

Michigan State University

EDI Center

East Lansing, Michigan

EDI Center Building - Full Build

Project GSF: 265,700 sqft
Estimate Type: Schematic Design
Estimate Date: 08/15/2024
265,700 sqft

Description	Quantity	Unit Cost	Total Cost	Dollars / SF
EDI Center Building - Full Build		265,700 sqft		
Division 01 - General Requirements				
Field Offices and Sheds				
Janitorial Service - Office Cleaning	23 mnth	1,040.00	23,920	
IT Connection - Data Drops	10 each	3,000.00	30,000	
Subtotal Field Offices and Sheds			\$53,900	\$0.20
Construction Aids				
2" Electric Submersible Pump	24 mnth	151.91	3,646	
Subtotal Construction Aids			\$3,600	\$0.01
Temporary Elevators				
Elevator Operator	5 mnth	34,600.00	173,000	
Subtotal Temporary Elevators			\$173,000	\$0.65
Temporary Hoists				
Buck Hoist - Rental	8 mnth	25,000.00	200,000	
Buck Hoist - Set-Up	1 lsum	50,000.00	50,000	
Hoist Operator	8 mnth	18,000.00	144,000	
Subtotal Temporary Hoists			\$394,000	\$1.48
Temporary Cranes				
9 Ton Forklift	24 mnth	1,519.00	36,456	
12 Ton Forklift	24 mnth	3,081.41	73,954	
Subtotal Temporary Cranes			\$110,400	\$0.42
Field Engineering				
Third Party Layout Engineer	5 week	4,600.00	23,000	
Subtotal Field Engineering			\$23,000	\$0.09
Execution				
Forklift Operator	24 mnth	12,110.00	290,640	
Small Tools	20 mnth	1,000.00	20,000	
Subtotal Execution			\$310,600	\$1.17
Progress Cleaning				
Periodic / Un-identifiable Cleaning	15,916 hour	68.50	1,090,246	
Subtotal Progress Cleaning			\$1,090,200	\$4.10
Construction Waste Management and Disposal				
Trash Gondola	20 each	923.15	18,463	
Dumpsters	550 pull	431.28	237,204	
Subtotal Construction Waste Management and Disposal			\$255,700	\$0.96
Final Cleaning				
Final Clean Glazing	31,255 sqft	2.00	62,510	
Subtotal Final Cleaning			\$62,500	\$0.24
Total Division 01 - General Requirements			\$2,477,000	\$9.32
Division 02 - Existing Conditions				
Selective Site Demolition				
Asphalt Pavement Removal	13,444 sqyd	7.50	100,833	
Concrete Pavement Removal	7,640 sqyd	8.92	68,150	
Concrete Curb Removal	5,105 lnft	8.00	40,841	
Sawcutting	482 lnft	8.00	3,856	
Bollards - Demo	12 each	250.00	3,000	
Parking Gate Equipment - Salvage	5 each	850.00	4,250	

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Pedestrian Crossing Signal - Salvage	3 each	850.00	2,550	
Sign - Demo	30 each	250.00	7,500	
Sign - Salvage	5 each	300.00	1,500	
Light Pole - Salvage	34 each	1,200.00	40,800	
Utility Demo	2,025 lnft	55.00	111,393	
Subtotal Selective Site Demolition			\$384,700	\$1.45
Selective Demolition				
Building Demolition - UPLA	18,018 sqft	50.00	900,903	
Building Demolition - Reservoir	5,482 sqft	50.00	274,080	
Underground Structure Demolition - Reservoir	13,500 sqft	30.00	405,000	
Subtotal Selective Demolition			\$1,580,000	\$5.95
Total Division 02 - Existing Conditions			\$1,964,700	\$7.39
Division 03 - Concrete				
Cast-in-Place Concrete				
Concrete Stair Pans & Landings	382 each	250.00	95,500	
Vapor Lock Admixture at SOG & SOD	300,000 sqft	0.80	238,500	
Subtotal Cast-in-Place Concrete			\$334,000	\$1.26
Structural Concrete				
Foundation Requirements for Rammed Aggregate Piers	1 allo	400,000.00	400,000	
Spread Footing (3,000 PSI)	1,470 cuyd	933.42	1,372,134	
Continuous Footing (3,000 PSI)	472 cuyd	948.58	447,728	
Site Wall Footing	48 cuyd	685.08	32,733	
Grade Beam (4,000 PSI)	66 cuyd	897.68	59,247	
Pile Cap (4,000 PSI)	968 cuyd	909.93	880,809	
Slab on Grade - 12"	315 sqft	22.96	7,233	
Slab on Grade - 5"	69,461 sqft	9.39	652,527	
Slab on Grade - 6"	6,781 sqft	12.53	84,936	
Slab on Grade - 8"	5,430 sqft	16.70	90,685	
Slab on Grade - 8" Auditorium	8,200 sqft	46.97	385,160	
Elevated Slab Cap - Spec 3	1,850 sqft	26.02	48,136	
Slab on Metal Deck - 4.5"	228,190 sqft	13.99	3,191,696	
Concrete Equipment Pads - Interior	1,000 sqft	20.61	20,614	
Elevator Pit	16 cuyd	986.87	15,790	
Entry Stoop/Frost Slab	625 sqft	155.82	97,389	
Buck Hoist Pad	1 lsum	35,000.00	35,000	
Vault/Tunnel Entry Connection and Chase	1 allo	200,000.00	200,000	
Subtotal Structural Concrete			\$8,021,800	\$30.19
Concrete Finishing				
Polished Concrete Floor	21,931 sqft	12.05	264,323	
Subtotal Concrete Finishing			\$264,300	\$0.99
Concrete Topping				
Concrete Stair Metal Tread Pans	416 each	253.61	105,501	
Concrete Stair Metal Landing Pans	1,225 sqft	15.59	19,095	
Subtotal Concrete Topping			\$124,600	\$0.47
Mass Concrete				
Mat Slab - Spec 3	520 cuyd	846.59	440,226	
3" Mud Mat - Steam Tunnel	249 cuyd	463.90	115,510	
Subtotal Mass Concrete			\$555,700	\$2.09

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Description	Quantity	Unit Cost	Total Cost	Dollars / SF
Total Division 03 - Concrete			\$9,300,500	\$35.00
Division 04 - Masonry				
Clay Unit Masonry				
FBR-1 Brick Veneer Norman	45,387 sqft	59.67	2,708,443	
FBR-1 Brick Veneer Norman (Special)	1,376 sqft	66.88	92,022	
FBR-2 Brick Veneer Norman	7,267 sqft	59.67	433,654	
FBR-1 Brick Soldier	7,325 sqft	61.73	452,188	
FBR-2 Brick Soldier	3,907 sqft	61.73	241,188	
Subtotal Clay Unit Masonry			\$3,927,500	\$14.78
Concrete Unit Masonry				
CMU 8" - Spec 3	4,975 sqft	32.92	163,796	
Subtotal Concrete Unit Masonry			\$163,800	\$0.62
Stone Assemblies				
GFRC - Allowance	6,652 sqft	120.00	798,240	
Subtotal Stone Assemblies			\$798,200	\$3.00
Stone Masonry				
Cast Stone Panel	2,497 sqft	155.35	387,910	
Cast Stone Window Sill	595 lnft	77.20	45,934	
Cast Stone Parapet Cap	1,668 lnft	119.95	200,084	
Subtotal Stone Masonry			\$633,900	\$2.39
Total Division 04 - Masonry			\$5,523,500	\$20.79
Division 05 - Metals				
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Exterior Wall Framing/Back Up (CFMF & Outboard Sheathing)	80,809 sqft	28.00	2,262,652	
Structural Steel Exterior Wall Support Framing (Outriggers/Relief, GFRC Support)	198 tons	8,000.00	1,584,000	
Unistrut Framing - Exhaust Arms	45 each	650.00	29,250	
Unistrut Framing - Grid	13,213 lnft	35.00	462,458	
Unistrut Framing - MDO	9,077 lnft	35.00	317,709	
Unistrut Framing - Vertical Piping Mount	166 lnft	35.00	5,793	
ECl Preconstruction	1 allo	93,963.57	93,964	
Subtotal Division 05 - Metals			\$4,755,800	\$17.90
Common Work Results for Metals				
Anchor Bolts	640 each	17.04	10,903	
Roof Davits	50 each	575.00	28,750	
Shear Studs	45,368 each	3.11	141,227	
Subtotal Common Work Results for Metals			\$180,900	\$0.68
Structural Steel Framing				
Perimeter Debris Netting (Install & Removal)	1,000 lnft	14.00	14,000	
Perimeter Safety Cable (Install & Removal) - Floor Slab	6,000 lnft	40.00	240,000	
Perimeter Safety Cable (Install & Removal) - Roof Slab	3,200 lnft	40.00	128,000	
Misc Steel (Hoist Beams, Supports, Etc)	265,700 sqft	3.00	797,100	
Structural Steel Framing - Galvanized	15 tons	6,500.00	94,250	
Structural Steel - Light Monitor Framing	12 tons	7,099.57	85,195	
Structural Steel - Stair D Framing	1 allo	500,000.00	500,000	
Structural Steel Framing	1,769 tons	5,800.00	10,260,200	
Structural Steel Framing - Atrium	4 tons	6,000.00	24,000	
Structural Steel Framing - Cantilever	28 tons	5,800.00	162,400	

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Structural Steel Framing - Transfer	48 tons	5,800.00	275,500	
Structural Steel - HSS Framing	20 tons	7,099.57	141,991	
Subtotal Structural Steel Framing			\$12,722,600	\$47.88
Composite Metal Decking				
Composite Metal Decking GSF	274,425 sqft	8.00	2,195,400	
Subtotal Composite Metal Decking			\$2,195,400	\$8.26
Cold-Formed Metal Framing				
Cold-Formed Metal Framing - Infill at Ornamental Stair Steel Framing	1 lsum	150,000.00	150,000	
Subtotal Cold-Formed Metal Framing			\$150,000	\$0.56
Metal Fabrications				
Temp Stair Tower / Scaffolding Rentals	5 mnth	4,500.00	22,500	
Temporary Ladders and Stairs	4 each	700.00	2,800	
Scaffolding - General Use	1 lsum	20,000.00	20,000	
Brick Shelf Angle	4,815 lnft	51.88	249,810	
Subtotal Metal Fabrications			\$295,100	\$1.11
Metal Stairs				
Metal Pan Stairs - Channel Stringers & Rail	416 rise	2,091.23	869,952	
Elevator Pit Ladder	32 lnft	342.29	10,953	
Ships Ladders	5 each	7,708.91	38,545	
Subtotal Metal Stairs			\$919,400	\$3.46
Metal Gratings				
Metal Grating	2,854 sqft	100.00	285,400	
Subtotal Metal Gratings			\$285,400	\$1.07
Total Division 05 - Metals			\$21,504,700	\$80.94
Division 06 - Wood, Plastics, and Composites				
Rough Carpentry				
Laborer	6,240 hour	73.00	455,520	
Toeboards (Install & Removal)	5,000 lnft	4.00	20,000	
Wood Railing (Install & Removal)	1,000 lnft	6.50	6,500	
Rough Carpentry	265,700 sqft	1.00	265,700	
Roof Blocking	100,124 sqft	1.06	106,114	
Subtotal Rough Carpentry			\$853,800	\$3.21
Wood Paneling				
MDO Paneling	12,275 sqft	12.36	151,724	
Subtotal Wood Paneling			\$151,700	\$0.57
Wood Trim				
Wood Base	373 lnft	15.45	5,759	
Subtotal Wood Trim			\$5,800	\$0.02
Total Division 06 - Wood, Plastics, and Composites			\$1,011,300	\$3.81
Division 07 - Thermal and Moisture Protection				
Dampproofing				
Bituminous Dampproofing	9,545 sqft	10.22	97,591	
Waterproofing with Protection Board - Steam Tunnel & Vaults	4,985 sqft	8.92	44,459	
Subtotal Dampproofing			\$142,000	\$0.53
Sheet Waterproofing				
Waterproof Elevator Pit	3 each	6,133.45	18,400	

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Subtotal Sheet Waterproofing Thermal Protection			\$18,400	\$0.07
Mineral Wool Insulation - 5"	80,809 sqft	11.00	888,899	
Subtotal Thermal Protection Thermal Insulation			\$888,900	\$3.35
Rigid Insulation - 2" Spec 3 Lab	1,930 sqft	5.16	9,953	
Rigid Insulation - Fdn	9,545 sqft	5.16	49,223	
Subtotal Thermal Insulation Weather Barriers			\$59,200	\$0.22
Fluid Applied Membrane Air Barrier	80,809 sqft	6.25	505,056	
Subtotal Weather Barriers Air Barriers			\$505,100	\$1.90
K13 Spray on Deck	124,932 sqft	9.80	1,224,148	
Subtotal Air Barriers Roof Panels			\$1,224,100	\$4.61
Metal Roof System	1,240 sqft	46.59	57,766	
Subtotal Roof Panels Wall Panels			\$57,800	\$0.22
Metal Panel Soffit	384 sqft	66.91	25,694	
Metal Wall Panels - MP1	1,804 sqft	82.35	148,564	
Metal Wall Panels - MP2	1,742 sqft	87.50	152,425	
Metal Wall Panels - MP2 (Light Monitors)	356 sqft	87.50	31,150	
Perforated Metal Wall Panels - MP3	3,265 sqft	113.24	369,713	
Subtotal Wall Panels Membrane Roofing			\$727,500	\$2.74
Roof Protection (Install & Removal)	10,000 sqft	3.50	35,000	
Protected Roof System (90 mil, Ballasted)	71,092 sqft	36.00	2,559,312	
Protected Roof System (90 mil, Ballasted) - Green Roof Areas	27,792 sqft	36.00	1,000,512	
Subtotal Membrane Roofing Sheet Metal Flashing and Trim			\$3,594,800	\$13.53
Parapet Cap	2,370 lnft	46.41	110,001	
Subtotal Sheet Metal Flashing and Trim Roof Accessories			\$110,000	\$0.41
Roof Hatch - 30 x 96	5 each	2,578.56	12,893	
Roof Walkway Pads	1 allo	25,000.00	25,000	
Subtotal Roof Accessories Applied Fireproofing			\$37,900	\$0.14
Applied Fireproofing	265,700 sqft	5.75	1,527,775	
Fireproof Touch-Up	1 allo	50,000.00	50,000	
Subtotal Applied Fireproofing Firestopping			\$1,577,800	\$5.94
Perimeter Firestopping	4,815 lnft	27.00	130,005	
Subtotal Firestopping Joint Sealants			\$130,000	\$0.49
Interior Joint Sealants	265,700 sqft	1.00	265,700	
Joint Sealants	80,445 sqft	2.00	160,890	
Subtotal Joint Sealants			\$426,600	\$1.61

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Description	Quantity	Unit Cost	Total Cost	Dollars / SF
Expansion Control				
Exterior Expansion Joints	348 lnft	118.01	41,066	
Interior Expansion Joints - Spec 3 Slabs	67 lnft	61.26	4,104	
Subtotal Expansion Control			\$45,200	\$0.17
Total Division 07 - Thermal and Moisture Protection			\$9,545,300	\$35.93
Division 08 - Openings				
Openings				
ECI Preconstruction	1 allo	135,000.00	135,000	
Subtotal Openings			\$135,000	\$0.51
Metal Doors and Frames				
Single Opng - Exterior Hollow Metal Door, Frame, Hardware	3 each	3,604.99	10,815	
Double Opng - Exterior Hollow Metal Door, Frame, Hardware	6 each	7,055.47	42,333	
Subtotal Metal Doors and Frames			\$53,100	\$0.20
Metal Doors				
Double Hollow Metal Door, Frame, Hardware	2 each	6,894.80	13,790	
Subtotal Metal Doors			\$13,800	\$0.05
Wood Doors				
Single Opening - Full Lite Wood Door, Hardware	144 each	2,935.49	422,710	
Single Opening - Wood Door, Frame, Hardware	158 each	3,450.49	545,177	
Single Opening Rated - Wood Door, Frame, Hardware	42 each	3,862.49	162,224	
Double Opening - Full Lite Wood Door, Hardware	4 each	5,252.98	21,012	
Double Opening - Wood Door, HM Frame, Hardware	41 each	6,385.98	261,825	
Double Opening Rated - Wood Door, HM Frame, Hardware	36 each	6,797.98	244,727	
Double Uneven Opening - Wood Door, Frame, Hardware	38 each	6,385.98	242,667	
Double Uneven Opening Rated - Wood Door, Frame, Hardware	24 each	6,797.98	163,151	
Sliding Wood Door	2 each	3,682.01	7,364	
Single Opening - Acoustical Wood Door, Frame, Hardware	17 each	4,932.15	83,847	
Double Opening - Acoustical Wood Door, Frame, Hardware	9 each	9,338.41	84,046	
Subtotal Wood Doors			\$2,238,800	\$8.43
Coiling Doors and Grilles				
Overhead Door - 10x10	2 each	15,800.00	31,600	
Subtotal Coiling Doors and Grilles			\$31,600	\$0.12
Panel Doors				
Motorized Folding Sectional Overhead Door w/ Glass Markerboard Finish	2 each	78,392.98	156,786	
Subtotal Panel Doors			\$156,800	\$0.59
Entrances and Storefronts				
Exterior Aluminum-Framed Storefront Door, Frame, Hardware (single)	4 each	9,382.99	37,532	
Exterior Aluminum-Framed Storefront Door, Frame, Hardware (double)	10 each	18,804.99	188,050	
Subtotal Entrances and Storefronts			\$225,600	\$0.85
Storefronts				
Interior DIRT Walls	21,393 sqft	108.64	2,324,131	
Interior Storefront - Ornamental Stairs	614 sqft	113.81	69,884	
Subtotal Storefronts			\$2,394,000	\$9.01
Curtain Wall and Glazed Assemblies				
Exterior Protection (Install & Removal)	1 lsum	35,000.00	35,000	

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Description	Quantity	Unit Cost	Total Cost	Dollars / SF
CW-1 Glazed Aluminum Curtain Wall	6,188 sqft	164.96	1,020,762	
CW-1 Glazed Aluminum Curtain Wall (Light Monitors)	1,374 sqft	154.52	212,308	
CW-2 Glazed Aluminum Curtain Wall	24,693 sqft	175.40	4,331,119	
Glazed Aluminum Curtain Wall - Bird Friendly Frit	1 allo	78,302.97	78,303	
LVR-1 Integral Louver	3,360 sqft	167.05	561,276	
Performance Mock Up	300 sqft	1,250.00	375,000	
Visual Mock Up	300 sqft	350.00	105,000	
Subtotal Curtain Wall and Glazed Assemblies			\$6,718,800	\$25.29
Glazing				
Glazed Side Lite	71 each	535.66	38,032	
Interior Windows	1,652 sqft	55.00	90,883	
Interior Windows - Spec 3	75 sqft	75.00	5,635	
Privacy Film	10,091 sqft	12.26	123,738	
Subtotal Glazing			\$258,300	\$0.97
Total Division 08 - Openings			\$12,225,700	\$46.01
Division 09 - Finishes				
Plaster and Gypsum Board Assemblies				
L1 - Furred Wall - 1-5/8"	315 lnft	243.71	76,815	
L1 - 0B3 - Non-Lab Non-Rated - 3-5/8"	1,749 lnft	415.03	725,701	
L2-L4 - 0B3 - Non-Lab Non-Rated - 3-5/8"	6,722 lnft	321.64	2,162,062	
L1 - 1B3 - Non-Lab 1 HR Rated - 3-5/8"	121 lnft	720.39	86,886	
L2-L4 - 1B3 - Non-Lab 1 HR Rated - 3-5/8"	436 lnft	337.55	147,068	
L1 - Shaft Walls	104 lnft	565.33	58,817	
L2-L4 - Shaft Walls	1,088 lnft	391.62	426,192	
L1 - 2B3 - Non-Lab 2 HR Rated - 3-5/8"	920 lnft	1,019.44	938,251	
L2-L4 - 2B3 - Non-Lab 2 HR Rated - 3-5/8"	1,263 lnft	436.76	551,496	
L1 - 0B6 - Lab Non-Rated - 6"	2,169 lnft	416.10	902,694	
L2-L4 - 0B6 - Lab Non-Rated - 6"	3,072 lnft	321.34	987,089	
L1 - 0B6 - Lab Non-Rated - 6"	150 lnft	901.20	135,180	
L1 - 2B6 - 6" 2 HR Rated	560 lnft	431.76	241,679	
L1 - Non-Lab 3 HR Rated - 6"	244 lnft	596.24	145,620	
L1-L4 - 2B6 - 6" 2 HR Rated	1,188 lnft	439.99	522,703	
Add Abuse Resistant GWB	91,200 sqft	3.58	326,775	
Add Tile Backer	12,740 sqft	3.07	39,127	
Add Level 5 Finish	91,200 sqft	1.25	114,201	
GWB Layer at Exterior Enclosure	80,445 sqft	2.51	202,081	
Drywall Grid GWB Ceilings	3,554 sqft	19.12	67,953	
Drywall Drops & Soffits	1 allo	125,000.00	125,000	
Subtotal Plaster and Gypsum Board Assemblies			\$8,983,400	\$33.81
Tiling				
Ceramic Tile Floor - Large Format Tile	2,711 sqft	35.85	97,212	
Ceramic Tile Walls - All Walls, Floor to Ceiling	12,740 sqft	29.55	376,514	
Tile Base	1,274 lnft	36.41	46,400	
Subtotal Tiling			\$520,100	\$1.96
Acoustical Ceilings				
ACT 1 - 2 x 2	31,555 sqft	17.39	549,883	
ACT 2 - 2 x 4 LYRA PB Monolithic	7,861 sqft	26.60	209,113	
ACT 3 - 2 x 4	1,579 sqft	56.38	89,023	
ACT 4 - 2 x 4 Scrubbable	13,477 sqft	25.58	344,731	

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ACT 5 - Acoustic Clouds	30,452 sqft	46.13	1,404,740	
Subtotal Acoustical Ceilings			\$2,597,500	\$9.78
Specialty Ceilings				
Wood Slat Ceiling	10,420 sqft	106.17	1,106,366	
Subtotal Specialty Ceilings			\$1,106,400	\$4.16
Masonry Flooring				
Granite Flooring	608 sqft	88.11	53,541	
Granite Stair Tread	246 sqft	88.11	21,703	
Subtotal Masonry Flooring			\$75,200	\$0.28
Wood Flooring				
Solid Wood Flooring - Ornamental Stair	719 sqft	88.02	63,326	
Solid Wood Flooring - Ornamental Stair Risers	558 sqft	88.02	49,116	
Wood Flooring	380 sqft	25.89	9,826	
Subtotal Wood Flooring			\$122,300	\$0.46
Resilient Flooring				
Protection of Floors	102,500 sqft	1.55	158,711	
Rubber Base - 4"	29,759 lnft	4.67	138,852	
LVT	22,680 sqft	12.37	280,516	
Stair Tread & Riser	2,446 lnft	25.78	63,059	
Resilient Tile - Static Dissipative	1,151 sqft	10.31	11,868	
Rubber Flooring - Egress Stairs	4,013 sqft	11.13	44,680	
Subtotal Resilient Flooring			\$697,700	\$2.63
Terrazzo Flooring				
Terrazzo Base	1,523 lnft	36.46	55,513	
Terrazzo Flooring	8,813 sqft	39.16	345,144	
Subtotal Terrazzo Flooring			\$400,700	\$1.51
Fluid-Applied Flooring				
ESD Troweled Epoxy Flooring w/ Integral Base	14,851 sqft	28.89	429,001	
Troweled Epoxy Flooring w/ Integral Base	46,433 sqft	25.79	1,197,578	
Subtotal Fluid-Applied Flooring			\$1,626,600	\$6.12
Carpeting				
Carpet Tile	7,557 sqyd	56.70	428,539	
Carpet Tile - Textile	858 sqyd	67.01	57,499	
Subtotal Carpeting			\$486,000	\$1.83
Access Flooring				
Access Flooring	7,722 sqft	10.00	77,220	
Subtotal Access Flooring			\$77,200	\$0.29
Wall Coverings				
Custom Graphic Wall Coverings	1 allo	25,000.00	25,000	
Wall Coverings	1 allo	25,000.00	25,000	
Subtotal Wall Coverings			\$50,000	\$0.19
Acoustic Room Components				
Wood Wall Paneling - Decoustics Quadrillo	2,468 sqft	124.04	306,154	
Acoustical Wall Panel	1,175 sqft	29.22	34,322	
Acoustical Wrapped Panel	6,270 sqft	36.52	228,986	
Acoustical Wrapped Panel - Ornamental Stair Booth Walls	991 sqft	46.95	46,510	
Radiant Wall Panel	597 sqft	156.51	93,425	

Michigan State University

EDI Center

East Lansing, Michigan

EDI Center Building - Full Build

Project GSF: 265,700 sqft

Estimate Type: Schematic Design

Estimate Date: 08/15/2024

265,700 sqft

Description	Quantity	Unit Cost	Total Cost	Dollars / SF
Subtotal Acoustic Room Components			\$709,400	\$2.67
Painting				
Paint Gypsum Wall	445,789 sqft	1.99	887,291	
Paint Ceiling	3,554 sqft	0.74	2,628	
Paint Ceiling - Exposed	164,528 sqft	2.55	419,838	
Paint Door Frames	326 each	254.72	83,039	
Touch Ups	1 allo	25,000.00	25,000	
Epoxy Paint Walls	176,176 sqft	2.30	404,605	
Block Filler and Paint at CMU Walls	9,877 sqft	3.25	32,071	
Sealed Concrete Floor	37,500 sqft	2.04	76,335	
Subtotal Painting			\$1,930,800	\$7.27
Total Division 09 - Finishes			\$19,383,300	\$72.95
Division 10 - Specialties				
Visual Display Surfaces				
Magnetic Markerboard	6,876 sqft	36.06	247,905	
Markerboard - Desk Locations	269 each	669.59	180,121	
Whiteboard - Auditorium	312 sqft	30.90	9,630	
Tackboards- Desk Locations	269 each	367.01	98,726	
Subtotal Visual Display Surfaces			\$536,400	\$2.02
Signage				
Signage - Code	265,700 sqft	0.85	225,845	
Signage - Donor, Environmental Signage	1 allo	150,000.00	150,000	
Subtotal Signage			\$375,800	\$1.41
Wall and Door Protection				
Wall and Corner Guards	1 allo	200,000.00	200,000	
Subtotal Wall and Door Protection			\$200,000	\$0.75
Toilet, Bath, and Laundry Accessories				
Mirrors	58 sqft	85.46	4,982	
Mirrors - Bathrooms	441 sqft	85.46	37,689	
Mop & Broom Holders w/ Shelf	4 each	332.50	1,330	
Single Bathroom Accessories	11 each	1,133.00	12,463	
3 Gang Bathroom Accessories	2 each	3,064.24	6,128	
5 Gang Bathroom Accessories	2 each	4,763.73	9,527	
6 Gang Bathroom Accessories	4 each	5,716.48	22,866	
Subtotal Toilet, Bath, and Laundry Accessories			\$95,000	\$0.36
Fire Protection Specialties				
Fire Extinguisher Cabinet	53 each	360.50	19,106	
Subtotal Fire Protection Specialties			\$19,100	\$0.07
Total Division 10 - Specialties			\$1,226,300	\$4.62
Division 11 - Equipment				
Loading Dock Equipment				
Loading Dock - Bumpers	1 lsum	10,000.00	10,000	
Loading Dock - Leveler	1 lsum	35,000.00	35,000	
Loading Dock - Scissor Lift	1 lsum	50,000.00	50,000	
Subtotal Loading Dock Equipment			\$95,000	\$0.36
Laboratory Equipment				
Laboratory Equipment - Existing OFCI	1 allo	350,000.00	350,000	
Mock-Ups - Off-Site Visual Lab Mock-Up	1 lsum	100,000.00	100,000	

Michigan State University

EDI Center

East Lansing, Michigan

EDI Center Building - Full Build

Project GSF: 265,700 sqft

Estimate Type: Schematic Design

Estimate Date: 08/15/2024

265,700 sqft

Description	Quantity	Unit Cost	Total Cost	Dollars / SF
FH-6A - Fume Hood w/ Base Cabinets - 6'	63 each	20,017.33	1,261,092	
FH-6B - Floor Mounted Fume Hood - 6'	20 each	20,544.10	410,882	
FH-6C - Fume Hood w/ Base Cabinets - 6'	5 each	20,017.33	100,087	
FH-6D - Floor Mounted Fume Hood - 6'	2 each	20,544.10	41,088	
Exhaust Canopy	12 each	13,191.93	158,303	
Exhaust Arm	45 each	2,110.71	94,982	
Subtotal Laboratory Equipment			\$2,516,400	\$9.47
Total Division 11 - Equipment			\$2,611,400	\$9.83
Division 12 - Furnishings				
Curtains and Drapes				
Curtain & Track	787 lnft	22.20	17,463	
Laser Curtain & Track	460 sqft	68.48	31,502	
Subtotal Curtains and Drapes			\$49,000	\$0.18
Window Shades				
Window Shades - Manual	23,475 sqft	19.00	446,043	
Window Shades - Motorized	2,609 sqft	26.39	68,851	
Subtotal Window Shades			\$514,900	\$1.94
Casework				
Plastic-Laminate Base Cabinets w/ Solid Surface Counter	136 lnft	362.75	49,509	
Plastic-Laminate Wall Cabinets	36 lnft	258.89	9,328	
Plastic Laminate Tall Storage	8 each	850.00	6,800	
Subtotal Casework			\$65,600	\$0.25
Specialty Casework				
CB2 - Base Cabinets with Epoxy Countertop	329 lnft	453.25	148,898	
DB1 - Base Cabinets with Epoxy Countertop	329 lnft	453.25	148,898	
SB1 - Sink Base Cabinets with Epoxy Countertop	178 lnft	453.25	80,756	
MC1 - 15% - Moveable Base Cabinet on Casters	91 lnft	353.50	32,034	
MC1 (Double Door) - 15% - Moveable Base Cabinet on Casters	91 lnft	353.50	32,034	
MD1 - 35% - Moveable Base Cabinet on Casters	212 lnft	353.50	74,790	
MD2 - 35% - Moveable Base Cabinet on Casters	212 lnft	353.50	74,790	
TB1 - Moveable Table with Epoxy Top - 6'	365 each	2,065.45	753,888	
Island - Moveable Table with Epoxy Top - 5'	25 each	1,858.90	46,473	
AS1 - 3 Tier Adjustable Wall Shelving	624 lnft	258.57	161,265	
Overhead Service Carriers	725 lnft	362.49	262,809	
Tall Storage Cabinets	8 each	1,245.00	9,960	
FB2 - Flammable Storage Cabinets - Future FH	39 each	569.57	22,213	
FB4 - Corrosive Storage Cabinets - Future FH	37 each	569.57	21,074	
Vented Storage Cabinets	49 each	1,864.06	91,339	
Epoxy Sink	59 each	309.00	18,231	
PB1 - Wall Peg Board	59 each	257.50	15,192	
Subtotal Specialty Casework			\$1,994,600	\$7.51
Countertops				
Bathroom Countertops - Solid Surface	147 lnft	206.02	30,290	
Work Countertops - Solid Surface	101 lnft	206.02	20,730	
Subtotal Countertops			\$51,000	\$0.19
Rugs and Mats				
Walk Off Grid	737 sqft	31.06	22,888	
Subtotal Rugs and Mats			\$22,900	\$0.09

Michigan State University

EDI Center

East Lansing, Michigan

EDI Center Building - Full Build

Project GSF: 265,700 sqft

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265,700 sqft

Description	Quantity	Unit Cost	Total Cost	Dollars / SF
Seating				
Built-In Booths	173 lnft	1,236.00	214,124	
Subtotal Seating			\$214,100	\$0.81
Total Division 12 - Furnishings			\$2,912,200	\$10.96
Division 13 - Special Construction				
Controlled Environment Rooms				
Clean Room	1,579 sqft	1,369.34	2,162,115	
Subtotal Controlled Environment Rooms			\$2,162,100	\$8.14
Radiation Protection				
EMI Shielding	3 allo	200,000.00	600,000	
Subtotal Radiation Protection			\$600,000	\$2.26
Total Division 13 - Special Construction			\$2,762,100	\$10.40
Division 14 - Conveying Equipment				
Elevators				
Elevator Protection (Install & Removal)	3 each	3,000.00	9,000	
Subtotal Elevators			\$9,000	\$0.03
Electric Traction Elevators				
Electric Geared Traction - Freight	5 stop	112,642.22	563,211	
Electric Traction - Passenger	9 stop	76,882.12	691,939	
Subtotal Electric Traction Elevators			\$1,255,200	\$4.72
Total Division 14 - Conveying Equipment			\$1,264,200	\$4.76
Division 21 - Fire Suppression				
Division 21 - Fire Suppression				
Fire Suppression ECI Preconstruction Services	1 lsum	56,500.00	56,500	
Direct Job Expenses	1 lsum	282,500.00	282,500	
Subtotal Division 21 - Fire Suppression			\$339,000	\$1.28
Fire Suppression Indirects				
BIM Coordination	265,700 sqft	0.29	77,649	
As-Built Drawings	265,700 sqft	0.35	93,178	
Firestopping	265,700 sqft	0.29	77,649	
Commissioning Assistance	265,700 sqft	0.11	28,444	
Permits	265,700 sqft	0.06	15,809	
Rigging	265,700 sqft	0.18	47,427	
Offsite Parking	1 lsum	28,250.00	28,250	
Subtotal Fire Suppression Indirects			\$368,400	\$1.39
Wet-Pipe Sprinkler Systems				
Sprinkler Heads & Piping - Wet	466,332 sqft	1.18	1,415,181	
Fire Department Connections, FDC's	1 each	3,788.60	3,789	
Standpipe	3 each	42,106.00	126,318	
Backflow Preventer, 6" Double check	1 each	5,930.60	5,931	
Subtotal Wet-Pipe Sprinkler Systems			\$1,551,200	\$5.84
Dry-Pipe Sprinkler Systems				
Sprinkler Heads & Piping - Dry - Receiving	700 sqft	6.43	4,498	
Sprinkler Heads & Piping - Dry - Spec 1	sqft	6.26	0	
Sprinkler Heads & Piping - Dry - Spec 2	sqft	6.26	0	
Sprinkler Heads & Piping - Dry - Spec 3	sqft	6.26	0	
Nitrogen Charging Station	1 each	8,390.80	8,391	

Michigan State University

EDI Center

East Lansing, Michigan

EDI Center Building - Full Build

Project GSF: 265,700 sqft

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265,700 sqft

Description	Quantity	Unit Cost	Total Cost	Dollars / SF
Subtotal Dry-Pipe Sprinkler Systems			\$12,900	\$0.05
Fire Pumps				
Electric Fire Pump - 1000 GPM	1 each	117,422.00	117,422	
Subtotal Fire Pumps			\$117,400	\$0.44
Total Division 21 - Fire Suppression			\$2,388,900	\$8.99
Division 22 - Plumbing				
Division 22 - Plumbing				
Plumbing ECI Preconstruction Services	12 mnth	28,250.00	339,000	
Direct Job Expenses	1 lsum	2,825,000.00	2,825,000	
Subtotal Division 22 - Plumbing			\$3,164,000	\$11.91
Plumbing Indirects				
BIM Coordination	265,700 sqft	1.66	440,880	
As-Built Drawings	265,700 sqft	0.44	117,568	
Firestopping	265,700 sqft	0.39	102,872	
Commissioning Assistance	265,700 sqft	0.22	58,784	
Permits	265,700 sqft	0.24	63,237	
Rigging	265,700 sqft	0.60	158,092	
Disinfection and Cleaning	265,700 sqft	0.22	58,784	
Lab Gas Certification	1 lsum	59,500.00	59,500	
Temporary Storm Riser	1 lsum	77,736.00	77,736	
Offsite Parking	1 lsum	84,750.00	84,750	
Subtotal Plumbing Indirects			\$1,222,200	\$4.60
Domestic Water Piping Insulation				
1" Fiberglass Insulation With All Service Jacket	****	0.00	0	
1/2" Pipe	7,480 lnft	9.38	70,142	
3/4" Pipe	4,350 lnft	9.95	43,273	
1" Pipe	2,360 lnft	10.39	24,514	
1-1/4" Pipe	400 lnft	11.02	4,407	
1-1/2" Pipe	2,310 lnft	11.29	26,082	
2" Pipe	350 lnft	11.96	4,186	
2-1/2" Pipe	240 lnft	12.87	3,088	
3" Pipe	550 lnft	13.70	7,533	
6" Pipe	300 lnft	20.64	6,193	
Fittings & Valves	8 lsum	140.66	47,355	
Subtotal Domestic Water Piping Insulation			\$236,800	\$0.89
Storm Piping Insulation				
Storm Piping Insulation	265,700 sqft	0.45	120,096	
Subtotal Storm Piping Insulation			\$120,100	\$0.45
Domestic Water Piping				
Copper Type L, Soldered 95/5	****	0.00	0	
1/2" Pipe	7,480 lnft	42.22	315,810	
3/4" Pipe	4,350 lnft	44.17	192,149	
1" Pipe	2,360 lnft	43.56	102,805	
1-1/4" Pipe	400 lnft	44.13	17,652	
1-1/2" Pipe	2,310 lnft	45.87	105,952	
2" Pipe	350 lnft	54.33	19,017	
2-1/2" Pipe	240 lnft	68.59	16,461	
3" Pipe	550 lnft	80.64	44,350	

Michigan State University

EDI Center

East Lansing, Michigan

EDI Center Building - Full Build

Project GSF: 265,700 sqft

Estimate Type: Schematic Design

Estimate Date: 08/15/2024

265,700 sqft

Description	Quantity	Unit Cost	Total Cost	Dollars / SF
6" Pipe	300 lnft	169.17	50,751	
Fittings & Valves	8 lsum	886.63	302,731	
Pipe Identification	18,340 lnft	0.53	9,637	
Subtotal Domestic Water Piping			\$1,177,300	\$4.43
Sanitary Waste and Vent System Piping				
PVC, Schedule 40 - U/G	****	0.00	0	
2" Pipe	40 lnft	11.74	470	
3" Pipe	100 lnft	14.15	1,415	
4" Pipe	400 lnft	21.77	8,706	
6" Pipe	300 lnft	38.43	11,528	
8" Pipe	460 lnft	57.38	26,396	
Fittings	1 lsum	12,128.72	12,129	
Excavation & Backfill	1,300 lnft	64.80	84,240	
Cast Iron, No Hub - A/G	****	0.00	0	
2" Pipe	1,480 lnft	49.72	73,588	
3" Pipe	1,630 lnft	60.07	97,912	
4" Pipe	2,710 lnft	75.46	204,488	
6" Pipe	100 lnft	101.37	10,137	
Fittings	1 lsum	115,837.61	115,838	
Pipe Identification	5,920 lnft	0.53	3,111	
Floor Drain, 4" with Trap Seal	76 each	448.18	34,062	
Subtotal Sanitary Waste and Vent System Piping			\$684,000	\$2.57
Acid Waste and Vent System Piping				
Polypropylene, Schedule 80 - U/G	****	0.00	0	
3" Pipe	300 lnft	76.10	22,830	
4" Pipe	700 lnft	117.21	82,045	
Fittings	1 lsum	26,218.62	26,219	
Excavation & Backfill	1,000 lnft	64.80	64,800	
Polypropylene, Schedule 40	****	0.00	0	
2" Pipe	2,820 lnft	59.25	167,094	
3" Pipe	4,580 lnft	93.44	427,957	
4" Pipe	600 lnft	122.14	73,287	
Fittings	8 lsum	826.13	167,084	
Pipe Identification	8,000 lnft	0.42	3,363	
Floor Drain	57 each	455.14	25,943	
Subtotal Acid Waste and Vent System Piping			\$1,060,600	\$3.99
Storm System Piping				
PVC, Schedule 40 - U/G	****	0.00	0	
10" Pipe	400 lnft	75.55	30,221	
12" Pipe	600 lnft	88.82	53,293	
Fittings	1 lsum	20,878.52	20,879	
Excavation & Backfill	1,000 lnft	81.00	81,000	
Cast Iron, No Hub	****	0.00	0	
6" Pipe	1,200 lnft	101.37	121,643	
8" Pipe	1,000 lnft	143.54	143,543	
10" Pipe	2,300 lnft	203.88	468,925	
12" Pipe	500 lnft	277.64	138,820	
Fittings	1 lsum	218,232.76	218,233	
Pipe Identification	5,000 lnft	0.53	2,627	

Michigan State University

EDI Center

East Lansing, Michigan

EDI Center Building - Full Build

Project GSF: 265,700 sqft

Estimate Type: Schematic Design

Estimate Date: 08/15/2024

265,700 sqft

Description	Quantity	Unit Cost	Total Cost	Dollars / SF
Storm System Cleanout	120 each	250.36	30,044	
Roof Drains, 6"	40 each	753.85	30,154	
Downspout Nozzle, 6", Bronze	10 each	686.18	6,862	
Subtotal Storm System Piping			\$1,346,200	\$5.07
Plumbing Equipment				
Water Heater, Steam to Water	2 each	59,855.40	119,711	
Domestic Booster Pump - Triplex 15 Hp	1 each	93,557.16	93,557	
Water Meter, 6"	1 each	6,509.06	6,509	
Reduced Pressure Backflow Preventer, 6"	1 each	13,399.08	13,399	
Backflow Preventer, 6" Double check	1 each	7,593.97	7,594	
Water Softener, Triplex	1 each	57,741.15	57,741	
Non Freeze Wall Hydrant	11 each	791.27	8,704	
Circulating Pump, 1 Hp	1 each	4,971.21	4,971	
Water Hammer Arrestor, SS, 1-11 Units, 3/4"	3 each	673.12	2,019	
Water Hammer Arrestor, SS, 113-154 Units, 1"	8 each	5,183.61	41,469	
Master Mixing Valve, 1"	62 each	3,003.48	186,216	
Master Mixing Valve, 3"	1 each	7,943.09	7,943	
Expansion Tank, 34 Gallon	2 each	3,046.32	6,093	
Sump Pump, Simplex w/ Basin, 50 GPM	1 each	8,703.97	8,704	
Sump Pump, Simplex w/ Basin, 100 GPM	1 each	8,793.22	8,793	
Subtotal Plumbing Equipment			\$573,400	\$2.16
Plumbing Fixtures				
Water Closet, Wall Hung w/ Flush Valve- 1.28 GPF	51 each	1,792.72	91,429	
Lavatory, Countertop	32 each	1,285.12	41,124	
Lavatory, Wall Hung	11 each	1,766.99	19,437	
Electric Water Cooler, Bi-Level w/ Bottle Filler	8 each	4,900.63	39,205	
Janitor Sink	8 each	1,523.04	12,184	
Sink, Single Compartment	1 each	1,655.95	1,656	
Lab Sink (Provided By Others)	72 each	1,033.13	74,385	
Emergency Shower / Eyewash Combination	57 each	2,625.72	149,666	
Emergency Eyewash	66 each	1,606.34	106,018	
Electric Infrared Sensor on Fixture - Battery	51 each	462.09	23,567	
Electric Infrared Sensor on Fixture - Hardwire	43 each	532.49	22,897	
Subtotal Plumbing Fixtures			\$581,600	\$2.19
Natural Gas Piping				
Black Steel, Schedule 40, PE	****	0.00	0	
3" Pipe	100 lnft	68.21	6,821	
6" Pipe	300 lnft	110.59	33,177	
Fittings & Valves	1 lsum	13,999.17	13,999	
Pipe Identification	400 lnft	0.53	210	
Subtotal Natural Gas Piping			\$54,200	\$0.20
Laboratory Gas Piping				
Copper Type L, Medical Clean	****	0.00	0	
3/4" Pipe	24,700 lnft	46.72	1,153,954	
1" Pipe	180 lnft	46.86	8,434	
2" Pipe	4,030 lnft	58.62	236,234	
Fittings & Valves	8 lsum	16,351.58	501,734	
Pipe Identification	31,810 lnft	0.53	16,715	
Subtotal Laboratory Gas Piping			\$1,917,100	\$7.22

Michigan State University

EDI Center

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EDI Center Building - Full Build

Project GSF: 265,700 sqft

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265,700 sqft

Description	Quantity	Unit Cost	Total Cost	Dollars / SF
Laboratory Gas Equipment				
Duplex Air Compressors - 10 Hp	4 each	131,125.95	524,504	
Lab Air Turrets - Single	503 each	527.02	265,090	
Gas Manifold	106 each	6,149.31	651,826	
Gas Manifold - N2O, 10 x 10	8 each	16,386.26	131,090	
Subtotal Laboratory Gas Equipment			\$1,572,500	\$5.92
RO/DI Systems				
Polyvinylidene Fluoride (PVDF)	****	0.00	0	
1-1/4" Pipe	8,460 lnft	76.99	651,371	
Fittings & Valves	8 lsum	4,619.66	325,686	
Pipe Identification	8,460 lnft	0.53	4,445	
RO/DI System	4 each	39,903.60	159,614	
Subtotal RO/DI Systems			\$1,141,100	\$4.29
Total Division 22 - Plumbing			\$14,851,200	\$55.89
Division 23 - Heating, Ventilating, and Air-Conditioning (HVAC)				
Division 23 - HVAC				
HVAC ECI Preconstruction - Dry	12 mnth	28,250.00	339,000	
HVAC ECI Preconstruction - Wet	12 mnth	28,250.00	339,000	
Direct Job Expenses - HVAC Wet	1 lsum	2,825,000.00	2,825,000	
Direct Job Expenses - HVAC Dry	1 lsum	2,825,000.00	2,825,000	
Subtotal Division 23 - HVAC			\$6,328,000	\$23.82
HVAC Indirects				
BIM Coordination	265,700 sqft	3.87	1,028,720	
As-Built Drawings	265,700 sqft	0.83	220,440	
Firestopping	265,700 sqft	0.39	102,872	
Commissioning Assistance	265,700 sqft	0.22	58,784	
Permits	265,700 sqft	0.36	94,855	
Rigging	265,700 sqft	1.19	316,183	
Chemical Treatment	265,700 sqft	0.24	63,237	
Filter Replacement	265,700 sqft	0.30	79,046	
Temporary Heating and Ventilation	1 lsum	565,000.00	565,000	
Offsite Parking	1 lsum	282,500.00	282,500	
Subtotal HVAC Indirects			\$2,811,600	\$10.58
Testing, Adjusting, and Balancing for HVAC				
Test and Balance	467,032 sqft	0.54	323,936	
Subtotal Testing, Adjusting, and Balancing for HVAC			\$323,900	\$1.22
Duct Insulation				
1-1/2" Thick blanket Insulation, 1.5 lb/cuft Density	254,500 sqft	4.69	1,194,302	
2" Thick Board Insulation, 2.25 lb/cuft Density	83,000 sqft	6.93	575,378	
2 Hour Fire Rated Insulation	7,000 sqft	22.80	159,576	
Subtotal Duct Insulation			\$1,929,300	\$7.26
Heating Hot Water Piping Insulation				
1-1/2" Fiberglass Insulation	****	0.00	0	
3/4" Pipe	10,960 lnft	12.37	135,537	
1" Pipe	800 lnft	13.06	10,448	
1-1/4" Pipe	500 lnft	13.76	6,879	
2" Fiberglass Insulation	****	0.00	0	
1-1/2" Pipe	1,640 lnft	17.16	28,149	

Michigan State University

EDI Center

East Lansing, Michigan

EDI Center Building - Full Build

Project GSF: 265,700 sqft

Estimate Type: Schematic Design

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265,700 sqft

Description	Quantity	Unit Cost	Total Cost	Dollars / SF
2" Pipe	1,410 lnft	18.13	25,570	
2-1/2" Pipe	2,100 lnft	19.40	40,746	
3" Pipe	6,000 lnft	20.53	123,191	
4" Pipe	300 lnft	24.59	7,378	
6" Pipe	200 lnft	27.96	5,591	
8" Pipe	400 lnft	37.62	15,050	
10" Pipe	800 lnft	44.05	35,241	
Fittings & Valves	11 lsum	1,845.09	101,521	
Subtotal Heating Hot Water Piping Insulation			\$535,300	\$2.01
Chilled Water Piping Insulation				
1-1/2" Fiberglass Insulation	****	0.00	0	
3/4" Pipe	6,310 lnft	12.27	77,409	
1" Pipe	40 lnft	12.86	514	
1-1/4" Pipe	1,770 lnft	13.76	24,351	
1-1/2" Pipe	2,300 lnft	13.97	32,135	
2" Pipe	1,080 lnft	15.02	16,224	
2-1/2" Pipe	800 lnft	15.99	12,794	
3" Pipe	3,220 lnft	16.78	54,047	
4" Pipe	1,080 lnft	19.72	21,293	
6" Pipe	540 lnft	24.33	13,138	
8" Pipe	200 lnft	32.41	6,483	
10" Pipe	360 lnft	36.26	13,052	
12" Pipe	740 lnft	40.15	29,710	
Fittings & Valves	8 lsum	1,645.01	99,006	
Subtotal Chilled Water Piping Insulation			\$400,200	\$1.51
Steam / Condensate Piping Insulation				
2-1/2" Fiberglass Insulation	****	0.00	0	
1" Pipe	500 lnft	20.85	10,426	
1-1/4" Pipe	380 lnft	24.98	9,492	
1-1/2" Pipe	1,080 lnft	29.01	31,332	
2" Pipe	540 lnft	20.12	10,863	
2-1/2" Pipe	500 lnft	22.32	11,158	
3" Pipe	580 lnft	27.95	16,210	
3" Fiberglass Insulation	****	0.00	0	
4" Pipe	1,080 lnft	33.12	37,495	
6" Pipe	240 lnft	52.44	12,587	
8" Pipe	260 lnft	54.95	14,287	
10" Pipe	900 lnft	64.94	58,448	
Fittings & Valves	6 lsum	1,121.79	79,262	
Subtotal Steam / Condensate Piping Insulation			\$291,600	\$1.10
Condensate Drain Piping Insulation				
1" Fiberglass Insulation	****	0.00	0	
1" Pipe	920 lnft	10.39	9,556	
Fittings & Valves	1 lsum	2,389.10	2,389	
Subtotal Condensate Drain Piping Insulation			\$11,900	\$0.04
Heating Hot Water Piping				
Copper Type L	****	0.00	0	
3/4" Pipe	10,960 lnft	44.17	484,127	
1" Pipe	800 lnft	43.56	34,849	

Michigan State University

EDI Center

East Lansing, Michigan

EDI Center Building - Full Build

Project GSF: 265,700 sqft
Estimate Type: Schematic Design
Estimate Date: 08/15/2024
265,700 sqft

Description	Quantity	Unit Cost	Total Cost	Dollars / SF
1-1/4" Pipe	500 lnft	44.13	22,065	
1-1/2" Pipe	1,640 lnft	45.87	75,221	
2" Pipe	1,410 lnft	54.33	76,612	
2-1/2" Pipe	2,100 lnft	68.59	144,030	
3" Pipe	6,000 lnft	80.64	483,815	
4" Pipe	300 lnft	109.39	32,817	
Black Steel, Schedule 40, PE	****	0.00	0	
6" Pipe	200 lnft	110.59	22,118	
8" Pipe	400 lnft	187.95	75,180	
10" Pipe	800 lnft	233.97	187,174	
Fittings & Valves	11 lsum	9,359.52	569,434	
Pipe Identification	25,110 lnft	0.53	13,194	
AHU's Piping Assembly, 1-1/2"	4 each	7,487.90	29,952	
AHU's Piping Assembly, 3"	18 each	15,115.78	272,084	
Pump Piping Assembly, 10"	2 each	33,464.76	66,930	
Fan Coil Unit Piping Assembly, 1"	6 each	1,507.12	9,043	
VAV Box Piping Assembly, 3/4"	186 each	1,106.54	205,816	
Fin Tube Radiation Piping Assembly, 3/4"	120 each	1,106.54	132,785	
Reheat Coil Piping Assembly, 3/4"	94 each	1,106.54	104,015	
Unit Heater Piping Assembly, 1"	5 each	1,507.12	7,536	
Cabinet Unit Heater Piping Assembly, 1"	7 each	1,507.12	10,550	
Air Curtain Piping Assembly, 1"	2 each	1,507.12	3,014	
Inline Pump Piping Assembly	18 each	7,384.53	132,921	
Heat Exchanger Piping Assembly, 10"	2 each	21,452.29	42,905	
Water Cooled Chiller Piping Assembly, 3"	4 each	8,690.65	34,763	
Subtotal Heating Hot Water Piping			\$3,272,900	\$12.32
Chilled Water Piping				
Underground Chilled Water Piping	****	0.00	0	
12" HDPE	160 lnft	384.61	61,538	
Excavation & Backfill	160 lnft	129.60	20,736	
Fittings & Valves	1 lsum	41,393.80	41,394	
Copper Type L	****	0.00	0	
3/4" Pipe	6,310 lnft	44.17	278,727	
1" Pipe	40 lnft	43.56	1,742	
1-1/4" Pipe	1,770 lnft	44.13	78,109	
1-1/2" Pipe	2,300 lnft	45.87	105,493	
2" Pipe	1,080 lnft	54.33	58,682	
2-1/2" Pipe	800 lnft	68.59	54,869	
3" Pipe	3,220 lnft	80.64	259,648	
4" Pipe	1,080 lnft	109.39	118,139	
Black Steel, Schedule 40, PE	****	0.00	0	
6" Pipe	540 lnft	110.59	59,719	
8" Pipe	200 lnft	187.95	37,590	
10" Pipe	360 lnft	233.97	84,228	
12" Pipe	740 lnft	267.00	197,580	
Fittings & Valves	8 lsum	8,223.68	472,974	
Pipe Identification	18,280 lnft	0.53	9,605	
AHU's Piping Assembly, 1-1/2"	4 each	7,487.90	29,952	
AHU's Piping Assembly, 4"	11 each	19,470.43	214,175	
Pump Piping Assembly, 8"	2 each	24,316.98	48,634	

Michigan State University

EDI Center

East Lansing, Michigan

EDI Center Building - Full Build

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265,700 sqft

Description	Quantity	Unit Cost	Total Cost	Dollars / SF
Pump Piping Assembly, 12"	2 each	42,428.36	84,857	
Water Cooled Chiller Piping Assembly, 3"	4 each	8,690.65	34,763	
Fan Coil Unit Piping Assembly, 1"	17 each	1,483.32	25,216	
Fan Coil Unit Piping Assembly, 1-1/4"	6 each	1,824.40	10,946	
Chilled Beam Piping Assembly, 1-1/4"	15 each	1,824.40	27,366	
Heat Exchanger Piping Assembly, 6"	1 each	13,383.49	13,383	
Subtotal Chilled Water Piping			\$2,430,100	\$9.15
Steam / Condensate Piping				
Black Steel, Schedule 80, T&C	****	0.00	0	
1" Pipe	260 lnft	48.02	12,484	
1-1/4" Pipe	380 lnft	60.75	23,086	
1-1/2" Pipe	860 lnft	62.91	54,099	
3" Pipe	580 lnft	72.91	42,286	
4" Pipe	500 lnft	110.65	48,221	
Black Steel, Schedule 40, T&C	****	0.00	0	
1" Pipe	260 lnft	46.07	11,979	
1-1/2" Pipe	220 lnft	48.49	10,667	
2" Pipe	540 lnft	54.93	29,661	
Black Steel, Schedule 40, PE	****	0.00	0	
2-1/2" Pipe	500 lnft	61.09	30,544	
4" Pipe	580 lnft	77.59	45,002	
6" Pipe	240 lnft	143.17	34,360	
8" Pipe	260 lnft	187.95	48,867	
10" Pipe	900 lnft	233.97	210,570	
Fittings & Valves	6 lsum	2,724.62	424,221	
Pipe Identification	6,080 lnft	0.53	3,321	
Steam Humidifiers Piping Assembly	22 each	2,428.79	53,433	
Water Heater Heat Exchanger Piping Assembly	2 each	8,292.12	16,584	
Heat Exchanger Piping Assembly	2 each	21,452.29	42,905	
Steam Humidifier Manifold, 24" x 24"	22 each	3,603.61	79,279	
Steam Humidifier Manifold	9 each	9,587.22	86,285	
Subtotal Steam / Condensate Piping			\$1,307,900	\$4.92
Condensate Drain Piping				
Copper Type L	****	0.00	0	
1" Pipe	920 lnft	43.56	40,077	
Fittings & Valves	1 lsum	12,023.00	12,023	
Pipe Identification	920 lnft	0.53	483	
Subtotal Condensate Drain Piping			\$52,600	\$0.20
HVAC Air Distribution				
Stainless Steel 304, Schedule 10, PE (Vacuum Exhaust)	****	0.00	0	
3" Pipe	800 lnft	118.34	94,675	
4" Pipe	800 lnft	178.03	142,425	
Fittings & Valves	1 lsum	231,029.00	231,029	
Galvanized Ductwork	452,200 lbs	13.15	5,944,169	
Stainless Steel 316 Ductwork	162,800 lbs	31.81	5,178,261	
Fabric Ductwork- 24"	300 lnft	140.25	42,076	
Supply, Grille	120 each	153.63	18,435	
Supply, Diffuser, 2' x 2'	824 each	163.90	135,054	
Supply, Laminar Diffuser	244 each	679.40	165,774	

Michigan State University

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265,700 sqft

Description	Quantity	Unit Cost	Total Cost	Dollars / SF
Return, Grille	445 each	153.63	68,363	
Exhaust, Grille	324 each	123.88	40,136	
Fire Damper- Medium	40 each	328.35	13,134	
Fire & Smoke Damper - Small	16 each	662.10	10,594	
Fire & Smoke Damper - Large	104 each	1,715.80	178,443	
Access Doors	140 each	47.60	6,664	
Sound Attenuator- Large Duct	26 each	2,252.40	58,562	
Generator Exhaust Connections	3 each	2,443.27	7,330	
Fume Hood Connection	129 each	813.60	104,954	
Lab Exh Nozzles/arms	44 each	406.80	17,899	
Subtotal HVAC Air Distribution			\$12,458,000	\$46.89
HVAC Fans				
Lab Exhaust Fans, 10,000 CFM	6 each	55,075.50	330,453	
Lab Exhaust Fans, 700 CFM	2 each	9,855.50	19,711	
Lab Exhaust Fans, 45,000 CFM	6 each	162,175.50	973,053	
Roof Curbs	14 each	2,191.80	30,685	
Subtotal HVAC Fans			\$1,353,900	\$5.10
Air Terminal Units				
VAV box w/ Hydronic Reheat	182 each	1,081.93	196,912	
Fan Powered VAV Box w/ Hydronic Reheat	4 each	2,091.81	8,367	
Supply Air Control Valve - Venturi	102 each	813.60	82,987	
Exhaust Air Control Valve - Venturi	257 each	813.60	209,095	
Reheat Coil	102 each	777.36	79,291	
Fin Tube Radiation- Element w/ Cover	3,180 lft	219.69	698,620	
Cabinet Unit Heater- Hydronic	7 each	2,147.79	15,035	
Unit Heater- Hydronic	5 each	1,419.51	7,098	
Air Curtains - Hydronic, 10'	2 each	9,547.50	19,095	
Blower Coil Unit 4 Pipe, 2000 CFM	6 each	10,906.32	65,438	
Fan Coil Unit 2 Pipe, 600 CFM	17 each	4,967.64	84,450	
Chilled Beam 2' x 6'	71 each	3,041.85	215,971	
Fan Filter Unit	123 each	2,191.80	269,591	
Subtotal Air Terminal Units			\$1,951,900	\$7.35
Central Heating Equipment				
End Suction Pump, 50 Hp	2 each	20,317.74	40,635	
Circulating Pump	18 each	5,515.54	99,280	
Condensate Pressure Pump, Duplex, 1-1/2 HP, 15 Gal Receiver	1 each	19,775.99	19,776	
Shell & Tube Heat Exchangers, 20,000 MBH	2 each	66,094.94	132,190	
Pressure Reducing Station, PRV	2 each	51,363.00	102,726	
Dirt & Air Separator	1 each	13,399.08	13,399	
Expansion Tank	1 each	2,354.30	2,354	
Side Stream Bag Filter	1 each	4,085.40	4,085	
Chemical Shot Feeder	1 each	2,964.87	2,965	
Snow Melting System - Equipment	1 lsum	141,795.00	141,795	
Snow Melting System	8,866 sqft	24.58	217,935	
Subtotal Central Heating Equipment			\$777,100	\$2.92
Central Cooling Equipment				
Modular Scroll Chiller, 50 Ton	4 each	60,337.38	241,350	
End Suction Pump, 25 Hp	2 each	12,943.91	25,888	
End Suction Pump, 100 Hp	2 each	37,236.84	74,474	

Michigan State University

EDI Center

East Lansing, Michigan

EDI Center Building - Full Build

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265,700 sqft

Description	Quantity	Unit Cost	Total Cost	Dollars / SF
Plate & Frame Heat Exchanger, 400 GPM	1 each	16,084.14	16,084	
Expansion Tank	1 each	2,354.30	2,354	
Air & Dirt Separator	2 each	19,468.08	50,836	
Refrigerant Leak Detection	1 each	27,485.80	27,486	
Chemical Shoot Feeder	2 each	2,964.87	5,930	
Side Stream Bag Filter	1 each	4,085.40	4,085	
Subtotal Central Cooling Equipment			\$448,500	\$1.69
Central HVAC Equipment				
AHU's, SF, CHW/HHW, MERV-8 Filter, MERV-11Filter, MERV-14, Steam Humidifiers, ERW, Custom 1,250 CFM	****	0.00	0	
20,000 CFM	4 each	63,568.00	254,272	
32,000 CFM	1 each	440,604.00	440,604	
36,000 CFM	1 each	666,704.00	666,704	
40,000 CFM	1 each	702,404.00	702,404	
41,000 CFM	1 each	773,804.00	773,804	
48,000 CFM	1 each	797,604.00	797,604	
53,000 CFM	1 each	928,504.00	928,504	
54,000 CFM	1 each	1,023,704.00	1,023,704	
58,000 CFM	1 each	1,047,504.00	1,047,504	
	1 each	1,118,904.00	1,118,904	
Subtotal Central HVAC Equipment			\$7,754,000	\$29.18
Total Division 23 - Heating, Ventilating, and Air-Conditioning (HVAC)			\$44,438,700	\$167.25
Division 25 - Integrated Automation				
Integrated Automation Facility Controls				
Supply Air Control Valve - Venturi	106 each	5,670.00	601,020	
Exhaust Air Control Valve - Venturi	261 each	5,670.00	1,479,870	
DDC - HVAC & Plumbing	11 allo	37,800.00	3,619,080	
Lab Airflow Control System - Aircurity	1 allo	756,000.00	756,000	
Master Systems Integration	1 allo	270,000.00	270,000	
Toxic Gas Monitoring System	1 allo	216,000.00	216,000	
Subtotal Integrated Automation Facility Controls			\$6,942,000	\$26.13
Total Division 25 - Integrated Automation			\$6,942,000	\$26.13
Division 26 - Electrical				
Grounding and Bonding for Electrical Systems				
Ground Conductor, #4/0, Exposed-Perimeter Ground ring	1,800 lnft	12.87	23,164	
Ground Conductor, #4/0, MGB to Electrical Rooms	600 lnft	12.87	7,721	
Ground Rod, Copper, 10', 3/4"	165 each	198.24	32,710	
Ground, Exothermic Connection to Steel	12 each	169.80	2,038	
Ground, Exothermic Connection, One-Shot Cadweld	165 each	88.47	14,598	
Ground Mat, 10x30, Generator, (6)10ft Rods	3 each	3,786.09	11,358	
Bus Bar, 1/4x4x12	24 each	557.07	13,370	
Bus Bar, 1/4x4x24	41 each	597.73	24,507	
Bus Bar, 1/4x2x18-Electrical Closets	14 each	453.11	6,344	
Perimeter Ground Bus Bar, 1/4x2x LNFT	400 lnft	159.43	63,771	
Ground, Connection to Water Service	1 each	811.19	811	
Ground, Concrete Encased Electrode	8 each	308.55	2,468	
Subtotal Grounding and Bonding for Electrical Systems			\$202,900	\$0.76
Underground Ducts and Raceways for Electrical Systems				

Michigan State University

EDI Center

East Lansing, Michigan

EDI Center Building - Full Build

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265,700 sqft

Description	Quantity	Unit Cost	Total Cost	Dollars / SF
3-1" Generator Annunciator UG conduit-6#12 w/#12 Gnd.	60 lnft	38.79	2,328	
3-1" Generator Control Panel UG conduit- 6#12 w/#12 Gnd.	60 lnft	23.04	1,383	
3-1" Generator ATS UG conduit Controls-6#12 w/#12 Gnd.	60 lnft	23.04	1,383	
6-1" Generator Charger and Block heater UG raceway- 2 Conduits per Generator	60 lnft	34.37	2,062	
Duct Bank - 2-4" PVC-Generator Connection Panel	65 lnft	103.88	6,752	
12-4" Generator Duct Bank- Includes 1 Spare per Generator	60 lnft	261.21	15,673	
6-5"-Incoming Primary Duct Bank-from Manhole to Building(110 x 2)	220 lnft	216.36	47,600	
6-5"-Incoming Primary Duct Bank-West Side	1,155 lnft	216.36	249,899	
Precast Manhole, 8'x6'x7'	3 each	16,788.00	50,364	
Tie into Existing Primary Manhole	1 each	5,062.50	5,063	
Subtotal Underground Ducts and Raceways for Electrical Systems			\$382,500	\$1.44
Medium-Voltage Electrical Distribution				
1-4" Raceway-Rigid-Primary	1,200 lnft	55.19	66,226	
S&C Custom 15 kV, SWGR, 10 Sections-MSU Quote-OF0I	each	450,771.25	0	
S&C Custom 15 kV, SWGR, Six Sections-MSU Quote-OF0I	each	354,522.00	0	
#2 Wire XHHW / RW90 - Copper Grounding for MV-OF0I	lnft	4.27	0	
#3/0 Wire XHHW / RW90 - Copper-Ground-OF0I	lnft	8.27	0	
MV Cable 1C #2/0 15 kV 133% Insulation - Copper-OF0I	lnft	10.10	0	
MV Cable 1C #500 15 kV 133% Insulation - Copper-OF0I	lnft	23.89	0	
Stress Relief Cone 1C, #2/0 15 kV-OF0I	each	429.31	0	
Stress Relief Cone 1C, #500 15 kV-Incoming Primary-OF0I	each	631.42	0	
Cable Splice 1C, #500 15 kV-Incoming Primary-MSU-OF0I	each	1,728.34	0	
Subtotal Medium-Voltage Electrical Distribution			\$66,200	\$0.25
Secondary Electrical Distribution				
LV Dist Quote-Eaton-Includes Substation,SWBD,DP,PB, and Xfmr's	1 lsum	9,008,417.00	9,008,417	
Substation 1500KVA, DbL-End, 15KV-208/120 3P4W	2 incl	80,880.00	161,760	
Substation 2000KVA, DbL-End, 15KV-480/277 3P4W	2 incl	80,880.00	161,760	
Distribution Panel - 225A 480/277V MLO	3 incl	2,194.49	6,583	
Distribution Panel - 400A 480/277V MCB	6 incl	2,194.49	13,167	
Distribution Panel - 600A 480/277V MCB	10 incl	2,883.63	28,836	
Distribution Panel - 800A 480/277V MCB	4 incl	3,963.76	15,855	
Distribution Panel - 1200A 480/277V MCB	3 incl	4,370.40	13,111	
Distribution Panel - 400A 208/120V MCB	3 incl	2,194.49	6,583	
Distribution Panel - 600A 208/120V MCB	3 incl	2,883.63	8,651	
Distribution Panel - 800A 208/120V MCB	3 incl	3,963.76	11,891	
Distribution Panel - 800A 208/120V MCB	9 incl	3,963.76	35,674	
Distribution Panel - 1200A 208/120V MCB	3 incl	4,370.40	13,111	
Panelboard, 60A, 480/277V, MCB 24 Ckts	2 incl	742.90	1,486	
Panelboard, 100A, 480/277V, MCB 24 Ckts	5 incl	762.45	3,812	
Panelboard, 150A, 480/277V, MCB 30 Ckts	12 incl	850.43	10,205	
Panelboard, 60A, 480/277V, MLO 24 Ckts	12 incl	742.90	8,915	
Panelboard, 150A, 480/277V, MLO 24 Ckts	7 incl	830.88	5,816	
Panelboard, 225A, 480/277V, MLO 30 Ckts	15 incl	1,173.00	17,595	
Panelboard - 225A 208/120V 3P4W MLO 72 Ckts	80 incl	1,642.20	131,376	
Panelboard - 225A, 208/120V, MLO 54 Ckts	20 incl	1,642.20	32,844	
Transformer, 15 kVA, CU, 80° Rise	2 incl	879.75	1,760	
Transformer, 30 kVA, CU, 80° Rise	4 incl	1,075.25	4,301	
Transformer, 45 kVA, CU, 80° Rise	21 incl	1,270.75	26,686	
Transformer, 75 kVA, CU, 80° Rise	1 incl	1,466.25	1,466	

Michigan State University

EDI Center

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265,700 sqft

Description	Quantity	Unit Cost	Total Cost	Dollars / SF
Subtotal Secondary Electrical Distribution			\$9,731,700	\$36.63
Enclosed Bus Assemblies				
225A - Busway 3-Phase 3-Wire Feeder CU-208V (\$12,452 per lab)	130 lnft	30.23	3,930	
225A - Busway 3-Phase 3-Wire Feeder CU-480V	130 lnft	30.23	3,930	
225A - Busway-Eaton Quote-26' buss and 5-60A switches per run. x10	1 lsum	124,526.00	124,526	
Bus Plug, 60A-208V	25 each	110.46	2,761	
Bus Plug, 60A-480V	25 each	110.46	2,761	
Subtotal Enclosed Bus Assemblies			\$137,900	\$0.52
Feeders				
800A 4W + Grd Feeder - THHN CU-Generato	210 lnft	129.78	27,254	
30A 3W + Grd Feeder EMT COMP CU	550 lnft	13.03	7,165	
50A 3W + Grd Feeder EMT COMP CU	40 lnft	17.53	701	
100A 3W + Grd Feeder EMT COMP CU	1,300 lnft	32.26	41,942	
125A 3W + Grd Feeder EMT COMP CU	450 lnft	37.60	16,919	
150A 3W + Grd Feeder EMT COMP CU	910 lnft	37.60	34,215	
225A 3W + Grd Feeder EMT COMP CU	40 lnft	52.43	2,097	
225A Fire Pump Feeder EM-3W + Grd Feeder EMT COMP CU 2 hr rated room	60 lnft	52.43	3,146	
225A Fire Pump Feeder-3W + Grd Feeder EMT COMP CU 2hr rated room	85 lnft	52.43	4,457	
400A 3W + Grd Feeder EMT COMP CU	600 lnft	97.43	58,456	
600A 3W + Grd Feeder EMT COMP CU	550 lnft	153.31	84,322	
1600A 3W + Grd Feeder EMT COMP CU	85 lnft	457.54	38,891	
100A 4W + Grd Feeder EMT COMP CU	500 lnft	38.99	19,495	
125A 4W + Grd Feeder EMT COMP CU	2,500 lnft	43.02	107,550	
150A 4W + Grd Feeder EMT COMP CU	6,250 lnft	43.02	268,875	
225A 4W + Grd Feeder EMT COMP CU	5,150 lnft	69.77	359,334	
250A 4W + Grd Feeder EMT COMP CU	120 lnft	75.00	9,000	
400A 4W + Grd Feeder EMT COMP CU	280 lnft	112.44	31,484	
600A 4W + Grd Feeder EMT COMP CU	1,150 lnft	192.42	221,278	
800A 4W + Grd Feeder EMT COMP CU	900 lnft	269.25	242,327	
1000A 4W + Grd Feeder EMT COMP CU	1,175 lnft	311.50	366,016	
1200A 4W + Grd Feeder EMT COMP CU	1,490 lnft	397.35	592,050	
1600A 4W + Grd Feeder EMT COMP CU	700 lnft	532.78	372,944	
2000A 4W + Grd Feeder EMT COMP CU	800 lnft	647.30	517,842	
Subtotal Feeders			\$3,427,800	\$12.90
Branch Wiring				
Duplex Receptacle 20A 120V	951 each	279.21	265,529	
Quadplex Receptacle 20A 120V	517 each	318.13	164,471	
GFCI Receptacle 20A 120V	50 each	292.12	14,606	
Chemical Dispensing Room- Class 1 Div 1. Rigid Conduit & Sealed Fittings(500 sq ft)	1 allo	7,000.00	7,000	
Duplex USB Receptacle 20A 120V	60 each	308.46	18,507	
GFCI Receptacle WP 20A 120V	10 each	297.38	2,974	
GFCI Receptacle WP 20A 120V-Roof top Equipment	25 each	297.38	7,435	
Duplex Receptacle 20A 120V	60 each	279.91	16,795	
Flush Floor Box 2G 20A 120V	47 each	1,067.15	50,156	
Floor Box 3G 20A 120V	94 each	1,542.73	145,017	
Flush Floor Box 3G 20A 120V	35 each	1,542.73	53,996	

Michigan State University

EDI Center

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Estimate Date: 08/15/2024

265,700 sqft

Description	Quantity	Unit Cost	Total Cost	Dollars / SF
Flush Floor Box 4 Comp 2-20A 120V-Game Design (dedicated circuit)	4 each	2,638.53	10,554	
Classroom Computer Circuit-Game design	17 each	973.98	16,558	
Motorized OH door-Esports	2 each	973.98	1,948	
Refrigerator 20A 120V	4 each	973.98	3,896	
Security Enclosures/Panels	14 each	1,098.23	15,375	
Microwave Oven 20A 120V	4 each	973.98	3,896	
Vending	2 each	973.98	1,948	
BMS Panels	16 each	1,098.23	17,572	
Bi-Directional Amplification-2 Way Radio Dedicated Circuit	4 each	1,098.23	4,393	
Dedicated Circuit-20A 150 seat classroom	32 each	973.98	31,167	
Dedicated Circuit-20A Computer-Esports	8 each	973.98	7,792	
Fire alarm Circuit	14 each	1,098.23	15,375	
Misc Branch Power	40 lsum	1,098.23	43,929	
ERRC 20A 120V Circuit- Main Power Supply and Boosters	7 each	1,098.23	7,688	
Utilities Carrier 20A 120V	79 each	973.98	79,558	
Projector 20A 120V	21 each	1,282.10	26,924	
120V circuits circuits-grid-150 seat classroom	12 each	1,098.23	13,179	
20A 3W Dedicated Outlet	12 each	1,098.23	13,179	
20A Window Shades	9 each	1,098.23	9,884	
20A-Utilities Carrier	15 each	1,098.23	16,473	
Motorized shades	15 each	1,098.23	16,473	
Water Cooler 20A 120V	4 each	1,098.23	4,393	
20A 120V-3W Dedicated Circuit- Cellular Enhancement Equipment.	4 each	1,098.23	4,393	
DAS				
Door Power Supplies	20 each	1,098.23	21,965	
208V 30A, 1PH Dedicated Outlet	138 each	1,173.52	161,946	
208V 30A, 3PH Dedicated Outlet	62 each	1,336.47	82,861	
480V 1PH Dedicated Outlet	4 each	1,336.47	5,346	
IT/Communications Rack Power	40 each	1,336.47	53,459	
SMR, 2 Channel, Base/Channel	5,605 lnft	40.92	229,341	
SMR, Outlet, Duplex	1,742 each	149.57	315,641	
SMR, Outlet, Telecom	930 each	75.29	71,478	
SMR, Two Channel, Feed End	148 each	237.38	43,980	
SMR, Two Channel, Feed End,	23 each	237.38	6,732	
Generator Battery Charger 20A x3	75 lnft	16.96	1,272	
Green Light Phone Power. 20A PVC 40- location TBD	300 lnft	16.96	5,088	
Generator Engine Block Heater 20A x3	75 lnft	16.96	1,272	
Branch Circuiting	38,660 lnft	13.33	515,427	
Branch Circuiting-	1,290 lnft	13.33	17,199	
Homerun Circuiting	11,160 lnft	16.98	189,467	
Homerun Circuiting-	770 lnft	16.98	13,073	
Subtotal Branch Wiring			\$2,848,600	\$10.72
Motor & Equipment Wiring				
Fume Hood	36 each	973.98	36,419	
50A 4W Dedicated-Laser Tables	24 each	2,458.96	59,015	
Condensate Return Unit w/ Strut Support-CRU-1	1 each	4,646.62	4,647	
Fume Hood	48 each	1,070.78	51,398	
Fume Hood-Group 3	4 each	1,070.78	4,283	
Power eye wash	12 each	973.98	11,688	
HVAC- AHU 1-5 Supply w/ Strut Support	5 each	5,619.02	28,095	

Michigan State University

EDI Center

East Lansing, Michigan

EDI Center Building - Full Build

Project GSF: 265,700 sqft

Estimate Type: Schematic Design

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265,700 sqft

Description	Quantity	Unit Cost	Total Cost	Dollars / SF
HVAC-AHU 6 Supply w/ Strut Support	1 each	4,549.67	4,550	
HVAC-AHU 7,8,9 Supply w/ Strut Support	3 each	5,619.02	16,857	
CHWP-1,2	2 each	3,680.11	7,360	
CUH-A,B Hot water Cabinet Unit Heater	2 each	1,652.55	3,305	
Elevator Sump Pump SP-1	1 each	4,551.68	4,552	
Elevator Sump Pump SP-2	1 each	4,760.21	4,760	
HCP 1A,1B-2A,2B-3A,3B-4A,4B-5A,5B-6A,6B-7A,7B-8A,8B-9A,9B	18 each	2,980.63	53,651	
HVAC-AHU 10,11,12,13	4 each	1,931.61	7,726	
HVAC-AHU 7,8,9 Return w/ Strut Support	3 each	5,619.02	16,857	
HWHP 1,2	2 each	2,378.11	4,756	
LEF 1,2,3,4,5,6-Lab Exhaust	6 each	4,856.45	29,139	
LEF 13,14 High Plume Pyrophoric Fans	2 each	2,000.11	4,000	
LEF 7,8,9,10,11,12-High Plume Pyrophoric Fans	6 each	2,404.37	14,426	
Modular Scroll Chiller-PCH 1,2,3,4	4 each	2,522.95	10,092	
PCHWP-1,2	2 each	1,859.00	3,718	
Snow melting System Skid-SMP-1	1 each	2,487.16	2,487	
UH-A Hot water Unit Heater	1 each	1,652.55	1,653	
Water Softner-WS1	1 each	1,054.42	1,054	
FCU-IT and Electrical rooms	25 each	3,566.13	89,153	
Exhaust Fans-Mechanical Equipment Rooms w/ Strut Support	3 each	5,587.56	16,763	
Exhaust/Supply Fan- Electrical Substation Room w/ Strut Support	2 each	5,458.48	10,917	
Air Compressor Skid	1 each	6,887.59	6,888	
Domestic Water Pressure Booster Pump-DCWP-1	1 each	4,179.19	4,179	
Jockey Pump-Fire Protection	1 each	3,355.40	3,355	
Nitrogen Generation System Controller and Pump	4 each	3,274.31	13,097	
R/O System	4 each	3,274.31	13,097	
Vacum System Power-OFCl	4 each	3,274.31	13,097	
Air Curtains	2 each	3,342.50	6,685	
Electric Infrared Sensors	40 each	323.73	12,949	
Fire Smoke Dampers	36 each	1,361.51	49,014	
Exhaust Fans-Toilet Rooms w/ Strut Support	2 each	5,672.23	11,344	
Fan Powered Cabinet Unit Heaters	7 each	1,794.79	12,564	
Motorized Door Operators-Loading Dock	3 each	2,576.79	7,730	
Hydraulic Dock Levelers	3 each	3,274.31	9,823	
1-1/2 HP - AC Variable Frequency Motor Drive 480V	2 each	3,358.79	6,718	
15 HP - AC Variable Frequency Motor Drive 480V	4 each	6,687.39	26,750	
25 HP - AC Variable Frequency Motor Drive 480V	8 each	8,754.05	70,032	
50 HP - AC Variable Frequency Motor Drive 480V	5 each	13,671.64	68,358	
75 HP - AC Variable Frequency Motor Drive 480V	9 each	19,401.32	174,612	
Elevator, Passenger, Main Disconnect, 100A, Fused	1 each	5,634.88	5,635	
Elevator, Freight, Main Disconnect, 100A, Fused	1 each	5,634.88	5,635	
Elevator Cab Lighting, HVAC, and Wiring Devices Disconnects, 30A, Fused-CS	2 each	2,704.60	5,409	
Subtotal Motor & Equipment Wiring			\$1,030,300	\$3.88
Emergency Electrical Distribution				
Generator, Natural Gas, 500KW x 3- Review Cummins Material Quote	1 lsum	2,385,726.54	2,385,727	
Generator Switchboard- 480V, 3000A	1 incl	22,482.50	22,483	
Generator Control Panel	3 incl	1,407.60	4,223	
Generator Remote Annunciator	3 incl	175.95	528	
GCB-MO 480Y/277V, 3PH, 4W, 600A Gen Con. Cabinet	1 incl	2,541.50	2,542	

Michigan State University

EDI Center

East Lansing, Michigan

EDI Center Building - Full Build

Project GSF: 265,700 sqft

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Estimate Date: 08/15/2024

265,700 sqft

Description	Quantity	Unit Cost	Total Cost	Dollars / SF
ATS 800A 4P Closed Transition Wall Mtd	1 incl	3,421.25	3,421	
ATS 600A 4P Closed Transition Wall Mtd	2 incl	1,759.50	3,519	
ATS 400A 4P Closed Transition Wall Mtd	2 incl	1,564.00	3,128	
ATS 260A 4P Closed Transition Wall Mtd	1 incl	1,368.50	1,369	
ATS 150A 4P Closed Transition Wall Mtd	3 incl	1,173.00	3,519	
ATS 100A 4P Closed Transition Wall Mtd	5 incl	977.50	4,888	
ATS 1600A 4P Open Transition Pad Mtd - MTS Fire Pump	1 each	31,065.00	31,065	
Subtotal Emergency Electrical Distribution			\$2,466,400	\$9.28
Facility Lightning Protection				
Lightning Protection-Master Label	1 lsum	116,910.00	116,910	
Subtotal Facility Lightning Protection			\$116,900	\$0.44
Interior Lighting				
Home Runs	4,810 lnft	19.70	94,743	
Branch Circuiting	46,140 lnft	14.44	666,090	
Whip/Box	2,874 each	108.19	310,927	
Fixture Supports	5,748 each	92.68	532,736	
Emergency Home Run	1,975 lnft	20.45	40,393	
Emergency UL924 Device	276 each	524.02	144,628	
LED Downlight	804 each	1,167.38	938,574	
LED Step Itg	16 each	395.63	6,330	
LED Dock Light	3 each	814.66	2,444	
Building Signage	5 each	1,003.78	5,019	
Exit Sign	161 each	274.90	41,643	
In Use Sign-SPEC 3	4 each	570.13	2,281	
LED Highbay-SPEC 1	60 each	1,581.54	94,892	
LED 2x4 Sealed	152 each	1,096.00	175,156	
LED Linear - 4'	24 each	1,101.23	26,429	
LED Linear - 6'	470 each	1,380.95	649,045	
LED Linear - 8'	188 each	1,764.80	331,782	
LED Linear - 10'	222 each	2,150.87	477,493	
LED Linear - 12'	82 each	2,531.73	207,601	
LED Strip 4'	514 each	361.14	185,627	
LED Surface	60 each	922.76	55,365	
LED DMX Theatrical Itg-Quantity of 16-game design	1 lsum	70,000.00	70,000	
LED DMX Theatrical Itg-Quantity of 16-mixed lab	1 lsum	70,000.00	70,000	
LED DMX Theatrical Itg-Quantity of 16-White box	1 lsum	70,000.00	70,000	
LED DMX Theatrical Itg-Quantity of 20-Esports	1 lsum	85,200.00	85,200	
LED Wall Pack/Flood	19 each	745.56	14,166	
LED Mirror wall Ltg-CS Restrooms	16 each	905.58	14,489	
Commons LtG enhancements-15,949 sqft x \$9 w/labor	1 allo	143,541.00	143,541	
LED, Downlight, Exterior Rated-Loading Dock	12 each	1,030.33	12,364	
Lighting Control System	265,695 sqft	5.50	1,461,323	
Subtotal Interior Lighting			\$6,930,300	\$26.08
Exterior Lighting				
Site Lighting	1 allo	635,731.00	635,731	
Street Lighting - 4 EA	incl	0.00	0	
Pedestrian Light - 11 EA	incl	0.00	0	
Latern Light - 23 EA	incl	0.00	0	
Column Light - 11 EA	incl	0.00	0	

Michigan State University

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Description	Quantity	Unit Cost	Total Cost	Dollars / SF
1-1/4" - 3 #8 w/ #8 Gnd, 1-1/4" PVC40 UG - 3,750 LF	incl	0.00	0	
Subtotal Exterior Lighting			\$635,700	\$2.39
Miscellaneous Electrical				
Direct Job Expenses	14 lsum	100,080.00	6,006,760	
Project Management and Coordination	incl	0.00	0	
Temporary Power	incl	0.00	0	
Small Tools and Consumables	incl	0.00	0	
Safety Expenses	incl	0.00	0	
Non Working Safety Rep	incl	0.00	0	
Permit Fees	incl	0.00	0	
BIM Coordination	incl	0.00	0	
Commissioning and Startup	incl	0.00	0	
Job Site Office Trailer	incl	0.00	0	
Manlifts	incl	0.00	0	
Ground Person	incl	0.00	0	
Daily Parking	incl	0.00	0	
Firestopping	incl	0.00	0	
Preconstruction Fees	265,696 lsum	7,550.00	206,821	
Subtotal Miscellaneous Electrical			\$6,213,600	\$23.39
Total Division 26 - Electrical			\$34,190,700	\$128.68
Division 27 - Communications				
Division 27 - Communications				
Ground Conductor, #2/0, 1" PVC-Communications Riser Ground	600 lnft	16.05	9,627	
Ground, Exothermic Connection, One-Shot Cadweld	14 each	88.47	1,239	
Bus Bar, 1/4x2x18-Communications	14 each	453.11	6,344	
Subtotal Division 27 - Communications			\$17,200	\$0.06
Pathways for Communications Systems				
Ground, #6 AWG, Cable Tray/Basket Tray	7,550 lnft	5.71	43,086	
Wall Speed Sleeve, 2-2"-Communications	40 each	527.89	21,116	
Firestopping, Speed Sleeves, 2-4"	86 each	916.38	78,809	
Speed Sleeves w/Core-Floor, 4-4"-Communications Stacked Closets	14 each	2,413.25	33,786	
Speed Sleeves Wall, 4-4"-Communications	16 each	1,843.00	29,488	
1-2" Raceway-Bi Directional Pathway. 2 Way Radio. N&S Risers	200 lnft	24.15	4,830	
1-2" Raceway-ERRC Pathway. N&S Risers	200 lnft	24.15	4,830	
3-4" Raceway-Enhanced Cellular Coverage to Roof w/ Weatherhead	25 lnft	147.61	3,690	
1-1/4" Stub/Box 10'	1,137 each	270.14	307,149	
12" W Cable Tray - Ladder-Communications Rooms	1,200 lnft	108.78	130,535	
Ladder Tray, 24"	2,590 lnft	123.42	319,664	
24" W Horizontal 90 Elbow	62 each	404.32	25,068	
24" W Horizontal T Fitting	2 each	478.21	956	
Basket Tray, 12"W x 4"D	4,760 lnft	51.42	244,764	
Subtotal Pathways for Communications Systems			\$1,247,800	\$4.70
Underground Ducts and Raceways for Communications Systems				
Precast Manhole, 8'x6'x7'	1 each	16,788.00	16,788	
Tie into Existing Communications Manhole	1 each	4,600.50	4,601	
2-1" PVC UG Raceway- Green Light Phones TBD	400 lnft	28.55	11,420	
4-5"-Communications Duct Bank	120 lnft	166.71	20,005	
Subtotal Underground Ducts and Raceways for Communications Systems			\$52,800	\$0.20

Michigan State University

EDI Center

East Lansing, Michigan

EDI Center Building - Full Build

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265,700 sqft

Description	Quantity	Unit Cost	Total Cost	Dollars / SF
Voice/Data Communication Systems				
Fire Rated Plywood- Fiber Entry, UCOMM, FCR's	120 each	285.78	34,293	
Coax Cable, Backbone	900 lnft	11.31	10,175	
Coax Cable F-Type Male Connector-Compresion	100 each	14.82	1,482	
Coax Cable, 16 Way Powered Splitters	13 each	601.75	7,823	
Coax Cable, Backbone Terms	30 each	64.34	1,930	
Coax Cable, RG-11, 125'	100 each	120.93	12,093	
Fiber, Armored, OS2, 24-Strand	3,900 lnft	3.74	14,579	
Copper, Category 3, 25 Pair	3,900 lnft	3.21	12,502	
Fiber Term, 24-Strands	26 each	3,751.40	97,536	
Copper Term, 25-Pairs-UCOMM and FCR's	26 each	775.26	20,157	
IT Rack- Includes Patch Panels, Cable Mgmt, and (1) 2200VA UPS. Switches by MSU	28 each	5,823.16	163,048	
UCOMM and FUR Racks. Incl Patch Panel, Cable Mgmt, 2200VA UPS. NIC Head End Eqp.	14 each	7,154.16	100,158	
Install of Owner Furnished Equipment- Wireless Access Points	191 each	151.92	29,017	
Outlet, CAT6A, 2-Jack	60 each	890.60	53,436	
Coax Drop	150 each	244.22	36,633	
Outlet, CAT6A, 1-Jack	20 each	485.47	9,709	
Outlet, CAT6A, 2-Jack	1,379 each	890.60	1,228,141	
Outlet, CAT6A, 2-Jack-WAP	153 each	890.60	136,262	
Outlet, CAT6A, 2-Misc Display/ Digital Signage	20 each	890.60	17,812	
Outlet, CAT6A, 4-Jack	102 each	1,272.95	129,841	
Outlet, CAT6A, WAP	14 each	890.60	12,468	
Outlet, CAT6A, 2-Jack	206 each	890.60	183,464	
Outlet, CAT6A, 3-Jack	45 each	1,085.40	48,843	
Subtotal Voice/Data Communication Systems			\$2,361,400	\$8.89
Audio-Video Systems				
AV Building Wide Network (Does not include University Classrooms)	1 allo	40,000.00	40,000	
50 Person Seminar	1 allo	75,000.00	75,000	
Apple Design	1 allo	45,000.00	45,000	
Conference Room Scheduler-(48)	1 allo	54,000.00	54,000	
Contingency	1 allo	150,000.00	150,000	
Cybersecurity	1 allo	285,000.00	285,000	
Entrepreneur	1 allo	35,000.00	35,000	
Game Design	1 allo	30,500.00	30,500	
Mixed Reality/Black Box	1 allo	82,500.00	82,500	
Prototyping	1 allo	35,000.00	35,000	
White Box Studio	1 allo	110,000.00	110,000	
Building Wide AV Network	1 allo	40,000.00	40,000	
Huddle/Small 6 person conference	15 allo	6,000.00	90,000	
Medium/ Large Conference	15 allo	25,000.00	375,000	
Display, In-Wall Box, 10.3" x 15.4"	126 each	945.05	119,971	
Display, In-Wall Box, 10.3" x 15.4"-Misc Display/ Digital Signage	20 each	945.05	18,901	
Projector, 1920 x 1080, 3500 Lumens-Hatch	1 each	1,956.04	1,956	
Motorized Projection Screens-Hatch	1 each	10,042.10	10,042	
Projector, Mount, Ceiling-NC Commons Hatch	1 each	835.67	836	
Atrium Lobby Video Wall	1 allo	750,000.00	750,000	
Digital Signage System	1 allo	20,000.00	20,000	
Subtotal Audio-Video Systems			\$2,368,700	\$8.91

Michigan State University

EDI Center

East Lansing, Michigan

EDI Center Building - Full Build

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265,700 sqft

Description	Quantity	Unit Cost	Total Cost	Dollars / SF
Total Division 27 - Communications			\$6,047,900	\$22.76
Division 28 - Electronic Safety and Security				
Division 28 - Electronic Safety & Security				
Duress Alarm System. Horizontal Cabling Only.	1 allo	25,750.00	25,750	
Subtotal Division 28 - Electronic Safety & Security			\$25,800	\$0.10
Pathways for Electronic Safety and Security				
3/4" Stub/Box 20'-Security Rough for Door Contacts, CR's, Camera	230 each	240.59	55,336	
Subtotal Pathways for Electronic Safety and Security			\$55,300	\$0.21
Access Control				
Access Control Systems Horizontal Cabling Only. No devices	265,700 sqft	1.10	292,270	
Subtotal Access Control			\$292,300	\$1.10
Video Surveillance				
Video Surveillance Horizontal Cabling. No devices.	265,700 sqft	1.35	358,695	
Subtotal Video Surveillance			\$358,700	\$1.35
Fire Detection and Alarm				
Fire Alarm system	265,695 sqft	6.50	1,727,018	
Subtotal Fire Detection and Alarm			\$1,727,000	\$6.50
Emergency Communication Systems				
Emergency Responder Radio Communication System	1 lsum	265,000.00	265,000	
Subtotal Emergency Communication Systems			\$265,000	\$1.00
Total Division 28 - Electronic Safety and Security			\$2,724,100	\$10.25
Division 31 - Earthwork				
Earthwork				
Road Maintenance - Sweeping	1 mnth	7,500.00	7,500	
Rumble Rack Steel Grate System	1 lsum	3,000.00	3,000	
Snow Removal	1 mnth	5,000.00	5,000	
Jersey Barriers (Install & Removal)	1,400 lnft	34.29	48,006	
Temporary Maintenance	1 lsum	10,000.00	10,000	
Dust Control	1 lsum	12,000.00	12,000	
Subtotal Earthwork			\$85,500	\$0.32
Site Clearing				
Site Clearing	4 acre	8,897.77	37,993	
Subtotal Site Clearing			\$38,000	\$0.14
Earth Stripping and Stockpiling				
Strip & Stockpile Topsoil	4,606 cuyd	9.80	45,125	
Subtotal Earth Stripping and Stockpiling			\$45,100	\$0.17
Earth Moving				
Earth Moving	13,842 cuyd	15.01	207,761	
Subtotal Earth Moving			\$207,800	\$0.78
Grading				
Rough Grading	376,146 sqft	0.25	94,036	
Fine Grading	242,131 sqft	0.50	121,066	
Subgrade Prep / Compaction	217,758 sqft	1.50	326,637	
Subtotal Grading			\$541,700	\$2.04
Excavation and Fill				
Excavation & Backfill - Steam Crawl Tunnel	2,042 cuyd	22.00	44,924	
Mass Excavation	28,307 cuyd	8.00	226,456	

Michigan State University

EDI Center

East Lansing, Michigan

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265,700 sqft

Description	Quantity	Unit Cost	Total Cost	Dollars / SF
Mass Excavation - Bench	1,070 cuyd	8.00	8,560	
Offsite Removal of Excavated Fill w/ Tipping	28,307 cuyd	40.00	1,132,280	
Structural Backfill at Reservoir Underground Structure	5,000 cuyd	65.00	325,000	
Mass Fill - Imported	24,796 cuyd	46.91	1,163,277	
Mass Fill - Imported @ Bench	1,070 cuyd	46.91	50,198	
Subtotal Excavation and Fill			\$2,950,700	\$11.11
Erosion and Sedimentation Controls				
Tree Protection	5,259 lnft	4.60	24,211	
Subtotal Erosion and Sedimentation Controls			\$24,200	\$0.09
Shoring				
ERS - Steam Crawl Tunnel	2,973 sqft	85.00	252,705	
Subtotal Shoring			\$252,700	\$0.95
Special Foundations				
Rammed Aggregate Piers	60 each	10,000.00	600,000	
Subtotal Special Foundations			\$600,000	\$2.26
Total Division 31 - Earthwork			\$4,745,700	\$17.86
Division 32 - Exterior Improvements				
Base Courses				
Decorative Ballast Stone	1,755 sqft	10.47	18,368	
Subtotal Base Courses			\$18,400	\$0.07
Flexible Paving				
Mill and Overlay	3,949 sqft	5.00	19,747	
HD Asphalt Paving	3,507 sqyd	55.00	192,899	
Subtotal Flexible Paving			\$212,600	\$0.80
Rigid Paving				
10" HD Concrete Pavement	23,649 sqft	15.00	354,731	
8" Heated Concrete Pavement	8,867 sqft	12.00	106,403	
Concrete Speed Table	712 sqft	25.00	17,808	
Subtotal Rigid Paving			\$478,900	\$1.80
Unit Paving				
Emergency Access Grass Pavers:	884 sqft	35.00	30,947	
Subtotal Unit Paving			\$30,900	\$0.12
Curbs, Gutters, Sidewalks, and Driveways				
Curb and Gutter	3,648 lnft	45.00	164,162	
Sidewalks	63,217 sqft	9.00	568,953	
Subtotal Curbs, Gutters, Sidewalks, and Driveways			\$733,100	\$2.76
Paving Specialties				
Paint Lines on Pavement	1,891 lnft	5.00	9,457	
Parking Space Striping	15 each	250.00	3,750	
Cast Iron Detectable Warning Surface	237 sqft	56.72	13,438	
Subtotal Paving Specialties			\$26,600	\$0.10
Fences and Gates				
Chain Link Fence - 8' high (Install & Removal)	2,300 lnft	30.00	69,000	
Man Gates (3'-0")	6 each	365.00	2,190	
Rolling Gates (20'-0")	4 each	3,000.00	12,000	
Snowfence (Install & Removal)	400 lnft	2.00	800	
6' - Nitrogen Gas Tank Fence - Footing, Split-Face Block, Stone Cap	47 lnft	375.00	17,719	

Michigan State University

EDI Center

East Lansing, Michigan

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Estimate Date: 08/15/2024
265,700 sqft

Description	Quantity	Unit Cost	Total Cost	Dollars / SF
Gates	3 each	850.00	2,550	
6' - Generator Screen Fence - Footing, Split-Face Block, Stone Cap	118 lnft	375.00	44,250	
Subtotal Fences and Gates			\$148,500	\$0.56
Retaining Walls				
Concrete Retaining Wall	74 cuyd	750.00	55,500	
Concrete Seat Wall	112 cuyd	750.00	84,330	
Subtotal Retaining Walls			\$139,800	\$0.53
Site Furnishings				
Benches	32 lnft	523.52	16,810	
Bicycle Dock	142 each	1,570.57	223,022	
Harvest Table	4 each	12,379.27	49,517	
Round Lounge Table and Metal Chairs	15 each	5,235.25	78,529	
Small Dining Table and Chairs	5 each	3,664.67	18,323	
Square Lounge Table and Wooden Chairs	2 each	24,396.26	48,793	
Subtotal Site Furnishings			\$435,000	\$1.64
Manufactured Site Specialties				
Removable Bollards	6 each	500.00	3,000	
Sign Bollards	10 each	500.00	5,000	
Subtotal Manufactured Site Specialties			\$8,000	\$0.03
Planting Irrigation				
Irrigation System	1,561 lnft	25.48	39,780	
Subtotal Planting Irrigation			\$39,800	\$0.15
Planting Preparation				
Topsoil Surface - 6 inch	24,481 sqyd	10.03	245,586	
Topsoil Surface - 12 inch	3,090 sqyd	17.35	53,617	
Subtotal Planting Preparation			\$299,200	\$1.13
Planting Accessories				
Landscape Edging	1,177 lnft	25.95	30,549	
Subtotal Planting Accessories			\$30,500	\$0.11
Total Division 32 - Exterior Improvements			\$2,601,500	\$9.79
Division 33 - Utilities				
Water Utility Transmission and Distribution				
Water Main - Connect To Existing	7 each	15,000.00	105,000	
Water Main - DIP 16" CL54	1,439 lnft	185.00	266,208	
Water Valve	19 each	2,500.00	47,500	
Fire Hydrant	3 each	5,500.00	16,500	
Subtotal Water Utility Transmission and Distribution			\$435,200	\$1.64
Sanitary Sewerage Piping				
Sanitary Pipe - 12" RCP	97 lnft	215.00	20,831	
Core / Connect to Existing Sanitary MH	1 each	15,040.79	15,041	
Subtotal Sanitary Sewerage Piping			\$35,900	\$0.14
Subdrainage				
Underdrain - Exterior Foundation	1,605 lnft	35.85	57,533	
Subtotal Subdrainage			\$57,500	\$0.22
Stormwater Conveyance				
Storm Pipe - Plastic SCH40-8"	114 lnft	65.00	7,427	
Trench Drain	46 lnft	150.00	6,833	

Michigan State University

EDI Center

East Lansing, Michigan

EDI Center Building - Full Build

Project GSF: 265,700 sqft
Estimate Type: Schematic Design
Estimate Date: 08/15/2024
265,700 sqft

Description	Quantity	Unit Cost	Total Cost	Dollars / SF
Storm Pipe - 12" RCP	1,180 lnft	175.00	206,458	
Storm Pipe - 18" RCP	835 lnft	185.00	154,475	
RCP - Connect To Existing	5 each	15,000.00	75,000	
Catch Basin 24"	12 each	5,000.00	60,000	
Catch Basin 48"	13 each	5,500.00	71,500	
Outlet Control Structure 72"	4 each	15,000.00	60,000	
Storm Manholes 48"	5 each	6,200.00	31,000	
Stormwater Quality Unit 60"	1 each	25,000.00	25,000	
Stormwater Quality Unit 48"	4 each	25,000.00	100,000	
Storm Manholes 60"	3 each	7,200.00	21,600	
Outlet Control Structure	4 each	15,000.00	60,000	
Subtotal Stormwater Conveyance			\$879,300	\$3.31
Stormwater Management				
Stormtrap UG Retention 10k CF - Southwest	10,000 cuft	25.00	250,000	
Stormtrap UG Retention 15k CF - Northeast	15,000 cuft	25.00	375,000	
Stormtrap UG Retention 15k CF - Northwest	15,000 cuft	25.00	375,000	
Stormtrap UG Retention 15k CF - Southeast	15,000 cuft	25.00	375,000	
Subtotal Stormwater Management			\$1,375,000	\$5.18
Hydronic and Steam Energy Utilities				
Steam Crawl Tunnel - 4'-6"x3'-11"	171 lnft	3,500.00	598,500	
Steam Vault - 12'x14'	1 each	15,000.00	15,000	
Steam Vault - 17'x20'	1 each	25,000.00	25,000	
Subtotal Hydronic and Steam Energy Utilities			\$638,500	\$2.40
Total Division 33 - Utilities			\$3,421,400	\$12.88
Total EDI Center Building - Full Build			\$216,064,200	\$813.19