Application for Preliminary Qualification of Bonds

School Bond Qualification and Loan Program for

TROY SCHOOL DISTRICT

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*Include building floor plans and cost estimates for each project.

For additional information about the School Bond Qualification and Loan Program, visit: Michigan Department of Treasury Bureau of State and Authority Finance School Bond Qualification and Loan Program 430 West Allegan Street Lansing, Michigan 48922 517-335-0994 517-241-1233 (f) http://www.michigan.gov/sblf

Application for Preliminary Qualification of Bonds

Issued under authority of Public Act 92 of 2005, as amended	
Election Date	Application No.
November 8, 2022	63-150-4-K12-22-01
District Name and Address	School District Code and Phone No.
Troy School District	63-150
4400 Livernois Road	248-823-4000
Troy, MI 48098	
Superintendent Name and Email	Superintendent Phone No.
Dr. Richard Machesky	248-823-4000
rmachesky@troy.k12.mi.us	Superintendent FAX No.
	248-823-4013
Retain ONE originally signed copy for your files.	Certificate
I, the undersigned, Secretary of the Board of Educ District, at a regular meeting of the Board, which wa pursuant to and in full compliance with Act 23	ation, do certify hereby that the Board of Education of this School as conducted and for which public notice of said meeting was given 76 of the Public Acts of 1976 (Open Meetings Act), on this
21st day of June	2022 took the following action:
(1) Resolved to apply for preliminary qualification of construction description in this application.	f bonds by the State Treasurer for the purpose of financing the school
(2) That said application is presented to the State T the election on said bond issue.	reasurer for action prior to the official action of the Board of Education calling
(3) Resolved that this Board of Education will prese their bonds after this bond issue has been approved	nt a final qualification application to the State Treasurer for qualification of by the electors of said district.
(4) Read this application and approved all statemer belief of the Board.	nts and representations contained herein as true to the best knowledge and
(5) Authorized the Secretary of the Board of Educat Treasurer for review and approval.	tion to sign this Preliminary Application and submit same to the State
IN WITNESS whereof, I have hereunto set my ha	nd this21st day of June 2022
Gary Hauff	Gam N. Hauff

Gary Hauff	Carry M. Houff
Secretary, Board of Education	- J V V
Rick West	Dr. Richard Machesky
Treasurer, Board of Education	Superintendent of Schools
Miller, Canfield, Paddock and Stone, P.L.C.	150 west Jefferson, Suite 2500, Detroit, MI 48226
Bond Counsel	Mailing Address
PFM Financial Advisors LLC	555 Briarwood Circle, Suite 333, Ann Arbor, MI 48108
Financial Consultant	Mailing Address
TMP Architecture	1191 W Square Lake, Bloomfield Hills, MI 48302
Architectural Firm	Mailing Address
Barton Malow Builders	26500 American Drive, Southfield, MI 48034
Construction Management Firm	Mailing Address

OFFICIAL BALLOT

TROY SCHOOL DISTRICT COUNTY OF OAKLAND STATE OF MICHIGAN

SCHOOL IMPROVEMENT BOND PROPOSITION

Shall the Troy School District, County of Oakland, State of Michigan, borrow the sum of not to exceed Five Hundred Fifty-Five Million Dollars (\$555,000,000) and issue its general obligation unlimited tax bonds, in one or more series, for the purpose of paying for the cost of the following projects:

- Remodeling, equipping, re-equipping, furnishing, re-furnishing school buildings, athletic fields, playgrounds and other facilities to create a modern learning environment for students and for health, safety, security and other purposes;
- Erecting, completing, equipping and furnishing a replacement middle school and classroom additions and other additions to existing school buildings and other facilities;
- Acquiring and installing instructional technology infrastructure and equipment in school buildings and other facilities; and
- Acquiring sites, preparing, developing and improving sites at school buildings and other facilities and the purchase of school buses?

YES	
NO	

The annual debt millage required to retire all bonds of the School District currently outstanding and proposed pursuant to this ballot is expected to be at or below 6.10 mills which is a 2 mill increase from the 4.10 mills of annual debt millage levied in 2022. The maximum number of years any series of bonds may be outstanding, exclusive of refunding, is not more than thirty (30) years; the estimated millage that will be levied to pay the proposed bonds in the first year is 3.35 mills (which is equal to \$3.35 per \$1,000 of taxable value); and the estimated simple average annual millage that will be required to retire each series of bonds is 3.94 mills annually (\$3.94 per \$1,000 of taxable value).

If approved by the voters, the bonds will be guaranteed by the State under the School Bond Qualification and Loan Program (the "Program"). The School District currently has \$104,165,000 of qualified bonds outstanding and \$0 of qualified loans outstanding under the Program. The School District does not expect to borrow from the Program to pay debt service on these bonds. The estimated computed millage rate required to be levied to pay the proposed bonds may change in the future based on changes in certain circumstances.

(Pursuant to State law, expenditure of bond proceeds must be audited, and the proceeds cannot be used for teacher, administrator or employee salaries, repair or maintenance costs or other operating expenses.)

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Financial Summary

Financial information provided as of: 5/10/2022

A. Existing Bo	nd Debt: List each	n outstanding del	bt issue separat	tely in chronolo	gical order by i	ssue date.						
	Original Bond Issue		Cun	rrent Outstanding	J Principal Balan	ce	Outstan	iding Principal Bal	ance as of Electic	on Date	Milla	ige
Issue Date	Purpose	Issue Amount	Current Qualified	Current Non-Qualified	Current Non-Voted	Current Total	Qualified	Non-Qualified	Non-Voted	Election Date Total	Levied This Tax Year	Estimate Next Tax Year
1/29/2014	Bldg & Site	52,710,000	2,000,000			2,000,000	2,000,000			2,000,000	0.47	0.00
3/25/2015	Refunding	31,930,000	12,930,000			12,930,000	12,930,000			12,930,000	0.87	0.73
12/28/2016	Bldg & Site	40,000,000	31,800,000			31,800,000	31,800,000			31,800,000	0.49	0.45
5/24/2018	Bldg & Site	7,125,000			6,610,000	6,610,000			6,610,000	6,610,000	0.00	0.00
5/21/2019	Bldg & Site	27,000,000	19,175,000			19,175,000	19,175,000			19,175,000	0.40	0.36
1/30/2020	Bldg & Site	6,100,000			5,390,000	5,390,000			5,390,000	5,390,000	00.0	0.00
6/28/2021	Refunding	7,110,000	4,945,000			4,945,000	4,945,000			4,945,000	1.11	0.00
6/28/2021	Refunding	33,315,000	33,315,000			33,315,000	33,315,000			33,315,000	0.76	1.20
Total			104 165 000	c	12 000 000	116 165 000	104 165 000	C	12 000 000	116 165 000	4.10	2.75

(If No, provide status of unspent/unaudited bonds) Have proceeds of all existing bonds been spent? No

B. Proposed Bond Issue: List each ballot proposal separately.

3.35	3.94	398,900,000	0	398,900,000		30	555,000,000	Combined Issue
								Proposal 4
								Proposal 3
								Proposal 2
3.35	3.94	398,900,000	0	398,900,000	4.00%	30	555,000,000	Proposal 1
Millage Year 1	Avg Millage	Total Interest	SLRF Interest	Bond Interest	Avg Int Rate	Bond Term	Amount	Proposal

(Totals may not foot due to differences in the financial structure of individual proposals and a combined bond issue.)

C. School Bond Loan Participation

	Proposed Bonds Interest	n/a
oe Borrowed	Proposed Bonds Principal	n/a
Est Amt to k	Existing Bonds Interest	n/a
	Existing Bonds Principal	n/a
age	Estimated Duration of Computed Millage	n/a
Milla	Initial Computed Millage	n/a
	Maximum SBLF Balance Year	n/a
	Maximum SBLF Balance	n/a
	Estimated SBLF Interest Rate	n/a
Loan Fund	Projected SBLF End Date	n/a
School Bond	SBLF Beginning Date	n/a
	Estimated SBLF Balance as of Election Date	0
	Current SBLF Balance	0
	Mandatory Final SBLF Loan Repayment Date	n/a

D. Property Tax Assumptions

Pending	Material Tax Appeals in the District	No
axes Levied	Summer	50.00%
Property Ta	Winter	50.00%
	Projected Rate Years 6+	1.17%
ו Rate	Projected Rate Years 1 - 5	4.61%
Growt	Prior 20 Year Average	1.17%
	Prior 5 Year Average	4.61%
rrent	Taxable Value	4,623,935,940
Cu	Tax Year	2022

(If district is aware of any event or circumstance that could significantly affect its future, disclosure must be included.)

E. Millage

I OLAI ESUMAIEU		Maximum Millage	
Proposed Millage	Estimated Duration	WITHOUT SELF	1st Year Millage
for Next Tax Year	of Millage Levy	Participation	Increase
6.10	36	6.10	2.00

F. Key Financial Measures

Total Debt to	Weighted Average Maturity	120% of Average Useful Life of	Total Current Bond Debt plus School
Taxable Value	of Bonds	Assets	Bond Loan Debt
0.15	17.97	35.72	116,165,000

G. Bond Issuance

				5
				4
4/1/2032	5/1/2029	5/1/2029	200,000,000	З
4/1/2029	5/1/2026	5/1/2026	188,000,000	2
5/1/2026	2/1/2023	2/1/2023	167,000,000	1
Fund End Date	Fund Beg. Date	Date	Amount	Proposal
Construction	Construction	Dated		Series/

H. Certification

The financial impact presented herin is based on certain assumptions regarding interst rates and taxable value growth rates. Actual millage rates may be subject to adjustment based on differences in these assumptions, actual intersert rates, and future taxable value growth.

Prepared By Paul Stauder Firm PFM Financial Advisors LLC



TROY SCHOOL DISTRICT COUNTY OF OAKLAND, STATE OF MICHIGAN EXISTING DEBT BEFORE ADDITIONAL BONDING

2015 REFUNDING BONDS - UTQ

2014 SCHOOL BUILDING AND SITE BONDS - UTQ

					Total Debt	Service	\$3,901,500	3,723,750	3,546,750	3,370,500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$14,542,500									
Qualified 30,000	%00v	125	015: Yes	5	Principal Due	May 1	\$3,255,000	3,240,000	3,225,000	3,210,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$12,930,000									
Unlimited Tax Amount: \$31,9	terest Cost: 5.0	Date: 05/01/20	roved Before 2	ited: 03/25/201		Interest Rate	5.000%	5.000%	5.000%	5.000%	%000.0	%000.0	%000.0	%000.0	%000.0	%000.0	%000.0	%000.0	%000.0	%000.0	%000.0	%000.0	%000.0	%000.0	1 1									
Tax-Type: Original	Net In	Call	Voter App		Interest Due	May 1	\$323,250	241,875	160,875	80,250	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$806,250									
					Interest Due	Nov 1	\$323,250	241,875	160,875	80,250	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$806,250									
					Total Debt	Service	\$2,100,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$2,100,000									
Tax-Type: Unlimited Tax Qualified Original Amount: \$52,710,000 Net Interest Cost: 5.000%	%00	23	rroved Before 2015: No ited: 01/29/2014	proved Before 2015: No ated: 01/29/2014	ated: 01/29/2014	Principal Due	May 1	\$2,000,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$2,000,000								
	terest Cost: 5.00	Call Date: 11/01/20				-	Interest Rate	5.000%	5.000%	5.000%	5.000%	5.000%	5.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	1 11								
	Net Int		Call	Call	Call	Call	Call L	Call L	Call D	Call D	Voter Appr	Voter Ap D	Voter Apprc	voter Appro Date	Date	Interest Due	May 1	\$50,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
							Interest Due	Nov 1	\$50,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$50,000							
					FY End	Year	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	Totals:									
						Levy Year	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039										



TROY SCHOOL DISTRICT COUNTY OF OAKLAND, STATE OF MICHIGAN EXISTING DEBT BEFORE ADDITIONAL BONDING

2018 SCHOOL BUILDING AND SITE BONDS - LT

2016 SCHOOL BUILDING AND SITE BONDS - UTQ

						Total Debt	Service	\$488,165	490,065	491,665	492,965	493,965	494,665	495,065	500,165	499,815	503,810	501,970	504,810	506,775	502,425	502,725	502,500	500,625	503,188	\$8,975,363
XE	5,000	37%	22	015: No	_	rincipal Due	May 1	\$270,000	280,000	290,000	300,000	310,000	320,000	330,000	345,000	355,000	370,000	380,000	395,000	410,000	420,000	435,000	450,000	465,000	485,000	\$6,610,000
ype: Limited Ta	4mount: \$7,12	rest Cost: 3.43	Date: 05/01/202	oved Before 2(əd: 05/24/2018	ш	nterest Rate	3.000%	3.000%	3.000%	3.000%	3.000%	3.000%	3.000%	3.000%	3.100%	3.200%	3.200%	3.300%	3.500%	3.500%	3.500%	3.750%	3.750%	3.750%	1 1
Tax-T	Original <i>i</i>	Net Inte	Call D	Voter Appr	Date	Interest Due	May 1	\$109,083	105,033	100,833	96,483	91,983	87,333	82,533	77,583	72,408	66,905	60,985	54,905	48,388	41,213	33,863	26,250	17,813	9,094	\$1,182,681
						Interest Due	Nov 1	\$109,083	105,033	100,833	96,483	91,983	87,333	82,533	77,583	72,408	66,905	60,985	54,905	48,388	41,213	33,863	26,250	17,813	9,094	\$1,182,681
						Total Debt	Service	\$2,184,920	2,298,170	2,507,010	2,733,500	4,750,875	4,613,875	5,300,750	5,199,375	5,068,500	4,859,250	0	0	0	0	0	0	0	0	\$39,516,225
						^{>} rincipal Due	May 1	\$1,250,000	1,400,000	1,650,000	1,925,000	3,600,000	3,625,000	4,475,000	4,575,000	4,650,000	4,650,000	0	0	0	0	0	0	0	0	\$31,800,000
ax Qualified	0,000,000	4.378%	/2026	e 2015: No	016	H	Interest Rate	2.940%	2.940%	2.940%	2.940%	4.500%	4.500%	4.500%	4.500%	4.500%	4.500%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	1.1
oe: Unlimited T	nal Amount: \$4	t Interest Cost:	Call Date: 05/01	Approved Befor	Dated: 12/28/2	Interest Due	May 1	\$467,460	449,085	428,505	404,250	575,438	494,438	412,875	312,188	209,250	104,625	0	0	0	0	0	0	0	0	\$3,858,113
Tax-Ty,	Origi	Ne	0	Voter ,		Interest Due	Nov 1	\$467,460	449,085	428,505	404,250	575,438	494,438	412,875	312,188	209,250	104,625	0	0	0	0	0	0	0	0	\$3,858,113
						FY End	Year	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	Totals:
							Levy Year	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	

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TROY SCHOOL DISTRICT COUNTY OF OAKLAND, STATE OF MICHIGAN EXISTING DEBT BEFORE ADDITIONAL BONDING

2019 SCHOOL BUILDING AND SITE BONDS - UTQ

DS - LT							Total Debt Service		\$477,800	475,400	477,900	475,200	477,400	474,400	476,300	473,000	474,600	476,000	472,200	473,300	469,200	0	0	0	0	0	\$6,172,700
SITE BON	ax	0,000	20%	29	015: No	0	Principal Due Mav 1	. (\$370,000	375,000	385,000	390,000	400,000	405,000	415,000	420,000	430,000	440,000	445,000	455,000	460,000	0	0	0	0	0	\$5,390,000
DING AND	Type: Limited T	Amount: \$6,10	erest Cost: 2.00	Date: 05/01/202	roved Before 21	ted: 01/30/2020	F Interest Rate		2.000%	2.000%	2.000%	2.000%	2.000%	2.000%	2.000%	2.000%	2.000%	2.000%	2.000%	2.000%	2.000%	0.000%	0.000%	0.000%	0.000%	0.00%	1
HOOL BUIL	Tax-T	Original	Net Int	Call	Voter App	Dai	Interest Due May 1		\$53,900	50,200	46,450	42,600	38,700	34,700	30,650	26,500	22,300	18,000	13,600	9,150	4,600	0	0	0	0	0	\$391,350
2020 SC							Interest Due Nov 1		\$53,900	50,200	46,450	42,600	38,700	34,700	30,650	26,500	22,300	18,000	13,600	9,150	4,600	0	0	0	0	0	\$391,350
							Total Debt Service		\$1,808,750	1,816,250	1,821,250	1,823,750	1,823,750	1,821,250	2,566,250	2,571,250	2,571,250	2,666,250	2,751,250	2,651,250	0	0	0	0	0	0	\$26,692,500
NDS - UTQ							Principal Due May 1	. 65	\$850,000	900,000	950,000	1,000,000	1,050,000	1,100,000	1,900,000	2,000,000	2,100,000	2,300,000	2,500,000	2,525,000	0	0	0	0	0	0	\$19,175,000
D SITE BOI	ax Qualified	7,000,000	5.000%	/2029	e 2015: No	:019	Interest Rate		2.000%	5.000%	5.000%	5.000%	5.000%	5.000%	5.000%	5.000%	5.000%	5.000%	5.000%	5.000%	0.000%	0.000%	0.000%	0.000%	%000.0	%000.0	
IILDING AN	oe: Unlimited T	nal Amount: \$2	t Interest Cost:	all Date: 05/01:	Approved Befor	Dated: 05/21/2	Interest Due Mav 1		\$479,375	458,125	435,625	411,875	386,875	360,625	333,125	285,625	235,625	183,125	125,625	63,125	0	0	0	0	0	0	\$3,758,750
SCHOOL BU	Tax-Ty	Origii	Nei	0	Voter /		Interest Due Nov 1		\$479,375	458,125	435,625	411,875	386,875	360,625	333,125	285,625	235,625	183,125	125,625	63,125	0	0	0	0	0	0	\$3,758,750
2019							FY End Year		2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	Totals:
							l ew Year	mar (sar	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	



734-994-9700 734-994-9710 fax www.pfm.com

555 Briarwood Circle Suite 333 Ann Arbor, MI 48108

TROY SCHOOL DISTRICT COUNTY OF OAKLAND, STATE OF MICHIGAN EXISTING DEBT BEFORE ADDITIONAL BONDING

רת	Total Debt Service	\$965,965	965,465	969,565	968,165	971,365	969,065	971,365	973,165	974,415	979,810	974,170	978,110	975,975	502,425	502,725	502,500	500,625	503,188	\$15,148,063
TOTA	Principal	\$640,000	655,000	675,000	690,000	710,000	725,000	745,000	765,000	785,000	810,000	825,000	850,000	870,000	420,000	435,000	450,000	465,000	485,000	\$12,000,000
UTQ	Total Debt Service	\$18,315,860	13,950,101	13,687,842	13,651,849	13,501,671	13,330,845	7,867,000	7,770,625	7,639,750	7,525,500	2,751,250	2,651,250	0	0	0	0	0	0	\$122,643,543
TOTAL	Principal	\$15,325,000	11,325,000	11,340,000	11,605,000	11,380,000	11,515,000	6,375,000	6,575,000	6,750,000	6,950,000	2,500,000	2,525,000	0	0	0	0	0	0	\$104,165,000
- UTQ	Total Debt Service	\$3,360,855	6,111,931	5,812,832	5,724,099	6,927,046	6,895,720	0	0	0	0	0	0	0	0	0	0	0	0	\$34,832,483
, SERIES B ax Qualified 3.315,000 1.191% allable e 2015: No 021	Principal Due May 1	\$3,025,000	5,785,000	5,515,000	5,470,000	6,730,000	6,790,000	0	0	0	0	0	0	0	0	0	0	0	0	\$33,315,000
i BONDS Inlimited Ta Imount: \$33 irrest Cost: ate: Non-Câ oved Befori ede: 06/28/2	Interest Rate	0.295%	0.503%	0.793%	1.043%	1.357%	1.557%	%000.0	%000.0	%000.0	%000.0	%000.0	%000.0	%000.0	%000.0	%000.0	%000.0	%000.0	%000.0	
EFUNDING Tax-Type: (Original / Net Inte Call D Call D Dat	Interest Due May 1	\$167,927	163,466	148,916	127,049	98,523	52,860	0	0	0	0	0	0	0	0	0	0	0	0	\$758,742
2021 R	Interest Due Nov 1	\$167,927	163,466	148,916	127,049	98,523	52,860	0	0	0	0	0	0	0	0	0	0	0	0	\$758,742
	Total Debt Service	\$4,959,835	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$4,959,835
ed A - UTQ	Principal Due May 1	\$4,945,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$4,945,000
S, SERIE Tax Qualifie <i>S7</i> ,110,000 <i>S7</i> ,110,000 <i>S7</i> ,110,000 <i>Callable</i> <i>Callable</i> <i>re 2015</i> : Ye	Interest Rate	0.300%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	
DING BOND <i>ype: Unlimited</i> <i>ginal Amount: \$</i> <i>et Interest Cost</i> <i>Cost Date: Non-I</i> <i>Approved Befo</i> <i>Dated: 06/28</i>	Interest Due May 1	\$7,418	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$7,418
I REFUNI Tax-T Oriți N	Interest Due Nov 1	\$7,418	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$7,418
202	FY End Year	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	Totals:
	Levy Year	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	

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kcg 5.10.22



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BEFORE ADDITIONAL BONDING

TROY SCHOOL DISTRICT COUNTY OF OAKLAND, STATE OF MICHIGAN

ESTIMATED MILLAGE NEEDED TO RETIRE BONDED DEBT BEFORE ADDITIONAL BONDING

Dept/1V : 2.51%	2022 Debt Levy:	4.10
Collection Cycle		
July Levy 0%	Total Levy:	4.10
Existing Unlimited Tax Debt	Mills	

					LAISI		I av Dent & MIII	2	
					Use of Funds	Delinguency	Exempt Pers.		Mills
Levy	Fiscal	Projected Tax	Growth	Existing UT	on Hand	Allowance	Property		Needed All
Year	Year End	Base ^[1]	Rate	Payments	\$1,472,050	8.00%	Receipts ^[3]	Net UT Payments	Debt
2022	2023	\$4,625,970,360	6.77%	\$18,315,860	(\$594,260)	\$1,517,318	(\$272,440)	\$18,966,478	4.10
2023	2024	4,741,619,619	2.50%	13,950,101	(638,207)	0	(272,440)	13,039,454	2.75
2024	2025	4,848,306,060	2.25%	13,687,842	(239,583)	0	(182,734)	13,265,526	2.74
2025	2026	4,945,272,182	2.00%	13,651,849	0	0	(181,811)	13,470,037	2.72
2026	2027	5,044,177,625	2.00%	13,501,671	0	0	(180,994)	13,320,677	2.64
2027	2028	5,145,061,178	2.00%	13,330,845	0	0	(175,478)	13,155,367	2.56
2028	2029	5,247,962,401	2.00%	7,867,000	0	0	(169,902)	7,697,098	1.47
2029	2030	5,352,921,649	2.00%	7,770,625	0	0	(97,459)	7,673,166	1.43
2030	2031	5,459,980,082	2.00%	7,639,750	0	0	(95,251)	7,544,499	1.38
2031	2032	5,569,179,684	2.00%	7,525,500	0	0	(91,818)	7,433,682	1.33
2032	2033	5,680,563,278	2.00%	2,751,250	0	0	(88,695)	2,662,555	0.47
2033	2034	5,794,174,543	2.00%	2,651,250	0	0	(31,145)	2,620,105	0.45
2034	2035	5,910,058,034	2.00%	0	0	0	0	0	00.0
			. "	\$122,643,543	(\$1,472,050)	\$1,517,318	(\$1,840,167)	\$120,848,645	

Includes \$2,034,420 of equivalent IFT valuations & less DDA/TIFA debt captures of \$0 for 2022.
 Includes principal outstanding: \$104,165,000 of unlimited tax bonds and \$12,000,000 of limited tax bonds
 Based on \$66,448,680 of Exempt Personal Property for 2022



734-994-9700 734-994-9710 fax www.pfm.com

555 Briarwood Circle Suite 333 Ann Arbor, MI 48108

BEFORE ADDITIONAL BONDING WITH STATUTORY TV GROWTH

TROY SCHOOL DISTRICT COUNTY OF OAKLAND, STATE OF MICHIGAN

ESTIMATED MILLAGE NEEDED TO RETIRE BONDED DEBT BEFORE ADDITIONAL BONDING

Debt/TV ^{I2I} : 2.51%	2022 Debt Levy:	4.10
Collection Cycle		
July Levy 0%	Total Levy:	4.10
Existing Unlimited	Tax Debt & Mills	

			-		Use of Funds	Delinquency	Exempt Pers.		Mills
Levy	Fiscal	Projected Tax	Growth	Existing UT	on Hand	Allowance	Property		Needed All
Year	Year End	Base ^[1]	Rate	Payments	\$1,472,050	8.00%	Receipts ^[3]	Net UT Payments	Debt
2022	2023	\$4,625,970,360	6.77%	\$18,315,860	(\$594,260)	\$1,517,318	(\$272,440)	\$18,966,478	4.10
2023	2024	4,839,430,865	4.61%	13,950,101	(369,227)	0	(272,440)	13,308,435	2.75
2024	2025	5,062,741,280	4.61%	13,687,842	(508, 564)	0	(182,734)	12,996,545	2.57
2025	2026	5,296,356,117	4.61%	13,651,849	0	0	(170,580)	13,481,268	2.55
2026	2027	5,540,750,863	4.61%	13,501,671	0	0	(169,138)	13,332,534	2.41
2027	2028	5,796,422,946	4.61%	13,330,845	0	0	(159,893)	13,170,952	2.27
2028	2029	5,864,012,848	1.17%	7,867,000	0	0	(150,988)	7,716,012	1.32
2029	2030	5,932,390,889	1.17%	7,770,625	0	0	(87,435)	7,683,190	1.30
2030	2031	6,001,566,262	1.17%	7,639,750	0	0	(86,059)	7,553,691	1.26
2031	2032	6,071,548,262	1.17%	7,525,500	0	0	(83,634)	7,441,866	1.23
2032	2033	6,142,346,296	1.17%	2,751,250	0	0	(81,446)	2,669,804	0.43
2033	2034	6,213,969,879	1.17%	2,651,250	0	0	(28,882)	2,622,368	0.42
2034	2035	6,286,428,637	1.17%	0	0	0	0	0	0.00
				\$122,643,543	(\$1,472,050)	\$1,517,318	(\$1,745,668)	\$120,943,143	

[1] Includes \$2,034,420 of equivalent IFT valuations & less DDA/TIFA debt captures of \$0 for 2022.
[2] Includes principal outstanding: \$104,165,000 of unlimited tax bonds and \$12,000,000 of limited tax bonds
[3] Based on \$66,448,680 of Exempt Personal Property for 2022

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55 Brianwood Circle	nn Arbor, MI 48108



PQ Millage

					erest Facto	0.72			s Needed	Qualified Debt	4.10	6.10	6.10 6.10	6.10	6.10	6.10	6.10	6.10	6.10	5.81	5.70	5.39	5.28	5.17	5.07	4.97	4.86	4.70	4.56	4.46	4.36	4.16	4.07	3.97	3.88	3.17	2.59	2.00	2.38	1.27	1.23	1.16	0.00	
									lls NeedecMil	lew Bond All Ava. 3.99	0	3.35	3.36	3.48	3.57	4.66	4.70	4.76	4.81	5.38	5.29	5.39	5.28	5.17	5.07	4.97	4.86	4.70	4.56	4.46	4.36	4.16	4.07	3.97	3.88	3.77	2.59	2.33	2.38	1.27	1.23	1.16		
									Σ	Growth N Rate	6.77%	2.50%	2.25%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2 00%	2.00%	2.00%	2.00%	2.00%	2.00%	
	ormation	November 8, 2022	3.99	December Levy: 100%	Impact	6.10 4.10	2.00			Projected Tax Base ^{Izl}	\$4,625,970,360	4,741,619,619	4,848,306,060 4 045 272 182	5.044.177.625	5,145,061,178	5,247,962,401	5,352,921,649	5,459,980,082	5,569,179,684	5,680,563,278	5,794,174,543 5 010 058 034	6.028.259.195	6,148,824,379	6,271,800,866	6,397,236,884	6,525,181,621	6,655,685,254 6 700 700 060	0,700,730,333 6,924,574,938	7,063,066,437	7,204,327,765	7,348,414,321	7.645.290.259	7,798,196,064	7,954,159,986	8,113,243,185	8,275,508,049	8,441,018,210 8 600 838 574	8 782 035 346	8.957.676.053	9,136,829,574	9,319,566,165	9,505,957,489	9,696,076,638	
	Ballot Inf	Election Date	First TL Willage Avg. Millage	Levy Cycle	Millage	Projected Current	Net Increase		Proposed and	Existing UT Debt	\$18,966,478	28,923,880	29,554,028 30.170.540	30.764.363	31,387,537	32,003,691	32,635,316	33,304,441	33,975,191	33,019,941	32,999,941 32,482,604	32.462.691	32,445,691	32,455,691	32,440,691	32,400,691	32,360,691	32,227,691	32,186,741	32,120,190	32,049,741	31.818.761	31,733,449	31,614,598	31,512,893	31,225,905	21,861,270	21 667 746	21.286.052	11,591,099	11,445,702	11,046,392	0	\$1,066,196,201
-								_	Use of Funds	on Hand \$1.472.050	(\$309,763)	(1,053,782)	(108,505)		0	0	0	0	0	0	00	00	0	0	0	0 0	0 0	00	0	0	0 0	00	0	0	0 0	0 0	0 0		00	0	0	0	0	(\$1,472,050)
									Delinquency	Allowance 6.50%	\$1,232,821	0	0 0		0	0	0	0	0	0	0 0	00	0	0	0	0 0	0 0	0 0	0	0	00	00	0	0	0 0	0 0	0 0		0	0	0	0	0	\$1,232,821
										Reimbursement Amount ^[3]	(\$272,440)	(272,440)	(312,309)	(312.309)	(312,309)	(312,309)	(312,309)	(312,309)	(312,309)	(312,309)	(312,309)	(312,309)	(312,309)	(312,309)	(312,309)	(312,309)	(312,309)	(312,309)	(309,259)	(302,810)	(296,259)	(283.239)	(276,551)	(270,402)	(264,107)	(258,095)	(250,730)	(112,034)	(163.948)	(157,901)	(84,298)	(81,608)	0	(\$10,108,114)
Series 2029	\$200,000,000	4.00%	Nov 1, 29	Jul 1, 29 \$0	9.48%	30 yrs., 0 mo. TRUE	18.60	31.11		Total Debt Service	\$0	0	00		00	0	9,850,000	10,551,000	11,171,000	11,862,000	11,870,000	11.769.000	11.760.000	11,794,000	11,794,000	11,786,000	11,795,000	11,786,000	11,793,000	11,790,000	11,777,000	11.770.000	11,775,000	11,768,000	11,774,000	11,/6/,000	11,772,000	11,765,000	11.752.000	11,749,000	11,530,000	11,128,000	0	\$348,806,000
									Series 2029	Principal Due Mav 1	\$0	0	00		0	0	1,850,000	2,625,000	3,350,000	4,175,000	4,350,000	4.600.000	4.775.000	5,000,000	5,200,000	5,400,000	5,625,000 F 850,000	6.075.000	6,325,000	6,575,000	6,825,000	7.375.000	7,675,000	7,975,000	8,300,000	8,625,000	8,975,000	9,323,000	10.075.000	10,475,000	10,675,000	10,700,000	0	\$200,000,000
Series 2026	\$188,000,000	4.00%	Nov 1, 26	Jul 1, 26 \$0	7.80%	0 yrs., 0 mo. TRUE	18.16	33.68		Total Debt Service	\$0	0	00	10.445.000	11,153,000	17,153,000	8,107,000	8,157,000	8,253,000	10,718,000	10,707,000 11 415 000	11.413.000	11,403,000	11,385,000	11,359,000	11,325,000	11,283,000	11,175,000	11,134,000	11,084,000	11,025,000	10.855.000	10,770,000	10,676,000	10,573,000	10,461,000	10,340,000	10.071.000	9.698.000	0	0	0	0	\$324,538,000
			inths		,	m			Series 2026	Principal Due Mav 1	\$0	0	00	2.925.000	3,750,000	9,900,000	1,250,000	1,350,000	1,500,000	4,025,000	4,175,000 5 050 000	5.250.000	5,450,000	5,650,000	5,850,000	6,050,000	6,250,000 6 450,000	6,650,000	6,875,000	7,100,000	7,325,000	7.750.000	7,975,000	8,200,000	8,425,000	8,650,000	8,8/5,000	9,325,000	9.325.000	0	0	0	0	\$188,000,000
Series 2023	\$167,000,000	4.00%	Vov 1, 23 < 9 Mc	Jul 1, 23 \$0	6.12%	29 yrs., 3 mo. TRUE	17.00	44.36		Total Debt Service	\$0	16,300,000	16,287,000 16 840,000	7.130.000	7,216,000	7,296,000	7,220,000	7,269,000	7,338,000	8,001,000	8,084,000 9,609,000	9.593.000	9,595,000	9,589,000	9,600,000	9,602,000	9,595,000 0 E70 000	9,579,000	9,569,000	9,549,000	9,544,000 0,502,000	9.477.000	9,465,000	9,441,000	9,430,000	9,256,000	00		0	0	0	0	0	\$280,556,000
	Amount:	Dated Date:	First Payment:	First Levy: Capitalized Int:	Debt/TV ^[1] :	1:5 Ratio:	Average Life:	ProjUsefulLife:		Principal Due Mav 1	\$0	7,950,000	9,925,000 10 875 000	1.600.000	1,750,000	1,900,000	1,900,000	2,025,000	2,175,000	2,925,000	3,125,000 4 775 000	4.950.000	5,150,000	5,350,000	5,575,000	5,800,000	6,025,000 6 250,000	6,500,000	6,750,000	7,000,000	7,275,000	7.800.000	8,100,000	8,400,000	8,725,000	8,900,000 î	0 0		0	0	0	0	0	\$167,000,000
				-				120%		Interest Rate	4.000%	4.000%	4.000%	4.000%	4.000%	4.000%	4.000%	4.000%	4.000%	4.000%	4.000%	4.000%	4.000%	4.000%	4.000%	4.000%	4.000%	4.000%	4.000%	4.000%	4.000%	4.000%	4.000%	4.000%	4.000%	4.000%	4.000%	4 000%	4.000%	4.000%	4.000%	4.000%	4.000%	II
			SITE BONDS	ED TAX)	BONDED DEB1					Interest Due Mav 1	\$0	3,340,000	3,181,000 2 082 500	2.765.000	2,733,000	2,698,000	2,660,000	2,622,000	2,581,500	2,538,000	2,479,500	2.321.500	2,222,500	2,119,500	2,012,500	1,901,000	1,785,000 1 664 600	1,539,500	1,409,500	1,274,500	1,134,500	838,500	682,500	520,500	352,500	1/8,000	0 0		0	0	0	0	0	\$55,943,000
	55,000,000	CHOOL DISTRICT		BATION - UNLIMITE	EDED TO RETIRE				Series 2023	Interest Due Nov 1	\$0	5,010,000	3,181,000 2 082 E00	2.765.000	2,733,000	2,698,000	2,660,000	2,622,000	2,581,500	2,538,000	2,479,500	2.321.500	2,222,500	2,119,500	2,012,500	1,901,000	1,785,000	1,539,500	1,409,500	1,274,500	1,134,500	838.500	682,500	520,500	352,500	1/8,000	0 0		0	0	0	0	0	\$57,613,000
	\$5	TROY SC	2026, 2029 SCHOO	(GENERAL OBLIC	VTED MILLAGE NE				Existing	UT Debt \$104.165.000	\$18,315,860	13,950,101	13,687,842 13.661 840	13.501.671	13,330,845	7,867,000	7,770,625	7,639,750	7,525,500	2,751,250	2,651,250	00	0	0	0	0 0	0 0	00	0	0	00	00	0	0	0 0	0 0			0	0	0	0	0	\$122,643,543
5			2023,		ESTIMA				Fiscal	Year End	2023	2024	2025	2027	2028	2029	2030	2031	2032	2033	2034	2036	2037	2038	2039	2040	2041	2043	2044	2045	2046	2048	2049	2050	2051	7,907	2053	2055	2056	2057	2058	2059	2060	
										Tax Year	2022	2023	2024	2026	2027	2028	2029	2030	2031	2032	2033	2035	2036	2037	2038	2039	2040	2042	2043	2044	2045	2047	2048	2049	2050	1902	2052	2054	2055	2056	2057	2058	2059	

Includes \$104,165,000 of Existing UT Debt and \$12,000,000 of Existing LTNQ Debt
 Includes \$2,034,420 of equivalent IFT valuations & less DDA/TIFA debt captures of \$0 for 2023.
 Based on \$66,448,680 of Exempt Personal Property for 2022

prs/kcg



PQ Millage With Statutory TV Growth

8, 2022 3.35 3.94 wr.100% 0.72 0.72	Mills Needer/Mills Needed d Growth New Bond All Qualified 3 ¹²¹ Rate Avg. 3.94 Debt	70,360 6.77% 4.10 30,865 4.61% 3.35 6.10	41,280 4.61% 3.21 5.78 56.117 4.61% 3.18 5.70	50,863 4.61% 3.17 5.55	22,946 4.61% 3.17 5.41 12 848 1 17% 4 17 5 46	30,889 1.17% 4.24 5.50	56,262 1.17% 4.33 5.55	48,262 1.17% 4.41 5.60 46.296 1.17% 4.98 5.38	59,879 1.17% 4.93 5.31	28,637 1.17% 5.17 5.17	32,310 1.17% 5.10 5.10 30.750 1.17% 5.04 5.04	13,923 1.17% 4.99 4.99	11,912 1.17% 4.93 4.93 24.020 1.17% 4.86 4.86	73,265 1.17% 4.80 4.80	57,389 1.17% 4.74 4.74 57,650 1.17% 4.74 4.74	35,340 1.17% 4.61 4.61 4.61	50,662 1.17% 4.55 4.55	64,755 1.17% 4.49 4.49 38.682 1.17% 4.42 4.42	33,634 1.17% 4.35 4.35	10,935 1.17% 4.29 4.29 22 030 1 17% 1 22 1 22	58,536 1.17% 4.16 4.16	02,147 1.17% 4.08 4.08	74,734 1.17% 2.82 2.82	00,290 1.11% 2.10 2.10 31 068 117% 2.73 2.73	37,033 1.17% 2.65 2.65	36,914 1.17% 1.43 1.43	97,179 1.17% 1.39 1.39	00,541 1.17% 1.33 1.33 19.864 1.17% 0.00	
Ballot Information Election Date November 4 First Yr. Milage Avg. Milage Avg. Oycle December Le Levy Cycle December Le Projected Milage Current 4.10 Net Increase 2.00	se of Funds Proposed and on Hand Existing UT Projecte 51,472,050 Debt Tax Base	(\$594,260) \$18,966,478 \$4,625,97 (457,133) 29,520,528 4,839,43	(420,657) 29,241,877 5,062,72 0 30.179,540 5.296,35	0 30,764,363 5,540,75	0 31,387,537 5,796,42 0 32,003,691 5,864,07	0 32,635,316 5,932,33	0 33,304,441 6,001,56	0 33,975,191 6,071,52 0 33,019,941 6,142,32	0 32,999,941 6,213,96	0 32,482,691 6,286,42	0 32,462,691 6,359,73 0 32,445,691 6,433,85	0 32,455,691 6,508,9	0 32,440,691 6,584,8' 0 32,400,691 6,584,8'	0 32,360,691 6,739,27	0 32,294,691 6,817,85 0 32,294,691 6,817,85	0 32,185,521 6,977,78	0 32,116,501 7,059,15	0 32,043,683 7,141,46 0 31,940,845 7,224,73	0 31,808,228 7,308,96	0 31,720,820 7,394,27 0 31,500,038 7,480,43	0 31,496,298 7,567,66	0 31,207,443 7,655,90	0 21,841,138 7,745,17	0, 21,703,017 U 0,004,000 0,000,000 0,000,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000	0 21,268,503 8,019,28	0 11,572,767 8,112,75	0 11,435,212 8,207,36	0 11,035,418 8,303,10 0 8,399,97	\$1,472,050) \$1,066,279,245
	Delinquency U Reimbursement Allowance Amount ^[3] 8.00% \$	(\$272,440) \$1,517,318 (272,440) 0	(312,309) 0 (312.309) 0	(312,309) 0	(312,309) 0 (312,309) 0	(312,309) 0	(312,309) 0	(312,309) 0 (312,309) 0	(312,309) 0	(312,309) 0	(312,309) 0 (312,309) 0	(312,309) 0	(312,309) 0 (312,309) 0	(312,309) 0	(312,309) 0	(310,479) 0 (310,479) 0	(306,499) 0	(302,317) 0 (298.155) 0	(293,772) 0	(289,180) 0 (285,062) 0	(280,702) 0	(276,557) 0	(270,862) 0	(101,303) U (184,753) U	(181,497) 0	(176,233) 0	(94,788) 0	(92,582) 0 0 0	ِ (\$10,309,566) \$1,517,318 (؛
Series 2029 5 \$200,000,000,000,000,000,000,000,000,000	Series 2029 Principal Due Total Debt May 1 Service	0 80 0	0 0	0	00	1,850,000 9,850,000	2,625,000 10,551,000	4.175.000 11.171,000 11.862.000	4,350,000 11,870,000	4,425,000 11,771,000	4,600,000 11,769,000 4 750,000 11,760,000	5,000,000 11,794,000	5,200,000 11,794,000 5,200,000 11,794,000	5,625,000 11,795,000	5,850,000 11,795,000 5,000 11,795,000	6,325,000 11,793,000	6,575,000 11,790,000	6,825,000 11,777,000 71.779,000 71.779,000	7,375,000 11,770,000	7 275 000 11,775,000 7 7 268 000	8,300,000 11,774,000	8,625,000 11,767,000	8,975,000 11,772,000	9,325,000 11,783,000	0 10.075.000 11.752.000	10,475,000 11,749,000	11,530,000 11,530,000	0 10,700,000 11,128,000	\$200,000,000 \$348,806,000
Series 2026 \$188,000,000 4,00% May 1, 28 Nov 1, 28 Nov 1, 28 Jul 1, 28 5 00% 30 yrs., 0 mo. 180%	Series 2026 Principal Due Total Debt May 1 Service	0 80 80	0 0	2,925,000 10,445,000	3,750,000 11,153,000 9,900,000 17,153,000	1,250,000 8,107,000	1,350,000 8,157,000	1,500,000 8,253,000 4.025.000 10.718.000	4,175,000 10,707,000	5,050,000 11,415,000	5,250,000 11,413,000 5,450.000 11,403.000	5,650,000 11,385,000	5,850,000 11,359,000 6 050 000 11 325 000	6,250,000 11,283,000	6,450,000 11,233,000 6,650,000 11,175,000	6,875,000 11,134,000	7,100,000 11,084,000	7,325,000 11,025,000 7,550.000 10.957.000	7,750,000 10,855,000	7,975,000 10,770,000 8 200 000 10,676 000	8,425,000 10,573,000	8,650,000 10,461,000	8,875,000 10,340,000	3,100,000 10,210,000 0.325.000 10.071.000	9,325,000 9,698,000	0	0	00	\$188,000,000 \$324,538,000
Series 2023 Amount: \$167,000,000 TIC: \$167,000,000 TIC: \$4,00% Dated Date: Feb 1, 23 First Payment: Nov 1, 23 < 9 N First Levy: Jul 1, 23 Capitalized Int: \$0,0 DebyTV ¹¹ : 6,12% Bond Term: 29 yrs., 3 mo. 1:5 Ratio: TRUE Average Life: 17,00 Average Life: 17,00 Average Life: 17,00	est Principal Due Total Debt e May 1 Service	\$0 \$0 \$0 \$0 \$% 7,950,000 16,300,000 1	3% 9,925,000 16,287,000 3% 10.875.000 16.840.000	1,600,000 7,130,000	3% 1,750,000 7,216,000 3% 1 900 000 7 296 000	7,220,000 7,220,000	3% 2,025,000 7,269,000	2% 2,175,000 7,338,000 2% 2.925,000 8.001.000	3,125,000 8,084,000	3% 4,775,000 9,609,000	3% 4,950,000 9,593,000 3% 5,150,000 9,595,000	3% 5,350,000 9,589,000	3% 5,575,000 9,600,000 3% 5,800,000 9,600,000	0% 6,025,000 9,595,000	0% 6,250,000 9,579,000	7% 0,200,000 9,569,000	7,000,000 9,549,000)% 7,275,000 9,544,000)% 7,525,000 9.503.000	7,800,000 9,477,000	0% 8,100,000 9,465,000	0% 8,725,000 9,430,000	3% 8,900,000 9,256,000	0 0 0 00		0 0 00	0 0 0%	0 0 0	0% 0 0% 1% 0	\$167,000,000 \$280,556,000
0,000 LISTRICT LISTRICT LISTRICF OF MICHIGAN ILDING AND SITE BONDS N - UNLIMITED TAX) TO RETIRE BONDED DEBT	es 2023 erest Due Interest Due Intere Nov 1 May 1 Rati	\$0 4.000 5,010,000 3,340,000 4.000	3,181,000 3,181,000 4.000 2.982.500 2.982.500 4.000	2,765,000 2,765,000 4.000	2,733,000 2,733,000 4.000 2.698.000 2.698.000 4.000	2,660,000 2,660,000 4.000	2,622,000 2,622,000 4.000	2,581,500 2,581,500 4.000 2,538,000 2,538,000 4.000	2,479,500 2,479,500 4.000	2,417,000 2,417,000 4.000	2,321,500 2,321,500 4.000 2.222.500 2.222.500 4.000	2,119,500 2,119,500 4.000	2,012,500 2,012,500 4.000 1 901 000 1 901 000 4 000	1,785,000 1,785,000 4.000	1,664,500 1,664,500 4.000	1,409,500 1,409,500 4.000	1,274,500 1,274,500 4.000	1,134,500 1,134,500 4.000 989.000 989.000 4.000	838,500 838,500 4.000	682,500 682,500 4.000 520 500 520 500 4.000	352,500 352,500 4.000	178,000 178,000 4.000	0 0 4.000		0 4.000	0 0 4.000	0 0 4.000	0 0 4.000	57,613,000 \$55,943,000
\$555,00 TROY SCHOO COUNTY OF OAKLAND, 2023, 2028, 2029 SCHOOL BL (GENERAL OBLIGATIOI (GENERAL OBLIGATIOI ESTIMATED MILLAGE NEEDED	Fiscal Existing Seri × Year UT Debt Int r End \$104,165,000	2 2023 \$18,315,860 3 2024 13,950,101	4 2025 13,687,842 5 2026 13.651.849	6 2027 13,501,671	7 2028 13,330,845 3 2029 7 867 000	9 2030 7,770,625	0 2031 7,639,750	1 2032 7,525,500 2 2033 2.751.250	3 2034 2,651,250	4 2035 0	5 2036 0 3 2037 0	7 2038 0	8 2039 0 2 2040 0	0 2041 0	1 2042 0 2 2042 0	2 2043 0 3 2044 0	4 2045 0	5 2046 0 5 2047 0	7 2048 0	8 2049 0 2 2050 0	0 2051 0	1 2052 0	2 2053 0	3 2034 U	5 2056 0	6 2057 0	7 2058 0	8 2059 U 3 2060 D	\$122,643,543
1	Та) Үеа	202 202	202	202	202	202	203	203	203	203	203	203	203	204	204	204	204	204 204	204	204	205	205	205	202	205	205	205	205	i

Includes \$104,165,000 of Existing UT Debt and \$12,000,000 of Existing LTNO Debt
 Includes \$2,034,420 of equivalent IFT valuations & less DDA/TIFA debt captures of \$0 for 2023.
 Based on \$66,448,680 of Exempt Personal Property for 2022

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\$167,000,000 TROY SCHOOL DISTRICT 2023 SCHOOL BUILDING AND SITE BONDS

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PQ 2023

		BON	O SIZING SCHEDULE	
ESTIMATED BOND ISSU	ANCE COSTS			
Bond Discount	1.000%	\$1,670,000	ESTIMATED OTHER COSTS	
Bond Insurance		0	Reimbursable Election Costs	\$3,892
Bond Attorney Fee		161,300	Capitalized Interest	0
Financial Consultant Fee		149,500	Other	0
Credit Rating		105,000	TOTAL OTHER COSTS	\$3,892
Qualification of Bonds		37,400	BOND SIZING	
Official Statement Printing	& Mailing	2,500	Total Bond Issuance and Other Costs	\$2,133,792
Notice of Sale Publication		1,800	Total Project Expenditures	166,209,000
Treasury Filing Fee(s)		1,000	Total Project, Issuance & Other Costs	168,342,792
Auditor's Consent Fee		500	Less Original Issue Premium	0
Paying Agent Upfront Fee		500	Less Estimated Construction Fund Earnings	(1,342,792)
Municipal Advisory Counci	l Fee	400	Less Other Adjustments	0
TOTAL BOND ISSUANCE	ECOSTS	\$2,129,900	AMOUNT OF BOND ISSUE	\$167,000,000

PROJECT FUND DRAWS AND EARNINGS SECTION

	Estir	nated Expenditu	res	Average Life =	1.62 years			
	Project	Issuance &		_		Project Fund	Estimated	Projected
Date	Expenditures	Other Costs	Totals	Month	Payout %	Balance	Interest Rate	Interest Earned
Feb 23						\$167,000,000		
Feb 23	\$4,155,225	\$2,133,792	\$6,289,017	1	3.74%	160,710,983	0.50%	\$66,963
Mar 23	4,155,225		4,155,225	2	6.20%	156,622,721	0.50%	65,259
Apr 23	4,155,225		4,155,225	3	8.67%	152,532,756	0.50%	63,555
May 23	4,155,225		4,155,225	4	11.14%	148,441,086	0.50%	61,850
Jun 23	4,155,225		4,155,225	5	13.61%	144,347,712	0.50%	60,145
Jul 23	4,155,225		4,155,225	6	16.08%	140,252,631	0.50%	58,439
Aug 23	4,155,225		4,155,225	7	18.55%	136,155,845	0.50%	56,732
Sep 23	4,155,225		4,155,225	8	21.01%	132,057,352	0.50%	55,024
Oct 23	4,155,225		4,155,225	9	23.48%	127,957,151	0.50%	53,315
Nov 23	4,155,225		4,155,225	10	25.95%	123,855,241	0.50%	51,606
Dec 23	4,155,225		4,155,225	11	28.42%	119,751,622	0.50%	49,897
Jan 24	4,155,225		4,155,225	12	30.89%	115,646,294	0.50%	48,186
Feb 24	4,155,225		4,155,225	13	33.36%	111,539,255	0.50%	46,475
Mar 24	4,155,225		4,155,225	14	35.82%	107,430,505	0.50%	44,763
Apr 24	4,155,225		4,155,225	15	38.29%	103,320,042	0.50%	43,050
Mav 24	4.155.225		4.155.225	16	40.76%	99.207.867	0.50%	41.337
Jun 24	4.155.225		4.155.225	17	43.23%	95.093.979	0.50%	39.622
Jul 24	4.155.225		4.155.225	18	45.70%	90.978.376	0.50%	37.908
Aug 24	4,155,225		4,155,225	19	48.17%	86,861,059	0.50%	36,192
Sep 24	4,155,225		4,155,225	20	50.63%	82,742,026	0.50%	34,476
Oct 24	4,155,225		4,155,225	21	53.10%	78,621,277	0.50%	32,759
Nov 24	4,155,225		4,155,225	22	55.57%	74,498,811	0.50%	31,041
Dec 24	4.155.225		4.155.225	23	58.04%	70.374.627	0.50%	29.323
Jan 25	4.155.225		4.155.225	24	60.51%	66.248.725	0.50%	27.604
Feb 25	4.155.225		4.155.225	25	62.98%	62.121.103	0.50%	25.884
Mar 25	4.155.225		4.155.225	26	65.44%	57.991.762	0.50%	24,163
Apr 25	4.155.225		4.155.225	27	67.91%	53.860.700	0.50%	22,442
Mav 25	4.155.225		4.155.225	28	70.38%	49.727.917	0.50%	20,720
Jun 25	4.155.225		4.155.225	29	72.85%	45.593.412	0.50%	18,997
Jul 25	4.155.225		4.155.225	30	75.32%	41.457.185	0.50%	17.274
Aug 25	4.155.225		4.155.225	31	77.79%	37.319.233	0.50%	15.550
Sep 25	4,155,225		4,155,225	32	80.25%	33,179,558	0.50%	13,825
Oct 25	4,155,225		4,155,225	33	82.72%	29,038,158	0.50%	12,099
Nov 25	4,155,225		4,155,225	34	85.19%	24,895,032	0.50%	10,373
Dec 25	4,155,225		4,155,225	35	87.66%	20,750,180	0.50%	8,646
Jan 26	4.155.225		4.155.225	36	90.13%	16.603.601	0.50%	6.918
Feb 26	4.155.225		4.155.225	37	92.60%	12.455.294	0.50%	5.190
Mar 26	4.155.225		4.155.225	38	95.06%	8.305.259	0.50%	3.461
Apr 26	4,155.225		4,155.225	39	97.53%	4,153.494	0.50%	1.731
Mav 26	4,155.225		4,155.225	40	100.00%	0	0.50%	0
Jun 26	,,0		0	41	100.00%	0	0.50%	0
	\$166,209,000	\$2,133,792	\$168,342,792	-				\$1,342,792

\$188,000,000 TROY SCHOOL DISTRICT 2026 SCHOOL BUILDING AND SITE BONDS

ofm

PQ 2026

		BON	D SIZING SCHEDULE	
ESTIMATED BOND ISSU	JANCE COSTS			
Bond Discount	1.000%	\$1,880,000	ESTIMATED OTHER COSTS	
Bond Insurance		0	Reimbursable Election Costs	\$3,910
Bond Attorney Fee		174,950	Capitalized Interest	0
Financial Consultant Fee		165,250	Other	0
Credit Rating		105,000	TOTAL OTHER COSTS	\$3,910
Qualification of Bonds		41,600	BOND SIZING	
Official Statement Printing	g & Mailing	2,500	Total Bond Issuance and Other Costs	\$2,377,410
Notice of Sale Publication	l	1,800	Total Project Expenditures	186,979,000
Treasury Filing Fee(s)		1,000	Total Project, Issuance & Other Costs	189,356,410
Auditor's Consent Fee		500	Less Original Issue Premium	0
Paying Agent Upfront Fee)	500	Less Estimated Construction Fund Earnings	(1,356,410)
Municipal Advisory Counc	il Fee	400	Less Other Adjustments	0
TOTAL BOND ISSUANC	E COSTS	\$2,373,500	AMOUNT OF BOND ISSUE	\$188,000,000

PROJECT FUND DRAWS AND EARNINGS SECTION

	Estir	nated Expenditu	res	Average Life =	1.45 years			
	Project	Issuance &		-		Project Fund	Estimated	Projected
Date	Expenditures	Other Costs	Totals	Month	Payout %	Balance	Interest Rate	Interest Earned
May 26						\$188,000,000		
May 26	\$5,193,861	\$2,377,410	\$7,571,271	1	4.00%	180,428,729	0.50%	\$75,179
Jun 26	5,193,861		5,193,861	2	6.74%	175,310,047	0.50%	73,046
Jul 26	5,193,861		5,193,861	3	9.48%	170,189,231	0.50%	70,912
Aug 26	5,193,861		5,193,861	4	12.23%	165,066,282	0.50%	68,778
Sep 26	5,193,861		5,193,861	5	14.97%	159,941,199	0.50%	66,642
Oct 26	5,193,861		5,193,861	6	17.71%	154,813,980	0.50%	64,506
Nov 26	5,193,861		5,193,861	7	20.46%	149,684,625	0.50%	62,369
Dec 26	5,193,861		5,193,861	8	23.20%	144,553,132	0.50%	60,230
Jan 27	5,193,861		5,193,861	9	25.94%	139,419,501	0.50%	58,091
Feb 27	5,193,861		5,193,861	10	28.68%	134,283,732	0.50%	55,952
Mar 27	5,193,861		5,193,861	11	31.43%	129,145,822	0.50%	53,811
Apr 27	5,193,861		5,193,861	12	34.17%	124,005,772	0.50%	51,669
May 27	5,193,861		5,193,861	13	36.91%	118,863,580	0.50%	49,526
Jun 27	5,193,861		5,193,861	14	39.66%	113,719,245	0.50%	47,383
Jul 27	5,193,861		5,193,861	15	42.40%	108,572,767	0.50%	45,239
Aug 27	5,193,861		5,193,861	16	45.14%	103,424,145	0.50%	43,093
Sep 27	5,193,861		5,193,861	17	47.88%	98,273,377	0.50%	40,947
Oct 27	5,193,861		5,193,861	18	50.63%	93,120,463	0.50%	38,800
Nov 27	5,193,861		5,193,861	19	53.37%	87,965,402	0.50%	36,652
Dec 27	5,193,861		5,193,861	20	56.11%	82,808,193	0.50%	34,503
Jan 28	5,193,861		5,193,861	21	58.86%	77,648,836	0.50%	32,354
Feb 28	5,193,861		5,193,861	22	61.60%	72,487,328	0.50%	30,203
Mar 28	5,193,861		5,193,861	23	64.34%	67,323,670	0.50%	28,052
Apr 28	5,193,861		5,193,861	24	67.09%	62,157,861	0.50%	25,899
May 28	5,193,861		5,193,861	25	69.83%	56,989,899	0.50%	23,746
Jun 28	5,193,861		5,193,861	26	72.57%	51,819,783	0.50%	21,592
Jul 28	5,193,861		5,193,861	27	75.31%	46,647,514	0.50%	19,436
Aug 28	5,193,861		5,193,861	28	78.06%	41,473,089	0.50%	17,280
Sep 28	5,193,861		5,193,861	29	80.80%	36,296,508	0.50%	15,124
Oct 28	5,193,861		5,193,861	30	83.54%	31,117,771	0.50%	12,966
Nov 28	5,193,861		5,193,861	31	86.29%	25,936,875	0.50%	10,807
Dec 28	5,193,861		5,193,861	32	89.03%	20,753,821	0.50%	8,647
Jan 29	5,193,861		5,193,861	33	91.77%	15,568,608	0.50%	6,487
Feb 29	5,193,861		5,193,861	34	94.51%	10,381,234	0.50%	4,326
Mar 29	5,193,861		5,193,861	35	97.26%	5,191,698	0.50%	2,163
Apr 29	5,193,861		5,193,861	36	100.00%	0	0.50%	0
May 29	0		0	37	100.00%	0	0.50%	0
Jun 29	0		0	38	100.00%	0	0.50%	0
Jul 29	0		0	39	100.00%	0	0.50%	0
Aug 29	0		0	40	100.00%	0	0.50%	0
Sep 29	0		0	41	100.00%	0	0.50%	0
	\$186,979,000	\$2,377,410	\$189,356,410	1				\$1,356,410

\$200,000,000 TROY SCHOOL DISTRICT 2029 SCHOOL BUILDING AND SITE BONDS

ofm

PQ 2029

		BONI	D SIZING SCHEDULE	
ESTIMATED BOND ISSUA	NCE COSTS			
Bond Discount	1.000%	\$2,000,000	ESTIMATED OTHER COSTS	
Bond Insurance		0	Reimbursable Election Costs	\$3,203
Bond Attorney Fee		182,750	Capitalized Interest	0
Financial Consultant Fee		174,250	Other	0
Credit Rating		130,000	TOTAL OTHER COSTS	\$3,203
Qualification of Bonds		44,000	BOND SIZING	
Official Statement Printing 8	k Mailing	2,500	Total Bond Issuance and Other Costs	\$2,540,903
Notice of Sale Publication		1,800	Total Project Expenditures	198,902,000
Treasury Filing Fee(s)		1,000	Total Project, Issuance & Other Costs	201,442,903
Auditor's Consent Fee		500	Less Original Issue Premium	0
Paying Agent Upfront Fee		500	Less Estimated Construction Fund Earnings	(1,442,903)
Municipal Advisory Council	Fee	400	Less Other Adjustments	0
TOTAL BOND ISSUANCE	COSTS	\$2,537,700	AMOUNT OF BOND ISSUE	\$200,000,000

PROJECT FUND DRAWS AND EARNINGS SECTION

	Estir	nated Expenditu	ires	Average Life =	1.45 years			
	Project	Issuance &		-		Project Fund	Estimated	Projected
Date	Expenditures	Other Costs	Totals	Month	Payout %	Balance	Interest Rate	Interest Earned
May 29						\$200,000,000		
May 29	\$5,525,056	\$2,540,903	\$8,065,959	1	4.00%	191,934,041	0.50%	\$79,973
Jun 29	5,525,056		5,525,056	2	6.75%	186,488,958	0.50%	77,704
Jul 29	5,525,056		5,525,056	3	9.49%	181,041,606	0.50%	75,434
Aug 29	5,525,056		5,525,056	4	12.23%	175,591,985	0.50%	73,163
Sep 29	5,525,056		5,525,056	5	14.98%	170,140,092	0.50%	70,892
Oct 29	5,525,056		5,525,056	6	17.72%	164,685,929	0.50%	68,619
Nov 29	5,525,056		5,525,056	7	20.46%	159,229,492	0.50%	66,346
Dec 29	5,525,056		5,525,056	8	23.20%	153,770,782	0.50%	64,071
Jan 30	5,525,056		5,525,056	9	25.95%	148,309,798	0.50%	61,796
Feb 30	5,525,056		5,525,056	10	28.69%	142,846,538	0.50%	59,519
Mar 30	5,525,056		5,525,056	11	31.43%	137,381,002	0.50%	57,242
Apr 30	5,525,056		5,525,056	12	34.17%	131,913,188	0.50%	54,964
May 30	5,525,056		5,525,056	13	36.92%	126,443,097	0.50%	52,685
Jun 30	5,525,056		5,525,056	14	39.66%	120,970,726	0.50%	50,404
Jul 30	5,525,056		5,525,056	15	42.40%	115,496,075	0.50%	48,123
Aug 30	5,525,056		5,525,056	16	45.15%	110,019,142	0.50%	45,841
Sep 30	5,525,056		5,525,056	17	47.89%	104,539,928	0.50%	43,558
Oct 30	5,525,056		5,525,056	18	50.63%	99,058,431	0.50%	41,274
Nov 30	5,525,056		5,525,056	19	53.37%	93,574,650	0.50%	38,989
Dec 30	5,525,056		5,525,056	20	56.12%	88,088,584	0.50%	36,704
Jan 31	5,525,056		5,525,056	21	58.86%	82,600,232	0.50%	34,417
Feb 31	5,525,056		5,525,056	22	61.60%	77,109,593	0.50%	32,129
Mar 31	5,525,056		5,525,056	23	64.34%	71,616,666	0.50%	29,840
Apr 31	5,525,056		5,525,056	24	67.09%	66,121,451	0.50%	27,551
May 31	5,525,056		5,525,056	25	69.83%	60,623,946	0.50%	25,260
Jun 31	5,525,056		5,525,056	26	72.57%	55,124,150	0.50%	22,968
Jul 31	5,525,056		5,525,056	27	75.32%	49,622,063	0.50%	20,676
Aug 31	5,525,056		5,525,056	28	78.06%	44,117,684	0.50%	18,382
Sep 31	5,525,056		5,525,056	29	80.80%	38,611,010	0.50%	16,088
Oct 31	5,525,056		5,525,056	30	83.54%	33,102,043	0.50%	13,793
Nov 31	5,525,056		5,525,056	31	86.29%	27,590,780	0.50%	11,496
Dec 31	5,525,056		5,525,056	32	89.03%	22,077,220	0.50%	9,199
Jan 32	5,525,056		5,525,056	33	91.77%	16,561,364	0.50%	6,901
Feb 32	5,525,056		5,525,056	34	94.51%	11,043,209	0.50%	4,601
Mar 32	5,525,056		5,525,056	35	97.26%	5,522,754	0.50%	2,301
Apr 32	5,525,056		5,525,056	36	100.00%	0	0.50%	0
May 32	0		0	37	100.00%	0	0.50%	0
Jun 32	0		0	38	100.00%	0	0.50%	0
Jul 32	0		0	39	100.00%	0	0.50%	0
Aug 32	0		0	40	100.00%	0	0.50%	0
Sep 32	0		0	41	100.00%	0	0.50%	0
	\$198,902,000	\$2,540,903	\$201,442,903					\$1,442,903



555 Briarwood Circle Suite 333 Ann Arbor, MI 48108 734-994-9700 734-994-9710 fax www.pfm.com

TROY SCHOOL DISTRICT COUNTY OF OAKLAND, STATE OF MICHIGAN Taxable Value History

		Exempt			Adjusted		
Levy	Taxable	Personal	Adjusted	T.V.	T.V.	5 Year	20 Year
Year	Value	Property	Total	Change	Change	Average	Average
2022	\$4,623,935,940	\$66,448,680	\$4,690,384,620	6.89%	6.77%	4.61%	1.17%
2021	4,325,905,260	67,183,550	4,393,088,810	2.12%	2.53%	3.89%	1.18%
2020	4,236,286,120	48,442,185	4,284,728,305	3.52%	3.67%	3.54%	
2019	4,092,105,300	40,958,430	4,133,063,730	4.83%	5.88%	3.44%	
2018	3,903,617,540	0	3,903,617,540	4.23%	4.23%	2.52%	
2017	3,745,256,940	0	3,745,256,940	3.15%	3.15%	1.01%	
2016	3,630,712,070	0	3,630,712,070	0.75%	0.75%	(1.27)%	
2015	3,603,511,590	0	3,603,511,590	3.18%	3.18%	(3.68)%	
2014	3,492,482,830	0	3,492,482,830	1.30%	1.30%	(4.59)%	
2013	3,447,521,948	0	3,447,521,948	(3.35)%	(3.35)%	(4.88)%	
2012	3,566,967,490	0	3,566,967,490	(8.22)%	(8.22)%	(3.73)%	
2011	3,886,495,631	0	3,886,495,631	(11.33)%	(11.33)%	(1.44)%	
2010	4,383,001,954	0	4,383,001,954	(1.36)%	(1.36)%	1.45%	
2009	4,443,349,700	0	4,443,349,700	(0.12)%	(0.12)%	2.14%	
2008	4,448,741,027	0	4,448,741,027	2.36%	2.36%	2.58%	
2007	4,346,240,283	0	4,346,240,283	3.24%	3.24%	2.78%	
2006	4,209,942,400	0	4,209,942,400	3.15%	3.15%	3.55%	
2005	4,081,284,316	0	4,081,284,316	2.09%	2.09%		
2004	3,997,596,951	0	3,997,596,951	2.08%	2.08%		
2003	3,916,302,998	0	3,916,302,998	3.32%	3.32%		
2002	3,790,595,220	0	3,790,595,220	7.11%	7.11%		
2001	3,539,085,040	0	3,539,085,040				

Enrollment Projections

Troy School District

Complete this form after acquiring an enrollment projection report from an approved enrollment projection provider. Official enrollment projections should be based on the most recent fall membership count.

Prepared By Jeff Atkins, Barton Malow Builders

Source Plante Moran Cresa Pupil Enrollment Projection Study Report 2022-2026

63-150

Explanation of Method Selected

Utilize the standard Cohort Survival Method using the historical survival ratios of pupils from grade to grade to project future enrollment. Utilize the Blended projections (between the Fall 2021 and Spring 2022 counts)

Subtotals by Grade:

	2016-17	2021-22	2026-27	(Col 4 - Col 3) / Col 3
Grade	Preceding 5-Year Enrollment	Current Enrollment	Projected 5-Year Enrollment	Projected Enrollment Change (%)
1	2	3	4	5
К		785	771	-1.78%
1		790	809	2.41%
2		811	813	0.25%
3		848	843	-0.59%
4		897	856	-4.57%
5		931	838	-9.99%
6		918	822	-10.46%
7		882	841	-4.65%
8		965	880	-8.81%
9		1,080	994	-7.96%
10		1,045	1,037	-0.77%
11		1,016	963	-5.22%
12		1,025	910	-11.22%
Total	12,389	11,993	11,377	-5.14%

Non-general ed student count should not be included in the general ed student count listed above unless discussed with and determined by your enrollment service provider.

Project Sheet

Barnard Elementary School	Project No. 1	
Description of Series 1	n/a	
Description of Series 2	renovate restrooms & renovate space for	special education use
Description of Series 3	replace roofing, renovate interior space lighting systems, upgrade network infras equipment, purchase furniture & kitchen e	e, upgrade mechanical systems, upgrade tructure, purchase instructional technology equipment
Instructional Technology Description	purchase audio visual systems for class for students & teachers	rooms, and purchase instructional devices
Site Work Description	replace paving & upgrade playgrounds	

Construction Cost Per Square Foot

New Construction Square Ft	0	Cost per Sq Ft	n/a
New Addition Square Ft.	0	Cost per Sq Ft	n/a

Statement describing any existing environmental or usability problems the proposed project will address. (ex: asbestos, energy use, or ADA requirements)

abate asbestos prior to renovations, upgrade temperature control systems & upgrade lighting system for energy savings

Estimated Cost of Proposed Construction Project

Column1	Series 1	Series 2	Series 3	Total
New Construction	\$0	\$0	\$0	\$0
Remodeling	\$0	\$871,692	\$7,131,198	\$8,002,889
Construction Contingencies	\$0	\$154,890	\$910,892	\$1,065,782
Instructional Technology	\$0	\$0	\$663,504	\$663,504
Loose Furnishing/Equipment	\$0	\$0	\$663,971	\$663,971
Buses	\$0	\$0	\$0	\$0
Site Work	\$0	\$677,211	\$902,976	\$1,580,186
Site Acquisition	\$0	\$0	\$0	\$0
Architectural Fees and Costs	\$0	\$119,031	\$681,834	\$800,865
CM Fees and Costs	\$0	\$183,073	\$928,451	\$1,111,524
Estimated Costs	\$0	\$2,005,896	\$11,882,826	\$13,888,722

Certificate by Registered Architect

I certify that I have assessed the conditions relative to this facility and the details of the proposed project(s) described above and the attached detail relative to the construction project(s) are true and correct to the best of my knowledge and belief.

Amagastonann	6/15/2022	TMP Architecture 21298
Signature	Date	Firm Name and License Number

John J Castellana, FAIA Printed Name

jcastellana@tmp-architecture.com

248-338-4561 Phone Number

TROY SCHOOL DISTRICT	PRELIM	INARY	- FOR DISCU	SSION PURP	OSE ONLY	Grades:	K-5
2022 Bond Program					5% per year	Enrollment:	411
Barnard Elementary School	Year	Built: 1	978		for 4 years	Classrooms:	19
3601 Forge Drive, Troy, MI	Building	g Size: 6	4,400			Capacity:	430
Building Project Work List	Site	e Size: 1	8.00		1.1576	Date:	6/6/22
Category					Direct	Total	
Subcategory			Unit	Direct	Cost w/	w/Indirect	Phase /
Description	uty.	Unit	Cost	Cost	Escalation	Costs	Series
New Construction							
Build addition(s)							
- n/a				0 _	0	0	
			New Construc	tion Subtotal:	0	0	
Remodeling							
Roofing Work							
 replace select roofing 	1	lpsm	406,537	406,537	470,618	609,471	3
Architectural Work							
- abate asbestos for renovations	64,400	sqft	2.00	128,800	149,102	193,094	3
 replace doors, finishes, & fixed furnishings 	1	lpsm	1,599,460	1,599,460	1,851,575	2,397,871	3
 renovate restrooms for accessibility 	5,130	sqft	100.00	513,000	593,862	769,077	2
 renovate space for special education program 	1,200	sqft	200.00	240,000	277,830	359,802	2
- renovate space for kindergarten	4,481	sqft	75.00	336,075	389,049	503,835	3
- renovate media center	11,353	sqft	85.00	965,005	1,117,114	1,446,711	3
Mechanical Work							
- upgrade plumbing & HVΔC systems	1	Insm	1 619 500	1 619 500	1 874 774	2 427 914	3
apgrade planning & hvAe systems		tpsin	1,017,500	1,017,000	1,074,774	2,727,717	5
Electrical Work							
 upgrade power & lighting systems 	1	lpsm	916,200	916,200	1,060,616	1,373,544	3
			Construc	tion Subtotal:	7,784,539	10,081,319	
Technology Infrastructure							
- upgrade network/phone/security intrastructure	64,400	sqft	2.40	154,560	178,923	197,191	3
- Install tech infrastructure for additions	11,353	sqft	3.00 Barrada	34,059 <u>-</u>	39,428	51,060	3
			Kemode	ung Subtotal:	8,002,889	10,329,570	
Instructional Technology Equipment							
 purchase A/V systems & instructional devices 	64,400	sqft	8.90	573,160	663,504	731,248	3
	Instruct	ional Te	chnology Equipm	nent Subtotal:	663,504	731,248	
Loose Furniture, Furnishings & Equipment							
- purchase loose furniture & furnishings	1	lpsm	630,000.00	630,000	648,900	763,755	3
- purchase kitchen equipment	1	lpsm	13,000.00	13,000	15,071	17,738	3
Lo	oose Furnitur	e, Furnis	shings, & Equipm	nent Subtotal:	663,971	781,493	
Site Work							
Paving Work							
 replace paving (parking lot, drives, sidewalks) 	1	lpsm	780,024	780,024	902,976	1,169,393	3
Site Improvements							
 replace playground equipment & fixed furnishings 	1	lpsm	270,000	270,000	312,559	404,777	2
 upgrade playground surface & equipment (ADA) 	1	lpsm	315,000	315,000	364,652	472,240	2
			Site W	ork Subtotal:	1,580,186	2,046,411	
				uilding Total-	10,910,551	13 888 722	
			Construction	Contingency:	1_065_782	13,000,722	
Notes:			Field Gener	al Conditions:	362,060		Series 1
Indirect Costs include contingency general conditions &	professional	fees	Design	n Consultants:	800 865	2.005 896	Series 2
			Construc	tion Manager:	749,464	11,882.826	Series 3
BARTON MAOW BUILDERS			PRO	DJECT TOTAL:	13,888,722	13,888,722	Total

Building Utilization

School Building Name

Barnard Elementary School

Project No. 1

 Current Grade Structure
 K-5

 Proposed Grade Structure
 K-5

- 1. List the number of teaching stations in appropriate column.
- 2. Calculate total capacity using the applicable capacity factor.
- 3. Enter five (5) year projected enrollment.
- 4. Calculate building utilization rate.
- 5. Attach floor plan of the building. Show the rooms and category (existing, proposed new, closed).
- 6. Number the teaching stations in consecutive order.

Existing	List # of Teaching Stations	Capacity Factor	Capacity
(K-2) Lower Elementary	9	20	180
(3-5) Upper Elementary	10	25	250
(6-8) Junior High	0	22.5	0
(9-12) High School	0	21.25	0
Subtotal	19		430
Proposed New	List # of Teaching Stations	Capacity Factor	Capacity
(K-2) Lower Elementary	0		
	0	20	0
(3-5) Upper Elementary	0	20 25	0
(3-5) Upper Elementary (6-8) Junior High	0	20 25 22.5	0 0 0
(3-5) Upper Elementary (6-8) Junior High (9-12) High School	0 0 0	20 25 22.5 21.25	0 0 0 0
(3-5) Upper Elementary (6-8) Junior High (9-12) High School Subtotal	0 0 0 0	20 25 22.5 21.25	0 0 0 0

Facility to be Closed	List # of Teaching Stations	Capacity Factor	Capacity
(K-2) Lower Elementary	0	20	0
(3-5) Upper Elementary	0	25	0
(6-8) Junior High	0	22.5	0
(9-12) High School	0	21.25	0
Total	0		0

Projected 5-Year Enrollment 439

Utilization Percentage 102%

(Projected 5-Year Enrollment / Total Capacity)

Please transfer applicable information to the Utilization Summary on Page 6 of the application.





Red = New Construction

Orange = General Remodeling

Blue = Circulation / Collaboration - Remodeling

This plan represents a conceptual idea of upgrades proposed at this building. A design committee will be participating in the ultimate planning and design of these upgrades when the project is approved to move forward.

Project Sheet

Bemis Elementary School		Project No. 2
Description of Series 1	n/a	
Description of Series 2	renovate restrooms & renovate space for	special education use
Description of Series 3	replace roofing, renovate interior space lighting systems, upgrade network infras equipment, purchase furniture & kitchen e	e, upgrade mechanical systems, upgrade structure, purchase instructional technology equipment
Instructional Technology Description	purchase audio visual systems for class for students & teachers	rooms, and purchase instructional devices
Site Work Description	replace paving & upgrade playgrounds	

Construction Cost Per Square Foot

New Construction Square Ft	0	Cost per Sq Ft	n/a
New Addition Square Ft.	0	Cost per Sq Ft	n/a

Statement describing any existing environmental or usability problems the proposed project will address. (ex: asbestos, energy use, or ADA requirements)

abate asbestos prior to renovations, upgrade temperature control systems & upgrade lighting system for energy savings

Estimated Cost of Proposed Construction Project

Column1	Series 1	Series 2	Series 3	Total
New Construction	\$0	\$0	\$0	\$0
Remodeling	\$0	\$871,692	\$6,779,764	\$7,651,456
Construction Contingencies	\$0	\$154,890	\$799,492	\$954,382
Instructional Technology	\$0	\$0	\$661,361	\$661,361
Loose Furnishing/Equipment	\$0	\$0	\$663,971	\$663,971
Buses	\$0	\$0	\$0	\$0
Site Work	\$0	\$677,211	\$141,734	\$818,945
Site Acquisition	\$0	\$0	\$0	\$0
Architectural Fees and Costs	\$0	\$119,031	\$596,283	\$715,314
CM Fees and Costs	\$0	\$183,073	\$797,007	\$980,080
Estimated Costs	\$0	\$2,005,896	\$10,439,613	\$12,445,509

Certificate by Registered Architect

I certify that I have assessed the conditions relative to this facility and the details of the proposed project(s) described above and the attached detail relative to the construction project(s) are true and correct to the best of my knowledge and belief.

Amagastonann	6/15/2022	TMP Architecture 21298
Signature	Date	Firm Name and License Number

John J Castellana, FAIA Printed Name

_ jcastellana@tmp-architecture.com E-mail Address

248-338-4561 Phone Number

TROY SCHOOL DISTRICT	PRELIMINARY - FOR DISCUSSION PURPOSE ONLY Grades: K-5					K-5	
2022 Bond Program				5% per year	Enrollment:	411	
3571 Northfield Parkway, Troy, MI	Year Built: 1978			for 4 years	Classrooms:	22	
Building Project Work List	Site	Building Size: 64,192 Site Size: vvv			1 158	Capacity. Date:	475
	510		^^		Direct	Total	0/0/22
Subcategory			Unit	Direct	Cost w/	w/ Indirect	Phase /
Description	Qty.	Unit	Cost	Cost	Escalation	Costs	Series
-		_					
New Construction							
Build addition(s)				0	0	0	
11/ a			New Construc	tion Subtotal:	0	0	
Remodeling Passing Work							
- replace select roofing	1	lpsm	320,539	320,539	371,064	480,544	3
Architectural Work							
- abate asbestos for renovations	64,192	sqft	2.00	128,384	148,621	192,470	3
 replace doors, finishes, & fixed furnishings 	1	lpsm	1,537,304	1,537,304	1,779,622	2,304,688	3
 renovate restrooms for accessibility 	5,130	sqft	100.00	513,000	593,862	769,077	2
 renovate space for special education program 	1,200	sqft	200.00	240,000	277,830	359,802	2
 renovate space for kindergarten 	4,481	sqft	75.00	336,075	389,049	503,835	3
- renovate media center	11,353	sqft	85.00	965,005	1,117,114	1,446,711	3
Mechanical Work							
 upgrade plumbing & HVAC systems 	1	lpsm	1,563,460	1,563,460	1,809,900	2,343,900	3
Electrical Work							
- upgrade nower & lighting systems	1	Insm	817 728	817 728	946 622	1 225 917	з
upgrade power & lighting systems	•	tpsin	Construc	tion Subtotal:	7.433.684	9.626.946	5
Technology Infrastructure							
 upgrade network/phone/security infrastructure 	64,192	sqft	2.40	154,061	178,345	196,554	3
- install tech infrastructure for additions	11,353	sqft	3.00	34,059	39,428	51,060	3
			Remode	ling Subtotal:	7,651,456	9,874,560	
Instructional Technology Equipment							
- purchase A/V systems & instructional devices	64,192	saft	8.90	571,309	661,361	728,886	3
, ,	Instruct	ional Te	chnology Equipn	nent Subtotal:	661,361	728,886	
Lassa Functional Functionian O Function							
- purchase loose furniture & furnishings	1	Incm	630 000 00	630 000	6/,8 000	763 755	3
- nurchase kitchen equipment	1	Insm		13 000	15 071	17 738	3
purchase kitchen equipment	Loose Furnitur	e. Furnis	shinas. & Eauion	nent Subtotal:	663.971	781.493	5
Site Work							
Paving Work		1	100 /05	100 /05	1/1 70/	100 550	2
- replace paving (parking lot, drives, sidewalks)	I	lpsm	122,435	122,435	141,734	183,552	3
- replace playaround equipment & fived furnishings	1	Incm	270 000	270.000	212 550	404 777	n
- upgrade playground surface & equipment (ADA)	1	lpsm	270,000	270,000	312,337	404,777	2
- upgrade playground surface & equipment (ADA)	1	lpsin	Site W	/ork Subtotal:	818 945	1 060 570	Z
			JIC		010,740	.,000,070	
			E	Building Total:	9,795,733	12,445,509	
			Construction	Contingency:	954,382		
Notes:			Field Gener	al Conditions:	319,244	0	Series 1
Indirect Costs include contingency, general conditions of	& professional i	fees	Desig	n Consultants:	715,314	2,005,896	Series 2
			Construc	tion Manager:	660,835	10,439,613	Series 3
BARTUN MAUW BUILDERS			PR	UJECT TUTAL:	12,445,509	12,445,509	Total

Building Utilization

School Building Name

Bemis Elementary School

Project No. 2

 Current Grade Structure
 K-5

 Proposed Grade Structure
 K-5

- 1. List the number of teaching stations in appropriate column.
- 2. Calculate total capacity using the applicable capacity factor.
- 3. Enter five (5) year projected enrollment.
- 4. Calculate building utilization rate.
- 5. Attach floor plan of the building. Show the rooms and category (existing, proposed new, closed).
- 6. Number the teaching stations in consecutive order.

Existing	List # of Teaching Stations	Capacity Factor	Capacity
(K-2) Lower Elementary	11	20	220
(3-5) Upper Elementary	11	25	275
(6-8) Junior High	0	22.5	0
(9-12) High School	0	21.25	0
Subtotal	22		495
Proposed New	List # of Teaching Stations	Capacity Factor	Capacity
(K-2) Lower Elementary	0	20	0
(3-5) Upper Elementary	0	25	0
(6-8) Junior High	0	22.5	0
(9-12) High School	0	21.25	0
Subtotal	0		0

Facility to be Closed	List # of Teaching Stations	Capacity Factor	Capacity
(K-2) Lower Elementary	0	20	0
(3-5) Upper Elementary	0	25	0
(6-8) Junior High	0	22.5	0
(9-12) High School	0	21.25	0
Total	0		0

Projected 5-Year Enrollment 456

Utilization Percentage 92%

(Projected 5-Year Enrollment / Total Capacity)

Please transfer applicable information to the Utilization Summary on Page 6 of the application.





Red = New Construction

Orange = General Remodeling

Blue = Circulation / Collaboration - Remodeling

This plan represents a conceptual idea of upgrades proposed at this building. A design committee will be participating in the ultimate planning and design of these upgrades when the project is approved to move forward.

Project Sheet

	Project No. 3
n/a	
renovate restrooms & renovate space for	special education use
replace roofing, renovate interior space lighting systems, upgrade network infras equipment, purchase furniture & kitchen e	e, upgrade mechanical systems, upgrade structure, purchase instructional technology equipment
purchase audio visual systems for class for students & teachers	rooms, and purchase instructional devices
replace paving & upgrade playgrounds	
	n/a renovate restrooms & renovate space for replace roofing, renovate interior space lighting systems, upgrade network infras equipment, purchase furniture & kitchen e purchase audio visual systems for class for students & teachers replace paving & upgrade playgrounds

Construction Cost Per Square Foot

New Construction Square Ft	0	Cost per Sq Ft	n/a
New Addition Square Ft.	0	Cost per Sq Ft	n/a

Statement describing any existing environmental or usability problems the proposed project will address. (ex: asbestos, energy use, or ADA requirements)

abate asbestos prior to renovations, upgrade temperature control systems & upgrade lighting system for energy savings

Estimated Cost of Proposed Construction Project

Column1	Series 1	Series 2	Series 3	Total
New Construction	\$0	\$0	\$0	\$0
Remodeling	\$0	\$480,414	\$5,655,723	\$6,136,138
Construction Contingencies	\$0	\$115,762	\$724,315	\$840,078
Instructional Technology	\$0	\$0	\$536,316	\$536,316
Loose Furnishing/Equipment	\$0	\$0	\$690,054	\$690,054
Buses	\$0	\$0	\$0	\$0
Site Work	\$0	\$677,211	\$565,340	\$1,242,551
Site Acquisition	\$0	\$0	\$0	\$0
Architectural Fees and Costs	\$0	\$88,962	\$541,959	\$630,921
CM Fees and Costs	\$0	\$136,825	\$718,205	\$855,030
Estimated Costs	\$0	\$1,499,175	\$9,431,912	\$10,931,087

Certificate by Registered Architect

I certify that I have assessed the conditions relative to this facility and the details of the proposed project(s) described above and the attached detail relative to the construction project(s) are true and correct to the best of my knowledge and belief.

Amanaastonam	6/15/2022	TMP Architecture 21298
Signature	Date	Firm Name and License Number

John J Castellana, FAIA Printed Name

jcastellana@tmp-architecture.com E-mail Address

TROY SCHOOL DISTRICT	PRELIMINARY - FOR DISCUSSION PURPOSE ONLY Grades: K-5					K-5	
2022 Bond Program				5% per year	Enrollment:	411	
Costello Elementary School	Year Built: 1972			for 4 years	Classrooms:	18	
1333 Hamman, Troy, MI	Building	Building Size: 52,055				Capacity:	405
Building Project Work List	Site	e Size: 2	3.00		1.158	Date:	6/6/22
Category					Direct	Total	
Subcategory			Unit	Direct	Cost w/	w/ Indirect	Phase /
Description	Qty.	Unit	Cost	Cost	Escalation	Costs	Series
New Construction							
Build addition(s)							
- n/a				0	0	0	
			New Construc	tion Subtotal:	0	0	
Remodeling							
Roofing Work							
- replace select roofing	1	lpsm	820,893	820,893	950,286	1,230,662	3
Architectural Work							
- abate asbestos for renovations	52,055	sqft	2.00	104,110	120,520	156,079	3
 replace doors, finishes, & fixed furnishings 	1	lpsm	1,319,885	1,319,885	1,527,932	1,978,739	3
 renovate restrooms for accessibility 	1,000	sqft	175.00	175,000	202,584	262,356	2
 renovate space for special education program 	1,200	sqft	200.00	240,000	277,830	359,802	2
 renovate space for kindergarten 	2,714	sqft	85.00	230,690	267,053	345,845	3
- renovate media center	5,753	sqft	85.00	489,005	566,084	733,104	3
Mechanical Work							
 upgrade plumbing & HVAC systems 	1	lpsm	965,275	965,275	1,117,426	1,447,116	3
		•					
- upgrade power & lighting systems	1	Incm	813 577	Q12 577	0/1 010	1 210 405	3
upgrade power & lighting systems	1	thau	Construc	tion Subtotal:	5 971 534	7 733 398	5
Technology Infrastructure			oonstruc		0,771,004	11.001010	
 upgrade network/phone/security infrastructure 	52,055	sqft	2.40	124,932	144,624	159,391	3
 install tech infrastructure for additions 	5,753	sqft	3.00	17,259	19,979	25,874	3
			Remode	ling Subtotal:	6,136,138	7,918,662	
Instructional Technology Equipment							
- purchase A/V systems & instructional devices	52.055	saft	8.90	463,290	536.316	591.073	3
	Instruct	ional Te	chnology Equipn	nent Subtotal:	536,316	591,073	
Loose Furniture, Furnishings & Equipment	1	Inom	(20.000.00	(20.000	649.000	742 755	2
- purchase kitchen equipment	1	Insm	35 500 00	35 500	648,700	/03,/33	3
	Loose Furnitur	e. Furnis	shinas. & Eauipn	nent Subtotal:	690.054	812.194	
		-,					
Site Work							
Paving Work	1	Inom	(00.242	(00.272	E4E 240	722 1/0	C
- Teplace paving (parking lot, drives, sidewalks)	I	lpsm	400,302	400,302	505,540	732,140	3
- replace playaround equipment & fixed furnishings	1	Insm	270 000	270 000	312 559	404 777	2
- upgrade playground surface & equipment (ADA)	1	Insm	315 000	315 000	364 652	404,777	2
	·	tpom	Site W	ork Subtotal:	1,242,551	1,609,157	2
					0 (05 050	10 021 007	
			Construction	Contingency:	8,005,058	10,931,087	
Notes:			Field Construction	al Conditions:			Series 1
Indirect Costs include contingency, general conditions	& professional	60c		arconations.	630 921	1 / 99 175	Series 7
maneer costs metade contingency, general conditions a		003	Design	tion Manager:	576 519	9 431 912	Series 3
BARTON MAOW BUILDERS				DJECT TOTAL	10.931.087	10.931.087	Total

Building Utilization

School Building Name

Costello Elementary School

Project No. 3

 Current Grade Structure
 K-5

 Proposed Grade Structure
 K-5

- 1. List the number of teaching stations in appropriate column.
- 2. Calculate total capacity using the applicable capacity factor.
- 3. Enter five (5) year projected enrollment.
- 4. Calculate building utilization rate.
- 5. Attach floor plan of the building. Show the rooms and category (existing, proposed new, closed).
- 6. Number the teaching stations in consecutive order.

Existing	List # of Teaching Stations	Capacity Factor	Capacity
(K-2) Lower Elementary	9	20	180
(3-5) Upper Elementary	9	25	225
(6-8) Junior High	0	22.5	0
(9-12) High School	0	21.25	0
Subtotal	18		405
Proposed New	List # of Teaching Stations	Capacity Factor	Capacity
(K-2) Lower Elementary	0	20	0
(3-5) Upper Elementary	0	25	0
(6-8) Junior High	0	22.5	0
(9-12) High School	0	21.25	0
Subtotal	0		0
Total	10		405

Facility to be Closed	List # of Teaching Stations	Capacity Factor	Capacity
(K-2) Lower Elementary	0	20	0
(3-5) Upper Elementary	0	25	0
(6-8) Junior High	0	22.5	0
(9-12) High School	0	21.25	0
Total	0		0

Projected 5-Year Enrollment 414

Utilization Percentage 102%

(Projected 5-Year Enrollment / Total Capacity)

Please transfer applicable information to the Utilization Summary on Page 6 of the application.



PROJECT NO.3

Blue / Red Stripe = Major Remodeling

Red = New Construction

Orange = General Remodeling

This plan represents a conceptual idea of upgrades proposed at this building. A design committee will be participating in the ultimate planning and design of these upgrades when the project is approved to move forward.

Blue = Circulation / Collaboration - Remodeling

Project Sheet

Hamilton Elementary School		Project No. 4
Description of Series 1	n/a	
Description of Series 2	renovate restrooms & renovate space for	special education use
Description of Series 3	replace roofing, renovate interior space lighting systems, upgrade network infras equipment, purchase furniture & kitchen e	e, upgrade mechanical systems, upgrade structure, purchase instructional technology equipment
Instructional Technology Description	purchase audio visual systems for class for students & teachers	rooms, and purchase instructional devices
Site Work Description	replace paving & upgrade playgrounds	

Construction Cost Per Square Foot

New Construction Square Ft	0	Cost per Sq Ft	n/a
New Addition Square Ft.	0	Cost per Sq Ft	n/a

Statement describing any existing environmental or usability problems the proposed project will address. (ex: asbestos, energy use, or ADA requirements)

abate asbestos prior to renovations, upgrade temperature control systems & upgrade lighting system for energy savings

Estimated Cost of Proposed Construction Project

Column1	Series 1	Series 2	Series 3	Total
New Construction	\$0	\$0	\$0	\$0
Remodeling	\$0	\$871,692	\$7,861,032	\$8,732,724
Construction Contingencies	\$0	\$153,733	\$972,777	\$1,126,510
Instructional Technology	\$0	\$0	\$661,361	\$661,361
Loose Furnishing/Equipment	\$0	\$0	\$663,971	\$663,971
Buses	\$0	\$0	\$0	\$0
Site Work	\$0	\$665,634	\$793,318	\$1,458,952
Site Acquisition	\$0	\$0	\$0	\$0
Architectural Fees and Costs	\$0	\$118,142	\$729,451	\$847,592
CM Fees and Costs	\$0	\$181,704	\$1,001,822	\$1,183,526
Estimated Costs	\$0	\$1,990,904	\$12,683,732	\$14,674,636

Certificate by Registered Architect

I certify that I have assessed the conditions relative to this facility and the details of the proposed project(s) described above and the attached detail relative to the construction project(s) are true and correct to the best of my knowledge and belief.

Ann astonann	6/15/2022	TMP Architecture 21298
Signature	Date	Firm Name and License Number

John J Castellana, FAIA Printed Name

jcastellana@tmp-architecture.com

248-338-4561 Phone Number

TROY SCHOOL DISTRICT	PRELIMINARY - FOR DISCUSSION PURPOSE ONLY Grades: K-5					K-5	
2022 Bond Program				5% per year	Enrollment:	411	
Hamilton Elementary School	Year	Year Built: 1983 Building Size: 64,192			for 4 years	Classrooms:	20
5625 Northfield Pakway, Troy, MI	Building					Capacity:	455
Building Project Work List	Site	e Size: x	xx		1.158	Date:	6/6/22
Category					Direct	Total	
Subcategory			Unit	Direct	Cost w/	w/ Indirect	Phase /
Description	Qty.	Unit	Cost	Cost	Escalation	Costs	Series
New Construction							
Build addition(s)							
- n/a				0	0	0	
			New Construc	tion Subtotal:	0	0	
Remodeling							
Roofing Work							
- replace select roofing	1	lpsm	969,435	969,435	1,122,242	1,453,353	3
Architectural Work							
- abate asbestos for renovations	64,192	sqft	2.00	128,384	148,621	192,470	3
 replace doors, finishes, & fixed furnishings 	1	lpsm	1,702,160	1,702,160	1,970,463	2,551,836	3
 renovate restrooms for accessibility 	5,130	sqft	100.00	513,000	593,862	769,077	2
 renovate space for special education program 	1,200	sqft	200.00	240,000	277,830	359,802	2
 renovate space for kindergarten 	4,481	sqft	75.00	336,075	389,049	503,835	3
- renovate media center	11,353	sqft	85.00	965,005	1,117,114	1,446,711	3
Mechanical Work							
 upgrade plumbing & HVAC systems 	1	lpsm	1,660,460	1,660,460	1,922,190	2,489,320	3
- upgrado power & lighting systems	1	lncm	8/1 01/	8/1 01/	072 591	1 260 820	3
- upgrade power & lighting systems	I	lpsin	Construc	tion Subtotal:	8 514 952	11 027 235	3
Technology Infrastructure			Construc		0,014,702	11,027,200	
 upgrade network/phone/security infrastructure 	64.192	saft	2.40	154.061	178.345	196.554	3
 install tech infrastructure for additions 	11,353	saft	3.00	34,059	39,428	51,060	3
			Remode	ling Subtotal:	8,732,724	11,274,849	
Instructional Technology Equipment							
- purchase A/V systems & instructional devices	64,192	saft	8,90	571.309	661.361	728.886	3
	Instruct	ional Te	chnology Equipm	nent Subtotal:	661,361	728,886	-
					-	-	
Loose Furniture, Furnishings & Equipment	1	la e es	(20.000.00	(20.000	((0.000	7/2 755	2
- purchase loose furniture & furnishings	1	lpsm		630,000	648,900 15 071	/03,/55	3
	oose Furnitur	e Furnis	hings & Fauing	ent Subtotal	663 971	781 493	3
		c, runna	nings, a Equipi		000,771	701,470	
Site Work							
Paving Work	-		(05.000	(05.000	700 010	1 007 000	2
 replace paving (parking lot, drives, sidewalks) 	I	lpsm	685,298	685,298	/93,318	1,027,382	3
Site Improvements	1	1	2/0.000	2/0.000	200.002	200 70/	2
- replace playground equipment & fixed furnishings	1	lpsm	260,000	260,000	300,982	389,780	2
- upgrade playground surface & equipment (ADA)	I	tpsm	315,000		304,052	472,240	Z
			SILE W	ork Subtotat:	1,430,732	1,007,40/	
				Building Total:	11,517,008	14,674,636	
			Construction	Contingency:	1,126,510		
Notes:			Field Gener	al Conditions:	385,513		Series 1
Indirect Costs include contingency, general conditions &	professional	fees	Desigr	n Consultants:	847,592	1,990,904	Series 2
			Construc	tion Manager:	798,012	12,683,732	Series 3
BARTON MAOW BUILDERS			PRO	DJECT TOTAL:	14,674,636	14,674,636	Total

Building Utilization

School Building Name

Hamilton Elementary School

Project No. 4

 Current Grade Structure
 K-5

 Proposed Grade Structure
 K-5

- 1. List the number of teaching stations in appropriate column.
- 2. Calculate total capacity using the applicable capacity factor.
- 3. Enter five (5) year projected enrollment.
- 4. Calculate building utilization rate.
- 5. Attach floor plan of the building. Show the rooms and category (existing, proposed new, closed).
- 6. Number the teaching stations in consecutive order.

Fxisting	List # of Teaching Stations	Capacity Factor	Canacity
(K-2) Lower Elementary	9	20	180
(3-5) Upper Elementary	11	25	275
(6-8) Junior High	0	22.5	0
(9-12) High School	0	21.25	0
Subtotal	20		455
	List # of		
Proposed New	Teaching Stations	Capacity Factor	Capacity
Proposed New (K-2) Lower Elementary	Teaching Stations	Capacity Factor 20	Capacity 0
Proposed New (K-2) Lower Elementary (3-5) Upper Elementary	TeachingStations00	Capacity Factor 20 25	Capacity 0
Proposed New (K-2) Lower Elementary (3-5) Upper Elementary (6-8) Junior High	Teaching Stations0000	Capacity Factor 20 25 22.5	Capacity 0 0 0 0
Proposed New (K-2) Lower Elementary (3-5) Upper Elementary (6-8) Junior High (9-12) High School	Teaching Stations000000	Capacity Factor 20 25 22.5 21.25	Capacity 0 0 0 0 0 0
Proposed New (K-2) Lower Elementary (3-5) Upper Elementary (6-8) Junior High (9-12) High School Subtotal	Teaching Stations 0 0 0 0 0 0 0 0 0 0 0 0 0	Capacity Factor 20 25 22.5 21.25	Capacity 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

Facility to be Closed	List # of Teaching Stations	Capacity Factor	Capacity
(K-2) Lower Elementary	0	20	0
(3-5) Upper Elementary	0	25	0
(6-8) Junior High	0	22.5	0
(9-12) High School	0	21.25	0
Total	0		0

Projected 5-Year Enrollment 442

Utilization Percentage 97%

(Projected 5-Year Enrollment / Total Capacity)

Please transfer applicable information to the Utilization Summary on Page 6 of the application.



Red = New Construction

Orange = General Remodeling

Blue = Circulation / Collaboration - Remodeling

This plan represents a conceptual idea of upgrades proposed at this building. A design committee will be participating in the ultimate planning and design of these upgrades when the project is approved to move forward.

Project Sheet

Hill Elementary School		Project No. 5	
Description of Series 1	n/a		
Description of Series 2	renovate restrooms & renovate space for	special education use	
Description of Series 3	replace roofing, renovate interior space lighting systems, upgrade network infras equipment, purchase furniture & kitchen e	e, upgrade mechanical sy tructure, purchase instructi quipment	stems, upgrade ional technology
Instructional Technology Description	purchase audio visual systems for class for students & teachers	rooms, and purchase instr	uctional devices
Site Work Description	replace paving & upgrade playgrounds		

Construction Cost Per Square Foot

New Construction Square Ft	0	Cost per Sq Ft	n/a
New Addition Square Ft.	0	Cost per Sq Ft	n/a

Statement describing any existing environmental or usability problems the proposed project will address. (ex: asbestos, energy use, or ADA requirements)

abate asbestos prior to renovations, upgrade temperature control systems & upgrade lighting system for energy savings

Estimated Cost of Proposed Construction Project

Column1	Series 1	Series 2	Series 3	Total
New Construction	\$0	\$0	\$0	\$0
Remodeling	\$0	\$509,992	\$4,823,548	\$5,333,539
Construction Contingencies	\$0	\$118,720	\$652,857	\$771,577
Instructional Technology	\$0	\$0	\$559,816	\$559,816
Loose Furnishing/Equipment	\$0	\$0	\$729,203	\$729,203
Buses	\$0	\$0	\$0	\$0
Site Work	\$0	\$677,211	\$629,235	\$1,306,445
Site Acquisition	\$0	\$0	\$0	\$0
Architectural Fees and Costs	\$0	\$91,235	\$486,403	\$577,638
CM Fees and Costs	\$0	\$140,321	\$626,649	\$766,970
Estimated Costs	\$0	\$1,537,479	\$8,507,709	\$10,045,188

Certificate by Registered Architect

I certify that I have assessed the conditions relative to this facility and the details of the proposed project(s) described above and the attached detail relative to the construction project(s) are true and correct to the best of my knowledge and belief.

Amagastonann	6/15/2022	TMP Architecture 21298
Signature	Date	Firm Name and License Number

John J Castellana, FAIA Printed Name

jcastellana@tmp-architecture.com

248-338-4561 Phone Number

TROY SCHOOL DISTRICT	PREI IMINARY - EOR DISCUSSION PURPOSE ONLY Grades: K-5				K-5		
2022 Bond Program	FRELIMINART - FOR DISCOSSION FORP				5% per vear	Enrollment:	411
Hill Elementary School	Year	· Built: 1	967		for 4 vears	Classrooms:	17
4600 Forsyth Drive Troy MI	Building	Size: 5	4 336			Capacity:	385
Building Project Work List	Site	e Size: x	xx		1.158	Date:	6/6/22
Category					Direct	Total	
Subcategory			Unit	Direct	Cost w/	w/ Indirect	Phase /
Description	Qtv	Unit	Cost	Cost	Escalation	Costs	Series
New Construction							
Build addition(s)						0	
- n/a			New Construct	u ion Subtotal:	0	0	
			New Construct	ion Sublotat.	0	U	
Remodeling							
Roofing Work							
 replace select roofing 	1	lpsm	895,789	895,789	1,036,988	1,342,945	3
Architectural Work							
- abate asbestos for renovations	54,336	sqft	2.00	108,672	125,801	162,918	3
 replace doors, finishes, & fixed furnishings 	1	lpsm	868,736	868,736	1,005,671	1,302,387	3
 renovate restrooms for accessibility 	1,146	sqft	175.00	, 200,550	232,162	300,660	2
 renovate space for special education program 	1.200	saft	200.00	, 240,000	, 277.830	, 359,802	2
- renovate space for kindergarten	2 830	saft	75.00	212 250	245 706	318 200	3
- renovate media center	6 283	saft	85.00	534 055	618 235	800 642	3
	0,205	Sqrt	03.00	334,033	010,200	000,042	5
Mechanical Work							
 upgrade plumbing & HVAC systems 	1	lpsm	769,180	769,180	890,422	1,153,135	3
Electrical Work							
- upgrade power & lighting systems	1	lnsm	628 824	628 824	727 942	942 717	3
upgrude power & lighting systems		tpom	Construct	ion Subtotal:	5 160 758	6 683 607	5
Technology Infrastructure			Construct		0,100,700	0,000,407	
- upgrade petwork/phone/security infrastructure	5/ 336	saft	2 /0	130 /04	150 962	166 375	3
- install tach infrastructure for additions	6 283	sqit	2.40	19 8/0	21 820	28 258	3
	0,205	sqit	S.00	ing Subtotal:	5 333 539	6 878 060	5
			Kembue	ing Subtotat.	3,333,337	0,070,040	
Instructional Technology Equipment							
 purchase A/V systems & instructional devices 	54,336	sqft	8.90	483,590	559,816	616,974	3
	Instruct	ional Te	chnology Equipm	ent Subtotal:	559,816	616,974	
Loose Furniture. Furnishinas & Equipment							
- purchase loose furniture & furnishings	1	lpsm	650,000.00	650,000	669,500	788,002	3
- purchase kitchen equipment	1	lpsm	51,500.00	51,500	59,703	70,270	3
La	ose Furnitur	e, Furnis	hings, & Equipm	ent Subtotal:	729,203	858,271	
Cite Wash							
Site work Paving Work							
- roplace paving (parking let drives sidewalks)	1	lncm	5/3 554	5/3 556	620 225	81/ 884	3
Cito Improvemente	I	thau	545,550	545,550	027,233	014,000	5
site improvements	1	Inom	270.000	270.000	212 550	101 777	n
- replace playground equipment & fixed furnishings	1	lasm	270,000	270,000	312,339	404,777	2
- upgrade playground surface & equipment (ADA)	I	lpsm	315,000	315,000	304,052	472,240	Z
			Site W	ork Subtotal:	1,306,445	1,691,904	
			В	uilding Total:	7,929,003	10,045,188	
			Construction	Contingency:	771,577		
Notes:			Field Genera	al Conditions:	249,827		Series 1
Indirect Costs include contingency, general conditions &	orofessional	fees	Design	Consultants:	577,638	1,537,479	Series 2
			Construct	ion Manager:	517,143	8,507,709	Series 3
BARTON MAOW BUILDERS			PRO	JECT TOTAL:	10,045,188	10,045,188	Total

Building Utilization

School Building Name

Hill Elementary School

Project No. 5

 Current Grade Structure
 K-5

 Proposed Grade Structure
 K-5

- 1. List the number of teaching stations in appropriate column.
- 2. Calculate total capacity using the applicable capacity factor.
- 3. Enter five (5) year projected enrollment.
- 4. Calculate building utilization rate.
- 5. Attach floor plan of the building. Show the rooms and category (existing, proposed new, closed).
- 6. Number the teaching stations in consecutive order.

Evisting	List # of Teaching	Capacity	
Existing	Stations	Factor	Capacity
(K-2) Lower Elementary	9	20	180
(3-5) Upper Elementary	9	25	225
(6-8) Junior High	0	22.5	0
(9-12) High School	0	21.25	0
Subtotal	18		405
Proposed New	List # of Teaching Stations	Capacity Factor	Capacity
(K-2) Lower Elementary	0	20	0
(3-5) Upper Elementary	0	25	0
(6-8) Junior High	0	22.5	0
(9-12) High School	0	21.25	0
Subtotal	0		0
Total	18		405

Facility to be Closed	Teaching Stations	Capacity Factor	Capacity
(K-2) Lower Elementary	0	20	0
(3-5) Upper Elementary	0	25	0
(6-8) Junior High	0	22.5	0
(9-12) High School	0	21.25	0
Total	0		0

List # of

Projected 5-Year Enrollment 355

Utilization Percentage 88%

(Projected 5-Year Enrollment / Total Capacity)

Please transfer applicable information to the Utilization Summary on Page 6 of the application.


Leonard Elementary School		Project No.	6
Description of Series 1	n/a		
Description of Series 2	renovate restrooms & renovate space for	special education use	
Description of Series 3	replace roofing, renovate interior space lighting systems, upgrade network infras equipment, purchase furniture & kitchen e	e, upgrade mechanica structure, purchase inst equipment	I systems, upgrade tructional technology
Instructional Technology Description	purchase audio visual systems for class for students & teachers	rooms, and purchase	instructional devices
Site Work Description	replace paving & upgrade playgrounds		

Construction Cost Per Square Foot

New Construction Square Ft	0	Cost per Sq Ft	n/a
New Addition Square Ft.	0	Cost per Sq Ft	n/a

Statement describing any existing environmental or usability problems the proposed project will address. (ex: asbestos, energy use, or ADA requirements)

abate asbestos prior to renovations, upgrade temperature control systems & upgrade lighting system for energy savings

Estimated Cost of Proposed Construction Project

Column1	Series 1	Series 2	Series 3	Total
New Construction	\$0	\$0	\$0	\$0
Remodeling	\$0	\$944,333	\$4,443,351	\$5,387,684
Construction Contingencies	\$0	\$162,154	\$612,112	\$774,266
Instructional Technology	\$0	\$0	\$610,136	\$610,136
Loose Furnishing/Equipment	\$0	\$0	\$695,538	\$695,538
Buses	\$0	\$0	\$0	\$0
Site Work	\$0	\$677,211	\$604,497	\$1,281,707
Site Acquisition	\$0	\$0	\$0	\$0
Architectural Fees and Costs	\$0	\$124,614	\$453,700	\$578,314
CM Fees and Costs	\$0	\$191,658	\$577,184	\$768,842
Estimated Costs	\$0	\$2,099,969	\$7,996,517	\$10,096,486

Certificate by Registered Architect

I certify that I have assessed the conditions relative to this facility and the details of the proposed project(s) described above and the attached detail relative to the construction project(s) are true and correct to the best of my knowledge and belief.

Amagastonann	6/15/2022	TMP Architecture 21298
Signature	Date	Firm Name and License Number

John J Castellana, FAIA Printed Name

_ jcastellana@tmp-architecture.com 2 E-mail Address Pho

TROY SCHOOL DISTRICT	PRELIMINARY - FOR DISCUSSION PURPOSE ONLY Grades: K-5					K-5	
2022 Bond Program						Enrollment:	411
Leonard Elementary School	Year Built: 1959			for 4 years	Classrooms:	18	
4401 Tallman Drive, Troy, MI	Building	Building Size: 59,220				Capacity:	405
Building Project Work List	Site	e Size: x	xx		1.158	Date:	6/6/22
Category					Direct	Total	
Subcategory			Unit	Direct	Cost w/	w/ Indirect	Phase /
Description	Qty.	Unit	Cost	Cost	Escalation	Costs	Series
New Construction							
Build addition(s)							
- n/a				0 _	0	0	
			New Construct	tion Subtotal:	0	0	
Remodeling							
Roofing Work							
- replace select roofing	1	lpsm	298,727	298,727	345,814	447,844	3
Architectural Work							
- abate asbestos for renovations	59,220	sqft	2.00	118,440	137,109	177,562	3
 replace doors, finishes, & fixed furnishings 	1	lpsm	811,195	811,195	939,060	1,216,123	3
 renovate restrooms for accessibility 	3,290	sqft	175.00	575,750	666,503	863,150	2
 renovate space for special education program 	1,200	sqft	200.00	240,000	277,830	359,802	2
 renovate space for kindergarten 	2,922	sqft	85.00	248,370	287,519	372,350	3
- renovate media center	5,603	sqft	85.00	476,255	551,325	713,990	3
Mechanical Work							
- upgrade plumbing & HVΔC systems	1	Insm	1 048 600	1 048 600	1 213 886	1 572 035	3
	·	tpom	1,040,000	1,040,000	1,210,000	1,072,000	0
Electrical Work							
 upgrade power & lighting systems 	1	lpsm	677,810	677,810	784,650	1,016,156	3
To book a lateration of the			Construc	tion Subtotal:	5,203,694	6,739,012	
lechnology Intrastructure	50.000		2 (0	1 (0 1 0 0	1// 501	101 220	2
- upgrade network/phone/security intrastructure	59,220	sqft	2.40	142,128	164,531	181,330	3
- Install tech intrastructure for additions	5,003	sqrt	3.00 Bemode		19,459 5 397 696	25,200 6 945 541	3
			Kenibue	ang Subtotat.	3,307,004	0,743,341	
Instructional Technology Equipment							
 purchase A/V systems & instructional devices 	59,220	sqft	8.90	527,058	610,136	672,430	3
	Instruct	ional Te	chnology Equipm	ent Subtotal:	610,136	672,430	
Loose Furniture, Furnishings & Equipment							
- purchase loose furniture & furnishings	1	lpsm	610,000.00	610,000	628,300	739,509	3
 purchase kitchen equipment 	1	lpsm	58,000.00	58,000	67,238	79,139	3
I	.oose Furnitur	e, Furnis	shings, & Equipm	ent Subtotal:	695,538	818,648	
Site Work							
Paving Work							
 replace paving (parking lot, drives, sidewalks) 	1	lpsm	522,187	522,187	604,497	782,850	3
Site Improvements							
 replace playground equipment & fixed furnishings 	1	lpsm	270,000	270,000	312,559	404,777	2
 upgrade playground surface & equipment (ADA) 	1	lpsm	315,000	315,000	364,652	472,240	2
			Site W	ork Subtotal:	1,281,707	1,659,867	
			B	uilding <u>Total:</u>	7,975,064	10,0 <u>96,48</u> 6	
			Construction	Contingency:	774,266		
Notes:			Field Gener	al Conditions:	250,437		Series 1
Indirect Costs include contingency, general conditions &	professional i	fees	Desigr	n Consultants:	578,314	2,099,969	Series 2
			Construct	tion Manager:	518,405	7,996,517	Series 3
BARTON MAOW BUILDERS			PRC	DJECT TOTAL:	10,096,486	10,096,486	Total

School Building Name

Leonard Elementary School

Project No. 6

 Current Grade Structure
 K-5

 Proposed Grade Structure
 K-5

- 1. List the number of teaching stations in appropriate column.
- 2. Calculate total capacity using the applicable capacity factor.
- 3. Enter five (5) year projected enrollment.
- 4. Calculate building utilization rate.
- 5. Attach floor plan of the building. Show the rooms and category (existing, proposed new, closed).
- 6. Number the teaching stations in consecutive order.

Existing	List # of Teaching Stations	Capacity Factor	Capacity
(K-2) Lower Elementary	10	20	200
(3-5) Upper Elementary	9	25	225
(6-8) Junior High	0	22.5	0
(9-12) High School	0	21.25	0
Subtotal	19		425
	List # of		
Proposed New	Teaching Stations	Capacity Factor	Capacity
Proposed New (K-2) Lower Elementary	Teaching Stations 0	Capacity Factor 20	Capacity 0
Proposed New (K-2) Lower Elementary (3-5) Upper Elementary	TeachingStations00	Capacity Factor 20 25	Capacity 0 0
Proposed New (K-2) Lower Elementary (3-5) Upper Elementary (6-8) Junior High	TeachingStations0000	Capacity Factor 20 25 22.5	Capacity 0 0 0
Proposed New (K-2) Lower Elementary (3-5) Upper Elementary (6-8) Junior High (9-12) High School	TeachingStations000000	Capacity Factor 20 25 22.5 21.25	Capacity 0 0 0 0 0 0
Proposed New (K-2) Lower Elementary (3-5) Upper Elementary (6-8) Junior High (9-12) High School Subtotal	TeachingStations0000000000	Capacity Factor 20 25 22.5 21.25	Capacity 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

Facility to be Closed	List # of Teaching Stations	Capacity Factor	Capacity
(K-2) Lower Elementary	0	20	0
(3-5) Upper Elementary	0	25	0
(6-8) Junior High	0	22.5	0
(9-12) High School	0	21.25	0
Total	0		0

Projected 5-Year Enrollment 392

Utilization Percentage 92%

(Projected 5-Year Enrollment / Total Capacity)



This plan represents a conceptual idea of upgrades proposed at this building. A design committee will be participating in the ultimate planning and design of these upgrades when the project is approved to move forward.

Blue = Circulation / Collaboration - Remodeling

Orange = General Remodeling

Martell Elementary School		Project No. 7
Description of Series 1	n/a	
Description of Series 2	renovate restrooms & renovate space for	special education use
Description of Series 3	renovate interior space, upgrade mecha upgrade network infrastructure, purch purchase furniture & kitchen equipment	anical systems, upgrade lighting systems, ase instructional technology equipment,
Instructional Technology Description	purchase audio visual systems for class for students & teachers	rooms, and purchase instructional devices
Site Work Description	replace paving & upgrade playgrounds	

Construction Cost Per Square Foot

New Construction Square Ft	0	Cost per Sq Ft	n/a
New Addition Square Ft.	0	Cost per Sq Ft	n/a

Statement describing any existing environmental or usability problems the proposed project will address. (ex: asbestos, energy use, or ADA requirements)

abate asbestos prior to renovations, upgrade temperature control systems & upgrade lighting system for energy savings

Estimated Cost of Proposed Construction Project

Column1	Series 1	Series 2	Series 3	Total
New Construction	\$0	\$0	\$0	\$0
Remodeling	\$0	\$480,414	\$4,298,235	\$4,778,650
Construction Contingencies	\$0	\$115,762	\$559,213	\$674,976
Instructional Technology	\$0	\$0	\$543,981	\$543,981
Loose Furnishing/Equipment	\$0	\$0	\$679,621	\$679,621
Buses	\$0	\$0	\$0	\$0
Site Work	\$0	\$677,211	\$277,498	\$954,708
Site Acquisition	\$0	\$0	\$0	\$0
Architectural Fees and Costs	\$0	\$88,962	\$414,868	\$503,830
CM Fees and Costs	\$0	\$136,825	\$523,491	\$660,316
Estimated Costs	\$0	\$1,499,175	\$7,296,906	\$8,796,081

Certificate by Registered Architect

I certify that I have assessed the conditions relative to this facility and the details of the proposed project(s) described above and the attached detail relative to the construction project(s) are true and correct to the best of my knowledge and belief.

Amagastonann	6/15/2022	TMP Architecture 21298
Signature	Date	Firm Name and License Number

John J Castellana, FAIA Printed Name

TROY SCHOOL DISTRICT	PRELIMINARY - FOR DISCUSSION PURPOSE ONLY Grades: K-5					K-5	
2022 Bond Program				5% per year	Enrollment:	411	
Martell Elementary School	Year Built: 1972			for 4 years	Classrooms:	17	
5666 Livernois Road, Troy, MI	Building	Building Size: 52,799				Capacity:	385
Building Project Work List	Site	e Size: x	xx		1.158	Date:	6/6/22
Category					Direct	Total	
Subcategory			Unit	Direct	Cost w/	w/ Indirect	Phase /
Description	Qty.	Unit	Cost	Cost	Escalation	Costs	Series
New Construction							
Build addition(s)							
- n/a				0	0	0	
			New Construc	tion Subtotal:	0	0	
Remodeling							
Roofing Work							
- n/a				0	0	0	
Architectural Work							
- abate asbestos for renovations	52,799	sqft	2.00	105,598	122,243	158,310	3
 replace doors, finishes, & fixed furnishings 	1	lpsm	1,058,323	1,058,323	1,225,141	1,586,612	3
 renovate restrooms for accessibility 	1,000	sqft	175.00	175,000	202,584	262,356	2
 renovate space for special education program 	1,200	sqft	200.00	240,000	277,830	359,802	2
 renovate space for kindergarten 	2,714	sqft	85.00	230,690	267,053	345,845	3
- renovate media center	5,753	sqft	85.00	489,005	566,084	733,104	3
Mechanical Work							
 upgrade plumbing & HVAC systems 	1	lpsm	873,995	873,995	1,011,758	1,310,271	3
		•					
Electrical work	1	Incm	011 200	011 200	020 205	1 214 /15	2
- upgrade power & lighting systems	1	tpsm	011,307	011,307 	4 411 070	F 072 714	3
Technology Infractructure			Construc	cion Subcolat.	4,011,777	5,772,714	
- upgrade network/nhone/security infrastructure	52 799	saft	2 / 0	126 718	1//6 / 691	161 669	з
- install tech infrastructure for additions	5 753	saft	3 00	17 259	19 979	25 874	3
	07,00	oqit	Remode	ling Subtotal:	4,778,650	6,160,257	0
				-			
Instructional Technology Equipment	50 300		0.00	((0, 0) 1 1	E (0, 001	500 501	
 purchase A/V systems & instructional devices 	52,799	sqft	8.90	469,911	543,981	599,521	3
	Instruct	ional i e	cnnology Equipm	ient Subtotal:	543,981	599,521	
Loose Furniture, Furnishings & Equipment							
 purchase loose furniture & furnishings 	1	lpsm	630,000.00	630,000	648,900	763,755	3
 purchase kitchen equipment 	1	lpsm	26,500.00	26,500	30,721	36,158	3
I	.oose Furnitur	e, Furnis	shings, & Equipm	nent Subtotal:	679,621	799,914	
Site Work							
Paving Work							
 replace paving (parking lot, drives, sidewalks) 	1	lpsm	239,713	239,713	277,498	359,372	3
Site Improvements							
 replace playground equipment & fixed furnishings 	1	lpsm	270,000	270,000	312,559	404,777	2
 upgrade playground surface & equipment (ADA) 	1	lpsm	315,000	315,000	364,652	472,240	2
			Site W	ork Subtotal:	954,708	1,236,389	
			B	uilding Total:	6,956,960	8,796,081	
			Construction	Contingency:	674,976		
Notes:			Field Gener	al Conditions:	215,087	0	Series 1
Indirect Costs include contingency, general conditions &	<i>protessional</i> i	tees	Desigr	n Consultants:	503,830	1,499,175	Series 2
			Construc	tion Manager:	445,229	7,296,906	Series 3
BARTUN MAUW BUILDERS			PRO	JJECT TUTAL:	8,796,081	8,796,081	Total

School Building Name

Martell Elementary School

Project No. 7

Current Grade Structure	K-5
Proposed Grade Structure	K-5

- 1. List the number of teaching stations in appropriate column.
- 2. Calculate total capacity using the applicable capacity factor.
- 3. Enter five (5) year projected enrollment.
- 4. Calculate building utilization rate.
- 5. Attach floor plan of the building. Show the rooms and category (existing, proposed new, closed).
- 6. Number the teaching stations in consecutive order.

	List # of Teaching Capacity		
Existing	Stations	Factor	Capacity
(K-2) Lower Elementary	8	20	160
(3-5) Upper Elementary	8	25	200
(6-8) Junior High	0	22.5	0
(9-12) High School	0	21.25	0
Subtotal	16		360
Proposed New	List # of Teaching Stations	Capacity Factor	Capacity
(K-2) Lower Elementary	0	20	0
(3-5) Upper Elementary	0	25	0
(6-8) Junior High	0	22.5	0
(9-12) High School	0	0	
Subtotal	0		0

Facility to be Closed	List # of Teaching Stations	Capacity Factor	Capacity
(K-2) Lower Elementary	0	20	0
(3-5) Upper Elementary	0	25	0
(6-8) Junior High	0	22.5	0
(9-12) High School	0	21.25	0
Total	0		0

Projected 5-Year Enrollment 368

Utilization Percentage 102%

(Projected 5-Year Enrollment / Total Capacity)





Red = New Construction

Orange = General Remodeling

Blue = Circulation / Collaboration - Remodeling

This plan represents a conceptual idea of upgrades proposed at this building. A design committee will be participating in the ultimate planning and design of these upgrades when the project is approved to move forward.

Morse Elementary School		Project No. 8
Description of Series 1	build art room & storage space, renovate purchase furniture for addition	interior space, install network infrastructure,
Description of Series 2	renovate restrooms & renovate space for	special education use
Description of Series 3	replace roofing, renovate interior space lighting systems, upgrade network infras equipment, purchase furniture & kitchen e	e, upgrade mechanical systems, upgrade tructure, purchase instructional technology equipment
Instructional Technology Description	purchase audio visual systems for class for students & teachers	rooms, and purchase instructional devices
Site Work Description	site work for addition, replace paving & up	grade playgrounds

Construction Cost Per Square	Foot		* \$239 plus escalati	on
New Construction Square Ft	0	Cost per Sq Ft	n/a	
New Addition Square Ft.	4,000	Cost per Sq Ft	\$276.67	*

Statement describing any existing environmental or usability problems the proposed project will address. (ex: asbestos, energy use, or ADA requirements)

abate asbestos prior to renovations, upgrade temperature control systems & upgrade lighting system for energy savings

Estimated Cost of Proposed Construction Project

Column1	Series 1	Series 2	Series 3	Total
New Construction	\$1,106,690	\$0	\$0	\$1,106,690
Remodeling	\$893,747	\$670,641	\$4,685,096	\$6,249,484
Construction Contingencies	\$227,833	\$134,785	\$621,846	\$984,464
Instructional Technology	\$0	\$0	\$562,907	\$562,907
Loose Furnishing/Equipment	\$46,371	\$0	\$752,609	\$798,980
Buses	\$0	\$0	\$0	\$0
Site Work	\$231,525	\$677,211	\$432,258	\$1,340,993
Site Acquisition	\$0	\$0	\$0	\$0
Architectural Fees and Costs	\$175,094	\$103,581	\$462,490	\$741,165
CM Fees and Costs	\$263,807	\$159,309	\$586,904	\$1,010,020
Estimated Costs	\$2,945,066	\$1,745,527	\$8,104,111	\$12,794,704

Certificate by Registered Architect

I certify that I have assessed the conditions relative to this facility and the details of the proposed project(s) described above and the attached detail relative to the construction project(s) are true and correct to the best of my knowledge and belief.

Amaan	6/15/2022	TMP Architecture 21298
Signature	Date	Firm Name and License Number

John J Castellana, FAIA Printed Name

_ jcastellana@tmp-architecture.com _____

TROY SCHOOL DISTRICT	PRELIMINARY - FOR DISCUSSION PURPOSE ONLY Grades: 4				K-5		
2022 Bond Program					5% per year	Enrollment:	411
Morse Elementary School	Year	Built:	1956		for 4 years	Classrooms:	20
475 Cherry Drive, Troy, MI	Building	g Size:	54,636			Capacity:	450
Building Project Work List	Site	e Size:	xxx		1.158	Date:	6/6/22
Category					Direct	Total	
Subcategory			Unit	Direct	Cost w/	w/ Indirect	Phase /
Description	Qty.	Unit	Cost	Cost	Escalation	Costs	Series
New Construction							
Build addition(s)							
- add art room / storage space	4,000	sqft	239.00	956,000	1,106,690	1,433,211	1
			New Construc	tion Subtotal:	1,106,690	1,433,211	
Remodeling							
Roofing Work							
 replace select roofing 	1	lpsm	534,753	534,753	619,043	801,688	3
Architectural Work							
- abate achestos for renovations	54 636	saft	2 00	109 272	126 / 96	163 818	1
- replace doors finishes & fived furnishings	54,050	Insm	1 291 687	1 291 687	1 / 95 289	1 936 465	3
 reported doors, missies, & need to missings reported to restrooms for accessibility 	1.939	saft	175.00	339.325	392.811	508.708	2
 renovate space for special education program 	1,200	saft	200.00	240,000	277,830	359,802	2
- renovate space for kindergarten	2,737	sqft	85.00	, 232,645	269,316	348,776	1
- renovate media center	6,045	sqft	85.00	513,825	594,817	770,314	3
 renovations due to additions (connection allowance) 	4,000	sqft	100.00	400,000	463,050	599,670	1
Mechanical Work							
- upgrade plumbing & HVAC systems	1	Insm	910 693	910 693	1 054 241	1 365 288	з
apgrade planning & hvAe systems		tpani	710,073	,10,075	1,004,241	1,505,200	5
Electrical Work							
 upgrade power & lighting systems 	1	lpsm	665,078	665,078	769,911	997,068	3
Tachaologu Infrastructura			Construc	ction Subtotal:	6,062,804	/,851,596	
- upgrada petwork (phane (security infractructure	E/ 424	caft	2 (0	121 124	151 705	147 202	2
- install tech infractructure for additions	10 0/5	sqrt	2.40	30 135	36.885	107,273	5 1
	10,045	эцп	Remode	ling Subtotal:	6 269 686	8 064 067	1
			Remout	sting outstatt	0,247,404	0,004,007	
Instructional Technology Equipment	F1 101			101.010	<u> </u>	(00.000	
 purchase A/V systems & instructional devices 	54,636	sqft	8.90	486,260 <u>-</u>	562,907	620,380	3
	IIISUUCU	Unati	echnology Equipi	nent Subtotat.	502,707	020,380	
Loose Furniture, Furnishings & Equipment							
 purchase loose furniture & furnishings 	1	lpsm	590,000.00	590,000	607,700	715,263	3
- purchase kitchen equipment	1	lpsm	125,000.00	125,000	144,909	170,558	3
 purchase loose items for additional space 	4,000	sqft	10.00	40,000 <u>-</u>	46,371	54,579	I
L	ose Furnitur	e, Furr	lisnings, & Equipr	nent Subtotal:	798,980	940,400	
Site Work							
Paving Work							
 replace paving (parking lot, drives, sidewalks) 	1	lpsm	373,400	373,400	432,258	559,793	3
Site Improvements							
 replace playground equipment & fixed furnishings 	1	lpsm	270,000	270,000	312,559	404,777	2
- upgrade playground surface & equipment (ADA)	1	lpsm	315,000	315,000	364,652	472,240	2 1
- site work due to addition (utilities, paving, landscape)	4,000	sqri	Site W	/ork Subtotal:	1 360 993	1 736 665	I
			5A6 M		10401770	.,, 00,040	
			E	Building Total:	10,059,054	12,794,704	
			Constructior	n Contingency:	984,464		
Notes:			Field Gener	ral Conditions:	328,997	2,945,066	Series 1
Indirect Costs include contingency, general conditions &	protessional f	ees	Desig	n Consultants:	741,165	1,745,527	Series 2
					12 794 704	12 794 704	Total
BARTON MAON DOILDERS			FK	OSCOLOTIOTAL.	12,774,704	12,774,704	Total

School Building Name

Morse Elementary School

Project No. 8

 Current Grade Structure
 K-5

 Proposed Grade Structure
 K-5

- 1. List the number of teaching stations in appropriate column.
- 2. Calculate total capacity using the applicable capacity factor.
- 3. Enter five (5) year projected enrollment.
- 4. Calculate building utilization rate.
- 5. Attach floor plan of the building. Show the rooms and category (existing, proposed new, closed).
- 6. Number the teaching stations in consecutive order.

Existing	List # of Teaching Capacity Stations Factor		Capacity
(K-2) Lower Elementary	9	20	180
(3-5) Upper Elementary	9	25	225
(6-8) Junior High	0	22.5	0
(9-12) High School	0	21.25	0
Subtotal	18		405
Proposed New	List # of Teaching Stations	Capacity Factor	Capacity
(K-2) Lower Elementary	0	20	0
(3-5) Upper Elementary	0	25	0
(6-8) Junior High	0	22.5	0
(9-12) High School	0	0	
Subtotal	0		0

Facility to be Closed	List # of Teaching Stations	Capacity Factor	Capacity
(K-2) Lower Elementary	0	20	0
(3-5) Upper Elementary	0	25	0
(6-8) Junior High	0	22.5	0
(9-12) High School	0	21.25	0
Total	0		0

Projected 5-Year Enrollment 404

Utilization Percentage 100%

(Projected 5-Year Enrollment / Total Capacity)



Schroeder Elementary School		Project No. 9
Description of Series 1	n/a	
Description of Series 2	renovate restrooms & renovate space for	special education use
Description of Series 3	replace roofing, renovate interior space lighting systems, upgrade network infras equipment, purchase furniture & kitchen e	e, upgrade mechanical systems, upgrade tructure, purchase instructional technology equipment
Instructional Technology Description	purchase audio visual systems for class for students & teachers	rooms, and purchase instructional devices
Site Work Description	replace paving & upgrade playgrounds	

Construction Cost Per Square Foot

New Construction Square Ft	0	Cost per Sq Ft	n/a
New Addition Square Ft.	0	Cost per Sq Ft	n/a

Statement describing any existing environmental or usability problems the proposed project will address. (ex: asbestos, energy use, or ADA requirements)

abate asbestos prior to renovations, upgrade temperature control systems & upgrade lighting system for energy savings

Estimated Cost of Proposed Construction Project

Column1	Series 1	Series 2	Series 3	Total
New Construction	\$0	\$0	\$0	\$0
Remodeling	\$0	\$587,987	\$5,905,530	\$6,493,516
Construction Contingencies	\$0	\$126,520	\$762,042	\$888,562
Instructional Technology	\$0	\$0	\$637,706	\$637,706
Loose Furnishing/Equipment	\$0	\$0	\$700,221	\$700,221
Buses	\$0	\$0	\$0	\$0
Site Work	\$0	\$677,211	\$619,870	\$1,297,081
Site Acquisition	\$0	\$0	\$0	\$0
Architectural Fees and Costs	\$0	\$97,229	\$568,161	\$665,390
CM Fees and Costs	\$0	\$149,540	\$750,944	\$900,484
Estimated Costs	\$0	\$1,638,486	\$9,944,474	\$11,582,960

Certificate by Registered Architect

I certify that I have assessed the conditions relative to this facility and the details of the proposed project(s) described above and the attached detail relative to the construction project(s) are true and correct to the best of my knowledge and belief.

Amagastonann	6/15/2022	TMP Architecture 21298
Signature	Date	Firm Name and License Number

John J Castellana, FAIA Printed Name

TROY SCHOOL DISTRICT	CT PRELIMINARY - FOR DISCUSSION PURPOSE ONLY Grad					Grades:	K-5
2022 Bond Program					5% per year	Enrollment:	411
Schroeder Elementary School	Year	Built: 1	970		for 4 years	Classrooms:	20
3541 Jack Drive, Troy, MI	Building	g Size: 6	1,896			Capacity:	455
Building Project Work List	Site	e Size: x	xx		1.158	Date:	6/6/22
Category					Direct	Total	
Subcategory			Unit	Direct	Cost w/	w/ Indirect	Phase /
Description	Qty.	Unit	Cost	Cost	Escalation	Costs	Series
New Construction							
Build addition(s)							
- n/a				0	0	0	
			New Construc	tion Subtotal:	0	0	
Remodeling							
Roofing Work							
- replace select roofing	1	lpsm	997,580	997,580	1,154,824	1,495,547	3
Architectural Work							
- abate asbestos for renovations	61,896	sqft	2.00	123,792	143,305	185,586	3
 replace doors, finishes, & fixed furnishings 	1	lpsm	1,159,486	1,159,486	1,342,250	1,738,272	3
 renovate restrooms for accessibility 	1,531	sqft	175.00	267,925	310,157	401,666	2
 renovate space for special education program 	1,200	sqft	200.00	240,000	277,830	359,802	2
 renovate space for kindergarten 	2,298	sqft	85.00	195,330	226,119	292,834	3
- renovate media center	5,709	sqft	85.00	485,265	561,755	727,497	3
Mechanical Work							
- upgrade plumbing & HVAC systems	1	lpsm	1.216.980	1.216.980	1,408,806	1.824.466	3
		- F =	.,	.,=,	.,	.,,	
Electrical Work			757 000				
 upgrade power & lighting systems 	1	lpsm	/5/,308	/5/,308	8/6,6/9	1,135,337	3
Taskaslan, lafasaturatura			Construc	tion Subtotal:	6,301,/24	8,161,008	
rechnology intrastructure	(1.00/	4	2.40	1/0 550	171 0//	100 500	2
- upgrade network/phone/security infrastructure	61,896	sqft	2.40	148,550	1/1,966	189,523	3
- Install tech infrastructure for additions	5,709	sqrt	3.00 Bemada	/, 2/ ing Subtotal:	19,827	25,070	3
			Kellioue	ung Subtotat.	0,473,510	8,378,208	
Instructional Technology Equipment							
 purchase A/V systems & instructional devices 	61,896	sqft	8.90	550,874	637,706	702,816	3
	Instruct	ional Te	chnology Equipm	nent Subtotal:	637,706	702,816	
Loose Furniture, Furnishings & Equipment							
- purchase loose furniture & furnishings	1	lpsm	650,000.00	650,000	669,500	788,002	3
- purchase kitchen equipment	1	lpsm	26,500.00	26,500	30,721	36,158	3
	Loose Furnitur	e, Furnis	shings, & Equipm	nent Subtotal:	700,221	824,160	
Site Work							
Paving Work							
 replace paving (parking lot, drives, sidewalks) 	1	lpsm	535,467	535,467	619,870	802,759	3
Site Improvements							
 replace playground equipment & fixed furnishings 	1	lpsm	270,000	270,000	312,559	404,777	2
- upgrade playground surface & equipment (ADA)	1	lpsm	315,000	315,000	364,652	472,240	2
•••		-	Site W	ork Subtotal:	1,297,081	1,679,776	
			В	uilding Total:	9,128,524	11,582,960	
			Construction	Contingency:	888,562		
Notes:			Field Gener	al Conditions:	293,317		Series 1
Indirect Costs include contingency, general conditions a	& professional i	fees	Desigr	n Consultants:	665,390	1,638,486	Series 2
			Construc	tion Manager:	607,167	9,944,474	Series 3
BARTON MAOW BUILDERS			PRO	DJECT TOTAL:	11,582,960	11,582,960	Total

School Building Name

Schroeder Elementary School

Project No. 9

 Current Grade Structure
 K-5

 Proposed Grade Structure
 K-5

- 1. List the number of teaching stations in appropriate column.
- 2. Calculate total capacity using the applicable capacity factor.
- 3. Enter five (5) year projected enrollment.
- 4. Calculate building utilization rate.
- 5. Attach floor plan of the building. Show the rooms and category (existing, proposed new, closed).
- 6. Number the teaching stations in consecutive order.

Existing	List # of Teaching Stations	Capacity Factor	Capacity
(K-2) Lower Elementary	10	20	200
(3-5) Upper Elementary	11	25	275
(6-8) Junior High	0	22.5	0
(9-12) High School	0	21.25	0
Subtotal	21		475
Proposed New	List # of Teaching Stations	Capacity Factor	Capacity
(K-2) Lower Elementary	0	20	0
(3-5) Upper Elementary	0	25	0
(6-8) Junior High	0	22.5	0
(9-12) High School	0	21.25	0
Subtotal	0		0
Total			475

Facility to be Closed	List # of Teaching Stations	Capacity Factor	Capacity
(K-2) Lower Elementary	0	20	0
(3-5) Upper Elementary	0	25	0
(6-8) Junior High	0	22.5	0
(9-12) High School	0	21.25	0
Total	0		0

Projected 5-Year Enrollment 430

Utilization Percentage 91%

(Projected 5-Year Enrollment / Total Capacity)

CAPACITY 10 TS X 20 STUDENTS + 11 TS X 25 STUDENTS = 475 STUDENTS



This plan represents a conceptual idea of upgrades proposed at this building. A design committee will be participating in the ultimate planning and design of these upgrades when the project is approved to move forward.

Blue = Circulation / Collaboration - Remodeling

Orange = General Remodeling

Red = New Construction

Troy Union Elementary School		Project No. 10
Description of Series 1	build classroom additions, renovate int purchase furniture for addition	erior space, install network infrastructure
Description of Series 2	renovate restrooms & renovate space for	special education use
Description of Series 3	replace roofing, renovate interior space lighting systems, upgrade network infras equipment, purchase furniture & kitchen e	e, upgrade mechanical systems, upgrad structure, purchase instructional technolog equipment
Instructional Technology Description	purchase audio visual systems for class for students & teachers	srooms, and purchase instructional device
Site Work Description	demo older part of school for addition, upgrade playgrounds	, site work for addition, replace paving a

Construction Cost Per Square	Foot		* \$239 plus escalation	on
New Construction Square Ft	0	Cost per Sq Ft	n/a	
New Addition Square Ft.	4,350	Cost per Sq Ft	\$276.67	*

Statement describing any existing environmental or usability problems the proposed project will address. (ex: asbestos, energy use, or ADA requirements)

abate asbestos prior to renovations, upgrade temperature control systems & upgrade lighting system for energy savings

Estimated Cost of Proposed Construction Project

Column1	Series 1	Series 2	Series 3	Total
New Construction	\$1,203,525	\$0	\$0	\$1,203,525
Remodeling	\$695,281	\$475,147	\$5,010,753	\$6,181,182
Construction Contingencies	\$227,325	\$115,236	\$708,163	\$1,050,724
Instructional Technology	\$0	\$0	\$689,560	\$689,560
Loose Furnishing/Equipment	\$50,428	\$0	\$729,515	\$779,944
Buses	\$0	\$0	\$0	\$0
Site Work	\$324,019	\$677,211	\$914,455	\$1,915,685
Site Acquisition	\$0	\$0	\$0	\$0
Architectural Fees and Costs	\$174,704	\$88,557	\$525,331	\$788,593
CM Fees and Costs	\$262,727	\$136,203	\$678,352	\$1,077,282
Estimated Costs	\$2,938,010	\$1,492,354	\$9,256,131	\$13,686,495

Certificate by Registered Architect

I certify that I have assessed the conditions relative to this facility and the details of the proposed project(s) described above and the attached detail relative to the construction project(s) are true and correct to the best of my knowledge and belief.

Ann astonann	6/15/2022	TMP Architecture 21298
Signature	Date	Firm Name and License Number

John J Castellana, FAIA Printed Name

TROY SCHOOL DISTRICT	PRELIMINARY - FOR DISCUSSION PURPOSE ONLY Grades: K-5						K-5
2022 Bond Program					5% per year	Enrollment:	411
Troy Union Elementary School	Year	Built:	1925		for 4 years	Classrooms:	18
1340 E. Square Lake, Troy, MI	Building	i Size:	66.929		,	Capacity:	405
Building Project Work List	Site	Size:	xxx		1.158	Date:	6/6/22
Category				D :	Direct	Iotal	DI
Subcategory	<u>.</u>		Unit	Direct	Lost W/	w/ Indirect	Phase /
Description	Qty.	Unit	Cost	Cost	Escalation	Costs	Series
New Construction							
Build addition(s)							
 add classrooms and expand kindergarten 	4,350	sqft	239.00	1,039,650	1,203,525	1,558,617	1
		·	New Constru	ction Subtotal:	1,203,525	1,558,617	-
Permedeling							
Renfug Work							
- replace select reefing	1	Incm	588 607	588 407	491 /01	882 540	2
replace selectrooning	I.	thau	500,077	500,077	001,471	002,500	5
Architectural Work							
 abate asbestos for renovations 	66,929	sqft	2.00	133,858	154,957	200,677	1
 replace doors, finishes, & fixed furnishings 	1	lpsm	1,231,661	1,231,661	1,425,801	1,846,475	3
 renovate restrooms for accessibility 	974	sqft	175.00	170,450	197,317	255,534	2
 renovate space for special education program 	1,200	sqft	200.00	240,000	277,830	359,802	2
- renovate media center	6.234	saft	85.00	529,890	613,414	794.398	3
- renovations due to additions (connection allowance)	4,350	saft	100.00	435.000	503.567	652,141	1
	.,	oqit	100.00		000,007	002/111	·
Mechanical Work							
 upgrade plumbing & HVAC systems 	1	lpsm	1,009,645	1,009,645	1,168,790	1,513,635	3
Electrical Work							
- ungrade power & lighting systems	1	Incm	807 954	807 954	935 308	1 211 265	3
apgrade power a tighting systems		tpom	Constru	uction Subtotal	5 958 476	7 716 487	-
Technology Infrastructure			Constru		0,700,470	7,710,407	
- ungrade network/nhone/security infrastructure	66 929	caft	2 / 0	160 630	185 9/9	20/ 93/	3
- install tash infractructure for additions	10 58/	caft	2.40	31 752	36 757	47 402	1
	10,504	syn	S.00	Ji,752	6 191 192	7 949 023	-
			Keinoe	icing Subtotat.	0,101,102	7,707,020	
Instructional Technology Equipment							
 purchase A/V systems & instructional devices 	66,929	sqft	8.90	595,668	689,560	759,964	3
	Instruct	ional T	echnology Equip	ment Subtotal:	689,560	759,964	
Loose Furniture, Furnishings & Equipment							
- purchase loose furniture & furnishings	1	lpsm	670,000.00	670,000	690,100	812,248	3
- purchase kitchen equipment	1	lpsm	34,000.00	34,000	39,415	46,392	3
- purchase loose items for additional space	4,350	sqft	10.00	43,500	50,428	59,354	1
	Loose Furnitur	e, Furi	nishings, & Equip	ment Subtotal:	779,944	917,994	-
eu							
Site Work							
- ronlace paving (parking let drives sidewalks)	1	Incre	700 0/1	700 0/1	01/ /EF	1 10/ 2/0	2
	I	tþsm	707,741	707,741	714,455	1,104,200	3
Site improvements	F 000	e = 0	10.00	(0.100	70.007		1
- demolish portion of building	5,200	sqft	12.00	62,400	/2,236	93,549	1
- replace playground equipment & fixed furnishings	1	lpsm	270,000	270,000	312,559	404,///	2
 upgrade playground surface & equipment (ADA) 	1	lpsm	315,000	315,000	364,652	4/2,240	2
 site work due to addition (utilities, paving, landscape) 	4,350	sqtt	50.00	217,500	251,783	326,071	- 1
			Site	Work Subtotal:	1,915,685	2,480,896	
				Building Total:	10,769.896	13,6 <u>86,495</u>	
			Constructio	on Contingency:	1.050.724		
Notes:			Field Gene	eral Conditions	350 906	2.938.010	Series 1
Indirect Costs include contingency, general conditions	& nrofessional i	fees	Desi	nn Consultants:	788 593	1 492 354	Series 2
			Constru	iction Manager:	726 376	9.256 131	Series 3
BARTON MAOW BUILDERS			PI	ROJECT TOTAL:	13,686,495	13,686,495	Total

School Building Name

Troy Union Elementary School

Project No. 10

 Current Grade Structure
 K-5

 Proposed Grade Structure
 K-5

- 1. List the number of teaching stations in appropriate column.
- 2. Calculate total capacity using the applicable capacity factor.
- 3. Enter five (5) year projected enrollment.
- 4. Calculate building utilization rate.
- 5. Attach floor plan of the building. Show the rooms and category (existing, proposed new, closed).
- 6. Number the teaching stations in consecutive order.

Existing	List # of Teaching Stations	Capacity Factor	Capacity
(K-2) Lower Elementary	6	20	120
(3-5) Upper Elementary	11	25	275
(6-8) Junior High	0	22.5	0
(9-12) High School	0 21.25		0
Subtotal	17		395
Bronosod Now	List # of Teaching	Capacity	
FIOPOSEUNEW	Stations	Factor	Capacity
(K-2) Lower Elementary	Stations 4	20	Capacity 80
(K-2) Lower Elementary (3-5) Upper Elementary	Stations 4 0	20 25	Capacity 80 0
(K-2) Lower Elementary (3-5) Upper Elementary (6-8) Junior High	Stations4000	20 25 22.5	Capacity 80 0 0
(K-2) Lower Elementary (3-5) Upper Elementary (6-8) Junior High (9-12) High School	Stations 4 0 0 0 0	20 25 22.5 21.25	Capacity 80 0 0 0 0
(K-2) Lower Elementary (3-5) Upper Elementary (6-8) Junior High (9-12) High School Subtotal	Stations 4 0 0 0 0 4 5 4 5 4 5 4 5 4 5 4 5 6 6 6 6 6 6 6 6 7 6 7 6 7 6 7 6 7<	20 25 22.5 21.25	Capacity 80 0 0 0 80

Facility to be Closed	List # of Teaching Stations	Capacity Factor	Capacity
(K-2) Lower Elementary	3	20	60
(3-5) Upper Elementary	0	25	0
(6-8) Junior High	0	22.5	0
(9-12) High School	0	21.25	0
Total	3		60

Projected 5-Year Enrollment 415

Utilization Percentage 87%

(Projected 5-Year Enrollment / Total Capacity)



Wass Elementary School		Project No.	11
Description of Series 1	n/a		
Description of Series 2	renovate restrooms & renovate space for	special education use	
Description of Series 3	replace roofing, renovate interior space lighting systems, upgrade network infras equipment, purchase furniture & kitchen e	e, upgrade mechanica tructure, purchase ins equipment	al systems, upgrade tructional technology
Instructional Technology Description	purchase audio visual systems for class for students & teachers	rooms, and purchase	instructional devices
Site Work Description	replace paving & upgrade playgrounds		

Construction Cost Per Square Foot

New Construction Square Ft	0	Cost per Sq Ft	n/a
New Addition Square Ft.	0	Cost per Sq Ft	n/a

Statement describing any existing environmental or usability problems the proposed project will address. (ex: asbestos, energy use, or ADA requirements)

abate asbestos prior to renovations, upgrade temperature control systems & upgrade lighting system for energy savings

Estimated Cost of Proposed Construction Project

Column1	Series 1	Series 2	Series 3	Total
New Construction	\$0	\$0	\$0	\$0
Remodeling	\$0	\$871,692	\$7,084,085	\$7,955,777
Construction Contingencies	\$0	\$154,890	\$887,473	\$1,042,363
Instructional Technology	\$0	\$0	\$661,361	\$661,361
Loose Furnishing/Equipment	\$0	\$0	\$687,156	\$687,156
Buses	\$0	\$0	\$0	\$0
Site Work	\$0	\$677,211	\$694,040	\$1,371,251
Site Acquisition	\$0	\$0	\$0	\$0
Architectural Fees and Costs	\$0	\$119,031	\$663,899	\$782,930
CM Fees and Costs	\$0	\$183,073	\$898,256	\$1,081,329
Estimated Costs	\$0	\$2,005,896	\$11,576,271	\$13,582,167

Certificate by Registered Architect

I certify that I have assessed the conditions relative to this facility and the details of the proposed project(s) described above and the attached detail relative to the construction project(s) are true and correct to the best of my knowledge and belief.

Amagastonann	6/15/2022	TMP Architecture 21298
Signature	Date	Firm Name and License Number

John J Castellana, FAIA Printed Name

jcastellana@tmp-architecture.com E-mail Address

248-338-4561 Phone Number

TROY SCHOOL DISTRICT	PRELIMINARY - EOR DISCUSSION PURPOSE ONLY Grades: K-5					K-5	
2022 Bond Program					5% per year	Enrollment:	411
Wass Elementary School	Year Built: 1978			for 4 years	Classrooms:	18	
2340 Willard Drive. Trov. MI	Building	Building Size: 64,192			,	Capacity:	405
Building Project Work List	Site	e Size: x	xx		1.158	Date:	6/6/22
Category					Direct	Total	
Subcategory			Unit	Direct	Cost w/	w/ Indirect	Phase /
Description	Qty.	Unit	Cost	Cost	Escalation	Costs	Series
New Construction							
Build addition(s)				0	0	0	
17.4			New Construc	tion Subtotal:	0	0	
Pemodeling							
Roofing Work							
- replace select roofing	1	lpsm	273,631	273,631	316,762	410,221	3
Architectural Work							
- abate asbestos for renovations	64,192	sqft	2.00	128,384	148,621	192,470	3
 replace doors, finishes, & fixed furnishings 	1	lpsm	1,735,808	1,735,808	2,009,415	2,602,281	3
- renovate restrooms for accessibility	5,130	sqft	100.00	513,000	593,862	769,077	2
 renovate space for special education program 	1,200	sqft	200.00	240,000	277,830	359,802	2
- renovate space for kindergarten	4,481	sqft	75.00	336,075	389,049	503,835	3
- renovate media center	11,353	sqft	85.00	965,005	1,117,114	1,446,711	3
Mashanical Wark							
Mechanical Work	1	Inom	1 422 440	1 4 2 2 4 4 0	1 070 250	2 / 22 051	n
- upgrade plumbing & HVAC systems	I	tpsm	1,023,400	1,023,400	1,079,330	2,433,631	3
Electrical Work							
 upgrade power & lighting systems 	1	lpsm	869,016	869,016	1,005,995	1,302,807	3
			Construc	tion Subtotal:	7,738,005	10,021,054	
Technology Infrastructure							
 upgrade network/phone/security infrastructure 	64,192	sqft	2.40	154,061	178,345	196,554	3
 install tech infrastructure for additions 	11,353	sqft	3.00	34,059	39,428	51,060	3
			Remode	ling Subtotal:	7,955,777	10,268,669	
Instructional Technology Equipment							
 purchase A/V systems & instructional devices 	64,192	sqft	8.90	571,309	661,361	728,886	3
	Instruct	ional Te	chnology Equipm	nent Subtotal:	661,361	728,886	
Loose Furniture. Furnishinas & Equipment							
- purchase loose furniture & furnishings	1	lpsm	630,000.00	630,000	648,900	763,755	3
- purchase kitchen equipment	1	lpsm	33,000.00	33,000	38,256	45,027	3
L	oose Furnitur	e, Furnis	shings, & Equipm	nent Subtotal:	687,156	808,783	
Site Work							
Paving Work							
 replace paving (parking lot, drives, sidewalks) 	1	lpsm	599,538	599,538	694,040	898,812	3
Site Improvements							
 replace playground equipment & fixed furnishings 	1	lpsm	270,000	270,000	312,559	404,777	2
- upgrade playground surface & equipment (ADA)	1	lpsm	315,000	, 315,000	364,652	, 472,240	2
			Site W	ork Subtotal:	1,371,251	1,775,830	
			B	uilding <u>Total:</u>	10,675,545	13,5 <u>82,167</u>	
			Construction	Contingency:	1,042,363		
Notes:			Field Gener	al Conditions:	352,224		Series 1
Indirect Costs include contingency, general conditions &	professional	fees	Desigr	n Consultants:	782,930	2,0 <u>05,89</u> 6	Series 2
			Construc	tion Manager:	729,104	11,576,271	Series 3
BARTON MAOW BUILDERS			PRO	DJECT TOTAL:	13,582,167	13,582,167	Total

School Building Name

Wass Elementary School

Project No. 11

 Current Grade Structure
 K-5

 Proposed Grade Structure
 K-5

- 1. List the number of teaching stations in appropriate column.
- 2. Calculate total capacity using the applicable capacity factor.
- 3. Enter five (5) year projected enrollment.
- 4. Calculate building utilization rate.
- 5. Attach floor plan of the building. Show the rooms and category (existing, proposed new, closed).
- 6. Number the teaching stations in consecutive order.

Existing	List # of Teaching Stations	Capacity Factor	Capacity
(K-2) Lower Elementary	9	20	180
(3-5) Upper Elementary	9	25	225
(6-8) Junior High	0	22.5	0
(9-12) High School	0	21.25	0
Subtotal	18		405
Proposed New	List # of Teaching Stations	Capacity Factor	Capacity
(K-2) Lower Elementary	0	20	0
(3-5) Upper Elementary	0	25	0
(C. Q) Junior Lligh	_		•
	0	22.5	0
(9-12) High School	0	22.5 21.25	0
(9-12) High School Subtotal	0 0 0	22.5 21.25	0 0 0

Facility to be Closed	List # of Teaching Stations	Capacity Factor	Capacity
(K-2) Lower Elementary	0	20	0
(3-5) Upper Elementary	0	25	0
(6-8) Junior High	0	22.5	0
(9-12) High School	0	21.25	0
Total	0		0

Projected 5-Year Enrollment 417

Utilization Percentage 103%

(Projected 5-Year Enrollment / Total Capacity)





Red = New Construction

Orange = General Remodeling

Blue = Circulation / Collaboration - Remodeling

This plan represents a conceptual idea of upgrades proposed at this building. A design committee will be participating in the ultimate planning and design of these upgrades when the project is approved to move forward.

Wattles Elementary School		Project No. 12
Description of Series 1	n/a	
Description of Series 2	renovate restrooms & renovate space for	special education use
Description of Series 3	replace roofing, renovate interior space lighting systems, upgrade network infras equipment, purchase furniture & kitchen e	e, upgrade mechanical systems, upgrade structure, purchase instructional technology equipment
Instructional Technology Description	purchase audio visual systems for class for students & teachers	rooms, and purchase instructional devices
Site Work Description	replace paving & upgrade playgrounds	

Construction Cost Per Square Foot

New Construction Square Ft	0	Cost per Sq Ft	n/a
New Addition Square Ft.	0	Cost per Sq Ft	n/a

Statement describing any existing environmental or usability problems the proposed project will address. (ex: asbestos, energy use, or ADA requirements)

abate asbestos prior to renovations, upgrade temperature control systems & upgrade lighting system for energy savings

Estimated Cost of Proposed Construction Project

Column1	Series 1	Series 2	Series 3	Total
New Construction	\$0	\$0	\$0	\$0
Remodeling	\$0	\$629,719	\$6,472,232	\$7,101,951
Construction Contingencies	\$0	\$130,693	\$762,958	\$893,650
Instructional Technology	\$0	\$0	\$609,414	\$609,414
Loose Furnishing/Equipment	\$0	\$0	\$679,621	\$679,621
Buses	\$0	\$0	\$0	\$0
Site Work	\$0	\$677,211	\$100,433	\$777,644
Site Acquisition	\$0	\$0	\$0	\$0
Architectural Fees and Costs	\$0	\$100,436	\$569,640	\$670,076
CM Fees and Costs	\$0	\$154,473	\$757,432	\$911,905
Estimated Costs	\$0	\$1,692,531	\$9,951,731	\$11,644,262

Certificate by Registered Architect

I certify that I have assessed the conditions relative to this facility and the details of the proposed project(s) described above and the attached detail relative to the construction project(s) are true and correct to the best of my knowledge and belief.

Amanaastonam	6/15/2022	TMP Architecture 21298
Signature	Date	Firm Name and License Number

John J Castellana, FAIA Printed Name

248-338-4561 Phone Number

TROY SCHOOL DISTRICT	PRELIMINARY - FOR DISCUSSION PURPOSE ONLY Grades: K-5					K-5	
2022 Bond Program					5% per vear	Enrollment:	411
Wattles Elementary School	Year	Built: 1	967		for 4 years	Classrooms:	19
3555 Ellenboro, Troy, MI	Building	Building Size: 59,150				Capacity:	430
Building Project Work List	Site	e Size: x	xx		1.158	Date:	6/6/22
Category					Direct	Total	
Subcategory			Unit	Direct	Cost w/	w/ Indirect	Phase /
Description	Qty.	Unit	Cost	Cost	Escalation	Costs	Series
New Construction							
				0	0	0	
17.0			New Construc	tion Subtotal:	0	0	•
					-		
Remodeling							
Roofing Work			500.000				
- replace select roofing	1	lpsm	539,000	539,000	623,960	808,055	3
Architectural Work							
- abate asbestos for renovations	59,150	sqft	2.00	118,300	136,947	177,352	3
 replace doors, finishes, & fixed furnishings 	1	lpsm	1,313,485	1,313,485	1,520,524	1,969,145	3
 renovate restrooms for accessibility 	1,737	sqft	175.00	303,975	351,889	455,712	2
 renovate space for special education program 	1,200	sqft	200.00	240,000	277,830	359,802	2
 renovate space for kindergarten 	4,998	sqft	85.00	424,830	491,794	636,895	3
- renovate media center	10,614	sqft	85.00	902,190	1,044,398	1,352,541	3
Mechanical Work							
- upgrade plumbing & HVAC systems	1	Insm	1 360 000	1 360 000	1 574 370	2 038 878	3
upgrade planbing & made systems		tpani	1,500,000	1,500,000	1,374,370	2,030,070	5
Electrical Work							
 upgrade power & lighting systems 	1	lpsm	759,350	759,350	879,043	1,138,399	3
			Construc	tion Subtotal:	6,900,754	8,936,778	
Technology Infrastructure							_
 upgrade network/phone/security infrastructure 	59,150	sqft	2.40	141,960	164,336	181,115	3
 install tech infrastructure for additions 	10,614	sqft	3.00	31,842	36,861	47,737	3
			Remode	ling Subtotal:	7,101,951	9,165,630	
Instructional Technology Equipment							
 purchase A/V systems & instructional devices 	59,150	sqft	8.90	526,435	609,414	671,636	3
	Instruct	ional Te	chnology Equipn	nent Subtotal:	609,414	671,636	
Loose Furniture Furnishings & Equinment							
- purchase loose furniture & furnishings	1	lpsm	630.000.00	630.000	648,900	763,755	3
- purchase kitchen equipment	1	lpsm	26,500.00	26,500	30.721	36,158	3
	Loose Furnitur	e, Furnis	hings, & Equips	nent Subtotal:	679,621	799,914	•
Site Work							
- roplace paving (parking let, drives, sidewalks)	1	Incm	04 750	04 760	100 / 22	120.045	2
Cite Improvements	1	thau	00,750	00,750	100,433	130,005	5
- replace playaround equipment & fixed furnichings	1	Insm	270.000	270 000	312 559	404 777	2
- ungrade playground surface & equipment (ADA)	1	Inem	315 000	315,000	364 652	404,777	2
apgrade prayground surface & equipment (ADA)		tpain	Site W	ork Subtotal:	777 666	1 007 093	- 2
			Sile W	ork Sublulat.	///,044	1,007,003	
			E	uilding Total:	9,168,630	11,644,262	
			Construction	Contingency:	893,650		
Notes:			Field Gener	al Conditions:	297,037		Series 1
Indirect Costs include contingency, general conditions a	& professional i	fees	Design	n Consultants:	670,076	1,692,531	Series 2
			Construc	tion Manager:	614,868	9,951,731	Series 3
BARTON MAOW BUILDERS			PR	DJECT TOTAL:	11,644,262	11,644,262	Total

School Building Name

Wattles Elementary School

Project No. 12

 Current Grade Structure
 K-5

 Proposed Grade Structure
 K-5

- 1. List the number of teaching stations in appropriate column.
- 2. Calculate total capacity using the applicable capacity factor.
- 3. Enter five (5) year projected enrollment.
- 4. Calculate building utilization rate.
- 5. Attach floor plan of the building. Show the rooms and category (existing, proposed new, closed).
- 6. Number the teaching stations in consecutive order.

Evisting	List # of Teaching	Capacity	Canaaitu
Existing	Stations	Factor	Capacity
(K-2) Lower Elementary	9	20	180
(3-5) Upper Elementary	10	25	250
(6-8) Junior High	0	22.5	0
(9-12) High School	0	21.25	0
Subtotal	19		430
Proposed New	List # of Teaching Stations	Capacity Factor	Capacity
(K-2) Lower Elementary	0	20	0
(3-5) Upper Elementary	0	25	0
(6-8) Junior High	0	22.5	0
(9-12) High School	0	21.25	0
Subtotal	0		0
Total	19		430

Facility to be Closed	List # of Teaching Stations	Capacity Factor	Capacity
(K-2) Lower Elementary	0	20	0
(3-5) Upper Elementary	0	25	0
(6-8) Junior High	0	22.5	0
(9-12) High School	0	21.25	0
Total	0		0

Projected 5-Year Enrollment 398

Utilization Percentage 93%

(Projected 5-Year Enrollment / Total Capacity)



Baker Middle School		Project No. 13
Description of Series 1	n/a	
Description of Series 2	renovate space for special education use	
Description of Series 3	replace select roofing, renovate interior s center, upgrade mechanical systems, u infrastructure, purchase instructional teo kitchen equipment	space, renovate restrooms, renovate media pgrade lighting systems, upgrade network chnology equipment, purchase furniture &
Instructional Technology Description	purchase audio visual systems for class for students & teachers	rooms, and purchase instructional devices
Site Work Description	replace paving, and upgrade fencing & dr	ainage at athletic fields

Construction Cost Per Square Foot

New Construction Square Ft	0	Cost per Sq Ft	n/a
New Addition Square Ft.	0	Cost per Sq Ft	n/a

Statement describing any existing environmental or usability problems the proposed project will address. (ex: asbestos, energy use, or ADA requirements)

upgrade temperature control systems & upgrade lighting system for energy savings

Estimated Cost of Proposed Construction Project

Column1	Series 1	Series 2	Series 3	Total
New Construction	\$0	\$0	\$0	\$0
Remodeling	\$0	\$277,830	\$7,283,791	\$7,561,621
Construction Contingencies	\$0	\$27,783	\$1,000,086	\$1,027,869
Instructional Technology	\$0	\$0	\$1,319,776	\$1,319,776
Loose Furnishing/Equipment	\$0	\$0	\$954,489	\$954,489
Buses	\$0	\$0	\$0	\$0
Site Work	\$0	\$0	\$945,504	\$945,504
Site Acquisition	\$0	\$0	\$0	\$0
Architectural Fees and Costs	\$0	\$21,351	\$732,346	\$753,697
CM Fees and Costs	\$0	\$32,838	\$930,597	\$963,435
Estimated Costs	\$0	\$359,802	\$13,166,588	\$13,526,390

Certificate by Registered Architect

I certify that I have assessed the conditions relative to this facility and the details of the proposed project(s) described above and the attached detail relative to the construction project(s) are true and correct to the best of my knowledge and belief.

Amagastonann	6/15/2022	TMP Architecture 21298
Signature	Date	Firm Name and License Number

John J Castellana, FAIA Printed Name

248-338-4561 Phone Number

TROY SCHOOL DISTRICT	PRELIMINARY - FOR DISCUSSION PURPOSE ONLY Grades: 6-8					6-8	
2022 Bond Program					5% per year	Enrollment:	636
Baker Middle School	Year	Built: 2	006		for 4 years	Classrooms:	38
1359 Torpey Drive, Troy, MI	Building	g Size: 1	28,098			Capacity:	855
Building Project Work List	Site	e Size: x	кх		1.158	Date:	6/6/22
Category					Direct	Total	
Subcategory			Unit	Direct	Cost w/	w/ Indirect	Phase /
Description	Qty.	Unit	Cost	Cost	Escalation	Costs	Series
New Construction							
Build addition(s)							
- n/a				0	0	0	
			New Construc	tion Subtotal:	0	0	
Remodeling							
Roofing Work							
- replace select roofing	1	lpsm	1,630,800	1,630,800	1,887,855	2,444,855	3
Architectural Work							
- replace doors finishes & fixed furnishings	1	Insm	936.550	936.550	1 084,174	1 404.052	3
 repovate restrooms for accessibility 	1.300	saft	250.00	325.000	376.228	487.232	3
 renovate space for special education program 	1,200	saft	200.00	240,000	277,830	359,802	2
- renovate media center	7,250	lpsm	37.00	268,250	310,533	402,154	3
						,	
Mechanical work	1	Incm	1 / 00 / 00	1 /00 /00	1 712 852	2 210 517	2
- Upgrade plumbing & HVAC systems	I	lpsm	1,400,470	1,480,470	1,/13,032	2,217,314	3
Electrical Work							
 upgrade power & lighting systems 	1	lpsm	1,321,737	1,321,737	1,530,076	1,981,515	3
			Construc	tion Subtotal:	7,180,548	9,299,123	
Technology Infrastructure	100.000		2 (0	207 / 25	255 005	200.000	2
- upgrade network/phone/security infrastructure	128,098	sqtt	2.40	307,435	355,895	392,232	3
- Install tech intrastructure for additions	1,250	sqrt	3.UU Remode	21,/50 	20,170 7 541 621	32,007	3
			Kellioue	ing Subtotat.	7,501,021	7,723,702	
Instructional Technology Equipment							
 purchase A/V systems & instructional devices 	128,098	sqft	8.90	1,140,072	1,319,776	1,454,525	3
	Instruct	ional Teo	chnology Equipn	nent Subtotal:	1,319,776	1,454,525	
Loose Furniture, Furnishings & Equipment							
- purchase loose furniture & furnishings	1	lpsm	925,000.00	925,000	952,750	1,121,387	3
 purchase kitchen equipment 	1	lpsm	1,500.00	1,500	1,739	2,047	3
Lo	ose Furnitur	e, Furnis	hings, & Equipn	nent Subtotal:	954,489	1,123,433	
Site Work							
Paving Work							
 replace paving (parking lot, drives, sidewalks) 	1	lpsm	696,762	696,762	806,589	1,044,568	3
Site Improvements							
 update athletic fields & fixed furnishings 	1	lpsm	120,000.00	120,000	138,915	179,901	3
(fencing, drainage, benches, flag pole)			Site W	ork Subtotal:	945,504	1,224,469	
				Quilding Total:	10 781 390	13 526 390	
			- Construction	Contingency:	1,027,869	10/020/070	
Notes:			Field Gener	al Conditions:	313,822		Series 1
Indirect Costs include contingency, general conditions & p	professional	fees	Design	n Consultants:	753,697	359,802	Series 2
			Construc	tion Manager:	649,612	13,166,588	Series 3
BARTON MAOW BUILDERS			PR	DJECT TOTAL:	13,526,390	13,526,390	Total

School Building Name

Baker Middle School

Project No. 13

Current Grade Structure6-8Proposed Grade Structure6-8

- 1. List the number of teaching stations in appropriate column.
- 2. Calculate total capacity using the applicable capacity factor.
- 3. Enter five (5) year projected enrollment.
- 4. Calculate building utilization rate.
- 5. Attach floor plan of the building. Show the rooms and category (existing, proposed new, closed).
- 6. Number the teaching stations in consecutive order.

Existing	List # of Teaching Stations	Capacity Factor	Capacity
(K-2) Lower Elementary	0	20	0
(3-5) Upper Elementary	0	25	0
(6-8) Junior High	38	22.5	855
(9-12) High School	0	21.25	0
Subtotal	38		855
Proposed New	List # of Teaching Stations	Capacity Factor	Capacity
(K-2) Lower Elementary	0	20	0
(3-5) Upper Elementary	0	25	0
(6-8) Junior High	0	22.5	0
(9-12) High School	0	21.25	0
Subtotal	0		0
Total	38		855

Facility to be Closed	List # of Teaching Stations	Capacity Factor	Capacity
(K-2) Lower Elementary	0	20	0
(3-5) Upper Elementary	0	25	0
(6-8) Junior High	0	22.5	0
(9-12) High School	0	21.25	0
Total	0		0

Projected 5-Year Enrollment 597

Utilization Percentage 70%

(Projected 5-Year Enrollment / Total Capacity)



Boulan Park Middle School		Project No. 14
Description of Series 1	n/a	
Description of Series 2	build locker room addition, renovate int space for special education use, upgrad purchase instructional technology equip equipment	erior space, renovate restrooms, renovate le lighting, upgrade network infrastructure, oment, and purchase furniture & kitchen
Description of Series 3	renovate media center, upgrade mechanic	cal systems
Instructional Technology Description	purchase audio visual systems for class for students & teachers	rooms, and purchase instructional devices
Site Work Description	replace paving, and upgrade fencing & dr	ainage at athletic fields

ot	*	\$239 plus escalati	on
0	Cost per Sq Ft	n/a	
3,600	Cost per Sq Ft	\$276.67	*
•	0 3,600	0 Cost per Sq Ft 3,600 Cost per Sq Ft	Ot * \$239 plus escalati 0 Cost per Sq Ft n/a 3,600 Cost per Sq Ft \$276.67

Statement describing any existing environmental or usability problems the proposed project will address. (ex: asbestos, energy use, or ADA requirements)

abate asbestos prior to renovations, upgrade temperature control systems & upgrade lighting system for energy savings

Estimated Cost of Proposed Construction Project

Column1	Series 1	Series 2	Series 3	Total
New Construction	\$0	\$996,021	\$0	\$996,021
Remodeling	\$0	\$13,237,704	\$4,964,420	\$18,202,125
Construction Contingencies	\$0	\$1,692,639	\$496,442	\$2,189,081
Instructional Technology	\$0	\$1,141,866	\$0	\$1,141,866
Loose Furnishing/Equipment	\$0	\$1,462,793	\$0	\$1,462,793
Buses	\$0	\$0	\$0	\$0
Site Work	\$0	\$522,937	\$0	\$522,937
Site Acquisition	\$0	\$0	\$0	\$0
Architectural Fees and Costs	\$0	\$1,269,541	\$381,510	\$1,651,050
CM Fees and Costs	\$0	\$1,707,769	\$586,770	\$2,294,539
Estimated Costs	\$0	\$22,031,270	\$6,429,142	\$28,460,412

Certificate by Registered Architect

I certify that I have assessed the conditions relative to this facility and the details of the proposed project(s) described above and the attached detail relative to the construction project(s) are true and correct to the best of my knowledge and belief.

Amanaastonam	6/15/2022	TMP Architecture 21298
Signature	Date	Firm Name and License Number

John J Castellana, FAIA Printed Name

jcastellana@tmp-architecture.com

E-mail Address

TROY SCHOOL DISTRICT	PRELIMINARY - FOR DISCUSSION PURPOSE ONLY Grades: 6				6-8		
2022 Bond Program					5% per year	Enrollment:	636
Boulan Park Middle School	Year	Built:	1971		for 4 years	Classrooms:	34
3570 Northfield Parkway, Troy, MI	Building	g Size:	110,830			Capacity:	762
Building Project Work List	Site	e Size: >	xxx		1.158	Date:	6/6/22
Category					Direct	Total	
Subcategory			Unit	Direct	Cost w/	w/ Indirect	Phase /
Description	Qty.	Unit	Cost	Cost	Escalation	Costs	Series
New Construction							
Build addition(s)	2 (00		220.00	0/0/00	00/ 001	1 000 000	0
- build locker room addition	3,600	sqft	239.00	860,400 <u>-</u>	996,021	1,289,890	Z
			New Construc	tion Subtotat:	770,UZ I	1,207,070	
Remodeling							
Roofing Work							
- n/a				0	0	0	
Architectural Work							
- abate asbestos for renovations	110 830	saft	2 00	221 660	256 599	332 307	2
- replace doors finishes & fixed furnishings	110,000	Insm	1 817 968	1 817 968	2 104 525	2 725 452	2
- repoyate restrooms for accessibility	1 855	saft	250.00	463 750	536 8/9	695 2/2	2
- repoyate space for special education program	1,000	sqit	200.00	260,000	277 820	350 802	2
- major romodoling of classrooms	1,200	sqit	151 02	240,000	0 005 522	10 / 71 119	2
	45,975	sqit	151.75	0,704,307	0,000,002	10,471,110	2
- renovate media center	9,279	sqrt	157.00	1,456,803	1,080,432	2,184,003	3
 renovations due to additions (connection allowance) 	3,600	sqft	96.00	345,600	400,075	518,115	2
Mechanical Work							
 upgrade plumbing & HVAC systems 	1	lpsm	2,831,650	2,831,650	3,277,989	4,245,139	3
Electrical Work							
- upgrade power & lighting systems	1	lpsm	1.084.870	1.084.870	1.255.873	1.626.410	2
			Construc	tion Subtotal:	17,881,703	23,157,588	
Technology Infrastructure							
 upgrade network/phone/security infrastructure 	110,830	sqft	2.40	265,992	307,919	339,358	2
 install tech infrastructure for additions 	3,600	saft	3.00	10,800	12,502	16,191	2
	,	•	Remode	ling Subtotal:	18,202,125	23,513,137	
terre alle alle states de la factoria							
Instructional Technology Equipment	110 020	caft	9.00	004 207	1 1/1 044	1 259 /51	2
- purchase A/V systems & instructional devices	Inetruct	syn ional Te			1,141,000	1 258 /51	Z
	motruct		connocogy Equiph	ient Subtotut.	1,141,000	1,200,401	
Loose Furniture, Furnishings & Equipment							
 purchase loose furniture & furnishings 	1	lpsm	1,145,000.00	1,145,000	1,179,350	1,388,095	2
 purchase kitchen equipment 	1	lpsm	208,500.00	208,500	241,709	284,491	2
 purchase loose items for additional space 	3,600	sqft	10.00	36,000	41,734	49,121	2
La	ose Furnitur	e, Furni	ishings, & Equipn	nent Subtotal:	1,462,793	1,721,707	
Site Work							
Paving Work							
 replace paving (parking lot, drives, sidewalks) 	1	lpsm	151,733	151,733	175,650	227,474	2
Site Improvements							
 update athletic fields & fixed furnishings 	1	lpsm	120,000.00	120,000	138,915	179,901	2
(fencing, drainage, benches, flag pole)							
- site work due to addition (utilities, paving, landscape)	3,600	sqft	50.00	180,000	208,373	269,852	2
			Site W	ork Subtotal:	522,937	677,227	
				Building Total:	22,325,742	28,460,412	
			Construction	Contingency:	2,189,081		<u> </u>
Notes:			Field Gener	al Conditions:	747,407	0	Series 1
Indirect Costs include contingency, general conditions &	professional	ees	Desig	n Consultants:	1,651,050	22,031,270	Series 2
			Construc	tion Manager:	1,547,132	6,429,142	Series 3
BARTON MAOW BUILDERS			PR	UJECT TOTAL:	28,460,412	28,460,412	Total

School Building Name

Boulan Park Middle School

Project No. 14

Current Grade Structure	6-8	
Proposed Grade Structure	6-8	

- 1. List the number of teaching stations in appropriate column.
- 2. Calculate total capacity using the applicable capacity factor.
- 3. Enter five (5) year projected enrollment.
- 4. Calculate building utilization rate.
- 5. Attach floor plan of the building. Show the rooms and category (existing, proposed new, closed).
- 6. Number the teaching stations in consecutive order.

Existing	List # of Teaching Stations	Capacity Factor	Capacity
(K-2) Lower Elementary	0	20	0
(3-5) Upper Elementary	0	25	0
(6-8) Junior High	34	22.5	765
(9-12) High School	0	21.25	0
Subtotal	34		765
Proposed New	List # of Teaching Stations	Capacity Factor	Capacity
(K-2) Lower Elementary	0	20	0
(3-5) Upper Elementary	0	25	0
(6-8) Junior High	0	00 F	0
(o o) cannot ringit	0	22.5	U
(9-12) High School	0	22.5	0
(9-12) High School Subtotal	0 0 0	22.5	0

Facility to be Closed	List # of Teaching Stations	Capacity Factor	Capacity
(K-2) Lower Elementary	0	20	0
(3-5) Upper Elementary	0	25	0
(6-8) Junior High	0	22.5	0
(9-12) High School	0	21.25	0
Total	0		0

Projected 5-Year Enrollment 688

Utilization Percentage 90%

(Projected 5-Year Enrollment / Total Capacity)


Blue = Circulation / Collaboration - Remodeling

This plan represents a conceptual idea of upgrades proposed at this building. A design committee will be participating in the ultimate planning and design of these upgrades when the project is approved to move forward.

Larson Middle School		Project No. 15
Description of Series 1	n/a	
Description of Series 2	build locker room addition, renovate interspace for special education use, upgrade purchase instructional technology equipequipment	erior space, renovate restrooms, renovate le lighting, upgrade network infrastructure, oment, and purchase furniture & kitchen
Description of Series 3	renovate media center, upgrade mechanic	cal systems
Instructional Technology Description	purchase audio visual systems for class for students & teachers	rooms, and purchase instructional devices
Site Work Description	replace paving, and upgrade fencing & dra	ainage at athletic fields

Construction Cost Per Square	Foot		* \$239 plus escalati	on
New Construction Square Ft	0	Cost per Sq Ft	n/a	
New Addition Square Ft.	3,600	Cost per Sq Ft	\$276.67	*

Statement describing any existing environmental or usability problems the proposed project will address. (ex: asbestos, energy use, or ADA requirements)

abate asbestos prior to renovations, upgrade temperature control systems & upgrade lighting system for energy savings

Estimated Cost of Proposed Construction Project

Column1	Series 1	Series 2	Series 3	Total
New Construction	\$0	\$996,021	\$0	\$996,021
Remodeling	\$0	\$13,051,998	\$4,990,467	\$18,042,465
Construction Contingencies	\$0	\$1,690,447	\$499,047	\$2,189,493
Instructional Technology	\$0	\$1,141,866	\$0	\$1,141,866
Loose Furnishing/Equipment	\$0	\$1,460,474	\$0	\$1,460,474
Buses	\$0	\$0	\$0	\$0
Site Work	\$0	\$689,043	\$0	\$689,043
Site Acquisition	\$0	\$0	\$0	\$0
Architectural Fees and Costs	\$0	\$1,267,856	\$383,511	\$1,651,367
CM Fees and Costs	\$0	\$1,705,452	\$589,848	\$2,295,301
Estimated Costs	\$0	\$22,003,157	\$6,462,873	\$28,466,030

Certificate by Registered Architect

I certify that I have assessed the conditions relative to this facility and the details of the proposed project(s) described above and the attached detail relative to the construction project(s) are true and correct to the best of my knowledge and belief.

Amagastonann	6/15/2022	TMP Architecture 21298
Signature	Date	Firm Name and License Number

John J Castellana, FAIA Printed Name

jcastellana@tmp-architecture.com

TROY SCHOOL DISTRICT PRELIMINARY - FOR DISCUSSION PURPOSE					OSE ONI Y	SEONLY Grades: 6-8	
2022 Bond Program					5% per vear	Enrollment:	636
Larson Middle School	Year	Built: 1	971		for 4 vears	Classrooms:	34
2222 F Long Lake Road Troy MI	Building	i Size 1	10 830		,	Canacity [.]	762
Building Project Work List	Site	Size: >	(XX		1.158	Date:	6/6/22
Catagorie					Direct	Tatal	
Substation			Unit	Direct	Direct	I Utat	Dhace /
Description	Otv	Unit	Cost	Cost	Eccelation	Costs	Series
Description	uly.	υπι	COSI	CUSI	ESCALALION	CUSIS	Series
New Construction							
Build addition(s)							
 build locker room addition 	3,600	sqft	239.00	860,400	996,021	1,289,890	2
			New Construc	tion Subtotal:	996,021	1,289,890	
Remodeling							
Roofing Work							
- n/a				0	0	0	
A set the set of the set							
Architectural work	110 000		2.00	001 (/ 0	25/ 500	222.207	2
- abate asbestos for renovations	110,830	sqft	2.00	221,660	256,599	332,307	2
 replace doors, finishes, & fixed furnishings 	1	lpsm	1,657,548	1,657,548	1,918,819	2,484,955	2
 renovate restrooms for accessibility 	1,855	sqft	250.00	463,750	536,849	695,242	2
 renovate space for special education program 	1,200	sqft	200.00	240,000	277,830	359,802	2
 major remodeling of classrooms 	45,973	sqft	151.93	6,984,587	8,085,532	10,471,118	2
- renovate media center	9,279	sqft	157.00	1,456,803	1,686,432	2,184,003	3
 renovations due to additions (connection allowance) 	3,600	sqft	96.00	345,600	400,075	518,115	2
Machanical Work							
	1	Incm	2 95/ 150	2 95/ 150	2 20/ 025	1. 270 070	2
- upgrade plumbing & HVAC systems	I	tpsm	2,654,150	2,054,150	3,304,035	4,270,070	3
Electrical Work							
 upgrade power & lighting systems 	1	lpsm	1,084,870	1,084,870	1,255,873	1,626,410	2
			Construc	tion Subtotal:	17,722,044	22,950,822	
Technology Infrastructure							
 upgrade network/phone/security infrastructure 	110,830	sqft	2.40	265,992	307,919	339,358	2
 install tech infrastructure for additions 	3,600	sqft	3.00	10,800	12,502	16,191	2
			Remode	ling Subtotal:	18,042,465	23,306,371	•
Instructional Technology Equipment							
- purchase A/V systems & instructional devices	110 830	saft	8 90	986 387	1 141 866	1 258 451	2
	Instruct	ional Te	chnology Equipn	nent Subtotal:	1,141,866	1,258,451	-
					· ·		
Loose Furniture, Furnishings & Equipment	1	1	1 1 / 5 000 00	1 1 / 5 000	1 1 70 250	1 200 005	2
- purchase loose furniture & furnishings	1	lpsm	1,145,000.00	1,145,000	1,179,350	1,388,095	2
 purchase kitchen equipment 	1	lpsm	206,500.00	206,500	239,390	281,762	2
 purchase loose items for additional space 	3,600	sqft	10.00	36,000	41,734	49,121	2
L	oose Furnitur	e, Furni	shings, & Equipn	nent Subtotal:	1,460,474	1,718,978	
Site Work							
Paving Work							
 replace paving (parking lot, drives, sidewalks) 	1	lpsm	295,221	295,221	341,755	442,588	2
Site Improvements							
- update athletic fields & fixed furnishings	1	lpsm	120,000.00	120,000	138,915	179,901	2
(fencing, drainage, benches, flag pole)		•					
 site work due to addition (utilities, paving, landscape) 	3,600	sqft	50.00	180,000	208,373	269,852	2
			Site W	ork Subtotal:	689,043	892,340	
				Suilding Total:	22,329,869	28,466,030	
			Construction	Contingency:	2,189,493		
Notes:			Field Gener	al Conditions:	747,655	0	Series 1
Indirect Costs include contingency, general conditions &	professional	ees	Design	n Consultants:	1,651,367	22,003,157	Series 2
			Construc	tion Manager:	1,547,646	6,462,873	Series 3
BARTON MAOW BUILDERS			PR	OJECT TOTAL:	28,466,030	28,466,030	Total

School Building Name

Larson Middle School

Project No. 15

Current Grade Structure6-8Proposed Grade Structure6-8

- 1. List the number of teaching stations in appropriate column.
- 2. Calculate total capacity using the applicable capacity factor.
- 3. Enter five (5) year projected enrollment.
- 4. Calculate building utilization rate.
- 5. Attach floor plan of the building. Show the rooms and category (existing, proposed new, closed).
- 6. Number the teaching stations in consecutive order.

Existing	List # of Teaching Stations	Capacity Factor	Capacity
(K-2) Lower Elementary	0	20	0
(3-5) Upper Elementary	0	25	0
(6-8) Junior High	34	22.5	765
(9-12) High School	0	21.25	0
Subtotal	34		765
Proposed New	List # of Teaching Stations	Capacity Factor	Capacity
(K-2) Lower Elementary	0	20	0
(3-5) Upper Elementary	0	25	0
(6-8) Junior High	0		0
(0	22.5	0
(9-12) High School	0	22.5	0
(9-12) High School Subtotal	0 0 0	22.5	0

Facility to be Closed	List # of Teaching Stations	Capacity Factor	Capacity
(K-2) Lower Elementary	0	20	0
(3-5) Upper Elementary	0	25	0
(6-8) Junior High	0	22.5	0
(9-12) High School	0	21.25	0
Total	0		0

Projected 5-Year Enrollment 608

Utilization Percentage 79%

(Projected 5-Year Enrollment / Total Capacity)



Blue = Circulation / Collaboration - Remodeling

building. A design committee will be participating in the ultimate planning and design of these upgrades when the project is approved to move forward.

Smith Middle School (existing)		Project No.	16
Description of Series 1	upgrade network infrastructure		
Description of Series 2	replace select roofing & upgrade lighting		
Description of Series 3	upgrade mechanical systems		
Instructional Technology Description	n/a		
Site Work Description	upgrade fencing & drainage at athletic field	ds	

Construction Cost Per Square Foot

New Construction Square Ft	0	Cost per Sq Ft	n/a
New Addition Square Ft.	0	Cost per Sq Ft	n/a

Statement describing any existing environmental or usability problems the proposed project will address. (ex: asbestos, energy use, or ADA requirements)

upgrade temperature control systems & upgrade lighting system for energy savings

Estimated Cost of Proposed Construction Project

Column1	Series 1	Series 2	Series 3	Total
New Construction	\$0	\$0	\$0	\$0
Remodeling	\$279,869	\$2,309,035	\$1,986,681	\$4,575,585
Construction Contingencies	\$33,482	\$230,903	\$198,668	\$463,054
Instructional Technology	\$0	\$0	\$0	\$0
Loose Furnishing/Equipment	\$0	\$0	\$0	\$0
Buses	\$0	\$0	\$0	\$0
Site Work	\$138,915	\$0	\$0	\$138,915
Site Acquisition	\$0	\$0	\$0	\$0
Architectural Fees and Costs	\$19,659	\$177,446	\$152,674	\$349,780
CM Fees and Costs	\$16,419	\$272,916	\$234,816	\$524,151
Estimated Costs	\$488,345	\$2,990,301	\$2,572,839	\$6,051,485

Certificate by Registered Architect

Anna astonann	6/15/2022	TMP Architecture	21298
Signature	Date	Firm Name and License Num	ber
John J Castellana, FAIA	jcastellana@tmp-a	architecture.com	248-338-4561
Printed Name	E-mail Address		Phone Number

TROY SCHOOL DISTRICT	PRELIMINARY - FOR DISCUSSION PURPOSE ONLY Grades: 6-8						6-8
2022 Bond Program					5% per year	Enrollment:	636
Smith Middle School (existing)	Yea	r Built: 1	967		for 4 years	Classrooms:	32
5835 Donaldson Drive, Troy, MI	Buildin	g Size: 1	00,734			Capacity:	720
Building Project Work List	Sit	e Size: x	xx		1.158	Date:	6/6/22
Category					Direct	Total	
Subcategory			Unit	Direct	Cost w/	w/ Indirect	Phase /
Description	Qty.	Unit	Cost	Cost	Escalation	Costs	Series
New Construction							
Build addition(s)							
- n/a				0	0	0	
			New Construc	tion Subtotal:	0	0	•
Remodeling							
Roofing Work							
- replace select roofing	1	lpsm	780,025	780,025	902,976	1,169,394	2
Architectural Work							
- n/a				0	0	0	
Mechanical Work							
- upgrade plumbing & HVAC systems	1	lpsm	1,716,170	1,716,170	1,986,681	2,572,839	3
Electrical Work							
 upgrade power & lighting systems 	1	lpsm	1,214,606	1,214,606	1,406,058	1,820,907	2
			Construc	tion Subtotal:	4,295,716	5,563,140	•
Technology Infrastructure					• •	• •	
 upgrade network/phone/security infrastructure 	100,734	sqft	2.40	241,762	279,869	308,444	1
			Remode	ling Subtotal:	4,575,585	5,871,584	
Instructional Technology Equipment							
- n/a			8.90	0	0	0	
	Instruct	ional Te	chnology Equipn	nent Subtotal:	0	0	
Loose Furniture, Furnishings & Equipment							
- n/a				0 _	0	0	
	Loose Furnitur	e, Furnis	shings, & Equipn	nent Subtotal:	0	0	
Site Work							
Paving Work							
- n/a				0	0	0	
Site Improvements							
 update athletic fields & fixed furnishings 	1	lpsm	120,000.00	120,000	138,915	179,901	- 1
(fencing, drainage, benches, flag pole)			Site W	ork Subtotal:	138,915	179,901	
			E	Building Total:	4,714,500	6,051,485	
			Construction	Contingency:	463,054		
Notes:			Field Gener	al Conditions:	170,733	488,345	Series 1
Indirect Costs include contingency, general conditions	& professional	fees	Desigi	n Consultants:	349,780	2,990,301	Series 2
			Construc	tion Manager:	353,418	2,572,839	Series 3
BARTON MAOW BUILDERS			PR	OJECT TOTAL:	6,051,485	6,051,485	Total

School Building Name

Smith Middle School (existing)

Project No. 16

 Current Grade Structure
 6-8

 Proposed Grade Structure
 n/a

- 1. List the number of teaching stations in appropriate column.
- 2. Calculate total capacity using the applicable capacity factor.
- 3. Enter five (5) year projected enrollment.
- 4. Calculate building utilization rate.
- 5. Attach floor plan of the building. Show the rooms and category (existing, proposed new, closed).
- 6. Number the teaching stations in consecutive order.

Existing	List # of Teaching Stations	Capacity Factor	Capacity
(K-2) Lower Elementary	0	20	0
(3-5) Upper Elementary	0	25	0
(6-8) Junior High	0	22.5	0
(9-12) High School	0	21.25	0
Subtotal	0		0
	List # of Teaching	Capacity	
Proposed New	Stations	Factor	Capacity
(K-2) Lower Elementary	Stations 0	Factor 20	Capacity 0
Proposed New (K-2) Lower Elementary (3-5) Upper Elementary	Stations 0 0	Factor 20 25	Capacity 0 0
Proposed New (K-2) Lower Elementary (3-5) Upper Elementary (6-8) Junior High	Stations 0 0 0	Factor 20 25 22.5	Capacity 0 0 0 0
Proposed New (K-2) Lower Elementary (3-5) Upper Elementary (6-8) Junior High (9-12) High School	Stations 0 0 0 0	Factor 20 25 22.5 21.25	Capacity 0 0 0 0 0 0
Proposed New (K-2) Lower Elementary (3-5) Upper Elementary (6-8) Junior High (9-12) High School Subtotal	Stations 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Factor 20 25 22.5 21.25	Capacity 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

Facility to be Closed	List # of Teaching Stations	Capacity Factor	Capacity
(K-2) Lower Elementary	0	20	0
(3-5) Upper Elementary	0	25	0
(6-8) Junior High	32	22.5	720
(9-12) High School	0	21.25	0
Total	32		720

Projected 5-Year Enrollment 0

Utilization Percentage 0%

(Projected 5-Year Enrollment / Total Capacity)



EIRST LEVEL COMPOSITE FLOOR PLAN

New Smith Middle School		Project No.	17
Description of Series 1	build new building, install network infrastr purchase furnishings	ucture, purchase instru	ictional technology, &
Description of Series 2	n/a		
Description of Series 3	n/a		
Instructional Technology Description	purchase audio visual systems for class for students & teachers	rooms, and purchase	instructional devices
Site Work Description	site work related to new building		

Construction Cost Per Square Foot

New Construction Square Ft	120,000	Cost per Sq Ft	\$347.29	
New Addition Square Ft.	0	Cost per Sq Ft	n/a	

Statement describing any existing environmental or usability problems the proposed project will address. (ex: asbestos, energy use, or ADA requirements)

n/a

Estimated Cost of Proposed Construction Project

Column1	Series 1	Series 2	Series 3	Total
New Construction	\$41,674,500	\$0	\$0	\$41,674,500
Remodeling	\$2,778,300	\$0	\$0	\$2,778,300
Construction Contingencies	\$5,415,280	\$0	\$0	\$5,415,280
Instructional Technology	\$1,236,344	\$0	\$0	\$1,236,344
Loose Furnishing/Equipment	\$1,434,253	\$0	\$0	\$1,434,253
Buses	\$0	\$0	\$0	\$0
Site Work	\$7,400,311	\$0	\$0	\$7,400,311
Site Acquisition	\$0	\$0	\$0	\$0
Architectural Fees and Costs	\$4,134,971	\$0	\$0	\$4,134,971
CM Fees and Costs	\$6,128,778	\$0	\$0	\$6,128,778
Estimated Costs	\$70,202,737	\$0	\$0	\$70,202,737

Certificate by Registered Architect

I certify that I have assessed the conditions relative to this facility and the details of the proposed project(s) described above and the attached detail relative to the construction project(s) are true and correct to the best of my knowledge and belief.

Amagastonann	6/15/2022	TMP Architecture 21298
Signature	Date	Firm Name and License Number

John J Castellana, FAIA Printed Name

jcastellana@tmp-architecture.com E-mail Address

248-338-4561 Phone Number

TROY SCHOOL DISTRICT	PRELIMINARY - FOR DISCUSSION PURPOSE ONLY Grades: 6-8					6-8	
2022 Bond Program					5% per year	Enrollment:	636
New Smith Middle School	Year	Built:	TBD		for 4 years	Classrooms:	36
address: TBD	Building	g Size:	120,000			Capacity:	810
Building Project Work List	Site	e Size:	XXX		1.158	Date:	6/6/22
Category					Direct	Total	
Subcategory			Unit	Direct	Cost w/	w/ Indirect	Phase /
Description	Qty.	Unit	Cost	Cost	Escalation	Costs	Series
New Construction							
Build addition(s)							
- build new building	120,000	sqft	300.00	36,000,000	41,674,500	53,970,301	1
			New Constru	ction Subtotal:	41,674,500	53,970,301	
Remodeling							
Roofing Work							
- n/a				0	0	0	
Architectural Work				0	0	0	
- n/a				U	U	U	
Mechanical Work							
- n/a				0	0	0	
Electrical Work							
- na/				0	0	0	
			Constru	ction Subtotal:	0	0	
Technology Infrastructure							
 install tech infrastructure for new building 	120,000	sqft	20.00	2,400,000	2,778,300	3,598,020	1
			Remod	eling Subtotal:	2,778,300	3,598,020	
Instructional Technology Equipment							
- purchase A/V systems & instructional devices	120,000	sqft	8.90	1,068,000	1,236,344	1,362,574	1
	Instructi	onal T	echnology Equip	ment Subtotal:	1,236,344	1,362,574	
Lease Euroiture Euroichings & Equipment							
- purchase loose furniture & furnishings	1	Incm	1 025 000 00	1 025 000	1 055 750	1 2/2 /18	1
- nurchase kitchen equinment	1	Insm	26 500.00	26 500	30 721	36 158	1
- purchase loose items for new building	120.000	saft	2.50	300.000	347.782	409.340	1
Loo	se Furnitur	e, Furr	nishings, & Equip	ment Subtotal:	1,434,253	1,688,116	
		-					
Site Work							
- n/a				Ο	Ο	0	
Site Improvements				0	Ū	0	
- stormwater retention allowance	1	lpsm	392.666.50	392.667	454,561	588.676	1
- site work for new building (utilities, paving, landscape)	120,000	saft	50.00	6,000,000	6,945,750	8,995,050	1
	,		Site V	Vork Subtotal:	7,400,311	9,583,726	
				Building Total:	54,523,707	70,202,737	
			Constructio	n Contingency:	5,415,280		
Notes:			Field Gene	ral Conditions:	1,996,345	70,202,737	Series 1
Indirect Costs include contingency, general conditions & pr	oressional f	ees	Desig	in Consultants:	4,134,9/1	0	Series 2
			Lonstru		4,132,434	70 202 727	Series 3
BARTON MAUW BUILDERS				OJECT TUTAL:	70,202,737	10,202,131	Total

School Building Name

New Smith Middle School

Project No. 17

Current Grade Structuren/aProposed Grade Structure6-8

- 1. List the number of teaching stations in appropriate column.
- 2. Calculate total capacity using the applicable capacity factor.
- 3. Enter five (5) year projected enrollment.
- 4. Calculate building utilization rate.
- 5. Attach floor plan of the building. Show the rooms and category (existing, proposed new, closed).
- 6. Number the teaching stations in consecutive order.

Existing	List # of Teaching Stations	Capacity Factor	Capacity
(K-2) Lower Elementary	0	20	0
(3-5) Upper Elementary	0	25	0
(6-8) Junior High	0	22.5	0
(9-12) High School	0	21.25	0
Subtotal	0		0
Proposed New	List # of Teaching Stations	Capacity Factor	Capacity
(K-2) Lower Elementary	0	20	0
(3-5) Upper Elementary	0	25	0
(6-8) Junior High	36	22.5	810
(9-12) High School	0	21.25	0
Subtotal	36		810

Facility to be Closed	List # of Teaching Stations	Capacity Factor	Capacity
(K-2) Lower Elementary	0	20	0
(3-5) Upper Elementary	0	25	0
(6-8) Junior High	0	22.5	0
(9-12) High School	0	21.25	0
Total	0		0

Projected 5-Year Enrollment 650

Utilization Percentage 80%

(Projected 5-Year Enrollment / Total Capacity)

CAPACITY 36 TS X 22.5 STUDENTS = 810 STUDENTS

PROJECT NO.17 Smith Middle School - New



This plan represents a conceptual idea of upgrades proposed at this building. A design committee will be participating in the ultimate planning and design of these upgrades when the project is approved to move forward.

Red = New Construction

Athens High School		Project No.	18
Description of Series 1	build new classroom/office space addition infrastructure, purchase instructional tech	n, renovate interior spa nology equipment, & pu	ice, upgrade network urchase property
Description of Series 2	renovate interior space, renovate restroc use, upgrade mechanical systems, up kitchen equipment	oms, renovate space f grade lighting, and p	or special education urchase furniture &
Description of Series 3	replace select roofing		
Instructional Technology Description	purchase audio visual systems for class for students & teachers	rooms, and purchase	instructional devices
Site Work Description	demo portion of building for addition, sit upgrade athletic fields	e work due to additior	ns, replace paving &

Construction Cost Per Square I	Foot		* \$239 plus escalation	on
New Construction Square Ft	0	Cost per Sq Ft	n/a	
New Addition Square Ft.	164,649	Cost per Sq Ft	\$276.67	*

Statement describing any existing environmental or usability problems the proposed project will address. (ex: asbestos, energy use, or ADA requirements)

abate asbestos prior to renovations, upgrade temperature control systems & upgrade lighting system for energy savings

Estimated Cost of Proposed Construction Project

Column1	Series 1	Series 2	Series 3	Total
New Construction	\$45,553,830	\$0	\$0	\$45,553,830
Remodeling	\$6,540,077	\$35,966,280	\$1,508,918	\$44,015,275
Construction Contingencies	\$6,494,684	\$4,772,898	\$394,780	\$11,662,362
Instructional Technology	\$4,104,928	\$0	\$0	\$4,104,928
Loose Furnishing/Equipment	\$0	\$4,759,065	\$0	\$4,759,065
Buses	\$0	\$0	\$0	\$0
Site Work	\$10,311,571	\$7,003,631	\$2,438,878	\$19,754,080
Site Acquisition	\$578,813	\$0	\$0	\$578,813
Architectural Fees and Costs	\$4,878,017	\$3,668,632	\$303,383	\$8,850,032
CM Fees and Costs	\$7,245,180	\$5,078,829	\$466,610	\$12,790,618
Estimated Costs	\$85,707,100	\$61,249,334	\$5,112,568	\$152,069,002

Certificate by Registered Architect

I certify that I have assessed the conditions relative to this facility and the details of the proposed project(s) described above and the attached detail relative to the construction project(s) are true and correct to the best of my knowledge and belief.

Amaan	6/15/2022	TMP Architecture 21298
Signature	Date	Firm Name and License Number

John J Castellana, FAIA Printed Name

jcastellana@tmp-architecture.com

248-338-4561 Phone Number

TROY SCHOOL DISTRICT	PRELIMINARY - FOR DISCUSSION PURPOSE ONLY Grades: 9					9-12	
2022 Bond Program					5% per year	Enrollment:	1500
Athens High School	Year	Built:	1974		for 4 years	Classrooms:	84
4333 John R Road, Troy, MI	Building	g Size:	398,426			Capacity:	1,785
Building Project Work List	Site	e Size:	xxx		1.158	Date:	6/6/22
Category					Direct	Total	
Subcategory			Unit	Direct	Cost w/	w/ Indirect	Phase /
Description	Qty.	Unit	Cost	Cost	Escalation	Costs	Series
New Construction							
Build addition(s)	144 440	caft	220.00	20 251 111	15 552 020	E0 00/ 202	1
	104,049	squ	239.00 New Constru	ction Subtotal	45,553,630	58 99/ 203	. '
			New Constru	ction Subtotat.	43,353,630	50,774,203	
Remodeling							
Roofing Work							
 replace select roofing 	1	lpsm	1,303,460	1,303,460	1,508,918	1,954,115	3
Architectural Work							
- abate asbestos for renovations	398,426	saft	2.00	796.852	922,456	1.194.621	1
- replace doors, finishes, & fixed furnishings	, 1	lpsm	3,595,866	3.595.866	4.162.664	5.390.832	2
 renovate restrooms for accessibility 	4.170	saft	250.00	1.042.500	1.206.824	1.562.890	2
- renovate space for special education program	2 400	saft	200.00	480 000	555 660	719 604	2
- remodel music space	2,100	allo	2 250 000 00	2 250 000	2 604 656	3 373 144	1
- renovations related to additions	164 649	saft	125.00	20 581 125	2,004,000	30 854 709	2
	104,047	Sqrt	120.00	20,001,120	20,020,220	00,004,707	2
Mechanical Work							
 upgrade plumbing & HVAC systems 	1	lpsm	1,332,500	1,332,500	1,542,535	1,997,651	2
Electrical Work							
 upgrade power & lighting systems 	1	lpsm	4,037,034	4,037,034	4,673,371	6,052,221	2
		·	Constru	ction Subtotal:	41,002,310	53,099,785	•
Technology Infrastructure							
 upgrade network/phone/security infrastructure 	398,426	sqft	2.40	956,222	1,106,947	1,219,966	1
- install tech infrastructure for additions	164,649	sqft	10.00	1,646,490	1,906,018	2,468,377	1
			Remod	eling Subtotal:	44,015,275	56,788,128	
terre attendent of the terre of							
Instructional Technology Equipment	200 (2)	0	0.00	2.575.001	(10 (000	(52 (0/1	1
 purchase A/V systems & instructional devices 	398,426	sqit	8.90	3,545,991	4,104,928	4,524,041	. !
	Instruct	ional I	echnology Equip	ment Subtotal:	4,104,928	4,524,041	
Loose Furniture, Furnishings & Equipment							
- purchase loose furniture & furnishings	1	lpsm	2,630,000.00	2,630,000	2,708,900	3,188,375	2
- purchase kitchen equipment	1	lpsm	122,000.00	122,000	141,431	166,465	2
 purchase loose items for additional space 	164,649	sqft	10.00	1,646,490	1,908,733	2,246,579	2
Lo	ose Furnitur	e, Furn	ishings, & Equip	ment Subtotal:	4,759,065	5,601,419	
Cite Work							
Paving Work							
- replace paving (parking lot drives sidewalks)	1	Insm	1 646 794	1 646 794	1 906 370	2 468 833	3
Site Improvements		tpom	1,040,774	1,040,774	1,700,070	2,400,000	0
- demolish partian of building	164 650	saft	12 00	1 975 800	2 287 235	2 962 070	1
- undate athletic fields & fixed furnishings	1	Insm	460 000 00	460 000	532 507	689 621	3
- undate athletic fields	1	lnsm	6 050 000 00	6 050 000	7 003 631	9 070 009	2
- site work due to addition (utilities, paving, landscape)	164 649	saft	42 10	6 931 723	8 024 336	10 391 866	-
	10 1/0 1/	oqit	Site	Nork Subtotal:	19 754 080	25 582 398	
			51101			20,002,070	
Site Acquisition							
 purchase adjacent property for expansion 	1	allo	500,000.00	500,000	578,813	578,813	1
			Site Acquis	sition Subtotal:	578,813	578,813	
				Building Total:	118,765,991	152.069.002	
			Constructio	n Contingency:	11,662.362		
Notes:			Field Gene	eral Conditions	4,166.325	85.707.100	Series 1
Indirect Costs include contingency, general conditions &	orofessional	fees	Desic	n Consultants	8,850,032	61.249.334	Series 2
			Constru	ction <u>Manager:</u>	8,624,293	5,112,568	Series 3
BARTON MAOW BUILDERS			PR	ROJECT TOTAL:	152,069,002	152,0 <u>69,002</u>	Total

School Building Name

Athens High School	Project No.	18

Current Grade Structure	9-12	
Proposed Grade Structure	9-12	

- 1. List the number of teaching stations in appropriate column.
- 2. Calculate total capacity using the applicable capacity factor.
- 3. Enter five (5) year projected enrollment.
- 4. Calculate building utilization rate.
- 5. Attach floor plan of the building. Show the rooms and category (existing, proposed new, closed).
- 6. Number the teaching stations in consecutive order.

Existing	List # of Teaching Stations	Capacity Factor	Capacity
(K-2) Lower Elementary	0	20	0
(3-5) Upper Elementary	0	25	0
(6-8) Junior High	0	22.5	0
(9-12) High School	12	21.25	255
Subtotal	12		255
Proposed New	List # of Teaching Stations	Capacity Factor	Capacity
(K-2) Lower Elementary	0	20	0
(3-5) Upper Elementary	0	25	0
(6-8) Junior High	0	22.5	0
(9-12) High School	72	21.25	1,530
Subtotal	72		1,530

Facility to be Closed	List # of Teaching Stations	Capacity Factor	Capacity
(K-2) Lower Elementary	0	20	0
(3-5) Upper Elementary	0	25	0
(6-8) Junior High	0	22.5	0
(9-12) High School	70	21.25	1,488
Total	70		1,488

Projected 5-Year Enrollment 1,409

Utilization Percentage 79%

(Projected 5-Year Enrollment / Total Capacity)



	Project No. 19
n/a	
build new classroom/office space, renor renoate space for special education infrastructure, purchase instructional tech kitchen equipment	ovate interior space, renovate restrooms, use, upgrade lighting, upgrade network nology equipment, and purchase furniture &
replace select roofing and upgrade mecha	anical systems
purchase audio visual systems for class for students & teachers	rooms, and purchase instructional devices
site work due to additions, replace paving	& upgrade athletic fields
	n/a build new classroom/office space, rend renoate space for special education infrastructure, purchase instructional tech kitchen equipment replace select roofing and upgrade mecha purchase audio visual systems for class for students & teachers site work due to additions, replace paving

Construction Cost Per Square	Foot		* \$239 plus escalati	on
New Construction Square Ft	0	Cost per Sq Ft	n/a	
New Addition Square Ft.	32,000	Cost per Sq Ft	\$276.67	*

Statement describing any existing environmental or usability problems the proposed project will address. (ex: asbestos, energy use, or ADA requirements)

abate asbestos prior to renovations, upgrade temperature control systems & upgrade lighting system for energy savings

Estimated Cost of Proposed Construction Project

Column1	Series 1	Series 2	Series 3	Total
New Construction	\$0	\$8,853,516	\$0	\$8,853,516
Remodeling	\$0	\$21,416,368	\$7,824,428	\$29,240,796
Construction Contingencies	\$0	\$4,044,977	\$1,611,302	\$5,656,279
Instructional Technology	\$0	\$3,536,015	\$0	\$3,536,015
Loose Furnishing/Equipment	\$0	\$3,196,909	\$0	\$3,196,909
Buses	\$0	\$0	\$0	\$0
Site Work	\$0	\$4,793,824	\$8,288,595	\$13,082,419
Site Acquisition	\$0	\$0	\$0	\$0
Architectural Fees and Costs	\$0	\$3,011,601	\$1,238,266	\$4,249,866
CM Fees and Costs	\$0	\$4,031,652	\$1,904,479	\$5,936,131
Estimated Costs	\$0	\$52,884,861	\$20,867,070	\$73,751,930

Certificate by Registered Architect

I certify that I have assessed the conditions relative to this facility and the details of the proposed project(s) described above and the attached detail relative to the construction project(s) are true and correct to the best of my knowledge and belief.

Ann astoname	6/15/2022	TMP Architecture 21298
Signature	Date	Firm Name and License Number

John J Castellana, FAIA Printed Name

_ jcastellana@tmp-architecture.com E-mail Address

TROY SCHOOL DISTRICT	PRFIIM	INAR	Y - FOR DISCL	ISSION PURE	OSE ONLY	Grades:	9-12
2022 Bond Program	I KEEM					Enrollment:	1750
Troy High School	Vear	· Built· ·	1992		for / years	Classrooms:	103
(777 Northfield Barkway, Troy, MI	Building	a Sizo: "	2/2 207		ior 4 years	Capacity:	2 1 9 0
Building Project Work List	Ci+/	y Size	545,207		1 159	Data:	L,107
	JIC	e Jize. ,	~~~		1.150	Date.	0/0/22
Category					Direct	Total	
Subcategory			Unit	Direct	Cost w/	w/ Indirect	Phase /
Description	Qty.	Unit	Cost	Cost	Escalation	Costs	Series
New Construction							
Build addition(s)							
- build classroom, office, multi-use, music space	32,000	saft	239.00	7,648,000	8,853,516	11,465,691	2
	,	•	New Constru	ction Subtotal:	8,853,516	11,465,691	
Remodeling							
Roofing Work							
- replace select roofing	1	Insm	1 092 000	1 092 000	1 264 127	1 637 099	3
		tpom	1,072,000	1,072,000	1,204,127	1,007,077	5
Architectural Work							
 abate asbestos for renovations 	343,207	sqft	2.00	686,414	794,610	1,029,055	2
 replace doors, finishes, & fixed furnishings 	1	lpsm	3,256,790	3,256,790	3,770,142	4,882,498	2
 renovate restrooms for accessibility 	3,450	sqft	250.00	862,500	998,452	1,293,038	2
 renovate space for special education program 	2,400	sqft	200.00	480,000	555,660	719,604	2
 major remodeling of space 	1	allo	5,500,000.00	5,500,000	6,366,938	8,245,463	2
- renovations due to additions (connection allowance)	32,000	sqft	96.00	3,072,000	3,556,224	4,605,466	2
Mechanical Work							
 upgrade plumbing & HVAC systems 	1	lpsm	5,667,035	5,667,035	6,560,301	8,495,877	3
Electrical Work		·					
- upgrade nower & lighting systems	1	Incm	3 / 08 843	3 / 08 843	6 050 371	5 2/5 /08	2
upgrade power & lighting systems	1	thau	5,470,005	tion Subtotal	27 916 826	36 153 508	Z
Technology Infrastructure			Construc	cion Subtotat.	27,710,024	30,133,300	
- ungrade network/nhone/security infrastructure	3/3 207	saft	2 /0	823 697	953 532	1 050 888	2
- install tash infrastructure for additions	22 000	sqrt	10.00	220,000	220 770	1,030,000	2
	52,000	sqit	TU.UU Romody	320,000 	370,440	4/9,/30	Z
			Kelliou	eting Subtotat.	27,240,770	57,004,152	
Instructional Technology Equipment							
 purchase A/V systems & instructional devices 	343,207	sqft	8.90	3,054,542	3,536,015	3,897,042	2
	Instruct	ional Te	echnology Equip	ment Subtotal:	3,536,015	3,897,042	
Loose Furniture, Furnishings & Equipment							
- purchase loose furniture & furnishings	1	lpsm	2,590,000.00	2,590,000	2,667,700	3,139,883	2
- purchase kitchen equipment	1	lpsm	136,500.00	136,500	158,241	186,250	2
- purchase loose items for additional space	32,000	sqft	10.00	320,000	370,968	436,629	2
L	oose Furnitur	e, Furni	ishings, & Equip	ment Subtotal:	3,196,909	3,762,761	
Site Work							
Paving Work							
 replace paving (parking lot, drives, sidewalks) 	1	losm	2.605.085	2.605.085	3.015.712	3,905,479	2
Site Improvements		-p	_,,			-,,	_
- undate athletic fields & fixed furnishings	1	Insm	440 000 00	460 000	532 507	689 621	3
- undate athletic fields	1	Incm		400,000	7 756 088	10 066 673	3
- site work due to addition (utilities, paving, landscape)	32 000	saft	0,700,000.00 //8.00	1 536 000	1 778 112	2 302 733	2
site work due to dudition (diffites, paying, tandscape)	52,000	Sqrt	Site V	Vork Subtotal:	13.082.419	16.942.305	2
				Building Total:	57,909,654	73,751,930	
				1 Contingency:	5,656,279		<u> </u>
			Field Gene	ral Conditions:	1,933,593	0	Series 1
Indirect Costs include contingency, general conditions &	professional	ees	Desig	n Consultants:	4,249,866	52,884,861	Series 2
			Constru	ction Manager:	4,002,538	20,867,070	Series 3
BARTON MAUW BUILDERS			PR	UJECT TOTAL:	/3,/51,930	/3,/51,930	Total

-

Building Utilization

School Building Name

Troy High School		Project No.	19	
Current Grade Structure	9-12			

9-12

- 1. List the number of teaching stations in appropriate column.
- 2. Calculate total capacity using the applicable capacity factor.
- 3. Enter five (5) year projected enrollment.
- 4. Calculate building utilization rate.

Proposed Grade Structure

- 5. Attach floor plan of the building. Show the rooms and category (existing, proposed new, closed).
- 6. Number the teaching stations in consecutive order.

Existing	List # of Teaching Stations	Capacity Factor	Capacity
(K-2) Lower Elementary	0	20	0
(3-5) Upper Elementary	0	25	0
(6-8) Junior High	0	22.5	0
(9-12) High School	92	21.25	1,955
Subtotal	92		1,955
Proposed New	List # of Teaching Stations	Capacity Factor	Capacity
(K-2) Lower Elementary	0	20	0
(3-5) Upper Elementary	0	25	0
(6-8) Junior High	0	00.5	0
	0	22.5	0
(9-12) High School	11	22.5	234
(9-12) High School Subtotal	11 11	22.5	234 234

Facility to be Closed	List # of Teaching Stations	Capacity Factor	Capacity
(K-2) Lower Elementary	0	20	0
(3-5) Upper Elementary	0	25	0
(6-8) Junior High	0	22.5	0
(9-12) High School	0	21.25	0
Total	0		0

Projected 5-Year Enrollment 1,830

Utilization Percentage 84%

(Projected 5-Year Enrollment / Total Capacity)



International Academy		Project No. 20
Description of Series 1	n/a	
Description of Series 2	n/a	
Description of Series 3	renovate interior space, renovate restroor lighting systems, upgrade network infras equipment, purchase furniture & kitchen e	ms, upgrade mechanical systems, upgrade structure, purchase instructional technology equipment
Instructional Technology Description	purchase audio visual systems for class for students & teachers	rooms, and purchase instructional devices
Site Work Description	replace paving	

Construction Cost Per Square Foot

New Construction Square Ft	0	Cost per Sq Ft	n/a
New Addition Square Ft.	0	Cost per Sq Ft	n/a

Statement describing any existing environmental or usability problems the proposed project will address. (ex: asbestos, energy use, or ADA requirements)

abate asbestos prior to renovations, upgrade temperature control systems & upgrade lighting system for energy savings

Estimated Cost of Proposed Construction Project

Column1	Series 1	Series 2	Series 3	Total
New Construction	\$0	\$0	\$0	\$0
Remodeling	\$0	\$0	\$6,677,128	\$6,677,128
Construction Contingencies	\$0	\$0	\$838,133	\$838,133
Instructional Technology	\$0	\$0	\$837,736	\$837,736
Loose Furnishing/Equipment	\$0	\$0	\$865,200	\$865,200
Buses	\$0	\$0	\$0	\$0
Site Work	\$0	\$0	\$320,362	\$320,362
Site Acquisition	\$0	\$0	\$0	\$0
Architectural Fees and Costs	\$0	\$0	\$621,151	\$621,151
CM Fees and Costs	\$0	\$0	\$800,367	\$800,367
Estimated Costs	\$0	\$0	\$10,960,078	\$10,960,078

Certificate by Registered Architect

I certify that I have assessed the conditions relative to this facility and the details of the proposed project(s) described above and the attached detail relative to the construction project(s) are true and correct to the best of my knowledge and belief.

Amanaastonam	6/15/2022	TMP Architecture 21298
Signature	Date	Firm Name and License Number

John J Castellana, FAIA Printed Name

_ jcastellana@tmp-architecture.com E-mail Address

248-338-4561 Phone Number

TROY SCHOOL DISTRICT	PRELIMINARY - FOR DISCUSSION PURPOSE ONLY Grades: 9-12					9-12	
2022 Bond Program					5% per year	Enrollment:	500
International Academy	Year Built: 1952			for 4 years	Classrooms:	25	
1291 Torpey Drive, Troy, MI	Buildin	g Size: 8	1,311			Capacity:	531
Building Project Work List	Sit	e Size: x	xx		1.158	Date:	6/6/22
Category					Direct	Total	
Subcategory			Unit	Direct	Cost w/	w/ Indirect	Phase /
Description	Qty.	Unit	Cost	Cost	Escalation	Costs	Series
New Construction							
Build addition(s)							
- n/a				0	0	0	_
			New Construc	tion Subtotal:	0	0	-
Remodeling							
Roofing Work							
- n/a				0	0	0	
Architectural work	01 011	4	2.00	1/0/00	100.255	2/2 700	2
- abate aspestos for renovations	81,311	sqrt	Z.UU	102,022	188,255	243,799	3
- replace doors, misnes, & fixed furnishings	1 950	upsm e aft	342,332	542,552	027,017	613,051	ა ე
- Tenovate restrooms for accessibility	1,000	sqit	250.00	402,500	2 044 241	073,300	ა ე
- Tenovate mutti-purpose space	10,500	sqit	170.00	1,765,000	2,000,301	2,070,027	3
Mechanical Work							
 upgrade plumbing & HVAC systems 	1	lpsm	1,731,555	1,731,555	2,004,491	2,595,904	3
Electrical Work							
 upgrade power & lighting systems 	1	lpsm	888,799	888,799	1,028,896	1,332,465	3
		·	Construc	tion Subtotal:	6,451,222	8,354,615	-
Technology Infrastructure							
 upgrade network/phone/security infrastructure 	81,311	sqft	2.40	195,146	225,906	248,971	3
			Remode	ling Subtotal:	6,677,128	8,603,586	-
Instructional Technology Equipment							
 purchase A/V systems & instructional devices 	81,311	sqft	8.90	723,668	837,736	923,269	3
	Instruct	ional Te	chnology Equipn	nent Subtotal:	837,736	923,269	-
Loose Furniture, Furnishings & Equipment							
- purchase loose furniture & furnishings	1	lpsm	840,000.00	840,000	865,200	1,018,340	3
	Loose Furnitur	e, Furnis	shings, & Equipn	nent Subtotal:	865,200	1,018,340	-
Site Work							
Paving Work							
 replace paving (parking lot, drives, sidewalks) 	1	lpsm	276,741	276,741	320,362	414,883	3
Site Improvements							
- n/a				0	0	0	_
			Site W	ork Subtotal:	320,362	414,883	
			E	Building <u>Total:</u>	8,700,427	10,9 <u>60,078</u>	
			Construction	Contingency:	838,133		
Notes:			Field Gener	al Conditions:	260,706		Series 1
Indirect Costs include contingency, general conditions	& professional	fees	Desig	n Consultants:	621,151		Series 2
			Construc	tion Manager:	539,661	10,960,078	Series 3
BARTON MAOW BUILDERS			PR	OJECT TOTAL:	10,960,078	10,960,078	Total

Building Utilization

School Building Name

nternational Academy	Project No.	20

Current Grade Structure	9-12
Proposed Grade Structure	9-12

- 1. List the number of teaching stations in appropriate column.
- 2. Calculate total capacity using the applicable capacity factor.
- 3. Enter five (5) year projected enrollment.
- 4. Calculate building utilization rate.
- 5. Attach floor plan of the building. Show the rooms and category (existing, proposed new, closed).
- 6. Number the teaching stations in consecutive order.

Existing	List # of Teaching Stations	Capacity Factor	Capacity	
(K-2) Lower Elementary	0	20	0	
(3-5) Upper Elementary	0	25	0	
(6-8) Junior High	0	22.5	0	
(9-12) High School	25	25 21.25		
Subtotal	25		531	
Proposed New	List # of Teaching Stations	Capacity Factor	Capacity	
(K-2) Lower Elementary	0	20	0	
(3-5) Upper Elementary	0	25	0	
(3-5) Upper Elementary (6-8) Junior High	0	25 22.5	0	
(3-5) Upper Elementary (6-8) Junior High (9-12) High School	0 0 0	25 22.5 21.25	0 0 0	
(3-5) Upper Elementary (6-8) Junior High (9-12) High School Subtotal	0 0 0 0	25 22.5 21.25	0 0 0	

Facility to be Closed	List # of Teaching Stations	Capacity Factor	Capacity
(K-2) Lower Elementary	0	20	0
(3-5) Upper Elementary	0	25	0
(6-8) Junior High	0	22.5	0
(9-12) High School	0	21.25	0
Total	0		0

Projected 5-Year Enrollment 510

Utilization Percentage 96%

(Projected 5-Year Enrollment / Total Capacity)



International Academy East and Troy Center for Transition Campus

<u>CAPACITY</u> 25 TS X 21.25 STUDENTS = 531 STUDENTS



Troy College & Career High School		Project No. 21
Description of Series 1	n/a	
Description of Series 2	n/a	
Description of Series 3	replace select roofing, renovate restroor lighting systems, upgrade network infras equipment, and purchase furniture	ns, upgrade mechanical systems, upgrade tructure, purchase instructional technology
Instructional Technology Description	purchase audio visual systems for class for students & teachers	rooms, and purchase instructional devices
Site Work Description	replace paving	

Construction Cost Per Square Foot

New Construction Square Ft	0	Cost per Sq Ft	n/a
New Addition Square Ft.	0	Cost per Sq Ft	n/a

Statement describing any existing environmental or usability problems the proposed project will address. (ex: asbestos, energy use, or ADA requirements)

abate asbestos prior to renovations, upgrade temperature control systems & upgrade lighting system for energy savings

Estimated Cost of Proposed Construction Project

Column1	Series 1	Series 2	Series 3	Total
New Construction	\$0	\$0	\$0	\$0
Remodeling	\$0	\$0	\$1,486,469	\$1,486,469
Construction Contingencies	\$0	\$0	\$259,596	\$259,596
Instructional Technology	\$0	\$0	\$393,353	\$393,353
Loose Furnishing/Equipment	\$0	\$0	\$0	\$0
Buses	\$0	\$0	\$0	\$0
Site Work	\$0	\$0	\$865,964	\$865,964
Site Acquisition	\$0	\$0	\$0	\$0
Architectural Fees and Costs	\$0	\$0	\$188,662	\$188,662
CM Fees and Costs	\$0	\$0	\$265,508	\$265,508
Estimated Costs	\$0	\$0	\$3,459,551	\$3,459,551

Certificate by Registered Architect

I certify that I have assessed the conditions relative to this facility and the details of the proposed project(s) described above and the attached detail relative to the construction project(s) are true and correct to the best of my knowledge and belief.

Ann astonamn	6/15/2022	TMP Architecture 21298
Signature	Date	Firm Name and License Number

John J Castellana, FAIA Printed Name

jcastellana@tmp-architecture.com E-mail Address

TROY SCHOOL DISTRICT PRELIMINARY - FOR DISCUSSION PURPOSE ONLY Grades: 9						9-12	
2022 Bond Program					5% per year	Enrollment:	150
College & Career High School	Year	r Built: x	кх		for 4 years	Classrooms:	9
1522 E. Big Beaver Road, Troy, MI	Buildin	g Size: 3	8,179			Capacity:	191
Building Project Work List	Sit	e Size: x	хх		1.158	Date:	6/6/22
Category					Direct	Total	
Subcategory			Unit	Direct	Cost w/	w/ Indirect	Phase /
Description	Qty.	Unit	Cost	Cost	Escalation	Costs	Series
New Construction							
Build addition(s)							
- n/a			0.00	0	0	0	3
			New Construct	ion Subtotal:	0	0	-
Remodeling							
Roofing Work							
- replace select roofing	1	lpsm	763,580	763,580	883,939	1,144,740	3
Architectural Work							
- abate asbestos for renovations	38,179	sqft	2.00	76,358	88,394	114,474	3
 renovate restrooms for accessibility 	850	sqft	250.00	212,500	245,995	318,575	3
Mechanical Work							
- upgrade plumbing & HVAC systems	1	lpsm	90,000	90,000	104,186	134,926	3
Electrical Work							
 upgrade power & lighting systems 	1	lpsm	50,000	50,000	57,881	74,959	3
			Construct	ion Subtotal:	1,380,396	1,787,673	
Technology Infrastructure							
 upgrade network/phone/security infrastructure 	38,179	sqft	2.40	91,630	106,073	116,903	3
			Remodel	ing Subtotal:	1,480,409	1,904,576	
Instructional Technology Equipment							
 purchase A/V systems & instructional devices 	38,179	sqft	8.90	339,793	393,353	433,514	3
	Instruct	ional Te	chnology Equipm	ent Subtotal:	393,353	433,514	
Loose Furniture, Furnishings & Equipment							
- n/a				0	0	0	-
	Loose Furnitur	e, Furnis	hings, & Equipm	ent Subtotal:	0	0	
Site Work							
Paving Work							
 replace paving (parking lot, drives, sidewalks) 	1	lpsm	748,052	748,052	865,964	1,121,461	3
Site Improvements							
- n/a				0	0	0	-
			Site Wo	ork Subtotal:	865,964	1,121,461	
	_		В	uilding Total:	2,745,785	3,459,551	
			Construction	Contingency:	259,596		
Notes:			Field Genera	al Conditions:	86,485		Series 1
Indirect Costs include contingency, general conditions	s & professional	fees	Design	Consultants:	188,662		Series 2
			Construct	ion Manager:	179,024	3,459,551	Series 3
BARTON MAOW BUILDERS			PRO	JECT TOTAL:	3,459,551	3,459,551	Total

School Building Name

Troy College & Career High School

Project No. 21

Current Grade Structure	9-12	
Proposed Grade Structure	9-12	

- 1. List the number of teaching stations in appropriate column.
- 2. Calculate total capacity using the applicable capacity factor.
- 3. Enter five (5) year projected enrollment.
- 4. Calculate building utilization rate.
- 5. Attach floor plan of the building. Show the rooms and category (existing, proposed new, closed).
- 6. Number the teaching stations in consecutive order.

Existing	List # of Teaching Stations	Capacity Factor	Capacity
(K-2) Lower Elementary	0	20	0
(3-5) Upper Elementary	0	25	0
(6-8) Junior High	0	22.5	0
(9-12) High School	9	21.25	191
Subtotal	9		191
	List#of		
Proposed New	Teaching Stations	Capacity Factor	Capacity
Proposed New (K-2) Lower Elementary	Teaching Stations	Capacity Factor	Capacity 0
Proposed New (K-2) Lower Elementary (3-5) Upper Elementary	Teaching Stations 0 0	Capacity Factor 20 25	Capacity 0
Proposed New (K-2) Lower Elementary (3-5) Upper Elementary (6-8) Junior High	Operation 0 0 0 0	Capacity Factor 20 25 22.5	Capacity 0 0 0 0
Proposed New (K-2) Lower Elementary (3-5) Upper Elementary (6-8) Junior High (9-12) High School	Control Teaching Stations 0 0 0 0 0 0 0	Capacity Factor 20 25 22.5 21.25	Capacity 0 0 0 0 0 0
Proposed New (K-2) Lower Elementary (3-5) Upper Elementary (6-8) Junior High (9-12) High School Subtotal	Teaching Stations 0 0 0 0 0 0 0 0 0 0 0 0	Capacity Factor 20 25 22.5 21.25	Capacity 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

Facility to be Closed	List # of Teaching Stations	Capacity Factor	Capacity
(K-2) Lower Elementary	0	20	0
(3-5) Upper Elementary	0	25	0
(6-8) Junior High	0	22.5	0
(9-12) High School	0	21.25	0
Total	0		0

Projected 5-Year Enrollment 155

Utilization Percentage 81%

(Projected 5-Year Enrollment / Total Capacity)



Early Childhood Center		Project No. 22
Description of Series 1	n/a	
Description of Series 2	n/a	
Description of Series 3	replace select roofing & upgrade network	infrastructure
Instructional Technology Description	purchase audio visual systems & instruction	onal devices
Site Work Description	replace select paving	

Construction Cost Per Square Foot

New Construction Square Ft	0	Cost per Sq Ft	n/a
New Addition Square Ft.	0	Cost per Sq Ft	n/a

Statement describing any existing environmental or usability problems the proposed project will address. (ex: asbestos, energy use, or ADA requirements)

n/a

Estimated Cost of Proposed Construction Project

Column1	Series 1	Series 2	Series 3	Total
New Construction	\$0	\$0	\$0	\$0
Remodeling	\$0	\$0	\$328,766	\$328,766
Construction Contingencies	\$0	\$0	\$92,749	\$92,749
Instructional Technology	\$0	\$0	\$721,200	\$721,200
Loose Furnishing/Equipment	\$0	\$0	\$0	\$0
Buses	\$0	\$0	\$0	\$0
Site Work	\$0	\$0	\$152,228	\$152,228
Site Acquisition	\$0	\$0	\$0	\$0
Architectural Fees and Costs	\$0	\$0	\$51,411	\$51,411
CM Fees and Costs	\$0	\$0	\$33,864	\$33,864
Estimated Costs	\$0	\$0	\$1,380,218	\$1,380,218

Certificate by Registered Architect

Anna astonamy	6/15/2022	TMP Architecture	21298
Signature	Date	Firm Name and License Nur	nber
John J Castellana, FAIA	jcastellana@tmp-	-architecture.com	248-338-4561
Printed Name	E-mail Address		Phone Number

TROY SCHOOL DISTRICT	PRELIMINARY - FOR DISCUSSION PURPOSE ONLY Grades: preK						preK
2022 Bond Program						Enrollment:	n/a
Early Childhood Center	Year	Year Built: xxx			for 4 years	Classrooms:	n/a
205 W. Square Lake Road, Troy, MI	Building	Building Size: 70,000				Capacity:	n/a
Building Project Work List	Site	e Size: x	κx		1.158	Date:	6/6/22
Category					Direct	Total	
Subcategory			Unit	Direct	Cost w/	w/ Indirect	Phase /
Description	Qty.	Unit	Cost	Cost	Escalation	Costs	Series
New Construction							
Build addition(s)							
- n/a				0	0	0	
			New Construct	ion Subtotal:	0	0	
Remodeling							
Roofing Work							
- replace select roofing	5,800	sqft	20	116,000	134,285	173,904	3
Architectural Work							
- n/a				0	0	0	
Mechanical Work							
- n/a				0	0	0	
Electrical Work							
- n/a				0	0	0	
			Construct	ion Subtotal:	134,285	173,904	
Technology Infrastructure							
 upgrade network/phone/security infrastructure 	70,000	sqft	2.40	168,000	194,481	214,338	3
			Remodel	ing Subtotal:	328,766	388,242	
Instructional Technology Equipment							
 purchase A/V systems & instructional devices 	70,000	sqft	8.90	623,000	721,200	794,835	3
	Instructi	onal Teo	chnology Equipm	ent Subtotal:	721,200	794,835	
Loose Furniture, Furnishings & Equipment							
- n/a				0	0	0	
	Loose Furniture	e, Furnis	hings, & Equipm	ent Subtotal:	0	0	
Site Work							
Paving Work							
 replace paving (parking lot, drives, sidewalks) 	1	lpsm	131,500	131,500	152,228	197,142	3
Site Improvements							
- n/a				0	0	0	
			Site Wo	ork Subtotal:	152,228	197,142	
			В	uilding Total:	1,202,194	1,380,218	
			Construction	Contingency:	92,749		
Notes:			Field Genera	al Conditions:	11,031		Series 1
Indirect Costs include contingency, general condition	s & professional f	ees	Design	Consultants:	51,411	0	Series 2
			Construct	ION Manager:	22,834	1,380,218	Series 3
DAKTON MAUW BUILDERS			PRU	JECT TUTAL:	1,380,218	1,380,218	Total

Services Building		Project No.	23
Description of Series 1	n/a		
Description of Series 2	n/a		
Description of Series 3	replace roofing, replace interior furnishing lighting, & upgrade network infrastructure	gs, replace mechanical	equipment, upgrade
Instructional Technology Description	n/a		
Site Work Description	replace paving		

Construction Cost Per Square Foot

New Construction Square Ft	0	Cost per Sq Ft	n/a
New Addition Square Ft.	0	Cost per Sq Ft	n/a

Statement describing any existing environmental or usability problems the proposed project will address. (ex: asbestos, energy use, or ADA requirements)

upgrade temperature control systems & upgrade lighting system for energy savings

Estimated Cost of Proposed Construction Project

Column1	Series 1	Series 2	Series 3	Total
New Construction	\$0	\$0	\$0	\$0
Remodeling	\$0	\$0	\$1,880,388	\$1,880,388
Construction Contingencies	\$0	\$0	\$215,383	\$215,383
Instructional Technology	\$0	\$0	\$0	\$0
Loose Furnishing/Equipment	\$0	\$0	\$0	\$0
Buses	\$0	\$0	\$0	\$0
Site Work	\$0	\$0	\$297,727	\$297,727
Site Acquisition	\$0	\$0	\$0	\$0
Architectural Fees and Costs	\$0	\$0	\$163,762	\$163,762
CM Fees and Costs	\$0	\$0	\$247,872	\$247,872
Estimated Costs	\$0	\$0	\$2,805,133	\$2,805,133

Certificate by Registered Architect

Anna astonamy	6/15/2022	TMP Architecture	21298
Signature	Date	Firm Name and License Num	ber
John J Castellana, FAIA	jcastellana@tmp-a	rchitecture.com	248-338-4561
Printed Name	E-mail Address		Phone Number

TROY SCHOOL DISTRICT	PRELIM	IINARY	- FOR DISCUS	SSION PURP	OSE ONLY	Grades:	n/a
2022 Bond Program					5% per year	Enrollment:	n/a
Service Center	Yea	r Built: 2	000		for 4 years	Classrooms:	n/a
4420 Livernois, Troy, MI	Building Size: 29,143					Capacity:	n/a
Building Project Work List	Sit	e Size:(admin site)		1.158	Date:	6/6/22
Category					Direct	Total	
Subcategory			Unit	Direct	Cost w/	w/ Indirect	Phase /
Description	Qty.	Unit	Cost	Cost	Escalation	Costs	Series
New Construction							
Build addition(s)							
- n/a				0	0	0	
			New Construct	tion Subtotal:	0	0	-
Remodeling							
Roofing Work							
- replace select roofing	1	lpsm	55,200	55,200	63,901	82,754	3
Architectural Work							
- replace doors, finishes, & fixed furnishings	1	lpsm	562,848	562,848	651,567	843,808	3
Mechanical Work							
 upgrade plumbing & HVAC systems 	1	lpsm	645,715	645,715	747,496	968,040	3
Electrical Work							
 upgrade power & lighting systems 	1	lpsm	290,644	290,644	336,457	435,726	3
			Construct	tion Subtotal:	1,799,420	2,330,328	-
Technology Infrastructure							
 upgrade network/phone/security infrastructure 	29,143	sqft	2.40	69,943	80,968	89,235	3
			Remode	ling Subtotal:	1,880,388	2,419,563	
Instructional Technology Equipment							
- n/a				0	0	0	-
	Instruct	ional Te	chnology Equipm	ent Subtotal:	0	0	
Loose Furniture, Furnishings & Equipment							
- n/a				0 _	0	0	-
	Loose Furnitur	e, Furnis	shings, & Equipm	ent Subtotal:	0	0	
Site Work							
Paving Work							
 replace paving (parking lot, drives, sidewalks) 	1	lpsm	257,188	257,188	297,727	385,570	3
Site Improvements					2		
- n/a				<u> </u>	0	0	-
			Site W	ork Subtotal:	297,727	385,570	
			В	uilding Total:	2,178,116	2,805,133	
			Construction	Contingency:	215,383		
Notes:			Field Genera	al Conditions:	80,740		Series 1
Indirect Costs include contingency, general conditions	& professional	fees	Design	Consultants:	163,762		Series 2
			Construct	tion Manager:	167,132	2,805,133	Series 3
BARTON MAUW BUILDERS			PRC	JJECT TOTAL:	2,805,133	2,805,133	Total

Administration Building		Project No.	24
Description of Series 1	n/a		
Description of Series 2	n/a		
Description of Series 3	replace interior furnishings, replace me upgrade network infrastructure	echanical equipment,	upgrade lighting, &
Instructional Technology Description	n/a		
Site Work Description	replace paving		

Construction Cost Per Square Foot

New Construction Square Ft	0	Cost per Sq Ft	n/a
New Addition Square Ft.	0	Cost per Sq Ft	n/a

Statement describing any existing environmental or usability problems the proposed project will address. (ex: asbestos, energy use, or ADA requirements)

upgrade temperature control systems & upgrade lighting system for energy savings

Estimated Cost of Proposed Construction Project

Column1	Series 1	Series 2	Series 3	Total
New Construction	\$0	\$0	\$0	\$0
Remodeling	\$0	\$0	\$635,858	\$635,858
Construction Contingencies	\$0	\$0	\$68,053	\$68,053
Instructional Technology	\$0	\$0	\$0	\$0
Loose Furnishing/Equipment	\$0	\$0	\$0	\$0
Buses	\$0	\$0	\$0	\$0
Site Work	\$0	\$0	\$54,679	\$54,679
Site Acquisition	\$0	\$0	\$0	\$0
Architectural Fees and Costs	\$0	\$0	\$51,575	\$51,575
CM Fees and Costs	\$0	\$0	\$77,677	\$77,677
Estimated Costs	\$0	\$0	\$887,842	\$887,842

Certificate by Registered Architect

Ann astrann	6/15/2022	TMP Architecture	21298
Signature	Date	Firm Name and License Num	ber
John J Castellana, FAIA	jcastellana@tmp-a	architecture.com	248-338-4561
Printed Name	E-mail Address		Phone Number

TROY SCHOOL DISTRICT	PRELIMINARY - FOR DISCUSSION PURPOSE ONLY Grades: n/a					n/a	
2022 Bond Program					5% per year	Enrollment:	n/a
Administration Building (Board Office)	Year	r Built: 1	973		for 4 years	Classrooms:	n/a
4400 Livernois, Troy, MI	Building	g Size: 1	2,000			Capacity:	n/a
Building Project Work List	Site Size: 15.50			1.158	Date:	6/6/22	
Category					Direct	Total	
Subcategory			Unit	Direct	Cost w/	w/ Indirect	Phase /
Description	Qty.	Unit	Cost	Cost	Escalation	Costs	Series
New Construction							
Build addition(s)							
- n/a				0	0	0	
			New Construct	tion Subtotal:	0	0	
Permedeling							
Realing Work							
- n/a				0	0	0	
Architectural Work							
- replace doors, finishes, & fixed furnishings	1	lpsm	242,678	242,678	280,930	363,817	3
Mechanical Work							
 upgrade plumbing & HVAC systems 	1	lpsm	182,500	182,500	211,267	273,599	3
Electrical Work							
 upgrade power & lighting systems 	1	lpsm	95,300	95,300	110,322	142,871	3
			Construc	tion Subtotal:	602,518	780,288	
Technology Infrastructure							
 upgrade network/phone/security infrastructure 	12,000	sqft	2.40	28,800	33,340	36,744	3
			Remode	ling Subtotal:	635,858	817,031	
Instructional Technology Equipment							
- n/a				0	0	0	
	Instruct	ional Te	chnology Equipm	ent Subtotal:	0	0	
Loose Furniture, Furnishings & Equipment							
- n/a				0	0	0	
La	ose Furnitur	e, Furni	shings, & Equipm	ent Subtotal:	0	0	
Site Work							
Paving Work							
- replace paving (parking lot, drives, sidewalks)	1	lpsm	47,233	47,233	54,679	70,811	3
site improvements				n	n	٥	
170			Site W	ork Subtotal:	54,679	70,811	
			R	uilding Total:	690 537	887 842	
			Construction	Contingency:	68.053	007,012	
Notes:			Field Gener	al Conditions:	25.302	0	Series 1
Indirect Costs include contingency, general conditions & I	professional	fees	Desiar	n Consul <u>tants:</u>	51,575		Series 2
			Construct	tion Manager:	52,375	887,842	Series 3
BARTON MAOW BUILDERS			PRO	JECT TOTAL:	887,842	887,842	Total

Facilities, Operations, Purchasing Building		Project No. 25
Description of Series 1	n/a	
Description of Series 2	n/a	
Description of Series 3	replace roofing, replace interior furnishing lighting, & upgrade network infrastructure	gs, replace mechanical equipment, upgrade
Instructional Technology Description	n/a	
Site Work Description	replace paving	

Construction Cost Per Square Foot

New Construction Square Ft	0	Cost per Sq Ft	n/a
New Addition Square Ft.	0	Cost per Sq Ft	n/a

Statement describing any existing environmental or usability problems the proposed project will address. (ex: asbestos, energy use, or ADA requirements)

upgrade temperature control systems & upgrade lighting system for energy savings

Estimated Cost of Proposed Construction Project

Column1	Series 1	Series 2	Series 3	Total
New Construction	\$0	\$0	\$0	\$0
Remodeling	\$0	\$0	\$1,091,041	\$1,091,041
Construction Contingencies	\$0	\$0	\$115,418	\$115,418
Instructional Technology	\$0	\$0	\$0	\$0
Loose Furnishing/Equipment	\$0	\$0	\$0	\$0
Buses	\$0	\$0	\$0	\$0
Site Work	\$0	\$0	\$83,727	\$83,727
Site Acquisition	\$0	\$0	\$0	\$0
Architectural Fees and Costs	\$0	\$0	\$87,209	\$87,209
CM Fees and Costs	\$0	\$0	\$130,742	\$130,742
Estimated Costs	\$0	\$0	\$1,508,138	\$1,508,138

Certificate by Registered Architect

Ann astrann	6/15/2022	TMP Architecture	21298				
Signature	Date	Firm Name and License Num	ber				
John J Castellana, FAIA	jcastellana@tmp-architecture.com 24		248-338-4561				
Printed Name	E-mail Address		Phone Number				
TROY SCHOOL DISTRICT	PRELIM	IINARY	- FOR DISCUS	SSION PURP	OSE ONLY	Grades:	n/a
---	----------------	------------	------------------	----------------	-------------	-------------	----------
2022 Bond Program					5% per year	Enrollment:	n/a
Facility Operations / Purchasing	Year	r Built: x	xx		for 4 years	Classrooms:	n/a
1140 Rakin Street, Troy, MI	Buildin	g Size: 2	4,696			Capacity:	n/a
Building Project Work List	Sit	e Size: 1	.50		1.158	Date:	6/6/22
Category					Direct	Total	
Subcategory			Unit	Direct	Cost w/	w/ Indirect	Phase /
Description	Qty.	Unit	Cost	Cost	Escalation	Costs	Series
New Construction							
Build addition (s)							
- n/a				0	0	0	_
			New Construct	tion Subtotal:	0	0	
Remodeling							
Roofing Work							
 replace select roofing 	1	lpsm	229,200	229,200	265,328	343,611	3
Architectural Work							
- replace doors, finishes, & fixed furnishings	1	lpsm	140,532	140,532	162,683	210,682	3
Mechanical Work							
- upgrade plumbing & HVAC systems	1	lpsm	408,480	408,480	472,867	612,383	3
Electrical Work							
 upgrade power & lighting systems 	1	lpsm	105,000	105,000	121,551	157,413	3
			Construct	tion Subtotal:	1,022,428	1,324,089	•
Technology Infrastructure							
 upgrade network/phone/security infrastructure 	24,696	sqft	2.40	59,270	68,613	75,618	3
			Remode	ling Subtotal:	1,091,041	1,399,708	
Instructional Technology Equipment							
- n/a				0	0	0	
	Instruct	ional Te	chnology Equipm	ent Subtotal:	0	0	
Loose Furniture, Furnishings & Equipment							
- n/a				0	0	0	
	Loose Furnitur	e, Furnis	shings, & Equipm	ent Subtotal:	0	0	
Site Work							
Paving Work							
 replace paving (parking lot, drives, sidewalks) 	1	lpsm	72,326	72,326	83,727	108,430	3
Site Improvements							
- n/a				<u> </u>	0	0	-
			Site W	ork Subtotal:	83,727	108,430	
		_	В	uilding Total:	1,174,768	1,508,138	
			Construction	Contingency:	115,418		
Notes:			Field Genera	al Conditions:	42,587		Series 1
Indirect Costs include contingency, general conditions	& professional	fees	Design	Consultants:	87,209	0	Series 2
			Construct	ion Manager:	88,155	1,508,138	Series 3
BARTON MAUW BUILDERS				JECT TUTAL:	1,508,138	1,508,138	TOTAL

Project Sheet

Bus Garage	Project No. 26
Description of Series 1	purchase buses
Description of Series 2	purchase buses
Description of Series 3	replace roofing, replace interior furnishings, replace mechanical equipment, upgrade lighting, upgrade network infrastructure, & purchase buses
Instructional Technology Description	n/a
Site Work Description	replace paving

Construction Cost Per Square Foot

New Construction Square Ft	0	Cost per Sq Ft	n/a
New Addition Square Ft.	0	Cost per Sq Ft	n/a

Statement describing any existing environmental or usability problems the proposed project will address. (ex: asbestos, energy use, or ADA requirements)

upgrade temperature control systems & upgrade lighting system for energy savings

Estimated Cost of Proposed Construction Project

Column1	Series 1	Series 2	Series 3	Total
New Construction	\$0	\$0	\$0	\$0
Remodeling	\$0	\$0	\$784,415	\$784,415
Construction Contingencies	\$0	\$0	\$184,287	\$184,287
Instructional Technology	\$0	\$0	\$0	\$0
Loose Furnishing/Equipment	\$0	\$0	\$0	\$0
Buses	\$3,927,742	\$4,246,986	\$3,825,272	\$12,000,000
Site Work	\$0	\$0	\$1,067,899	\$1,067,899
Site Acquisition	\$0	\$0	\$0	\$0
Architectural Fees and Costs	\$0	\$0	\$140,940	\$140,940
CM Fees and Costs	\$0	\$0	\$215,214	\$215,214
Estimated Costs	\$3,927,742	\$4,246,986	\$6,218,027	\$14,392,755

Certificate by Registered Architect

I certify that I have assessed the conditions relative to this facility and the details of the proposed project(s) described above and the attached detail relative to the construction project(s) are true and correct to the best of my knowledge and belief.

Am astonamy	6/15/2022	TMP Architecture	21298
Signature	Date	Firm Name and License Num	ber
John J Castellana, FAIA	jcastellana@tmp-a	rchitecture.com	248-338-4561
Printed Name	E-mail Address		Phone Number

TROY SCHOOL DISTRICT	PRELIM	IINARY	- FOR DISCU	SSION PURP	OSE ONLY	Grades:	n/a
2022 Bond Program					5% per year	Enrollment:	n/a
Transportation Complex	Yea	r Built: 1	964		for 4 years	Classrooms:	n/a
120 Hart Street, Troy, MI	Buildin	g Size: 1	1,328			Capacity:	n/a
Building Project Work List	Sit	e Size: 3	.90		1.158	Date:	6/6/22
Category					Direct	Total	
Subcategory			Unit	Direct	Cost w/	w/ Indirect	Phase /
Description	Qty.	Unit	Cost	Cost	Escalation	Costs	Series
New Construction							
				0	0	0	
- 11/a			New Construct	tion Subtotal:	0	0	
			New Construct	tion Subtotat.	0	Ū	
Remodeling							
Roofing Work							
 replace select roofing 	1	lpsm	117,600	117,600	136,137	176,303	3
Architectural Work							
 replace doors, finishes, & fixed furnishings 	1	lpsm	127.580	127.580	147.690	191.265	3
		·	,		,	,	
Mechanical Work			101 ((0	101 (/ 0	010 071	070 010	
- upgrade plumbing & HVAC systems	I	lpsm	181,640	181,640	210,271	272,310	3
Electrical Work							
 upgrade power & lighting systems 	1	lpsm	223,600	223,600	258,845	335,216	3
			Construct	tion Subtotal:	752,942	975,093	
Technology Infrastructure							
 upgrade network/phone/security infrastructure 	11,328	sqft	2.40	27,187	31,473	34,686	3
			Remode	ling Subtotal:	784,415	1,009,779	
Instructional Technology Equipment							
- n/a				0	0	0	
	Instruct	ional Te	chnology Equipm	ent Subtotal:	0	0	
Loose Furniture Furnishings & Fauinment							
- n/a				0	0	0	
Lo	ose Furnitur	e. Furnis	shinas. & Equipm	ent Subtotal:	0	0	
		-,			-		
Site Work							
Paving Work							
 replace paving (parking lot, drives, sidewalks) 	1	lpsm	922,491	922,491	1,067,899	1,382,976	3
Site Improvements				0	0	0	
- h/a			C 11.14	- ⁰ -	0	1 202 07(
			Site W	ork Subtotal:	1,067,899	1,382,976	
Transportation							
- purchase buses	36	each	110,000.00	3,927,742	3,927,742	3,927,742	1
- purchase buses	37	each	115,000.00	4,246,986	4,246,986	4,246,986	2
- purchase buses	32	each	120,000.00	3,825,272	3,825,272	3,825,272	3
	105		Transporta	tion Subtotal:	12,000,000	12,000,000	
			P	uilding Total:	13 852 31/	16 392 755	
			Construction	Contingency:	18/ 287	14,372,755	
Notes:			Field Gener	al Conditions:	70 102	3.927 742	Series 1
Indirect Costs include contingency, general conditions &	orofes <u>sional</u>	fees	Desiar	Consultants:	140,940	4,246,986	Series 2
			Construct	ion Ma <u>nager:</u>	145,112	6,2 <u>18,02</u> 7	Series 3
BARTON MAOW BUILDERS			PRO	JECT TOTAL:	14,392,755	14,392,755	Total

Utilization Summary

Troy School District

List ALL district facilities in the following order: elementary schools, junior high/middle schools, high schools, and non-instructional facilities.

63-150

Proj. No.	Name of School Facility	Current Grade Structure	Proposed Grade Structure	Projected 5-Year Enrollment	Existing Pupil Capacity	New Pupil Capacity	Total Pupil Capacity	Utilization %	Closed Pupil Capacity
-	Barnard Elementary	K-5	K-5	439	430	0	430	102%	0
2	Bemis Elementary	K-5	K-5	456	495	0	495	92%	0
з	Costello Elementary	K-5	K-5	414	405	0	405	102%	0
4	Hamilton Elementary	K-5	K-5	442	455	0	455	97%	0
5	Hill Elementary	K-5	K-5	355	405	0	405	88%	0
9	Leonard Elementary	K-5	K-5	392	425	0	425	92%	0
7	Martell Elementary	K-5	K-5	368	360	0	360	102%	0
8	Morse Elementary	K-5	K-5	404	405	0	405	100%	0
6	Schroeder Elementary	K-5	K-5	430	475	0	475	91%	0
10	Troy Union Elementary	K-5	K-5	415	395	80	475	87%	60
1	Wass Elementary	K-5	K-5	417	405	0	405	103%	0
12	Wattles Elementary	K-5	K-5	398	430	0	430	93%	0
13	Baker Middle School	6-8	6-8	597	855	0	855	%02	0
14	Boulan Park Middle School	6-8	6-8	688	765	0	765	%06	0
15	Larson Middle School	6-8	6-8	608	765	0	765	%62	0
16	Old Smith Middle School	6-8	n/a	n/a	n/a	n/a	n/a	n/a	720
17	New Smith Middle School	n/a	6-8	650	0	810	810	80%	0
18	Athens High School	9-12	9-12	1,409	255	1,530	1,785	%62	1,488
19	Troy High School	9-12	9-12	1,830	1,955	234	2,189	84%	0
20	International Academy	9-12	9-12	510	531	0	531	96%	0
21	Troy College & Career HS	9-12	9-12	155	191	0	191	81%	0
22	Early Childhood Center	PreK	PreK	n/a	n/a	n/a	n/a	n/a	n/a
23	Services Building	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
24	Adminstration Building	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
25	FOP	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
26	Bus Garage	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Total		pK-12	pK-12	11,377	10,403	2,654	13,056	87%	2,268

3881, Page 7

Facility Summary

Troy School District

63-150

List ALL district facilities in the following order: elementary schools, junior high/middle schools, high schools, and non-instructional facilities.

)										
Proj. No.	1 Facility Type*	2 Name of School Facility	3 Address	4 City	5 Year Built	6 Year(s) Remodeled	7 Total Sq.Ft.	8 New Site (Acres)	9 Bldg In Use? Y/N	10 Sq Ft of Closed Facility	11 Disposition of Closed Facility**	
-	Instructional	Barnard Elementary	3601 Forge Drive	Troy	1978	2007	64,192	0	Yes	0	n/a	
2	Instructional	Bemis Elementary	3571 Northfield Pky	Troy	1978	2007	64,192	0	Yes	0	n/a	
ო	Instructional	Costello Elementary	1333 Hamman	Troy	1972	2007	52,055	0	Yes	0	n/a	
4	Instructional	Hamilton Elementary	5625 Northfield Pky	Troy	1983	2007	64,192	0	Yes	0	n/a	
Ŋ	Instructional	Hill Elementary	4600 Forsyth Drive	Troy	1967	71,93,2006	54,336	0	Yes	0	n/a	
9	Instructional	Leonard Elementary	4401 Tallman Drive	Troy	1959	68,94,2006	59,220	0	Yes	0	n/a	
7	Instructional	Martell Elementary	5666 Livernois Road	Troy	1972	92,2007	52,799	0	Yes	0	n/a	
ω	Instructional	Morse Elementary	475 Cherry Drive	Troy	1956	62,68,94,2006	54,636	0	Yes	0	n/a	
თ	Instructional	Schroeder Elementary	3541 Jack Drive	Troy	1970	93,2006	61,896	0	Yes	0	n/a	
10	Instructional	Troy Union Elementary	1340 E. Square Lake	Troy	1925	53,70,92,2006	66,929	0	Yes	5,200	n/a	
7	Instructional	Wass Elementary	2340 Willard Drive	Troy	1978	2007	64,192	0	Yes	0	n/a	
12	Instructional	Wattles Elementary	3555 Ellenboro Drive	Troy	1967	78,93,2007	59,150	0	Yes	0	n/a	
13	Instructional	Baker Middle School	1359 Torpey Drive	Troy	2006		128,098	0	Yes	0	n/a	
14	Instructional	Boulan Park Middle School	3570 Northfield Pky	Troy	1971	2007	110,830	0	Yes	0	n/a	
15	Instructional	Larson Middle School	2222 E. Long Lake Rd	Troy	1971	2007	110,830	0	Yes	0	n/a	
16	Instructional	Old Smith Middle School	5835 Donaldson Drive	Troy	1967	73,82,89,2007	100,734	0	Yes	100,734	4, 1	
17	Instructional	New Smith Middle School	TBD	Troy	TBD	n/a	120,000	0		0	n/a	
18	Instructional	Athens High School	4333 John R Road	Troy	1974	93,99,2006	398,426	0.25	Yes	164,650	n/a	
19	Instructional	Troy High School	4777 Northfield Pky	Troy	1992	2005	343,207	0	Yes	0	n/a	
20	Instructional	International Academy	1291 Torpey Drive	Troy	1952	55,67,70,78,80	81,311	0	Yes	0	n/a	
21	Instructional	Troy College & Career HS	1522 E. Big Beaver Road	Troy			37,600	0	Yes	0	n/a	
22	Instructional	Early Childhood Center	4400 Livernois	Troy	2019		68,654	0	Yes	0	n/a	
23	Non-Instructional	Board Office	4420 Livernois	Troy	2000		29,143	0	Yes	0	n/a	
24	Non-Instructional	Admin Building	4400 Livernois	Troy	1973	1988	12,000	0	Yes	0	n/a	
25	Non-Instructional	FOP	1140 Rankin Street	Troy			24,696	0	Yes	0	n/a	
26	Bus Garage	Bus Garage	4400 Livernois	Troy	1964	2007	11,328	0	Yes	0	n/a	
Total							2,294,646	0	-	270,584		
		*Facility Type:	**Closed Facility Refere	nce:								
		Instructional	1. Demolish	_								
		Bus Garage	2. CONVERT TO FIGURATION 3. Sell or lease	_								
		Storage	4. Retain for future use									
		Stadium	5. Undeterminea									

3881, F CoS	^{age 8} st Sun	nmary	- SERIE	S 1											
Troy	School	District													63-150
-	2	ę	4	5	9	7	8	6	10	7	12	13	14	15	16
Proj. #	Cost per Sq Foot	New Cons Sq Feet	New Construction	Remodeling	Contingency	Instructional Technology	Loose Furn and Equip	Buses	Site Work	Site Acq.	A/E Fees and Costs	CM Fees and Costs	Project Costs	Election/Issue Costs	Total Cost
-			0	0	0	0	0	0	0	0	0	0	0	0	0
2			0	0	0	0	0	0	0	0	0	0	0	0	0
e			0	0	0	0	0	0	0	0	0	0	0	0	0
4			0	0	0	0	0	0	0	0	0	0	0	0	0
5			0	0	0	0	0	0	0	0	0	0	0	0	0
9			0	0	0	0	0	0	0	0	0	0	0	0	0
7			0	0	0	0	0	0	0	0	0	0	0	0	0
ω	277	4,000	1,106,690	893,747	227,833	0	46,371	0	231,525	0	175,094	263,807	2,945,066	37,809	2,982,875
თ			0	0	0	0	0	0	0	0	0	0	0	0	0
6	277	4,350	1,203,525	695,281	227,325	0	50,428	0	324,019	0	174,704	262,727	2,938,010	37,718	2,975,728
£			0	0	0	0	0	0	0	0	0	0	0	0	0
12			0	0	0	0	0	0	0	0	0	0	0	0	0
13			0	0	0	0	0	0	0	0	0	0	0	0	0
41			0	0	0	0	0	0	0	0	0	0	0	0	0
15			0	0	0	0	0	0	0	0	0	0	0	0	0
16			0	279,869	33,482	0	0	0	138,915	0	19,659	16,419	488,345	6,269	494,614
17	347	120,000	41,674,500	2,778,300	5,415,280	1,236,344	1,434,253	0	7,400,311	0	4,134,971	6,128,778	70,202,737	901,263	71,104,000
18	277	164,649	45,553,830	6,540,077	6,494,684	4,104,928	0	0	10,311,571	578,813	4,878,017	7,245,180	85,707,100	1,100,308	86,807,408
19			0	0	0	0	0	0	0	0	0	0	0	0	0
20			0	0	0	0	0	0	0	0	0	0	0	0	0
21			0	0	0	0	0	0	0	0	0	0	0	0	0
22			0	0	0	0	0	0	0	0	0	0	0	0	0
23			0	0	0	0	0	0	0	0	0	0	0	0	0
24			0	0	0	0	0	0	0	0	0	0	0	0	0
25			0	0	0	0	0	0	0	0	0	0	0	0	0
26			0	0	0	0	0	3,927,742	0	0	0	0	3,927,742	50,424	3,978,166
Total	306	292,999	89,538,544	11,187,274	12,398,606	5,341,272	1,531,052	3,927,742	18,406,341	578,813	9,382,445	13,916,911	166,209,000	2,133,792	168,342,792
												17. Fund	ing: al Estimated Co	ost of Project:	\$168.342.792
														LESS:	
													Estimated Inter	est Earnings:	(\$1,342,792)
														ther (specify):	\$0
											-	AMOUN	Amount to I	DSED ISSUE	\$167,000,000

3881, P CoS	^{lage 8} st Sun	nmarv	- SERIE	S 2											
Troy	School	District													63-150
-	2		4	5	9	7	8	6	10	7	12	13	14	15	16
Proj. #	Cost per Sq Foot	New Cons Sq Feet	New Construction	Remodeling	Contingency	Instructional Technology	Loose Furn and Equip	Buses	Site Work	Site Acq.	A/E Fees and Costs	CM Fees and Costs	Project Costs	Election/Issue Costs	Total Cost
-			0	871,692	154,890	0	0	0	677,211	0	119,031	183,073	2,005,896	25,505	2,031,401
2			0	871,692	154,890	0	0	0	677,211	0	119,031	183,073	2,005,896	25,505	2,031,401
e			0	480,414	115,762	0	0	0	677,211	0	88,962	136,825	1,499,175	19,062	1,518,237
4			0	871,692	153,733	0	0	0	665,634	0	118,142	181,704	1,990,904	25,314	2,016,218
5			0	509,992	118,720	0	0	0	677,211	0	91,235	140,321	1,537,479	19,549	1,557,028
9			0	944,333	162,154	0	0	0	677,211	0	124,614	191,658	2,099,969	26,701	2,126,670
2			0	480,414	115,762	0	0	0	677,211	0	88,962	136,825	1,499,175	19,062	1,518,237
8			0	670,641	134,785	0	0	0	677,211	0	103,581	159,309	1,745,527	22,194	1,767,721
ი			0	587,987	126,520	0	0	0	677,211	0	97,229	149,540	1,638,486	20,833	1,659,319
10			0	475,147	115,236	0	0	0	677,211	0	88,557	136,203	1,492,354	18,975	1,511,329
£			0	871,692	154,890	0	0	0	677,211	0	119,031	183,073	2,005,896	25,505	2,031,401
12			0	629,719	130,693	0	0	0	677,211	0	100,436	154,473	1,692,531	21,520	1,714,051
13			0	277,830	27,783	0	0	0	0	0	21,351	32,838	359,802	4,575	364,377
4	277	3,600	996,021	13,237,704	1,692,639	1,141,866	1,462,793	0	522,937	0	1,269,541	1,707,769	22,031,270	280,124	22,311,394
15	277	3,600	996,021	13,051,998	1,690,447	1,141,866	1,460,474	0	689,043	0	1,267,856	1,705,452	22,003,157	279,767	22,282,924
16			0	2,309,035	230,903	0	0	0	0	0	177,446	272,916	2,990,301	38,021	3,028,322
17			0	0	0	0	0	0	0	0	0	0	0	0	0
18			0	35,966,280	4,772,898	0	4,759,065	0	7,003,631	0	3,668,632	5,078,829	61,249,334	778,776	62,028,110
19	277	32,000	8,853,516	21,416,368	4,044,977	3,536,015	3,196,909	0	4,793,824	0	3,011,601	4,031,652	52,884,861	672,423	53,557,284
20			0	0	0	0	0	0	0	0	0	0	0	0	0
21			0	0	0	0	0	0	0	0	0	0	0	0	0
22			0	0	0	0	0	0	0	0	0	0	0	0	0
23			0	0	0	0	0	0	0	0	0	0	0	0	0
24			0	0	0	0	0	0	0	0	0	0	0	0	0
25			0	0	0	0	0	0	0	0	0	0	0	0	0
26			0	0	0	0	0	4,246,986	0	0	0	0	4,246,986	54,000	4,300,986
Total	277	39,200	10,845,557	94,524,629	14,097,682	5,819,747	10,879,240	4,246,986	21,124,387	0	10,675,238	14,765,534	186,979,000	2,377,410	189,356,410
												17. Fund	ling: tal Estimated Co	ist of Project	\$189.356.410
												2		LESS:	
													Estimated Inter	est Earnings:	(\$1,356,410)
														her (specify):	\$
												AMOUR	(Amount to t	De Qualified)	\$188,000,000

Cos	it Sun	nmary	- SERIE	S 3											
Troy	School	District													63-150
-	2	e	4	2	σ	7	œ	ი	9	£	12	13	14	15	16
# Proj.	Cost per Sq Foot	New Cons Sq Feet	New Construction	Remodeling	Contingency	Instructional Technology	Loose Furn and Equip	Buses	Site Work	Site Acq.	A/E Fees and Costs	CM Fees and Costs	Project Costs	Election/Issue Costs	Total Cost
-			0	7,131,198	910,892	663,504	663,971	0	902,976	0	681,834	928,451	11,882,826	151,799	12,034,625
7			0	6,779,764	799,492	661,361	663,971	0	141,734	0	596,283	797,007	10,439,613	133,362	10,572,975
ო			0	5,655,723	724,315	536,316	690,054	0	565,340	0	541,959	718,205	9,431,912	120,489	9,552,401
4			0	7,861,032	972,777	661,361	663,971	0	793,318	0	729,451	1,001,822	12,683,732	162,030	12,845,762
5			0	4,823,548	652,857	559,816	729,203	0	629,235	0	486,403	626,649	8,507,709	108,683	8,616,392
9			0	4,443,351	612,112	610,136	695,538	0	604,497	0	453,700	577,184	7,996,517	102,153	8,098,670
7			0	4,298,235	559,213	543,981	679,621	0	277,498	0	414,868	523,491	7,296,906	93,215	7,390,122
8			0	4,685,096	621,846	562,907	752,609	0	432,258	0	462,490	586,904	8,104,111	103,527	8,207,638
6			0	5,905,530	762,042	637,706	700,221	0	619,870	0	568,161	750,944	9,944,474	127,037	10,071,511
10			0	5,010,753	708,163	689,560	729,515	0	914,455	0	525,331	678,352	9,256,131	118,244	9,374,375
÷			0	7,084,085	887,473	661,361	687,156	0	694,040	0	663,899	898,256	11,576,271	147,883	11,724,154
12			0	6,472,232	762,958	609,414	679,621	0	100,433	0	569,640	757,432	9,951,731	127,130	10,078,861
13			0	7,283,791	1,000,086	1,319,776	954,489	0	945,504	0	732,346	930,597	13,166,588	168,199	13,334,786
14			0	4,964,420	496,442	0	0	0	0	0	381,510	586,770	6,429,142	82,130	6,511,272
15			0	4,990,467	499,047	0	0	0	0	0	383,511	589,848	6,462,873	82,561	6,545,434
16			0	1,986,681	198,668	0	0	0	0	0	152,674	234,816	2,572,839	32,867	2,605,706
17			0	0	0	0	0	0	0	0	0	0	0	0	0
18			0	1,508,918	394,780	0	0	0	2,438,878	0	303,383	466,610	5,112,568	65,311	5,177,880
19			0	7,824,428	1,611,302	0	0	0	8,288,595	0	1,238,266	1,904,479	20,867,070	266,569	21,133,639
20			0	6,677,128	838,133	837,736	865,200	0	320,362	0	621,151	800,367	10,960,078	140,011	11,100,090
21			0	1,486,469	259,596	393,353	0	0	865,964	0	188,662	265,508	3,459,551	44,195	3,503,746
52			0	328,766	92,749	721,200	0	0	152,228	0	51,411	33,864	1,380,218	17,632	1,397,850
23			0	1,880,388	215,383	0	0	0	297,727	0	163,762	247,872	2,805,133	35,835	2,840,967
24			0	635,858	68,053	0	0	0	54,679	0	51,575	77,677	887,842	11,342	899,184
25			0	1,091,041	115,418	0	0	0	83,727	0	87,209	130,742	1,508,138	19,266	1,527,404
26			0	784,415	184,287	0	0	3,825,272	1,067,899	0	140,940	215,214	6,218,027	79,433	6,297,460
Total			0	111,593,319	14,948,085	10,669,490	10,155,138	3,825,272	21,191,217	0	11,190,418	15,329,061	198,902,000	2,540,903	201,442,903
												17. Fund Tot	ing: tal Estimated Co	ost of Project:	\$201,442,903
														LESS:	
													Estimated Inter	est Earnings:	(\$1,442,903)
													ō	ther (specify):	\$0
												AMOUN	IT OF PROPC (Amount to t	DSED ISSUE	\$200,000,000

3881, Page 8

^{3881,}	Page 8 IST Sur	mmary	- COMB	INED SE	ERIES 1-	ņ									
Tro	y School	I District													63-150
-	5	m	4	a	σ	2	ω	6	9	7	12	5	14	15	16
Proj. #	. Cost per Sq Foot	New Cons Sq Feet	New Construction	Remodeling	Contingency	Instructional Technology	Loose Furn and Equip	Buses	Site Work	Site Acq.	A/E Fees and Costs	CM Fees and Costs	Project Costs	Election/Issue Costs	Total Cost
-		0	0	8,002,889	1,065,782	663,504	663,971	0	1,580,186	0	800,865	1,111,524	13,888,722	177,407	14,066,129
2		0	0	7,651,456	954,382	661,361	663,971	0	818,945	0	715,314	980,080	12,445,509	158,972	12,604,481
ю		0	0	6,136,138	840,078	536,316	690,054	0	1,242,551	0	630,921	855,030	10,931,087	139,628	11,070,715
4		0	0	8,732,724	1,126,510	661,361	663,971	0	1,458,952	0	847,592	1,183,526	14,674,636	187,446	14,862,082
2		0	0	5,333,539	771,577	559,816	729,203	0	1,306,445	0	577,638	766,970	10,045,188	128,312	10,173,500
9		0	0	5,387,684	774,266	610,136	695,538	0	1,281,707	0	578,314	768,842	10,096,486	128,967	10,225,454
~		0	0	4,778,650	674,976	543,981	679,621	0	954,708	0	503,830	660,316	8,796,081	112,356	8,908,438
ø	277	4,000	1,106,690	6,249,484	984,464	562,907	798,980	0	1,340,993	0	741,165	1,010,020	12,794,704	163,433	12,958,136
6		0	0	6,493,516	888,562	637,706	700,221	0	1,297,081	0	665,390	900,484	11,582,960	147,955	11,730,914
10	277	4,350	1,203,525	6,181,182	1,050,724	689,560	779,944	0	1,915,685	0	788,593	1,077,282	13,686,495	174,824	13,861,319
£		0	0	7,955,777	1,042,363	661,361	687,156	0	1,371,251	0	782,930	1,081,329	13,582,167	173,491	13,755,659
12		0	0	7,101,951	893,650	609,414	679,621	0	777,644	0	670,076	911,905	11,644,262	148,738	11,792,999
13		0	0	7,561,621	1,027,869	1,319,776	954,489	0	945,504	0	753,697	963,435	13,526,390	172,779	13,699,169
14	277	3,600	996,021	18,202,125	2,189,081	1,141,866	1,462,793	0	522,937	0	1,651,050	2,294,539	28,460,412	363,538	28,823,950
15	277	3,600	996,021	18,042,465	2,189,493	1,141,866	1,460,474	0	689,043	0	1,651,367	2,295,301	28,466,030	363,610	28,829,640
16		0	0	4,575,585	463,054	0	0	0	138,915	0	349,780	524,151	6,051,485	77,298	6,128,784
17	347	120,000	41,674,500	2,778,300	5,415,280	1,236,344	1,434,253	0	7,400,311	0	4,134,971	6,128,778	70,202,737	896,733	71,099,469
18	277	164,649	45,553,830	44,015,275	11,662,362	4,104,928	4,759,065	0	19,754,080	578,813	8,850,032	12,790,618	152,069,002	1,942,449	154,011,451
19	277	32,000	8,853,516	29,240,796	5,656,279	3,536,015	3, 196, 909	0	13,082,419	0	4,249,866	5,936,131	73,751,930	942,068	74,693,999
20		0	0	6,677,128	838,133	837,736	865,200	0	320,362	0	621,151	800,367	10,960,078	139,998	11,100,077
2		0	0	1,486,469	259,596	393,353	0	0	865,964	0	188,662	265,508	3,459,551	44,190	3,503,742
53		0	0	328,766	92,749	721,200	0	0	152,228	0	51,411	33,864	1,380,218	17,630	1,397,848
23		0	0	1,880,388	215,383	0	0	0	297,727	0	163,762	247,872	2,805,133	35,831	2,840,964
24		0	0	635,858	68,053	0	0	0	54,679	0	51,575	77,677	887,842	11,341	899,183
25		0	0	1,091,041	115,418	0	0	0	83,727	0	87,209	130,742	1,508,138	19,264	1,527,402
26		0	0	784,415	184,287	0	0	12,000,000	1,067,899	0	140,940	215,214	14,392,755	183,845	14,576,601
Tota	1 302	332,199	100,384,101	217,305,222	41,444,373	21,830,509	22,565,430	12,000,000	60,721,945	578,813	31,248,101	44,011,507	552,090,000	7,052,105	559,142,105
												17. Fund ^{⊺₀}	ing: tal Estimated Co	ost of Project:	\$559,142,105
														LESS:	
													Estimated Inter	rest Earnings:	(\$4,142,105)
												AMOUN	UT OF PROPO	mer (speciry): DSED ISSUE	
											-		(Amount to t	be Qualified)	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

3881, Worksheet 1: Useful Life Calculation - SERIES 1

A school district must demonstrate that the weighted average maturity of the qualified bond issue does not exceed 120% of the average reasonably expected useful life of the facilities, excluding land and site improvements, being financed with the proceeds of the qualified bonds.

The following table lists the recommended average useful life of the categories of assets that should be considered in this calculation. If a specific item is not listed, it should be assigned to the most closely related category.

Asset Category					
New School Building	40				
Building Improvements - interior and exterior remodeling such as plumbing, electrical, HVAC, fire suppression, security systems, elevators, etc.	30				
Roofing	20				
Flooring	10				
Furnishings and Equipment - furniture and fixtures that are not a structural component of a building such as desks, chairs, tables, storage units, office equipment, copiers, fax machines, communications equipment, kitchen equipment and appliances, athletic equipment, etc.	10				
Technology Infrastructure - cables, networks, etc.	10				
Buses	6				
Technology (instructional and non-instructional) - computers, printers, scanners, etc.	5				

Use the worksheet below to calculate the weighted average useful life of assets included in projects funded by bond proceeds.

Follow Column		Entor	Col. 1	Entor	Entor	Col. 4	Col. 6	Col. 3
Instructions	→	Value	+ Col. 2	Value	Value	Col. 5	- Col. 6 Total	Col. 7
	Col. 1	Col. 2	Col. 3	Col. 4	Col. 5	Col. 6	Col. 7	Col. 8
Asset Type	Average Useful Life of Asset (in Years)	Time between Bonds Issue Date and Purchase	Useful Life of Asset from Bond Issue Date	Expenditure Amount	Allocation of Related Professional Fees	Total Costs (Incl. Related Fees)	% of Total Cost	Average Useful Life of Assets (in years)
School Buildings	40	2	42	98,492,399	17,236,170	115,728,568	81.81%	34.36
Building Improvements	30	1	31	5,548,948	971,066	6,520,014	4.61%	1.43
Roofing	20	0	20	0	0	0	0.00%	0.00
Flooring	10	0	10	0	0	0	0.00%	0.00
Furnishing/ Equipment	10	1	11	1,684,158	117,891	1,802,049	1.27%	0.14
Technology Infrastructure	10	1	11	6,757,054	844,632	7,601,685	5.37%	0.59
Technology (instr/non-instr)	5	1	6	5,715,161	171,455	5,886,616	4.16%	0.25
Buses	6	1	7	3,927,742	0	3,927,742	2.78%	0.19
Total for purposes of determine	ning weighted	avg useful life		122,125,461	19,341,213	141,466,674	100.00%	36.96

3881, Worksheet 1: Useful Life Calculation - SERIES 2

A school district must demonstrate that the weighted average maturity of the qualified bond issue does not exceed 120% of the average reasonably expected useful life of the facilities, excluding land and site improvements, being financed with the proceeds of the qualified bonds.

The following table lists the recommended average useful life of the categories of assets that should be considered in this calculation. If a specific item is not listed, it should be assigned to the most closely related category.

Asset Category					
New School Building	40				
Building Improvements - interior and exterior remodeling such as plumbing, electrical, HVAC, fire suppression, security systems, elevators, etc.	30				
Roofing	20				
Flooring	10				
Furnishings and Equipment - furniture and fixtures that are not a structural component of a building such as desks, chairs, tables, storage units, office equipment, copiers, fax machines, communications equipment, kitchen equipment and appliances, athletic equipment, etc.	10				
Technology Infrastructure - cables, networks, etc.	10				
Buses	6				
Technology (instructional and non-instructional) - computers, printers, scanners, etc.	5				

Use the worksheet below to calculate the weighted average useful life of assets included in projects funded by bond proceeds.

Follow Column Instructions	→	Enter	Col. 1 +	Enter	Enter	Col. 4 +	Col. 6 ÷	Col. 3 x
	Col. 1	Col. 2	Col. 2	Col. 4	Col. 5	Col. 5	Col. 6 Total	Col. 7
Asset Type	Average Useful Life of Asset (in Years)	Time between Bonds Issue Date and Purchase	Useful Life of Asset from Bond Issue Date	Expenditure Amount	Allocation of Related Professional Fees	Total Costs (Incl. Related Fees)	% of Total Cost	Average Useful Life of Assets (in years)
School Buildings	40	1	41	11,930,113	2,087,770	14,017,883	8.79%	3.60
Building Improvements	30	1	31	100,822,521	17,643,941	118,466,463	74.25%	23.02
Roofing	20	1	21	993,274	173,823	1,167,097	0.73%	0.15
Flooring	10	0	10	0	0	0	0.00%	0.00
Furnishing/ Equipment	10	1	11	11,967,164	837,701	12,804,865	8.03%	0.88
Technology Infrastructure	10	1	11	2,161,296	270,162	2,431,458	1.52%	0.17
Technology (instr/non-instr)	5	1	6	6,227,129	186,814	6,413,943	4.02%	0.24
Buses	6	1	7	4,246,986	0	4,246,986	2.66%	0.19
Total for purposes of determine	ning weighted	avg useful life		138,348,483	21,200,211	159,548,695	100.00%	28.25

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3881, Worksheet 1: Useful Life Calculation - SERIES 3

A school district must demonstrate that the weighted average maturity of the qualified bond issue does not exceed 120% of the average reasonably expected useful life of the facilities, excluding land and site improvements, being financed with the proceeds of the qualified bonds.

The following table lists the recommended average useful life of the categories of assets that should be considered in this calculation. If a specific item is not listed, it should be assigned to the most closely related category.

Asset Category					
	rears				
New School Building	40				
Building Improvements - interior and exterior remodeling such as plumbing, electrical, HVAC, fire	30				
suppression, security systems, elevators, etc.	00				
Roofing	20				
Flooring	10				
Furnishings and Equipment - furniture and fixtures that are not a structural component of a building such as desks, chairs, tables, storage units, office equipment, copiers, fax machines, communications equipment, kitchen equipment and appliances, athletic equipment, etc.	10				
Technology Infrastructure - cables, networks, etc.	10				
Buses	6				
Technology (instructional and non-instructional) - computers, printers, scanners, etc.	5				

Use the worksheet below to calculate the weighted average useful life of assets included in projects funded by bond proceeds.

Follow Column Instructions	→	Enter	Col. 1 +	Enter	Enter	Col. 4 +	Col. 6 ÷	Col. 3 x
	Col. 1	Col. 2	Col. 2	Col. 4	Col. 5	Col. 5	Col. 6 Total	Col. 7
Asset Type	Average Useful Life of Asset (in Years)	Time between Bonds Issue Date and Purchase	Useful Life of Asset from Bond Issue Date	Expenditure Amount	Allocation of Related Professional Fees	Total Costs (Incl. Related Fees)	% of Total Cost	Average Useful Life of Assets (in years)
School Buildings	40	1	41	0	0	0	0.00%	0.00
Building Improvements	30	1	31	105,161,461	18,403,256	123,564,716	72.01%	22.32
Roofing	20	1	21	13,837,580	2,421,576	16,259,156	9.48%	1.99
Flooring	10	0	10	0	0	0	0.00%	0.00
Furnishing/ Equipment	10	1	11	11,170,652	781,946	11,952,598	6.97%	0.77
Technology Infrastructure	10	1	11	3,753,610	469,201	4,222,811	2.46%	0.27
Technology (instr/non-instr)	5	1	6	11,416,354	342,491	11,758,845	6.85%	0.41
Buses	6	1	7	3,825,272	0	3,825,272	2.23%	0.16
Total for purposes of determine	ning weighted	avg useful life		149,164,928	22,418,470	171,583,398	100.00%	25.92

120% of average useful life of assets \rightarrow 31.10

3881, Worksheet 1: Useful Life Calculation - COMBINED SERIES 1-3

A school district must demonstrate that the weighted average maturity of the qualified bond issue does not exceed 120% of the average reasonably expected useful life of the facilities, excluding land and site improvements, being financed with the proceeds of the qualified bonds.

The following table lists the recommended average useful life of the categories of assets that should be considered in this calculation. If a specific item is not listed, it should be assigned to the most closely related category.

Asset Category					
	rears				
New School Building	40				
Building Improvements - interior and exterior remodeling such as plumbing, electrical, HVAC, fire	30				
suppression, security systems, elevators, etc.	00				
Roofing	20				
Flooring	10				
Furnishings and Equipment - furniture and fixtures that are not a structural component of a building such as desks, chairs, tables, storage units, office equipment, copiers, fax machines, communications equipment, kitchen equipment and appliances, athletic equipment, etc.	10				
Technology Infrastructure - cables, networks, etc.	10				
Buses	6				
Technology (instructional and non-instructional) - computers, printers, scanners, etc.	5				

Use the worksheet below to calculate the weighted average useful life of assets included in projects funded by bond proceeds.

Follow Column	_ _	Enter	Col. 1	Enter	Enter	Col. 4	Col. 6	Col. 3
Instructions	,	Value	Col. 2	Value	Value	Col. 5	Col. 6 Total	Col. 7
	Col. 1	Col. 2	Col. 3	Col. 4	Col. 5	Col. 6	Col. 7	Col. 8
Asset Type	Average Useful Life of Asset (in Years)	Time between Bonds Issue Date and Purchase	Useful Life of Asset from Bond Issue Date	Expenditure Amount	Allocation of Related Professional Fees	Total Costs (Incl. Related Fees)	% of Total Cost	Average Useful Life of Assets (in years)
School Buildings	40	1	41	110,422,511	19,323,940	129,746,451	27.45%	11.26
Building Improvements	30	1	31	211,532,930	37,018,263	248,551,193	52.59%	16.30
Roofing	20	1	21	14,830,854	2,595,399	17,426,253	3.69%	0.77
Flooring	10	0	10	0	0	0	0.00%	0.00
Furnishing/ Equipment	10	1	11	24,821,973	1,737,538	26,559,511	5.62%	0.62
Technology Infrastructure	10	1	11	12,671,960	1,583,995	14,255,955	3.02%	0.33
Technology (instr/non-instr)	5	1	6	23,358,644	700,759	24,059,404	5.09%	0.31
Buses	6	1	7	12,000,000	0	12,000,000	2.54%	0.18
Total for purposes of determ	ining weighted a	avg useful life		409,638,873	62,959,894	472,598,767	100.00%	29.77

120% of average useful life of assets

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