intended to identify plans for the installation of the sewer system improvements needed to serve unsewered areas within the FPA, and to identify the process for obtaining service in unsewered areas.

The Sanitary District Act of 1917 (ILCS 2405/7.6) allows for the orderly planning for and establishment of general and specific locations for all conduits, pipes and pumping stations. Under this statute, the District is not obligated to accept or maintain facilities not built in accordance with this plan. This report is intended to serve as the plan described in this statute.

The Federal Water Pollution Control Act Amendments, Public Law 92-500, include provisions for the establishment of state and areawide water quality planning programs to coordinate pollution control decisions and to implement feasible methods to achieve clean water over the long term. Section 208(a) (2) of the Clean Water Act directs that: "The Governor of each State ... shall identify each area within the State which, as a result of urban-industrial concentrations or other factors, has substantial water quality control problems..." This language led to the establishment of Facility Planning Areas (FPAs) as a key element of this Areawide Water Quality Management Plan. A Facility Planning Area (FPA) is defined as "a centralized sewer service area to be considered for possible wastewater treatment facilities within a 20-year planning period." FPAs provide individual jurisdictions with a means of planning and cooperation to provide service to residents.

The State of Illinois has identified the District as the responsible local wastewater treatment authority for the Facility Planning Area, shown on Exhibit 1.

As part of a major metropolitan area, the District FPA is completely surrounded by other designated Facility Planning Areas. There is little opportunity for the FPA boundaries to be changed. However, there are occasions when sewer users along the FPA boundary are more easily served by the designated wastewater authority of an adjacent FPA. In such cases, the two authorities can typically reach an agreement to provide service without altering the FPA boundaries, or can agree to FPA boundary changes.

There are sewer users within the District FPA that are served by neighboring designated FPA authorities. These sewer users are located in the 75th and Fairview area and the area along 67th west of Cass, shown on Exhibit 2, which are served by DuPage County Public Works (Marianbrook FPA).

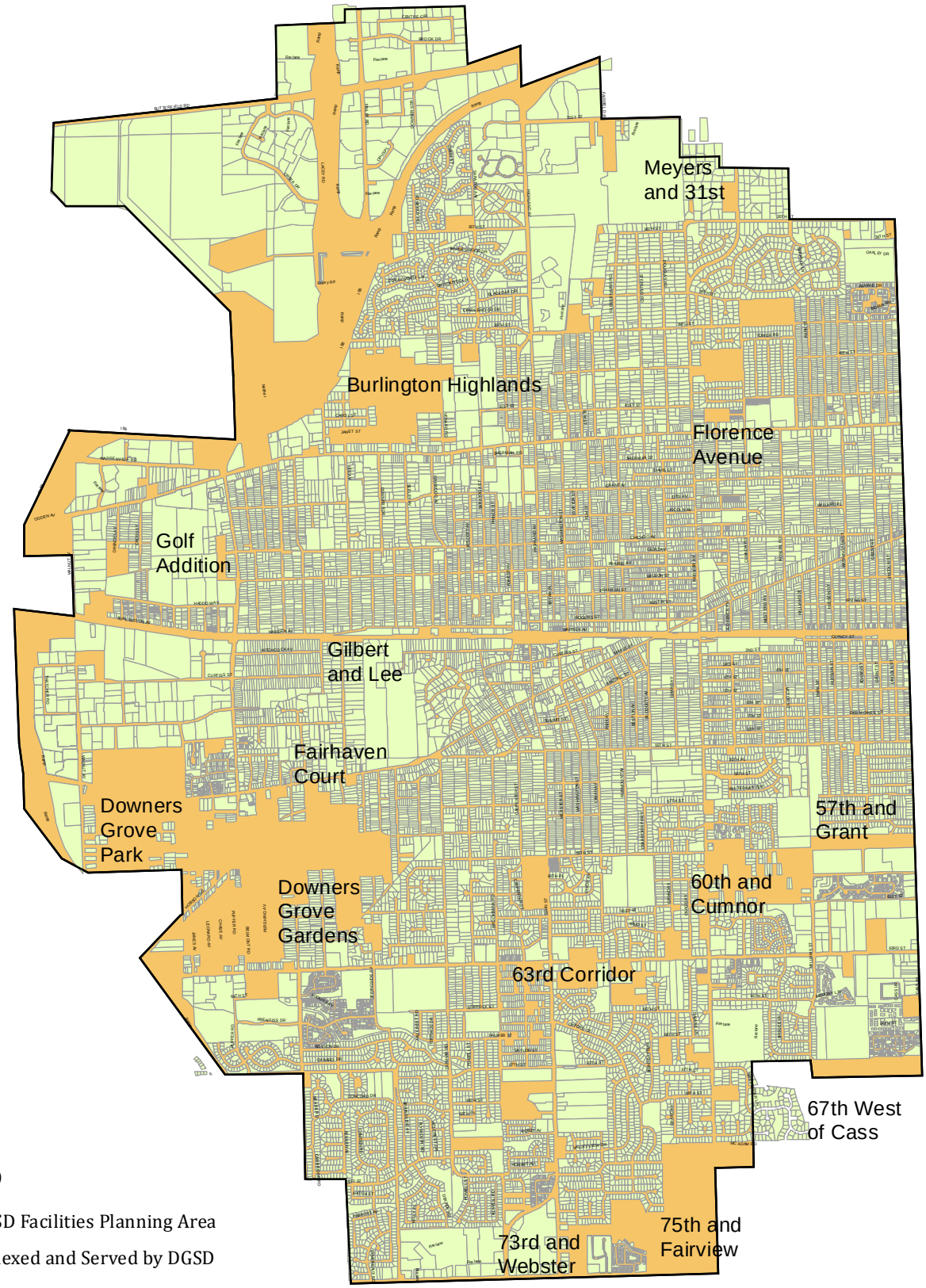
If FPA boundaries require adjustment for any reason, the State of Illinois has designated the Chicago Metropolitan Agency for Planning (CMAP) as the water-quality planning agency for the region. CMAP functions in an advisory role, reviewing applications and conducting administrative hearings, with the Illinois EPA retaining final approval over FPA boundary modifications.

Downers Grove Sanitary District

Unsewered Area Plan

MARCH 2017

EXHIBIT 1



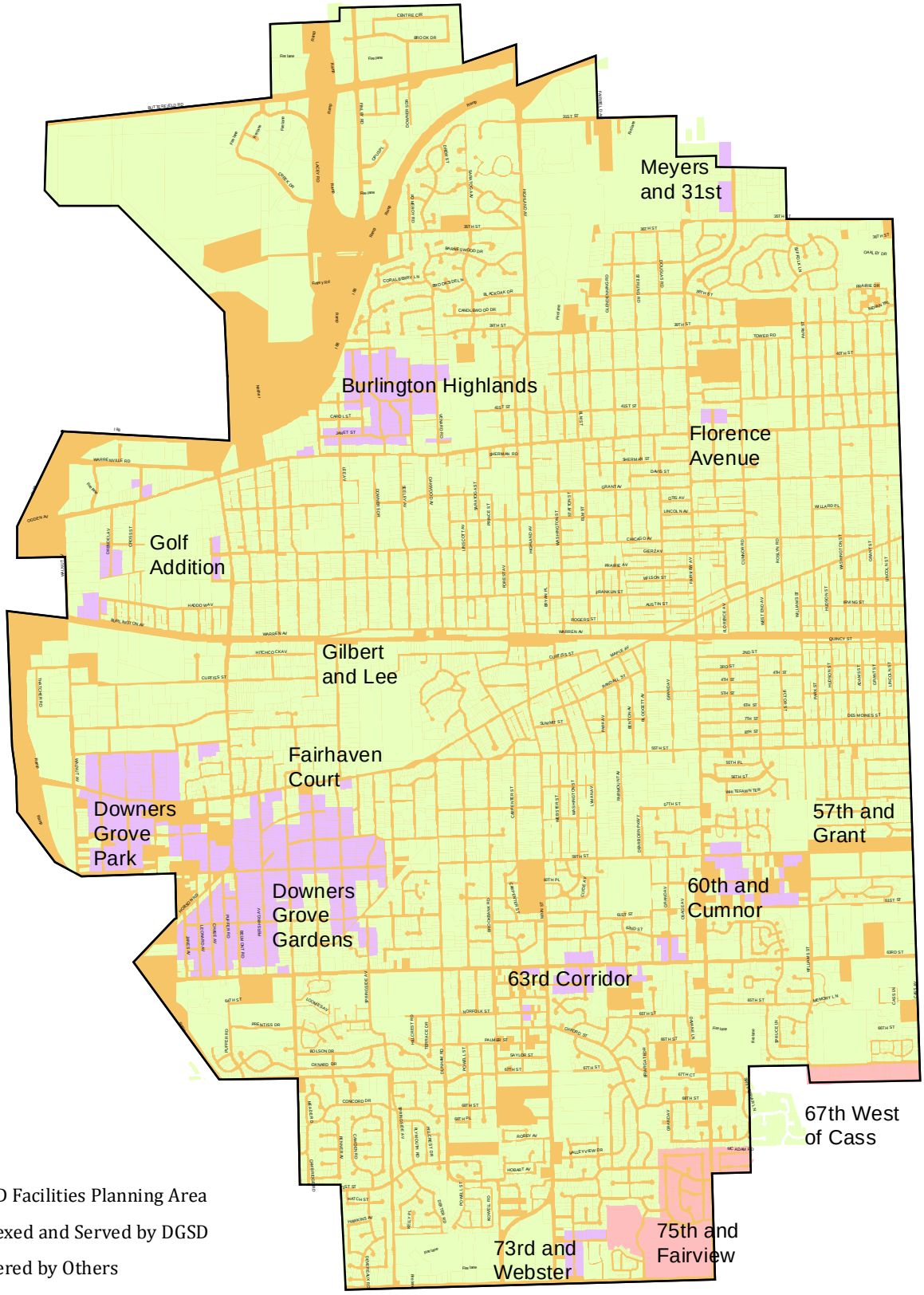
Facilities Planning Area Boundary Map
Based on Chicago Metropolitan Agency for Planning
FPA Boundary Map of December, 2005

Downers Grove Sanitary District

Unsewered Area Plan

MARCH 2017

EXHIBIT 2



LEGEND

- DGSD Facilities Planning Area
- Annexed and Served by DGSD
- Sewered by Others
- Unsewered Sub-Areas

Facilities Planning Area Boundary Map
Based on Chicago Metropolitan Agency for Planning
FPA Boundary Map of December, 2005

2. Existing Service Area

The existing service area of the District is smaller than the designated FPA. There are numerous properties within the FPA that do not receive sewer service, and are therefore not part of the existing service area.

The existing service area boundary is updated whenever a new property parcel is annexed into the District. Each annexation is filed with the County Clerk's office, at which time the service area boundary change becomes effective. Exhibit 1 shows the properties within the service area boundary, effective in the fourth quarter of 2005.

Property within the service area is subject to the property tax levy of the District. Property connected to the sewer also receives regular sewer use bills.

Property owners desiring sewer service are required to follow the rules defined by District ordinances and other applicable laws. Application for annexation is followed by construction of any necessary public sewer, and a building sewer connection to connect the improvements on the property to the public sewer. All construction is required to meet District standards, subject to review and inspection by District personnel.

In order to be annexed, a property owner must submit a completed Annexation Application Form. Under State law, property within the District service area must be contiguous.

Where property being annexed is not adjacent to an existing public sewer, a sewer extension must be constructed. Sewer extensions need to be constructed so that they are fully functional when newly built, and can accommodate anticipated future development of adjacent unsewered areas in the FPA.

Sewer extensions are required to meet District standards, subject to review and inspection by District personnel. Sewer extensions must be permitted for construction by the Illinois EPA.

In order to construct a sewer extension, an applicant must submit a completed Sanitary Sewer Service Request. The request must be approved by the Board of Local Improvements prior to proceeding to implementation.

The District will review engineering plans and specifications, prior to the permitting process by the Illinois EPA. Construction permit applications submitted to the Illinois EPA must be signed by the District as the authority receiving the wastewater. The District is thereby certifying that there is adequate downstream capacity to transport and treat all sanitary flows from the area being served by the sewer extension. The District will conduct inspections and require testing during and following construction in order to verify compliance with standards.

Fees are assessed for sewer permits, annexation applications, trunk sewer service charges, lateral sewer charges, recapture, plan reviews, construction inspection, and television inspection. These fees are updated periodically, and applied according to the requirements of District ordinances.

The District requires that sewer extensions be built according to this Unsewered Area Plan in order to allow for orderly and cost-effective construction, and so that capacity is available for anticipated future growth in remaining unsewered areas. This plan is updated from time to time, as projections for future development, zoning and growth may change over time.

3. Methods of Obtaining Service in Unsewered Areas

There are four available methods to finance the installation of sanitary sewers in an unsewered area - special assessment, construction by private party, cash plan, or special service area. Each method is discussed in detail below.

3.1 Special Assessment

The Statutes of the State of Illinois set forth a special assessment procedure whereby the District may construct sanitary sewers and assess the costs of the sewers against adjacent property to the extent the property is benefited. In order to utilize the special assessment procedure, the property to be benefited and assessed must be within District corporate limits. The procedure for annexing property to the District and the steps involved in a special assessment are discussed separately below.

3.1.1 Annexation

Property can be annexed into the District in one of two ways – by an election or by petition of a majority of land owners.

3.1.1.1 Upon the submittal to the District of a petition signed by ten percent or more of the legal voters residing within the area to be annexed, an election will be held at a regularly scheduled general election. The question to be submitted to the legal voters shall be whether the designated area should become a part of the District and assume a proportionate share of any bonded indebtedness of the district. If a majority of the votes cast at the election shall be in favor, the area shall be annexed.

3.1.1.2 Upon submittal of a petition to the District which has been signed by the owners of more than 50% of the land area of the designated area, the area shall be annexed. The District will provide the appropriate petition forms upon request. Annexation to the District does not involve annexation into a city or village.

3.1.2 Special Assessment Procedure

The District Board of Local Improvements originates the procedures for levying the special assessment, and property owners who wish a local improvement to be made on or adjacent to their property should petition this Board. For areas recently annexed by election or by majority petition, as discussed above, the Board of Local Improvements will generally initiate the special assessment procedure immediately following the annexation of the area to the District.

The following list is for general informational purposes only and merely highlights the various steps typically involved in a special assessment. This list should not be relied upon as conclusive since the steps actually followed in an individual special assessment will depend upon various circumstances, including the nature and extent of the improvement, as set forth in more detail in the state statutes and in the relevant case law.

3.1.2.1 Engineer's Report: At the request of the Board of Local Improvements, the plans for the local improvement project, including an estimate of costs thereof, are prepared by the engineer.

3.1.2.2 Estimate of Cost: This estimate lists the expenses involved in the local improvement and is signed by the President of the Board after determining that the estimate does not exceed the probable costs.

3.1.2.3 Originating Resolution: Board of Local Improvements outlines the improvement and orders a public hearing on the project.

3.1.2.4 Notice of Public Hearing: Persons who paid the last tax bill on the property to be assessed receive notice of the public hearing.

3.1.2.5 Public Hearing: A general description of the improvement is given to the public at the hearing and they are allowed to express their opinions and ask questions. The District attempts to provide a preliminary and unofficial spread of the assessment so that each property owner may then compute for himself an estimate of the amount to be levied against his property.

3.1.2.6 Second Resolution: Board of Local Improvements decides whether to continue, modify, or abandon the local improvement project.

3.1.2.7 Recommendation of Board of Local Improvements: If continued or modified, the improvement is recommended to the District Board of Trustees with a draft ordinance which shall be published at least 10 days prior to adoption.

3.1.2.8 Ordinance: The Board of Trustees decides whether to proceed with the special assessment by passing said ordinance.

3.1.2.9 Court Petition: District petitions the court for approval of the special assessment.

3.1.2.10 Appointment of Commissioners: President of Board of Local Improvements appoints commissioners to spread the assessment according to benefit, and to determine damages for any takings. This appointment is subject to approval by the court.

3.1.2.11 Assessment Roll: This roll, submitted by the Commissioners, lists the amounts proposed to be assessed against the individual parcels of property and just compensation for any takings (easements).

3.1.2.12 Summons: When takings are involved, a summons shall be issued and served upon all parties whose property is to be taken.

3.1.2.13 Notice of Court Hearing: Notice of a court hearing is published and mailed to the persons who paid the last tax bill on the property to be assessed.

3.1.2.14 Court Hearing: At a hearing before the court, any person owning or occupying property to be assessed or taken may file objections.

3.1.2.15 Order of Confirmation: After hearing any objections, the court rules on the assessment roll. Shortly thereafter, those property owners whose property is to be taken shall receive just compensation as determined by the Court.

3.1.2.16 Bills Issued: Property owners are sent bills based on the amount confirmed against their property in the earlier court hearing. The assessment will be billed in approximately equal installments over ten years. All installments will be due on January 2 of each year. A property owner who wishes to avoid being charged interest on his assessment can pay his entire assessment prior to the date when interest begins to accrue.

3.1.2.17 Invitation for Bids: Board of Local Improvements invites contractors to bid on the construction of the project.

3.1.2.18 Opening of Bids: The sealed bids of the contractors are opened publicly. Property owners have the right to do the work under certain conditions.

3.1.2.19 Award of Contract: The Board of Local Improvements accepts the lowest responsible bid or rejects all bids. If the bid to be approved is 10% more than the engineer's estimate, further legal proceedings must be undertaken and a supplemental assessment made. Following the award of a contract, construction begins.

3.2 Construction by Private Party

A private party may construct a sewer to be dedicated to the District as a public sewer. The private party is responsible for engineering, permitting, and construction of the improvement. The statute (ILCS 2405/7.7) allows for (but does not require) the recapture of costs from other properties benefited by the privately funded improvement.

If property owners along the sewer did not participate in the cost of the improvement, the District may provide a recapture agreement to assess such owners their prorated share of the costs of the sewer upon application to connect. The private party must submit paid copies of all costs of the project in a timely manner, and indicate which undisputed individuals are to receive the recapture payments.

Property owners desiring to connect to the newly constructed sewer must apply for a connection permit and must comply with all District requirements, including annexation to the District and payment of all District fees and charges.

3.3 Cash Plan

The residents of a given street may choose between two methods of constructing a sanitary sewer under a cash plan. Under the first method, the residents form a non-profit organization to administer the construction project, dealing directly with an engineer, a contractor, the District and a bank. Under the second method, the residents contract with the District to administer the project on their behalf. An outline of the steps to be taken under each method is presented below:

3.3.1 Cash Plan – Non-Profit Organization

3.3.1.1 The residents of a given street desiring to construct a sanitary sewer should first form a non-profit organization (for example – "Smith Avenue Improvement Association"). It is recommended that an attorney be consulted in order to properly establish the organization.

3.3.1.2 Officers should be selected, or a governing committee should be selected, to represent the property owners in future dealings with the District, contractors, engineers, etc.

3.3.1.3 After the organization has been formed and there is sufficient interest in the project, the officers should retain a registered engineer who is experienced in the design and construction of sanitary sewers.

3.3.1.4 The committee should authorize the engineer to prepare a preliminary estimate of cost of the proposed project. This preliminary estimate of cost can be prepared for a nominal fee. It would require the engineer to make a reconnaissance of the area, determine construction conditions in the area and generally look over the area to arrive at the preliminary estimate of cost. The committee should be prepared to supply the engineer with all available information, i.e. limits of the proposed improvement, number of homes, legal descriptions for area involved, etc.

3.3.1.5 Upon receipt of the cost estimate, the committee should then call a meeting of all property owners on the street. The estimated cost and other information can then be explained to the property owners.

3.3.1.6 If a sufficient number of property owners are in favor of proceeding with the project, the officers should then establish an escrow fund at one of the local banks.

3.3.1.7 Following the establishment of an escrow fund, the property owners should be instructed to deposit their pro-rated share of the project into the fund. Ultimately 100% participation will be required by the property owners. If 100% participation is not obtained, the cost of the non-participants will have to be borne by the remaining owners.

3.3.1.8 After approximately 50% of the total cost of the project has been deposited in the escrow account, the organization should then authorize the engineers to proceed with the preparation of final plans and specifications.

3.3.1.9 Four (4) copies of the completed plans and specifications must be submitted to the District for review and approval. Following District approval, two (2) sets of plans and specifications will be submitted by the District to the Illinois Environmental Protection Agency for review and issuance of the required permit. It is recommended that the plans not be released for bidding until District approval has been received. Construction of the sewer may not begin until the Illinois Environmental Protection Agency permit is received.

3.3.1.10 After approximately 80% of the necessary funds are deposited in the escrow account and the organization is assured that the remaining 20% will be deposited prior to the completion of the project, the engineers should then be authorized to solicit bids from contractors.

3.3.1.11 It is suggested that bids be opened at a joint meeting of the bidders, the engineer and organization officers. A contract is then awarded by the organization to the selected contractor.

3.3.1.12 The organization will be responsible, through the engineer, to monitor the sewer construction.

3.3.1.13 Payments to the contractor and the engineer shall be made from the escrow fund as authorized by the organization officers.

3.3.1.14 Following completion of the sewer, the District will prepare an agreement to be signed by the representatives of the organization. This agreement will assign the ownership of the sewer to the District and the District will agree to operate and maintain the sewer following acceptance.

3.3.1.15 If any of the property owners along the sewer did not participate in the cost of the improvement, the District will provide a recapture agreement to assess such owners their prorated share of the costs of the sewer upon application to connect. The organization officers must submit paid copies of all costs of the project and indicate which individuals are to receive recapture payments.

3.3.1.16 Property owners desiring to connect to the newly constructed sewer must apply for a connection permit and must comply with all District requirements, including annexation to the District and payment of all District fees and charges.

3.3.2 Contract with Sanitary District

Under the second cash plan method, the residents of the given street enter into an agreement with the District to construct the sewer. The District then administers the project and deals with the engineer and contractors. The following steps are required under this method:

3.3.2.1 The District provides an agreement for execution by each property owner who desires to participate in the sewer construction. This agreement will indicate the deposit required of each participating owner, authorize the District to prepare plans and specifications, advertise for bids, publicly open bids, award the contract to the lowest responsible bidder, proceed to construct the sewer, and establish a recapture fee to be assessed against any property along the route of the sewer which did not participate in the cost of the sewer.

3.3.2.2 Property owners desiring to connect to the newly constructed sewer must apply for a connection permit and must comply with all District requirements, including annexation to the District and payment of all District fees and charges.

3.4 Special Service Area

The Statutes of the State of Illinois set forth a special service area procedure whereby the District may construct sanitary sewers and assess the costs of the sewers against benefited property as a levy of an additional real estate or other tax for special services that are not available to other properties within the District. In order to utilize the special service area procedure, the property to be benefited and assessed must be within the corporate limits of the District. The procedure for annexing property to the District is discussed under Section 3.1.1.

The District has not utilized the special service area procedure to finance the installation of sanitary sewers and prefers the special assessment procedure as a more equitable method of financing such installations.

4. Unsewered Sub-Areas

The needs of different unsewered areas vary, depending on local conditions. The District has delineated a number of distinct sub-areas, and developed sewer plans according to the specific circumstances of each sub-area. Exhibit 2 shows these unsewered sub-areas. These sub-areas are listed as follows:

- 73rd and Webster
- Downers Grove Park
- Downers Grove Gardens
- Fairhaven Court
- Burlington Highlands
- Golf Addition
- Florence Avenue
- Meyers and 31st
- 57th and Grant *(Sanitary sewers are available as of March 2015.)*
- 60th and Cumnor
- 63rd Street Corridor
- Gilbert and Lee

Planning elements that have been considered in each sub-area include existing development and associated population density, zoning and associated density for undeveloped property, local topography, and existing nearby sewers. A planned sewer system layout is developed to provide sewer service for the entire sub-area. Sewer system layout includes routing and depth information, as needed to verify capacity and to estimate costs. Manhole spacing has been established assuming the entire sub-area were sewered as a single project. Actual manhole spacing can be adjusted to accommodate specific projects within any sub-area. With this flexibility in mind, construction of sewer extensions in the unsewered area is expected to be consistent with the planned sewer system lay-out.

For each planned sewer system addition, estimates of probable construction costs have been made. Estimates are based on unit quantities developed by the District. Unit prices are applied to these unit quantities. Estimates are updated periodically to reflect changes in unit pricing over time. Unit pricing is derived using recent unit prices from similar construction projects. The intent of the District is to update the unit price costs each calendar year using unit prices from recent projects and future industry projections. This report uses projected unit prices for the year 2017.

Every unsewered parcel has an associated sewer construction project that is necessary as the minimal project needed to obtain service. The project includes all downstream construction required to connect the parcel to the existing sewer according to this plan.

Specific sub-areas are identified and discussed here in detail. Preliminary plans were previously prepared for many unsewered areas. Historically, this was done on an as-needed basis as interest in obtaining sewer service is shown in individual unsewered areas. These preliminary plans were updated and included in this report, as well as new preliminary plans for sub-areas that were not investigated previously. Thus, this report contains a comprehensive summary of all the preliminary plans to provide sewer to all unsewered areas within the District FPA.

4.1 73rd and Webster

The unsewered area at 73rd Street and Webster Street includes 25 lots that are already developed as single family residential, 9 facing 73rd Street along the north side, and 16 facing Webster directly south of 73rd Street. A map of the area is included in Exhibit 4.1.

The area can be served from four existing locations: a new manhole on the existing sewer on 75th Street at Webster Street, an existing manhole on the west side of Main Street at 73rd Street, an existing manhole located on Webster Street just south of Old Orchard Avenue, and/or an existing sewer at Baybury Road and 73rd.

Another component of this analysis was to evaluate the downstream capacity of the existing sewers. Our analysis determined that all of the existing sewers have adequate capacity to receive the additional flow from the 73rd and Webster sub-area.

Several options were considered when determining the cost-effective sewer layout to serve this area. Ground surface contours and major road crossings play a key role in development of the cost-effective sewer layout.

The low-cost layout generally follows the existing ground contours, while minimizing the number of road crossings. A deep cut is avoided in the hill along Webster by serving the homes along Webster with a southward-running sewer segment. The homes along 73rd are best served from the manhole to the north, to avoid a crossing at Main Street. The manhole at Baybury and 73rd is too shallow to serve the homes at the western edge of the service area.

A summary of the manhole and sewer layout are provided in Table 4.1-1.

Table 4.1-2 includes a breakdown of the unit quantities and unit prices used to prepare the opinion of probable cost. The total opinion of project cost is $822,500, including contingency, engineering, easements, and legal/administrative costs. Some easement acquisition is required along 73rd street to avoid the nearby water main.

DOWNERS GROVE SANITARY DISTRICT UNSEWERED AREA PLAN

EXHIBIT 4.1

73rd AND WEBSTER POSSIBLE SEWER ALIGNMENT

MARCH 2017

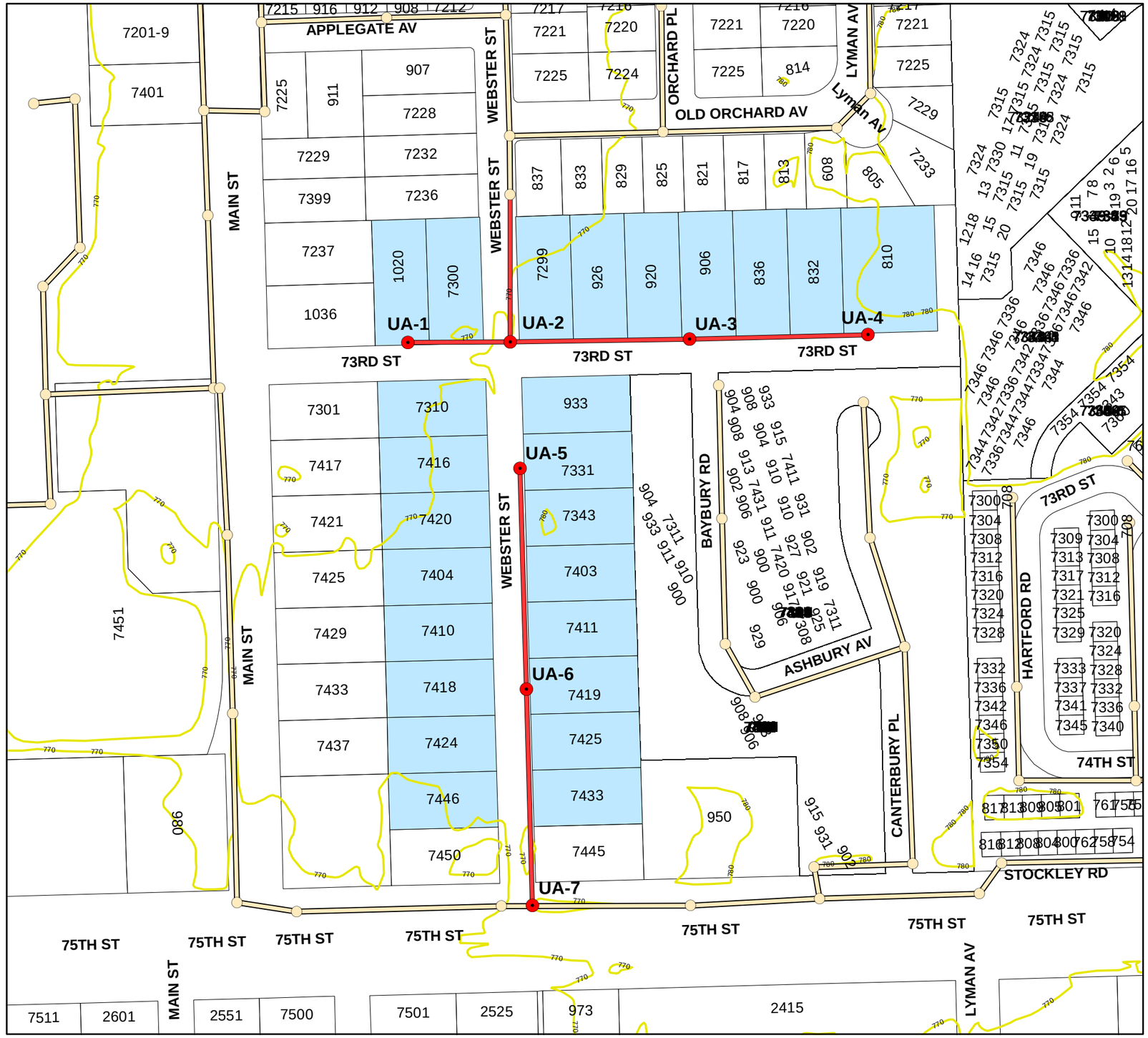
LEGEND

- PROPOSED MANHOLES
- PROPOSED SEWERS
- EXISTING MANHOLES
- EXISTING SEWERS
- PARCEL BOUNDARIES
- 73RD AND WEBSTER

N

0 200 400

Feet



BAXTER & WOODMAN Consulting Engineers

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364cak - 3/6/2017

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Table 4.1-1
Downers Grove Sanitary District
Possible Special Assessment for Sanitary Sewers
73rd and Webster
Preliminary Design Layout

Manhole Number	Rim	Invert	Length (ft)	Slope	Manhole Depth
73rd Street					
H-7-9-42 (existing)	765.3	755.09			10.2
			310	1.50%	
UA-2	771.8	759.74			12.1
			350	1.50%	
UA-3	775.5	764.99			10.5
			340	0.40%	
UA-4	777.5	766.35			11.2
			200	0.40%	
UA-1	768.5	760.54			8.0
Webster Street					
UA-7	770.7	760.77			9.9
			400	0.80%	
UA-6	774.3	763.97			10.3
			400	0.80%	
UA-5	776.0	767.17			8.8

Table 4.1-2

Downers Grove Sanitary District March 2017

Possible Special Assessment for Sanitary Sewers

73rd and Webster

Engineer's Opinion of Probable Construction Cost

No.	Pay Item		Approximate Quantity		Unit Price	Amount
MAINLINE SEWER						
1	SANITARY SEWER (OPEN CUT)					
	8-inch	8-12 feet deep	2,000	lin. ft.	$ 78.00	$ 156,000.00
2	SANITARY MANHOLES					
	48-inch	8-12 feet deep	7	each	$ 5,700.00	$ 39,900.00
3	CONNECTION TO EXISTING MANHOLE					
	8-inch		1	each	$ 5,500.00	$ 5,500.00
4	TRENCH BACKFILL					
	8-inch	8-12 feet deep	1,097	lin. ft.	$ 100.00	$ 109,700.00
6	SEWER TELEVISING FOR FINAL INSPECTION					
			2,000	lin. ft.	$ 2.45	$ 4,900.00
7	SEWER TESTING FOR FINAL INSPECTION					
			2,000	lin. ft.	$ 2.45	$ 4,900.00
8	CULVERT REMOVAL AND REPLACEMENT					
	12-inch		108	lin. ft.	$ 72.00	$ 7,776.00
9	RESTORATION OF LAWNS AND PARKWAYS:					
	Topsoil and sod		2,160	sq.yd.	$ 13.00	$ 28,080.00
10	RESTORATION OF STREETS:					
	Bit. Concrete Street		630	sq.yd.	$ 57.00	$ 35,910.00
11	REMOVE AND REPLACE DRIVEWAYS					
	Bituminous		58	sq.yd.	$ 43.00	$ 2,494.00
	Concrete		43	sq.yd.	$ 72.00	$ 3,096.00
12	REMOVE AND REPLACE SIDEWALK					
	5-foot PCC		50	sq.ft.	$ 12.00	$ 600.00
13	TREE REMOVAL AND TRIMMING:				Lump Sum	$ 593.50
14	EROSION CONTROL				Lump Sum	$ 890.25

Table 4.1-2

Downers Grove Sanitary District March 2017

Possible Special Assessment for Sanitary Sewers

73rd and Webster

Engineer's Opinion of Probable Construction Cost

No.	Pay Item	Approximate Quantity		Unit Price	Amount
15	TRAFFIC CONTROL			Lump Sum	$ 2,967.50
	SUBTOTAL				$ 408,757.25
SERVICE LATERALS					
1	BUILDING SERVICE LINES				
	Near Side	396	lin. ft.	$ 44.00	$ 17,424.00
	Far Side	1,233	lin. ft.	$ 44.00	$ 54,252.00
2	BUILDING SERVICE BRANCH FITTINGS				
	Near Side	16	each	$ 494.00	$ 7,904.00
	Far Side	9	each	$ 609.00	$ 5,481.00
3	BUILDING SERVICE PLUGS:	25	each	$ 186.00	$ 4,650.00
4	RESTORATION OF LAWNS AND PARKWAYS:				
	Topsoil and Sod	260	sq.yd.	$ 12.00	$ 3,120.00
5	RESTORATION OF STREETS:				
	Bit. Concrete Street	172	sq.yd.	$ 56.00	$ 9,632.00
6	TRENCH BACKFILL				
	0-8 feet deep	295	lin. ft.	$ 55.00	$ 16,225.00
	SUBTOTAL				$ 118,688.00
	TOTAL ESTIMATE OF CONSTRUCTION COST				$ 527,400.00
	Contingencies (20%)				$105,500.00
	Engineering (20%)				$105,500.00
	Legal / Admin (6%)				$44,300.00
	Easement Acquisition				$39,800.00
	TOTAL OPINION OF PROBABLE COST				**$ 822,500.00**
				Cost per lot	$32,900.00

4.2 Downers Grove Park

Downers Grove Park is a large sub-area within the District's FPA that is currently unsewered. As shown on Exhibit 4.2, the approximate limits of this sub-area are Elmore Avenue and Inverness Avenue to the north, Walnut Avenue to the west, 59th Street to the south, and Belmont Road to the east. The proposed service area includes approximately 196 lots that are mostly developed as single-family residences with septic systems. This evaluation establishes the cost-effective sanitary sewer plan for serving the unsewered properties within the Downers Grove Park sub-area.

Several factors were considered when determining the most cost-effective sewer layout. These factors include topography, major road crossings, wetlands, tree protection, water main and existing utility location, and existing downstream sewer capacity. The Downers Grove Park sub-area has one major drainage divide running from west to east, just south of Maple Avenue. Serving these properties by following the ground contours will avoid deep cuts through the higher elevations along the drainage divide. Properties north of this divide will generally be served by the existing manhole at Walnut Avenue and Elmore Avenue, the manhole at the intersection of Janes Avenue and Inverness Avenue, the manhole on Inverness west of Belmont, and the manhole on Elinor Avenue just south of Maple Avenue that was recently constructed as part of the Villas of Maple Woods development. Properties south of the drainage divide can be served by the existing sewers on Walnut Avenue, 59th Street and Hobson Road. The Walnut Avenue sewer has been extended east to Katrine Avenue to provide a manhole to connect to at Katrine and College Road. The 59th Street sewer contains manholes at each cross street to provide connection points for lots along Katrine Avenue, Lomond Avenue, Elinor Avenue and Janes Avenue. The final connection points south of the drainage divide are manholes on Hobson Road at Chase Road and Puffer Road.

In addition to following the ground contours, the low-cost sewer layout also needs to consider avoiding major road crossings. The only major road crossing that would significantly increase construction cost in this sub-area is Maple Avenue. Thus, alternatives were considered to minimize crossing Maple Avenue with both the mainline sewer and building services.

The sewer layout also considered the several wetlands that are located within the sub-area at the following locations: Elinor and Inverness, Katrine and 59th, and Lomond and 59th. Avoiding these wetlands will minimize the time and expense involved in the permitting process for construction in wetlands as well as reduce the costs associated with restoring these areas.

The Village of Downers Grove owns and operates water mains on a majority of the streets within the sub-area. The water main design drawings were reviewed and field investigations of the sewer routes were completed to reduce the potential for utility conflicts and to ensure that the required ten feet of separation from water mains can be achieved.

The final component of this analysis was to evaluate the downstream capacity of the existing sewers. Analysis determined that all of the existing sewers have adequate capacity to receive the additional flow from the Downers Grove Park sub-area.

For this analysis, the subject area was subdivided into smaller, more manageable sub-basins. The sub-basins were created using topography and projected sewer connection points. The following are the proposed sub-basins:

Sub-basin	No. of Services	Layout	Cost Estimate
Katrine-Maple (North)	25	Table 4.2-1	Table 4.2-2
Inverness-Lomond-Elinor-Maple (North)	72	Table 4.2-3	Table 4.2-4
Inverness-Belmont (North)	6	Table 4.2-5	Table 4.2-6
Katrine-College (South)	27	Table 4.2-7	Table 4.2-8
Lomond-College (South)	29	Table 4.2-9	Table 4.2-10
Elinor-College (South)	9	Table 4.2-11	Table 4.2-12
Janes-College (South)	13	Table 4.2-13	Table 4.2-14
Chase-Hobson-Belmont (South)	15	Table 4.2-15	Table 4.2-16

Table 4.2-17 is a summary table of opinions of probable cost. A map of the proposed sewer plan is included in Exhibit 4.2.

The Katrine-Maple (North) sub-basin sewer plan follows the existing topography which falls from Maple Avenue north to the dead end of Katrine Avenue and west to Walnut Avenue. Our analysis determined that parallel sewers on the north and south sides of Maple Avenue will be less expensive than bringing numerous services across the street. A sewer will serve the homes on the north side of Maple Avenue and will be included in the Katrine-Maple (North) sub-basin. The sewer on the south side of Maple will run east to the adjacent Inverness-Lomond-Elinor-Maple (North) sub-basin at Lomond, which is less expensive than another crossing of Maple Avenue. Table 4.2-1 is the proposed layout of the sewer size, length, and slope and manhole invert and depth. Table 4.2-2 includes a breakdown of the unit quantities and unit prices used to prepare the opinion of probable cost. The total opinion of project cost is $780,600, including contingency, engineering, easements, and legal/administrative costs.

The Inverness-Lomond-Elinor-Maple (North) sub-basin sewer plan also follows existing topography from the intersection of Lomond Avenue and Maple Avenue northeast to an existing manhole at Janes Avenue and Inverness Avenue. This sub-basin will include all unsewered properties fronting the south side of Maple Avenue. Two road crossings of Maple are identified to provide flexibility, but only one crossing at Elinor could be utilized if construction phasing allows. The opinion of project cost is $2,471,400, including contingency, engineering, easements, and legal/administrative costs.

The Inverness-Belmont (North) sub-basin is best served by extending a sewer east from the existing manhole near the intersection of Inverness and Ashbrook. The existing ground slope, which rises from west to east, accommodates the plan for serving this sub-basin. The opinion of project cost is $161,500, including contingency, engineering, and legal/administrative costs.

The Katrine-College (South) sub-basin sewer plan will follow the drainage divide south to 59th Street. The lots south of College Road will be served by the existing manhole at the southern terminus of Katrine, while lots north of College will be served by the existing sewer at the intersection of Katrine and College. This sewer is not the recommended alternative to serve the

south frontage properties along Maple Avenue because of the costly deep cuts needed through the hill south of Maple. The opinion of project cost is $553,700, including contingency, engineering, and legal/administrative costs.

The Lomond-College (South) sub-basin sewer plan will follow the drainage divide south to 59th Street. The sub-basin will be served by a sewer that will extend north from the existing manhole near the creek near the southern terminus of Lomond Avenue at 59th Street. This alignment is the most cost effective alternative to serve the area due to the shortest total sewer length and minimizing of utility conflicts. However, the cost per lot is still comparatively larger than for other sub-basins because portions of the sewer will be located in the pavement to avoid the existing water main. The opinion of project cost is $803,400, including contingency, engineering, and legal/administrative costs.

The Elinor-College (South) sub-basin will be served just as Katrine and Lomond. The ground slope promotes a sewer draining south that will connect to the existing system just north of 59th Street. The northerly limit of the sewer is the southern limit of the Villas of Maple Woods Subdivision. The sewer installed as part of that subdivision will serve several properties north of this sub-basin along Elinor. The opinion of project cost is $342,200, including contingency, engineering, and legal/administrative costs.

The Janes-College (South) sub-basin will also flow south to 59th Street. Design drawings for the sewers from 59th Street to College and east on College have been reviewed as part of the proposed Robert's and Lisa Marie subdivisions. The design drawings for these subdivisions are consistent with this preliminary sewer plan. This sewer plan is the least costly because it will not contain any deep sections due to the consistent southerly ground slope. The opinion of project cost is $362,600, including contingency, engineering, and legal/administrative costs.

The Chase-Hobson-Belmont (South) sub-basin is also best served by sanitary sewers draining to the south to match the topography. A sewer should be constructed north along Chase Road from the existing manhole approximately 200 feet north of Hobson. Belmont Road will be served by a sewer that extends north from Hobson and Puffer. A major factor in the higher cost per lot of this sub-basin was the trench backfill and pavement restoration needed along Belmont Road. The opinion of project cost is $580,200, including contingency, engineering, and legal/administrative costs.

DOWNERS GROVE SANITARY DISTRICT UNSEWERED AREA PLAN

EXHIBIT 4.2

DOWNERS GROVE PARK POSSIBLE SEWER ALIGNMENT

MARCH 2017

LEGEND

- PROPOSED MANHOLES
- PROPOSED SEWERS
- EXISTING MANHOLES
- EXISTING SEWERS
- PARCEL BOUNDARIES
- KATRINE-MAPLE (NORTH):TABLES 4.2-1, 4.2-2
- INVERNESS-LOMOND-ELINOR-MAPLE (NORTH):TABLES 4.2-3, 4.2-4
- INVERNESS-BELMONT (NORTH):TABLES 4.2-5, 4.2-6
- KATRINE-COLLEGE (SOUTH):TABLES 4.2-7, 4.2-8
- LOMOND-COLLEGE (SOUTH):TABLES 4.2-9, 4.2-10
- ELINOR-COLLEGE (SOUTH):TABLES 4.2-11, 4.2-12
- JANES-COLLEGE (SOUTH):TABLES 4.2-13, 4.2-14
- CHASE-HOBSON-BELMONT (SOUTH):TABLES 4.2-15, 4.2-16

N

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Feet

BAXTER & WOODMAN Consulting Engineers

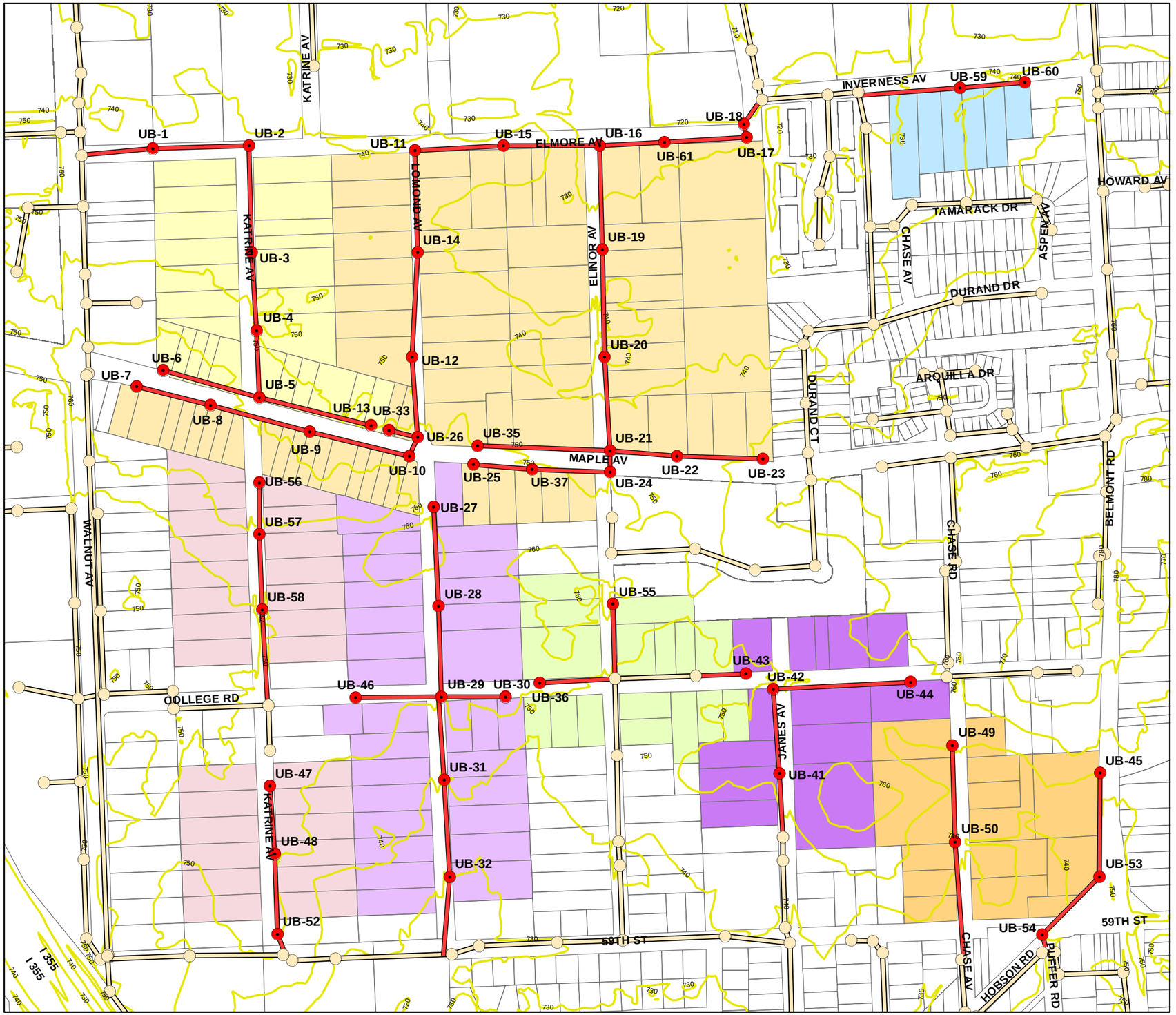

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Table 4.2-1

Downers Grove Sanitary District

Possible Special Assessment for Sanitary Sewers

Katrine-Maple (North)

Preliminary Design

Manhole Number	Rim	Invert	Length (ft)	Slope	Manhole Depth
Katrine Avenue					
3-A-23 (existing)	748.1	732.36			15.7
			255	1.00%	
UB-1	741.0	734.91			6.1
			346	0.40%	
UB-2	742.0	736.29			5.7
			400	0.40%	
UB-3	746.3	737.89			8.4
			300	0.40%	
UB-4	749.5	739.09			10.4
			275	0.40%	
UB-5	757.3	740.19			17.1
Maple Avenue					
			420	0.40%	
UB-13	749.0	741.87			7.1
			380	2.00%	
UB-6	756.0	747.79			8.2

Table 4.2-2

Downers Grove Sanitary District March 2017

Possible Special Assessment for Sanitary Sewers

Katrine-Maple (North)

Engineer's Opinion of Probable Construction Cost

No.	Pay Item		Approximate Quantity		Unit Price	Amount
MAINLINE SEWER						
1	SANITARY SEWER (OPEN CUT)					
	8-inch	0-8 feet deep	270	lin. ft.	$ 67.00	$ 18,090.00
		8-12 feet deep	996	lin. ft.	$ 78.00	$ 77,688.00
		12-16 feet deep	705	lin. ft.	$ 95.00	$ 66,975.00
		16-20 feet deep	150	lin. ft.	$ 113.00	$ 16,950.00
2	SANITARY SEWER (DIRECTIONAL DRILLED)					
	8-inch		255	lin. ft.	$ 246.00	$ 62,730.00
3	SANITARY MANHOLES					
	48-inch	0-8 feet deep	3	each	$ 4,300.00	$ 12,900.00
		8-12 feet deep	3	each	$ 5,700.00	$ 17,100.00
		16-20 feet deep	1	each	$ 9,200.00	$ 9,200.00
4	CONNECTION TO EXISTING MANHOLE					
	8-inch		1	each	$ 5,500.00	$ 5,500.00
5	TRENCH BACKFILL					
	8-inch	0-8 feet deep	35	lin. ft.	$ 83.00	$ 2,905.00
		8-12 feet deep	95	lin. ft.	$ 100.00	$ 9,500.00
		12-16 feet deep	70	lin. ft.	$ 123.00	$ 8,610.00
		16-20 feet deep	25	lin. ft.	$ 160.00	$ 4,000.00
6	TREE TUNNELING		250	lin. ft.	$ 172.00	$ 43,000.00
7	SEWER TELEVISING FOR FINAL INSPECTION					
			2,376	lin. ft.	$ 2.45	$ 5,821.20
8	SEWER TESTING FOR FINAL INSPECTION					
			2,376	lin. ft.	$ 2.45	$ 5,821.20
9	CULVERT REMOVAL AND REPLACEMENT					
	12-inch		85	lin. ft.	$ 72.00	$ 6,120.00
10	RESTORATION OF LAWNS AND PARKWAYS:					
	Topsoil and Seed		708	sq.yd.	$ 13.00	$ 9,204.00
	Topsoil and Sod		2,880	sq.yd.	$ 13.00	$ 37,440.00
11	RESTORATION OF STREETS					
	Bituminous		33	sq.yd.	$ 57.00	$ 1,881.00

Table 4.2-2

Downers Grove Sanitary District March 2017

Possible Special Assessment for Sanitary Sewers

Katrine-Maple (North)

Engineer's Opinion of Probable Construction Cost

No.	Pay Item	Approximate Quantity		Unit Price	Amount
12	REMOVE AND REPLACE DRIVEWAYS				
	Bituminous	120	sq.yd.	$ 43.00	$ 5,160.00
	PCC Driveway	45	sq.yd.	$ 72.00	$ 3,240.00
	Gravel Driveway	50	sq.yd.	$ 19.00	$ 950.00
13	TREE REMOVAL & TRIMMING			Lump Sum	$ 2,374.00
14	TRAFFIC CONTROL			Lump Sum	$ 8,902.50
	SUBTOTAL				$ 442,061.90
SERVICE LATERALS					
1	BUILDING SERVICE LINES				
	Near side	210	lin. ft.	$ 44.00	$ 9,240.00
	Far side	400	lin. ft.	$ 44.00	$ 17,600.00
2	BUILDING SERVICE BRANCH FITTINGS				
	Near Side	17	each	$ 494.00	$ 8,398.00
	Far side	8	each	$ 609.00	$ 4,872.00
3	BUILDING SERVICE PLUG	25	each	$ 186.00	$ 4,650.00
4	RESTORATION OF LAWNS AND PARKWAYS:				
	Sod	340	sq.yd.	$ 12.50	$ 4,250.00
5	RESTORATION OF STREETS:				
	Bit. Concrete Street	60	sq.yd.	$ 56.00	$ 3,360.00
6	TRENCH BACKFILL				
	0-8 feet deep	152	lin. ft.	$ 55.00	$ 8,360.00
	SUBTOTAL				$ 60,730.00
	TOTAL ESTIMATE OF CONSTRUCTION COST				$ 502,800.00
	Contingencies (20%)				$100,600.00
	Engineering (20%)				$100,600.00
	Legal / Admin (6%)				$42,200.00
	Easement Acquisition				$34,400.00
	TOTAL OPINION OF PROBABLE COST				**$ 780,600.00**
				Cost per lot	$31,220.00

Table 4.2-3

Downers Grove Sanitary District
Possible Special Assessment for Sanitary Sewers
Inverness-Lomond-Elinor-Maple (North)
Preliminary Design

Manhole Number	Rim	Invert	Length (ft)	Slope	Manhole Depth
Inverness Avenue (Janes to Lomond)					
2-A-71A (existing)	717.7	704.82			12.9
			42	1.20%	
UB-18	717.5	705.32			12.2
			125	3.00%	
UB-17	726.0	709.07			16.9
			340	1.20%	
UB-61	723.8	713.15			10.6
			284	1.20%	
UB-16	725.5	716.56			8.9
			400	3.00%	
UB-15	742.5	728.56			13.9
			320	0.80%	
UB-11	742.3	731.12			11.1
Lomond Avenue (Inverness to Maple)					
			390	0.40%	
UB-14	741.3	732.68			8.6
			400	0.80%	
UB-12	747.3	735.88			11.4
			333	0.80%	
UB-26	750.3	738.55			11.7
Maple Avenue (west of Lomond)					
			135	0.40%	
UB-33	748.0	739.09			8.9
			80	0.80%	
UB-10	754.0	739.19			14.8
			400	0.80%	
UB-9	754.0	742.39			11.6
			400	1.00%	
UB-8	762.0	746.39			15.6
			250	1.00%	
UB-7	763.0	748.89			14.1

Table 4.2-3

Downers Grove Sanitary District
Possible Special Assessment for Sanitary Sewers
Inverness-Lomond-Elinor-Maple (North)
Preliminary Design

Manhole Number	Rim	Invert	Length (ft)	Slope	Manhole Depth
Elinor Avenue (Inverness to Maple)					
			400	2.00%	
UB-19	735.5	724.56			10.9
			400	1.50%	
UB-20	738.8	730.56			8.2
			375	1.50%	
UB-21	747.0	736.19			10.8
Maple Avenue (east and west of Elinor)					
			350	0.80%	
UB-22	747.0	738.99			8.0
			250	0.80%	
UB-23	750.0	740.99			9.0
			450	0.80%	
UB-35	750.5	739.79			10.7
			80	1.00%	
UB-24	748.0	736.99			11.0
			300	1.00%	
UB-37	750.0	739.99			10.0
			300	1.00%	
UB-25	752.0	742.99			9.0

Table 4.2-4

Downers Grove Sanitary District March 2017

Possible Special Assessment for Sanitary Sewers

Inverness-Lomond-Elinor-Maple (North)

Engineer's Opinion of Probable Construction Cost

No.	Pay Item		Approximate Quantity		Unit Price	Amount
MAINLINE SEWER						
1	SANITARY SEWER (OPEN CUT)					
	8-inch	8-12 feet deep	5,193	lin. ft.	$ 78.00	$ 405,054.00
		12-16 feet deep	920	lin. ft.	$ 95.00	$ 87,400.00
		16-20 feet deep	691	lin. ft.	$ 113.00	$ 78,083.00
2	SANITARY MANHOLES					
	48-inch	8-12 feet deep	19	each	$ 5,700.00	$ 108,300.00
		12-16 feet deep	3	each	$ 6,800.00	$ 20,400.00
		16-20 feet deep	1	each	$ 9,200.00	$ 9,200.00
3	CONNECTION TO EXISTING MANHOLE					
	8-inch		1	each	$ 5,500.00	$ 5,500.00
4	TRENCH BACKFILL					
	8-inch	8-12 feet deep	3,050	lin. ft.	$ 100.00	$ 305,000.00
		12-16 feet deep	502	lin. ft.	$ 123.00	$ 61,746.00
		16-20 feet deep	184	lin. ft.	$ 160.00	$ 29,440.00
5	TREE TUNNELING		350	lin. ft.	$ 172.00	$ 60,200.00
6	SEWER TELEVISING FOR FINAL INSPECTION					
			6,804	lin. ft.	$ 2.45	$ 16,669.80
7	SEWER TESTING FOR FINAL INSPECTION					
			6,804	lin. ft.	$ 2.45	$ 16,669.80
8	CULVERT REMOVAL AND REPLACEMENT					
	12-inch		515	lin. ft.	$ 72.00	$ 37,080.00
9	RESTORATION OF LAWNS AND PARKWAYS:					
	Topsoil and seed		308	sq.yd.	$ 13.00	$ 4,004.00
	Sod		3,378	sq.yd.	$ 13.00	$ 43,914.00
10	RESTORATION OF STREETS					
	Bituminous		2,000	sq.yd.	$ 57.00	$ 114,000.00
	PCC Curb & Gutter		60	lin. ft.	$ 37.00	$ 2,220.00
	PCC Sidewalk		650	sq. ft.	$ 12.00	$ 7,800.00

Table 4.2-4

Downers Grove Sanitary District March 2017

Possible Special Assessment for Sanitary Sewers

Inverness-Lomond-Elinor-Maple (North)

Engineer's Opinion of Probable Construction Cost

No.	Pay Item	Approximate Quantity		Unit Price	Amount
11	REMOVE AND REPLACE DRIVEWAYS				
	Bituminous	290	sq.yd.	$ 43.00	$ 12,470.00
	PCC Driveway	75	sq.yd.	$ 72.00	$ 5,400.00
	Gravel Driveway	25	sq.yd.	$ 19.00	$ 475.00
12	TREE REMOVAL & TRIMMING			Lump Sum	$ 4,154.50
13	TRAFFIC CONTROL			Lump Sum	$ 17,805.00
	SUBTOTAL				$ 1,452,985.10
SERVICE LATERALS					
1	BUILDING SERVICE LINES				
	Near side	763	lin. ft.	$ 44.00	$ 33,572.00
	Far side	400	lin. ft.	$ 44.00	$ 17,600.00
2	BUILDING SERVICE BRANCH FITTINGS				
	Near Side	59	each	$ 494.00	$ 29,146.00
	Far side	13	each	$ 609.00	$ 7,917.00
3	BUILDING SERVICE PLUG	72	each	$ 186.00	$ 13,392.00
4	RESTORATION OF LAWNS AND PARKWAYS:				
	Sod	1,004	sq.yd.	$ 12.50	$ 12,550.00
5	RESTORATION OF STREETS:				
	Bit. Concrete Street	149	sq.yd.	$ 56.00	$ 8,344.00
6	TRENCH BACKFILL				
	0-8 feet deep	260	lin. ft.	$ 55.00	$ 14,300.00
	SUBTOTAL				$ 136,821.00
	TOTAL ESTIMATE OF CONSTRUCTION COST				$ 1,589,800.00
	Contingencies (20%)				$318,000.00
	Engineering (20%)				$318,000.00
	Legal / Admin (6%)				$133,500.00
	Easement Acquisition				$112,100.00
	TOTAL OPINION OF PROBABLE COST				**$ 2,471,400.00**
				Cost per lot	$34,330.00

Table 4.2-5

Downers Grove Sanitary District
Possible Special Assessment for Sanitary Sewers
Inverness-Belmont (North)
Preliminary Design Layout

Manhole Number	Rim	Invert	Length (ft)	Slope	Manhole Depth
Inverness Avenue					
2-A-71F existing	725.4	715.59			9.8
			400	2.20%	
UB-59	734.0	724.39			9.6
			250	2.20%	
UB-60	738.0	729.89			8.1

Table 4.2-6

Downers Grove Sanitary District March 2017

Possible Special Assessment for Sanitary Sewers

Inverness-Belmont (North)

Engineer's Opinion of Probable Construction Cost

No.	Pay Item		Approximate Quantity		Unit Price	Amount
MAINLINE SEWER						
1	SANITARY SEWER (OPEN CUT)					
	8-inch	0-8 feet deep	200	lin. ft.	$ 67.00	$ 13,400.00
		8-12 feet deep	450	lin. ft.	$ 78.00	$ 35,100.00
2	SANITARY MANHOLES					
	48-inch	0-8 feet deep	1	each	$ 4,300.00	$ 4,300.00
		8-12 feet deep	1	each	$ 5,700.00	$ 5,700.00
3	CONNECTION TO EXISTING MANHOLE					
	8-inch		1	each	$ 5,500.00	$ 5,500.00
4	TRENCH BACKFILL					
	8-inch	0-8 feet deep	48	lin. ft.	$ 83.00	$ 3,984.00
		8-12 feet deep	96	lin. ft.	$ 100.00	$ 9,600.00
5	TREE TUNNELING		0	lin. ft.	$ 172.00	$ 0.00
6	SEWER TELEVISING FOR FINAL INSPECTION		650	lin. ft.	$ 2.45	$ 1,592.50
7	SEWER TESTING FOR FINAL INSPECTION		650	lin. ft.	$ 2.45	$ 1,592.50
8	CULVERT REMOVAL AND REPLACEMENT					
	12-inch		40	lin. ft.	$ 72.00	$ 2,880.00
9	RESTORATION OF LAWNS AND PARKWAYS:					
	Topsoil and seed		900	sq.yd.	$ 13.00	$ 11,700.00
10	RESTORATION OF STREETS:					
	Bit. Concrete Street		0	sq.yd.	$ 57.00	$ 0.00
11	REMOVE AND REPLACE DRIVEWAYS					
	Bituminous		68	sq.yd.	$ 43.00	$ 2,924.00
	Concrete		12	sq.yd.	$ 72.00	$ 864.00
12	TREE REMOVAL AND TRIMMING:				Lump Sum	$ 0.00

Table 4.2-6

Downers Grove Sanitary District March 2017

Possible Special Assessment for Sanitary Sewers

Inverness-Belmont (North)

Engineer's Opinion of Probable Construction Cost

No.	Pay Item	Approximate Quantity		Unit Price	Amount
13	EROSION CONTROL			Lump Sum	$ 890.25
14	TRAFFIC CONTROL			Lump Sum	$ 890.25
	SUBTOTAL				$ 100,917.50
SERVICE LATERALS					
1	BUILDING SERVICE LINES				
	Near side	72	lin. ft.	$ 44.00	$ 3,168.00
	Far side	0	lin. ft.	$ 44.00	$ 0.00
2	BUILDING SERVICE BRANCH FITTINGS				
	Near Side	6	each	$ 494.00	$ 2,964.00
	Far side	0	each	$ 609.00	$ 0.00
3	BUILDING SERVICE PLUG	6	each	$ 186.00	$ 1,116.00
4	RESTORATION OF LAWNS AND PARKWAYS:				
	Topsoil and seed	50	sq.yd.	$ 12.50	$ 625.00
5	RESTORATION OF STREETS:				
	Bit. Concrete Street	0	sq.yd.	$ 56.00	$ 0.00
6	TRENCH BACKFILL				
	0-8 feet deep	0	lin. ft.	$ 55.00	$ 0.00
	SUBTOTAL				$ 7,873.00
	TOTAL ESTIMATE OF CONSTRUCTION COST				$ 108,800.00
	Contingencies (20%)				$21,800.00
	Engineering (20%)				$21,800.00
	Legal / Admin (6%)				$9,100.00
	TOTAL OPINION OF PROBABLE COST				**$ 161,500.00**
				Cost per lot	$26,920.00

Table 4.2-7
Downers Grove Sanitary District
Possible Special Assessment for Sanitary Sewers
Katrine-College (South)
Preliminary Design

Manhole Number	Rim	Invert	Length (ft)	Slope	Manhole Depth
Katrine Avenue (south of College)					
H-8-22 (ex.)	745.0	725.86			
			39	5.00%	
UB-52	751.0	735.81			15.2
			300	1.00%	
UB-48	754.0	738.81			15.2
			350	0.40%	
UB-47	752.0	740.21			11.8
Katrine Avenue (north of College)					
Chase & College (ex.)	751.1	739.60			
			360	1.00%	
UB-58	751.0	743.20			7.8
			300	2.00%	
UB-57	760.0	749.20			10.8
			200	2.00%	
UB-56	764.0	753.20			10.8

Table 4.2-8

Downers Grove Sanitary District March 2017

Possible Special Assessment for Sanitary Sewers

Katrine-College (South)

Engineer's Opinion of Probable Construction Cost

No.	Pay Item		Approximate Quantity		Unit Price	Amount
MAINLINE SEWER						
1	SANITARY SEWER (OPEN CUT)					
	8-inch	0-8 feet deep	760	lin. ft.	$ 67.00	$ 50,920.00
		8-12 feet deep	499	lin. ft.	$ 78.00	$ 38,922.00
		12-16 feet deep	290	lin. ft.	$ 95.00	$ 27,550.00
2	SANITARY MANHOLES					
	48-inch	0-8 feet deep	2	each	$ 4,300.00	$ 8,600.00
		8-12 feet deep	2	each	$ 5,700.00	$ 11,400.00
		12-16 feet deep	2	each	$ 6,800.00	$ 13,600.00
3	DROP CONNECTION					
	8-inch		8	lin. ft.	$ 296.00	$ 2,368.00
4	CONNECTION TO EXISTING MANHOLE					
	8-inch		1	each	$ 5,500.00	$ 5,500.00
5	TRENCH BACKFILL					
	8-inch	0-8 feet deep	156	lin. ft.	$ 83.00	$ 12,948.00
		8-12 feet deep	65	lin. ft.	$ 100.00	$ 6,500.00
		12-16 feet deep	104	lin. ft.	$ 123.00	$ 12,792.00
6	TREE TUNNELING		80	lin. ft.	$ 172.00	$ 13,760.00
7	SEWER TELEVISING FOR FINAL INSPECTION					
			1,549	lin. ft.	$ 2.45	$ 3,795.05
8	SEWER TESTING FOR FINAL INSPECTION					
			1,549	lin. ft.	$ 2.45	$ 3,795.05
9	CULVERT REMOVAL AND REPLACEMENT					
	12-inch		220	lin. ft.	$ 72.00	$ 15,840.00
10	RESTORATION OF LAWNS AND PARKWAYS:					
	Topsoil and sod		2,130	sq.yd.	$ 13.00	$ 27,690.00
11	RESTORATION OF STREETS:					
	Bit. Concrete Street		12	sq.yd.	$ 57.00	$ 684.00
12	REMOVE AND REPLACE DRIVEWAYS					
	Bituminous		150	sq.yd.	$ 43.00	$ 6,450.00
	Concrete		25	sq.yd.	$ 72.00	$ 1,800.00

Table 4.2-8

Downers Grove Sanitary District March 2017

Possible Special Assessment for Sanitary Sewers

Katrine-College (South)

Engineer's Opinion of Probable Construction Cost

No.	Pay Item	Approximate Quantity		Unit Price	Amount
13	TREE REMOVAL AND TRIMMING:			Lump Sum	$ 7,715.50
14	EROSION CONTROL			Lump Sum	$ 890.25
15	TRAFFIC CONTROL			Lump Sum	$ 2,967.50
	SUBTOTAL				$ 276,487.35
SERVICE LATERALS					
1	BUILDING SERVICE LINES				
	Near side	205	lin. ft.	$ 44.00	$ 9,020.00
	Far side	715	lin. ft.	$ 44.00	$ 31,460.00
2	BUILDING SERVICE BRANCH FITTINGS				
	Near Side	13	each	$ 494.00	$ 6,422.00
	Far side	14	each	$ 609.00	$ 8,526.00
3	BUILDING SERVICE PLUG	27	each	$ 186.00	$ 5,022.00
4	RESTORATION OF LAWNS AND PARKWAYS:				
	Topsoil and seed	685	sq.yd.	$ 12.50	$ 8,562.50
5	RESTORATION OF STREETS:				
	Bit. Concrete Street	195	sq.yd.	$ 56.00	$ 10,920.00
6	TRENCH BACKFILL				
	0-8 feet deep	305	lin. ft.	$ 55.00	$ 16,775.00
	SUBTOTAL				$ 96,707.50
	TOTAL ESTIMATE OF CONSTRUCTION COST				$ 373,200.00
	Contingencies (20%)				$74,600.00
	Engineering (20%)				$74,600.00
	Legal / Admin (6%)				$31,300.00
	TOTAL OPINION OF PROBABLE COST				**$ 553,700.00**
				Cost per lot	$20,510.00

Table 4.2-9
Downers Grove Sanitary District
Possible Special Assessment for Sanitary Sewers
Lomond-College (South)
Preliminary Design Layout

Manhole Number	Rim	Invert	Length (ft)	Slope	Manhole Depth
Lomond Avenue					
H-8-19 existing	725.0	720.00			5.0
			305	1.30%	
UB-32	732.0	723.97			8.0
			300	2.20%	
UB-31	738.0	730.57			7.4
			400	3.40%	
UB-29	752.0	744.17			7.8
			370	1.10%	
UB-28	756.0	748.24			7.8
			375	0.50%	
UB-27	758.0	750.11			7.9
College Road					
			245	0.50%	
UB-30	753.0	745.39			7.6
			300	1.00%	
UB-46	755.0	747.17			7.8

Table 4.2-10

Downers Grove Sanitary District March 2017

Possible Special Assessment for Sanitary Sewers

Lomond-College (South)

Engineer's Opinion of Probable Construction Cost

No.	Pay Item	Approximate Quantity		Unit Price	Amount
MAINLINE SEWER					
1	SANITARY SEWER (OPEN CUT)				
	8-inch 0-8 feet deep	2,295	lin. ft.	$ 67.00	$ 153,765.00
2	SANITARY MANHOLES				
	48-inch 0-8 feet deep	7	each	$ 4,300.00	$ 30,100.00
3	CONNECTION TO EXISTING MANHOLE				
	8-inch	1	each	$ 5,500.00	$ 5,500.00
4	TRENCH BACKFILL				
	8-inch 0-8 feet deep	1,599	lin. ft.	$ 83.00	$ 132,717.00
5	TREE TUNNELLING	40	lin. ft.	$ 172.00	$ 6,880.00
6	WATER MAIN RELOCATION:	1	each	$ 6,300.00	$ 6,300.00
7	SEWER TELEVISING FOR FINAL INSPECTION	2,295	lin. ft.	$ 2.45	$ 5,622.75
8	SEWER TESTING FOR FINAL INSPECTION	2,295	lin. ft.	$ 2.45	$ 5,622.75
9	CULVERT REMOVAL AND REPLACEMENT:				
	12-inch	76	lin. ft.	$ 72.00	$ 5,472.00
10	RESTORATION OF LAWNS AND PARKWAYS:				
	Topsoil and sod	1,548	sq.yd.	$ 13.00	$ 20,124.00
11	RESTORATION OF STREETS:				
	Bituminous Concrete Street	1,069	sq.yd.	$ 57.00	$ 60,933.00
12	REMOVE AND REPLACE DRIVEWAYS:				
	Bituminous Driveway	39	sq.yd.	$ 43.00	$ 1,677.00
	PCC Driveway	10	sq.yd.	$ 72.00	$ 720.00
13	TREE REMOVAL AND TRIMMING:			Lump Sum	$ 2,374.00
14	EROSION CONTROL:			Lump Sum	$ 890.25

Table 4.2-10

Downers Grove Sanitary District March 2017

Possible Special Assessment for Sanitary Sewers

Lomond-College (South)

Engineer's Opinion of Probable Construction Cost

No.	Pay Item	Approximate Quantity		Unit Price	Amount
15	TRAFFIC CONTROL:			Lump Sum	$ 5,935.00
	SUBTOTAL				$ 444,632.75
SERVICE LATERALS					
1	BUILDING SERVICE LINES				
	Near side	360	lin. ft.	$ 44.00	$ 15,840.00
	Far side	630	lin. ft.	$ 44.00	$ 27,720.00
2	BUILDING SERVICE BRANCH FITTINGS				
	Near Side	14	each	$ 494.00	$ 6,916.00
	Far side	15	each	$ 609.00	$ 9,135.00
3	BUILDING SERVICE PLUG	29	each	$ 186.00	$ 5,394.00
4	RESTORATION OF LAWNS AND PARKWAYS:				
	Topsoil and sod	783	sq.yd.	$ 12.50	$ 9,787.50
5	RESTORATION OF STREETS:				
	Bituminous Concrete Street	140	sq.yd.	$ 56.00	$ 7,840.00
6	TRENCH BACKFILL				
	0-8 feet deep	255	lin. ft.	$ 55.00	$ 14,025.00
	SUBTOTAL				$ 96,657.50
	TOTAL ESTIMATE OF CONSTRUCTION COST				$ 541,300.00
				Contingencies (20%)	$108,300.00
				Engineering (20%)	$108,300.00
				Legal / Admin (6%)	$45,500.00
	TOTAL OPINION OF PROBABLE COST				**$ 803,400.00**
				Cost per lot	$27,700.00

Table 4.2-11

Downers Grove Sanitary District
Possible Special Assessment for Sanitary Sewers
Elinor-College (South)
Preliminary Design Layout

Manhole Number	Rim	Invert	Length (ft)	Slope	Manhole Depth
Elinor Avenue					
H-8-54 (existing)	747.9	737.90			10.0
			395	3.00%	
UB-55	760.0	749.75			10.3
College Road					
H-8-55 (existing)	745.4	738.99			
			225	0.80%	
UB-43	748.5	740.79			7.7
			420	0.40%	
UB-36	749.5	739.58			9.9

Table 4.2-12

Downers Grove Sanitary District March 2017

Possible Special Assessment for Sanitary Sewers

Elinor-College (South)

Engineer's Opinion of Probable Construction Cost

No.	Pay Item	Approximate Quantity		Unit Price	Amount
MAINLINE SEWER					
1	SANITARY SEWER (OPEN CUT)				
	8-inch 8-12 feet deep	1,040	lin. ft.	$ 78.00	$ 81,120.00
2	SANITARY MANHOLES				
	48-inch 8-12 feet deep	3	each	$ 5,700.00	$ 17,100.00
3	CONNECTION TO EXISTING MANHOLE				
	8-inch	3	each	$ 5,500.00	$ 16,500.00
4	TRENCH BACKFILL				
	8-inch 8-12 feet deep	140	lin. ft.	$ 100.00	$ 14,000.00
5	TREE TUNNELING	150	lin. ft.	$ 172.00	$ 25,800.00
6	SEWER TELEVISING FOR FINAL INSPECTION	1,040	lin. ft.	$ 2.45	$ 2,548.00
7	SEWER TESTING FOR FINAL INSPECTION	1,040	lin. ft.	$ 2.45	$ 2,548.00
8	CULVERT REMOVAL AND REPLACEMENT				
	12-inch	40	lin. ft.	$ 72.00	$ 2,880.00
	24-inch	20	lin. ft.	$ 149.00	$ 2,980.00
9	RESTORATION OF LAWNS AND PARKWAYS:				
	Topsoil and Sod	1,596	sq.yd.	$ 13.00	$ 20,742.22
10	RESTORATION OF STREETS:				
	Bit. Concrete Street	71	sq.yd.	$ 57.00	$ 4,053.33
11	REMOVE AND REPLACE DRIVEWAYS				
	Bituminous	33	sq.yd.	$ 43.00	$ 1,433.33
	Concrete	33	sq.yd.	$ 72.00	$ 2,400.00
12	TREE REMOVAL AND TRIMMING:			Lump Sum	$ 2,500.00
13	EROSION CONTROL			Lump Sum	$ 750.00
14	TRAFFIC CONTROL			Lump Sum	$ 2,000.00
	SUBTOTAL				$ 199,354.89

Table 4.2-12

Downers Grove Sanitary District March 2017

Possible Special Assessment for Sanitary Sewers

Elinor-College (South)

Engineer's Opinion of Probable Construction Cost

No.	Pay Item	Approximate Quantity		Unit Price	Amount
SERVICE LATERALS					
1	BUILDING SERVICE LINES				
	Near side	75	lin. ft.	$ 44.00	$ 3,300.00
	Far side	150	lin. ft.	$ 44.00	$ 6,600.00
2	BUILDING SERVICE BRANCH FITTINGS				
	Near Side	5	each	$ 494.00	$ 2,470.00
	Far side	4	each	$ 609.00	$ 2,436.00
3	BUILDING SERVICE PLUG	9	each	$ 186.00	$ 1,674.00
4	RESTORATION OF LAWNS AND PARKWAYS:				
	Topsoil and seed	325	sq.yd.	$ 12.50	$ 4,062.50
5	RESTORATION OF STREETS:				
	Bit. Concrete Street	64	sq.yd.	$ 56.00	$ 3,584.00
6	TRENCH BACKFILL				
	8-12 feet deep	96	lin. ft.	$ 74.00	$ 7,104.00
	SUBTOTAL				$ 31,230.50
	TOTAL ESTIMATE OF CONSTRUCTION COST				$ 230,600.00
	Contingencies (20%)				$46,100.00
	Engineering (20%)				$46,100.00
	Legal / Admin (6%)				$19,400.00
	TOTAL OPINION OF PROBABLE COST				**$ 342,200.00**
	Cost per lot				$38,020.00

Table 4.2-13

Downers Grove Sanitary District
Possible Special Assessment for Sanitary Sewers
Janes-College (South)
Preliminary Design Layout

Manhole Number	Rim	Invert	Length (ft)	Slope	Manhole Depth
Janes Avenue					
H-8-56 existing	747.0	735.35			
			230	1.50%	
UB-41	751.0	738.80			12.2
			300	1.25%	
UB-42	750.0	742.55			7.4
College Road					
			440	1.25%	
UB-44	756.0	748.05			7.9

Table 4.2-14

Downers Grove Sanitary District March 2017

Possible Special Assessment for Sanitary Sewers

Janes-College (South)

Engineer's Opinion of Probable Construction Cost

No.	Pay Item		Approximate Quantity		Unit Price	Amount
MAINLINE SEWER						
1	SANITARY SEWER (OPEN CUT)					
	8-inch	0-8 feet deep	300	lin. ft.	$ 67.00	$ 20,100.00
		8-12 feet deep	670	lin. ft.	$ 78.00	$ 52,260.00
2	SANITARY MANHOLES					
	48-inch	0-8 feet deep	1	each	$ 4,300.00	$ 4,300.00
		8-12 feet deep	2	each	$ 5,700.00	$ 11,400.00
3	CONNECTION TO EXISTING MANHOLE					
	8-inch		1	each	$ 5,500.00	$ 5,500.00
4	TRENCH BACKFILL					
	8-inch	0-8 feet deep	54	lin. ft.	$ 83.00	$ 4,482.00
		8-12 feet deep	260	lin. ft.	$ 100.00	$ 26,000.00
5	TREE TUNNELING		110	lin. ft.	$ 172.00	$ 18,920.00
6	SEWER TELEVISING FOR FINAL INSPECTION		970	lin. ft.	$ 2.45	$ 2,376.50
7	SEWER TESTING FOR FINAL INSPECTION		970	lin. ft.	$ 2.45	$ 2,376.50
8	CULVERT REMOVAL AND REPLACEMENT					
	12-inch		150	lin. ft.	$ 72.00	$ 10,800.00
9	RESTORATION OF LAWNS AND PARKWAYS:					
	Topsoil and sod		1,200	sq.yd.	$ 13.00	$ 15,600.00
10	RESTORATION OF STREETS:					
	Bit. Concrete Street		65	sq.yd.	$ 57.00	$ 3,705.00
11	REMOVE AND REPLACE DRIVEWAYS					
	Bituminous		140	sq.yd.	$ 43.00	$ 6,020.00
	Concrete		24	sq.yd.	$ 72.00	$ 1,728.00
12	TREE REMOVAL AND TRIMMING:				Lump Sum	$ 7,715.50
13	EROSION CONTROL				Lump Sum	$ 890.25

Table 4.2-14

Downers Grove Sanitary District March 2017

Possible Special Assessment for Sanitary Sewers

Janes-College (South)

Engineer's Opinion of Probable Construction Cost

No.	Pay Item	Approximate Quantity		Unit Price	Amount
14	TRAFFIC CONTROL			Lump Sum	$ 2,967.50
	SUBTOTAL				$ 197,141.25
SERVICE LATERALS					
1	BUILDING SERVICE LINES				
	Near side	105	lin. ft.	$ 44.00	$ 4,620.00
	Far side	312	lin. ft.	$ 44.00	$ 13,728.00
2	BUILDING SERVICE BRANCH FITTINGS				
	Near Side	6	each	$ 494.00	$ 2,964.00
	Far side	7	each	$ 609.00	$ 4,263.00
3	BUILDING SERVICE PLUG	13	each	$ 186.00	$ 2,418.00
4	RESTORATION OF LAWNS AND PARKWAYS:				
	Topsoil and seed	370	sq.yd.	$ 12.50	$ 4,625.00
5	RESTORATION OF STREETS:				
	Bit. Concrete Street	102	sq.yd.	$ 56.00	$ 5,712.00
6	TRENCH BACKFILL				
	0-8 feet deep	160	lin. ft.	$ 55.00	$ 8,800.00
	SUBTOTAL				$ 47,130.00
	TOTAL ESTIMATE OF CONSTRUCTION COST				$ 244,300.00
	Contingencies (20%)				$48,900.00
	Engineering (20%)				$48,900.00
	Legal / Admin (6%)				$20,500.00
	TOTAL OPINION OF PROBABLE COST				**$ 362,600.00**
				Cost per lot	$27,890.00

Table 4.2-15

Downers Grove Sanitary District
Possible Special Assessment for Sanitary Sewers
Chase-Hobson-Belmont (South)
Preliminary Design Layout

Manhole Number	Rim	Invert	Length (ft)	Slope	Manhole Depth
Chase Avenue					
H-8-42 existing	734.6	726.10			
			420	1.25%	
UB-50	740.0	731.35			8.6
			400	2.00%	
UB-49	752.0	739.35			12.7
Hobson Road					
H-8-44 existing	738.5	729.57			
			80	0.60%	
UB-54	738.0	730.05			7.9
			350	1.25%	
UB-53	747.0	734.43			12.6
Belmont Road					
			400	1.25%	
UB-45	752.0	739.43			12.6

Table 4.2-16

Downers Grove Sanitary District March 2017

Possible Special Assessment for Sanitary Sewers

Chase-Hobson-Belmont (South)

Engineer's Opinion of Probable Construction Cost

No.	Pay Item		Approximate Quantity		Unit Price	Amount
MAINLINE SEWER						
1	SANITARY SEWER (OPEN CUT)					
	8-inch	0-8 feet deep	450	lin. ft.	$ 67.00	$ 30,150.00
		8-12 feet deep	1,200	lin. ft.	$ 78.00	$ 93,600.00
2	SANITARY MANHOLES					
	48-inch	0-8 feet deep	1	each	$ 4,300.00	$ 4,300.00
		8-12 feet deep	4	each	$ 5,700.00	$ 22,800.00
3	CONNECTION TO EXISTING MANHOLE					
	8-inch		1	each	$ 5,500.00	$ 5,500.00
4	TRENCH BACKFILL					
	8-inch	0-8 feet deep	450	lin. ft.	$ 83.00	$ 37,350.00
		8-12 feet deep	602	lin. ft.	$ 100.00	$ 60,200.00
5	TREE TUNNELING		0	lin. ft.	$ 172.00	$ 0.00
6	SEWER TELEVISING FOR FINAL INSPECTION					
			1,650	lin. ft.	$ 2.45	$ 4,042.50
7	SEWER TESTING FOR FINAL INSPECTION					
			1,650	lin. ft.	$ 2.45	$ 4,042.50
8	CULVERT REMOVAL AND REPLACEMENT					
	12-inch		60	lin. ft.	$ 72.00	$ 4,320.00
9	RESTORATION OF LAWNS AND PARKWAYS:					
	Topsoil and seed		780	sq.yd.	$ 13.00	$ 10,140.00
10	RESTORATION OF STREETS:					
	Bit. Concrete Street		711	sq.yd.	$ 57.00	$ 40,527.00
11	REMOVE AND REPLACE DRIVEWAYS					
	Bituminous		50	sq.yd.	$ 43.00	$ 2,150.00
	Concrete		0	sq.yd.	$ 72.00	$ 0.00
12	TREE REMOVAL AND TRIMMING:				Lump Sum	$ 593.50
13	EROSION CONTROL				Lump Sum	$ 890.25

Table 4.2-16

Downers Grove Sanitary District March 2017

Possible Special Assessment for Sanitary Sewers

Chase-Hobson-Belmont (South)

Engineer's Opinion of Probable Construction Cost

No.	Pay Item	Approximate Quantity		Unit Price	Amount
14	TRAFFIC CONTROL			Lump Sum	$ 17,805.00
	SUBTOTAL				$ 338,410.75
SERVICE LATERALS					
1	BUILDING SERVICE LINES				
	Near side	198	lin. ft.	$ 44.00	$ 8,712.00
	Far side	312	lin. ft.	$ 44.00	$ 13,728.00
2	BUILDING SERVICE BRANCH FITTINGS				
	Near Side	9	each	$ 494.00	$ 4,446.00
	Far side	6	each	$ 609.00	$ 3,654.00
3	BUILDING SERVICE PLUG	15	each	$ 186.00	$ 2,790.00
4	RESTORATION OF LAWNS AND PARKWAYS:				
	Topsoil and seed	122	sq.yd.	$ 12.50	$ 1,525.00
5	RESTORATION OF STREETS:				
	Bit. Concrete Street	140	sq.yd.	$ 56.00	$ 7,840.00
6	TRENCH BACKFILL				
	0-8 feet deep	180	lin. ft.	$ 55.00	$ 9,900.00
	SUBTOTAL				$ 52,595.00
	TOTAL ESTIMATE OF CONSTRUCTION COST				$ 391,000.00
	Contingencies (20%)				$78,200.00
	Engineering (20%)				$78,200.00
	Legal / Admin (6%)				$32,800.00
	TOTAL OPINION OF PROBABLE COST				**$ 580,200.00**
				Cost per lot	$ 38,680.00

Table 4.2-17

Downers Grove Sanitary District March 2017

Possible Special Assessment for Sanitary Sewers

Downers Grove Park Sub-Area

Cost Summary

Sub-Basin:	Near Services	Far Services	Cost	Cost per lot
Katrine-Maple (North)	17	8	$ 780,600.00	$ 31,220.00
Inverness-Lomond-Elinor-Maple (North	59	13	$ 2,471,400.00	$ 34,330.00
Inverness-Belmont (North)	6	0	$ 161,500.00	$ 26,920.00
Katrine-College (South)	13	14	$ 553,700.00	$ 20,510.00
Lomond-College (South)	14	15	$ 803,400.00	$ 27,700.00
Elinor-College (South)	5	4	$ 342,200.00	$ 38,020.00
Janes-College (South)	6	7	$ 362,600.00	$ 27,890.00
Chase-Hobson-Belmont (South)	9	6	$ 580,200.00	$ 38,680.00
TOTALS	129	67	$ 6,055,600.00	$ 30,900.00
	196			

4.3 Downers Grove Gardens

Downers Grove Gardens is a large sub-area within the District's FPA that is currently unsewered. As shown on Exhibit 4.3, the approximate limits of this sub-area are Maple Avenue to the north, Janes Avenue and Belmont Road to the west, 63rd Street to the south, and Downers Drive to the east. The proposed service area includes approximately 681 lots that are mostly developed as single-family residences with septic systems. The purpose of this analysis is to establish the most cost-effective sanitary sewer plan for serving properties within Downers Grove Gardens.

Several factors were considered when determining the most cost-effective sewer layout. These factors include topography, major road crossings, wetlands, tree protection, water main and existing utility location, and existing downstream sewer capacity. The Downers Grove Gardens sub-area has two major drainage divides running from west to east: 61st Street from Janes east to Belmont and just south of 59th Street from Belmont east to Downers Drive. Serving these properties by following the ground contours will avoid deep cuts through the higher elevations along drainage divide. The study area can be divided into four smaller service areas. Properties north of 61st Street and west of Belmont Road will be served by the existing sanitary sewer on Hobson Road (at Janes, Leonard, Chase and Puffer). Properties south of 61st Street and west of Belmont Road will be served by existing sewers on 63rd Street (at Janes, Puffer, and Belmont). Residences north of 59th Street and east of Belmont Road will be served by the existing sewer on Maple Avenue (between Woodward and Sherman). Residences south of 59th Street and east of Belmont Road will be served by existing sewers on Boundary Road (at Lee and Downers) and 63rd Street (at Belmont, Pershing, Stonewall, and Springside)

In addition to following the ground contours, the low-cost sewer layout also needs to consider avoiding major road crossings. The major road crossings that would significantly increase construction cost in this sub-area are Belmont Road and Maple Avenue. Thus, alternatives were considered to minimize crossing of these routes with both the mainline sewer and building services.

The sewer layout also considered the several wetlands that are located within the sub-area at the following locations: Woodward and Blanchard (vacated right-of-way), and Sherman and Jefferson (vacated right-of-way). Avoiding these wetlands will minimize the time and expense involved in the permitting process for construction in wetlands as well as reduce the costs associated with restoring these areas.

The Village of Downers Grove owns and operates water mains on the streets within the sub-area. The water main design drawings were reviewed and field investigations of the sewer routes were completed to reduce the potential for utility conflicts and to ensure that the required ten feet of separation from water mains can be achieved.

The final component of this analysis was to evaluate the downstream capacity of the existing sewers. Our analysis determined that all of the existing sewers have adequate capacity to receive the additional flow from the Downers Grove Gardens sub-area.

For this analysis, the subject area was subdivided into smaller, more manageable sub-basins. The sub-basins were created using topography and projected sewer connection points.

The following are the proposed sub-basins:

Sub-basin	No. of Services	Layout	Cost Estimate
Janes-Leonard-Chase-Puffer (North)	68	Table 4.3-1	Table 4.3-2
Janes-Leonard-Chase-Puffer (South)	129	Table 4.3-3	Table 4.3-4
Belmont Road (Southwest)	25	Table 4.3-5	Table 4.3-6
Belmont Road (East)	52	Table 4.3-7	Table 4.3-8
Pershing Avenue (South)	64	Table 4.3-9	Table 4.3-10
Woodward and 63rd Street	18	Table 4.3-11	Table 4.3-12
Lee and Boundary (South)	39	Table 4.3-13	Table 4.3-14
Springside Avenue (South)	14	Table 4.3-15	Table 4.3-16
Springside-Jefferson-Downers (North)	52	Table 4.3-17	Table 4.3-18
Pershing-Woodward-Maple (North)	104	Table 4.3-19	Table 4.3-20
Sherman Avenue (North)	62	Table 4.3-21	Table 4.3-22
Lee Avenue (North)	54	Table 4.3-23	Table 4.3-24

Table 4.3-25 is a summary table of opinions of probable cost. A map of the proposed sewer plan is included in Exhibit 4.3.

The Janes-Leonard-Chase-Puffer (North) sub-basin sewer plan follows the east-west drainage divide near 61st Street from Janes Avenue to Belmont Road. Serving these properties north to the existing sewer along Hobson is the most cost effective because it prevents a deep cut through the ridge line at 61st. The sewer alignment on each street should be on the east side of the right-of-way because of the existing water main is on the west side of the right-of-way. Table 4.3-1 is the proposed layout of the sewer size, length, and slope and manhole invert and depth. Table 4.3-2 includes a breakdown of the unit quantities and unit prices used to prepare the opinion of probable cost. The total opinion of project cost is $1,158,500, including contingency, engineering, and legal/administrative costs.

The Janes-Leonard-Chase-Puffer (South) sub-basin sewer plan also follows the east-west drainage divide near 61st Street from Janes Avenue to Belmont Road. This sub-basin will also include all unsewered properties fronting 63rd Street west of Belmont. The properties on Janes, Leonard, and Chase should connect to the west at the existing manhole on 63rd Street at Janes, since the existing manhole east of Chase is too shallow. The properties on Puffer should connect to the existing manhole at Puffer and 63rd Street. Similar to the sub-basin to the north, sewer alignment on each street should be on the east side of the right-of-way because of the existing water mains on the west side of the right-of-way. Table 4.3-3 is the proposed layout of the sewer size, length, and slope and manhole invert and depth. Table 4.3-4 includes a breakdown of the unit quantities and unit prices used to prepare the opinion of probable cost. The total opinion of project cost is $2,182,300, including contingency, engineering, and legal/administrative costs.

The Belmont Road (Southwest) sub-basin sewer plan includes the unsewered properties on the west side of Belmont and south of Hobson Road. These properties will connect to the existing sewer on the west side of Belmont, north of 63rd Street. The sewer alignment will require an easement adjacent to the west right-of-way line of Belmont, similar to the existing sewer to the south. Installing a parallel sewer on the both sides of Belmont was determined to be more cost-effective than installing services across Belmont. Table 4.3-5 is the proposed layout of the sewer

size, length, and slope and manhole invert and depth. Table 4.3-6 includes a breakdown of the unit quantities and unit prices used to prepare the opinion of probable cost. The total opinion of project cost is $569,000, including contingency, engineering, easements, and legal/administrative costs.

The Belmont Road (East) sub-basin sewer plan follows the existing topography, which consists of a low area between the ridge lines along 61st Street west of Belmont and along 59th Street east of Belmont. The ground elevation along Belmont decreases from a high point near College Road south to the connection point at an existing sewer manhole at the northeast corner of Belmont and 63rd Street. This sub-basin will include all unsewered properties on the east side of Belmont, as well as several properties on 59th Street, east of Belmont. Similar to the west side of Belmont Road, the sewer alignment will require an easement adjacent to the east right-of-way line and the parallel sewer was determined to be more cost-effective than installing services across Belmont. Table 4.3-7 is the proposed layout of the sewer size, length, and slope and manhole invert and depth. Table 4.3-8 includes a breakdown of the unit quantities and unit prices used to prepare the opinion of probable cost. The total opinion of project cost is $1,115,100, including contingency, engineering, easements, and legal/administrative costs.

The Pershing Avenue (South) sub-basin sewer plan follows the drainage divide just south of 59th Street. This sub-basin will include unsewered properties along Pershing Avenue. Connecting to the manhole at 63rd Street and Pershing Avenue is the most cost effective because it prevents a deep cut through the ridge line. The sewer alignment on Pershing should be on the east side of the right-of-way because of the existing water main is on the west side of the right-of-way. Table 4.3-9 is the proposed layout of the sewer size, length, and slope and manhole invert and depth. Table 4.3-10 includes a breakdown of the unit quantities and unit prices used to prepare the opinion of probable cost. The total opinion of project cost is $1,051,300, including contingency, engineering, and legal/administrative costs.

The Woodward and 63rd Street sub-basin sewer plan also follows the existing drainage divide just south of 59th Street. This sub-basin includes unsewered properties along Woodward as well as properties on the north side of 63rd Street between Woodward Avenue and Pershing Road. For the properties along Woodward, connecting to the existing manhole at 6006 Woodward Avenue is the most feasible alternative. For the properties on the north side of 63rd Street, connecting to the existing manhole at Woodward and 63rd Street is the most feasible alternative because the manhole to the west of Woodward on 63rd is too shallow. Table 4.3-11 is the proposed layout of the sewer size, length, and slope and manhole invert and depth. Table 4.3-12 includes a breakdown of the unit quantities and unit prices used to prepare the opinion of probable cost. The total opinion of project cost is $291,200, including contingency, engineering, easements and legal/administrative costs.

The Lee and Boundary (South) sub-basin sewer plan also follows the existing drainage divide south of 59th Street. Connecting to the existing manhole at Boundary Road eliminates a deep cut through the ridge line south of 59th and provides adequate depth with the shortest length of pipe. The sewer should be placed in the east right-of-way on Lee and in the southeast right-of-way on Boundary to avoid existing utilities. Table 4.3-13 is the proposed layout of the sewer size, length, and slope and manhole invert and depth. Table 4.3-14 includes a breakdown of the unit quantities and unit prices used to prepare the opinion of probable cost. The total opinion of project cost is $662,100, including contingency, engineering, and legal/administrative costs.

The Springside Avenue (South) sub-basin sewer plan is to follow the existing topography and connect to the existing manhole to the south at 63rd Street. The only other potential connection point would be the existing manhole to the north, but it is too shallow to be a feasible alternative. Table 4.3-15 is the proposed layout of the sewer size, length, and slope and manhole invert and depth. Table 4.3-16 includes a breakdown of the unit quantities and unit prices used to prepare the opinion of probable cost. The total opinion of project cost is $279,100, including contingency, engineering, and legal/administrative costs.

The Springside-Jefferson-Downers (North) sub-basin sewer plan follows the existing topography which consists of a high point to the west along 59th Street and a low lying area near Springside and Jefferson. There are several potential connection points, but the existing manhole at Boundary and Downers Drive is the only feasible alternative to serve Downers, Jefferson, and Springside north of 59th because the two existing manholes on Springside, north of Jefferson and south of 59th, are too shallow. The lots on Springside south of 59th Street are best served by the existing manhole 320 feet south of 59th Street. The cost per lot for this sub-basin is the most expensive in the Downers Grove Gardens sub-area because of the amount of granular backfill and pavement restoration that is required to avoid utilities. Table 4.3-17 is the proposed layout of the sewer size, length, and slope and manhole invert and depth. Table 4.3-18 includes a breakdown of the unit quantities and unit prices used to prepare the opinion of probable cost. The total opinion of project cost is $1,305,900, including contingency, engineering, and legal/administrative costs.

The Pershing-Woodward-Maple Avenue (North) sub-basin sewer plan follows the existing topography which falls from the high point just south of 59th and east of Woodward to the lowest elevation, along Woodward north of Blanchard. This is the recommended alternative because it has the shortest sewer length while preventing deep cuts through the ridge line and provides adequate cover at the low elevation. This sub-basin includes all unsewered properties fronting Maple on the south side of the road. The recommended alternative to install one main sewer across Maple Avenue is more cost-effective than installing multiple services across Maple to the existing sewer on the north side. The sewer alignment along Maple will require easements adjacent to the right-of-way line. The connection point for sewer along the south side of Maple is the existing manhole at the intersection of Maple Avenue and Woodward Avenue. Sewer has been extended west to this manhole and south along Woodward Avenue to the manhole south of the intersection of Woodward Avenue and Blanchard Street right-of-way. The connection point for sewer along the north side of Maple is the existing manhole at 5516 Maple Avenue. Table 4.3-19 is the proposed layout of the sewer size, length, and slope and manhole invert and depth. Table 4.3-20 includes a breakdown of the unit quantities and unit prices used to prepare the opinion of probable cost. The total opinion of project cost is $2,513,400, including contingency, engineering, and easements, legal/administrative costs.

The Sherman Avenue (North) sub-basin sewer plan follows the drainage divide just south of 59th Street. This sub-basin will include unsewered properties along Sherman Avenue. Connecting to the existing manhole just south of Maple is the recommended alternative because it has the shortest sewer length while preventing deep cuts through the ridge line and provides adequate cover at the low elevation at Jefferson. The sewer alignment on Sherman should be on the east side of the right-of-way because of the existing water main is on the west side of the right-of-way. Table 4.3-21 is the proposed layout of the sewer size, length, and slope and manhole invert and depth. Table 4.3-22 includes a breakdown of the unit quantities and unit prices used to

prepare the opinion of probable cost. The total opinion of project cost is $1,021,500, including contingency, engineering, and legal/administrative costs.

The Lee Avenue (North) sub-basin sewer plan follows the topography which falls to the north from the drainage divide just south of 59th Street. Serving the properties along the south side of Maple with a parallel sewer and connecting to the existing manhole at Lee and Maple requires an easement on the south side of Maple but is more cost-effective than jacking sewer services under Maple. The sewer on Lee Avenue should be placed in the west parkway, near the edge of pavement, to avoid the Village water main near the west right-of-way line and the DuPage Water Commission main in the east parkway. The cost per lot for this sub-basin is the fourth most expensive in the Downers Grove Gardens sub-area because of the granular backfill and pavement restoration that is required along the north end of Lee. Table 4.3-23 is the proposed layout of the sewer size, length, and slope and manhole invert and depth. Table 4.3-24 includes a breakdown of the unit quantities and unit prices used to prepare the opinion of probable cost. The total opinion of project cost is $1,293,200, including contingency, engineering, easements, and legal/administrative costs.

DOWNERS GROVE SANITARY DISTRICT UNSEWERED AREA PLAN

EXHIBIT 4.3

DOWNERS GROVE GARDENS POSSIBLE SEWER ALIGNMENT

MARCH 2017

LEGEND

- EXISTING MANHOLES
- PROPOSED MANHOLES
- EXISTING SEWERS
- PROPOSED SEWERS
- PARCEL BOUNDARIES
- JANES-LEONARD-CHASE-PUFFER (NORTH);TABLES 4.3-1, 4.3-2
- JANES-LEONARD-CHASE-PUFFER (SOUTH);TABLES 4.3-3, 4.3-4
- BELMONT ROAD (SOUTHWEST);TABLES 4.3-5, 4.3-6
- BELMONT ROAD (EAST);TABLES 4.3-7, 4.3-8
- PERSHING AVENUE (SOUTH);TABLES 4.3-9, 4.3-10
- WOODWARD AND 63RD STREET;TABLES 4.3-11, 4.3-12
- LEE AND BOUNDARY (SOUTH);TABLES 4.3-13, 4.3-14
- SPRINGSIDE AVENUE (SOUTH);TABLES 4.3-15, 4.3-16
- SPRINGSIDE-JEFFERSON-DOWNERS (NORTH);TABLES 4.3-17, 4.3-18
- PERSHING-WOODWARD-MAPLE (NORTH);TABLES 4.3-19, 4.3-20
- SHERMAN AVENUE (NORTH);TABLES 4.3-21, 4.3-22
- LEE AVENUE (NORTH);TABLES 4.3-23, 4.3-24

N

0 500 1,000

Feet

BAXTER & WOODMAN Consulting Engineers

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Table 4.3-1
Downers Grove Sanitary District
Possible Special Assessment for Sanitary Sewers
Janes-Leonard-Chase-Puffer (North)
Preliminary Design Layout

Manhole Number	Rim	Invert	Length (ft)	Slope	Manhole Depth
Janes Avenue					
H-8-10-1 existing	731.4	715.01			
			420	1.20%	
UC-1	736.0	725.05			11.0
Leonard Avenue					
H-8-33 existing	731.7	719.00			
			400	2.20%	
UC-2	736.0	727.80			8.2
			220	2.60%	
UC-3	742.0	733.52			8.5
Chase Avenue					
H-8-43 existing	733.5	726.62			
			410	3.00%	
UC-4	755.0	738.92			16.1
			410	1.00%	
UC-5	754.0	743.02			11.0
Puffer Road					
H-8-46 existing	741.3	731.65			
			450	0.40%	
UC-6	741.5	733.45			8.1
			400	2.00%	
UC-7	752.0	741.45			10.6

Table 4.3-2

Downers Grove Sanitary District March 2017

Possible Special Assessment for Sanitary Sewers

Janes-Leonard-Chase-Puffer (North)

Engineer's Opinion of Probable Construction Cost

No.	Pay Item		Approximate Quantity		Unit Price	Amount
MAINLINE SEWER						
1	SANITARY SEWER (OPEN CUT)					
	8-inch	0-8 feet deep	500	lin. ft.	$ 67.00	$ 33,500.00
		8-12 feet deep	2,210	lin. ft.	$ 78.00	$ 172,380.00
2	SANITARY MANHOLES					
	48-inch	0-8 feet deep	2	each	$ 4,300.00	$ 8,600.00
		8-12 feet deep	5	each	$ 5,700.00	$ 28,500.00
3	CONNECTION TO EXISTING MANHOLE					
	8-inch		4	each	$ 5,500.00	$ 22,000.00
4	TRENCH BACKFILL					
	8-inch	0-8 feet deep	100	lin. ft.	$ 83.00	$ 8,300.00
		8-12 feet deep	822	lin. ft.	$ 100.00	$ 82,200.00
5	TREE TUNNELING		80	lin. ft.	$ 172.00	$ 13,760.00
6	SEWER TELEVISING FOR FINAL INSPECTION					
			2,710	lin. ft.	$ 2.45	$ 6,639.50
7	SEWER TESTING FOR FINAL INSPECTION					
			2,710	lin. ft.	$ 2.45	$ 6,639.50
8	CULVERT REMOVAL AND REPLACEMENT					
	12-inch		357	lin. ft.	$ 72.00	$ 25,704.00
9	RESTORATION OF LAWNS AND PARKWAYS:					
	Topsoil and sod		5,142	sq.yd.	$ 13.00	$ 66,846.00
10	RESTORATION OF STREETS:					
	Bit. Concrete Street		160	sq.yd.	$ 57.00	$ 9,120.00
11	REMOVE AND REPLACE DRIVEWAYS					
	Bituminous		491	sq.yd.	$ 43.00	$ 21,113.00
	Concrete		67	sq.yd.	$ 72.00	$ 4,824.00
12	TREE REMOVAL AND TRIMMING:				Lump Sum	$ 296.75

Table 4.3-2
Downers Grove Sanitary District March 2017
Possible Special Assessment for Sanitary Sewers
Janes-Leonard-Chase-Puffer (North)
Engineer's Opinion of Probable Construction Cost

No.	Pay Item	Approximate Quantity		Unit Price	Amount
13	EROSION CONTROL:			Lump Sum	$ 1,187.00
14	TRAFFIC CONTROL:			Lump Sum	$ 7,122.00
					$ 518,731.75
SERVICE LATERALS					
1	BUILDING SERVICE LINES				
	Near side	740	lin. ft.	$ 44.00	$ 32,560.00
	Far side	1,860	lin. ft.	$ 44.00	$ 81,840.00
2	BUILDING SERVICE BRANCH FITTINGS				
	Near Side	37	each	$ 494.00	$ 18,278.00
	Far side	31	each	$ 609.00	$ 18,879.00
3	BUILDING SERVICE PLUGS:	68	each	$ 186.00	$ 12,648.00
4	RESTORATION OF LAWNS AND PARKWAYS:				
	Topsoil and sod	2,700	sq.yd.	$ 12.50	$ 33,750.00
5	RESTORATION OF STREETS:				
	Bit. Concrete Street	413	sq.yd.	$ 56.00	$ 23,128.00
6	TRENCH BACKFILL				
	0-8 feet deep	744	lin. ft.	$ 55.00	$ 40,920.00
	SUBTOTAL				$ 262,003.00
	TOTAL ESTIMATE OF CONSTRUCTION COST				$ 780,700.00
	Contingencies	(20%)			$156,100.00
	Engineering	(20%)			$156,100.00
	Legal / Admin	(6%)			$65,600.00
	TOTAL OPINION OF PROBABLE COST				**$ 1,158,500.00**
				Cost per lot	$17,040.00

Table 4.3-3
Downers Grove Sanitary District
Possible Special Assessment for Sanitary Sewers
Janes-Leonard-Chase-Puffer (South)
Preliminary Design Layout

Manhole Number	Rim	Invert	Length (ft)	Slope	Manhole Depth
Janes Avenue					
Existing	720.0	708.00			
			300	1.20%	
UC-8	730.0	716.60			13.4
			400	1.20%	
UC-9	738.0	726.40			11.6
63rd Street					
Existing	713.6	702.70			
			350	0.40%	
UC-10	719.0	709.10			9.9
			340	0.40%	
UC-14	724.5	715.46			9.0
Leonard Avenue					
			400	3.00%	
UC-11	730.0	721.10			8.9
			400	2.00%	
UC-12	740.0	729.10			10.9
			400	2.00%	
UC-13	746.0	737.10			8.9
Chase Avenue					
			450	0.80%	
UC-15	730.0	719.06			10.9
			450	1.50%	
UC-16	734.0	725.81			8.2
			450	3.00%	
UC-17	750.0	739.31			10.7
Puffer Road					
H-1-98 (existing)	730.0	719.79			
			60	2.50%	
UC-18	730.0	721.29			8.7
			450	0.60%	
UC-19	732.0	723.99			8.0
			450	0.80%	
UC-20	736.0	727.59			8.4
			450	2.50%	
UC-21	750.0	738.84			11.2

Table 4.3-4

Downers Grove Sanitary District March 2017

Possible Special Assessment for Sanitary Sewers

Janes-Leonard-Chase-Puffer (South)

Engineer's Opinion of Probable Construction Cost

No.	Pay Item		Approximate Quantity		Unit Price	Amount
MAINLINE SEWER						
1	SANITARY SEWER (OPEN CUT)					
	8-inch	0-8 feet deep	900	lin. ft.	$ 67.00	$ 60,300.00
		8-12 feet deep	4,450	lin. ft.	$ 78.00	$ 347,100.00
2	SANITARY MANHOLES					
	48-inch	0-8 feet deep	2	each	$ 4,300.00	$ 8,600.00
		8-12 feet deep	12	each	$ 5,700.00	$ 68,400.00
3	CONNECTION TO EXISTING MANHOLE					
	8-inch		3	each	$ 5,500.00	$ 16,500.00
4	TRENCH BACKFILL					
	8-inch	0-8 feet deep	50	lin. ft.	$ 83.00	$ 4,150.00
		8-12 feet deep	1,353	lin. ft.	$ 100.00	$ 135,300.00
5	TREE TUNNELING		240	lin. ft.	$ 172.00	$ 41,280.00
6	SEWER TELEVISING FOR FINAL INSPECTION					
			5,350	lin. ft.	$ 2.45	$ 13,107.50
7	SEWER TESTING FOR FINAL INSPECTION					
			5,350	lin. ft.	$ 2.45	$ 13,107.50
8	CULVERT REMOVAL AND REPLACEMENT					
	12-inch		856	lin. ft.	$ 72.00	$ 61,632.00
9	RESTORATION OF LAWNS AND PARKWAYS:					
	Topsoil and sod		9,789	sq.yd.	$ 13.00	$ 127,257.00
10	RESTORATION OF STREETS:					
	Bit. Concrete Street		292	sq.yd.	$ 57.00	$ 16,644.00
11	REMOVE AND REPLACE DRIVEWAYS					
	Bituminous		1,012	sq.yd.	$ 43.00	$ 43,516.00
	Concrete		77	sq.yd.	$ 72.00	$ 5,544.00
12	TREE REMOVAL AND TRIMMING:				Lump Sum	$ 1,008.95
13	EROSION CONTROL				Lump Sum	$ 1,483.75

Table 4.3-4
Downers Grove Sanitary District March 2017
Possible Special Assessment for Sanitary Sewers
Janes-Leonard-Chase-Puffer (South)
Engineer's Opinion of Probable Construction Cost

No.	Pay Item	Approximate Quantity		Unit Price	Amount
14	TRAFFIC CONTROL			Lump Sum	$ 8,902.50
	SUBTOTAL				$ 973,833.20
SERVICE LATERALS					
1	BUILDING SERVICE LINES				
	Near side	1,440	lin. ft.	$ 44.00	$ 63,360.00
	Far side	3,420	lin. ft.	$ 44.00	$ 150,480.00
2	BUILDING SERVICE BRANCH FITTINGS				
	Near Side	72	each	$ 494.00	$ 35,568.00
	Far side	57	each	$ 609.00	$ 34,713.00
3	BUILDING SERVICE PLUG:	129	each	$ 186.00	$ 23,994.00
4	RESTORATION OF LAWNS AND PARKWAYS:				
	Topsoil and sod	3,575	sq.yd.	$ 12.50	$ 44,687.50
5	RESTORATION OF STREETS:				
	Bit. Concrete Street	1,115	sq.yd.	$ 56.00	$ 62,440.00
6	TRENCH BACKFILL				
	0-8 feet deep	1,482	lin. ft.	$ 55.00	$ 81,510.00
	SUBTOTAL				$ 496,752.50
	TOTAL ESTIMATE OF CONSTRUCTION COST				$ 1,470,600.00
	Contingencies (20%)				$294,100.00
	Engineering (20%)				$294,100.00
	Legal / Admin (6%)				$123,500.00
	TOTAL OPINION OF PROBABLE COST				**$ 2,182,300.00**
	Cost per lot				$16,920.00

Table 4.3-5
Downers Grove Sanitary District
Possible Special Assessment for Sanitary Sewers
Belmont-Southwest
Preliminary Design Layout

Manhole Number	Rim	Invert	Length (ft)	Slope	Manhole Depth
Belmont Road					
H-1-94 (existing)	738.8	728.38			
			400	1.00%	
UC-22	742.0	732.38			9.6
			400	0.90%	
UC-23	744.0	735.98			8.0
			450	0.90%	
UC-24	750.0	740.03			10.0
			470	0.40%	
UC-25	750.0	741.91			8.1

Table 4.3-6
Downers Grove Sanitary District March 2017
Possible Special Assessment for Sanitary Sewers
Belmont-Southwest
Engineer's Opinion of Probable Construction Cost

No.	Pay Item		Approximate Quantity		Unit Price	Amount
MAINLINE SEWER						
1	SANITARY SEWER (OPEN CUT)					
	8-inch	0-8 feet deep	500	lin. ft.	$ 67.00	$ 33,500.00
		8-12 feet deep	1,220	lin. ft.	$ 78.00	$ 95,160.00
2	SANITARY MANHOLES					
	48-inch	0-8 feet deep	2	each	$ 4,300.00	$ 8,600.00
		8-12 feet deep	2	each	$ 5,700.00	$ 11,400.00
3	CONNECTION TO EXISTING MANHOLE					
	8-inch		1	each	$ 5,500.00	$ 5,500.00
4	TRENCH BACKFILL					
	8-inch	0-8 feet deep	264	lin. ft.	$ 83.00	$ 21,912.00
		8-12 feet deep	315	lin. ft.	$ 100.00	$ 31,500.00
5	TREE TUNNELING		120	lin. ft.	$ 172.00	$ 20,640.00
6	SEWER TELEVISING FOR FINAL INSPECTION					
			1,720	lin. ft.	$ 2.45	$ 4,214.00
7	SEWER TESTING FOR FINAL INSPECTION					
			1,720	lin. ft.	$ 2.45	$ 4,214.00
8	RESTORATION OF LAWNS AND PARKWAYS:					
	Topsoil and sod		3,547	sq.yd.	$ 13.00	$ 46,111.00
9	RESTORATION OF STREETS:					
	Bit. Concrete Street		64	sq.yd.	$ 57.00	$ 3,648.00
10	REMOVE AND REPLACE DRIVEWAYS					
	Bituminous		269	sq.yd.	$ 43.00	$ 11,567.00
	Concrete		60	sq.yd.	$ 72.00	$ 4,320.00
12	TREE REMOVAL AND TRIMMING:				Lump Sum	$ 1,187.00
13	EROSION CONTROL				Lump Sum	$ 593.50

Table 4.3-6
Downers Grove Sanitary District March 2017
Possible Special Assessment for Sanitary Sewers
Belmont-Southwest
Engineer's Opinion of Probable Construction Cost

No.	Pay Item	Approximate Quantity		Unit Price	Amount
14	TRAFFIC CONTROL			Lump Sum	$ 7,715.50
	SUBTOTAL				$ 311,782.00
SERVICE LATERALS					
1	BUILDING SERVICE LINES				
	Near side	250	lin. ft.	$ 44.00	$ 11,000.00
	Far side	0	lin. ft.	$ 44.00	$ 0.00
2	BUILDING SERVICE BRANCH FITTINGS				
	Near Side	25	each	$ 494.00	$ 12,350.00
	Far side	0	each	$ 609.00	$ 0.00
3	BUILDING SERVICE PLUG				
	Near side	25	each	$ 186.00	$ 4,650.00
4	RESTORATION OF LAWNS AND PARKWAYS:				
	Topsoil and sod	0	sq.yd.	$ 12.50	$ 0.00
5	RESTORATION OF STREETS:				
	Bit. Concrete Street	0	sq.yd.	$ 56.00	$ 0.00
6	TRENCH BACKFILL				
	0-8 feet deep	0	lin. ft.	$ 55.00	$ 0.00
	SUBTOTAL				$ 28,000.00
	TOTAL ESTIMATE OF CONSTRUCTION COST				$ 339,800.00
	Contingencies (20%)				$68,000.00
	Engineering (20%)				$68,000.00
	Legal / Admin (6%)				$28,500.00
	Easement Acquisition				$64,700.00
	TOTAL OPINION OF PROBABLE COST				**$ 569,000.00**
	Cost per lot				$22,760.00

Table 4.3-7
Downers Grove Sanitary District
Possible Special Assessment for Sanitary Sewers
Belmont Road (East)
Preliminary Design Layout

Manhole Number	Rim	Invert	Length (ft)	Slope	Manhole Depth
Belmont Road					
H-1-97 (existing)	739.5	724.62			
			400	2.00%	
UC-26	742.0	732.62			9.4
			400	0.40%	
UC-27	746.0	734.22			11.8
			400	0.40%	
UC-28	748.0	735.82			12.2
			400	0.40%	
UC-29	748.0	737.42			10.6
			400	0.40%	
UC-30	748.0	739.02			9.0
			400	0.40%	
UC-31	750.0	740.62			9.4
			400	0.40%	
UC-32	750.0	742.22			7.8
			400	2.50%	
UC-33	762.0	752.22			9.8
			400	4.00%	
UC-34	780.0	768.22			11.8
59th Street					
			200	0.80%	
UC-35	750.0	742.22			7.8

Table 4.3-8

Downers Grove Sanitary District March 2017

Possible Special Assessment for Sanitary Sewers

Belmont Road (East)

Engineer's Opinion of Probable Construction Cost

No.	Pay Item		Approximate Quantity		Unit Price	Amount
MAINLINE SEWER						
1	SANITARY SEWER (OPEN CUT)					
	8-inch	0-8 feet deep	1,000	lin. ft.	$ 67.00	$ 67,000.00
		8-12 feet deep	2,800	lin. ft.	$ 78.00	$ 218,400.00
2	SANITARY MANHOLES					
	48-inch	0-8 feet deep	2	each	$ 4,300.00	$ 8,600.00
		8-12 feet deep	8	each	$ 5,700.00	$ 45,600.00
3	CONNECTION TO EXISTING MANHOLE					
	8-inch		1	each	$ 5,500.00	$ 5,500.00
4	TRENCH BACKFILL					
	8-inch	0-8 feet deep	313	lin. ft.	$ 83.00	$ 25,979.00
		8-12 feet deep	659	lin. ft.	$ 100.00	$ 65,900.00
5	TREE TUNNELING		280	lin. ft.	$ 172.00	$ 48,160.00
6	SEWER TELEVISING FOR FINAL INSPECTION		3,800	lin. ft.	$ 2.45	$ 9,310.00
7	SEWER TESTING FOR FINAL INSPECTION		3,800	lin. ft.	$ 2.45	$ 9,310.00
8	RESTORATION OF LAWNS AND PARKWAYS:					
	Topsoil and sod		2,031	sq.yd.	$ 13.00	$ 26,403.00
9	RESTORATION OF STREETS:					
	Bit. Concrete Street		69	sq.yd.	$ 57.00	$ 3,933.00
10	REMOVE AND REPLACE DRIVEWAYS					
	Bituminous		443	sq.yd.	$ 43.00	$ 19,049.00
	Concrete		130	sq.yd.	$ 72.00	$ 9,360.00
11	TREE REMOVAL AND TRIMMING:				Lump Sum	$ 11,870.00
12	EROSION CONTROL				Lump Sum	$ 593.50

Table 4.3-8
Downers Grove Sanitary District March 2017
Possible Special Assessment for Sanitary Sewers
Belmont Road (East)
Engineer's Opinion of Probable Construction Cost

No.	Pay Item	Approximate Quantity		Unit Price	Amount
13	TRAFFIC CONTROL			Lump Sum	$ 17,805.00
	SUBTOTAL				$ 592,772.50
SERVICE LATERALS					
1	BUILDING SERVICE LINES				
	Near side	520	lin. ft.	$ 44.00	$ 22,880.00
	Far side	0	lin. ft.	$ 44.00	$ 0.00
2	BUILDING SERVICE BRANCH FITTINGS				
	Near Side	52	each	$ 494.00	$ 25,688.00
	Far side	0	each	$ 609.00	$ 0.00
3	BUILDING SERVICE PLUG				
	Near side	52	each	$ 186.00	$ 9,672.00
4	RESTORATION OF LAWNS AND PARKWAYS:				
	Topsoil and sod	0	sq.yd.	$ 12.50	$ 0.00
5	RESTORATION OF STREETS:				
	Bit. Concrete Street	0	sq.yd.	$ 56.00	$ 0.00
6	TRENCH BACKFILL				
	8-12 feet deep	0	lin. ft.	$ 74.00	$ 0.00
	SUBTOTAL				$ 58,240.00
	TOTAL ESTIMATE OF CONSTRUCTION COST				$ 651,000.00
	Contingencies (20%)				$130,200.00
	Engineering (20%)				$130,200.00
	Legal / Admin (6%)				$54,700.00
	Easement Acquisition				$149,000.00
	TOTAL OPINION OF PROBABLE COST				**$ 1,115,100.00**
				Cost per lot	$21,440.00

Table 4.3-9
Downers Grove Sanitary District
Possible Special Assessment for Sanitary Sewers
Pershing Avenue (South)
Preliminary Design Layout

Manhole Number	Rim	Invert	Length (ft)	Slope	Manhole Depth
Pershing Avenue					
Existing	744.8	733.40			
			450	1.00%	
UC-36	750.0	737.90			12.1
			450	0.50%	
UC-37	750.0	740.15			9.9
			450	0.50%	
UC-38	754.0	742.40			11.6
			450	0.40%	
UC-39	752.0	744.20			7.8
			450	0.80%	
UC-40	762.0	747.80			14.2

Table 4.3-10
Downers Grove Sanitary District March 2017
Possible Special Assessment for Sanitary Sewers
Pershing Avenue (South)
Engineer's Opinion of Probable Construction Cost

No.	Pay Item		Approximate Quantity		Unit Price	Amount
MAINLINE SEWER						
1	SANITARY SEWER (OPEN CUT)					
	8-inch	0-8 feet deep	400	lin. ft.	$ 67.00	$ 26,800.00
		8-12 feet deep	1,850	lin. ft.	$ 78.00	$ 144,300.00
2	SANITARY MANHOLES					
	48-inch	0-8 feet deep	1	each	$ 4,300.00	$ 4,300.00
		8-12 feet deep	4	each	$ 5,700.00	$ 22,800.00
3	CONNECTION TO EXISTING MANHOLE					
	8-inch		1	each	$ 5,500.00	$ 5,500.00
4	TRENCH BACKFILL					
	8-inch	0-8 feet deep	130	lin. ft.	$ 83.00	$ 10,790.00
		8-12 feet deep	1,201	lin. ft.	$ 100.00	$ 120,100.00
5	TREE TUNNELING		70	lin. ft.	$ 172.00	$ 12,040.00
6	SEWER TELEVISING FOR FINAL INSPECTION		2,250	lin. ft.	$ 2.45	$ 5,512.50
7	SEWER TESTING FOR FINAL INSPECTION		2,250	lin. ft.	$ 2.45	$ 5,512.50
8	CULVERT REMOVAL AND REPLACEMENT					
	15-inch		255	lin. ft.	$ 92.00	$ 23,460.00
9	RESTORATION OF LAWNS AND PARKWAYS:					
	Topsoil and sod		2,616	sq.yd.	$ 13.00	$ 34,008.00
10	RESTORATION OF STREETS:					
	Bit. Concrete Street		756	sq.yd.	$ 57.00	$ 43,092.00
11	REMOVE AND REPLACE DRIVEWAYS					
	Bituminous		263	sq.yd.	$ 43.00	$ 11,309.00
	Concrete		80	sq.yd.	$ 72.00	$ 5,760.00
12	REMOVE AND REPLACE SIDEWALK					
	4' Concrete		50	sq.ft.	$ 12.00	$ 600.00

Table 4.3-10
Downers Grove Sanitary District March 2017
Possible Special Assessment for Sanitary Sewers
Pershing Avenue (South)
Engineer's Opinion of Probable Construction Cost

No.	Pay Item	Approximate Quantity		Unit Price	Amount
13	TREE REMOVAL AND TRIMMING:			Lump Sum	$ 2,967.50
14	EROSION CONTROL			Lump Sum	$ 593.50
15	TRAFFIC CONTROL			Lump Sum	$ 3,561.00
	SUBTOTAL				$ 483,006.00
SERVICE LATERALS					
1	BUILDING SERVICE LINES				
	Near side	768	lin. ft.	$ 44.00	$ 33,792.00
	Far side	1,344	lin. ft.	$ 44.00	$ 59,136.00
2	BUILDING SERVICE BRANCH FITTINGS				
	Near Side	32	each	$ 494.00	$ 15,808.00
	Far side	32	each	$ 609.00	$ 19,488.00
3	BUILDING SERVICE PLUG:	64	each	$ 186.00	$ 11,904.00
4	RESTORATION OF LAWNS AND PARKWAYS:				
	Topsoil and sod	1,387	sq.yd.	$ 12.50	$ 17,337.50
5	RESTORATION OF STREETS:				
	Bit. Concrete Street	427	sq.yd.	$ 56.00	$ 23,912.00
6	TRENCH BACKFILL				
	0-8 feet deep	800	lin. ft.	$ 55.00	$ 44,000.00
	SUBTOTAL				$ 225,377.50
	TOTAL ESTIMATE OF CONSTRUCTION COST				$ 708,400.00
	Contingencies (20%)				$141,700.00
	Engineering (20%)				$141,700.00
	Legal / Admin (6%)				$59,500.00
	TOTAL OPINION OF PROBABLE COST				**$ 1,051,300.00**
	Cost per lot				$16,430.00

Table 4.3-11
Downers Grove Sanitary District
Possible Special Assessment for Sanitary Sewers
Woodward and 63rd Street
Preliminary Design Layout

Manhole Number	Rim	Invert	Length (ft)	Slope	Manhole Depth
63rd Street					
H-2-160 (existing)	736.0	730.63	320	1.20%	5.4
UC-42	744.0	734.47			9.5
Woodward Avenue					
H-2-173 (existing)	747.0	738.79	115	0.40%	8.2
UC-50	748.0	739.25			8.8

Table 4.3-12

Downers Grove Sanitary District March 2017

Possible Special Assessment for Sanitary Sewers

Woodward and 63rd Street

Engineer's Opinion of Probable Construction Cost

No.	Pay Item		Approximate Quantity		Unit Price	Amount
MAINLINE SEWER						
1	SANITARY SEWER (OPEN CUT)					
	8-inch	8-12 feet deep	435	lin. ft.	$ 78.00	$ 33,930.00
2	SANITARY MANHOLES					
	48-inch	0-8 feet deep	1	each	$ 4,300.00	$ 4,300.00
		8-12 feet deep	1	each	$ 5,700.00	$ 5,700.00
3	CONNECTION TO EXISTING MANHOLE					
	8-inch		2	each	$ 5,500.00	$ 11,000.00
4	TRENCH BACKFILL					
	8-inch	0-8 feet deep	215	lin. ft.	$ 83.00	$ 17,845.00
		8-12 feet deep	220	lin. ft.	$ 100.00	$ 22,000.00
5	TREE TUNNELING		40	lin. ft.	$ 172.00	$ 6,880.00
6	SEWER TELEVISING FOR FINAL INSPECTION					
			435	lin. ft.	$ 2.45	$ 1,065.75
7	SEWER TESTING FOR FINAL INSPECTION					
			435	lin. ft.	$ 2.45	$ 1,065.75
8	CULVERT REMOVAL AND REPLACEMENT					
	15-inch		80	lin. ft.	$ 92.00	$ 7,360.00
9	RESTORATION OF LAWNS AND PARKWAYS:					
	Topsoil and sod		725	sq.yd.	$ 13.00	$ 9,425.00
10	RESTORATION OF STREETS:					
	Bit. Concrete Street		0	sq.yd.	$ 57.00	$ 0.00
11	REMOVE AND REPLACE DRIVEWAYS					
	Bituminous		171	sq.yd.	$ 43.00	$ 7,338.67
	Concrete		10	sq.yd.	$ 72.00	$ 720.00
12	REMOVE AND REPLACE SIDEWALK					
	4' Concrete		0	sq.ft.	$ 12.00	$ 0.00

Table 4.3-12
Downers Grove Sanitary District March 2017
Possible Special Assessment for Sanitary Sewers
Woodward and 63rd Street
Engineer's Opinion of Probable Construction Cost

No.	Pay Item	Approximate Quantity		Unit Price	Amount
13	TREE REMOVAL AND TRIMMING:			Lump Sum	$ 2,374.00
14	EROSION CONTROL			Lump Sum	$ 593.50
15	TRAFFIC CONTROL			Lump Sum	$ 7,715.50
	SUBTOTAL				$ 139,313.17
SERVICE LATERALS					
1	BUILDING SERVICE LINES				
	Near side	110	lin. ft.	$ 44.00	$ 4,840.00
	Far side	189	lin. ft.	$ 44.00	$ 8,316.00
2	BUILDING SERVICE BRANCH FITTINGS				
	Near Side	11	each	$ 494.00	$ 5,434.00
	Far side	7	each	$ 609.00	$ 4,263.00
3	BUILDING SERVICE PLUG:	18	each	$ 186.00	$ 3,348.00
4	RESTORATION OF LAWNS AND PARKWAYS:				
	Topsoil and sod	219	sq.yd.	$ 12.50	$ 2,736.11
5	RESTORATION OF STREETS:				
	Bit. Concrete Street	103	sq.yd.	$ 56.00	$ 5,749.33
6	TRENCH BACKFILL				
	0-8 feet deep	182	lin. ft.	$ 55.00	$ 10,010.00
	SUBTOTAL				$ 44,696.45
	TOTAL ESTIMATE OF CONSTRUCTION COST				$ 184,000.00
	Contingencies (20%)				$36,800.00
	Engineering (20%)				$36,800.00
	Legal / Admin (6%)				$15,500.00
	Easement Acquisition				$18,100.00
	TOTAL OPINION OF PROBABLE COST				**$ 291,200.00**
				Cost per lot	$16,180.00

Table 4.3-13
Downers Grove Sanitary District
Possible Special Assessment for Sanitary Sewers
Lee and Boundry (South)
Preliminary Design Layout

Manhole Number	Rim	Invert	Length (ft)	Slope	Manhole Depth
Lee Avenue					
H-2-151 (existing)	750.0	735.65			14.4
			400	1.60%	
UC-51	750.0	742.05			8.0
			400	1.50%	
UC-52	760.0	748.05			12.0
			400	3.50%	
UC-53	770.0	762.05			8.0
Boundary Road					
			430	1.50%	
UC-41	753.0	742.10			10.9

Table 4.3-14

Downers Grove Sanitary District March 2017

Possible Special Assessment for Sanitary Sewers

Lee and Boundary (South)

Engineer's Opinion of Probable Construction Cost

No.	Pay Item		Approximate Quantity		Unit Price	Amount
MAINLINE SEWER						
1	SANITARY SEWER (OPEN CUT)					
	8-inch	0-8 feet deep	509	lin. ft.	$ 67.00	$ 34,103.00
		8-12 feet deep	754	lin. ft.	$ 78.00	$ 58,812.00
		12-16 feet deep	367	lin. ft.	$ 95.00	$ 34,865.00
2	SANITARY MANHOLES					
	48-inch	0-8 feet deep	2	each	$ 4,300.00	$ 8,600.00
		8-12 feet deep	2	each	$ 5,700.00	$ 11,400.00
3	CONNECTION TO EXISTING MANHOLE					
	8-inch		2	each	$ 5,500.00	$ 11,000.00
4	TRENCH BACKFILL					
	8-inch	0-8 feet deep	130	lin. ft.	$ 83.00	$ 10,790.00
		8-12 feet deep	225	lin. ft.	$ 100.00	$ 22,500.00
		12-16 feet deep	42	lin. ft.	$ 123.00	$ 5,166.00
5	TREE TUNNELING		79	lin. ft.	$ 172.00	$ 13,588.00
6	SEWER TELEVISING FOR FINAL INSPECTION		1,630	lin. ft.	$ 2.45	$ 3,993.50
7	SEWER TESTING FOR FINAL INSPECTION		1,630	lin. ft.	$ 2.45	$ 3,993.50
8	CULVERT REMOVAL AND REPLACEMENT					
	12-inch		200	lin. ft.	$ 72.00	$ 14,400.00
9	RESTORATION OF LAWNS AND PARKWAYS:					
	Topsoil and sod		2,901	sq.yd.	$ 13.00	$ 37,713.00
10	RESTORATION OF STREETS:					
	Bit. Concrete Street		93	sq.yd.	$ 57.00	$ 5,301.00
	PCC Curb & Gutter		20	lin. ft.	$ 37.00	$ 740.00
11	REMOVE AND REPLACE DRIVEWAYS					
	Bituminous		158	sq.yd.	$ 43.00	$ 6,794.00
	PCC Driveway		83	sq.yd.	$ 72.00	$ 5,976.00
	Aggregate Driveway		61	sq.yd.	$ 19.00	$ 1,159.00
12	TREE REMOVAL AND TRIMMING:				Lump Sum	$ 1,483.75

Table 4.3-14
Downers Grove Sanitary District March 2017
Possible Special Assessment for Sanitary Sewers
Lee and Boundary (South)
Engineer's Opinion of Probable Construction Cost

No.	Pay Item	Approximate Quantity		Unit Price	Amount
13	EROSION CONTROL			Lump Sum	$ 593.50
14	TRAFFIC CONTROL:			Lump Sum	$ 6,528.50
	SUBTOTAL				$ 299,499.75
SERVICE LATERALS					
1	BUILDING SERVICE LINES				
	Near side	200	lin. ft.	$ 44.00	$ 8,800.00
	Far side	1,064	lin. ft.	$ 44.00	$ 46,816.00
2	BUILDING SERVICE BRANCH FITTINGS				
	Near Side	20	each	$ 494.00	$ 9,880.00
	Far side	19	each	$ 609.00	$ 11,571.00
3	BUILDING SERVICE PLUG:	39	each	$ 186.00	$ 7,254.00
4	RESTORATION OF LAWNS AND PARKWAYS:				
	Topsoil and sod	1,017	sq.yd.	$ 12.50	$ 12,712.50
5	RESTORATION OF STREETS:				
	Bit. Concrete Street	377	sq.yd.	$ 56.00	$ 21,112.00
6	TRENCH BACKFILL				
	0-8 feet deep	519	lin. ft.	$ 55.00	$ 28,545.00
	SUBTOTAL				$ 146,690.50
	TOTAL ESTIMATE OF CONSTRUCTION COST				$ 446,200.00
	Contingencies	(20%)			$89,200.00
	Engineering	(20%)			$89,200.00
	Legal / Admin	(6%)			$37,500.00
	TOTAL OPINION OF PROBABLE COST				**$ 662,100.00**
				Cost per lot	$16,980.00

Table 4.3-15
Downers Grove Sanitary District
Possible Special Assessment for Sanitary Sewers
Springside (South)
Preliminary Design Layout

Manhole Number	Rim	Invert	Length (ft)	Slope	Manhole Depth
Springside Avenue					
H-2-166 (existing)	740.0	726.63			13.4
			250	0.80%	
UC-55	742.0	728.63			13.4
			400	1.80%	
UC-56	749.0	735.83			13.2

Table 4.3-16
Downers Grove Sanitary District March 2017
Possible Special Assessment for Sanitary Sewers
Springside (South)
Engineer's Opinion of Probable Construction Cost

No.	Pay Item		Approximate Quantity		Unit Price	Amount
MAINLINE SEWER						
1	SANITARY SEWER (OPEN CUT)					
	8-inch	0-8 feet deep	650	lin. ft.	$ 67.00	$ 43,550.00
2	SANITARY MANHOLES					
	48-inch	0-8 feet deep	2	each	$ 4,300.00	$ 8,600.00
3	CONNECTION TO EXISTING MANHOLE					
	8-inch		1	each	$ 5,500.00	$ 5,500.00
4	TRENCH BACKFILL					
		0-8 feet deep	206	lin. ft.	$ 83.00	$ 17,098.00
5	TREE TUNNELING		60	lin. ft.	$ 172.00	$ 10,320.00
6	SEWER TELEVISING FOR FINAL INSPECTION					
			650	lin. ft.	$ 2.45	$ 1,592.50
7	SEWER TESTING FOR FINAL INSPECTION					
			650	lin. ft.	$ 2.45	$ 1,592.50
8	CULVERT REMOVAL AND REPLACEMENT					
	15-inch		150	lin. ft.	$ 92.00	$ 13,800.00
9	RESTORATION OF LAWNS AND PARKWAYS:					
	Topsoil and sod		1,098	sq.yd.	$ 13.00	$ 14,274.00
10	RESTORATION OF STREETS:					
	Bit. Concrete Street		35	sq.yd.	$ 57.00	$ 1,995.00
11	REMOVE AND REPLACE DRIVEWAYS					
	Bituminous		110	sq.yd.	$ 43.00	$ 4,730.00
12	TREE REMOVAL AND TRIMMING:				Lump Sum	$ 1,780.50
13	EROSION CONTROL				Lump Sum	$ 593.50

Table 4.3-16
Downers Grove Sanitary District March 2017
Possible Special Assessment for Sanitary Sewers
Springside (South)
Engineer's Opinion of Probable Construction Cost

No.	Pay Item	Approximate Quantity		Unit Price	Amount
14	TRAFFIC CONTROL			Lump Sum	$ 2,967.50
	SUBTOTAL				$ 128,393.50
SERVICE LATERALS					
1	BUILDING SERVICE LINES				
	Near side	80	lin. ft.	$ 44.00	$ 3,520.00
	Far side	450	lin. ft.	$ 44.00	$ 19,800.00
2	BUILDING SERVICE BRANCH FITTINGS				
	Near Side	5	each	$ 494.00	$ 2,470.00
	Far side	9	each	$ 609.00	$ 5,481.00
3	BUILDING SERVICE PLUG:	14	each	$ 186.00	$ 2,604.00
4	RESTORATION OF LAWNS AND PARKWAYS:				
	Topsoil and sod	400	sq.yd.	$ 12.50	$ 5,000.00
5	RESTORATION OF STREETS:				
	Bit. Concrete Street	160	sq.yd.	$ 56.00	$ 8,960.00
6	TRENCH BACKFILL				
	0-8 feet deep	216	lin. ft.	$ 55.00	$ 11,880.00
	SUBTOTAL				$ 59,715.00
	TOTAL ESTIMATE OF CONSTRUCTION COST				$ 188,100.00
	Contingencies	(20%)			$37,600.00
	Engineering	(20%)			$37,600.00
	Legal / Admin	(6%)			$15,800.00
	TOTAL OPINION OF PROBABLE COST				**$ 279,100.00**
				Cost per lot	$19,940.00

Table 4.3-17
Downers Grove Sanitary District
Possible Special Assessment for Sanitary Sewers
Springside-Jefferson-Downers (North)
Preliminary Design Layout

Manhole Number	Rim	Invert	Length (ft)	Slope	Manhole Depth
Downers Drive					
H-3-2-14 (existing)	755.0	736.20			18.8
			38	0.40%	
UC-57	754.0	736.35			17.6
			250	0.40%	
UC-58	756.0	737.35			18.6
			253	0.40%	
UC-59	754.0	738.36			15.6
			341	0.40%	
UC-60	757.5	739.73			17.8
			340	0.40%	
UC-61	753.0	741.09			11.9
Jefferson Drive					
			250	0.40%	
UC-62	750.0	742.09			7.9
Springside Avenue					
			220	0.40%	
UC-63	750.0	742.97			7.0
			198	0.40%	
UC-64	750.0	742.88			7.1
			384	2.00%	
UC-65	763.0	750.56			12.4
			140	1.00%	
UC-66	764.0	751.96			12.0
H-3-110 (existing)	755.3	745.25			10.0
			320	3.00%	
UC-67	764.0	754.85			9.1

Table 4.3-18

Downers Grove Sanitary District March 2017

Possible Special Assessment for Sanitary Sewers

Springside-Jefferson-Downers (North)

Engineer's Opinion of Probable Construction Cost

No.	Pay Item		Approximate Quantity		Unit Price	Amount
MAINLINE SEWER						
1	SANITARY SEWER (OPEN CUT)					
	8-inch	0-8 feet deep	418	lin. ft.	$ 67.00	$ 28,006.00
		8-12 feet deep	1,114	lin. ft.	$ 78.00	$ 86,892.00
		12-16 feet deep	588	lin. ft.	$ 95.00	$ 55,860.00
		16-20 feet deep	614	lin. ft.	$ 113.00	$ 69,382.00
2	SANITARY MANHOLES					
	48-inch	0-8 feet deep	3	each	$ 4,300.00	$ 12,900.00
		8-12 feet deep	4	each	$ 5,700.00	$ 22,800.00
		12-16 feet deep	1	each	$ 6,800.00	$ 6,800.00
		16-20 feet deep	3	each	$ 9,200.00	$ 27,600.00
3	CONNECTION TO EXISTING MANHOLE					
	8-inch		2	each	$ 5,500.00	$ 11,000.00
4	TRENCH BACKFILL					
	8-inch	0-8 feet deep	370	lin. ft.	$ 83.00	$ 30,710.00
		8-12 feet deep	680	lin. ft.	$ 100.00	$ 68,000.00
		12-16 feet deep	481	lin. ft.	$ 123.00	$ 59,163.00
		16-20 feet deep	608	lin. ft.	$ 160.00	$ 97,280.00
5	TREE TUNNELING		60	lin. ft.	$ 172.00	$ 10,320.00
6	SEWER TELEVISING FOR FINAL INSPECTION					
			2,734	lin. ft.	$ 2.45	$ 6,698.30
7	SEWER TESTING FOR FINAL INSPECTION					
			2,734	lin. ft.	$ 2.45	$ 6,698.30
8	CULVERT REMOVAL AND REPLACEMENT					
	12-inch		160	lin. ft.	$ 72.00	$ 11,520.00
9	RESTORATION OF LAWNS AND PARKWAYS:					
	Topsoil and sod		3,850	sq.yd.	$ 13.00	$ 50,050.00
10	RESTORATION OF STREETS:					
	Bit. Concrete Street		625	sq.yd.	$ 57.00	$ 35,625.00
11	REMOVE AND REPLACE DRIVEWAYS					
	Bituminous		255	sq.yd.	$ 43.00	$ 10,965.00
	Concrete		72	sq.yd.	$ 72.00	$ 5,184.00
	Aggregate		162	sq.yd.	$ 19.00	$ 3,078.00

Table 4.3-18
Downers Grove Sanitary District March 2017
Possible Special Assessment for Sanitary Sewers
Springside-Jefferson-Downers (North)
Engineer's Opinion of Probable Construction Cost

No.	Pay Item	Approximate Quantity		Unit Price	Amount
12	TREE REMOVAL AND TRIMMING:			Lump Sum	$ 2,670.75
13	EROSION CONTROL			Lump Sum	$ 890.25
14	TRAFFIC CONTROL:			Lump Sum	$ 5,935.00
	SUBTOTAL				$ 720,092.60
SERVICE LATERALS					
1	BUILDING SERVICE LINES				
	Near side	495	lin. ft.	$ 44.00	$ 21,780.00
	Far side	912	lin. ft.	$ 44.00	$ 40,128.00
2	BUILDING SERVICE BRANCH FITTINGS				
	Near Side	33	each	$ 494.00	$ 16,302.00
	Far side	19	each	$ 609.00	$ 11,571.00
3	BUILDING SERVICE PLUG:	52	each	$ 186.00	$ 9,672.00
4	RESTORATION OF LAWNS AND PARKWAYS:				
	Topsoil and sod	842	sq.yd.	$ 12.50	$ 10,525.00
5	RESTORATION OF STREETS:				
	Bit. Concrete Street	388	sq.yd.	$ 56.00	$ 21,728.00
6	TRENCH BACKFILL				
	0-8 feet deep	494	lin. ft.	$ 55.00	$ 27,170.00
7	REMOVE AND REPLACE DRIVEWAYS				
	Bituminous	24	sq.yd.	$ 42.00	$ 1,008.00
	SUBTOTAL				$ 159,884.00
	TOTAL ESTIMATE OF CONSTRUCTION COST				$ 880,000.00
	Contingencies (20%)				$176,000.00
	Engineering (20%)				$176,000.00
	Legal / Admin (6%)				$73,900.00
	TOTAL OPINION OF PROBABLE COST				**$ 1,305,900.00**
	Cost per lot				$25,110.00

Table 4.3-19
Downers Grove Sanitary District
Possible Special Assessment for Sanitary Sewers
Pershing-Woodward-Maple (North)
Preliminary Design Layout

Manhole Number	Rim	Invert	Length (ft)	Slope	Manhole Depth
Maple Avenue					
2-C-131 (existing)	730.2	711.80			18.4
			300	2.00%	
UC-106	740.0	729.80			10.2
2-C-151 (existing)	741.6	723.72			17.9
			450	3.50%	
UC-71	752.0	739.47			12.5
			450	2.00%	
UC-70	760.0	748.47			11.5
Woodward Avenue					
2-C-155 (existing)	735.7	727.36			8.3
			400	1.00%	
UC-86	746.0	731.36			14.6
			400	2.00%	
UC-87	750.0	739.36			10.6
			400	5.00%	
UC-88	760.0	751.36			8.6
			400	5.00%	
UC-89	778.0	761.36			16.6
Blanchard Street					
			325	1.10%	
UC-77	739.0	730.94			8.1
			390	1.20%	
UC-78	756.0	735.62			20.4
Pershing Avenue					
			400	0.40%	
UC-79	750.0	737.22			12.8
			400	0.40%	
UC-80	747.5	738.82			8.7
			160	0.40%	
UC-81	752.0	739.46			12.5
			225	5.00%	
UC-82	764.0	750.07			13.9
			350	0.80%	
UC-84	752.0	738.42			13.6
			400	0.80%	
UC-85	750.0	741.62			8.4
59th Street					
			400	0.40%	
UC-83	748.5	741.06			7.4

Table 4.3-20
Downers Grove Sanitary District March 2017
Possible Special Assessment for Sanitary Sewers
Pershing-Woodward-Maple (North)
Engineer's Opinion of Probable Construction Cost

No.	Pay Item		Approximate Quantity		Unit Price	Amount
MAINLINE SEWER						
1	SANITARY SEWER (OPEN CUT)					
	8-inch	0-8 feet deep	1,130	lin. ft.	$ 67.00	$ 75,710.00
		8-12 feet deep	3,300	lin. ft.	$ 78.00	$ 257,400.00
		12-16 feet deep	960	lin. ft.	$ 95.00	$ 91,200.00
		16-20 feet deep	460	lin. ft.	$ 113.00	$ 51,980.00
2	SANITARY MANHOLES					
	48-inch	0-8 feet deep	4	each	$ 4,300.00	$ 17,200.00
		8-12 feet deep	8	each	$ 5,700.00	$ 45,600.00
		12-16 feet deep	3	each	$ 6,800.00	$ 20,400.00
		16-20 feet deep	1	each	$ 9,200.00	$ 9,200.00
3	CONNECTION TO EXISTING MANHOLE					
	8-inch		3	each	$ 5,500.00	$ 16,500.00
4	TRENCH BACKFILL					
	8-inch	0-8 feet deep	1,203	lin. ft.	$ 83.00	$ 99,849.00
		8-12 feet deep	1,391	lin. ft.	$ 100.00	$ 139,100.00
		12-16 feet deep	676	lin. ft.	$ 123.00	$ 83,148.00
		16-20 feet deep	347	lin. ft.	$ 160.00	$ 55,520.00
5	TREE TUNNELING		440	lin. ft.	$ 172.00	$ 75,680.00
6	SEWER TELEVISING FOR FINAL INSPECTION		5,850	lin. ft.	$ 2.45	$ 14,332.50
7	SEWER TESTING FOR FINAL INSPECTION		5,850	lin. ft.	$ 2.45	$ 14,332.50
8	CULVERT REMOVAL AND REPLACEMENT					
	15-inch		10	lin. ft.	$ 92.00	$ 920.00
	12-inch		185	lin. ft.	$ 72.00	$ 13,320.00
9	RESTORATION OF LAWNS AND PARKWAYS:					
	Topsoil and sod		6,027	sq.yd.	$ 13.00	$ 78,351.00
10	RESTORATION OF STREETS:					
	Bit. Concrete Street		2,018	sq.yd.	$ 57.00	$ 115,026.00
11	REMOVE AND REPLACE DRIVEWAYS					
	Bituminous		695	sq.yd.	$ 43.00	$ 29,885.00
	PCC		55	sq.yd.	$ 72.00	$ 3,960.00

Table 4.3-20
Downers Grove Sanitary District March 2017
Possible Special Assessment for Sanitary Sewers
Pershing-Woodward-Maple (North)
Engineer's Opinion of Probable Construction Cost

No.	Pay Item	Approximate Quantity		Unit Price	Amount
12	TREE REMOVAL AND TRIMMING:			Lump Sum	$ 1,187.00
13	EROSION CONTROL:				
	Silt Fence			Lump Sum	$ 5,932.63
14	TRAFFIC CONTROL:			Lump Sum	$ 10,683.00
	SUBTOTAL				$ 1,326,416.63
SERVICE LATERALS					
1	BUILDING SERVICE LINES				
	Near side	842	lin. ft.	$ 44.00	$ 37,048.00
	Far side	2,286	lin. ft.	$ 44.00	$ 100,584.00
	Riser Pipes	74	vert. ft.	$ 42.00	$ 3,108.00
2	BUILDING SERVICE BRANCH FITTINGS				
	Near Side	58	each	$ 494.00	$ 28,652.00
	Far side	46	each	$ 609.00	$ 28,014.00
3	BUILDING SERVICE PLUG:	104	each	$ 186.00	$ 19,344.00
4	RESTORATION OF LAWNS AND PARKWAYS:				
	Topsoil and sod	2,417	sq.yd.	$ 12.50	$ 30,212.50
5	RESTORATION OF STREETS:				
	Bit. Concrete Street	562	sq.yd.	$ 56.00	$ 31,472.00
6	TRENCH BACKFILL				
	0-8 feet deep	1,090	lin. ft.	$ 55.00	$ 59,950.00
	SUBTOTAL				$ 338,384.50
	TOTAL ESTIMATE OF CONSTRUCTION COST				$ 1,664,800.00
	Contingencies			(20%)	$333,000.00
	Engineering			(20%)	$333,000.00
	Legal / Admin			(6%)	$139,800.00
	Easement Acquisition				$42,800.00
	TOTAL OPINION OF PROBABLE COST				**$ 2,513,400.00**
	Cost per lot				$24,170.00

Table 4.3-21
Downers Grove Sanitary District
Possible Special Assessment for Sanitary Sewers
Sherman Avenue (North)
Preliminary Design Layout

Manhole Number	Rim	Invert	Length (ft)	Slope	Manhole Depth
Sherman Avenue					
2-C-142 (existing)	740.2	724.20			16.0
			400	1.50%	
UC-90	752.0	730.20			21.8
			400	0.40%	
UC-91	746.0	731.80			14.2
			400	0.40%	
UC-92	742.0	733.40			8.6
			400	3.00%	
UC-93	760.0	745.40			14.6
			400	3.00%	
UC-94	767.0	757.40			9.6

Table 4.3-22

Downers Grove Sanitary District March 2017

Possible Special Assessment for Sanitary Sewers

Sherman Avenue (North)

Engineer's Opinion of Probable Construction Cost

No.	Pay Item		Approximate Quantity		Unit Price	Amount
MAINLINE SEWER						
1	SANITARY SEWER (OPEN CUT)					
	8-inch	0-8 feet deep	270	lin. ft.	$ 67.00	$ 18,090.00
		8-12 feet deep	590	lin. ft.	$ 78.00	$ 46,020.00
		12-16 feet deep	670	lin. ft.	$ 95.00	$ 63,650.00
		16-20 feet deep	470	lin. ft.	$ 113.00	$ 53,110.00
2	SANITARY MANHOLES					
	48-inch	0-8 feet deep	1	each	$ 4,300.00	$ 4,300.00
		8-12 feet deep	1	each	$ 5,700.00	$ 5,700.00
		12-16 feet deep	2	each	$ 6,800.00	$ 13,600.00
		16-20 feet deep	1	each	$ 9,200.00	$ 9,200.00
3	CONNECTION TO EXISTING MANHOLE					
	8-inch		1	each	$ 5,500.00	$ 5,500.00
4	TRENCH BACKFILL					
	8-inch	0-8 feet deep	90	lin. ft.	$ 83.00	$ 7,470.00
		8-12 feet deep	450	lin. ft.	$ 100.00	$ 45,000.00
		12-16 feet deep	300	lin. ft.	$ 123.00	$ 36,900.00
		16-20 feet deep	100	lin. ft.	$ 160.00	$ 16,000.00
5	TREE TUNNELING		120	lin. ft.	$ 172.00	$ 20,640.00
6	SEWER TELEVISING FOR FINAL INSPECTION					
			2,000	lin. ft.	$ 2.45	$ 4,900.00
7	SEWER TESTING FOR FINAL INSPECTION					
			2,000	lin. ft.	$ 2.45	$ 4,900.00
8	CULVERT REMOVAL AND REPLACEMENT					
	12-inch		360	lin. ft.	$ 72.00	$ 25,920.00
9	RESTORATION OF LAWNS AND PARKWAYS:					
	Topsoil and sod		3,333	sq.yd.	$ 13.00	$ 43,329.00
10	RESTORATION OF STREETS:					
	Bit. Concrete Street		98	sq.yd.	$ 57.00	$ 5,586.00
11	STORM SEWER REMOVAL AND REPLACEMENT					
	18" RCP		20	lin. ft.	$ 92.00	$ 1,840.00
12	REMOVE AND REPLACE DRIVEWAYS					
	Bituminous		428	sq.yd.	$ 43.00	$ 18,404.00
	Concrete		43	sq.yd.	$ 72.00	$ 3,096.00

Table 4.3-22
Downers Grove Sanitary District March 2017
Possible Special Assessment for Sanitary Sewers
Sherman Avenue (North)
Engineer's Opinion of Probable Construction Cost

No.	Pay Item	Approximate Quantity		Unit Price	Amount
13	TREE REMOVAL AND TRIMMING:			Lump Sum	$ 1,483.75
14	EROSION CONTROL			Lump Sum	$ 593.50
15	TRAFFIC CONTROL			Lump Sum	$ 5,935.00
	SUBTOTAL				$ 461,167.25
SERVICE LATERALS					
1	BUILDING SERVICE LINES				
	Near side	465	lin. ft.	$ 44.00	$ 20,460.00
	Far side	1,581	lin. ft.	$ 44.00	$ 69,564.00
2	BUILDING SERVICE BRANCH FITTINGS				
	Near Side	31	each	$ 494.00	$ 15,314.00
	Far side	31	each	$ 609.00	$ 18,879.00
3	BUILDING SERVICE PLUG:	62	each	$ 186.00	$ 11,532.00
4	RESTORATION OF LAWNS AND PARKWAYS:				
	Topsoil and sod	1,447	sq.yd.	$ 12.50	$ 18,087.50
5	RESTORATION OF STREETS:				
	Bit. Concrete Street	579	sq.yd.	$ 56.00	$ 32,424.00
6	TRENCH BACKFILL				
	0-8 feet deep	744	lin. ft.	$ 55.00	$ 40,920.00
	SUBTOTAL				$ 227,180.50
	TOTAL ESTIMATE OF CONSTRUCTION COST				$ 688,300.00
	Contingencies (20%)				$137,700.00
	Engineering (20%)				$137,700.00
	Legal / Admin (6%)				$57,800.00
	TOTAL OPINION OF PROBABLE COST				**$ 1,021,500.00**
	Cost per lot				$16,480.00

Table 4.3-23
Downers Grove Sanitary District
Possible Special Assessment for Sanitary Sewers
Lee Avenue (North)
Preliminary Design Layout

Manhole Number	Rim	Invert	Length (ft)	Slope	Manhole Depth
Maple Avenue					
2-C-147 (existing)	750.8	737.48			13.3
			380	3.00%	
UC-99	760.0	748.88			11.1
Lee Avenue					
2-C-149 (existing)	759.1	745.52			13.6
			260	0.40%	
UC-101	762.0	746.56			15.4
			400	0.40%	
UC-102	756.0	748.16			7.8
			400	0.80%	
UC-103	760.0	751.36			8.6
			400	1.80%	
UC-104	767.0	758.56			8.4
			400	1.80%	
UC-105	774.0	765.76			8.2

Table 4.3-24
Downers Grove Sanitary District March 2017
Possible Special Assessment for Sanitary Sewers
Lee Cost Estimate
Engineer's Opinion of Probable Construction Cost

No.	Pay Item		Approximate Quantity		Unit Price	Amount
MAINLINE SEWER						
1	SANITARY SEWER (OPEN CUT)					
	8-inch	0-8 feet deep	200	lin. ft.	$ 67.00	$ 13,400.00
		8-12 feet deep	1,250	lin. ft.	$ 78.00	$ 97,500.00
		12-16 feet deep	140	lin. ft.	$ 95.00	$ 13,300.00
		16-20 feet deep	260	lin. ft.	$ 113.00	$ 29,380.00
2	DIRECTIONAL DRILLING					
	8-inch		400	lin. ft.	$ 246.00	$ 98,400.00
3	SANITARY MANHOLES					
	48-inch	0-8 feet deep	1	each	$ 4,300.00	$ 4,300.00
		8-12 feet deep	2	each	$ 5,700.00	$ 11,400.00
		12-16 feet deep	2	each	$ 6,800.00	$ 13,600.00
		16-20 feet deep	1	each	$ 9,200.00	$ 9,200.00
4	CONNECTION TO EXISTING MANHOLE					
	8-inch		2	each	$ 5,500.00	$ 11,000.00
5	TRENCH BACKFILL					
	8-inch	0-8 feet deep	200	lin. ft.	$ 83.00	$ 16,600.00
		8-12 feet deep	1,250	lin. ft.	$ 100.00	$ 125,000.00
		12-16 feet deep	140	lin. ft.	$ 123.00	$ 17,220.00
		16-20 feet deep	260	lin. ft.	$ 160.00	$ 41,600.00
6	TREE TUNNELING		0	lin. ft.	$ 172.00	$ 0.00
7	SEWER TELEVISING FOR FINAL INSPECTION					
			2,250	lin. ft.	$ 2.45	$ 5,512.50
8	SEWER TESTING FOR FINAL INSPECTION					
			2,250	lin. ft.	$ 2.45	$ 5,512.50
9	CULVERT REMOVAL AND REPLACEMENT					
	12-inch		55	lin. ft.	$ 72.00	$ 3,960.00
10	STORM SEWER REMOVAL AND REPLACEMENT					
	18" RCP		20	lin. ft.	$ 92.00	$ 1,840.00
11	RESTORATION OF LAWNS AND PARKWAYS:					
	Topsoil and sod		457	sq.yd.	$ 13.00	$ 5,941.00
12	RESTORATION OF STREETS:					
	Bit. Concrete Street		1,678	sq.yd.	$ 57.00	$ 95,646.00

Table 4.3-24
Downers Grove Sanitary District March 2017
Possible Special Assessment for Sanitary Sewers
Lee Cost Estimate
Engineer's Opinion of Probable Construction Cost

No.	Pay Item	Approximate Quantity		Unit Price	Amount
13	REMOVE AND REPLACE DRIVEWAYS				
	Bituminous	711	sq.yd.	$ 43.00	$ 30,573.00
	Concrete	178	sq.yd.	$ 72.00	$ 12,816.00
14	TREE REMOVAL AND TRIMMING:			Lump Sum	$ 593.50
15	EROSION CONTROL			Lump Sum	$ 593.50
16	TRAFFIC CONTROL			Lump Sum	$ 8,902.50
	SUBTOTAL				$ 673,790.50
SERVICE LATERALS					
1	BUILDING SERVICE LINES				
	Near side	522	lin. ft.	$ 44.00	$ 22,968.00
	Far side	1,200	lin. ft.	$ 44.00	$ 52,800.00
2	BUILDING SERVICE BRANCH FITTINGS				
	Near Side	29	each	$ 494.00	$ 14,326.00
	Far side	25	each	$ 609.00	$ 15,225.00
3	BUILDING SERVICE PLUG:	54	each	$ 186.00	$ 10,044.00
4	RESTORATION OF LAWNS AND PARKWAYS:				
	Topsoil and sod	1,156	sq.yd.	$ 12.50	$ 14,450.00
5	RESTORATION OF STREETS:				
	Bit. Concrete Street	422	sq.yd.	$ 56.00	$ 23,632.00
6	TRENCH BACKFILL				
	0-8 feet deep	625	lin. ft.	$ 55.00	$ 34,375.00
	SUBTOTAL				$ 187,820.00
	TOTAL ESTIMATE OF CONSTRUCTION COST				$ 861,600.00
	Contingencies (20%)				$172,300.00
	Engineering (20%)				$172,300.00
	Legal / Admin (6%)				$72,400.00
	Easement Acquisition				$14,600.00
	TOTAL OPINION OF PROBABLE COST				**$ 1,293,200.00**
				Cost per lot	$23,950.00

Table 4.3-25

Downers Grove Sanitary District March 2017

Possible Special Assessment for Sanitary Sewers

Downers Grove Gardens Sub-Area

Cost Summary

Sub-Basin:	Near Services	Far Services	Cost	Cost per lot
Janes-Leonard-Chase-Puffer (North)	37	31	$ 1,158,500.00	$ 17,040.00
Janes-Leonard-Chase-Puffer (South)	72	57	$ 2,182,300.00	$ 16,920.00
Belmont-Southwest	25	0	$ 569,000.00	$ 22,760.00
Belmont Road (East)	52	0	$ 1,115,100.00	$ 21,440.00
Pershing Avenue (South)	32	32	$ 1,051,300.00	$ 16,430.00
Woodward and 63rd Street	11	7	$ 291,200.00	$ 16,180.00
Lee and Boundary (South)	20	19	$ 662,100.00	$ 16,980.00
Springside (South)	5	9	$ 279,100.00	$ 19,940.00
Springside-Jefferson-Downers (North)	33	19	$ 1,305,900.00	$ 25,110.00
Pershing-Woodward-Maple (North)	58	46	$ 2,513,400.00	$ 24,170.00
Sherman Avenue (North)	31	31	$ 1,021,500.00	$ 16,480.00
Lee Avenue (North)	29	25	$ 1,293,200.00	$ 23,950.00
TOTALS	405	276	$ 13,442,600.00	$ 19,740.00
		681		

4.4 Fairhaven Court

Fairhaven Court is a small service area adjacent to the Downers Grove Gardens sub-area. Exhibit 4.4 shows the approximate limits of this service area which is located north of Maple Avenue. The proposed service area currently includes 10 lots that are developed as single-family residences with septic systems. The purpose of this analysis is to establish the most cost-effective sanitary sewer plan for serving properties along Fairhaven Court.

Several factors were considered when determining the most cost-effective sewer layout. These factors include topography, tree protection, water main and existing utility location. In addition to following the ground contours, the low-cost sewer layout also needs to consider avoiding major road crossings. The one major road crossing that would significantly increase construction cost in this sub-area is Maple Avenue. Thus, alternatives were considered to minimize crossing of this roadway.

The Village of Downers Grove owns and operates a water main on Fairhaven Court. Water main locations were reviewed and field investigations of the sewer routes were completed to reduce the potential for utility conflicts and to ensure that the required ten feet of separation from water mains can be achieved.

The final component of this analysis was to evaluate the downstream capacity of the existing sewers. Our analysis determined that all of the existing sewers have adequate capacity to receive the additional flow from the Fairhaven Court sub-area.

A map of the proposed sewer plan is included in Exhibit 4.4.

The topography along Fairhaven Court is relatively flat, and thus, the direction of flow will be dictated by the available sewer depth and the most cost effective route. We identified two existing manholes that would provide adequate cover and would be feasible alternatives for connection points: the manhole located east of the dead end of Fairhaven Court and the manhole along Maple Avenue at Stonewall Avenue. We recommend the first alternative, connecting east of the dead end at Fairhaven Court to reduce the additional cost and pipe footage required to install a sewer in the Maple Avenue right-of-way.

The sewer should be placed in an easement on east side of Fairhaven Court. Previous studies have planned for the sewer to be installed east of the edge of pavement. Our field investigation determined that there is a significant amount of new landscaping, brickwork, lighting, and concrete driveways located in the proposed sewer path. Thus, we recommend that the sewer be installed in the east half of the pavement, opposite of the existing water main which is located west of the pavement centerline. Table 4.4-1 is the proposed layout of the sewer size, length, and slope and manhole invert and depth. Table 4.4-2 includes a breakdown of the unit quantities and unit prices used to prepare the opinion of probable cost. The total opinion of project cost is $348,900, including contingency, engineering, and legal/administrative costs.

DOWNERS GROVE SANITARY DISTRICT UNSEWERED AREA PLAN

EXHIBIT 4.4

FAIRHAVEN COURT
POSSIBLE SEWER ALIGNMENT

MARCH 2017

LEGEND

- PROPOSED MANHOLES
- PROPOSED SEWERS
- EXISTING MANHOLES
- EXISTING SEWERS
- PARCEL BOUNDARIES
- FAIRHAVEN COURT

N

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Feet

BAXTER & WOODMAN
Consulting Engineers

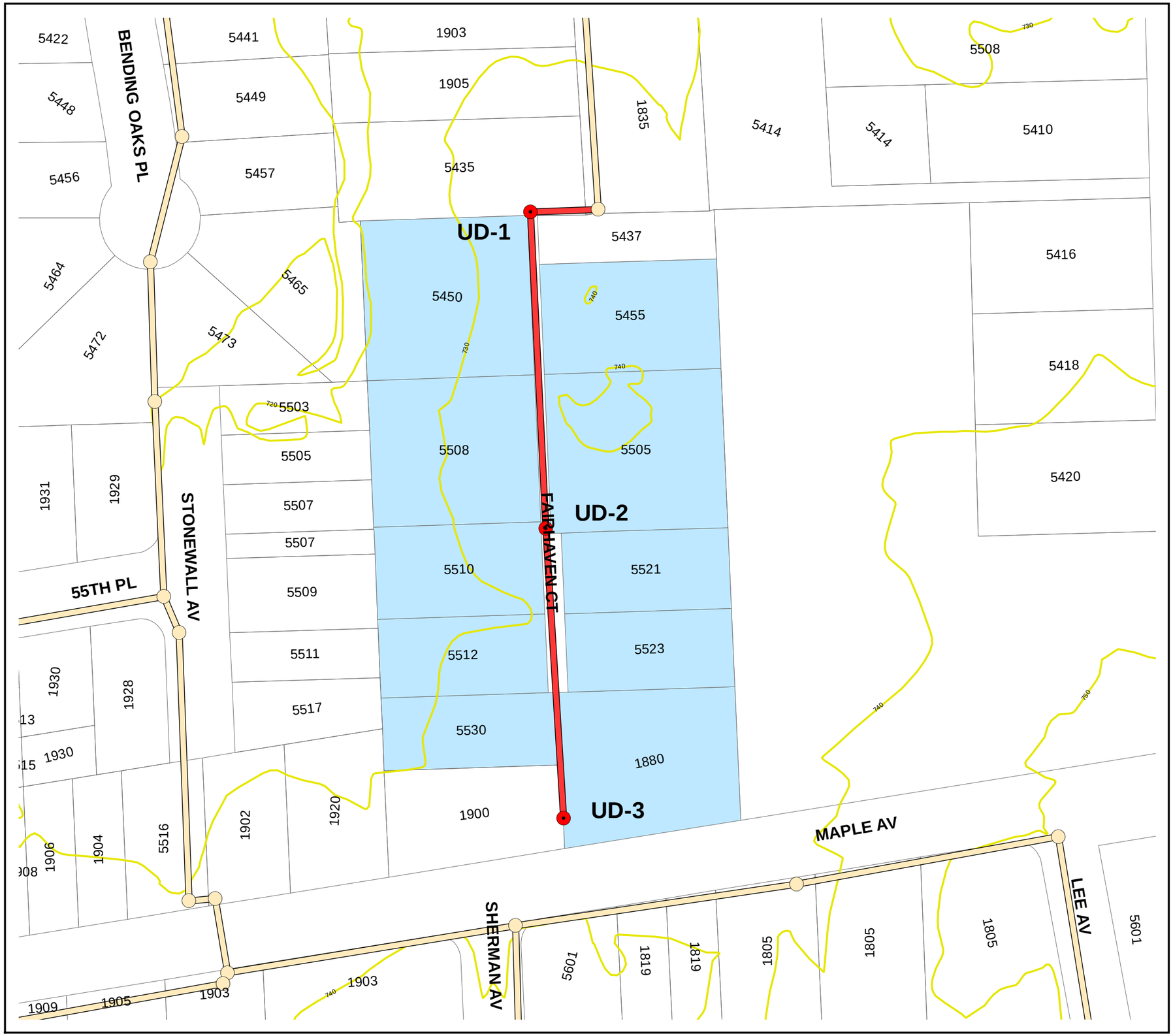

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Table 4.4-1
Downers Grove Sanitary District
Possible Special Assessment for Sanitary Sewers
Fairhaven Court
Preliminary Design Layout

Manhole Number	Rim	Invert	Length (ft)	Slope	Manhole Depth
Fairhaven Court					
2-C-133 (existing)	736.0	723.00			13.0
			60	0.40%	
UD-1	734.0	723.24			10.8
			320	0.50%	
UD-2	734.0	724.84			9.2
			290	0.50%	
UD-3	735.0	726.29			8.7

Table 4.4-2
Downers Grove Sanitary District March 2017
Possible Special Assessment for Sanitary Sewers
Fairhaven Court
Engineer's Opinion of Probable Construction Cost

No.	Pay Item		Approximate Quantity		Unit Price	Amount
MAINLINE SEWER						
1	SANITARY SEWER (OPEN CUT)					
	8-inch	8-12 feet deep	670	lin. ft.	$ 78.00	$ 52,260.00
2	SANITARY MANHOLES					
	48-inch	8-12 feet deep	3	each	$ 5,700.00	$ 17,100.00
3	CONNECTION TO EXISTING MANHOLE					
	8-inch		1	each	$ 5,500.00	$ 5,500.00
4	TRENCH BACKFILL					
	8-inch	8-12 feet deep	630	lin. ft.	$ 100.00	$ 63,000.00
5	TREE TUNNELING		0	lin. ft.	$ 172.00	$ 0.00
6	SEWER TELEVISING FOR FINAL INSPECTION					
			670	lin. ft.	$ 2.45	$ 1,641.50
7	SEWER TESTING FOR FINAL INSPECTION					
			670	lin. ft.	$ 2.45	$ 1,641.50
8	CULVERT REMOVAL AND REPLACEMENT					
	12-inch		0	lin. ft.	$ 72.00	$ 0.00
9	RESTORATION OF LAWNS AND PARKWAYS:					
	Topsoil and sod		111	sq.yd.	$ 13.00	$ 1,443.00
10	RESTORATION OF STREETS:					
	Bit. Concrete Street		560	sq.yd.	$ 57.00	$ 31,920.00
11	REMOVE AND REPLACE DRIVEWAYS					
	Bituminous		0	sq.yd.	$ 43.00	$ 0.00
12	TREE REMOVAL AND TRIMMING:				Lump Sum	$ 296.75
13	EROSION CONTROL				Lump Sum	$ 296.75

Table 4.4-2
Downers Grove Sanitary District March 2017
Possible Special Assessment for Sanitary Sewers
Fairhaven Court
Engineer's Opinion of Probable Construction Cost

No.	Pay Item	Approximate Quantity		Unit Price	Amount
14	TRAFFIC CONTROL:			Lump Sum	$ 5,935.00
	SUBTOTAL				$ 181,034.50
SERVICE LATERALS					
1	BUILDING SERVICE LINES				
	Near side	100	lin. ft.	$ 44.00	$ 4,400.00
	Far side	125	lin. ft.	$ 44.00	$ 5,500.00
2	BUILDING SERVICE BRANCH FITTINGS				
	Near Side	5	each	$ 494.00	$ 2,470.00
	Far side	5	each	$ 609.00	$ 3,045.00
3	BUILDING SERVICE PLUG:	10	each	$ 186.00	$ 1,860.00
4	RESTORATION OF LAWNS AND PARKWAYS:				
	Topsoil and sod	139	sq.yd.	$ 12.50	$ 1,737.50
5	RESTORATION OF STREETS:				
	Bit. Concrete Street	33	sq.yd.	$ 56.00	$ 1,848.00
6	TRENCH BACKFILL				
	0-8 feet deep	70	lin. ft.	$ 55.00	$ 3,850.00
	SUBTOTAL				$ 24,710.50
	TOTAL ESTIMATE OF CONSTRUCTION COST				$ 205,700.00
	Contingencies (20%)				$41,100.00
	Engineering (20%)				$41,100.00
	Legal / Admin (6%)				$17,300.00
	Easement Acquisition				$43,700.00
	TOTAL OPINION OF PROBABLE COST				**$ 348,900.00**
				Cost per lot	$34,890.00

4.5 Burlington Highlands

Burlington Highlands is a large sub-area within the District's FPA that is currently unsewered. As shown on Exhibit 4.5, the approximate limits of this sub-area are Herbert Street to the north, Lacey Road to the west, Grant Street to the south, and Venard Road to the east. The proposed service area includes approximately 198 lots that are mostly developed as single-family residences with septic systems with some potential commercial lots on Ogden Avenue. The purpose of this analysis is to establish the most cost-effective sanitary sewer plan for serving properties within Burlington Highlands.

Several factors were considered when determining the most cost-effective sewer layout. These factors include topography, major road crossings, wetlands, tree protection, water main and existing utility location, and existing downstream sewer capacity. The Burlington Highlands sub-area has three major drainage divides. Serving the subject properties by following the ground contours will avoid deep cuts through the higher elevations along drainage divide. The study area can be divided into four smaller service areas. Properties to the southwest will be served by the existing sanitary sewer south of I-88 (at Lacey and Virginia). Central properties will be served by existing sewers southeast of I-88 (near Morton and Herbert). Residences on Venard Road, north of Drove Avenue will be served by the existing sewer stub 500 feet south of Parrish Court. Residences on Venard Road, just north of Ogden Avenue will be served by the existing sewer south of the park.

In addition to following the ground contours, the low-cost sewer layout also needs to consider avoiding major road crossings. The one major road crossing that would significantly increase construction cost in this sub-area is Ogden Avenue. Thus, alternatives were considered to minimize crossing of this route with both the mainline sewer and building services.

The sewer layout also considered the several wetlands that are located within the sub-area at the following locations: between Morton and Downers (proposed side yard easement), and various small wetlands located in the vacant development south of Ogden Avenue. Avoiding these wetlands will minimize the time and expense involved in the permitting process for construction in wetlands, as well as reduce the costs associated with restoring these areas.

The Village of Downers Grove and the DuPage Water Commission own and operate water mains on the streets within the sub-area. The water main design drawings were reviewed and field investigations of the sewer routes were completed to reduce the potential for utility conflicts and to ensure that the required ten feet of separation from water mains can be achieved.

The final component of this analysis was to evaluate the downstream capacity of the existing sewers. Our analysis determined that all of the existing sewers have adequate capacity to receive the additional flow from the Burlington Highlands sub-area.

For this analysis, the subject area was subdivided into smaller, more manageable sub-basins. The sub-basins were created using topography and projected sewer connection points.

The following are the proposed sub-basins:

Sub-basin	No. of Services	Layout	Cost Estimate
Morton and Downers	39	Table 4.5-1	Table 4.5-2
40th and Seeley (North)	21	Table 4.5-3	Table 4.5-4
40th and Northcott	14	Table 4.5-5	Table 4.5-6
Virginia-Seeley-Janet-Downers	43	Table 4.5-7	Table 4.5-8
Belle Aire and Venard	21	Table 4.5-9	Table 4.5-10
Venard Road (North)	10	Table 4.5-11	Table 4.5-12
Venard Road (South)	2	Table 4.5-13	Table 4.5-14
Virginia Avenue (West)	6	Table 4.5-15	Table 4.5-16
Lacey-Carol-Northcott	1	Table 4.5-17	Table 4.5-18
Lacey and Janet	14	Table 4.5-19	Table 4.5-20
Ogden-Lacey-Grant-Lee (South)	27	Table 4.5-21	Table 4.5-22

Table 4.5-23 is a summary table of opinions of probable cost. A map of the proposed sewer plan is included in Exhibit 4.5.

The Morton and Downers sub-basin sewer plan follows the existing topography which falls from the intersection of Downers and Janet northwest to the creek crossing near Morton and I-88. In general, the sewer alignment on each street should be on the east side of the right-of-way because of the existing water main on the west side of the right-of-way. The existing sewer stub located at Herbert and Downers is too shallow to serve the subject area. The only feasible connection point is the trunk sewer located southeast of I-88. The sewer on Downers should extend west to Morton in a side yard easement along the creek north of 40th Street. This sub-basin is the second most costly per lot in Burlington Highlands due to the sewer easements that are required. Table 4.5-1 is the proposed layout of the sewer size, length, and slope and manhole invert and depth. Table 4.5-2 includes a breakdown of the unit quantities and unit prices used to prepare the opinion of probable cost. The total opinion of project cost is $1,236,600, including contingency, engineering, easements, and legal/administrative costs.

The 40th and Seeley (North) sub-basin sewer plan also follows the existing topography which falls from Herbert and Seeley south to 40th Street and west to Downers. The sewer alignment on each street should be on the east side of the right-of-way on Seeley and the north side of 40th because of the existing water mains on the opposite sides of the right-of-way. Table 4.5-3 is the proposed layout of the sewer size, length, and slope and manhole invert and depth. Table 4.5-4 includes a breakdown of the unit quantities and unit prices used to prepare the opinion of probable cost. The total opinion of project cost is $536,300, including contingency, engineering, and legal/administrative costs.

The 40th and Northcott sub-basin sewer plan includes the unsewered properties northeast of the ridge that runs from Virginia east of Lee to Janet west of Northcott. The sewer will flow north on Northcott to 40th and east along 40th to Downers Drive. Table 4.5-5 is the proposed layout of the sewer size, length, and slope and manhole invert and depth. Table 4.5-6 includes a breakdown of the unit quantities and unit prices used to prepare the opinion of probable cost. The total opinion of project cost is $376,400, including contingency, engineering, and legal/administrative costs.

The Virginia-Seeley-Janet (South) sub-basin sewer plan follows the existing topography around the highpoint on Downers Dive by flowing east on Janet to Seeley, north to Virginia, and back west to Downers Drive. The proposed sewer must circle Downers Drive because the existing topography at Downers Drive and Janet Street would require a deep cut. Similar to other sub-basins, the sewer should be placed in the parkway opposite of the existing water main. A number of properties between Seeley and Belle Aire could be served by the existing sewer on Belle Aire, but it would require individual grinder pumps and force mains. In the past, the District has not allowed such connections. The proposed sewer on Seeley provides a much better way to serve these parcels by gravity. Table 4.5-7 is the proposed layout of the sewer size, length, and slope and manhole invert and depth. Table 4.5-8 includes a breakdown of the unit quantities and unit prices used to prepare the opinion of probable cost. The total opinion of project cost is $1,016,500, including contingency, engineering, and legal/administrative costs.

The Belle Aire and Venard sub-basin sewer plan follows the same topography as the Morton and Downers sanitary sewer. All the properties on Belle Aire will flow towards Virginia Street while the sewer on Venard will flow to a low spot near the south end of the park. Similar to the Morton sewer, side yard easements should be obtained to connect Venard to Belle Aire. The required landscaping restoration and easements will be expensive, but the properties on Venard cannot be served by the existing sewer south of 4146 Venard Road or by a sewer on Drove Avenue. This sub-basin is the most costly per lot in Burlington Highlands due to the sewer easements and landscaping. Table 4.5-9 is the proposed layout of the sewer size, length, and slope and manhole invert and depth. Table 4.5-10 includes a breakdown of the unit quantities and unit prices used to prepare the opinion of probable cost. The total opinion of project cost is $825,500, including contingency, engineering, easements, and legal/administrative costs.

The Venard Road (North) sub-basin sewer plan follows the existing District flow basin as the sewer should flow north on Venard to existing manhole V1-172 in front of 4003 Venard Road. This sewer will serve all remaining unsewered parcels north of Drove Avenue. The sewer should be placed in the east parkway between the edge-of-pavement and sidewalk. Table 4.5-11 is the proposed layout of the sewer size, length, and slope and manhole invert and depth. Table 4.5-12 includes a breakdown of the unit quantities and unit prices used to prepare the opinion of probable cost. The total opinion of project cost is $331,500, including contingency, engineering, and legal/administrative costs.

The Venard Road (South) sub-basin sewer plan follows the existing District flow basin as the sewer should flow north on Venard to existing manhole 1-B-102 located south of the park. This sewer should also be placed in the east parkway. In 2012, approximately 92 feet of 8-inch sanitary sewer and 2 services were constructed for a total price of $20,000. Table 4.5-13 is the proposed layout of the sewer size, length, and slope and manhole invert and depth. Table 4.5-14 includes a breakdown of the unit quantities and unit prices used to prepare the opinion of probable cost. The total opinion of project cost is $96,700, including contingency, engineering, and legal/administrative costs.

The Virginia Avenue (West) sub-basin sewer plan will follow the existing ridge on Virginia west to the existing manhole at 1653 Virginia Avenue. The sewer should be placed in the south right-of-way to avoid the existing water mains. Table 4.5-15 is the proposed layout of the sewer size, length, and slope and manhole invert and depth. Table 4.5-16 includes a breakdown of the unit quantities and unit prices used to prepare the opinion of probable cost. The total opinion of project cost is $134,300, including contingency, engineering, and legal/administrative costs.

The Lacey-Carol-Northcott sub-basin sewer plan is for the address of 4219 Northcott Avenue. The best alternative is to follow the existing ground slope and connect to the manhole at 4211 Northcott Avenue. From there, the sewer will flow west on Carol Street and north on Lacey Road. Since there is only one unsewered parcel in this basin, the project cost is high. Table 4.5-17 is the proposed layout of the sewer size, length, and slope and manhole invert and depth. Table 4.5-18 includes a breakdown of the unit quantities and unit prices used to prepare the opinion of probable cost. The total opinion of project cost is $61,400, including contingency, engineering, and legal/administrative costs.

The Lacey and Janet sub-basin sewer plan will follow a similar drainage pattern as the sub-basin to the north. The sewer will flow west on Janet, connect to the existing manhole near 1747 Janet Street, and flow north on Lacey Road. The south right-of-way on Janet is the preferred alignment for the proposed sewer. Table 4.5-19 is the proposed layout of the sewer size, length, and slope and manhole invert and depth. Table 4.5-20 includes a breakdown of the unit quantities and unit prices used to prepare the opinion of probable cost. The total opinion of project cost is $271,500, including contingency, engineering, and legal/administrative costs.

The Ogden-Lacey-Grant-Lee (South) sub-basin sewer plan follows the existing creek from south of Grant Street to Lacey north of Ogden. There are several potential connection points, but the existing sewer at Lacey is the only feasible alternative to serve the sub-basin because the existing manholes on Grant, Ogden, Stonewall, and Lee are too shallow. The sewers within the undeveloped property south of Ogden should be placed in utility easements. The construction cost for this sub-basin is expensive because of two reasons: the numerous easements required, and the required wetland permitting and restoration. The cost per lot was not calculated for this sub-area because of the several large commercial parcels. Table 4.5-21 is the proposed layout of the sewer size, length, and slope and manhole invert and depth. Table 4.5-22 includes a breakdown of the unit quantities and unit prices used to prepare the opinion of probable cost. The total opinion of project cost is $1,294,600, including contingency, engineering, easements, and legal/administrative costs.

DOWNERS GROVE SANITARY DISTRICT UNSEWERED AREA PLAN

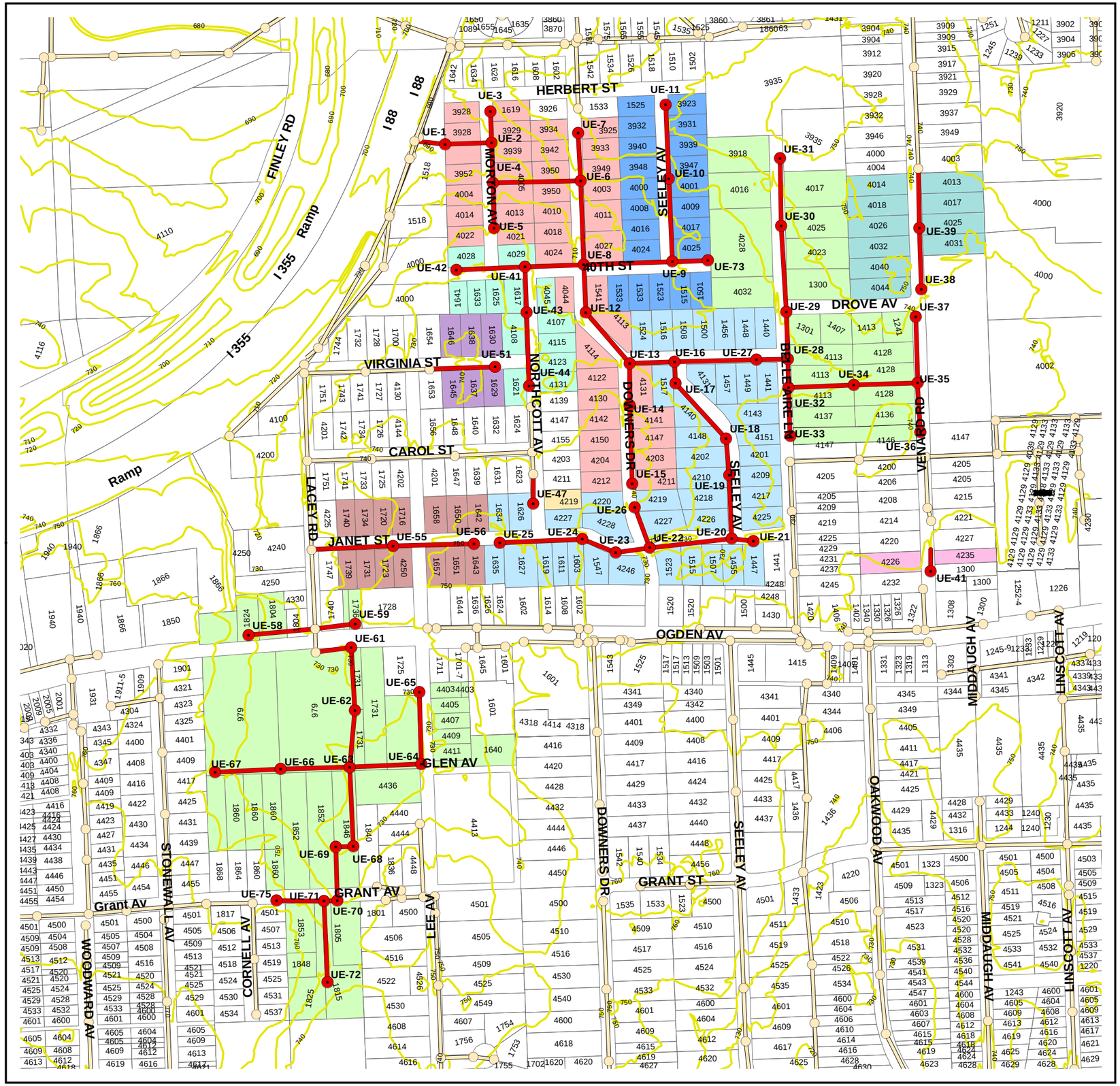
EXHIBIT 4.5

BURLINGTON HIGHLANDS POSSIBLE SEWER ALIGNMENT

MARCH 2017

LEGEND

- PROPOSED MANHOLES
- EXISTING MANHOLES
- PROPOSED SEWERS
- EXISTING SEWERS
- PARCEL BOUNDARIES
- MORTON AND DOWNERS;TABLES 4.5-1, 4.5-2
- 40TH AND SEELEY (NORTH);TABLES 4.5-3, 4.5-4
- 40TH AND NORTHCOTT;TABLES 4.5-5, 4.5-6
- VIRGINIA-SEELEY-JANET-DOWNERS;TABLES 4.5-7, 4.5-8
- BELLE AIRE AND VENARD;TABLES 4.5-9, 4.5-10
- VENARD ROAD (NORTH);TABLES 4.5-11, 4.5-12
- VENARD ROAD (SOUTH);TABLES 4.5-13, 4.5-14
- VIRGINIA AVENUE (WEST);TABLES 4.5-15, 4.5-16
- LACEY-CAROL-NORTHCOTT;TABLES 4.5-17, 4.5-18
- LACEY AND JANET;TABLES 4.5-19, 4.5-20
- OGDEN-LACEY-GRANT-LEE (SOUTH);TABLES 4.5-21, 4.5-22



BAXTER & WOODMAN Consulting Engineers

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Table 4.5-1
Downers Grove Sanitary District
Possible Special Assessment for Sanitary Sewers
Morton and Downers
Preliminary Design Layout

Manhole Number	Rim	Invert	Length (ft)	Slope	Manhole Depth
Morton Avenue					
N-2-001 existing	690.2	685.00			5.2
			100	1.00%	
UE-1	694.5	686.00			8.5
			225	1.00%	
UE-2	698.5	688.25			10.3
			150	3.00%	
UE-3	705.5	694.95			10.6
			220	1.00%	
UE-4	703.3	690.45			12.8
			220	5.00%	
UE-5	720.0	707.45			12.6
Downers Drive					
			400	2.00%	
UE-6	716.0	698.45			17.6
			250	5.00%	
UE-7	724.0	710.95			13.1
			400	1.50%	
UE-8	713.5	704.45			9.0
			250	2.00%	
UE-12	719.5	709.45			10.1
			320	1.50%	
UE-13	729.0	714.25			14.8
			180	3.00%	
UE-14	738.0	719.65			18.4
			400	2.50%	
UE-15	741.0	729.65			11.4

Table 4.5-2
Downers Grove Sanitary District March 2017
Proposed Special Assessment
Morton and Downers
Engineer's Opinion of Probable Construction Cost

No.	Pay Item		Approximate Quantity		Unit Price	Amount
MAINLINE SEWER						
1	SANITARY SEWER (OPEN CUT)					
	8-inch	0-8 feet deep	100	lin. ft.	$ 67.00	$ 6,700.00
		8-12 feet deep	1,295	lin. ft.	$ 78.00	$ 101,010.00
		12-16 feet deep	1,485	lin. ft.	$ 95.00	$ 141,075.00
		16-20 feet deep	235	lin. ft.	$ 113.00	$ 26,555.00
2	SANITARY MANHOLES					
	48-inch	0-8 feet deep	0	each	$ 4,300.00	$ 0.00
		8-12 feet deep	6	each	$ 5,700.00	$ 34,200.00
		12-16 feet deep	4	each	$ 6,800.00	$ 27,200.00
		16-20 feet deep	2	each	$ 9,200.00	$ 18,400.00
3	CONNECTION TO EXISTING MANHOLE					
	8-inch		1	each	$ 5,500.00	$ 5,500.00
4	TRENCH BACKFILL					
	8-inch	0-8 feet deep	0	lin. ft.	$ 83.00	$ 0.00
		8-12 feet deep	165	lin. ft.	$ 100.00	$ 16,500.00
		12-16 feet deep	520	lin. ft.	$ 123.00	$ 63,960.00
		16-20 feet deep	60	lin. ft.	$ 160.00	$ 9,600.00
5	TREE TUNNELING		110	lin. ft.	$ 172.00	$ 18,920.00
6	AUGER UNDER EXISTING BOX CULVERT		20	lin. ft.	$ 426.00	$ 8,520.00
7	SEWER TELEVISING FOR FINAL INSPECTION		3,115	lin. ft.	$ 2.45	$ 7,631.75
8	SEWER TESTING FOR FINAL INSPECTION		3,115	lin. ft.	$ 2.45	$ 7,632
9	CULVERT REMOVAL AND REPLACEMENT					
	12-inch		160	lin. ft.	$ 72.00	$ 11,520.00
10	RESTORATION OF LAWNS AND PARKWAYS					
	Topsoil and sod		5,000	sq.yd.	$ 13.00	$ 65,000.00
11	RESTORATION OF STREETS					
	Bit. Concrete Street		85	sq.yd.	$ 57.00	$ 4,845.00
	PCC Sidewalk		2,500	sq. ft	$ 12.00	$ 30,000.00
12	REMOVE AND REPLACE DRIVEWAYS					
	Bituminous		230	sq.yd.	$ 43.00	$ 9,890.00
	Concrete		120	sq.yd.	$ 72.00	$ 8,640.00

Table 4.5-2
Downers Grove Sanitary District March 2017
Proposed Special Assessment
Morton and Downers
Engineer's Opinion of Probable Construction Cost

No.	Pay Item	Approximate Quantity		Unit Price	Amount
13	TREE REMOVAL AND TRIMMING:			Lump Sum	$ 17,805.00
14	EROSION CONTROL:			Lump Sum	$ 11,870.00
15	TRAFFIC CONTROL:			Lump Sum	$ 11,870.00
	SUBTOTAL				$ 664,843.50
	SERVICE LATERALS				
1	BUILDING SERVICE LINES				
	Near side	320	lin. ft.	$ 44.00	$ 14,080.00
	Far side	950	lin. ft.	$ 44.00	$ 41,800.00
	Riser Pipes	75	vert. ft.	$ 42.00	$ 3,150.00
2	BUILDING SERVICE BRANCH FITTINGS				
	Near Side	20	each	$ 494.00	$ 9,880.00
	Far side	19	each	$ 609.00	$ 11,571.00
3	BUILDING SERVICE PLUG:	39	each	$ 186.00	$ 7,254.00
4	RESTORATION OF LAWNS AND PARKWAYS				
	Topsoil and sod	490	sq.yd.	$ 12.50	$ 6,125.00
5	RESTORATION OF STREETS:				
	Bit. Concrete Street	340	sq.yd.	$ 56.00	$ 19,040.00
6	TRENCH BACKFILL				
	8-12 feet deep	600	lin. ft.	$ 74.00	$ 44,400
	SUBTOTAL				$ 157,300.00
	TOTAL ESTIMATE OF CONSTRUCTION COST				$ 822,100.00
	Contingencies		(20%)		$164,400.00
	Engineering		(20%)		$164,400.00
	Legal / Admin		(6%)		$69,100.00
	Easement Acquisition				$16,600.00
	TOTAL OPINION OF PROBABLE COST				**$ 1,236,600.00**
				Cost per lot	$31,710.00

Table 4.5-3
Downers Grove Sanitary District
Possible Special Assessment for Sanitary Sewers
40th and Seely (North)
Preliminary Design Layout

Manhole Number	Rim	Invert	Length (ft)	Slope	Manhole Depth
40th Place					
UE-8	713.5	704.45			9.0
			425	0.70%	
UE-9	719.0	707.43			11.6
			160	3.00%	
UE-73	722.0	712.23			9.8
Seely Avenue					
			400	2.00%	
UE-10	725.0	715.43			9.6
			335	3.00%	
UE-11	736.0	725.48			10.5

Table 4.5-4

Downers Grove Sanitary District March 2017
Proposed Special Assessment
40th and Seely (North)
Engineer's Opinion of Probable Construction Cost

No.	Pay Item		Approximate Quantity		Unit Price	Amount
	MAINLINE SEWER					
1	SANITARY SEWER (OPEN CUT)					
	8-inch	0-8 feet deep	80	lin. ft.	$ 67.00	$ 5,360.00
		8-12 feet deep	1,240	lin. ft.	$ 78.00	$ 96,720.00
2	SANITARY MANHOLES					
	48-inch	0-8 feet deep	0	each	$ 4,300.00	$ 0.00
		8-12 feet deep	4	each	$ 5,700.00	$ 22,800.00
3	CONNECTION TO EXISTING MANHOLE					
	8-inch		1	each	$ 5,500.00	$ 5,500.00
4	TRENCH BACKFILL					
	8-inch	0-8 feet deep	50	lin. ft.	$ 83.00	$ 4,150.00
		8-12 feet deep	402	lin. ft.	$ 100.00	$ 40,200.00
5	TREE TUNNELING		80	lin. ft.	$ 172.00	$ 13,760.00
6	SEWER TELEVISING FOR FINAL INSPECTION		1,320	lin. ft.	$ 2.45	$ 3,234.00
7	SEWER TESTING FOR FINAL INSPECTION		1,320	lin. ft.	$ 2.45	$ 3,234
8	CULVERT REMOVAL AND REPLACEMENT					
	12-inch		188	lin. ft.	$ 72.00	$ 13,536.00
9	RESTORATION OF LAWNS AND PARKWAYS					
	Topsoil and sod		1,895	sq.yd.	$ 13.00	$ 24,635.00
10	RESTORATION OF STREETS					
	Bit. Concrete Street		20	sq.yd.	$ 57.00	$ 1,140.00
11	REMOVE AND REPLACE DRIVEWAYS					
	Bituminous		126	sq.yd.	$ 43.00	$ 5,418.00
	Concrete		0	sq.yd.	$ 72.00	$ 0.00
12	TREE REMOVAL AND TRIMMING:				Lump Sum	$ 593.50

Table 4.5-4

Downers Grove Sanitary District March 2017
Proposed Special Assessment
40th and Seely (North)
Engineer's Opinion of Probable Construction Cost

No.	Pay Item	Approximate Quantity		Unit Price	Amount
13	EROSION CONTROL:			Lump Sum	$ 593.50
14	TRAFFIC CONTROL:			Lump Sum	$ 5,935.00
	SUBTOTAL				$ 246,809.00
SERVICE LATERALS					
1	BUILDING SERVICE LINES				
	Near side	378	lin. ft.	$ 44.00	$ 16,632.00
	Far side	1,008	lin. ft.	$ 44.00	$ 44,352.00
2	BUILDING SERVICE BRANCH FITTINGS				
	Near Side	9	each	$ 494.00	$ 4,446.00
	Far side	12	each	$ 609.00	$ 7,308.00
3	BUILDING SERVICE PLUG:	21	each	$ 186.00	$ 3,906.00
4	RESTORATION OF LAWNS AND PARKWAYS				
	Topsoil and sod	500	sq.yd.	$ 12.50	$ 6,250.00
5	RESTORATION OF STREETS:				
	Bit. Concrete Street	168	sq.yd.	$ 56.00	$ 9,408.00
6	TRENCH BACKFILL				
	8-12 feet deep	300	lin. ft.	$ 74.00	$ 22,200.00
	SUBTOTAL				$ 114,502.00
	TOTAL ESTIMATE OF CONSTRUCTION COST				$ 361,300.00
	Contingencies		(20%)		$72,300.00
	Engineering		(20%)		$72,300.00
	Legal / Admin		(6%)		$30,400.00
	TOTAL OPINION OF PROBABLE COST				**$ 536,300.00**
				Cost per lot	$25,540.00

Table 4.5-5
Downers Grove Sanitary District
Possible Special Assessment for Sanitary Sewers
40th and Northcott
Preliminary Design Layout

Manhole Number	Rim	Invert	Length (ft)	Slope	Manhole Depth
40th Place					
UE-8	713.5	704.45			9.0
			280	2.00%	
UE-41	721.0	710.05			10.9
			300	2.00%	
UE-42	729.0	716.05			12.9
Northcott Avenue					
			250	1.00%	
UE-43	725.0	712.55			12.4
			350	2.00%	
UE-44	731.0	719.55			11.4

Table 4.5-6

Downers Grove Sanitary District March 2017

Proposed Special Assessment

40th and Northcott

Engineer's Opinion of Probable Construction Cost

No.	Pay Item		Approximate Quantity		Unit Price	Amount
	MAINLINE SEWER					
1	SANITARY SEWER (OPEN CUT)					
	8-inch	0-8 feet deep	15	lin. ft.	$ 67.00	$ 1,005.00
		8-12 feet deep	1,025	lin. ft.	$ 78.00	$ 79,950.00
		12-16 feet deep	140	lin. ft.	$ 95.00	$ 13,300.00
2	SANITARY MANHOLES					
	48-inch	0-8 feet deep	0	each	$ 4,300.00	$ 0.00
		8-12 feet deep	4	each	$ 5,700.00	$ 22,800.00
		12-16 feet deep	0	each	$ 6,800.00	$ 0.00
3	CONNECTION TO EXISTING MANHOLE					
	8-inch		1	each	$ 5,500.00	$ 5,500.00
4	TRENCH BACKFILL					
	8-inch	0-8 feet deep	0	lin. ft.	$ 83.00	$ 0.00
		8-12 feet deep	239	lin. ft.	$ 100.00	$ 23,900.00
		12-16 feet deep	15	lin. ft.	$ 123.00	$ 1,845.00
5	TREE TUNNELING		50	lin. ft.	$ 172.00	$ 8,600.00
6	SEWER TELEVISING FOR FINAL INSPECTION		1,180	lin. ft.	$ 2.45	$ 2,891.00
7	SEWER TESTING FOR FINAL INSPECTION		1,180	lin. ft.	$ 2.45	$ 2,891
8	CULVERT REMOVAL AND REPLACEMENT					
	12-inch		30	lin. ft.	$ 72.00	$ 2,160.00
9	RESTORATION OF LAWNS AND PARKWAYS					
	Topsoil and sod		1,692	sq.yd.	$ 13.00	$ 21,996.00
10	RESTORATION OF STREETS					
	Bit. Concrete Street		39	sq.yd.	$ 57.00	$ 2,223.00
	PCC Sidewalk		0	sq. ft.	$ 12.00	$ 0.00
11	REMOVE AND REPLACE DRIVEWAYS					
	Bituminous		29	sq.yd.	$ 43.00	$ 1,247.00
	Concrete		0	sq.yd.	$ 72.00	$ 0.00
12	TREE REMOVAL AND TRIMMING:				Lump Sum	$ 593.50

Table 4.5-6
Downers Grove Sanitary District March 2017
Proposed Special Assessment
40th and Northcott
Engineer's Opinion of Probable Construction Cost

No.	Pay Item	Approximate Quantity		Unit Price	Amount
13	EROSION CONTROL:			Lump Sum	$ 593.50
14	TRAFFIC CONTROL:			Lump Sum	$ 5,341.50
	SUBTOTAL				$ 196,836.50
SERVICE LATERALS					
1	BUILDING SERVICE LINES				
	Near side	75	lin. ft.	$ 44.00	$ 3,300.00
	Far side	459	lin. ft.	$ 44.00	$ 20,196.00
2	BUILDING SERVICE BRANCH FITTINGS				
	Near Side	5	each	$ 494.00	$ 2,470.00
	Far side	9	each	$ 609.00	$ 5,481.00
3	BUILDING SERVICE PLUG:	14	each	$ 186.00	$ 2,604.00
4	RESTORATION OF LAWNS AND PARKWAYS				
	Topsoil and sod	281	sq.yd.	$ 12.50	$ 3,512.50
5	RESTORATION OF STREETS:				
	Bit. Concrete Street	132	sq.yd.	$ 56.00	$ 7,392.00
6	TRENCH BACKFILL				
	0-8 feet deep	216	lin. ft.	$ 55.00	$ 11,880.00
	SUBTOTAL				$ 56,835.50
	TOTAL ESTIMATE OF CONSTRUCTION COST				$ 253,700.00
		Contingencies	(20%)		$50,700.00
		Engineering	(20%)		$50,700.00
		Legal / Admin	(6%)		$21,300.00
	TOTAL OPINION OF PROBABLE COST				**$ 376,400.00**
				Cost per lot	$26,890.00

Table 4.5-7
Downers Grove Sanitary District
Possible Special Assessment for Sanitary Sewers
Virginia-Seeley-Janet-Downers
Preliminary Design Layout

Manhole Number	Rim	Invert	Length (ft)	Slope	Manhole Depth
Virginia Street					
UE-13	729.0	714.25			14.8
			200	0.40%	
UE-16	726.0	715.05			11.0
			400	0.40%	
UE-27	725.5	716.65			8.9
			165	0.40%	
UE-28	728.0	717.31			10.7
Seeley Avenue					
			110	0.40%	
UE-17	726.0	715.49			10.5
			335	0.40%	
UE-18	728.0	716.83			11.2
			190	0.40%	
UE-19	727.0	717.59			9.4
			320	0.40%	
UE-20	728.0	718.87			9.1
Janet Street					
			100	1.00%	
UE-21	730.0	719.87			10.1
			400	0.40%	
UE-22	730.0	720.47			9.5
			160	1.00%	
UE-23	736.0	722.07			13.9
			150	3.00%	
UE-24	740.0	726.57			13.4
			400	3.00%	
UE-25	752.0	738.57			13.4
Downers Drive					
			250	1.00%	
UE-26	736.0	722.97			13.0

Table 4.5-8
Downers Grove Sanitary District March 2017
Proposed Special Assessment
Virginia-Seeley-Janet-Downers
Engineer's Opinion of Probable Construction Cost

No.	Pay Item		Approximate Quantity		Unit Price	Amount
	MAINLINE SEWER					
1	SANITARY SEWER (OPEN CUT)					
	8-inch	0-8 feet deep	720	lin. ft.	$ 67.00	$ 48,240.00
		8-12 feet deep	2,460	lin. ft.	$ 78.00	$ 191,880.00
2	SANITARY MANHOLES					
	48-inch	0-8 feet deep	4	each	$ 4,300.00	$ 17,200.00
		8-12 feet deep	9	each	$ 5,700.00	$ 51,300.00
3	CONNECTION TO EXISTING MANHOLE					
	8-inch		1	each	$ 5,500.00	$ 5,500.00
4	TRENCH BACKFILL					
	8-inch	0-8 feet deep	86	lin. ft.	$ 83.00	$ 7,138.00
		8-12 feet deep	796	lin. ft.	$ 100.00	$ 79,600.00
5	TREE TUNNELING		90	lin. ft.	$ 172.00	$ 15,480.00
6	SEWER TELEVISING FOR FINAL INSPECTION		3,180	lin. ft.	$ 2.45	$ 7,791.00
7	SEWER TESTING FOR FINAL INSPECTION		3,180	lin. ft.	$ 2.45	$ 7,791
8	CULVERT REMOVAL AND REPLACEMENT					
	12-inch		205	lin. ft.	$ 72.00	$ 14,760.00
9	RESTORATION OF LAWNS AND PARKWAYS					
	Topsoil and sod		4,312	sq.yd.	$ 13.00	$ 56,056.00
10	RESTORATION OF STREETS					
	Bit. Concrete Street		109	sq.yd.	$ 57.00	$ 6,213.00
	PCC Sidewalk		50	sq. ft.	$ 12.00	$ 600.00
11	REMOVE AND REPLACE DRIVEWAYS					
	Bituminous		268	sq.yd.	$ 43.00	$ 11,524.00
	Concrete		0	sq.yd.	$ 72.00	$ 0.00
12	TREE REMOVAL AND TRIMMING:				Lump Sum	$ 1,187.00

Table 4.5-8
Downers Grove Sanitary District March 2017
Proposed Special Assessment
Virginia-Seeley-Janet-Downers
Engineer's Opinion of Probable Construction Cost

No.	Pay Item	Approximate Quantity		Unit Price	Amount
13	EROSION CONTROL:			Lump Sum	$ 1,187.00
14	TRAFFIC CONTROL:			Lump Sum	$ 11,870.00
	SUBTOTAL				$ 535,317.00
SERVICE LATERALS					
1	BUILDING SERVICE LINES				
	Near side	375	lin. ft.	$ 44.00	$ 16,500.00
	Far side	918	lin. ft.	$ 44.00	$ 40,392.00
2	BUILDING SERVICE BRANCH FITTINGS				
	Near Side	25	each	$ 494.00	$ 12,350.00
	Far side	18	each	$ 609.00	$ 10,962.00
3	BUILDING SERVICE PLUG:	43	each	$ 186.00	$ 7,998.00
4	RESTORATION OF LAWNS AND PARKWAYS				
	Topsoil and sod	878	sq.yd.	$ 12.50	$ 10,975.00
5	RESTORATION OF STREETS:				
	Bit. Concrete Street	252	sq.yd.	$ 56.00	$ 14,112.00
6	TRENCH BACKFILL				
	8-12 feet deep	486	lin. ft.	$ 74.00	$ 35,964.00
7	REMOVE AND REPLACE DRIVEWAYS				
	Bituminous	10	sq. yd.	$ 42.00	$ 420.00
	SUBTOTAL				$ 149,673.00
	TOTAL ESTIMATE OF CONSTRUCTION COST				$ 685,000.00
	Contingencies		(20%)		$137,000.00
	Engineering		(20%)		$137,000.00
	Legal / Admin		(6%)		$57,500.00
	TOTAL OPINION OF PROBABLE COST				**$ 1,016,500.00**
				Cost per lot	$23,640.00

Table 4.5-9
Downers Grove Sanitary District
Possible Special Assessment for Sanitary Sewers
Belle Aire and Venard
Preliminary Design Layout

Manhole Number	Rim	Invert	Length (ft)	Slope	Manhole Depth
Belle Aire Lane					
UE-28	728.0	717.31			10.7
			235	0.80%	
UE-29	732.0	719.19			12.8
			400	1.00%	
UE-30	736.0	723.19			12.8
			360	2.00%	
UE-31	744.0	730.39			13.6
			130	0.40%	
UE-32	728.0	717.83			10.2
			280	2.00%	
UE-33	736.0	723.43			12.6
Backyard Easement					
			330	0.40%	
UE-34	730.0	719.15			10.9
			320	0.80%	
UE-35	735.0	721.71			13.3
Venard Road					
			270	2.00%	
UE-36	738.0	727.11			10.9
			300	2.00%	
UE-37	738.0	727.71			10.3

Table 4.5-10
Downers Grove Sanitary District March 2017
Proposed Special Assessment
Belle Aire and Venard
Engineer's Opinion of Probable Construction Cost

No.	Pay Item		Approximate Quantity		Unit Price	Amount
	MAINLINE SEWER					
1	SANITARY SEWER (OPEN CUT)					
	8-inch	0-8 feet deep	150	lin. ft.	$ 67.00	$ 10,050.00
		8-12 feet deep	2,475	lin. ft.	$ 78.00	$ 193,050.00
2	SANITARY MANHOLES					
	48-inch	0-8 feet deep	0	each	$ 4,300.00	$ 0.00
		8-12 feet deep	9	each	$ 5,700.00	$ 51,300.00
3	CONNECTION TO EXISTING MANHOLE					
	8-inch		1	each	$ 5,500.00	$ 5,500.00
4	TRENCH BACKFILL					
	8-inch	0-8 feet deep	0	lin. ft.	$ 83.00	$ 0.00
		8-12 feet deep	758	lin. ft.	$ 100.00	$ 75,800.00
5	TREE TUNNELING		90	lin. ft.	$ 172.00	$ 15,480.00
6	SEWER TELEVISING FOR FINAL INSPECTION		2,625	lin. ft.	$ 2.45	$ 6,431.25
7	SEWER TESTING FOR FINAL INSPECTION		2,625	lin. ft.	$ 2.45	$ 6,431
8	CULVERT REMOVAL AND REPLACEMENT					
	12-inch		20	lin. ft.	$ 72.00	$ 1,440.00
9	RESTORATION OF LAWNS AND PARKWAYS					
	Topsoil and sod		3,536	sq.yd.	$ 13.00	$ 45,968.00
10	RESTORATION OF STREETS					
	Bit. Concrete Street		530	sq.yd.	$ 57.00	$ 30,210.00
	PCC Sidewalk		50	sq. ft.	$ 12.00	$ 600.00
11	REMOVE AND REPLACE DRIVEWAYS					
	Bituminous		167	sq.yd.	$ 43.00	$ 7,181.00
	Concrete		15	sq.yd.	$ 72.00	$ 1,080.00
12	TREE REMOVAL AND TRIMMING:				Lump Sum	$ 14,837.50
13	EROSION CONTROL:				Lump Sum	$ 8,902.50

Table 4.5-10
Downers Grove Sanitary District March 2017
Proposed Special Assessment
Belle Aire and Venard
Engineer's Opinion of Probable Construction Cost

No.	Pay Item	Approximate Quantity		Unit Price	Amount
14	TRAFFIC CONTROL:			Lump Sum	$ 8,902.50
	SUBTOTAL				$ 483,164.00
	SERVICE LATERALS				
1	BUILDING SERVICE LINES				
	Near side	225	lin. ft.	$ 44.00	$ 9,900.00
	Far side	306	lin. ft.	$ 44.00	$ 13,464.00
2	BUILDING SERVICE BRANCH FITTINGS				
	Near Side	15	each	$ 494.00	$ 7,410.00
	Far side	6	each	$ 609.00	$ 3,654.00
3	BUILDING SERVICE PLUG:	21	each	$ 186.00	$ 3,906.00
4	RESTORATION OF LAWNS AND PARKWAYS				
	Topsoil and sod	367	sq.yd.	$ 12.50	$ 4,587.50
5	RESTORATION OF STREETS:				
	Bit. Concrete Street	84	sq.yd.	$ 56.00	$ 4,704.00
6	TRENCH BACKFILL				
	0-8 feet deep	162	lin. ft.	$ 55.00	$ 8,910.00
	SUBTOTAL				$ 56,535.50
	TOTAL ESTIMATE OF CONSTRUCTION COST				$ 539,700.00
	Contingencies		(20%)		$107,900.00
	Engineering		(20%)		$107,900.00
	Legal / Admin		(6%)		$45,300.00
	Easement Acquisition				$24,700.00
	TOTAL OPINION OF PROBABLE COST				**$ 825,500.00**
				Cost per lot	$39,310.00

Table 4.5-11
Possible Special Assessment for Sanitary Sewers
Burlington Highlands
Venard Road (North)
Preliminary Design Layout

Manhole Number	Rim	Invert	Length (ft)	Slope	Manhole Depth
Venard Road					
V1-172 (existing)	742.0	734.24			7.8
			300	0.40%	
UE-39	746.0	735.44			10.6
			300	0.40%	
UE-38	746.0	736.64			9.4

Table 4.5-12

Downers Grove Sanitary District March 2017

Proposed Special Assessment

Venard Road (North)

Engineer's Opinion of Probable Construction Cost

No.	Pay Item		Approximate Quantity		Unit Price	Amount
	MAINLINE SEWER					
1	SANITARY SEWER (OPEN CUT)					
	8-inch	0-8 feet deep	150	lin. ft.	$ 67.00	$ 10,050.00
		8-12 feet deep	450	lin. ft.	$ 78.00	$ 35,100.00
2	SANITARY MANHOLES					
	48-inch	0-8 feet deep	0	each	$ 4,300.00	$ 0.00
		8-12 feet deep	2	each	$ 5,700.00	$ 11,400.00
3	CONNECTION TO EXISTING MANHOLE					
	8-inch		1	each	$ 5,500.00	$ 5,500.00
4	TRENCH BACKFILL					
	8-inch	0-8 feet deep	150	lin. ft.	$ 83.00	$ 12,450.00
		8-12 feet deep	450	lin. ft.	$ 100.00	$ 45,000.00
5	TREE TUNNELING		0	lin. ft.	$ 172.00	$ 0.00
6	SEWER TELEVISING FOR FINAL INSPECTION		600	lin. ft.	$ 2.45	$ 1,470.00
7	SEWER TESTING FOR FINAL INSPECTION		600	lin. ft.	$ 2.45	$ 1,470
8	CULVERT REMOVAL AND REPLACEMENT					
	12-inch		40	lin. ft.	$ 72.00	$ 2,880.00
9	RESTORATION OF LAWNS AND PARKWAYS					
	Topsoil and sod		1,333	sq.yd.	$ 13.00	$ 17,329.00
10	RESTORATION OF STREETS					
	Bit. Concrete Street		0	sq.yd.	$ 57.00	$ 0.00
	PCC Sidewalk		2,000	sq. ft.	$ 12.00	$ 24,000.00
11	REMOVE AND REPLACE DRIVEWAYS					
	Bituminous		142	sq.yd.	$ 43.00	$ 6,106.00
	Concrete		27	sq.yd.	$ 72.00	$ 1,944.00
12	TREE REMOVAL AND TRIMMING:				Lump Sum	$ 296.75
13	EROSION CONTROL:				Lump Sum	$ 296.75

Table 4.5-12
Downers Grove Sanitary District March 2017
Proposed Special Assessment
Venard Road (North)
Engineer's Opinion of Probable Construction Cost

No.	Pay Item	Approximate Quantity		Unit Price	Amount
14	TRAFFIC CONTROL:			Lump Sum	$ 7,715.50
	SUBTOTAL				$ 183,008.00
	SERVICE LATERALS				
1	BUILDING SERVICE LINES				
	Near side	60	lin. ft.	$ 44.00	$ 2,640.00
	Far side	306	lin. ft.	$ 44.00	$ 13,464.00
2	BUILDING SERVICE BRANCH FITTINGS				
	Near Side	4	each	$ 494.00	$ 1,976.00
	Far side	6	each	$ 609.00	$ 3,654.00
3	BUILDING SERVICE PLUG:	10	each	$ 186.00	$ 1,860.00
4	RESTORATION OF LAWNS AND PARKWAYS				
	Topsoil and sod	244	sq.yd.	$ 12.50	$ 3,050.00
5	RESTORATION OF STREETS:				
	Bit. Concrete Street	84	sq.yd.	$ 56.00	$ 4,704.00
6	TRENCH BACKFILL				
	0-8 feet deep	162	lin. ft.	$ 55.00	$ 8,910.00
	SUBTOTAL				$ 40,258.00
	TOTAL ESTIMATE OF CONSTRUCTION COST				$ 223,300.00
	Contingencies		(20%)		$44,700.00
	Engineering		(20%)		$44,700.00
	Legal / Admin		(6%)		$18,800.00
	TOTAL OPINION OF PROBABLE COST				**$ 331,500.00**
				Cost per lot	$33,150.00

Table 4.5-13
Possible Special Assessment for Sanitary Sewers
Burlington Highlands
Venard Road (South)
Preliminary Design Layout

Manhole Number	Rim	Invert	Length (ft)	Slope	Manhole Depth
Venard Road					
1-B-102 (existing)	740.0	733.30	140	0.40%	6.7
UE-41	744.0	733.86			10.1

Table 4.5-14

Downers Grove Sanitary District March 2017

Proposed Special Assessment

Venard Road (South)

Engineer's Opinion of Probable Construction Cost

No.	Pay Item		Approximate Quantity		Unit Price	Amount
	MAINLINE SEWER					
1	SANITARY SEWER (OPEN CUT)					
	8-inch	0-8 feet deep	50	lin. ft.	$ 67.00	$ 3,350.00
		8-12 feet deep	90	lin. ft.	$ 78.00	$ 7,020.00
2	SANITARY MANHOLES					
	48-inch	0-8 feet deep	0	each	$ 4,300.00	$ 0.00
		8-12 feet deep	1	each	$ 5,700.00	$ 5,700.00
3	CONNECTION TO EXISTING MANHOLE					
	8-inch		1	each	$ 5,500.00	$ 5,500.00
4	TRENCH BACKFILL					
	8-inch	0-8 feet deep	50	lin. ft.	$ 83.00	$ 4,150.00
		8-12 feet deep	90	lin. ft.	$ 100.00	$ 9,000.00
5	TREE TUNNELING		15	lin. ft.	$ 172.00	$ 2,580.00
6	SEWER TELEVISING FOR FINAL INSPECTION		140	lin. ft.	$ 2.45	$ 343.00
7	SEWER TESTING FOR FINAL INSPECTION		140	lin. ft.	$ 2.45	$ 343
8	CULVERT REMOVAL AND REPLACEMENT					
	12-inch		0	lin. ft.	$ 72.00	$ 0.00
9	RESTORATION OF LAWNS AND PARKWAYS					
	Topsoil and sod		347	sq.yd.	$ 13.00	$ 4,511.00
10	RESTORATION OF STREETS					
	Bit. Concrete Street		0	sq.yd.	$ 57.00	$ 0.00
	PCC Sidewalk		750	sq. ft.	$ 12.00	$ 9,000.00
11	REMOVE AND REPLACE DRIVEWAYS					
	Bituminous		36	sq.yd.	$ 43.00	$ 1,548.00
	Concrete		0	sq.yd.	$ 72.00	$ 0.00
12	TREE REMOVAL AND TRIMMING:				Lump Sum	$ 296.75
13	EROSION CONTROL:				Lump Sum	$ 296.75

Table 4.5-14
Downers Grove Sanitary District March 2017
Proposed Special Assessment
Venard Road (South)
Engineer's Opinion of Probable Construction Cost

No.	Pay Item	Approximate Quantity		Unit Price	Amount
14	TRAFFIC CONTROL:			Lump Sum	$ 4,154.50
	SUBTOTAL				$ 57,793.00
SERVICE LATERALS					
1	BUILDING SERVICE LINES				
	Near side	15	lin. ft.	$ 44.00	$ 660.00
	Far side	51	lin. ft.	$ 44.00	$ 2,244.00
2	BUILDING SERVICE BRANCH FITTINGS				
	Near Side	1	each	$ 494.00	$ 494.00
	Far side	1	each	$ 609.00	$ 609.00
3	BUILDING SERVICE PLUG:	2	each	$ 186.00	$ 372.00
4	RESTORATION OF LAWNS AND PARKWAYS				
	Topsoil and sod	50	sq.yd.	$ 12.50	$ 625.00
5	RESTORATION OF STREETS:				
	Bit. Concrete Street	15	sq.yd.	$ 56.00	$ 840.00
6	TRENCH BACKFILL				
	0-8 feet deep	28	lin. ft.	$ 55.00	$ 1,540.00
	SUBTOTAL				$ 7,384.00
	TOTAL ESTIMATE OF CONSTRUCTION COST				$ 65,200.00
	Contingencies		(20%)		$13,000.00
	Engineering		(20%)		$13,000.00
	Legal / Admin		(6%)		$5,500.00
	TOTAL OPINION OF PROBABLE COST				**$ 96,700.00**
				Cost per lot	$48,350.00

Table 4.5-15
Downers Grove Sanitary District
Possible Special Assessment for Sanitary Sewers
Virginia Avenue (West)
Preliminary Design Layout

Manhole Number	Rim	Invert	Length (ft)	Slope	Manhole Depth
Virginia Street					
SA-N-1-138	732.4	720.69	330	2.50%	11.7
UE-51	738.0	728.94			9.1

Table 4.5-16

Downers Grove Sanitary District March 2017

Proposed Special Assessment

Virginia Avenue (West)

Engineer's Opinion of Probable Construction Cost

No.	Pay Item		Approximate Quantity		Unit Price	Amount
	MAINLINE SEWER					
1	SANITARY SEWER (OPEN CUT)					
	8-inch	8-12 feet deep	80	lin. ft.	$ 78.00	$ 6,240.00
		12-16 feet deep	250	lin. ft.	$ 95.00	$ 23,750.00
2	SANITARY MANHOLES					
	48-inch	8-12 feet deep	1	each	$ 5,700.00	$ 5,700.00
		12-16 feet deep	0	each	$ 6,800.00	$ 0.00
3	CONNECTION TO EXISTING MANHOLE					
	8-inch		1	each	$ 5,500.00	$ 5,500.00
4	TRENCH BACKFILL					
	8-inch	8-12 feet deep	20	lin. ft.	$ 100.00	$ 2,000.00
		12-16 feet deep	40	lin. ft.	$ 123.00	$ 4,920.00
5	TREE TUNNELING		0	lin. ft.	$ 172.00	$ 0.00
6	SEWER TELEVISING FOR FINAL INSPECTION		330	lin. ft.	$ 2.45	$ 808.50
7	SEWER TESTING FOR FINAL INSPECTION		330	lin. ft.	$ 2.45	$ 808.50
8	CULVERT/STORM REMOVAL AND REPLACEMENT					
	12-inch		60	lin. ft.	$ 72.00	$ 4,320.00
9	RESTORATION OF LAWNS AND PARKWAYS					
	Topsoil and sod		890	sq.yd.	$ 13.00	$ 11,569.61
10	RESTORATION OF STREETS					
	Bit. Concrete Street		0	sq.yd.	$ 57.00	$ 0.00
	PCC Sidewalk		0	sq. ft.	$ 12.00	$ 0.00
11	REMOVE AND REPLACE DRIVEWAYS					
	Bituminous		28	sq.yd.	$ 43.00	$ 1,223.11
	Aggregate		14	sq.yd.	$ 19.00	$ 270.22
12	TREE REMOVAL AND TRIMMING:				Lump Sum	$ 296.75
13	EROSION CONTROL:				Lump Sum	$ 296.75

Table 4.5-16
Downers Grove Sanitary District March 2017
Proposed Special Assessment
Virginia Avenue (West)
Engineer's Opinion of Probable Construction Cost

No.	Pay Item	Approximate Quantity		Unit Price	Amount
14	TRAFFIC CONTROL:			Lump Sum	$ 1,187.00
	SUBTOTAL				$ 68,890.44
SERVICE LATERALS					
1	BUILDING SERVICE LINES				
	Near side	39	lin. ft.	$ 44.00	$ 1,716.00
	Far side	159	lin. ft.	$ 44.00	$ 6,996.00
2	BUILDING SERVICE BRANCH FITTINGS				
	Near Side	3	each	$ 494.00	$ 1,482.00
	Far side	3	each	$ 609.00	$ 1,827.00
3	BUILDING SERVICE PLUG:	6	each	$ 186.00	$ 1,116.00
4	RESTORATION OF LAWNS AND PARKWAYS				
	Topsoil and sod	143	sq.yd.	$ 12.50	$ 1,791.67
5	RESTORATION OF STREETS:				
	Bit. Concrete Street	48	sq.yd.	$ 56.00	$ 2,688.00
6	TRENCH BACKFILL				
	0-8 feet deep	72	lin. ft.	$ 55.00	$ 3,960.00
	SUBTOTAL				$ 21,576.67
	TOTAL ESTIMATE OF CONSTRUCTION COST				$ 90,500.00
			Contingencies	(20%)	$18,100.00
			Engineering	(20%)	$18,100.00
			Legal / Admin	(6%)	$7,600.00
	TOTAL OPINION OF PROBABLE COST				**$ 134,300.00**
				Cost per lot	$22,380.00

Table 4.5-17
Downers Grove Sanitary District
Possible Special Assessment for Sanitary Sewers
Lacey-Carol-Northcott
Preliminary Design Layout

Manhole Number	Rim	Invert	Length (ft)	Slope	Manhole Depth
Northcott Avenue					
SA-N-1-143	739.5	729.20	140	1.50%	10.3
UE-47	741.0	731.30			9.7

Table 4.5-18

Downers Grove Sanitary District March 2017

Proposed Special Assessment

Lacey-Carol-Northcott

Engineer's Opinion of Probable Construction Cost

No.	Pay Item		Approximate Quantity		Unit Price	Amount
MAINLINE SEWER						
1	SANITARY SEWER (OPEN CUT)					
	8-inch	0-8 feet deep	40	lin. ft.	$ 67.00	$ 2,680.00
		8-12 feet deep	100	lin. ft.	$ 78.00	$ 7,800.00
2	SANITARY MANHOLES					
	48-inch	0-8 feet deep	1	each	$ 3,500.00	$ 3,500.00
3	CONNECTION TO EXISTING MANHOLE					
	8-inch		1	each	$ 5,500.00	$ 5,500.00
4	TRENCH BACKFILL					
	8-inch	12-16 feet deep	15	lin. ft.	$ 123.00	$ 1,845.00
5	TREE TUNNELING		0	lin. ft.	$ 172.00	$ 0.00
6	SEWER TELEVISING FOR FINAL INSPECTION		140	lin. ft.	$ 2.45	$ 343.00
7	SEWER TESTING FOR FINAL INSPECTION		140	lin. ft.	$ 2.45	$ 343.00
8	CULVERT REMOVAL AND REPLACEMENT					
	12-inch		0	lin. ft.	$ 72.00	$ 0.00
9	RESTORATION OF LAWNS AND PARKWAYS					
	Topsoil and sod		194	sq.yd.	$ 13.00	$ 2,527.78
10	RESTORATION OF STREETS					
	Bit. Concrete Street		20	sq.yd.	$ 57.00	$ 1,114.67
11	REMOVE AND REPLACE DRIVEWAYS					
	Bituminous		14	sq.yd.	$ 43.00	$ 611.56

Table 4.5-18

Downers Grove Sanitary District March 2017

Proposed Special Assessment

Lacey-Carol-Northcott

Engineer's Opinion of Probable Construction Cost

No.	Pay Item	Approximate Quantity		Unit Price	Amount
12	REMOVE AND REPLACE AGGREGATE DITCH	78	sq.yd.	$ 19.00	$ 1,477.78
13	TREE REMOVAL AND TRIMMING:			Lump Sum	$ 296.75
14	EROSION CONTROL			Lump Sum	$ 296.75
15	TRAFFIC CONTROL			Lump Sum	$ 1,187.00
	SUBTOTAL				$ 29,523.28
	SERVICE LATERALS				
1	BUILDING SERVICE LINES				
	Near side	0	lin. ft.	$ 44.00	$ 0.00
	Far side	1	lin. ft.	$ 44.00	$ 44.00
2	BUILDING SERVICE BRANCH FITTINGS				
	Near Side	0	each	$ 494.00	$ 0.00
	Far side	1	each	$ 609.00	$ 609.00
3	BUILDING SERVICE PLUG:	1	each	$ 56.00	$ 56.00
4	RESTORATION OF LAWNS AND PARKWAYS				
	Topsoil and sod	73	sq.yd.	$ 12.50	$ 916.67
5	RESTORATION OF STREETS:				
	Bit. Concrete Street	156	sq.yd.	$ 56.00	$ 8,736.00
6	TRENCH BACKFILL				
	0-8 feet deep	26	lin. ft.	$ 55.00	$ 1,430.00
	SUBTOTAL				$ 11,791.67
	TOTAL ESTIMATE OF CONSTRUCTION COST				$ 41,300.00
	Contingencies	(20%)			$8,300.00
	Engineering	(20%)			$8,300.00
	Legal / Admin	(6%)			$3,500.00
	TOTAL ESTIMATE OF COST				**$ 61,400.00**
				Cost per lot	$ 61,400.00

Table 4.5-19
Downers Grove Sanitary District
Possible Special Assessment for Sanitary Sewers
Lacey and Janet
Preliminary Design Layout

	Manhole Number	Rim	Invert	Length (ft)	Slope	Manhole Depth
Lacey Road						
(existing)	SA-N-1-134	724.3	711.86			12.4
Janet Street						
				400	1.20%	
	UE-55	730.0	716.66			13.3
				400	0.80%	
	UE-56	730.0	719.86			10.1

Table 4.5-20

Downers Grove Sanitary District March 2017

Proposed Special Assessment

Lacey and Janet

Engineer's Opinion of Probable Construction Cost

No.	Pay Item		Approximate Quantity		Unit Price	Amount
	MAINLINE SEWER					
1	SANITARY SEWER (OPEN CUT)					
	8-inch	8-12 feet deep	40	lin. ft.	$ 78.00	$ 3,120.00
		12-16 feet deep	720	lin. ft.	$ 95.00	$ 68,400.00
		16-20 feet deep	40	lin. ft.	$ 113.00	$ 4,520.00
2	SANITARY MANHOLES					
	48-inch	8-12 feet deep	2	each	$ 5,700.00	$ 11,400.00
		12-16 feet deep	0	each	$ 6,800.00	$ 0.00
		16-20 feet deep	0	each	$ 9,200.00	$ 0.00
3	CONNECTION TO EXISTING MANHOLE					
	8-inch		1	each	$ 5,500.00	$ 5,500.00
4	TRENCH BACKFILL					
	8-inch	8-12 feet deep	0	lin. ft.	$ 100.00	$ 0.00
		12-16 feet deep	128	lin. ft.	$ 123.00	$ 15,744.00
		16-20 feet deep	0	lin. ft.	$ 160.00	$ 0.00
5	TREE TUNNELING		22	lin. ft.	$ 172.00	$ 3,784.00
6	SEWER TELEVISING FOR FINAL INSPECTION		800	lin. ft.	$ 2.45	$ 1,960.00
7	SEWER TESTING FOR FINAL INSPECTION		800	lin. ft.	$ 2.45	$ 1,960.00
8	CULVERT REMOVAL AND REPLACEMENT					
	12-inch		0	lin. ft.	$ 72.00	$ 0.00
9	RESTORATION OF LAWNS AND PARKWAYS					
	Topsoil and sod		107	sq.yd.	$ 13.00	$ 1,391.00
10	RESTORATION OF STREETS					
	Bit. Concrete Street		27	sq.yd.	$ 57.00	$ 1,539.00
11	REMOVE AND REPLACE DRIVEWAYS					
	Bituminous		98	sq.yd.	$ 43.00	$ 4,214.00
12	TREE REMOVAL AND TRIMMING:				Lump Sum	$ 890.25

Table 4.5-20
Downers Grove Sanitary District March 2017
Proposed Special Assessment
Lacey and Janet
Engineer's Opinion of Probable Construction Cost

No.	Pay Item	Approximate Quantity		Unit Price	Amount
13	EROSION CONTROL:			Lump Sum	$ 593.50
14	TRAFFIC CONTROL:			Lump Sum	$ 4,154.50
	SUBTOTAL				$ 129,170.25
SERVICE LATERALS					
1	BUILDING SERVICE LINES				
	Near side	105	lin. ft.	$ 44.00	$ 4,620.00
	Far side	357	lin. ft.	$ 44.00	$ 15,708.00
2	BUILDING SERVICE BRANCH FITTINGS				
	Near Side	7	each	$ 494.00	$ 3,458.00
	Far side	7	each	$ 609.00	$ 4,263.00
3	BUILDING SERVICE PLUG:	14	each	$ 186.00	$ 2,604.00
4	RESTORATION OF LAWNS AND PARKWAYS				
	Topsoil and sod	350	sq.yd.	$ 12.50	$ 4,375.00
5	RESTORATION OF STREETS:				
	Bit. Concrete Street	103	sq.yd.	$ 56.00	$ 5,768.00
6	TRENCH BACKFILL				
	8-12 feet deep	175	lin. ft.	$ 74.00	$ 12,950.00
	SUBTOTAL				$ 53,746.00
	TOTAL ESTIMATE OF CONSTRUCTION COST				$ 182,900.00
	Contingencies		(20%)		$36,600.00
	Engineering		(20%)		$36,600.00
	Legal / Admin		(6%)		$15,400.00
	TOTAL OPINION OF PROBABLE COST				**$ 271,500.00**
				Cost per lot	$19,390.00

Table 4.5-21
Downers Grove Sanitary District
Possible Special Assessment for Sanitary Sewers
Ogden-Lacey-Grant-Lee (South)
Preliminary Design Layout

	Manhole Number	Rim	Invert	Length (ft)	Slope	Manhole Depth
Lacey Road						
(existing)	SA-N-1-135	728.0	713.37			14.6
Ogden Avenue						
				300	3.00%	
	UE-58	740.0	722.37			17.6
				215	3.00%	
	UE-59	740.0	719.82			20.2
(existing)	SA-N-1-136	730.3	713.83			16.4
				180	0.40%	
	UE-61	730.0	714.55			15.4
Ogden Avenue Farms						
				300	1.00%	
	UE-62	730.0	716.83			13.2
				280	0.40%	
	UE-63	729.0	714.95			14.1
				310	0.80%	
	UE-64	731.0	717.43			13.6
				350	2.50%	
	UE-66	736.0	723.70			12.3
				300	3.00%	
	UE-67	746.0	732.70			13.3
				400	0.40%	
	UE-68	731.0	716.55			14.4
				120	0.40%	
	UE-69	729.0	717.03			12.0
				260	3.00%	
	UE-70	740.0	724.83			15.2
				65	2.00%	
	UE-71	742.0	726.13			15.9
				400	2.50%	
	UE-72	749.0	736.13			12.9
				220	4.00%	
	UE-75	755.0	745.63			9.4
Lee Avenue						
				350	0.50%	
	UE-65	730.0	719.18			10.8

Table 4.5-22

Downers Grove Sanitary District March 2017

Proposed Special Assessment

Ogden-Lacey-Grant-Lee (South)

Engineer's Opinion of Probable Construction Cost

No.	Pay Item		Approximate Quantity		Unit Price	Amount
	MAINLINE SEWER					
1	SANITARY SEWER (OPEN CUT)					
	8-inch	0-8 feet deep	260	lin. ft.	$ 67.00	$ 17,420.00
		8-12 feet deep	3,025	lin. ft.	$ 78.00	$ 235,950.00
		12-16 feet deep	590	lin. ft.	$ 95.00	$ 56,050.00
		16-20 feet deep	144	lin. ft.	$ 113.00	$ 16,272.00
2	SANITARY MANHOLES					
	48-inch	0-8 feet deep	1	each	$ 4,300.00	$ 4,300.00
		8-12 feet deep	8	each	$ 5,700.00	$ 45,600.00
		12-16 feet deep	5	each	$ 6,800.00	$ 34,000.00
		16-20 feet deep	1	each	$ 9,200.00	$ 9,200.00
3	CONNECTION TO EXISTING MANHOLE					
	8-inch		3	each	$ 5,500.00	$ 16,500.00
4	TRENCH BACKFILL					
	8-inch	0-8 feet deep	50	lin. ft.	$ 83.00	$ 4,150.00
		8-12 feet deep	260	lin. ft.	$ 100.00	$ 26,000.00
		12-16 feet deep	185	lin. ft.	$ 123.00	$ 22,755.00
		16-20 feet deep	64	lin. ft.	$ 160.00	$ 10,240.00
5	TREE TUNNELING		310	lin. ft.	$ 172.00	$ 53,320.00
6	SEWER TELEVISING FOR FINAL INSPECTION		4,019	lin. ft.	$ 2.45	$ 9,846.55
7	SEWER TESTING FOR FINAL INSPECTION		4,019	lin. ft.	$ 2.45	$ 9,847
8	CULVERT REMOVAL AND REPLACEMENT					
	12-inch		105	lin. ft.	$ 72.00	$ 7,560.00
9	RESTORATION OF LAWNS AND PARKWAYS					
	Topsoil and sod		5,967	sq.yd.	$ 13.00	$ 77,571.00
10	RESTORATION OF STREETS					
	Bit. Concrete Street		27	sq.yd.	$ 57.00	$ 1,539.00
	PCC Sidewalk		50	sq. ft.	$ 12.00	$ 600.00
11	REMOVE AND REPLACE DRIVEWAYS					
	Bituminous		338	sq.yd.	$ 43.00	$ 14,534.00
	Concrete		100	sq.yd.	$ 72.00	$ 7,200.00
12	TREE REMOVAL AND TRIMMING:				Lump Sum	$ 17,211.50

Table 4.5-22

Downers Grove Sanitary District March 2017
Proposed Special Assessment
Ogden-Lacey-Grant-Lee (South)
Engineer's Opinion of Probable Construction Cost

No.	Pay Item	Approximate Quantity		Unit Price	Amount
13	EROSION CONTROL:			Lump Sum	$ 14,244.00
14	TRAFFIC CONTROL:			Lump Sum	$ 16,618.00
	SUBTOTAL				$ 728,527.60
	SERVICE LATERALS				
1	BUILDING SERVICE LINES				
	Near side	300	lin. ft.	$ 44.00	$ 13,200.00
	Far side	357	lin. ft.	$ 44.00	$ 15,708.00
2	BUILDING SERVICE BRANCH FITTINGS				
	Near Side	20	each	$ 494.00	$ 9,880.00
	Far side	7	each	$ 609.00	$ 4,263.00
3	BUILDING SERVICE PLUG:	27	each	$ 186.00	$ 5,022.00
4	RESTORATION OF LAWNS AND PARKWAYS				
	Topsoil and sod	567	sq.yd.	$ 12.50	$ 7,087.50
5	RESTORATION OF STREETS:				
	Bit. Concrete Street	149	sq.yd.	$ 56.00	$ 8,344.00
6	TRENCH BACKFILL				
	8-12 feet deep	196	lin. ft.	$ 74.00	$ 14,504.00
7	REMOVE AND REPLACE DRIVEWAYS				
	Bituminous	0	sq. yd.	$ 42.00	$ 0.00
	SUBTOTAL				$ 78,008.50
	TOTAL ESTIMATE OF CONSTRUCTION COST				$ 806,500.00
	Contingencies (20%)				$161,300.00
	Engineering (20%)				$161,300.00
	Legal / Admin (6%)				$67,700.00
	Easement Acquisition				$97,800.00
	TOTAL OPINION OF PROBABLE COST				**$ 1,294,600.00**
				Cost per lot	$47,950.00

Table 4.5-23

Downers Grove Sanitary District
Proposed Special Assessments
Burlington Highlands Sub-Area
Cost Summary

March 2017

Sub-Basin:	Near Services	Far Services		Cost		Cost per lot
Morton and Downers	20	19	$	1,236,600.00	$	31,710.00
40th and Seely (North)	9	12	$	536,300.00	$	25,540.00
40th and Northcott	5	9	$	376,400.00	$	26,890.00
Virginia-Seely-Janet-Downers	25	18	$	1,016,500.00	$	23,640.00
Belle Aire and Venard	15	6	$	825,500.00	$	39,310.00
Vernard Road (North)	4	6	$	331,500.00	$	33,150.00
Vernard Road (South)	1	1	$	96,700.00	$	48,350.00
Virginia Avenue (West)	3	3	$	134,300.00	$	22,380.00
Lacey-Carol-Northcott	0	1	$	61,400.00	$	61,400.00
Lacey and Janet	7	7	$	271,500.00	$	19,390.00
Ogden-Lacey-Grant-Lee (South)	20	7	$	1,294,600.00	$	47,950.00
TOTALS	109	89	$	6,181,300.00	$	31,220.00
		198				

4.6 Golf Addition

Golf Addition is a sub-area within the District's FPA that is currently unsewered. As shown on Exhibit 4.6, the approximate limits of this sub-area are Warrenville Road to the north, Walnut Avenue to the west, Burlington Avenue to the south, and Belmont Road to the east. The proposed service area includes approximately 48 single-family residences with septic systems, commercial lots without gravity sewer service, Downers Grove Park District property, and several undeveloped residential and commercial parcels. The purpose of this analysis is to establish the most cost-effective sanitary sewer plan for serving unsewered properties within the Golf Addition sub-area.

A number of factors were considered when determining the most cost-effective sewer layout. These factors include topography, major road crossings, easements, wetlands, tree protection, water main and existing utility location, and existing downstream sewer capacity. The Golf Addition sub-area has four major drainage divides. Serving the subject properties by following the ground contours will avoid deep cuts through the higher elevations along drainage divides. The study area can be divided into four smaller service areas. Properties to north of Indianapolis Avenue will be served by the existing sewers on Ogden Avenue. Properties on Drendel and Granville, south of Indianapolis Avenue, will be served by the existing sewer on Burlington Avenue. The Park District parcels at the northeast corner of Walnut and Burlington will be served by the trunk sewer on Walnut Avenue. Parcels on Puffer Road, north of Prairie Avenue, will be served by the sewer at the intersection of Belmont Road and Prairie Avenue.

In addition to following the ground contours, the low-cost sewer layout also needs to consider avoiding major road crossings. The major road crossings that would significantly increase construction cost in this sub-area are Ogden Avenue and Belmont Road. Thus, alternatives were considered to minimize crossing of these routes with both the mainline sewer and building services.

The Village of Downers Grove owns and operates water mains on the streets within the sub-area. The water main design drawings were reviewed and field investigations of the sewer routes were completed to reduce the potential for utility conflicts and to ensure that the required ten feet of separation from water mains can be achieved.

The final component of this analysis was to evaluate the downstream capacity of the existing sewers. Our analysis determined that all of the existing sewers have adequate capacity to receive the additional flow from the Golf Addition sub-area.

For this analysis, the subject area was subdivided into smaller, more manageable sub-basins. The sub-basins were created using topography and projected sewer connection points.

The following are the proposed sub-basins:

Sub-basin	No. of Services	Layout	Cost Estimate
Drendel and Ogden	*(completed)*	*Table 4.6-1*	*Table 4.6-2*
Cross and Ogden (South)	*(completed)*	*Table 4.6-3*	*Table 4.6-4*
Cross and Ogden (North)	2	Table 4.6-5	Table 4.6-6
Drendel and Granville (South)	28	Table 4.6-7	Table 4.6-8
Burlington and Walnut (South)	2	Table 4.6-9	Table 4.6-10
Puffer North of Prairie	16	Table 4.6-11	Table 4.6-12

Table 4.6-13 is a summary table of opinions of probable cost. A map of the proposed sewer plan is included in Exhibit 4.6.

Sanitary sewers are available to all parcels in the Drendel and Ogden sub-basin and the Cross and Ogden (South) sub-basin as of March 2010. Approximately 3,150 feet of 8-inch sanitary sewer and 41 services were constructed for a total bid price of $603,700 by Archon Construction Co, Inc. in Spring of 2010 with partial funding from ARRA of 2009. The average cost per lot was approximately $14,720.

The Cross and Ogden (North) sub-basin sewer plan follows the existing topography which falls southwest towards the manhole in front of the new Culver's Restaurant. This sewer will allow the private pump station and force main of the Max Madsen car dealership at 2438 Ogden (northeast corner of Cross and Ogden) and the private septic system on the west side of Cross Street (4340 Cross) to be abandoned. Easements will be required along both Cross and Ogden to construct this sewer. The cost per lot was not calculated because this sub-area is only comprised of the several large commercial parcels. Table 4.6-5 is the proposed layout of the sewer size, length, and slope and manhole invert and depth. Table 4.6-6 includes a breakdown of the unit quantities and unit prices used to prepare the opinion of probable cost. The total opinion of project cost is $346,500, including contingency, engineering, easements, and legal/administrative costs.

The Drendel and Granville (South) sub-basin sewer plan follows the existing topography which falls from Drendel and Indianapolis south to the intersection of Granville and Burlington Avenue. The sewer will extend north from the existing sewer at Burlington and Granville. Easements will be required to cross the existing Downers Grove Park District property. The parcels on Drendel could also be served by the existing trunk sewer on Walnut, but additional sewer length and easements would be required. The sewer on Drendel should be placed in the west right-of-way, to avoid the water main, and in the east right-of-way on Granville to avoid the existing trees. This sub-basin is the third most costly per lot in the Golf Addition due to the sewer and easements required to cross the Park District property. Table 4.6-7 is the proposed layout of the sewer size, length, and slope and manhole invert and depth. Table 4.6-8 includes a breakdown of the unit quantities and unit prices used to prepare the opinion of probable cost. The total opinion of project cost is $747,900, including contingency, engineering, easements, and legal/administrative costs.

The Burlington and Walnut (South) sub-basin sewer plan will flow west on Burlington Avenue from the Park District parcel west of Granville to the existing sanitary manhole at Walnut and Burlington. The sewer should be placed in the south right-way-way to avoid the existing water main and overhead electric. The cost per lot was not calculated because this sub-area only includes several large parcels owned by the Park District. Table 4.6-9 is the proposed layout of the sewer size, length, and slope and manhole invert and depth. Table 4.6-10 includes a breakdown of the unit quantities and unit prices used to prepare the opinion of probable cost. The total opinion of project cost is $183,800, including contingency, engineering, and legal/administrative costs.

The Puffer North of Prairie sub-basin sewer plan will connect to the sewer on Belmont Road. Currently, the sewer does not have adequate cover to serve Puffer Road. The impending Metra-Belmont underpass project will include the replacement of the existing sewer on Belmont, from Burlington to Prairie, at a flatter slope to provide the additional depth required to allow sewer service on Puffer. This sub-basin is the most costly per lot in the Golf Addition due to the pavement restoration and tree tunneling required, in addition to the small number of lots associated with the project. Table 4.6-11 is the proposed layout of the sewer size, length, and slope and manhole invert and depth. Table 4.6-12 includes a breakdown of the unit quantities and unit prices used to prepare the opinion of probable cost. The total opinion of project cost is $569,300, including contingency, engineering, easements, and legal/administrative costs.

DOWNERS GROVE SANITARY DISTRICT UNSEWERED AREA PLAN

EXHIBIT 4.6

GOLF ADDITION

POSSIBLE SEWER ALIGNMENT

MARCH 2017

LEGEND

- PROPOSED MANHOLES
- PROPOSED SEWERS
- EXISTING MANHOLES
- EXISTING SEWERS
- PARCEL BOUNDARIES
- CROSS AND OGDEN (NORTH);TABLES 4.6-5, 4.6-6
- DRENDEL AND GRANVILLE (SOUTH);TABLES 4.6-7, 4.6-8
- BURLINGTON AND WALNUT (SOUTH);TABLES 4.6-9, 4.6-10
- PUFFER NORTH OF PRAIRIE;TABLES 4.6-11, 4.6-12

N

0 500 1,000
Feet

BAXTER & WOODMAN
Consulting Engineers

I:\Crystal Lake\DGSD1\170318-UAP\GIS\MXD\4-6 Golf Addition.mxd
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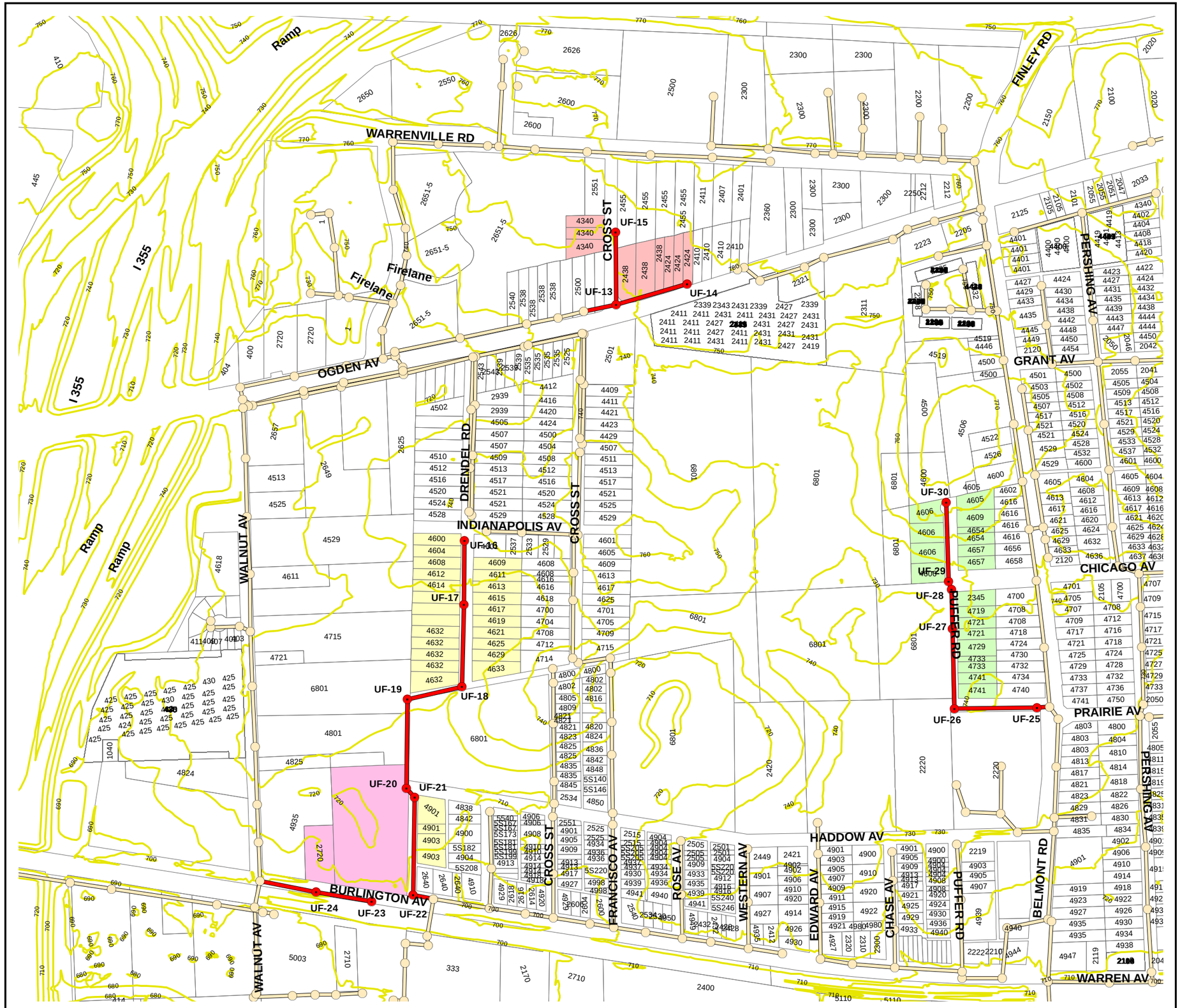


Table 4.6-1
Downers Grove Sanitary District
Possible Special Assessment for Sanitary Sewers
Drendel and Ogden
Preliminary Design Layout

Manhole Number	Rim	Invert	Length (ft)	Slope	Manhole Depth

(Sanitary sewers are available as of March 2010.)

Table 4.6-2
Downers Grove Sanitary District March 2017
Possible Special Assessment for Sanitary Sewers
Drendel and Ogden
Engineer's Opinion of Probable Construction Cost

No.	Pay Item	Approximate Quantity	Unit Price	Amount

(Sanitary sewers are available as of March 2010.)

Table 4.6-2
Downers Grove Sanitary District March 2017
Possible Special Assessment for Sanitary Sewers
Drendel and Ogden
Engineer's Opinion of Probable Construction Cost

No.	Pay Item	Approximate Quantity	Unit Price	Amount

(Sanitary sewers are available as of March 2010.)

Table 4.6-3
Downers Grove Sanitary District
Possible Special Assessment for Sanitary Sewers
Cross and Ogden (South)
Preliminary Design Layout

Manhole Number	Rim	Invert	Length (ft)	Slope	Manhole Depth

(Sanitary sewers are available as of March 2010.)

Table 4.6-4
Downers Grove Sanitary District March 2017
Possible Special Assessment for Sanitary Sewers
Cross and Ogden (South)
Engineer's Opinion of Probable Construction Cost

No.	Pay Item	Approximate Quantity	Unit Price	Amount

(Sanitary sewers are available as of March 2010.)

Table 4.6-4
Downers Grove Sanitary District March 2017
Possible Special Assessment for Sanitary Sewers
Cross and Ogden (South)
Engineer's Opinion of Probable Construction Cost

No.	Pay Item	Approximate Quantity	Unit Price	Amount

(Sanitary sewers are available as of March 2010.)

Table 4.6-5
Downers Grove Sanitary District
Possible Special Assessment for Sanitary Sewers
Cross and Ogden (North)
Preliminary Design Layout

Manhole Number	Rim	Invert	Length (ft)	Slope	Manhole Depth
Ogden Avenue					
3-A-88 (existing)	741.9	725.00			16.9
			205	4.00%	
UF-13	748.0	733.20			14.8
			370	3.00%	
UF-14	756.0	744.30			11.7
Cross Street					
			370	2.50%	
UF-15	751.0	742.45			8.5

Table 4.6-6

Downers Grove Sanitary District March 2017

Possible Special Assessment for Sanitary Sewers

Cross and Ogden (North)

Engineer's Opinion of Probable Construction Cost

No.	Pay Item		Approximate Quantity		Unit Price	Amount
MAINLINE SEWER						
1	SANITARY SEWER (OPEN CUT)					
	8-inch	8-12 feet deep	240	lin. ft.	$ 78.00	$ 18,720.00
		12-16 feet deep	705	lin. ft.	$ 95.00	$ 66,975.00
2	SANITARY MANHOLES					
	48-inch	8-12 feet deep	2	each	$ 5,700.00	$ 11,400.00
		12-16 feet deep	1	each	$ 6,800.00	$ 6,800.00
3	CONNECTION TO EXISTING MANHOLE					
	8-inch		1	each	$ 5,500.00	$ 3,500.00
4	TRENCH BACKFILL					
	8-inch	8-12 feet deep	240	lin. ft.	$ 100.00	$ 24,000.00
		12-16 feet deep	200	lin. ft.	$ 123.00	$ 24,600.00
5	TREE TUNNELING		0	lin. ft.	$ 172.00	$ 0.00
6	SEWER TELEVISING FOR FINAL INSPECTION		945	lin. ft.	$ 2.45	$ 2,315.25
7	SEWER TESTING FOR FINAL INSPECTION		945	lin. ft.	$ 2.45	$ 2,315.25
8	CULVERT REMOVAL AND REPLACEMENT					
	12-inch		0	lin. ft.	$ 72.00	$ 0.00
9	RESTORATION OF LAWNS AND PARKWAYS:					
	Topsoil and Sod		1,342	sq.yd.	$ 13.00	$ 17,446.00
10	RESTORATION OF STREETS:					
	Bit. Concrete Street		50	sq.yd.	$ 57.00	$ 2,850.00
	Curb & Gutter		40	lin. ft.	$ 37.00	$ 1,480.00
	PCC Sidewalk		200	sq. ft.	$ 12.00	$ 2,400.00
11	REMOVE AND REPLACE DRIVEWAYS					
	Bituminous		67	sq.yd.	$ 43.00	$ 2,881.00
12	TREE REMOVAL AND TRIMMING:				Lump Sum	$ 0.00

Table 4.6-6

Downers Grove Sanitary District March 2017

Possible Special Assessment for Sanitary Sewers

Cross and Ogden (North)

Engineer's Opinion of Probable Construction Cost

No.	Pay Item	Approximate Quantity		Unit Price	Amount
13	EROSION CONTROL			Lump Sum	$ 0.00
14	TRAFFIC CONTROL:			Lump Sum	$ 17,805.00
	SUBTOTAL				$ 205,487.50
SERVICE LATERALS					
1	BUILDING SERVICE LINES				
	Near side	10	lin. ft.	$ 44.00	$ 440.00
	Far side	48	lin. ft.	$ 44.00	$ 2,112.00
2	BUILDING SERVICE BRANCH FITTINGS				
	Near Side	1	each	$ 494.00	$ 494.00
	Far side	1	each	$ 609.00	$ 609.00
3	BUILDING SERVICE PLUG:	2	each	$ 186.00	$ 372.00
4	RESTORATION OF LAWNS AND PARKWAYS:				
	Topsoil and Sod	28	sq.yd.	$ 12.50	$ 350.00
5	RESTORATION OF STREETS:				
	Bit. Concrete Street	21	sq.yd.	$ 56.00	$ 1,176.00
6	TRENCH BACKFILL				
	0-8 feet deep	35	lin. ft.	$ 55.00	$ 1,925.00
	SUBTOTAL				$ 7,478.00
	TOTAL ESTIMATE OF CONSTRUCTION COST				$ 213,000.00
	Contingencies (20%)				$42,600.00
	Engineering (20%)				$42,600.00
	Legal / Admin (6%)				$17,900.00
	Easement Acquisition				$30,400.00
	TOTAL OPINION OF PROBABLE COST				**$ 346,500.00**

Table 4.6-7
Downers Grove Sanitary District
Possible Special Assessment for Sanitary Sewers
Drendel and Granville (South)
Preliminary Design Layout

Manhole Number	Rim	Invert	Length (ft)	Slope	Manhole Depth
Burlington Avenue					
3-B-3 (existing)	702.3	687.50			14.8
			110	2.00%	
UF-22	703.0	689.70			13.3
Granville Avenue					
			480	2.50%	
UF-21	714.0	701.70			12.3
			70	2.00%	
UF-20	715.0	703.10			11.9
Park District Easement					
			450	1.80%	
UF-19	722.0	711.20			10.8
Drendel Road					
			280	0.40%	
UF-18	722.0	712.32			9.7
			400	0.40%	
UF-17	722.0	713.92			8.1
			360	3.50%	
UF-16	735.0	726.52			8.5

Table 4.6-8

Downers Grove Sanitary District March 2017

Possible Special Assessment for Sanitary Sewers

Drendel and Granville (South)

Engineer's Opinion of Probable Construction Cost

No.	Pay Item		Approximate Quantity		Unit Price	Amount
MAINLINE SEWER						
1	SANITARY SEWER (OPEN CUT)					
	8-inch	0-8 feet deep	60	lin. ft.	$ 67.00	$ 4,020.00
		8-12 feet deep	1,850	lin. ft.	$ 78.00	$ 144,300.00
		12-16 feet deep	240	lin. ft.	$ 95.00	$ 22,800.00
2	SANITARY MANHOLES					
	48-inch	0-8 feet deep	1	each	$ 4,300.00	$ 4,300.00
		8-12 feet deep	4	each	$ 5,700.00	$ 22,800.00
		12-16 feet deep	2	each	$ 6,800.00	$ 13,600.00
3	CONNECTION TO EXISTING MANHOLE					
	8-inch		1	each	$ 5,500.00	$ 3,500.00
4	TRENCH BACKFILL					
	8-inch	0-8 feet deep	230	lin. ft.	$ 83.00	$ 19,090.00
		8-12 feet deep	185	lin. ft.	$ 100.00	$ 18,500.00
		12-16 feet deep	69	lin. ft.	$ 123.00	$ 8,487.00
5	TREE TUNNELING		345	lin. ft.	$ 172.00	$ 59,340.00
6	SEWER TELEVISING FOR FINAL INSPECTION		2,150	lin. ft.	$ 2.45	$ 5,267.50
7	SEWER TESTING FOR FINAL INSPECTION		2,150	lin. ft.	$ 2.45	$ 5,267.50
8	CULVERT REMOVAL AND REPLACEMENT					
	12-inch		115	lin. ft.	$ 72.00	$ 8,280.00
9	RESTORATION OF LAWNS AND PARKWAYS:					
	Topsoil and Sod		3,158	sq.yd.	$ 13.00	$ 41,054.00
10	RESTORATION OF STREETS:					
	Bit. Concrete Street		13	sq.yd.	$ 57.00	$ 741.00
11	REMOVE AND REPLACE DRIVEWAYS					
	Bituminous		231	sq.yd.	$ 43.00	$ 9,933.00
12	TREE REMOVAL AND TRIMMING:				Lump Sum	$ 8,012.25

Table 4.6-8

Downers Grove Sanitary District March 2017

Possible Special Assessment for Sanitary Sewers

Drendel and Granville (South)

Engineer's Opinion of Probable Construction Cost

No.	Pay Item	Approximate Quantity		Unit Price	Amount
13	EROSION CONTROL			Lump Sum	$ 2,077.25
14	TRAFFIC CONTROL:			Lump Sum	$ 3,561.00
	SUBTOTAL				$ 404,930.50
SERVICE LATERALS					
1	BUILDING SERVICE LINES				
	Near side	124	lin. ft.	$ 44.00	$ 5,456.00
	Far side	600	lin. ft.	$ 44.00	$ 26,400.00
2	BUILDING SERVICE BRANCH FITTINGS				
	Near Side	18	each	$ 494.00	$ 8,892.00
	Far side	10	each	$ 609.00	$ 6,090.00
3	BUILDING SERVICE PLUG:	28	each	$ 186.00	$ 5,208.00
4	RESTORATION OF LAWNS AND PARKWAYS:				
	Topsoil and Sod	367	sq.yd.	$ 12.50	$ 4,587.50
5	RESTORATION OF STREETS:				
	Bit. Concrete Street	189	sq.yd.	$ 56.00	$ 10,584.00
6	TRENCH BACKFILL				
	0-8 feet deep	350	lin. ft.	$ 55.00	$ 19,250.00
	SUBTOTAL				$ 86,467.50
	TOTAL ESTIMATE OF CONSTRUCTION COST				$ 491,400.00
	Contingencies (20%)				$98,300.00
	Engineering (20%)				$98,300.00
	Legal / Admin (6%)				$41,300.00
	Easement Acquisition				$18,600.00
	TOTAL OPINION OF PROBABLE COST				**$ 747,900.00**
	Cost per lot				$26,710.00

Table 4.6-9
Downers Grove Sanitary District
Possible Special Assessment for Sanitary Sewers
Burlington and Walnut (South)
Preliminary Design Layout

Manhole Number	Rim	Invert	Length (ft)	Slope	Manhole Depth
Burlington Avenue					
3-A-34 (existing)	700.0	683.01			17.0
			300	3.00%	
UF-24	704.0	692.01			12.0
			300	2.68%	
UF-23	708.0	700.05			8.0

Table 4.6-10

Downers Grove Sanitary District March 2017

Possible Special Assessment for Sanitary Sewers

Burlington and Walnut (South)

Engineer's Opinion of Probable Construction Cost

No.	Pay Item		Approximate Quantity		Unit Price	Amount
MAINLINE SEWER						
1	SANITARY SEWER (OPEN CUT)					
	8-inch	0-8 feet deep	60	lin. ft.	$ 67.00	$ 4,020.00
		8-12 feet deep	500	lin. ft.	$ 78.00	$ 39,000.00
		12-16 feet deep	40	lin. ft.	$ 95.00	$ 3,800.00
2	SANITARY MANHOLES					
	48-inch	0-8 feet deep	1	each	$ 4,300.00	$ 4,300.00
		8-12 feet deep	1	each	$ 5,700.00	$ 5,700.00
3	CONNECTION TO EXISTING MANHOLE					
	8-inch		1	each	$ 5,500.00	$ 3,500.00
4	TRENCH BACKFILL					
	8-inch	0-8 feet deep	60	lin. ft.	$ 83.00	$ 4,980.00
		8-12 feet deep	120	lin. ft.	$ 100.00	$ 12,000.00
5	TREE TUNNELING		50	lin. ft.	$ 172.00	$ 8,600.00
6	SEWER TELEVISING FOR FINAL INSPECTION		600	lin. ft.	$ 2.45	$ 1,470.00
7	SEWER TESTING FOR FINAL INSPECTION		600	lin. ft.	$ 2.45	$ 1,470.00
8	CULVERT REMOVAL AND REPLACEMENT					
	12-inch		10	lin. ft.	$ 72.00	$ 720.00
9	RESTORATION OF LAWNS AND PARKWAYS:					
	Topsoil and Sod		833	sq.yd.	$ 13.00	$ 10,829.00
10	RESTORATION OF STREETS:					
	Bit. Concrete Street		89	sq.yd.	$ 57.00	$ 5,073.00
11	REMOVE AND REPLACE DRIVEWAYS					
	Bituminous		0	sq.yd.	$ 43.00	$ 0.00
12	TREE REMOVAL AND TRIMMING:				Lump Sum	$ 1,780.50

Table 4.6-10
Downers Grove Sanitary District March 2017
Possible Special Assessment for Sanitary Sewers
Burlington and Walnut (South)
Engineer's Opinion of Probable Construction Cost

No.	Pay Item	Approximate Quantity		Unit Price	Amount
13	EROSION CONTROL			Lump Sum	$ 593.50
14	TRAFFIC CONTROL:			Lump Sum	$ 2,374.00
	SUBTOTAL				$ 110,210.00
SERVICE LATERALS					
1	BUILDING SERVICE LINES				
	Near side	0	lin. ft.	$ 44.00	$ 0.00
	Far side	120	lin. ft.	$ 44.00	$ 5,280.00
2	BUILDING SERVICE BRANCH FITTINGS				
	Near Side	0	each	$ 494.00	$ 0.00
	Far side	2	each	$ 609.00	$ 1,218.00
3	BUILDING SERVICE PLUG:	2	each	$ 186.00	$ 372.00
4	RESTORATION OF LAWNS AND PARKWAYS:				
	Topsoil and Sod	93	sq.yd.	$ 12.50	$ 1,162.50
5	RESTORATION OF STREETS:				
	Bit. Concrete Street	37	sq.yd.	$ 56.00	$ 2,072.00
6	TRENCH BACKFILL				
	0-8 feet deep	64	lin. ft.	$ 55.00	$ 3,520.00
	SUBTOTAL				$ 13,624.50
	TOTAL ESTIMATE OF CONSTRUCTION COST				$ 123,800.00
	Contingencies (20%)				$24,800.00
	Engineering (20%)				$24,800.00
	Legal / Admin (6%)				$10,400.00
	TOTAL OPINION OF PROBABLE COST				**$ 183,800.00**

Table 4.6-11
Downers Grove Sanitary District
Possible Special Assessment for Sanitary Sewers
Puffer North of Prairie
Preliminary Design Layout

Manhole Number	Rim	Invert	Length (ft)	Slope	Manhole Depth
Prairie Avenue					
3-A-12 (existing)[1]	735.2	724.00			11.2
			60	0.40%	
UF-25	734.0	724.24			9.8
			420	0.40%	
UF-26	736.0	725.92			10.1
Puffer Road					
			400	0.40%	
UF-27	735.0	727.52			7.5
			220	1.00%	
UF-28	738.0	729.72			8.3
			30	0.40%	
UF-29	738.0	729.84			8.2
			410	6.00%	
UF-30	766.0	754.44			11.6

Note 1: Proposed invert is after the replacement of the sewer on Belmont as part of the Metra project

Table 4.6-12
Downers Grove Sanitary District March 2017
Possible Special Assessment for Sanitary Sewers
Puffer North of Prairie
Engineer's Opinion of Probable Construction Cost

No.	Pay Item		Approximate Quantity		Unit Price	Amount
MAINLINE SEWER						
1	SANITARY SEWER (OPEN CUT)					
	8-inch	0-8 feet deep	200	lin. ft.	$ 67.00	$ 13,400.00
		8-12 feet deep	1,280	lin. ft.	$ 78.00	$ 99,840.00
		12-16 feet deep	60	lin. ft.	$ 95.00	$ 5,700.00
2	SANITARY MANHOLES					
	48-inch	0-8 feet deep	1	each	$ 4,300.00	$ 4,300.00
		8-12 feet deep	5	each	$ 5,700.00	$ 28,500.00
3	CONNECTION TO EXISTING MANHOLE					
	8-inch		1	each	$ 5,500.00	$ 3,500.00
4	TRENCH BACKFILL					
	8-inch	0-8 feet deep	200	lin. ft.	$ 83.00	$ 16,600.00
		8-12 feet deep	410	lin. ft.	$ 100.00	$ 41,000.00
		12-16 feet deep	30	lin. ft.	$ 123.00	$ 3,690.00
5	TREE TUNNELING		165	lin. ft.	$ 172.00	$ 28,380.00
6	SEWER TELEVISING FOR FINAL INSPECTION					
			1,540	lin. ft.	$ 2.45	$ 3,773.00
7	SEWER TESTING FOR FINAL INSPECTION					
			1,540	lin. ft.	$ 2.45	$ 3,773.00
8	CULVERT REMOVAL AND REPLACEMENT					
	12-inch		50	lin. ft.	$ 72.00	$ 3,600.00
9	RESTORATION OF LAWNS AND PARKWAYS:					
	Topsoil and Sod		1,533	sq.yd.	$ 13.00	$ 19,929.00
10	RESTORATION OF STREETS:					
	Bit. Concrete Street		333	sq.yd.	$ 57.00	$ 18,981.00
	Curb & Gutter		0	lin. ft.	$ 37.00	$ 0.00
	PCC Sidewalk		50	sq. ft.	$ 12.00	$ 600.00
11	REMOVE AND REPLACE DRIVEWAYS					
	Bituminous		22	sq.yd.	$ 43.00	$ 946.00

Table 4.6-12
Downers Grove Sanitary District March 2017
Possible Special Assessment for Sanitary Sewers
Puffer North of Prairie
Engineer's Opinion of Probable Construction Cost

No.	Pay Item	Approximate Quantity		Unit Price	Amount
12	TREE REMOVAL AND TRIMMING:			Lump Sum	$ 2,374.00
13	EROSION CONTROL			Lump Sum	$ 593.50
14	TRAFFIC CONTROL:			Lump Sum	$ 2,374.00
	SUBTOTAL				$ 301,853.50
SERVICE LATERALS					
1	BUILDING SERVICE LINES				
	Near side	10	lin. ft.	$ 44.00	$ 440.00
	Far side	750	lin. ft.	$ 44.00	$ 33,000.00
2	BUILDING SERVICE BRANCH FITTINGS				
	Near Side	1	each	$ 494.00	$ 494.00
	Far side	15	each	$ 609.00	$ 9,135.00
3	BUILDING SERVICE PLUG:	16	each	$ 186.00	$ 2,976.00
4	RESTORATION OF LAWNS AND PARKWAYS:				
	Topsoil and Sod	344	sq.yd.	$ 12.50	$ 4,300.00
5	RESTORATION OF STREETS:				
	Bit. Concrete Street	158	sq.yd.	$ 56.00	$ 8,848.00
6	TRENCH BACKFILL				
	0-8 feet deep	285	lin. ft.	$ 55.00	$ 15,675.00
	SUBTOTAL				$ 74,868.00
	TOTAL ESTIMATE OF CONSTRUCTION COST				$ 376,700.00
	Contingencies (20%)				$75,300.00
	Engineering (20%)				$75,300.00
	Legal / Admin (6%)				$31,600.00
	Easement Acquisition				$10,400.00
	TOTAL OPINION OF PROBABLE COST				**$ 569,300.00**
				Cost per lot	$35,580.00

Table 4.6-13

Downers Grove Sanitary District March 2017

Possible Special Assessments for Sanitary Sewer

Golf Addition Sub-Area

Cost Summary

Sub-Basin:	Near	Far		Cost		Cost per lot
Drendel and Ogden (completed)	*0*	*0*	*$*	*-*	*$*	*-*
Cross and Ogden (South) (completed)	*0*	*0*	*$*	*-*	*$*	*-*
Cross and Ogden (North)	1	1	$	346,500.00		N/A
Drendel and Granville (South)	18	10	$	747,900.00	$	26,710.00
Burlington and Walnut (South)	0	2	$	183,800.00		N/A
Puffer North of Prairie	1	15	$	569,300.00	$	35,580.00
TOTALS	20	28	$	1,847,500.00	$	29,940.00
		48				

4.7 Florence Avenue

Florence Avenue is a small service area located within the District's FPA boundary. Exhibit 4.7 shows the approximate limits of this service area which is located west of Fairview Avenue and north of Ogden Avenue. The proposed service area currently includes 11 lots that are either developed as single-family residences with septic systems or vacant. The purpose of this analysis is to establish the most cost-effective sanitary sewer plan for serving properties along Florence Avenue.

Several factors were considered when determining the most cost-effective sewer layout. These factors include topography, tree protection, water main and existing utility location. In addition to following the ground contours, the low-cost sewer layout also needs to consider avoiding major road crossings. The one major road crossing that would significantly increase construction cost in this sub-area is Ogden Avenue. Thus, alternatives were considered to minimize crossing of this roadway. The Village of Downers Grove does not own any water mains within the subject area limits. The only utilities that would impact sewer construction are gas mains and overhead electric.

The final component of this analysis was to evaluate the downstream capacity of the existing sewers. Our analysis determined that the existing sewer has adequate capacity to receive the additional flow from Florence Avenue.

A map of the proposed sewer plan is included in Exhibit 4.7.

The topography along Florence Avenue is relatively flat, and thus, the direction of flow will be dictated by the available sewer depth and the most cost effective route. We identified one feasible connection point, the existing manhole in the northern westbound lane of Ogden Avenue (1-J-136).

We recommend the sewer be installed in the west right-of-way to avoid the existing power lines, gas mains, and major landscaping located in the east right-of-way. Table 4.7-1 is the proposed layout of the sewer size, length, and slope and manhole invert and depth. Table 4.7-2 includes a breakdown of the unit quantities and unit prices used to prepare the opinion of probable cost. The total opinion of project cost is $218,400, including contingency, engineering, and legal/administrative costs.

DOWNERS GROVE SANITARY DISTRICT UNSEWERED AREA PLAN

EXHIBIT 4.7

FLORENCE AVENUE

POSSIBLE SEWER ALIGNMENT

MARCH 2017

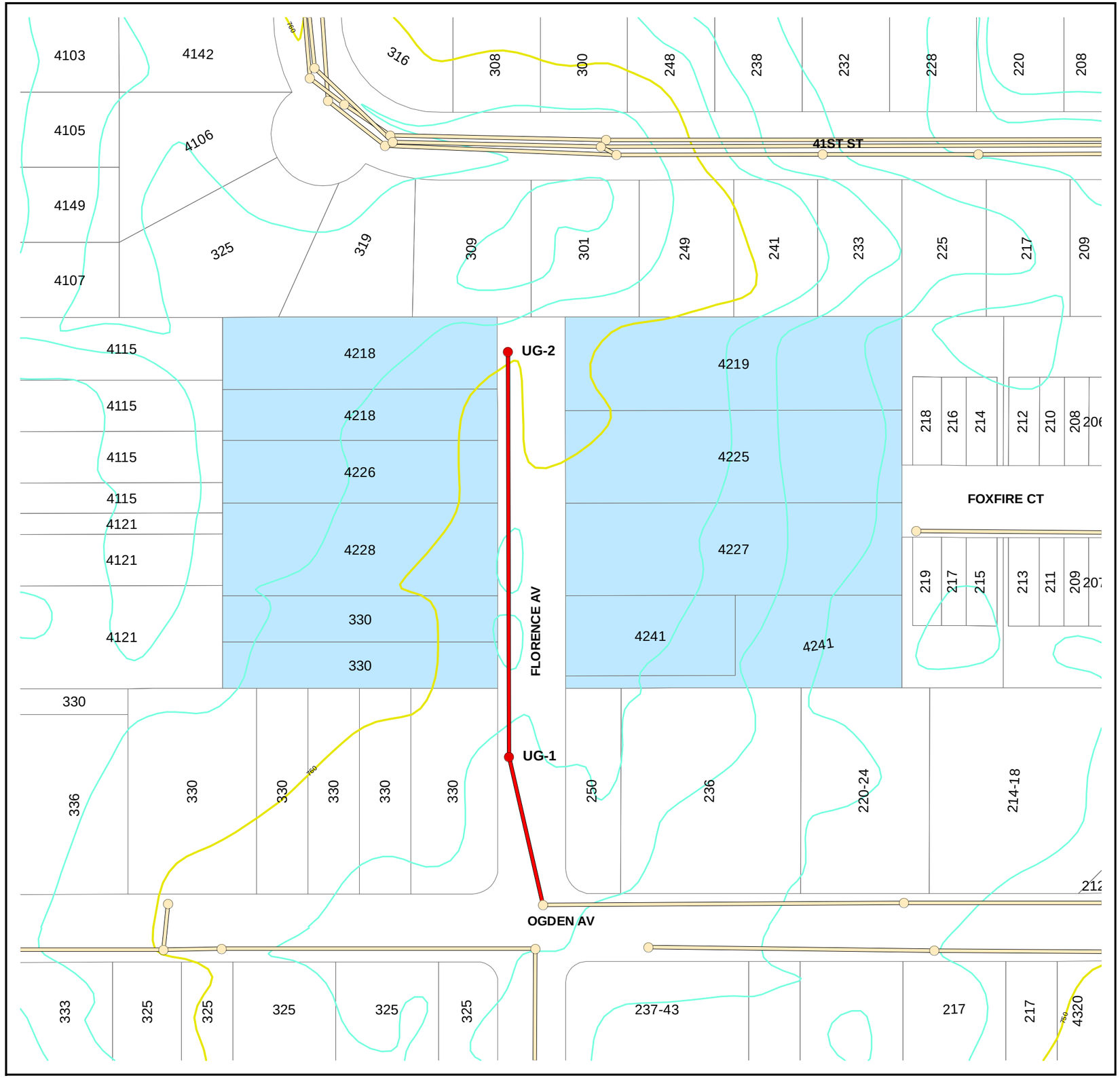
LEGEND

- PROPOSED MANHOLES
- PROPOSED SEWER
- EXISTING MANHOLES
- EXISTING SEWERS
- PARCEL BOUNDARIES
- FLORENCE AVENUE

N

0 100 200

Feet



BAXTER & WOODMAN Consulting Engineers

I:\Crystal Lake\DGSD1\170318-UAP\GIS\MXD\4-7 FlorenceAve.mxd
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Table 4.7-1
Downers Grove Sanitary District
Possible Special Assessment for Sanitary Sewers
Florence Avenue
Preliminary Design Layout

Manhole Number	Rim	Invert	Length (ft)	Slope	Manhole Depth
Florence Avenue					
1-J-136 (existing)	756.0	748.54			7.5
			140	0.40%	
UG-1	757.5	749.10			8.4
			400	0.50%	
UG-2	761.0	751.10			9.9

Table 4.7-2
Downers Grove Sanitary District March 2017
Possible Special Assessment for Sanitary Sewers
Florence Avenue
Engineer's Opinion of Probable Construction Cost

No.	Pay Item		Approximate Quantity		Unit Price	Amount
MAINLINE SEWER						
1	SANITARY SEWER (OPEN CUT)					
	8-inch	0-8 feet deep	40	lin. ft.	$ 67.00	$ 2,680.00
		8-12 feet deep	500	lin. ft.	$ 78.00	$ 39,000.00
2	SANITARY MANHOLES					
	48-inch	0-8 feet deep	0	each	$ 4,300.00	$ 0.00
		8-12 feet deep	2	each	$ 5,700.00	$ 11,400.00
3	CONNECTION TO EXISTING MANHOLE					
	8-inch		1	each	$ 5,500.00	$ 5,500.00
4	TRENCH BACKFILL					
	8-inch	0-8 feet deep	19	lin. ft.	$ 83.00	$ 1,577.00
		8-12 feet deep	177	lin. ft.	$ 100.00	$ 17,700.00
5	TREE TUNNELING		30	lin. ft.	$ 172.00	$ 5,160.00
6	SEWER TELEVISING FOR FINAL INSPECTION		540	lin. ft.	$ 2.45	$ 1,323.00
7	SEWER TESTING FOR FINAL INSPECTION		540	lin. ft.	$ 2.45	$ 1,323.00
8	CULVERT REMOVAL AND REPLACEMENT					
	12-inch		20	lin. ft.	$ 72.00	$ 1,440.00
9	RESTORATION OF LAWNS AND PARKWAYS:					
	Topsoil and sod		575	sq.yd.	$ 13.00	$ 7,475.00
10	RESTORATION OF STREETS:					
	Bit. Concrete Street		89	sq.yd.	$ 57.00	$ 5,073.00
11	REMOVE AND REPLACE DRIVEWAYS					
	Concrete		13	sq.yd.	$ 72.00	$ 936.00
	Bituminous		65	sq.yd.	$ 43.00	$ 2,795.00
	Aggregate		13	sq.yd.	$ 19.00	$ 247.00

Table 4.7-2
Downers Grove Sanitary District March 2017
Possible Special Assessment for Sanitary Sewers
Florence Avenue
Engineer's Opinion of Probable Construction Cost

No.	Pay Item	Approximate Quantity		Unit Price	Amount
12	TREE REMOVAL AND TRIMMING:			Lump Sum	$ 593.50
13	EROSION CONTROL			Lump Sum	$ 593.50
14	TRAFFIC CONTROL:			Lump Sum	$ 4,748.00
	SUBTOTAL				$ 109,564.00
SERVICE LATERALS					
1	BUILDING SERVICE LINES				
	Near side	90	lin. ft.	$ 44.00	$ 3,960.00
	Far side	255	lin. ft.	$ 44.00	$ 11,220.00
2	BUILDING SERVICE BRANCH FITTINGS				
	Near Side	6	each	$ 494.00	$ 2,964.00
	Far side	5	each	$ 609.00	$ 3,045.00
3	BUILDING SERVICE PLUG:	11	each	$ 186.00	$ 2,046.00
4	RESTORATION OF LAWNS AND PARKWAYS:				
	Topsoil and sod	158	sq.yd.	$ 12.50	$ 1,975.00
5	RESTORATION OF STREETS:				
	Bit. Concrete Street	80	sq.yd.	$ 56.00	$ 4,480.00
6	TRENCH BACKFILL				
	0-8 feet deep	145	lin. ft.	$ 55.00	$ 7,975.00
	SUBTOTAL				$ 37,665.00
	TOTAL ESTIMATE OF CONSTRUCTION COST				$ 147,200.00
	Contingencies		(20%)		$29,400.00
	Engineering		(20%)		$29,400.00
	Legal / Admin		(6%)		$12,400.00
	TOTAL OPINION OF PROBABLE COST				**$ 218,400.00**
				Cost per lot	$19,850.00

4.8 Meyers and 31st

Meyers and 31st is a sub-area within the northeast corner of the District's planning area that is currently unsewered. Several lots are located outside of the District FPA, but can not be served by the adjacent Hinsdale Sanitary District in an economical manner. As shown on Exhibit 4.8, the approximate limits of this sub-area are White Oak Lane to the north, Meyers Road to the east, and 35th Street to the south. The proposed service area includes approximately 7 single-family residences with septic systems. The purpose of this analysis is to establish the recommended sanitary sewer plan for serving all unsewered properties within the Meyers and 31st sub-area.

A number of factors were considered when determining the most cost-effective sewer layout. These factors include topography, major road crossings, easements, wetlands, tree protection, water main and existing utility location, and existing downstream sewer capacity. The Meyers and 31st sub-area has multiple drainage divides and low spots. The study area can be divided into two smaller service areas, properties between White Oak Lane and Heritage Oaks Lane and properties between 35th Street and Heritage Oaks Lane. Each of these two areas has centrally located low spots, which complicate serving each sub-basin in a cost effective manner.

In addition to following the ground contours, the low-cost sewer layout also needs to consider avoiding major road crossings. The one major road crossing that would significantly increase construction cost in this sub-area is Meyers Road. Thus, alternatives were considered to minimize construction in the right-of-way.

The DuPage Water Commission and Village of Oak Brook own and operate water mains and a transmission main on various streets within the sub-area. The water main design drawings were reviewed and field investigations of the sewer routes were completed to reduce the potential for utility conflicts and to ensure that the required ten feet of separation from water mains can be achieved.

The final component of this analysis was to evaluate the downstream capacity of the existing sewers. Our analysis determined that all of the existing sewers have adequate capacity to receive the additional flow from the Meyers and 31st sub-area.

For this analysis, the subject area was subdivided into smaller, more manageable sub-basins. The sub-basins were created using topography and projected sewer connection points.

The following are the proposed sub-basins:

Sub-basin	No. of Services	Property	Cost Estimate
Meyers Road (North)	1	3200 Meyers	Table 4.8-1
	1	3210 Meyers	Table 4.8-2
	1	3220 Meyers	Table 4.8-3
Meyers Road (South)	1	3400 Meyers	Table 4.8-4
	1	3404 Meyers	Table 4.8-5
	1	3408 Meyers	Table 4.8-6
	1	3412 Meyers	Table 4.8-7

Table 4.8-8 is a summary table of opinions of probable cost. A map of the proposed sewer plan is included in Exhibit 4.8.

The Meyers Road (North) sub-basin was thoroughly investigated and five feasible alternatives were identified. Each of the alternatives was described in detail in a letter report dated October 4, 2006. In summary, this sub-basin cannot be served by a conventional gravity sewer because of the topography or by a central lift station because minimum cleansing velocities cannot be accomplished in a force main. As a result, the three properties must be served by a low pressure sanitary sewer system. We examined two types of low pressures systems: individual grinder pumps discharging into a common force main (District owned) or individual grinder pumps discharging into individual force mains (privately owned). The common force main option was not recommended because the force mains would be placed in wooded, rear yard easements, which would be difficult to maintain by the District. Therefore, the recommended plan includes three, separate grinder pump and force main systems. Each system is costly due to the long, directional drilled force mains, multiple rear yard easements, and the existing creek within the project limits. Exhibit 4.8 shows the most cost effective route for serving each property. Tables 4.8-1, 4.8-2, and 4.8-3 include breakdowns of the unit quantities and unit prices used to prepare the opinion of probable cost for each individual low-pressure sanitary sewer system.

Multiple alternatives for the Meyers Road (South) sub-basin were also investigated and similar conclusions to the north sub-basin were arrived at. The four properties south of Heritage Oaks Lane cannot be served by gravity sewer, due to the topography adjacent to the pond north of the service area. The recommended plan includes four, separate grinder pump and force main systems. Exhibit 4.8 shows the most cost effective route for serving each property. As with the north sub-basin, the cost per lot is high due to the long, directional drilled force mains and multiple rear and side yard easements required. Tables 4.8-4, 4.8-5, 4.8-6, and 4.8-7 include breakdowns of the unit quantities and unit prices used to prepare the opinion of probable cost for each individual low-pressure sanitary sewer system.

DOWNERS GROVE SANITARY DISTRICT UNSEWERED AREA PLAN

EXHIBIT 4.8

MEYERS ROAD AND 31ST STREET

POSSIBLE FORCE MAIN ALIGNMENT

MARCH 2017

LEGEND

- PRIVATE FORCE MAINS
- PARCEL BOUNDARIES
- MEYERS ROAD (NORTH)
- MEYERS ROAD (SOUTH)
- PROPOSED EASEMENT

N

0 300 600

Feet

BAXTER & WOODMAN Consulting Engineers

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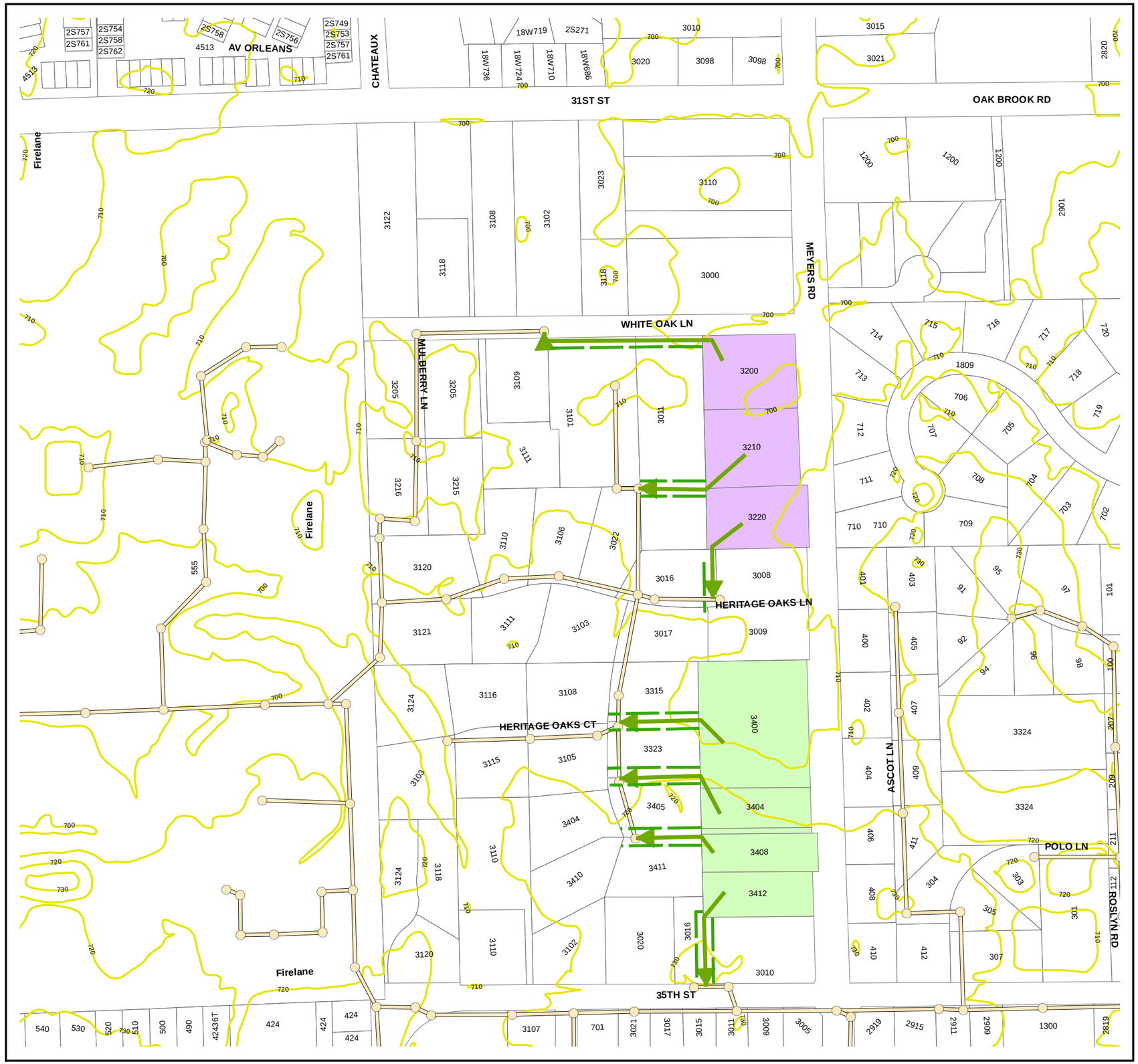

Table 4.8-1
Downers Grove Sanitary District March 2017
Possible Special Assessment for Sanitary Sewers
Meyers Road (North)
Engineer's Opinion of Probable Construction Cost

No.	Pay Item	Approximate Quantity		Unit Price	Amount
SERVICE LATERALS					
1	GRINDER PUMP SYSTEM:	1	each	$ 9,800.00	$ 9,800.00
2	BUILDING SERVICE LINES:				
	1-1/4" HDPE (OPEN CUT)	65	lin. ft.	$ 38.00	$ 2,470.00
	1-1/4" HDPE (DRILL)	472	lin. ft.	$ 50.00	$ 23,600.00
3	CONNECTION TO EXISTING MANHOLE:	1	each	$ 5,500.00	$ 5,500.00
4	CLEAN-OUTS:	2	each	$ 2,400.00	$ 4,800.00
5	AIR RELEASE VALVES:	1	each	$ 950.00	$ 950.00
6	BUILDING SERVICE FITTINGS:	0	each	$ 190.00	$ 0.00
7	BUILDING SERVICE PLUG:	1	each	$ 190.00	$ 190.00
8	RESTORATION OF LAWNS AND PARKWAYS:				
	Topsoil and Sod	117	sq.yd.	$ 12.50	$ 1,462.50
9	REMOVE AND REPLACE DRIVEWAYS:				
	Bituminous	10	sq.yd.	$ 42.00	$ 420.00
10	RESTORATION OF STREETS:				
	Bit. Concrete Street	11	sq.yd.	$ 56.00	$ 616.00
11	TRENCH BACKFILL:				
	0-8 feet deep	15	lin. ft.	$ 55.00	$ 825.00
12	TREE REMOVAL AND TRIMMING:			Lump Sum	$ 1,780.50
13	EROSION CONTROL:			Lump Sum	$ 296.75
14	TRAFFIC CONTROL:			Lump Sum	$ 593.50
	TOTAL ESTIMATE OF CONSTRUCTION COST				$ 53,300.00
	Contingencies (20%)				$10,700.00
	Engineering (20%)				$10,700.00
	Easement Acquisition				$19,500.00
	TOTAL OPINION OF PROBABLE COST				**$ 94,200.00**

3200 Meyers Rd

Table 4.8-2
Downers Grove Sanitary District March 2017
Possible Special Assessment for Sanitary Sewers
Meyers Road (North)
Engineer's Opinion of Probable Construction Cost

No.	Pay Item	Approximate Quantity		Unit Price	Amount
SERVICE LATERALS					
1	GRINDER PUMP SYSTEM:	1	each	$ 9,800.00	$ 9,800.00
2	BUILDING SERVICE LINES:				
	1-1/4" HDPE (OPEN CUT)	50	lin. ft.	$ 38.00	$ 1,900.00
	1-1/4" HDPE (DRILL)	300	lin. ft.	$ 50.00	$ 15,000.00
3	CONNECTION TO EXISTING MANHOLE:	1	each	$ 5,500.00	$ 5,500.00
4	CLEAN-OUTS:	1	each	$ 2,400.00	$ 2,400.00
5	AIR RELEASE VALVES:	1	each	$ 950.00	$ 950.00
6	BUILDING SERVICE FITTINGS:	0	each	$ 190.00	$ 0.00
7	BUILDING SERVICE PLUG:	1	each	$ 190.00	$ 190.00
8	RESTORATION OF LAWNS AND PARKWAYS:				
	Topsoil and Sod	106	sq.yd.	$ 12.50	$ 1,325.00
9	REMOVE AND REPLACE DRIVEWAYS:				
	Bituminous	0	sq.yd.	$ 42.00	$ 0.00
10	RESTORATION OF STREETS:				
	Bit. Concrete Street	0	sq.yd.	$ 56.00	$ 0.00
11	TRENCH BACKFILL:				
	0-8 feet deep	0	lin. ft.	$ 55.00	$ 0.00
12	TREE REMOVAL AND TRIMMING:			Lump Sum	$ 2,374.00
13	EROSION CONTROL:			Lump Sum	$ 890.25
14	TRAFFIC CONTROL:			Lump Sum	$ 0.00
	TOTAL ESTIMATE OF CONSTRUCTION COST				$ 40,300.00
	Contingencies (20%)				$8,100.00
	Engineering (20%)				$8,100.00
	Easement Acquisition				$8,500.00
	TOTAL OPINION OF PROBABLE COST				**$ 65,000.00**

3210 Meyers Rd

Table 4.8-3
Downers Grove Sanitary District March 2017
Possible Special Assessment for Sanitary Sewers
Meyers Road (North)
Engineer's Opinion of Probable Construction Cost

No.	Pay Item	Approximate Quantity		Unit Price	Amount
SERVICE LATERALS					
1	GRINDER PUMP SYSTEM:	1	each	$ 9,800.00	$ 9,800.00
2	BUILDING SERVICE LINES:				
	1-1/4" HDPE (OPEN CUT)	150	lin. ft.	$ 38.00	$ 5,700.00
	1-1/4" HDPE (DRILL)	170	lin. ft.	$ 50.00	$ 8,500.00
3	CONNECTION TO EXISTING MANHOLE:	1	each	$ 5,500.00	$ 5,500.00
4	CLEAN-OUTS:	1	each	$ 2,400.00	$ 2,400.00
5	AIR RELEASE VALVES:	1	each	$ 950.00	$ 950.00
6	BUILDING SERVICE FITTINGS:	0	each	$ 190.00	$ 0.00
7	BUILDING SERVICE PLUG:	1	each	$ 190.00	$ 190.00
8	RESTORATION OF LAWNS AND PARKWAYS:				
	Topsoil and Sod	217	sq.yd.	$ 12.50	$ 2,712.50
9	REMOVE AND REPLACE DRIVEWAYS:				
	Bituminous	0	sq.yd.	$ 42.00	$ 0.00
10	RESTORATION OF STREETS:				
	Bit. Concrete Street	0	sq.yd.	$ 56.00	$ 0.00
11	TRENCH BACKFILL:				
	0-8 feet deep	0	lin. ft.	$ 55.00	$ 0.00
12	TREE REMOVAL AND TRIMMING:			Lump Sum	$ 1,780.50
13	EROSION CONTROL:			Lump Sum	$ 890.25
14	TRAFFIC CONTROL:			Lump Sum	$ 296.75
	TOTAL ESTIMATE OF CONSTRUCTION COST				$ 38,700.00
	Contingencies (20%)				$7,700.00
	Engineering (20%)				$7,700.00
	Easement Acquisition				$6,900.00
	TOTAL OPINION OF PROBABLE COST				**$ 61,000.00**

3220 Meyers Rd

Table 4.8-4

Downers Grove Sanitary District March 2017

Possible Special Assessment for Sanitary Sewers

Meyers Road (South)

Engineer's Opinion of Probable Construction Cost

No.	Pay Item	Approximate Quantity		Unit Price	Amount
SERVICE LATERALS					
1	GRINDER PUMP SYSTEM:	1	each	$ 9,800.00	$ 9,800.00
2	BUILDING SERVICE LINES:				
	1-1/4" HDPE (OPEN CUT)	115	lin. ft.	$ 38.00	$ 4,370.00
	1-1/4" HDPE (DRILL)	250	lin. ft.	$ 50.00	$ 12,500.00
3	CONNECTION TO EXISTING MANHOLE:	1	each	$ 5,500.00	$ 5,500.00
4	CLEAN-OUTS:	1	each	$ 2,400.00	$ 2,400.00
5	AIR RELEASE VALVES:	1	each	$ 950.00	$ 950.00
6	BUILDING SERVICE FITTINGS:	0	each	$ 190.00	$ 0.00
7	BUILDING SERVICE PLUG:	1	each	$ 190.00	$ 190.00
8	RESTORATION OF LAWNS AND PARKWAYS:				
	Topsoil and Sod	178	sq.yd.	$ 12.50	$ 2,225.00
9	REMOVE AND REPLACE DRIVEWAYS:				
	Bituminous	0	sq.yd.	$ 42.00	$ 0.00
10	RESTORATION OF STREETS:				
	Bit. Concrete Street	3	sq.yd.	$ 56.00	$ 168.00
11	TRENCH BACKFILL:				
	0-8 feet deep	10	lin. ft.	$ 55.00	$ 550.00
12	TREE REMOVAL AND TRIMMING:			Lump Sum	$ 1,187.00
13	EROSION CONTROL:			Lump Sum	$ 593.50
14	TRAFFIC CONTROL:			Lump Sum	$ 593.50
	TOTAL ESTIMATE OF CONSTRUCTION COST				$ 41,000.00
	Contingencies (20%)				$8,200.00
	Engineering (20%)				$8,200.00
	Easement Acquisition				$10,500.00
	TOTAL OPINION OF PROBABLE COST				**$ 67,900.00**

3400 Meyers Rd

Table 4.8-5
Downers Grove Sanitary District March 2017
Possible Special Assessment for Sanitary Sewers
Meyers Road (South)
Engineer's Opinion of Probable Construction Cost

No.	Pay Item	Approximate Quantity		Unit Price	Amount
SERVICE LATERALS					
1	GRINDER PUMP SYSTEM:	1	each	$ 9,800.00	$ 9,800.00
2	BUILDING SERVICE LINES:				
	1-1/4" HDPE (OPEN CUT)	105	lin. ft.	$ 38.00	$ 3,990.00
	1-1/4" HDPE (DRILL)	240	lin. ft.	$ 50.00	$ 12,000.00
3	CONNECTION TO EXISTING MANHOLE:	1	each	$ 5,500.00	$ 5,500.00
4	CLEAN-OUTS:	1	each	$ 2,400.00	$ 2,400.00
5	AIR RELEASE VALVES:	1	each	$ 950.00	$ 950.00
6	BUILDING SERVICE FITTINGS:	0	each	$ 190.00	$ 0.00
7	BUILDING SERVICE PLUG:	1	each	$ 190.00	$ 190.00
8	RESTORATION OF LAWNS AND PARKWAYS:				
	Topsoil and Sod	167	sq.yd.	$ 12.50	$ 2,087.50
9	REMOVE AND REPLACE DRIVEWAYS:				
	Bituminous	0	sq.yd.	$ 42.00	$ 0.00
10	RESTORATION OF STREETS:				
	Bit. Concrete Street	3	sq.yd.	$ 56.00	$ 168.00
11	TRENCH BACKFILL:				
	0-8 feet deep	10	lin. ft.	$ 55.00	$ 550.00
12	TREE REMOVAL AND TRIMMING:			Lump Sum	$ 1,187.00
13	EROSION CONTROL:			Lump Sum	$ 593.50
14	TRAFFIC CONTROL:			Lump Sum	$ 593.50
	TOTAL ESTIMATE OF CONSTRUCTION COST				$ 40,000.00
	Contingencies (20%)				$8,000.00
	Engineering (20%)				$8,000.00
	Easement Acquisition				$10,300.00
	TOTAL OPINION OF PROBABLE COST				**$ 66,300.00**

3404 Meyers Rd

Table 4.8-6
Downers Grove Sanitary District March 2017
Possible Special Assessment for Sanitary Sewers
Meyers Road (South)
Engineer's Opinion of Probable Construction Cost

No.	Pay Item	Approximate Quantity		Unit Price	Amount
SERVICE LATERALS					
1	GRINDER PUMP SYSTEM:	1	each	$ 9,800.00	$ 9,800.00
2	BUILDING SERVICE LINES:				
	1-1/4" HDPE (OPEN CUT)	130	lin. ft.	$ 38.00	$ 4,940.00
	1-1/4" HDPE (DRILL)	210	lin. ft.	$ 50.00	$ 10,500.00
3	CONNECTION TO EXISTING MANHOLE:	1	each	$ 5,500.00	$ 5,500.00
4	CLEAN-OUTS:	1	each	$ 2,400.00	$ 2,400.00
5	AIR RELEASE VALVES:	1	each	$ 950.00	$ 950.00
6	BUILDING SERVICE FITTINGS:	0	each	$ 190.00	$ 0.00
7	BUILDING SERVICE PLUG:	1	each	$ 190.00	$ 190.00
8	RESTORATION OF LAWNS AND PARKWAYS:				
	Topsoil and Sod	194	sq.yd.	$ 12.50	$ 2,425.00
9	REMOVE AND REPLACE DRIVEWAYS:				
	Bituminous	0	sq.yd.	$ 42.00	$ 0.00
10	RESTORATION OF STREETS:				
	Bit. Concrete Street	3	sq.yd.	$ 56.00	$ 168.00
11	TRENCH BACKFILL:				
	0-8 feet deep	10	lin. ft.	$ 55.00	$ 550.00
12	TREE REMOVAL AND TRIMMING:			Lump Sum	$ 1,187.00
13	EROSION CONTROL:			Lump Sum	$ 593.50
14	TRAFFIC CONTROL:			Lump Sum	$ 593.50
	TOTAL ESTIMATE OF CONSTRUCTION COST				$ 39,800.00
	Contingencies (20%)				$8,000.00
	Engineering (20%)				$8,000.00
	Easement Acquisition				$8,900.00
	TOTAL OPINION OF PROBABLE COST				**$ 64,700.00**

3408 Meyers Rd

Table 4.8-7
Downers Grove Sanitary District March 2017
Possible Special Assessment for Sanitary Sewers
Meyers Road (South)
Engineer's Opinion of Probable Construction Cost

No.	Pay Item	Approximate Quantity		Unit Price	Amount
SERVICE LATERALS					
1	GRINDER PUMP SYSTEM:	1	each	$ 9,800.00	$ 9,800.00
2	BUILDING SERVICE LINES:				
	1-1/4" HDPE (OPEN CUT)	140	lin. ft.	$ 38.00	$ 5,320.00
	1-1/4" HDPE (DRILL)	215	lin. ft.	$ 50.00	$ 10,750.00
3	CONNECTION TO EXISTING MANHOLE:	1	each	$ 5,500.00	$ 5,500.00
4	CLEAN-OUTS:	1	each	$ 2,400.00	$ 2,400.00
5	AIR RELEASE VALVES:	1	each	$ 950.00	$ 950.00
6	BUILDING SERVICE FITTINGS:	0	each	$ 190.00	$ 0.00
7	BUILDING SERVICE PLUG:	1	each	$ 190.00	$ 190.00
8	RESTORATION OF LAWNS AND PARKWAYS:				
	Topsoil and Sod	206	sq.yd.	$ 12.50	$ 2,575.00
9	REMOVE AND REPLACE DRIVEWAYS:				
	Bituminous	7	sq.yd.	$ 42.00	$ 294.00
10	RESTORATION OF STREETS:				
	Bit. Concrete Street	0	sq.yd.	$ 56.00	$ 0.00
11	TRENCH BACKFILL:				
	0-8 feet deep	10	lin. ft.	$ 55.00	$ 550.00
12	TREE REMOVAL AND TRIMMING:			Lump Sum	$ 1,187.00
13	EROSION CONTROL:			Lump Sum	$ 593.50
14	TRAFFIC CONTROL:			Lump Sum	$ 1,780.50
	TOTAL ESTIMATE OF CONSTRUCTION COST				$ 41,900.00
	Contingencies (20%)				$8,400.00
	Engineering (20%)				$8,400.00
	Easement Acquisition				$5,500.00
	TOTAL OPINION OF PROBABLE COST				**$ 64,200.00**

3412 Meyers Rd

4.9 57th and Grant

57th and Grant is a small service area located within the District's FPA boundary. Exhibit 4.9 shows the approximate limits of this service area which is located west of Cass Avenue on 57th Street. The District's collection system has been extended to all properties in this service area.

A map of the collection system is included in Exhibit 4.9.

Sanitary sewers are available to all parcels in the 57th and Grant sub-basin as of March 2015. Approximately 315 feet of 8-inch sanitary sewer, two manholes, and one service connection was constructed in 2014 by a developer for an estimated cost of $40,000, including engineering costs. The service connection was provided to the house being constructed by the developer. The Engineer's estimate for extending this sewer and installing four service connections was $169,000, including contingency, engineering, legal/administrative, and easement costs with the average cost per lot at approximately $28,320.

DOWNERS GROVE SANITARY DISTRICT UNSEWERED AREA PLAN

EXHIBIT 4.9

57th & GRANT ST

POSSIBLE SEWER ALIGNMENT

MARCH 2017

LEGEND

- PROPOSED MANHOLES
- PROPOSED SEWERS
- EXISTING MANHOLES
- EXISTING SEWERS
- PARCEL BOUNDARIES
- EXISTING EASEMENT

N

0 50 100 150 200

Feet

BAXTER & WOODMAN Consulting Engineers

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364cak - 3/6/2017
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Table 4.9-1
Downers Grove Sanitary District
Possible Special Assessment for Sanitary Sewers
57th and Grant
Preliminary Design Layout

Manhole Number	Rim	Invert	Length (ft)	Slope	Manhole Depth

(Sanitary sewers are available as of March 2015.)

Table 4.9-2

Downers Grove Sanitary District March 2017

Possible Special Assessment for Sanitary Sewers

57th and Grant

Engineer's Opinion of Probable Construction Cost

No.	Pay Item	Approximate Quantity	Unit Price	Amount

(Sanitary sewers are available as of March 2015.)

Table 4.9-2

Downers Grove Sanitary District March 2017

Possible Special Assessment for Sanitary Sewers

57th and Grant

Engineer's Opinion of Probable Construction Cost

No.	Pay Item	Approximate Quantity	Unit Price	Amount

(Sanitary sewers are available as of March 2015.)

4.10 60th and Cumnor

60th and Cumnor is a sub-area within the District's FPA that is currently unsewered. As shown on Exhibit 4.10, the approximate limits of this sub-area are Fairview Avenue to the west, 59th Street to the north, Williams Street to the east, and 61st Street to the south. The proposed service area includes approximately 57 single-family residences with septic systems or vacant lots. The purpose of this analysis is to establish the most cost-effective sanitary sewer plan for serving unsewered properties within the 60th and Cumnor sub-area.

A number of factors were considered when determining the most cost-effective sewer layout. These factors include topography, major road crossings, easements, wetlands, tree protection, water main and existing utility location, and existing downstream sewer capacity. The 60th and Cumnor sub-area has a high point near 60th and Cumnor and the topography generally falls to the north and east. However, there are multiple smaller drainage divides in the sub-area. Serving the subject properties by following the ground contours will avoid deep cuts through the higher elevations along drainage divides. The study area can be divided into multiple smaller service areas in order to create the most cost effective plan.

In addition to following the ground contours, the low-cost sewer layout also needs to consider avoiding major road crossings. The one major road crossing that would significantly increase construction cost in this sub-area is Fairview Avenue. Thus, alternatives were considered to minimize crossing of this route with both the mainline sewer and building services.

The Village of Westmont owns and operates water mains on the streets within the sub-area. Water main atlases were reviewed and field investigations of the sewer routes were completed to reduce the potential for utility conflicts and to ensure that the required ten feet of separation from water mains can be achieved.

The final component of this analysis was to evaluate the downstream capacity of the existing sewers. Our analysis determined that all of the existing sewers have adequate capacity to receive the additional flow from the 60th and Cumnor sub-area.

For this analysis, the subject area was subdivided into smaller, more manageable sub-basins. The sub-basins were created using topography and projected sewer connection points.

The following are the proposed sub-basins:

Sub-basin	No. of Services	Layout	Cost Estimate
59th (West)	15	Table 4.10-1	Table 4.10-2
59th (East)	4	Table 4.10-3	Table 4.10-4
60th (West)	11	Table 4.10-5	Table 4.10-6
60th and Cumnor	7	Table 4.10-7	Table 4.10-8
60th (East)	3	Table 4.10-9	Table 4.10-10
Cumnor (South)	2	Table 4.10-11	Table 4.10-12
61st and Cumnor	12	Table 4.10-13	Table 4.10-14
61st (East)	3	Table 4.10-15	Table 4.10-16

Table 4.10-17 is a summary table of opinions of probable cost. A map of the proposed sewer plan is included in Exhibit 4.10.

The 59th (West) sub-basin sewer plan follows the topography which falls from Fairview east to Raintree Lane. The sewer should be placed in the north right-of-way to avoid the water main and overhead power lines in the south right-of-way. In 2012 approximately 100 feet of 8-inch sanitary sewer and 1 service were constructed for a total price of $22,000. Table 4.10-1 is the proposed layout of the sewer size, length, and slope and manhole invert and depth. Table 4.10-2 includes a breakdown of the unit quantities and unit prices used to prepare the opinion of probable cost. The total opinion of project cost is $323,700 including contingency, engineering, and legal/administrative costs.

The 59th (East) sub-basin sewer plan follows the topography east to Williams Street. The sewer must be placed in the pavement to avoid utilities and trees in both parkways. This is the most costly sub-basin because of the pavement restoration, trench backfill, and small number of serviceable lots. Table 4.10-3 is the proposed layout of the sewer size, length, and slope and manhole invert and depth. Table 4.10-4 includes a breakdown of the unit quantities and unit prices used to prepare the opinion of probable cost. The total opinion of project cost is $279,500, including contingency, engineering, and legal/administrative costs.

The 60th (West) sub-basin sewer plan follows the existing topography which falls west towards Fairview Avenue. The sewer should be placed in the south parkway to match the alignment of the existing sewer and avoid a road crossing. Table 4.10-5 is the proposed layout of the sewer size, length, and slope and manhole invert and depth. Table 4.10-6 includes a breakdown of the unit quantities and unit prices used to prepare the opinion of probable cost. The total opinion of project cost is $196,700, including contingency, engineering, and legal/administrative costs.

The 60th and Cumnor sub-basin sewer plan follows the existing topography which falls from 293 W. 60th Street east to 217 W. 60th Street. Similar to the previous sub-basin, this sewer should be placed in the south parkway to avoid the existing water main and overhead power lines in the north parkway. Table 4.10-7 is the proposed layout of the sewer size, length, and slope and manhole invert and depth. Table 4.10-8 includes a breakdown of the unit quantities and unit prices used to prepare the opinion of probable cost. The total opinion of project cost is $133,300, including contingency, engineering, and legal/administrative costs.

The 60th (East) sub-basin sewer plan will flow east from 105 W. 60th Street to the existing sanitary manhole at 35 W. 60th Street. The sewer should be placed in the south right-of-way to match the existing sewer alignment and avoid a road crossing. Table 4.10-9 is the proposed layout of the sewer size, length, and slope and manhole invert and depth. Table 4.10-10 includes a breakdown of the unit quantities and unit prices used to prepare the opinion of probable cost. The total opinion of project cost is $72,000, including contingency, engineering, and legal/administrative costs.

The Cumnor (South) sub-basin sewer plan will connect to the sewer on 61st Street, west of the existing manhole W-1-41. The existing sewer that is south of the intersection of 60th and

Cumnor does not have adequate cover to serve the sub-basin. This sub-basin is the second most costly per lot in the 60th and Cumnor sub-basin due to the small number of lots associated with the project. Table 4.10-11 is the proposed layout of the sewer size, length, and slope and manhole invert and depth. Table 4.10-12 includes a breakdown of the unit quantities and unit prices used to prepare the opinion of probable cost. The total opinion of project cost is $100,300, including contingency, engineering, and legal/administrative costs.

The 61st and Cumnor sub-basin sewer plan will connect to the sewer at the southeast corner of Cumnor and 61st. The sewer should be placed in the west-bound travel lane to avoid the water main in the south parkway and the power lines, underground communication, and wetlands in the north parkway. Table 4.10-13 is the proposed layout of the sewer size, length, and slope and manhole invert and depth. Table 4.10-14 includes a breakdown of the unit quantities and unit prices used to prepare the opinion of probable cost. The total opinion of project cost is $334,800 including contingency, engineering, and legal/administrative costs.

The 61st (East) sub-basin sewer plan will connect to the manhole 200 feet west of the northwest intersection of Williams and 61st. Unlike the sewer to the west, this sewer can be placed in the north parkway despite the utilities. Table 4.10-15 is the proposed layout of the sewer size, length, and slope and manhole invert and depth. Table 4.10-16 includes a breakdown of the unit quantities and unit prices used to prepare the opinion of probable cost. The total opinion of project cost is $77,100, including contingency, engineering, and legal/administrative costs.

DOWNERS GROVE SANITARY DISTRICT UNSEWERED AREA PLAN

EXHIBIT 4.10

60TH AND CUMNOR

POSSIBLE SEWER ALIGNMENT

MARCH 2017

LEGEND

- PROPOSED MANHOLES
- PROPOSED SEWERS
- EXISTING MANHOLES
- EXISTING SEWERS
- PARCEL BOUNDARIES
- 59TH (WEST);TABLES 4.10-1, 4.10-2
- 59TH (EAST);TABLES 4.10-3, 4.10-4
- 60TH (WEST);TABLES 4.10-5, 4.10-6
- 60TH AND CUMNOR;TABLES 4.10-7, 4.10-8
- 60TH (EAST);TABLES 4.10-9, 4.10-10
- CUMNOR (SOUTH);TABLES 4.10-11, 4.10-12
- 61ST AND CUMNOR;TABLES 4.10-13, 4.10-14
- 61ST (EAST);TABLES 4.10-15, 4.10-16

N

0 100 200 300 400

Feet

BAXTER & WOODMAN Consulting Engineers

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Table 4.10-1
Downers Grove Sanitary District
Possible Special Assessment for Sanitary Sewers
59th (West)
Preliminary Design Layout

Manhole Number	Rim	Invert	Length (ft)	Slope	Manhole Depth
59th Street					
G-5-093 (existing)	736.0	723.50			12.5
			230	1.39%	
UJ-3	736.0	726.69			9.3
			300	1.10%	
UJ-2	740.0	729.99			10.0
			300	1.00%	
UJ-1	741.0	732.99			8.0

Table 4.10-2
Downers Grove Sanitary District March 2017
Possible Special Assessment for Sanitary Sewers
59th (West)
Engineer's Opinion of Probable Construction Cost

No.	Pay Item		Approximate Quantity		Unit Price	Amount
MAINLINE SEWER						
1	SANITARY SEWER (OPEN CUT)					
	8-inch	8-12 feet deep	830	lin. ft.	$ 78.00	$ 64,740.00
2	SANITARY MANHOLES					
	48-inch	8-12 feet deep	3	each	$ 5,700.00	$ 17,100.00
3	CONNECTION TO EXISTING MANHOLE					
	8-inch		1	each	$ 5,500.00	$ 5,500.00
4	TRENCH BACKFILL					
	8-inch	8-12 feet deep	140	lin. ft.	$ 100.00	$ 14,000.00
5	TREE TUNNELING		130	lin. ft.	$ 172.00	$ 22,360.00
6	SEWER TELEVISING FOR FINAL INSPECTION					
			830	lin. ft.	$ 2.45	$ 2,033.50
7	SEWER TESTING FOR FINAL INSPECTION					
			830	lin. ft.	$ 2.45	$ 2,033.50
8	CULVERT REMOVAL AND REPLACEMENT					
	12-inch		90	lin. ft.	$ 72.00	$ 6,480.00
9	RESTORATION OF LAWNS AND PARKWAYS:					
	Topsoil and sod		1,533	sq.yd.	$ 13.00	$ 19,929.00
10	RESTORATION OF STREETS:					
	Bit. Concrete Street		0	sq.yd.	$ 57.00	$ 0.00
11	REMOVE AND REPLACE DRIVEWAYS					
	Bituminous		160	sq.yd.	$ 43.00	$ 6,880.00
	Aggregate		18	sq.yd.	$ 19.00	$ 342.00

Table 4.10-2
Downers Grove Sanitary District March 2017
Possible Special Assessment for Sanitary Sewers
59th (West)
Engineer's Opinion of Probable Construction Cost

No.	Pay Item	Approximate Quantity		Unit Price	Amount
12	TREE REMOVAL AND TRIMMING:			Lump Sum	$ 1,780.50
13	EROSION CONTROL			Lump Sum	$ 593.50
14	TRAFFIC CONTROL:			Lump Sum	$ 1,780.50
	SUBTOTAL				$ 165,552.50
SERVICE LATERALS					
1	BUILDING SERVICE LINES				
	Near side	80	lin. ft.	$ 44.00	$ 3,520.00
	Far side	350	lin. ft.	$ 44.00	$ 15,400.00
2	BUILDING SERVICE BRANCH FITTINGS				
	Near Side	8	each	$ 494.00	$ 3,952.00
	Far side	7	each	$ 609.00	$ 4,263.00
3	BUILDING SERVICE PLUG:	15	each	$ 186.00	$ 2,790.00
4	RESTORATION OF LAWNS AND PARKWAYS:				
	Topsoil and sod	400	sq.yd.	$ 12.50	$ 5,000.00
5	RESTORATION OF STREETS:				
	Bit. Concrete Street	137	sq.yd.	$ 56.00	$ 7,672.00
6	TRENCH BACKFILL				
	0-8 feet deep	182	lin. ft.	$ 55.00	$ 10,010.00
	SUBTOTAL				$ 52,607.00
	TOTAL ESTIMATE OF CONSTRUCTION COST				$ 218,200.00
	Contingencies		(20%)	2.00	$43,600.00
	Engineering		(20%)		$43,600.00
	Legal / Admin		(6%)		$18,300.00
	TOTAL OPINION OF PROBABLE COST				**$ 323,700.00**
				Cost per lot	$21,580.00

Table 4.10-3
Downers Grove Sanitary District
Possible Special Assessment for Sanitary Sewers
59th (East)
Preliminary Design Layout

Manhole Number	Rim	Invert	Length (ft)	Slope	Manhole Depth
59th Street					
W-1-13 (existing)	728.0	714.68			13.3
			56	5.00%	
UJ-7	728.0	717.48			10.5
			300	1.50%	
UJ-6	731.0	721.98			9.0
			280	1.50%	
UJ-5	737.0	726.18			10.8

Table 4.10-4
Downers Grove Sanitary District March 2017
Possible Special Assessment for Sanitary Sewers
59th (East)
Engineer's Opinion of Probable Construction Cost

No.	Pay Item		Approximate Quantity		Unit Price	Amount
MAINLINE SEWER						
1	SANITARY SEWER (OPEN CUT)					
	8-inch	8-12 feet deep	620	lin. ft.	$ 78.00	$ 48,360.00
		12-16 feet deep	16	lin. ft.	$ 95.00	$ 1,520.00
2	SANITARY MANHOLES					
	48-inch	8-12 feet deep	3	each	$ 5,700.00	$ 17,100.00
		12-16 feet deep	0	each	$ 6,800.00	$ 0.00
3	CONNECTION TO EXISTING MANHOLE					
	8-inch		1	each	$ 5,500.00	$ 5,500.00
4	TRENCH BACKFILL					
	8-inch	8-12 feet deep	620	lin. ft.	$ 100.00	$ 62,000.00
		12-16 feet deep	16	lin. ft.	$ 123.00	$ 1,968.00
5	TREE TUNNELING		0	lin. ft.	$ 172.00	$ 0.00
6	SEWER TELEVISING FOR FINAL INSPECTION		636	lin. ft.	$ 2.45	$ 1,558.20
7	SEWER TESTING FOR FINAL INSPECTION		636	lin. ft.	$ 2.45	$ 1,558.20
8	CULVERT REMOVAL AND REPLACEMENT					
	12-inch		0	lin. ft.	$ 72.00	$ 0.00
9	RESTORATION OF LAWNS AND PARKWAYS:					
	Topsoil and sod		50	sq.yd.	$ 13.00	$ 650.00
10	RESTORATION OF STREETS:					
	Bit. Concrete Street		565	sq.yd.	$ 57.00	$ 32,205.00
11	REMOVE AND REPLACE DRIVEWAYS					
	Bituminous		0	sq.yd.	$ 43.00	$ 0.00

Table 4.10-4
Downers Grove Sanitary District March 2017
Possible Special Assessment for Sanitary Sewers
59th (East)
Engineer's Opinion of Probable Construction Cost

No.	Pay Item	Approximate Quantity		Unit Price	Amount
12	TRAFFIC CONTROL:			Lump Sum	$ 4,154.50
	SUBTOTAL				$ 176,573.90
SERVICE LATERALS					
1	BUILDING SERVICE LINES				
	Near side	100	lin. ft.	$ 44.00	$ 4,400.00
	Far side	0	lin. ft.	$ 44.00	$ 0.00
2	BUILDING SERVICE BRANCH FITTINGS				
	Near Side	4	each	$ 494.00	$ 1,976.00
	Far side	0	each	$ 609.00	$ 0.00
3	BUILDING SERVICE PLUG:	4	each	$ 186.00	$ 744.00
4	RESTORATION OF LAWNS AND PARKWAYS:				
	Topsoil and sod	91	sq.yd.	$ 12.50	$ 1,137.50
5	RESTORATION OF STREETS:				
	PCC Curb & Gutter	40	lin. ft.	$ 32.00	$ 1,280.00
6	TRENCH BACKFILL				
	0-8 feet deep	40	lin. ft.	$ 55.00	$ 2,200.00
	SUBTOTAL				$ 11,737.50
	TOTAL ESTIMATE OF CONSTRUCTION COST				$ 188,300.00
	Contingencies		(20%)		$37,700.00
	Engineering		(20%)		$37,700.00
	Legal / Admin		(6%)		$15,800.00
	TOTAL OPINION OF PROBABLE COST				**$ 279,500.00**
				Cost per lot	$69,880.00

Table 4.10-5
Downers Grove Sanitary District
Possible Special Assessment for Sanitary Sewers
60th (West)
Preliminary Design Layout

Manhole Number	Rim	Invert	Length (ft)	Slope	Manhole Depth
60th Street					
W-1-104-E (existing)	741.2	735.84	400	0.40%	5.3
UJ-8	746.0	737.44			8.6

Table 4.10-6
Downers Grove Sanitary District March 2017
Possible Special Assessment for Sanitary Sewers
60th (West)
Engineer's Opinion of Probable Construction Cost

No.	Pay Item		Approximate Quantity		Unit Price	Amount
MAINLINE SEWER						
1	SANITARY SEWER (OPEN CUT)					
	8-inch	0-8 feet deep	150	lin. ft.	$ 67.00	$ 10,050.00
		8-12 feet deep	250	lin. ft.	$ 78.00	$ 19,500.00
2	SANITARY MANHOLES					
	48-inch	0-8 feet deep	0	each	$ 4,300.00	$ 0.00
		8-12 feet deep	1	each	$ 5,700.00	$ 5,700.00
3	CONNECTION TO EXISTING MANHOLE					
	8-inch		1	each	$ 5,500.00	$ 5,500.00
4	TRENCH BACKFILL					
	8-inch	8-12 feet deep	160	lin. ft.	$ 100.00	$ 16,000.00
5	TREE TUNNELING		100	lin. ft.	$ 172.00	$ 17,200.00
6	SEWER TELEVISING FOR FINAL INSPECTION					
			400	lin. ft.	$ 2.45	$ 980.00
7	SEWER TESTING FOR FINAL INSPECTION					
			400	lin. ft.	$ 2.45	$ 980.00
8	CULVERT REMOVAL AND REPLACEMENT					
	12-inch		105	lin. ft.	$ 72.00	$ 7,560.00
9	RESTORATION OF LAWNS AND PARKWAYS:					
	Topsoil and sod		733	sq.yd.	$ 13.00	$ 9,529.00
10	RESTORATION OF STREETS:					
	Bit. Concrete Street		0	sq.yd.	$ 57.00	$ 0.00
11	REMOVE AND REPLACE DRIVEWAYS					
	Bituminous		100	sq.yd.	$ 43.00	$ 4,300.00
	Aggregate		9	sq.yd.	$ 19.00	$ 171.00
12	TREE REMOVAL AND TRIMMING:				Lump Sum	$ 2,077.25

Table 4.10-6
Downers Grove Sanitary District March 2017
Possible Special Assessment for Sanitary Sewers
60th (West)
Engineer's Opinion of Probable Construction Cost

No.	Pay Item	Approximate Quantity		Unit Price	Amount
13	EROSION CONTROL			Lump Sum	$ 593.50
14	TRAFFIC CONTROL:			Lump Sum	$ 1,780.50
	SUBTOTAL				$ 101,921.25
SERVICE LATERALS					
1	BUILDING SERVICE LINES				
	Near side	128	lin. ft.	$ 44.00	$ 5,632.00
	Far side	150	lin. ft.	$ 44.00	$ 6,600.00
2	BUILDING SERVICE BRANCH FITTINGS				
	Near Side	8	each	$ 494.00	$ 3,952.00
	Far side	3	each	$ 609.00	$ 1,827.00
3	BUILDING SERVICE PLUG:	11	each	$ 186.00	$ 2,046.00
4	RESTORATION OF LAWNS AND PARKWAYS:				
	Topsoil and sod	222	sq.yd.	$ 12.50	$ 2,775.00
5	RESTORATION OF STREETS:				
	Bit. Concrete Street	61	sq.yd.	$ 56.00	$ 3,416.00
6	TRENCH BACKFILL				
	0-8 feet deep	81	lin. ft.	$ 55.00	$ 4,455.00
	SUBTOTAL				$ 30,703.00
	TOTAL ESTIMATE OF CONSTRUCTION COST				$ 132,600.00
	Contingencies	(20%)			$26,500.00
	Engineering	(20%)			$26,500.00
	Legal / Admin	(6%)			$11,100.00
	TOTAL OPINION OF PROBABLE COST				**$ 196,700.00**
				Cost per lot	$17,880.00

Table 4.10-7
Downers Grove Sanitary District
Possible Special Assessment for Sanitary Sewers
60th and Cumnor
Preliminary Design Layout

Manhole Number	Rim	Invert	Length (ft)	Slope	Manhole Depth
60th Street					
G-5-095 (existing)	747.0	735.10	267	0.40%	11.9
UJ-9	745.0	736.17			8.8

Table 4.10-8
Downers Grove Sanitary District March 2017
Possible Special Assessment for Sanitary Sewers
60th and Cumnor
Engineer's Opinion of Probable Construction Cost

No.	Pay Item		Approximate Quantity		Unit Price	Amount
MAINLINE SEWER						
1	SANITARY SEWER (OPEN CUT)					
	8-inch	8-12 feet deep	267	lin. ft.	$ 78.00	$ 20,826.00
2	SANITARY MANHOLES					
	48-inch	8-12 feet deep	1	each	$ 5,700.00	$ 5,700.00
3	CONNECTION TO EXISTING MANHOLE					
	8-inch		1	each	$ 5,500.00	$ 5,500.00
4	TRENCH BACKFILL					
	8-inch	8-12 feet deep	60	lin. ft.	$ 100.00	$ 6,000.00
5	TREE TUNNELING		50	lin. ft.	$ 172.00	$ 8,600.00
6	SEWER TELEVISING FOR FINAL INSPECTION					
			267	lin. ft.	$ 2.45	$ 654.15
7	SEWER TESTING FOR FINAL INSPECTION					
			267	lin. ft.	$ 2.45	$ 654.15
8	CULVERT REMOVAL AND REPLACEMENT					
	12-inch		60	lin. ft.	$ 72.00	$ 4,320.00
9	RESTORATION OF LAWNS AND PARKWAYS:					
	Topsoil and sod		378	sq.yd.	$ 13.00	$ 4,914.00
10	RESTORATION OF STREETS:					
	Bit. Concrete Street		0	sq.yd.	$ 57.00	$ 0.00
11	REMOVE AND REPLACE DRIVEWAYS					
	Bituminous		76	sq.yd.	$ 43.00	$ 3,268.00
	Aggregate		16	sq.yd.	$ 19.00	$ 304.00
12	TREE REMOVAL AND TRIMMING:				Lump Sum	$ 1,780.50

Table 4.10-8
Downers Grove Sanitary District March 2017
Possible Special Assessment for Sanitary Sewers
60th and Cumnor
Engineer's Opinion of Probable Construction Cost

No.	Pay Item	Approximate Quantity		Unit Price	Amount
13	EROSION CONTROL			Lump Sum	$ 593.50
14	TRAFFIC CONTROL:			Lump Sum	$ 1,780.50
	SUBTOTAL				$ 64,894.80
SERVICE LATERALS					
1	BUILDING SERVICE LINES				
	Near side	64	lin. ft.	$ 44.00	$ 2,816.00
	Far side	150	lin. ft.	$ 44.00	$ 6,600.00
2	BUILDING SERVICE BRANCH FITTINGS				
	Near Side	4	each	$ 494.00	$ 1,976.00
	Far side	3	each	$ 609.00	$ 1,827.00
3	BUILDING SERVICE PLUG:	7	each	$ 186.00	$ 1,302.00
4	RESTORATION OF LAWNS AND PARKWAYS:				
	Topsoil and sod	178	sq.yd.	$ 12.50	$ 2,225.00
5	RESTORATION OF STREETS:				
	Bit. Concrete Street	64	sq.yd.	$ 56.00	$ 3,584.00
6	TRENCH BACKFILL				
	0-8 feet deep	84	lin. ft.	$ 55.00	$ 4,620.00
	SUBTOTAL				$ 24,950.00
	TOTAL ESTIMATE OF CONSTRUCTION COST				$ 89,800.00
	Contingencies		(20%)		$18,000.00
	Engineering		(20%)		$18,000.00
	Legal / Admin		(6%)		$7,500.00
	TOTAL OPINION OF PROBABLE COST				**$ 133,300.00**
				Cost per lot	$19,040.00

Table 4.10-9
Downers Grove Sanitary District
Possible Special Assessment for Sanitary Sewers
60th (East)
Preliminary Design Layout

Manhole Number	Rim	Invert	Length (ft)	Slope	Manhole Depth
60th Street					
G-6-155 (existing)	739.0	731.19	120	2.00%	7.8
UJ-11	744.0	733.59			10.4

Table 4.10-10
Downers Grove Sanitary District March 2017
Possible Special Assessment for Sanitary Sewers
60th & Cumnor
Engineer's Opinion of Probable Construction Cost

No.	Pay Item		Approximate Quantity		Unit Price	Amount
MAINLINE SEWER						
1	SANITARY SEWER (OPEN CUT)					
	8-inch	0-8 feet deep	20	lin. ft.	$ 67.00	$ 1,340.00
		8-12 feet deep	100	lin. ft.	$ 78.00	$ 7,800.00
2	SANITARY MANHOLES					
	48-inch	0-8 feet deep	0	each	$ 4,300.00	$ 0.00
		8-12 feet deep	1	each	$ 5,700.00	$ 5,700.00
3	CONNECTION TO EXISTING MANHOLE					
	8-inch		1	each	$ 5,500.00	$ 5,500.00
4	TRENCH BACKFILL					
	8-inch	8-12 feet deep	44	lin. ft.	$ 100.00	$ 4,400.00
5	TREE TUNNELING		30	lin. ft.	$ 172.00	$ 5,160.00
6	SEWER TELEVISING FOR FINAL INSPECTION		120	lin. ft.	$ 2.45	$ 294.00
7	SEWER TESTING FOR FINAL INSPECTION		120	lin. ft.	$ 2.45	$ 294.00
8	CULVERT REMOVAL AND REPLACEMENT					
	15-inch		30	lin. ft.	$ 92.00	$ 2,760.00
9	RESTORATION OF LAWNS AND PARKWAYS:					
	Topsoil and sod		244	sq.yd.	$ 13.00	$ 3,172.00
10	RESTORATION OF STREETS:					
	Bit. Concrete Street		0	sq.yd.	$ 57.00	$ 0.00
11	REMOVE AND REPLACE DRIVEWAYS					
	Bituminous		30	sq.yd.	$ 43.00	$ 1,290.00
	Aggregate		0	sq.yd.	$ 19.00	$ 0.00
12	TREE REMOVAL AND TRIMMING:				Lump Sum	$ 593.50

Table 4.10-10
Downers Grove Sanitary District March 2017
Possible Special Assessment for Sanitary Sewers
60th & Cumnor
Engineer's Opinion of Probable Construction Cost

No.	Pay Item	Approximate Quantity		Unit Price	Amount
13	EROSION CONTROL			Lump Sum	$ 296.75
14	TRAFFIC CONTROL:			Lump Sum	$ 593.50
	SUBTOTAL				$ 39,193.75
SERVICE LATERALS					
1	BUILDING SERVICE LINES				
	Near side	32	lin. ft.	$ 44.00	$ 1,408.00
	Far side	50	lin. ft.	$ 44.00	$ 2,200.00
2	BUILDING SERVICE BRANCH FITTINGS				
	Near Side	2	each	$ 494.00	$ 988.00
	Far side	1	each	$ 609.00	$ 609.00
3	BUILDING SERVICE PLUG:	3	each	$ 186.00	$ 558.00
4	RESTORATION OF LAWNS AND PARKWAYS:				
	Topsoil and sod	67	sq.yd.	$ 12.50	$ 837.50
5	RESTORATION OF STREETS:				
	Bit. Concrete Street	21	sq.yd.	$ 56.00	$ 1,176.00
6	TRENCH BACKFILL				
	0-8 feet deep	28	lin. ft.	$ 55.00	$ 1,540.00
	SUBTOTAL				$ 9,316.50
	TOTAL ESTIMATE OF CONSTRUCTION COST				$ 48,500.00
	Contingencies	(20%)			$9,700.00
	Engineering	(20%)			$9,700.00
	Legal / Admin	(6%)			$4,100.00
	TOTAL OPINION OF PROBABLE COST				**$ 72,000.00**
				Cost per lot	$24,000.00

Table 4.10-11
Downers Grove Sanitary District
Possible Special Assessment for Sanitary Sewers
Cumnor (South)
Preliminary Design Layout

Manhole Number	Rim	Invert	Length (ft)	Slope	Manhole Depth
Cumnor Road					
UJ-13	740.0	728.50	330	2.00%	11.5
UJ-12	746.0	735.10			10.9

Table 4.10-12
Downers Grove Sanitary District March 2017
Possible Special Assessment for Sanitary Sewers
Cumnor (South)
Engineer's Opinion of Probable Construction Cost

No.	Pay Item		Approximate Quantity		Unit Price	Amount
MAINLINE SEWER						
1	SANITARY SEWER (OPEN CUT)					
	8-inch	0-8 feet deep	80	lin. ft.	$ 67.00	$ 5,360.00
		8-12 feet deep	250	lin. ft.	$ 78.00	$ 19,500.00
2	SANITARY MANHOLES					
	48-inch	0-8 feet deep	0	each	$ 4,300.00	$ 0.00
		8-12 feet deep	1	each	$ 5,700.00	$ 5,700.00
3	CONNECTION TO EXISTING MANHOLE					
	8-inch		1	each	$ 5,500.00	$ 5,500.00
4	TRENCH BACKFILL					
	8-inch	0-8 feet deep	30	lin. ft.	$ 83.00	$ 2,490.00
		8-12 feet deep	50	lin. ft.	$ 100.00	$ 5,000.00
5	TREE TUNNELING		0	lin. ft.	$ 172.00	$ 0.00
6	SEWER TELEVISING FOR FINAL INSPECTION		330	lin. ft.	$ 2.45	$ 808.50
7	SEWER TESTING FOR FINAL INSPECTION		330	lin. ft.	$ 2.45	$ 808.50
8	CULVERT REMOVAL AND REPLACEMENT					
	12-inch		19	lin. ft.	$ 72.00	$ 1,368.00
9	RESTORATION OF LAWNS AND PARKWAYS:					
	Topsoil and sod		600	sq.yd.	$ 13.00	$ 7,800.00
10	RESTORATION OF STREETS:					
	Bit. Concrete Street		36	sq.yd.	$ 57.00	$ 2,052.00
	PCC Curb & Gutter		10	lin. ft.	$ 37.00	$ 370.00
	PCC Sidewalk		50	sq. ft.	$ 12.00	$ 600.00
11	REMOVE AND REPLACE DRIVEWAYS					
	Bituminous		76	sq.yd.	$ 43.00	$ 3,268.00
12	TREE REMOVAL AND TRIMMING:				Lump Sum	$ 593.50

Table 4.10-12
Downers Grove Sanitary District March 2017
Possible Special Assessment for Sanitary Sewers
Cumnor (South)
Engineer's Opinion of Probable Construction Cost

No.	Pay Item	Approximate Quantity		Unit Price	Amount
13	EROSION CONTROL			Lump Sum	$ 296.75
14	TRAFFIC CONTROL:			Lump Sum	$ 2,670.75
	SUBTOTAL				$ 64,186.00
SERVICE LATERALS					
1	BUILDING SERVICE LINES				
	Near side	32	lin. ft.	$ 44.00	$ 1,408.00
	Far side	0	lin. ft.	$ 44.00	$ 0.00
2	BUILDING SERVICE BRANCH FITTINGS				
	Near Side	2	each	$ 494.00	$ 988.00
	Far side	0	each	$ 609.00	$ 0.00
3	BUILDING SERVICE PLUG:	2	each	$ 186.00	$ 372.00
4	RESTORATION OF LAWNS AND PARKWAYS:				
	Topsoil and sod	50	sq.yd.	$ 12.50	$ 625.00
5	RESTORATION OF STREETS:				
	Bit. Concrete Street	0	sq.yd.	$ 56.00	$ 0.00
6	TRENCH BACKFILL				
	0-8 feet deep	0	lin. ft.	$ 55.00	$ 0.00
	SUBTOTAL				$ 3,393.00
	TOTAL ESTIMATE OF CONSTRUCTION COST				$ 67,600.00
	Contingencies		(20%)		$13,500.00
	Engineering		(20%)		$13,500.00
	Legal / Admin		(6%)		$5,700.00
	TOTAL OPINION OF PROBABLE COST				**$ 100,300.00**
				Cost per lot	$50,150.00

Table 4.10-13
Downers Grove Sanitary District
Possible Special Assessment for Sanitary Sewers
61st and Cumnor
Preliminary Design Layout

Manhole Number	Rim	Invert	Length (ft)	Slope	Manhole Depth
61st Street					
W-1-41 (existing)	736.3	725.04			11.3
			50	0.40%	
UJ-14	734.0	725.24			8.8
			380	0.40%	
UJ-15	734.0	726.76			7.2
			310	0.60%	
UJ-16	741.0	728.62			12.4

Table 4.10-14
Downers Grove Sanitary District March 2017
Possible Special Assessment for Sanitary Sewers
61st and Cumnor
Engineer's Opinion of Probable Construction Cost

No.	Pay Item		Approximate Quantity		Unit Price	Amount
MAINLINE SEWER						
1	SANITARY SEWER (OPEN CUT)					
	8-inch	0-8 feet deep	80	lin. ft.	$ 67.00	$ 5,360.00
		8-12 feet deep	660	lin. ft.	$ 78.00	$ 51,480.00
2	SANITARY MANHOLES					
	48-inch	0-8 feet deep	1	each	$ 4,300.00	$ 4,300.00
		8-12 feet deep	2	each	$ 5,700.00	$ 11,400.00
3	CONNECTION TO EXISTING MANHOLE					
	8-inch		1	each	$ 5,500.00	$ 5,500.00
4	TRENCH BACKFILL					
	8-inch	0-8 feet deep	80	lin. ft.	$ 83.00	$ 6,640.00
		8-12 feet deep	660	lin. ft.	$ 100.00	$ 66,000.00
5	TREE TUNNELING		0	lin. ft.	$ 172.00	$ 0.00
6	SEWER TELEVISING FOR FINAL INSPECTION		740	lin. ft.	$ 2.45	$ 1,813.00
7	SEWER TESTING FOR FINAL INSPECTION		740	lin. ft.	$ 2.45	$ 1,813.00
8	CULVERT REMOVAL AND REPLACEMENT					
	12-inch		0	lin. ft.	$ 72.00	$ 0.00
9	RESTORATION OF LAWNS AND PARKWAYS:					
	Topsoil and sod		33	sq.yd.	$ 13.00	$ 429.00
10	RESTORATION OF STREETS:					
	Bit. Concrete Street		658	sq.yd.	$ 57.00	$ 37,506.00
	PCC Curb & Gutter		120	lin. ft.	$ 37.00	$ 4,440.00
	PCC Sidewalk		50	sq. ft.	$ 12.00	$ 600.00
11	REMOVE AND REPLACE DRIVEWAYS					
	Bituminous		0	sq.yd.	$ 43.00	$ 0.00
12	TREE REMOVAL AND TRIMMING:				Lump Sum	$ 593.50

Table 4.10-14
Downers Grove Sanitary District March 2017
Possible Special Assessment for Sanitary Sewers
61st and Cumnor
Engineer's Opinion of Probable Construction Cost

No.	Pay Item	Approximate Quantity		Unit Price	Amount
13	EROSION CONTROL			Lump Sum	$ 1,780.50
14	TRAFFIC CONTROL:			Lump Sum	$ 5,935.00
	SUBTOTAL				$ 205,590.00
SERVICE LATERALS					
1	BUILDING SERVICE LINES				
	Near side	336	lin. ft.	$ 44.00	$ 14,784.00
	Far side	0	lin. ft.	$ 44.00	$ 0.00
2	BUILDING SERVICE BRANCH FITTINGS				
	Near Side	12	each	$ 494.00	$ 5,928.00
	Far side	0	each	$ 609.00	$ 0.00
3	BUILDING SERVICE PLUG:	12	each	$ 186.00	$ 2,232.00
4	RESTORATION OF LAWNS AND PARKWAYS:				
	Topsoil and sod	300	sq.yd.	$ 12.50	$ 3,750.00
5	RESTORATION OF STREETS:				
	Bit. Concrete Street	0	sq.yd.	$ 56.00	$ 0.00
6	TRENCH BACKFILL				
	0-8 feet deep	0	lin. ft.	$ 55.00	$ 0.00
	SUBTOTAL				$ 26,694.00
	TOTAL ESTIMATE OF CONSTRUCTION COST				$ 232,300.00
	Contingencies		(20%)		$46,500.00
	Engineering		(20%)		$46,500.00
	Legal / Admin		(6%)		$19,500.00
	TOTAL OPINION OF PROBABLE COST				**$ 344,800.00**
				Cost per lot	$28,730.00

Table 4.10-15
Downers Grove Sanitary District
Possible Special Assessment for Sanitary Sewers
61st (East)
Preliminary Design Layout

Manhole Number	Rim	Invert	Length (ft)	Slope	Manhole Depth
61st Street					
G-6-155 (existing)	739.0	731.19	230	2.00%	7.8
UJ-17	744.0	735.79			8.2

Table 4.10-16
Downers Grove Sanitary District March 2017
Possible Special Assessment for Sanitary Sewers
61st (East)
Engineer's Opinion of Probable Construction Cost

No.	Pay Item		Approximate Quantity		Unit Price	Amount
MAINLINE SEWER						
1	SANITARY SEWER (OPEN CUT)					
	8-inch	0-8 feet deep	130	lin. ft.	$ 67.00	$ 8,710.00
		8-12 feet deep	100	lin. ft.	$ 78.00	$ 7,800.00
2	SANITARY MANHOLES					
	48-inch	0-8 feet deep	1	each	$ 4,300.00	$ 4,300.00
		8-12 feet deep	0	each	$ 5,700.00	$ 0.00
3	CONNECTION TO EXISTING MANHOLE					
	8-inch		1	each	$ 5,500.00	$ 5,500.00
4	TRENCH BACKFILL					
	8-inch	0-8 feet deep	15	lin. ft.	$ 83.00	$ 1,245.00
		8-12 feet deep	15	lin. ft.	$ 100.00	$ 1,500.00
5	TREE TUNNELING		20	lin. ft.	$ 172.00	$ 3,440.00
6	SEWER TELEVISING FOR FINAL INSPECTION		230	lin. ft.	$ 2.45	$ 563.50
7	SEWER TESTING FOR FINAL INSPECTION		230	lin. ft.	$ 2.45	$ 563.50
8	CULVERT REMOVAL AND REPLACEMENT					
	12-inch		20	lin. ft.	$ 72.00	$ 1,440.00
9	RESTORATION OF LAWNS AND PARKWAYS:					
	Topsoil and sod		444	sq.yd.	$ 13.00	$ 5,772.00
10	RESTORATION OF STREETS:					
	Bit. Concrete Street		0	sq.yd.	$ 57.00	$ 0.00
	PCC Curb & Gutter		0	lin. ft.	$ 37.00	$ 0.00
	PCC Sidewalk		0	sq. ft.	$ 12.00	$ 0.00
11	REMOVE AND REPLACE DRIVEWAYS					
	Bituminous		13	sq.yd.	$ 43.00	$ 559.00
12	TREE REMOVAL AND TRIMMING:				Lump Sum	$ 1,187.00

Table 4.10-16
Downers Grove Sanitary District March 2017
Possible Special Assessment for Sanitary Sewers
61st (East)
Engineer's Opinion of Probable Construction Cost

No.	Pay Item	Approximate Quantity		Unit Price	Amount
13	EROSION CONTROL			Lump Sum	$ 296.75
14	TRAFFIC CONTROL:			Lump Sum	$ 2,374.00
	SUBTOTAL				$ 45,250.75
SERVICE LATERALS					
1	BUILDING SERVICE LINES				
	Near side	84	lin. ft.	$ 44.00	$ 3,696.00
	Far side	0	lin. ft.	$ 44.00	$ 0.00
2	BUILDING SERVICE BRANCH FITTINGS				
	Near Side	3	each	$ 494.00	$ 1,482.00
	Far side	0	each	$ 609.00	$ 0.00
3	BUILDING SERVICE PLUG:	3	each	$ 186.00	$ 558.00
4	RESTORATION OF LAWNS AND PARKWAYS:				
	Topsoil and sod	75	sq.yd.	$ 12.50	$ 937.50
5	RESTORATION OF STREETS:				
	Bit. Concrete Street	0	sq.yd.	$ 56.00	$ 0.00
6	TRENCH BACKFILL				
	0-8 feet deep	0	lin. ft.	$ 55.00	$ 0.00
	SUBTOTAL				$ 6,673.50
	TOTAL ESTIMATE OF CONSTRUCTION COST				$ 51,900.00
	Contingencies	(20%)			$10,400.00
	Engineering	(20%)			$10,400.00
	Legal / Admin	(6%)			$4,400.00
	TOTAL OPINION OF PROBABLE COST				**$ 77,100.00**
				Cost per lot	$25,700.00

Table 4.10-17

Downers Grove Sanitary District March 2017

Possible Special Assessments for Sanitary Sewers

60th and Cumnor Sub-Area

Cost Summary

Sub-Basin:	Near Services	Far Services	Total Project Cost	Cost per lot
59th (West)	8	7	$ 323,700.00	$ 21,580.00
59th (East)	4	0	$ 279,500.00	$ 69,880.00
60th (West)	8	3	$ 196,700.00	$ 17,880.00
60th and Cumnor	4	3	$ 133,300.00	$ 19,040.00
60th (East)	2	1	$ 72,000.00	$ 24,000.00
Cumnor (South)	2	0	$ 100,300.00	$ 50,150.00
61st and Cumnor	12	0	$ 344,800.00	$ 28,730.00
61st (East)	3	0	$ 77,100.00	$ 25,700.00
TOTALS	43	14	$ 1,527,400.00	$ 26,800.00
	57			

4.11 63rd Corridor

The 63rd Corridor is a sub-area within the District's FPA that is currently unsewered. As shown on Exhibit 4.11, the approximate limits of this sub-area are Carpenter Street to the west, 62nd Street to the north, Florence Avenue to the east, and 65th Street to the south. The proposed service area includes approximately 76 single-family residences with septic systems or vacant lots. The purpose of this analysis is to establish the most cost-effective sanitary sewer plan for serving all unsewered properties within the 63rd Corridor sub-area.

A number of factors were considered when determining the most cost-effective sewer layout. These factors include topography, major road crossings, easements, wetlands, tree protection, water main and existing utility location, and existing downstream sewer capacity. The 63rd Corridor sub-area contains a number of small pockets of unsewered lots that have multiple drainage divides. Serving the subject properties by following the ground contours will avoid deep cuts through the higher elevations along drainage divides. The study area can be divided into multiple smaller service areas in order to create the most cost effective plan.

In addition to following the ground contours, the low-cost sewer layout also needs to consider avoiding major road crossings. The three major road crossings that would significantly increase construction cost in this sub-area are 63rd Street, Main Street, and Fairview Avenue. Thus, alternatives were considered to minimize crossing of this route with both the mainline sewer and building services.

The Villages of Downers Grove and Westmont own and operate water mains on the streets within the sub-area. The water main design drawings were reviewed and field investigations of the sewer routes were completed to reduce the potential for utility conflicts and to ensure that the required ten feet of separation from water mains can be achieved.

The final component of this analysis was to evaluate the downstream capacity of the existing sewers. Our analysis determined that all of the existing sewers have adequate capacity to receive the additional flow from the 63rd Corridor sub-area.

For this analysis, the subject area was subdivided into smaller, more manageable sub-basins. The sub-basins were created using topography and projected sewer connection points.

The following are the proposed sub-basins:

Sub-basin	No. of Services	Layout	Cost Estimate
Carpenter and 63rd	8	Table 4.11-1	Table 4.11-2
Norfolk and Carpenter	8	Table 4.11-3	Table 4.11-4
Meadowlawn and Washington	28	Table 4.11-5	Table 4.11-6
63rd and Lyman	7	Table 4.11-7	Table 4.11-8
Fairmount and 63rd	9	Table 4.11-9	Table 4.11-10
Blodgett and 62nd	1	Table 4.11-11	Table 4.11-12
63rd and Osage	7	Table 4.11-13	Table 4.11-14
Grand Avenue	8	Table 4.11-15	Table 4.11-16

Table 4.11-17 is a summary table of opinions of probable cost. A map of the proposed sewer plan is included in Exhibit 4.11.

The Carpenter and 63rd sub-basin sewer plan follows the topography which falls west and south from Main Street and 63rd to Adelia and Carpenter. The existing sewers on the north side of 63rd and west side of Main Street are too shallow to serve this area. Thus, the sewer should be placed in the existing alley south of 63rd Street and on the east side of Carpenter to avoid the multiple existing utilities. Table 4.11-1 is the proposed layout of the sewer size, length, and slope and manhole invert and depth. Table 4.11-2 includes a breakdown of the unit quantities and unit prices used to prepare the opinion of probable cost. The total opinion of project cost is $186,100, including contingency, engineering, and legal/administrative costs.

The Norfolk and Carpenter sub-basin topography falls from the ridge east of Carpenter, west along Norfolk and the sewer will need to flow west to the existing manhole on southwest corner of Carpenter and Norfolk. The sewer should match the alignment of the existing sewer in the south parkway. Table 4.11-3 is the proposed layout of the sewer size, length, and slope and manhole invert and depth. Table 4.11-4 includes a breakdown of the unit quantities and unit prices used to prepare the opinion of probable cost. The total opinion of project cost is $144,200, including contingency, engineering, and legal/administrative costs.

The Meadowlawn and Washington sub-basin sewer plan follows the existing topography southeast to the existing manhole on Washington Street. The sewer should be placed in the south parkway of Meadowlawn, the east right-of-way of Washington, and an easement on 63rd to avoid the existing water main, IBC ducts, and power poles. The existing sewers to the west on 63rd and Meadowlawn are too shallow to serve this area. Table 4.11-5 is the proposed layout of the sewer size, length, and slope and manhole invert and depth. Table 4.11-6 includes a breakdown of the unit quantities and unit prices used to prepare the opinion of probable cost. The total opinion of project cost is $757,800, including contingency, engineering, easements, and legal/administrative costs.

The 63rd and Lyman sub-basin sewer plan follows the topography east from 912 W. 63rd Street to the existing sewer on Lyman Avenue. This sewer will be parallel to a sewer on the south side of 63rd to avoid a large number of service crossings. This sewer should be placed in an easement to avoid the existing utilities in the parkway. This is the second most costly sub-basin because of the easements and the small number of serviceable lots. Table 4.11-7 is the proposed layout of the sewer size, length, and slope and manhole invert and depth. Table 4.11-8 includes a breakdown of the unit quantities and unit prices used to prepare the opinion of probable cost. The total opinion of project cost is $326,000, including contingency, engineering, easements, and legal/administrative costs.

The Fairmount and 63rd sub-basin sewer plan will flow towards the existing manhole on the northeast corner of Fairmount and 63rd Street. The sewer on the south side of 63rd should be placed in easements, while the sewer on Fairmount will be placed in the pavement to avoid existing utilities. The existing sewer to the south on Fairmount is too shallow to serve this area. This sub-basin is the most costly because of augering under 63rd, the multiple easements, and the

low density of serviceable lots. Table 4.11-9 is the proposed layout of the sewer size, length, and slope and manhole invert and depth. Table 4.11-10 includes a breakdown of the unit quantities and unit prices used to prepare the opinion of probable cost. The total opinion of project cost is $430,200, including contingency, engineering, easements, and legal/administrative costs.

The Blodgett and 62nd sub-basin sewer plan consists of a sewer extending east from Blodgett to serve only 535 W. 62nd Street. The existing sewer on Grand Avenue is not a possible connection point because the sewer is not deep enough. Table 4.11-11 is the proposed layout of the sewer size, length, and slope and manhole invert and depth. Table 4.11-12 includes a breakdown of the unit quantities and unit prices used to prepare the opinion of probable cost. The total opinion of project cost is $41,800, including contingency, engineering, easements, and legal/administrative costs.

The 63rd and Osage sub-basin sewer plan will flow along the north side of 63rd Street from Blodgett to east of Osage Avenue. These properties along 63rd could not be served by the possible sewer on Grand Avenue or the existing sewer on Osage Avenue because of lack of adequate cover. This sewer should also be placed in an easement. The property at 630 W. 63rd Street is a lot that could be redeveloped at a later time and served by this sewer extension. Table 4.11-13 is the proposed layout of the sewer size, length, and slope and manhole invert and depth. Table 4.11-14 includes a breakdown of the unit quantities and unit prices used to prepare the opinion of probable cost. The total opinion of project cost is $266,000, including contingency, engineering, easements, and legal/administrative costs.

The Grand Avenue sub-basin sewer plan will connect to the proposed 63rd and Osage sewer at 63rd and Grand. The existing sewer north of the intersection of Grand and 62nd is too shallow to adequately serve this area. The sewer should be placed in the east parkway between the sidewalk and pavement. Table 4.11-15 is the proposed layout of the sewer size, length, and slope and manhole invert and depth. Table 4.11-16 includes a breakdown of the unit quantities and unit prices used to prepare the opinion of probable cost. The total opinion of project cost is $162,600, including contingency, engineering, and legal/administrative costs.

DOWNERS GROVE SANITARY DISTRICT UNSEWERED AREA PLAN

EXHIBIT 4.11

63rd CORRIDOR

POSSIBLE SEWER ALIGNMENT

MARCH 2017

LEGEND

- PROPOSED MANHOLES
- PROPOSED SEWERS
- EXISTING MANHOLES
- EXISTING SEWERS
- PARCEL BOUNDARIES
- CARPENTER AND 63RD;TABLES 4.11-1, 4.11-2
- NORFOLK AND CARPENTER;TABLES 4.11-3, 4.11-4
- MEADOWLAWN AND WASHINGTON;TABLES 4.11-5, 4.11-6
- 63RD AND LYMAN;TABLES 4.11-7, 4.11-8
- FAIRMOUNT AND 63RD;TABLES 4.11-9, 4.11-10
- BLODGETT AND 62ND;TABLES 4.11-11, 4.11-12
- 63RD AND OSAGE;TABLES 4.11-13, 4.11-14
- GRAND AVENUE;TABLES 4.11-15, 4.11-16

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0 250 500 750 1,000
Feet

BAXTER & WOODMAN
Consulting Engineers

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Table 4.11-1
Downers Grove Sanitary District
Possible Special Assessment for Sanitary Sewers
Carpenter and 63rd
Preliminary Design Layout

Manhole Number	Rim	Invert	Length (ft)	Slope	Manhole Depth
Carpenter Street					
UK-1	745.9	740.75			5.1
			223	0.40%	
UK-2	750.0	741.64			8.4
63rd Street					
			430	3.10%	
UK-3	767.0	754.97			12.0

Table 4.11-2
Downers Grove Sanitary District March 2017
Possible Special Assessment for Sanitary Sewers
Carpenter and 63rd
Engineer's Opinion of Probable Construction Cost

No.	Pay Item		Approximate Quantity		Unit Price	Amount
MAINLINE SEWER						
1	SANITARY SEWER (OPEN CUT)					
	8-inch	0-8 feet deep	223	lin. ft.	$ 67.00	$ 14,941.00
		8-12 feet deep	430	lin. ft.	$ 78.00	$ 33,540.00
2	SANITARY MANHOLES					
	48-inch	0-8 feet deep	1	each	$ 4,300.00	$ 4,300.00
		8-12 feet deep	1	each	$ 5,700.00	$ 5,700.00
3	CONNECTION TO EXISTING MANHOLE					
	8-inch		1	each	$ 5,500.00	$ 5,500.00
4	TRENCH BACKFILL					
	8-inch	0-8 feet deep	60	lin. ft.	$ 83.00	$ 4,980.00
		8-12 feet deep	76	lin. ft.	$ 100.00	$ 7,600.00
5	TREE TUNNELING		60	lin. ft.	$ 172.00	$ 10,320.00
6	SEWER TELEVISING FOR FINAL INSPECTION		653	lin. ft.	$ 2.45	$ 1,599.85
7	SEWER TESTING FOR FINAL INSPECTION		653	lin. ft.	$ 2.45	$ 1,599.85
8	CULVERT REMOVAL AND REPLACEMENT					
	12-inch		0	lin. ft.	$ 72.00	$ 0.00
9	RESTORATION OF LAWNS AND PARKWAYS:					
	Topsoil and sod		1,384	sq.yd.	$ 13.00	$ 17,997.78
10	RESTORATION OF STREETS:					
	Bit. Concrete Street		27	sq.yd.	$ 57.00	$ 1,520.00
11	REMOVE AND REPLACE DRIVEWAYS					
	Bituminous		14	sq.yd.	$ 43.00	$ 611.56
	Aggregate		4	sq.yd.	$ 19.00	$ 84.44
12	TREE REMOVAL AND TRIMMING:				Lump Sum	$ 2,374.00

Table 4.11-2
Downers Grove Sanitary District March 2017
Possible Special Assessment for Sanitary Sewers
Carpenter and 63rd
Engineer's Opinion of Probable Construction Cost

No.	Pay Item	Approximate Quantity		Unit Price	Amount
13	EROSION CONTROL			Lump Sum	$ 593.50
14	TRAFFIC CONTROL:			Lump Sum	$ 1,187.00
15	SPECIAL RESTORATION:			Lump Sum	$ 1,780.50
	SUBTOTAL				$ 116,229.48
SERVICE LATERALS					
1	BUILDING SERVICE LINES				
	Near side	60	lin. ft.	$ 44.00	$ 2,640.00
	Far side	0	lin. ft.	$ 44.00	$ 0.00
2	BUILDING SERVICE BRANCH FITTINGS				
	Near Side	8	each	$ 494.00	$ 3,952.00
	Far side	0	each	$ 609.00	$ 0.00
3	BUILDING SERVICE PLUG:	8	each	$ 186.00	$ 1,488.00
4	RESTORATION OF LAWNS AND PARKWAYS:				
	Topsoil and sod	89	sq.yd.	$ 12.50	$ 1,111.11
5	RESTORATION OF STREETS:				
	Bit. Concrete Street	0	sq.yd.	$ 56.00	$ 0.00
6	TRENCH BACKFILL				
	0-8 feet deep	0	lin. ft.	$ 55.00	$ 0.00
	SUBTOTAL				$ 9,191.11
	TOTAL ESTIMATE OF CONSTRUCTION COST				$ 125,400.00
	Contingencies	(20%)			$25,100.00
	Engineering	(20%)			$25,100.00
	Legal / Admin	(6%)			$10,500.00
	TOTAL OPINION OF PROBABLE COST				**$ 186,100.00**
				Cost per lot	$23,260.00

Table 4.11-3
Downers Grove Sanitary District
Possible Special Assessment for Sanitary Sewers
Norfolk and Carpenter
Preliminary Design Layout

Manhole Number	Rim	Invert	Length (ft)	Slope	Manhole Depth
Carpenter Street					
H-3-67-4 (existing)	745.6	738.50	230	0.40%	7.1
UK-4	748.0	739.42			8.6

Table 4.11-4
Downers Grove Sanitary District March 2017
Possible Special Assessment for Sanitary Sewers
Norfolk and Carpenter
Engineer's Opinion of Probable Construction Cost

No.	Pay Item		Approximate Quantity		Unit Price	Amount
MAINLINE SEWER						
1	SANITARY SEWER (OPEN CUT)					
	8-inch	0-8 feet deep	60	lin. ft.	$ 67.00	$ 4,020.00
		8-12 feet deep	170	lin. ft.	$ 78.00	$ 13,260.00
2	SANITARY MANHOLES					
	48-inch	0-8 feet deep	1	each	$ 4,300.00	$ 4,300.00
		8-12 feet deep	0	each	$ 5,700.00	$ 0.00
3	CONNECTION TO EXISTING MANHOLE					
	8-inch		1	each	$ 5,500.00	$ 5,500.00
4	TRENCH BACKFILL					
	8-inch	0-8 feet deep	65	lin. ft.	$ 83.00	$ 5,395.00
		8-12 feet deep	15	lin. ft.	$ 100.00	$ 1,500.00
5	TREE TUNNELING		50	lin. ft.	$ 172.00	$ 8,600.00
6	SEWER TELEVISING FOR FINAL INSPECTION					
			230	lin. ft.	$ 2.45	$ 563.50
7	SEWER TESTING FOR FINAL INSPECTION					
			230	lin. ft.	$ 2.45	$ 563.50
8	CULVERT REMOVAL AND REPLACEMENT					
	12-inch		70	lin. ft.	$ 72.00	$ 5,040.00
9	RESTORATION OF LAWNS AND PARKWAYS:					
	Topsoil and sod		373	sq.yd.	$ 13.00	$ 4,849.00
10	RESTORATION OF STREETS:					
	Bit. Concrete Street		31	sq.yd.	$ 57.00	$ 1,767.00
11	REMOVE AND REPLACE DRIVEWAYS					
	Bituminous		16	sq.yd.	$ 43.00	$ 688.00
	Aggregate		0	sq.yd.	$ 19.00	$ 0.00
12	TREE REMOVAL AND TRIMMING:				Lump Sum	$ 1,187.00

Table 4.11-4
Downers Grove Sanitary District March 2017
Possible Special Assessment for Sanitary Sewers
Norfolk and Carpenter
Engineer's Opinion of Probable Construction Cost

No.	Pay Item	Approximate Quantity		Unit Price	Amount
13	EROSION CONTROL			Lump Sum	$ 296.75
14	TRAFFIC CONTROL:			Lump Sum	$ 1,780.50
15	SPECIAL RESTORATION:			Lump Sum	$ 890.25
16	WATER MAIN RELOCATION:	1	each	$ 6,300.00	$ 6,300.00
	SUBTOTAL				$ 66,500.50
SERVICE LATERALS					
1	BUILDING SERVICE LINES				
	Near side	60	lin ft.	$ 44.00	$ 2,640.00
	Far side	204	lin ft.	$ 44.00	$ 8,976.00
2	BUILDING SERVICE BRANCH FITTINGS				
	Near Side	4	each	$ 494.00	$ 1,976.00
	Far side	4	each	$ 609.00	$ 2,436.00
3	BUILDING SERVICE PLUG:	8	each	$ 186.00	$ 1,488.00
4	RESTORATION OF LAWNS AND PARKWAYS:				
	Topsoil and sod	222	sq.yd.	$ 12.50	$ 2,775.00
5	RESTORATION OF STREETS:				
	Bit. Concrete Street	75	sq.yd.	$ 56.00	$ 4,200.00
6	TRENCH BACKFILL				
	0-8 feet deep	112	lin. ft.	$ 55.00	$ 6,160.00
	SUBTOTAL				$ 30,651.00
	TOTAL ESTIMATE OF CONSTRUCTION COST				$ 97,200.00
	Contingencies		(20%)		$19,400.00
	Engineering		(20%)		$19,400.00
	Legal / Admin		(6%)		$8,200.00
	TOTAL OPINION OF PROBABLE COST				**$ 144,200.00**
				Cost per lot	$18,030.00

Table 4.11-5
Downers Grove Sanitary District
Possible Special Assessment for Sanitary Sewers
Meadowlawn and Washington
Preliminary Design Layout

Manhole Number	Rim	Invert	Length (ft)	Slope	Manhole Depth
Washington Street					
H-6-55 (existing)	754.1	746.44			7.7
			40	0.40%	
UK-7	755.0	746.60			8.4
			210	0.40%	
UK-8	755.5	747.44			8.1
			140	0.80%	
UK-9	760.0	748.56			11.4
			265	1.60%	
UK-10	766.0	752.80			13.2
			40	1.60%	
UK-11	768.0	753.44			14.6
Meadowlawn Avenue					
			400	1.50%	
UK-6	764.0	753.44			10.6
			375	1.50%	
UK-5	770.0	759.07			10.9
63rd Street					
			400	1.50%	
UK-12	772.0	759.44			12.6
			270	0.40%	
UK-13	763.0	754.52			8.5

Table 4.11-6
Downers Grove Sanitary District March 2017
Possible Special Assessment for Sanitary Sewers
Meadowlawn and Washington
Engineer's Opinion of Probable Construction Cost

No.	Pay Item		Approximate Quantity		Unit Price	Amount
MAINLINE SEWER						
1	SANITARY SEWER (OPEN CUT)					
	8-inch	0-8 feet deep	40	lin. ft.	$ 67.00	$ 2,680.00
		8-12 feet deep	1,810	lin. ft.	$ 78.00	$ 141,180.00
		12-16 feet deep	290	lin. ft.	$ 95.00	$ 27,550.00
2	SANITARY MANHOLES					
	48-inch	0-8 feet deep	1	each	$ 4,300.00	$ 4,300.00
		8-12 feet deep	6	each	$ 5,700.00	$ 34,200.00
		12-16 feet deep	2	each	$ 6,800.00	$ 13,600.00
3	CONNECTION TO EXISTING MANHOLE					
	8-inch		1	each	$ 5,500.00	$ 5,500.00
4	TRENCH BACKFILL					
	8-inch	0-8 feet deep	25	lin. ft.	$ 83.00	$ 2,075.00
		8-12 feet deep	520	lin. ft.	$ 100.00	$ 52,000.00
		12-16 feet deep	100	lin. ft.	$ 123.00	$ 12,300.00
5	TREE TUNNELING		210	lin. ft.	$ 172.00	$ 36,120.00
6	SEWER TELEVISING FOR FINAL INSPECTION					
			2,140	lin. ft.	$ 2.45	$ 5,243.00
7	SEWER TESTING FOR FINAL INSPECTION					
			2,140	lin. ft.	$ 2.45	$ 5,243.00
8	CULVERT REMOVAL AND REPLACEMENT					
	12-inch		80	lin. ft.	$ 72.00	$ 5,760.00
9	RESTORATION OF LAWNS AND PARKWAYS:					
	Topsoil and sod		3,422	sq.yd.	$ 13.00	$ 44,486.00
10	RESTORATION OF STREETS:					
	Bit. Concrete Street		93	sq.yd.	$ 57.00	$ 5,301.00
11	REMOVE AND REPLACE DRIVEWAYS					
	Bituminous		144	sq.yd.	$ 43.00	$ 6,192.00
	Aggregate		10	sq.yd.	$ 19.00	$ 190.00

Table 4.11-6

Downers Grove Sanitary District March 2017

Possible Special Assessment for Sanitary Sewers

Meadowlawn and Washington

Engineer's Opinion of Probable Construction Cost

No.	Pay Item	Approximate Quantity		Unit Price	Amount
12	TREE REMOVAL AND TRIMMING:			Lump Sum	$ 2,374.00
13	EROSION CONTROL			Lump Sum	$ 593.50
14	TRAFFIC CONTROL:			Lump Sum	$ 4,748.00
15	SPECIAL RESTORATION:			Lump Sum	$ 2,967.50
	SUBTOTAL				$ 414,603.00
SERVICE LATERALS					
1	BUILDING SERVICE LINES				
	Near side	300	lin. ft.	$ 44.00	$ 13,200.00
	Far side	408	lin. ft.	$ 44.00	$ 17,952.00
2	BUILDING SERVICE BRANCH FITTINGS				
	Near Side	20	each	$ 494.00	$ 9,880.00
	Far side	8	each	$ 609.00	$ 4,872.00
3	BUILDING SERVICE PLUG:	28	each	$ 186.00	$ 5,208.00
4	RESTORATION OF LAWNS AND PARKWAYS:				
	Topsoil and sod	578	sq.yd.	$ 12.50	$ 7,225.00
5	RESTORATION OF STREETS:				
	Bit. Concrete Street	156	sq.yd.	$ 56.00	$ 8,736.00
6	TRENCH BACKFILL				
	0-8 feet deep	224	lin. ft.	$ 55.00	$ 12,320.00
	SUBTOTAL				$ 79,393.00
	TOTAL ESTIMATE OF CONSTRUCTION COST				$ 494,000.00
	Contingencies (20%)				$98,800.00
	Engineering (20%)				$98,800.00
	Legal / Admin (6%)				$41,500.00
	Easement Acquisition				$24,700.00
	TOTAL OPINION OF PROBABLE COST				**$ 757,800.00**
				Cost per lot	$27,060.00

Table 4.11-7
Downers Grove Sanitary District
Possible Special Assessment for Sanitary Sewers
63rd and Lyman
Preliminary Design Layout

Manhole Number	Rim	Invert	Length (ft)	Slope	Manhole Depth
63rd Street					
G-3-76A (existing)	762.0	754.60			7.4
			50	0.40%	
UK-17	763.0	754.80			8.2
			250	0.40%	
UK-16	764.0	755.80			8.2
			300	1.20%	
UK-15	769.0	759.40			9.6
			250	1.20%	
UK-14	771.0	762.40			8.6

Table 4.11-8

Downers Grove Sanitary District March 2017

Possible Special Assessment for Sanitary Sewers

63rd and Lyman

Engineer's Opinion of Probable Construction Cost

No.	Pay Item		Approximate Quantity		Unit Price	Amount
MAINLINE SEWER						
1	SANITARY SEWER (OPEN CUT)					
	8-inch	0-8 feet deep	30	lin. ft.	$ 67.00	$ 2,010.00
		8-12 feet deep	820	lin. ft.	$ 78.00	$ 63,960.00
2	SANITARY MANHOLES					
	48-inch	0-8 feet deep	0	each	$ 4,300.00	$ 0.00
		8-12 feet deep	4	each	$ 5,700.00	$ 22,800.00
3	CONNECTION TO EXISTING MANHOLE					
	8-inch		1	each	$ 5,500.00	$ 5,500.00
4	TRENCH BACKFILL					
	8-inch	0-8 feet deep	10	lin. ft.	$ 83.00	$ 830.00
		8-12 feet deep	215	lin. ft.	$ 100.00	$ 21,500.00
5	TREE TUNNELING		145	lin. ft.	$ 172.00	$ 24,940.00
6	SEWER TELEVISING FOR FINAL INSPECTION		850	lin. ft.	$ 2.45	$ 2,082.50
7	SEWER TESTING FOR FINAL INSPECTION		850	lin. ft.	$ 2.45	$ 2,082.50
8	CULVERT REMOVAL AND REPLACEMENT					
	12-inch		30	lin. ft.	$ 72.00	$ 2,160.00
9	RESTORATION OF LAWNS AND PARKWAYS:					
	Topsoil and sod		1,656	sq.yd.	$ 13.00	$ 21,528.00
10	RESTORATION OF STREETS:					
	Bit. Concrete Street		28	sq.yd.	$ 57.00	$ 1,596.00
11	REMOVE AND REPLACE DRIVEWAYS					
	Bituminous		106	sq.yd.	$ 43.00	$ 4,558.00
	Aggregate		8	sq.yd.	$ 19.00	$ 152.00
12	TREE REMOVAL AND TRIMMING:				Lump Sum	$ 2,967.50

Table 4.11-8
Downers Grove Sanitary District March 2017
Possible Special Assessment for Sanitary Sewers
63rd and Lyman
Engineer's Opinion of Probable Construction Cost

No.	Pay Item	Approximate Quantity		Unit Price	Amount
13	EROSION CONTROL			Lump Sum	$ 593.50
14	TRAFFIC CONTROL:			Lump Sum	$ 4,748.00
15	SPECIAL RESTORATION:			Lump Sum	$ 1,780.50
	SUBTOTAL				$ 185,788.50
SERVICE LATERALS					
1	BUILDING SERVICE LINES				
	Near side	70	lin. ft.	$ 44.00	$ 3,080.00
	Far side	0	lin. ft.	$ 44.00	$ 0.00
2	BUILDING SERVICE BRANCH FITTINGS				
	Near Side	7	each	$ 494.00	$ 3,458.00
	Far side	0	each	$ 609.00	$ 0.00
3	BUILDING SERVICE PLUG:	7	each	$ 186.00	$ 1,302.00
4	RESTORATION OF LAWNS AND PARKWAYS:				
	Topsoil and sod	78	sq.yd.	$ 12.50	$ 975.00
5	RESTORATION OF STREETS:				
	Bit. Concrete Street	0	sq.yd.	$ 56.00	$ 0.00
6	TRENCH BACKFILL				
	0-8 feet deep	10	lin. ft.	$ 55.00	$ 550.00
	SUBTOTAL				$ 9,365.00
	TOTAL ESTIMATE OF CONSTRUCTION COST				$ 195,200.00
	Contingencies (20%)				$39,000.00
	Engineering (20%)				$39,000.00
	Legal / Admin (6%)				$16,400.00
	Easement Acquisition				$36,400.00
	TOTAL OPINION OF PROBABLE COST				**$ 326,000.00**
				Cost per lot	$46,570.00

Table 4.11-9
Downers Grove Sanitary District
Possible Special Assessment for Sanitary Sewers
Fairmount and 63rd
Preliminary Design Layout

Manhole Number	Rim	Invert	Length (ft)	Slope	Manhole Depth
Fairmount Avenue					
G-3-20 (existing)	763.0	752.70			10.3
			110	0.40%	
UK-19	765.0	753.14			11.9
			330	0.40%	
UK-21	764.0	754.46			9.5
63rd Street					
			400	0.40%	
UK-18	763.0	754.74			8.3
			370	0.40%	
UK-20	762.0	754.62			7.4

Table 4.11-10
Downers Grove Sanitary District March 2017
Possible Special Assessment for Sanitary Sewers
Fairmount and 63rd
Engineer's Opinion of Probable Construction Cost

No.	Pay Item		Approximate Quantity		Unit Price	Amount
MAINLINE SEWER						
1	SANITARY SEWER (OPEN CUT)					
	8-inch	0-8 feet deep	20	lin. ft.	$ 67.00	$ 1,340.00
		8-12 feet deep	1,110	lin. ft.	$ 78.00	$ 86,580.00
2	SANITARY SEWER (AUGER):		80	lin. ft.	$ 246.00	$ 19,680.00
3	SANITARY MANHOLES					
	48-inch	0-8 feet deep	1	each	$ 4,300.00	$ 4,300.00
		8-12 feet deep	3	each	$ 5,700.00	$ 17,100.00
4	CONNECTION TO EXISTING MANHOLE					
	8-inch		1	each	$ 5,500.00	$ 5,500.00
5	TRENCH BACKFILL					
	8-inch	0-8 feet deep	0	lin. ft.	$ 83.00	$ 0.00
		8-12 feet deep	419	lin. ft.	$ 100.00	$ 41,900.00
6	TREE TUNNELING		110	lin. ft.	$ 172.00	$ 18,920.00
7	SEWER TELEVISING FOR FINAL INSPECTION					
			1,210	lin. ft.	$ 2.45	$ 2,964.50
8	SEWER TESTING FOR FINAL INSPECTION					
			1,210	lin. ft.	$ 2.45	$ 2,964.50
9	CULVERT REMOVAL AND REPLACEMENT					
	12-inch		0	lin. ft.	$ 72.00	$ 0.00
10	RESTORATION OF LAWNS AND PARKWAYS:					
	Topsoil and sod		1,578	sq.yd.	$ 13.00	$ 20,514.00
11	RESTORATION OF STREETS:					
	Bit. Concrete Street		267	sq.yd.	$ 57.00	$ 15,219.00
12	REMOVE AND REPLACE DRIVEWAYS					
	Bituminous		91	sq.yd.	$ 43.00	$ 3,913.00
	Aggregate		5	sq.yd.	$ 19.00	$ 95.00
13	TREE REMOVAL AND TRIMMING:				Lump Sum	$ 2,374.00

Table 4.11-10
Downers Grove Sanitary District March 2017
Possible Special Assessment for Sanitary Sewers
Fairmount and 63rd
Engineer's Opinion of Probable Construction Cost

No.	Pay Item	Approximate Quantity		Unit Price	Amount
14	EROSION CONTROL			Lump Sum	$ 593.50
15	TRAFFIC CONTROL:			Lump Sum	$ 4,748.00
16	SPECIAL RESTORATION:			Lump Sum	$ 1,483.75
	SUBTOTAL				$ 250,189.25
SERVICE LATERALS					
1	BUILDING SERVICE LINES				
	Near side	80	lin. ft.	$ 44.00	$ 3,520.00
	Far side	51	lin. ft.	$ 44.00	$ 2,244.00
2	BUILDING SERVICE BRANCH FITTINGS				
	Near Side	8	each	$ 494.00	$ 3,952.00
	Far side	1	each	$ 609.00	$ 609.00
3	BUILDING SERVICE PLUG:	9	each	$ 186.00	$ 1,674.00
4	RESTORATION OF LAWNS AND PARKWAYS:				
	Topsoil and sod	133	sq.yd.	$ 12.50	$ 1,662.50
5	RESTORATION OF STREETS:				
	Bit. Concrete Street	20	sq.yd.	$ 56.00	$ 1,120.00
6	TRENCH BACKFILL				
	0-8 feet deep	22	lin. ft.	$ 55.00	$ 1,210.00
	SUBTOTAL				$ 15,991.50
	TOTAL ESTIMATE OF CONSTRUCTION COST				$ 266,200.00
	Contingencies (20%)				$53,200.00
	Engineering (20%)				$53,200.00
	Legal / Admin (6%)				$22,400.00
	Easement Acquisition				$35,200.00
	TOTAL OPINION OF PROBABLE COST				**$ 430,200.00**
	Cost per lot				$47,800.00

Table 4.11-11
Downers Grove Sanitary District
Possible Special Assessment for Sanitary Sewers
Blodgett and 62nd
Preliminary Design Layout

Manhole Number	Rim	Invert	Length (ft)	Slope	Manhole Depth
62nd Street					
G-3-54 (existing)	762.0	753.64	150	0.40%	8.4
UK-22	761.0	754.24			6.8

Table 4.11-12

Downers Grove Sanitary District March 2017

Possible Special Assessment for Sanitary Sewers

Blodgett and 62nd

Engineer's Opinion of Probable Construction Cost

No.	Pay Item		Approximate Quantity		Unit Price	Amount
MAINLINE SEWER						
1	SANITARY SEWER (OPEN CUT)					
	8-inch	0-8 feet deep	85	lin. ft.	$ 67.00	$ 5,695.00
		8-12 feet deep	65	lin. ft.	$ 78.00	$ 5,070.00
2	SANITARY MANHOLES					
	48-inch	0-8 feet deep	1	each	$ 4,300.00	$ 4,300.00
		8-12 feet deep	0	each	$ 5,700.00	$ 0.00
3	CONNECTION TO EXISTING MANHOLE					
	8-inch		1	each	$ 5,500.00	$ 5,500.00
4	TRENCH BACKFILL					
	8-inch	0-8 feet deep	10	lin. ft.	$ 83.00	$ 830.00
		8-12 feet deep	0	lin. ft.	$ 100.00	$ 0.00
5	TREE TUNNELING		0	lin. ft.	$ 172.00	$ 0.00
6	SEWER TELEVISING FOR FINAL INSPECTION		150	lin. ft.	$ 2.45	$ 367.50
7	SEWER TESTING FOR FINAL INSPECTION		150	lin. ft.	$ 2.45	$ 367.50
8	CULVERT REMOVAL AND REPLACEMENT					
	12-inch		0	lin. ft.	$ 72.00	$ 0.00
9	RESTORATION OF LAWNS AND PARKWAYS:					
	Topsoil and sod		217	sq.yd.	$ 13.00	$ 2,821.00
10	RESTORATION OF STREETS:					
	Bit. Concrete Street		0	sq.yd.	$ 57.00	$ 0.00
11	REMOVE AND REPLACE DRIVEWAYS					
	Bituminous		0	sq.yd.	$ 43.00	$ 0.00
	Aggregate		0	sq.yd.	$ 19.00	$ 0.00
12	TREE REMOVAL AND TRIMMING:				Lump Sum	$ 593.50

Table 4.11-12
Downers Grove Sanitary District March 2017
Possible Special Assessment for Sanitary Sewers
Blodgett and 62nd
Engineer's Opinion of Probable Construction Cost

No.	Pay Item	Approximate Quantity		Unit Price	Amount
13	EROSION CONTROL			Lump Sum	$ 0.00
14	TRAFFIC CONTROL:			Lump Sum	$ 593.50
15	SPECIAL RESTORATION:			Lump Sum	$ 593.50
	SUBTOTAL				$ 26,731.50
SERVICE LATERALS					
1	BUILDING SERVICE LINES				
	Near side	15	lin. ft.	$ 44.00	$ 660.00
	Far side	0	lin. ft.	$ 44.00	$ 0.00
2	BUILDING SERVICE BRANCH FITTINGS				
	Near Side	1	each	$ 494.00	$ 494.00
	Far side	0	each	$ 609.00	$ 0.00
3	BUILDING SERVICE PLUG:	1	each	$ 186.00	$ 186.00
4	RESTORATION OF LAWNS AND PARKWAYS:				
	Topsoil and sod	11	sq.yd.	$ 12.50	$ 137.50
5	RESTORATION OF STREETS:				
	Bit. Concrete Street	0	sq.yd.	$ 56.00	$ 0.00
6	TRENCH BACKFILL				
	0-8 feet deep	0	lin. ft.	$ 55.00	$ 0.00
	SUBTOTAL				$ 1,477.50
	TOTAL ESTIMATE OF CONSTRUCTION COST				$ 28,200.00
	Contingencies	(20%)			$5,600.00
	Engineering	(20%)			$5,600.00
	Legal / Admin	(6%)			$2,400.00
	TOTAL OPINION OF PROBABLE COST				**$ 41,800.00**
				Cost per lot	$41,800.00

Table 4.11-13
Downers Grove Sanitary District
Possible Special Assessment for Sanitary Sewers
63rd and Osage
Preliminary Design Layout

Manhole Number	Rim	Invert	Length (ft)	Slope	Manhole Depth
63rd Street					
W-1-105-4 (existing)	758.1	749.50			8.6
			320	0.40%	
UK-26	759.0	750.78			8.2
			300	0.40%	
UK-25	761.0	751.98			9.0
			280	0.40%	
UK-24	762.0	753.10			8.9

Table 4.11-14
Downers Grove Sanitary District March 2017
Possible Special Assessment for Sanitary Sewers
63rd and Osage
Engineer's Opinion of Probable Construction Cost

No.	Pay Item		Approximate Quantity		Unit Price	Amount
MAINLINE SEWER						
1	SANITARY SEWER (OPEN CUT)					
	8-inch	0-8 feet deep	400	lin. ft.	$ 67.00	$ 26,800.00
		8-12 feet deep	500	lin. ft.	$ 78.00	$ 39,000.00
2	SANITARY MANHOLES					
	48-inch	0-8 feet deep	1	each	$ 4,300.00	$ 4,300.00
		8-12 feet deep	2	each	$ 5,700.00	$ 11,400.00
3	CONNECTION TO EXISTING MANHOLE					
	8-inch		1	each	$ 5,500.00	$ 5,500.00
4	TRENCH BACKFILL					
	8-inch	0-8 feet deep	76	lin. ft.	$ 83.00	$ 6,308.00
		8-12 feet deep	72	lin. ft.	$ 100.00	$ 7,200.00
5	TREE TUNNELING		40	lin. ft.	$ 172.00	$ 6,880.00
6	SEWER TELEVISING FOR FINAL INSPECTION		900	lin. ft.	$ 2.45	$ 2,205.00
7	SEWER TESTING FOR FINAL INSPECTION		900	lin. ft.	$ 2.45	$ 2,205.00
8	CULVERT REMOVAL AND REPLACEMENT					
	12-inch		56	lin. ft.	$ 72.00	$ 4,032.00
9	RESTORATION OF LAWNS AND PARKWAYS:					
	Topsoil and sod		1,300	sq.yd.	$ 13.00	$ 16,900.00
10	RESTORATION OF STREETS:					
	Bit. Concrete Street		43	sq.yd.	$ 57.00	$ 2,451.00
11	REMOVE AND REPLACE DRIVEWAYS					
	Bituminous		57	sq.yd.	$ 43.00	$ 2,451.00
	Aggregate		0	sq.yd.	$ 19.00	$ 0.00
12	TREE REMOVAL AND TRIMMING:				Lump Sum	$ 1,187.00

Table 4.11-14
Downers Grove Sanitary District March 2017
Possible Special Assessment for Sanitary Sewers
63rd and Osage
Engineer's Opinion of Probable Construction Cost

No.	Pay Item	Approximate Quantity		Unit Price	Amount
13	EROSION CONTROL			Lump Sum	$ 593.50
14	TRAFFIC CONTROL:			Lump Sum	$ 4,154.50
	SUBTOTAL				$ 143,567.00
SERVICE LATERALS					
1	BUILDING SERVICE LINES				
	Near side	105	lin. ft.	$ 44.00	$ 4,620.00
	Far side	0	lin. ft.	$ 44.00	$ 0.00
2	BUILDING SERVICE BRANCH FITTINGS				
	Near Side	7	each	$ 494.00	$ 3,458.00
	Far side	0	each	$ 609.00	$ 0.00
3	BUILDING SERVICE PLUG:	7	each	$ 186.00	$ 1,302.00
4	RESTORATION OF LAWNS AND PARKWAYS:				
	Topsoil and sod	78	sq.yd.	$ 12.50	$ 975.00
5	RESTORATION OF STREETS:				
	Bit. Concrete Street	0	sq.yd.	$ 56.00	$ 0.00
6	TRENCH BACKFILL				
	0-8 feet deep	0	lin. ft.	$ 55.00	$ 0.00
	SUBTOTAL				$ 10,355.00
	TOTAL ESTIMATE OF CONSTRUCTION COST				$ 153,900.00
	Contingencies (20%)				$30,800.00
	Engineering (20%)				$30,800.00
	Legal / Admin (6%)				$12,900.00
	Easement Acquisition				$37,600.00
	TOTAL OPINION OF PROBABLE COST				**$ 266,000.00**
				Cost per lot	$38,000.00

Table 4.11-15
Downers Grove Sanitary District
Possible Special Assessment for Sanitary Sewers
Grand Avenue
Preliminary Design Layout

Manhole Number	Rim	Invert	Length (ft)	Slope	Manhole Depth
Grand Avenue					
UK-25	761	751.98	480	0.40%	9.0
UK-23	760.0	753.90			6.1

Table 4.11-16
Downers Grove Sanitary District March 2017
Possible Special Assessment for Sanitary Sewers
Grand Avenue
Engineer's Opinion of Probable Construction Cost

No.	Pay Item		Approximate Quantity		Unit Price	Amount
MAINLINE SEWER						
1	SANITARY SEWER (OPEN CUT)					
	8-inch	0-8 feet deep	480	lin. ft.	$ 67.00	$ 32,160.00
2	SANITARY MANHOLES					
	48-inch	0-8 feet deep	1	each	$ 4,300.00	$ 4,300.00
3	CONNECTION TO EXISTING MANHOLE					
	8-inch		1	each	$ 5,500.00	$ 5,500.00
4	TRENCH BACKFILL					
	8-inch	0-8 feet deep	138	lin. ft.	$ 83.00	$ 11,454.00
		8-12 feet deep	0	lin. ft.	$ 100.00	$ 0.00
5	TREE TUNNELING		20	lin. ft.	$ 172.00	$ 3,440.00
6	SEWER TELEVISING FOR FINAL INSPECTION					
			480	lin. ft.	$ 2.45	$ 1,176.00
7	SEWER TESTING FOR FINAL INSPECTION					
			480	lin. ft.	$ 2.45	$ 1,176.00
8	CULVERT REMOVAL AND REPLACEMENT					
	12-inch		40	lin. ft.	$ 72.00	$ 2,880.00
9	RESTORATION OF LAWNS AND PARKWAYS:					
	Topsoil and sod		713	sq.yd.	$ 13.00	$ 9,269.00
10	RESTORATION OF STREETS:					
	Bit. Concrete Street		0	sq.yd.	$ 57.00	$ 0.00
11	REMOVE AND REPLACE DRIVEWAYS					
	Bituminous		57	sq.yd.	$ 43.00	$ 2,451.00
	Aggregate		0	sq.yd.	$ 19.00	$ 0.00

Table 4.11-16
Downers Grove Sanitary District March 2017
Possible Special Assessment for Sanitary Sewers
Grand Avenue
Engineer's Opinion of Probable Construction Cost

No.	Pay Item	Approximate Quantity		Unit Price	Amount
12	TREE REMOVAL AND TRIMMING:			Lump Sum	$ 593.50
13	EROSION CONTROL			Lump Sum	$ 593.50
14	TRAFFIC CONTROL:			Lump Sum	$ 2,077.25
	SUBTOTAL				$ 77,070.25
SERVICE LATERALS					
1	BUILDING SERVICE LINES				
	Near side	60	lin. ft.	$ 44.00	$ 2,640.00
	Far side	204	lin. ft.	$ 44.00	$ 8,976.00
2	BUILDING SERVICE BRANCH FITTINGS				
	Near Side	4	each	$ 494.00	$ 1,976.00
	Far side	4	each	$ 609.00	$ 2,436.00
3	BUILDING SERVICE PLUG:	8	each	$ 186.00	$ 1,488.00
4	RESTORATION OF LAWNS AND PARKWAYS:				
	Topsoil and sod	222	sq.yd.	$ 12.50	$ 2,775.00
5	RESTORATION OF STREETS:				
	Bit. Concrete Street	78	sq.yd.	$ 56.00	$ 4,368.00
	PCC Sidewalk	200	sq.ft.	$ 12.00	$ 2,400.00
6	TRENCH BACKFILL				
	0-8 feet deep	100	lin. ft.	$ 55.00	$ 5,500.00
	SUBTOTAL				$ 32,559.00
	TOTAL ESTIMATE OF CONSTRUCTION COST				$ 109,600.00
	Contingencies	(20%)			$21,900.00
	Engineering	(20%)			$21,900.00
	Legal / Admin	(6%)			$9,200.00
	TOTAL OPINION OF PROBABLE COST				**$ 162,600.00**
				Cost per lot	$20,330.00

Table 4.11-17

Downers Grove Sanitary District March 2017

Possible Special Assessments for Sanitary Sewers

63rd Corridor Sub-Area

Cost Summary

Sub-Basin:	Near Services	Far Services	Total Project Cost	Cost per lot
Carpenter and 63rd	8	0	$ 186,100.00	$ 23,260.00
Norfolk and Carpenter	4	4	$ 144,200.00	$ 18,030.00
Meadowlawn & Washington	20	8	$ 757,800.00	$ 27,060.00
63rd and Lyman	7	0	$ 326,000.00	$ 46,570.00
Fairmount and 63rd	8	1	$ 430,200.00	$ 47,800.00
Blodgett and 62nd	1	0	$ 41,800.00	$ 41,800.00
63rd and Osage	7	0	$ 266,000.00	$ 38,000.00
Grand Avenue	4	4	$ 162,600.00	$ 20,330.00
TOTALS	59	17	$ 2,314,700.00	$ 30,460.00
	76			

4.12 Gilbert and Lee

Gilbert and Lee is a small service area located within the District's FPA boundary. Exhibit 4.12 shows the approximate limits of this service area which is located south of Gilbert Street between Cornell Avenue and Lee Avenue. The proposed service area currently includes three lots that are developed as single-family residences. One property is on septic while the other two are currently connected to the sewer on Cornell Avenue with a private sewer. The purpose of this analysis is to establish the most cost-effective sanitary sewer plan for serving the three properties along Gilbert Street with a public sewer.

Several factors were considered when determining the most cost-effective sewer layout. These factors include topography, tree protection, water main and existing utility location. The Village of Downers Grove owns and operates water mains within the subject area limits. The only utilities of that could effect sewer construction are gas mains, overhead electric, and communication.

The final component of this analysis was to evaluate the downstream capacity of the existing sewers. Our analysis determined that the existing trunk sewer capacity on Cornell Avenue will not be affected by the marginal additional flow produced by the three lots on Gilbert Street.

A map of the proposed sewer plan is included in Exhibit 4.12.

The topography falls westerly from Lee Avenue to Cornell Avenue, and thus, the direction of flow will follow the same route. We identified one feasible connection point, the existing manhole north of the intersection of Cornell and Gilbert. This manhole is on the existing 42-inch trunk sewer that flows south on Cornell. The planned sewer will connect to the sewer two feet above the crown of the existing trunk sewer.

We recommend the sewer be installed in the north right-of-way to avoid the existing water main, gas mains, and landscaping located in the south right-of-way. The north parkway does have overhead power line, but adequate room is available for sewer installation. Table 4.12-1 is the proposed layout of the sewer size, length, and slope and manhole invert and depth. Table 4.12-2 includes a breakdown of the unit quantities and unit prices used to prepare the opinion of probable cost. The total opinion of project cost is $144,200, including contingency, engineering, and legal/administrative costs.

DOWNERS GROVE SANITARY DISTRICT UNSEWERED AREA PLAN

EXHIBIT 4.12

GILBERT AND LEE

POSSIBLE SEWER ALIGNMENT

MARCH 2017

LEGEND

- PROPOSED MANHOLES
- PROPOSED SEWERS
- EXISTING MANHOLES
- EXISTING SEWERS
- PARCEL BOUNDARIES
- GILBERT AND LEE
- * CURRENTLY SERVED BY A PRIVATE SEWER

N

0 50 100 150 200
Feet

BAXTER & WOODMAN Consulting Engineers

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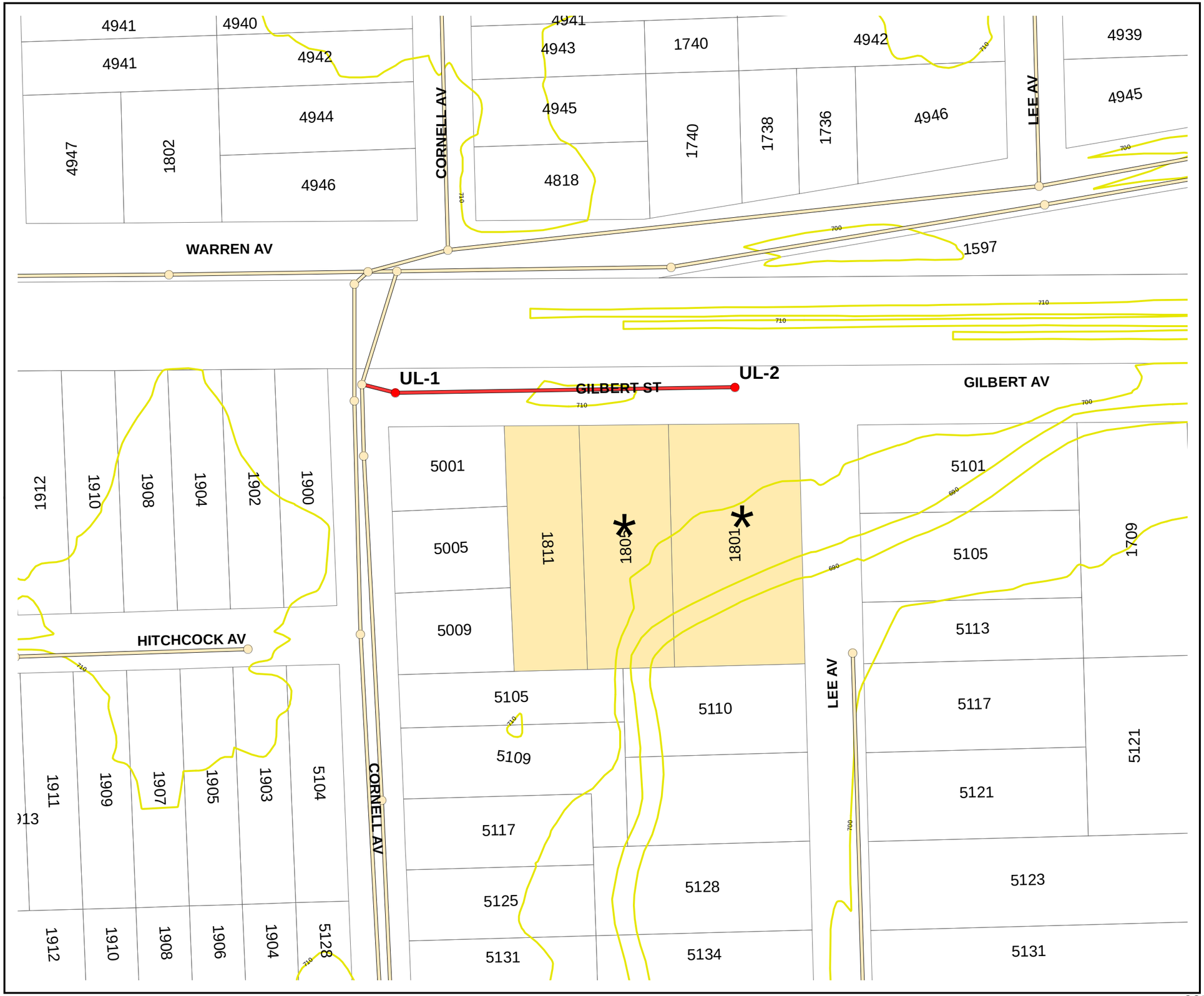

Table 4.12-1
Downers Grove Sanitary District
Possible Special Assessment for Sanitary Sewers
Gilbert & Lee
Preliminary Design Layout

Manhole Number	Rim	Invert	Length (ft)	Slope	Manhole Depth
Gilbert Street					
2-A-14-B-S (existing)	705.5	694.42			11.1
			20	0.80%	
UL-1	706.0	694.58			11.4
			380	0.80%	
UL-2	707.0	697.62			9.4

Table 4.12-2
Downers Grove Sanitary District March 2017
Possible Special Assessment for Sanitary Sewers
Gilbert & Lee
Engineer's Opinion of Probable Construction Cost

No.	Pay Item	Approximate Quantity		Unit Price	Amount
MAINLINE SEWER					
1	SANITARY SEWER (OPEN CUT)				
	8-inch 8-12 feet deep	400	lin. ft.	$ 78.00	$ 31,200.00
2	SANITARY MANHOLES				
	48-inch 8-12 feet deep	2	each	$ 5,700.00	$ 11,400.00
3	CONNECTION TO EXISTING MANHOLE				
	8-inch	1	each	$ 5,500.00	$ 5,500.00
4	TRENCH BACKFILL				
	8-inch 8-12 feet deep	25	lin. ft.	$ 100.00	$ 2,500.00
5	TREE TUNNELING	30	lin. ft.	$ 172.00	$ 5,160.00
6	SEWER TELEVISING FOR FINAL INSPECTION	400	lin. ft.	$ 2.45	$ 980.00
7	SEWER TESTING FOR FINAL INSPECTION	400	lin. ft.	$ 2.45	$ 980.00
8	CULVERT REMOVAL AND REPLACEMENT				
	12-inch	0	lin. ft.	$ 72.00	$ 0.00
9	RESTORATION OF LAWNS AND PARKWAYS:				
	Topsoil and sod	1,111	sq.yd.	$ 13.00	$ 14,443.00
10	RESTORATION OF STREETS:				
	Bit. Concrete Street	9	sq.yd.	$ 57.00	$ 513.00

Table 4.12-2
Downers Grove Sanitary District March 2017
Possible Special Assessment for Sanitary Sewers
Gilbert & Lee
Engineer's Opinion of Probable Construction Cost

No.	Pay Item	Approximate Quantity		Unit Price	Amount
11	EROSION CONTROL			Lump Sum	$ 890.25
12	TRAFFIC CONTROL:			Lump Sum	$ 5,341.50
	SUBTOTAL				$ 79,762.75
SERVICE LATERALS					
1	BUILDING SERVICE LINES				
	Near side	90	lin. ft.	$ 44.00	$ 3,960.00
	Far side	0	lin. ft.	$ 44.00	$ 0.00
2	BUILDING SERVICE BRANCH FITTINGS				
	Near Side	3	each	$ 494.00	$ 1,482.00
	Far side	0	each	$ 609.00	$ 0.00
3	BUILDING SERVICE PLUG:	3	each	$ 186.00	$ 558.00
4	RESTORATION OF LAWNS AND PARKWAYS:				
	Topsoil and sod	17	sq.yd.	$ 12.50	$ 212.50
5	RESTORATION OF STREETS:				
	Bit. Concrete Street	50	sq.yd.	$ 56.00	$ 2,800.00
	PCC Sidewalk	150	sq.ft.	$ 12.00	$ 1,800.00
6	TRENCH BACKFILL				
	0-8 feet deep	120	lin. ft.	$ 55.00	$ 6,600.00
	SUBTOTAL				$ 17,412.50
	TOTAL ESTIMATE OF CONSTRUCTION COST				$ 97,200.00
	Contingencies		(20%)		$19,400.00
	Engineering		(20%)		$19,400.00
	Legal / Admin		(6%)		$8,200.00
	TOTAL OPINION OF PROBABLE COST				**$ 144,200.00**
				Cost per lot	$48,070.00

Table 4.13-1
Downers Grove Sanitary District
Unsewered Area Plan
Summary of Estimated Costs for Unsewered Areas

March 2017

	Tables		Page	Construction	Contingency	Engineering	Legal/Admin	Easements	Total	Number of Services	Cost per Service
4.1 73rd and Webster			***11***								
73rd and Webster	4.1-1	4.1-2	13-15	$ 527,400.00	$ 105,500.00	$ 105,500.00	$ 44,300.00	$ 39,800.00	$ 822,500.00	25	$ 32,900.00
4.2 Downers Grove Park			***16***								
Katrine-Maple (North)	4.2-1	4.2-2	20-22	$ 502,800.00	$ 100,600.00	$ 100,600.00	$ 42,200.00	$ 34,400.00	$ 780,600.00	25	$ 31,220.00
Inverness-Lomond-Elinor-Maple (North)	4.2-3	4.2-4	23-26	$ 1,589,800.00	$ 318,000.00	$ 318,000.00	$ 133,500.00	$ 112,100.00	$ 2,471,400.00	72	$ 34,330.00
Inverness-Belmont (North)	4.2-5	4.2-6	27-29	$ 108,800.00	$ 21,800.00	$ 21,800.00	$ 9,100.00	$ -	$ 161,500.00	6	$ 26,920.00
Katrine-College (South)	4.2-7	4.2-8	30-32	$ 373,200.00	$ 74,600.00	$ 74,600.00	$ 31,300.00	$ -	$ 553,700.00	27	$ 20,510.00
Lomond-College (South)	4.2-9	4.2-10	33-35	$ 541,300.00	$ 108,300.00	$ 108,300.00	$ 45,500.00	$ -	$ 803,400.00	29	$ 27,700.00
Elinor-College (South)	4.2-11	4.2-12	36-38	$ 230,600.00	$ 46,100.00	$ 46,100.00	$ 19,400.00	$ -	$ 342,200.00	9	$ 38,020.00
Janes-College (South)	4.2-13	4.2-14	39-41	$ 244,300.00	$ 48,900.00	$ 48,900.00	$ 20,500.00	$ -	$ 362,600.00	13	$ 27,890.00
Chase-Hobson-Belmont (South)	4.2-15	4.2-16	42-44	$ 391,000.00	$ 78,200.00	$ 78,200.00	$ 32,800.00	$ -	$ 580,200.00	15	$ 38,680.00
4.3 Downers Grove Gardens			***46***								
Janes-Leonard-Chase-Puffer (North)	4.3-1	4.3-2	52-54	$ 780,700.00	$ 156,100.00	$ 156,100.00	$ 65,600.00	$ -	$ 1,158,500.00	68	$ 17,040.00
Janes-Leonard-Chase-Puffer (South)	4.3-3	4.3-4	55-57	$ 1,470,600.00	$ 294,100.00	$ 294,100.00	$ 123,500.00	$ -	$ 2,182,300.00	129	$ 16,920.00
Belmont Road (Southwest)	4.3-5	4.3-6	58-60	$ 339,800.00	$ 68,000.00	$ 68,000.00	$ 28,500.00	$ 64,700.00	$ 569,000.00	25	$ 22,760.00
Belmont Road (East)	4.3-7	4.3-8	61-63	$ 651,000.00	$ 130,200.00	$ 130,200.00	$ 54,700.00	$ 149,000.00	$ 1,115,100.00	52	$ 21,440.00
Pershing Avneue (South)	4.3-9	4.3-10	64-66	$ 708,400.00	$ 141,700.00	$ 141,700.00	$ 59,500.00	$ -	$ 1,051,300.00	64	$ 16,430.00
Woodward and 63rd Street	4.3-11	4.3-12	67-69	$ 184,000.00	$ 36,800.00	$ 36,800.00	$ 15,500.00	$ 18,100.00	$ 291,200.00	18	$ 16,180.00
Lee and Boundry (South)	4.3-13	4.3-14	70-72	$ 446,200.00	$ 89,200.00	$ 89,200.00	$ 37,500.00	$ -	$ 662,100.00	39	$ 16,980.00
Springside Avenue (South)	4.3-15	4.3-16	73-75	$ 188,100.00	$ 37,600.00	$ 37,600.00	$ 15,800.00	$ -	$ 279,100.00	14	$ 19,940.00
Springside-Jefferson-Downers (North)	4.3-17	4.3-18	76-78	$ 880,000.00	$ 176,000.00	$ 176,000.00	$ 73,900.00	$ -	$ 1,305,900.00	52	$ 25,110.00
Pershing-Woodward-Maple (North)	4.3-19	4.3-20	79-81	$ 1,664,800.00	$ 333,000.00	$ 333,000.00	$ 139,800.00	$ 42,800.00	$ 2,513,400.00	104	$ 24,170.00
Sherman Avenue (North)	4.3-21	4.3-22	82-84	$ 688,300.00	$ 137,700.00	$ 137,700.00	$ 57,800.00	$ -	$ 1,021,500.00	62	$ 16,480.00
Lee Avenue (North)	4.3-23	4.3-24	85-87	$ 861,600.00	$ 172,300.00	$ 172,300.00	$ 72,400.00	$ 14,600.00	$ 1,293,200.00	54	$ 23,950.00
4.4 Fairhaven Court			***89***								
Fairhaven Court	4.4-1	4.4-2	91	$ 205,700.00	$ 41,100.00	$ 41,100.00	$ 17,300.00	$ 43,700.00	$ 348,900.00	10	$ 34,890.00
4.5 Burlington Highlands			***94***								
Morton and Downers	4.5-1	4.5-2	99-101	$ 822,100.00	$ 164,400.00	$ 164,400.00	$ 69,100.00	$ 16,600.00	$ 1,236,600.00	39	$ 31,710.00
40th and Seely (North)	4.5-3	4.5-4	102-104	$ 361,300.00	$ 72,300.00	$ 72,300.00	$ 30,400.00	$ -	$ 536,300.00	21	$ 25,540.00
40th and Northcott	4.5-5	4.5-6	105-107	$ 253,700.00	$ 50,700.00	$ 50,700.00	$ 21,300.00	$ -	$ 376,400.00	14	$ 26,890.00
Virginia-Seely-Janet-Downers	4.5-7	4.5-8	108-110	$ 685,000.00	$ 137,000.00	$ 137,000.00	$ 57,500.00	$ -	$ 1,016,500.00	43	$ 23,640.00
Belle Aire and Venard	4.5-9	4.5-10	111-113	$ 539,700.00	$ 107,900.00	$ 107,900.00	$ 45,300.00	$ 24,700.00	$ 825,500.00	21	$ 39,310.00
Vernard Road (North)	4.5-11	4.5-12	114-116	$ 223,300.00	$ 44,700.00	$ 44,700.00	$ 18,800.00	$ -	$ 331,500.00	10	$ 33,150.00
Vernard Road (South)	4.5-13	4.5-14	117-119	$ 65,200.00	$ 13,000.00	$ 13,000.00	$ 5,500.00	$ -	$ 96,700.00	2	$ 48,350.00
Virginia Avenue (West)	4.5-15	4.5-16	120-122	$ 90,500.00	$ 18,100.00	$ 18,100.00	$ 7,600.00	$ -	$ 134,300.00	6	$ 22,380.00
Lacey-Carol-Northcott	4.5-17	4.5-18	123-125	$ 41,300.00	$ 8,300.00	$ 8,300.00	$ 3,500.00	$ -	$ 61,400.00	1	$ 61,400.00
Lacey and Janet	4.5-19	4.5-20	126-128	$ 182,900.00	$ 36,600.00	$ 36,600.00	$ 15,400.00	$ -	$ 271,500.00	14	$ 19,390.00
Ogden-Lacey-Grant-Lee (South)	4.5-21	4.5-22	129-131	$ 806,500.00	$ 161,300.00	$ 161,300.00	$ 67,700.00	$ 97,800.00	$ 1,294,600.00	27	$ 47,950.00

Table 4.13-1
Downers Grove Sanitary District
Unsewered Area Plan
Summary of Estimated Costs for Unsewered Areas

March 2017

	Tables		Page	Construction	Contingency	Engineering	Legal/Admin	Easements	Total	Number of Services	Cost per Service
4.6 Golf Addition			***133***								
Drendel and Ogden (completed)	*4.6-1*	*4.6-2*	*137-139*	*$ -*	*$ -*	*$ -*	*$ -*	*$ -*	*$ -*	*0*	*$ -*
Cross and Ogden (South) (completed)	*4.6-3*	*4.6-4*	*140-142*	*$ -*	*$ -*	*$ -*	*$ -*	*$ -*	*$ -*	*0*	*$ -*
Cross and Ogden (North)	4.6-5	4.6-6	143-145	$ 213,000.00	$ 42,600.00	$ 42,600.00	$ 17,900.00	$ 30,400.00	$ 346,500.00	2	N/A
Drendel and Granville (South)	4.6-7	4.6-8	146-148	$ 491,400.00	$ 98,300.00	$ 98,300.00	$ 41,300.00	$ 18,600.00	$ 747,900.00	28	$ 26,710.00
Burlington and Walnut (South)	4.6-9	4.6-10	149-151	$ 123,800.00	$ 24,800.00	$ 24,800.00	$ 10,400.00	$ -	$ 183,800.00	2	N/A
Puffer North of Prairie	4.6-11	4.6-12	152-154	$ 376,700.00	$ 75,300.00	$ 75,300.00	$ 31,600.00	$ 10,400.00	$ 569,300.00	16	$ 35,580.00
4.7 Florence Avenue			***156***								
Florence Avenue	4.7-1	4.7-2	158-160	$ 147,200.00	$ 29,400.00	$ 29,400.00	$ 12,400.00	$ -	$ 218,400.00	11	$ 19,850.00
4.8 Meyers Road and 31st Street			***161***								
Meyers Road (North)	4.8-1	4.8-2	164-166	$ 132,300.00	$ 26,500.00	$ 26,500.00	$ -	$ 34,900.00	$ 220,200.00	3	N/A
Meyers Road (South)	4.8-3	4.8-4	167-170	$ 162,700.00	$ 32,600.00	$ 32,600.00	$ -	$ 35,200.00	$ 263,100.00	4	N/A
4.9 57th and Grant			***171***								
57th and Grant (completed)	*4.9-1*	*4.9-2*	*173-175*	*$ -*	*$ -*	*$ -*	*$ -*	*$ -*	*$ -*	*0*	*$ -*
4.10 60th and Cumnor			***176***								
59th (West)	4.10-1	4.10-2	180-182	$ 218,200.00	$ 43,600.00	$ 43,600.00	$ 18,300.00	$ -	$ 323,700.00	15	$ 21,580.00
59th (East)	4.10-3	4.10-4	183-185	$ 188,300.00	$ 37,700.00	$ 37,700.00	$ 15,800.00	$ -	$ 279,500.00	4	$ 69,880.00
60th (West)	4.10-5	4.10-6	186-188	$ 132,600.00	$ 26,500.00	$ 26,500.00	$ 11,100.00	$ -	$ 196,700.00	11	$ 17,880.00
60th and Cumnor	4.10-7	4.10-8	189-191	$ 89,800.00	$ 18,000.00	$ 18,000.00	$ 7,500.00	$ -	$ 133,300.00	7	$ 19,040.00
60th (East)	4.10-9	4.10-10	192-194	$ 48,500.00	$ 9,700.00	$ 9,700.00	$ 4,100.00	$ -	$ 72,000.00	3	$ 24,000.00
Cumnor (South)	4.10-11	4.10-12	195-197	$ 67,600.00	$ 13,500.00	$ 13,500.00	$ 5,700.00	$ -	$ 100,300.00	2	$ 50,150.00
61st and Cumnor	4.10-13	4.10-14	198-200	$ 232,300.00	$ 46,500.00	$ 46,500.00	$ 19,500.00	$ -	$ 344,800.00	12	$ 28,730.00
61st (East)	4.10-15	4.10-16	201-203	$ 51,900.00	$ 10,400.00	$ 10,400.00	$ 4,400.00	$ -	$ 77,100.00	3	$ 25,700.00
4.11 63rd Corridor			***205***								
Carpenter and 63rd	4.11-1	4.11-2	209-211	$ 125,400.00	$ 25,100.00	$ 25,100.00	$ 10,500.00	$ -	$ 186,100.00	8	$ 23,260.00
Norfolk and Carpenter	4.11-3	4.11-4	212-214	$ 97,200.00	$ 19,400.00	$ 19,400.00	$ 8,200.00	$ -	$ 144,200.00	8	$ 18,030.00
Meadowlawnand Washington	4.11-5	4.11-6	215-217	$ 494,000.00	$ 98,800.00	$ 98,800.00	$ 41,500.00	$ 24,700.00	$ 757,800.00	28	$ 27,060.00
63rd and Lyman	4.11-7	4.11-8	218-220	$ 195,200.00	$ 39,000.00	$ 39,000.00	$ 16,400.00	$ 36,400.00	$ 326,000.00	7	$ 46,570.00
Fairmount and 63rd	4.11-9	4.11-10	221-223	$ 266,200.00	$ 53,200.00	$ 53,200.00	$ 22,400.00	$ 35,200.00	$ 430,200.00	9	$ 47,800.00
Blodgett and 62nd	4.11-11	4.11-12	224-226	$ 28,200.00	$ 5,600.00	$ 5,600.00	$ 2,400.00	$ -	$ 41,800.00	1	$ 41,800.00
63rd and Osage	4.11-13	4.11-14	227-229	$ 153,900.00	$ 30,800.00	$ 30,800.00	$ 12,900.00	$ 37,600.00	$ 266,000.00	7	$ 38,000.00
Grand Avenue	4.11-15	4.11-16	230-232	$ 109,600.00	$ 21,900.00	$ 21,900.00	$ 9,200.00	$ -	$ 162,600.00	8	$ 20,330.00
4.12 Gilbert and Lee			***234***								
Gilbert and Lee	4.12-1	4.12-2	236-238	$ 97,200.00	$ 19,400.00	$ 19,400.00	$ 8,200.00	$ -	$ 144,200.00	3	$ 48,070.00
Totals				***$ 21,893,100.00***	***$ 4,378,700.00***	***$ 4,378,700.00***	***$ 1,814,200.00***	***$ 921,700.00***	***$ 33,386,400.00***	***1,312***	***$ 25,446.95***

Board of Trustees
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Downers Grove
Sanitary District

2710 Curtiss Street
P.O. Box 1412
Downers Grove, IL 60515-0703
Phone: 630-969-0664
Fax: 630-969-0827
www.dgsd.org

General Manager
Nicholas J. Menninga

Legal Counsel
Michael G. Philipp

Providing a Better Environment for South Central DuPage County

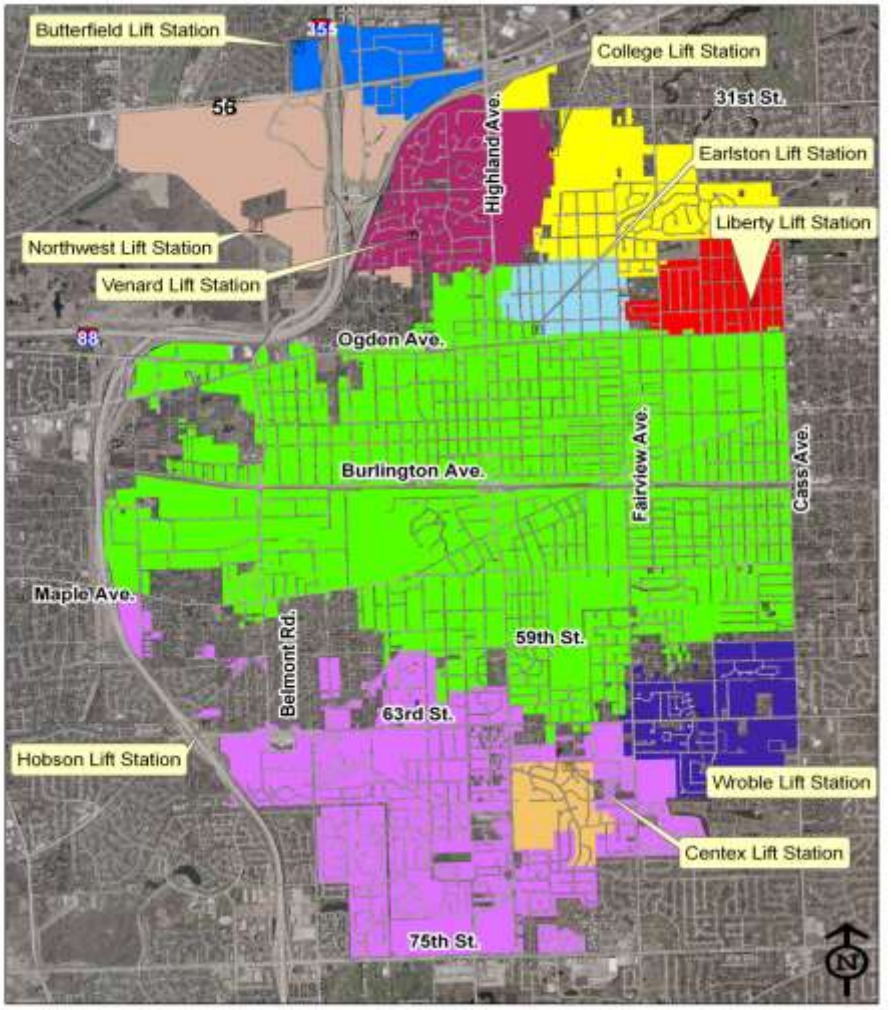
Memo

To: Board of Trustees
From: Nick Menninga, General Manager
Date: April 13, 2017
Subject: Compensation of General Manager for FY2017-18

Wally communicated to me the suggested General Manager's salary developed by the Board of Trustees in executive session at the March meeting. We have posted the suggested salary for six days according to the rules established under IMRF, since the salary being considered is above $150,000.

I have included an item on the April 18 meeting agenda to allow the Board of Trustees to approve the General Manager's annual salary at $165,306 for FY 2017-18, effective May 1, 2017. This represents a 3.5% increase over my current salary of $159,716, which was last increased effective May 1, 2016.

C: BOLI, MGP, WCC



Downers Grove Sanitary District
Lift Stations

Flow Basins
- Gravity Sewer Area
- Butterfield Lift Station
- Centex Lift Station
- Earlston Lift Station
- Hobson Lift Station
- Liberty Lift Station
- Northwest Lift Station
- Venard Lift Station
- College Lift Station
- Wroble Lift Station

0 0.25 0.5 1 Miles

Downers Grove Sanitary District

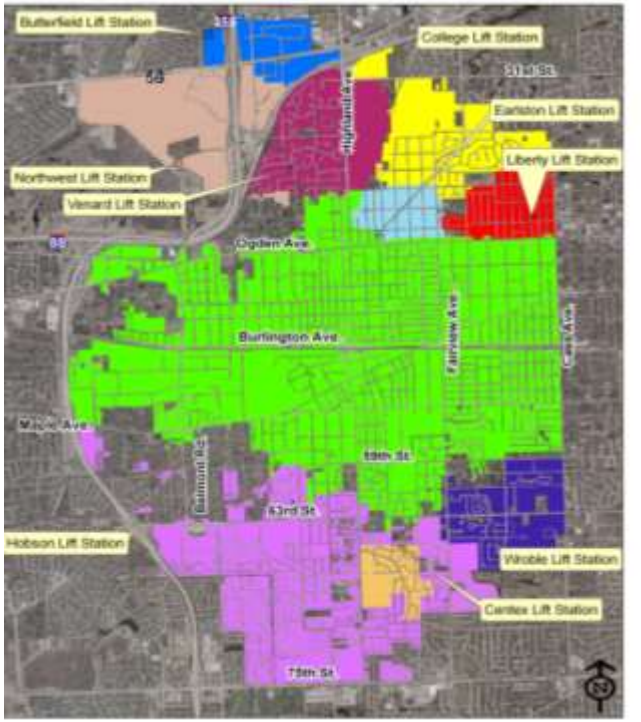
Lift Station Overview Presented to Board of Trustees April 18, 2017

General Information

- The District operates 9 lift stations
- 3 Lift stations on the South side of town (Located along the 63rd Street corridor)
- 6 Lift stations on the North side of town (All located north of Ogden Avenue)
- The smallest lift station is Centex. Average daily flow rate is 130,000 gallons.
- The largest lift station is Hobson. Average daily flow rate is 2,000,000 gallons.

Operation and Maintenance

- All lift stations are in continuous operation 24 hours a day 7 days a week.
- Lift station operation and emergency response is critical.
- All lift stations are inspected weekly.
- All pumps and equipment are tested during the inspection.
- Scheduled preventive maintenance work orders are automatically generated for items such as lubrication, seal water filter replacements, motor winding testing, and portable generator testing.
- Any pumps or equipment found in need of repair are addressed in a timely manner.



Hobson Lift Station

- Located at 2537 Hobson Road in Downers Grove (Hobson Road & I-355 Tollway)
- Installed in November 1974
- Factory built Smith & Loveless “Can-type station”
- (4) 250 Horsepower variable speed pumps
- Average daily flow is 1771 GPM / 2.55 MGD
- Maximum output is 13,500 GPM / 19.4 MGD
- 24” Force main that measures 4,990 Feet long
- Force main discharges into a 30” gravity line to the treatment plant
- Emergency Backup Generator
- Average monthly electrical costs: $3,184

Centex Lift Station

- Located at 6510 Fairmont Avenue in Downers Grove (65th & Fairmont Avenue)
- Installed in November 1965
- Factory built Smith & Loveless “Can-type station”
- (2) 15 Horsepower pumps
- Average daily flow is 49 GPM / 0.07 MGD
- Maximum output is 1000 GPM / 1.44 MGD
- 12” Force main that measures 5,100 Feet long
- Force main discharges into a 27” gravity line to Hobson lift station
- Emergency Backup Generator
- Average monthly electrical costs: $150

Wroble Lift Station

- Located at 63rd Street & Brookside Drive in Westmont
- Installed in September 1973
- Factory built Smith & Loveless “Can-type station”
- (2) 150 Horsepower variable speed pumps
- Average daily flow is 576 GPM / 0.83 MGD
- Maximum output is 3300 GPM / 4.75 MGD
- 16” Force main that measures 4,680 Feet long
- Force main discharges into a 24” gravity line to Hobson lift station
- Emergency Backup Generator
- Average monthly electrical costs: $1,285

Liberty Park Lift Station

- Located at 41st Street & Adams Street in Westmont
- Installed in November 1965
- Factory built Smith & Loveless “Can-type station”
- (2) 40 Horsepower variable speed pumps

- Average daily flow is
  229 GPM / 0.33 MGD
- Maximum output is
  1600 GPM / 2.30 MGD
- 12” Force main that measures 4,860 Feet long
- Force main discharges into a 15” gravity line to Earlston lift station
- Emergency Backup Generator
- Average monthly electrical costs: $475

Earlston Lift Station

- Located at 717 W. 41st Street in Downers Grove (41st Street & Earlston Road)
- Installed in November 1956
- Concrete & Brick building
- (3) 25 Horsepower pumps
- Average daily flow is 104 GPM / 0.36 MGD
- Maximum output is 3100 GPM / 4.46 MGD
- 14” Force main that measures 1,050 Feet long
- Force main discharges into a 24” gravity line to the treatment plant
- Emergency Backup Generator
- Average monthly electrical costs $358

Venard Lift Station

- Located at 3711 Venard Road in Downers Grove (Venard Road & Goldenbell Court)
- Originally installed in March 1966; Major renovations completed in 2011
- Submersible pump station
- (3) 85 Horsepower pumps
- Average daily flow is 396 GPM / 0.57 MGD
- Maximum output is 3100 GPM / 4.46 MGD
- Dual 10” Force mains that measures 1,470 Feet long
- Force main discharges into a 18” gravity line to Northwest lift station
- Average monthly electrical costs $627

College Lift Station

- Located at 555 31st Street in Downers Grove (Southwest of Midwestern University on 31st Street)
- Installed in August 1989
- Factory built Hydromatic / Metropolitan (Submersible pump station)
- (2) 75 Horsepower Fairbanks pumps & (1) 100 Horsepower Hydromatic pump
- Average daily flow is 285 GPM / 0.41 MGD
- Maximum output is 2250 GPM / 3.24 MGD
- 16” Force main which measures 6,250 Feet long
- Force main discharges into a 24” gravity line to treatment plant
- Emergency Backup Generator
- Average monthly electrical costs $605

Butterfield Lift Station

- Located at 20W695 Glen Park Road in Lombard (Northwest of Butterfield Road & I-355 Tollway)
- Installed in September 1970
- Factory built Zimmer / Franciscan “Can-type station”
- (2) 40 Horsepower pumps
- Average daily flow is 118 GPM / 0.17 MGD
- Maximum output is 1550 GPM / 2.23 MGD

- 12” Force main that measures 1,290 Feet long
- Force main discharges into a 12” gravity line to Northwest lift station
- Emergency Backup Generator
- Average monthly electrical costs $273

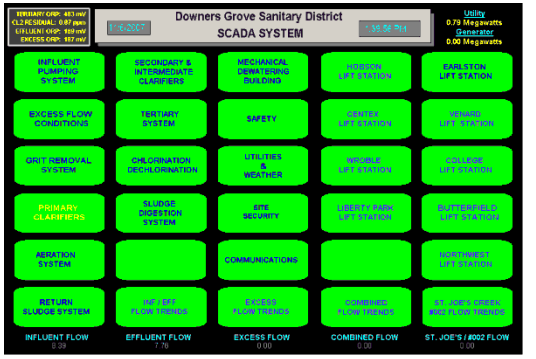
Northwest Lift Station

- Located at 21W042 Finley Road in Downers Grove (Northwest of Finley Road & I-88 Tollway)
- Originally installed in February 1970
- Concrete & Brick building
- (3) 75 Horsepower variable speed pumps
- (2) 150 Horsepower High Flow Pumps
- Average daily flow is 715 GPM / 1.03 MGD
- Maximum output is 4000 GPM / 5.76MGD
- 20” Force main that measures 6,040 Feet long
- Force main discharges into a 24” gravity line to the treatment plant
- Emergency Backup Generator
- Average monthly electrical costs $1,572

Control Systems & Alarming

- In 2001 all of the existing control systems were replaced with PLC's (Programmable Logic Controllers) and the stations were connected to the SCADA (Supervisory Control And Data Acquisition) system to remotely monitor and control the stations, and for alarm notification.

- In 2016, the District completed PLC and communications infrastructure upgrades at all nine stations. These improvements converted communication with the stations from a copper-based telephone system to a cellular-based data transmission for increased reliability.



Odor Control

Earlston & Hobson lift stations are the only two lift stations where odor issues needed to be addressed.

Earlston Lift Station

- Initially we installed deodorant blocks hanging in the wet wells, sealed the wet well lids and installed vent piping above the roof line. These attempts provided only minimal improvement.
- Charcoal filters were then added to the vent lines giving better results, however, the problem was still not resolved.
- In 2002 we installed a bio-filter odor removal system. This system uses a blower fan to draw the fumes out of the sealed wet well and discharges the air into a bed of wood chips approximately 6’ deep. The wood chips filter the air, removing the hydrogen sulfides that are the main cause of the odors. This system works very well and there are no longer odor issues at the station.

Odor Control (continued)

Hobson Lift Station

- In 2003 we installed a larger version of a bio-filter; this was a bit more challenging than at the Earlston station due to the fact that Hobson has a very large open-type wet well with aluminum gratings. To seal the wet well we had to install a large rubber mat on top of the existing aluminum gratings and then bolt down several 4’x10’ aluminum plates over the rubber mat to seal the wet well. Once again, we were pleased with the results of the bio-filter. Even at this very large lift station it has completely eliminated the odor issues.

Recent Improvements & Upgrades

- 2010 – ARRA Stimulus Funding:
  - Emergency Generator Installations: Hobson, Wroble, Liberty Park, College and Northwest Lift Stations.
  - Northwest Lift Station – Installation of a 150 horsepower high flow pump.
- 2011 – ARRA Stimulus Funding:
  - Venard Lift Station replacement including installation of three (3) new 85 horsepower submersible pumps, installation of an emergency generator on site and complete landscape restoration.
- 2013-2015 – Cathodic Protection Upgrades:
  - Installation of Cathodic Protection Systems at the lift stations – Cathodic Protection provides corrosion protection of the underground metal structures.

Downers Grove Sanitary District

Questions?

DOWNERS GROVE SANITARY DISTRICT

M E M O

TO: Nicholas J. Menninga
General Manager

FROM: W. Clay Campbell
Administrative Supervisor

DATE: April 13, 2017

RE: Progress Report – March, 2017

ADMINISTRATIVE

PAID LEAVE

I was on vacation from March 24 (1/2 day) – March 31.

Reimbursement Program for Sanitary Sewer
Backups Caused by Public Sanitary Sewer Blockages

I have updated the summary sheet included with my report this month to keep you apprised of any open claims. There have been no new reported mainline blockages since last month's report.

Personnel

We have filled our summer worker positions. Oscar Avila is returning as a building and grounds worker, Alex Bielawa will be returning to work in the office this summer and retired Operator Jim Leathers will also work for the District focusing on assisting with biosolids operations at the WWTC.

DuPage County Reporting

Nick, Alyssa and I continue to update the DuPage County Board Chairman's office in compliance with the requirements of the County's reporting ordinance. Most recently, we provided the Chairman with a copy of the District's Amended Appropriation Ordinance for Fiscal Year 2016-17, approved Five-Year Plan for Fiscal Years 2017-18 to 2021-22 along with the Appropriation Ordinance for Fiscal Year 2017-18 and the adopted Ordinance ORD No. 17-01 revising the District's rates and fees.

Open Meetings Act Compliance

In accordance with Section 7.3 of the Open Meetings Act, staff posted information on the District's website related to the total compensation package for all employees following approval of the District budget for the next fiscal year – this posting was made on March 24 (within six days of March 21). As well, staff also posted information on the District's website related to the total compensation package for the General Manager of the District as it is equal to or exceeding $150,000 a year. This information was posted on April 5 – well in advance of the required minimum of at least six days before approval as the scheduled approval date is on April 18 at the regular Board meeting.

Safety Committee

The Safety Committee did not meet in March, but plans on meeting in the month of April. We did receive our full $6,301 Safety Grant awarded by IPRF. We are planning for a future Advisory Inspection visit from the Illinois Department of Labor.

Social Media/Website/Public Outreach Progress

We have had several employees use the secure employee intranet on the District's website that provides greater accessibility for the District's employees to human resource forms and materials. In addition, Alyssa has been doing an excellent job consistently refreshing information on the website/Facebook/Nextdoor to maintain a current presence.

Staff has reached out to teachers and administrative staff at Herrick Middle School to determine if similar interest and collaboration opportunities are present. We are waiting to hear back from them. The District has several upcoming student tour opportunities in the months of April and May.

Technology Update

In March, Sound Inc. upgraded the software component of the District's phone system to provide a few software enhancements (like the capacity to host conference call events) and to offer better interoperability with Windows operating system updates in recent years.

It is anticipated that the account access through the Invoice Cloud portal by phone will be available in late spring. The noteworthy projects on our programming improvement list with Curtis Martin Group for the new fiscal year will be (1) establishing an ACH payment option for vendors that wish to be paid that way as well as (2) account number conversion to facilitate the payment by phone service mentioned above. Staff has begun preliminary steps to commence with both of these projects along with a few minor bug fixes.

The following is a detailed summary of the portal's utilization in the last month and since the portal's launch in February 2015 through the end of last month:

# of Customers registered in the last month:	63
# of Customers paying their bills online in the last month:	818
Amount of Money processed through the Portal in the last month:	$46,240.16
# of Customers signing up for Autopay through the Portal in the last month:	13
# of Customers enrolled in paperless billing in the last month:	30
# of customers registered for pay by text in the last month:	22
Cost to District for providing Invoice Cloud service in the last month:	$180.30
Cost to District's customers (convenience fees) in the last month:	$601.33
# of Customers registered from launch through last month:	2073
Total # of Transactions from launch through last month:	12,070
Amount of Money processed through the Portal from launch through last month:	$692,917.34
# of Customers signing up for Autopay through the Portal from launch through last month:	438
# of Customers enrolled in paperless billing from launch through last month:	765
# of customers registered for pay by text from launch through last month:	271
Cost to District for providing Invoice Cloud service from launch through last month:	$3,241.00
Cost to District's customers (convenience fees) from launch through last month:	$9,899.23

Staff is anticipating executing a professional services support contract with Baxter & Woodman Control Services Integration (BWCSI) for fiscal year 2017-2018. The contract will enable the District to continue receiving consistent IT support services (including the renewal of warranty and licensing) and preventive maintenance work.

FINANCIAL

Annual Audit

Preliminary audit work will begin with Lauterbach & Amen, LLP in late April and May.

Amended Appropriation Ordinance for FY16-17, Appropriation Ordinance for FY17-18 and Ordinance No. ORD 17-01

The Amended Appropriation Ordinance for FY16-17 and Appropriation Ordinance for FY17-18 was published in the paper on March 22. The Amended Appropriation Ordinance for FY16-17 and Appropriation Ordinance for FY17-18 was filed with the DuPage County Clerk on March 28. Ordinance No. ORD 17-01 (changes in rates and fees) was published in the paper on March 22 as well. Per state statute, changes in the rates and fees took effect on Saturday, April 1.

Economic Interest Statements

The list of employees and officers required to file Economic Interest Statements in 2017 was provided to the County Clerk as required by statute. The Statements were sent directly to each individual's email address in early March. Please note that this filing is now administered through an online process. A copy of the Receipt that is furnished to the individual from the County must be provided to me for purposes of the annual audit. An email copy will suffice. At this point, 11 out of 13 individuals have filed. The deadline for filing is May 2, 2017.

Treasurer's Report and Investment Activity

The monthly Treasurer's Report is included separately in the packet each month and detailed investment information (financial institution name, current rate and dollar amount) is provided on the District's Investment Schedule also provided separately in the packet each month.

User Billing

Detailed billing information is attached to this report.

CODE ENFORCEMENT & UNSEWERED AREAS

Building Sanitary Service Repair Assistance Program; Infiltration and Inflow Removal Program; and Overhead Sewers and Backflow Prevention Devices Reimbursement Program

I have continued to perform the legal review of both Program Agreements and Access Agreements for all of the above programs as prepared by our office prior to execution by the parties.

Sewer Permitting Process

I have continued to perform the legal review of Access Agreements and Annexation Petitions prepared by our office as needed by sewer permit applicants.

cc: WDVB, ASK, PWC, KJR, RTJ, MJS, TTC, RPS, MRM, JPB, DRB, MGP

REIMBURSEMENT PROGRAM FOR SANITARY SEWER BACKUPS
CAUSED BY PUBLIC SANITARY SEWER BLOCKAGES

04/13/17

STREET ADDRESS	CITY	NAME	DATE OF BACKUP	DATE CLAIM RECEIVED	AMOUNT OF CLAIM	ADJUSTER RECOMMENDATION	AMOUNT PAID	DATE PAID	ADJUSTER FEE	STATUS
4821 BRYAN PLACE	DOWNERS GROVE	HASAN (TENANT)	6/16/2015	TIME LIMIT FOR CLAIM EXPIRED.					0.00	CLOSED
4821 BRYAN PLACE	DOWNERS GROVE	OWNER VIA PROP. MGMT	6/16/2015	11/30/2015	2171.98	ADJUSTER DESK REVIEW - $2,171.98 SUGGESTEI	2,171.98	3/10/2016	157.25	CLOSED
2006 OXNARD DRIVE	DOWNERS GROVE	MORRISON	8/10/2015	8/17/2015	130.00	NO ADJUSTER - WELL DOCUMENTED EXPENSES	130.00	8/19/2015	0.00	CLOSED
3719 DOWNERS DRIVE	DOWNERS GROVE	LINDENBURGER	9/7/2015	3/4/2016	11000.00	PAYMENT SUGGESTED - 2,500.00	2,500.00	3/10/2016	544.00	CLOSED
3725 DOWNERS DRIVE	DOWNERS GROVE	CORTESIO	9/7/2015	11/18/2015	80.00	NO ADJUSTER - CLEANUP COSTS ONLY	80.00	12/16/2015	0.00	CLOSED
4064 STERLING ROAD	DOWNERS GROVE	KOEHLER	12/21/2015	TIME LIMIT FOR CLAIM EXPIRED.					0.00	CLOSED
4032 LONGMEADOW ROAD	DOWNERS GROVE	VICTOR	2/16/2016	TIME LIMIT FOR CLAIM EXPIRED.					0.00	CLOSED
4428 MIDDAUGH AVENUE	DOWNERS GROVE	RABOVSKY (OWNER)	4/2/2016	7/21/2016	2500.00	PAYMENT SUGGESTED - $2,500.00	2,500.00	8/10/2016	328.75	CLOSED
4428 MIDDAUGH AVENUE	DOWNERS GROVE	MURRIN (TENANT)	4/2/2016			NO DAMAGE INCURRED TO TENANT'S PROPERTY			0.00	CLOSED
6536 BRIARGATE DRIVE	DOWNERS GROVE	ROOT (OWNER)	4/2/2016	7/14/2016	630.00	PAYMENT SUGGESTED - $630.00	630.00	8/2/2016	240.50	CLOSED
6536 BRIARGATE DRIVE	DOWNERS GROVE	MIERS (TENANT)	4/2/2016			NO DAMAGE INCURRED TO TENANT'S PROPERTY			0.00	CLOSED
19 N. WASHINGTON ST.	WESTMONT	SHERIDAN	4/29/2016	5/4/2016	575.00	NO ADJUSTER - PLUMBER COSTS ONLY	575.00	5/12/2016	0.00	CLOSED
5401 BLODGETT AVENUE	DOWNERS GROVE	ADAMSKI	5/10/2016	6/1/2016	2500.00	PAYMENT SUGGESTED - $2,500.00	2,500.00	6/2/2016	572.35	CLOSED
5527 FAIRMOUNT AVENUE	DOWNERS GROVE	BUIE (OWNER)	5/11/2016			PAYMENT SUGGESTED - $2,500.00			424.93	CLOSED
5527 FAIRMOUNT AVENUE	DOWNERS GROVE	TONNARINI (TENANT)	5/11/2016			PAYMENT SUGGESTED - $353.80			212.46	CLOSED
5527 FAIRMOUNT AVENUE	DOWNERS GROVE	FROST (TENANT)	5/11/2016			PAYMENT SUGGESTED - $1,077.60			212.46	CLOSED
4821 BRYAN PLACE	DOWNERS GROVE	HASAN (TENANT)	7/28/2016	TIME LIMIT FOR CLAIM EXPIRED.					0.00	CLOSED
4821 BRYAN PLACE	DOWNERS GROVE	OWNER VIA PROP. MGMT	7/28/2016	8/29/2016	1573.18	PAYMENT SUGGESTED - $1,573.18	1,573.18	12/15/2016	157.25	CLOSED
138 W. CHICAGO AVENUE	WESTMONT	O'CONNOR	8/27/2016	1/17/2017	5500.00	PAYMENT SUGGESTED - $5,000.00	5,000.00	3/24/2017	231.25	CLOSED
826 MAPLE AVENUE	DOWNERS GROVE	WOOD	8/29/2016	TIME LIMIT FOR CLAIM EXPIRED.					454.60	CLOSED
4014 WILLIAMS STREET	DOWNERS GROVE	DZIADUS	11/18/2016							OPEN
1122 60TH PLACE	DOWNERS GROVE	MILLER	11/29/2016	12/16/2016		PAYMENT SUGGESTED - $1,000.00				OPEN
628 S. ADAMS STREET	WESTMONT	JANULIS	12/3/2016							OPEN
6022 OSAGE AVENUE	DOWNERS GROVE	SHEK	1/17/2017							OPEN

TOTAL NUMBER OF BACKUPS	231		
TOTAL NUMBER OF CLAIMS RECEIVED	115		
TOTAL AMOUNT OF CLAIMS RECEIVED		$150,511.55	
TOTAL AMOUNT OF CLAIMS PAID			$80,486.53
TOTAL AMOUNT PAID TO ADJUSTER			$17,092.55
AVERAGE AMOUNT OF CLAIM (MOST RECENT 24 MOS)		$2,666.02	
AVERAGE AMOUNT OF PAYMENT (MOST RECENT 24 MOS)			$1,766.02
AVERAGE AMOUNT PAID TO ADJUSTER PER CLAIM (MOST RECENT 24 MOS)			$176.79

USER BILLING SUMMARY

User Charge System

Billings for March 2017 were as follows:

User	$226,213.24
Surcharge	20,859.94
Monthly fees	266,739.94
Total	$513,813.12
Summer Usage Adjustment	$0.00
Billable Flow	137,098,933
Budgeted Billable Flow	134,747,657
% Actual/Budgeted Billable Flow	101.74%
YTD Billable Flow	1,861,031,776
YTD Budgeted Billable Flow	1,805,859,536
% Actual/Budgeted Billable Flow	103.06%

The user accounts receivable balance on 3/31/17 is $400,947.62 and consists of:

Current charges due 4/17/17	$312,556.83
Past due charges and penalty	88,390.79
Total	$400,947.62

The past due charges represent:

Age	User Charges	Penalty	Totals
30 days past due	$35,472.07	$4,787.74	$40,259.81
60 days past due	8,419.88	1,265.23	9,685.11
90 days & greater past due	33,746.64	4,699.23	38,445.87
Totals	$77,638.59	$10,752.20	$88,390.79

Summary of
Past Due Charges
(90 Days and Over)

Five Year Comparison

MARCH

Year	User Charges	Penalty	Total
2017	$33,746.64	$4,699.23	$38,445.87 *
2016	53,321.90	8,779.33	62,101.23 **
2015	46,505.15	6,499.11	53,004.26 **
2014	24,221.01	2,682.74	26,903.75 **
2013	45,233.11	4,947.37	50,180.48 **

*Includes $14,570.76 in sewer disconnection costs on 2 accounts.
**Included sewer disconnection costs of 3 accounts

Twelve Months Ending March 2017

Month	User Charges	Penalty	Total
3/31/17	$33,746.64	$4,699.23	$38,445.87
2/28/17	36,439.40	5,219.35	41,658.75
1/31/17	43,159.75	5,409.73	48,569.48
12/31/16	40,063.15	5,460.59	45,523.74
11/30/16	42,062.95	5,547.88	47,610.83
10/31/16	39,945.94	5,369.89	45,315.83
9/30/16	39,609.40	5,448.76	45,058.16
8/31/16	37,126.48	5,073.64	42,200.12
7/31/16	37,326.87	5,112.93	42,439.80
6/30/16	35,842.14	3,691.67	39,533.81
5/31/16	47,846.34	6,427.00	54,273.34
4/30/16	49,333.27	5,739.53	55,072.80

Sixteen out of seventeen delinquent accounts that were scheduled for pre-enforcement conferences on March 15, 2017 have paid in full. Since 2012, two accounts remain disconnected from sewer service. Of twenty-five properties scheduled for water disconnection on April 12, 2017, one service was already shut off due to non-payment to the Village of Downers Grove, twenty-one have paid in full and three did not pay and water was disconnected. Three additional accounts were scheduled for water disconnection on April 18, 2017, however two have already paid in full.

To: Nick Menninga, General Manager
From: Marc Majewski, Operations Supervisor
Re: Month of March, 2017 WWTC Operations Report.
Date: April 10, 2017

Attached please find detailed operating data and our monthly report to Illinois EPA for March. We had no excursions over our permit limits in March, 2017.

Certain highlights of operational activities included:

- Monthly flow: Average daily flows to the plant were 13.03 MGD. Total precipitation at the WWTC was 3.40". There were 4 days of excess flow during the month of March. There were 18 days of discharge over 11 MGD. Intermediate #1 was used as an additional excess tank for the March 1st and March 30th excess flow events.

- Activated sludge: Good operating performance continued throughout the month of March. Floc formers are still predominating leading to good solids settling.

- Anaerobic Digesters: Pumped a total of 957,313 gallons of primary sludge, 628,797 gallons of WAS, and 327,508 gallons of waste grease for a total of 1,913,618 gallons pumped to digesters. Total Volatile Solids destruction was calculated at 89%.

- Digester gas: Total digester gas production was 7,700,571 cubic feet. CHP unit used 1,963,593 cubic feet during the month. 2,031,694 cubic feet of gas was used for anaerobic digestion heat. 2,850,815 cubic feet of flared gas was recorded during the month. Natural gas was used for hot water and building heat. The Munters dehumidifier used 854,469 cubic feet of gas.

- Bio-solids: 295 yards of bio-solid were delivered in the month of March. Total distribution year to date is 373 Cubic Yards.

- Miscellaneous Items: The Tech 3 engine was shut down on March 20th for an extended service. Media replacement on the Unison H2S and siloxane removal vessels was completed.

- ComEd Electricity: Kilowatt-hours measured a total of 332,096 KW-hrs. CHP Electricity Generated: Total 98,195 KW-hrs.

C: WDVB, ASK, PWC, KJR, RTJ, MJS, WCC, MGP

Downers Grove Sanitary District

Monthly Operations Reports Page 1

Report Month: 3/2017

Date	WWTC RAIN	Tertiary Flow Maximum MGD	Tertiary Flow Minimum MGD	Tertiary Flow Avg MGD	Excess Tanks Maximum MGD	Excess Tanks Avg MGD	Intermediate Clarifier 1 Maximum MGD	Intermediate Clarifier 1 Avg MGD	Outfall 003 Maximum MGD	Outfall 003 Avg MGD	Total Flow Maximum MGD	Total Flow Avg MGD	Outfall 002 Avg MGD
Wed, Mar 1	0.07	29.23	21.92	23.38	43.31	17.05	16.00	1.44	0.00	0.00	88.54	41.87	21.96
Thu, Mar 2	0.00	25.07	20.46	21.78	3.05	0.11	0.00	0.00	0.00	0.00	28.11	21.89	0.01
Fri, Mar 3	0.00	20.93	15.00	17.47	0.00	0.00	0.00	0.00	0.00	0.00	20.93	17.47	0.00
Sat, Mar 4	0.00	16.67	11.16	14.12	0.00	0.00	0.00	0.00	0.00	0.00	16.67	14.12	0.00
Sun, Mar 5	0.00	15.80	8.92	12.93	0.00	0.00	0.00	0.00	0.00	0.00	15.80	12.93	0.00
Mon, Mar 6	0.00	15.79	8.74	12.07	0.00	0.00	0.00	0.00	0.00	0.00	15.79	12.07	0.00
Tue, Mar 7	0.29	17.66	10.01	13.83	0.00	0.00	0.00	0.00	0.00	0.00	17.66	13.83	0.00
Wed, Mar 8	0.00	15.37	8.54	11.93	0.00	0.00	0.00	0.00	0.00	0.00	15.37	11.93	0.00
Thu, Mar 9	0.00	14.46	7.42	11.11	0.00	0.00	0.00	0.00	0.00	0.00	14.46	11.11	0.00
Fri, Mar 10	0.00	12.43	7.09	10.18	0.00	0.00	0.00	0.00	0.00	0.00	12.43	10.18	0.00
Sat, Mar 11	0.00	13.01	6.73	9.88	0.00	0.00	0.00	0.00	0.00	0.00	13.01	9.88	0.00
Sun, Mar 12	0.00	12.52	6.21	9.78	0.00	0.00	0.00	0.00	0.00	0.00	12.52	9.78	0.00
Mon, Mar 13	0.10	12.44	6.18	9.97	0.00	0.00	0.00	0.00	0.00	0.00	12.44	9.97	0.00
Tue, Mar 14	0.03	12.21	6.35	10.18	0.00	0.00	0.00	0.00	0.00	0.00	12.21	10.18	0.00
Wed, Mar 15	0.00	12.66	6.31	9.80	0.00	0.00	0.00	0.00	0.00	0.00	12.66	9.80	0.00
Thu, Mar 16	0.00	12.51	6.24	9.54	0.00	0.00	0.00	0.00	0.00	0.00	12.51	9.54	0.00
Fri, Mar 17	0.02	12.45	6.24	9.74	0.00	0.00	0.00	0.00	0.00	0.00	12.45	9.74	0.00
Sat, Mar 18	0.00	13.23	6.26	9.46	0.00	0.00	0.00	0.00	0.00	0.00	13.23	9.46	0.00
Sun, Mar 19	0.00	12.38	5.53	9.09	0.00	0.00	0.00	0.00	0.00	0.00	12.38	9.09	0.00
Mon, Mar 20	0.29	18.93	6.46	12.70	0.00	0.00	0.00	0.00	0.00	0.00	18.93	12.70	0.00
Tue, Mar 21	0.00	15.03	8.05	11.29	0.00	0.00	0.00	0.00	0.00	0.00	15.03	11.29	0.00
Wed, Mar 22	0.00	12.77	7.06	10.13	0.00	0.00	0.00	0.00	0.00	0.00	12.77	10.13	0.00
Thu, Mar 23	0.00	12.33	6.38	9.85	0.00	0.00	0.00	0.00	0.00	0.00	12.33	9.85	0.00
Fri, Mar 24	0.03	12.80	6.52	9.68	0.00	0.00	0.00	0.00	0.00	0.00	12.80	9.68	0.00
Sat, Mar 25	0.51	21.68	6.16	13.21	0.00	0.00	0.00	0.00	0.00	0.00	21.68	13.21	0.00
Sun, Mar 26	0.12	21.56	12.22	17.06	0.00	0.00	0.00	0.00	0.00	0.00	21.56	17.06	0.00
Mon, Mar 27	0.00	17.98	12.13	14.70	0.00	0.00	0.00	0.00	0.00	0.00	17.98	14.70	0.00
Tue, Mar 28	0.00	15.22	9.96	12.55	0.00	0.00	0.00	0.00	0.00	0.00	15.22	12.55	0.00
Wed, Mar 29	0.10	13.37	8.36	11.44	0.00	0.00	0.00	0.00	0.00	0.00	13.37	11.44	0.00
Thu, Mar 30	1.83	28.33	11.82	22.50	42.45	22.50	16.00	1.28	0.00	0.00	86.78	46.28	29.32
Fri, Mar 31	0.01	27.15	21.05	22.69	18.63	5.57	0.00	0.00	0.00	0.00	45.78	28.27	7.36
sum	3.40	513.98	291.50	404.04	107.44	45.23	32.00	2.73	0.00	0.00	653.42	452.00	58.65
avg	0.11	16.58	9.40	13.03	3.47	1.46	16.00	1.36	0.00	0.00	21.08	14.58	1.89
max	1.83	29.23	21.92	23.38	43.31	22.50	16.00	1.44	0.00	0.00	88.54	46.28	29.32
min	0.00	12.21	5.53	9.09	0.00	0.00	16.00	1.28	0.00	0.00	12.21	9.09	0.00

Downers Grove Sanitary District

Monthly Operations Report Page 2

Report Month: 3/2017

Date	Tertiary Flow MGD	MLSS Avg Mg/L	Activated Sludge Inventory Lbs MLSS	Activated Sludge SRT Days	15 Mins Aeration Settling %	30 Mins Aeration Settling %	60 Mins Aeration Settling %	Sludge Volume Index	System 1 RAS SS Mg/L	System 2 RAS SS Mg/L	DuPage River Outfall D.O. Mg/L
Wed, Mar 1	23.38	1954	62057	13.8	23	17	14	88		4708	8.2
Thu, Mar 2	21.78	1755	55721	12.7	25	19	15	107	3779		7.0
Fri, Mar 3	17.47	2061	65463	8.9	28	22	17	106		8263	9.2
Sat, Mar 4	14.12										
Sun, Mar 5	12.93										
Mon, Mar 6	12.07	2608	82827	16.2	44	33	24	127		5099	
Tue, Mar 7	13.83	2328	73918	14.6	39	28	22	120	6242		9.0
Wed, Mar 8	11.93	2356	74808	13.9	36	27	21	112		6014	9.3
Thu, Mar 9	11.11	1979	62851	21.1	30	22	18	112	5672		9.1
Fri, Mar 10	10.18	2263	71854		38	27	20	119		5174	
Sat, Mar 11	9.88										
Sun, Mar 12	9.78										
Mon, Mar 13	9.97	2507	79627	23.3	59	43	30	172		5354	9.6
Tue, Mar 14	10.18	2819	89512	24.0	44	33	23	116	7151		9.0
Wed, Mar 15	9.80	2685	85280	20.8	44	34	26	127		5516	9.2
Thu, Mar 16	9.54	2798	88845	22.2	68	50	34	178	6654		
Fri, Mar 17	9.74	2903	92204	20.3	71	56	38	191		5779	
Sat, Mar 18	9.46										
Sun, Mar 19	9.09										
Mon, Mar 20	12.70	2503	79500	13.1	53	41	29	163		6767	8.7
Tue, Mar 21	11.29	2809	89194	13.8	70	54	37	190	6769		8.7
Wed, Mar 22	10.13	2888	91727	17.6	76	59	40	205		5171	9.1
Thu, Mar 23	9.85	2686	85288	16.4	48	36	26	134	7314		
Fri, Mar 24	9.68	2837	90084	15.9	63	45	31	157		5713	
Sat, Mar 25	13.21										
Sun, Mar 26	17.06										
Mon, Mar 27	14.70	2464	78238	10.5	67	48	33	193		7859	8.8
Tue, Mar 28	12.55	2677	85010	12.1	60	45	32	167	6307		8.5
Wed, Mar 29	11.44	2588	82200	15.3	59	44	31	170		6001	9.0
Thu, Mar 30	22.50										8.7
Fri, Mar 31	22.69	1349	42850	8.4	25	19	14	139		7393	10.4
sum	404.04	53814	1709056	334.9	1065	800	576	3194	49888	84811	151.5
avg	13.03	2446	77684	15.9	48	36	26	145	6236	6058	8.9
max	23.38	2903	92204	24.0	76	59	40	205	7314	8263	10.4
min	9.09	1349	42850	8.4	23	17	14	88	3779	4708	7.0

Downers Grove Sanitary District

Monthly Operations Report Page 3

Report Month: 3/2017

Date	Tertiary Flow MGD	Influent BOD5 mg/L	Primary Effluent BOD5, mg/L	Intermediate Effluent CBOD5, mg/L	Tertiary Effluent CBOD5, mg/L	Tertiary Effluent CBOD5, lbs/day	BOD Removal, %	Ambient Air Temp Max, Deg F	Ambient Air Temp Min, Deg F	Influent Flow Temp, Deg F
Wed, Mar 1	23.38	115	91		3.2	623.8	95.04	53.8	31.1	51.6
Thu, Mar 2	21.78	128	47	4.2	1.0	181.6	97.50	36.0	26.0	54.6
Fri, Mar 3	17.47	78			1.0	145.7	97.56	36.3	19.9	
Sat, Mar 4	14.12							44.8	27.9	
Sun, Mar 5	12.93							59.8	32.5	
Mon, Mar 6	12.07							64.2	51.3	54.8
Tue, Mar 7	13.83							64.0	43.0	53.4
Wed, Mar 8	11.93	184	70	1.7	1.1	109.5	98.48	53.4	38.3	52.9
Thu, Mar 9	11.11	122	76	1.8	1.2	111.2	97.46	46.2	0.0	53.3
Fri, Mar 10	10.18							36.3	22.1	
Sat, Mar 11	9.88							35.1	16.4	
Sun, Mar 12	9.78							38.0	15.6	
Mon, Mar 13	9.97							31.8	26.0	54.3
Tue, Mar 14	10.18	171	76	1.5	0.6	50.9	97.78	30.6	18.7	54.1
Wed, Mar 15	9.80	140	82	1.9	0.8	65.4	98.07	35.5	15.1	53.6
Thu, Mar 16	9.54	172	84	1.7	0.8	63.6	98.60	44.7	18.4	53.8
Fri, Mar 17	9.74							52.9	35.2	
Sat, Mar 18	9.46							45.9	32.8	
Sun, Mar 19	9.09							54.1	27.8	
Mon, Mar 20	12.70							56.2	38.7	53.7
Tue, Mar 21	11.29	171	74		0.8	75.3	98.13	54.6	32.8	53.8
Wed, Mar 22	10.13	155	80	2.1	0.8	67.6	97.94	39.6	27.4	53.8
Thu, Mar 23	9.85	240	89	2.8	1.1	90.4	98.75	49.9	29.7	54.5
Fri, Mar 24	9.68							82.2	42.1	
Sat, Mar 25	13.21							47.1	40.1	
Sun, Mar 26	17.06							62.7	47.1	
Mon, Mar 27	14.70							51.4	40.9	54.1
Tue, Mar 28	12.55	184	58	3.1	1.6	167.4	97.83	54.1	39.9	53.8
Wed, Mar 29	11.44	230	72	2.8	1.2	114.5	98.52	54.0	36.2	54.0
Thu, Mar 30	22.50	118	50	8.3	3.0	563.0	94.32	46.0	39.2	50.9
Fri, Mar 31	22.69	60			1.8	340.7	90.00	43.3	36.5	
sum	404.04	2268	949	31.9	20.0	2770.7	1455.98	1504.6	948.7	965.0
avg	13.03	151	73	2.9	1.3	184.7	97.07	48.5	30.6	53.6
max	23.38	240	91	8.3	3.2	623.8	98.75	82.2	51.3	54.8
min	9.09	60	47	1.5	0.6	50.9	90.00	30.6	0.0	50.9

Downers Grove Sanitary District

Monthly Operations Report Page 4

Report Month: 3/2017

Date	Tertiary Flow MGD	Influent TSS mg/L	Primary Effluent TSS, mg/L	Intermediate Effluent TSS, mg/L	Tertiary Effluent TSS, mg/L	Tertiary Effluent TSS, lbs/day	TSS Removal, %	Influent pH, S.U.	Primary Effluent pH, S.U.	Tertiary Effluent pH, S.U.	Intermediate Effluent pH, S.U.
Wed, Mar 1	23.38	76	68	24.3	5.1	994	93.3	7.7	7.6	7.4	7.2
Thu, Mar 2	21.78	76	36	14.4	2.1	381	97.2	7.4	7.8	7.6	7.3
Fri, Mar 3	17.47	96			0.6	87	99.4	7.8	7.9	7.6	7.3
Sat, Mar 4	14.12	108			0.4	47	99.6				
Sun, Mar 5	12.93	92			0.4	43	99.6				
Mon, Mar 6	12.07	140	52	3.8	0.6	60	99.6	7.7	7.8	7.4	7.3
Tue, Mar 7	13.83	128	64	2.2	0.3	35	99.8	7.7	7.8	7.4	7.3
Wed, Mar 8	11.93	144	52	3.1	0.4	40	99.7	7.7	7.9	7.5	7.3
Thu, Mar 9	11.11	116	59	4.5	0.4	37	99.7	7.7	7.8	7.4	7.3
Fri, Mar 10	10.18	128			0.2	17	99.8	7.8	7.8	7.4	7.3
Sat, Mar 11	9.88	80			0.4	33	99.5				
Sun, Mar 12	9.78	116			0.3	24	99.7				
Mon, Mar 13	9.97	195	58	2.5	0.3	25	99.8	7.8	7.7	7.4	7.4
Tue, Mar 14	10.18	182	54	2.8	0.5	42	99.7	7.6	7.6	7.2	7.1
Wed, Mar 15	9.80	152	51	3.1	0.4	33		7.7	7.7	7.2	7.2
Thu, Mar 16	9.54	228	71	3.2	0.2	16	99.9	7.7	7.6	7.3	7.2
Fri, Mar 17	9.74	216			0.2	16	99.9	7.7	7.6	7.2	7.2
Sat, Mar 18	9.46	144			0.2	16	99.9				
Sun, Mar 19	9.09	132			0.2	15	99.8				
Mon, Mar 20	12.70	196	58	2.7	0.4	42	99.8	7.6	7.6	7.3	7.4
Tue, Mar 21	11.29	176	55		0.5	47	99.7	7.7	7.6	7.3	7.3
Wed, Mar 22	10.13	132	43	2.8	0.4	34	99.7	7.7	7.6	7.2	7.3
Thu, Mar 23	9.85	196	44	4.0	0.6	49	99.7	7.6	7.6	7.3	7.3
Fri, Mar 24	9.68	148			0.5	40	99.7	7.6	7.7	7.4	7.3
Sat, Mar 25	13.21	124			0.5	55	99.6				
Sun, Mar 26	17.06	96			0.6	85	99.4				
Mon, Mar 27	14.70	136	39	3.8	0.9	110	99.3	7.7	7.7	7.5	7.3
Tue, Mar 28	12.55	152	61	3.5	0.9	94	99.4	7.7	7.7	7.5	7.2
Wed, Mar 29	11.44	156	46	4.9	1.2	115	99.2	7.7	7.8	7.5	7.3
Thu, Mar 30	22.50	100	72	33.6	3.0	563	97.0	7.5	7.5	7.4	7.2
Fri, Mar 31	22.69	96			4.7	890	95.1	7.6	7.7	7.5	7.3
sum	404.04	4105	983	119.2	27.4	4088	2973.6	176.4	177.1	169.9	167.3
avg	13.03	137	55	7.0	0.9	132	99.1	7.7	7.7	7.4	7.3
max	23.38	228	72	33.6	5.1	994	99.9	7.8	7.9	7.6	7.4
min	9.09	76	36	2.2	0.2	15	93.3	7.4	7.5	7.2	7.1

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Date	Tertiary Flow MGD	Influent Amm-N Mg/L	Tertiary Effluent Amm-N Mg/L	Tertiary Effluent Amm-N Lbs/D	Residual Chlorine Mg/L	Fecal Coliform No/100ml
Wed, Mar 1	23.38	3.51	0.30	58.49		
Thu, Mar 2	21.78	5.84	0.56	101.70	0.02	
Fri, Mar 3	17.47				0.05	
Sat, Mar 4	14.12					
Sun, Mar 5	12.93	9.88	0.09	9.71		
Mon, Mar 6	12.07	14.22	0.28	28.19		
Tue, Mar 7	13.83	13.68	0.74	85.36		
Wed, Mar 8	11.93	14.74	1.19	118.43		
Thu, Mar 9	11.11					
Fri, Mar 10	10.18					
Sat, Mar 11	9.88					
Sun, Mar 12	9.78	14.04	0.05	4.08		
Mon, Mar 13	9.97	20.92	0.31	25.78		
Tue, Mar 14	10.18	19.76	0.71	60.29		
Wed, Mar 15	9.80	17.28	0.13	10.62		
Thu, Mar 16	9.54	20.24	0.02	1.59		
Fri, Mar 17	9.74					
Sat, Mar 18	9.46					
Sun, Mar 19	9.09	15.64	0.05	3.79		
Mon, Mar 20	12.70	16.12	0.19	20.12		
Tue, Mar 21	11.29	17.96	0.22	20.71		
Wed, Mar 22	10.13	19.20	0.20	16.90		
Thu, Mar 23	9.85	20.32	0.06	4.93		
Fri, Mar 24	9.68					
Sat, Mar 25	13.21					
Sun, Mar 26	17.06	7.10	0.05	7.11		
Mon, Mar 27	14.70	13.48	0.27	33.11		
Tue, Mar 28	12.55	14.70	0.28	29.30		
Wed, Mar 29	11.44	14.86	0.08	7.63		
Thu, Mar 30	22.50	3.79	0.06	11.26	0.01	
Fri, Mar 31	22.69				0.01	
sum	404.04	297.28	5.84	659.10	0.09	
avg	13.03	14.16	0.28	31.39	0.02	
max	23.38	20.92	1.19	118.43	0.05	
min	9.09	3.51	0.02	1.59	0.01	

SLUDGE DATA

Primary Sludge	TS 3.4%	957,313	Gallons
WAS to Dig #4/5	TS 2.7%	628,797	Gallons
Hauled Grease to Digs		327,508	Gallons
Anaerobically Digested Sludge Pumping			
Drying Beds	TS 2.3%	156,252	Gallons
BFP	TS 1.7%	981,805	Gallons
Lagoons	TS %		Gallons
Total		1,138,057	Gallons
VS Destruction		89	%

Biosolids Disposal

Pick-up Station -	Mar	6	Cu. Yds.
Delivered -	Mar	295	Cu. Yds.
Contractor Pick-up and District Use -	Mar	19	Cu. Yds.
Total -	Mar	320	Cu. Yds.
Pick-up Station -	YTD	33	Cu. Yds.
Delivered -	YTD	295	Cu. Yds.
Contractor Pick-up and District Use -	YTD	45	Cu. Yds.
Total -	YTD	373	Cu. Yds.

ENERGY DATA

Total Digester Gas Production		7,700,571	Cu. Ft.
Gas Volume per Volatile Solids Load		15.67	Cu. Ft./Lb.
Digester Gas Utilization			
Heat Exchangers		2,031,694	Cu. Ft.
Dehumidification		854,469	Cu. Ft.
CHP		1,963,593	Cu. Ft.
Total		4,849,756	Cu. Ft.
Digester Gas Flared		2,850,815	Cu. Ft.
Natural Gas Consumed			
WWTC		27,500	Cu. Ft.
MSB		39,700	Cu. Ft.
Chemical Feed		31,300	Cu. Ft.
5006 Walnut		7,875	Cu. Ft.
Kilowatt-hours from ComEd		332,096	KW-Hrs
Kilowatt-hours Generated CHP		98,195	KW-Hrs

MISCELLANEOUS

Grit Removal -	Mar	40	Cu. Yds.
Grit Removal -	YTD	80	Cu. Yds.
Anaerobic Supernate		983,462	Gallons
Waste Activated Sludge		0.0953	MGD
City Water Consumed		88,264	Gallons

DMR Copy of Record

Permit					
Permit #:	**IL0028380**	**Permittee:**	DOWNERS GROVE SANITARY DISTRICT	**Facility:**	DOWNERS GROVE S.D. - WASTEWATER TREATMENT CENTER
Major:	Yes	**Permittee Address:**	2710 CURTISS STREET PO BOX 1412 DOWNERS GROVE, IL 60515	**Facility Location:**	5003 WALNUT AVENUE DOWNERS GROVE, IL 60515
Permitted Feature:	001 External Outfall	**Discharge:**	**001-0** COMBINED DISCHARGE FROM A01, B01, & C01		
Report Dates & Status					
Monitoring Period:	**From 03/01/17 to 03/31/17**	**DMR Due Date:**	**04/25/17**	**Status:**	**NetDMR Validated**
Considerations for Form Completion					
NUMBER OF DAYS OF DISCHARGE.COMBINED OUTFALLS: A01-MIXING CHAMBER DISCHARGE TO E BR OF DUPAGE RIVER-EFFECTIVE WHEN FLOWS TO TRT PLT ARE GREATER THAN 22 MGD & EXCESS FLOW FAC IS IN OPERATION. 002 BECOMES OPERATIONAL WHEN 001, A01,& B01 EXCEED 30 MGD.					
Principal Executive Officer					
First Name:	Nicholas	**Title:**	General Manager	**Telephone:**	630-969-0664
Last Name:	Menninga				
No Data Indicator (NODI)					
Form NODI:	--				

Parameter		Monitoring Location	Season #	Param. NODI		Quantity or Loading					Quality or Concentration							# of Ex.	Frequency of Analysis	Sample Type
Code	Name					Qualifier 1	Value 1	Qualifier 2	Value 2	Units	Qualifier 1	Value 1	Qualifier 2	Value 2	Qualifier 3	Value 3	Units			
00300	Oxygen, dissolved [DO]	1 - Effluent Gross	0	--	Sample						=	8.9	=	8.6	=	7	19 - mg/L		17/30 - 17 Per Month	GR - GRAB
					Permit Req.							Req Mon MO AV MN		Req Mon MN WK AV		Req Mon DAILY MN	19 - mg/L	0	DL/DS - Daily When Discharging	GR - GRAB
					Value NODI															
00310	BOD, 5-day, 20 deg. C	1 - Effluent Gross	0	--	Sample								=	7	=	11.2	19 - mg/L		15/30 - 15 Per Month	CP - COMPOS
					Permit Req.								<=	30 MO AVG	<=	45 WKLY AVG	19 - mg/L	0	DL/DS - Daily When Discharging	GR - GRAB
					Value NODI															
00400	pH	1 - Effluent Gross	0	--	Sample						=	7.1			=	7.5	12 - SU		23/30 - 23 Per Month	GR - GRAB
					Permit Req.						>=	6 MINIMUM			<=	9 MAXIMUM	12 - SU	0	DL/DS - Daily When Discharging	GR - GRAB
					Value NODI															
00530	Solids, total suspended	1 - Effluent Gross	0	--	Sample								=	4.3	=	9.9	19 - mg/L		DL/DS - Daily When Discharging	CP - COMPOS
					Permit Req.								<=	30 MO AVG	<=	45 WKLY AVG	19 - mg/L	0	DL/DS - Daily When Discharging	GR - GRAB
					Value NODI															
00610	Nitrogen, ammonia total [as N]	1 - Effluent Gross	0	--	Sample								=	0.46	=	2.04	19 - mg/L		22/30 - 22 Per Month	CP - COMPOS
					Permit Req.									Req Mon MO AVG		Req Mon DAILY MX	19 - mg/L	0	DL/DS - Daily When Discharging	GR - GRAB
					Value NODI															
00665	Phosphorus, total [as P]	1 - Effluent Gross	0	--	Sample										=	2.5	19 - mg/L		08/30 - Eight Every Month	CP - COMPOS
					Permit Req.											Req Mon DAILY MX	19 - mg/L	0	DL/DS - Daily When Discharging	GR - GRAB
					Value NODI															
50060	Chlorine, total residual	1 - Effluent Gross	0	--	Sample								=	0.43			19 - mg/L		DL/DS - Daily When Discharging	GR - GRAB
					Permit Req.								<=	.75 MO AVG			19 - mg/L	0	DL/DS - Daily When Discharging	GR - GRAB
					Value NODI															
74055	Coliform, fecal general	1 - Effluent Gross	0	--	Sample										=	76	13 - #/100mL		04/30 - Four Per Month	GR - GRAB
					Permit Req.										<=	400 DAILY MX	13 - #/100mL	0	DL/DS - Daily When Discharging	GR - GRAB
					Value NODI															
82220	Flow, total	1 - Effluent Gross	0	--	Sample			=	393.3445	80 - Mgal/mo									99/99 - Continuous	
					Permit Req.				Req Mon MO TOTAL	80 - Mgal/mo								0	99/99 - Continuous	
					Value NODI															

Submission Note			
If a parameter row does not contain any values for the Sample nor Effluent Trading, then none of the following fields will be submitted for that row: Units, Number of Excursions, Frequency of Analysis, and Sample Type.			
Edit Check Errors			
No errors.			
Comments			
31 days of discharge, including 4 days with A01 and 2 days with C01.			
Attachments			
No attachments.			
Report Last Saved By			
DOWNERS GROVE SANITARY DISTRICT			
User:	reeseberry	Date/Time:	2017-04-10 09:39 (Time Zone: -05:00)
Name:	Dorrance Berry		
E-Mail:	rberry@dgsd.org		

DMR Copy of Record

Permit

Permit #:	**IL0028380**	**Permittee:**	DOWNERS GROVE SANITARY DISTRICT	**Facility:**	DOWNERS GROVE S.D. - WASTEWATER TREATMENT CENTER
Major:	Yes	**Permittee Address:**	2710 CURTISS STREET PO BOX 1412 DOWNERS GROVE, IL 60515	**Facility Location:**	5003 WALNUT AVENUE DOWNERS GROVE, IL 60515
Permitted Feature:	002 External Outfall	**Discharge:**	**002-0** MIXING CHMBR OVERFLOW TO ST. JOSEPH CRK		

Report Dates & Status

Monitoring Period:	**From 03/01/17 to 03/31/17**	**DMR Due Date:**	**04/25/17**	**Status:**	**NetDMR Validated**

Considerations for Form Completion

NUMBER OF DAYS OF DISCHARGE:CS

Principal Executive Officer

First Name:	Nicholas	**Title:**	General Manager	**Telephone:**	630-969-0664
Last Name:	Menninga				

No Data Indicator (NODI)

Form NODI: --

Parameter		Monitoring Location	Season #	Param. NODI		Quantity or Loading					Quality or Concentration							# of Ex.	Frequency of Analysis	Sample Type
Code	Name					Qualifier 1	Value 1	Qualifier 2	Value 2	Units	Qualifier 1	Value 1	Qualifier 2	Value 2	Qualifier 3	Value 3	Units			
00300	Oxygen, dissolved [DO]	1 - Effluent Gross	0	--	Sample										=	7	19 - mg/L		DL/DS - Daily When Discharging	GR - GRAB
					Permit Req.											Req Mon DAILY MN	19 - mg/L	0	DL/DS - Daily When Discharging	GR - GRAB
					Value NODI															
00310	BOD, 5-day, 20 deg. C	1 - Effluent Gross	0	--	Sample								=	16	=	18	19 - mg/L		DL/DS - Daily When Discharging	GR - GRAB
					Permit Req.								<=	30 MO AVG	<=	45 WKLY AVG	19 - mg/L	0	DL/DS - Daily When Discharging	GR - GRAB
					Value NODI															
00400	pH	1 - Effluent Gross	0	--	Sample						=	7.3			=	7.5	12 - SU		DL/DS - Daily When Discharging	GR - GRAB
					Permit Req.						>=	6 MINIMUM			<=	9 MAXIMUM	12 - SU	0	DL/DS - Daily When Discharging	GR - GRAB
					Value NODI															
00530	Solids, total suspended	1 - Effluent Gross	0	--	Sample								=	19	=	27	19 - mg/L		DL/DS - Daily When Discharging	GR - GRAB
					Permit Req.								<=	30 MO AVG	<=	45 WKLY AVG	19 - mg/L	0	DL/DS - Daily When Discharging	GR - GRAB
					Value NODI															
00610	Nitrogen, ammonia total [as N]	1 - Effluent Gross	0	--	Sample										=	2.13	19 - mg/L		DL/DS - Daily When Discharging	GR - GRAB
					Permit Req.											Req Mon DAILY MX	19 - mg/L	0	DL/DS - Daily When Discharging	GR - GRAB
					Value NODI															
00665	Phosphorus, total [as P]	1 - Effluent Gross	0	--	Sample										=	1.3	19 - mg/L		DL/DS - Daily When Discharging	GR - GRAB
					Permit Req.											Req Mon DAILY MX	19 - mg/L	0	DL/DS - Daily When Discharging	GR - GRAB
					Value NODI															
50060	Chlorine, total residual	1 - Effluent Gross	0	--	Sample								=	0.48			19 - mg/L		DL/DS - Daily When Discharging	GR - GRAB
					Permit Req.								<=	.75 MO AVG			19 - mg/L	0	DL/DS - Daily When Discharging	GR - GRAB
					Value NODI															
74055	Coliform, fecal general	1 - Effluent Gross	0	--	Sample										=	51	13 - #/100mL		DL/DS - Daily When Discharging	GR - GRAB
					Permit Req.										<=	400 DAILY MX	13 - #/100mL	0	DL/DS - Daily When Discharging	GR - GRAB
					Value NODI															
82220	Flow, total	1 - Effluent Gross	0	--	Sample			=	58.65	80 - Mgal/mo									DL/DS - Daily When Discharging	
					Permit Req.				Req Mon MO TOTAL	80 - Mgal/mo								0	DL/DS - Daily When Discharging	
					Value NODI															

Submission Note

If a parameter row does not contain any values for the Sample nor Effluent Trading, then none of the following fields will be submitted for that row: Units, Number of Excursions, Frequency of Analysis, and Sample Type.

Edit Check Errors

No errors.

Comments

4 days of discharge.

Attachments

No attachments.

Report Last Saved By

DOWNERS GROVE SANITARY DISTRICT

User:	reeseberry	Date/Time:	2017-04-10 09:39 (Time Zone: -05:00)
Name:	Dorrance Berry		
E-Mail:	rberry@dgsd.org		

DMR Copy of Record

Permit

Permit #:	**IL0028380**	**Permittee:**	DOWNERS GROVE SANITARY DISTRICT	**Facility:**	DOWNERS GROVE S.D. - WASTEWATER TREATMENT CENTER
Major:	Yes	**Permittee Address:**	2710 CURTISS STREET PO BOX 1412 DOWNERS GROVE, IL 60515	**Facility Location:**	5003 WALNUT AVENUE DOWNERS GROVE, IL 60515
Permitted Feature:	003 External Outfall	**Discharge:**	**003-0** EXCESS FLOW TO ST. JOSEPH CRK		

Report Dates & Status

Monitoring Period:	**From 03/01/17 to 03/31/17**	**DMR Due Date:**	**04/25/17**	**Status:**	**NetDMR Validated**

Considerations for Form Completion

NUMBER OF DAYS OF DISCHARGE:CS

Principal Executive Officer

First Name:	Nicholas	**Title:**	General Manager	**Telephone:**	630-969-0664
Last Name:	Menninga				

No Data Indicator (NODI)

Form NODI: --

Parameter		Monitoring Location	Season #	Param. NODI		Quantity or Loading					Quality or Concentration							# of Ex.	Frequency of Analysis	Sample Type
Code	Name					Qualifier 1	Value 1	Qualifier 2	Value 2	Units	Qualifier 1	Value 1	Qualifier 2	Value 2	Qualifier 3	Value 3	Units			
00300	Oxygen, dissolved [DO]	1 - Effluent Gross	0	--	Sample															
					Permit Req.											Req Mon DAILY MN	19 - mg/L		DL/DS - Daily When Discharging	GR - GRAB
					Value NODI											C - No Discharge				
00310	BOD, 5-day, 20 deg. C	1 - Effluent Gross	0	--	Sample															
					Permit Req.								<=	30 MO AVG	<=	45 WKLY AVG	19 - mg/L		DL/DS - Daily When Discharging	GR - GRAB
					Value NODI									C - No Discharge		C - No Discharge				
00400	pH	1 - Effluent Gross	0	--	Sample															
					Permit Req.						>=	6 MINIMUM			<=	9 MAXIMUM	12 - SU		DL/DS - Daily When Discharging	GR - GRAB
					Value NODI							C - No Discharge				C - No Discharge				
00530	Solids, total suspended	1 - Effluent Gross	0	--	Sample															
					Permit Req.								<=	30 MO AVG	<=	45 WKLY AVG	19 - mg/L		DL/DS - Daily When Discharging	GR - GRAB
					Value NODI									C - No Discharge		C - No Discharge				
00610	Nitrogen, ammonia total [as N]	1 - Effluent Gross	0	--	Sample															
					Permit Req.											Req Mon DAILY MX	19 - mg/L		DL/DS - Daily When Discharging	GR - GRAB
					Value NODI											C - No Discharge				
00665	Phosphorus, total [as P]	1 - Effluent Gross	0	--	Sample															
					Permit Req.											Req Mon DAILY MX	19 - mg/L		DL/DS - Daily When Discharging	GR - GRAB
					Value NODI											C - No Discharge				
50060	Chlorine, total residual	1 - Effluent Gross	0	--	Sample															
					Permit Req.								<=	.75 MO AVG			19 - mg/L		DL/DS - Daily When Discharging	GR - GRAB
					Value NODI									C - No Discharge						
74055	Coliform, fecal general	1 - Effluent Gross	0	--	Sample															
					Permit Req.										<=	400 DAILY MX	13 - #/100mL		DL/DS - Daily When Discharging	GR - GRAB
					Value NODI											C - No Discharge				
82220	Flow, total	1 - Effluent Gross	0	--	Sample															
					Permit Req.				Req Mon MO TOTAL	80 - Mgal/mo									DL/DS - Daily When Discharging	
					Value NODI				C - No Discharge											

Submission Note

If a parameter row does not contain any values for the Sample nor Effluent Trading, then none of the following fields will be submitted for that row: Units, Number of Excursions, Frequency of Analysis, and Sample Type.

Edit Check Errors

No errors.

Comments

Attachments

No attachments.

Report Last Saved By

DOWNERS GROVE SANITARY DISTRICT

User:	reeseberry	Date/Time:	2017-04-10 09:39 (Time Zone: -05:00)
Name:	Dorrance Berry		
E-Mail:	rberry@dgsd.org		

DMR Copy of Record

Permit

Permit #:	**IL0028380**	**Permittee:**	DOWNERS GROVE SANITARY DISTRICT	**Facility:**	DOWNERS GROVE S.D. - WASTEWATER TREATMENT CENTER
Major:	Yes	**Permittee Address:**	2710 CURTISS STREET PO BOX 1412 DOWNERS GROVE, IL 60515	**Facility Location:**	5003 WALNUT AVENUE DOWNERS GROVE, IL 60515
Permitted Feature:	A01 External Outfall	**Discharge:**	**A01-0** EXCESS FLOW FROM EXCESS FLOW CLARIFIERS		

Report Dates & Status

Monitoring Period:	**From 03/01/17 to 03/31/17**	**DMR Due Date:**	**04/25/17**	**Status:**	**NetDMR Validated**

Considerations for Form Completion

NUMBER OF DAYS OF DISCHARGE:CS

Principal Executive Officer

First Name:	Nicholas	**Title:**	General Manager	**Telephone:**	630-969-0664
Last Name:	Menninga				

No Data Indicator (NODI)

Form NODI: --

Parameter		Monitoring Location	Season #	Param. NODI		Quantity or Loading					Quality or Concentration							# of Ex.	Frequency of Analysis	Sample Type
Code	Name					Qualifier 1	Value 1	Qualifier 2	Value 2	Units	Qualifier 1	Value 1	Qualifier 2	Value 2	Qualifier 3	Value 3	Units			
00310	BOD, 5-day, 20 deg. C	1 - Effluent Gross	0	--	Sample										=	58	19 - mg/L		DL/DS - Daily When Discharging	GR - GRAB
					Permit Req.											Req Mon DAILY MX	19 - mg/L	0	DL/DS - Daily When Discharging	GR - GRAB
					Value NODI															
00530	Solids, total suspended	1 - Effluent Gross	0	--	Sample										=	61	19 - mg/L		DL/DS - Daily When Discharging	GR - GRAB
					Permit Req.											Req Mon DAILY MX	19 - mg/L	0	DL/DS - Daily When Discharging	GR - GRAB
					Value NODI															
00610	Nitrogen, ammonia total [as N]	1 - Effluent Gross	0	--	Sample										=	4.05	19 - mg/L		DL/DS - Daily When Discharging	GR - GRAB
					Permit Req.											Req Mon DAILY MX	19 - mg/L	0	DL/DS - Daily When Discharging	GR - GRAB
					Value NODI															
00665	Phosphorus, total [as P]	1 - Effluent Gross	0	--	Sample										=	1.24	19 - mg/L		DL/DS - Daily When Discharging	GR - GRAB
					Permit Req.											Req Mon DAILY MX	19 - mg/L	0	DL/DS - Daily When Discharging	GR - GRAB
					Value NODI															
82220	Flow, total	1 - Effluent Gross	0	--	Sample			=	45.23	80 - Mgal/mo									DL/DS - Daily When Discharging	CN - CONTIN
					Permit Req.				Req Mon MO TOTAL	80 - Mgal/mo								0	DL/DS - Daily When Discharging	CN - CONTIN
					Value NODI															

Submission Note

If a parameter row does not contain any values for the Sample nor Effluent Trading, then none of the following fields will be submitted for that row: Units, Number of Excursions, Frequency of Analysis, and Sample Type.

Edit Check Errors

No errors.

Comments

4 days of discharge. Event 1: 3/1 to 3/2, discharging for 25.7 hrs. 1.76 inches of rain over 11 hrs. B01 flow rate at A01 start time: 18,874 gpm. Event 2: 3/30 to 3/31, discharging for 35.6 hrs. 1.94 inches of rain over 20 hrs. B01 flow rate at A01 start time: 16,975 gpm.

Attachments

No attachments.

Report Last Saved By

DOWNERS GROVE SANITARY DISTRICT

User:	reeseberry	Date/Time:	2017-04-10 09:39 (Time Zone: -05:00)
Name:	Dorrance Berry		
E-Mail:	rberry@dgsd.org		

DMR Copy of Record

Permit					
Permit #:	**IL0028380**	**Permittee:**	DOWNERS GROVE SANITARY DISTRICT	**Facility:**	DOWNERS GROVE S.D. - WASTEWATER TREATMENT CENTER
Major:	Yes	**Permittee Address:**	2710 CURTISS STREET PO BOX 1412 DOWNERS GROVE, IL 60515	**Facility Location:**	5003 WALNUT AVENUE DOWNERS GROVE, IL 60515
Permitted Feature:	B01 External Outfall	**Discharge:**	**B01-0** INTERNAL MIXING CHMBR - E. BR. DUPAGE RVR		
Report Dates & Status					
Monitoring Period:	**From 03/01/17 to 03/31/17**	**DMR Due Date:**	**04/25/17**	**Status:**	**NetDMR Validated**
Considerations for Form Completion					
DMF LOAD LIMITS DISPLAYED.					
Principal Executive Officer					
First Name:	Nicholas	**Title:**	General Manager	**Telephone:**	630-969-0664
Last Name:	Menninga				
No Data Indicator (NODI)					
Form NODI:	--				

Parameter		Monitoring Location	Season #	Param. NODI		Quantity or Loading					Quality or Concentration							# of Ex.	Frequency of Analysis	Sample Type
Code	Name					Qualifier 1	Value 1	Qualifier 2	Value 2	Units	Qualifier 1	Value 1	Qualifier 2	Value 2	Qualifier 3	Value 3	Units			
00011	Temperature, water deg. fahrenheit	1 - Effluent Gross	0	--	Sample										=	51.3	15 - deg F		01/30 - Monthly	GR - GRAB
					Permit Req.											Req Mon MO MAX	15 - deg F	0	01/30 - Monthly	GR - GRAB
					Value NODI															
00300	Oxygen, dissolved [DO]	1 - Effluent Gross	0	--	Sample								=	8.8	=	8.5	19 - mg/L		03/07 - Three Per Week	GR - GRAB
					Permit Req.								>=	6 MN WK AV	>=	5 DAILY MN	19 - mg/L	0	02/DA - 2 Days Every Week	GR - GRAB
					Value NODI															
00400	pH	1 - Effluent Gross	0	--	Sample						=	7.1			=	7.4	12 - SU		05/DW - 5 Days Every Week	GR - GRAB
					Permit Req.						>=	6 MINIMUM			<=	9 MAXIMUM	12 - SU	0	02/DA - 2 Days Every Week	GR - GRAB
					Value NODI															
00410	Alkalinity, total [as CaCO3]	1 - Effluent Gross	0	--	Sample										=	214	19 - mg/L		01/30 - Monthly	CP - COMPOS
					Permit Req.											Req Mon DAILY MX	19 - mg/L	0	01/30 - Monthly	CP - COMPOS
					Value NODI															
00530	Solids, total suspended	1 - Effluent Gross	0	--	Sample	=	131.9	=	994.3	26 - lb/d			=	0.9	=	5.1	19 - mg/L		05/WK - Five Per Week	CP - COMPOS
					Permit Req.	<=	2202 MO AVG	<=	4404 DAILY MX	26 - lb/d			<=	12 MO AVG	<=	24 DAILY MX	19 - mg/L	0	02/DA - 2 Days Every Week	CP - COMPOS
					Value NODI															
00600	Nitrogen, total [as N]	1 - Effluent Gross	0	--	Sample										=	14.7	19 - mg/L		01/30 - Monthly	CP - COMPOS
					Permit Req.											Req Mon DAILY MX	19 - mg/L	0	01/30 - Monthly	CP - COMPOS
					Value NODI															
00610	Nitrogen, ammonia total [as N]	1 - Effluent Gross	2	--	Sample	=	31.39	=	118.43	26 - lb/d			=	0.28	=	1.19	19 - mg/L		05/WK - Five Per Week	CP - COMPOS
					Permit Req.	<=	734 MO AVG	<=	1468 DAILY MX	26 - lb/d			<=	4 MO AVG	<=	8 DAILY MX	19 - mg/L	0	02/DA - 2 Days Every Week	CP - COMPOS
					Value NODI															
00625	Nitrogen, Kjeldahl, total [as N]	1 - Effluent Gross	0	--	Sample										<	0.6	19 - mg/L		01/30 - Monthly	CP - COMPOS
					Permit Req.											Req Mon DAILY MX	19 - mg/L	0	01/30 - Monthly	CP - COMPOS
					Value NODI															
00630	Nitrite + Nitrate total [as N]	1 - Effluent Gross	0	--	Sample										=	14.7	19 - mg/L		01/30 - Monthly	CA - CALCTD
					Permit Req.											Req Mon DAILY MX	19 - mg/L	0	01/30 - Monthly	CA - CALCTD
					Value NODI															
00665	Phosphorus, total [as P]	1 - Effluent Gross	0	--	Sample										=	2.5	19 - mg/L		04/30 - Four Per Month	CP - COMPOS
					Permit Req.											Req Mon DAILY MX	19 - mg/L	0	01/30 - Monthly	CP - COMPOS
					Value NODI															
00666	Phosphorus, dissolved	1 - Effluent Gross	0	--	Sample										=	1.56	19 - mg/L		01/30 - Monthly	CP - COMPOS
					Permit Req.											Req Mon DAILY MX	19 - mg/L	0	01/30 - Monthly	CP - COMPOS
					Value NODI															
00940	Chloride [as Cl]	1 - Effluent Gross	0	--	Sample										=	231	19 - mg/L		01/30 - Monthly	GR - GRAB
					Permit Req.											Req Mon DAILY MX	19 - mg/L	0	01/30 - Monthly	GR - GRAB
					Value NODI															
50050	Flow, in conduit or thru treatment plant	1 - Effluent Gross	0	--	Sample	=	13.03	=	23.38	03 - MGD									99/99 - Continuous	
					Permit Req.		Req Mon MO AVG		Req Mon DAILY MX	03 - MGD								0	99/99 - Continuous	
					Value NODI															
50060	Chlorine, total residual	1 - Effluent Gross	1	--	Sample										=	0.05	19 - mg/L		CL/OC - Chlorination/Occurances	GR - GRAB
					Permit Req.										<=	.05 DAILY MX	19 - mg/L	0	CL/OC - Chlorination/Occurances	GR - GRAB
					Value NODI															
80082	BOD, carbonaceous [5 day, 20 C]	1 - Effluent Gross	0	--	Sample	=	184.71	=	623.85	26 - lb/d			=	1.3	=	3.2	19 - mg/L		03/07 - Three Per Week	CP - COMPOS
					Permit Req.	<=	1835 MO AVG	<=	3670 DAILY MX	26 - lb/d			<=	10 MO AVG	<=	20 DAILY MX	19 - mg/L	0	02/DA - 2 Days Every Week	CP - COMPOS
					Value NODI															

Submission Note

If a parameter row does not contain any values for the Sample nor Effluent Trading, then none of the following fields will be submitted for that row: Units, Number of Excursions, Frequency of Analysis, and Sample Type.

Edit Check Errors

No errors.

Comments

Attachments

No attachments.

Report Last Saved By

DOWNERS GROVE SANITARY DISTRICT

User:	reeseberry	Date/Time:	2017-04-10 09:39 (Time Zone: -05:00)
Name:	Dorrance Berry		
E-Mail:	rberry@dgsd.org		

DMR Copy of Record

Permit					
Permit #:	**IL0028380**	**Permittee:**	DOWNERS GROVE SANITARY DISTRICT	**Facility:**	DOWNERS GROVE S.D. - WASTEWATER TREATMENT CENTER
Major:	Yes	**Permittee Address:**	2710 CURTISS STREET PO BOX 1412 DOWNERS GROVE, IL 60515	**Facility Location:**	5003 WALNUT AVENUE DOWNERS GROVE, IL 60515
Permitted Feature:	C01 External Outfall	**Discharge:**	**C01-0** EXCESS FLOW FROM CLARIFIER #1		
Report Dates & Status					
Monitoring Period:	**From 03/01/17 to 03/31/17**	**DMR Due Date:**	**04/25/17**	**Status:**	**NetDMR Validated**
Considerations for Form Completion					
NUMBER OF DAYS OF DISCHARGE:CS					
Principal Executive Officer					
First Name:	Nicholas	**Title:**	General Manager	**Telephone:**	630-969-0664
Last Name:	Menninga				
No Data Indicator (NODI)					
Form NODI:	--				

Parameter		Monitoring Location	Season #	Param. NODI		Quantity or Loading					Quality or Concentration							# of Ex.	Frequency of Analysis	Sample Type
Code	Name					Qualifier 1	Value 1	Qualifier 2	Value 2	Units	Qualifier 1	Value 1	Qualifier 2	Value 2	Qualifier 3	Value 3	Units			
00310	BOD, 5-day, 20 deg. C	1 - Effluent Gross	0	--	Sample										=	29	19 - mg/L		DL/DS - Daily When Discharging	GR - GRAB
					Permit Req.											Req Mon DAILY MX	19 - mg/L	0	DL/DS - Daily When Discharging	GR - GRAB
					Value NODI															
00530	Solids, total suspended	1 - Effluent Gross	0	--	Sample										=	57	19 - mg/L		DL/DS - Daily When Discharging	GR - GRAB
					Permit Req.											Req Mon DAILY MX	19 - mg/L	0	DL/DS - Daily When Discharging	GR - GRAB
					Value NODI															
00610	Nitrogen, ammonia total [as N]	1 - Effluent Gross	0	--	Sample										=	2.39	19 - mg/L		DL/DS - Daily When Discharging	GR - GRAB
					Permit Req.											Req Mon DAILY MX	19 - mg/L	0	DL/DS - Daily When Discharging	GR - GRAB
					Value NODI															
00665	Phosphorus, total [as P]	1 - Effluent Gross	0	--	Sample										=	1.65	19 - mg/L		DL/DS - Daily When Discharging	GR - GRAB
					Permit Req.											Req Mon DAILY MX	19 - mg/L	0	DL/DS - Daily When Discharging	GR - GRAB
					Value NODI															
82220	Flow, total	1 - Effluent Gross	0	--	Sample			=	2.7277	80 - Mgal/mo									DL/DS - Daily When Discharging	CN - CONTIN
					Permit Req.				Req Mon MO TOTAL	80 - Mgal/mo								0	DL/DS - Daily When Discharging	CN - CONTIN
					Value NODI															

Submission Note

If a parameter row does not contain any values for the Sample nor Effluent Trading, then none of the following fields will be submitted for that row: Units, Number of Excursions, Frequency of Analysis, and Sample Type.

Edit Check Errors

No errors.

Comments

2 days of discharge. Event 1: 3/1/17 (start/stop), discharge for 3.7 hrs. 1.76 inches of rain over 11 hrs. B01 flow rate at C01 start time: 20,833 gpm. Event 2: 3/30/17 (start/stop), discharge for 3.8 hrs. 1.93 inches of rain over 19 hrs. B01 flow rate at C01 start time: 20,129 gpm.

Attachments

No attachments.

Report Last Saved By

DOWNERS GROVE SANITARY DISTRICT

User:	reeseberry	Date/Time:	2017-04-10 09:39 (Time Zone: -05:00)
Name:	Dorrance Berry		
E-Mail:	rberry@dgsd.org		

DMR Copy of Record

Permit					
Permit #:	**IL0028380**	**Permittee:**	DOWNERS GROVE SANITARY DISTRICT	**Facility:**	DOWNERS GROVE S.D. - WASTEWATER TREATMENT CENTER
Major:	Yes	**Permittee Address:**	2710 CURTISS STREET PO BOX 1412 DOWNERS GROVE, IL 60515	**Facility Location:**	5003 WALNUT AVENUE DOWNERS GROVE, IL 60515
Permitted Feature:	INF Influent Structure	**Discharge:**	**INF-L** INFLUENT MONITORING		
Report Dates & Status					
Monitoring Period:	**From 03/01/17 to 03/31/17**	**DMR Due Date:**	**04/25/17**	**Status:**	**NetDMR Validated**
Considerations for Form Completion					
CS					
Principal Executive Officer					
First Name:	Nicholas	**Title:**	General Manager	**Telephone:**	630-969-0664
Last Name:	Menninga				
No Data Indicator (NODI)					
Form NODI:	--				

Parameter		Monitoring Location	Season #	Param. NODI		Quantity or Loading					Quality or Concentration							# of Ex.	Frequency of Analysis	Sample Type
Code	Name					Qualifier 1	Value 1	Qualifier 2	Value 2	Units	Qualifier 1	Value 1	Qualifier 2	Value 2	Qualifier 3	Value 3	Units			
00310	BOD, 5-day, 20 deg. C	G - Raw Sewage Influent	0	--	Sample								=	151			19 - mg/L		03/07 - Three Per Week	CP - COMPOS
					Permit Req.									Req Mon MO AVG			19 - mg/L	0	09/99 - See Permit	CP - COMPOS
					Value NODI															
00530	Solids, total suspended	G - Raw Sewage Influent	0	--	Sample								=	137			19 - mg/L		05/DW - 5 Days Every Week	CP - COMPOS
					Permit Req.									Req Mon MO AVG			19 - mg/L	0	09/99 - See Permit	CP - COMPOS
					Value NODI															
00600	Nitrogen, total [as N]	G - Raw Sewage Influent	0	--	Sample										=	32	19 - mg/L		01/30 - Monthly	CP - COMPOS
					Permit Req.											Req Mon DAILY MX	19 - mg/L	0	01/30 - Monthly	CP - COMPOS
					Value NODI															
00665	Phosphorus, total [as P]	G - Raw Sewage Influent	0	--	Sample										=	4.44	19 - mg/L		04/30 - Four Per Month	CP - COMPOS
					Permit Req.											Req Mon DAILY MX	19 - mg/L	0	01/30 - Monthly	CP - COMPOS
					Value NODI															
50050	Flow, in conduit or thru treatment plant	G - Raw Sewage Influent	0	--	Sample	=	13.16	=	24.47	03 - MGD									99/99 - Continuous	
					Permit Req.		Req Mon MO AVG		Req Mon DAILY MX	03 - MGD								0	99/99 - Continuous	
					Value NODI															

Submission Note

If a parameter row does not contain any values for the Sample nor Effluent Trading, then none of the following fields will be submitted for that row: Units, Number of Excursions, Frequency of Analysis, and Sample Type.

Edit Check Errors

No errors.

Comments

Attachments

No attachments.

Report Last Saved By

DOWNERS GROVE SANITARY DISTRICT

User:	reeseberry	Date/Time:	2017-04-10 09:39 (Time Zone: -05:00)
Name:	Dorrance Berry		
E-Mail:	rberry@dgsd.org		

DOWNERS GROVE SANITARY DISTRICT

M E M O

TO: Nicholas J. Menninga, General Manager

FROM: Jeff Barta, Maintenance Supervisor

DATE: April 12, 2017

SUBJECT: March 2017 Maintenance Report

Attached is a work order summary detailing equipment repair and preventive maintenance activities conducted by the maintenance/electrical department and operations during March 2017.

Special projects in March included:

CHP 1 – 20,000 Hour Overhaul

On March 20th our Combined Heat Power (CHP) unit no. 1 was shut down for a scheduled 20,000 hour service.

The 20,000 hour service includes:

- The removal and servicing of the generator (cleaning, winding testing and bearing replacement);
- Coupler replacement between the engine and the generator;
- Turbo and Intercooler reconditioning (performed by the manufacturers);
- Cylinder head replacement (also includes new thermocouples); and
- Throttle valve replacement.

This overhaul project, with the exception of some assistance from Patten Power Systems with the generator work, will be completed in-house by District staff. The new cylinder heads and the engine intake have already been installed. We are currently waiting on the turbo, intercooler and throttle valve assembly to arrive from Tech-3 Solutions. Patten Power Systems is currently performing the overhaul work on the generator. We expect to receive all of these items within the next week. The total estimated costs for all of the components required for this overhaul from Tech-3 Solutions, Energy Choice and Patten Power Systems will be around $35,000. We anticipate that this overhaul project will be completed and the CHP will be back online by the end of April.

WWTC Emergency Generators – Voltage Regulator Replacement/Upgrade

During the past few years when we have been operating our emergency generator system we have experienced intermittent generator reverse VAR failures. A reverse VAR condition is when generators that are running in parallel cannot equally maintain proper voltage. When this occurs, the generator that cannot maintain the proper voltage gets overcome by the other generator(s), causing the voltage to drop to a point where the weaker generator must disconnect and shut down. With the increasing frequency of the reverse VAR failures and considering that our existing voltage regulators are 30 years old, it was time to replace/upgrade the voltage regulators on all three generators.

Patten Power Systems has removed the old analog voltage regulators and installed the newest version of their digital voltage regulators on all three generators. After all of the regulators were upgraded, the entire system was then load bank tested to verify that the new regulators were working effectively. This was a planned and budgeted upgrade that required an entire week to complete. The total cost for this upgrade project was $22,490.61.

cc: WDVB, ASK, PWC, KJR, RTJ, MJS, WCC, MGP

Work Order Summary

Work Order Completion Dates from 3/1/2017 to 3/31/2017

Work Assignment	Completion Date	Equipment	NOTATIONS
Six Month Oil Change Secondaries 3 - 5	3/8/2017	Secondary Clarifier 3	
		Secondary Clarifier 4	
		Secondary Clarifier 5	
Six Month Oil Change Secondaries 6 - 7 - 8 - 9	3/29/2017	Secondary Clarifier 6	
		Secondary Clarifier 7	
		Secondary Clarifier 8	
		Secondary Clarifier 9	
Check Sump Pumps at The WWTC and Administration Bldg.	3/22/2017	Administration Center	Replaced secondary pump in East room of new blower building. Replaced float switch on West pump of Excess flow sludge pump house. Cleaned some pump pits and impellers. Performed sump pump inspections on all locations.
		Blower Building	
		Digester 1 and 2 Control Bldg	
		Digester 3 Control Building	
		Digester 4 - 5 Control Buildg	
		Excess Flow Pump Station	
		Excess Flow Sludge Pump House	
		Grit Building	
		Hypochlorite Feed Blg	
		Interm Clarifier Sludge Bldg	
		Maintenance Services Building	
		Microstrainer Building	
		Operations Center	
		Raw Sewage Pump Station	
		Tunnel/Chan Aeration Tank 1-11	
Exercising of bar screen sluice gates 1 and 2	3/17/2017	Bar Screen 1	
		Bar Screen 2	
Test for H2S at Unison Gas skid	3/16/2017	CHP Gas Cleaning System	
Run And Inspect Generators With The Load Of The Plant	3/15/2017	Emergency Generator 1	
		Emergency Generator 2	
		Emergency Generator 3	
Grease Tracks, Check Lube Sites On Bar Screens #1 & #2	3/20/2017	Bar Screen 1	

Work Assignment	Completion Date	Equipment	NOTATIONS
		Bar Screen 2	
		Bar Screen Rag Compactor	
Replace sand filter media	3/30/2017	Filter 1	Operators cleaned and added additional sandfilter media to all filters.
		Filter 2	
		Filter 3	
		Filter 4	
		Filter 5	
		Filter 6	
Operate Relief Valves On Heat Exchangers And Boilers	3/3/2017	Digester 1 Heat Exchanger	
		Digester 2 Heat Exchanger	
		Digester 3 Heat Exchanger	
		Digester 4 Heat Exchanger	
		Digester 5 Heat Exchanger	
		Excess Flow Pump Station	
Test and replace all burned out indication bulbs on plant equipment	3/6/2017	Bar Screen Building	
		Belt Filter Press Building	
		Bisulfite Building	
		Blower Building	
		Chlorine Blding/System Garage	
		Digester 1 and 2 Control Bldg	
		Digester 3 Control Building	
		Digester 4 - 5 Control Buildg	
		Emergency Generator Building	
		Excess Flow Pump Station	
		Excess Flow Sludge Pump House	
		Filter Building	
		Grit Building	
		Hypochlorite Feed Blg	
		Interm Clarifier Sludge Bldg	
		Microstrainer Building	
		Operations Center	
		Raw Sewage Pump Station	
Oil Bell & Gosset Pumps	3/7/2017	Digester 1 Heat Exchanger	

Work Assignment	Completion Date	Equipment	NOTATIONS
		Digester 2 Heat Exchanger	
		Digester 3 Heat Exchanger	
		Digester 4 Heat Exchanger	
		Digester 5 Heat Exchanger	
		Excess Flow Pump Station	
Replace and Repair front Steer Linkage on 304	3/15/2017	2009 Ford F350 Truck New 304	Genes tires replaced the right lower outer tie rod, replaced the track bar and ball joint, and aligned the front end.
Replaced Scrapers and Guards on Screener	3/27/2017	2006 TROMMEL SCREEN	Replaced rubber scraper and guards for spoils conveyor and radiator on screener.
Exercise both 24" primary influent ratio valves	3/13/2017	Tunnel From PS to Grit	
		Tunnel/Chan Primary Clarifiers	
By-Weekly Fluid and Misc. Check of Generators	3/1/2017	Emergency Generator 1	
		Emergency Generator 2	
		Emergency Generator 3	
6000 Hour Oil Change on Unison Gas Skid Blower	3/9/2017	CHP Gas Cleaning System	
2000 Hour Grease of the UNISON BLOWER MOTOR	3/7/2017		
Rebuild Auger, send out for blast and powdercoating	3/3/2017	2004 AUGER-DAWG G-30 4D087	
Install brackets on Vaccon for longer extension pole	3/28/2017	2014 VACCON PD3611	
Replace Wiper Grit Conveyors 1-2	3/14/2017	Grit Conveyor System	Replaced South belt scraper #2, and replaced 6 conveyor pans.
500 Hour Oil Change on Pearth 4	3/20/2017	Digester 4 Mixing System	
Flush Pearth 2 with 3 oz of Kerosene/Oil mixture	3/13/2017	Digester 2 Mixing System	
Monthly Liquid Status of Under Ground Diesel Tank		Emerg Gen Diesel Storage Tank	
18,945 Hours, engine shutting down due to high jacket water temperature.	3/1/2017	CHP Engine Genset	Troubleshoot the problem with valve and actuator. Order new actuator and replace old with new unit and adjust.
Replace broken 3 ton floor jack.	3/3/2017	Maintenance Services Building	Purchase a new 3 ton floor jack and some air hoses from Harbor Freight.
Replace seals and springs on the discharge check valves.	3/6/2017	College Pump 1	Replace the seals and springs on the discharge check valves on all three pumps. Also purchase additional repair kits for future repairs from HD Supply.
		College Pump 2	
		College Pump 3	
Repair trailer wiring.	3/3/2017	2006 PORTABLE AIR COMPRESSOR	Purchase and install a new 4 wire triler wiring harness.
Engine lack power on full load, replaced fuel filter	3/10/2017	2006 TROMMEL SCREEN	
Exercise Of EBARA and Excess Pumps	3/20/2017	Excess Flow Pump 06	
		Excess Flow Pump 07	
		Excess Flow Pump 08	
		Excess Flow Pump 09	

Work Assignment	Completion Date	Equipment	NOTATIONS
		Excess Flow Pump 10	
		Excess Flow Pump 11	
		Excess Flow Pump 12	
Exercise Ratio Valve #2		Tunnel - System 2 RAS	
EXCESS 003- Exercise 30" and 24" DEZURIK Valves		Excess Flow 003 Valves	
Change Pre-Filters Blowers 1 - 4.		Blower Bag Room	
By-Weekly Fluid and Misc. Check of Generators	3/28/2017	Emergency Generator 1	
		Emergency Generator 2	
		Emergency Generator 3	
Unison Media Replacement	3/30/2017	CHP Gas Cleaning System	
Rebuild of Auger #1	3/20/2017	2014 AUGER-DAWG G-30 4D091	Sandblast, prime, and paint of Auger #1. Rebuild, repaint, replaced bearing assembly and splined hub. Had 4 splined hubs machined, 1 used, 3 in stock.
Rehabed volute on 2" Honda trash pump	3/14/2017	Maintenance Services Building	Rehab of volute assmebly and oil change on 2" honda trash pump.
Exercising of Raw and Excess Influent valves	3/27/2017	Excess Flow Pump Station	
Replace ISO ring on Moyno #3	3/31/2017	Conc Tank Moyno Sludge Pump 3	Replaced ISO ring pressure gauge on Moyno #3. Purchased two, one used and one for stock.
Gas piping upgrade in Digester 1	3/1/2017	Digester 1	Dahme demolished old CRP and gas collection piping, and installed new 8-inch stainless gas collection piping in Digester 1, alongside installation of gas-mix mixing system.
Replace leaking mechanical seal.	3/3/2017	Old Raw Sewage Pump 1	Pull pump, bring to shop to disassemble and inspect. Replace the mechanical seal, impeller bolt and washer. Did not need to replace bearing at this time. Also reorder pump overhaul parts for stock and get mechanical seal rebuilt by John Crane.
Replace flight sections on the classifier screw.	3/16/2017	Grit Classifier 2	Remove the screw, disassemble, clean and insprect. Screw frame was in very poor condition, replaced with reconditioned screw from Stock, install new flights, reuse lower bearing assembly, reinstall and test operation.
Replace deteriorated stell plate at expansion joint to the tunnel.	3/17/2017	Digester 1 and 2 Control Bldg	Remove old rusted out plate on ceiling and walls, fabricate and install new stainless steel plate.
Replace the UPS units at the Belt Press & Disgester 4&5 remote I/O Panel	3/16/2017	SCADA	Purchase 850 va UPS unit and install at both locations. Increase from 550 va to 850 va units. Too much equipment on the panels for teh 550 va units. Also purchase 1 650 va unit for a spare.
2016 Lighting Upgrades	3/14/2017	Filter Building	Replace all interior T-12 light fixtures with new energy efficient T-8 fixtures. A total of 35 fixtures were upgraded.
Replace sump pump that failed.		Earlston Lift Station	Remove old and install new sump pump.
Replace washing machine that no longer works in garage.		Maintenance Services Building	Purchase Maytag heavy duty washing machine from Home Depot.
Repair pole lights in various WWTC locations	3/9/2017	WWTC Outdoor Lighting	Remove ballasts, transformers, and HPS bulbs on 4 pole lights that were no longer working. Upgrade to LED retrofit replacement bulbs.
19,082 hours. Remedy GCP trip/ground fault.	3/10/2017	CHP Engine Genset	Repaired insulation on generator L1, L2, and L3 wires. Repaired insulation on wires inside generator circuit board cabinet. Tightened wires on gen CT posts. Order back up breaker for stock.
Check overload alarm conditions on bridges.	3/31/2017	Excess Flow Clarifier 1	Found starters tripped on one skimmer motor and one drive motor caused by the motor brakes locked up. Free up brakes, replace a couple of overload heaters and test operation. Reorder overload heaters from Southland

Work Assignment	Completion Date	Equipment	NOTATIONS
			Electrical Supply.
		Excess Flow Clarifier 2	
		Excess Flow Clarifier 3	
		Excess Flow Clarifier 4	
Replace the voltage regulators on all three units.	3/29/2017	Emergency Generator 1	Patten Power Systems replaced the original 30-plus year old (VR-1) analog voltage regulators that were causing frequent generator shutdowns with the newest (CDVR) digital voltage regulators. The system was also load bank tested.
		Emergency Generator 2	
		Emergency Generator 3	
Repair shorted wiring to parking lot lights.	3/24/2017	Administration Center	Found wiring short in the underground feed between the east and west sides of the parking lot. Uno excavated across the parking lot. Install (2) 1 1/4" PVC conduits and 2 hand holes. Repair and rewire lighting circuits and restore excavation areas.

DOWNERS GROVE SANITARY DISTRICT

M E M O

DATE: April 4, 2017

TO: Nicholas J. Menninga
General Manager

FROM: Robert Swirsky
Sewer System Maintenance Supervisor

RE: Monthly Report – March, 2017

		Current	Year to Date
1.	JULIE Line Markings:		
	Received	1055	2230
	In District	1002	2078
	Marked	219	585
	Man Hours	79	234
2.	Building Service:	Current	Year to Date
	a. BSSRAP TV Inspections	15	50
	b. Emergency BSSRAP Repairs	09	27
	c. Total BSSRAP Repairs	12	35
	d. I&I inspections	00	01
	e. I&I C.O. installation	00	02
	f. Replace broken cleanout caps	01	01
	g. OHSP TV Inspections	00	00
	h. Post Rodding TV	03	08
3.	Sewer backups:	Current	Year to Date
	a. Public sewer	1	3
	b. Private sewer	19	47
	c. Surcharged main	3	3
	d. Pump station	0	0
	Total	23	53

		Current	Year to Date
4.	Sewer Cleaning (DGSD personnel):	424	50,927 Ft.
	a. Sewer Cleaning (outside contractors):	0	0 Ft.
5.	Main Sewer Televising (DGSD personnel):	205	439 Ft.
	a. Sewer Televising (outside contractors):	0	0 Ft.
6.	LETS TV	1	1
7.	Manhole inspections	00	00

8. Sewer and manhole repairs and replacements by Uno Construction:
None

10. Miscellaneous: (sewer system personnel)
a. Upload and relocate flow-meters.
b. Training on TV truck data acquisition system.
c. Removal of gas cleaning media at the WWTC.
d. Dyed water flood testing – 2.

CC: WDVB, ASK, PWC, RTJ, KJR, MS, TTC, WCC, MCW

DOWNERS GROVE SANITARY DISTRICT
M E M O

DATE: April 10, 2017

TO: Nicholas J. Menninga
General Manager

FROM: Ted Cherwak
Sewer Construction Supervisor

RE: Monthly Report: Sewer Construction \ Code Enforcement – March 2017

1. Permits issued:	Current	Year to Date
a. Single family	9	31
b. Multiple family	1	1
c. Commercial	1	4
d. Repair	0	0
e. Disconnection	10	19
Total	21	55

2. Inspections made:	Current	Year to Date
a. Connections	9	25
b. Finals	4	12
c. Repairs	1	1
d. Disconnects	8	21
e. Groundwork	1	1
f. Walk-Thru	0	0
g. Pre-connections	0	0
h. Overhead Sewer Program	0	1
i. Code Enforcement	1	3
j. Lateral testing	9	24
Total	33	88

3. New Sewer Extension Construction:

a. None

4. New Sewer Extension Testing - air, deflection, manhole, televising and lamping:

a. None

5. Code Enforcement:

a. Miscellaneous walk-thru inspections
b. Overhead Sewer Program
c. Grease Trap Inspections

6. Plan & Permit Reviews:

    a. 4737 Linscott, single family review
    b. 4709 Highland, single family review
    c. 6540 Fairview, single family review
    d. 1307 Gilbert, single family review
    e. 4026 N Park, single family review
    f. 5332 Lane Place, single family review
    g. 1020 Palmer, single family review
    h. 1951 Curtiss, single family review
    i. 4406 Oakwood, single family review
    j. 222 Grant, single family review
    k. 5306 Carpenter, single family review
    l. 4235 Venard, sewer main extension, 2nd plan review
    m. 2125 Ogden, Power Mart, gas station mini mart rebuild, site plan
    n. 7231 Lemont, Three Corners Restaurant, tenant finish out plans

7. Building Sanitary Service Access Agreements:

    a. 6540 Fairview, Downers Grove
    b. 4709 Highland, Downers Grove
    c. 4737 Linscott, Downers Grove
    d. 222 Grant, Downers Grove
    e. 4406 Oakwood, Downers Grove
    f. 1904 Hitchcock, Downers Grove
    g. 5332 Lane, Downers Grove

8. Illinois EPA Permits:

    a. None

9. Miscellaneous:

    a. CPR & AED training

CC: WDVB, ASK, PWC, KJR, RTJ, MJS, RPS, WCC & MGP

Permits Issued: MARCH 2017

YEAR	PERMIT #	ADDRESS		STREET	CITY	ISSUE	TYPE	TAP FEE	INSP FEE
2017	35	4608		STANLEY	DG	3/1/2017	DISCON		
2017	24	4709		HIGHLAND	DG	3/7/2017	SF-RB		$192.00
2017	33	4608		STANLEY	DG	3/1/2017	SF-RB		$192.00
2017	42	117	S	WASHINGTON	W	3/9/2017	DISCON		
2017	43	4621		STONEWALL	DG	3/9/2017	DISCON		
2017	40	6540		FAIRVIEW	DG	3/13/2017	SF	$2,891.00	$192.00
2017	38	444		FRANKLIN	DG	3/14/2017	DISCON		
2017	31	4737		LINSCOTT	DG	3/14/2017	SF-RB		$192.00
2017	39	7231		LEMONT	DG	3/14/2017	COM		$184.00
2017	44	4528		WILSON	DG	3/17/2017	DISCON		
2016	153	1010		MAPLE	DG	3/17/2017	MF	152,031.00	$638.00
2017	37	1307		GILBERT	DG	3/20/2017	DISCON		
2017	47	1307		GILBERT	DG	3/21/2017	SF-RB		$192.00
2017	46	5332		LANE PLACE	DG	3/21/2017	SF-RB		$192.00
2017	45	1951		CURTISS	DG	3/27/2017	SF-RB		$192.00
2017	53	5306		CARPENTER	DG	3/27/2017	DISCON		
2017	54	333		5TH STREET	DG	3/27/2017	DISCON		
2017	51	222		GRANT	DG	3/27/2017	SF-RB		$192.00
2017	56	4140		LINDLEY	DG	3/29/2017	DISCON		
2017	57	4806		SEELEY	DG	3/29/2017	DISCON		
2017	49	4406		OAKWOOD	DG	3/31/2017	SF-RB		$192.00
						TOTAL:		$154,922.00	$2,550.00

Permit Type Index: SF=Single Family, RB=Rebuild, SC=Septic Conversion, ADD=Addition, Discon=Disconnect for Demolition, Comm=Commercial, MF=Multiple Family

Permit Final Inspections: MARCH 2017

YEAR	PERMIT #	ADDRESS	STREET	CITY	FINAL
2016	92	4826	MIDDAUGH	DG	3/8/2017
2016	55	4532	WOODWARD	DG	3/14/2017
2016	67	4709	CORNELL	DG	3/17/2017
2016	69	1332	35TH ST	DG	3/22/2017

Progress Report

To: Nick Menninga, General Manager
From: Reese Berry, Laboratory Supervisor
Date: April 5, 2017
Re: March 2017 Laboratory Report

We had 4 excess sampling events during the month of March. There were no permit excursions from any sampling during March 2017.

Lab Remodel/Procurement:

We received the DI fixtures with the proper handle placement. We are waiting on 1 more fixture for inside the hood for the pot sink. The installer will be back to install a panel to hide a dead space. We were informed the wrap around the top of the hood, which finishes the look from the top of the hood to the ceiling, was/is no longer included with installation. I wasn't informed of this policy change at the time of the quote and room design by the vendor. It came to light after the project was installed and I questioned why it wasn't completed. We are moving forward with ordering the hood wrap. I was told the installer would put in the panel and the hood wrap at the same time.

Pretreatment / Semi-Annual NPDES Testing:

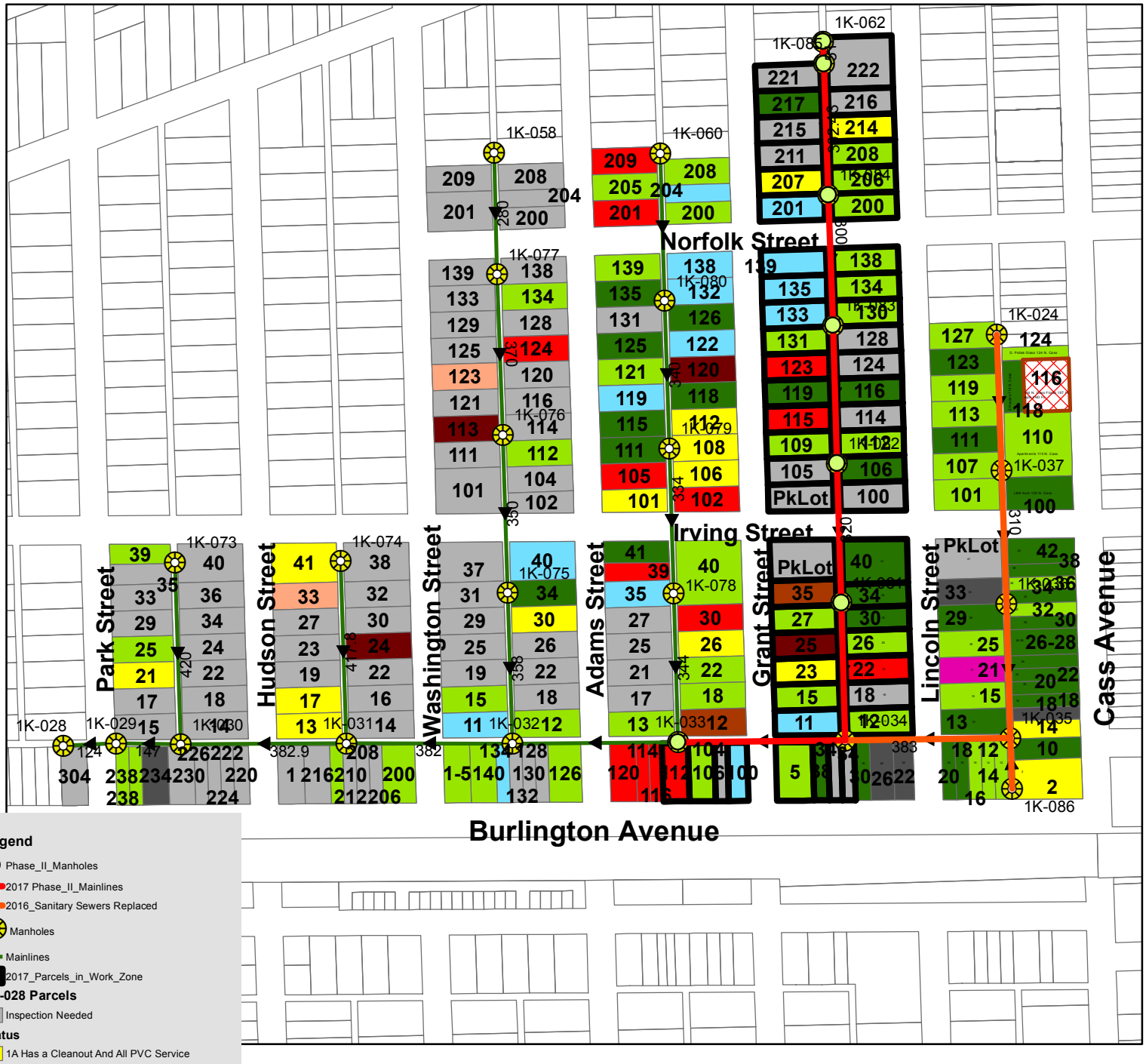
We completed the Annual Pretreatment Report required by our NPDES permit and Federal Pretreatment guidelines. The report was sent to US EPA Region 5 and the Illinois EPA. We sampled our Influent, Effluent, and Biosolids for semi-annual requirements over 2 days from March 20th – 21st. We are awaiting results from the contract laboratory.

Biosolids:

We sampled and tested our biosolids over the course of 2 weeks in March.

C: WDVB, ASK, PWC, KJR, RTJ, MJS, WCC, MGP

Downers Grove Sanitary District
I&I Removal Target Area
1K-028 Parcel Status



Legend

- Phase_II_Manholes
- 2017 Phase_II_Mainlines
- 2016_Sanitary Sewers Replaced
- Manholes
- Mainlines
- 2017_Parcels_in_Work_Zone

1K-028 Parcels

- Inspection Needed

Status

- 1A Has a Cleanout And All PVC Service
- 2A C/O Installed, Ready For Rehab
- 2B Agreement Received Ready For C/O
- 2BC Agreements Received, C/O & TV Needed
- 2D BSSRAP/OHSP TV Done
- 3A Released For Cleanout
- 4 Inspection Done Agreements Needed
- 4A Has An Existing Cleanout
- 5 Sheduled For An Inspection
- 5A Inspection Done Qualifies for BSSRAP
- 5B Unable to TV
- 5BX Unable to TV, Violation
- 5X Violation
- X Demolished/Vacant
- Parcels

STATUS OF 1K-028 INSPECTIONS AND AGREEMENT ACQUISITIONS

Category	Inspections Scheduled	Inspections Completed	Application Received	Agreements Signed	Cleanout Installed	Service Rehab Done	**Totals**	**Total as Percentage**
1A	Y	Y	N	Y	Y	N/A	15	7%
1B	Y	Y	N	N	N	N/A	0	0%
2A	Y	Y	Y	Y	Y	N	51	22%
2B	Y	Y	Y	Y	Y	N	1	0%
2D	Y	Y	Y	N	N	N	2	1%
3A	Y	Y	Y	Y	N	N	2	1%
4	Y	Y	N	N	N	N	35	15%
4A	N	N	N	N	N/A	N	4	2%
5	Y	N	N	N	N	N	0	0%
5A	Y	Y	N	N	N	N	14	6%
5AX	Y	Y	N	N	N	N	0	0%
5B	Y	N	N	N	N	N	15	7%
5BX	Y	N	N	N	N	N	0	0%
0	N	N	N	N	N	N	84	37%
X	-	-	-	-	-	-	5	2%
5X	-	-	-	-	-	-	1	0%
							229	100%

9% Complete

Category Description:

1A - PVC service with cleanout(may need to be sealed at the main)
1B - All PVC no Cleanout
2A - BSSRAP repair done, ready for rehab
2B - Ready for rehab
2D - BSSRAP/OHSP TV done
3A - Released to contractor for cleanout installation
4 - Inspection completed (Program application needed)
4A - Has an existing cleanout
5 - Inspections scheduled
5A - Inspection done - BSSRAP needed (qualifying defects or obstructions seen during TV)
5AX - Violation, BSSRAP needed
5B - Unable to TV
5BX - Unable to TV Violation
0 - Inspection Needed
X - Demolished
5X - Inspection done - Violation not corrected

2015 Basin I&I Ranking = 1
2016 Basin I&I Ranking = 27
Combined pit violations found and corrected to date - 0
Storm pit violations found and corrected to date - 2

4/4/2017

DOWNERS GROVE SANITARY DISTRICT CASH BALANCES AND INVESTMENT SCHEDULE

DATE: 03/31/17

CASH BALANCES

ACCOUNT NAME	ACCOUNT NUMBER	BALANCE PER BANK STATEMENT
DEPOSIT	XXXXXXXXX1116	$1,380,694.11
DISBURSEMENT	XXXXXXXXX1111	267,497.78
FLEXIBLE BENEFITS	XXXXXXXXX6025	2,416.85
PAYROLL	XXXXXXXXX1117	232,374.66
PETTY CASH	XXXXXXXXX1112	4,361.32
USER REFUNDS	XXXXXXXXX1114	8,561.38
TOTAL - CASH AT BANK		$1,895,906.10

INVESTMENTS

TYPE	FINANCIAL INSTITUTION	TERM	MATURITY	AMOUNT	ANNUAL YIELD	GENERAL CORPORATE FUND	IMPROVEMENT FUND	CONSTRUCTION FUND	PUBLIC BENEFIT FUND	SEWER EXTENSION FUND	INTEREST EARNED AT YIELD
CD	FIRST INTERNET BANK	12 MOS	5/13/2017	$250,000.00	1.200%		$250,000.00				$3,000.00
CD	TAB BANK	12 MOS	5/23/2017	$250,000.00	0.950%		$250,000.00				$2,375.00
CD	CIT BANK	12 MOS	11/9/2017	$245,000.00	1.150%	$245,000.00					$2,817.50
CD	TRISTATE CAPITAL	12 MOS	11/9/2017	$249,990.00	1.050%		$249,990.00				$2,624.90
CD	BRIDGEVIEW BANK	12 MOS	1/15/2018	$250,000.00	1.000%		$207,719.45		$35,260.73	$7,019.82	$2,500.00
TOTAL CDs				$1,244,990.00	1.070%	$245,000.00	$957,709.45	$0.00	$35,260.73	$7,019.82	$13,317.40

TYPE	FINANCIAL INSTITUTION	TERM	LAST ACTION DATE	AMOUNT	CURRENT RATE OF RETURN						ESTIMATED ANNUAL RETURN
MM	BANKFINANCIAL*	ONGOING	3/13/2013	$250,000.00	0.390%	$250,000.00					$975.00
MM	CIT BANK	ONGOING	11/9/2016	$5,000.00	0.450%	$5,000.00					$22.50
MM	LISLE SAVINGS BANK	ONGOING	9/2/2015	$250,000.00	0.300%	$250,000.00					$750.00
MM	LUANA SAVINGS BANK	ONGOING	4/2/2012	$250,000.00	1.000%	$250,000.00					$2,500.00
MM	NATIONWIDE BANK	ONGOING	10/9/2015	$250,000.00	0.300%	$250,000.00					$750.00
MM	PBI BANK	ONGOING	9/9/2013	$250,000.00	0.250%	$250,000.00					$625.00
MM	ROYAL BANK fka Park Fed Savings	ONGOING	12/4/2012	$250,000.00	0.750%	$250,000.00					$1,875.00
MM	STEARNS BANK	ONGOING	9/1/2015	$250,000.00	0.300%	$250,000.00					$750.00
MM	TRISTATE CAPITAL BANK	ONGOING	11/9/2016	$10.00	0.250%		$10.00				$0.03
MM	WEST SUBURBAN BANK	ONGOING	11/20/2012	$250,000.00	0.450%		$250,000.00				$1,125.00
TOTAL MM ACCOUNTS				$2,005,010.00	0.467%	$1,755,000.00	$250,010.00	$0.00	$0.00	$0.00	$9,372.53
ILLINOIS FUNDS - MONEY MARKET				$37,998.74	0.701%	$37,998.74	$0.00	$0.00	$0.00	$0.00	$266.37
SUBTOTAL - CD'S, MM AND IL FUNDS				$3,287,998.74	0.698%	$2,037,998.74	$1,207,719.45	$0.00	$35,260.73	$7,019.82	$22,956.29

TYPE	INSTALLMENT INVOICED	CLOSING DATE	AMOUNT	FIXED RATE						
VOUCHERS - SA54	10 OF 10	01/03/17	0.00	6.000%	0.00	0.00	0.00			0.00
VOUCHERS - SA55	10 OF 10	01/03/17	0.00	6.000%	0.00	0.00	0.00			0.00
VOUCHERS - SA56	9 OF 10	01/02/18	0.00	6.000%	0.00	0.00	0.00			0.00
VOUCHERS - SA57	9 OF 10	01/02/18	5,890.32	6.000%	324.83	959.80	4,605.69			353.42
VOUCHERS - SA58	8 OF 10	01/02/19	23,647.69	1.240%	1,322.24	22,325.45	0.00			293.23
TOTAL VOUCHERS			$29,538.01	2.189%	$1,647.07	$23,285.25	$4,605.69	$0.00	$0.00	$646.65
TOTAL - ALL INVESTMENTS			$3,317,536.75	0.711%	$2,039,645.81	$1,231,004.70	$4,605.69	$35,260.73	$7,019.82	$23,602.94

* $249,900 in a Money Market Account and $100 in a Business Checking Account

TOTAL CASH AND INVESTMENTS $5,213,442.85

Board of Trustees
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Amy S. Kovacevic
Vice President
Paul W. Coultrap
Clerk

Downers Grove Sanitary District

General Manager
Nicholas J. Menninga

Legal Counsel
Michael G. Philipp

2710 Curtiss Street
P.O. Box 1412
Downers Grove, IL 60515-0703
Phone: 630-969-0664
Fax: 630-969-0827
www.dgsd.org

Providing a Better Environment for South Central DuPage County

Memo

To: Board of Trustees
From: Nick Menninga, General Manager
Date: April 13, 2017
Subject: Treasurer's Report for March, 2017

Attached please find the subject report that tracks income and expenses through the first eleven months of Fiscal Year 16-17.

Totals of expenses and income are shown on the following table:

Year-to-date	Income	Expense
General Fund	$ 7,741,662.69 (page 1)	$ 7,240,820.37 (page 6)
Improvement Fund	$ 225,944.23 (page 7)	$ 47,818.02 (page 7)
Construction Fund	$ 582,537.92 (page 8)	$ 1,358,472.09 (page 9)
Public Benefit Fund	$ 229.60 (page 10)	$ 0.00 (page 10)
TOTAL	$ 8,550,374.44	$ 8,647,110.48

C: BOLI, WCC, MGP

Fund number & Description	Ending Fund Balance
Fund 01 : GENERAL FUND	$2,918,569.01
Fund 02 : IMPROVEMENT FUND	$1,642,641.56
Fund 03 : CONSTRUCTION FUND	$551,804.17
Fund 05 : PUBLIC BENEFIT FUND	$35,547.45
Recap Totals	$5,148,562.19

TREASURER'S REPORT

DATE 04/13/17 MONTH ENDED 03/31/17 PAGE 1

FUND 01 GENERAL FUND

COST NUMBER	DESCRIPTION	ACTUAL CURRENT MONTH	BUDGET CURRENT MONTH	ACTUAL Y-T-D	BUDGET Y-T-D	ACTUAL-BUDGET VARIANCE	VAR %	TOTAL BUDGET
DEPT 05	REVENUES							
3000	PROPERTY TAXES	.00	0	1,127,659.64-	1,127,250-	409.64-	.0	1,127,250-
3001	USER RECEIPTS	311,268.12-	263,000-	2,888,418.68-	3,039,400-	150,981.32	5.0-	3,269,400-
3002	SURCHARGES	33,083.76-	25,850-	338,637.78-	284,150-	54,487.78-	19.2	310,000-
3004	PLAN REVIEW FEES	.00	0	.00	1,000-	1,000.00	100.0-	1,000-
3005	CONSTRUCTION INSPECTION FEES	.00	0	928.00-	500-	428.00-	85.6	500-
3006	PERMIT INSPECTION FEES	2,742.00-	1,667-	22,575.00-	18,337-	4,238.00-	23.1	20,000-
3007	INTEREST ON INVESTMENTS	1,043.37-	804-	6,366.29-	8,844-	2,477.71	28.0-	9,650-
3013	SAMPLING & MONITORING	8,934.98-	5,417-	82,731.82-	59,587-	23,144.82-	38.8	65,000-
3014	REPLACEMENT TAXES	8,337.82-	4,600-	67,319.60-	63,700-	3,619.60-	5.7	79,800-
3015	MISCELLANEOUS INCOME	6,301.00-	350-	10,395.16-	3,650-	6,745.16-	184.8	4,000-
3021	TELEVISION INSPECTION	.00	0	227.00-	150-	77.00-	51.3	150-
3023	PROPERTY LEASE PAYMENTS	2,751.13-	2,792-	30,292.18-	30,712-	419.82	1.4-	33,500-
3024	MONTHLY SERVICE FEES	325,332.99-	281,600-	2,970,956.62-	2,953,200-	17,756.62-	.6	3,193,200-
3027	GREASE WASTE	21,424.50-	11,667-	177,922.92-	128,337-	49,585.92-	38.6	140,000-
3040	RENEWABLE ENERGY CREDITS	13,284.00-	0	17,232.00-	0	17,232.00-	.0	0
	DEPT 05 TOTALS	734,503.67-	597,747-	7,741,662.69-	7,718,817-	22,845.69-	.3	8,253,450-
	FUND REVENUE TOTAL	734,503.67-	597,747-	7,741,662.69-	7,718,817-	22,845.69-	.3	8,253,450-
DEPT 11	O & M EXPENSE - ADMINISTRATION							
SECT A	SALARIES AND WAGES							
A001	TRUSTEES	.00	0	18,000.31	18,000	.31	.0	18,000
A002	BOLI	.00	0	.00	900	900.00-	100.0-	900
A003	GENERAL MANAGEMENT	23,760.39	29,512	212,756.05	237,596	24,839.95-	10.5-	247,700
A004	FINANCIAL RECORDS	20,620.40	23,592	174,949.45	184,236	9,286.55-	5.0-	191,950
A005	ADMINISTRATIVE RECORDS	5,005.07	7,378	40,375.07	59,324	18,948.93-	31.9-	61,850
A007	CODE ENFORCEMENT	41,965.22	36,316	294,160.71	292,103	2,057.71	.7	303,950
A008	SAFETY ACTIVITIES	81.14	298	775.12	2,404	1,628.88-	67.8-	2,500
A030	BUILDING & GROUNDS	195.58	13	5,434.99	138	5,296.99	3,838.4	150
	SECT A TOTALS	91,627.80	97,109	746,451.70	794,701	48,249.30-	6.1-	827,000
SECT B	OPERATIONS AND MAINTENANCE							
B100	ELECTRICITY	214.21	200	2,981.67	4,200	1,218.33-	29.0-	4,400
B101	NATURAL GAS	163.83	350	921.44	2,800	1,878.56-	67.1-	3,000
B102	WATER, GARBAGE AND OTHER UTILITIES	120.21	140	858.34	1,000	141.66-	14.2-	1,000
B110	BANK CHARGES	1,268.90	1,800	14,420.02	19,800	5,379.98-	27.2-	21,250
B112	COMMUNICATION	1,508.66	1,250	14,826.99	13,750	1,076.99	7.8	15,000
B115	EQUIPMENT/EQUIPMENT REPAIR	14,079.39	5,900	95,395.23	92,550	2,845.23	3.1	98,450
B116	SUPPLIES	574.98	650	5,516.68	7,150	1,633.32-	22.8-	7,800
B117	EMPLOYEE/DUTY COSTS	561.62	1,200	15,036.01	16,800	1,763.99-	10.5-	18,000
B118	BUILDING & GROUNDS	1,267.80	2,000	12,735.64	59,050	46,314.36-	78.4-	61,050
B119	POSTAGE	2.26	1,167	7,216.48	12,837	5,620.52-	43.8-	14,000
B120	PRINTING/PHOTOGRAPHY	843.03	300	9,705.40	10,500	794.60-	7.6-	10,600
B121	USER BILLING MATERIALS	7,399.47	6,000	60,001.75	66,000	5,998.25-	9.1-	71,000

FUND 01 GENERAL FUND

COST NUMBER	DESCRIPTION	ACTUAL CURRENT MONTH	BUDGET CURRENT MONTH	ACTUAL Y-T-D	BUDGET Y-T-D	ACTUAL-BUDGET VARIANCE	VAR %	TOTAL BUDGET
B124	CONTRACT SERVICES	18,416.18	7,417	63,281.11	81,587	18,305.89-	22.4-	89,000
B137	MEMBERSHIPS/SUBSCRIPTIONS	395.00	400	11,434.00	11,350	84.00	.7	11,600
	SECT B TOTALS	46,815.54	28,774	314,330.76	399,374	85,043.24-	21.3-	426,150
	SECT C VEHICLES							
C222	GAS/FUEL	173.91	250	848.87	2,350	1,501.13-	63.9-	2,600
C225	OPERATION/REPAIR	113.69	0	429.29	1,050	620.71-	59.1-	1,050
	SECT C TOTALS	287.60	250	1,278.16	3,400	2,121.84-	62.4-	3,650
	DEPT 11 TOTALS	138,730.94	126,133	1,062,060.62	1,197,475	135,414.38-	11.3-	1,256,800
	DEPT 12 O & M EXPENSES - WWTC							
	SECT A SALARIES AND WAGES							
A009	OPERATIONS MANAGEMENT	16,980.15	2,536	110,263.53	20,488	89,775.53	438.2	21,000
A010	MAINTENANCE - BUDGET	.00	63,300	.00	503,850	48,461.04-	9.6-	523,950
A011	MAINTENANCE - WWTC	41,748.64	0	389,422.69	0	.00	.0	0
A012	MAINTENANCE - VEHICLES	26.75	0	6,628.20	0	.00	.0	0
A014	MAINTENANCE - ELECTRICAL	15,983.23	0	59,338.07	0	.00	.0	0
A020	WWTC - BUDGET	.00	66,448	.00	524,884	55,246.49-	10.5-	546,350
A021	WWTC OPERATIONS	37,174.66	0	301,227.47	0	.00	.0	0
A022	WWTC SLUDGE HANDLING	15,391.14	0	168,410.04	0	.00	.0	0
A030	BUILDING & GROUNDS	5,181.14	5,266	56,571.40	42,328	14,243.40	33.7	43,900
	SECT A TOTALS	132,485.71	137,550	1,091,861.40	1,091,550	311.40	.0	1,135,200
	SECT B OPERATIONS AND MAINTENANCE							
B100	ELECTRICITY	15,196.73	16,250	169,905.37	178,750	8,844.63-	5.0-	195,000
B101	NATURAL GAS	1,354.10	1,417	5,830.40	15,587	9,756.60-	62.6-	17,000
B102	WATER, GARBAGE AND OTHER UTILITIES	2,576.76	4,700	33,481.96	34,700	1,218.04-	3.5-	36,000
B103	ODOR CONTROL	163.10	600	9,450.48	6,600	2,850.48	43.2	7,000
B104	FUEL - GENERATORS	617.90	0	1,731.28	16,500	14,768.72-	89.5-	16,500
B112	COMMUNICATION	1,166.44	1,021	11,552.90	11,231	321.90	2.9	12,250
B113	EMERGENCY/SAFETY EQUIPMENT	3,696.08	1,500	18,351.37	16,500	1,851.37	11.2	17,600
B116	SUPPLIES	1,822.57	3,258	27,045.57	35,838	8,792.43-	24.5-	39,100
B117	EMPLOYEE/DUTY COSTS	518.47	2,000	17,538.95	24,000	6,461.05-	26.9-	26,000
B124	CONTRACT SERVICES	.00	7,071	85,280.00	77,781	7,499.00	9.6	84,850
B130	NPDES PERMIT FEES	.00	0	53,000.00	53,000	.00	.0	53,000
B400	CHEMICALS - BUDGET	.00	5,700	.00	62,800	7,357.62-	11.7-	68,500
B401	CHEMICALS - DISINFECTION	.00	0	42,568.97	0	.00	.0	0
B402	CHEMICALS - SLUDGE DEWATERING	.00	0	9,770.41	0	.00	.0	0
B403	CHEMICALS - TERTIARY TREATMENT	.00	0	3,103.00	0	.00	.0	0
B501	EQPT/EQPT REPAIR - BIOSOLIDS AGING & DISPOS	3,663.08	4,627	39,267.98	50,897	11,629.02-	22.9-	55,521
B502	EQPT/EQPT REPAIR - DISINFECTION	11,404.59	2,121	22,438.68	23,331	892.32-	3.8-	25,450
B503	EQPT/EQPT REPAIR - EXCESS FLOW	.00	2,353	21,587.82	25,883	4,295.18-	16.6-	28,240
B504	EQPT/EQPT REPAIR - GRIT REMOVAL	.00	2,030	20,222.07	22,330	2,107.93-	9.4-	24,360
B505	EQPT/EQPT REPAIR - INFLUENT PUMPING	1,256.30	3,862	8,013.80	42,482	34,468.20-	81.1-	46,349

FUND 01 GENERAL FUND

COST NUMBER	DESCRIPTION	ACTUAL CURRENT MONTH	BUDGET CURRENT MONTH	ACTUAL Y-T-D	BUDGET Y-T-D	ACTUAL-BUDGET VARIANCE	VAR %	TOTAL BUDGET
B506	EQPT/EQPT REPAIR - PRIMARY TREATMENT	812.44	3,675	44,339.77	40,425	3,914.77	9.7	44,100
B507	EQPT/EQPT REPAIR - SECONDARY TREATMENT	.00	4,919	71,734.19	54,109	17,625.19	32.6	59,023
B508	EQPT/EQPT REPAIR - SLUDGE CONCENTRATION	.00	129	3,912.22	1,419	2,493.22	175.7	1,545
B509	EQPT/EQPT REPAIR - SLUDGE DEWATERING	.00	4,551	50,171.25	50,061	110.25	.2	54,613
B510	EQPT/EQPT REPAIR - SLUDGE DIGESTION	4,370.35	7,625	24,811.62	83,875	59,063.38-	70.4-	91,497
B511	EQPT/EQPT REPAIR - TERTIARY TREATMENT	11,404.59-	2,235	2,354.86	24,585	22,230.14-	90.4-	26,819
B512	EQPT/EQPT REPAIR - WWTC GENERAL	3,111.03	4,873	45,337.15	53,603	8,265.85-	15.4-	58,473
B513	EQPT/EQPT REPAIR - WWTC UTILITIES	17,292.06	9,593	84,660.75	105,523	20,862.25-	19.8-	115,110
B801	BLDG & GROUNDS - BIOSOLIDS AGING AND DISPOS	.00	417	1,103.56	4,587	3,483.44-	75.9-	5,000
B802	BLDG & GROUNDS - DISINFECTION	.00	43	167.62	473	305.38-	64.6-	515
B803	BLDG & GROUNDS - EXCESS FLOW	.00	86	1,350.61	946	404.61	42.8	1,030
B804	BLDG & GROUNDS - GRIT REMOVAL	.00	86	14.00	946	932.00-	98.5-	1,030
B805	BLDG & GROUNDS - INFLUENT PUMPING	12,350.04	687	16,006.87	7,557	8,449.87	111.8	8,240
B806	BLDG & GROUNDS - PRIMARY TREATMENT	.00	1,600	.00	17,600	17,600.00-	100.0-	19,200
B807	BLDG & GROUNDS - SECONDARY TREATMENT	.00	1,336	3,118.27	14,696	11,577.73-	78.8-	16,030
B809	BLDG & GROUNDS - SLUDGE DEWATERING	.00	86	233.69	946	712.31-	75.3-	1,030
B810	BLDG & GROUNDS - SLUDGE DIGESTION	.00	1,134	895.73	12,474	11,578.27-	92.8-	13,605
B811	BLDG & GROUNDS - TERTIARY TREATMENT	229.50	763	868.43	8,393	7,524.57-	89.7-	9,150
B812	BLDG & GROUNDS - WWTC GENERAL	18,747.41	16,102	236,579.30	177,122	59,457.30	33.6	193,225
B813	BLDG & GROUNDS - WWTC UTILITIES	139.10	129	645.16	1,419	773.84-	54.5-	1,545
	SECT B TOTALS	89,083.46	118,579	1,188,446.06	1,358,969	170,522.94-	12.6-	1,473,500
	SECT C VEHICLES							
C222	GAS/FUEL	1,911.75	3,542	12,375.73	38,962	26,586.27-	68.2-	42,500
C225	OPERATION/REPAIR	583.22	542	3,593.75	5,962	2,368.25-	39.7-	6,500
	SECT C TOTALS	2,494.97	4,084	15,969.48	44,924	28,954.52-	64.5-	49,000
	DEPT 12 TOTALS	224,064.14	260,213	2,296,276.94	2,495,443	199,166.06-	8.0-	2,657,700
	DEPT 13 O & M EXPENSES - LABORATORY							
	SECT A SALARIES AND WAGES							
A009	OPERATIONS MANAGEMENT	8,107.89	6,608	65,757.75	53,736	12,021.75	22.4	56,450
A040	LABORATORY - BUDGET	.00	18,076	.00	146,070	20,489.56-	14.0-	150,000
A041	LAB - WWTC	13,161.63	0	112,897.61	0	.00	.0	0
A042	LAB - PRETREATMENT	2,077.96	0	6,228.60	0	.00	.0	0
A043	LAB - SURCHARGE PROGRAM	.00	0	5,219.32	0	.00	.0	0
A044	LAB - BOD	.00	0	578.24	0	.00	.0	0
A045	LAB - SOLIDS	.00	0	177.92	0	.00	.0	0
A046	LAB - AMMONIA	.00	0	352.72	0	.00	.0	0
A047	LAB - MICRO	.00	0	126.03	0	.00	.0	0
	SECT A TOTALS	23,347.48	24,684	191,338.19	199,806	8,467.81-	4.2-	206,450
	SECT B OPERATIONS AND MAINTENANCE							
B114	CHEMICALS	654.24	1,408	5,827.29	15,488	9,660.71-	62.4-	16,900
B115	EQUIPMENT/EQUIPMENT REPAIR	6,369.99	950	68,293.76	70,450	2,156.24-	3.1-	71,200

FUND 01 GENERAL FUND

COST NUMBER	DESCRIPTION	ACTUAL CURRENT MONTH	BUDGET CURRENT MONTH	ACTUAL Y-T-D	BUDGET Y-T-D	ACTUAL-BUDGET VARIANCE	VAR %	TOTAL BUDGET
B116	SUPPLIES	946.49	1,688	12,787.96	18,568	5,780.04-	31.1-	20,250
B117	EMPLOYEE/DUTY COSTS	.00	500	2,171.63	5,500	3,328.37-	60.5-	6,000
B122	MONITORING EQUIPMENT	3,326.00	0	5,387.07	8,500	3,112.93-	36.6-	8,500
B123	OUTSIDE LAB SERVICES	1,570.19	1,429	11,259.83	15,719	4,459.17-	28.4-	17,150
	SECT B TOTALS	12,866.91	5,975	105,727.54	134,225	28,497.46-	21.2-	140,000
	SECT C VEHICLES							
C222	GAS/FUEL	55.15	83	299.33	913	613.67-	67.2-	1,000
C225	OPERATION/REPAIR	.00	0	168.08	150	18.08	12.1	200
C226	VEHICLE PURCHASES	.00	0	6,762.68	12,000	5,237.32-	43.6-	12,000
	SECT C TOTALS	55.15	83	7,230.09	13,063	5,832.91-	44.7-	13,200
	DEPT 13 TOTALS	36,269.54	30,742	304,295.82	347,094	42,798.18-	12.3-	359,650
	DEPT 14 O & M EXPENSES - SEWER SYSTEM							
	SECT A SALARIES AND WAGES							
A050	SEWER MAINTENANCE - BUDGET	.00	13,780	.00	107,940	39,058.93	36.2	112,650
A051	SEWER MAINTENANCE	14,649.53	0	132,274.56	0	.00	.0	0
A054	SEWER MAINTENANCE - BACK-UPS & HIGH FLOWS	1,863.87	0	14,724.37	0	.00	.0	0
A060	INSPECTION - BUDGET	.00	41,570	.00	328,560	57,084.40-	17.4-	342,950
A061	INSPECTION - NEW CONSTRUCTION	.00	0	1,651.60	0	.00	.0	0
A062	INSPECTION - CONSTRUCTION OF DGSD PROJECTS	5,778.99	0	58,714.56	0	.00	.0	0
A063	INSPECTION - PERMIT INSPECTIONS	1,749.44	0	19,015.37	0	.00	.0	0
A064	INSPECTION - MISCELLANEOUS	6,237.50	0	49,488.25	0	.00	.0	0
A065	INSPECTION-CONSTR BY VILLAGES, UTILITIES	6,854.70	0	77,225.25	0	.00	.0	0
A066	INSPECTION - CODE ENFORCEMENT	4,226.60	0	65,380.57	0	.00	.0	0
A070	SEWER INVESTIGATIONS - BUDGET	.00	1,284	.00	10,152	1,509.93-	14.9-	10,600
A072	SEWER INVESTIGATIONS	851.65	0	8,642.07	0	.00	.0	0
	SECT A TOTALS	42,212.28	56,634	427,116.60	446,652	19,535.40-	4.4-	466,200
	SECT B OPERATIONS AND MAINTENANCE							
B112	COMMUNICATION	958.64	1,125	8,280.88	6,800	1,480.88	21.8	6,800
B113	EMERGENCY/SAFETY EQUIPMENT	.00	167	9,557.51	1,837	7,720.51	420.3	2,000
B115	EQUIPMENT/EQUIPMENT REPAIR	3,234.43	17,792	192,797.77	195,712	2,914.23-	1.5-	213,500
B116	SUPPLIES	104.22	1,008	3,340.52	11,088	7,747.48-	69.9-	12,100
B117	EMPLOYEE/DUTY COSTS	626.57	1,000	10,524.26	11,600	1,075.74-	9.3-	13,000
B124	CONTRACT SERVICES	558.57	11,008	81,124.05	121,088	39,963.95-	33.0-	132,100
B127	JULIE SYSTEM	.00	1,085	12,461.61	11,915	546.61	4.6	13,000
B128	OVERHEAD SEWER/BACKFLOW PREVENTION PROGRAM	30.00	0	6,633.17	15,000	8,366.83-	55.8-	15,000
B129	REIMBURSEMENT PROGRAM/PUBLIC SEWER BLOCKAGE	481.00	0	11,379.48	12,000	620.52-	5.2-	12,000
B900	SEWER SYSTEM REPAIRS - BUDGET	.00	39,600	.00	1,501,100	37,549.71-	2.5-	1,631,600
B901	SEWER SYSTEM REPAIRS - I/I PROGRAM	32,641.10	0	651,978.99	0	.00	.0	0
B902	SEWER SYSTEM REPAIRS - REPLACEMENT	.00	0	16,394.05	0	.00	.0	0
B903	SEWER SYSTEM REPAIRS - REHABILITATION	.00	0	144,037.85	0	.00	.0	0
B910	SEWER SYSTEM REPAIRS - BSSRAP PROGRAM	48,024.42	0	557,988.81	0	.00	.0	0

FUND 01 GENERAL FUND

COST NUMBER	DESCRIPTION	ACTUAL CURRENT MONTH	BUDGET CURRENT MONTH	ACTUAL Y-T-D	BUDGET Y-T-D	ACTUAL-BUDGET VARIANCE	VAR %	TOTAL BUDGET
B911	SEWER SYSTEM REPAIRS - BSSRAP-TARGET I/I	.00	0	92.00	0	.00	.0	0
B913	SEWER SYSTEM REPAIRS - BSSRAP-REPAIR/REPL/R	.00	0	2,263.00	0	.00	.0	0
B929	ARRA LOAN PRINCIPAL REPAYMENT	.00	0	90,795.59	0	.00	.0	0
	SECT B TOTALS	86,658.95	72,785	1,799,649.54	1,888,140	88,490.46-	4.7-	2,051,100
	SECT C VEHICLES							
C222	GAS/FUEL	1,915.38	2,208	10,022.80	24,288	14,265.20-	58.7-	26,500
C225	OPERATION/REPAIR	4.99	442	8,731.64	4,862	3,869.64	79.6	5,300
	SECT C TOTALS	1,920.37	2,650	18,754.44	29,150	10,395.56-	35.7-	31,800
	DEPT 14 TOTALS	130,791.60	132,069	2,245,520.58	2,363,942	118,421.42-	5.0-	2,549,100
	DEPT 15 O & M EXPENSES - LIFT STATIONS							
	SECT A SALARIES AND WAGES							
A009	OPERATIONS MANAGEMENT	48.31	48	317.82	384	66.18-	17.2-	400
A030	BUILDING & GROUNDS	26.75	0	1,057.64	0	1,057.64	.0	0
A080	LIFT STATION MAINTENANCE	7,796.51	7,396	34,329.55	58,468	24,138.45-	41.3-	61,100
	SECT A TOTALS	7,871.57	7,444	35,705.01	58,852	23,146.99-	39.3-	61,500
	SECT B OPERATIONS AND MAINTENANCE							
B100	ELECTRICITY	8,157.41	9,200	93,423.66	101,200	7,776.34-	7.7-	110,000
B104	FUEL - GENERATORS	.00	0	3,599.88	6,000	2,400.12-	40.0-	6,000
B112	COMMUNICATION	326.51	475	3,605.77	5,225	1,619.23-	31.0-	5,700
B113	EMERGENCY/SAFETY EQUIPMENT	.00	0	144.60	250	105.40-	42.2-	250
B116	SUPPLIES	.00	0	493.10	225	268.10	119.2	250
B520	EQUIP/EQUIP REPAIR - BUTTERFIELD	6,839.11	492	23,279.47	5,412	17,867.47	330.2	5,906
B521	EQUIP/EQUIP REPAIR - CENTEX	.00	144	4,508.24	1,584	2,924.24	184.6	1,725
B522	EQUIP/EQUIP REPAIR - COLLEGE	622.88	278	4,953.82	3,058	1,895.82	62.0	3,333
B523	EQUIP/EQUIP REPAIR - EARLSTON	.00	1,144	12,639.47	12,584	55.47	.4	13,720
B524	EQUIP/EQUIP REPAIR - HOBSON	.00	290	10,367.87	3,190	7,177.87	225.0	3,476
B525	EQUIP/EQUIP REPAIR - LIBERTY PARK	.00	563	1,945.47	6,193	4,247.53-	68.6-	6,756
B526	EQUIP/EQUIP REPAIR - NORTHWEST	9,070.00	322	23,447.47	3,542	19,905.47	562.0	3,868
B527	EQUIP/EQUIP REPAIR - VENARD	.00	165	14,946.10	1,815	13,131.10	723.5	1,983
B528	EQUIP/EQUIP REPAIR - WROBLE	.00	832	11,361.11	9,152	2,209.11	24.1	9,983
B529	EQUIP/EQUIP REPAIR - LIFT STATIONS GENERAL	50.68	3,600	37,854.13	80,400	42,545.87-	52.9-	84,000
B820	BUILDING/GROUNDS - BUTTERFIELD	.00	208	998.27	2,288	1,289.73-	56.4-	2,500
B821	BUILDING/GROUNDS - CENTEX	.00	0	1,088.29	0	1,088.29	.0	0
B823	BUILDING/GROUNDS - EARLSTON	198.00	0	1,501.27	0	1,501.27	.0	0
B824	BUILDING/GROUNDS - HOBSON	.00	2,083	1,303.23	22,913	21,609.77-	94.3-	25,000
B825	BUILDING/GROUNDS - LIBERTY PARK	.00	0	1,338.17	0	1,338.17	.0	0
B826	BUILDING/GROUNDS - NORTHWEST	.00	0	2,061.85	0	2,061.85	.0	0
B827	BUILDING/GROUNDS - VENARD	.00	0	1,231.87	0	1,231.87	.0	0
B828	BUILDING/GROUNDS - WROBLE	.00	208	1,043.62	2,288	1,244.38-	54.4-	2,500
B829	BUILDING/GROUNDS - LIFT STATIONS GENERAL	.00	1,373	1,522.35	15,103	13,580.65-	89.9-	16,500
	SECT B TOTALS	25,264.59	21,377	258,659.08	282,422	23,762.92-	8.4-	303,450

FUND 01 GENERAL FUND

COST NUMBER	DESCRIPTION	ACTUAL CURRENT MONTH	BUDGET CURRENT MONTH	ACTUAL Y-T-D	BUDGET Y-T-D	ACTUAL-BUDGET VARIANCE	VAR %	TOTAL BUDGET
	DEPT 15 TOTALS	33,136.16	28,821	294,364.09	341,274	46,909.91-	13.8-	364,950
	DEPT 17 O&M EXPENSES - INSURANCE & EMPLOYEE BENEFITS							
	SECT E INSURANCE AND EMPLOYEE BENEFITS							
E452	LIABILITY/PROPERTY	18,140.00	9,000	194,406.97	192,500	1,906.97	1.0	201,500
E455	EMPLOYEE GROUP HEALTH	69,085.40	37,300	392,136.61	410,300	18,163.39-	4.4-	447,400
E460	IMRF	22,742.32	28,000	266,910.26	281,000	14,089.74-	5.0-	303,000
E461	SOCIAL SECURITY	22,346.26	17,150	184,848.48	186,650	1,801.52-	1.0-	202,900
	SECT E TOTALS	132,313.98	91,450	1,038,302.32	1,070,450	32,147.68-	3.0-	1,154,800
	DEPT 17 TOTALS	132,313.98	91,450	1,038,302.32	1,070,450	32,147.68-	3.0-	1,154,800
	FUND EXPENSE TOTAL	695,306.36	669,428	7,240,820.37	7,815,678	574,857.63-	7.4-	8,343,000
	FUND 01 TOTALS	39,197.31-	71,681	500,842.32-	96,861	597,703.32-	617.1-	89,550

FUND 02 IMPROVEMENT FUND

COST NUMBER	DESCRIPTION	ACTUAL CURRENT MONTH	BUDGET CURRENT MONTH	ACTUAL Y-T-D	BUDGET Y-T-D	TOTAL BUDGET
DEPT 05	REVENUES					
3007	INTEREST ON INVESTMENTS	859.46-	604-	8,977.12-	6,644-	7,250-
3010	TRUNK SEWER SERVICE CHARGES	70,140.00-	7,500-	172,330.50-	82,500-	90,000-
3019	LATERAL SEWER CHARGE	.00	0	10,650.00-	0	0
3028	RECAPTURE INCOME	.00	0	33,986.61-	0	0
	DEPT 05 TOTALS	70,999.46-	8,104-	225,944.23-	89,144-	97,250-
DEPT 30	CAPITAL EXP-ARRA-LOAN REPAYMENTS					
0500	PROJECT BUDGET	.00	0	.00	0	93,200
0515	PAYMENT ON LOAN PRINCIPAL	.00	0	46,595.52	0	0
	DEPT 30 TOTALS	.00	0	46,595.52	0	93,200
DEPT 36	CAPITAL EXP-LIBERTY PARK LIFT STATION UPGRADE					
	DEPT 36 TOTALS	.00	0	.00	0	0
DEPT 74	CAPITAL EXP-SEWER-UNSEWERED AREAS					
0500	PROJECT BUDGET	.00	0	.00	0	7,500
0501	REPORT ENGINEERING/ARCHITECTURAL	.00	0	1,222.50	0	0
	DEPT 74 TOTALS	.00	0	1,222.50	0	7,500
	FUND EXPENSE TOTAL	.00	0	47,818.02	0	100,700
	FUND 02 TOTALS	70,999.46-	8,104-	178,126.21-	89,144-	3,450

FUND 03 CONSTRUCTION FUND

COST NUMBER	DESCRIPTION	ACTUAL CURRENT MONTH	BUDGET CURRENT MONTH	ACTUAL Y-T-D	BUDGET Y-T-D	TOTAL BUDGET
DEPT 05	REVENUES					
3007	INTEREST ON INVESTMENTS	57.53-	375-	3,638.51-	4,125-	4,500-
3009	SEWER PERMIT FEES	154,922.00-	20,833-	529,899.41-	229,163-	250,000-
3093	GRANT FUNDING	49,000.00-	0	49,000.00-	37,000-	74,000-
	DEPT 05 TOTALS	203,979.53-	21,208-	582,537.92-	270,288-	328,500-
DEPT 30	CAPITAL EXP-ARRA-LOAN REPAYMENTS					
0500	PROJECT BUDGET	.00	0	.00	0	28,900
0515	PAYMENT ON LOAN PRINCIPAL	.00	0	14,403.64	0	0
	DEPT 30 TOTALS	.00	0	14,403.64	0	28,900
DEPT 31	CAPITAL EXP-WWTC-CHP BIOGAS					
0504	CONSTRUCTION ADMIN/RESIDENT ENG/ARCH. SUPER	.00	0	105.00	0	0
	DEPT 31 TOTALS	.00	0	105.00	0	0
DEPT 32	CAPITAL EXP-WWTC-SECON TURBOBLOWER					
	DEPT 32 TOTALS	.00	0	.00	0	0
DEPT 33	CAPITAL EXP - DIGESTER MIXING & GAS PIPING					
0500	PROJECT BUDGET	.00	0	.00	0	250,000
0506	CONSTRUCTION CONTRACTS/PURCHASES	1,650.13	0	287,382.89	0	0
	DEPT 33 TOTALS	1,650.13	0	287,382.89	0	250,000
DEPT 34	CAPITAL EXP - GREASE WASTE DELIVERY RAMP					
0504	CONSTRUCTION ADMIN/RESIDENT ENG/ARCH. SUPER	.00	0	2,753.70	0	0
0506	CONSTRUCTION CONTRACTS/PURCHASES	.00	0	6,819.43	0	0
	DEPT 34 TOTALS	.00	0	9,573.13	0	0
DEPT 35	CAPITAL EXP - WWTC - CHP BIOGAS PHASE 2					
0500	PROJECT BUDGET	.00	0	.00	0	700,000
0502	DESIGN ENGINEERING/ARCHITECTURAL	.00	0	95,180.40	0	0
0504	CONSTRUCTION ADMIN/RESIDENT ENG/ARCH. SUPER	20,761.37	0	98,628.33	0	0
0506	CONSTRUCTION CONTRACTS/PURCHASES	539,565.48	0	853,198.70	0	0
	DEPT 35 TOTALS	560,326.85	0	1,047,007.43	0	700,000
DEPT 37	CAPITAL EXP-WWTC-GREASE RECEIVING STATION NO. 2					

FUND 03 CONSTRUCTION FUND

NUMBER	COST DESCRIPTION	ACTUAL CURRENT MONTH	BUDGET CURRENT MONTH	ACTUAL Y-T-D	BUDGET Y-T-D	TOTAL BUDGET
	DEPT 37 TOTALS	.00	0	.00	0	0
DEPT 38	CAPITAL EXP-WWTC-PROPERTY ACQUISITION					
	DEPT 38 TOTALS	.00	0	.00	0	0
DEPT 39	CAPITAL EXP-WWTC-GRIT BLOWER REPLACEMENT					
	DEPT 39 TOTALS	.00	0	.00	0	0
DEPT 40	CAPITAL EXP-WWTC-LOAN REPAYMENT					
	DEPT 40 TOTALS	.00	0	.00	0	0
	FUND EXPENSE TOTAL	561,976.98	0	1,358,472.09	0	978,900
	FUND 03 TOTALS	357,997.45	21,208-	775,934.17	270,288-	650,400

FUND 05 PUBLIC BENEFIT FUND

NUMBER	DESCRIPTION	COST	ACTUAL CURRENT MONTH	BUDGET CURRENT MONTH	ACTUAL Y-T-D	BUDGET Y-T-D	TOTAL BUDGET
DEPT 05	REVENUES						
3007	INTEREST ON INVESTMENTS		27.04-	17-	229.60-	187-	200-
	DEPT 05 TOTALS		27.04-	17-	229.60-	187-	200-
DEPT 59	CAPITAL EXP - SEWER - SEWER EXTENSIONS						
	DEPT 59 TOTALS		.00	0	.00	0	0
DEPT 65	CAPITAL EXP-SEWER-REIMB FOR ADDED SEWER DEPTHS						
	DEPT 65 TOTALS		.00	0	.00	0	0
	FUND EXPENSE TOTAL		.00	0	.00	0	0
	FUND 05 TOTALS		27.04-	17-	229.60-	187-	200-

FUND 52 SPECIAL ASSESSMENT NO. 52

NUMBER	DESCRIPTION	COST	ACTUAL CURRENT MONTH	BUDGET CURRENT MONTH	ACTUAL Y-T-D	BUDGET Y-T-D	TOTAL BUDGET
DEPT 05	REVENUES						
	DEPT 05 TOTALS		.00	0	.00	0	0
DEPT 91	SA EXPENSE						
	DEPT 91 TOTALS		.00	0	.00	0	0
	FUND EXPENSE TOTAL		.00	0	.00	0	0
	FUND 52 TOTALS		.00	0	.00	0	0

FUND 53 SPECIAL ASSESSMENT NO. 53

NUMBER	COST DESCRIPTION	ACTUAL CURRENT MONTH	BUDGET CURRENT MONTH	ACTUAL Y-T-D	BUDGET Y-T-D	TOTAL BUDGET
DEPT 05	REVENUES					
	DEPT 05 TOTALS	.00	0	.00	0	0
DEPT 91	SA EXPENSE					
	DEPT 91 TOTALS	.00	0	.00	0	0
	FUND EXPENSE TOTAL	.00	0	.00	0	0
	FUND 53 TOTALS	.00	0	.00	0	0

FUND 54 SPECIAL ASSESSMENT NO. 54

NUMBER	DESCRIPTION	COST	ACTUAL CURRENT MONTH	BUDGET CURRENT MONTH	ACTUAL Y-T-D	BUDGET Y-T-D	TOTAL BUDGET
DEPT 05	REVENUES						
3008	INTEREST ON ASSESSMENTS		195.39-	0	997.05-	0	0
	DEPT 05 TOTALS		195.39-	0	997.05-	0	0
DEPT 91	SA EXPENSE						
0509	INTEREST PAID		.00	0	117.33	0	0
	DEPT 91 TOTALS		.00	0	117.33	0	0
	FUND EXPENSE TOTAL		.00	0	117.33	0	0
	FUND 54 TOTALS		195.39-	0	879.72-	0	0

FUND 55 SPECIAL ASSESSMENT NO. 55

NUMBER	DESCRIPTION	COST	ACTUAL CURRENT MONTH	BUDGET CURRENT MONTH	ACTUAL Y-T-D	BUDGET Y-T-D	TOTAL BUDGET
DEPT 05	REVENUES						
3008	INTEREST ON ASSESSMENTS		.00	0	1,514.13-	0	0
	DEPT 05 TOTALS		.00	0	1,514.13-	0	0
DEPT 91	SA EXPENSE						
0509	INTEREST PAID		.00	0	237.43	0	0
	DEPT 91 TOTALS		.00	0	237.43	0	0
	FUND EXPENSE TOTAL		.00	0	237.43	0	0
	FUND 55 TOTALS		.00	0	1,276.70-	0	0

FUND 56 SPECIAL ASSESSMENT NO. 56

NUMBER	COST DESCRIPTION	ACTUAL CURRENT MONTH	BUDGET CURRENT MONTH	ACTUAL Y-T-D	BUDGET Y-T-D	TOTAL BUDGET
DEPT 05	REVENUES					
3008	INTEREST ON ASSESSMENTS	.00	0	1,270.49-	0	0
	DEPT 05 TOTALS	.00	0	1,270.49-	0	0
DEPT 91	SA EXPENSE					
	DEPT 91 TOTALS	.00	0	.00	0	0
	FUND EXPENSE TOTAL	.00	0	.00	0	0
	FUND 56 TOTALS	.00	0	1,270.49-	0	0

FUND 57 SPECIAL ASSESSMENT NO. 57

NUMBER	DESCRIPTION	COST	ACTUAL CURRENT MONTH	BUDGET CURRENT MONTH	ACTUAL Y-T-D	BUDGET Y-T-D	TOTAL BUDGET
DEPT 05	REVENUES						
3008	INTEREST ON ASSESSMENTS		152.39-	0	1,184.22-	0	0
	DEPT 05 TOTALS		152.39-	0	1,184.22-	0	0
DEPT 91	SA EXPENSE						
0509	INTEREST PAID		.00	0	783.27	0	0
	DEPT 91 TOTALS		.00	0	783.27	0	0
	FUND EXPENSE TOTAL		.00	0	783.27	0	0
	FUND 57 TOTALS		152.39-	0	400.95-	0	0

FUND 58 SPECIAL ASSESSMENT NO. 58

NUMBER	DESCRIPTION	COST	ACTUAL CURRENT MONTH	BUDGET CURRENT MONTH	ACTUAL Y-T-D	BUDGET Y-T-D	TOTAL BUDGET
DEPT 05	REVENUES						
3008	INTEREST ON ASSESSMENTS		.00	0	1,197.76-	0	0
	DEPT 05 TOTALS		.00	0	1,197.76-	0	0
DEPT 91	SA EXPENSE						
0509	INTEREST PAID		.00	0	490.55	0	0
	DEPT 91 TOTALS		.00	0	490.55	0	0
	FUND EXPENSE TOTAL		.00	0	490.55	0	0
	FUND 58 TOTALS		.00	0	707.21-	0	0

FUND 71 SEWER EXTENSIONS ESCROW

COST NUMBER	DESCRIPTION	ACTUAL CURRENT MONTH	BUDGET CURRENT MONTH	ACTUAL Y-T-D	BUDGET Y-T-D	TOTAL BUDGET
DEPT 05	REVENUES					
3007	INTEREST ON INVESTMENTS	5.37-	0	45.57-	0	0
	DEPT 05 TOTALS	5.37-	0	45.57-	0	0
DEPT 92	SEWER EXPENSE					
	DEPT 92 TOTALS	.00	0	.00	0	0
	FUND EXPENSE TOTAL	.00	0	.00	0	0
	FUND 71 TOTALS	5.37-	0	45.57-	0	0

GENERAL MANAGER'S REPORT TO EMPLOYEES **March 31, 2017**

Fee Revisions

The Board approved Ordinance No. ORD 17-01 increasing these District fees and charges with an effective date of April 1, 2017:

a) Permit inspection fees - $199 per building service for single family class and $330 per building service for all other classes or $190 per building if no work is required on the service.
b) Tap-in fee - $858 per population equivalent (P.E.).
c) Trunk sewer service charges - $398 per P.E.
d) Lateral sewer charge - $11,070 per building drain to near side property and $8,020 per building drain to far side property.
e) Sewer construction inspection fee - $62.00 per hour straight time and $93.00 per hour overtime.
f) Monthly service fee - $15.00 per month.
g) Sampling and monitoring charge – This charge will vary from $5.13 per month to $113.86 per month depending on the type of user.

Five Year Financial Plan and Appropriation Ordinance

At the March 21 meeting, the Board approved the Five Year Financial Plan for Fiscal Years 2017-18 to 2021-22. The plan includes a $1.50 increase in the monthly service fee, from $13.50 to $15.00. The Board also approved the Fiscal Year 2017-2018 Appropriation Ordinance. The plan sets a budget for operation and maintenance expenses of $8,796,200 for the fiscal year starting May 1, 2017.

DuPage County River Sweep

DuPage County River Sweep 2017 is scheduled for Saturday, May 20 from 9:00 a.m. to noon. Each year, River Sweep mobilizes citizens and volunteer groups to help "sweep our rivers clean" by picking up debris in and along our waterways. Please let Clay know if you would like to join us for this volunteer effort. Your family members are also welcome. There will be additional sign-up information in April.

Employee Function

A bowling/pizza party will be held at the Tivoli Bowl on Thursday, April 27, at 6:30 p.m. Bowling and two billiards tables will be open from 6:30 p.m. to 9:00 p.m. Pizza will be served at 6:45 p.m. A sign-up sheet for the event will be provided in the next week or so.

Group Health Insurance

We are currently soliciting proposals for renewal of our group health, dental and vision insurance for the June 1 plan renewal.

Sewer Rehabilitation/Infiltration and Inflow Removal

We are targeting the 1-K-028 area for private property inspections and I/I removal. We are also monitoring the area around the 1-M-049 manhole to evaluate flows in the vicinity and explore further options for overflow control there. Regular flow monitoring continues.

Status of Projects

1) Digester Gas Co-Generation Facility

   This grant-funded project includes the installation of a second bio-gas fueled combined heat and power engine genset, as well as associated upgrades to the bio-gas cleaning system and the digester hydronic heat system. J. J. Henderson is continuing with installation work for the project. A shutdown on the existing CHP to tie-in the new equipment began the week of March 20.

2) Digester 1 Mixing and Cleaning

   Landia replaced the impeller and completed equipment start-up on March 22.

3) 2017 Sewer Rehab/Replacement

   We are currently developing plans and specifications to rehabilitate the Walnut Avenue sewer from Maple to the plant.

4) BSSRAP Repair Contract

   The Board of Trustees awarded this contract at the March, 2017 Board meeting to the lowest bidder, Uno Construction.

5) Laboratory Casework

   The casework/fumehood replacement project in the sample room of the laboratory is nearing completion. The casework supplier is working on a punchlist, and associated mechanical work is nearing completion.

6) Paving

   The paving contractor for the Administration building parking lot and some roads on the west side of the WWTC is expected to return to complete this work when the asphalt plants re-open in the spring.

GENERAL MANAGER'S REPORT TO EMPLOYEES **April 14, 2017**

WWTC Operations Data – March

The DMR for March indicates that the final effluent averaged 1.3 mg/l CBOD, 0.9 mg/l suspended solids and 0.28 mg/l ammonia nitrogen over a daily average flow of 13.03 MGD. There were no permit excursions in March.

Financial Data – March

In March, the District received $734,504 in the General fund, including $311,268 in user charges, $33,084 in surcharges and $325,333 in monthly fees. General fund expenses totaled $695,306. The Improvement fund had revenues of $70,999 and expenses of $0. The Construction fund had revenues of $203,980 and expenses of $561,977.

Sewer Permits – March

There were 21 sewer permits issued in March – 9 single family, 1 multiple family, 1 commercial, and 10 disconnections.

DuPage County River Sweep

DuPage County River Sweep 2017 is scheduled for Saturday, May 20 from 9:00 a.m. to noon. Each year, River Sweep mobilizes citizens and volunteer groups to help "sweep our rivers clean" by picking up debris in and along our waterways. Please let Clay know if you would like to join us for this volunteer effort. Your family members are also welcome. Sign-up sheets will be posted at the timeclocks next week.

Employee Function

A bowling/pizza party will be held at the Tivoli Bowl on Thursday, April 27, at 6:30 p.m. Bowling and two billiards tables will be open from 6:30 p.m. to 9:00 p.m. Pizza will be served at 6:45 p.m. This is a reminder that the sign-up sheet is due no later than April 24.

Group Health Insurance

We are wrapping up our review of proposals for renewal of our group health and life insurance for the June 1 plan renewal.

Sewer Rehabilitation/Infiltration and Inflow Removal

We are targeting the 1-K-028 area for private property inspections and I/I removal. We are also monitoring the area around the 1-M-049 manhole to evaluate flows in the vicinity and explore further options for overflow control there. Regular flow monitoring continues.

Status of Projects

1) Digester Gas Co-Generation Facility

This grant-funded project includes the installation of a second bio-gas fueled combined heat and power engine genset, as well as associated upgrades to the bio-gas cleaning system and the digester hydronic heat system. J. J. Henderson is continuing with installation work for the project. A shutdown on the existing CHP to tie-in the new equipment began the week of March 20.

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We are currently developing plans and specifications to rehabilitate the Walnut Avenue sewer from Maple to the plant.

3) Laboratory Casework

The casework/fumehood replacement project in the sample room of the laboratory is nearing completion. The casework supplier is working on a punchlist, and associated mechanical work is nearing completion.

4) Paving

The paving contractor for the Administration building parking lot and some roads on the west side of the WWTC is expected to return to complete this work when the asphalt plants re-open in the spring.

Contact Us

Name
Peter E. Swaufield

Email
pete@swaufield.com

Phone
(630) 306-2360

Subject
Message to the Board of Trustees

Message
April 6, 2017
Dear Mr. Van Buren and Trustees of the Downers Grove Sanitary District.

My wife and I wanted to bring to your attention our recent experience with the staff at the Downers Grove Sanitary District.
We experienced a sewer problem and called Stephens plumbing to rod our sewer. After the rodding the plumbers suggested we call the district for assistance with our problem. I hesitated, not wanting to annoy myself dealing with some uncaring bureaucrats .
Was I ever wrong.
From the first phone call I was greeted by a professional who listened to my questions and immediately connected me to a person who explained your program to me and emailed the proper documents to us. Next day your crew came and televised our sewer, found the problem, and passed the information to the supervisor who got us further documentation. We hand delivered the forms and met another very pleasant person who reviewed and the notarized them, saving us having to hunt for a notary. We were given an appointment for the next morning and the repair crew and your supervisor were there promptly at 7:30 as promised. Work on the sewer was completed by lunchtime and everything was done professionally, overseen by your supervisor.
We can't believe how terrific your group is, to be able to handle a miserable situation and make it calm, pleasant, and efficient experience. Organizations like yours don't happen by accident and you can be proud that the message of customer service is an essential part of everyone that we had the pleasure of dealing with.
We commend your entire organization for their ability to deliver such wonderful service to the customers of Downers Grove.
Sincerely,
Peter E. Swaufield
Patricia A. Swaufield

Board of Trustees
Wallace D. Van Buren
President
Amy S. Kovacevic
Vice President
Paul W. Coultrap
Clerk

Downers Grove
Sanitary District

2710 Curtiss Street
P.O. Box 1412
Downers Grove, IL 60515-0703
Phone: 630-969-0664
Fax: 630-969-0827
www.dgsd.org

General Manager
Nicholas J. Menninga

Legal Counsel
Michael G. Philipp

Providing a Better Environment for South Central DuPage County

VIA EMAIL: Chad.Shaffer@dupageco.org

March 24, 2017

Chairman Dan Cronin
DuPage County
Attn: Tom Cuculich, Chief of Staff
421 N. County Farm Road
Wheaton, IL 60187

Re: Downers Grove Sanitary District Update

Dear Chairman Cronin:

In accordance with County Ordinance OCB-001-11, enclosed are the following District documents approved by the Board of Trustees at their regular March 21, 2017 meeting:

- Amended Appropriation Ordinance for FY16-17;
- Five Year Financial Plan for Fiscal Years 2017-18 through 2021-22;
- Appropriation Ordinance for FY17-18; and
- Ordinance No. ORD 2017-01 – Increasing Fees and Charges (effective April 1, 2017)

Sincerely,

DOWNERS GROVE SANITARY DISTRICT

Nicholas J. Menninga
General Manager

Enclosures

cc: Board of Trustees

Board of Trustees
Wallace D. Van Buren
President
Amy S. Kovacevic
Vice President
Paul W. Coultrap
Clerk

Downers Grove Sanitary District

General Manager
Nicholas J. Menninga

Legal Counsel
Michael G. Philipp

2710 Curtiss Street
P.O. Box 1412
Downers Grove, IL 60515-0703
Phone: 630-969-0664
Fax: 630-969-0827
www.dgsd.org

Providing a Better Environment for South Central DuPage County

March 20, 2017

Ms. Sarah E. Wiedel
Environmental Protection Specialist
Field Operations Section
Division of Water Pollution Control
Illinois Environmental Protection Agency
9511 West Harrison
Des Plaines, IL 60016

Dear Ms. Wiedel:

The purpose of this letter is to notify the Agency of the following manhole overflow:

Manhole No.	Manhole Location	Overflow Date
B-1-038-1	3000 Oak Grove Road, Downers Grove	March 17, 2017

This overflow occurred as the result of a mainline blockage in the sewer. We were notified of the overflow by the Village of Downers Grove, at 8:00 pm, and were able to clear the blockage and relieve the overflow by 10:30 pm. Flow reached a nearby storm grate. Post-event cleanup was conducted by our crew, cleaning up any related debris in the vicinity. The line was last cleaned on September 10, 2013, at which time the line condition was normal.

We are adding this line to our 6-month preventive maintenance list, as described in our CMOM.

If you have any questions, please call (630-353-3605).

Sincerely,
DOWNERS GROVE SANITARY DISTRICT

Nick Menninga
General Manager

C: BOT, MGP

Board of Trustees
Wallace D. Van Buren
President
Amy S. Kovacevic
Vice President
Paul W. Coultrap
Clerk

Downers Grove Sanitary District

General Manager
Nicholas J. Menninga

Legal Counsel
Michael G. Philipp

2710 Curtiss Street
P.O. Box 1412
Downers Grove, IL 60515-0703
Phone: 630-969-0664
Fax: 630-969-0827
www.dgsd.org

Providing a Better Environment for South Central DuPage County

March 31, 2017

Ms. Sarah E. Wiedel
Environmental Protection Specialist
Field Operations Section
Division of Water Pollution Control
Illinois Environmental Protection Agency
9511 West Harrison
Des Plaines, IL 60016

Dear Ms. Wiedel:

The purpose of this letter is to notify the Agency of the following manhole overflows:

Manhole No.	Manhole Location	Overflow Date
1-M-049	114 55th St, Downers Grove	March 30, 2017
2-D-001	1369 Turvey, Downers Grove	March 30, 2017

This overflows occurred as the result of very high intensity rainfall on top of wet ground. We measured 1.8 inches of rainfall in the vicinity. Flow was noted from the manhole pickhole at 1-M-049 by our technician at 1:20 pm, and subsided within three hours. Flow reached a nearby storm grate. No deposits or debris in the vicinity were observed by our technician. Flow was noted at 2-D-001 starting at 1:20 pm. Flow reached the nearby drainage swale, and post-event cleanup was conducted today by our crew, cleaning up any related debris.

We continue with ongoing sewer replacement and rehabilitation efforts to reduce I/I and improve collection system performance, as described in our CMOM.

If you have any questions, please call (630-353-3605).

Sincerely,
DOWNERS GROVE SANITARY DISTRICT

Nick Menninga
General Manager

C: BOT, MGP

DuPage River Salt Creek Workgroup

Mr. Nick Menninga
General Manager
Downers Grove Sanitary District
2710 Curtiss Street
Downers Grove, IL 60515

April 11, 2017

Dear Mr. Menninga:

Please find attached the invoice for year-three of the DRSCW special condition. Implementation is on schedule. The Oak Meadows dam removal and stream restoration project is complete and we continue to advance projects related to Fawell dam, Fullersburg Woods, Spring Brook, and our Nutrient Implementation Plan, while fulfilling reporting requirements.

The following agencies are participating in the special condition: Village of Addison, Village of Bartlett, Village of Bloomingdale, Village of Bolingbrook, Village of Carol Stream, Downers Grove Sanitary District, DuPage County, City of Elmhurst, Glenbard Wastewater Authority, Village of Glendale Heights, Village of Hanover Park, Village of Roselle, Salt Creek Sanitary District, City of West Chicago, Wheaton Sanitary District and City of Wood Dale. The Village of Bensenville and the Village of Itasca are participating in the permit special condition study components.

We are happy to have the participation of the Lower DuPage River Watershed Coalition's six POTW Agency members in a number of the special condition study components as well as dam removal and river restoration work on the mainstem DuPage River, our downstream condition.

The enclosed invoice reflects the two components contained in your Agency's funding commitment – annual membership dues and the project assessment. For your information and planning purposes, projected membership dues and project assessments for the next two years are provided. Please remit your invoice balance and agency profile by July 31, 2017.

Thank you for your continued participation in the DRSCW. Please contact Tara Neff (630-428-4500 x 123) with questions regarding your invoice.

Sincerely,

David Gorman, President
DuPage River Salt Creek Workgroup

Enclosures: Agency Profile
DRSCW Membership Invoice
DRSCW W-9

President
David Gorman
Village of Lombard

Vice President
Sue Baert
Wheaton Sanitary District

Secretary-Treasurer
Rick Federighi
Village of Addison

Monitoring Committee Chairperson
Jennifer Hammer
The Conservation Foundation

Salt Creek Committee Chairperson
Dennis Streicher
Sierra Club - River Prairie Group

East Branch DuPage River Committee Chairperson
Larry Cox
Downers Grove Sanitary District

West Branch DuPage River Committee Chairperson
Erik Neidy
Forest Preserve District of DuPage County

Member At Large
Mary Beth Falsey
DuPage County

Member At Large
Nicholas Menninga
Downers Grove Sanitary District

Member At Large
Steven Zehner
Robinson Engineering, Ltd.

Staff
Watershed Manager
Stephen McCracken
The Conservation Foundation

Watershed Project Manager
Deanna Doohaluk
The Conservation Foundation

Water Resource Assistant
Tara Neff
The Conservation Foundation

DuPage River Salt Creek Workgroup

AGENCY MEMBERSHIP PROFILE

1. Agency Name: Downers Grove Sanitary District

Address:	2710 Curtiss Street	County:	DuPage
City:	Downers Grove Zip: 60515	Website:	www.dgsd.org
Telephone Number:	630-969-0664	Chief Executive Officer:	Nicholas J.Menninga
Fax Number:	630-969-0827	Title:	General Manager

2. If your Agency operates a wastewater treatment facility, please provide the following information for each facility:

NPDES Permit Number:	IL0028380	NPDES Permit Number:	
Facility Discharges to:	East Branch DuPage River	Facility Discharges to:	
Design Average Flow:	11.0 mgd	Design Average Flow:	
NPDES Permit Number:		NPDES Permit Number:	
Facility Discharges to:		Facility Discharges to:	
Design Average Flow:		Design Average Flow:	

3. If your Agency has received an NPDES Phase II permit for municipal separate storm sewer discharges, please provide the areas within your municipality that are tributary to each watershed:

East Branch DuPage River	0 acres
West Branch DuPage River	0 acres
Salt Creek	0 acres
Total	0

4. Are there any combined sewer service areas within your Agency? No
(If yes, the DRSCW may request additional information)

5. DESIGNATED REPRESENTATIVE:

Name:	Nick Menninga
Title:	General Manager
Direct Line:	630-969-6753 ext. 106
Email Address:	nmenninga@dgsd.org

ALTERNATE REPRESENTATIVE:

Name:	Larry Cox
Title:	Senior Advisor
Direct Line:	630-675-4364
Email Address:	lcox@dgsd.org

The Designated Representative is authorized to vote at Workgroup meetings on the agency's behalf and the Alternate Representative is authorized to vote in the absence of the Designated Representative.

Signature _____ Title_____ Date _____

Please direct questions to Tara Neff at tneff@theconservationfoundation.org or 630.428.4500 X123. Please complete this Agency Membership Profile and return it along with a check made payable to DRSCW:

DuPage River/ Salt Creek Workgroup
10S404 Knoch Knolls Rd.
Naperville, Illinois 60565

DuPage River Salt Creek Workgroup
10S404 Knoch Knolls Road
Naperville, IL 60565

INVOICE

EIN Number 56-2543795

Invoice Date: April 10, 2017

To: Mr. Nick Menninga
General Manager
Downers Grove Sanitary District
2710 Curtiss Street
Downers Grove, IL 60515

DRSCW Agency Membership Payments (March 1, 2017 – February 28, 2018)

Membership Dues:	
reflects 3% increase over last year's dues	$20903.00
Project Assessment:	
associated with alternative projects	$106315.00
Total Amount Due:	$127218.00
Amount due by July 31, 2017	**$127218.00**

For budgeting purposes, your 2018 Agency payments are projected to be $131034.00, which includes a 3% increase in annual membership dues ($21530.00) and your committed project assessment of $109504.00; 2019 Agency payments are projected to be $204675.00, which includes a 7.5% increase in annual membership dues ($23145.00) and your committed project assessment of $181530.00. Contact Tara Neff at 630.428.4500 x123 or tneff@theconservationfoundation.org with questions concerning this invoice.

Please remit payment by July 31, 2017 to:

DuPage River Salt Creek Workgroup
10S404 Knoch Knolls Rd.
Naperville, IL 60565

.

Form **W-9**
(Rev. August 2013)
Department of the Treasury
Internal Revenue Service

Request for Taxpayer Identification Number and Certification

Give Form to the requester. Do not send to the IRS.

Print or type
See Specific Instructions on page 2.

Name (as shown on your income tax return)
DUPAGE RIVER SALT CREEK WORKGROUP

Business name/disregarded entity name, if different from above

Check appropriate box for federal tax classification:
☐ Individual/sole proprietor ☐ C Corporation ☐ S Corporation ☐ Partnership ☐ Trust/estate

☐ Limited liability company. Enter the tax classification (C=C corporation, S=S corporation, P=partnership) ▶

☑ Other (see instructions) ▶ NON PROFIT

Exempt payee code (if any)

Exemption from FATCA reporting code (if any)

Address (number, street, and apt. or suite no.)
10 S 464 KNOCH KNOLLS RD

Requester's name and address (optional)
Bolingbrook Park District
201 Recreation Drive
Bolingbrook, IL 60440

City, state, and ZIP code
NAPERVILLE IL 60565

List account number(s) here (optional)

Part I Taxpayer Identification Number (TIN)

Enter your TIN in the appropriate box. The TIN provided must match the name given on the "Name" line to avoid backup withholding. For individuals, this is your social security number (SSN). However, for a resident alien, sole proprietor, or disregarded entity, see the Part I instructions on page 3. For other entities, it is your employer identification number (EIN). If you do not have a number, see *How to get a TIN* on page 3.

Note. If the account is in more than one name, see the chart on page 4 for guidelines on whose number to enter.

Social security number
			-			-				

Employer identification number
5	6	-	2	5	4	5	7	9	5

Part II Certification

Under penalties of perjury, I certify that:

1. The number shown on this form is my correct taxpayer identification number (or I am waiting for a number to be issued to me); and
2. I am not subject to backup withholding because: (a) I am exempt from backup withholding, or (b) I have not been notified by the Internal Revenue Service (IRS) that I am subject to backup withholding as a result of a failure to report all interest or dividends, or (c) the IRS has notified me that I am no longer subject to backup withholding; and
3. I am a U.S. citizen or other U.S. person (defined below); and
4. The FATCA code(s) entered on this form (if any) indicating that I am exempt from FATCA reporting is correct.

Certification instructions. You must cross out item 2 above if you have been notified by the IRS that you are currently subject to backup withholding because you have failed to report all interest and dividends on your tax return. For real estate transactions, item 2 does not apply. For mortgage interest paid, acquisition or abandonment of secured property, cancellation of debt, contributions to an individual retirement arrangement (IRA), and generally, payments other than interest and dividends, you are not required to sign the certification, but you must provide your correct TIN. See the instructions on page 3.

Sign Here	Signature of U.S. person ▶	Date ▶ 6-7-2016

General Instructions

Section references are to the Internal Revenue Code unless otherwise noted.

Future developments. The IRS has created a page on IRS.gov for information about Form W-9, at www.irs.gov/w9. Information about any future developments affecting Form W-9 (such as legislation enacted after we release it) will be posted on that page.

Purpose of Form

A person who is required to file an information return with the IRS must obtain your correct taxpayer identification number (TIN) to report, for example, income paid to you, payments made to you in settlement of payment card and third party network transactions, real estate transactions, mortgage interest you paid, acquisition or abandonment of secured property, cancellation of debt, or contributions you made to an IRA.

Use Form W-9 only if you are a U.S. person (including a resident alien), to provide your correct TIN to the person requesting it (the requester) and, when applicable, to:

1. Certify that the TIN you are giving is correct (or you are waiting for a number to be issued),
2. Certify that you are not subject to backup withholding, or
3. Claim exemption from backup withholding if you are a U.S. exempt payee. If applicable, you are also certifying that as a U.S. person, your allocable share of any partnership income from a U.S. trade or business is not subject to the withholding tax on foreign partners' share of effectively connected income, and
4. Certify that FATCA code(s) entered on this form (if any) indicating that you are exempt from the FATCA reporting, is correct.

Note. If you are a U.S. person and a requester gives you a form other than Form W-9 to request your TIN, you must use the requester's form if it is substantially similar to this Form W-9.

Definition of a U.S. person. For federal tax purposes, you are considered a U.S. person if you are:

- An individual who is a U.S. citizen or U.S. resident alien,
- A partnership, corporation, company, or association created or organized in the United States or under the laws of the United States,
- An estate (other than a foreign estate), or
- A domestic trust (as defined in Regulations section 301.7701-7).

Special rules for partnerships. Partnerships that conduct a trade or business in the United States are generally required to pay a withholding tax under section 1446 on any foreign partners' share of effectively connected taxable income from such business. Further, in certain cases where a Form W-9 has not been received, the rules under section 1446 require a partnership to presume that a partner is a foreign person, and pay the section 1446 withholding tax. Therefore, if you are a U.S. person that is a partner in a partnership conducting a trade or business in the United States, provide Form W-9 to the partnership to establish your U.S. status and avoid withholding on your share of partnership income.

DuPage River Salt Creek Workgroup

10 S 404 Knoch Knolls Road

Naperville IL 60565

DuPage/Salt Creek Special Conditions Report

March 31, 2017

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Introduction and Participation DuPage/Salt Creek Special Conditions Report March 31, 2017.

This report is intended to fulfill certain reporting requirements contained in DRSCW NPDES permits' Special Conditions. These conditions are entitled DuPage/Salt Creek Special Requirements (see attachment 1).

These special conditions are contained in the NPDES permits identified in the following table. Listed permittees are required to ensure the completion of projects and activities set out in the special condition (Special Conditions, paragraph 2, table). Other permittees are required to only participate in identified watershed level studies and a chloride abatement program. Table 1 identifies the status of funding these activities by each permittee.

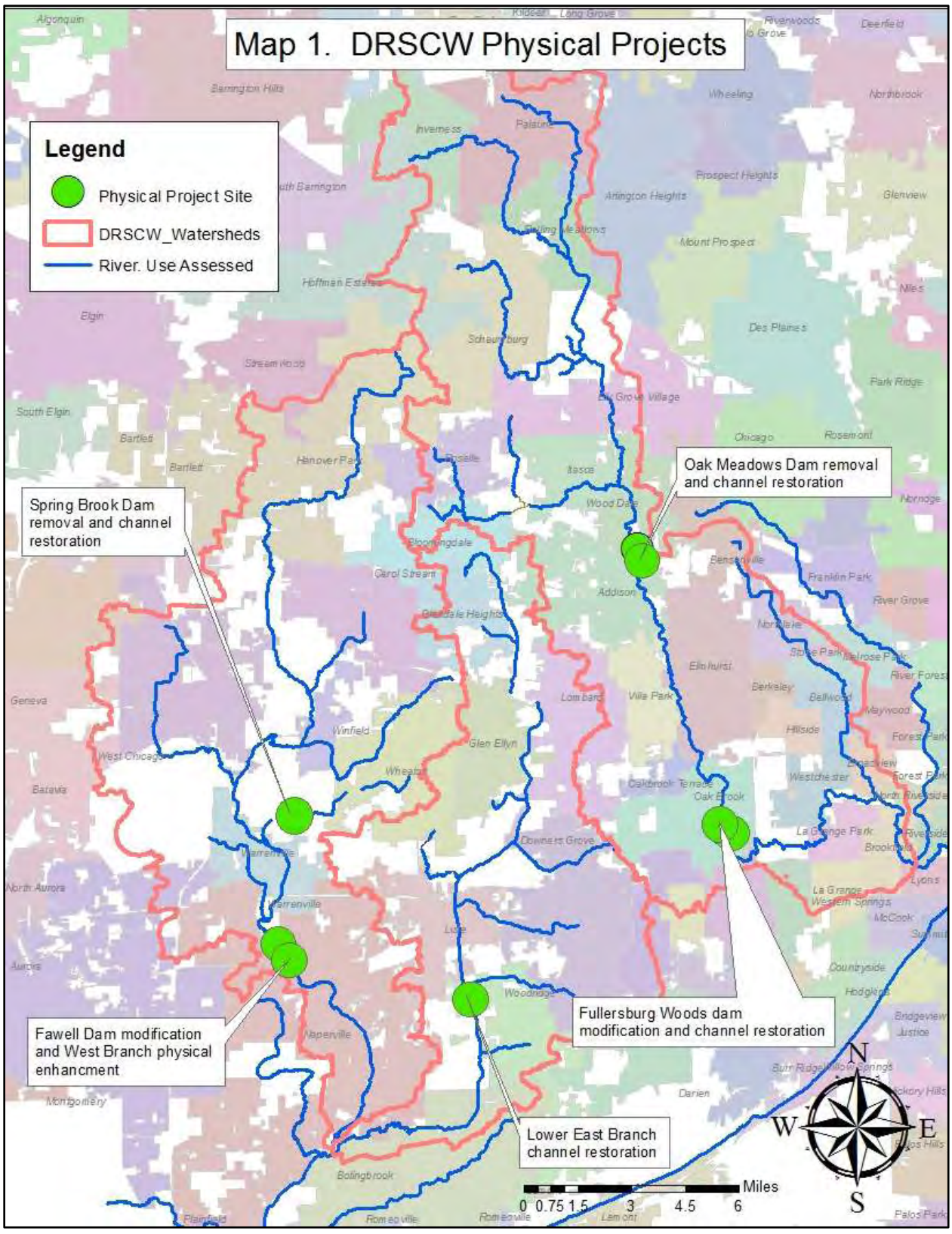
POTW Owner/ Facility Name	NPDES No.	Membership Dues Paid 2016-2017	Assessment Paid For Paragraph 2 Table Project Funding	Assessment Paid for Chloride Reduction/NIP/QUAL 2k/Trading Program
Addison North STP	IL0033812	YES	YES	YES
Addison South - AJ LaRocca	IL0027367	YES	YES	YES
Bartlett WWTP	IL0027618	YES	YES	YES
Bloomingdale-Reeves WRF	IL0021130	YES	YES	YES
Bolingbrook STP#1	IL0032689	YES	YES	YES
Bolingbrook STP#2	IL0032735	YES	YES	YES
Carol Stream WRC	IL0026352	YES	YES	YES
Downers Grove SD	IL0028380	YES	YES	YES
DuPage County Woodridge	IL0031844	YES	YES	YES
Elmhurst WWTP	IL0028746	YES	YES	YES
Glenbard WW Authority STP	IL0021547	YES	YES	YES
Glendale Heights STP	IL0028967	YES	YES	YES
Hanover Park STP#1	IL0034479	YES	YES	YES

Roselle-Devlin STP	IL0030813	YES	YES	YES
Roselle-J Botterman WWTF	IL0048721	YES	YES	YES
Salt Creek SD	IL0030953	YES	YES	YES
West Chicago STP	IL0023469	YES	YES	YES
Wheaton SD	IL0031739	YES	YES	YES
Wood Dale North STP	IL0020061	YES	YES	YES
Wood Dale South STP	IL0034274	YES	YES	YES
Bensenville South STP	IL0021849	YES	N/A	YES
Itasca STP	IL0079073	YES	N/A	YES

Table 1. Participation in the DRSCW Special Condition 2016-2017. N/A means that the agency does not have that condition in their permit.

All listed permittees participate in the DuPage River Salt Creek Workgroup and are working with other watershed members of the DRSCW to determine the most cost effective means to remove dissolved oxygen (DO) and offensive condition impairments in the DRSCW watersheds.

The specific reporting requirements addressed herein include annual reporting on progress of the projects listed in the paragraph 2 table, and certain baseline condition reporting for the Chloride Reduction Program.



Map 1. Map of physical projects set out in the Special Condition

1. Progress on Projects Listed in Special Conditions Paragraph 2

Projected expenses and funds allocated for project activities are identified in the current DRSCW Five-Year Financial Plan. Map 1 shows the physical project sites covered in this section.

1.1 Table Items 1 and 2: Oak Meadows Dam Removal and Stream Restoration

- Special Condition Listed Completion Date – December 2016 (dam), December 2017 (channel restoration)
- Status – Complete.

1.1.1 Site Description and Project Design

- A site description and the design plan was provided in the 2016 report.

1.1.2 Project Implementation

- Table 2 shows the schedule of project implementation activities.

Activity	Date	Status
Design and permitting	2012-2015	Complete
Ground breaking	7/7/15	Complete
Stream diversion	9/6/15	Complete
Dam removal	9/12/15	Complete
Stream and bank enhancements	9/6/15-7/15/16	Complete
Planting riparian areas	10/12/15-10/1/16	Complete
Planting upland areas	9/1/16-11/11/16	Complete
Reintroduction of flow into Oak Meadows portion of Salt Creek	7/15/16	Complete
Monitoring plantings	2017-2021	On going
Habitat and mIBI assessment	July 2017, 2018, 2019	Scheduled
Opening site to public	June/July 2017	Scheduled

Table 2. Schedule of activities to complete the Oak Meadows Dam Removal and Stream Restoration Project.

Attachment 2 of this report includes a summary of post project conditions.

1.1.3 Project Impact Evaluation

With construction complete, the project is moving into the impact evaluation phase. The objectives of the project are to:

- Improve Qualitative Habitat Evaluation Index (QHEI) scores in a 1.3-mile stretch of the Salt Creek mainstem. QHEI measures sinuosity, bed and bank conditions, gradient, riparian and pool and riffles conditions. The site was evaluated at two locations and scored 51 (SC34) and 52 (SC35) placing it in the poor category of QHEI. The project aims to improve scores in all categories except gradient. It should be noted that the low gradient at the site also limits the possibilities for riffle construction at the site.

- Increase both the macroinvertebrate Index of Biological Integrity scores (mIBI) and the presence/numbers of high value taxa in the 1.3-mile stretch of Salt Creek mainstem contained in the project footprint (see table 3 for pre-project scores). The potential post project high value taxa list was compiled by reviewing taxa lists from two reference sites on Salt Creek with high macroinvertebrate scores. Fourteen rheobiotic and hard or coarse substrate associated taxa were identified at the sites listed in table 3. All 14 were found at one or both of the reference sites, but only six have been collected inside the project footprint. A third mIBI ad–hoc sample site was added in 2014 and identified as SC35A (see table 3).

- Improve dissolved oxygen (DO) scores directly upstream of the Oak Meadows Dam. DRSCW continuous DO data records exist for the site 2009-2013. Data collection will start again in June 2017. Diel variation and daily and monthly average and minimums will be compared in the pre and post project data sets.

Site ID	QHEI 2007	mIBI 2007	QHEI 2009	mIBI 2009	QHEI 2013	mIBI 2013	QHEI 2014	mIBI 2014
SC34	54	28	51	21	52	23.19	54	20.2
SC35	46.5	20	52	24	55.5	24.1	60.5	15.5
SC35A								12.1

Table 3. Observed QHEI and mIBI at the Oak Meadows 2007, 2009 and 2014.

The regular basin wide assessment of biological and QHEI conditions in Salt Creek was executed in 2016 but the Oak Meadows site was not included as it was still under construction.

1.2. Table Item 3. Fawell Dam Modification

- Special Condition Listed Completion Date – December 2018
- Status – in the design and permitting phase

The objective of the project is raise the fish index of biological integrity scores (fIBI) above its current average 18.5 for the three mainstem survey sites immediately upstream of the dam. To accomplish this, the dam's spillway, which consists of three box culverts, will be redesigned to allow fish passage at river mile 8.1 on the West Branch DuPage River. The dam is a flood control structure operated by DuPage

County Stormwater Management and must be fully functional post project. The DRSCW has budgeted $750,390 for this project.

1.2.1 Site Description

The dam itself is located on the West Branch DuPage River at river mile 8.1 in the McDowell Grove Forest Preserve. The dam consists of a set of three gate structures that can control flow through three-barrel concrete box culverts to impound water, as necessary, upstream within the McDowell Grove Forest Preserve. The existing three-barrel concrete box culverts consist of an 11'-10" wide by 10' high center barrel and 10' by 10' side barrels. The culvert barrels are 80' long and the bottom slopes down at 5% from the upstream end to the downstream end. There are concrete wing walls on the upstream side of the culvert structure, and a 50' long concrete stilling basin structure on the downstream side. Atop the culvert, the grade slopes up from the ends to a 25' wide path running perpendicular to the structure, which

Figure 2. Fawell Dam viewed downstream of the dam looking north towards the dam. The three-culvert system is visible in the center of the photograph.

is approximately 10' above the top elevation of the barrels. During low water events, the upstream end of the culvert features a concrete sill set above the natural bed elevation of the river. The earth embankment is approximately 1000' in length. The project is a collaborative effort with DuPage County Stormwater Management (SWM, the dam's manager), the FPDDC and the DRSCW. A "riffle" downstream of the stilling basin also influences flow through the culverts. The consultant team consists of V3 Consultants and Inter-Fluve. DuPage County Stormwater Management is providing modeling expertise.

The 2016 report provided the following reports: Hydraulic, Detailed Channel Topographic Survey, wetland survey, and sediment depth of refusal and quality survey for upstream deposits.

1.2.2 Design Characteristics

Successful fish passage depends on variables such as water velocity, depth, distance between resting positions for the fish, and each fish's ability to swim against the current. Initially, the design team proposed lowering one of the culverts to improve fish passage; further analysis made it apparent that lowering two of the culverts would produce better fish passage with a higher level of confidence.

To ensure fish passage, the project seeks to mimic as closely as possible the depth, velocity and distance requirements encountered by the target fishes in an unmodified system during their spawning or migration periods (March – August). An optimal design would allow fish passage for all flows between the 10% and 95% exceedance levels during this migratory period. The flow duration analysis indicated that these target flows are between 42 and 397 cfs.

A literature review of appropriate target average velocity throughout the stream cross section suggested a target for northern pike and walleye of approximately 123 cm/s (4 ft/s), and an appropriate target average velocity for smallmouth bass, and white suckers of approximately148 cm/s (4.9 ft/s). Smaller fishes tend to be weaker swimmers; most will be able to take advantage of the lower velocities in the boundary layers adjacent to rocks that can be used as resting places behind and between rocks in natural stream. The exception is the black stripe top minnow, which may not be able to use the boundary layer near the stream bottom as it is a surface swimmer.

The project aims to have the deepest water in any cross section be a minimum 8 inches. The full report with reference forms is included in attachment 3 of this report.

1.2.3 Permitting Requirements

The proposed improvements will require a stormwater management certification demonstrating compliance with the DuPage County Countywide Stormwater Ordinance. Additionally, the improvements will require a Dam Major Modification Permit from the Illinois Department of Natural Resources – Office of Water Resources (IDNR-OWR). It is anticipated that a separate Floodway Construction permit will not be required by IDNR-OWR but will be reviewed as part of the County permitting process. Since Fawell Dam is a flood control facility and there are historical concerns regarding flooding upstream and downstream of the dam, the proposed design and permitting processes will focus on demonstrating that the proposed improvements will not adversely impact flooding conditions.

In addition to the floodway/floodplain regulatory requirements, the proposed improvements will also need to comply with both the DuPage County and US Army Corps of Engineers (USACE) requirements associated with wetlands, Waters of the U.S., buffers, and sediment and erosion control. It is anticipated that the proposed improvements qualify for USACE Regional Permit (RP) 5, Wetland and Stream Restoration and Enhancement, which also typically requires submittal of a Stormwater Pollution Prevention Plan (SWPPP) to Kane-DuPage Soil & Water Conservation District as part of the permitting process.

1.2.3 Design Progress Report

Modifying Fawell Dam to meet fish passage and permitting criteria has proven to be more difficult to model than originally anticipated. The primary model being used, FEQ, uses a utility program called FEQUTL to create all the files necessary to describe various hydraulic structures within an FEQ model. As Fawell Dam is a very specific structure both in shape and operation methodology, a specific utility program was coded in order to model the hydraulics through the dam that incorporate the operation rules for the gates. As this function was specifically built for use with Fawell Dam, there is very little documentation available for how this function works. The team spent several months consulting with various FEQ experts in an attempt to run the model with the modified culvert. The team determined that it was necessary to identify a different, yet comparable way to model the dam.

Instead of modeling Fawell Dam as one structure with three box culverts, each with sluice gates, the dam was broken into three separate culverts, with the gates modeled separately for each individual culvert. An additional function was added to account for the expansion and contraction of water as it moves through each culvert. Since this was a different method, the modelers had to ensure that this model produced similar results as the model that had been approved by Illinois DNR. This was done by adjusting several different parameters and coefficients within the FEQUTL model as well as within the main FEQ model.

The project team has coordinated with IDNR-OWR regarding the proposed improvements, including the modeling methodology and the initial modeling results. The next step will be a second pre-application meeting to discuss the refined modeling results in preparation for an upcoming permit submittal.

The project team previously met with both DuPage County (regulatory department) and the local representative from the USACE to discuss wetland/ waters permitting. It was confirmed that the proposed improvements likely qualify for a USACE Regional Permit. The issue of indirect wetland impacts was also discussed with the County regulatory staff and some initial modeling was done to evaluate the potential impact.

1.2.4 Impact Evaluation

Post project, both IBI and fish taxa will be sampled upstream of the site and compared to historical data.

1.3 Table Item 4. Spring Brook Restoration and Dam Removal (Spring Brook Phase 2)

- Special Condition Listed Completion Date – December 2019
- Status – in the design and permitting phase

The objective of the project is to raise QHEI above its current 64, raise fIBI above its current score of 21.5 and to raise mIBI above its current score of 30.1. The project is being managed by the FPDDC and construction is being funded by a consortium of agencies including the FPDDC, the DRSCW and the Illinois State Toll Highway Authority. The project is in the second and final phase. DRSCW has budgeted $1,000,000 for this effort.

1.3.1 Site Description

The Phase 2 Project is located in unincorporated DuPage County in Blackwell Forest Preserve. The project footprint limits are entirely on Forest Preserve District of DuPage County (FPDDC) property. The project runs along Spring Brook #1. The downstream limit is approximately 400' downstream of the existing unnamed pedestrian bridge, which runs south from Mack Road. The upstream limit is Winfield Road. The project is immediately downstream of the Spring Brook #1 Stream and Wetland Restoration Project (Phase 1), which was constructed in 2015.

1.3.2 Existing Conditions

The existing stream alignment is 4,430 ft. long. The channel is incised with bank full flow around 120 cfs. The Wetlands Initiative (TWI) performed the wetland delineation of the Spring Brook # 1 Stream and Wetland Restoration Project - Phases 1 and 2. Within the Blackwell Forest Preserve, there were 19.33 acres of wetland and 17.56 acres of waters of the United States. Eighteen wetlands comprised the total wetland acres of 19.33. All on-site wetlands are under the jurisdiction of the United States Army Corps of Engineers (USACE).

1.3.3 Proposed Conditions

The proposed stream length will increase to approximately 5,680 ft with the additional sinuosity. The proposed channel will have slopes ranging from 2.5:1 to 20:1. The design bank full condition is 120 cfs . This is intended to increase the frequency of flooding within the project site to facilitate desired habitats in the floodplain. There will be 2.898 acres of USACE/ DuPage County jurisdictional wetland impacts. The wetland impacts are attributable to the excavation and fill placement for the restored stream channel meander and to replace a service road bridge and pedestrian bridge. There are 15.488 acres of impact to Waters of the US. This project is a second phase to a waters mitigation project for the Illinois State Toll Highway Authority. DRSCW has budgeted $1,000,000 for construction by December 2019.

1.3.4 Impact Evaluation

Post-project fIBI, mIBI and QHEI will be monitored and compared to historical survey data.

1.4 Table Item 5. Fullersburg Woods Dam Modification Concept Plan Development

- Special Condition Listed Completion Date – December 2016
- Status – Complete

Modification of the Fullersburg Woods dam will likely have significant public opposition. The concept plan sets out a number of scenarios to meet the water quality, habitat, TMDL and biological goals of the project. The plan also includes a framework for reaching out to stakeholders to understand their concerns and solicit their feedback so that the final design proposal can incorporate features based on their input. The plan was supplied to IEPA and will be implemented during 2017. The report can be found at http://drscw.org/wp/wp-content/uploads/2015/03/FullersburgWoodsDam_ConceptPlan_FINAL_12302016.pdf

1.5 Table Items 6 & 7. Fullersburg Woods Dam Modification and Stream Restoration

- Special Condition Listed Completion Date – December 2021
- Status – Not yet started

The project is on the Salt Creek mainstem; its objectives are to raise QHEI above its current score of 39.5, raise fIBI above its current score of 19.0, raise mIBI above its current score of 17 for approximately 1.5 river miles and to improve dissolved oxygen in the impoundment as compared to the 2007-2014 data set. The DRSCW will be collaborating with FPDDC and DuPage County Stormwater Management on this project. DRSCW budgeted $2,985,000 for this project.

Design elements recommended by the outreach framework will be identified and developed in 2017-18.

1.6 Table Item 8. Southern West Branch Physical Improvement

- Special Condition Listed Completion Date – December 2022
- Status – Concepts are being developed along with the Fawell Dam Modification Plan.

The DRSCW budgeted $500,000 for the period 2019 to 2021. This project will likely focus on enhancing the channel around the Fawell Dam following its modification.

1.7 Table Item 9. Southern East Branch Stream Enhancement

- Special Condition Listed Completion Date – December 2021
- Status – Not yet started

Work has not yet begun on this project. The DRSCW budgeted $2,500,000 for this project.

1.8 Table Item 10. QUAL2K Updates for East Branch and Salt Creek

- Special Condition Listed Completion Date – December 2023
- Status – Not yet started

Model preparation, calibration, verification, and alternative evaluation is scheduled to begin in 2019. The DRSCW budgeted $112,000 for this effort and anticipates expenditures will be made from 2019 to 2022.

In 2016, the DRSCW gathered continuous DO data, water quality grabs, flow and conducted physical geometry assessments at 3 sites on the West Branch DuPage River. The data has been used by Illinois EPA for QUAL2K modeling in support of TMDL development for segments of the West Branch DuPage River.

1.9 Table Item 11. NPS Phosphorus Feasibility Analysis

- Special Conditions Listed Completion Date – December 2021
- Status – In Planning

DRSCW contributed funding for the USGS-Wisconsin Water Science Center research project, "Developing a Framework to Advance Statewide Phosphorus Reduction Credits for Leaf Collection." This study began on 9/1/2016 and has an anticipated end date of 12/31/17. DRSCW made a $2,500 grant to the USGS research project and has budgeted $120,000 to develop the NPS nutrient feasibility analysis (inclusive of grant).

2.0 Chloride Abatement Program

2.1 Technical Workshops

Two chloride reduction workshops were held during the reporting period April 1st 2016 to March 31st 2017.

The public roads deicing workshop held on September 27, 2016 with the following agenda:

- 7:00 –- 7:25 Registration and Breakfast
- 7:25 –7:30 Welcome
  John Kawka, DuPage County DOT, Manager of Highway Operations
- 7:30 – 7:50 DuPage River Salt Creek Workgroup (DRSCW) Update
  Stephen McCracken, TCF/ DRSCW, Director of Watershed Protection
- 7:50 – 8:50 Establishing Levels of Service
  Wilf Nixon, Salt Institute, VP Science and the Environment
- 8:50 – 9:00 Break
- 9:05 – 9:35 Weather Forecasting
  Mike Adams, Wisconsin DOT, Weather Systems Program Manager
- 9:35 – 10:15 Village of Oswego's Anti-Icing Initiatives
  Jennifer Hughes, Village of Oswego, Public Works Director
- 10:15 – 10:50 New MS4 Requirements and How to Meet Them:
  Managing Pollution from your Municipal Yard – Mary Beth Falsey, DuPage County Stormwater Management, Water Quality Supervisor; John Kawka, DuPage County DOT
- 10:50 – 11:00 Break
- 11:00 – 11:25 Contractor Perspective: Communication Strategies
  Steve Pearce, Serbert, VP of Operations
- 11:25 – 11:55 Municipal Perspective: Communications Strategies
  Chris Walsh, City of Beloit, Director of Operations (Retired)
- 11:55 – 12:00 Wrap Up, Bass Pro Shop Jacket Drawing, Equipment Show

Attendance – 145 registered, 9 presenters, 11 exhibitors/staff = 165 total. All participants received a certificate of attendance. We received 94 feedback forms from participants.

The parking lots and sidewalks deicing workshop was held on September 22, 2016 with the following agenda:

- Ambient conditions and regulatory update: Stephen McCracken, The Conservation Foundation/DRSCW
- Information on developing efficient and cost-effective snow fighting operations, appropriate product selection, equipment selection, application rates, equipment calibration, ambient conditions monitoring. Presenters: Connie Fortin, Fortin Consulting and Chis Walsh, City of Beloit, WI
- Test on workshop materials.

Attendance - 68 registrations, 3 presenters, 10 exhibitors/staff = 81 total. All participants received a training certificate and participants who successfully completed the test are recognized on DuPage County Stormwater Management's Water Quality – Pollution Prevention/Good Housekeeping web page. The DRCW received 55 program evaluations from participants.

2.2 Tracking BMP Adoption

The DRSCW has attempted to track adoption of sensible salting BMPs in the program area since 2007. Monitoring ambient chloride concentrations has proven an imperfect metric for tracking efficiency trends in salt use (see section 2.4). Tracking target BMP adoption in the program area provides opportunities to: evaluate the impacts of the workshops; identify material for future workshops; form suppositions about salt use per unit of service expended inside the program area relative to levels in 2006.

In 2007, the DRSCW distributed a questionnaire to approximately 80 municipal highway operations and public works agencies to obtain baseline information about deicing practices throughout the program area. An informed baseline of deicing programs throughout the program area was formed based on the thirty-nine responses. Thirty-two public agencies responded to a similar questionnaire distributed in 2010, which indicated positive BMP adoption in local deicing practices. In 2012 and 2014, the survey generated 34 and 35 responses respectively, which further documented chloride reduction practices. A record number forty-three (43) agencies responded to the 2016 questionnaire which is positive for overall program participation but the new agency responses did appear to distort trends and create some inconsistencies.

Results showed:

- An increase in the use of dry salt (a negative outcome) - Follow up with some of the agencies reporting this shows that it is largely a result of new agencies responding to the questionnaire for the first time.
- A decrease in pre-wetted salt use (a negative outcome) - Pre-wetted salt initially showed an increase of around 15% up until 2014 when the participation rate halved, an apparent reversal of the trend observed since 2006. Follow up with some of the agencies reporting shows that it is largely a result of new agencies responding to the questionnaire for the first time and confusion on the definition of pre-wetting. The new agencies responding do present an opportunity for the Chloride Committee to investigate further expansion of the use of brine as a BMP.
- An increase in the use of all forms of calcium chloride (CaCl2). The increase in liquid CaCl2 is significant, roughly 30% higher.

- Results show an increase in the use of dry or pre-wetted magnesium chloride (MgCl2).
- No responders reported using liquid MgCl2 and urea in 2016.
- A few respondents reported using potassium chloride (KCl) compared to none in previous years.
- Use of calcium magnesium acetate (CMA), potassium acetate (KA), and abrasives have decreased since 2014.
- Beet juice as an additive maintained its popularity.
- The highest percentage of agencies executing some degree of anti-icing (60%) was reported in the 2016 survey (up from 50 % in 2014 and 36 % in 2007).
- Two of the responding agencies reuse vehicle wash-water for making brine solutions compared to none from the 2014 survey.
- The 2016 survey responses indicated that the 2015-16 per lane mile use of salt decreased from that in most previous years. The number of agencies applying 200-300 lbs/lm increased from 2010 to 2016. Other reported application rates have stayed relatively constant over the period. Increased rates for various storm types reported in 2016 were due to new agencies responding. Agencies applying more than 400 lbs of salt per lane mile provide opportunities for the Chloride Reduction Program to expand outreach and BMP information.
- Almost all agencies in the program area have covered, permanent salt storage facilities; however, there are still some opportunities for storage and salt handling improvements throughout the program area.
- Implementation of target BMPs, which include equipment calibration, use of weather forecasting and pavement temperature information for deicing response decisions, all increased in 2016.
- Nine out of 42 responses reported additional changes made to their program due to local deicing program workshops between 2014 and 2016.

2.3 Monitoring

Ambient monitoring of winter conductivity was carried out at 6 locations in the program area in 2014-15 and 2016-17. Conductivity is used to calculate chloride concentrations based on a relationship established by the DRSCW in 2007. Chloride concentrations are a function of applications rates, number of winter call outs, duration of winter and instream flows. The importance of understanding these variables is illustrated by comparing figures 3 and 4. The figures show the same data (summer chloride data in the West Branch on various years) but figure 4 is controlled for flow (shown as tons of chloride).

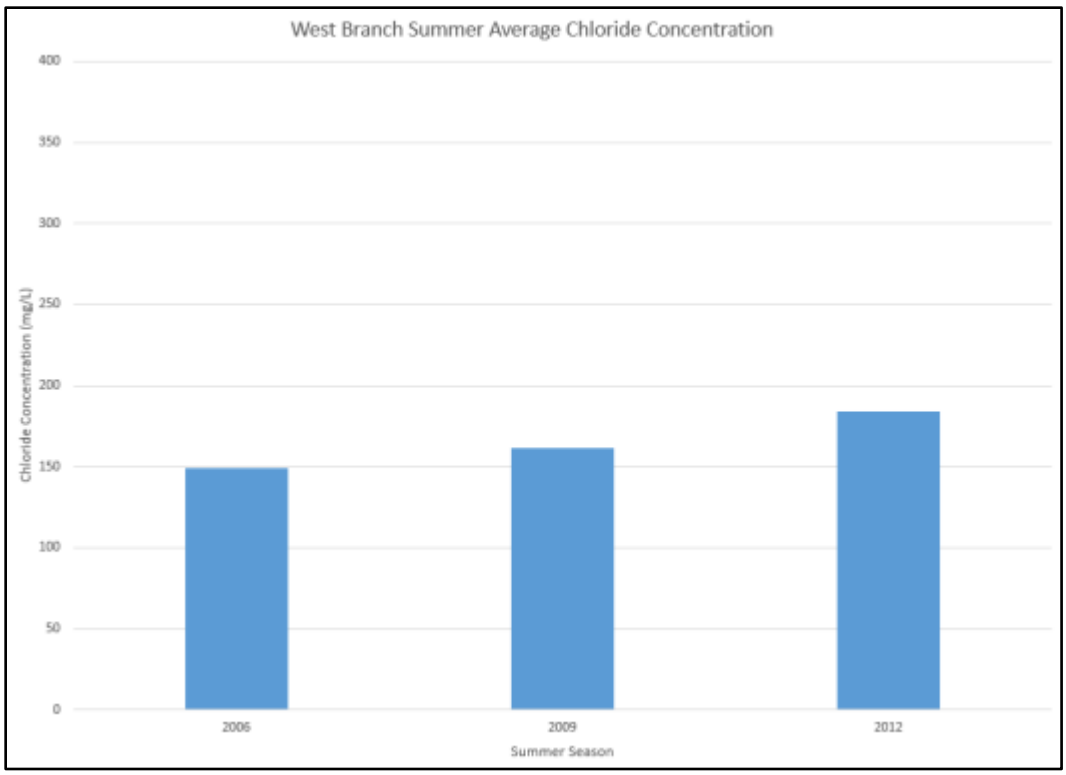


Figure 3. West Branch Chloride Concentrations Summers of 2006, 2009 and 2012

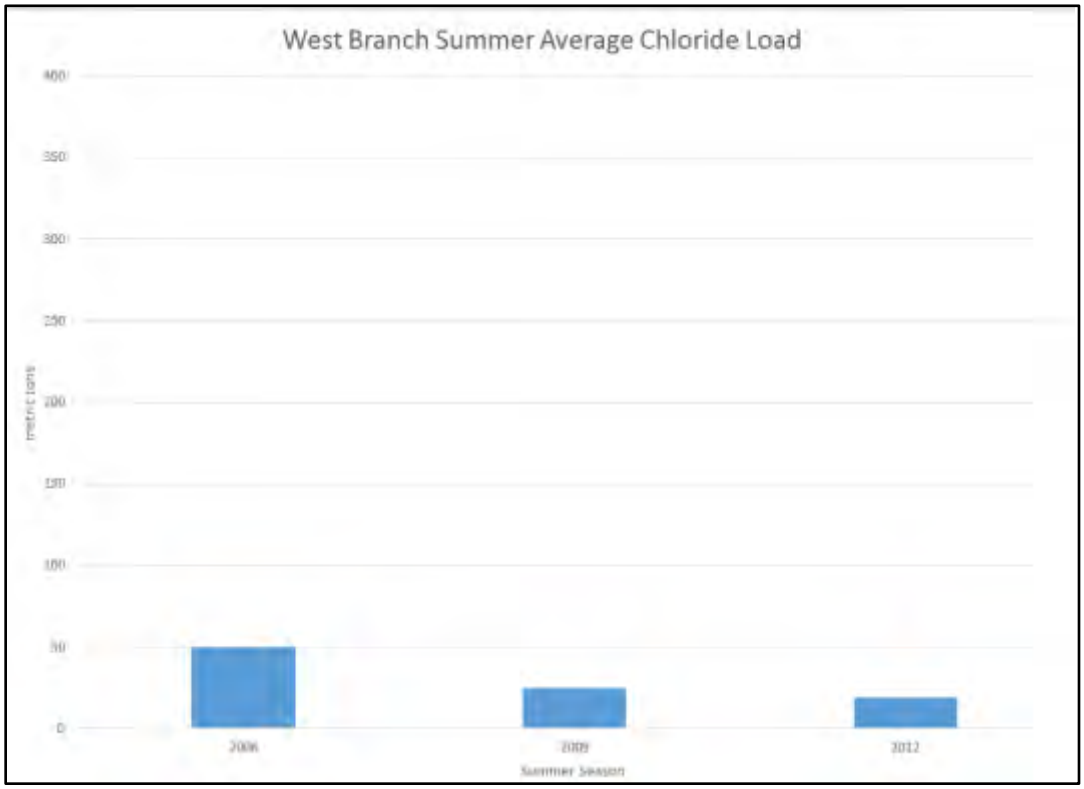


Figure 4. West Branch Summer Average Chloride Loads 2006, 2009 and 2012

3.0 Nutrient Implementation Plan

The QUAL2K models and non-point nutrient management are covered in sections 1.8 and 1.9 respectively.

3.1 Development of a Basin Wide Nutrient Trading Program

Special Condition 8.c. allows the DRSCW to develop and implement a trading program for the POTWs in the DRSCW watersheds. The nutrient trading program will allow for the reallocation of phosphorus loadings between two or more POTWs in the DRSCW watersheds as long as the following two conditions have been met:

- The loadings will not exceed those loading anticipated from the uniform application of the applicable 1.0 mg/L monthly average effluent limitation among the POTW permits in the DRSCW watersheds; and
- The loadings remove DO and offensive condition impairments and meet the applicable dissolved oxygen criteria in 35 IL Adm. Code 302.206 and the narrative offensive aquatic algae criteria in 35 IL Adm. Code 302.203.

Special Condition 8.d. allows for the implementation of a nutrient trading program at the end of the 10-year permit cycle by allowing the Illinois EPA to modify the NPDES permits if the nutrient trading program meets the criteria detailed above.

In order to evaluate the feasibility of nutrient trading within the DRSCW watersheds, the DRSCW conducted a search to find a qualified consultant to lead the process. On November 7, 2016, a Request for Qualifications (RFQ) was distributed electronically to all DRSCW members and associate members and posted on member and industry websites. Seven (7) teams submitted qualifications: Arcadis/Troutman Sanders/Baxter & Woodman; Geosyntec/Carollo/WRI/Barnes and Thornburg/Harvey Environ-Econ; LimnoTech/Donohue and Associates; Rand Corp.; Ruekert Mielke/ERA; Strand; and TetraTech/Kieser and Assoc./Abt Assoc./Earth & Water Group. Each statement of qualifications was thoroughly reviewed by the DRSCW Projects Committee and three teams were short-listed: Arcadis/Troutman Sanders/Baxter & Woodman; Geosyntec/Carollo/WRI/Barnes and Thornburg/Harvey Environ-Econ; and TetraTech/Kieser and Assoc./Abt Assoc./Earth & Water Group. The short-listed firms prepared a detailed proposal and participated in an in-person interview with the DRSCW Projects Committee. The DRSCW is currently concluding the qualifications-based selection process by negotiating scope and fee with the chosen contractor.

The nutrient trading program will focus at minimum on point-source to point-source phosphorus trading. The proposed scope of work includes eight (8) tasks:

- Task 1. Initiate Project and Data Collection and Analysis
- Task 2. Fill Data Gaps and Data Analysis Summary
- Task 3. Selection and Calculation of Nutrient Reduction Goals
- Task 4. Evaluate the Opportunities and Cost-Effectiveness of Point Source to Non-Point Source Trading
- Task 5. Development of Nutrient Reduction Costs
- Task 6. Market Structure Recommendation
- Task 7. Develop Draft Trading Framework, Guidelines, and Templates

- Task 8. Preparation of a Nutrient Trading Program Final Report

Project work is expected to begin in late summer 2017as the Phosphorus Discharge Optimization Plans and Feasibility Studies for the POTWs in the study area become available starting in August 2017. Estimated date of completion for the basin wide nutrient trading program is 2020-2021.

Attachment 1

Draft DuPage/Salt Creek Special Condition XX.

1. The Permittee shall participate in the DuPage River Salt Creek Workgroup (DRSCW). The Permittee shall work with other watershed members of the DRSCW to determine the most cost effective means to remove dissolved oxygen (DO) and offensive condition impairments in the DRSCW watersheds.

2. The Permittee shall ensure that the following projects and activities set out in the DRSCW Implementation Plan (April 16, 2015), are completed (either by the permittee or through the DRSCW) by the schedule dates set forth below; and that the short term objectives are achieved for each by the time frames identified below:

Project Name	**Completion Date**	**Short Term Objectives**	**Long Term Objectives**
Oak Meadows Golf Course dam removal	December 31, 2016	Improve DO	Improve fish passage
Oak Meadows Golf Course stream restoration	December 31. 2017	Improve aquatic habitat (QHEI), reduce inputs of nutrients and sediment	Raise miBi
Fawell Dam Modification	December 31, 2018	Modify dam to allow fish passage	Raise fiBi upstream of structure
Spring Brook Restoration and dam removal	December 31, 2019	Improve aquatic habitat (QHEI), reduce inputs of nutrients and sediment	Raise miBi and fiBi
Fullersburg Woods dam modification concept plan development	December 31, 2016	Identify conceptual plan for dam modification and stream restoration	Build consensus among plan stakeholders
Fullersburg Woods dam modification	December 31, 2021	Improve DO, improve aquatic habitat (QHEI)	Raise miBi and fiBi
Fullersburg Woods dam modification area stream restoration	December 31, 2022	Improve aquatic habitat (QHEI), reduce inputs of nutrients and sediment	Raise miBi and fiBi
Southern West Branch Physical Enhancement	December 31, 2022	Improve aquatic habitat (QHEI)	Raise miBi and fiBi
Southern East Branch Stream Enhancement	December 31, 2023	Improve aquatic habitat (QHEI), reduce inputs of nutrients and sediment	Raise miBi and fiBi

QUAL 2K East Branch and Salt Creek	December 31, 2023	Collect new baseline data and update model	Quantify improvements in watershed. Identify next round of projects for years beyond 2024.
NPS Phosphorus Feasibility Analysis	December 31, 2021	Assess NPS performance from reductions leaf litter and street sweeping	Reduce NPS contributions to lowest practical levels

3. The Permittee shall participate in implementation of a watershed Chloride Reduction Program, either directly or through the DRSCW. The program shall work to decrease DRSCW watershed public agency chloride application rates used for winter road safety, with the objective of decreasing watershed chloride loading. The Permittee shall submit an annual report on the annual implementation of the program identifying the practices deployed, chloride application rates, estimated reductions achieved, analyses of watershed chloride loads, precipitation, air temperature conditions and relative performance compared to a baseline condition. The report shall be provided to the Agency by March 31 of each year reflecting the Chloride Abatement Program performance for the preceding year (example: 2015-16 winter season report shall be submitted no later than March 31, 2017). The Permittee may work cooperatively with the DRSCW to prepare a single annual progress report that is common among DRSCW permittees.

4. The Permittee shall submit an annual progress report on the projects listed in the table of paragraph 2 above to the Agency by March 31 of each year. The report shall include project implementation progress. The Permittee may work cooperatively with the DRSCW to prepare a single annual progress report that is common among DRSCW permittees.

5. The Permittee shall develop a written Phosphorus Discharge Optimization Plan. In developing the plan, the Permittee shall evaluate a range of measures for reducing phosphorus discharges from the treatment plant, including possible source reduction measures, operational improvements, and minor low cost facility modifications that will optimize reductions in phosphorus discharges from the wastewater treatment facility. The permittee's evaluation shall include, but not necessarily be limited to, an evaluation of the following optimization measures:
    a. WWTF influent reduction measures.
        i. Evaluate the phosphorus reduction potential of users.
        ii. Determine which sources have the greatest opportunity for reducing phosphorus (e.g., industrial, commercial, institutional, municipal, and others).
            1. Determine whether known sources (e.g., restaurant and food preparation) can adopt phosphorus minimization and water conservation plans.
            2. Evaluate implementation of local limits on influent sources of excessive phosphorus.

b. WWTF effluent reduction measures.
    i. Reduce phosphorus discharges by optimizing existing treatment processes without causing non-compliance with permit effluent limitations or adversely impacting stream health.

        1. Adjust the solids retention time for biological phosphorus removal.
        2. Adjust aeration rates to reduce DO and promote biological phosphorus removal.
        3. Change aeration settings in plug flow basins by turning off air or mixers at the inlet side of the basin system.
        4. Minimize impact on recycle streams by improving aeration within holding tanks.
        5. Adjust flow through existing basins to enhance biological nutrient removal.
        6. Increase volatile fatty acids for biological phosphorus removal.

6. Within 24 months of the effective date of this permit, the Permittee shall finalize the written Phosphorus Discharge Optimization Evaluation Plan and submit it to IEPA. The plan shall include a schedule for implementing all of the evaluated optimization measures that can practically be implemented and include a report that explains the basis for rejecting any measure that was deemed impractical. The schedule for implementing all practical measures shall be no longer than 36 months after the effective date of this permit. The Permittee shall implement the measures set forth in the Phosphorus Discharge Optimization Plan in accordance with the schedule set forth in that Plan. The Permittee shall modify the Plan to address any comments that it receives from IEPA and shall implement the modified plan in accordance with the schedule therein.

   Annual progress reports on the optimization of the existing treatment facilities shall be submitted to the Agency by March 31 of each year beginning 24 months from the effective date of the permit.

7. The Permittee shall, within 24 months of the effective date of this permit, complete a feasibility study that evaluates the timeframe, and construction and O & M costs of reducing phosphorus levels in its discharge to a level consistently meeting a limit of 1 mg/L, 0.5 mg/L and 0.1 mg/L utilizing a range of treatment technologies including, but not necessarily limited to, biological phosphorus removal, chemical precipitation, or a combination of the two. The study shall evaluate the construction and O & M costs of the different treatment technologies for these limits on a monthly, seasonal, and annual average basis. For each technology and each phosphorus discharge level evaluated, the study shall also evaluate the amount by which the Permittee's typical household annual sewer rates would increase if the Permittee constructed and operated the specific type of technology to achieve the specific phosphorus discharge level. Within 24 months of the effective date of this Permit, the Permittee shall submit to the Agency and the DRSCW a written report summarizing the results of the study.

8. Total phosphorus in the effluent shall be limited as follows:

    a. If the Permittee will use chemical precipitation to achieve the limit, the effluent limitation shall be 1.0 mg/L on a monthly average basis, effective 10 years after the effective date of this permit unless the Agency approves and reissues or modifies the permit to include an alternate phosphorus reduction program pursuant to paragraph c or d below that is fully implemented within 10 years of the effective date of this permit.
    b. If the Permittee will primarily use biological phosphorus removal to achieve the limit, the effluent limitation shall be 1.0 mg/L monthly average to be effective 11 years after the effective date of this permit unless the Agency approves and reissues or modifies the permit to include an alternate phosphorus reduction program pursuant to paragraph c or d below that is fully implemented within 11 years of the effective date of this permit.
    c. The Agency may modify this permit if the DRSCW has developed and implemented a trading program for POTWs in the DRSCW watersheds, providing for reallocation of allowed phosphorus loadings between two or more POTWs in the DRSCW watersheds, that delivers the same results of overall watershed phosphorus point-source reduction and loading anticipated from the uniform application of the applicable 1.0 mg/L monthly average effluent limitation among the POTW permits in the DRSCW watersheds and removes DO and offensive condition impairments and meet the applicable dissolved oxygen criteria in 35 IL Adm. Code 302.206 and the narrative offensive aquatic algae criteria in 35 IL Adm. Code 302.203.
    d. The Agency may modify this permit if the DRSCW has demonstrated and implemented an alternate means of reducing watershed phosphorus loading to a comparable result within the timeframe of the schedule of this condition and removes DO and offensive condition impairments and meet the applicable dissolved oxygen criteria in 35 IL Adm. Code 302.206 and the narrative offensive aquatic algae criteria in 35 IL Adm. Code 302.203.

9. The Permittee shall monitor the wastewater effluent, consistent with the monitoring requirements on Page 2 of this permit, for total phosphorus, dissolved phosphorus, nitrate/nitrite, total Kjeldahl nitrogen (TKN), ammonia, total nitrogen (calculated), alkalinity and temperature at least once a month. The Permittee shall monitor the wastewater influent for total phosphorus and total nitrogen at least once a month. The results shall be submitted on NetDMRs to the Agency unless otherwise specified by the Agency.

10. The Permittee shall submit a Nutrient Implementation Plan (NIP) for the DRSCW watersheds that identifies phosphorus input reductions by point source discharges, non-point source discharges and other measures necessary to remove DO and offensive condition impairments and meet the applicable dissolved oxygen criteria in 35 IL Adm. Code 302.206 and the narrative offensive aquatic algae criteria in 35 IL Adm. Code 302.203. The NIP shall also include a schedule for implementation of the phosphorus input reductions and other measures. The Permittee may work cooperatively with the DRSCW to prepare a single NIP that is common among DRSCW permittees. The NIP shall be submitted to the Agency by December 31, 2023.

Attachment 2

Oak Meadows Dam Removal and Stream Restoration Project Summary

The Oak Meadows Dam Removal and Stream Restoration Project was completed in 2016 as part of a larger project to improve playable areas of a golf course at the site by relocating and regrading the course and reducing the number of holes from 27 to 18. The information supplied here focuses on the extensive river naturalization portion of the project.

The 2010 stressor analysis for Salt Creek found the project site to be deficient in pool and riffles, riparian vegetation, gravel substrates and channel form. Practices implemented were designed to address each of these deficiencies, function inside the sites urban flow regime and integrate fully into the golf course features. The final design plans showing features scheduled for removal and for construction were supplied as attachment 3 in the 2016 report. The management practices implemented at the site are summarized in table A2.1 below and in maps 1 and 2 of this attachment. The practices put in place aimed to reduce modified stream characteristics(see map 1) and increase natural stream characteristics (see map 2). The imagery in map 2 is from early 2016 and shows the riparian vegetation and wetlands still under construction.

Practice	Units	Notes
Dam Removal	2	Improve DO and habitat values in impoundment
A-Jacks Removal	6,175 linear feet	Allow for increase in bank habitat values
Sheetpile Removal	1,190 linear feet	Allow for increase in bank habitat values
Soil Lifts Installed	7,530 linear feet	Allow for increase in bank habitat values
Bank Protection Fabric Installed	13,740 square yards	Erosion Control
Cobble Installed	9,400 Tons	Increase steam bed habitat values
Boulders Installed	105 Tons	Increase steam bed habitat values
Root Wads Installed	3,765 linear feet	Allow for increase in bank habitat values
Riparian Enhancement (including wetlands)	42.2 acres	Increase buffer/riparian habitat value
Other Natural Areas Restoration including wetlands	103 acres	Increase upland habitat value
Total wetlands (all)	38.2 acres	Increase habitat value

Table A2.1. Summary of surface water practices implemented as part of the Oak Meadows project.

Project History and Identification.

A time line of project activities is supplied in this section. The project was first identified as a basin priority by the DRSCW's 2009 QUAL2K model for dissolved oxygen in Salt Creek. The model identified two principle DO sags in the basin, one in the impoundment upstream of the Fullersburg Woods Dam and the second in the impoundment upstream of the Oak Meadows Dam. The DRSCW targeted dam removal as a cost effective means to improve in-stream DO as part of the group's adaptive management approach to TMDL implementation. At that time, the dam's owner (Forest Preserve District of DuPage

County or FPDDC) had no interest in modifying the site and the DRSCW had no implementation funding to pursue the project.

The DRSCW's 2010 biological stressor analysis assigned the site a priority listing of 3, making it a mid-ranking site. However, after a management change at the Oak Meadows Golf Club the FPDDDC seriously contemplated a substantial modification of the course to decrease the number of playable days lost due to flooding (the preserve operates as a public golf course). The FPDDC and the DRSCW collaborated to develop an engineering plan for the location in 2012. The objectives of the masterplan were to maximize both the golf utility and the aquatic habitat outputs of the site.

The final design shrank and changed the golf course footprint to reduce flooding impacts on playable surfaces, removed bank armor and two low head dams and created waterway features to remedy shortcomings identified by the QHEI evaluations (2007, 2010 and 2013). Benefits of the project include a more exciting and playable course and expanded and naturalized river and wetlands that support increased aquatic biodiversity.

The project's construction plans formed attachment 3 of the 2016 report. Table 2 in the report lists the timeline of activities carried out by the project team. Of particular note:

- The project necessitated the redirection of Salt Creek's flow to allow excavation and construction to take place in dry conditions.

- The dam at river mile 22.7 was removed as was a second structure at river mile 23.4 that was identified during preliminary fieldwork carried out by the DRSCW in 2012.

- A large section of A-Jacks and sheet pile walls were removed prior to starting in-channel work. While armoring stabilized the banks, it provided minimum value for habitat and pollutant assimilation water quality benefits. In addition, after the dam removals, many A –Jacks were left above the ordinary high water mark.

- Banks were re-graded and stabilized. Bioengineered stabilization methods that provide enhanced water quality benefits utilized in the project include surface fabric bank treatment, fabric encapsulating soil (FES) lifts with log/rock toe. The log/rock toe practice was applied at and below the water line and provides scour protection at sensitive river bank areas.

- . To increase stream bed diversity, which pre-project was dominated by muck substrates, several sections of gravel were added. Increasing coarse substrates is considered critical to increasing the biodiversity of lotic macroinvertebrates which DRSCW surveys have found to be lacking at the site.

Attachment 2

Figure 1. Pre-project Oak Meadows Dam. Note the sheet piling on the right bank as we look towards the dam, and the A-Jacks on the left bank as we look towards the dam.

Figure 2. Post-project Oak Meadows location. Sheet piling and A-Jackswere removed and banks have been graded. Native vegetation was planted and gravel substrates created.

Attachment 2

Figure 3. "The Island" looking upstream pre-project. Note the armored banks and the mud substrates.

Figure 4. "The Island" looking upstream post-project. Armoring was removed and replaced on the outside banks by root wads. Note the grading on the inside bank. Gravel beds have replaced muck beds.

Attachment 2

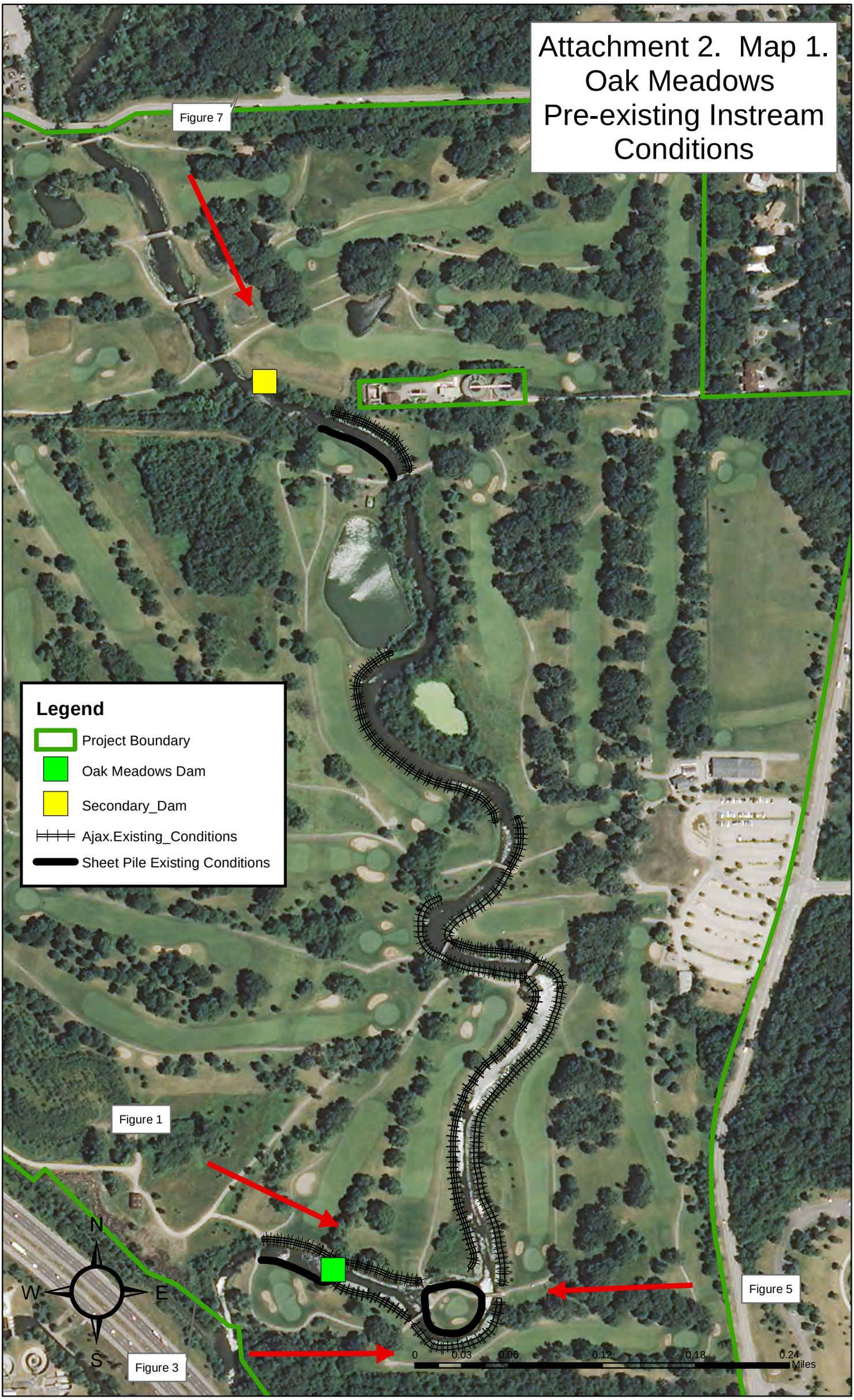
Figure 5. "The Island" pre-project looking downstream towards viewpoint for images 3 and 4.

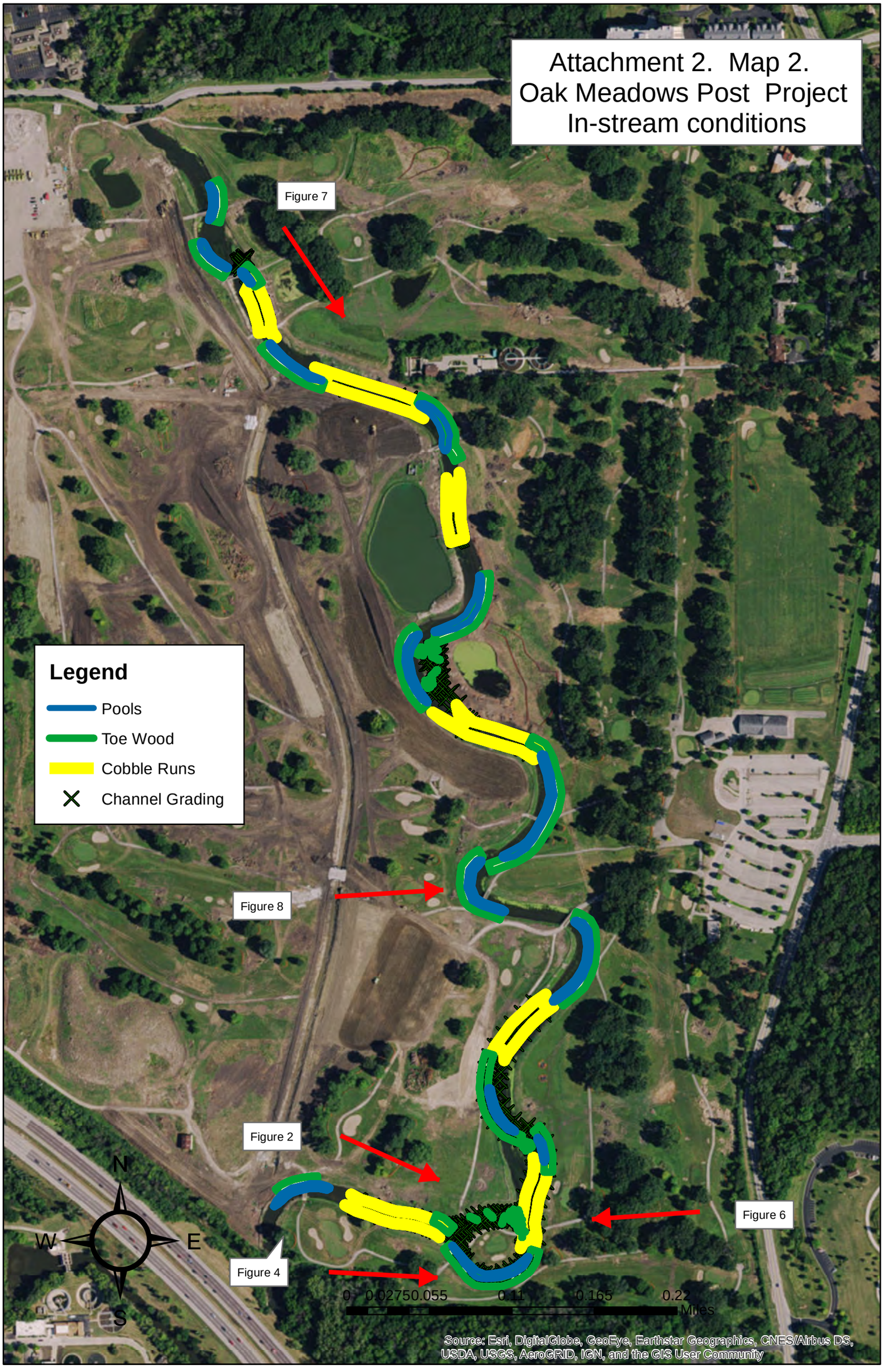
Figure 6. "The Island" post-project looking downstream, the graded banks, toe wood and riparian vegetation are plainly visible.

Attachment 2

Figure 7. During Construction. Looking downstream (south) from the diversion dam at the northern end of the project (near Elizabeth Drive) prior to flow being reintroduced. The diversion channel is on the right of the image. The river channel is on the left of the image with gravel runs/beds and graded stream banks under construction.

Figure 8. During Construction. Looking east across Salt Creek after flow was reintroduced. Note the extensive naturalized riparian area on the eastern (far) bank.


Attachment 2. Map 1.
Oak Meadows
Pre-existing Instream
Conditions
Figure 7
Figure 1
Figure 3
Figure 5
Legend
Project Boundary
Oak Meadows Dam
Secondary_Dam
Ajax.Existing_Conditions
Sheet Pile Existing Conditions
N
W
E
S
0
0.03
0.06
0.12
0.18
0.24
Miles


Attachment 2. Map 2.
Oak Meadows Post Project
In-stream conditions
Figure 7
Figure 8
Figure 2
Figure 6
Figure 4
Legend
Pools
Toe Wood
Cobble Runs
Channel Grading
N
W
E
S
0 0.02750.055 0.11 0.165 0.22
Miles
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

WEST BRANCH OF THE DUPAGE RIVER, NAPERVILLE, IL

Fawell Dam Fish Passage Feasibility Analysis

TECHNICAL MEMO, AUGUST 2016

PREPARED FOR:

Dupage River Salt Creek Workgroup
10 S 404 Knoch Knolls Road
Naperville, IL 60565

inter·fluve

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Appendix A - Channel Evolution Concept

1 Introduction

In an effort to assess the feasibility of modifying Fawell Dam for fish passage, Dupage County constructed a 1-dimensional hydraulic model for evaluating potential water velocities and depths along the West Branch DuPage River under proposed culvert scenarios. This report briefly describes Inter-Fluve's (IFI's) review of that model, as well as the results and implications of those modeling results. Additionally, it describes possible changes in channel geomorphology upstream of the dam if Fawell Dam is modified.

PROJECT AREA

Fawell Dam is located on the West Branch DuPage River 8 miles upstream of the confluence with the East Branch DuPage River. The dam consists of three approximately 10 ft high by 10 ft wide concrete box culverts in parallel. Gates are located on the upstream face of each culvert to provide downstream flood control. The inverts of the 80 ft long box culverts are elevated above the historic thalweg, and thus, impound water and sediment upstream.

PROJECT GOALS AND OBJECTIVES

The primary goal for the project is to allow fish passage through Fawell Dam. Previous fish surveys, together with analysis of hydraulic conditions within the dam culverts, have suggested that the dam is likely a barrier to upstream migration for some species of fish. Successful fish passage depends on variables such as water velocity, depth, distance between resting positions for the fish, and each fish's ability to swim against the current. IFI's Data Collection Technical Memorandum (September 30, 2014) outlined (1) physical habitat requirements that limit fish passage, and (2) hydrologic characteristics at the dam during critical fish passage periods. Initially, the design team proposed lowering one of the culverts to improve fish passage, but further analysis makes it apparent that lowering two of the culverts would produce better fish passage conditions. In this document, water depths are examined and velocity data output from the hydraulic model are compared to sustainable swim velocities of local fish species to evaluate the potential for passage if one or two culverts are lowered.

In addition to summarizing fish passage requirements, our previous memo also described a preliminary data collection effort and analysis of the geomorphology in the reach encompassing Fawell Dam between the West Ogden Ave Bridge and the West Drive Bridge. The area between the dam and just below the West Drive Bridge is typically backwatered during low flow periods. In this memorandum, the field data from representative cross sections (Figure 1) are incorporated into a description of the likely process and potential outcomes of geomorphic adjustment following dam modification.

Figure 1. Site map of the Fawell Dam and impoundment. The 1939 channel boundaries are shown (yellow) to demonstrate the relative area of backwater due to the dam. Stations (in red) are shown for reference to the longitudinal profile. Cross-sections (blue) are IFI survey sections from 2014 field study.

2 Fish Passage and Hydraulics

FISH PASSAGE CRITERIA

Fish sampling results between 1983 and 2012 indicated that some fish species that are present below Fawell Dam may not be present in the reach above the dam and that some species present downstream of the dam may not be present anywhere upstream of the dam (Table 1). Given the high velocities observed within the culverts through the dam, it is likely that the absence or very low abundance of these species upstream of the dam is due in part to the inability of fish to move upstream through the dam. Even for species that occur both upstream and downstream of the dam, the dam is likely limiting genetic mixing between populations, and reducing the likelihood of successful recolonization if a population is eliminated in a reach. Therefore, improving conditions at the dam such that fish may pass through it is expected to increase species diversity and abundance throughout these reaches of the river and make fish populations more sustainable over time.

When considering criteria for fish passage, water velocity and water depth are critical variables. If water is shallower than the depth of the fish's body, the fish cannot generate the maximum forward force possible with its tail stroke. Even if the water is slightly deeper than the body depth, turbulence due to swimming can result in locally shallower depths near the fish. Therefore, a depth of at least 1.5 times the depth of the fish is recommended. Ensuring deeper water also reduces risk of fin and gill abrasion and minimizes loss to predation. Conservative targets for water depth suitable for fish passage can be set based on the larger individuals within the larger, native, deeper bodied species found in the river, such as the catfish, carpsuckers, and gizzard shad. The deepest water in any cross section should be at least 8 inches deep to satisfy depth criteria for most fish.

Table 1. Fish species present in the West Branch DuPage River between 1983 and 2012. Species in italics are those found downstream of Fawell dam but not in the 3.6 mile reach immediately upstream of Fawell Dam. Species in bold have been found downstream of Fawell dam but not anywhere upstream of dam.

Hornyhead chub	*Quillback carpsucker*	Sand shiner	Stonecat madtom
Central stoneroller	*Pumpkinseed*	White sucker	Black crappie
Bigmouth shiner	*Western mosquitofish*	Common carp	Smallmouth bass
Blackstripe topminnow	*Channel catfish* Gol	dfish	Largemouth bass
Shorthead redhorse	*Brown bullhead* Gol	den shiner	Green Sunfish
Emerald shiner	*Johnny darter*	Creek chub	Bluegill sunfish
Largescale stoneroller	Northern pike	Spotfin shiner	Orangespotted sunfish
Flathead catfish	Yellow bass	Bluntnose minnow	Central mudminnow
Tadpole madtom	Gizzard shad	Fathead minnow	Grass pickerel
White perch	White crappie	Yellow bullhead	Redear sunfish
Rock bass	River carpsucker	Black bullhead	Yellow perch
Longear sunfish			

Source: DRSCW

Velocity criteria for fish passage are not very well established for most non-game fish. "Critical swimming speeds" have been determined in laboratory swim tunnels for some of the fish found in the West Branch of the DuPage River. Many of the species have not been studied in detail, but other species within the same genus or at least within the same family have been studied. Many of these studies have

been summarized and compiled in a fish swim capability table developed by the US Forest Service for the Fish Xing program (www.stream.fs.fed.us/fishxing). For many of the centrarchids (sunfish and black bass) and cyprinids (minnows, shiners, stonerollers, and chubs), prolonged swim speeds are reported in the Fish Xing swim table in the range of 30-45 cm/s (1-1.5 ft/s).

Swimming speeds determined within laboratory swim tunnels have been found to not accurately represent velocities that fish can swim when ascending real raceways, at least for some species (Peake, 2004). Therefore, it has been suggested that critical swim speeds determined in laboratory swim tunnels not be used to set fish passage water velocity criteria if more relevant information is available for particular species. The most relevant studies available at this time are those conducted by Peake (2004 and 2008). Peake tested success in ascending a 50 meter raceway against flow velocities that ranged from 35 cm/s to 120 cm/s measured 8 cm from the raceway bottom. Results of such studies are only available for smallmouth bass, northern pike, walleye, and white suckers. Peake found that for northern pike and walleye, the fraction of individuals that successfully ascended the raceway was significantly lower at 120 cm/s than at 100 cm/s and lower, but for white suckers and smallmouth bass, there was no significant decrease in success rate against velocities of 120 cm/s.

Northern pike are often used as a target species in fish passage projects in waters where they occur due to their relatively poor swimming capability for durations that exceed more than a few seconds. They are also known to be migratory during early spring as they swim from larger rivers up through tributaries to wetlands where they spawn. Peake (2008) found that approximately 80% of individuals tested were successful ascending against velocities of up to 100 cm/s, but only 33% of individuals were successful ascending average velocities of 120 cm/s.

It is important to note that the velocities reported above from the Peake (2004 and 2008) studies were measured only 8 cm from the raceway bottom. Velocities measured at 60% of depth, which are typically close to average velocities, were also measured. For a flow with velocity of 100 cm/s 8 cm from the bottom, the 60% depth velocity was 123 cm/s. For a flow with a velocity of 120 cm/s 8 cm from the bottom, the 60% depth velocity was 148 cm/s. Therefore, an appropriate target average velocity throughout the stream cross section for northern pike and walleye would be approximately 123 cm/s (4 ft/s), and an appropriate target average velocity for smallmouth bass, and white suckers is approximately 148 cm/s (4.9 ft/s).

Smaller fish tend to be weaker swimmers than larger fish. However, small fish can take advantage of the fact that velocities are much lower in boundary layers adjacent to rocks, and they can utilize resting places behind rocks and in the interstitial spaces between rocks in natural streams. Two species in the target list that may not be able to use the boundary layer near the stream bottom are the blackstripe topminnow and mosquitofish, which tend to swim near the surface of the water. Further analysis of velocities within the zone near the stream bottom (the “boundary layer”) is presented in the hydraulics section of this memo.

Migration Season

To ensure fish passage through the dam, depth, velocity and distance requirements should not be exceeded for as many of the native fishes present in the river as possible during the spawning or

migration period. Creating fish passage during other times of the year may be desirable as well, but passage during the migratory window should allow populations up- and downstream to mix. Most of the fishes within the West Branch of the DuPage River will be migrating between March and the end of July. For a few of the species, spawning may continue into the first couple weeks of August. Many fishes will likely be seeking refuge during higher flows rather than migrating, and at extremely low discharges, fish will be seeking refuge in pools rather than migrating. Therefore, hydraulic conditions within a structure during extreme high and low flows are not important if refuge areas are available.

HYDROLOGY

IFI's data collection memorandum (2014) summarizes the existing hydrologic conditions along the West Branch DuPage River at Fawell Dam, including peak flow and partial flood quantiles, the impact of Fawell Dam storage, and flow duration statistics for daily flows. Flow statistics were estimated with peak flow and average daily flow data from the USGS gages at Warrenville (05540095) and at Naperville (05540130). The Warrenville gage has been in operation for 45 years, from 1969 to 2014. Although not always true for urban streams (e.g., Annable et al. 2010), bankfull conditions typically correspond to the 1.5 to 5 year recurrence interval flood. We estimate that for the West Branch DuPage River at Fawell Dam, these flood flows range between 1955 and 3925 cfs.

Table 2. Partial duration flood series recurrence intervals at the Warrenville gage and at the Fawell Dam. The Fawell Dam flows were adjusted using the ratio of drainage areas.

Recurrence Interval (years)	Discharge (cfs)	
	Warrenville	Fawell Dam
0.2	630 7	59
0.3	795 9	57
0.5	1,100 1,	325
0.75	1,332 1,	604
1	1,500 1,	808
1.5	1,623 1,	955
2	1,764 2,	125
5	3,259 3,	925

However, although floods dictate channel morphology in most channels, their duration is short enough that they do not prevent movement of fishes throughout river systems over the long term. Fish tend to move during periods of more typical (non-flood) flows, and therefore, these typical flows are usually the target for fish passage analyses. For many fishes, ensuring fish passage for 80-90% of all flow conditions will sufficiently eliminate the barrier as an impediment to healthy fish communities. For the fishes that utilize the West Branch DuPage River, the period between March and July is generally when they seek optimal spawning and rearing habitats. If it is feasible to modify the Fawell Dam, we suggest targeting fish passage for all flows between the 10% and 95% exceedance levels, if possible, during this migratory period. The flow duration analysis indicated that these target flows are between 42 and 397 cfs (Table 3).

Table 3. Flow-duration values at Fawell Dam based on adjusting average daily discharge data at the Warrenville gage. The March-July time window represents the period when most fishes that migrate are moving to spawning areas in the West Branch DuPage River. This is the most critical time to ensure fish passage.

% Time Exceeded	Annual	March-July
1% 1,	196	1,269
2% 8	56	975
5% 4	80	611
10% 2	97	397
20% 1	63	238
30% 1	28	178
40% 1	01	143
50% 82		117
60% 66		98
70% 54		80
80% 43		65
90% 34		51
95% 30		42

HYDRAULICS

A 1-dimensional hydraulic model was developed by Dupage County for existing and proposed conditions using the U.S. Army Corps of Engineers (USACE) Hydraulic Engineering Center's River Analysis System (HEC-RAS 5.0; USACE 2015). The model includes data from previous models produced for regional flood studies, and local data collected at the dam (e.g., culverts, spillway, downstream riffle) and within the impoundment. For the proposed conditions, which include lowering one or two culverts, the upstream channel was modified to match anticipated channel adjustments following culvert modification. Inter-Fluve reviewed the geometry files that represent existing and potential modification scenarios, and though refinements to the geometry files will be important during final design, we determined that they reflect a conservative representation of conditions in the vicinity of the dam.

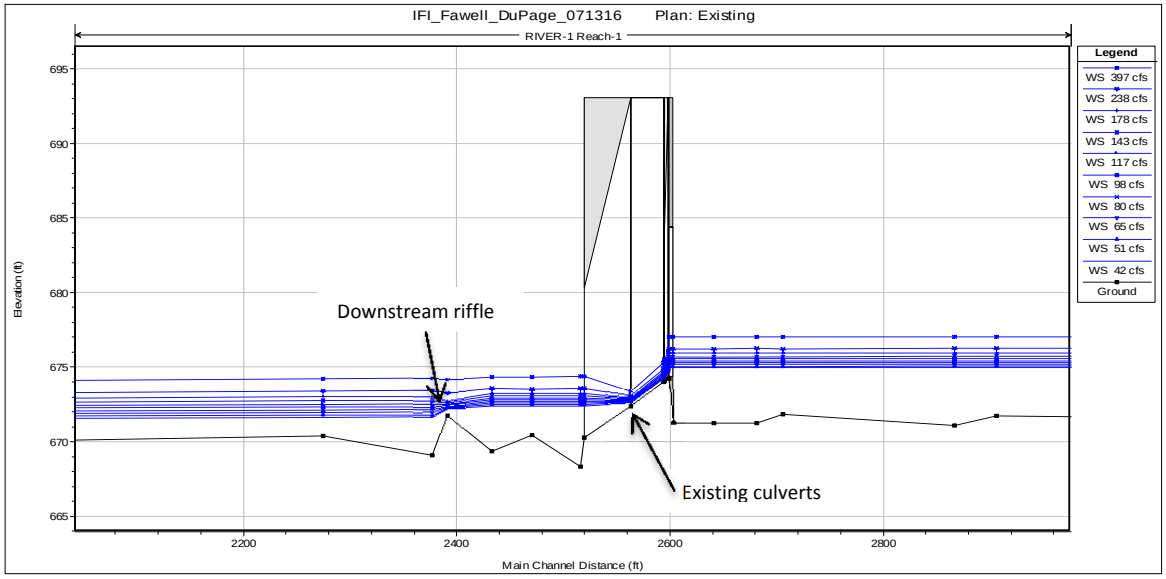

Figure 2. Existing streambed profile and water surface profiles through and adjacent to Fawell Dam.

Inter-Fluve modified the set of flow rates analyzed in the model to correspond to the statistical exceedance values shown in Table 3. We also interpolated extra cross sections between the cross sections provided to allow for greater precision in determining location and values of critical hydraulic parameters. For non-flood flows, lowering the culverts reduces velocities within the culverts at Fawell Dam and slightly increases velocities upstream, relative to existing conditions. Since velocities upstream of the culverts generally remain less than 1 ft/s for the target range of flows, we will focus on conditions near the culverts and at the downstream riffle.

Under existing conditions within the culverts, the model predicts average flow velocities from 7.8 ft/s at 42 cfs to13.5 ft/s at 397 cfs (Figure 3). No part of this range is suitable for passage of the target fish species. Lowering one culvert reduces average velocities to between 2.8 and 9.4 ft/s at 42 and 397 cfs, respectively, and the velocity is less than the target of 4 ft/s at flows less than 65 cfs, which represents only 20% of the time (Figure 4). Lowering two culverts further lowers velocities to between 1.6 and 8.0 ft/s, and the velocity is less than the target of 4 ft/s at all flows less than 143 cfs, which is expected 60% of the time (Figure 5).

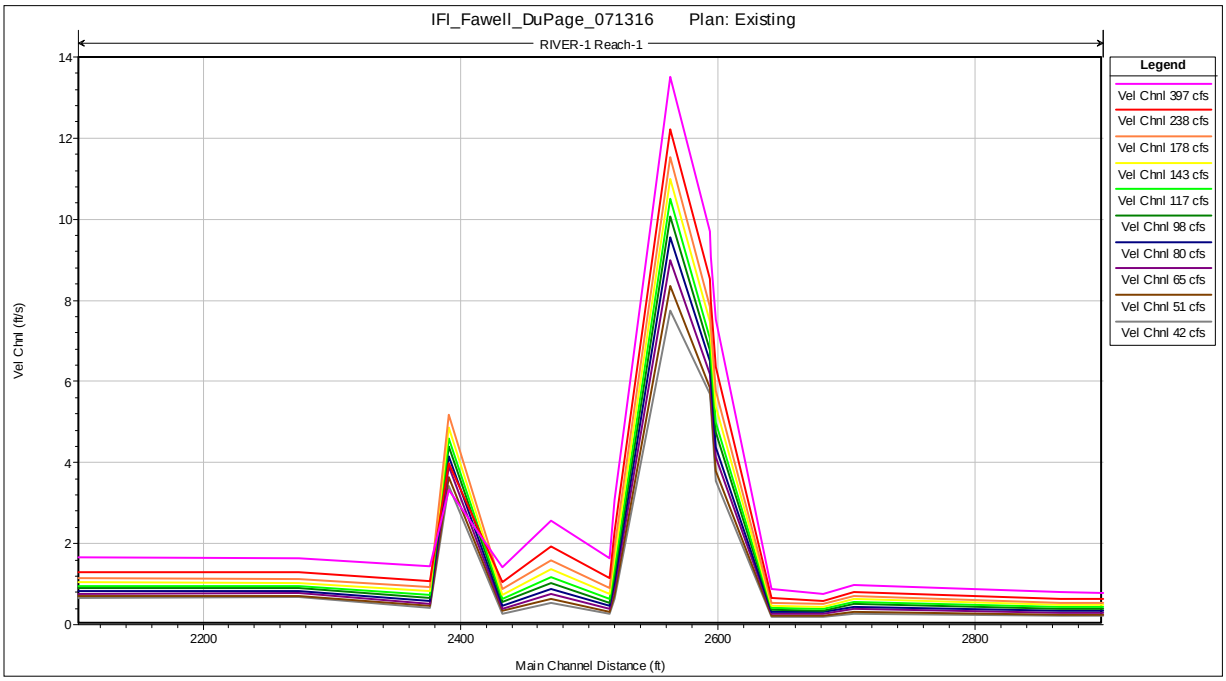

Figure 3. Flow velocities under existing conditions.

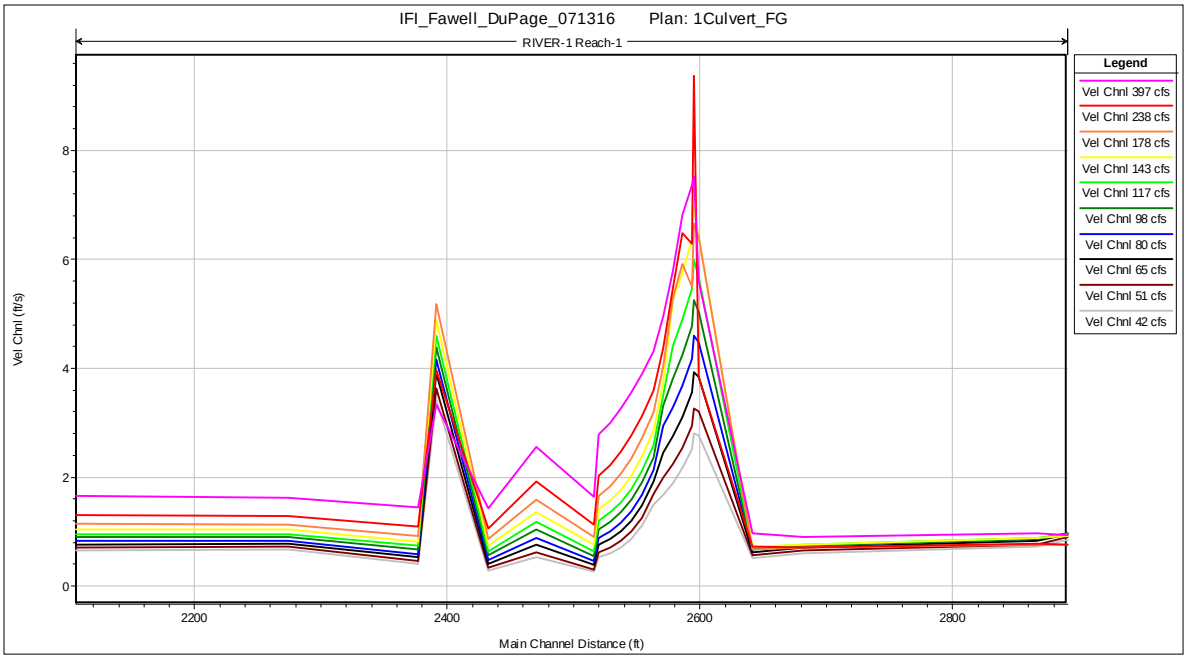

Figure 4. Flow velocities with one Fawell Dam culvert lowered.

Figure 5. Flow velocities with two Fawell Dam culverts lowered.

While these results suggest that target velocity conditions will not be met 80% of the time, as targeted, for the scenarios in which the culverts are lowered, the peak velocities are predicted at the upstream end of the culvert. If it is possible to flatten the culvert slope, these velocities may be further reduced. This possibility will be explored during final design.

Channel depths within the culvert increase under proposed conditions, from an existing minimum of 0.25 ft to a minimum of 2.0 ft with two culverts dropped, and upstream depths decrease slightly (Figures 6-8). Water is relatively deep within the culverts for the proposed modification scenarios, primarily due to the backwater effect from the downstream riffle.

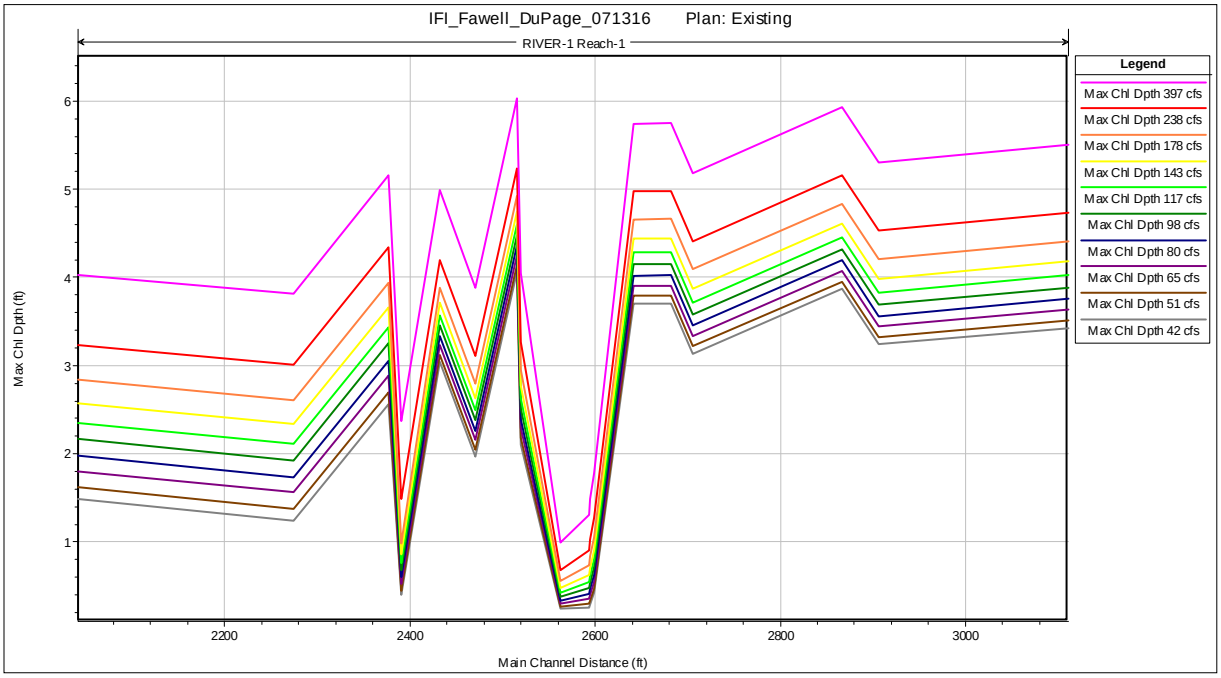

Figure 6. Maximum flow depths under existing conditions.

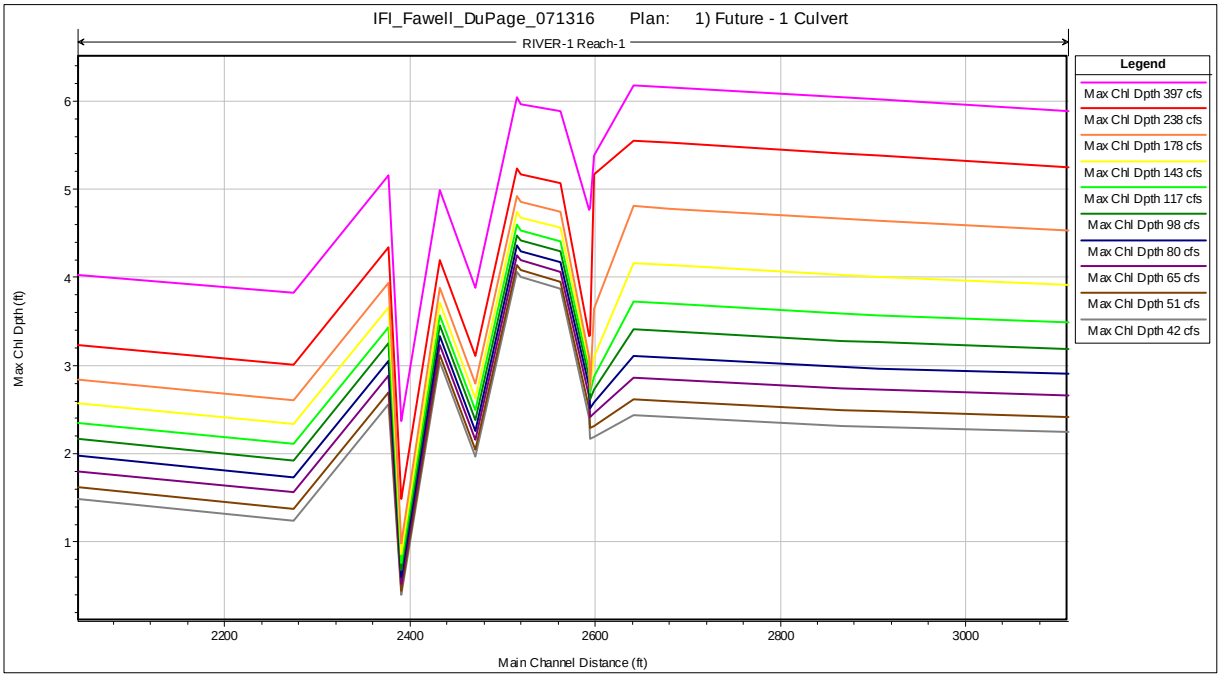

Figure 7. Maximum flow depths with one culvert lowered.

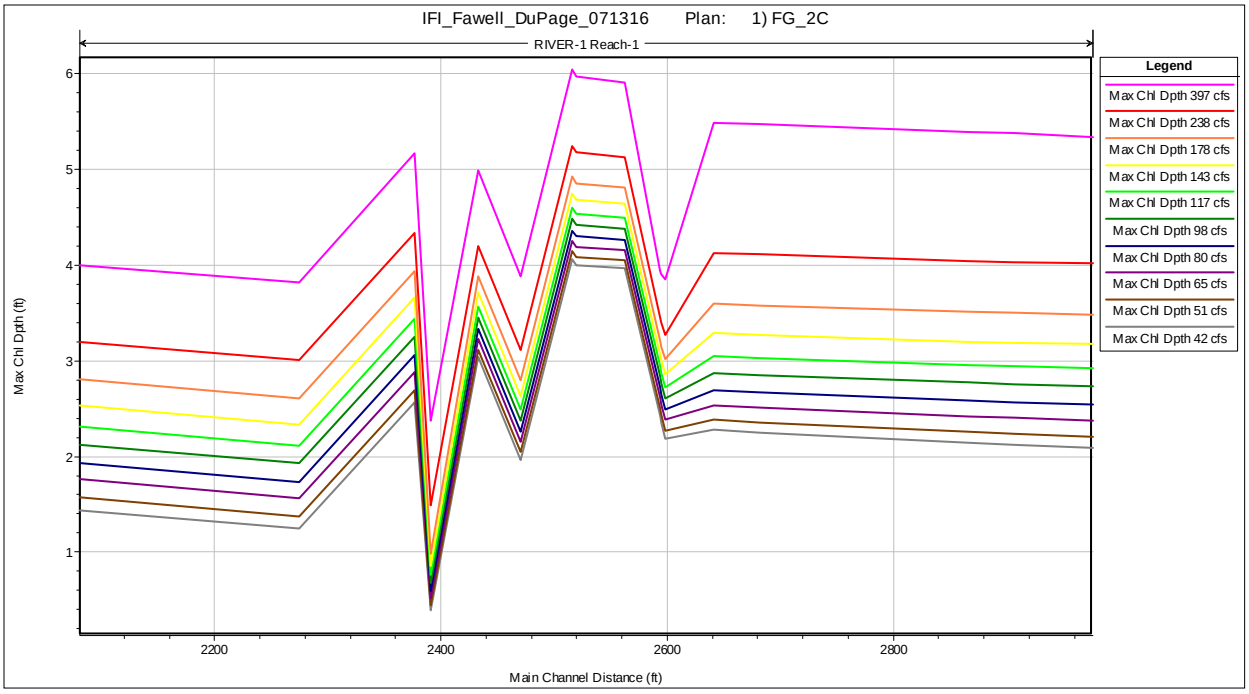

Figure 8. Maximum flow depths with two culverts lowered.

The downstream riffle does not currently exhibit velocity and depth conditions that support fish passage for the majority of flow conditions. For flows less than 65 cfs, water depth is less than 6 inches, which may prevent larger fish from passing. For flows between 80 cfs and 178 cfs, velocity across the top of the riffle exceeds 4 ft/s, which may inhibit slower fish that are not small enough to benefit from reduced velocities in the boundary layer. For this reason, a couple of scenarios were explored for which the riffle crest was lowered. Under existing conditions, the riffle is roughly 1.3 ft above an average bed height based on up- and downstream profile data. The riffle height was reduced to 1 ft and 0.5 ft by lowering the elevation 0.3 ft and 0.8ft. The model was run with two culverts lowered. By lowering the riffle 0.3 ft, the velocity range for the target flows falls to 3-4.5 ft/s. However, this caused an increase in velocity through the culverts for some flows. For example, the velocity of the 143 cfs flow increased from 4 ft/s to 4.4 ft/s. (Figure 9)

By lowering the riffle crest 0.8 ft, the velocity range falls to 2.3- 2.8 ft/s, but velocity increased in the culverts for more flow rates. (Figure 10) During final design, additional iterations for the culvert configuration and riffle modification should be explored to optimize fish passage through both features.

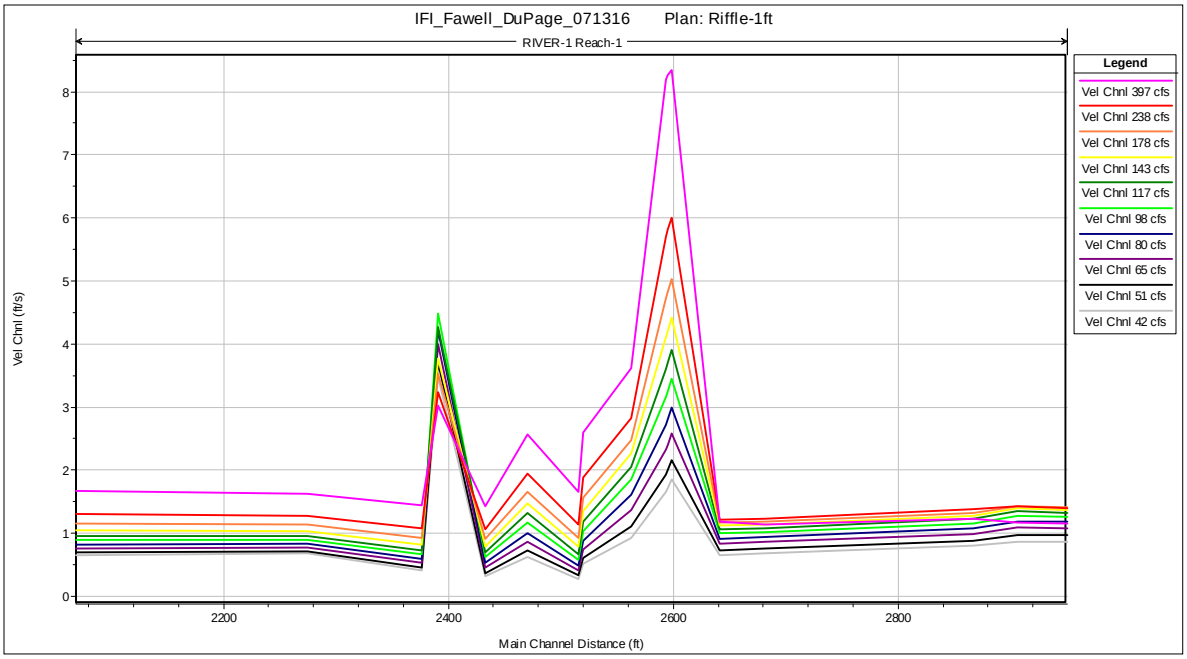

Figure 9. Flow velocities with two culverts lowered in Fawell Dam and the downstream riffle lowered by 0.3 ft (1 ft high riffle remaining).

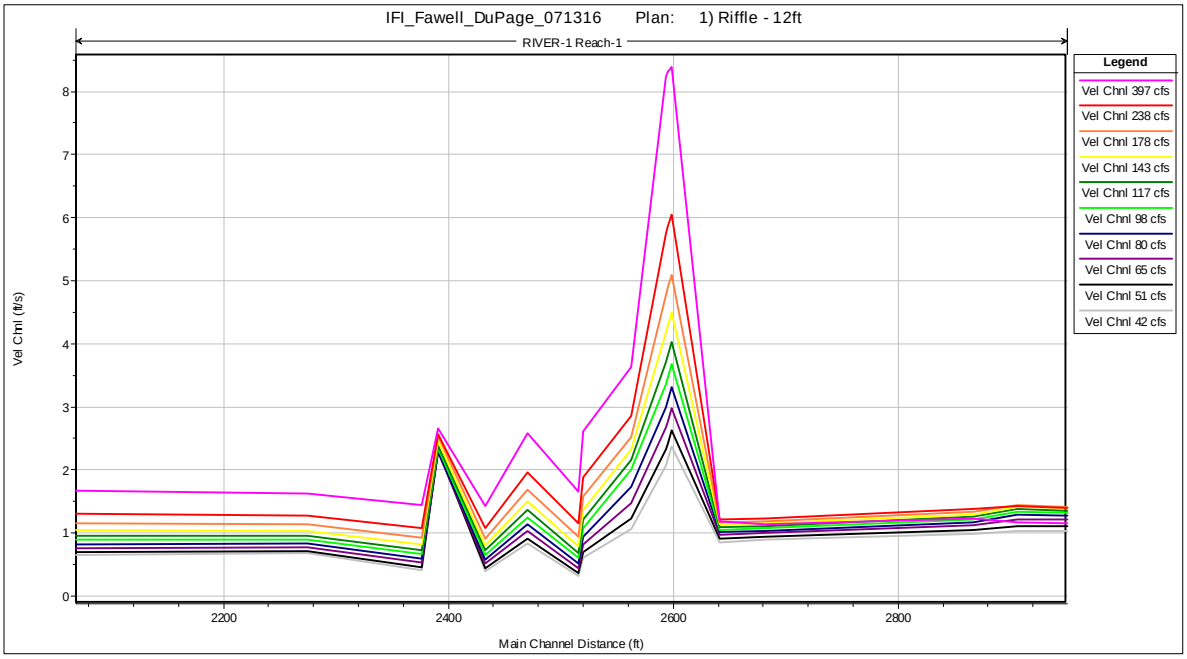

Figure 10. Flow velocities with two culverts lowered in Fawell Dam and the downstream riffle lowered by 0.8 ft (0.5 ft high).

BOUNDARY LAYER HYDRAULICS

As mentioned previously, many of the smaller target fish are expected to be weaker swimmers than northern pike based on the data available from laboratory swim tube experiments. Although such tests are not considered to be as accurate as tests in which individuals ascend actual channels against known hydraulic characteristics, for many species the laboratory swim tube tests must be at least considered. Consistent with reported laboratory results for the weakest swimmers on the target list, we will assume a target maximum velocity of 1 ft/s. Most of the weaker swimmers are small fish that typically swim against stronger currents by staying close to the river bottom where velocities are lower than the average velocity within the stream cross section.

Friction forms between a flowing fluid and an adjacent solid, creating a zone of restricted flow adjacent to the solid called the boundary layer. Velocities across the boundary layer vary from zero at the boundary to the "free stream" velocity at the outer edge of the boundary layer. In rivers, shallow depths and channel roughness usually result in the boundary layer extending to the surface, however flow velocity increases relatively quickly between the bed and the lower 20% of the flow, and then becomes more consistent through the upper portion of the water column. Velocity distributions tend to increase with height above the bed surface according to the following equation:

$U_y = b \ln(y/y_0)$

Where U_y is the mean velocity at a given height y above the bed surface, b is the velocity gradient which is a function of shear stress, and y_0 is the projected height above the bed where velocity is 0 ($y_0 \sim D_{sed}/30$). This equation is often referred to as the *law of the wall* for the general variation of velocity with height above a bed surface (von Karman, 1931).

To evaluate whether slower or smaller fish might be able to utilize channel edges (i.e., bed or banks) or obstructions to more easily move upstream, we analyzed law of the wall predictions of velocity versus height above the bed for a range of uniform sediment conditions (Figures 11 and 12). Shear stresses were tested between 2 lb/ft^2 and 0.3 lb/ft^2 to bracket existing conditions on the riffle and within the proposed culverts between the 20% and 95% exceedance flows (238 cfs and 42 cfs, respectively), which is likely the limit for passage based on the HECRAS modeling results. The law of the wall results indicate that boulders or similar roughness elements with minimum diameters of 24 cm to 36 cm (10 in to 14 in) will create a 3 cm boundary layer with flow velocities of less than 1 ft/s (30cms/s) where shear stresses range from 0.25 lb/sf to 2.0 lb/sq. As shown by the line representing a very smooth surface (D = 0.1 cm), it is not possible to achieve velocities less than 3 ft/s within this range of shear stress.

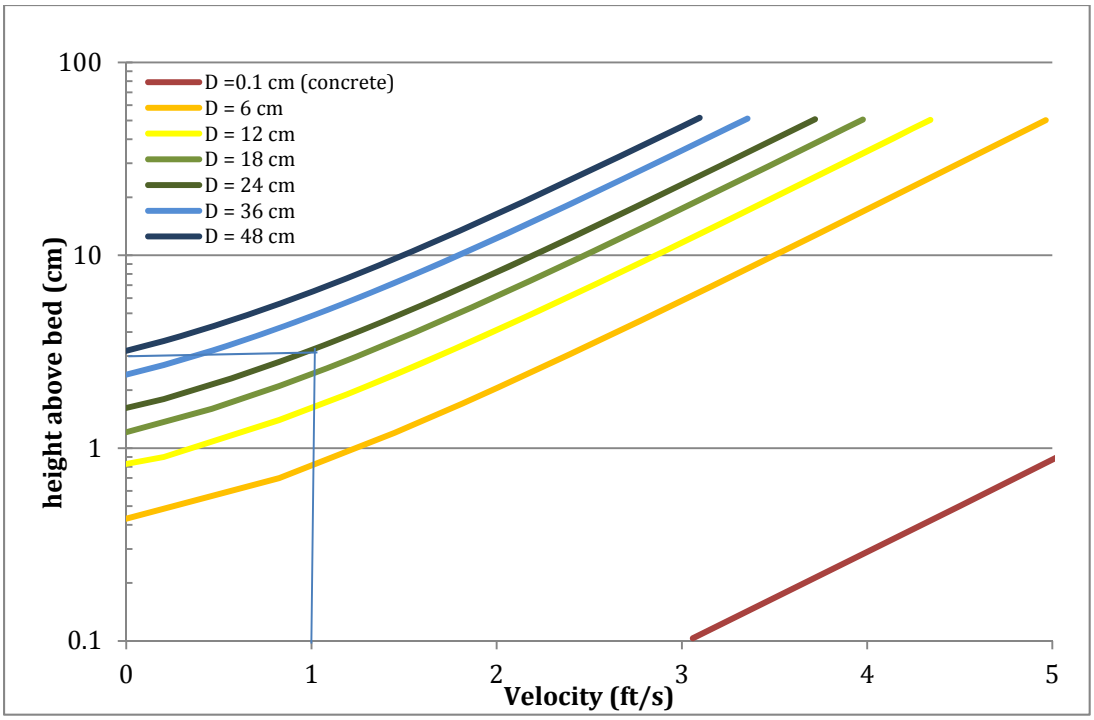

Figure 11. General variation of velocity with height above the bed over a range of bed sediment diameters. Calculations based on a shear stress of 0.25lbs/ft^2. For a velocity of 1 ft/x at a height of 3 cm from the bed, bed material with a diameter of approximately 24 cm would be required.

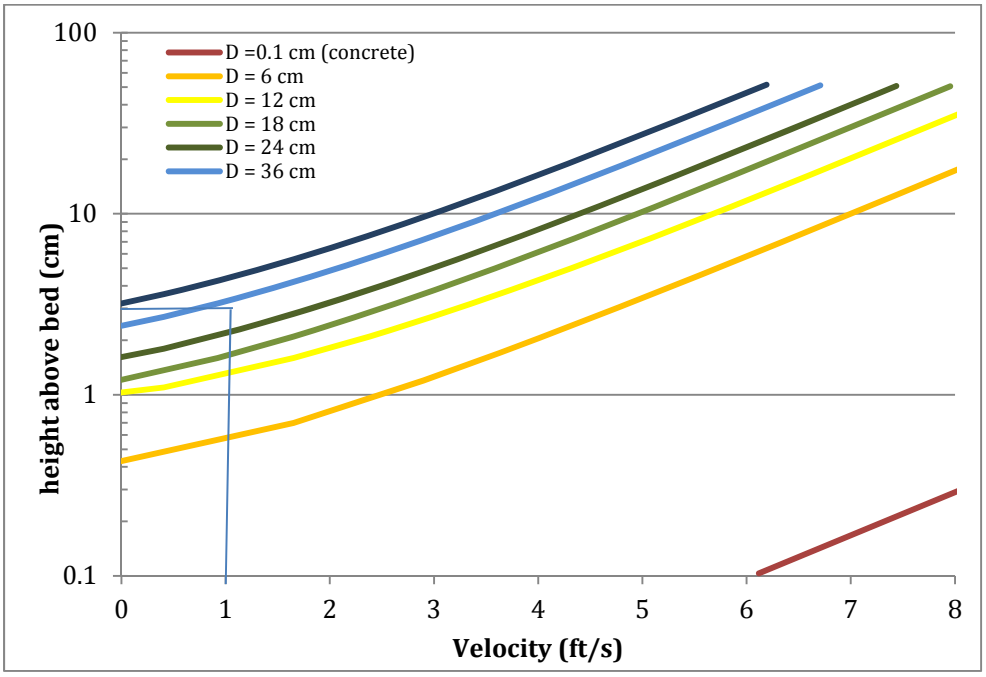

Figure 12. General variation of velocity with height above the bed over a range of bed sediment diameters. Calculations based on a shear stress of 2 lb/ft^2. For a velocity of 1 ft/x at a height of 3 cm from the bed, approximately bed material with a diameter of almost 36 cm would be required.

3 Upstream Geomorphic Adjustment

GEOMORPHOLOGIC PROCESS

In general, stream-channel processes can be characterized by the interaction between (1) supply and transport of sediment, (2) stream discharge (especially annual peak flows), (3) channel slope, and (4) channel cross section shape and sinuosity (Lane 1955). When the energy associated with water flow rate and channel slope are in balance with the sediment load and bed material size, the channel is considered stable and in equilibrium (Figure 13). However, significant changes to the system that alter one or more of these four channel attributes often force adjustments in the other attributes as the stream attempts to return to an equilibrium state. For instance, if the channel slope is increased significantly, the channel will work to reduce the slope via vertical erosion (incision) and horizontal migration (meandering - widening) to return to a stable condition (Figure 13).

Once destabilized by natural and/or human-induced disturbances, alluvial channels, like the West Branch DuPage River, generally adjust through a sequence of channel forms over time (Schumm et at., 1984; Simon and Hupp, 1986; Simon, 1989). These systematic adjustments are collectively described as "channel evolution" and permit interpretation of past and present channel processes, and general predictions of future channel form and activity. The channel and bank-slope evolution models generally have five stages based on shifts in dominant adjustment processes (Figure 14).

- Stage I represents the equilibrium channel as the initial, stable condition
- Stage II is the channel condition immediately after a disturbance, such as dredging or reduction of base level (e.g., lowering grade control/base level), resulting in an unstable condition. During this phase, the channel bed experiences accelerated degradation (i.e., bed erosion, incision, downcutting) associated with increased channel slopes and stream energy at the disturbance. The initial incision often results in a narrow, relatively deep channel set within the Stage I and II floodplain and previous channel surface (Figure 14). Streambed degradation usually occurs through the formation and upstream migration of *nickpoints or headcuts*, which are locally steep channel reaches (Figure 14).
- Stage III begins once bank heights increase to the point of instability and begin to fall into the channel. Generally the channel is widening during this stage, though it may also include ongoing incision. As the nickpoint in Stage II passes, it lowers the downstream channel gradient, but also results in high, over-steepened banks (Figure 14).
- In Stage IV, the lower channel gradients that result after nickpoints have passed through reduce the ability of a stream to transport upstream sediment, and therefore, material is deposited and the bed begins to rise at the downstream end of the impacted reach. Bank erosion also continues through Stage IV, as bars force flow against already over-steepened banks, and flood flows contained within the incised channel may still have additional energy.
- Stage V is the attainment of a new dynamic equilibrium with a wider channel, a properly sized channel and floodplain, and, although not shown, a more sinuous planform.

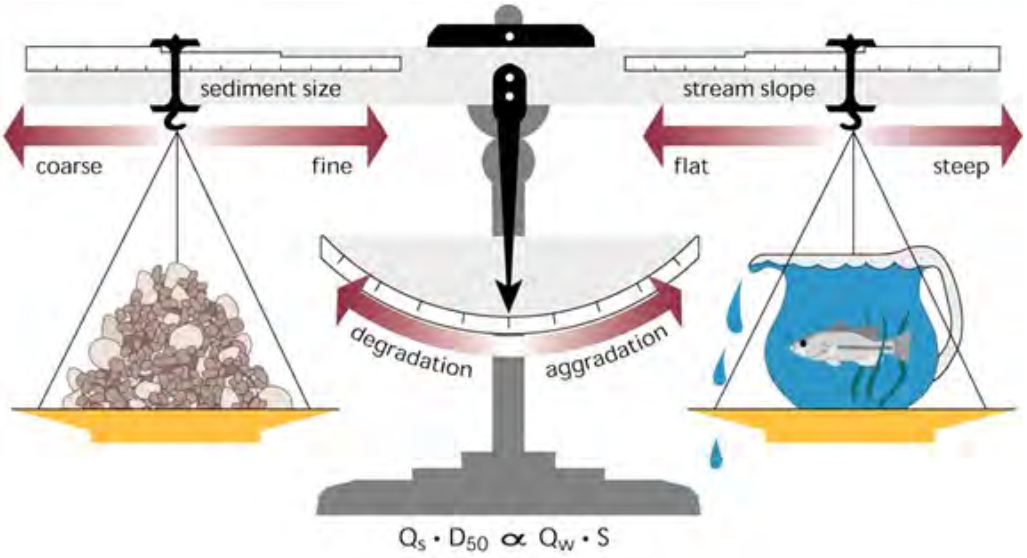

Figure 13. Lane's Balance (1955)– Channels in equilibrium balance their slope and flow capacity with their sediment load and sediment size.

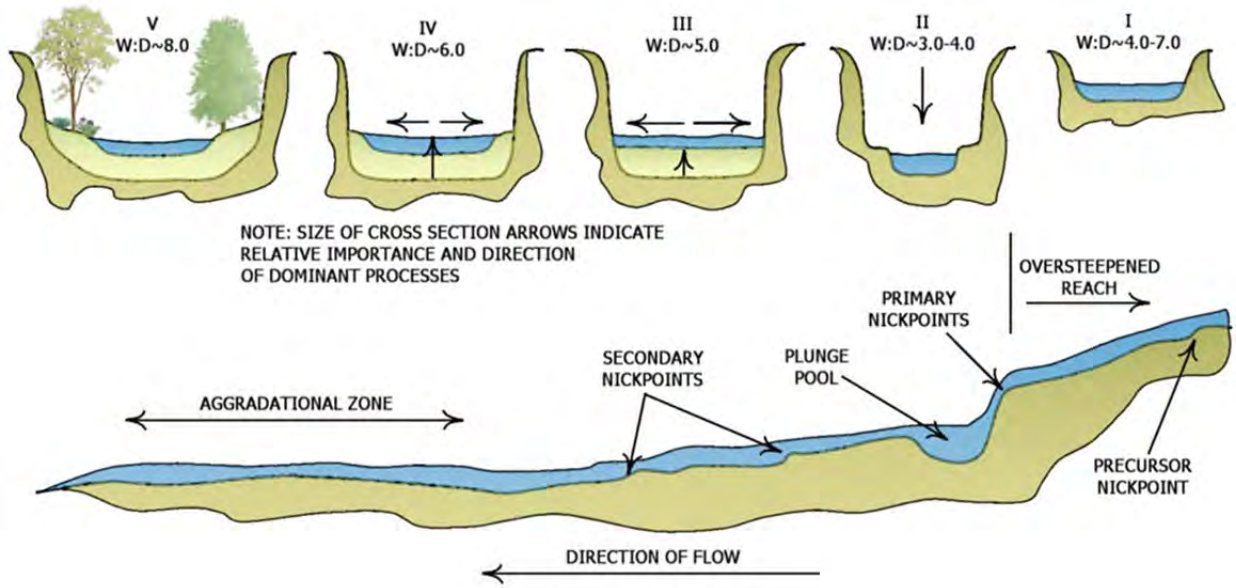

Figure 14. The channel evolution model. See text for description.

EXISTING CONDITIONS

On August 20, 2014 and September 4, 2014, IFI completed a survey between the West Ogden Ave Bridge and approximately 2,000 ft upstream of the West Drive Bridge. Data collection and findings from this investigation were described in IFI' s data collection memorandum (2014) and are summarized below.

The average bankfull channel width and depth from the surveyed cross sections in the impoundment were 157 ft and 4.5 ft, respectively. Although some unconsolidated silts and organics were present along the margins of the low flow channel, gravel, large cobbles, and some small boulders lined the channel bed throughout the impoundment. Fine sediment thickness ranged from 0 and 3.5 ft at the measured cross-sections, although they were usually relatively small layers (<1 ft). Additionally, the refusal elevations, or elevations of the rocky or compacted hard surface below the fine sediment, were relatively consistent across the entire river valley. The variation in elevation was within 1-2 ft. Sediments in the floodplains were mostly silts and sands.

The longitudinal profile shows a distinct wedge of backwater induced by Fawell Dam during base flow conditions (Figure 15), which propagated nearly 3,000 ft upstream to the first significant meander above the dam at the time of survey (~80% exceedance flow). The thalweg profile and the refusal elevations suggest minor accumulation of sediment behind the dam. The depth of refusal (DOR) profile suggests the channel formerly had a slope of approximately 0.0007 ft/ft. Also evident in the profile are the higher bank top elevations behind the dam indicating accumulation of floodplain sediments. The bank heights just upstream from the dam are nearly 3 ft higher than just downstream from the dam. A number of trees in the floodplain adjacent to the impoundment appeared to have buried root crowns, suggesting sedimentation in the floodplain over the last 20-40 years.

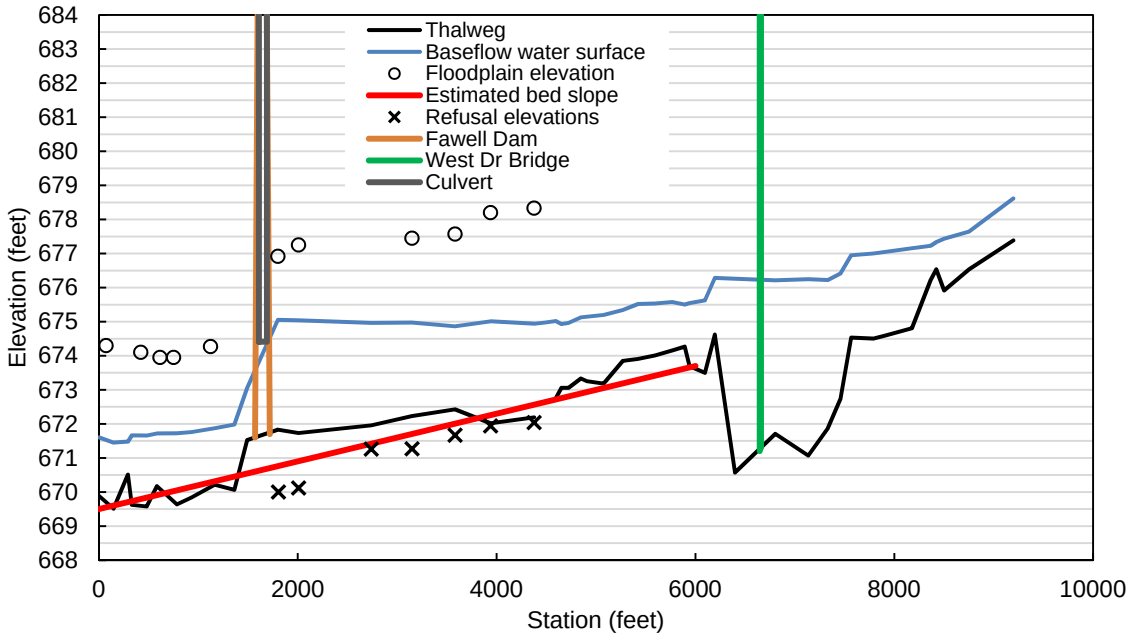

Figure 15. Longitudinal profile of the West Branch DuPage River reach surrounding the Fawell Dam. The water surface elevation (blue line) was surveyed during base flow conditions (flow exceeded 80% of the time) and shows that the dam creates about 3 ft of backwater. The channel bed (black line) and bank tops (open circles) indicate some sediment deposition upstream from the dam.

ANTICIPATED ADJUSTMENT PROCESS

Based on the channel evolution model (Figure 14) and the existing conditions, we can anticipate how the channel upstream of Fawell Dam will react and adjust to lowered culverts. First, the channel bed will be lowered mechanically when the culverts are lowered. This action will create an over-steepened bed just upstream (i.e., nickpoint), which will incise down to the resistant layer and begin migrating upstream (Stage II in the channel evolution model). The nickpoint will continue moving upstream along one or more headcuts, reducing the slope within the channel until it equilibrates with the sediment and flow. The final bed position will likely be similar to the DOR profile, with a slope near 0.0007 ft/ft. The incision width during this stage will likely be similar to the combined width of the lowered culverts, and the incision depth may be similar to the depths of refusal. Therefore, the channel will likely get 0 to 2 feet deeper in the impoundment. Generally, Stage II occurs relatively quickly; after a few storm flows pass through the system if the impounded material is relatively fine and non-cohesive, but because flow will continue to be restricted at the Fawell Dam location, it may take longer at this location.

In Stage III of the channel evolution model, the low flow channel along the incision will start to widen via meander migration and bar pressure related to upstream sediment evacuation during Stage II. In this stage, adjustment will proceed laterally along the coarser resistant layer, instead of vertically. Some of the finer material in the margins of the low flow channel will be removed,

The final width of the low flow channel will depend on upstream inputs, the cohesion of the channel material, vegetation, and other parameters. Currently, the gates are operated to pass a 690 cfs flow (at Warrenville Gage). The partial duration flood series results indicate that this discharge occurs once every 2.5 months. In some urban rivers, the 1.5 to 3 month recurrence interval flood coincides with bankfull discharge(Konrad et al., 2005; Annable et al., 2010). Consequently, if similar flows are allowed to pass through the modified culverts, it is possible that the river will fully adjust to a modified equilibrium condition based on these lower flood flows. However, the channel upstream of the impoundment appears to be adjusted to a flow closer to 1000 cfs. Because this higher flow, and the larger floods which are often associated with channel formation and maintenance (i.e., 1.5-5YR recurrence interval floods), will still be impounded by the dam, predicting channel size based on hydraulics or nearby references is difficult. Dam operations will likely inundate the upstream channel and floodplain for extended time periods, limiting vegetation cover, a key component of bank and floodplain stability, and inducing sedimentation within the reach. The low flow channel will likely experience variable amounts of sedimentation during larger flows, followed by flushing of fine sediment during lower flows. Eventually, the low flow channel will likely develop a stable or quasi-stable width, depth, and planform based on the sediment and flow conditions, but predicting the exact dimensions of the channel is not possible. Given the energy reduction imposed by the operation of the dam at higher flows, we do not anticipate that the channel will migrate outside of the existing impoundment into areas that are currently stabilized with vegetation, but lowering the culverts should create more stream-like conditions upstream of the dam for a longer period of time each year, relative to existing conditions. Expected short term and potential longer term evolution concepts are presented in Appendix A.

Summary

Lowering two of the Fawell Dam culverts will improve fish passage and restore some natural geomorphic form and function. Passage should be enhanced by roughening the culvert bottoms by securing boulders to the concrete. Lowering the culvert inverts will re-establish the pre-dam thalweg elevations upstream of the dam and will also minimize backwater during low flow conditions. Flow velocities through the impoundment will increase and the habitat will shift from a more lentic to a more lotic environment. This action will favor species native to the West Branch DuPage River.

If culverts are lowered for low flow fish passage, the upstream channel will likely adjust accordingly. Channel change will likely evolve via minor incision to the depth-of-refusal gravel layer, followed by lateral removal of finer material. Impoundment of larger flows limits the predictability of stable or quasi-stable channel dimensions. However, lowering the culverts will likely create more stream-like conditions upstream of the dam for longer periods of the year. Following passive establishment and natural stabilization of a new channel, habitat enhancements within the stream may be considered to further increase diversity and abundance of native fish in the reach.

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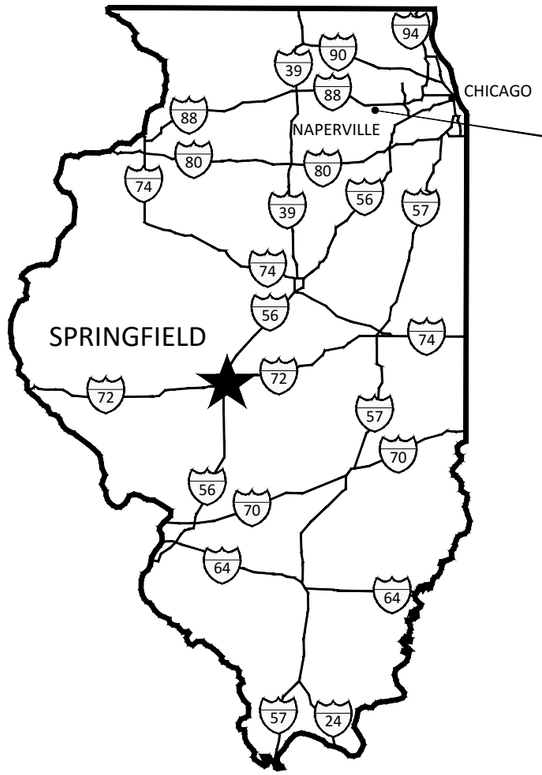
Appendix A – Channel Evolution Concept

FAWELL DAM MODIFICATION, WEST BRANCH DUPAGE RIVER
DUPAGE COUNTY, ILLINOIS

Exhibit, July 12, 2016



STATE MAP - ILLINOIS
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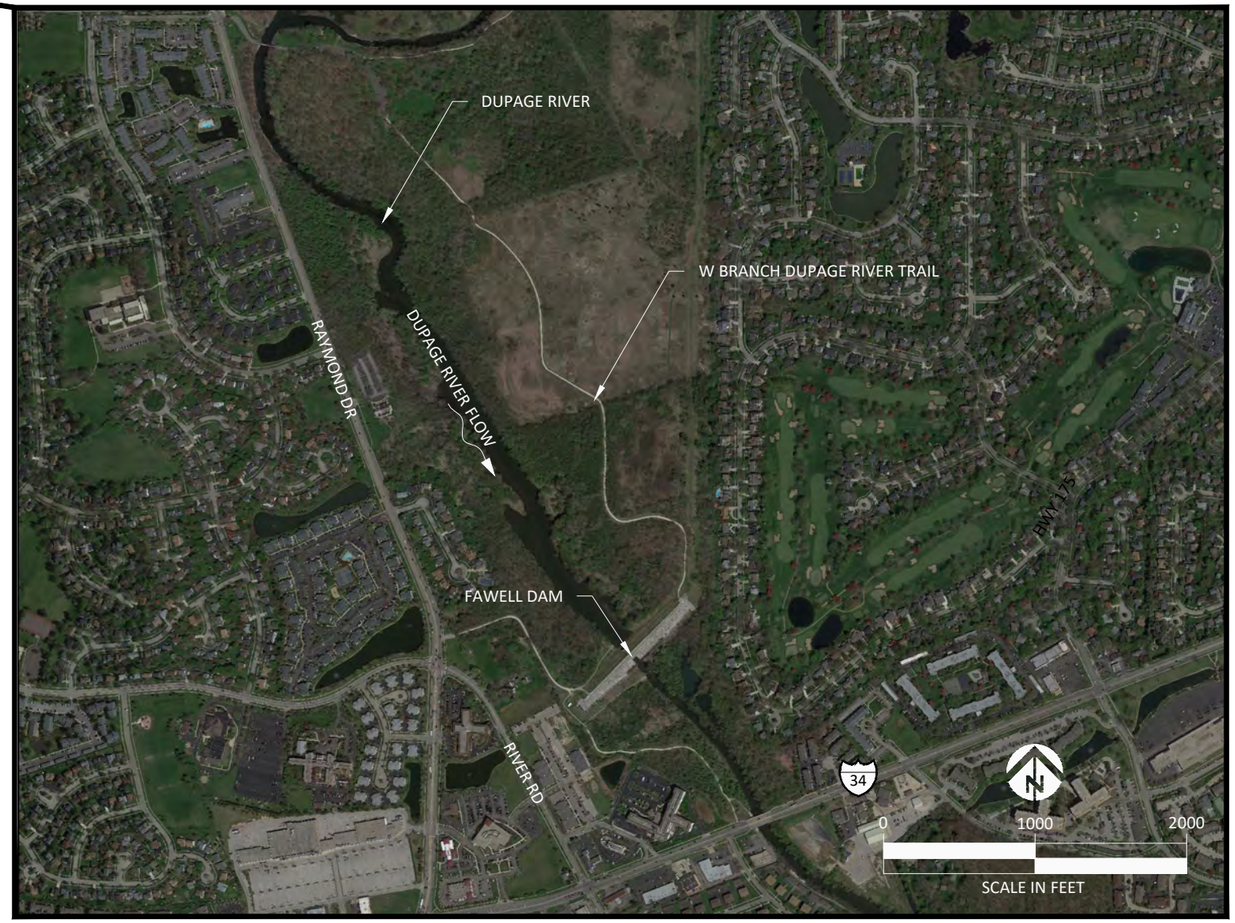
SHEET INDEX

1 - TITLE SHEET & SHEET INDEX
2 - EXISTING CONDITIONS
3 - PROPOSED CONDITIONS
4 - PRELIMINARY CHANNEL SIZING



LOCATION MAP
SCALE 1" = 1000'

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(608) 441-0342
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TITLE SHEET & SHEET INDEX

FAWELL DAM MODIFICATION, WEST BRANCH DUPAGE RIVER

DUPAGE COUNTY, ILLINOIS

PLAN LEGEND

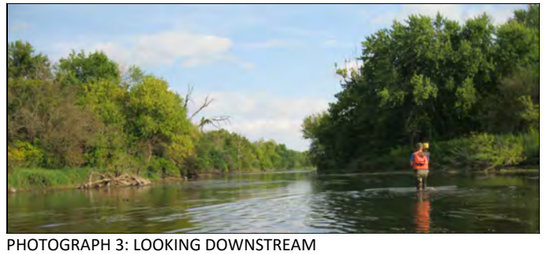
EXISTING CHANNEL THALWEG

PROPERTY BOUNDARIES

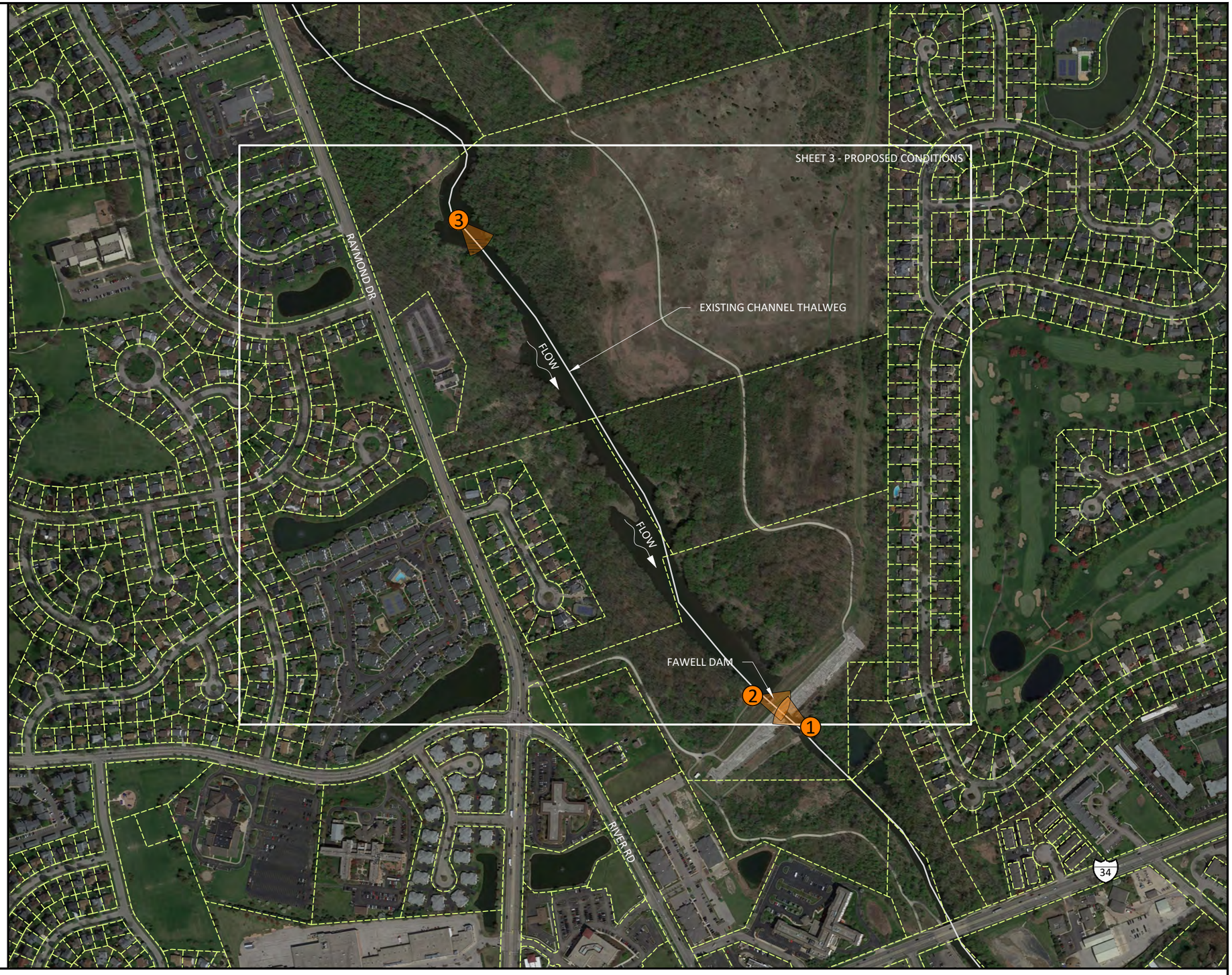
PHOTOGRAPH LOCATION & ORIENTATION

PHOTOGRAPH 1: LOOKING UPSTREAM AT FAWELL DAM

PHOTOGRAPH 2: LOOKING DOWNSTREAM AT FAWELL DAM



PHOTOGRAPH 3: LOOKING DOWNSTREAM



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SCALE IN FEET

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EXISTING CONDITIONS

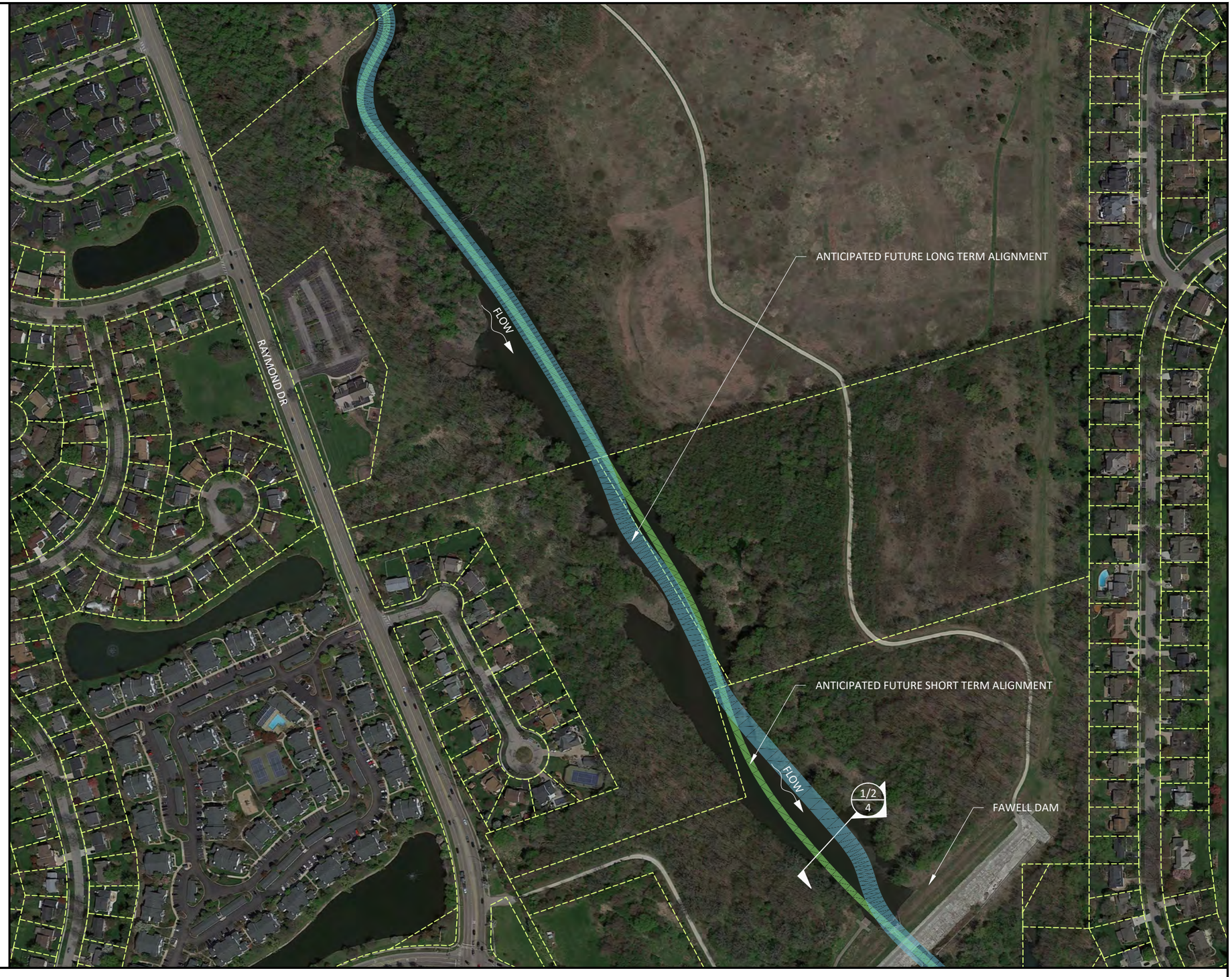
FAWELL DAM MODIFICATION, WEST BRANCH DUPAGE RIVER

DUPAGE COUNTY, ILLINOIS

PLAN LEGEND

- ANTICIPATED FUTURE SHORT TERM ALIGNMENT
- ANTICIPATED FUTURE LONG TERM ALIGNMENT
- PROPERTY BOUNDARIES

SHEET 2 - EXISTING CONDITIONS



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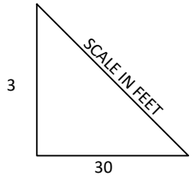
PROPOSED CONDITIONS

FAWELL DAM MODIFICATION, WEST BRANCH DUPAGE RIVER

DUPAGE COUNTY, ILLINOIS

LEGEND

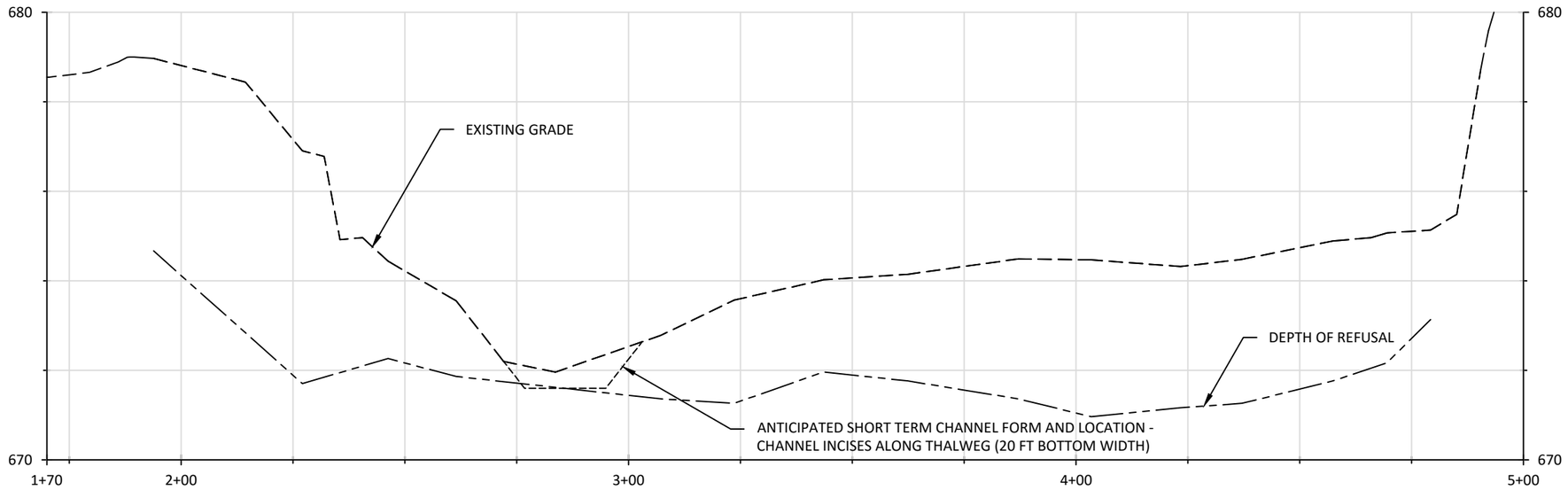
- EXISTING GRADE
- ANTICIPATED LONG TERM CHANNEL FORM
- DEPTH OF REFUSAL
- ANTICIPATED SHORT TERM CHANNEL FORM



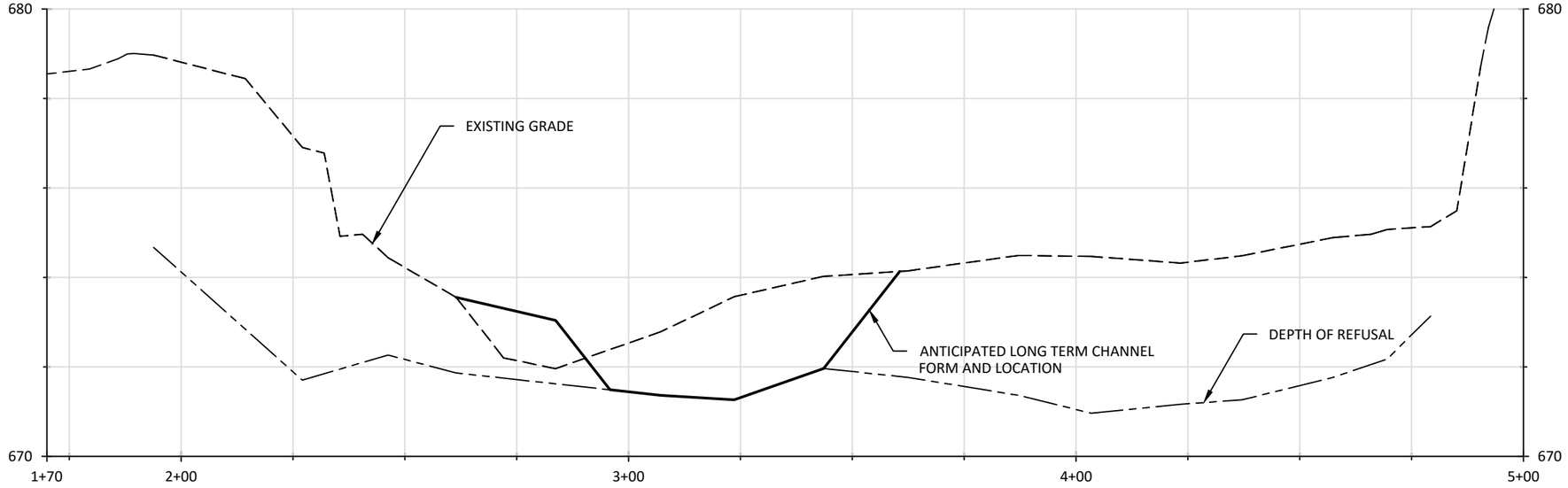
NOTE:

ANTICIPATED CHANNEL EVOLUTION FOR THE FAWELL DAM PROJECT REACH IS BASED ON THE CHANNEL EVOLUTION MODEL (CEM) PROPOSED BY SIMON AND RINALDI (2006). ACCORDING TO THE CEM, THE CHANNEL WILL LIKELY INCISE VIA UPSTREAM KNICKPOINT MIGRATION UNTIL IT CUTS DOWN TO A MORE RESISTANT BED LAYER (E.G., THE DOR LAYER). THE CHANNEL WILL THEN WIDEN AND ESTABLISH A NEW STABLE CONFIGURATION.

TIMING AND FINAL CHANNEL POSITION AND CROSS-SECTION DIMENSIONS ARE ONLY ESTIMATES BASED ON DOR POSITION AND COMBINED CULVERT WIDTH.



1/5 CROSS SECTION
ANTICIPATED SHORT TERM CHANNEL FORM AND LOCATION



2/5 CROSS SECTION
ANTICIPATED LONG TERM CHANNEL FORM AND LOCATION

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PRELIMINARY CHANNEL SIZING

FAWELL DAM MODIFICATION, WEST BRANCH DUPAGE RIVER

DUPAGE COUNTY, ILLINOIS