Le Sueur County, MN

Tuesday, June 6, 2017

Board Meeting

Item 11

10:30 a.m. Darrell Pettis, County Administrator/Engineer

RE: MCIT Member Report

RE: CSAH Fund

RE: Transportation Legislative Summary

RE: Highway 2016 Annual Report Approval

RE: CD 54

RE: 2018 Public Transit Grant

RE: Approve Sealcoat Contract

RE: Approve County Paving Contract

Staff Contact:

Minnesota Counties
Intergovernmental Trust

2017
MCIT Report to
Le Sueur County

MCIT's success can be attributed to its members' loyalty. MCIT has earned that loyalty by being willing to evolve to better address the changing needs and expectations of the counties.

OF THE COUNTIES, FOR THE COUNTIES

MCIT Mission: Providing Minnesota counties and associated members cost-effective coverage with comprehensive and quality risk management services.

Minnesota Counties Intergovernmental Trust is a joint powers entity made up of counties and associated public entities that pool resources to provide property, casualty and workers' compensation coverage to members, along with risk management and loss control services.

The MCIT Board of Directors is elected by member counties. The board sets the strategic direction, oversees finances, provides resources to achieve the goals and ensures the efficient and effective operations of the Trust.

Important Developments

In late 2014, the MCIT Board voted to conclude MCIT's 25 year partnership with its principle service provider, Meadowbrook Insurance Group (MIG). By 2018, underwriting and property/casualty claims administration will be the responsibility of MCIT. When this transition is complete, MCIT staff will perform all functions necessary to the program. As a result of this change, the MCIT staff will grow from 37 to nearly 50 to assume the duties previously performed by MIG.

To prepare for assuming these new functions and to update several existing software systems, MCIT is undertaking a massive software conversion. All MCIT claims, underwriting, financial, member services, risk management and loss control data will be consolidated into one fully integrated system by the end of 2017. The new system will enhance MCIT's ability to access data and respond to member inquiries, and is expected to increase efficiency and reduce operational costs. Conversion is occurring in phases during 2017 and is not expected to affect members.

POOLING BENEFITS MCIT MEMBERS

- Specialized coverage and services to meet members' needs
- Leadership's decision making is transparent
- Member representatives make up the board of directors and are responsive to member needs
- Reduced regulatory constraints
- No profit motive
- Tax exempt
- No commissions
- Investment income is shared with members as appropriate
- More aggressive defense strategies

MCIT MONITORS RISKS AND TAILORS COVERAGE

MCIT watches legislation, court rulings, operational changes, as well as the economic landscape and evolving role of county government.

When appropriate MCIT has modified coverage to address members' changing exposures. Recognizing the increasing exposure to counties of conducting business electronically, effective Jan. 1, 2017, MCIT replaced its data compromise expense endorsement with a comprehensive data compromise and computer attack coverage solution issued and administered by Hartford Steam Boiler (HSB).

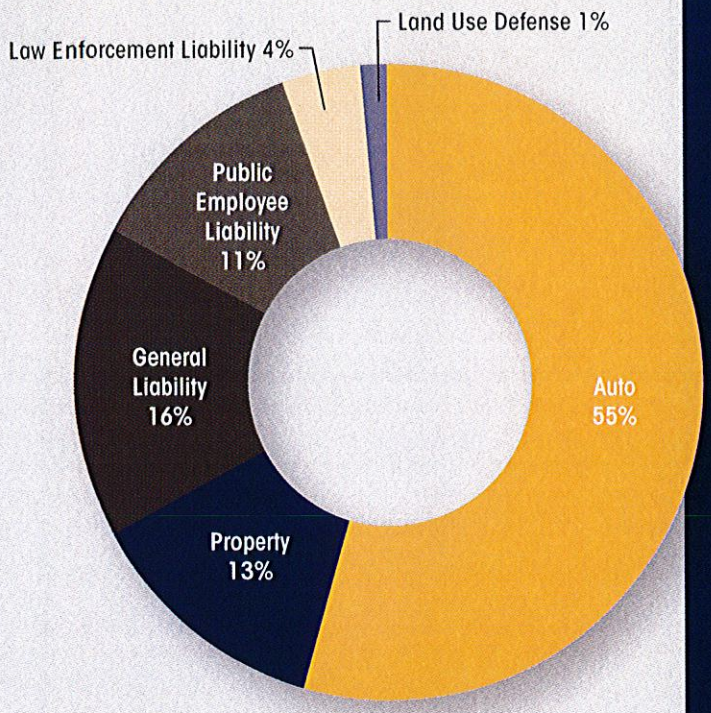
Coverage provides an annual aggregate limit of $50,000 for each of the following coverage sections (some sublimits apply):

1. First-party data compromise response expense coverage (expense for notification, credit monitoring, legal review, outside computer experts)
2. Third-party data compromise defense and liability coverage (defense and associated liability costs arising from an individual affected by a data breach)
3. First-party computer attack coverage (hack or unauthorized access, virus or malware attack, cyber extortion or ransomware claims.)
4. Third-party network security coverage (defense and associated liability costs arising from a claim brought by a third party who alleges the members' systems security failed that resulted in damage to them)

The HSB program also offers a team of experts who are available to members in the event of a covered claim.

PROPERTY AND CASUALTY CLAIMS

2012-2016 MCIT PROPERTY/CASUALTY CLAIM FREQUENCY 5 YEAR TOTAL



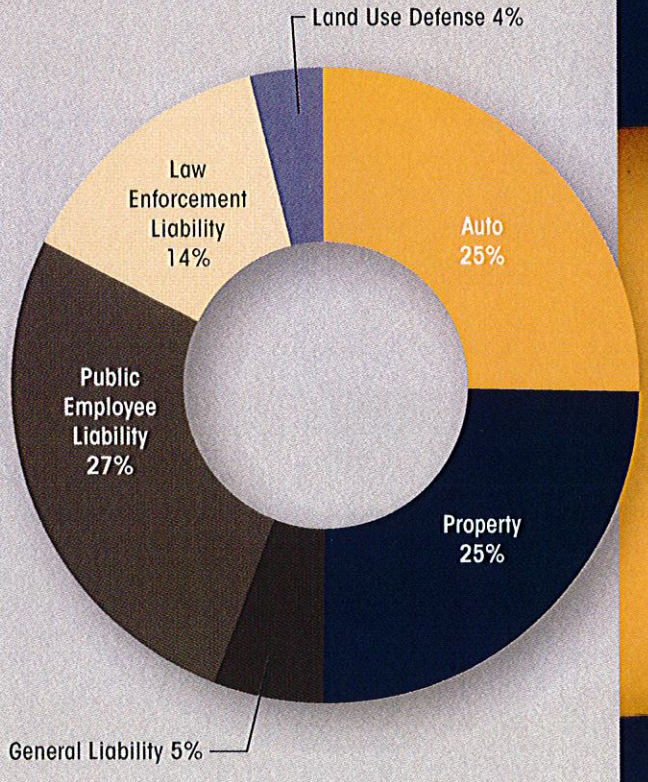
AUTO: This includes both physical damage and liability claims. The most frequently reported claims include high frequency but low severity claims such as broken windshields and hail damage. More expensive physical damage losses are often due to hitting animals or other vehicles. Generally less expensive liability claims include backing into another's vehicle. More costly liability claims involve a third party when the driver or passenger in another vehicle is injured or killed.

PROPERTY/INLAND MARINE: Typically these are large weather-related claims, such as damage from tornadoes, wind, lightning, fire and hail.

GENERAL LIABILITY: Many of these are slip, trip and fall accidents, and the cost is usually small for each. However, many small claims can add up to a large total dollar amount.

PUBLIC EMPLOYEE LIABILITY, LAW ENFORCEMENT LIABILITY AND LAND USE DEFENSE: These categories include claims related to employment (e.g., wrongful termination, discrimination, harassment), violations of the Driver's Privacy Protection Act, excessive force, inmate deaths and suicides, and land use decisions. They are typically the most expensive claims because they fall under federal laws and are not subject to state tort caps and often allow recovery of plaintiff's attorney fees.

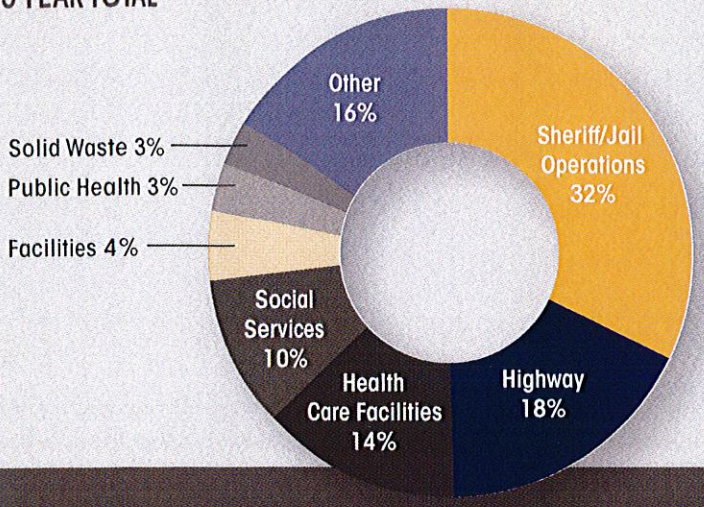
2012-2016 MCIT PROPERTY/CASUALTY CLAIM SEVERITY 5 YEAR TOTAL



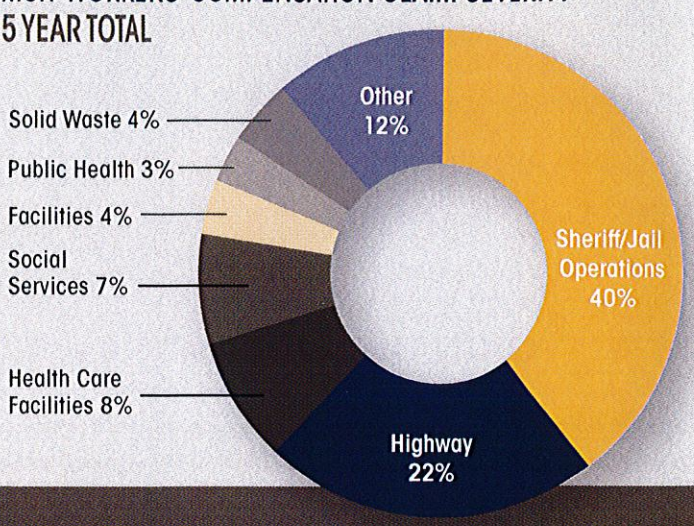
COUNTIES SHOULD BE PROUD OF THE ROLE THEY PLAYED IN FORMING MCIT IN 1979 AND THEIR CONTINUED COMMITMENT TO A PROGRAM THAT YEAR AFTER YEAR DEMONSTRATES ITS VALUE TO COUNTY OPERATIONS AND THE TAXPAYERS OF THE COUNTY.

WORKERS' COMPENSATION CLAIMS

2012-2016 MCIT WORKERS' COMPENSATION CLAIM FREQUENCY 5 YEAR TOTAL



2012-2016 MCIT WORKERS' COMPENSATION CLAIM SEVERITY 5 YEAR TOTAL



- Slip and falls remain prevalent, particularly on water, ice and snow, both on and off member property. Totaled, this injury type accounts for the highest cost.
- The body part most frequently reported as being injured is the low back closely followed by knees.
- Law enforcement has the highest frequency of reported claims of county departments. It also was the loss leader relative to the severity (cost) of claims. Highway departments followed in second position.
- Although the sixth most frequently reported type of claim, training injuries are the second most expensive and are almost exclusively for law enforcement.
- An increased emphasis on return to work programs is having a positive effect on the cost of claims.

EFFECTS OF WORKERS' COMPENSATION CLAIMS

The frequency and severity of work-related injuries and illnesses is used to develop each member's experience modification (mod) factor. This unique factor then becomes part of the formula to determine a member's annual workers' compensation contribution. Other factors affecting the member's contribution include amount of payroll in each employee class code and the rate for each class code. With all factors remaining the same, a mod of 1.0 does not change contribution and reflects expected claim development. A factor greater than 1.0 can increase the contribution, whereas a factor less than 1.0 can decrease contribution.

LE SUEUR COUNTY WORKERS' COMPENSATION ANALYSIS

YEAR	BASE	MOD	YOUR COST	COST DIFFERENCE
2017	$157,579	0.856	$134,888	-$22,691
2016	$166,434	0.758	$126,157	-$40,277
2015	$167,279	0.773	$129,307	-$37,972
2014	$177,310	0.743	$131,741	-$45,569
2013	$161,550	0.885	$142,972	-$18,578

EXPERIENCE CREATES FINANCIALLY SOUND PROGRAM

Since its creation in 1979, MCIT has grown from a fledgling organization into one of the nation's premier risk pools. The lessons learned about disciplined underwriting, aggressive claims handling, consistent and prudent reserving strategies, and conservative investment practices have made MCIT a financially strong and fully funded member-run organization. This ensures that MCIT has the ability to pay operational expenses and claims (both reported and incurred but not yet reported), purchase reinsurance, consider service enhancements to address member needs, and return fund balance when appropriate.

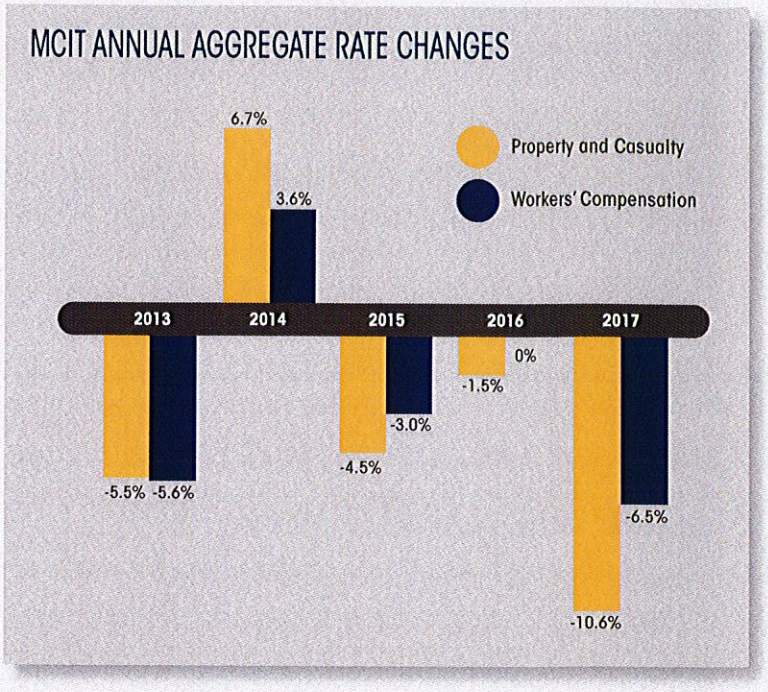
AGGREGATE CONTRIBUTION RATES DECREASE FOR 2017

When calculating rates, MCIT's actuary must ensure that contributions are adequate to pay losses (claims) according to expected frequency and severity. The aggregate rate change for 2017 property/casualty coverage represents a 10.6 percent decrease and for workers' compensation a 6.5 percent decline.

Two major factors influenced the decision to reduce property/casualty aggregate rates for 2017. Over the past five years, auto physical damage, general liability and law enforcement liability have remained fairly stable or trended down. Even the public employees liability line of coverage has remained fairly stable, particularly when Driver's Privacy Protection Act (DPPA) violation claims are removed.

Several efforts resulted in reducing costs for workers' compensation claims in the past few years, leading to the reduction in aggregate rates for 2017. Some of the significant factors are improved return to work efforts, closure of many files, and recovery efforts using subrogation and restitution.

In years when MCIT's aggregate rates decline, an individual member's contribution may not have a corresponding decrease because of increases in the member's exposure base, such as growth in payroll, number of covered vehicles, the annual budget or workers' compensation experience modification factor.



REINSURANCE RATES FAVORABLE FOR 2017

Reinsurance serves as a financial safety net against catastrophic losses that MCIT would otherwise be solely obligated to pay. MCIT retains a portion of the risk, essentially a deductible for catastrophic losses.

Each year, MCIT seeks bids for its property and casualty reinsurance. 2017 casualty reinsurance is placed with Munich Re and property reinsurance is through Hartford Fire. Pursuant to state law, reinsurance for workers' compensation must be obtained through the Workers' Compensation Reinsurance Association.

This year, MCIT has a small increase in casualty reinsurance—4.2 percent—due to the expectation that defense costs for remaining DPPA claims will be significant, as well as the growth in claims related to jail operations. The cost of property reinsurance decreased 14.4 percent for 2017 influenced by no major catastrophic losses in previous years.

DIVIDEND DISCUSSION

Dividends are based on a retrospective review of a member's claim history and the performance of MCIT's investments. Investment returns fuel dividends. MCIT only issues a dividend when it is actuarially sound and fiscally prudent. Dividends are not guaranteed. Since 1991, the MCIT Board of Directors has annually returned varying amounts of fund balance to its members for a total of more than $313 million.

Total Dividends:
Combined MCIT Membership and Le Sueur County

	MCIT Total Dividend	Le Sueur County Total Dividend
2012	$29,900,000	$256,063
2013	$19,000,000	$188,681
2014	$13,000,000	$133,149
2015	$11,400,000	$105,367
2016	$12,213,000	$112,154

MORE THAN COVERAGE: MCIT RESOURCES HELP COUNTIES MANAGE RISKS, REDUCE LOSSES

MCIT provides several services to assist members in reducing losses and mitigating risks. Most are provided as part of membership.

CONSULTATION SERVICES

Loss Control: All members have an assigned loss control consultant who can assist them with written safety programs; hazard identification, such as workplace safety surveys and reports; ergonomic assessments; interpretation of OSHA standards; and employee injury data analysis. Consultants also can participate in safety committee meetings, conduct employee safety training and provide loss prevention education resources.

A fifth loss control consultant position was added in 2016. The consultant primarily concentrates on assisting members in reducing law enforcement work-related injuries and illnesses.

Recent initiatives include:

- Loss prevention best practices guides focusing on public works, solid waste management, and parks and recreation operations.
- Discussion items and resource books related to workers' compensation and employees who work off site.
- Step Wisely slip, trip and fall awareness and prevention materials.
- "Training Safety Officer Program: Guide to Reducing Injuries from Training Activities."

Risk Management: Each member has an assigned risk management consultant who can respond to coverage, liability and risk management concerns. They review contracts and joint powers agreements from a risk management perspective. They assist members in identifying potential risks and offer advice about how members could manage them.

Recent initiatives include:

- "2017 MCIT Coverage Review" webinar.
- Discussions with county staff about the 10 essentials of risk management.
- Webinar "I Was Supposed to Save What? The What, When and How of Litigation Holds."
- In-person training and discussion with new member primary contacts for MCIT.

Call MCIT at 1.866.547.6516 to be connected to your assigned loss control and risk management consultants.

PATROL

(Peace Officer Accredited Training Online)

Better trained deputies lead to better decisions and better results for citizens, law enforcement agencies and county government. PATROL is Web-based training specific to Minnesota laws and safety standards. Courses provide classroom components of annual requirements and address hot topics in law enforcement, such as responding to mental health issues in the field, persuasion and de-escalation, and legislative and case law updates.

MCIT members pay a discounted yearly subscription of $90 per person, which is just $2.50 per course. PATROL is a joint effort of MCIT, the Minnesota Sheriffs' Association, Minnesota Chiefs of Police Association and League of Minnesota Cities Insurance Trust. Contact Kristen LeRoy with PATROL at 651.281.1268 or patrol@lmc.org for details.

2017 MCIT Member Participation*

- Beltrami County
- Benton County
- Big Stone County
- Brown County
- Carlton County
- Carver County
- Cass County
- Chisago County
- Clearwater County
- Cook County
- Crow Wing County
- Dodge County
- Fillmore County
- Goodhue County
- Hubbard County
- Isanti County
- Jackson County
- Kanabec County
- Kittson County
- Lake County
- Lincoln County
- Lyon County
- Marshall County
- Martin County
- Mille Lacs County
- Morrison County
- Nobles County
- Norman County
- Pine County
- Polk County
- Redwood County
- Renville County
- Scott County
- Sherburne County
- Sibley County
- Stearns County
- Steele County
- Stevens County
- Todd County
- Traverse County
- Wabasha County
- Waseca County
- Wilkin County
- Wright County

**As of March 13, 2017*

EMPLOYEE ASSISTANCE PROGRAM

The Employee Assistance Program offers access to professional counselors for MCIT officials, department heads, member employees and their dependents who seek advice about personal issues or work-related concerns that may affect their ability to do their jobs. The program is voluntary, confidential and delivered in a clinical setting or by phone. The service is provided as part of membership.

Programwide in 2016:

- 90 percent of users reported that as a direct result of EAP services, they were able to do better at work.
- 16 people reported that the EAP gave them an alternative to filing a grievance or lawsuit.

Introduced as a risk management tool to help reduce employment-related claims, history shows this is accomplished when member utilization is 4 percent. Members can access services by calling 1.800.550.MCIT (6248).

No-cost, On-site Training Program Coming in 2017

Once again, MCIT has partnered with its Employee Assistance Program provider, Sand Creek, to develop training for county members to be delivered on-site throughout 2017. This program is in response to member requests for more training related to ideas presented in the 2014-2016 Resilience Training program. Like the previous program, "Resilience II" includes a module for all employees and one for supervisors. Both modules focus on providing practical strategies for building resilience, the ability to bounce back from adversity.

To schedule this training, members should contact Sand Creek at 1.800.550.6248 or info@sandcreekeap.com.

LE SUEUR COUNTY'S EAP PARTICIPATION LEVELS

• 2015: 5.24 percent • 2016: 8.06 percent

BALANCING LEADERSHIP AND RISK WHILE SERVING THE PUBLIC: NEXT STEPS IN COUNTY GOVERNMENT FOR NEW COMMISSIONERS

Sept. 6, MCIT Building, St. Paul

By September, new commissioners will have eight months of service under their belts and will have encountered issues and circumstances that may have left them with even more questions than they had when they first took office. Co-sponsored with the Association of Minnesota Counties, this seminar is specifically developed for elected officials to enhance their knowledge and skills to serve the public while complying with laws and managing various risks. The seminar uses scenarios and work groups, giving participants the opportunity to practice applying techniques to the real world of county government. More information about this event will be provided later in the year at MCIT.org.

DEFENSIVE DRIVING TRAINING

Auto-related claims continue to be the most frequently reported loss. Training drivers to be safe does more than protect a member's fleet from physical damage; it also helps prevent injuries to employees and citizens. Training is available online or on site. Contact MCIT at 1.866.547.6516 or info@mcit.org for details.

2015-2016 MCIT Member Participation

- Aitkin County
- Big Stone County
- Blue Earth County
- Carlton County
- Cass County
- Chisago County
- Clay County
- Cook County
- Douglas County
- Fillmore County
- Goodhue County
- Houston County
- Isanti County
- Itasca County
- Jackson County
- Koochiching County
- Le Sueur County
- McLeod County
- Nicollet County
- Norman County
- Otter Tail County
- Redwood County
- Rice County
- Scott County
- Sherburne County
- Sibley County
- Swift County
- Wabasha County
- Wadena County
- Washington County
- Winona County
- Wright County

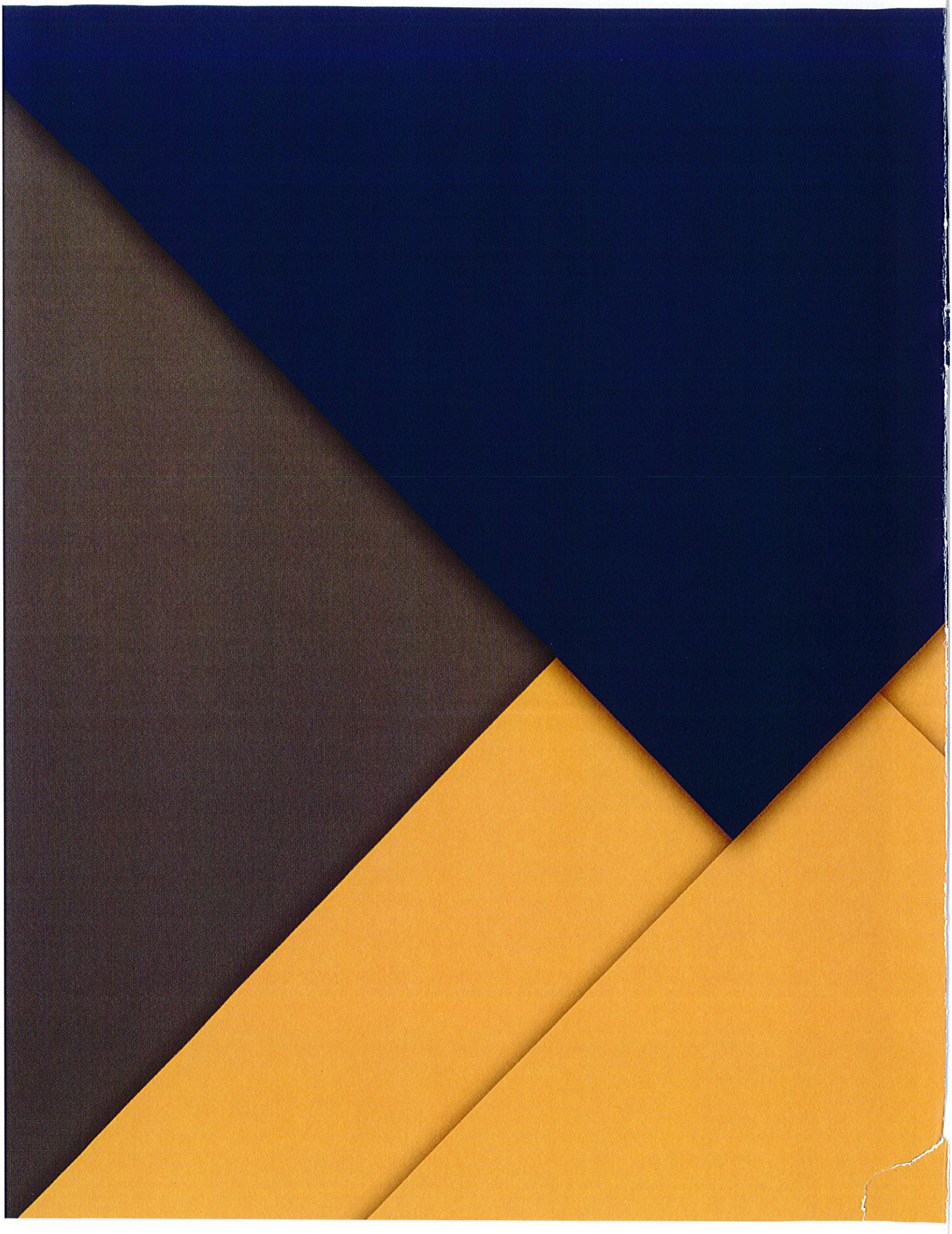
ADDITIONAL RESOURCES

- Statewide training seminars
- Member-specific training sessions presented on-site
- MCIT website: MCIT.org
- MCIT Bulletin newsletter
- Video library: Borrow at no cost
- Webinars
- Minnesota Safety Council membership

HOW MEMBERS REDUCE COSTS

Each member's efforts to manage risks and control losses help contribute to poolwide rate stability. Dedication to risk management at all levels within a member organization is key to containing costs. Commissioners are encouraged to:

- Support initiatives to improve safety, including the safety committee, and return to work programs.
- Participate in risk management training.
- Recommend training and education for all employees.
- Learn how coverage may apply before making final decisions.
- Have a risk management review of contracts before signing or approving them.
- Promote safety at all levels.



Estimated County and City Local Aid Increase From HUTD Formula

Whole dollars

County State Aid Highway (CSAH) - Not including MVLST or 5% Set aside

County	2017 Allotment	% of total	FY 2018	FY 2019	FY 2020	FY 2021
Aitkin	$ 4,870,032	0.88%	201,299	216,991	498,153	503,369
Anoka	19,482,541	3.51%	805,294	868,070	1,992,858	2,013,726
Becker	5,748,254	1.03%	237,599	256,121	587,986	594,143
Beltrami	6,986,323	1.26%	288,774	311,285	714,627	722,110
Benton	4,131,574	0.74%	170,775	184,088	422,616	427,042
Big Stone	3,055,369	0.55%	126,291	136,136	312,532	315,805
Blue Earth	8,700,582	1.57%	359,631	387,666	889,978	899,297
Brown	4,734,243	0.85%	195,686	210,940	484,263	489,334
Carlton	5,410,732	0.97%	223,648	241,082	553,461	559,256
Carver	7,006,464	1.26%	289,606	312,182	716,687	724,192
Cass	6,092,877	1.10%	251,844	271,476	623,237	629,763
Chippewa	3,055,369	0.55%	126,291	136,136	312,532	315,805
Chisago	6,397,114	1.15%	264,419	285,032	654,357	661,209
Clay	5,647,755	1.02%	233,445	251,643	577,706	583,755
Clearwater	3,669,808	0.66%	151,688	163,513	375,383	379,313
Cook	3,174,963	0.57%	131,234	141,465	324,765	328,166
Cottonwood	3,435,417	0.62%	142,000	153,070	351,407	355,086
Crow Wing	6,812,591	1.23%	281,592	303,544	696,856	704,153
Dakota	16,940,958	3.05%	700,240	754,827	1,732,881	1,751,026
Dodge	4,214,152	0.76%	174,188	187,767	431,063	435,577
Douglas	5,644,792	1.02%	233,323	251,511	577,403	583,449
Faribault	4,949,951	0.89%	204,602	220,552	506,328	511,629
Fillmore	6,309,851	1.14%	260,812	281,144	645,431	652,189
Freeborn	6,016,251	1.08%	248,676	268,062	615,399	621,843
Goodhue	6,432,705	1.16%	265,890	286,618	657,998	664,888
Grant	3,055,369	0.55%	126,291	136,136	312,532	315,805
Hennepin	43,222,435	7.78%	1,786,562	1,925,833	4,421,199	4,467,493
Houston	4,612,686	0.83%	190,661	205,524	471,829	476,770
Hubbard	4,210,744	0.76%	174,047	187,615	430,715	435,225
Isanti	4,062,365	0.73%	167,914	181,004	415,537	419,888
Itasca	9,943,290	1.79%	410,997	443,036	1,017,094	1,027,744
Jackson	4,945,061	0.89%	204,400	220,334	505,828	511,124
Kanabec	3,055,369	0.55%	126,291	136,136	312,532	315,805
Kandiyohi	6,549,897	1.18%	270,734	291,839	669,985	677,001
Kittson	3,589,300	0.65%	148,361	159,926	367,148	370,992
Koochiching	4,945,809	0.89%	204,431	220,367	505,904	511,201
Lac Qui Parle	3,407,360	0.61%	140,840	151,819	348,537	352,186
Lake	4,346,700	0.78%	179,667	193,673	444,622	449,277
Lake of the Woods	3,272,400	0.59%	135,262	145,806	334,732	338,237
Le Sueur	4,990,531	0.90%	206,279	222,360	510,479	515,824
Lincoln	3,055,369	0.55%	126,291	136,136	312,532	315,805
Lyon	4,203,492	0.76%	173,748	187,292	429,973	434,475
Mc Leod	4,657,351	0.84%	192,508	207,514	476,398	481,386
Mahnomen	3,055,369	0.55%	126,291	136,136	312,532	315,805
Marshall	5,286,391	0.95%	218,508	235,542	540,742	546,404
Martin	5,383,123	0.97%	222,507	239,852	550,637	556,402
Meeker	3,959,894	0.71%	163,679	176,438	405,055	409,297
Mille Lacs	4,659,008	0.84%	192,576	207,588	476,567	481,557
Morrison	6,493,073	1.17%	268,386	289,307	664,173	671,127
Mower	5,562,955	1.00%	229,940	247,865	569,032	574,990
Murray	3,784,152	0.68%	156,415	168,608	387,079	391,132
Nicollet	4,563,542	0.82%	188,630	203,335	466,802	471,690
Nobles	4,886,604	0.88%	201,984	217,729	499,848	505,082
Norman	4,014,109	0.72%	165,920	178,854	410,601	414,900
Olmsted	$ 8,238,258	1.48%	340,521	367,066	842,687	851,511
Otter Tail	12,400,667	2.23%	512,571	552,528	1,268,457	1,281,739
Pennington	3,163,477	0.57%	130,760	140,953	323,590	326,979
Pine	7,904,681	1.42%	326,733	352,204	808,565	817,032
Pipestone	3,055,369	0.55%	126,291	136,136	312,532	315,805
Polk	8,239,340	1.48%	340,566	367,115	842,798	851,622
Pope	3,549,708	0.64%	146,724	158,162	363,098	366,900
Ramsey	19,463,146	3.50%	804,492	867,206	1,990,875	2,011,721
Red Lake	3,055,369	0.55%	126,291	136,136	312,532	315,805
Redwood	4,918,540	0.89%	203,304	219,152	503,115	508,383
Renville	5,635,397	1.01%	232,934	251,093	576,442	582,478
Rice	5,864,307	1.06%	242,396	261,292	599,857	606,138
Rock	3,311,757	0.60%	136,889	147,560	338,758	342,305
Roseau	5,306,854	0.96%	219,354	236,454	542,835	548,519
St. Louis	29,282,714	5.27%	1,210,375	1,304,730	2,995,313	3,026,676
Scott	9,888,101	1.78%	408,716	440,577	1,011,448	1,022,039
Sherburne	5,595,504	1.01%	231,285	249,315	572,361	578,354
Sibley	3,475,310	0.63%	143,649	154,847	355,488	359,210
Stearns	12,784,911	2.30%	528,453	569,649	1,307,762	1,321,455

County State Aid Highway (CSAH)

County	2017 Allotment	% of total	FY 2018	FY 2019	FY 2020	FY 2021
Steele	5,581,345	1.00%	230,700	248,684	570,913	576,891
Stevens	3,055,369	0.55%	126,291	136,136	312,532	315,805
Swift	3,446,871	0.62%	142,473	153,580	352,579	356,270
Todd	4,210,534	0.76%	174,039	187,606	430,693	435,203
Traverse	3,055,369	0.55%	126,291	136,136	312,532	315,805
Wabasha	4,688,621	0.84%	193,800	208,908	479,596	484,618
Wadena	3,088,024	0.56%	127,641	137,591	315,872	319,180
Waseca	3,510,920	0.63%	145,121	156,434	359,130	362,891
Washington	11,228,886	2.02%	464,136	500,318	1,148,597	1,160,623
Watonwan	3,437,247	0.62%	142,076	153,151	351,594	355,276
Wilkin	3,710,548	0.67%	153,372	165,328	379,550	383,524
Winona	6,034,137	1.09%	249,416	268,859	617,229	623,692
Wright	10,855,882	1.95%	448,718	483,698	1,110,442	1,122,070
Yellow Medicine	3,790,020	0.68%	156,657	168,869	387,679	391,738
TOTAL	**$ 555,521,599**		**22,962,000**	**24,752,000**	**56,824,000**	**57,419,000**

*Note Does not Include Town Road and Bridge or Motor Vehicle Lease Sales Tax

Municipal State Aid Street (MSAS)

Municipality	2017 Allotment	% of total	FY 2018	FY 2019	FY 2020	FY 2021
Albert Lea	943,643	0.54%	38,820	41,849	96,070	97,078
Albertville	319,602	0.18%	13,148	14,174	32,538	32,879
Alexandria	1,001,181	0.58%	41,187	44,401	101,928	102,997
Andover	1,490,056	0.86%	61,299	66,082	151,699	153,291
Anoka	751,974	0.43%	30,935	33,349	76,557	77,360
Apple Valley	2,010,372	1.16%	82,704	89,157	204,672	206,819
Arden Hills	352,166	0.20%	14,488	15,618	35,853	36,229
Austin	1,305,322	0.75%	53,699	57,889	132,892	134,286
Baxter	539,576	0.31%	22,198	23,929	54,933	55,509
Belle Plaine	338,304	0.20%	13,917	15,003	34,442	34,803
Bemidji	730,757	0.42%	30,062	32,408	74,397	75,177
Big Lake	429,916	0.25%	17,686	19,066	43,769	44,228
Blaine	2,369,289	1.37%	97,470	105,075	241,212	243,743
Bloomington	4,048,476	2.34%	166,550	179,544	412,167	416,491
Brainerd	771,790	0.45%	31,751	34,228	78,574	79,399
Brooklyn Center	1,041,770	0.60%	42,857	46,201	106,060	107,173
Brooklyn Park	2,830,504	1.63%	116,444	125,529	288,168	291,191
Buffalo	770,700	0.44%	31,706	34,180	78,463	79,286
Burnsville	2,564,550	1.48%	105,503	113,734	261,091	263,830
Byron	222,417	0.13%	9,150	9,864	22,644	22,881
Cambridge	473,047	0.27%	19,461	20,979	48,160	48,665
Champlin	956,563	0.55%	39,352	42,422	97,386	98,407
Chanhassen	1,044,321	0.60%	42,962	46,314	106,320	107,435
Chaska	1,032,246	0.60%	42,465	45,779	105,091	106,193
Chisago City	254,535	0.15%	10,471	11,288	25,914	26,186
Chisholm	279,453	0.16%	11,496	12,393	28,451	28,749
Circle Pines	176,056	0.10%	7,243	7,808	17,924	18,112
Cloquet	690,929	0.40%	28,424	30,642	70,342	71,080
Columbia Heights	723,385	0.42%	29,759	32,081	73,646	74,419
Coon Rapids	2,512,887	1.45%	103,377	111,443	255,832	258,516
Corcoran	364,340	0.21%	14,989	16,158	37,093	37,482
Cottage Grove	1,546,706	0.89%	63,630	68,594	157,467	159,119
Crookston	534,963	0.31%	22,008	23,725	54,463	55,035
Crystal	827,141	0.48%	34,028	36,683	84,209	85,093
Dayton	259,000	0.15%	10,655	11,486	26,368	26,645
Delano	289,480	0.17%	11,909	12,838	29,471	29,781
Detroit Lakes	667,847	0.39%	27,474	29,618	67,992	68,705
Duluth	5,258,036	3.04%	216,309	233,187	535,310	540,925
Eagan	2,862,015	1.65%	117,740	126,926	291,376	294,432
East Bethel	756,487	0.44%	31,121	33,549	77,016	77,824
East Grand Forks	637,456	0.37%	26,224	28,270	64,898	65,579
Eden Prairie	2,641,707	1.53%	108,677	117,156	268,947	271,768
Edina	2,181,257	1.26%	89,734	96,736	222,069	224,399
Elk River	1,400,088	0.81%	57,598	62,092	142,540	144,035
Fairmont	672,047	0.39%	27,647	29,804	68,420	69,137
Falcon Heights	180,969	0.10%	7,445	8,026	18,424	18,617
Faribault	1,149,529	0.66%	47,290	50,980	117,031	118,259
Farmington	852,202	0.49%	35,059	37,794	86,761	87,671
Fergus Falls	985,649	0.57%	40,548	43,712	100,347	101,400
Forest Lake	1,178,243	0.68%	48,472	52,253	119,954	121,213
Fridley	1,092,547	0.63%	44,946	48,453	111,230	112,397
Glencoe	284,416	0.16%	11,701	12,613	28,956	29,260
Golden Valley	1,033,398	0.60%	42,513	45,830	105,208	106,312
Grand Rapids	930,201	0.54%	38,267	41,253	94,702	95,695

Municipal State Aid Street (MSAS)

Municipality	2017 Allotment	% of total	FY 2018	FY 2019	FY 2020	FY 2021
Ham Lake	872,960	0.50%	35,913	38,715	88,874	89,807
Hastings	822,944	0.48%	33,855	36,496	83,782	84,661
Hermantown	618,526	0.36%	25,445	27,431	62,971	63,631
Hibbing	1,294,420	0.75%	53,251	57,406	131,782	133,165
Hopkins	679,417	0.39%	27,950	30,131	69,170	69,896
Hugo	686,835	0.40%	28,256	30,460	69,925	70,659
Hutchinson	733,854	0.42%	30,190	32,545	74,712	75,496
International Falls	275,257	0.16%	11,324	12,207	28,023	28,317
Inver Grove Heights	1,520,140	0.88%	62,537	67,416	154,762	156,386
Isanti	234,937	0.14%	9,665	10,419	23,918	24,169
Jordan	275,231	0.16%	11,323	12,206	28,021	28,315
Kasson	256,742	0.15%	10,562	11,386	26,138	26,413
LaCrescent	223,956	0.13%	9,213	9,932	22,800	23,040
Lake City	253,067	0.15%	10,411	11,223	25,764	26,035
Lake Elmo	491,531	0.28%	20,221	21,799	50,042	50,567
Lakeville	2,701,598	1.56%	111,141	119,812	275,044	277,929
Lino Lakes	964,551	0.56%	39,680	42,777	98,199	99,229
Litchfield	342,403	0.20%	14,086	15,185	34,859	35,225
Little Canada	442,120	0.26%	18,188	19,607	45,011	45,484
Little Falls	599,976	0.35%	24,682	26,608	61,082	61,723
Mahtomedi	312,061	0.18%	12,838	13,839	31,770	32,104
Mankato	1,981,572	1.14%	81,520	87,880	201,740	203,856
Maple Grove	2,826,055	1.63%	116,261	125,332	287,715	290,733
Maplewood	1,758,254	1.02%	72,333	77,976	179,004	180,882
Marshall	721,907	0.42%	29,698	32,016	73,496	74,267
Medina	286,100	0.17%	11,770	12,688	29,127	29,433
Mendota Heights	546,448	0.32%	22,480	24,234	55,633	56,216
Minneapolis	15,952,913	9.21%	656,284	707,490	1,624,133	1,641,171
Minnetonka	2,266,283	1.31%	93,232	100,507	230,726	233,146
Minnetrista	388,749	0.22%	15,993	17,240	39,578	39,993
Montevideo	279,064	0.16%	11,480	12,376	28,411	28,709
Monticello	539,820	0.31%	22,208	23,940	54,958	55,534
Moorhead	2,426,368	1.40%	99,818	107,606	247,023	249,615
Morris	287,428	0.17%	11,824	12,747	29,262	29,569
Mound	391,837	0.23%	16,120	17,377	39,892	40,311
Mounds View	484,476	0.28%	19,931	21,486	49,323	49,841
New Brighton	795,660	0.46%	32,733	35,286	81,004	81,854
New Hope	764,356	0.44%	31,445	33,898	77,817	78,634
New Prague	292,951	0.17%	12,052	12,992	29,825	30,138
New Ulm	714,786	0.41%	29,405	31,700	72,771	73,534
North Branch	773,368	0.45%	31,815	34,298	78,735	79,561
North Mankato	661,041	0.38%	27,194	29,316	67,299	68,005
North St. Paul	511,688	0.30%	21,050	22,693	52,094	52,640
Northfield	808,650	0.47%	33,267	35,863	82,327	83,191
Oak Grove	629,479	0.36%	25,896	27,917	64,086	64,758
Oakdale	932,389	0.54%	38,357	41,350	94,925	95,920
Orono	352,528	0.20%	14,503	15,634	35,890	36,267
Otsego	785,978	0.45%	32,334	34,857	80,019	80,858
Owatonna	1,349,811	0.78%	55,530	59,862	137,421	138,863
Plymouth	3,196,402	1.85%	131,496	141,756	325,419	328,833
Prior Lake	957,362	0.55%	39,385	42,458	97,467	98,490
Ramsey	1,199,156	0.69%	49,332	53,181	122,084	123,364
Red Wing	926,741	0.54%	38,125	41,100	94,350	95,339
Redwood Falls	299,955	0.17%	12,340	13,303	30,538	30,858
Richfield	1,526,618	0.88%	62,803	67,703	155,422	157,052
Robbinsdale	545,421	0.31%	22,438	24,189	55,528	56,111
Rochester	5,465,966	3.16%	224,863	242,408	556,479	562,316
Rogers	715,813	0.41%	29,448	31,745	72,875	73,640
Rosemount	1,101,309	0.64%	45,307	48,842	112,122	113,298
Roseville	1,362,945	0.79%	56,070	60,445	138,759	140,214
Sartell	803,187	0.46%	33,042	35,620	81,771	82,629
Sauk Rapids	657,872	0.38%	27,064	29,176	66,977	67,679
Savage	1,201,368	0.69%	49,423	53,279	122,309	123,592
Shakopee	1,649,600	0.95%	67,863	73,158	167,942	169,704
Shoreview	963,002	0.56%	39,617	42,708	98,041	99,070
Shorewood	347,470	0.20%	14,295	15,410	35,375	35,746
South St. Paul	797,082	0.46%	32,791	35,350	81,149	82,001
Spring Lake Park	240,130	0.14%	9,879	10,649	24,447	24,704
St. Anthony	354,830	0.20%	14,597	15,736	36,125	36,503
St. Cloud	3,177,474	1.83%	130,718	140,917	323,492	326,886
St. Francis	462,777	0.27%	19,038	20,524	47,114	47,609
St. Joseph	199,844	0.12%	8,221	8,863	20,346	20,559
St. Louis Park	1,945,243	1.12%	80,025	86,269	198,041	200,119
St. Michael	945,401	0.55%	38,893	41,927	96,249	97,259

Municipal State Aid Street (MSAS)

Municipality	2017 Allotment	% of total	FY 2018	FY 2019	FY 2020	FY 2021
St. Paul	12,322,193	7.11%	506,921	546,473	1,254,497	1,267,657
St. Paul Park	247,438	0.14%	10,179	10,974	25,191	25,455
St. Peter	607,128	0.35%	24,977	26,925	61,810	62,459
Stewartville	216,576	0.13%	8,910	9,605	22,049	22,280
Stillwater	812,935	0.47%	33,443	36,053	82,763	83,631
Thief River Falls	683,106	0.39%	28,102	30,295	69,546	70,275
Vadnais Heights	452,806	0.26%	18,628	20,081	46,099	46,583
Victoria	318,021	0.18%	13,083	14,104	32,377	32,717
Virginia	534,230	0.31%	21,978	23,692	54,389	54,959
Waconia	508,584	0.29%	20,923	22,555	51,778	52,321
Waite Park	318,371	0.18%	13,097	14,119	32,413	32,753
Waseca	362,281	0.21%	14,904	16,067	36,883	37,270
West St. Paul	715,840	0.41%	29,449	31,747	72,878	73,643
White Bear Lake	916,363	0.53%	37,698	40,639	93,293	94,272
Willmar	1,126,020	0.65%	46,323	49,937	114,638	115,840
Winona	1,158,916	0.67%	47,676	51,396	117,987	119,225
Woodbury	2,985,259	1.72%	122,810	132,392	303,923	307,111
Worthington	533,698	0.31%	21,956	23,669	54,335	54,905
Wyoming	455,901	0.26%	18,755	20,219	46,414	46,901
Zimmerman	225,734	0.13%	9,286	10,011	22,982	23,223
TOTAL	**173,218,364**		**7,126,000**	**7,682,000**	**17,635,000**	**17,820,000**

Note: Estimates based on MnDOT 2017 Commissioner's Orders, assume no change in demographic or road indicators af

THE TRANSPORTATION ALLIANCE
Highways • Transit • Rail • Waterways • Air

2017 Legislative Session Summary

Transportation Bill, Bonding Bill Finally Passed!

After years of advocating and campaigning for a long-term, comprehensive transportation funding bill, we finally have a bill passed that makes progress in addressing the $600M per year shortfall for roads and bridges in the state. For transit, the legislature did not provide ongoing funding, but did increase the general fund appropriation for Metropolitan Area Transit by $70 million to prevent cuts in transit service. The dissolution of the Counties Transit Improvement Board (CTIB) will allow those counties to increase the local option sales tax if they choose to do so. Hennepin and Ramsey counties have indicated that they will increase their local sales tax from ¼ cent to ½ cent to keep the Southwest and Bottineau light rail transit projects moving and hopefully secure a full funding grant agreement with the Federal Transit Administration.

The Capital Bonding bill contains more money for transportation than we have seen previously. After many years of lobbying to have consistent funding at higher levels for the Local Road Improvement Program and Local Bridge program, this year's bill provides almost $116 million for LRIP and $49 million for local bridges. The transportation bill contains another $25 million for local bridges for a total of $74 million for local bridges. The bonding bill also provides funding for two transitways.

Although it took an extra four-day special session to get their work done, legislators were able to work with the governor to pass a two-year budget and avoid a government shutdown. For transportation, we don't have to worry about a special session occurring in June or July – they are done until February 20, 2018.

The transportation bill is a compromise and contains some good provisions and some not so good provisions. While progress was made and we didn't see another year with a "lights on" transportation budget, more work is clearly needed in the future to provide sustainable funding that addresses the needs on the system.

The level of funding provided to transportation from the sales tax on auto parts dropped dramatically from $307.9M in the original House bill to just $63M for the next two years in the final bill, illustrating the difficulty of competing with other areas of the state budget for general fund dollars for roads and bridges. The dollar amount in the following biennium (FY20-21) also dropped from $206M per year or $412M for the biennium to $145M per year. We will probably have to fight to maintain that level of funding during the 2019 session.

Here's the Good and Not So Good of the transportation bill:

- **Good: More Money!** The bill provides $235 million in new revenue for roads and bridges and an additional $71 million in general fund dollars for Metropolitan Area transit for the next two years. In the following biennium, the estimate is about $444M or $222M per year.

  Not So Good: The $235 or $117.5M per year only begins to address the $600M per year shortfall. The increase for the Trunk Highway Fund is about $51 million per year for the next

two years. Of the general fund money provided for roads and transit for the FY18-19 biennium, $101M is one-time money that is not provided in the following biennium.
The bill does not include any increases in constitutionally dedicated revenue that would provide stable funding for the future. We lobbied for an increase in license tab fees, given the hostility to increasing the fuel tax, but that was strongly rejected by the GOP majority.

- **Good: transit cuts and prohibitions on building light rail transit are gone**. The final bill provides $70 million for the biennium for Metropolitan Area Transit to prevent service cuts and another $1 million to suburban systems for a demonstration project. Policy language preventing work on future light rail lines unless a project was specifically approved by the legislature was removed from the bill.

  Not So Good: The money is one-time funding only. Metro Transit projects a shortfall in the FY20-21 biennium of $110 million and a fare increase will be needed this year. Also – the bill includes a cut of almost $17 million in the general fund appropriation for Greater Minnesota Transit. Language remains in the bill specifying that all operating costs must be paid by nonstate sources for the Southwest LRT project.

- **Good: $940 million in additional trunk highway bonds** are authorized for the Corridors of Commerce program ($300M) and the State Road Construction program ($640M) along with $25M per year in cash from the Trunk Highway Fund for Corridors of Commerce for the next four years.

- **Not So Good: Much more of the funding is provided in FY20 and FY21.** For the '18-19 biennium, $100M is provided in bonding for Corridors of Commerce and $200M in bonding is provided for the State Road Construction program. MnDOT tends to split the money with 50% for the Metro District ($50M Corridors of Commerce, $100M SRC) and 50% for the Greater Minnesota districts ($50M Corridors of Commerce, $100M SRC). **The interest payments on $940M in trunk highway bonds will be $470M in trunk highway funds over the 20-year life of the bonds.**

- **Good: Dedication of the Motor Vehicle Lease Sales Tax (MVLST) and sales tax on rental vehicles.** We will finally have the $32M per year that had been deposited in the general fund from the MVLST going to transportation as well as all of the sales tax from rental vehicles. Some of the MVLST funding (13%) will be used for the Local Bridge program so that it will not be totally dependent on the capital bonding bill for funding and will provide more consistent and reliable funding for local bridges. There is a partial dedication of the sales tax on auto parts to the Highway User Tax Distribution Fund.

  Not So Good: The sales tax on auto parts is estimated to generate about $250 million per year and will grow in the future. This bill provides $31.5 million per year in the FY18-19 biennium of general fund dollars attributable to the sales tax on auto parts and $145M per year in the FY20-21 biennium. The amount is capped at $145M in each fiscal year thereafter so there is no growth in the revenue and **no point in time at which all of the revenue from the sales tax on auto parts must be deposited in the HUTDF.**

- **Good: The bill includes an increase in the motor vehicle registration tax for all-electric vehicles of $75 per year,** proving that electric vehicles do not have to avoid paying into the Highway Trust Fund even though owners don't purchase fuel that is taxed at the pump.

  Not So Good: The amount of revenue generated is only $40,000 for the FY18-19 biennium and $105,000 for the FY20-21 biennium.

	FY18	FY19	Biennium	FY20	FY21	
Final Transportation Bill - Increased Funding						
Sales tax transfer - Auto parts (PARTIAL) HUTDF	$31,532	$31,532	**$63,064**	$145,644	$145,644	
Sales tax transfer - leased vehicle	$32,000	$32,000	**$64,000**	$32,000	$32,000	
Allocation to HUTDF	*$10.3M*	*$10.9M*	*$21.3M*	*$11.3M*	*$11.4M*	
Allocation to local bridges	*$12.2M*	*$12.9M*	*$25.1M*	*$13.3M*	*$13.5M*	
Allocation to GM Transit	*$ 1.96M*	*$ 1.23M*	*$ 3.19M*	*$ .7M*	*$ .4M*	
Allocation to Metro Counties	*$ 1.96M*	*$ 1.23M*	*$ 3.19M*	*$ .7M*	*$ .4M*	
General Fund appropriation to Small Cities	$8,000	$8,000	**$16,000**			
General Fund appropriation to Metro Counties	$5,000	$5,000	**$10,000**			
General Fund appropriation to Town Roads	$2,000	$2,000	**$4,000**			
Sales tax transfer - rental vehicles to HUTDF	$17,200	$19,700	**$36,900**	$20,500	$21,300	
Registration fee electric vehicles $75 to HUTDF	$10	$30	**$40**	$45	$60	
Motor Vehicle rental tax to HUTDF	$24,400	$27,900	**$52,300**	$29,000	$30,200	
MVLST Legacy Change	-$5,400	-$5,700	**-$11,100**	-$5,900	-$6,000	
TOTAL	**$120,142**	**$120,462**	**$235,204**	**$221,289**	**$223,204**	
Total to HUTDF	**$83,346**	**$89,843**	**$173,189**	**$206,256**	**$208,416**	
General Fund Metro Transit ($70M over base)	$30,000	$40,000	$70,000			
General Fund Suburban Demonstration	$1,000		$1,000			
Safe Routes to School/Passenger Rail	$1,000	$1,000	$2,000			
TOTAL	**$31,000**	**$40,000**	**$73,000**			
General Fund Greater MN Transit (one-time cut)	-$16,825					
Trunk Highway Cash - Corridors of Commerce	$25,000	$25,000	$50,000	$25,000	$25,000	
Trunk Highway Bonds - Corridors of Commerce	$50,000	$50,000	$100,000	$100,000	$100,000	
Trunk Highway Bonds - State Road Construction	$100,000	$100,000	$200,000	$220,000	$220,000	
TOTAL	$175,000	$175,000	**$350,000**	$345,000	$345,000	**$940,000**
Regional Bonds (Met Council)	$82,100	$43,900	$126,000			

HF3 – Special Session

Policy Highlights (not exhaustive):

- Clarifies distribution of funds in the flexible account to set 16% for Metro Counties since the CSAH fund changed to a set 68/32 split between the excess and apportionment sums. The flex highway account encourages a 50/50 split between metro and greater MN. The 16% is half of 32% which is directed to the metro counties.
- Highway Sponsorship Program – creates a program to encourage business, civic groups or individuals to voluntarily assist with the improvement and maintenance of the trunk highway system including trails and historic sites.
- Highway project selection process – MnDOT must establish a process to identify, evaluate and select projects that is consistent with eligibility requirements. The list of projects must be made public and must include the score of each project. MnDOT must report on the project selection process under the Corridors of Commerce program including a list of projects evaluated and results for each criterion.
- MnDOT must maintain information on expenditures by local road authorities from local funding sources for the trunk highway system.
- Weight Limits – **A road authority** may issue an annual permit authorizing a vehicle or combination of vehicles with 6 or more axles to haul road construction materials and be operated with a gross vehicle weight of up to 90,000 pounds with six axles and up to 97,000 pounds with seven axles. Permit fees must be deposited in the bridge inspection and signing account. A local road authority may identify local preferred routes and permit holders are encouraged to make reasonable efforts to operate on the preferred routes.
- Creates an Active Transportation account for construction and maintenance of bicycle, trail and pedestrian infrastructure.
- Creates a new Major local bridges account for bridges in which the grant award is $7M or more. Prohibits grants from the Local Bridge program with a total project cost of $7 million or more unless every other local bridge project on the priority list of less than $7 million has been fully funded.
- MnDOT must implement efficiencies equal to at least 15 percent of the appropriations made annually from the trunk highway fund that are above base appropriations for FY18-19.
- In a fiscal year in which MnDOT expends more than 110 percent of the established biennial expenditure level for snow and ice management, the commissioner may use an additional amount that does not exceed 50 percent of the unappropriated balance in the trunk highway fund.
- Changes the statutory dedication of the motor vehicle lease sales tax so that the $32 million currently being deposited in the general fund is no longer deposited in the general fund and the total amount of revenue collected from the lease vehicle sales tax is distributed: 38% to CSAH, 38% to Greater Minnesota Transit Account, 13% to Minnesota state transportation fund (for a new local bridge program) and 11% to HUTDF.

- Requires that after July 1, 2017, a portion of the estimated amount of taxes collected from the sale and purchase of motor vehicle repair parts in a given month be credited to the highway user tax distribution fund. For remittances between July 1, 2017 and June 30, 2019, the monthly deposit is $2,628,000. ($31.5M annually) For remittances in each subsequent fiscal year, the monthly deposit is $12,137,000. ($145.6M annually)
- Requires Dept. of Revenue to provide a report on state general sales taxes attributable to motor vehicle repair and replacement parts by January 15, 2019.
- Requires MnDOT to contract for a study on highway construction costs, inflation and cost estimating. The report must provide specific recommendations for road authorities and legislative changes to reduce highway construction costs. The report is due February 15, 2018.
- Requires MnDOT to report on MnPASS lanes and tolling to reduce congestion and raise revenue.
- Requires MnDOT to report on turnbacks including the current list of proposed turnback projects, a description of the work to be completed, which entity the highway will be turned back to and total estimated cost related to all aspects of the turnback. It must also include a description of the turnback process and the amount of money accrued to the turnback accounts for each of the past five years.
- Requires the Metropolitan Council to prepare a report on comprehensive transit finance in the Metropolitan Area. The report must summarize the status of busways in operation and under development and identify total ridership, farebox recovery ratio and per-passenger operating subsidy.
- Prohibits the Metropolitan Council from issuing certificates of participation for light rail transit secured by a pledge of motor vehicle sales tax revenue.
- Limits liability for a railroad that is operating in the same corridor as a light rail transit line.
- Establishes a Metro Mobility Task Force to examine the Metro Mobility program and identify methods to increase efficiency including partnerships with taxi service providers and transportation network companies.

How Does the 2017 bill Compare to 2016 Proposals?

Last biennium we had a divided legislature with a DFL governor who all promised to increase funding for transportation. Toward the end of the 2016 Legislative Session, proposals were traded back and forth, but ultimately, no agreement was reached. Here is what was on the table with the estimated revenue increase for FY2017 (one year):

Senate	House	Governor
Fuel tax: 12 cents over 3 years	Sales tax auto parts	Fuel tax: 5 cents
$360M	$300M	$150M
License tab fee increase	License tab fee increase	License tab fee increase
$107M	$100M	$200-$400M
GO Bonding	GO Bonding	GO Bonding
$193M	$227M	$200M
Trunk Highway Bonding	Trunk Highway Bonding	Trunk Highway Bonding
$1 billion	$200M	$200M
Metro Sales Tax		Metro Sales Tax
$388M		$280M

2017 Capital Bonding Bill HF5 – Special Session

Project	Governor	Senate SF210	House HF892	Special Session bill
Local Bridge Replacement Program	$70M	$ 90M	$ 59M	$ 49.212M5
Local Road Improvement Program	$70M	$141.196M1	$107.691M3	$115,932M6
Stone Arch Bridge	$ 2.5M			
I694/Rice St Interchange – Ramsey	$20.5M			
Highway 4 – City of St. James	$ 3.443M		$ 3.443M	
Highway 53 Utility Relocation	$ 4.9M			
Bloomington Transit Station Mall of America		$ 8.75M		$8.75M
Met Council Orange Line BRT		$ 12.1M		$12.1M
35W/Lake Street Transit Project – Hennepin	$25M			
Gateway Corridor – Washington	$ 3M			
Rail Grade Separation on Crude Oil Lines	$69.624M	$ 26.749M2	$57.024M4	$71.124M7
Highway/Rail Grade Crossing Warning	$ 5M	$ 1M	$ 1M	$ 1M
State Rail Quiet Zone Program	$10M			
Ramsey County Rail Grade Separation	$ 1M			
Passenger Rail Program	$ 1M			
Hugo Short Line Railway		$ 1.1M		$ 1.1M
Minnesota Valley Regional Rail Authority		$ 4M	$ 4M	$ 4M
Minnesota Rail Service – Grand Rapids	$ 1M	$ 1M		
Grade Separation Westminster &Division Ramsey	$ 1M			
City of Hugo Shortline track			$ 1.1M	$ 1.1M
MN Rail Service Improvement Grant				$ 1M
Port Development Assistance	$10M	$ 5M	$ 5M	$ 5M
MnDOT Facilities Capital Program	$40MTHB			
City of Grand Rapids Pedestrian Bridges	$ .75M	$ .75M	$ .75M	$ .75M
Safe Routes to School				$ 1M
Eden Prairie Rail Crossing				$ 1.4M
Int'l Falls – Koochiching Co Airport	$ 3M Air	$ 3M	$ 3M	$ 3M
BWSR Local Road Wetland Replacement	$ 10M	$ 5M	$ 5M	$ 5M
DEED – Transportation Economic Development	$ 10M	$ 7M	$ 7M	$ 3.5M
TOTAL Bill Proposal	**$1.5B GO/ $16M GF**	**$972.7M GO/ $201.9M GF**	**$620M GO**	**$987,939 GO GF $11,033**
	$40MTHB	**$197M THB/ $143.4M THF**		

5 – Local Bridge Program
- City of Isle – Malone Island Bridge [$.800]
- City of Minneapolis – 10th Avenue Bridge [$31,875]

TOTAL: $32,675

6 – Local Road Improvement Program
- Appleton Township 100th Street [$1,000]
- Anoka County Lake Drive and I-35 Interchange [$9,000]
- City of Baxter – Cypress Drive [$6,000
- City of Blaine – 105th Avenue [$3,246]
- Hennepin County – I-35W/CSAH 3 [$25,000]
- Hennepin County – US Highway 12 interchange [$11,300]
- Chaska – US212 Interchange [$10,500]
- City of Inver Grove Heights Broderick Blvd [$1,000]
- Ramsey County I-694 and Rice Street interchange [$20,500]
- Redwood County Veterans Cemetery Road [$.700]
- McLeod County CSAH15 [$2,350]

TOTAL: $90,596

7 – Rail Grade Separation
- Moorhead [$42,262]
- Anoka County Hanson Blvd [$14,100]
- City of Red Wing Sturgeon Lake Road [$14,762]

TOTAL: $71,124

The $49.2 million in the Local Bridge Program provides $32.675M for specific bridges, leaving $16.537 million in non-earmarked funds. Combined with the $25 million in HF3 for local bridges, this provides $41 million in funds for local bridges on the waiting list.

For the Local Road Improvement Program, there are $90.5 million in earmarked projects out of the $115.9 million in funds leaving $25.3 million in non-earmarked funds for a solicitation.

Other Transportation Bills Passed Into Law

***2017 Session Laws, Chapter 7* – Funding for Local Road Wetland Replacement Program**
This law provides an appropriation of $5 million from the general fund for the Local Road Wetland Replacement Program, effective March 11, 2017. This is a one-time appropriation available until June 30, 2019.

2017 Session Laws, Chapter 14 – Modifying the State Road Construction Appropriation
This law increases the appropriation for State Road Construction for FY2017 by $105 million to accommodate an increase in federal funds. The appropriation is increased from $744,166,000 to $849,166,000. The increase is effective April 4, 2017.

2017 Session Laws, Chapter 15 – Governing Mowing and Haying in Trunk Highway right-of-way
This law states that the commissioner of transportation must implement a moratorium until April 30, 2018, on enforcing permits to mow or bale hay in right-of-way of a trunk highway.
No later than March 1, 2018, the commissioner of transportation must recommend to the legislative committees with jurisdiction over transportation, agriculture, and natural resources establishment of a permit or notification system to mow or hay in trunk highway right-of-way. The recommendation must be developed with input from agriculture and environmental groups.

2017 Session Laws, Chapter 86 – Increasing the weight limit for vehicles transporting milk
Establishes a ten percent vehicle weight limit increase (including per-axle and gross vehicle weights) for single-unit vehicles to transport milk from the point of production to another point of production or the first point of processing.

2017 Session Laws, Chapter 94 – Jobs, Energy and Economic Development Budget Bill
Signs must be affixed on retail petroleum dispensers: "The price for each gallon of gasoline includes the current state gasoline tax of 28.5 cents per gallon and federal gasoline tax of 18.4 cents per gallon. Revenue from the state fuel tax may be used only for roads and bridges, according to the Minnesota Constitution."

Le Sueur County, Minnesota
Highway Department
Summary of County Highway Information
As of December 31, 2016

Section 1 - Disbursements

Description	Total Mileage	Total Maintenance Cost	Total Construction Cost
CSAH Regular	237.16	$ 1,359,150.36	$ 3,188,809.30
CSAH Municipal	28.94	$ 315,510.04	$ 477,136.38
County Roads	237.45	$ 2,359,025.28	$ 981,814.43
Totals		$ 4,033,685.68	$ 4,647,760.11

Section 2 - Fund Balance/Unallocated Costs

Unreserved/Undesignated Fund Balance	$ 1,570,969.47
Unallocated Costs - CSAH Regular	$ 194,852.05
Unallocated Costs - CSAH Municipal	$ 23,776.27
Unallocated Costs - Local	$ 195,087.86

Section 3 - FHWA Reporting

Description	
Snow & Ice Control	$ 621,172.79
Right of Way	$ -
Engineering	$ 1,015,716.99
Construction	$ 3,632,043.12
Utility Relocation	$ -
Building & Equipment	$ 312,547.72
Total federal funds included in sub-total	$ 175,332.96
Total bridge bonding funds included in subtotal	$ -

Certification Statement

I certify that the above information is true and correct. I also certify that the Le Sueur County Highway Department has followed the accounting procedures as established in the State Aid Accounting Manual or an alternative method as approved by MN/DOT. It is understood that all records, books, documents, and accounting procedures pertaining to this information are subject to audit and examination by MN/DOT and the State Auditors Office. It is also understood that MN/DOT reserves the right to withhold future State Aid payments if the county has not complied with the procedures and practices as approved and established.

Certified _____ Date 5/10/17

Highway Department
Receivables
As of December 31, 2016

	Beginning Balance	Charges Billed	Payments Received	Ending Balance
Taxes Receivable				
Taxes - Current & Delinquent	$ 60,062.87	$ 2,423,109.96	$ 2,451,507.10	$ 88,460.01
Gravel Tax	$ 33,618.54	$ 223,075.65	$ 144,654.09	$ 44,803.02
Wheelage Tax	$ 23,545.75	$ 358,001.30	$ 313,262.72	$ 21,192.83
Subtotal	$ 117,227.16	$ 3,004,186.91	$ 2,909,423.91	$ 154,455.86
Municipalities				
City of Cleveland	$ -	$ 538.80	$ 538.80	$ -
City of Elysian	$ -	$ 2,899.90	$ 2,468.80	$ 431.10
City of Kasota	$ -	$ 1,111.50	$ 1,111.50	$ -
City of Le Center	$ 2,341.23	$ 6,109.47	$ 5,799.29	$ 2,651.41
City of Le Sueur	$ -	$ 100,666.00	$ 666.00	$ 100,000.00
City of Montgomery	$ 728,612.54	$ 206,296.88	$ 729,561.64	$ 205,347.78
Subtotal	$ 730,953.77	$ 317,622.55	$ 740,146.03	$ 308,430.29
Individuals & Others				
Other Business	$ 142,931.79	$ 507.31	$ 142,931.79	$ 507.31
Individuals	$ 1,146.15	$ 25,472.83	$ 21,281.14	$ 5,337.84
Subtotal	$ 144,077.94	$ 25,980.14	$ 164,212.93	$ 5,845.15
Due From Other Funds				
Assesors	$ 178.14	$ 1,670.82	$ 1,716.20	$ 132.76
Enviromental Services	$ 19.28	$ 953.88	$ 934.27	$ 38.89
Emergency Managemnt	$ -	$ 1,449.53	$ 1,423.50	$ 26.03
Fairgrounds	$ -	$ 444.46	$ 444.46	$ -
Maintenance	$ 131.50	$ 746.22	$ 753.40	$ 124.32
Veterans Service	$ 176.00	$ 1,667.70	$ 1,750.64	$ 93.06
Victim Witness	$ -	$ 137.90	$ 104.22	$ 33.68
Human Services	$ 1,033.27	$ 2,743.79	$ 3,604.44	$ 172.62
Sheriff Dept	$ 4,742.74	$ 47,729.69	$ 48,376.73	$ 4,095.70
Cemeteries	$ 52.81	$ 546.39	$ 558.25	$ 40.95
Ney Park	$ 98.08	$ 11,549.87	$ 11,454.90	$ 193.05
Bradshaw Park	$ 45.27	$ 816.66	$ 803.43	$ 58.50
Geldner Saw Mill	$ 67.90	$ 2,559.98	$ 2,510.88	$ 117.00
Lexington Park	$ 79.22	$ 1,818.50	$ 1,763.16	$ 134.56
Rays Lake Park	$ 52.81	$ 1,941.84	$ 1,895.20	$ 99.45
Richters Woods Park	$ 71.67	$ 1,833.22	$ 1,782.04	$ 122.85
Volney Park	$ 79.22	$ 1,444.95	$ 1,413.02	$ 111.15
Washington Park	$ 133.80	$ 11,113.04	$ 11,071.34	$ 175.50
Lake Access - Misc	$ 305.56	$ 6,982.60	$ 6,773.36	$ 514.80
River Access - Misc	$ 52.81	$ 1,008.54	$ 979.45	$ 81.90
Ditches	$ 1,399.46	$ -	$ 1,399.46	$ -
Totals	$ 8,719.54	$ 99,159.58	$ 101,512.35	$ 6,366.77
Townships				
Cleveland	$ -	$ 2,440.11	$ 2,440.11	$ -
Elysian	$ 128.77	$ 1,467.95	$ 1,596.72	$ -
Lanesburgh	$ -	$ 2,989.52	$ 2,989.52	$ -
Lexington	$ -	$ 3,906.30	$ 3,906.30	$ -
Montgomery	$ -	$ 1,106.37	$ 58.17	$ 1,048.20
Ottawa	$ -	$ 213.70	$ 213.70	$ -
Sharon	$ -	$ 1,895.88	$ 1,895.88	$ -
Tyrone	$ 8.58	$ -	$ 8.58	$ -
Washington	$ 39,362.58	$ 1,160.77	$ 40,523.35	$ -
Waterville	$ 77.85	$ -	$ 77.85	$ -
Totals	$ 39,577.78	$ 15,180.60	$ 53,710.18	$ 1,048.20

EQUIPMENT NUMB DESCRIPTION / ACQUIRED DATE	ORG. COST	EST. LIFE	BEGIN BAL. JAN 2016	STAT CODE	COST ADDED	RENTAL EARNED	ADJUSTMENT TO EQUALIZE DEPREC'TION	PERIOD DEPREC. /DEPLETE	ENDING BALANCE DEC 2016
5055 TANDEM TRUCK - MACK 12/01/2005	141,645.00	10	.00		42,866.33	52,532.75	9,666.42	.00	.00
5075 CAT MOTOR GRADER 3/08/2013	187,213.81	12	134,169.92		35,169.42	62,537.75	8,646.95	18,721.38	115,448.54
5085 CAT MOTOR GRADER - '01 2/07/2014	193,986.21	12	163,002.30		54,539.13	59,973.75	10,730.90-	16,165.52	146,836.78
5095 CAT LOADER 924HZ 3/22/2002	172,255.42	10	.00		.00	120.00	120.00	.00	.00
6018 3000PSI PRESSURE WASHER(SHOP 5/21/2012	96,112.69	08	67,278.88		2,336.51	5,257.50	6,690.28-	9,611.27	57,667.61
6019 3500PSI STEAMER 2/21/2014	5,000.00	08	3,802.08		.00	.00	625.00-	625.00	3,177.08
	4,900.00	08	3,726.04		.00	.00	612.50-	612.50	3,113.54
TOTAL MAJOR EQUIPMENT	5,588,304.66		2,092,160.06		782,965.14	1,139,768.08	83,336.56	273,466.38	1,818,693.68
MINOR EQUIPMENT									
1017 VICON MOWER-2006 12/20/2006	5,664.18	04							
1021 #33 HUSKY GRADER-PULL TYPE 1/01/1952	985.50	08	.00		.00	.00	.00	.00	.00
1101 10' HYDRAULIC FLEXWING 6/14/2013	24,581.26	05	.00	SOLD	60.18	48.00	12.18-	.00	.00
1550 VIBRATORY ASPHALT PLATE CUTT 5/09/2001	1,597.50	10	11,880.97		.00	.00	2,458.14-	2,458.14	.00
1800 ASPHALT CUTTER 5/09/2001	5,462.12	10	.00		24.93	.00	24.93-	.00	.00
2017 SPRAYER-94 7/15/1994	1,500.00	05	.00		1,074.98	100.00	974.98-	.00	.00
2020 TAR KETTLE 6/01/1961	715.00	05	.00		240.14	.00	240.14-	.00	.00
2022 #33 HUSKY GRADER-PULL TYPE 1/01/1952	985.50	08	.00		.00	.00	.00	.00	.00
2046 TAR KETTLE 4/01/1973	1,993.44	05	.00		.00	.00	.00	.00	.00
2066 PAVER TRAILER 6/01/1985	4,370.00	08	.00	SOLD	.00	.00	.00	.00	.00
2068 BROCE BROOM 7/24/1997	24,803.85	10	.00		.00	.00	.00	.00	.00
2087 05 ETNYRE DISTRIBUTOR 5/19/2006	90,466.00	10	.00		12,126.18	1,560.00	10,566.18-	.00	.00
2106 20' LAWN SERVICE TRAILER 4/20/2004	2,465.70	10	3,015.56		1,832.95	1,568.00	3,280.51-	3,015.56	.00
2107 TOWMASTER TRAILER (2016) 5/23/2016	37,383.68	10	.00	NEW	1,707.75	.00	1,707.75-	.00	.00
			37,383.68		955.81	.00	3,136.52-	2,180.71	35,202.97

Le Sueur County, Minnesota
Highway Department
Summary of Maintenance Costs by Fund
As of December 31, 2016

Maintenance Type	Account Code		CSAH Regular	Cost/Mile		CSAH Municipal	Cost/Mile		County Road	Cost/Mile
Routine Maintenance	MA	$	759,974.44	3,204.48	$	142,623.29	4,928.24	$	941,018.02	3,963.02
Repairs and Replacements	MB	$	189,586.75	799.40	$	8,493.99	293.50	$	1,165,285.10	4,907.50
Betterments	MC	$	204,210.69	861.07	$	10,164.12	351.21	$	45,957.33	193.55
Special Work	MD	$	29,716.70	125.30	$	-	-	$	30,890.46	3.07
Special Agreements	ME	$	-	-	$	132,794.01	4,588.60	$	-	-
Unallocated Expenses		$	194,852.05		$	23,776.27		$	195,087.86	
Adjustment to Equalize Depreciation		$	(19,190.27)		$	(2,341.64)		$	(19,213.49)	
Subtotal		$	1,359,150.36	5,730.94	$	315,510.04	10,902.21	$	2,359,025.28	9,934.83
Total Number of Miles			237.16			28.94			237.45	
Mileage Proration Percent			47.098%			5.747%			47.155%	

Mon. Maint Agreement

Le Sueur County, Minnesota
Highway Department
State Aid Bond
As of December 31, 2016

2009A Bond

Bond Issue Amount: $ 2,600,379.60
Bond Issue Date: 11/30/09

Project No.	Project Finalized	Date Applied	Amount Applied	Bond Fund Balance
				$ 2,600,379.60
SAP 40-639-003	no	8/20/2010	$ 15,678.80	$ 2,584,700.80
SAP 40-639-003	no	9/10/2010	$ 53,838.40	$ 2,530,862.40
SAP 40-639-003	no	10/8/2010	$ 69,175.87	$ 2,461,686.53
SAP 40-639-003	no	11/12/2010	$ 406,777.46	$ 2,054,909.07
SAP 40-639-003	no	12/10/2010	$ 581,252.15	$ 1,473,656.92
SAP 40-649-002	no	9/16/2011	$ 20,632.62	$ 1,453,024.30
SAP 40-649-002	no	10/7/2011	$ 81,208.82	$ 1,371,815.48
SAP 40-649-002	no	11/4/2011	$ 292,618.34	$ 1,079,197.14
SAP 40-649-002	no	12/2/2011	$ 37,820.98	$ 1,041,376.16
SAP 40-649-002	no	1/6/2012	$ 1,581.97	$ 1,039,794.19
SAP 40-649-002	no	6/8/2012	$ 41,376.20	$ 998,417.99
SAP 40-649-002	yes	7/13/2012	$ 24,760.97	$ 973,657.02
SAP 40-614-009*	no	8/26/2013	$ 15,609.74	$ 958,047.28
SAP 40-614-009*	no	10/1/2013	$ 1,225.50	$ 956,821.78
SAP 40-614-009*	no	11/8/2013	$ 724.38	$ 956,097.40
SAP 40-614-009*	no	12/20/2013	$ 1,372.75	$ 954,724.65
SAP 40-639-003	yes	3/21/2014	$ 59,301.19	$ 895,423.46
SAP 40-614-009	no	8/29/2014	$ 223,201.75	$ 672,221.71
SAP 40-614-009	no	8/29/2014	$ 118,526.94	$ 553,694.77
SAP 40-614-009	no	9/26/2014	$ 208,065.96	$ 345,628.81
SAP 40-614-009	no	12/19/2014	$ 319,685.19	$ 25,943.62
SAP 40-614-009	yes	4/8/2016	$ 25,943.62	$ -

* adj bond applies to project in 2014

Gone

Le Sueur County, Minnesota
Highway Department
State Aid Bond
As of December 31, 2016

2015A CIP

Bond Issue Amount: $ 4,802,857.23
Bond Issue Date: 02/24/15

Project No.	Project Finalized	Date Applied	Amount Applied	Bond Fund Balance
				$ 4,802,857.23
SAP 040-628-023	no	8/5/2015	$ 624,287.95	$ 4,178,569.28
SAP 040-628-023	no	9/18/2015	$ 1,287,793.77	$ 2,890,775.51
SAP 040-628-023 (adjustment)	no	9/18/2015	$ (5,313.76)	$ 2,896,089.27
SAP 040-628-023	yes	1/29/2016	$ 138,433.60	$ 2,757,655.67
SAP 040-632-007	no	7/22/2016	$ 115,058.15	$ 2,642,597.52
SAP 040-632-007	no	8/26/2016	$ 461,516.10	$ 2,181,081.42
SAP 040-632-007	no	10/7/2016	$ 1,224,458.13	$ 956,623.29

Le Sueur County, Minnesota
Highway Department
State Aid Bond
As of December 31, 2016

2015A State Aid

Bond Issue Amount: $ 5,001,538.87
Bond Issue Date: 02/24/15

Project No.	Project Finalized	Date Applied	Amount Applied	Bond Fund Balance
				$ 5,001,538.87
SAP 040-603-025	no	5/15/2015	$ 223,963.81	$ 4,777,575.06
SAP 040-603-025	no	6/12/2015	$ 363,866.56	$ 4,413,708.50
SAP 040-603-025(SEH eng)	no	6/12/2015	$ 189,484.75	$ 4,224,223.75
SAP 040-603-025(SEH eng)	no	7/7/2015	$ 36,264.65	$ 4,187,959.10
SAP 040-603-025	no	7/17/2015	$ 693,974.65	$ 3,493,984.45
SAP 040-603-025(SEH eng)	no	8/4/2015	$ 41,354.41	$ 3,452,630.04
SAP 040-603-025	no	8/14/2015	$ 356,135.80	$ 3,096,494.24
SAP 040-603-025	no	9/18/2015	$ 486,586.04	$ 2,609,908.20
SAP 040-603-025 (adjustment)	no	9/18/2015	$ (159,026.52)	$ 2,768,934.72
SAP 040-603-025(SEH eng)	no	10/6/2015	$ 32,948.40	$ 2,735,986.32
SAP 040-628-028	no	9/18/205	$ 8,163.33	$ 2,727,822.99
SAP 040-628-028	no	10/23/2015	$ 20,564.97	$ 2,707,258.02
SAP 040-603-025	no	10/23/2015	$ 101,040.98	$ 2,606,217.04
SAP 040-603-025(SEH eng)	no	10/31/2015	$ 34,201.08	$ 2,572,015.96
SAP 040-614-010	no	12/4/2015	$ 15,313.76	$ 2,556,702.20
SAP 040-614-010	no	12/4/2015	$ 214,473.00	$ 2,342,229.20
SAP 040-628-028	no	12/4/2015	$ 27,702.67	$ 2,314,526.53
SAP 040-603-025	no	12/4/2015	$ 75,547.59	$ 2,238,978.94
SAP 040-603-025(SEH eng)	no	12/1/2015	$ 28,864.75	$ 2,210,114.19
SAP 040-603-025(SEH eng)	no	12/31/2015	$ 14,267.99	$ 2,195,846.20
SAP 040-603-025(American eng)	no	12/31/2015	$ 91,188.25	$ 2,104,657.95
SAP 040-603-025	no	12/31/2015	$ 313,850.31	$ 1,790,807.64
SAP 040-628-028	no	1/6/2016	$ 1,096.39	$ 1,789,711.25
SAP 040-603-025(SEH eng)	no	2/5/2016	$ 5,914.72	$ 1,783,796.53
SAP 040-614-010	yes	1/29/2016	$ 20,200.02	$ 1,763,596.51
SAP 040-603-025(SEH eng)	no	6/16/2016	$ 4,908.14	$ 1,758,688.37
SAP 040-628-028	no	6/16/2016	$ 37,018.97	$ 1,721,669.40
SAP 040-603-025	no	6/25/2016	$ 95,662.67	$ 1,626,006.73
SAP 040-603-025	no	7/22/2016	$ 80,576.90	$ 1,545,429.83
SAP 040-628-028	yes	7/22/2016	$ 4,976.12	$ 1,540,453.71
SAP 040-603-025(SEH eng)	no	7/22/2016	$ 1,209.35	$ 1,539,244.36
SAP 040-603-025(SEH eng)	no	8/26/2016	$ (1,209.35)	$ 1,540,453.71
SAP 040-603-025	yes	10/7/2016	$ 83,166.14	$ 1,457,287.57
SAP 040-603-025(SEH eng)	yes	10/7/2016	$ 10,410.10	$ 1,446,877.47

CSAH 26

Project

STATE OF MINNESOTA
LE SUEUR COUNTY BOARD OF COMMISSIONERS
SEATED AS DRAINAGE AUTHORITY UNDER STATUTES CHAPTER 103E
FOR LE SUEUR COUNTY DITCH 54

Regarding the Petition of Ducks Unlimited and the Minnesota Department of Natural Resources for the Modification of Le Sueur County Ditch 54 (Minnesota Statutes, Section 103E.227)	**FINDINGS AND ORDER ACCEPTING PETITION AND DIRECTING APPOINTMENT OF ENGINEER**

Commissioner _____ offered the following Resolution and moved its adoption, seconded by Commissioner _____:

FINDINGS

1. The Minnesota Department of Natural Resources ("DNR") has petitioned the Board of Commissioners of Le Sueur County (the "County"), Drainage Authority for Le Sueur County Ditch 54 ("CD 54"), to impound, reroute, and divert water on CD 54. The petitioned actions are for the purpose of managing water levels on Sanborn Lake for the benefit of wildlife.

2. The DNR desires to modify the current configuration, alignment and function of CD 54 in order to improve hydraulic inputs to Sanborn Lake and provide a dynamic outlet which will allow for active management of water levels in Sanborn Lake. The DNR would like to temporarily draw down lake levels in order to induce winterkill of rough fish and encourage or reestablish the growth of beneficial wetland vegetation. The DNR would like to alter the direct channel connection from Sanborn Lake with spur 2 of CD 54 which will create a secondary outlet. The DNR would like to modify the CD 54 outlet of Sanborn Lake to provide for lake level management and allow the Minnesota DNR Section of Wildlife the ability to operate the water control structure in accordance with an approved comprehensive management plan.

3. The County's action on the petition is governed by Minnesota Statutes Sections 103E.227. No bond or similar surety was required to be submitted by the DNR with its Petition because the DNR is a unit of government. The DNR's petition was accompanied by the required exhibits showing the location of the installation, and plans and specifications for the proposed actions. Upon review, the petition appears complete.

Therefore, the Le Sueur County Board of Commissioners makes the following:
[15741-0022/2676136/1]

ORDER

A. The Board of Commissioners accepts the petition and appoints Engineer Chuck Brandel of ISG to investigate the effect of the proposed action under the standards found in sections 103E.227 and file a report of findings.

B. The Engineer is directed to include in its investigation an assessment of effects of the proposed action, including the lake management plan, on properties within the benefitted area of CD 54 in in downstream reaches of CD 54, in order to render an opinion of whether the proposed action will be of a public or private benefit and whether it will impair the utility of the drainage system or deprive affected landowners of its benefit. The engineer shall also address any additional easements for right of way or flowage required by the action.

C. This order is not an approval of the action proposed in the petition, nor does it modify the drainage system. Subsequent proceedings on the petition will occur consistent with the requirements of Statutes Sections 103E.227.

The question was on the adoption of the Resolution and there were __ yeas and __ nays as follows:

	Yea	Nay	Absent	Abstain
GLISZINSKI	☐	☐	☐	☐
CONNOLLY	☐	☐	☐	☐
KING	☐	☐	☐	☐
WETZEL	☐	☐	☐	☐
ROHLFING	☐	☐	☐	☐

Upon vote, the Chairperson declared the Resolution adopted.

Dated this 6th day of June, 2017.

LE SUEUR COUNTY BOARD OF COMMISSIONERS SEATED AS DRAINAGE AUTHORITY UNDER STATUTES CHAPTER 103E FOR LE SUEUR COUNTY DITCH 54

Attest:

_____ By_____

County Administrator Chairperson

[15741-0022/2676136/1]

DUCKS UNLIMITED, INC.

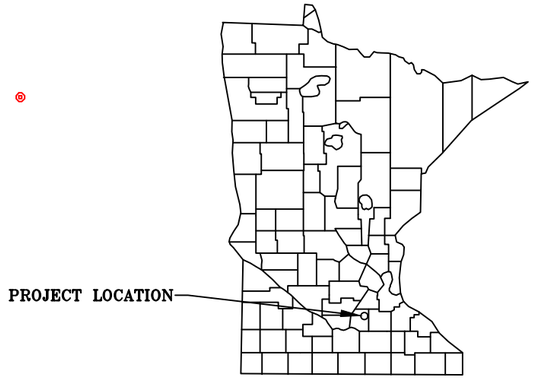
SANBORN LAKE

SECTION 26 TOWNSHIP 112N, RANGE 23W
LE SUEUR COUNTY, MN

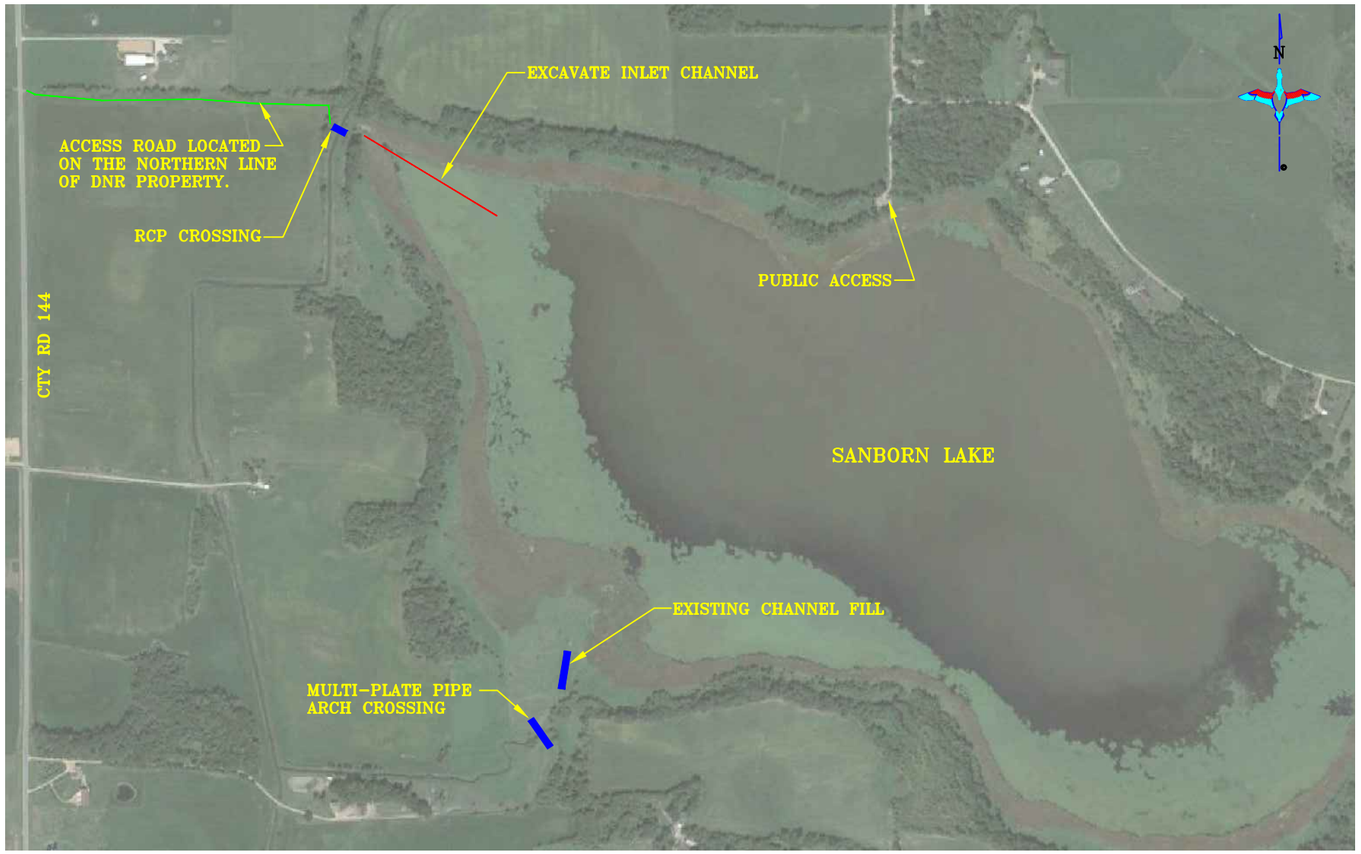
IN COOPERATION WITH

MINNESOTA DEPARTMENT OF NATURAL RESOURCES

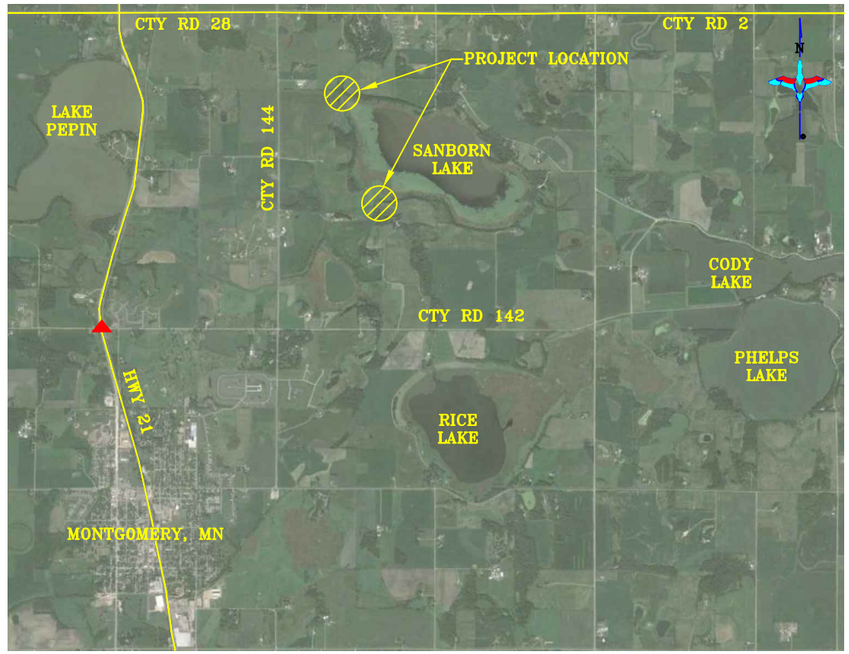
DUCKS UNLIMITED



MINNESOTA



MAP POINT "▲" IS LOCATED @ INTERSECTION OF STATE HWY 21 AND COUNTY ROAD 142 (340TH STREET) LOCATED ±1 MILE NORTH OF MONTGOMERY, MN TO SITE FROM MAP POINT: HEAD EAST ON COUNTY ROAD 142 (340TH STREET) ±1 MILE TO INTERSECTION OF COUNTY ROAD 142 & COUNTY ROAD 144. HEAD NORTH ON COUNTY ROAD 144 ±1.5 MILES TO ACCESS POINT ON EAST SIDE OF ROAD. LAT: 44° 28' 45.2" LONG: 93° 33' 59.0"



VICINITY MAP
NOT TO SCALE

PLAN INDEX

LOCATION MAP
NOT TO SCALE

IF THESE PLANS ARE NOT PLOTTED AND/OR REPRODUCED AT THE ORIGINAL SIZE OF 24"x 36" ANY SCALE REFERENCED HEREIN SHOULD BE DISREGARDED AND THE PLANS SHOULD BE CONSIDERED "NOT TO SCALE."

PROJECT CONTACTS:

JOE STANGEL
NICOLLET DNR OFFICE

JIM STREIFEL, P.E.
DU – BISMARCK, ND
701-355-3551

Revision Number	Sheet Number	Revisions	Date	By
2	4 & 5	Changed 96"ø RCP to 10'x10'RCB	3/27/17	JS

I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.

James A. Streifel, P.E.
for Ducks Unlimited, Inc.
License No. 47359

3-30-2017
Date

DUCKS UNLIMITED INC.
GREAT PLAINS REGIONAL OFFICE

PROJECT NO. MN-445-1
SANBORN LAKE
COVER SHEET

DESIGNED BY: JAS
DRAWN BY: MLO
SURVEYED BY: GLJ
CHECKED BY: .

DATE: 3-27-2017
SHEET NO. 1
APPROVED BY: .
APPROVED BY: .

ESTIMATED QUANTITIES

NOTE	SPEC.#	ITEM	UNIT	QUANTITY
1	201	MOBILIZATION	L.S	1
2	202	SITE PREPARATION	L.S	1
3	203	EXCAVATION - INLET CHANNEL	L.F.	2,005
	204	**EMBANKMENT**		
4		COUNTY DITCH 54 CROSSING	C.Y.-P	700
4		MULTI-PLATE PIPE ARCH CROSSING	C.Y.-S	400
5		EXISTING CHANNEL FILL	L.F.	275
	303	**CULVERT SUPPLY AND INSTALLATION**		
		10' x 10' PRECAST RCB	L.F.	32
		10' x 10' SLOPED END SECTION	E.A.	2
		48"Ø WELDED STEEL PIPE	L.F.	78
		9'-4"x6'-3" MULTI-PLATE PIPE ARCH	L.F.	48
6	304	CAST-IN-PLACE REINFORCED CONCRETE	C.Y.	2
	305	**RIPRAP, REVETMENT, AND AGGREGATE PLACEMENT**		
7		DU CLASS II RIPRAP	TON	275
7		DU CLASS III RIPRAP	TON	200
8		¾"-1¼" CRUSHED ROCK BEDDING & BACKFILL	TON	345
9	307	SHEET PILE MATERIAL	S.F.	893
9	307	SHEET PILE INSTALLATION	S.F.	893
10	309	**STRUCTURAL STEEL**		
		ALUMINUM STOPLOGS	L.S.	1
		GALVANIZED CATWALK COMPONENTS	L.S.	1
		GALVANIZED CHANNEL GUIDES	L.S.	1
		GALVANIZED LIFTING HOOKS	L.S.	1
		GALVANIZED STORAGE BOX	L.S.	1
		PILE CAP	L.S.	1
11	311	REMOVAL OF EXISTING STRUCTURES	L.S.	1
12	401	**STORMWATER MANAGEMENT AND POLLUTION CONTROL**		
		SILT FENCE	L.F.	1200
		EROSION CONTROL BLANKET	S.Y.	1900
		STORMWATER PERMIT FOR CONSTRUCTION	L.S.	1
		FLOATING SILT FENCE	L.F.	40
13	402	SEEDING & MULCHING	ACRE	3.2
		MISCELLANEOUS		
14		CLEARING & GRUBBING	L.S.	1

RIPRAP SCHEDULE

LOCATION	CLASS II	CLASS III
RCB CROSSING-U-S- SIDE	100 TON	
RCB CROSSING-D-S- SIDE		200 TON
W.C.S. UPSTREAM SIDE	34 TON	
MULTI-PLATE PIPE ARCH CROSSING	140 TON	

¾"-1¼" CRUSHED ROCK SCHEDULE

LOCATION	¾"-1¼" ROCK
RCB BEDDING & BACKFILL	150 TON
WSP BEDDING & BACKFILL	90 TON
MULTI-PLATE BEDDING & BACKFILL	100 TON

CONSTRUCTION NOTES:

1. BID ITEM FOR MOBILIZATION SHALL INCLUDE THE SUPPLY OF ALL LABOR, MATERIAL AND EQUIPMENT TO TRANSPORT ALL NEEDED LABOR, MATERIAL AND EQUIPMENT TO AND FROM A PROJECT SITE TO SUCCESSFULLY COMPLETE THAT PROJECT AS SHOWN ON THE PLANS OR DESCRIBED BY THE ENGINEER.

2. SITE PREPARATION BID ITEM SHALL INCLUDE STRIPPING BENEATH BOTH CROSSING SITES, WATER CONTROL STRUCTURE PIPELINE, AND BORROW/SPOIL AREA'S. TOPSOIL SHALL BE STOCKPILED AND REPLACED OVER COMPLETED CROSSINGS, WATER CONTROL STRUCTURE PIPELINE, BORROW/SPOIL AREA AND CHANNEL SIDES LOPES. BID ITEM SHALL INCLUDE LEVELING AND DRAGGING OR DISK PRIOR TO PLACEMENT OF SEED MIX.

3. BID ITEM FOR INLET CHANNEL EXCAVATION SHALL INCLUDE ALL WORK REQUIRED TO EXCAVATE THE INLET CHANNEL AS SHOWN ON THE PLANS. ALL SPOIL MATERIAL MUST BE REMOVED FROM ANY WETLAND AREA AND DEPOSITED IN THE DESIGNATED SPOIL AREA AS SHOWN ON SHEET 3. A SECOND MOBILIZATION MAY BE REQUIRED TO COMPLETE INLET CHANNEL EXCAVATION FOLLOWING DRAW DOWN OF LAKE LEVELS. SPOIL MATERIAL SHALL BE LEVELED AND TOPSOIL PLACED OVER COMPLETED SURFACE. PAYMENT IS BASED ON LINEAR FEET, CONTRACTOR WILL ONLY BE PAID FOR THE EXACT AMOUNT OF FINISHED CHANNEL EXCAVATED IN THE FIELD.

4. BID ITEM FOR EMBANKMENT (MULTI-PLATE PIPE ARCH CROSSING AND COUNTY DITCH 54 CROSSING) SHALL INCLUDE ALL WORK REQUIRED TO HAUL, PLACE AND COMPACT FILL MATERIAL TO CONSTRUCT CROSSING AS STAKED IN THE FIELD. THE ESTIMATED QUANTITY OF 400 C.Y.-S AND 700 C.Y. INCLUDES 15% ESTIMATED SHRINKAGE. IF WATER IS REQUIRED TO OBTAIN THE SPECIFIED COMPACTION OF 95% OF THE STANDARD PROCTOR, IT WILL BE CONSIDERED INCIDENTAL TO THE EMBANKMENT BID ITEM. THE DU FIELD ENGINEER WILL STAKE CROSSING PRIOR TO CONSTRUCTION AND DETERMINE QUANTITY IN THE FIELD. MATERIAL SHALL BE OBTAINED FROM THE DESIGNATED BORROW AREAS AS SHOWN ON SHEETS 4 AND 13.

5. BID ITEM FOR EMBANKMENT (EXISTING CHANNEL FILL) SHALL INCLUDE ALL WORK REQUIRED TO STRIP TOPSOIL, STOCKPILE, HAUL, PLACE AND COMPACT NEW FILL IN EXISTING CHANNEL. THIS ALSO INCLUDES RE-TOPSOILING EXISTING CHANNEL. PAYMENT IS BASED ON LINEAR FEET, CONTRACTOR WILL ONLY BE PAID FOR THE AMOUNT OF LINEAR FEET AS DETERMINED IN THE FIELD.

6. BID ITEM FOR CAST-IN-PLACE CONCRETE SHALL INCLUDE: MATERIALS AND INSTALLATION OF THE CONCRETE FLOOR AS DETAILED ON SHEET 8. THIS INCLUDES DOWELS, REBAR, & CONCRETE.

7. BID ITEM FOR RIPRAP DU CLASS II & III IS AS SHOWN ON THE PLANS AND RIPRAP SCHEDULE THIS SHEET. NON-WOVEN FILTER FABRIC IS REQUIRED BENEATH ALL ROCK RIPRAP AND SHALL BE SECURED TO SLOPES AND BOTTOM USING PINS AS NOTED IN SPECIFICATION 305. EXCAVATION REQUIRED FOR ROCK RIPRAP AND PLACEMENT SHALL ALSO BE PAID FOR UNDER THIS LINE ITEM. CONTRACTOR WILL BE PAID FOR THE ACTUAL QUANTITY INSTALLED. QUANTITIES ARE BASED ON TONS, CONTRACTOR SHALL PROVIDE SCALE TICKETS WITH WEIGHTS INCLUDING TARE WEIGHTS, GROSS WEIGHTS, AND NET WEIGHTS OF MATERIAL DELIVERED. **RIPRAP SUPPLY SOURCE SHALL BE IDENTIFIED FOR INSPECTION BY THE MNDNR FOR INVASIVE SPECIES PRIOR TO TRANSPORTING ONSITE.**

8. BID ITEM FOR ¾"-1¼" CRUSHED ROCK BEDDING & BACKFILL SHALL INCLUDE MATERIALS, HAULING, PLACING, AND COMPACTING. QUANTITY IS BASED ON TONS, CONTRACTOR SHALL PROVIDE SCALE TICKETS WITH WEIGHTS INCLUDING TARE WEIGHTS, GROSS WEIGHTS, AND NET WEIGHTS OF MATERIAL DELIVERED.

9. SHEET PILE MATERIAL SHALL BE PZ-22, HOT ROLLED OR APPROVED EQUAL. MINIMUM THICKNESS OF 0.375" (⅜") AND MINIMUM SECTION MODULUS 18.1^3.

10. BID ITEMS FOR STRUCTURAL STEEL SHALL INCLUDE ALL INDIVIDUAL LINE ITEMS LISTED UNDER THIS HEADING AND INCLUDE ALL MATERIALS AND LABOR REQUIRED FOR COMPLETE INSTALLATION AS SHOWN ON THE PLANS. ANY GALVANIZED ITEMS LISTED REQUIRING FIELD WELDING SHALL BE RE-PAINTED WITH A COLD GALVANIZED SPRAY.

11. BID ITEM FOR REMOVAL OF EXISTING STRUCTURES SHALL BE FOR REMOVING AND DISPOSING OFF-SITE THE EXISTING 72"ø CMP AT MULTI-PLATE PIPE ARCH CROSSING AND THE EXISTING 96"ø RISERS AND BARRELS. SUCH MATERIAL SHALL BECOME PROPERTY OF THE CONTRACTOR FOR PROPER DISPOSAL OFF-SITE. ANY EXISTING ROCK AT THIS LOCATION SHALL BE SALVAGED AND RE-INSTALLED UNDER THIS LINE ITEM.

12. THE BID ITEM FOR STORM WATER MANAGEMENT AND POLLUTION CONTROL SHALL INCLUDE THE SUPPLY, INSTALLATION AND MAINTENANCE OF SILT FENCE, MnDOT CATEGORY 3 EROSION CONTROL BLANKET, AND FLOATING SILT FENCE. EXACT LOCATION AND QUANTITY MAY VARY DEPENDING UPON ACTUAL SITE CONDITIONS. **EROSION CONTROL MEASURES SHALL BE INSTALLED CONCURRENTLY OR WITHIN 24 HOURS AFTER THE START OF WORK AND WILL BE MAINTAINED FOR THE DURATION OF THE PROJECT.** CONTRACTOR WILL BE PAID AT THE UNIT PRICE BID FOR THE ACTUAL QUANTITY INSTALLED. IT IS THE CONTRACTORS RESPONSIBILITY TO INSTALL, INSPECT AND MAINTAIN THE BEST MANAGEMENT PRACTICE MEASURES REQUIRED TO PREVENT SILT AND POLLUTION RUNOFF. IF ADDITIONAL ITEMS NOT LISTED ON THE UNIT PRICE TABLE ARE NEEDED, THOSE SHALL BE CONSIDERED EXTRA WORK. THE CONTRACTOR WILL ALSO BE REQUIRED TO OBTAIN THE STORMWATER PERMIT FOR CONSTRUCTION ACTIVITIES PRIOR TO THE START OF THE CONSTRUCTION.

13. BID ITEM SEEDING AND MULCHING SHALL INCLUDE THE EQUIPMENT AND LABOR REQUIRED TO LEVEL AND PREPARE TOPSOIL FOR SEEDING AND MULCHING IN ALL DISTURBED AREAS. **THE CONTRACTOR WILL PROVIDE THE LOCAL ECO-TYPE SEED MIXTURE AND BE RESPONSIBLE FOR PLACING SEED IN ACCORDANCE WITH DU SPECIFICATION 402.** MnDOT TYPE 1 MULCH SHALL BE APPLIED TO ALL AREAS SEEDED AS DIRECTED BY THE DU FIELD ENGINEER. PAYMENT WILL BE BASED ON ACTUAL ACRES SEEDED AND MULCHED AFTER FINAL COMPLETION OF PROJECT, THIS WILL BE DETERMINED BY DU FIELD ENGINEER.

14. BID ITEM FOR CLEARING AND GRUBBING SHALL INCLUDE THE REMOVAL OF TREES AND BRUSH ALONG RCB CROSSING, INLET CHANNEL, WATER CONTROL STRUCTURE, MULTI-PLATE PIPE ARCH AND CROSSING, BORROW AREAS, AND ANY MISCELLANEOUS AREAS IDENTIFIED BY THE DU FIELD ENGINEER. CONTRACTOR SHALL DISPOSE OF TREES AND BRUSH BY CHIPPING, MARKETING OR STOCKPILING FOR BURNING. SEE PLANS FOR DETAILS.

A NOTE CONCERNING INVASIVE SPECIES REQUIREMENTS

THE MINNESOTA DNR/USFWS OPERATION ORDER 113 REQUIRES PREVENTING OR LIMITING THE INTRODUCTION, ESTABLISHMENT AND SPREAD OF INVASIVE SPECIES DURING ACTIVITIES ON PUBLIC WATER AND USFWS ADMINISTERED LANDS. THE CONTRACTOR SHALL PREVENT INVASIVE SPECIES FROM ENTERING INTO OR SPREADING WITHIN A PROJECT SITE BY CLEANING EQUIPMENT AND CLOTHING PRIOR TO ARRIVING AT THE PROJECT SITE. THE DNR SHALL INSPECT ALL EQUIPMENT AND CLOTHING AT THE STAGING AREA DETERMINED AT THE PRE-CONSTRUCTION MEETING.

IF EQUIPMENT OR CLOTHING ARRIVES AT THE PROJECT SITE WITH SOIL, AGGREGATE MATERIAL, MULCH, VEGETATION (INCLUDING SEEDS) OR ANIMALS, IT SHALL BE CLEANED BY CONTRACTOR FURNISHED TOOL OR EQUIPMENT (BRUSH/BROOM, COMPRESSED AIR, OR PRESSURE WASHER) AT THE STAGING AREA. THE CONTRACTOR SHALL DISPOSE OF MATERIAL CLEANED FROM EQUIPMENT AND CLOTHING AT A LOCATION DETERMINED BY THE OWNER. IF MATERIAL CANNOT BE DISPOSED OF ONSITE, SECURE MATERIAL PRIOR TO TRANSPORT (SEALED CONTAINER, COVERED TRUCK, OR WRAP WITH TARP) AND LEGALLY DISPOSE OF OFFSITE.

IF WORK IS PERFORMED WITHIN A WATER BODY, THE CONTRACTOR SHALL CLEAN EQUIPMENT AND CLOTHING AS NOTED ABOVE, PRIOR TO ENTERING AND LEAVING THE WATER BODY. DRAIN ALL WATER FROM EQUIPMENT WHERE WATER MIGHT BE TRAPPED, SUCH AS TANKS, PUMPS, HOSES, SILT CURTAINS, AND WATER RETAINING COMPONENTS OF BOATS/BARGES.

THE SOURCES OF ALL IMPORTED MATERIAL SHALL BE INSPECTED FOR INVASIVE SPECIES BY THE DNR PRIOR TO TRANSPORTING.

UTILITIES NOTE

BEFORE THE START OF CONSTRUCTION, THE OWNER OF ANY UTILITIES INVOLVED MUST BE NOTIFIED. THE EXCAVATOR/CONTRACTOR IS RESPONSIBLE FOR GIVING THIS NOTICE BY CALLING "GOPHER STATE ONE-CALL" AT 800-252-1166 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION.

Revision Number	Sheet Number	Revisions	Date	By
2	4 & 5	Changed 96"ø RCP to 10'x10'RCB	3/27/17	JS

I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.

James A. Streifel, P.E.
for Ducks Unlimited, Inc.
License No. 47359

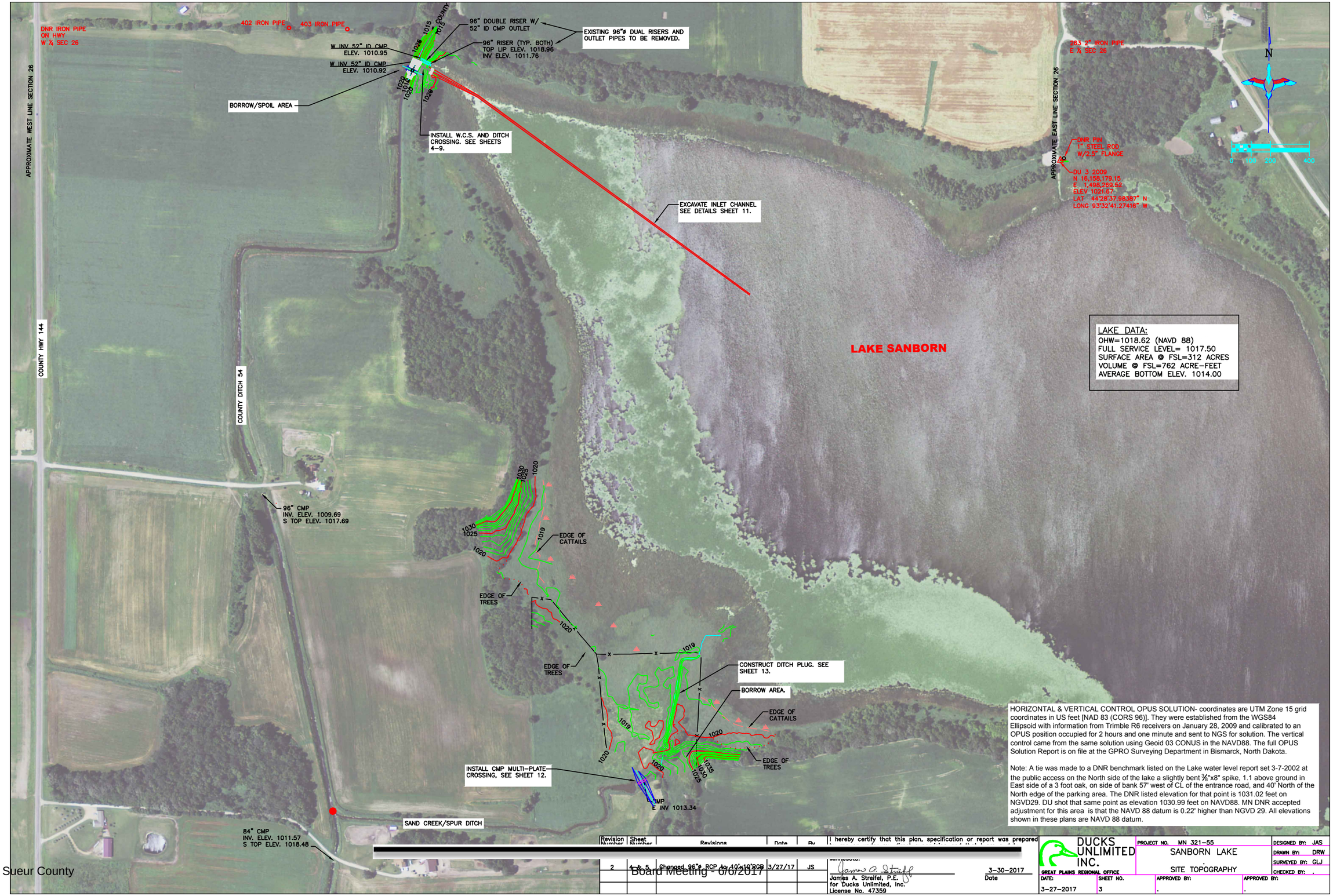
3-30-2017
Date

DUCKS UNLIMITED INC.
GREAT PLAINS REGIONAL OFFICE

PROJECT NO. MN-445-1
SANBORN LAKE
ESTIMATED QUANTITIES AND CONSTRUCTION NOTES

DESIGNED BY: JAS
DRAWN BY: MLO
SURVEYED BY: GLJ
CHECKED BY: .

DATE: 3-27-2017
SHEET NO. 2
APPROVED BY: .
APPROVED BY: .



HORIZONTAL & VERTICAL CONTROL OPUS SOLUTION- coordinates are UTM Zone 15 grid coordinates in US feet [NAD 83 (CORS 96)]. They were established from the WGS84 Ellipsoid with information from Trimble R6 receivers on January 28, 2009 and calibrated to an OPUS position occupied for 2 hours and one minute and sent to NGS for solution. The vertical control came from the same solution using Geoid 03 CONUS in the NAVD88. The full OPUS Solution Report is on file at the GPRO Surveying Department in Bismarck, North Dakota.

Note: A tie was made to a DNR benchmark listed on the Lake water level report set 3-7-2002 at the public access on the North side of the lake a slightly bent ⅜"x8" spike, 1.1 above ground in East side of a 3 foot oak, on side of bank 57' west of CL of the entrance road, and 40' North of the North edge of the parking area. The DNR listed elevation for that point is 1031.02 feet on NGVD29. DU shot that same point as elevation 1030.99 feet on NAVD88. MN DNR accepted adjustment for this area is that the NAVD 88 datum is 0.22' higher than NGVD 29. All elevations shown in these plans are NAVD 88 datum.

Revision Number	Sheet Number	Revisions	Date	By
2	4 & 5	Changed 96"ø RCP to 10'x10'RCB	3/27/17	JS

I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly licensed Professional Engineer under the laws of the State of Minnesota.

James A. Streifel, P.E.
for Ducks Unlimited, Inc.
License No. 47359

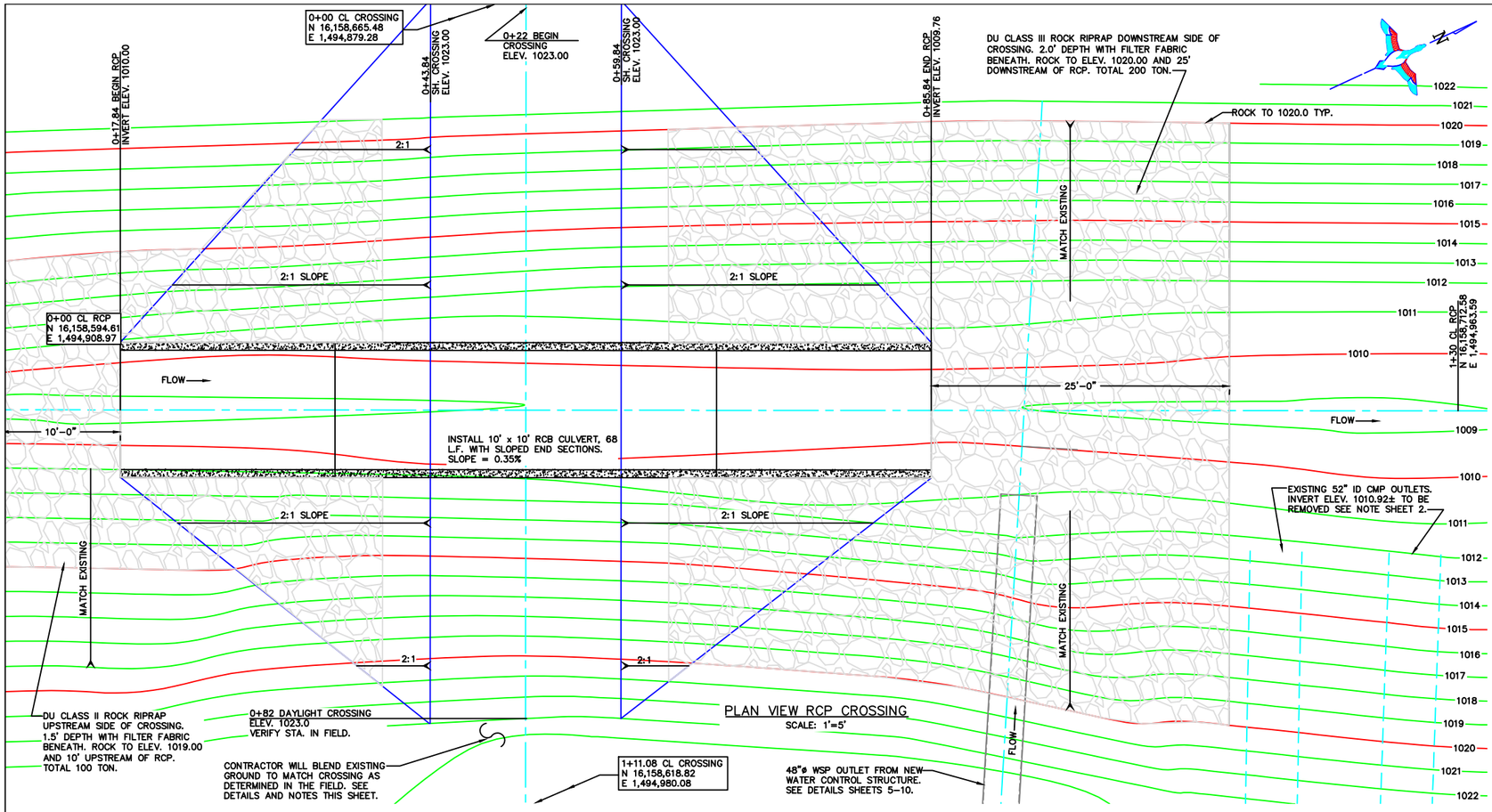
3-30-2017
Date

DUCKS UNLIMITED INC.
GREAT PLAINS REGIONAL OFFICE

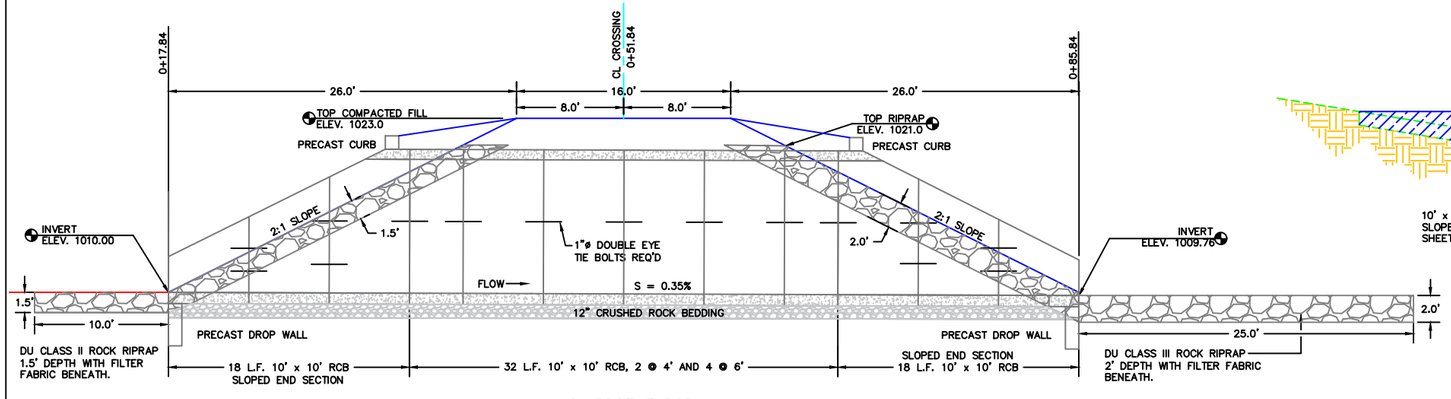
PROJECT NO. MN 321-55
SANBORN LAKE
.
SITE TOPOGRAPHY

DESIGNED BY: JAS
DRAWN BY: DRW
SURVEYED BY: GLJ
CHECKED BY: .

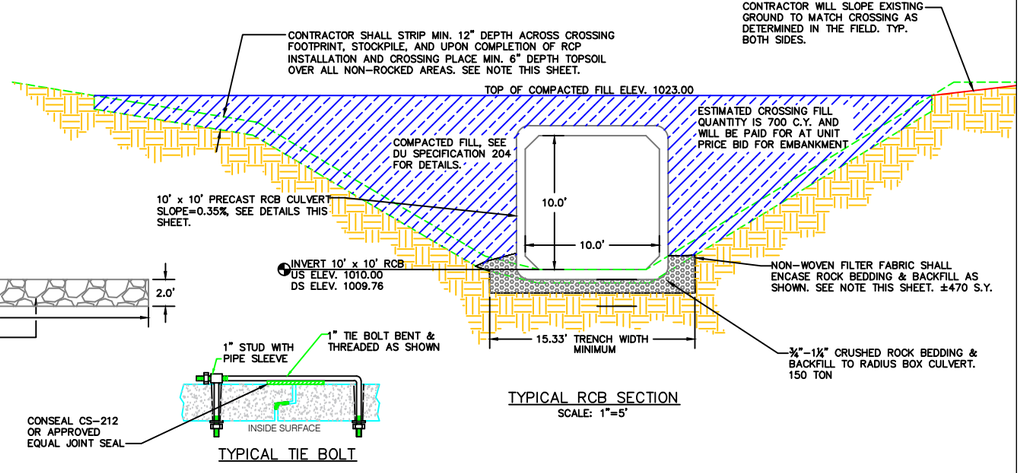
DATE: 3-27-2017
SHEET NO. 3
APPROVED BY: .
APPROVED BY: .



PLAN VIEW RCP CROSSING
SCALE: 1"=5'



CL PROFILE RCB
SCALE: 1"=5'



TYPICAL RCB SECTION
SCALE: 1"=5'

TYPICAL TIE BOLT

ESTIMATED QUANTITIES:

10' x 10' RCB (4@6', 2@4')	32 L.F.
10' x 10' RCP TYPE I SLOPED END	2 REQ'D
PRECAST DROP WALL	2 REQ'D
PRECAST CURB	2 REQ'D
TIE BOLTS AND JOINT TREATMENTS	
¾"-1½" CRUSHED ROCK BEDDING/BACKFILL	150 TON
DU CLASS II ROCK RIPRAP	100 TON
DU CLASS III ROCK RIPRAP	200 TON

10' x 10' RCB INSTALLATION:

CONTRACTOR SHALL INSTALL 68 LINEAL FEET INCLUDING INLET AND OUTLET SLOPED END SECTIONS OF 10' x 10' RCB AT A 0.35% SLOPE. INSTALLATION WILL INCLUDE PRECAST DROP END WALLS AND CURBS. SUB-CUT BELOW PIPE GRADE AND INSTALL 1.0' OF CRUSHED ROCK PIPE BEDDING. BACKFILL WITH CRUSHED ROCK BEDDING TO ABOVE THE BOTTOM RADIUS OF BOX CULVERT. 1"ø DOUBLE EYE TIE RODS SHALL BE INSTALLED EACH SECTION AS PER MANUFACTURER RECOMMENDATIONS. PAYMENT FOR MATERIALS (RCB, DROP WALLS, C[illegible] PAID FOR BASED ON THE CONTRACTOR

EXTERNAL JOINT SEAL: EACH JOINT IS TO BE SEALED PER ASTM C-877. CONSEAL CS-212 WITH SURFACE PRIMER AND 24" WIDE. ALTERNATE JOINT TREATMENTS WILL BE CONSIDERED UPON APPROVAL BY THE ENGINEER.

SITE PREPARATION NOTE:

MINIMUM 12" DEPTH TOPSOIL SHALL BE STRIPPED FROM BENEATH THE CROSSING FOOTPRINT AND STOCKPILED PRIOR TO INSTALLING RCP. UPON COMPLETION OF RCP INSTALLATION/CROSSING CONTRACTOR SHALL PLACE MIN. 6" DEPTH TOPSOIL OVER ALL DISTURBED AREAS NOT RECEIVING ROCK RIPRAP. ANY ADDITIONAL SITE PREPARATION WITHIN EXISTING CHANNEL BANKS WILL BE CONSIDERED "EXTRA" AND PAID FOR AS SUCH. ANY ADDITIONAL TOPSOIL SHALL BE WASTED IN BORROW AREA OR AS DIRECTED BY THE DU FIELD ENGINEER.

THE CONTRACTOR SHALL LEVEL ALL TOPSOIL SUITABLE ENOUGH FOR SEEDING & MULCHING, AS DETERMINED BY DU FIELD ENGINEER. PAYMENT FOR STRIPPING, STOCKPILING, REMOVAL/DEPOSITING, AND PLACEMENT SHALL BE PAID FOR BASED ON THE CONTRACTOR'S UNIT BID PRICE FOR "SITE PREPARATION."

BORROW AREA/CROSSING NOTE:

THE CONTRACTOR WILL BE REQUIRED TO SHAPE EXISTING GROUND TO MATCH NEW CROSSING TOP ELEVATION, THIS SHALL BE SUITABLE ENOUGH FOR VEHICLE TRAFFIC TO CROSS SAFELY AS DETERMINED BY THE DU FIELD ENGINEER. THIS WILL BE MINIMAL WORK ON THE EAST SIDE BUT WILL REQUIRE SOME EXCAVATION AND LEVELING ON THE WEST SIDE. ANY SUITABLE MATERIAL FROM THIS EXCAVATION CAN BE USED AS FILL FOR THE NEW CROSSING. ANY FURTHER FILL REQUIRED SHALL BE TAKEN FROM THE PROPOSED BORROW AREA LOCATED ON THE WEST SIDE OF CROSSING IN THE OPEN FIELD. BORROW AREA IS ALSO DESIGNATED WASTE AREA. CONTRACTOR WILL EXCAVATE TEST HOLES IN ADJACENT FIELD TO FIND SUFFICIENT BACKFILL MATERIAL, AS DETERMINED BY THE DU FIELD ENGINEER. FILL MATERIAL SHALL BE PLACED AND COMPACTED AS DESCRIBED IN EMBANKMENT SPECIFICATION 204. CONTRACTOR SHALL BLEND BORROW AREA INTO THE EXISTING LANDSCAPE TO THE EXTENT POSSIBLE AND LEVEL SUITABLE ENOUGH FOR SEEDING & MULCHING.

ALL WORK REQUIRED TO BLEND NEW CROSSING INTO EXISTING GROUND SHALL BE CONSIDERED "INCIDENTAL" TO RCP INSTALLATION. THE COST TO HAUL AND PLACE FILL MATERIAL FOR DITCH CROSSING WILL BE PAID FOR UNDER UNIT PRICE BID FOR EMBANKMENT. THE ESTIMATED FILL QUANTITY IS 700 C.Y. INCLUDING 15% SHRINKAGE FACTOR.

COFFERDAM NOTE:

THE CONTRACTOR WILL LIKELY NEED A COFFERDAM ON BOTH THE UPSTREAM AND DOWNSTREAM SIDES OF EXISTING CHANNEL IN-ORDER TO INSTALL RCP, CROSSING, AND RIPRAP. COFFERDAM MATERIAL SHALL BE TAKEN FROM BORROW AREA AS NOTED ABOVE. ANY MATERIAL PLACED WITHIN THE EXISTING CHANNEL FOR "COFFERDAM" SHALL BE REMOVED ENTIRELY AFTER INSTALLATION OF THE VARIOUS COMPONENTS.

ALL COFFERDAM WORK IS CONSIDERED "INCIDENTAL" TO RCP INSTALLATION.

RIPRAP NOTE:

DU CLASS II ROCK RIPRAP SHALL BE INSTALLED ON THE UPSTREAM SIDE OF THE RCP, 1.5' DEPTH WITH FILTER FABRIC BENEATH. CONTRACTOR WILL RIPRAP 10' UPSTREAM OF PIPE AND SIDE SLOPES TO ELEVATION 1020.0 AS SHOWN. ALL EXCAVATION REQUIRED FOR ROCK RIPRAP SHALL BE CONSIDERED "INCIDENTAL." TOTAL OF 100 TON.

DU CLASS III ROCK RIPRAP SHALL BE INSTALLED ON THE DOWNSTREAM SIDE OF THE RCP, 2' DEPTH WITH FILTER FABRIC BENEATH. CONTRACTOR WILL RIPRAP 25' DOWNSTREAM OF PIPE AND UP SIDE SLOPES TO ELEVATION 1019.00 AS SHOWN. ALL EXCAVATION REQUIRED FOR ROCK RIPRAP SHALL BE CONSIDERED "INCIDENTAL." TOTAL OF 200 TON.

PAYMENT FOR ROCK RIPRAP (EXCAVATION, SPOIL REMOVAL, NON-WOVEN FILTER FABRIC, ROCK, AND INSTALLATION) SHALL BE PAID FOR BASED ON THE CONTRACTORS UNIT BID PRICE FOR "DU CLASS II & III."

CLEARING & GRUBBING NOTE:

EXISTING TREES AND BRUSH ARE PRESENT ON THE WEST SIDE OF THE EXISTING DITCH. CONTRACTOR SHALL ONLY REMOVE THOSE TREES/BRUSH THAT ARE WITHIN THE CONSTRUCTION AREA, AS DETERMINED BY THE DU FIELD ENGINEER. DEBRIS SHALL BE REMOVED AND DEPOSITED IN BORROW AREA OR OTHER AS DETERMINED BY AGENCY. SUCH TREE/BRUSH REMOVAL SHALL BE PAID FOR BASED ON THE CONTRACTORS UNIT BID PRICE FOR "CLEARING & GRUBBING."

Revision Number	Sheet Number	Revisions	Date	By
2	4 & 5	Changed 96"ø RCP to 10'x10'RCB	3/27/17	JS

I hereby certify that this plan, specification or report was prepared [illegible]

James A. Streifel, P.E.
for Ducks Unlimited, Inc.
License No. 47359

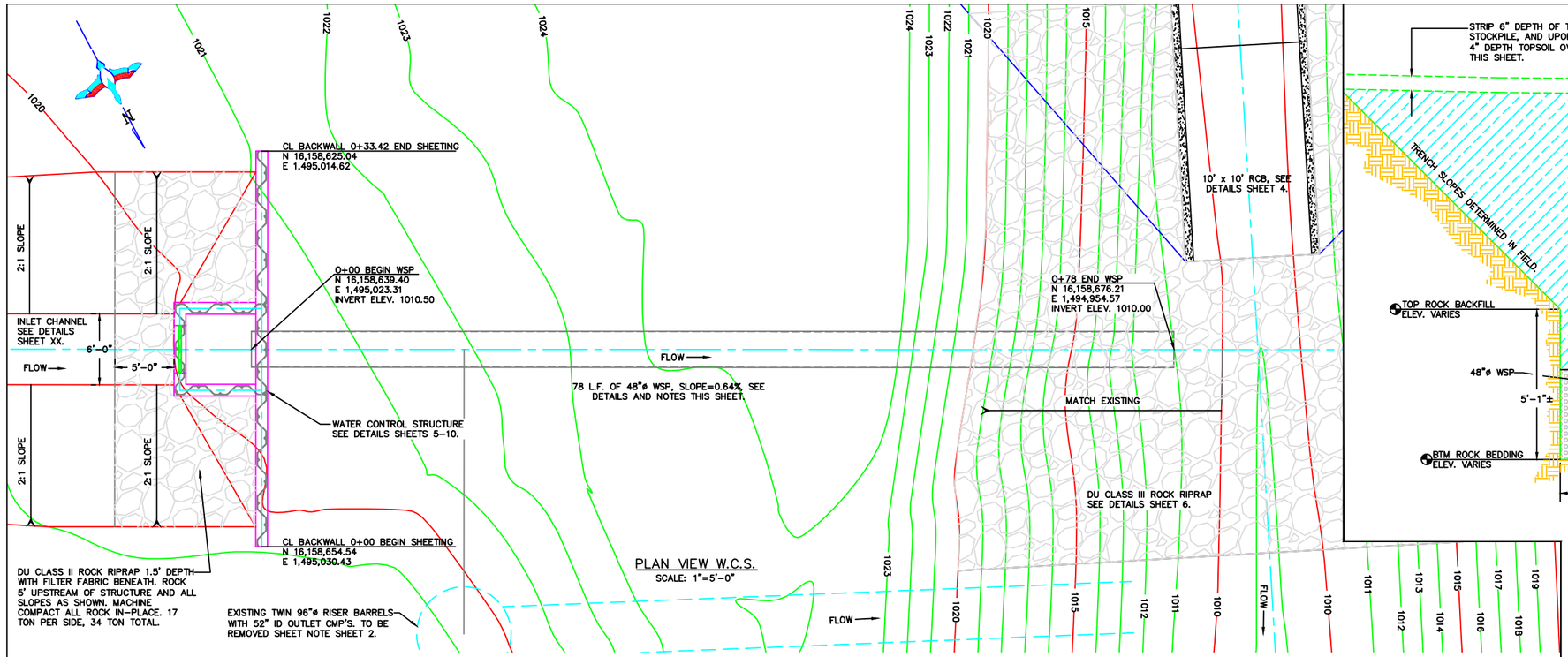
3-30-2017
Date

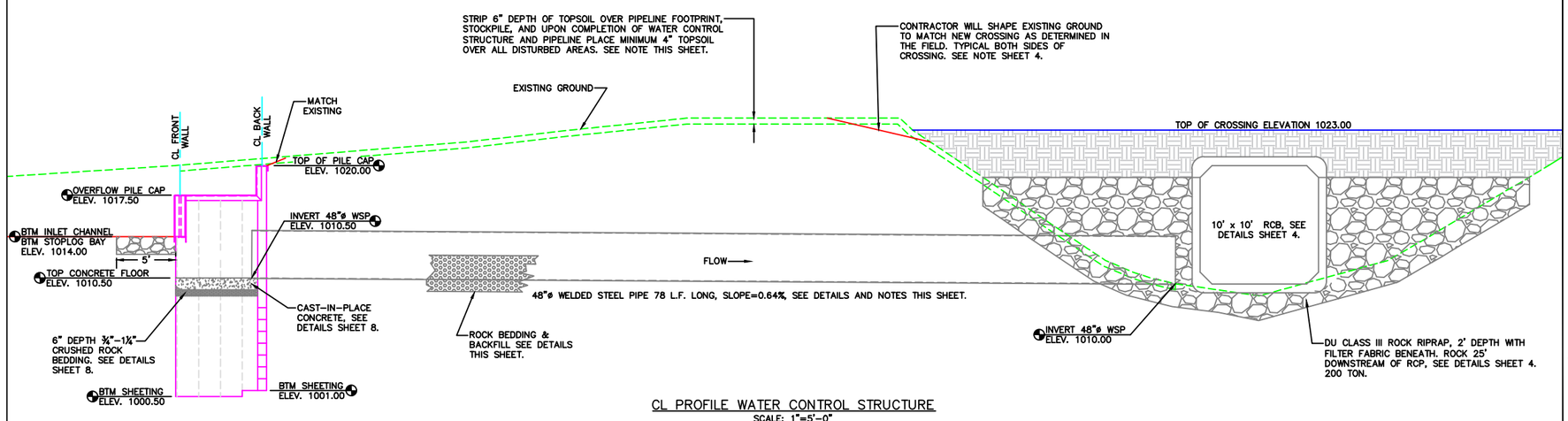
DUCKS UNLIMITED INC.
GREAT PLAINS REGIONAL OFFICE

PROJECT NO. MN-445-1
SANBORN LAKE
PLAN & PROFILE RCP CROSSING DETAILS AND NOTES

DESIGNED BY: JAS
DRAWN BY: MLO
SURVEYED BY: GLJ
CHECKED BY: .

DATE: 3-27-17
SHEET NO. 4
APPROVED BY: .
APPROVED BY: .





CL PROFILE WATER CONTROL STRUCTURE
SCALE: 1"=5'-0"

ESTIMATED QUANTITIES:

48"ø WELDED STEEL PIPE (WSP)	78 L.F.
¾"-1¼" CRUSHED ROCK BEDDING/BACKFILL	90 TON
DU CLASS II ROCK RIPRAP	34 TON

48" ø WSP INSTALLATION:

CONTRACTOR SHALL INSTALL 78 LINEAL FEET OF 48"ø WELDED STEEL PIPE (WSP) AT A SLOPE OF 0.64%. TYPICAL INSTALLATION WILL BE 1' DEPTH OF ROCK BEDDING AND BACKFILL TO SPRING LINE OF PIPE. NON-WOVEN FILTER FABRIC WILL BE INSTALLED OVER TOP OF ROCK BACKFILL AFTER INSTALLATION OF WSP AND BEFORE REMAINING BACKFILLING OPERATIONS. NON-WOVEN FILTER FABRIC SHALL BE CONSIDERED "INCIDENTAL" TO WSP INSTALLATION.

PAYMENT FOR MATERIALS (WSP, NON-[redacted] BE PAID FOR BASED ON THE CONTRACTOR'S UNIT BID PRICE FOR "48" ø WSP.

SITE PREPARATION NOTE:

6" DEPTH TOPSOIL SHALL BE STRIPPED FROM BENEATH THE PIPELINE AND W.C.S. FOOTPRINT AND STOCKPILED PRIOR TO INSTALLING WSP. UPON COMPLETION OF WSP AND STRUCTURE CONTRACTOR SHALL PLACE MIN. 4" DEPTH TOPSOIL OVER ALL DISTURBED AREAS NOT RECEIVING ROCK RIPRAP. ANY ADDITIONAL TOPSOIL SHALL BE WASTED IN BORROW AREA OR AS DIRECTED BY THE DU FIELD ENGINEER.

THE CONTRACTOR SHALL LEVEL ALL TOPSOIL SUITABLE ENOUGH FOR SEEDING & MULCHING, AS DETERMINED BY DU FIELD ENGINEER. PAYMENT FOR STRIPPING, STOCKPILING, REMOVAL/DEPOSITING, AND PLACEMENT SHALL BE PAID FOR BASED ON THE CONTRACTOR'S UNIT BID PRICE FOR "SITE PREPARATION."

PIPELINE INSTALLATION & COFFERDAM NOTE:

IN-SITU MATERIAL CAN BE USED TO BACKFILL OPEN TRENCH PROVIDING THE CONTRACTOR RE-COMPACTS MATERIAL USING A SHEEP'S FOOT OR APPROVED COMPACTION EQUIPMENT. ANY EXCESS MATERIAL FROM STRUCTURE AREA/PIPELINE CAN BE USED IN CROSSING PROVIDING IT IS SUITABLE MATERIAL. A COFFERDAM WILL LIKELY BE NEEDED PRIOR TO PIPELINE/STRUCTURE INSTALLATION, THIS MATERIAL CAN COME FROM OPEN TRENCH EXCAVATION PROVIDING THE CONTRACTOR FILLS VOID AFTER STRUCTURE/WSP INSTALLATION WITH SIMILAR MATERIAL (NOT SATURATED CLAY FROM COFFERDAM). ALL MATERIAL PLACED IN THE LAKE BED SHALL BE REMOVED ENTIRELY PRIOR TO FINAL INSPECTION.

ALL BACKFILLING OPERATIONS AND COFFERDAM SHALL BE CONSIDERED "INCIDENTAL" TO WSP PIPE INSTALLATION."

RIPRAP NOTE:

DU CLASS II ROCK RIPRAP SHALL BE INSTALLED ON THE UPSTREAM SIDE OF THE WATER CONTROL STRUCTURE, 1.5' DEPTH WITH FILTER FABRIC BENEATH. CONTRACTOR WILL RIPRAP 5' UPSTREAM OF STRUCTURE AND ALL SIDE SLOPES AS SHOWN. ROCK SHALL BE MACHINE COMPACTED TO ENSURE A STABLE/UNIFORM LOOK. ALL EXCAVATION REQUIRED FOR ROCK RIPRAP SHALL BE CONSIDERED "INCIDENTAL." TOTAL OF 34 TON.

PAYMENT FOR ROCK RIPRAP (EXCAVATION, SPOIL REMOVAL, NON-WOVEN FILTER FABRIC, ROCK, AND INSTALLATION) SHALL BE PAID FOR BASED ON THE CONTRACTORS UNIT BID PRICE FOR "DU CLASS II."

REMOVAL OF EXISTING STRUCTURE NOTE:

THE CONTRACTOR WILL REMOVE THE EXISTING 96"ø CMP RISER BARRELS AND CMP OUTLET PIPES. SUCH MATERIAL SHALL BECOME PROPERTY OF THE CONTRACTOR FOR PROPER DISPOSAL OFF-SITE. CONTRACTOR WILL BE REQUIRED TO RE-COMPACT IN-SITU MATERIAL TO 95% OF A STANDARD PROCTOR. A SHEEP'S FOOT OR OTHER APPROVED METHOD SHALL BE USED.

PAYMENT FOR REMOVAL, DISPOSAL, AND RE-COMPACTING VOID SHALL BE PAID FOR BASED ON THE CONTRACTORS UNIT BID PRICE FOR "REMOVAL OF EXISTING STRUCTURES."

Revision Number	Sheet Number	Revisions	Date	By
2	4 & 5	Changed 96"ø RCP to 10'x10'RCB	3/27/17	JS

I hereby certify that this plan, specification or report was prepared [redacted] Minnesota.

James A. Streifel, P.E.
for Ducks Unlimited, Inc.
License No. 47359

3-30-2017
Date

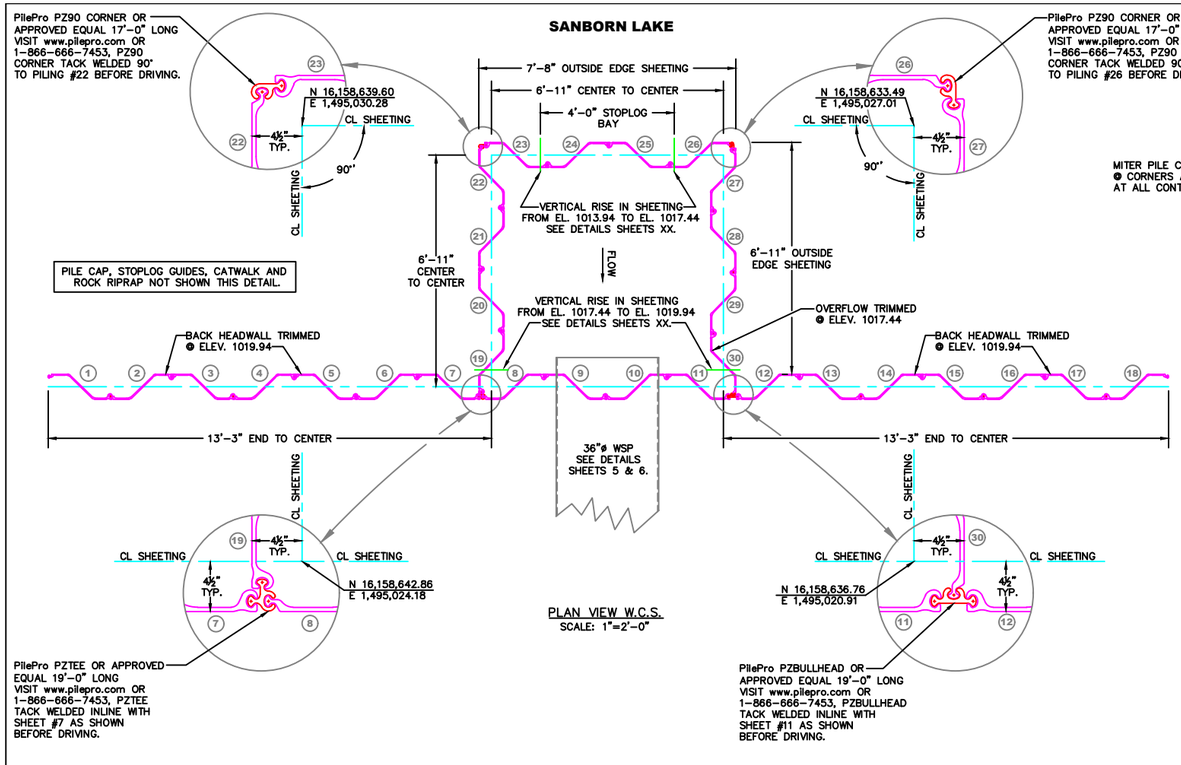
DUCKS UNLIMITED INC.
GREAT PLAINS REGIONAL OFFICE

PROJECT NO. MN-445-1
SANBORN LAKE
PLAN & PROFILE W.C.S.
DETAILS AND NOTES

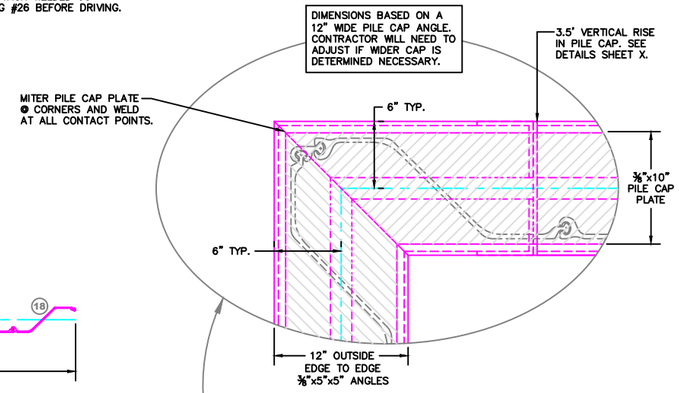
DESIGNED BY: JAS
DRAWN BY: MLO
SURVEYED BY: GLJ
CHECKED BY: .

DATE: 3-27-2017
SHEET NO. 5
APPROVED BY: .
APPROVED BY: .

SANBORN LAKE



PLAN VIEW W.C.S.
SCALE: 1"=2'-0"



SHEET PILE SPECIFICATIONS & NOTES:

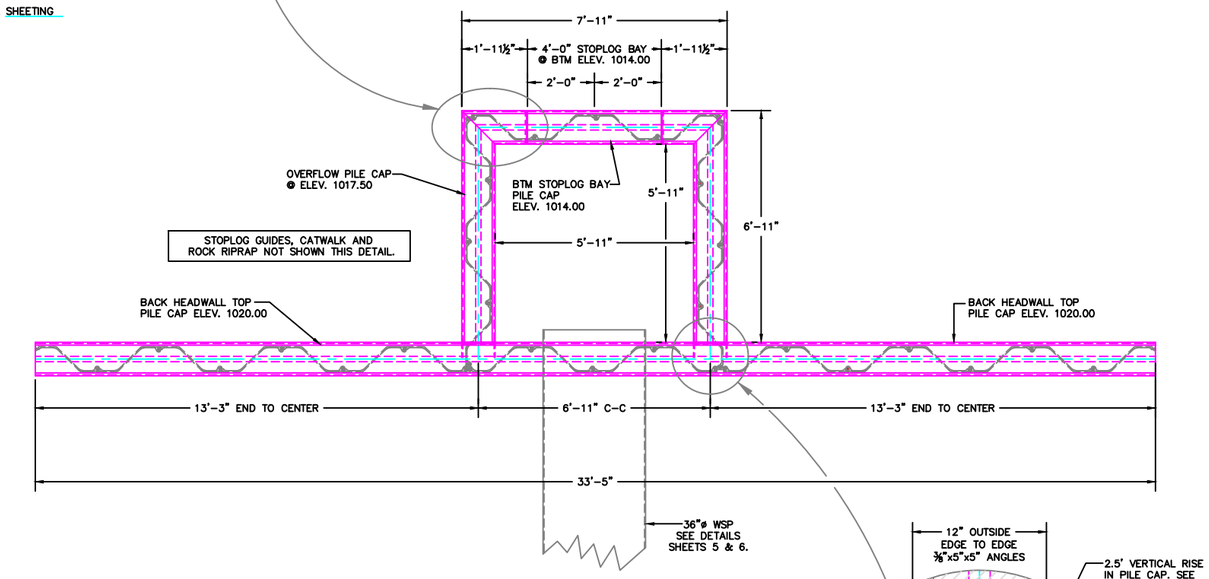
PZ-22 SHEET PILE OR APPROVED EQUAL
MINIMUM THICKNESS 0.375 INCHES
MINIMUM SECTION MODULUS 18.1 IN^3/LF OF WALL

PZ-22 SHEET PILE: {PZ-22 (22" LONG)}

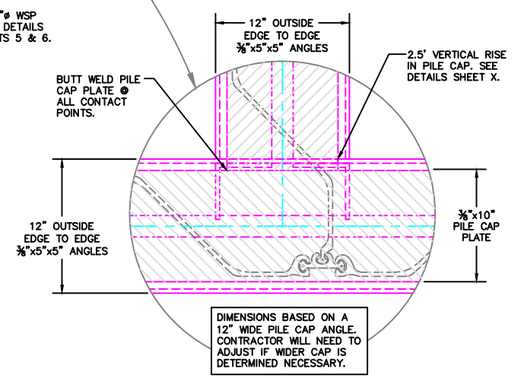
SHEETING: #1 & #18 @ 12' LONG	2 REQ'D (44 S.F.)
SHEETING: #2 & #17 @ 13' LONG	2 REQ'D (47.67 S.F.)
SHEETING: #24 & #25 @ 13.5' LONG	2 REQ'D (49.50 S.F.)
SHEETING: #3 & #16 @ 14' LONG	2 REQ'D (51.33 S.F.)
SHEETING: #4 & #15 @ 15' LONG	2 REQ'D (55 S.F.)
SHEETING: #5 & #14 @ 16' LONG	2 REQ'D (58.67 S.F.)
SHEETING: #6, #13, #20, #21, #22, #23, #26, #27, #28, #29 @ 17' LONG	10 REQ'D (311.67 S.F.)
SHEETING: #7 & #12 @ 18' LONG	2 REQ'D (66 S.F.)
SHEETING #8, #9, #10, #11, #19, #30 @ 19' LONG	6 REQ'D (209 S.F.)
TOTAL SQUARE FOOT =	893 S.F.-P
PilePro PZ90 CORNERS 17' LONG	2 REQ'D
PilePro PZTEE 19' LONG	1 REQ'D
PilePro PZBULLHEAD 19' LONG	1 REQ'D

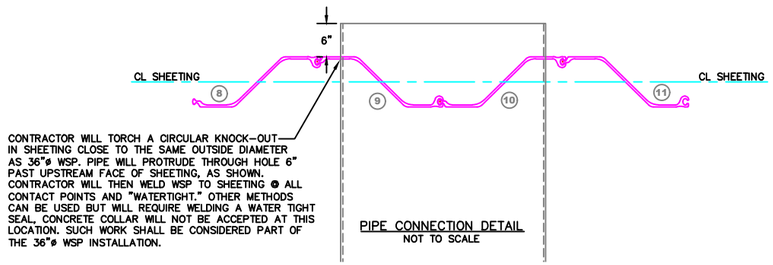
PILE CAP:
⅜"x10" PLATE 68 L.F.
⅜"x5"x5" ANGLES 136 L.F.

SANBORN LAKE

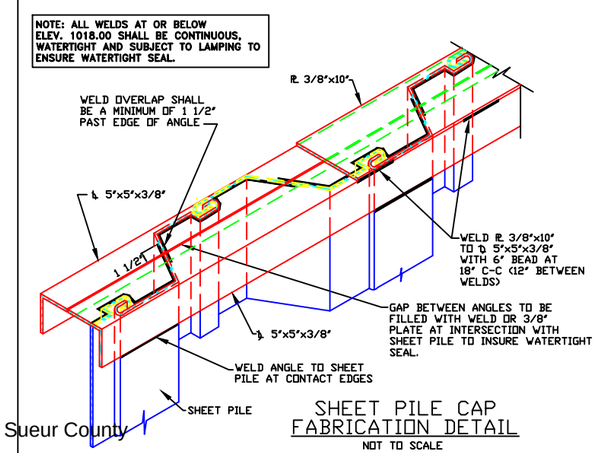


PLAN VIEW W.C.S.
SCALE: 1"=2'-0"

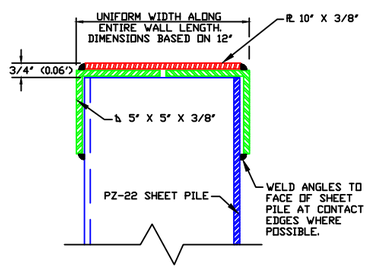




PIPE CONNECTION DETAIL
NOT TO SCALE



SHEET PILE CAP FABRICATION DETAIL
NOT TO SCALE



NOTE: CAP WIDTH VARIES DEPENDING ON ALIGNMENT OF SHEET PILE WALL; HOWEVER, ONCE THE

PILE CAP SECTION VIEW
NOT TO SCALE

NOTES:
1. ALL WELDS TO BE 1/4" FILLET WELDS (SEE D.U. SPECIFICATIONS).
2. ALL WELDS WILL BE SUBJECT TO LAMPING. ANY AREAS FAILING WILL BE REWELDED BEFORE ACCEPTANCE OF PROJECT.
3. TOP OF SHEET PILE SHALL BE TRIMMED TO GRADES INDICATED ON PLANS TO REMOVE ANY DAMAGE CAUSED BY DRIVING. ANY TRIMMING OVER 3" SHALL BE CONSIDERED CUT-OFF AND WILL BE DEDUCTED FROM THE COST OF "SHEET PILE INSTALLATION."
4. ABOVE 1018.00 PILE CAP NEED NOT BE WATERTIGHT, WELDS SHALL CONSIST OF A 6" BEAD AT 18" C-C (12" BETWEEN WELDS).
5. LENGTH OF PILE CAP AS SHOWN ON PLANS.
6. ALL WELDS AROUND STOPLOG BAY TO BE CONTINUOUS TO INSURE A WATERTIGHT SEAL.

Revision Number	Sheet Number	Revisions	Date	By
2	4 & 5	Changed 96"ø RCP to 10'x10'RCB	3/27/17	JS

I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.
James A. Streifel, P.E.
for Ducks Unlimited, Inc.
License No. 47359
3-30-2017
Date

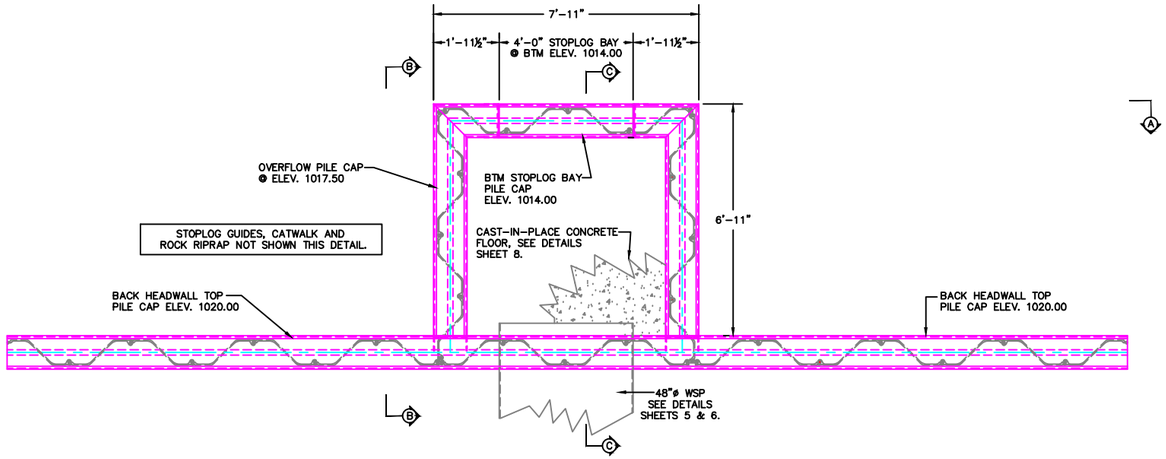
DUCKS UNLIMITED INC.
GREAT PLAINS REGIONAL OFFICE

PROJECT NO. MN-445-1
SANBORN LAKE
WATER CONTROL STRUCTURE
DETAILS AND NOTES

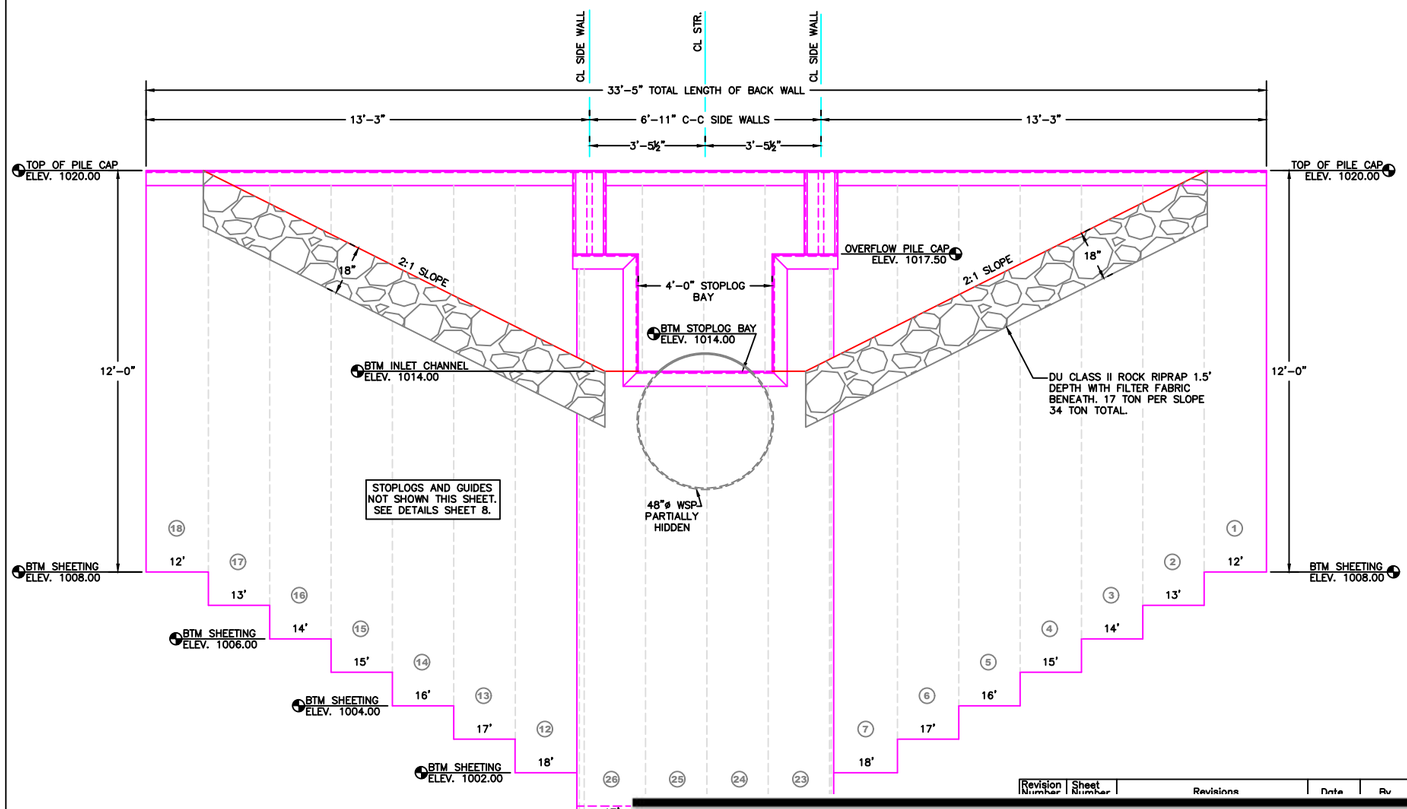
DESIGNED BY: JAS
DRAWN BY: MLO
SURVEYED BY: GLJ
CHECKED BY: .

DATE: 3-27-17
SHEET NO. 6
APPROVED BY: .
APPROVED BY: .

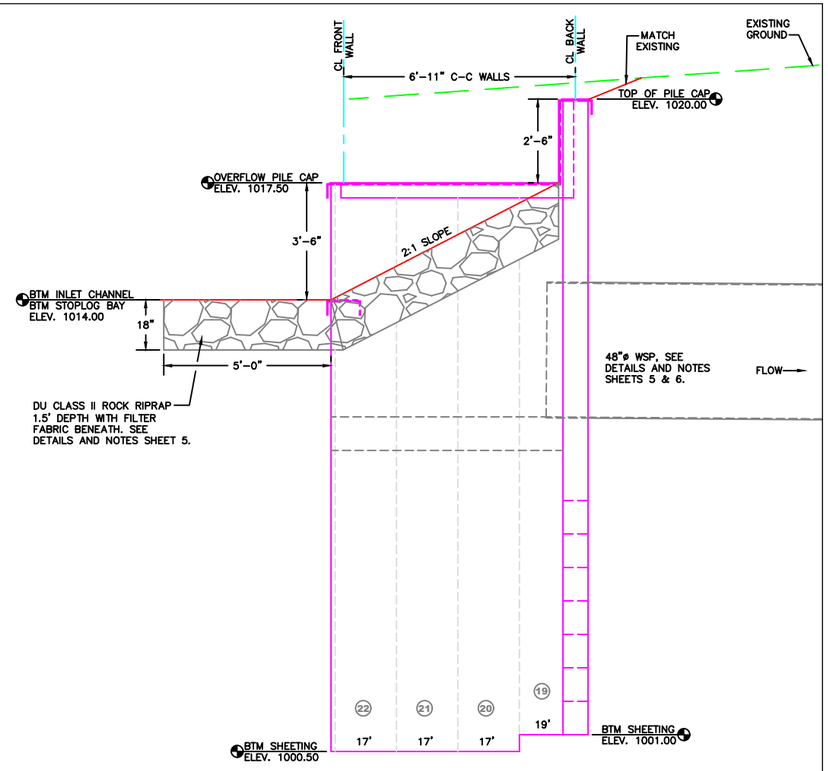
SANBORN LAKE



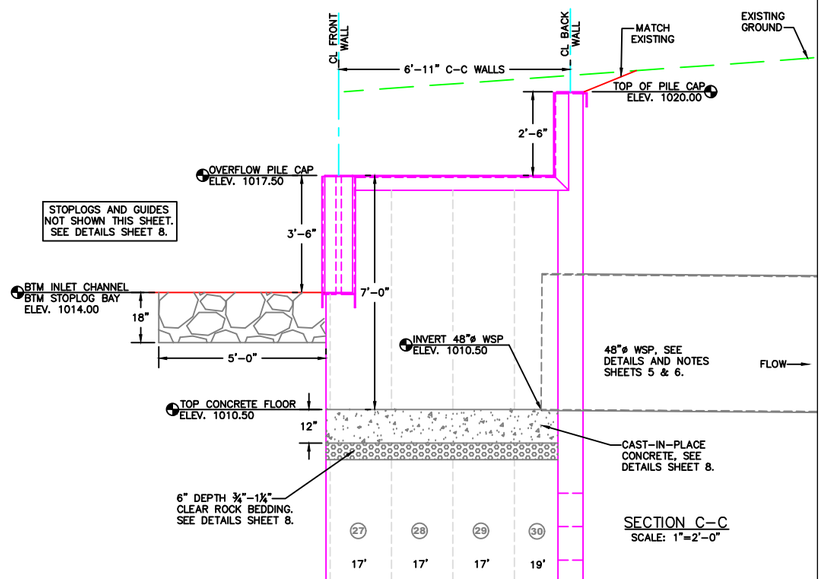
PLAN VIEW WATER CONTROL STRUCTURE
SCALE: 1"=2'-0"



SECTION A-A
SCALE: 1"=2'-0"



SECTION B-B
SCALE: 1"=2'-0"



SECTION C-C
SCALE: 1"=2'-0"

Revision Number	Sheet Number	Revisions	Date	By
2	4 & 5	Changed 96"ø RCP to 10'x10'RCB	3/27/17	JS

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James A. Streifel, P.E.
for Ducks Unlimited, Inc.
License No. 47359

3-30-2017
Date

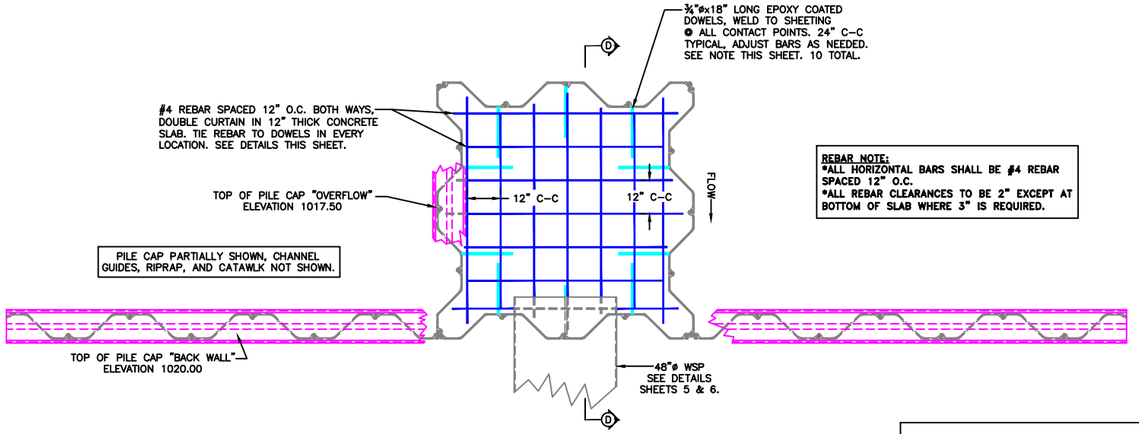
DUCKS UNLIMITED INC.
GREAT PLAINS REGIONAL OFFICE

PROJECT NO. MN-445-1
SANBORN LAKE
WATER CONTROL STRUCTURE
DETAILS AND NOTES

DESIGNED BY: JAS
DRAWN BY: MLO
SURVEYED BY: GLJ
CHECKED BY: .

DATE: 3-27-2017
SHEET NO. 7
APPROVED BY: .
APPROVED BY: .

SANBORN LAKE



PLAN VIEW WATER CONTROL STRUCTURE
SCALE: 1"=2'-0"

REBAR NOTE:
*ALL HORIZONTAL BARS SHALL BE #4 REBAR SPACED 12" O.C.
*ALL REBAR CLEARANCES TO BE 2" EXCEPT AT BOTTOM OF SLAB WHERE 3" IS REQUIRED.

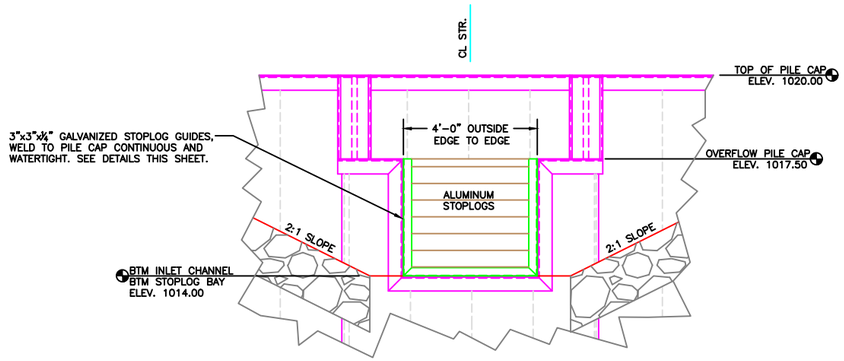
¾"ø x 18" LONG DOWEL NOTE:

¾"ø x 18" LONG EPOXY COATED DOWELS SHALL BE WELDED TO THE INSIDE SHEET PILE WATER CONTROL STRUCTURE @ 24" C–C SPACING, ADJUST BARS AS NEEDED. 6 REQ'D ALONG FRONT/BACKWALL SHEETING, 4 REQ'D ALONG SIDE SHEETING (10 TOTAL). CONTRACTOR SHALL USE 2–PART EPOXY COATING WHERE DOWELS ARE WELDED TO SHEETING, AREA SHALL BE RE–COATED WITH EPOXY COATING AS MANUFACTURE RECOMMENDS. ALL DOWELS SHALL BE EPOXY COATED. PAYMENT FOR MATERIALS & INSTALLATION OF SUCH SHALL BE PAID FOR BASED ON THE CONTRACTORS UNIT BID PRICE FOR "CAST–IN–PLACE CONCRETE."

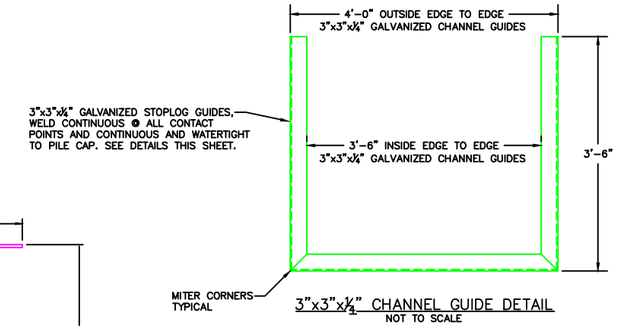
CONSTRUCTION NOTES:

A. CONCRETE (CAST–IN–PLACE) SEE DU SPECIFICATION 208.

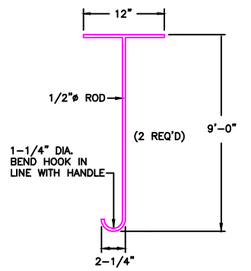
1. fc'= 4,000 PSI
2. REINFORCEMENT A615, GRADE 60 fy,= 60,000 PSI
3. REINFORCEMENT ON CORNERS SHALL BE CONTINUOUS OR INCLUDE A LAP LENGTH WITH 36 BAR DIAMETER.
4. MINIMUM COVER ON REINFORCEMENT STEEL SHALL BE 3" WHEN IT IS ADJACENT TO THE GROUND AND 2" MINIMUM IN ALL OTHER AREAS.
6. ALL EXPOSED EDGES SHALL BE FINISHED WITH ¾" CHAMFER.
7. ALL CONCRETE SHOWN SHALL BE REINFORCED. SECTIONS AND PLANS SHOWN WITHOUT REINFORCEMENT ARE INTENDED TO SHOW DIMENSIONS AND DETAILS OF CONSTRUCTION ONLY. REINFORCEMENT OF THESE SECTIONS SHALL BE PROVIDED IN ACCORDANCE WITH DETAILS SHOWING REINFORCEMENT.



FRONT VIEW WATER CONTROL STRUCTURE
SCALE: 1"=2'-0"



3"x3"x¼" CHANNEL GUIDE DETAIL
NOT TO SCALE



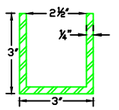
STOPLOG LIFTING HOOK DETAIL
NOT TO SCALE

MATERIAL LIST:

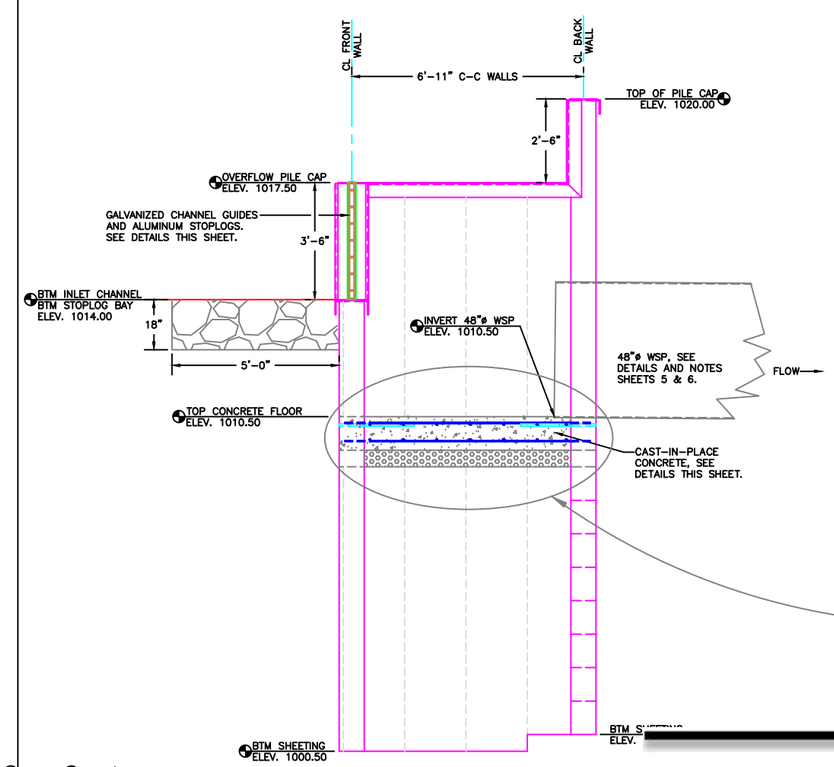
GALVANIZED CHANNEL GUIDES:	
3"x3"x¼" GALVANIZED STOPLOG GUIDES	11 L.F.
GALVANIZED STOPLOG LIFTING HOOKS:	
½"ø GALVANIZED ROD LIFTING HOOKS	2 REQ'D
ALUMINUM STOPLOGS:	
2"x3"x¼" ALUMINUM STOPLOG WITH NO LIFTING HOLES	1 REQ'D
2"x3"x¼" ALUMINUM STOPLOG WITH LIFTING HOLES	1 REQ'D
2"x6"x¼" ALUMINUM STOPLOG WITH LIFTING HOLES	6 REQ'D
CAST–IN–PLACE CONCRETE:	
#4 REBAR	180 L.F.
#6 EPOXY COATED DOWELS 18" IN LENGTH	10 REQ'D
4,000 PSI CONCRETE	2 C.Y.

*THIS LIST IS PROVIDED FOR INFORMATION ONLY. ADDITIONAL MATERIALS NOT LISTED HERE MAY BE REQUIRED. BIDDER IS RESPONSIBLE FOR VERIFYING ALL QUANTITIES. ALSO, ADDITIONAL LENGTH OF STEEL STOCK BEYOND WHAT'S LISTED HERE MAY BE REQUIRED TO ALLOW FOR FABRICATION.

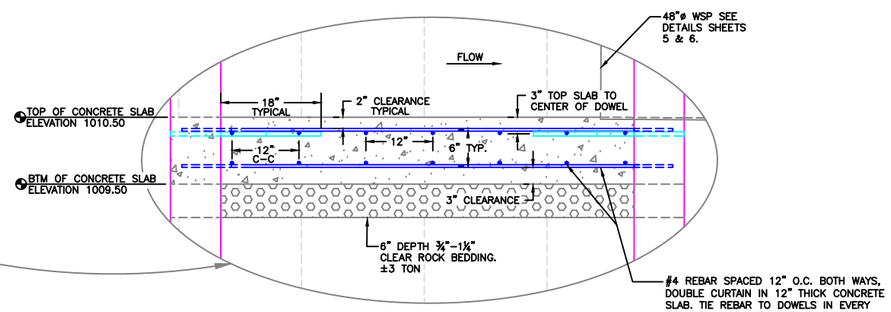
SUPPLIER MAY SPLIT TS 6"x 3"x 1/4" TO FORM CHANNEL. CHANNELS SHALL BE GALVANIZED.

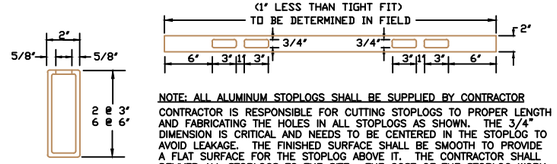


STOPLOG CHANNEL DETAIL
NOT TO SCALE



SECTION D–D
SCALE: 1"=2'-0"





NOTE: ALL ALUMINUM STOPLOGS SHALL BE SUPPLIED BY CONTRACTOR

CONTRACTOR IS RESPONSIBLE FOR CUTTING STOPLOGS TO PROPER LENGTH AND FABRICATING THE HOLES IN ALL STOPLOGS AS SHOWN. THE 3/4" DIMENSION IS CRITICAL AND NEEDS TO BE CENTERED IN THE STOPLOG TO AVOID LEAKAGE. THE FINISHED SURFACE SHALL BE SMOOTH TO PROVIDE A FLAT SURFACE FOR THE STOPLOG ABOVE IT. THE CONTRACTOR SHALL DELIVER ALL STOPLOGS TO THE SITE. THE COST OF THE STOPLOG WORK SHALL BE PAID FOR BASED ON CONTRACTOR'S UNIT BID PRICE FOR "ALUMINUM STOPLOGS."

ALUMINUM STOPLOG DETAIL
NOT TO SCALE

Revision Number	Sheet Number	Revisions	Date	By
2	4 & 5	Changed 96"ø RCP to 10'x10'RCB	3/27/17	JS

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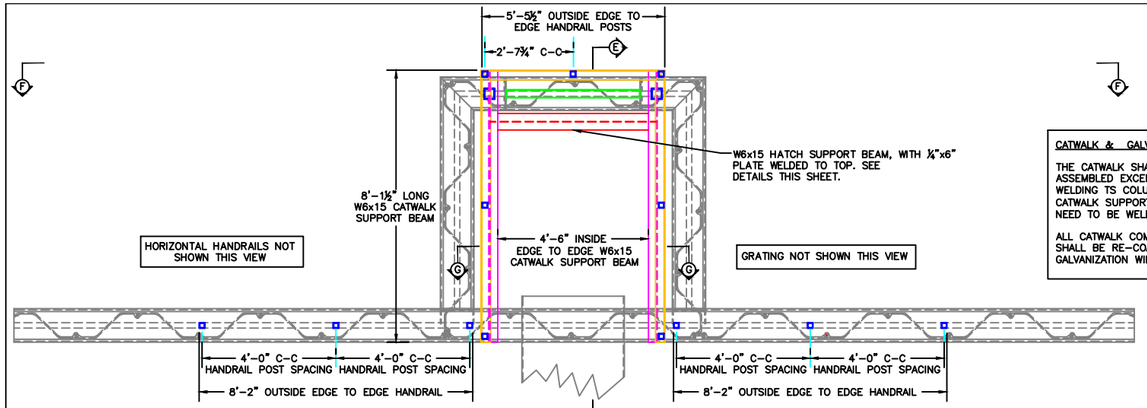
James A. Streifel, P.E.
for Ducks Unlimited, Inc.
License No. 47359
3-30-2017
Date

DUCKS UNLIMITED INC.
GREAT PLAINS REGIONAL OFFICE

PROJECT NO. MN–445–1
SANBORN LAKE
CAST–IN–PLACE CONCRETE & GUIDES/STOPLOG DETAILS

DESIGNED BY: JAS
DRAWN BY: MLO
SURVEYED BY: GLJ
CHECKED BY: .

DATE: 3-27-2017
SHEET NO. 8
APPROVED BY: .
APPROVED BY: .



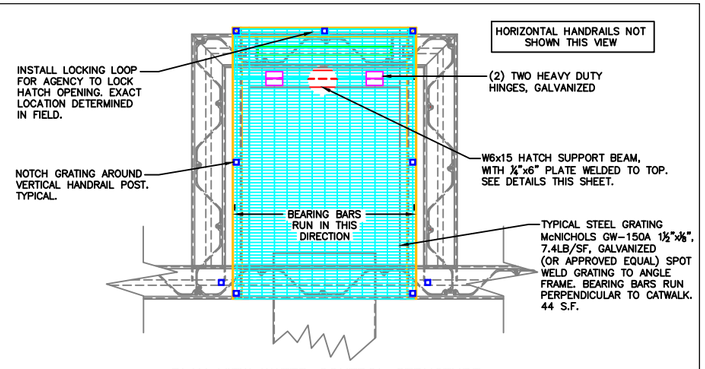
PLAN VIEW WATER CONTROL STRUCTURE

SCALE: 1"=2'-0"

CATWALK & GALVANIZING NOTE:

THE CATWALK SHALL BE SHOP FABRICATED OFF-SITE AND DELIVERED FULLY ASSEMBLED EXCEPT FOR THE TS COLUMNS. THE ONLY FIELD WELDING SHOULD BE: WELDING TS COLUMNS/PLATE TO THE PILE CAP AND W6x15 BEAMS. ALSO WELDING W6x15 CATWALK SUPPORT BEAMS TO THE "BACK WALL" PILE CAP. THE SIDE HANDRAILS WILL ALSO NEED TO BE WELDED TO THE PILE CAP BUT SHOULD COME PRE-FABRICATED TO THE SITE.

ALL CATWALK COMPONENTS AND SIDE HANDRAILS WILL BE GALVANIZED. ANY FIELD WELDING SHALL BE RE-COATED WITH A COLD GALVANIZATION SPRAY TO MATCH. THE COST OF GALVANIZATION WILL BE CONSIDERED "INCIDENTAL" TO STRUCTURAL STEEL.



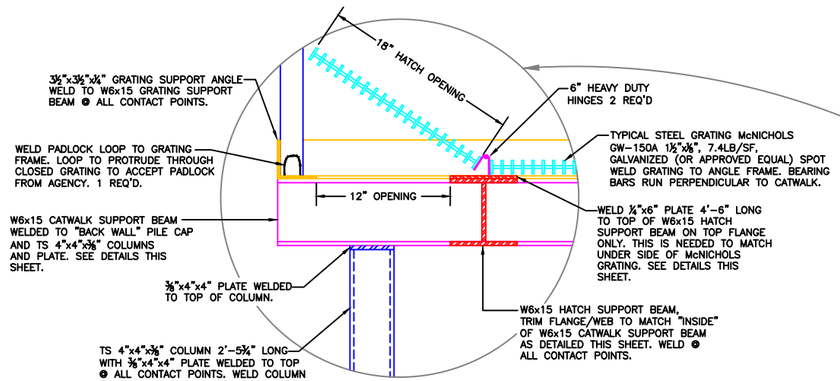
PLAN VIEW WATER CONTROL STRUCTURE

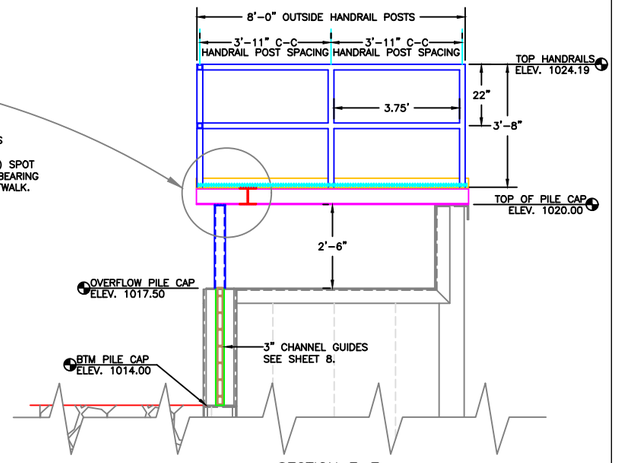
SCALE: 1"=2'-0"

MATERIAL LIST:

GALVANIZED HANDRAIL'S ALONG "BACK WALL":	
TS 2"x2"x⅜" HANDRAIL POST 3'-8" LONG	6 REQ'D
TS 2"x2"x³⁄₁₆" HANDRAIL	31 L.F.
CATWALK MEMBERS (ALL GALVANIZED):	
W6x15 CATWALK SUPPORT BEAMS 8'-1½" LONG	2 REQ'D
W6x15 HATCH SUPPORT BEAM 4'-11¾"± LONG	1 REQ'D
¼"x6" PLATE 4'-6" LONG	1 REQ'D
TS ⅜"x4"x4" COLUMN 2'-5¾" LONG	2 REQ'D
⅜"x4"x4" PLATE	2 REQ'D
3½"x3½"x¼" GRATING SUPPORT ANGLE	22 L.F.
TS 2"x2"x³⁄₁₆" HANDRAIL POST 3'-8" LONG	7 REQ'D
TS 2"x2"x³⁄₁₆" HANDRAIL	40 L.F.
6" HEAVY DUTY HINGES	2 REQ'D
LOCKING LOOP	1 REQ'D
McNICHOLS BAR GRATING GW-150A 7.4LBS/SQ. FT.	44 S.F.

*THIS LIST IS PROVIDED FOR INFORMATION ONLY. ADDITIONAL MATERIALS NOT LISTED HERE MAY BE REQUIRED. BIDDER IS RESPONSIBLE FOR VERIFYING ALL QUANTITIES. ALSO, ADDITIONAL LENGTH OF STEEL STOCK BEYOND WHAT'S LISTED HERE MAY BE REQUIRED TO ALLOW FOR FABRICATION.





SECTION E-E

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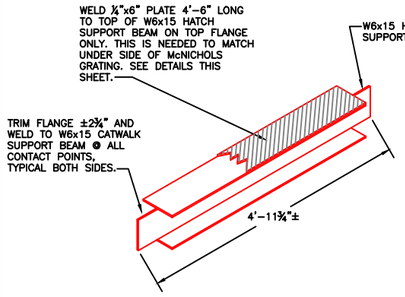
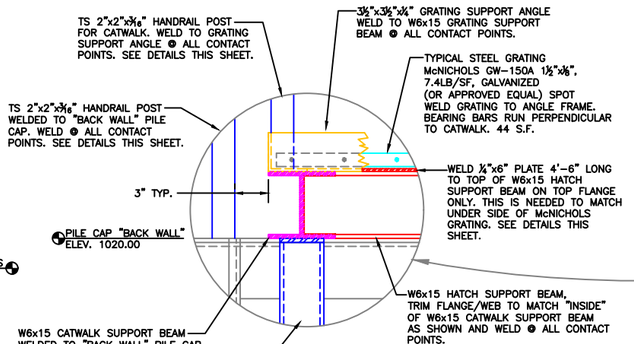


W6x15 HATCH SUPPORT BEAM DETAIL

NOT TO SCALE



SECTION F-F

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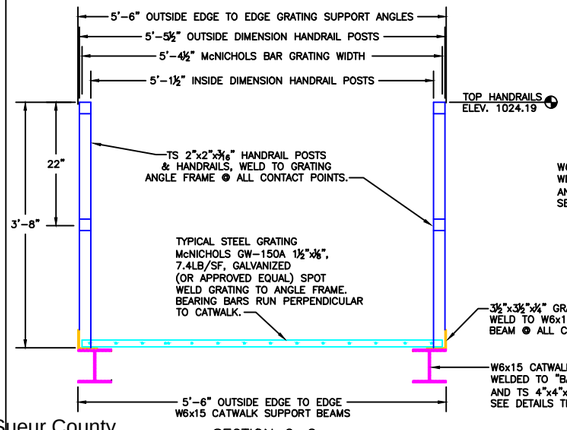


SECTION G-G

NOT TO SCALE

Revision Number	Sheet Number	Revisions	Date	By
2	4 & 5	Changed 96"ø RCP to 10'x10'RCB	3/27/17	JS

I hereby certify that this plan, specification or report was prepared [illegible]

James A. Streifel, P.E.
for Ducks Unlimited, Inc.
License No. 47359

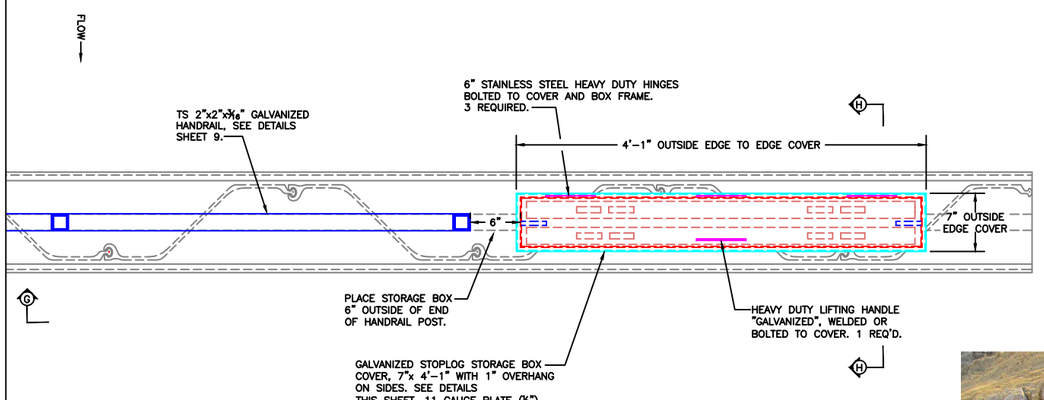
3-30-2017
Date

DUCKS UNLIMITED INC.
GREAT PLAINS REGIONAL OFFICE

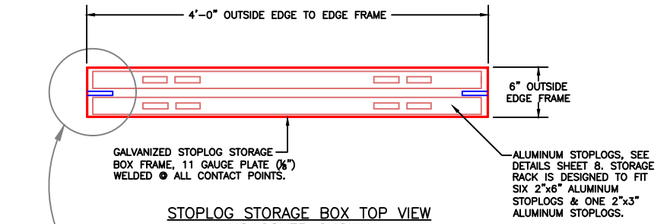
PROJECT NO. MN-445-1
SANBORN LAKE
WATER CONTROL STRUCTURE
CATWALK DETAILS

DESIGNED BY: JAS
DRAWN BY: MLO
SURVEYED BY: CLJ
CHECKED BY: .

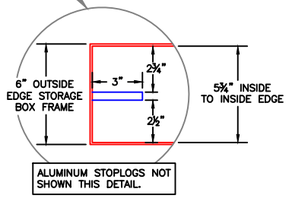
DATE:	SHEET NO.	APPROVED BY:	APPROVED BY:
3-27-2017	9	.	.



STOPLOG STORAGE BOX TOP VIEW
COVER SHOWN
NOT TO SCALE



STOPLOG STORAGE BOX TOP VIEW
NO COVER SHOWN
NOT TO SCALE



STOPLOG STORAGE BOX NOTES:

–BOX FRAME AND COVER SHALL BE 11 GAUGE (⅛" THICK) AND BE WELDED @ ALL CONTACT POINTS.

–COVER SHALL HAVE A 1" OVER HANG ON ALL SIDES.

–ALL STOPLOG STORAGE BOX COMPONENTS SHALL BE GALVANIZED.

–SUPPLIER SHALL DRILL WEEP HOLES IN BOTTOM OF BOX.

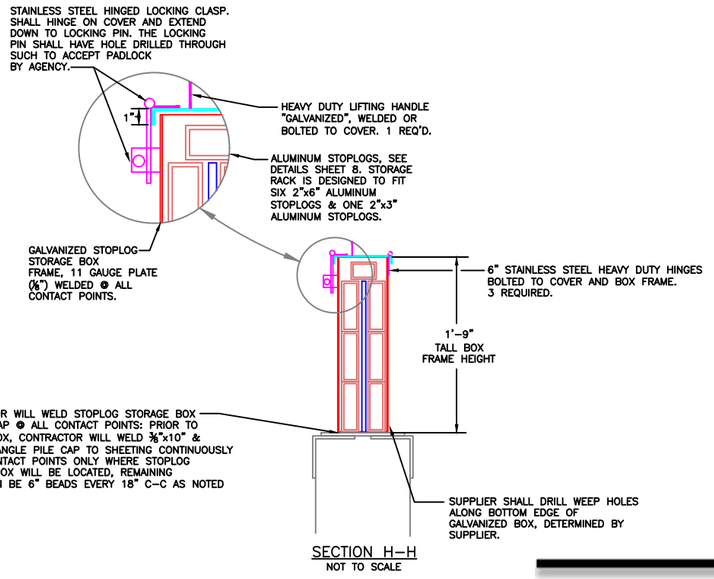
–½"x3" FLAT BARS SPACERS SHALL BE WELDED @ ALL CONTACT POINTS ALONG BOTTOM AND TACK WELDED (3" BEADS SPACED APART) ALONG BOTH SIDES OF BAR STOCK SUFFICIENT ENOUGH TO WITH STAND FIELD USE.

–SUPPLIER SHALL STAINLESS STEEL HEAVY DUTY HINGES, LIFTING HANDLE, LOCKING CLASP. AND LOCKING PIN.

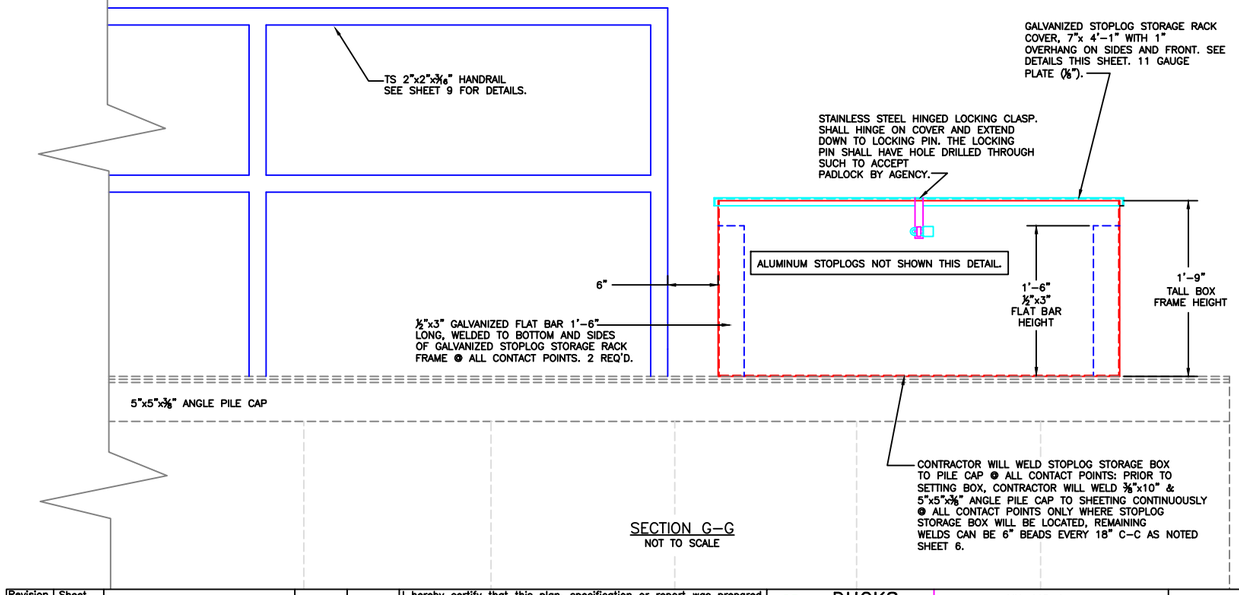
–STOPLOG STORAGE BOX WILL BE WELDED TO ⅜"x10" PILE CAP @ ALL CONTACT POINTS, PRIOR TO INSTALLING STORAGE BOX: THE CONTRACTOR SHALL WELD ⅜"x10" PILE CAP & 5"x5"x⅜" ANGLES CONTINUOUSLY TO SHEET PILING ONLY WHERE BOX FRAME IS LOCATED. REMAINING WELDS CAN BE 6" BEADS, 18" C–C AS NOTED SHEET 6.

–PAYMENT FOR STOPLOG STORAGE BOX AND ALL COMPONENTS DETAILED THIS SHEET SHALL BE BASED ON THE CONTRACTORS UNIT BID PRICE FOR "GALVANIZED STOPLOG STORAGE BOX."

EXAMPLE OF STORAGE BOX MADE BY HALLA INDUSTRIES



SECTION H–H
NOT TO SCALE



SECTION G–G
NOT TO SCALE

Revision Number	Sheet Number	Revisions	Date	By
2	4 & 5	Changed 96"ø RCP to 10'x10'RCB	3/27/17	JS

I hereby certify that this plan, specification or report was prepared [illegible] Minnesota.

James A. Streifel, P.E.
for Ducks Unlimited, Inc.
License No. 47359

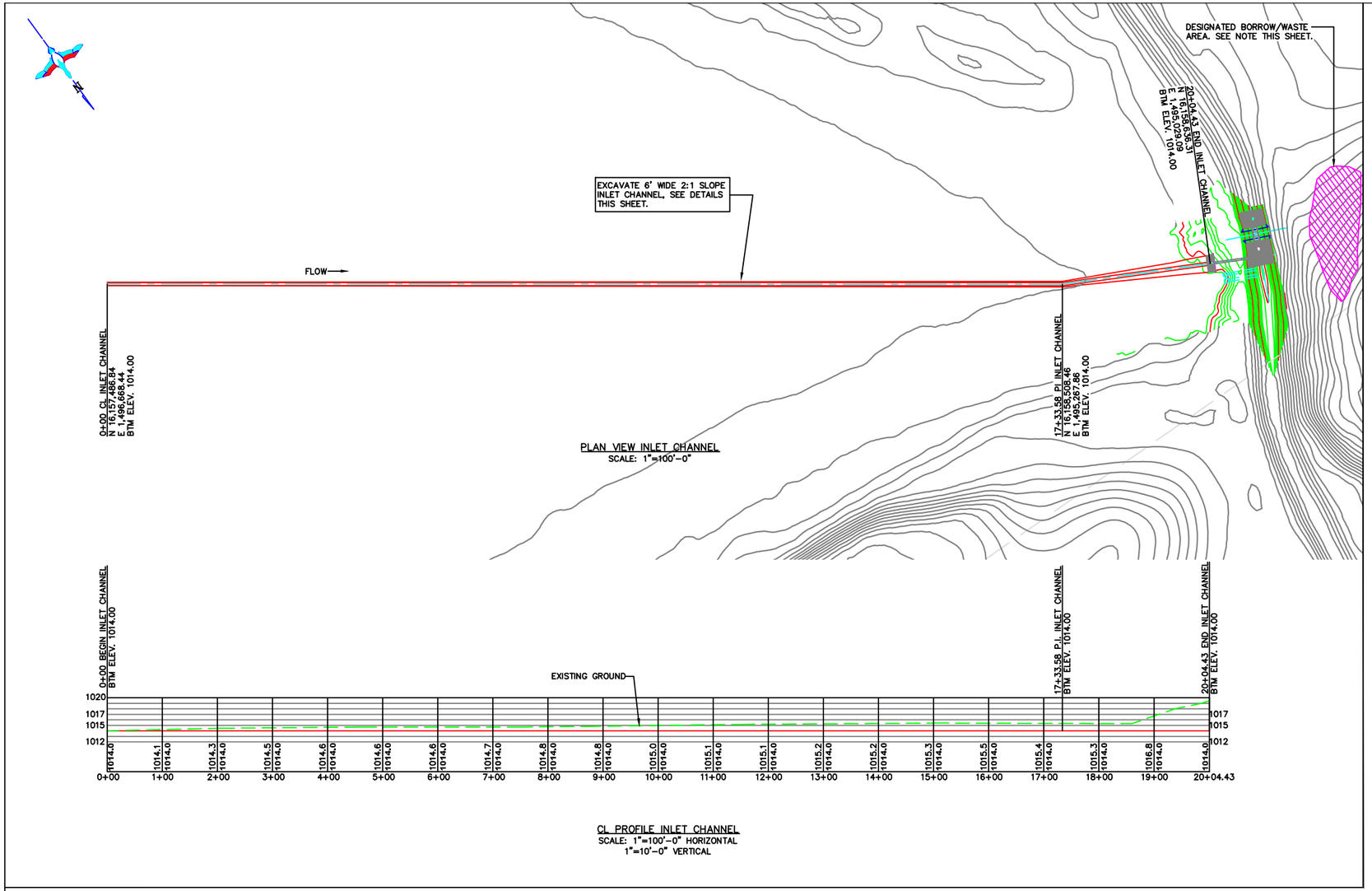
3-30-2017
Date

DUCKS UNLIMITED INC.
GREAT PLAINS REGIONAL OFFICE

PROJECT NO. MN-445-1
SANBORN LAKE
STOPLOG STORAGE BOX DETAIL

DESIGNED BY: JAS
DRAWN BY: MLO
SURVEYED BY: GLJ
CHECKED BY: .

DATE: 3-27-2017
SHEET NO. 10
APPROVED BY: .
APPROVED BY: .



ESTIMATED QUANTITIES:

INLET CHANNEL: 950 C.Y.*

*THIS IS FOR INFORMATION ONLY. PAYMENT WILL BE BASED ON LINEAR FOOT.

ESTIMATED QUANTITIES:

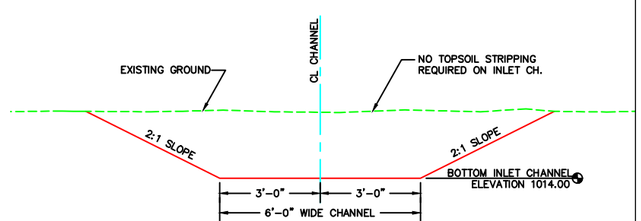
INLET CHANNEL EXC. STATIONS 0+00–20+05:
2005 LINEAR FEET

PAYMENT WILL BE BASED ON LINEAR FOOT BASIS, CONTRACTOR SHALL INCLUDE ALL COSTS ASSOCIATED WITH "CHANNEL EXCAVATION" AS NOTED THIS SHEET.

INLET CHANNEL EXCAVATION NOTES:

CONTRACTOR WILL EXCAVATE 6' WIDE 2:1 SLOPE CHANNEL @ BOTTOM ELEV. 1014.00, ALL SPOIL MATERIAL SHALL BE REMOVED FROM WETLAND AND DEPOSITED IN DESIGNATED WASTE AREA SHOWN THIS SHEET. THE WASTE AREA IS ALSO THE BORROW AREA FOR RCP CROSSING, CONTRACTOR WILL FILL "VOID" WITH SPOIL MATERIAL AND LEVEL SUITABLE ENOUGH FOR SEEDING & MULCHING. THE EXACT BORROW/WASTE AREA WILL BE LOCATED IN THE FIELD BUT FOR BIDDING PURPOSES WILL BE IN THE GENERAL AREA WEST OF RCP CROSSING. NO TOPSOIL STRIPPING REQUIRED WITHIN EXISTING CHANNEL FOOTPRINT. CONTRACTOR SHALL INCLUDE A SECOND MOBILIZATION TO RETURN WHEN WATER LEVELS HAVE LOWERED SUITABLE ENOUGH TO FINISH FULL INLET CHANNEL AS SHOWN.

PAYMENT IS BASED ON LINEAR FOOT: THIS SHALL INCLUDE BUT NOT LIMITED TO: EXCAVATOR, DOZER, TRUCKS, OPERATORS, LABORERS, MATS AND SECOND MOBILIZATION TO RETURN WHEN WATER LEVELS HAVE LOWERED TO FINISH FULL INLET CHANNEL AS SHOWN. CONTRACTOR SHALL INCLUDE ALL COSTS ASSOCIATED WITH CHANNEL EXCAVATION WORK AS NOTED. EXCAVATION REQUIRED FOR RIPRAP IS CONSIDERED "INCIDENTAL" TO THAT LINE ITEM.



TYPICAL INLET CHANNEL SECTION
SCALE: 1"=2'-0"

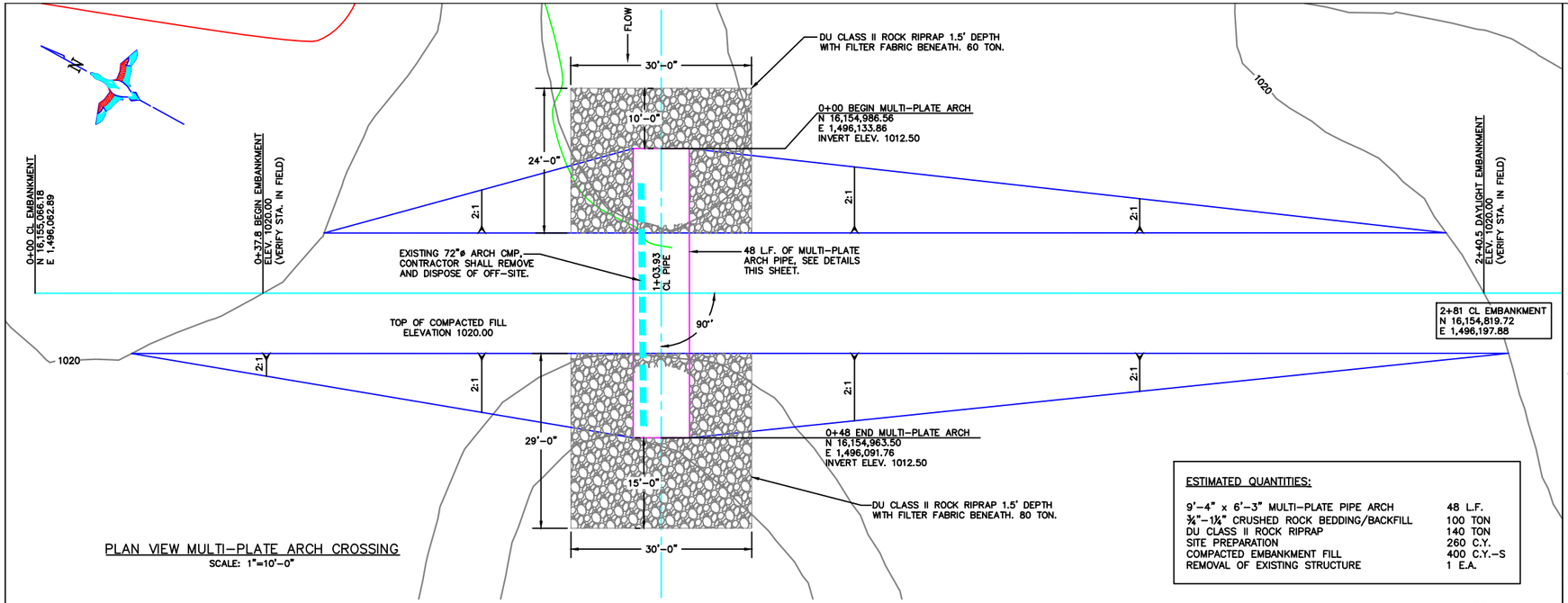
Revision Number	Sheet Number	Revisions	Date	By
2	4 & 5	Changed 96"ø RCP to 10'x10'RCB	3/27/17	JS

I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.
James A. Streifel, P.E.
for Ducks Unlimited, Inc.
License No. 47359
3-30-2017
Date

DUCKS UNLIMITED INC.
GREAT PLAINS REGIONAL OFFICE

PROJECT NO. MN-445-1
SANBORN LAKE
PLAN & PROFILE INLET CHANNEL DETAILS AND NOTES
DATE: 7-23-2015
SHEET NO. 11
APPROVED BY: .
APPROVED BY: .

DESIGNED BY: JAS
DRAWN BY: MLO
SURVEYED BY: GLJ
CHECKED BY: .



PLAN VIEW MULTI-PLATE ARCH CROSSING
SCALE: 1"=10'-0"

ESTIMATED QUANTITIES:

9'-4" x 6'-3" MULTI-PLATE PIPE ARCH	48 L.F.
¾"-1½" CRUSHED ROCK BEDDING/BACKFILL	100 TON
DU CLASS II ROCK RIPRAP	140 TON
SITE PREPARATION	260 C.Y.
COMPACTED EMBANKMENT FILL	400 C.Y.-S
REMOVAL OF EXISTING STRUCTURE	1 E.A.

SITE PREPARATION NOTE:

MINIMUM 12" DEPTH TOPSOIL SHALL BE STRIPPED FROM BENEATH THE CROSSING FOOTPRINT AND STOCKPILED PRIOR TO INSTALLING PIPE. UPON COMPLETION OF PIPE INSTALLATION/CROSSING CONTRACTOR SHALL PLACE MIN. 6" DEPTH TOPSOIL OVER ALL DISTURBED AREAS NOT RECEIVING ROCK RIPRAP. ANY ADDITIONAL TOPSOIL SHALL BE WASTED IN BORROW AREA OR AS DIRECTED BY THE DU FIELD ENGINEER.

THE CONTRACTOR SHALL LEVEL ALL TOPSOIL SUITABLE ENOUGH FOR SEEDING & MULCHING, AS DETERMINED BY DU FIELD ENGINEER. PAYMENT FOR STRIPPING, STOCKPILING, REMOVAL/DEPOSITING, AND PLACEMENT SHALL BE PAID FOR BASED ON THE CONTRACTOR'S UNIT BID PRICE FOR "SITE PREPARATION."

BORROW AREA/CROSSING NOTE:

THE BORROW AREA FOR MULTI-PLATE PIPE CROSSING IS HILL SIDE LOCATED NORTHEAST OF CROSSING, SEE SHEET 13. CONTRACTOR WILL EXCAVATE TEST HOLES WITHIN THIS GENERAL AREA TO LOOK FOR SUFFICIENT MATERIAL TO BE USED AS BACKFILL ALONG PIPE AND COMPACTED EMBANKMENT, AS DETERMINED BY THE DU FIELD ENGINEER. AFTER COMPLETION OF CROSSING AND BACKFILLING "EXISTING DITCH" (SEE SHEET 13), CONTRACTOR WILL BLEND BORROW AREA INTO EXISTING LANDSCAPE AND LEVEL ALL TOPSOIL SUITABLE ENOUGH FOR SEEDING & MULCHING. INSUFFICIENT SURVEY DATA AT THIS CROSSING SITE MEANS THAT THE MULTI-PLATE PIPE ARCH CROSSING WILL BE BID AS CUBIC YARD-STAKED. CONTRACTOR WILL BE PAID FOR ACTUAL STAKED QUANTITY DETERMINED IN THE FIELD. FOR BIDDING PURPOSES IT IS ESTIMATED THAT THE CROSSING IS 400 CUBIC YARDS. CONTRACTOR WILL PLACE AND COMPACT MATERIAL AS DESCRIBED IN EMBANKMENT SPECIFICATION 204.

PAYMENT FOR MULTI-PLATE ARCH CROSSING SHALL BE PAID FOR BASED ON THE CONTRACTORS UNIT BID PRICE FOR "EMBANKMENT."

COFFERDAM NOTE:

THE CONTRACTOR WILL LIKELY NEED A COFFERDAM ON BOTH THE UPSTREAM AND DOWNSTREAM SIDES OF EXISTING CHANNEL IN-ORDER TO INSTALL PIPE AND RIPRAP. COFFERDAM MATERIAL SHALL BE TAKEN FROM BORROW AREA AS NOTED ABOVE. ANY MATERIAL PLACED WITHIN THE EXISTING CHANNEL FOR "COFFERDAM" SHALL BE REMOVED ENTIRELY AFTER INSTALLATION OF THE VARIOUS COMPONENTS.

ALL COFFERDAM WORK IS CONSIDERED "INCIDENTAL" TO MULTI-PLATE PIPE INSTALLATION.

CLEARING & GRUBBING NOTE:

EXISTING TREES AND BRUSH ARE PRESENT AT THE CROSSING SITE AND BORROW AREA. CONTRACTOR WILL REMOVE THOSE TREES/BRUSH WITHIN THE CONSTRUCTION AREA, AS IDENTIFIED BY THE DU FIELD ENGINEER, AND PLACE IN A PILE FOR THE AGENCY TO BURN AT A LATER DATE. EXACT LOCATION OF PILE WILL BE DETERMINED BY THE AGENCY BUT FOR BIDDING PURPOSES WITHIN 400' OF THE CROSSING. SUCH TREE/BRUSH REMOVAL SHALL BE PAID FOR BASED ON THE CONTRACTORS UNIT BID PRICE FOR "CLEARING & GRUBBING."

MULTI-PLATE PIPE ARCH INSTALLATION:

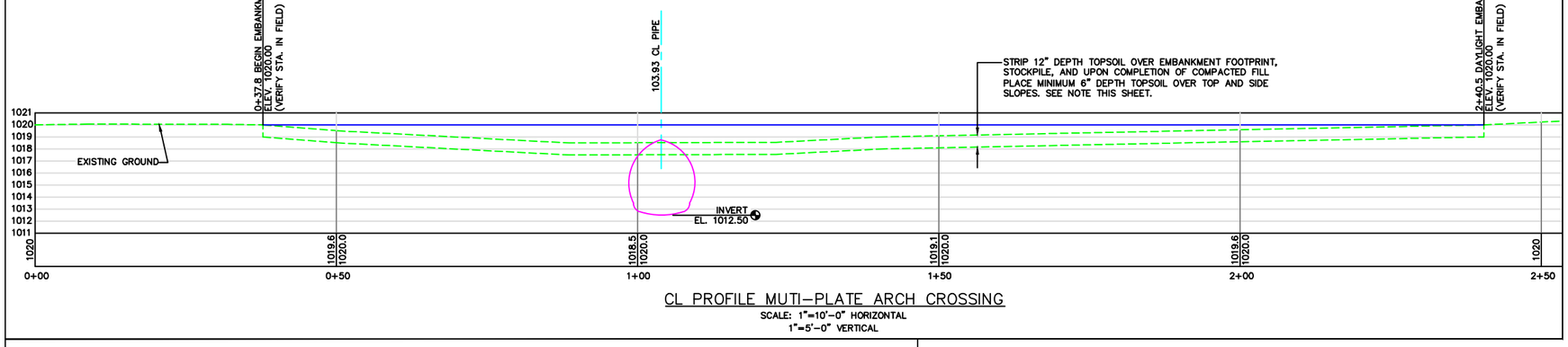
CONTRACTOR SHALL INSTALL 48 LINEAL FEET OF 9'-4" x 6'-3" MULTI-PLATE PIPE ARCH AT A SLOPE OF 0.00% INVERT ELEVATION 1012.50. TYPICAL INSTALLATION WILL BE 1.5' DEPTH OF ROCK BEDDING AND 4' OF BACKFILL UP SIDES OF PIPE. CONTRACTOR SHALL MACHINE COMPACT ROCK TO ENSURE ALL VOIDS HAVE BEEN FILLED. WOVEN FILTER FABRIC WILL BE INSTALLED OVER ROCK FOR THE ENTIRE TRENCH WIDTH, PRIOR TO PLACING COMPACTED EMBANKMENT FILL. WOVEN FILTER FABRIC SHALL BE CONSIDERED "INCIDENTAL" TO PIPE INSTALLATION. PAYMENT FOR MATERIALS, HAULING, AND PLACEMENT SHALL BE PAID FOR BASED ON THE CONTRACTOR'S UNIT BID PRICE FOR "9'-4"x6'-3" MULTI-PLATE PIPE ARCH."

RIPRAP NOTE:

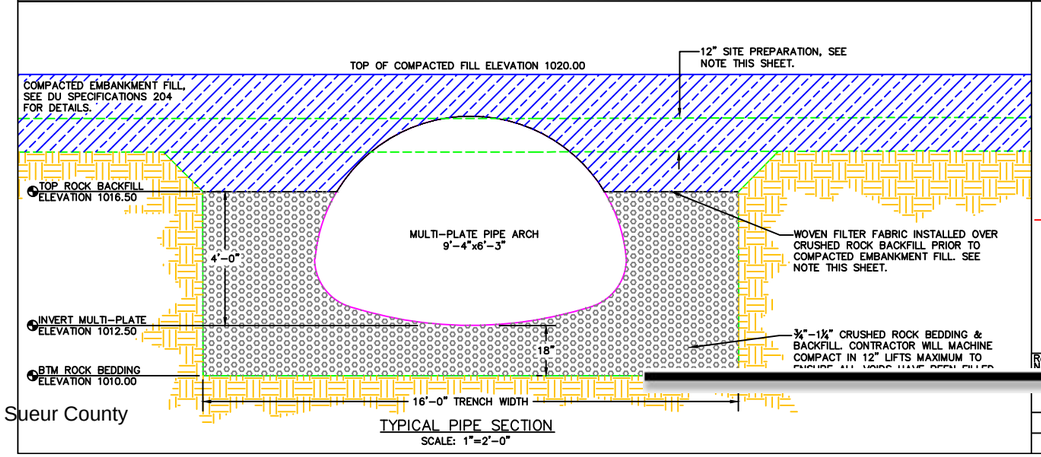
DU CLASS II ROCK RIPRAP SHALL BE INSTALLED ON THE UPSTREAM SIDE OF THE RCP, 1.5' DEPTH WITH FILTER FABRIC BENEATH. CONTRACTOR WILL RIPRAP 10' UPSTREAM OF PIPE AND SIDE SLOPES TO ELEVATION 1020.00 AS SHOWN. ROCK SHALL BE MACHINE COMPACTED TO ENSURE A STABLE/UNIFORM LOOK. ALL EXCAVATION REQUIRED FOR ROCK RIPRAP SHALL BE CONSIDERED "INCIDENTAL." TOTAL OF 60 TON.

DU CLASS II ROCK RIPRAP SHALL BE INSTALLED ON THE DOWNSTREAM SIDE OF THE RCP, 1.5' DEPTH WITH FILTER FABRIC BENEATH. CONTRACTOR WILL RIPRAP 15' DOWNSTREAM OF PIPE AND UP SIDE SLOPES TO ELEVATION 1020.00 AS SHOWN. ROCK SHALL BE MACHINE COMPACTED TO ENSURE A STABLE/UNIFORM LOOK. ALL EXCAVATION REQUIRED FOR ROCK RIPRAP SHALL BE CONSIDERED "INCIDENTAL." TOTAL OF 80 TON.

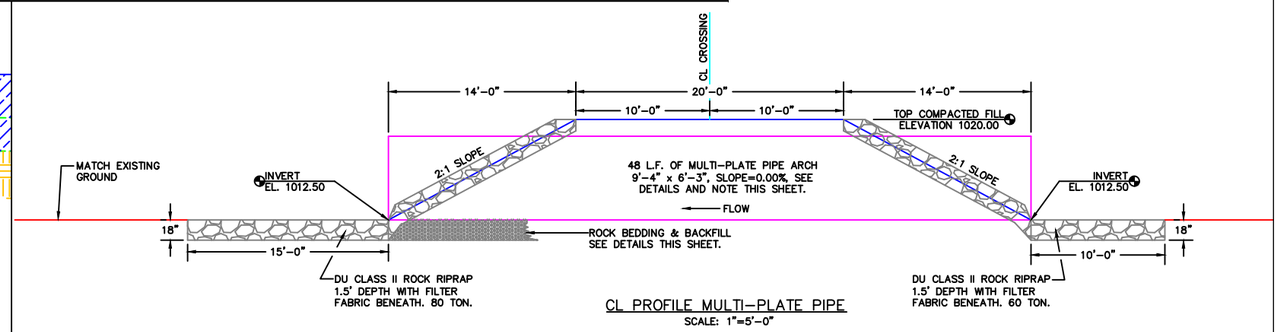
PAYMENT FOR ROCK RIPRAP (EXCAVATION, SPOIL REMOVAL, NON-WOVEN FILTER FABRIC, ROCK, AND INSTALLATION) SHALL BE PAID FOR BASED ON THE CONTRACTORS UNIT BID PRICE FOR "DU CLASS II"



CL PROFILE MUTI-PLATE ARCH CROSSING
SCALE: 1"=10'-0" HORIZONTAL
1"=5'-0" VERTICAL



TYPICAL PIPE SECTION
SCALE: 1"=2'-0"



CL PROFILE MULTI-PLATE PIPE
SCALE: 1"=5'-0"

Revision Number	Sheet Number	Revisions	Date	By
2	4 & 5	Changed 96"ø RCP to 10'x10'RCB	3/27/17	JS

I hereby certify that this plan, specification or report was prepared [illegible]

James A. Streifel, P.E.
for Ducks Unlimited, Inc.
License No. 47359

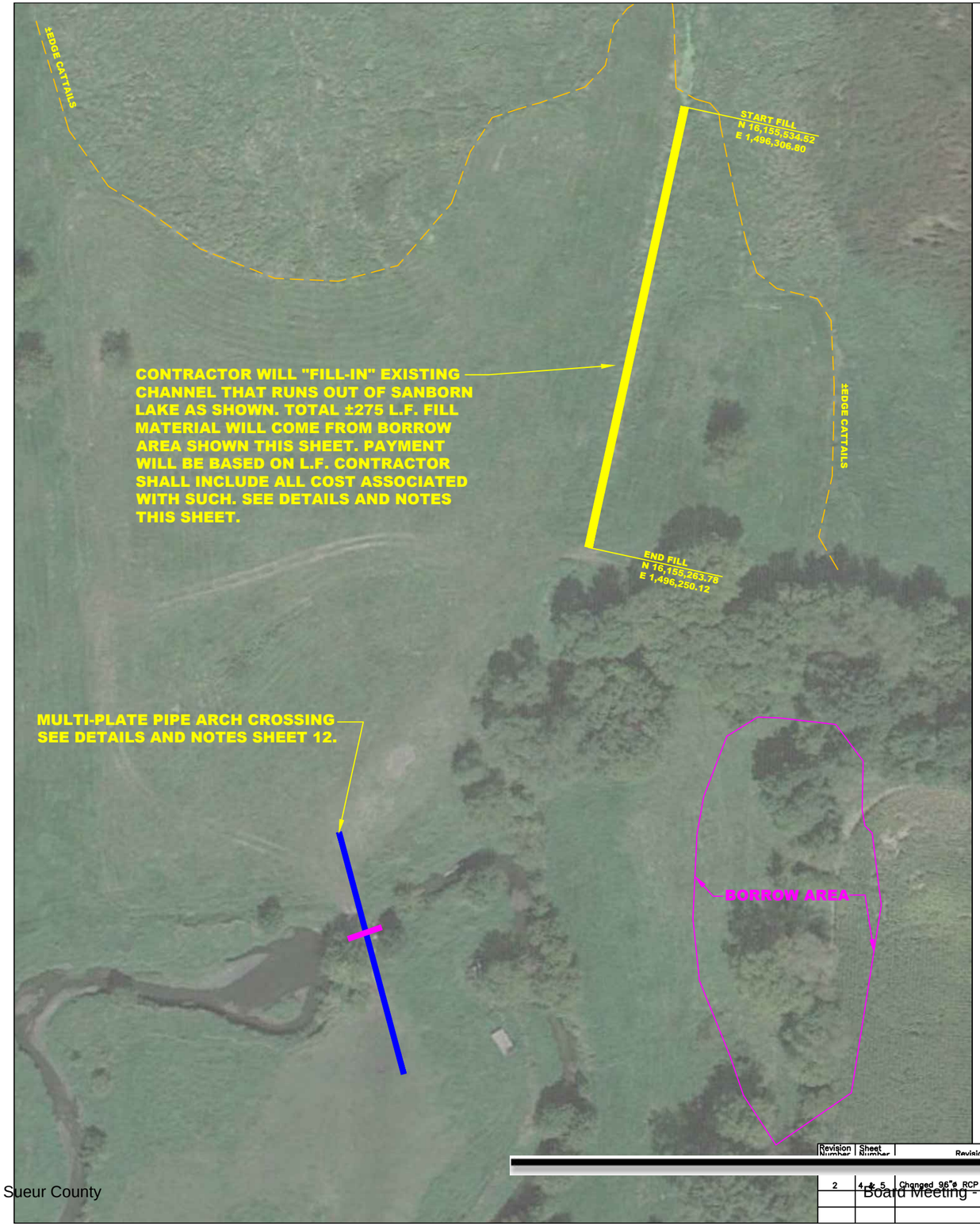
3-30-2017
Date

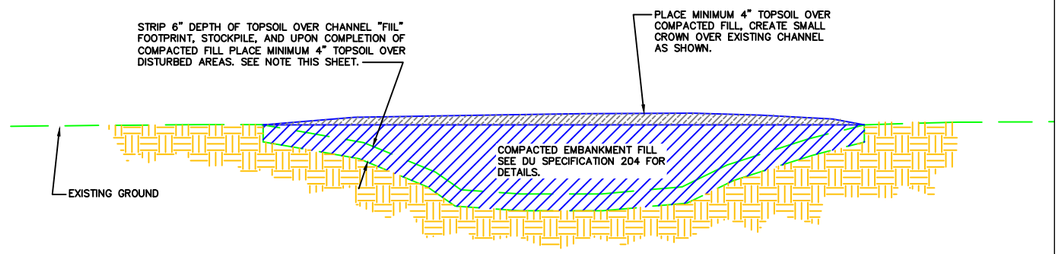
DUCKS UNLIMITED INC.
GREAT PLAINS REGIONAL OFFICE

PROJECT NO. MN-445-1
SANBORN LAKE
PLAN & PROFILE MULTI-PLATE PIPE ARCH

DESIGNED BY: JAS
DRAWN BY: MLO
SURVEYED BY: GLJ
CHECKED BY: .

DATE: 3-27-2017
SHEET NO. 12
APPROVED BY: .
APPROVED BY: .





TYPICAL CHANNEL FILL SECTION

SCALE: 1"=2'-0"

EXISTING CHANNEL FILL NOTE:

THE CONTRACTOR WILL "FILL-IN" THE EXISTING CHANNEL THAT LEADS OUT OF SANBORN LAKE AS SHOWN THIS SHEET. TOTAL OF 275 L.F. OF EXISTING CHANNEL WILL NEED TO BE FILLED. SUCH WORK SHALL CONSIST OF: STRIPING 6" TOPSOIL OVER EXISTING CHANNEL FOOTPRINT, STOCKPILING, PLACING COMPACTED FILL TO MATCH EXISTING SIDE SLOPES, AND PLACING 4" DEPTH OF TOPSOIL OVER ALL DISTURBED AREAS. CONTRACTOR WILL LEVEL SUITABLE ENOUGH FOR SEEDING AND MULCHING. BORROW AREA IS SHOWN ON THIS SHEET, UPON COMPLETION OF WORK CONTRACTOR WILL BLEND INTO THE EXISTING LANDSCAPE AND LEVEL SUITABLE ENOUGH FOR SEEDING AND MULCHING.

ALL WORK REQUIRED FOR "EXISTING CHANNEL FILL" INCLUDING: SITE PREPARATION, HAULING, PLACING, COMPACTING FILL, AND LEVELING SUITABLE ENOUGH FOR SEEDING & MULCHING WILL BE INCLUDED IN THE CONTRACTORS UNIT BID PRICE FOR "EXISTING CHANNEL FILL." ANY ADDITIONAL LENGTH REQUIRED, AS DETERMINED BY THE DU FIELD ENGINEER, WILL BE CONSIDERED "EXTRA" AND PAID FOR AS SUCH.

Revision Number	Sheet Number	Revisions	Date	By
2	4 & 5	Changed 96"ø RCP to 10'x10'RCB	3/27/17	JS

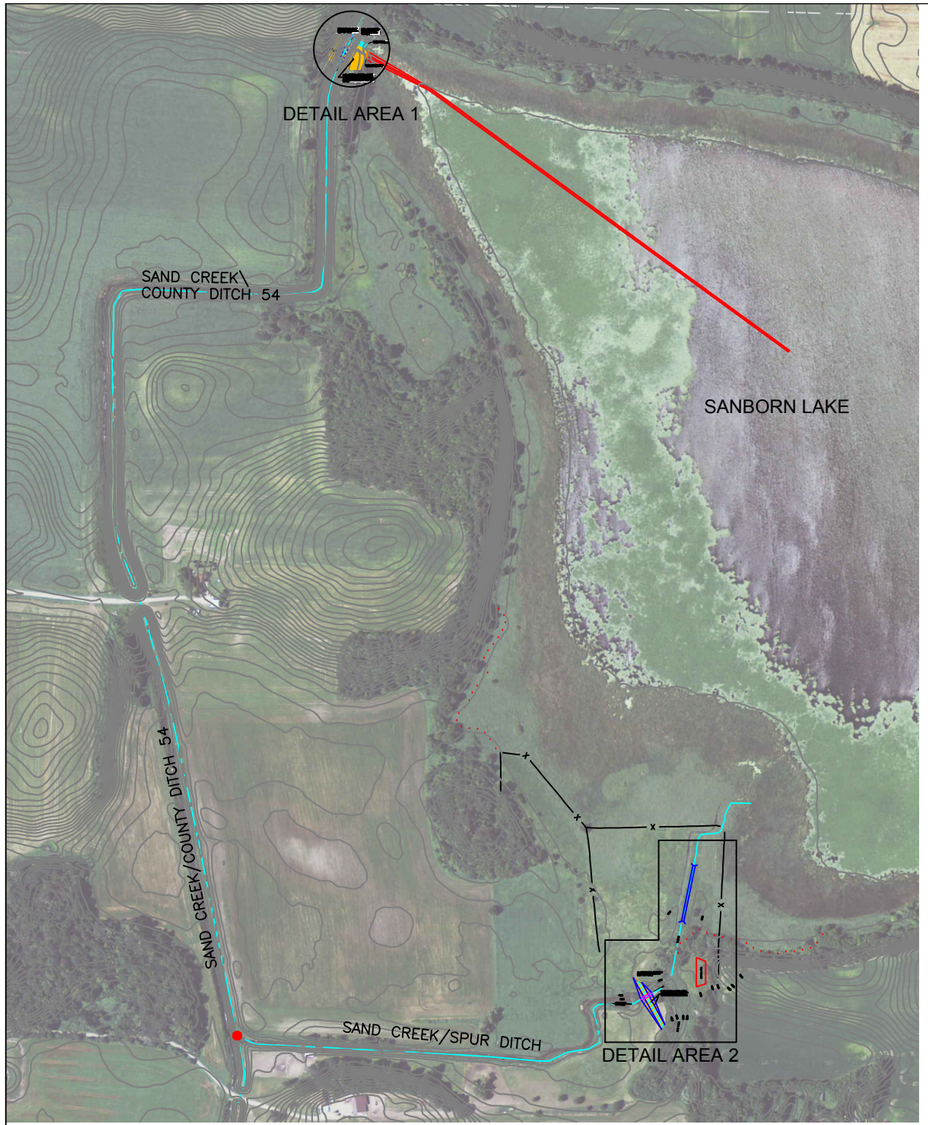
I hereby certify that this plan, specification or report was prepared ... Minnesota.
James A. Streifel, P.E.
for Ducks Unlimited, Inc.
License No. 47359
3-30-2017
Date

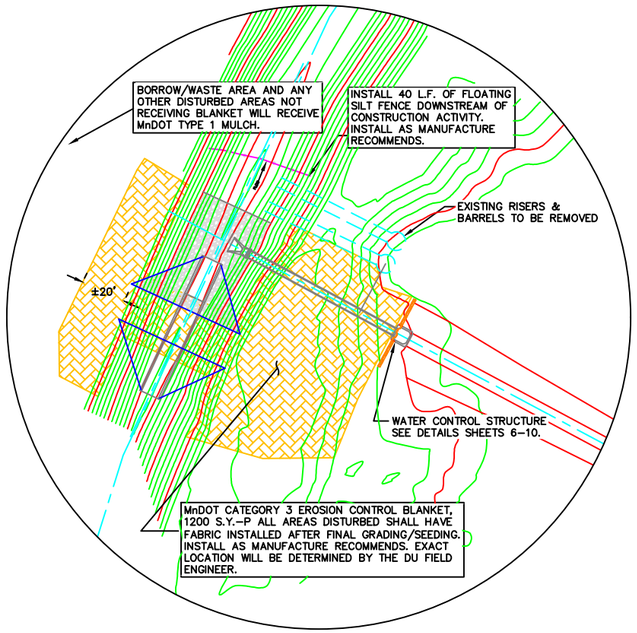
DUCKS UNLIMITED INC.
GREAT PLAINS REGIONAL OFFICE

PROJECT NO. MN-445-1
SANBORN LAKE
PLAN VIEW EXISTING CHANNEL FILL
.

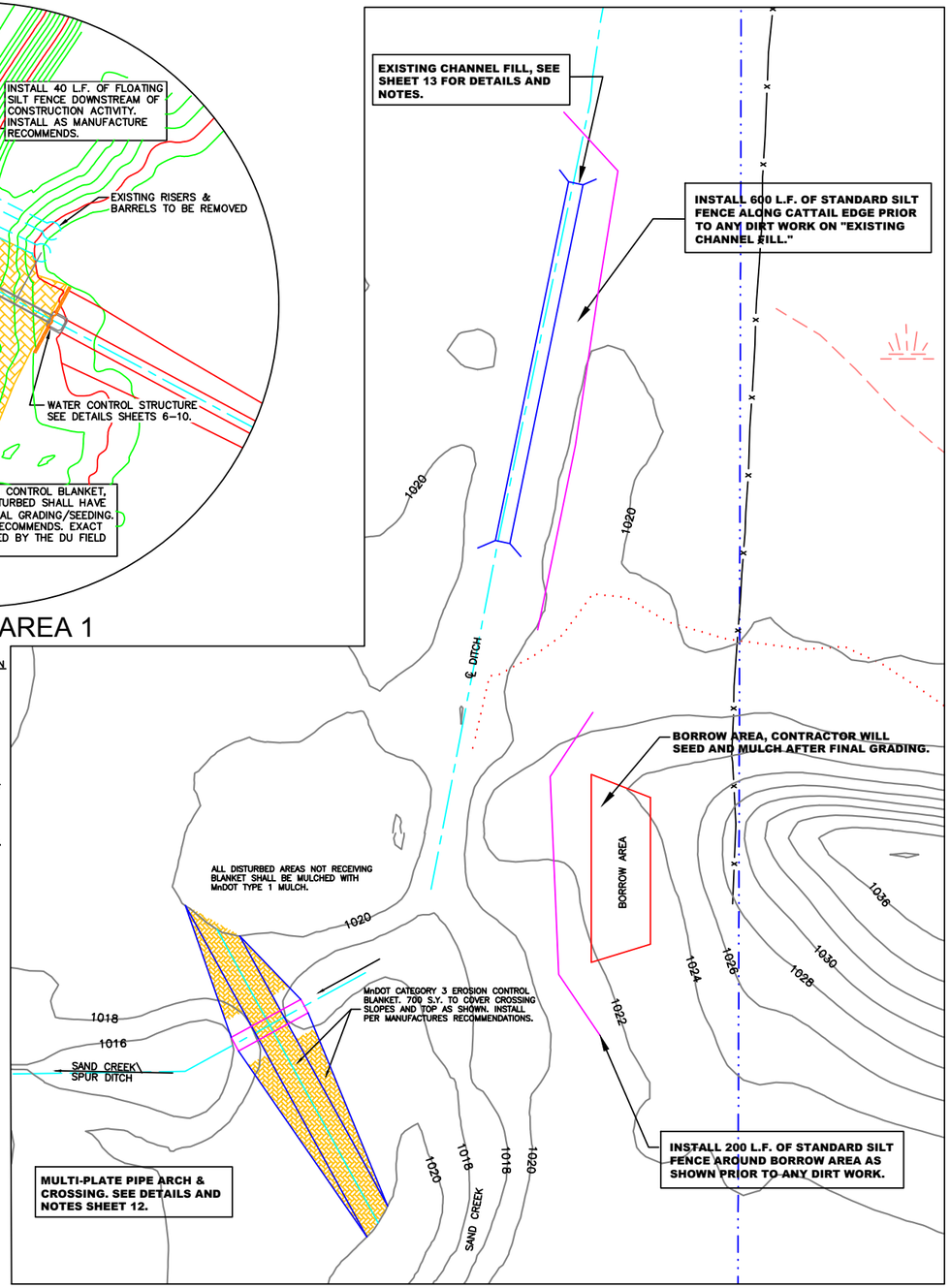
DESIGNED BY: JAS
DRAWN BY: MLO
SURVEYED BY: GLJ
CHECKED BY: .

DATE: 3-27-2017
SHEET NO. 13
APPROVED BY: .
APPROVED BY: .





DETAIL AREA 1



DETAIL AREA 2

SEQUENCE OF CONSTRUCTION ACTIVITIES AND BMP IMPLEMENTATION

1. Clear and grub construction site.
2. Perform site preparation work at structure site and proposed borrow area. Install silt fence perimeter control.
3. Complete structure work and install temporary ditch check.
4. Following initial lake drawdown, perform inlet channel work. If water is still flowing out of the during channel work, install floating silt curtain or other approved BMP's.
5. Seed and mulch disturbed areas.
6. Remove temporary rock check.
7. Inspect all BMP's.
8. Minnesota DNR will be responsible for the removal of all other temporary BMP's including silt fence and bio rolls following satisfactory seed germination.

SEQUENCE OF CONSTRUCTION EVENTS MAY BE ALTERED BY THE CONTRACTOR AS LONG AS BMP'S ARE IMPLEMENTED ACCORDINGLY. CONTRACTOR SHALL PROVIDE MODIFIED SCHEDULE AND BMP IMPLEMENTATION.

ESTIMATED QUANTITIES FOR STORMWATER BMP'S

Location	Silt Fence (Lineal Ft.)	Erosion Control Blanket (Square Yards)	Floating Silt Fence (Lineal Feet)	Seeding Area (Acres)	Seed Mix (Pounds)	Mulch (Ton)
Area 1 - Water Control	600	1,200	40	1.5	130	3
Area 2 - Multi-Plate	200	700		1.5	130	3
Sanborn Lake Ditch Fill	600			0.2	20	0.5
TOTAL	1,400	1,900	40	3.2	280	6.5

ESTIMATED QUANTITIES WATER CONTROL STRUCTURE SITE:
QUANTITIES LISTED ARE APPROXIMATE AND WILL BE ADJUSTED BASED ON SITE CONDITIONS AND EXACT MEASUREMENTS DETERMINED BY THE DU FIELD ENGINEER. IF FURTHER EROSION CONTROL METHODS ARE REQUIRED THAN THOSE WILL BE TREATED AS "EXTRA" AND PAID FOR AS SUCH. PRIOR TO FINAL INSPECTION THE DU FIELD ENGINEER WILL TAKE MEASUREMENTS ON L.F. SILT FENCE, SQUARE YARD BLANKET, AND TOTAL ACRES OF SEEDING/MULCHING; CONTRACTOR WILL BE PAID BASED ON THESE AS-BUILT MEASUREMENTS.

Mixture: 350			
Common Name	PLS Rate kg/ha	PLS Rate lb/ac	% of Mix Component
Bluestem, big	3.4	3.0	21.5
Indian grass	2.8	2.5	18.0
Bluestem, little	2.8	2.5	18.0
Grama, sideoats	3.4	3.0	21.5
Wild-rye, Canadian	2.2	2.0	14.0
Switch grass	1.1	1.0	7.0
Grass Totals	***15.7***	***14.0***	***100.0***
	Bulk Rate		**% of Mix**
Common Name	**kg/ha**	**lb/ac**	**Component**
Winter Wheat*	62.7	56.0	80.0
Rye-grass, annual	12.5	11.2	16.0
Wheatgrass, slender	3.1	2.8	4.0
Cover Crop Totals	***78.3***	***70.0***	***100.0***
Mesic Forbs Mixture	**0.6**	**0.5**	**100.0**
GRAND TOTALS:	**94.6**	**84.5**	**100.0**
*Oats to be substituted for spring plantings			
Application: Native mix for general roadside areas.			

SEED MIX NOTE: MINNESOTA DNR SHALL APPROVE FINAL SEED MIX. IF MIX DIFFERS FROM THAT SHOWN, DNR WILL PROVIDE A LOCAL NATIVE SEED MIX.

AREA 1 SOIL TYPES				
NRCS Soil Name	Acres in Area 2	Percent of Area 2	K Factor	Soil Classification
Cordova Clay Loam	0.46	31%	0.28	CL-ML
Lamel Clay Loam	0.17	11%	0.24	CL
Caron, Blue Earth	0.87	58%	0.02	ML-CL

AREA 2 SOIL TYPES				
NRCS Soil Name				
Dassel Loam (183)	0.75	44%	0.28	CL-ML
Otter Silt Loam (468)	0.10	6%	0.32	CL
Caron Muck (524)	0.85	50%	0.02	PT

Revision Number	Sheet Number	Revisions	Date	By
2	4 & 5	Changed 96"ø RCP to 10'x10'RCB	3/27/17	JS

I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.

James A. Streifel, P.E.
for Ducks Unlimited, Inc.
License No. 47359

3-30-2017
Date

DUCKS UNLIMITED INC.
GREAT PLAINS REGIONAL OFFICE

PROJECT NO. MN-445-1
SANBORN LAKE
PLAN VIEW EROSION CONTROL

DESIGNED BY: JAS
DRAWN BY: MLO
SURVEYED BY: GLJ
CHECKED BY: .

DATE: 3-27-2017
SHEET NO. 14
APPROVED BY: .
APPROVED BY: .

STORM WATER POLLUTION PREVENTION PLAN

THE Minnesota General Permit Authorization to Discharge Stormwater Associated with Construction Activity issued on June 25, 2013 shall apply for this project.

ABBREVIATIONS

MNDNR: Minnesota Department of Natural Resources
MPCA: Minnesota Pollution Control Agency

NARRATIVE

Project Limits: See Sheets 1, 3, 4, 5, 11, 12, & 13 of these plans for the project limits. These sheets cover structure installations, channel cleanout, embankment construction and seeding areas.

SITE DESCRIPTION

Project Description: The purpose of the project is to replace the existing water control structures with a sheet pile box riser weir. The project will also include the construction of ditch crossings and channel cleanout.

Site Map(s): See map on sheet 14 of plans.

Major Soil Disturbing Activities (check all that apply):
- _X_ Clearing & Grubbing
- _X_ Grading & Shaping
- _X_ Cutting & Filling
- ___ Other (describe):

Total Project Area: 1.5 Acres
Total Area to Be Disturbed: 1.5 Acres
Existing Impervious Area: 0.0 Acres
Proposed Impervious Area: 0.0 Acres

Name of Receiving Water Body/Bodies: Sanborn Lake discharges directly into County Ditch 54 which in turn becomes Sand Creek.

Discharges to Special Or Impaired Waters: The project does have a discharge point within 1 mile of a special water or a water that is impaired for sediment or a sediment related parameter of the permit. Sand Creek has been determined to be impaired for: Chloride & Turbidity.

Discharges to Calcareous Fen: The project does not have a discharge to a Calcareous fen.

Endangered or Threatened Species: The project area has not been identified for endangered or threatened species.

Historic Places or Archeological Sites: Historical places or archeological sites have been addressed by the MnDNR.

Quantities Tabulation for All BMPs: See estimated quantities and construction notes in plans.

ORDER OF CONSTRUCTION ACTIVITIES

(Stabilization measures shall be initiated as soon as possible, but in no case later than 7 days after the construction activity in that portion of the site has temporarily or permanently ceased.)
- Install erosion and sediment control measures.
- Proceed with site grading and construction activities.
- Stabilize areas disturbed by construction activities with temporary erosion and sediment control measures.
- Complete final grading.
- Complete permanent erosion and sediment control measures.

LOCATION OF SWPPP REQUIREMENTS IN PROJECT PLAN

See sheets 2, 14 & 15 for erosion control measures and notes.

EROSION AND SEDIMENT CONTROLS

(Check all that apply)

Stabilization Practices (See Erosion and Sediment Control Details in Plan Sheets)
- _X_ Temporary or Permanent Seeding
- ___ Sod Placement
- ___ Planting
- _X_ Mulching (Straw or Cellulose Fiber)
- _X_ Erosion Control Blankets or Mats
- ___ Vegetation Buffer Strips
- _X_ Roughened Surface (e.g. tracking)
- ___ Gabions–Gabion Mattress
- _X_ Other: Rip Rap

Structural Temporary Erosion and Sediment Controls
- _X_ Silt Fence
- ___ Temporary Berm
- ___ Temporary Slope Drain
- _X_ Straw Wattles or Rolls
- ___ Diversion Channels/Swales
- ___ Channel Liners (TRM)
- _X_ Stone Rip Rap Sheet
- ___ Rock Check Dams
- ___ Sediment Traps/Basins
- ___ Inlet Protection
- _X_ Outlet Protection
- ___ Surface Inlet Protection
- ___ Curb Inlet Protection
- ___ Stabilized Construction Entrances
- ___ Other

Wetland Avoidance:
Will construction and/or erosion and sediment controls impinge on regulated wetlands? _X_ Yes ____ No
If yes, the project and erosion and sediment control impacts have been included in the total project wetland impacts and have been included in the 404 permit process with the USACE.

Storm Water Management: Storm water management will be handled by temporary controls outlined in "EROSION AND SEDIMENT CONTROLS" above, and any permanent controls needed to meet permanent storm water management needs in the post construction period.

Pollution Prevention Management Measures
- Solid Wastes
  Collected sediment, asphalt, and concrete millings, floating debris, paper, plastic, fabric, construction and demolition debris and other wastes must be disposed of properly and must comply with the MPCA disposal requirements.
- Hazardous Materials
  Oil, gasoline, paint and any hazardous substances must be properly stored, including secondary containment, to prevent spills, leaks or other discharge. Restricted access to storage areas must be provided to prevent vandalism. Storage and disposal of hazardous waste must be in compliance with MPCA regulations.
- Vehicle Washing
  External washing of trucks and other construction vehicles must be limited to a defined area of the site. Runoff must be contained and waste properly disposed of. No engine degreasing is allowed on site.
- Concrete Washout Onsite
  All liquid and solid wastes generated by concrete washout operation must be contained in a leak–proof containment facility or impermeable liner. A compacted clay liner that does not allow washout liquids to enter ground water is considered an impermeable liner. The liquid and solid wastes must not contact the ground, and there must not be runoff from the concrete washout operation or areas. Liquid and solid wastes must be disposed of properly and in compliance with MPCA regulations. A sign must be installed adjacent to each washout facility to inform concrete equipment operators to utilize the proper facilities.

MAINTENANCE AND INSPECTION

Maintenance and Inspection Practices
- Inspections will be conducted at least one time per week and after a storm event of 0.50 inches or greater.
- All controls will be maintained in good working order. Necessary repairs will be initiated within 24 hours of the site inspection report or as soon as field conditions allow access.
- Where work has been suspended due to frozen ground conditions, the required inspections and maintenance must take place as soon as runoff occurs at the site or prior to resuming construction, whichever comes first.
- Where parts of the construction site have undergone final stabilization, but work remains on other parts of the site, inspections of the stabilized areas may be reduced to once per month.
- Silt fence will be inspected for depth of sediment and for tears in order to ensure the fabric is securely anchored. Sediment buildup will be removed from the silt fence when it reaches ⅓ of the height of the silt fence. All silt fences must be repaired, replaced, or supplemented when they become nonfunctional or the sediment reaches ⅓ of the height of the fence.
- Sediment basins and traps will be checked. Sediment will be removed when the depth reaches approximately 50 percent of the structure's capacity.
- Check dams will be inspected for stability. Sediment will be removed when the depth reaches ½ the height of the dam.
- All seeded areas will be checked for bare spots, washouts, and vigorous growth free of significant weed infestations.
- Surface waters, including drainage ditches and conveyance systems, must be inspected for evidence of sediment being deposited by erosion.
- Construction site vehicle exit locations must be inspected for evidence of off–site sediment tracking onto paved surfaces. Tracked sediment must be removed from all off–site paved surfaces within 24 hours of discovery.
- Disturbed areas will be checked for stabilization. Stabilization measures shall be initiated as soon as construction activity in that portion of the site has temporarily or permanently ceased.
- The normal wetted perimeter of any temporary or permanent drainage ditch or swale that drains water from any portion of the construction site, or diverts water around the site, must be stabilized within 200 lineal feet from the property edge, or from the point of discharge into any surface water. Stabilization of the last 200 lineal feet must be completed within 24 hours after connection to a surface water.
- Stabilization of the remaining portions of any temporary or permanent ditches or swales must be completed within 14 days after connecting to a surface water and construction in that portion of the ditch has temporarily or permanently ceased.
- Temporary or permanent ditches or swales that are being used as a sediment containment system (with properly designed rock ditch checks, bio rolls, silt dikes, etc.) do not need to be stabilized. These areas must be stabilized within 24 hours after no longer being used as a sediment containment system.
- Pipe outlets must be provided with temporary or permanent energy dissipation within 24 hours after connection to a surface water.
- Discharge procedures for water control and dewatering operations will be inspected. If the water cannot be discharged to a sedimentation basin prior to entering the surface water, it must be treated with the appropriate BMPs, such that the discharge does not adversely affect the receiving water or downstream landowners.
- Inspection and maintenance reports will be completed for each site inspection, this form will also be used to document changes to the SWPPP. The report shall include the date and amount of rainfall events greater than 0.5 inch in 24 hours. A copy of the completed inspection form will be filed with the SWPPP documents.
- The Contractor's site superintendent is responsible for inspection. Maintenance and repair activities are the responsibility of the Contractor.

SPILL NOTIFICATION

In the event of a spill, the contractor's site superintendent will make the appropriate notificiaton(s), consistent with the following procedures:
1. A reportable spill is a quantity of more than 5 gallons of petroleum which must be reported immediately to the MPCA.
2. Any spill of oil or hazardous substance to waters of the state must be reported immediately by telephone to the MPCA.
3. MPCA Contact for Environmental Emergencies: 24 Hour (651) 649–5451 or (800) 422–0798

CONSTRUCTION CHANGES

When changes are made to the construction project that will require alterations in the temporary erosion controls of the site, the Storm Water Pollution Prevention Plan (SWPPP) will be amended to provide appropriate protection to disturbed areas, all storm water structures, and adjacent waters. The SWPPP will be retained in a designated place for review over the course of the project.

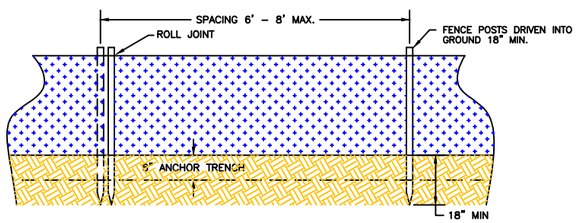
PROJECT CONTACTS AND RESPONSIBILITIES

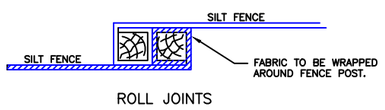
The Contractor is responsible for cosigning and being familiar with the MPCA General Permit for storm water discharges associated with a construction site. When a conflict arises between the permit and this plan sheet, the permit shall govern.

The Contractor is responsible for implementation of the SWPPP and installation, inspection and maintenance of the erosion prevention and sediment control BMP's before and during construction. The Minnesota Department of Natural Resources, Windom Field Office, is responsible for long term operation and maintenance of the permanent storm water management system. The Contractor and FWS contact information is provided in the contract documents and project plans.

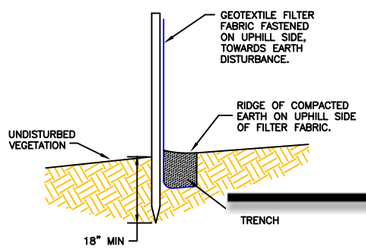
James A. Streifel, P.E., Regional Engineer for Ducks Unlimited, Inc. prepared the SWPPP. He successfully completed the "Design of Storm Water Pollution Prevention Plans" training course sponsored by the University of Minnesota (Nov. 16–17, 2009, Mankato, MN) and recertification course (Jan. 20, 2016, St. Cloud, MN). His certification expires May 31, 2019.

The Contractor will be required to have a person designated and on the project site who has been trained and certified as either an Erosion/ Sediment Control Inspector/Installer or in Erosion/Sediment Control Site Management.

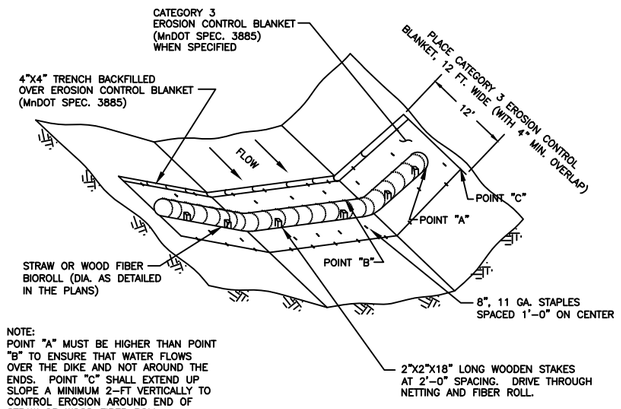




ROLL JOINTS



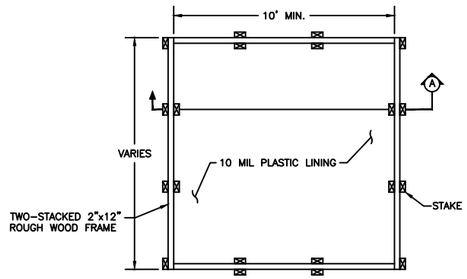
SILT FENCE DETAIL
NOT TO SCALE



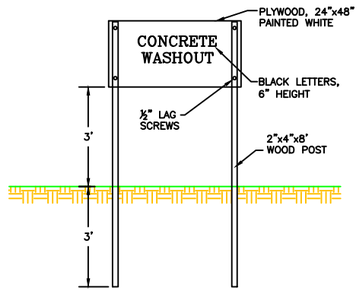
NOTE:
POINT "A" MUST BE HIGHER THAN POINT "B" TO ENSURE THAT WATER FLOWS OVER THE DIKE AND NOT AROUND THE ENDS. POINT "C" SHALL EXTEND UP SLOPE A MINIMUM 2–FT VERTICALLY TO CONTROL EROSION AROUND END OF STRAW OR WOOD FIBER ROLL.

TEMPORARY DTICH CHECK DETAIL
NOT TO SCALE

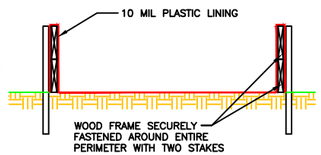
NOTES
1. ACTUAL LAYOUT SHALL BE DETERMINED IN THE FIELD.
2. THE CONCRETE WASHOUT SIGN SHALL BE INSTALLED WITHIN 30 FT. OF THE TEMPORARY CONCRETE WASHOUT FACILITY.



CONCRETE WASHOUT PLAN VIEW
TYPE – ABOVE GRADE



CONCRETE WASHOUT SIGN DETAIL (OR EQUIVALENT)



SECTION A–A

Revision Number	Sheet Number	Revisions	Date	By
2	4 & 5	Changed 96"ø RCP to 10'x10'RCB	3/27/17	JS

I hereby certify that this plan, specification or report was prepared [illegible]
James A. Streifel, P.E.
for Ducks Unlimited, Inc.
License No. 47359
3–30–2017
Date

DUCKS UNLIMITED INC.
GREAT PLAINS REGIONAL OFFICE

PROJECT NO.	MN–445–1
	SANBORN LAKE STORM WATER POLLUTION PREVENTION PLAN
DESIGNED BY:	JAS
DRAWN BY:	MLO
SURVEYED BY:	GLJ
CHECKED BY:	
DATE:	3–27–2017
SHEET NO.	15
APPROVED BY:	.
APPROVED BY:	.

DESIGN REPORT

FOR

SANBORN LAKE - LeSUEUR COUNTY

DU-MN-445-1

DUCKS UNLIMITED

I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.

James A. Streifel — 12/2/2014

James A. Streifel, P.E. Date
For Ducks Unlimited, Inc.
License No. 47359

TABLE OF CONTENTS

LIST OF MAPS - ILLUSTRATIONS

I. INTRODUCTION

Sanborn Lake is a designated wildlife lake located in Le Sueur County. The lake designation gives the Minnesota Department of Natural Resources the right to manage water levels on the lake for the benefit of wildlife. The existing structure however does not have the capability of variable water level management and therefore no capability for drawing down the lake. An abundance of rough fish in the lake has caused water quality to become very turbid, which in turn prevents the growth of beneficial aquatic vegetation. The DNR would like to have the ability to temporarily draw down water levels, induce a winterkill of rough fish and re-establish wetland vegetation.

In 2010 Ducks Unlimited at the request of the Minnesota Department of Natural Resources prepared a feasibility study for the enhancement of Sanborn Lake. That report detailed the historic and existing hydrology, the re-routing of Sand Creek around Sanborn Lake via County Ditch 54, the existing structure hydraulics and recommendations for replacing the existing structure. Portions of that report will be included in this design report. The subwatersheds and peak flow estimates have been updated to reflect the results of using the USGS website (http://water.usga.gov/osw/streamstats/minnesota.html) which features the online application *Minnesota StreamStats*. The application can be used to calculate estimated peak flowrates for the delineated watersheds.

The purpose of this design report is to outline the proposed structure hydraulics and include a HEC RAS analysis of County Ditch 54 and the Spur Ditch which connects Sand Creek.

II. ELEVATION AND SURVEY STATEMENT

Ducks Unlimited performed a topographic survey at Sanborn Lake in January of 2009. The control for the survey was performed using Trimble R6 survey grade GPS receivers by observing an OPUS (Online Positioning User Service) position which was occupied for 2 hours and sent to NGS (National Geodetic Survey) for solution on February 2, 2009. The horizontal coordinates established are UTM Zone 15 grid coordinates in US feet [NAD 83 (CORS 96)]. Vertical control was calibrated to Geoid 03 CONUS in the NAVD88. This OPUS position was checked vertically with MNDT bench mark stamped “DIETZ 1989” which is a Second Order Class I bench mark. We tied vertically to that mark within acceptable tolerances of 0.07 feet to an OPUS position. A check of a DNR Waters benchmark which was set 3/07/2002 at the public access on the North side of the lake was made by Ducks Unlimited. The benchmark is a slightly bent 3/8” x 8” spike, 1.1’ above ground in East side of 3’ oak tree and has a DNR listed elevation of 1031.02 on

NGVD29. Ducks Unlimited shot the same point as elevation 1031.52 on NAVD88 for a difference of +0.50 feet above the DNR listed elevation for that mark.

Minnesota DNR Waters surveyed the existing outlet structure on 3/07/2002. The DNR elevation for the South (Left) 96" drop inlet riser's north edge is 1018.40 feet, DU shot that location at 1018.96 feet or 0.56 feet higher. The DNR elevation for the North (Right) 96" drop inlet riser's south edge is 1018.41 feet; DU shot that location at 1018.97 feet or 0.56 feet higher. The separation difference of the DNR survey and the information established by DU is approximately + 0.56 feet between the two surveys at the two 96" risers. The separation difference of the DNR survey at the public access bench mark of the 3/8" spike on the East side of a 3' oak tree is +0.50 feet.

For the purposes of this design report, all elevations shown will reference Ducks Unlimited survey and NAVD88 datum.

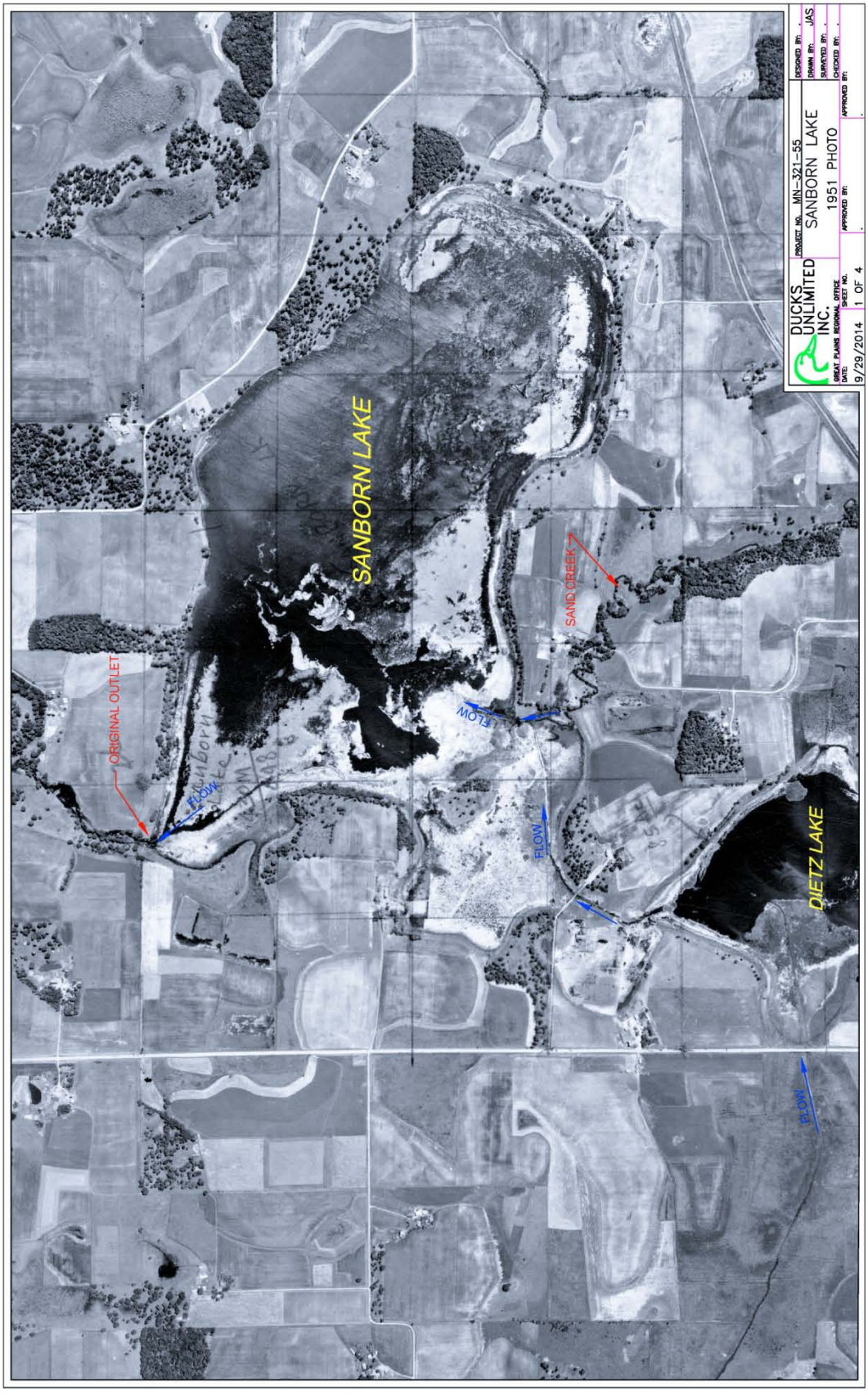
Figure 1. Existing Water Control Structure with Modified North Riser

III. SANBORN LAKE DATA AND EXISTING CONDITIONS

Sanborn Lake Data
Existing Outlet - Dual 96" CMP Risers with 48" Barrels (Weir Length = 50.3')
OHW (Ordinary High Water) = Top of Existing Riser = 1018.96 (1988 Datum)
Proposed Full Service Level (FSL) = 1017.5 (1988 Datum)
Surface Area at FSL = 315 acres
Volume at FSL = 761 acre-feet
Bottom of Lake = 1014
Watershed = 3.63 square miles

Historically Sanborn Lake was situated at the bottom of a 52 square mile watershed with Sand Creek contributing most of the inflow. Sand Creek flowed into Sanborn Lake on the south side and flowed out through a natural channel located near the NW corner of the lake **(see page 4)**. When County Ditch 54 was constructed, three 72" diameter corrugated metal risers with 54" diameter outlet barrels were installed to serve as the lake's outlet into the county ditch. Those structures were replaced with two 96" diameter corrugated metal risers with 48" diameter outlet barrels which now serve as the primary outlet structures. By excavating and routing County Ditch 54 along the west side of Sanborn Lake **(see page 5)**, a portion of the 52 square mile watershed that flowed through Dietz Lake and then into Sanborn, was routed around Sanborn via the ditch. This resulted in reducing the size of the watershed by 14.6 square miles to 37.4 square miles.

In addition to County Ditch 54, a spur ditch (Spur No. 2) was excavated from the County ditch toward Sanborn Lake and the Sand Creek inlet. Sometime during the 1980's or 1990's, following a number of high runoff events, Spur No. 2 headcut back to and connected with Sand Creek. The result of this is that Sand Creek now flows directly into Spur No. 2 which joins County Ditch 54, bypassing Sanborn Lake entirely. This effectively again reduced the size of the watershed into Sanborn from 37.4 square miles to 3.63 square miles. The bottom elevation of Sand Creek where it joins Spur No. 2 is now lower than Sanborn Lake and its historic inlet is at times functioning as an outlet. Water will begin flowing out of Sanborn and into Spur Ditch No. 2 at an approximate elevation of 1017.5. This is also the approximate elevation of a notch that has been cut into the north 96" diameter riser. During high runoff events, water can still flow into Sanborn Lake from Sand Creek. A HECRAS analysis was performed on the Spur No. 2 reach from Sand Creek to County Ditch 54 and County Ditch 54 reach from Spur No. 2 to the outlet of Sanborn Lake.


SANBORN LAKE
DIETZ LAKE
ORIGINAL OUTLET
SAND CREEK
FLOW
FLOW
FLOW
FLOW
DUCKS UNLIMITED INC.
GREAT PLAINS REGIONAL OFFICE
PROJECT NO. MN-321-55
SANBORN LAKE
1951 PHOTO
DESIGNED BY:
DRAWN BY: JAS
SURVEYED BY:
CHECKED BY:
APPROVED BY:
APPROVED BY:
DATE: 9/29/2014
SHEET NO. 1 OF 4

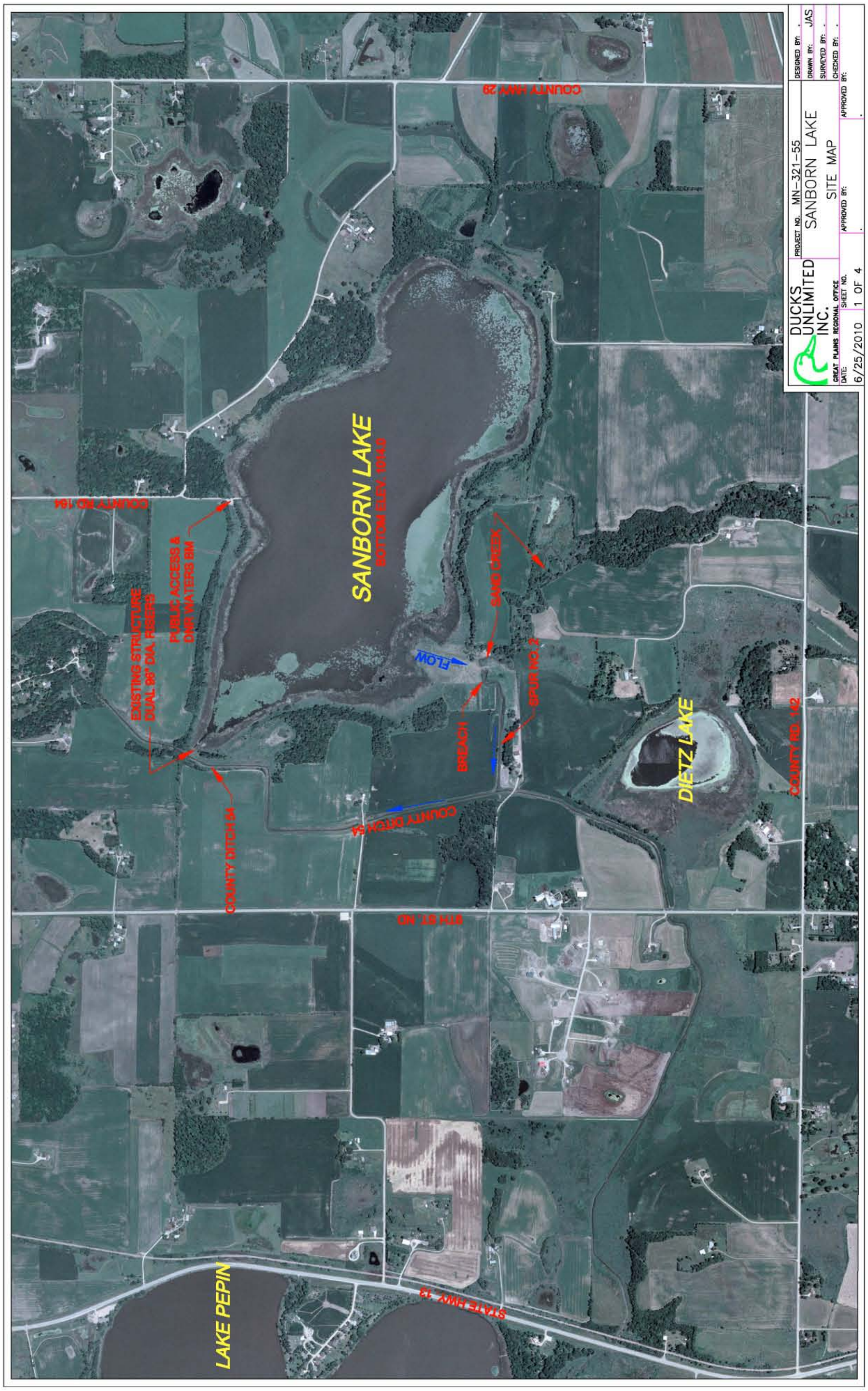

SANBORN LAKE
DIETZ LAKE
LAKE PEPIN
COUNTY HWY 29
COUNTY RD 164
COUNTY RD 162
COUNTY DITCH 54
STATE HWY 13
SAND CREEK
SPUR NO. 2
BREACH
FLOW
EXISTING STRUCTURE DUAL 96" DIA. RISERS
PUBLIC ACCESS & DNR WATERS BM
DUCKS UNLIMITED INC.
MN-321-55
SANBORN LAKE
SITE MAP
JAS
6/25/2010
1 OF 4

Figure 2. Sanborn Lake flowing into Sand Creek

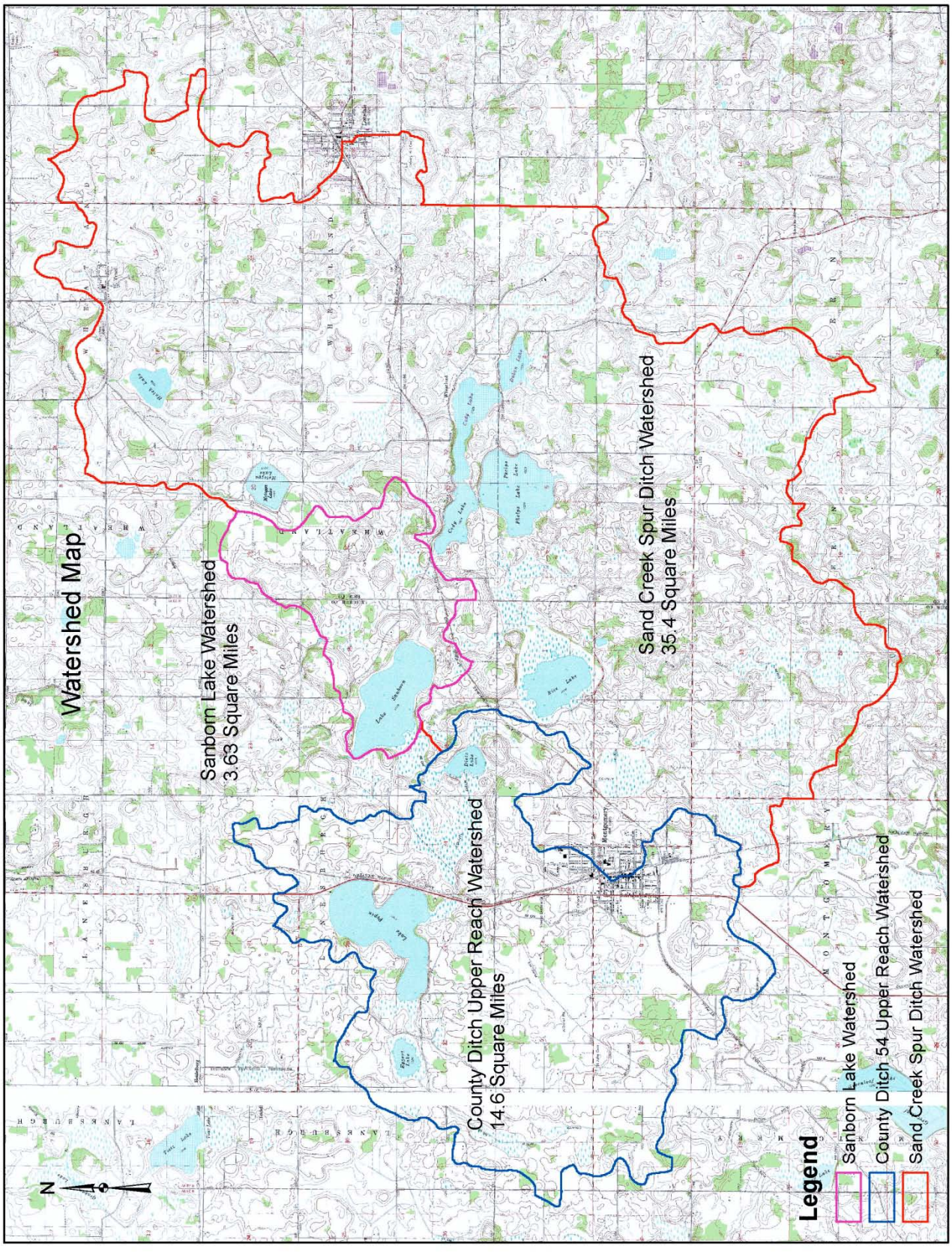
Figure 3. Sanborn Lake flowing South toward Sand Creek

Figure 4. Spur No. 2 flowing toward County Ditch 54

Figure 5. County Ditch 54 Downstream of 96" Risers

With the construction of County Ditch 54 and Sand Creek now flowing directly into Spur No. 2, the direct watershed into Sanborn Lake has been reduced from 52 square miles to 3.63 square miles. This major change of watershed and inflows has dramatically altered how Sanborn Lake now functions. Even with the reduction in the size of the contributing watershed, the lake level appears to remain relatively high as evidenced by observed water levels. Perhaps the most dramatic change is that water can now flow out of what had previously been the inlet channel. If left unaddressed, this new outlet can eventually headcut its way back into the lake and potentially drain lake levels.

The current watersheds for Sanborn Lake, Sand Creek and County Ditch 54 are shown on page 7 of this report. "*Minnesota StreamStats*" was used to estimate the peak flowrates for each of the subwatersheds. These flowrates were then used evaluate the hydraulic conditions in both Spur Ditch 2 and County Ditch 54. The peak flowrates for each of the subwatersheds are shown in Table 1.


Watershed Map
Sanborn Lake Watershed
3.63 Square Miles
County Ditch Upper Reach Watershed
14.6 Square Miles
Sand Creek Spur Ditch Watershed
35.4 Square Miles
Legend
Sanborn Lake Watershed
County Ditch 54 Upper Reach Watershed
Sand Creek Spur Ditch Watershed
N

Events	Existing Sanborn Watershed	Sand Creek at Spur Ditch No. 2	County Ditch 54 - Upper Reach
1-Year	32.5 cfs	118 cfs	53.2 cfs
2-Year	43.0 cfs	162 cfs	72.1 cfs
5-Year	75.4 cfs	300 cfs	131 cfs
10-Year	101 cfs	416 cfs	181 cfs
25-Year	139 cfs	589 cfs	254 cfs
50-Year	171 cfs	737 cfs	318 cfs
100-Year	208 cfs	907 cfs	390 cfs

Table 1. Peak Flow Estimates from StreamStats

The peak flow estimates were used as input data for a Steady State HECRAS analysis on the Spur Ditch and County Ditch 54. The analysis determined water surface elevations for each of the flowrates at various sections along the ditch channels. These water surface profiles were then used to estimate the flow capacity of each of the channels. The results shown in the tables below are for one cross section each along Spur No. 2 and County Ditch 54. Figure 9 can be referenced for station information used in the HECRAS model.

River	Reach	Station	Profile	Q Total (cfs)	Min. Ch. Elev.	Water Surface Elev.	Left Overbank Elev.	Right Overbank Elev.
Sand Cr.	Spur Dt.	5	1-Year	118	1013.3	1016.53	1018.63	1019.2
Sand Cr.	Spur Dt.	5	2-Year	162	1013.3	1017.61	1018.63	1019.2
Sand Cr.	Spur Dt.	5	5-Year	300	1013.3	1019.93	1018.63	1019.2

Table 2. Water Surface Elevations at Section 5 of Spur No. 2

River	Reach	Station	Profile	Q Total (cfs)	Min. Ch. Elev.	Water Surface Elev.	Left Overbank Elev.	Right Overbank Elev.
Dt. 54	Lower	9	1-Year	171	1011.4	1015.71	1021.3	1020
Dt. 54	Lower	9	2-Year	234	1011.4	1016.72	1021.3	1020
Dt. 54	Lower	9	5-Year	431	1011.4	1019.84	1021.3	1020
Dt. 54	Lower	9	10-Year	597	1011.4	1023.49	1021.3	1020

Table 3. Water Surface Elevations at Section 9 of County Ditch 54

Using the water surface profile information from Table 2, the flowrate at which water begins to overflow the banks of Spur No. 2, is approximately 220 cfs. At a flowrate of approximately 160 cfs, water from Sand Creek will begin to flow back into Sanborn Lake. As flowrates increase, the area north of Spur No. 2 will be inundated and more water will back into the lake. County Ditch 54 will also overtop it's banks north of Spur No. 2.

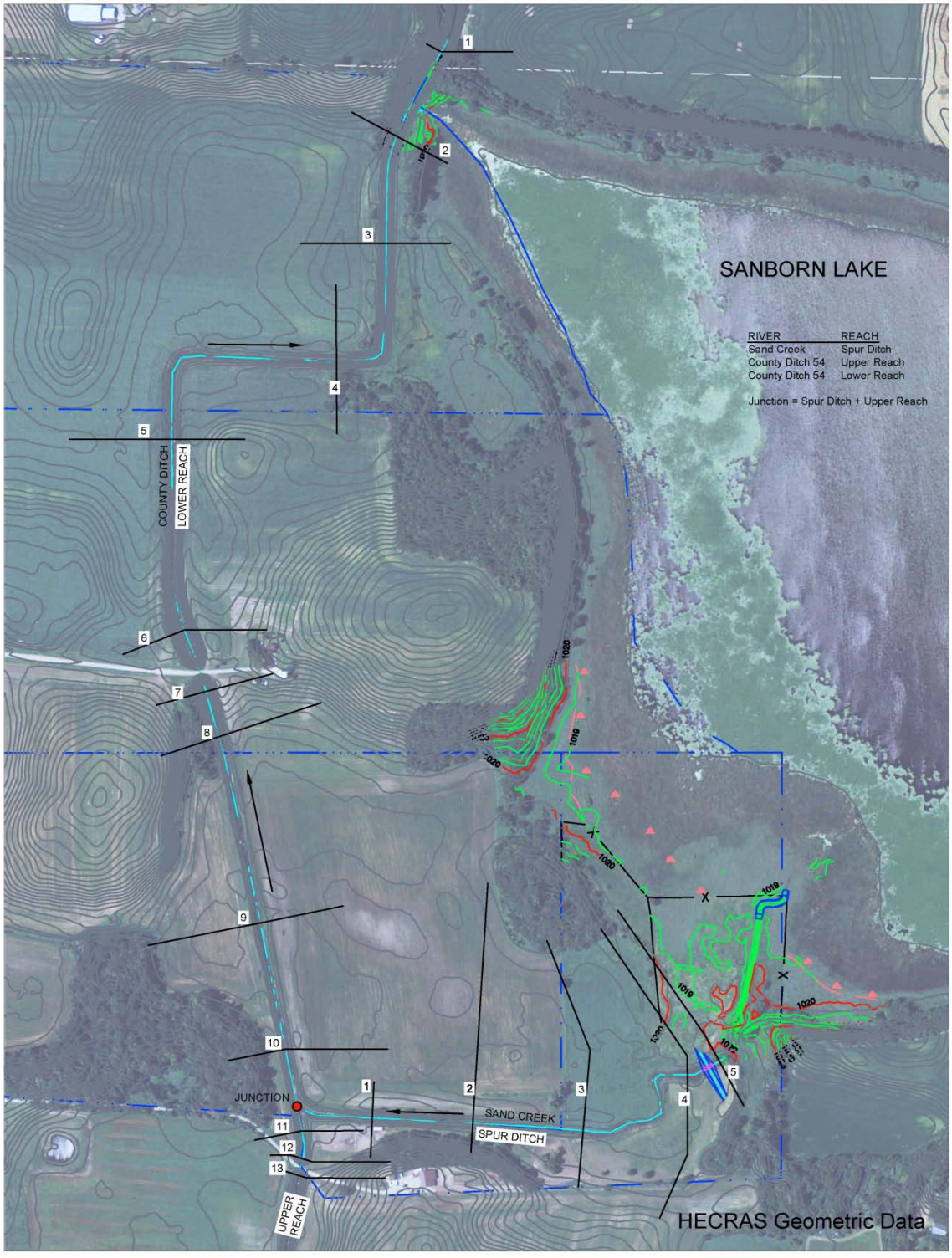


Figure 9. HEC RAS Geometric Data

IV. DESIGN

The design objectives for the Sanborn Lake project are to replace the existing water control structure with one capable of variable level water management and to prevent water from flowing south out of the lake into Sand Creek and the Spur Ditch. The new structure will be designed to accommodate the current watershed of 3.63 square miles instead of the Sand Creek watershed which historically contributed to Sanborn.

A. Existing Structure and Outlet

As was discussed previously, the existing outlet for Sanborn Lake has been altered from when the original structure was installed and County Ditch 54 excavated. The existing primary outlet is now an open channel which flows out to the south at an approximate elevation of 1017.5 and discharges into the spur ditch. The secondary outlet is the dual 96" diameter risers with 48" diameter outlet barrels. One of the risers has been modified with a notch cut into the north riser to lower the outlet elevation to 1017.55.

To model the existing and proposed conditions, *HydroCAD 10.0* stormwater modeling software was used. *HydroCAD* incorporates the NRCS TR-20 runoff method to produce runoff hydrographs for various design storms. The hydrographs were routed through the lake and water control structures. This yielded outflow hydrographs that determined peak discharge rates at maximum lake elevations corresponding to the various runoff events. As a comparison to the proposed design hydraulics, the existing conditions were modeled for the original unaltered outlet and the altered or modified outlet conditions. The original conditions assume that all inflows are passing through the two 96" diameter risers with a starting water surface elevation of 1018.96. The existing conditions were modeled with the south channel as the primary outlet and the modified 96" risers as the secondary outlet. The existing runout elevation of 1017.5 was assumed as the starting water surface elevation for the existing conditions. The model did not consider inflows contributing from Sand Creek.

The results for the original and existing conditions are shown in tables 4 and 5.

Watershed Area = 2,325 acres (3.63 square miles)
CN = 70 TOC = 97.5 minutes AMC = 2
24 Hr. Rainfall Depths (LeSueur County, MN) from "NOAA Atlas 14, Volume 8, Version 2" by U.S. Weather Bureau
1 - Year = 2.48" 10 - Year = 4.24" 100 - Year = 7.17"
2 - Year = 2.86" 25 - Year = 5.28"
5 - Year = 3.57" 50 - Year = 6.18"

	Inflow (cfs)	Outflow (cfs)	Elevation (feet)	Storage (acre-feet)
1-Year	286	14.4	1019.15	1336
2-Year	444	23.2	1019.23	1366
5-Year	801	45.2	1019.38	1426
10-Year	1193	71.5	1019.53	1487
25-Year	1869	121.5	1019.78	1589
50-Year	2497	173.8	1020.00	1682
100-Year	3218	239.9	1020.25	1789

Starting elevation of Sanborn Lake was assumed to be 1018.96 at the start of each event.

Table 4. Existing Conditions - Original Structure Rating Table.

Watershed Area = 2,325 acres
CN = 70 TOC = 97.5 minutes AMC = 2
24 Hr. Rainfall Depths (LeSueur County, MN) from "NOAA Atlas 14, Volume 8, Version 2" by U.S. Weather Bureau
1 - Year = 2.48" 10 - Year = 4.24" 100 - Year = 7.17"
2 - Year = 2.86" 25 - Year = 5.28"
5 - Year = 3.57" 50 - Year = 6.18"

Event	Inflow (cfs)	Outflow (cfs)	Primary Ditch (cfs)	Secondary 96" Risers (cfs)	Elevation (feet)
1-Year	286	1.8	1.3	0.5	1017.77
2-Year	444	2.8	1.8	0.9	1017.88
5-Year	801	6.6	4.6	2.1	1018.11
10-Year	1193	12.6	9.2	3.5	1018.34
25-Year	1869	28.9	22.8	6.2	1018.71
50-Year	2497	53.0	42.9	10.2	1019.02
100-Year	3218	109.3	71.4	37.9	1019.32

Starting elevation of Sanborn Lake was assumed to be 1017.5 at the start of each event.

Table 5. Existing Conditions - Modified Structure and Outlet Rating Table

B. Sanborn Lake Design Outlet Structure

The proposed water control structure is a three sided sheet pile box weir with a 36" diameter steel pipe outlet barrel. The total weir length of the structure will be 17.75' with a crest elevation of 1017.5. A 4' wide stoplog bay will provide water level management down to elevation 1014.0. The existing structure will be removed and the proposed structure installed in its place.

The input data, assumptions and model results for the design conditions are shown in Table 2. It was assumed that Sanborn Lake was at elevation 1017.5 at the state of each runoff event.

Watershed Area = 2,325 acres
CN = 70 TOC = 97.5 minutes AMC = 2
24 Hr. Rainfall Depths (LeSueur County, MN) from "NOAA Atlas 14, Volume 8, Version 2" by U.S. Weather Bureau
1 - Year = 2.48" 10 - Year = 4.24" 100 - Year = 7.17"
2 - Year = 2.86" 25 - Year = 5.28"
5 - Year = 3.57" 50 - Year = 6.18"

	Inflow (cfs)	Outflow (cfs)	Elevation (feet)	Storage (acre-feet)
1-Year	286	7.4	1017.75	836
2-Year	444	12.3	1017.85	869
5-Year	801	24.5	1018.06	939
10-Year	1193	39.33	1018.27	1011
25-Year	1869	67.5	1018.61	1132
50-Year	2497	95.7	1018.91	1241
100-Year	3218	103.7	1019.27	1381

Starting elevation of Sanborn Lake was assumed to be 1017.5 at the start of each event.

Table 6. Design Structure Rating Table

To prevent water from flowing south out of Sanborn Lake and into Sand Creek, the existing south outlet ditch will have to be plugged. By plugging the ditch, discharge will be controlled at the primary outlet structure and directly into County Ditch 54. The ditch plug will be located at the south end of Sanborn Lake and tie into the existing ground at elevation 1019.0.

C. County Ditch 54 Crossing

For access to the water control structure, the DNR has requested that a crossing be installed on County Ditch 54 in the vicinity of the structure. The DNR now owns the property located on the west side of the ditch and would access from off 9th Street.

There are two ditch crossings upstream of the proposed crossing. The first crossing upstream is a 96" CMP and the next crossing is an 84" CMP. The second crossing is located just upstream of where the Spur Ditch enters County Ditch 54.

The proposed crossing is a 96" RCP with sloped end sections. The top elevation of the crossing will be 1024.0 with a top width of 16'. The culvert hydraulics for the proposed crossing are shown in Table 1.

	Headwater Elevation (ft)	Total Fow (cfs)	96" RCP Discharge (cfs)	Overtopping Crossing (cfs)
1-Year	1014.78	171	171	0.0
2-Year	1015.68	234	234	0.0
5-Year	1018.14	431	431	0.0
10-Year	1020.38	597	597	0.0
25-Year	1024.37	843	801	42
50-Year	1025.07	1055	831	224
100-Year	1025.65	1297	856	441
Crossing begins to overtop at 784 cfs. Upstream crossing capacity would control.				

Table 7. 96" Diameter RCP Rating Table.

D. Spur Ditch Crossing

The crossing over the Spur Ditch on property owned by Dave Peterson is a 72" CMP. This pipe has caused problems in the past and some erosion has occurred on the downstream side during periods of high flow. It is desired to continue use of this crossing and upgrade the culvert capacity. It is proposed that the culvert be replaced with a 9'-4" x 6'-3" cmp multi-plate pipe-arch. The multi-plate would more effectively handle the anticipated flows in Sand Creek.

Headwater Elevation (ft)	Total Fow (cfs)	CMP Multi Plate Discharge (cfs)	Crossing Discharge (cfs)	Comment
1013.74	10	10	0.0	
1014.31	25	25	0.0	
1014.96	50	50	0.0	
1016.24	100	100	0.0	
1017.49	150	150	0.0	
1018.74	200	200	0.0	
1020.20	250	250	0.0	TW Controls
1020.26	300	300	0.0	TW Controls
Spur Ditch capacity is approximately 220 cfs.				

Table 8. CMP Multi-Plate, Spur Ditch Crossing Rating Table.

V. Conclusion and Recommendations

The hydraulic conditions at Sanborn Lake have greatly changed since the construction of County Ditch 54. What once was a 52 square mile watershed contributing to Sanborn Lake is now 3.63 square miles. Sand Creek now flows directly into County Ditch 54 and around Sanborn Lake expect during higher runoff events when water can backup into the lake. The original structure, in addition to not providing variable water level management, is a safety concern for the Minnesota DNR due to the lack of trash guards.

The proposed project would replace the existing structure with on more suited to the existing conditions and allow the DNR to manage the lake for the benefit of wildlife. By blocking the south channel or ditch, outflow from Sanborn would no longer flow into Spur No. 2 but out through the new structure. As it exists now, the south ditch is acting as the primary outlet and routing additional flows into Sand Creek and the lower reach of County Ditch 54.

VI. DESIGN ADDENDUM

To model the entire watershed system including Ditch 54, Spur Ditch and Sanborn Lake water control structure, the HEC RAS and HydroCAD models were revised to include some additional elements. The HEC RAS results for Ditch 54 and the Spur Ditch were the used in conjunction with the HydroCAD model to route the flood hydrographs through Sanborn Lake to determine lake elevations for each of the runoff events. Even though the Spur Ditch now routes a portion of the inflows directly into Ditch 54, water surface profiles still rise to an elevation which then splits inflows and routes them through the existing water control structure. The revised model will take this into consideration to better represent the effects of the proposed versus existing conditions.

As part of the revised model, the proposed water control structure for Sanborn Lake included an increased size of the outlet barrel from 36" diameter to 48" diameter. The proposed weir length and full service level remained the same.

Because the TR-20 runoff method used in HydroCAD produces results considerably higher than those estimated in the regression equations, the Curve Number and Time of Concentration input variables were modified to produce similar runoffs to those of the regression equations. The modified TR-20 input variables and the resulting peak discharge rates are shown in Table 2 below for each of the subwatersheds. Table 1 shows the previously used peak flow estimates from the regression equations developed by using "StreamStats".

Events	Existing Sanborn Watershed	Sand Creek at Spur Ditch No. 2	County Ditch 54 - Upper Reach
1-Year	32.5 cfs	118 cfs	53.2 cfs
2-Year	43.0 cfs	162 cfs	72.1 cfs
5-Year	75.4 cfs	300 cfs	131 cfs
10-Year	101 cfs	416 cfs	181 cfs
25-Year	139 cfs	589 cfs	254 cfs
50-Year	171 cfs	737 cfs	318 cfs
100-Year	208 cfs	907 cfs	390 cfs

Table 1. Peak Flow Estimates from StreamStats

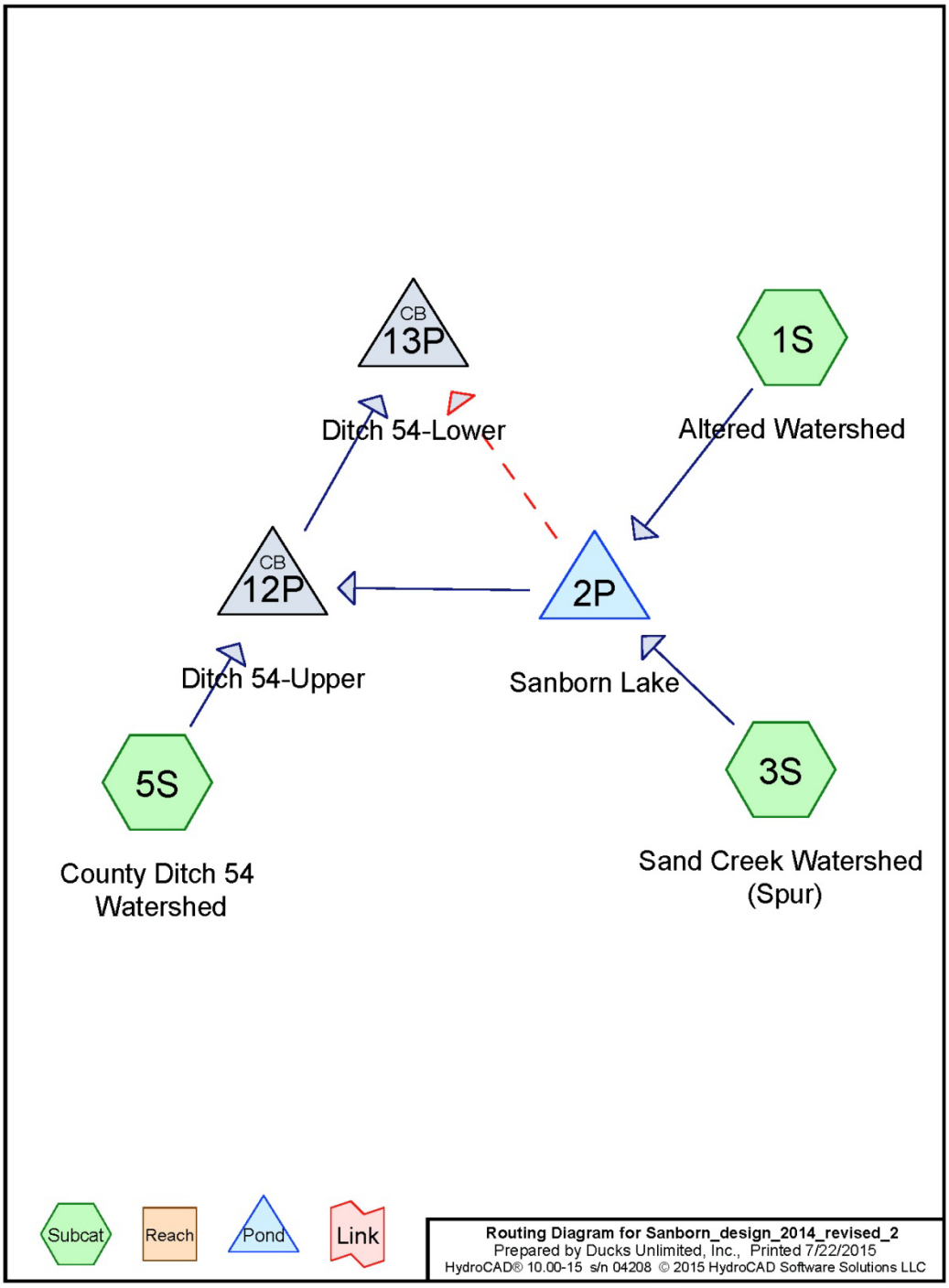


Figure 1. HydroCAD Routing Diagram

Altered Sanborn Lake Watershed - Area = 2,325 acres, CN = 60, AMC = 2 *Sand Creek Watershed to Spur - Area = 22,656 acres, CN = 55, AMC = 2* *Ditch 54 Upper Reach Watershed - Area = 9,344 acres, CN = 55, AMC = 2* *24 Hr. Rainfall Depths from NOAA Atlas 14, Volume 8, Version 2 by U.S. Weather Bureau*						
Events	Existing Sanborn Watershed		Sand Creek at Spur Ditch Watershed		Count Ditch 54 Watershed	
	TOC (minutes)	Q (cfs)	TOC (minutes)	Q (cfs)	TOC (minutes)	Q (cfs)
1-Year	425	33	750	118	630	52
2-Year	750	44	1,350	163	1,185	73
5-Year	950	75	1,800	298	1,650	132
10-Year	1,200	101	2,250	416	2,075	182
25-Year	1,500	141	2,830	589	2,700	255
50-Year	1,780	171	3,325	738	3,175	317
100-Year	1,935	210	3,750	908	3,600	390

Table 2. Modified TR-20 Variables and Peak Discharge

Water surface profiles for Ditch 54 and the Spur Ditch were determined in the HEC RAS model and used as a user defined stage discharge for the ponds shown on the HydroCAD model diagram. The results of the HydroCAD model are shown in the tables 3 and 4 below.

A. Sanborn Lake Existing Conditions - Routing Results

	Inflow (cfs)	Spur Ditch Flow (cfs)	Structure Flow (cfs)	Elevation (feet)
1-Year	139	121	8	1019.09
2-Year	186	186	12	1019.13
5-Year	327	211	43	1019.37
10-Year	454	228	100	1019.68
25-Year	646	252	208	1020.13
50-Year	802	271	300	1020.48
100-Year	972	297	312	1020.95
Starting elevation of Sanborn Lake was assumed to be 1018.96 at the start of each event.				

Table 3. Stage Discharge for Existing Conditions

B. Sanborn Lake Design Conditions - Routing Results

	Inflow (cfs)	Spur Ditch Flow (cfs)	Structure Flow (cfs)	Elevation (feet)
1-Year	139	136	1	1017.65
2-Year	186	139	4	1017.76
5-Year	327	158	38	1018.36
10-Year	454	191	95	1019.0
25-Year	646	232	180	1019.76
50-Year	802	263	195	1020.34
100-Year	972	297	205	1020.95
Starting elevation of Sanborn Lake was assumed to be 1017.5 at the start of each event.				

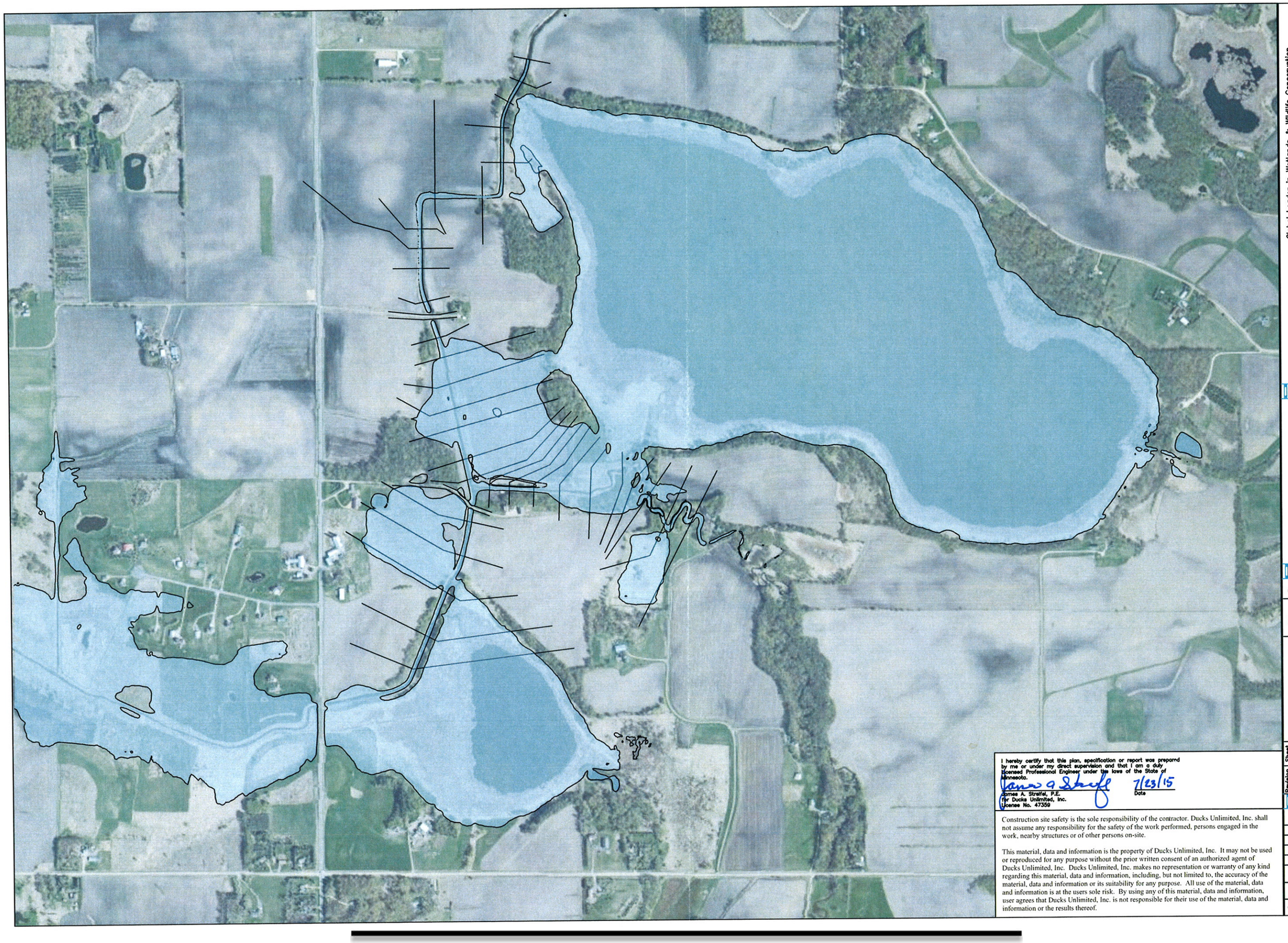
Table 4. Stage Discharge for Design Conditions

Given the proposed lower operating level on Sanborn Lake from the existing risers, the peak elevation of the 100-year event turns out to be similar. Discharge through the primary is less than the existing structure but the increased storage results in the same peak elevation.

I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.

James A. Streifel 7/23/2015

James A. Streifel, P.E. Date
For Ducks Unlimited, Inc.
License No. 47359



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DUCKS UNLIMITED

SANBORN LAKE
100-YEAR
PEAK ELEVATION

Revision No.	Sheet No.	Revisions	Date	By
x	x	x	x	x

I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly licensed Professional Engineer under the laws of the State of Minnesota.

James A. Strelitz, P.E.
for Ducks Unlimited, Inc.
License No. 47359

7/23/15
Date

Construction site safety is the sole responsibility of the contractor. Ducks Unlimited, Inc. shall not assume any responsibility for the safety of the work performed, persons engaged in the work, nearby structures or of other persons on-site.

CAD FILE: –
DESIGNED BY: JS
DRAWN BY: JS
SURVEYED BY: GL, MLO
BOOK NO. –
DATE: 7-22-2015
PROJECT NO.: US-MN-445-1
GLARO-000-000-00

STATE OF MINNESOTA
LE SUEUR COUNTY BOARD OF COMMISSIONERS
SEATED AS DRAINAGE AUTHORITY UNDER STATUTES CHAPTER 103E
FOR LE SUEUR COUNTY DITCH 54

Regarding the Petition of the Minnesota Department of Natural Resources for the Modification of Le Sueur County Ditch 54 (Minnesota Statutes, Section 103E.227)	**Petition for Impoundment, Rerouting, and Diverting Water**

For the petition to impound, reroute, and divert water on Le Sueur County Ditch 54 ("CD 54"), the Minnesota Department of Natural Resources (DNR) state and allege the following:

Part 1: General Statement of Facts and Conditions:

1. Sanborn Lake is a designated wildlife lake located in Le Sueur County. The lake designation gives the DNR authority to manage water levels on the lake for the benefit of wildlife.

2. The outlet of Sanborn Lake is a structure which is part of CD 54. The establishment of CD 54 included the Sanborn Lake outlet structure and the conditions created by it.

3. The existing structure, however, does not have the capability of variable water level management as desired for wildlife and lake management benefit. As a result, rough fish in Sanborn Lake degrade water quality and prevent the growth of beneficial aquatic vegetation. The DNR would like to have the ability to temporarily draw down lake levels in order to induce winterkill of rough fish and encourage or reestablish the growth of beneficial wetland vegetation.

4. In 2010 Ducks Unlimited (DU), at the request of DNR prepared a feasibility study for the enhancement of Sanborn Lake. That report detailed the historic and existing hydrology, the re-routing of Sand Creek around Sanborn Lake via CD 54, and the proposed modification of the CD 54 outlet structure on Sanborn Lake.

5. Historically, Sanborn Lake was situated at the bottom of a 52 square mile watershed, with Sand Creek contributing most of the inflow to the lake. Sand Creek flowed into Sanborn Lake from the south and flowed out through a natural channel in the northwest corner of the lake. Construction of CD 54, bypassing Sanborn Lake, reduced the area draining to Sanborn Lake to approximately 37 square miles. Sometime following construction of CD 54, Sand Creek, south of Sanborn Lake, connected with spur 2 of CD 54. Although the design plans for CD 54 do not include this connection, this connection has existed for roughly 30 years and has become part of the anticipated function of CD 54, thus, for around 30 years, flows from Sand Creek have by-passed Sanborn Lake.

6. The connection of Sand Creek to spur 2 of CD 54 effectively reduced the contributing watershed of Sanborn Lake from 37 to 4 square miles. The bottom elevation of Sand Creek

where it currently joins spur 2 is now lower than Sanborn Lake and, in time of high water, serves as a second outlet for Sanborn Lake.

7. The DNR desires to modify the current configuration, alignment and function of CD 54 in order to (1) improved hydraulic inputs to Sanborn Lake, and (2) provide a dynamic outlet which will allow for active management of water levels in Sanborn Lake for wildlife and ecological purposes. These modifications are proposed pursuant to Minnesota Statutes 103E.227 (the "Project").

8. Concept and design plans for the Project, along with a Design Report, prepared by DU, are included on file with the drainage authority and its engineer.

Part 2: Petition for Impoundment and Diversion of Drainage System Waters:

9. Minnesota Statutes, Section 103E.227 allows any person, public or municipal corporation, governmental subdivision, the state or a department or agency of the state or federal government to petition to impound or divert drainage system waters for beneficial use. Beneficial uses can include wetland preservation or restoration, wildlife enhancements or creation of water quality improvements or flood control.

10. The DNR has worked cooperatively with the Drainage Authority in the preparation and submission of this petition.

11. Specifically, the petitioners propose the following:

    a. Alter the direct channel connection from Sanborn Lake with spur 2 of CD 54 which is creating the secondary outlet. This will establish the existing watershed of Sanborn Lake, and allow for periodic water level management.

    b. Modify the CD 54 outlet of Sanborn Lake to provide for lake level management and allow the Minnesota DNR Section of Wildlife the ability to operate the water control structure in accordance with an approved comprehensive management plan.

    c. Given the current condition of the CD 54 outlet structure, the DNR requests that the Drainage Authority consider funding a portion of the costs of the construction and installation of the proposed outlet structure from drainage system funds as a separable repair.

    d. Petitioners acknowledge that the cost of future operation and maintenance of the proposed drainage system modifications shall be paid for by the petitioners.

12. The Project does impact public waters, and all required public waters work and water use permits shall be acquired by the DNR. Further, the DNR acknowledges its obligation to secure other required regulatory approval.

13. Because the DNR is a unit of government, no bond or similar surety is required to be submitted with this petition.

14. The proposed modification will be of a public and private benefit. The public benefits of the Project result from the restoration and management of Sanborn Lake in the Project area.

15. For the foregoing reasons, Petitioners request the following:

    a. That the Drainage Authority appoint an engineer as required by Minnesota Statutes, Section 103E.227, subdivision 3, in order to investigate the effect of the proposed project and file a report of findings.

    b. Following the filing of the engineer's report that proper notice be given to impacted parties and a public hearing held as provided in Minnesota Statutes, Section 103E.261.

    c. That following said hearing, the drainage authority issue an order modifying the drainage system, to include an amount of drainage system funds approved for the Project, and authorize the Project as outlined in this Petition.

16. This petition is submitted with the understanding that the Drainage Authority will process it in accordance with Minnesota Statutes, Section 103E.227, subdivision 3 including, but not limited to, providing notice and holding the required public hearing.

17. This petition may be executed in counterparts.

18. The undersigned acknowledge full authority of their respective organizations or units of government to execute this petition and bind their entities to the requirements of Minnesota Statutes Chapter 103E.

Respectfully Submitted,

5.10.17

James T. Leach

Date: 5-18-17

James T. Leach, Director, Division of Fish and Wildlife
Minnesota Department of Natural Resources

Le Sueur County

2018 Public Transit Grant

Resolved that Le Sueur County, in conjunction with Blue Earth County and Nicollet County, enters into an Agreement with VINE Faith in Action to provide transportation in Blue Earth, Nicollet, and Le Sueur Counties.

Further resolved that Le Sueur County, in conjunction with Blue Earth County and Nicollet County, agrees to provide a local share of 15 percent of the total operating cost and 20 percent of the total capital costs.

Further resolved that Le Sueur County, in conjunction with Blue Earth County and Nicollet County, agrees to provide 100 percent of the local share necessary for expenses that exceed funds available from the State.

Further resolved that Le Sueur County authorizes the County Administrator and/or Board of Commissioner's Chair to execute the aforementioned Agreement and any amendments thereto.

CERTIFICATION

I hereby certify that the foregoing resolution is a true and correct copy of the resolution presented to and adopted by Le Sueur County in Action at a duly authorized meeting thereof held on June 6, 2017.

_____
Signature

_____
Date

Notary _____