

MnDOT State Aid Bridge Office

2023 Calendar Year - - Bridge Cost Report

General Notes

The CY 2023 Bridge Cost Report reflects the unit cost (\$ per square foot of bridge area) for all the bridges let in CY 2023.

Pre-cast concrete box culverts have not been included in this report as they do not generally get reviewed (or approved) by the State Aid Bridge Office. We have produced a separate report for pre-cast concrete box culvert cost information.

The bridge unit costs are derived from the pay items on the 1st sheet of each bridge plan and therefore may include Traffic Control, Guardrail, etc.

We exclude one bridge pay item when calculating the cost of each bridge. That pay item is *Remove Existing Bridge* and it occurs prior to bridge construction and is typically not eligible for state or federal funding.

If a bridge has expensive aesthetic features, it may result in a higher unit cost for the bridge. Bridges with an unusually high (or low) unit cost will be omitted to ensure we are reporting "average" bridge unit costs.

Please note that the purpose of this report is to provide the approximate costs of building the various types of bridges and to track those cost trends over time.

Please report any missing bridges to the State Aid Bridge Office as soon as possible so we can revise the report. Once the report gets loaded to our website it's considered to be final.

As always, we appreciate your comments and feel free to call us if you have any questions or comments.

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MnDOT State Aid Bridge Office 2023 Calendar Year - - Bridge Cost Report

Separated per Structure Type

BEAM TYPE= **CONCRETE SLAB SPAN**

New Bridge Number	Project Type	Project Number	Length	Beam Type Code	Letting Date	Area	Cost	Unit Cost
01537*	SAP	001-599-043	59.67	C-SLAB	12/4/2023	1611	\$500,627	\$310.76
01539	SP	001-605-016	125.83	C-SLAB	12/4/2023	4405	\$947,230	\$215.04
11534*	SP	011-670-004	131.67	C-SLAB	8/22/2023	6474	\$1,702,509	\$262.98
16530*	SAP	016-598-020	38.07	C-SLAB	9/26/2023	975	\$675,451	\$692.77
22626	SAP	022-599-117	108.67	C-SLAB	4/27/2023	3152	\$528,803	\$167.77
22627	SAP	022-599-122	111.77	C-SLAB	4/27/2023	3465	\$596,976	\$172.29
25625*	SAP	025-602-032	89.69	C-SLAB	4/25/2023	3498	\$904,938	\$258.70
53537	SAP	053-619-027	116.50	C-SLAB	3/28/2023	4078	\$825,562	\$202.44
53538	SAP	053-606-020	104.50	C-SLAB	3/28/2023	3658	\$696,707	\$190.46
56547	SP	056-645-009	135.26	C-SLAB	4/5/2023	5951	\$1,250,227	\$210.09
64601*	SAP	064-608-030	138.00	C-SLAB	9/18/2023	5382	\$718,189	\$133.44
64603*	SAP	064-598-032	133.04	C-SLAB	9/18/2023	4660	\$631,364	\$135.49
67576	SP	067-601-014	139.27	C-SLAB	6/5/2023	4892	\$1,165,166	\$238.18
80541	SP	080-623-022	153.58	C-SLAB	7/18/2023	5990	\$1,283,624	\$214.29

Total Cost	\$12,427,374
Total Deck Area	58,191
Average Cost per Sq Ft	\$204.95
Total Number of Bridges	14

* Due to the unusually high or low unit cost for this bridge, it was not included in the computation for average unit cost.

MnDOT State Aid Bridge Office 2023 Calendar Year - - Bridge Cost Report

Separated per Structure Type

BEAM TYPE= *PRE-CAST BEAMS*

New Bridge Number	Project Type	Project Number	Length	Beam Type Code	Letting Date	Area	Cost	Unit Cost
02591*	SP	002-656-001	137.96	PCB	8/31/2023	11960	\$3,980,755	\$332.84
02592*	SP	002-657-003	151.83	PCB	8/31/2023	13310	\$4,966,303	\$373.13
07602	SAP	007-613-013	270.17	PCB	8/30/2023	10540	\$2,627,713	\$249.31
09538*	SP	009-606-038	143.01	PCB	7/17/2023	5108	\$1,769,748	\$346.47
10556	SAP	010-641-006	119.17	PCB	1/2/2023	4171	\$964,560	\$231.25
12557	SAP	012-599-099	94.92	PCB	4/11/2023	2943	\$538,848	\$183.09
16527	SP	016-598-021	88.92	PCB	2/7/2023	2673	\$750,369	\$280.72
29534	SP	029-613-012	93.00	PCB	8/30/2023	3631	\$910,519	\$250.76
31585	SAP	031-598-032	252.50	PCB	7/10/2023	8838	\$2,035,488	\$230.31
49558	SP	049-606-022	84.92	PCB	1/26/2023	3312	\$825,499	\$249.24
49559	SAP	049-601-031	81.92	PCB	12/20/2023	3195	\$752,971	\$235.67
51537	SAP	051-599-104	113.14	PCB	1/24/2023	3508	\$736,293	\$209.89
55600	SP	055-598-060	80.17	PCB	10/3/2023	2485	\$635,028	\$255.54
57527*	SAP	057-622-007	185.95	PCB	10/16/2023	7252	\$2,206,058	\$304.20
68544	SP	068-598-037	114.92	PCB	9/14/2023	4022	\$866,393	\$215.41
71534	SAP	071-604-036	114.17	PCB	11/7/2023	4910	\$1,301,394	\$265.05
73581	SP	072-675-042	273.67	PCB	7/19/2023	21620	\$3,585,716	\$165.85
74562	SAP	074-598-016	103.28	PCB	12/19/2023	3610	\$780,522	\$216.21
81532	SAP	081-603-038	69.92	PCB	9/21/2023	2448	\$720,154	\$294.18

Total Cost	\$30,954,332
Total Deck Area	119,536
Average Cost per Sq Ft	\$220.15
Total Number of Bridges	19

* Due to the unusually high or low unit cost for this bridge, it was not included in the computation for average unit cost.

MnDOT State Aid Bridge Office 2023 Calendar Year - - Bridge Cost Report

Separated per Structure Type

BEAM TYPE= **STEEL BEAM**

New Bridge Number	Project Type	Project Number	Length	Beam Type Code	Letting Date	Area	Cost	Unit Cost
60569	SP	060-607-005	904.00	STEEL	10/13/2023	31640	\$6,011,339	\$379.98

** Bridge No. 60569 was a border bridge that was let by North Dakota. The overall cost shown is for the Minnesota portion (50/50 split between states). The Unit Cost is based on the entire bridge cost.

Total Cost	\$6,011,339
Total Deck Area	31,640
Average Cost per Sq Ft	\$379.98
Total Number of Bridges	1

MnDOT State Aid Bridge Office 2023 Calendar Year - - Bridge Cost Report

Separated per Structure Type

BEAM TYPE= *STEEL TRUSS*

New Bridge Number	Project Type	Project Number	Length	Beam Type Code	Letting Date	Area	Cost	Unit Cost
R0911	SP	019-090-023	303.50	TRUSS	6/27/2023	3650	\$1,082,470	\$296.57
R0912	SP	019-090-023	203.25	TRUSS	6/27/2023	2440	\$800,565	\$328.10
R0921	SP	092-090-063	100.00	TRUSS	11/9/2023	1200	\$529,187	\$440.99

Total Cost	\$2,412,223
Total Deck Area	7,290
Average Cost per Sq Ft	\$330.89
Total Number of Bridges	3

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Separated per Structure Type

BEAM TYPE= *TREATED TIMBER SLAB*

New Bridge Number	Project Type	Project Number	Length	Beam Type Code	Letting Date	Area	Cost	Unit Cost
04532	SAP	004-622-025	40.00	TTS	9/19/2023	1360	\$525,794	\$386.61
04533	SAP	004-622-024	66.00	TTS	9/19/2023	2244	\$768,281	\$342.37
16529*	SAP	016-617-009	56.00	TTS	10/3/2023	1792	\$205,597	\$114.73
39532	SP	039-598-071	54.00	TTS	1/13/2023	1620	\$578,283	\$356.96
58559	SAP	058-599-045	40.00	TTS	4/5/2023	880	\$399,184	\$453.62

Total Cost	\$2,477,139
Total Deck Area	7,896
Average Cost per Sq Ft	\$372.14
Total Number of Bridges	5

* Due to the unusually high or low unit cost for this bridge, it was not included in the computation for average unit cost.

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Separated per Structure Type

BEAM TYPE= *PEDESTRIAN BOARDWALK*

New Bridge Number	Project Type	Project Number	Length	Beam Type Code	Letting Date	Area	Cost	Unit Cost
R0889	SP	019-090-024	701.33	BRDWLK	8/31/2023	10874	\$1,966,679	\$180.86
R0890	SP	019-090-024	21.33	BRDWLK	8/31/2023	327	\$126,863	\$387.96
R0891	SP	019-090-024	41.33	BRDWLK	8/31/2023	634	\$189,666	\$299.16
R0892	SP	019-090-024	301.33	BRDWLK	8/31/2023	4621	\$1,115,756	\$241.45
R0893	SP	019-090-024	141.33	BRDWLK	8/31/2023	2167	\$483,496	\$223.12
R0894	SP	019-090-024	41.33	BRDWLK	8/31/2023	634	\$279,449	\$440.77
R0895	SP	019-090-024	41.33	BRDWLK	8/31/2023	634	\$274,764	\$433.38

Total Cost	\$4,436,674
Total Deck Area	19,891
Average Cost per Sq Ft	\$223.05
Total Number of Bridges	7

MnDOT State Aid Bridge Office

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Summary of Structure Type Unit Costs As Compared to Previous Fiscal Years

STATE AID BRIDGES
SUMMARY OF BRIDGE UNIT COST PER BEAM TYPE

CALENDAR YEAR	2023	2022	2021	2020	2019	2018	2017	2016
TYPE								
C-ARCH						\$741.84		
C-SLAB	\$204.95	\$193.64	\$167.55	\$134.74	\$130.34	\$133.16	\$118.63	\$136.38
DBL T								
GLULAM								
PCB	\$220.15	\$207.36	\$195.23	\$166.18	\$160.81	\$155.39	\$136.03	\$135.07
PCBped								\$222.45
PT SLAB								
R-FRAME						\$178.70		
STEEL	\$379.98					\$560.68		\$230.18
TRUSS	\$330.89			\$271.55	\$274.47	\$276.13	\$216.26	\$263.65
TTS	\$372.14	\$479.07	\$191.23	\$352.13	\$152.38	\$216.25		\$192.11
INV-T								\$283.79
BRDWLK	\$223.05			\$93.30	\$102.41		\$89.96	\$72.68

MnDOT State Aid Bridge Office 2023 Calendar Year - - Bridge Cost Report

Separated per Bridge Length < 150'

SORTED BY BRIDGE LENGTH

New Bridge Number	Project Type	Project Number	Length	Beam Type Code	Letting Date	Area	Cost	Unit Cost
R0890	SP	019-090-024	21.33	BRDWLK	8/31/2023	327	\$126,863	\$387.96
L4646*	SAP	067-597-005	35.67	REHAB	2/13/2023	711	\$367,873	\$517.40
16530	SAP	016-598-020	38.07	C-SLAB	9/26/2023	975	\$675,451	\$692.77
04532	SAP	004-622-025	40.00	TTS	9/19/2023	1360	\$525,794	\$386.61
58559	SAP	058-599-045	40.00	TTS	4/5/2023	880	\$399,184	\$453.62
R0891	SP	019-090-024	41.33	BRDWLK	8/31/2023	634	\$189,666	\$299.16
R0894	SP	019-090-024	41.33	BRDWLK	8/31/2023	634	\$279,449	\$440.77
R0895	SP	019-090-024	41.33	BRDWLK	8/31/2023	634	\$274,764	\$433.38
5744*	SAP	059-599-096	50.00	REHAB	9/26/2023	1400	\$1,215,434	\$868.17
39532	SP	039-598-071	54.00	TTS	1/13/2023	1620	\$578,283	\$356.96
16529	SAP	016-617-009	56.00	TTS	10/3/2023	1792	\$205,597	\$114.73
01537	SAP	001-599-043	59.67	C-SLAB	12/4/2023	1611	\$500,627	\$310.76
R0888*	SP	019-090-024	60.17	REHAB	8/31/2023	720	\$137,577	\$191.08
04533	SAP	004-622-024	66.00	TTS	9/19/2023	2244	\$768,281	\$342.37
81532	SAP	081-603-038	69.92	PCB	9/21/2023	2448	\$720,154	\$294.18
55600	SP	055-598-060	80.17	PCB	10/3/2023	2485	\$635,028	\$255.54
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R0921	SP	092-090-063	100.00	TRUSS	11/9/2023	1200	\$529,187	\$440.99

* REHAB structure unit costs do not get included in the overall Unit Cost value at list totals.

NOTE: LIST OF BRIDGES LESS THAN 150' LENGTH CONTINUED ON NEXT SHEET.

MnDOT State Aid Bridge Office 2023 Calendar Year - - Bridge Cost Report

Separated per Bridge Length < 150' (Cont'd)

SORTED BY BRIDGE LENGTH

New Bridge Number	Project Type	Project Number	Length	Beam Type Code	Letting Date	Area	Cost	Unit Cost
74562	SAP	074-598-016	103.28	PCB	12/19/2023	3610	\$780,522	\$216.21
53538	SAP	053-606-020	104.50	C-SLAB	3/28/2023	3658	\$696,707	\$190.46
22626	SAP	022-599-117	108.67	C-SLAB	4/27/2023	3152	\$528,803	\$167.77
22627	SAP	022-599-122	111.77	C-SLAB	4/27/2023	3465	\$596,976	\$172.29
51537	SAP	051-599-104	113.14	PCB	1/24/2023	3508	\$736,293	\$209.89
71534	SAP	071-604-036	114.17	PCB	11/7/2023	4910	\$1,301,394	\$265.05
68544	SP	068-598-037	114.92	PCB	9/14/2023	4022	\$866,393	\$215.41
53537	SAP	053-619-027	116.50	C-SLAB	3/28/2023	4078	\$825,562	\$202.44
10556	SAP	010-641-006	119.17	PCB	1/2/2023	4171	\$964,560	\$231.25
01539	SP	001-605-016	125.83	C-SLAB	12/4/2023	4405	\$947,230	\$215.04
11534	SP	011-670-004	131.67	C-SLAB	8/22/2023	6474	\$1,702,509	\$262.98
64603	SAP	064-598-032	133.04	C-SLAB	9/18/2023	4660	\$631,364	\$135.49
56547	SP	056-645-009	135.26	C-SLAB	4/5/2023	5951	\$1,250,227	\$210.09
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67576	SP	067-601-014	139.27	C-SLAB	6/5/2023	4892	\$1,165,166	\$238.18
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09538	SP	009-606-038	143.01	PCB	7/17/2023	5108	\$1,769,748	\$346.47

* REHAB structure unit costs do not get included in the overall Unit Cost value at list totals.

Total Cost	\$32,758,252
Total Deck Area	126,500
Average Cost per Sq Ft	\$250.97
Total No. of Bridges < 150'	41

MnDOT State Aid Bridge Office 2023 Calendar Year - - Bridge Cost Report

Separated per Bridge Length > 150'

SORTED BY BRIDGE LENGTH

New Bridge Number	Project Type	Project Number	Length	Beam Type Code	Letting Date	Area	Cost	Unit Cost
02592	SP	002-657-003	151.83	PCB	8/31/2023	13310	\$4,966,303	\$373.13
80541	SP	080-623-022	153.58	C-SLAB	7/18/2023	5990	\$1,283,624	\$214.29
57527	SAP	057-622-007	185.95	PCB	10/16/2023	7252	\$2,206,058	\$304.20
R0912	SP	019-090-023	203.25	TRUSS	6/27/2023	2440	\$800,565	\$328.10
31585	SAP	031-598-032	252.50	PCB	7/10/2023	8838	\$2,035,488	\$230.31
07602	SAP	007-613-013	270.17	PCB	8/30/2023	10540	\$2,627,713	\$249.31
73581	SP	072-675-042	273.67	PCB	7/19/2023	21620	\$3,585,716	\$165.85
R0892	SP	019-090-024	301.33	BRDWLK	8/31/2023	4621	\$1,115,756	\$241.45
R0911	SP	019-090-023	303.50	TRUSS	6/27/2023	3650	\$1,082,470	\$296.57
27152*	SP	027-752-035	365.88	REHAB	4/18/2023	24284	\$2,707,963	\$111.51
62512*	SP	164-194-033	673.58	REHAB	11/9/2023	55120	\$786,222	\$14.26
R0889	SP	019-090-024	701.33	BRDWLK	8/31/2023	10874	\$1,966,679	\$180.86
60569**	SP	060-607-005	904.00	STEEL	10/13/2023	31640	\$6,011,339	\$379.98

* REHAB structure unit costs do not get included in the overall Unit Cost value at list totals.

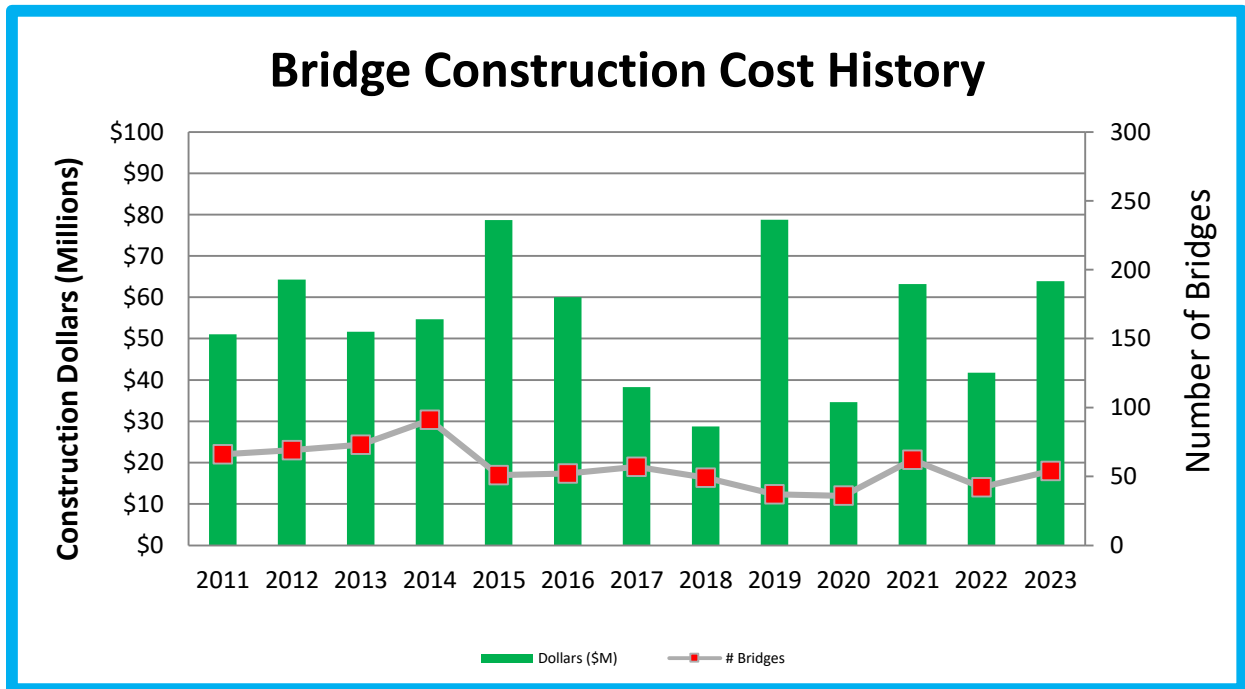
** Bridge No. 60569 was a border bridge that was let by North Dakota. The overall cost shown is for the Minnesota portion (50/50 split between states). The Unit Cost is based on the entire bridge cost.

Total Cost	\$31,175,898
Total Deck Area	200,179
Average Cost per Sq Ft	\$229.20
Total No. of Bridges > 150'	13

MnDOT State Aid Bridge Office 2023 Calendar Year - - Bridge Cost Report

Totals for All Bridges Let in CY 2023

Total Cost for all Bridges	\$63,934,150
Total Deck Area for all Bridges	326,679
Average Cost per Sq Ft	\$195.71
Total Number of Bridges	54



MnDOT State Aid Bridge Office 2023 Calendar Year - - Box Culvert Report

General Notes

The CY 2023 Box Culvert Report reflects the basic cost data for the majority of the pre-cast box culverts let in CY 2023. This report is not meant to cover every box culvert let, but to show the 'average' culvert projects (which is most of them). We omitted pedestrian underpass culverts and culverts with pre-cast or cast in place headwalls. We reported the standard sizes as well as 'special' projects which include multiple sized barrels and 20' wide special designs.

The purpose of this report is to summarize basic cost data for box culverts (barrel cost per linear foot and end section cost per each, as determined by the awarded bid) as well as the awarded project cost. The Project Cost for each project reflects the entire bridge replacement cost (from bedding under the culvert all the way to the road surfacing). It does not separate out the participating or non-participating portions, it contains both portions.

The report also tracks the box culvert volume totals and volume cost. This method is useful because it relates to the waterway area of the structure. The volume cost is the total cost of the barrels and end sections divided by the total volume.

Once a culvert size is determined, then the appropriate project cost example could be used by a local agency to compare to a bridge structure cost at a proposed project site. This could be done by estimating a bridge length (and width) and then applying the appropriate unit cost for the desired structure type (PCB, C-SLAB, STEEL, etc.).

While bridge sites can vary widely, many box culverts are done on the township road system and most of these bridge sites have low traffic volumes. This means that many of these sites have similar roadway widths and clear zones, so the main differences are usually skew angle and fill height over the culvert.

As always we appreciate your comments and feel free to call us if you have any questions or comments.

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MnDOT State Aid Bridge Office 2023 Calendar Year - - Box Culvert Report

Year In Review Summary

In the past year (or two) our local agencies have seen dramatic increases in the cost of precast box culverts, as well as some large delays in the procurement of those pieces. The industry has suffered setbacks in terms of material procurement and staffing. We believe these issues are slowly being resolved and things should return to normal.

There has been a shift in the precast industry, with some larger firms buying out some of the smaller local fabrication facilities. Some plants will now include indoor casting/curing facilities to produce pieces in the winter months.

We're seeing shorter procurement lead times, and the unit costs are beginning to creep down (despite being at an all time high in CY2023). However, during the period when we saw unusually high prices it made a cast-in-place (CIP) option a realistic bid alternative. The CIP option may have had a slightly higher cost, but should produce a very solid jointless structure. Recently, Winona County bid a culvert project in this way. They did need to pay approximately \$15K in additional design fees to produce a CIP option, but the bid prices for each option were very similar and they felt like they saved more construction money on the precast as a result of giving a CIP option (this may have forced the precasters to "sharpen their pencils" a bit).

In the future, we are looking at offering CIP standard template sheets for our local agencies to save on consultant design fees over time. Until then, there are a few CIP standards we recommend, such as the Missouri DOT culvert design standard.

The MnDOT Bridge Office Standards Unit is getting closer to offering both 18' and 20' wide precast box culvert standards to add to the current arsenal of standard sheets. They will only likely be available in low to medium fill heights though. When there are large fills, then the wall thicknesses gets to a point where the fabricators simply can't ship them. We anticipate those standards will be available this year (hopefully).

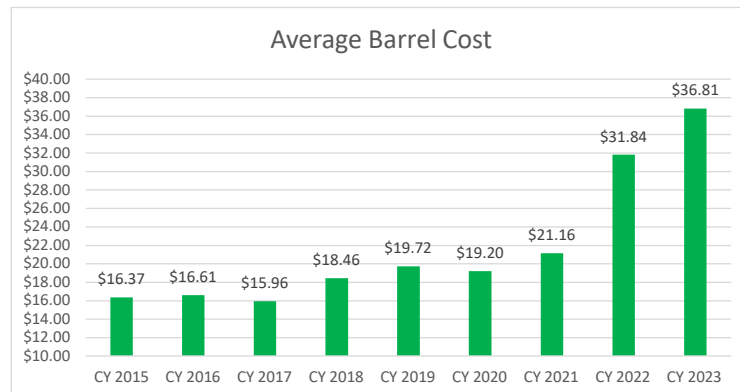
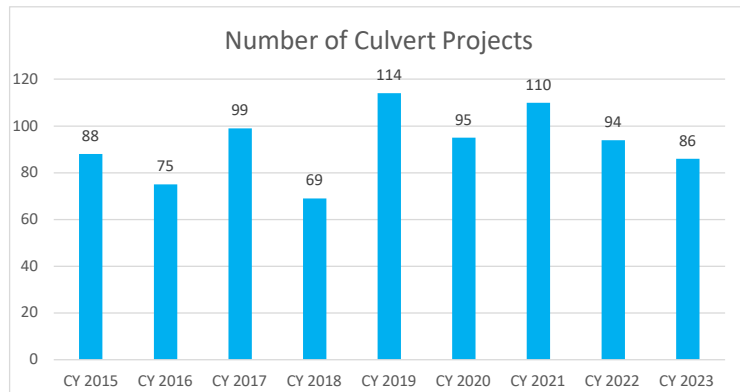
We are also looking into whether we can use out-of-state casting facilities (in South Dakota & Iowa) to offer more options/competition for precast culverts. This is an ongoing effort and we're trying to sort out how the fabrication inspection will happen with an out-of-state facility.

The concrete box culvert crossing is a staple of our local bridge system, and we are committed to provide our local agencies with more options to lower the culvert unit costs and increase performance of our structures.

MnDOT State Aid Bridge Office 2023 Calendar Year - - Precast Concrete Box Culvert Cost Report

Totals/Averages for ALL SIZES Box Culverts Let in CY 2023

Total Number of Culvert Projects	86	
Average Barrel Length (LF)	56'	
Average Barrel Cost (\$/LF)	\$2,142	
Average End Section Cost (\$/EA)	\$29,655	All Sizes Combined
Average Total Barrel Volume (CF)	9,484	
Average Barrel Volume Cost (\$/CF)	\$36.81	



MnDOT State Aid Bridge Office
2023 Calendar Year - - Precast Concrete Box Culvert Cost Report

Totals for 8' Wide Box Culverts Let in CY 2023

8w x 7h Precast Concrete Box Culvert											
Bridge/Project Info			Culvert Info				Cost Info			Waterway Info	
Bridge Number	Project Number	Letting Date	Length of Barrel (EA)	No. of Lines	Skew Angle	Fill Depth	Barrel Cost (LF)	End Section Cost (EA)	Project Cost	Total Barrel Volume (CF)	Volume Cost (\$ per CF)
16J15	SAP 016-600-004	2/28/2023	46'	2	0°	3'	\$2,000	\$24,000	\$429,600	5152	\$54.35
16J23	SAP 016-598-017	1/17/2023	48'	2	24°	3'	\$2,200	\$29,500	\$619,400	5376	\$61.24

Average Barrel Cost (\$/LF)	\$2,100	
Average End Section Cost (\$/EA)	\$26,750	
Average Total Barrel Volume (CF)	5,264	8w x 7h Averages
Average Barrel Volume Cost (\$/CF)	\$57.79	

MnDOT State Aid Bridge Office
2023 Calendar Year - - Precast Concrete Box Culvert Cost Report

Totals for 10' Wide Box Culverts Let in CY 2023

10w x 4h Precast Concrete Box Culvert											
Bridge/Project Info			Culvert Info				Cost Info			Waterway Info	
Bridge Number	Project Number	Letting Date	Length of Barrel (EA)	No. of Lines	Skew Angle	Fill Depth	Barrel Cost (LF)	End Section Cost (EA)	Project Cost	Total Barrel Volume (CF)	Volume Cost (\$ per CF)
55K23	SAP 055-596-007	11/7/2023	40'	1	0°	2'	\$1,283	\$8,694	\$110,265	1600	\$42.94
59K61	SAP 059-599-126	3/28/2023	34'	1	15°	2'	\$1,550	\$17,000	\$107,863	1360	\$63.75
60L68	SAP 060-597-003	9/1/2023	34'	1	15°	2'	\$1,450	\$16,000	\$103,450	1360	\$59.78

Average Barrel Cost (\$/LF)	\$1,428	
Average End Section Cost (\$/EA)	\$13,898	
Average Total Barrel Volume (CF)	1,440	10w x 4h Averages
Average Barrel Volume Cost (\$/CF)	\$55.49	

10w x 5h Precast Concrete Box Culvert											
Bridge/Project Info			Culvert Info				Cost Info			Waterway Info	
Bridge Number	Project Number	Letting Date	Length of Barrel (EA)	No. of Lines	Skew Angle	Fill Depth	Barrel Cost (LF)	End Section Cost (EA)	Project Cost	Total Barrel Volume (CF)	Volume Cost (\$ per CF)
10J54	SAP 010-599-025	4/4/2023	70'	1	15°	6'	\$1,000	\$10,000	\$222,634	3500	\$25.71
12J59	SAP 012-599-101	4/11/2023	44'	1	15°	3'	\$2,000	\$25,000	\$186,505	2200	\$62.73
12J67	SAP 012-599-111	7/13/2023	58'	1	3°	6'	\$1,600	\$14,500	\$174,593	2900	\$42.00
60L67	SAP 060-615-013	9/1/2023	110'	1	0°	5'	\$1,725	\$15,380	\$397,536	5500	\$40.09
60L73	SAP 060-599-296	9/1/2023	42'	1	15°	3'	\$1,400	\$16,500	\$107,700	2100	\$43.71
63J20	SAP 063-599-031	3/14/2023	40'	1	0°	2'	\$1,775	\$17,500	\$163,740	2000	\$53.00

Average Barrel Cost (\$/LF)	\$1,583	
Average End Section Cost (\$/EA)	\$16,480	
Average Total Barrel Volume (CF)	3,033	10w x 5h Averages
Average Barrel Volume Cost (\$/CF)	\$44.54	

10w x 6h Precast Concrete Box Culvert											
Bridge/Project Info			Culvert Info				Cost Info			Waterway Info	
Bridge Number	Project Number	Letting Date	Length of Barrel (EA)	No. of Lines	Skew Angle	Fill Depth	Barrel Cost (LF)	End Section Cost (EA)	Project Cost	Total Barrel Volume (CF)	Volume Cost (\$ per CF)
08J28	SAP 008-599-059	1/25/2023	94'	1	28°	12'	\$2,200	\$23,300	\$348,413	5640	\$44.93
51J69	SAP 051-616-007	11/7/2023	52'	1	30°	2'	\$1,247	\$20,790	\$189,334	3120	\$34.11
64J02	SAP 064-599-125	3/28/2023	54'	2	0°	2'	\$1,675	\$20,000	\$342,761	6480	\$40.26
64J79	SAP 064-599-134	3/28/2023	112'	1	38°	7'	\$1,845	\$37,000	\$429,390	6720	\$41.76
68J53	SP 068-603-026	5/11/2023	50'	1	0°	2'	\$2,250	\$23,000	\$3,573,833	3000	\$52.83
68J54	SP 068-603-026	5/11/2023	36'	1	0°	2'	\$2,250	\$23,000	\$3,573,833	2160	\$58.80

Average Barrel Cost (\$/LF)	\$1,911	
Average End Section Cost (\$/EA)	\$24,515	
Average Total Barrel Volume (CF)	4,520	10w x 6h Averages
Average Barrel Volume Cost (\$/CF)	\$45.45	

MnDOT State Aid Bridge Office
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Totals for 10' Wide (Cont'd) Box Culverts Let in CY 2023

10w x 7h Precast Concrete Box Culvert											
Bridge/Project Info			Culvert Info				Cost Info			Waterway Info	
Bridge Number	Project Number	Letting Date	Length of Barrel (EA)	No. of Lines	Skew Angle	Fill Depth	Barrel Cost (LF)	End Section Cost (EA)	Project Cost	Total Barrel Volume (CF)	Volume Cost (\$ per CF)
34J53	SAP 034-599-041	3/28/2023	48'	1	2°	4'	\$1,948	\$23,000	\$167,278	3360	\$41.52
50L00	SAP 050-599-183	10/26/2023	36'	1	0°	2'	\$1,575	\$18,940	\$150,778	2520	\$37.53
65J90	SAP 065-598-024	12/14/2023	82'	1	9°	7'	\$1,455	\$19,000	\$225,342	5740	\$27.41

Average Barrel Cost (\$/LF)	\$1,659	
Average End Section Cost (\$/EA)	\$20,313	
Average Total Barrel Volume (CF)	3,873	10w x 7h Averages
Average Barrel Volume Cost (\$/CF)	\$35.49	

10w x 8h Precast Concrete Box Culvert											
Bridge/Project Info			Culvert Info				Cost Info			Waterway Info	
Bridge Number	Project Number	Letting Date	Length of Barrel (EA)	No. of Lines	Skew Angle	Fill Depth	Barrel Cost (LF)	End Section Cost (EA)	Project Cost	Total Barrel Volume (CF)	Volume Cost (\$ per CF)
65K07	SAP 065-599-093	3/27/2023	60'	1	8°	3'	\$2,195	\$32,000	\$268,225	4800	\$40.77
72J80	SAP 072-606-056	11/16/2023	85'	1	0°	2'	\$1,383	\$21,734	\$16,879,508	6800	\$23.68
72J84	SAP 072-606-056	11/16/2023	72'	2	0°	2'	\$1,383	\$21,734	\$16,879,508	11520	\$24.83

Average Barrel Cost (\$/LF)	\$1,654	
Average End Section Cost (\$/EA)	\$25,156	
Average Total Barrel Volume (CF)	7,707	10w x 8h Averages
Average Barrel Volume Cost (\$/CF)	\$29.76	

10w x 10h Precast Concrete Box Culvert											
Bridge/Project Info			Culvert Info				Cost Info			Waterway Info	
Bridge Number	Project Number	Letting Date	Length of Barrel (EA)	No. of Lines	Skew Angle	Fill Depth	Barrel Cost (LF)	End Section Cost (EA)	Project Cost	Total Barrel Volume (CF)	Volume Cost (\$ per CF)
08J27	SAP 008-607-016	10/11/2023	72'	1	0°	4'	\$1,900	\$31,500	\$289,707	7200	\$27.75
22J63	SAP 022-601-026	11/30/2023	60'	2	15°	4'	\$1,450	\$23,200	\$416,383	12000	\$22.23
22J64	SP 022-598-011	4/13/2023	44'	2	0°	4'	\$2,575	\$37,550	\$471,701	8800	\$42.82
32J72	SAP 032-599-113	10/20/2023	66'	1	13.2°	6'	\$2,050	\$37,500	\$269,625	6600	\$31.86
65J94	SAP 065-598-027	12/14/2023	60'	1	21°	3'	\$1,590	\$28,000	\$232,680	6000	\$25.23
65K09	SAP 065-599-092	3/27/2023	100'	2	3°	13'	\$2,274	\$32,000	\$707,269	20000	\$29.14

Average Barrel Cost (\$/LF)	\$1,973	
Average End Section Cost (\$/EA)	\$31,625	
Average Total Barrel Volume (CF)	10,100	10w x 10h Averages
Average Barrel Volume Cost (\$/CF)	\$29.84	

MnDOT State Aid Bridge Office
2023 Calendar Year - - Precast Concrete Box Culvert Cost Report

Totals for 12' Wide Box Culverts Let in CY 2023

12w x 5h Precast Concrete Box Culvert											
Bridge/Project Info			Culvert Info				Cost Info			Waterway Info	
Bridge Number	Project Number	Letting Date	Length of Barrel (EA)	No. of Lines	Skew Angle	Fill Depth	Barrel Cost (LF)	End Section Cost (EA)	Project Cost	Total Barrel Volume (CF)	Volume Cost (\$ per CF)
41J82	SAP 041-599-066	11/13/2023	34'	1	15°	2'	\$1,475	\$17,400	\$111,752	2040	\$41.64
41J85	SAP 041-599-068	11/13/2023	42'	1	5°	3'	\$1,475	\$17,400	\$111,301	2520	\$38.39
51J70	SAP 051-626-007	11/7/2023	58'	2	0°	3'	\$1,272	\$12,231	\$237,546	6960	\$28.23

Average Barrel Cost (\$/LF)	\$1,407	
Average End Section Cost (\$/EA)	\$15,677	
Average Total Barrel Volume (CF)	3,840	12w x 5h Averages
Average Barrel Volume Cost (\$/CF)	\$36.09	

12w x 6h Precast Concrete Box Culvert											
Bridge/Project Info			Culvert Info				Cost Info			Waterway Info	
Bridge Number	Project Number	Letting Date	Length of Barrel (EA)	No. of Lines	Skew Angle	Fill Depth	Barrel Cost (LF)	End Section Cost (EA)	Project Cost	Total Barrel Volume (CF)	Volume Cost (\$ per CF)
39J41	SAP 039-608-026	2/27/2023	60'	1	0°	3'	\$2,410	\$27,200	\$4,336,705	4320	\$46.06
39J42	SAP 039-608-026	2/27/2023	68'	1	0°	4'	\$2,410	\$27,200	\$4,336,705	4896	\$44.58
47J19	SAP 047-600-012	1/17/2023	38'	1	7°	2'	\$2,400	\$30,500	\$207,715	2736	\$55.63

Average Barrel Cost (\$/LF)	\$2,407	
Average End Section Cost (\$/EA)	\$28,300	
Average Total Barrel Volume (CF)	3,984	12w x 6h Averages
Average Barrel Volume Cost (\$/CF)	\$48.76	

MnDOT State Aid Bridge Office
2023 Calendar Year - - Precast Concrete Box Culvert Cost Report

Totals for 14' Wide Box Culverts Let in CY 2023

14w x 4h Precast Concrete Box Culvert											
Bridge/Project Info			Culvert Info				Cost Info			Waterway Info	
Bridge Number	Project Number	Letting Date	Barrel Length	No. of Lines	Skew Angle	Fill Depth	Barrel Cost (LF)	End Section Cost (EA)	Project Cost	Total Barrel Volume (CF)	Volume Cost (\$ per CF)
59K66	SAP 059-599-127	3/28/2023	33'	1	30°	2'	\$1,915	\$33,000	\$150,232	1848	\$69.91
59K72	SAP 059-599-129	3/28/2023	35'	1	0°	<2'	\$2,100	\$16,300	\$131,606	1960	\$54.13

Average Barrel Cost (\$/LF) **\$2,008**
Average End Section Cost (\$/EA) **\$24,650**
Average Total Barrel Volume (CF) **1,904**
Average Barrel Volume Cost (\$/CF) **\$62.02**

14w x 4h Averages

14w x 5h Precast Concrete Box Culvert											
Bridge/Project Info			Culvert Info				Cost Info			Waterway Info	
Bridge Number	Project Number	Letting Date	Barrel Length	No. of Lines	Skew Angle	Fill Depth	Barrel Cost (LF)	End Section Cost (EA)	Project Cost	Total Barrel Volume (CF)	Volume Cost (\$ per CF)
41J80	SAP 041-599-064	11/13/2023	34'	1	10°	2'	\$1,670	\$20,000	\$124,823	2380	\$40.66
41J81	SAP 041-599-065	11/13/2023	40'	1	22.5°	3'	\$1,625	\$15,750	\$141,754	2800	\$34.46

Average Barrel Cost (\$/LF) **\$1,648**
Average End Section Cost (\$/EA) **\$17,875**
Average Total Barrel Volume (CF) **2,590**
Average Barrel Volume Cost (\$/CF) **\$37.56**

14w x 5h Averages

14w x 6h Precast Concrete Box Culvert											
Bridge/Project Info			Culvert Info				Cost Info			Waterway Info	
Bridge Number	Project Number	Letting Date	Barrel Length	No. of Lines	Skew Angle	Fill Depth	Barrel Cost (LF)	End Section Cost (EA)	Project Cost	Total Barrel Volume (CF)	Volume Cost (\$ per CF)
23K77	SAP 023-597-010	11/20/2023	44'	2	3°	2'	\$1,675	\$17,500	\$289,797	7392	\$29.41
41J84	SAP 041-599-069	11/13/2023	42'	1	7.5°	2'	\$1,700	\$17,500	\$133,448	3528	\$30.16
67K49	SAP 067-611-010	10/16/2023	44'	3	30°	2'	\$1,775	\$28,500	\$449,172	11088	\$36.55

Average Barrel Cost (\$/LF) **\$1,717**
Average End Section Cost (\$/EA) **\$21,167**
Average Total Barrel Volume (CF) **7,336**
Average Barrel Volume Cost (\$/CF) **\$32.04**

14w x 6h Averages

14w x 7h Precast Concrete Box Culvert											
Bridge/Project Info			Culvert Info				Cost Info			Waterway Info	
Bridge Number	Project Number	Letting Date	Length of Barrel (EA)	No. of Lines	Skew Angle	Fill Depth	Barrel Cost (LF)	End Section Cost (EA)	Project Cost	Total Barrel Volume (CF)	Volume Cost (\$ per CF)
09J51	SP 009-613-014	7/17/2023	54'	2	7.5°	3'	\$4,500	\$25,000	\$1,052,665	10584	\$55.37
69L20	SAP 069-598-077	12/14/2023	36'	1	0°	2'	\$1,805	\$22,300	\$262,242	3528	\$31.06

Average Barrel Cost (\$/LF) **\$3,153**
Average End Section Cost (\$/EA) **\$23,650**
Average Total Barrel Volume (CF) **7,056**
Average Barrel Volume Cost (\$/CF) **\$43.21**

14w x 7h Averages

MnDOT State Aid Bridge Office
2023 Calendar Year - - Precast Concrete Box Culvert Cost Report

Totals for 14' Wide (Cont'd) Box Culverts Let in CY 2023

14w x 8h Precast Concrete Box Culvert											
Bridge/Project Info			Culvert Info				Cost Info			Waterway Info	
Bridge Number	Project Number	Letting Date	Length of Barrel (EA)	No. of Lines	Skew Angle	Fill Depth	Barrel Cost (LF)	End Section Cost (EA)	Project Cost	Total Barrel Volume (CF)	Volume Cost (\$ per CF)
20J45	SAP 020-604-013	7/11/2023	48'	1	10.5°	3'	\$2,100	\$33,000	\$227,009	5376	\$31.03
64J77	SAP 064-599-130	3/28/2023	62'	1	0°	3'	\$2,400	\$29,000	\$311,611	6944	\$29.78

Average Barrel Cost (\$/LF) **\$2,250**
Average End Section Cost (\$/EA) **\$31,000**
Average Total Barrel Volume (CF) **6,160**
Average Barrel Volume Cost (\$/CF) **\$30.40**

14w x 8h Averages

14w x 9h Precast Concrete Box Culvert											
Bridge/Project Info			Culvert Info				Cost Info			Waterway Info	
Bridge Number	Project Number	Letting Date	Length of Barrel (EA)	No. of Lines	Skew Angle	Fill Depth	Barrel Cost (LF)	End Section Cost (EA)	Project Cost	Total Barrel Volume (CF)	Volume Cost (\$ per CF)
12J66	SAP 012-599-100	4/11/2023	50'	1	0°	4'	\$2,850	\$36,000	\$283,402	6300	\$34.05
51J66	SAP 051-604-030	11/7/2023	57'	1	0°	3'	\$1,770	\$24,500	\$257,160	7182	\$20.87

Average Barrel Cost (\$/LF) **\$2,310**
Average End Section Cost (\$/EA) **\$30,250**
Average Total Barrel Volume (CF) **6,741**
Average Barrel Volume Cost (\$/CF) **\$27.46**

14w x 9h Averages

14w x 10h Precast Concrete Box Culvert											
Bridge/Project Info			Culvert Info				Cost Info			Waterway Info	
Bridge Number	Project Number	Letting Date	Length of Barrel (EA)	No. of Lines	Skew Angle	Fill Depth	Barrel Cost (LF)	End Section Cost (EA)	Project Cost	Total Barrel Volume (CF)	Volume Cost (\$ per CF)
02J57	SAP 002-618-034	5/23/2023	186'	3	56°	<2'	\$2,500	\$85,000	\$5,837,517	78120	\$24.39
10J56	SAP 010-599-026	4/4/2023	40'	1	10°	2'	\$1,500	\$26,000	\$316,101	5600	\$20.00
60L56	SAP 060-621-015	9/22/2023	54'	3	0°	2'	\$2,300	\$29,050	\$1,024,469	22680	\$24.11

Average Barrel Cost (\$/LF) **\$2,100**
Average End Section Cost (\$/EA) **\$46,683**
Average Total Barrel Volume (CF) **35,467**
Average Barrel Volume Cost (\$/CF) **\$22.83**

14w x 10h Averages

14w x 11h Precast Concrete Box Culvert											
Bridge/Project Info			Culvert Info				Cost Info			Waterway Info	
Bridge Number	Project Number	Letting Date	Length of Barrel (EA)	No. of Lines	Skew Angle	Fill Depth	Barrel Cost (LF)	End Section Cost (EA)	Project Cost	Total Barrel Volume (CF)	Volume Cost (\$ per CF)
17J67	SAP 017-603-019	8/21/2023	60'	3	15°	3'	\$2,245	\$36,334	\$798,504	27720	\$22.44
23J58	SAP 023-612-034	11/20/2023	55'	1	17°	4'	\$1,800	\$40,000	\$243,764	8470	\$21.13

Average Barrel Cost (\$/LF) **\$2,023**
Average End Section Cost (\$/EA) **\$38,167**
Average Total Barrel Volume (CF) **18,095**
Average Barrel Volume Cost (\$/CF) **\$21.79**

14w x 11h Averages

14w x 14h Precast Concrete Box Culvert

Bridge/Project Info			Culvert Info				Cost Info			Waterway Info	
Bridge Number	Project Number	Letting Date	Length of Barrel (EA)	No. of Lines	Skew Angle	Fill Depth	Barrel Cost (LF)	End Section Cost (EA)	Project Cost	Total Barrel Volume (CF)	Volume Cost (\$ per CF)
29J21	SAP 029-599-010	3/28/2023	40'	1	0°	2'	\$10,390	\$78,950	\$996,191	7840	\$73.15
60L55	SAP 060-609-022	9/22/2023	40'	3	5°	3'	\$2,650	\$43,100	\$865,174	23520	\$24.52

Average Barrel Cost (\$/LF)	\$6,520	
Average End Section Cost (\$/EA)	\$61,025	
Average Total Barrel Volume (CF)	15,680	14w x 14h Averages
Average Barrel Volume Cost (\$/CF)	\$48.83	

MnDOT State Aid Bridge Office
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Totals for 16' Wide Box Culverts Let in CY 2023

16w x 4h Precast Concrete Box Culvert											
Bridge/Project Info			Culvert Info				Cost Info			Waterway Info	
Bridge Number	Project Number	Letting Date	Length of Barrel (EA)	No. of Lines	Skew Angle	Fill Depth	Barrel Cost (LF)	End Section Cost (EA)	Project Cost	Total Barrel Volume (CF)	Volume Cost (\$ per CF)
59K62	SAP 059-599-124	3/28/2023	42'	2	0°	2'	\$2,700	\$19,500	\$340,252	5376	\$56.70
72J82	SAP 072-606-056	11/16/2023	76'	1	0°	2'	\$2,175	\$14,101	\$16,879,508	4864	\$39.78

Average Barrel Cost (\$/LF) **\$2,438**
Average End Section Cost (\$/EA) **\$16,801**
Average Total Barrel Volume (CF) **5,120**
Average Barrel Volume Cost (\$/CF) **\$48.24**

16w x 4h Averages

16w x 6h Precast Concrete Box Culvert											
Bridge/Project Info			Culvert Info				Cost Info			Waterway Info	
Bridge Number	Project Number	Letting Date	Length of Barrel (EA)	No. of Lines	Skew Angle	Fill Depth	Barrel Cost (LF)	End Section Cost (EA)	Project Cost	Total Barrel Volume (CF)	Volume Cost (\$ per CF)
01J44	SAP 001-599-041	12/4/2023	38'	1	7°	2'	\$2,050	\$22,500	\$202,272	3648	\$33.69

Average Barrel Cost (\$/LF) **\$2,050**
Average End Section Cost (\$/EA) **\$22,500**
Average Total Barrel Volume (CF) **3,648**
Average Barrel Volume Cost (\$/CF) **\$33.69**

16w x 6h Averages

16w x 7h Precast Concrete Box Culvert											
Bridge/Project Info			Culvert Info				Cost Info			Waterway Info	
Bridge Number	Project Number	Letting Date	Length of Barrel (EA)	No. of Lines	Skew Angle	Fill Depth	Barrel Cost (LF)	End Section Cost (EA)	Project Cost	Total Barrel Volume (CF)	Volume Cost (\$ per CF)
23K68	SAP 023-599-213	11/20/2023	40'	2	35°	<2'	\$2,250	\$39,500	\$332,951	8960	\$37.72

Average Barrel Cost (\$/LF) **\$2,250**
Average End Section Cost (\$/EA) **\$39,500**
Average Total Barrel Volume (CF) **8,960**
Average Barrel Volume Cost (\$/CF) **\$37.72**

16w x 7h Averages

16w x 8h Precast Concrete Box Culvert											
Bridge/Project Info			Culvert Info				Cost Info			Waterway Info	
Bridge Number	Project Number	Letting Date	Length of Barrel (EA)	No. of Lines	Skew Angle	Fill Depth	Barrel Cost (LF)	End Section Cost (EA)	Project Cost	Total Barrel Volume (CF)	Volume Cost (\$ per CF)
04J17	SAP 004-599-051	1/10/2023	36'	2	0°	<2'	\$3,500	\$46,000	\$502,436	9216	\$47.31

Average Barrel Cost (\$/LF) **\$3,500**
Average End Section Cost (\$/EA) **\$46,000**
Average Total Barrel Volume (CF) **9,216**
Average Barrel Volume Cost (\$/CF) **\$47.31**

16w x 8h Averages

MnDOT State Aid Bridge Office
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Totals for 16' Wide (Cont'd) Box Culverts Let in CY 2023

16w x 10h Precast Concrete Box Culvert											
Bridge/Project Info			Culvert Info				Cost Info			Waterway Info	
Bridge Number	Project Number	Letting Date	Length of Barrel (EA)	No. of Lines	Skew Angle	Fill Depth	Barrel Cost (LF)	End Section Cost (EA)	Project Cost	Total Barrel Volume (CF)	Volume Cost (\$ per CF)
65J93	SAP 065-598-026	12/14/2023	54'	1	15°	2'	\$2,220	\$36,000	\$265,992	8640	\$22.21

Average Barrel Cost (\$/LF)	\$2,220	
Average End Section Cost (\$/EA)	\$36,000	
Average Total Barrel Volume (CF)	8,640	16w x 10h Averages
Average Barrel Volume Cost (\$/CF)	\$22.21	

16w x 11h Precast Concrete Box Culvert											
Bridge/Project Info			Culvert Info				Cost Info			Waterway Info	
Bridge Number	Project Number	Letting Date	Length of Barrel (EA)	No. of Lines	Skew Angle	Fill Depth	Barrel Cost (LF)	End Section Cost (EA)	Project Cost	Total Barrel Volume (CF)	Volume Cost (\$ per CF)
23K75	SAP 023-599-216	11/20/2023	36'	1	0°	2'	\$2,550	\$42,250	\$226,609	6336	\$27.83
69L19	SAP 069-616-059	12/21/2023	60'	2	5°	4'	\$2,205	\$33,000	\$732,034	21120	\$18.78

Average Barrel Cost (\$/LF)	\$2,378	
Average End Section Cost (\$/EA)	\$37,625	
Average Total Barrel Volume (CF)	13,728	16w x 11h Averages
Average Barrel Volume Cost (\$/CF)	\$23.30	

16w x 12h Precast Concrete Box Culvert											
Bridge/Project Info			Culvert Info				Cost Info			Waterway Info	
Bridge Number	Project Number	Letting Date	Length of Barrel (EA)	No. of Lines	Skew Angle	Fill Depth	Barrel Cost (LF)	End Section Cost (EA)	Project Cost	Total Barrel Volume (CF)	Volume Cost (\$ per CF)
46J43	SAP 046-599-076	3/20/2023	38'	2	15°	2'	\$3,352	\$66,300	\$685,100	14592	\$35.63

Average Barrel Cost (\$/LF)	\$3,352	
Average End Section Cost (\$/EA)	\$66,300	
Average Total Barrel Volume (CF)	14,592	16w x 12h Averages
Average Barrel Volume Cost (\$/CF)	\$35.63	

MnDOT State Aid Bridge Office
2023 Calendar Year - - Precast Concrete Box Culvert Cost Report

Totals for Multi-Sized Box Culverts Let in CY 2023

Multi-Sized Precast Concrete Box Culvert - 10w x 8h & 10w x 9h												
Bridge/Project Info			Culvert Info					Cost Info			Waterway Info	
Bridge Number	Project Number	Letting Date	Barrel Size	Length of Barrel (EA)	No. of Lines	Skew Angle	Fill Depth	Barrel Cost (LF)	End Section Cost (EA)	Project Cost	Total Barrel Volume (CF)	Volume Cost (\$ per CF)
81J20	SP 081-605-024	5/25/2023	10w x 8h	66'	1	5°	4'	\$1,680	\$24,000		5280	
			10w x 9h	66'	1	5°	4'	\$1,710	\$28,000		5940	
			Total No. of Lines:		2				Totals:	\$520,550		11220

Multi-Sized Precast Concrete Box Culvert - 10w x 8h & 12w x 8h												
Bridge/Project Info			Culvert Info					Cost Info			Waterway Info	
Bridge Number	Project Number	Letting Date	Barrel Size	Length of Barrel (EA)	No. of Lines	Skew Angle	Fill Depth	Barrel Cost (LF)	End Section Cost (EA)	Project Cost	Total Barrel Volume (CF)	Volume Cost (\$ per CF)
73J83	SAP 072-606-056	11/16/2023	10w x 8h	79'	1	15°	2'	\$1,383	\$21,734		6320	
			12w x 8h	79'	2	15°	2'	\$1,636	\$28,111		15168	
			Total No. of Lines:		3				Totals:	\$16,879,508		21488

Multi-Sized Precast Concrete Box Culvert - 12w x 9h & 16w x 11h												
Bridge/Project Info			Culvert Info					Cost Info			Waterway Info	
Bridge Number	Project Number	Letting Date	Barrel Size	Length of Barrel (EA)	No. of Lines	Skew Angle	Fill Depth	Barrel Cost (LF)	End Section Cost (EA)	Project Cost	Total Barrel Volume (CF)	Volume Cost (\$ per CF)
20J52	SAP 020-605-030	3/7/2023	12w x 9h	56'	2	0°	2'	\$2,315	\$35,815		12096	
			16w x 11h	56'	1	0°	2'	\$3,000	\$58,350		9856	
			Total No. of Lines:		3				Totals:	\$824,920		21952

Multi-Sized Precast Concrete Box Culvert - 12w x 10h & 12w x 11h												
Bridge/Project Info			Culvert Info					Cost Info			Waterway Info	
Bridge Number	Project Number	Letting Date	Barrel Size	Length of Barrel (EA)	No. of Lines	Skew Angle	Fill Depth	Barrel Cost (LF)	End Section Cost (EA)	Project Cost	Total Barrel Volume (CF)	Volume Cost (\$ per CF)
22J62	SAP 022-602-029	11/30/2023	12w x 10h	60'	1	0°	<2'	\$1,551	\$23,200		7200	
			12w x 11h	60'	1	0°	<2'	\$1,592	\$23,880		7920	
			Total No. of Lines:		2				Totals:	\$435,024		15120
41J90	SAP 041-608-035	11/13/2023	12w x 10h	84'	2	0°	10'	\$1,750	\$30,000		20160	
			12w x 11h	84'	1	0°	10'	\$1,770	\$31,000		11088	
			Total No. of Lines:		3				Totals:	\$773,284		31248

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Totals for Multi-Sized (Cont'd) Box Culverts Let in CY 2023

Multi-Sized Precast Concrete Box Culvert - 14w x 5h & 14w x 6h												
Bridge/Project Info			Culvert Info					Cost Info			Waterway Info	
Bridge Number	Project Number	Letting Date	Barrel Size	Length of Barrel (EA)	No. of Lines	Skew Angle	Fill Depth	Barrel Cost (LF)	End Section Cost (EA)	Project Cost	Total Barrel Volume (CF)	Volume Cost (\$ per CF)
50K67	SAP 059-599-128	3/28/2023	14w x 5h	37'	1	45°	2'	\$2,400	\$54,000		2590	
			14w x 6h	37'	1	45°	2'	\$2,500	\$60,000		3108	
			Total No. of Lines:		2				Totals:	\$440,973		5698

Multi-Sized Precast Concrete Box Culvert - 14w x 6h & 16w x 9h												
Bridge/Project Info			Culvert Info					Cost Info			Waterway Info	
Bridge Number	Project Number	Letting Date	Barrel Size	Length of Barrel (EA)	No. of Lines	Skew Angle	Fill Depth	Barrel Cost (LF)	End Section Cost (EA)	Project Cost	Total Barrel Volume (CF)	Volume Cost (\$ per CF)
55K26	SAP 055-603-038	11/7/2023	14w x 6h	80'	2	0°	2'	\$1,825	\$17,500		13440	
			16w x 9h	80'	1	0°	2'	\$2,150	\$27,550		11520	
			Total No. of Lines:		3				Totals:	\$742,499		24960

Multi-Sized Precast Concrete Box Culvert - 14w x 6h & 14w x 7h												
Bridge/Project Info			Culvert Info					Cost Info			Waterway Info	
Bridge Number	Project Number	Letting Date	Barrel Size	Length of Barrel (EA)	No. of Lines	Skew Angle	Fill Depth	Barrel Cost (LF)	End Section Cost (EA)	Project Cost	Total Barrel Volume (CF)	Volume Cost (\$ per CF)
67K56	SAP 067-599-185	4/3/2023	14w x 6h	40'	1	0°	2'	\$2,500	\$22,000		3360	
			14w x 7h	40'	1	0°	2'	\$2,600	\$28,000		3920	
			Total No. of Lines:		2				Totals:	\$349,050		7280

Multi-Sized Precast Concrete Box Culvert - 14w x 7h & 14w x 8h												
Bridge/Project Info			Culvert Info					Cost Info			Waterway Info	
Bridge Number	Project Number	Letting Date	Barrel Size	Length of Barrel (EA)	No. of Lines	Skew Angle	Fill Depth	Barrel Cost (LF)	End Section Cost (EA)	Project Cost	Total Barrel Volume (CF)	Volume Cost (\$ per CF)
50K91	SAP 050-599-177	9/26/2023	14w x 7h	36'	1	0°	2'	\$1,865	\$23,500		3528	
			14w x 8h	36'	1	0°	2'	\$1,895	\$24,500		4032	
			Total No. of Lines:		2				Totals:	\$292,318		7560
81J23	SAP 081-599-030	2/10/2023	14w x 7h	44'	1	10°	2'	\$2,725	\$39,500		4312	
			14w x 8h	44'	1	10°	2'	\$2,775	\$46,750		4928	
			Total No. of Lines:		2				Totals:	\$528,572		9240

Multi-Sized Precast Concrete Box Culvert - 14w x 10h & 14w x 11h												
Bridge/Project Info			Culvert Info					Cost Info			Waterway Info	
Bridge Number	Project Number	Letting Date	Barrel Size	Length of Barrel (EA)	No. of Lines	Skew Angle	Fill Depth	Barrel Cost (LF)	End Section Cost (EA)	Project Cost	Total Barrel Volume (CF)	Volume Cost (\$ per CF)
46J42	SAP 046-599-081	3/20/2023	14w x 10h	50'	1	15°	4'	\$2,550	\$47,915		7000	
			14w x 11h	50'	1	15°	4'	\$2,980	\$52,665		7700	
			Total No. of Lines:		2				Totals:	\$586,722		14700

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Totals for Multi-Sized (Cont'd) Box Culverts Let in CY 2023

Multi-Sized Precast Concrete Box Culvert - 16w x 5h & 16w x 6h												
Bridge/Project Info			Culvert Info					Cost Info			Waterway Info	
Bridge Number	Project Number	Letting Date	Barrel Size	Length of Barrel (EA)	No. of Lines	Skew Angle	Fill Depth	Barrel Cost (LF)	End Section Cost (EA)	Project Cost	Total Barrel Volume (CF)	Volume Cost (\$ per CF)
41J94	SAP 041-599-067	11/13/2023	16w x 5h	38'	1	7.5°	2'	\$1,925	\$21,600		3040	
			16w x 6h	38'	1	7.5°	2'	\$2,050	\$24,000		3648	
Total No. of Lines:					2			Totals:	\$250,135		6688	\$36.22

Multi-Sized Precast Concrete Box Culvert - 16w x 6h & 16w x 8h												
Bridge/Project Info			Culvert Info					Cost Info			Waterway Info	
Bridge Number	Project Number	Letting Date	Barrel Size	Length of Barrel (EA)	No. of Lines	Skew Angle	Fill Depth	Barrel Cost (LF)	End Section Cost (EA)	Project Cost	Total Barrel Volume (CF)	Volume Cost (\$ per CF)
20J51	SP 020-609-032	10/17/2023	16w x 6h	56'	2	0°	2'	\$2,000	\$20,000		10752	
			16w x 8h	56'	1	0°	2'	\$2,300	\$25,500		7168	
Total No. of Lines:					3			Totals:	\$679,928		17920	\$27.00

Multi-Sized Precast Concrete Box Culvert - 16w x 7h & 16w x 8h												
Bridge/Project Info			Culvert Info					Cost Info			Waterway Info	
Bridge Number	Project Number	Letting Date	Barrel Size	Length of Barrel (EA)	No. of Lines	Skew Angle	Fill Depth	Barrel Cost (LF)	End Section Cost (EA)	Project Cost	Total Barrel Volume (CF)	Volume Cost (\$ per CF)
50K85	SAP 050-599-169	10/26/2023	16w x 7h	36'	2	0°	2'	\$2,100	\$23,225		8064	
			16w x 8h	36'	1	0°	2'	\$2,060	\$25,500		4608	
Total No. of Lines:					3			Totals:	\$445,101		12672	\$29.14

Multi-Sized Precast Concrete Box Culvert - 16w x 10h & 16w x 11h												
Bridge/Project Info			Culvert Info					Cost Info			Waterway Info	
Bridge Number	Project Number	Letting Date	Barrel Size	Length of Barrel (EA)	No. of Lines	Skew Angle	Fill Depth	Barrel Cost (LF)	End Section Cost (EA)	Project Cost	Total Barrel Volume (CF)	Volume Cost (\$ per CF)
73J43	SAP 073-599-083	11/16/2023	16w x 10h	80'	1	35°	6'	\$2,390	\$48,060		12800	
			16w x 11h	80'	1	35°	6'	\$2,860	\$52,375		14080	
Total No. of Lines:					2			Totals:	\$788,960		26880	\$23.10