

# **UMH - Energy Management**

**Annual Report – Fiscal Year 2021** 

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Michigan Medicine Health Energy Management Annual Report – FY2021

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#### 1. EXECUTIVE SUMMARY

In fiscal year 2021, energy management teams continued to expand energy conservation efforts in University of Michigan Health (UMH) facilities and work to align efforts towards the newly established University carbon neutrality goals. As a result, UMH continues to show improvements in energy efficiency and carbon emission reduction.

#### **Energy Performance**

In fiscal year 2021, the total utility cost for all University of Michigan Health (UMH) facilities was \$25.15 Million. Overall, actual facilities site energy usage per square foot was 0.2% lower than fiscal 2020 and 4.4% lower when compared to fiscal 2019. Energy savings coupled with increasing utility rates resulted in over \$81 Thousand in total avoided utility cost compared to fiscal 2020 and \$1.6M when compared to fiscal 2019. Some of the savings was likely due to partial occupancy due to the COVID pandemic. Weather normalized site energy usage per square foot was 2.0% more efficient than fiscal 2020 and 5.8% more efficient when compared to fiscal 2019. For further details, see section 2, "Energy Performance" of this report.

### **Energy Conservation**

Fiscal year 2021 continued energy conservation efforts by various teams and continue to show improvements to the overall UMH building portfolio. During fiscal year 2021 energy conservation measures were incorporated into larger infrastructure projects and recommissioning effort conducted on existing systems. These efforts are anticipated to save an estimated \$51,000 annually. For further details, see section 3, "Energy Conservation" of this report.

#### **Environmental Impact**

Fiscal year 2021 was also a big year of goal setting for the University of Michigan. The President of the University announced University wide carbon neutrality goals in May of 2021. In addition to the demand reduction and cost benefits of energy conservation, improvements also provide a significant environmental benefit by reducing the greenhouse gas emissions associated with the generation of building utilities. UMH facilities improved total utility driven greenhouse gas emission (scope 1 & 2) efficiency by 0.84% compared to fiscal 2020 and an improvement of 6.39% compared to fiscal 2019. For further details, see section 4, "Environmental Impact" of this report.

#### **Building Summary & Benchmarking**

Based on analyses of building utilities and efficiencies, the following buildings are identified as the most efficient UMH facilities, categorized by building type:

- Hospital Building: Children's & Women's Hospital 183.5 kBTU/ft<sup>2</sup>
- Medical Office Building: Kellogg Eye Center Milford 41.4 kBTU/ft<sup>2</sup>
- General Office Building: Traverwood 1 − 36.8 kBTU/ft²

In total, on a scale of 0 to 100 (100 being the most efficient) the UMH building portfolio has earned a score of 61 in the U.S. EPA Energy Star rating system. For further details and a complete listing of UMH building performance, see section 5, "Building Summary & Energy Star" of this report.

#### 2. ENERGY PERFORMANCE

In fiscal year 2021, the total utility cost for all University of Michigan Health (UMH) facilities was \$25.15 Million. Overall, facilities site energy usage per square foot was 0.2% lower than fiscal 2020 and 4.4% lower when compared to fiscal 2019. Energy savings coupled with increasing utility rates resulted in over \$81 Thousand in total avoided utility cost compared to fiscal 2020 and \$1.6M when compared to fiscal 2019. This is detailed in Figure 2.1 below.

Figure 2.1: Breakdown of Avoided Utility Cost vs. FY2020

Utility	FY2019 Efficiency	FY2020 Efficiency	FY2021 Efficiency	FY2021 Average Utility Rate	Avoided Utility Cost vs FY20
Electric	26.96 KWH/ft <sup>2</sup>	26.05 KWH/ft <sup>2</sup>	26.27 KWH/ft <sup>2</sup>	\$0.084/KWH	-\$122,494
Steam	$0.0600~\mathrm{MLB/ft^2}$	0.0555 MLB/ft <sup>2</sup>	0.0611 MLB/ft <sup>2</sup>	\$15.64/MLB	-\$589,486
Natural Gas	0.0292 MCF/ft <sup>2</sup>	0.0292 MCF/ft <sup>2</sup>	0.0225 MCF/ft <sup>2</sup>	\$5.31/MCF	\$236,927
Water/Sewer	0.0479 CCF/ft <sup>2</sup>	0.0414 CCF/ft <sup>2</sup>	0.0414 CCF/ft <sup>2</sup>	\$12.94/CCF	\$556,705
				Total:	\$81,653

Since the UMH portfolio of building area and outside weather conditions are continually changing, it is important to normalize utility figures for comparison and evaluation of performance from year to year. Figure 2.2 illustrates the recent history of actual total UMH buildings energy efficiency (measured in BTU/ft²), and weather normalized efficiency (BTU/ft², calculated by Energy Star Portfolio Manager). Energy efficiency normalizes electric, steam, and natural gas utility into a common energy unit, BTU. Since water & sewer are not an energy utility, this data is not included in this chart. Actual FY21 BTU/ft² efficiency was 0.2% more efficient than FY20 and when weather normalized to account for weather conditions, normalized performance was 2.0% more efficient than FY20. The efficiency comparison to FY19 shows an improvement of 4.4% and a 5.8% improvement when comparing weather normalized efficiency. Actual UMH facility efficiency has improved 23.5% since fiscal year 2005.

Figure 2.2: Total UMH Actual & Weather Normalized Energy Efficiency

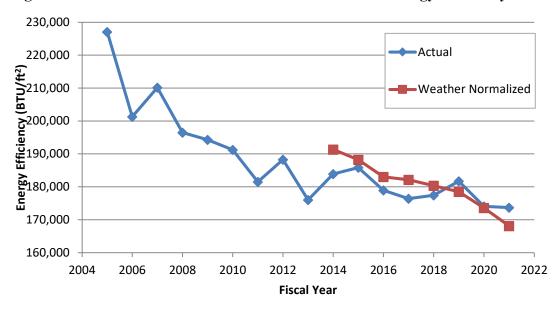


Figure 2.3 illustrates the recent history of total actual UMH building energy efficiency (measured in  $BTU/ft^2$ ) and utility cost efficiency (measured in  $\$/ft^2$ ).

Figure 2.3: Total UMH Historical Energy & Cost Efficiency

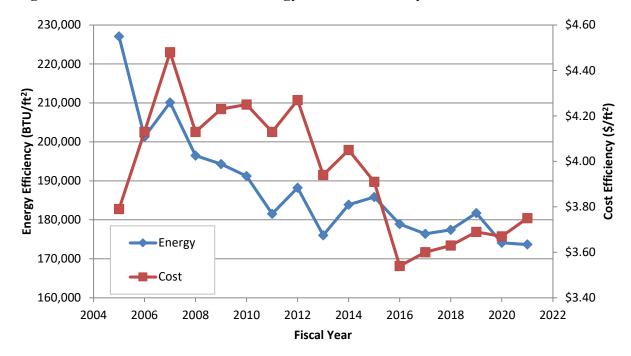


Figure 2.4 below shows the total actual UMH energy, utility cost and square footage growth in recent history without normalizing against building area.

Figure 2.4: Total UMH Historical Energy, Utility Cost and Growth

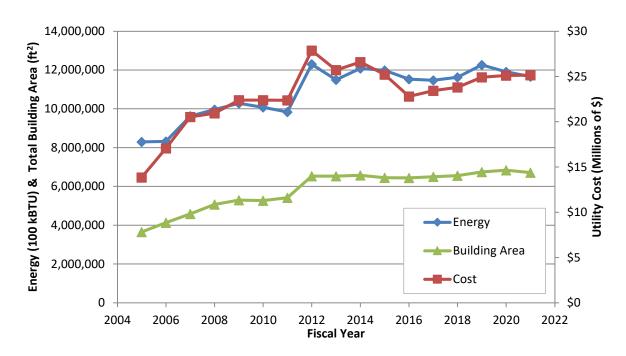


Figure 2.5 below shows the changes in the overall average utility rate across all UMH facilities over time.

**Figure 2.5: Total UMH Historical Average Utility Rates** 

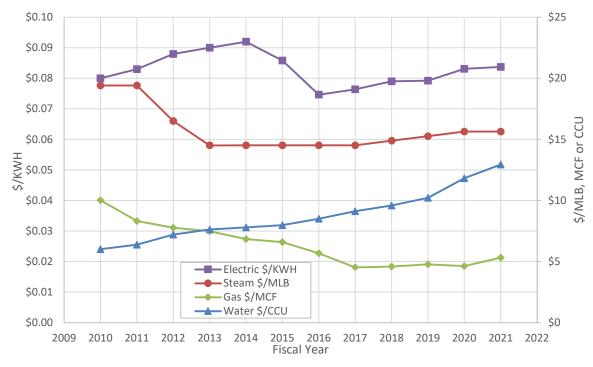
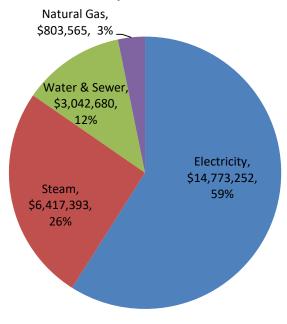


Figure 2.6 below illustrates the distribution and total costs of each of the four primary utilities included in UMH facilities for fiscal year 2021.

Figure 2.6: Total UMH FY2021 Utility Cost Distribution



#### 3. ENERGY CONSERVATION

Energy Conservation is a combined effort of numerous groups and departments throughout UMH. These efforts primarily fall into the following categories:

#### • New Construction

Efficient design and construction practices for new capital construction.

#### • Operations & Maintenance Recommissioning

Maintain, manage, and optimize building operational efficiency.

#### • Energy Conservation Measures (ECMs)

Projects in existing facilities designed to improve energy performance.

#### • Utility Rebates

Rebates from DTE on projects and facility maintenance tasks

#### **New Construction**

UMH strives to incorporate energy efficient strategies and practices in all new capital construction projects. This first includes participation and compliance with the University's sustainability design guidelines (3.2 Energy & Water Conservation), including several standardized efficiency practices, compliance with the ASHRAE 90.1 energy standard, and achieving energy improvements beyond baseline compliance for projects over \$10 Million in construction whenever possible. Every UMH capital construction project is now reviewed for compliance with these energy and water requirements, and for opportunities to implement other energy conserving design innovations where feasible.

Whenever possible, UMH also follows the University's sustainability in facility design and construction standard (3.1 Sustainable Design & LEED Requirements). Among other sustainable practices, this standard includes specifications for maintaining air quality, tracking and management of construction and demolition materials waste, and guidelines for pursing certification under the Leadership in Energy and Environmental Design (LEED) system managed by the United States Green Building Council (USGBC) where applicable. This LEED program and rating/certification system is designed to encourage sustainable design practices, covering numerous disciplines including site selection & protection during construction, energy & water efficiency, material selection & sourcing, indoor environmental quality, and more. This program offers building certification awards, base certification, silver, gold, and platinum.

#### **Operations & Maintenance Recommissioning**

Michigan Medicine Operations & Maintenance teams are continuously working to maintain equipment at peak efficiency, to improve and optimize operations wherever possible, and to quickly respond and resolve operational issues at all 6.7 million ft<sup>2</sup> of UMH buildings. This includes several key tasks for an extensive body of equipment and instruments. Examples of key equipment are building automation systems, environmental controls & instruments, room temperature controls, air handling units, pumps, chillers, boilers, and steam traps.

### **Energy Conservation Measures (ECMs)**

In fiscal year 2021, there were no dedicated energy conservation projects with UMH in an economic recovery mode. However, several energy conservation measures were included in other major infrastructure upgrade projects, and several improve efficiency through equipment replacement. In total, it is estimated that projects and recommissioning efforts completed in fiscal year 2021 will provide an estimated energy savings of approximately \$51,000/year. See below for a sample of projects summarized in Figure 3.1.

Figure 3.1: ECM Projects Completed in FY2021

Building	Project Description	Project Cost	Estimated Savings
University Hospital	Process chilled water Improvement project (*Savings as component of larger capital project)	\$475,000	\$10,000
West Ann Arbor	RTU 4 Replacement project  (*Savings as component of larger capital project)	\$360,000	\$5,000
Children's & Women's Hospital	Helipad roof lighting improvement (*Savings as component of larger capital project)	\$140,000	\$3,000
Brehm Building	AHU & Exhaust recommissioning project	\$5,000	\$18,000
300 North Ingalls Building	AHU recommissioning project	\$3,000	\$15,000
_	\$51,000		

#### **Utility Rebates**

The University of Michigan has a contract with DTE Energy for utilities. DTE Energy offers an energy efficiency rebate program to its customers for many common energy efficiency measures and custom incentives for other energy efficiency improvements. Rebates from DTE on projects and maintenance activities for FY2021 are summarized in figure 3.2.

Figure 3.2: DTE Project Rebates FY2021

Building	Project Description	<b>Estimated Rebate</b>		
Brehm	Boiler tune-up	\$600		
NCRC Pathology	Steam trap Replacement	\$500		
	Total Utility Rebate:	\$1,100		

#### 4. ENVIRONMENTAL IMPACT

In addition to the benefits of reducing overall energy and utility resource demands, efficiency improvements provide further benefits by reducing the greenhouse gas emissions generated during the production of utilities. Figure 4.1 below shows the total historical University of Michigan Health (UMH) greenhouse gas emission by scope and greenhouse gas emission efficiencies, normalized against total UMH building area. Emissions are measured in metric tons of carbon dioxide (MTCO<sub>2</sub>). Please note that these figures only include greenhouse gas emissions due to the generation of utilities consumed by facilities (scope 1 & 2 emissions), and do not include emissions from other institution operations (scope 3 emissions). In fiscal year 2021, UMH decreased utility driven emissions by 0.84% when compared to FY20 and 6.4% when compared to FY19. The fiscal 2021 reduction equates to 1,305 MTCO<sub>2</sub> of greenhouse gas emissions, which is equivalent to the removal 284 car from the road.

#### **New Carbon Neutrality Goals**

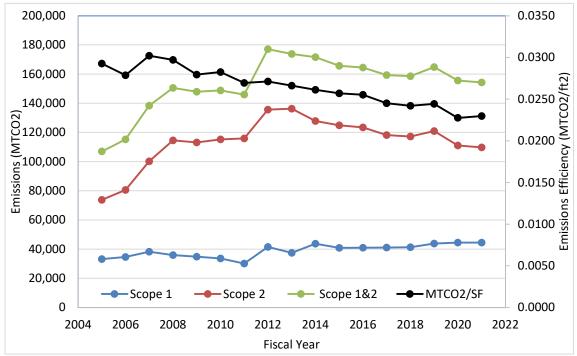
After the release of the final recommendations of the President's Commission on Carbon Neutrality (PCCN), U-M announced a series of commitments and initial steps that place carbon neutrality at the center of U-M's mission. Following the commission's guidance, U-M will eliminate Scope 1 emissions (resulting from direct, on-campus sources) by 2040, achieve carbon neutrality for Scope 2 emissions (resulting from purchased electricity) by 2025, and establish net-zero goals for Scope 3 emissions categories (resulting from indirect sources like commuting, food procurement, and university-sponsored travel) by 2025. These and other strategies are the first of more to come in a comprehensive climate action plan and cover the entire university, including 40 million square feet in buildings, three campuses, an expansive athletics complex and the Michigan Medicine health system.

#### **Previous Emission Goals**

While University of Michigan reviews recommendations outlined by the President's Commission on Carbon Neutrality, the university continues to progress toward its 2025 sustainability goals, established in 2011 by former UM President Coleman. These commitments include a 25% reduction in total greenhouse gas emissions by FY25, compared to a FY2006 baseline. It is anticipated that this will be accomplished through improvements to several areas of university operations, including major upgrades to onsite utility generation plants, in addition to improvements to existing buildings, University vehicle upgrades, etc.

Thus far, UMH has increased its total building utility driven emissions by 33.9% compared to FY2006, however this is across a period of 62.5% growth in total UMH building area in that time. When normalized against total building area, UMH has improved its total emission per square foot efficiency by 17.5% since FY2006, and by 21.5% since FY2005. Therefore, UMH has significantly expanded but has improved total emission efficiency during that time. Figure 4.1 below shows the changes in the emissions across all UMH facilities over time.





#### 5. BUILDING SUMMARY & BENCHMARKING

During fiscal year 2012, a comprehensive profile was created for all UMH facilities within the Energy Star Portfolio Manager benchmarking tool, provided by the U.S. Environmental Protection Agency (EPA) and the Department of Energy (DOE). This tool organizes facility energy data, normalizes data against building size, weather, geographic location, building use types, occupancy, number of licensed beds, etc., and generates a rating score that can be used for benchmarking. Scores range from 0 to 100. A score of 50 is the national average. A score of 75 qualifies a building for the Energy Star Certification award.

In fiscal year 2021, UMH facility scores in aggregate calculated to a total portfolio score of 61. This is improved from a baseline score of 25 in fiscal year 2012. Improvements reflect continued efforts in energy management practices. In FY18, new electric submetering has also been leveraged to more appropriately associate consumed electric utility to applicable facilities, which has also contributed to overall score improvements. Figure 5.1 below illustrates UMH's Energy Star rating progress towards national average and Energy Star Award levels.

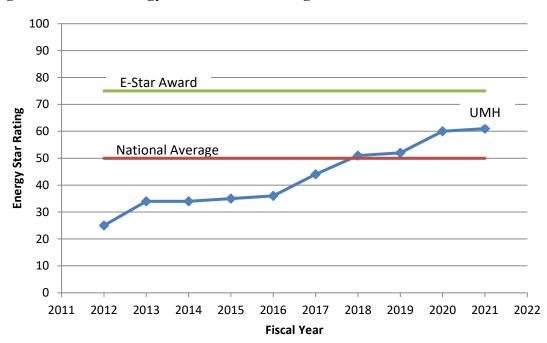


Figure 5.1: UMH Energy Star Portfolio Rating

Figure 5.2 indicates the most efficient UMH buildings in fiscal year 2021, sorted by the primary Energy Star building type. Due to combined metering and shared utilities between facilities, several buildings are not included in this list because the available utility data does not represent the total utility consumed by the building, and therefore does not provide an accurate measure of efficiency. It should be noted that energy and efficiency data provided within this report and the table below are based on "site" energy use, which is used for billing. Energy Star ratings are based on "source" energy use which incorporates the efficiency of the utility plant supplying the facility

Figure 5.2: FY2021 UMH Most Energy Efficient Buildings

Rank	ID	Building	Efficiency (kBTU/ft²)	Energy Star Rating	Total Utility Cost						
<u>Hospitals</u>											
1.	5173	Children's & Women's Hospital	183.5	67	\$4,746,766						
2.	5239	Brighton Center for Specialty Care	203.5	N/A	\$902,543						
3.	5109	Cardiovascular Center	219.6	N/A	\$2,137,366						
4.	0316	University Hospital Building	220.3	75	\$8,351,813						
		<u>Medical Office B</u>	<u>uildings</u>								
1.	5098	Kellogg Eye Center - Milford	41.4	N/A	\$2,372						
2.	8042	Briarwood 4	53.7	61	\$30,967						
3.	8149	Dexter Family Practice	55.2	53	\$13,899						
	General Office Buildings										
1.	8162	Traverwood 1	36.8	75	\$11,119						
2.	8137	Michigan House	55.3	74	\$124,452						
3.	8100	Plymouth Park	56.5	N/A	\$29,216						

Figure 5.3 (attached) shows fiscal year 2021 information vs. fiscal year 2020 including energy and utility cost comparison data. Please note that data is not directly comparable since data for several buildings does not include total consumed utility due to combined meters and shared utilities.

Figure 5.3: FY2021 vs. FY2020 UMH Building Utility Summary

				FY20					FY21			I			arison (20		
ID Name	E-Star Bldg Type Laboratory	SQFT	Cost	BTU/SF	kBTU	<b>KBTU/SF</b> 306.2	SQFT 136.255	\$1.017.636	BTU/SF	kBTU	<b>KBTU/SF</b> 357.6	SQFT 0	\$115.045	13%	BTU/SF	<b>kBTU</b> 7.009.230	kBTU %
301 Rogel Cancer Center 306 East Mechanical Bldg	N/A	136,255 8,006	\$902,591 \$198,750	306,177 983,271	41,718,147 7,872,068	983.3	8,182	\$226,205	357,619 1,095,100	48,727,377 8,960,108		176	\$115,045	14%	51,442 111,829	1,088,041	12%
308 Med Inn	Medical Office	121,126	\$419,812	171,227	20,740,042	171.2	119,437	\$417,606	185,923	22,206,085	185.9	-1,689	-\$2,206	-1%	14,696	1,466,044	7%
309 UH South Unit 1	Medical Office	67,494	\$95,614	78,091	5,270,674	78.1	67,494	\$140,551	81,411	5,494,754	81.4	0	\$44,937	47%	3,320	224,080	4%
312 UH South Unit 2	Medical Office	266,038	\$327,288	63,110	16,789,658	63.1	266,038	\$377,342	79,443	21,134,857	79.4	0	\$50,054	15%	16,333	4,345,199	21%
314 UH South Unit 3	Medical Office	19,988	\$44,614	102,414	2,047,051	102.4	19,988	\$40,142	104,706	2,092,864	104.7	0	-\$4,472	-10%	2,292	45,812	2%
316 University Hospital Building	Hospital	1,721,070	\$8,314,640	209,737	360,972,059	209.7	1,721,070	\$8,351,813	220,252	379,069,110		0	\$37,173	0%	10,515	18,097,051	5%
317 Taubman Health Center 318 UH South Unit 4	Medical Office Medical Office	405,003 158,938	\$999,983 \$199,700	116,095 71,413	47,018,823 11,350,239	116.1 71.4	405,003 158,938	\$953,954 \$243,378	114,223 91.080	46,260,658 14,476,073		0 0	-\$46,028 \$43,678	-5% 22%	-1,872 19,667	-758,166 3.125.834	-2% 22%
319 U-M Medical Professional Building	Office	37,298	\$83,038	97,591	3,639,949	97.6	37,298	\$87,228	104,720	3,905,847	104.7	1 0	\$4,189	5%	7,129	265,897	7%
320 Parking - M22 Simpson Circle	N/A	241,085	\$88,407	0	0	0.0	206,598	\$64,716	0	0	0.0	-34,487	-\$23,691	-27%	0	0	0%
327 1018 Fuller Building	N/A	8,349	\$9,385	61,665	514,841	61.7	8,349	\$7,839	47,673	398,022	47.7	0	-\$1,546	-16%	-13,992	-116,819	-29%
332 300 N Ingalls	Office	239,761	\$654,601	135,834	32,567,696	135.8	239,848	\$526,660	113,495	27,221,549		87	-\$127,941	-20%	-22,339	-5,346,147	-20%
348 Chelsea Family Practice	Medical Office Medical Office	25,136 97,158	\$55,529	128,264	3,224,044	128.3 442.3	25,136	\$57,388	126,048	3,168,343	126.0 478.0	0 0	\$1,859 -\$16.922	3% -2%	-2,216	-55,701	-2% 7%
350 EAA Health Center 390 Child Care Center	N/A	14.850	\$908,489 \$27,099	442,313 102.185	42,974,246 1,517,447	102.2	97,158 14.850	\$891,567 \$21,260	478,047 93.383	46,446,090 1,386,738	93.4	0	-\$16,922	-2% -22%	35,734 -8.802	3,471,844 -130,710	-9%
399 NCAC	Office	129,114	\$274,379	153.798	19,857,475	153.8	129,114	\$235.692	114,533	14,787,814	114.5	1 0	-\$38.687	-14%	-39,265	-5.069.661	-34%
419 Laundry	Specialty	47,997	\$385,113	1,004,909	48,232,617	1,004.9	0	\$41,850	0	0	0.0	-47,997	-\$343,263		1,004,909	-48,232,617	0%
830 Argus Building		1,781	\$2,526	34,187	60,887	34.2	1,416	\$2,184	35,985	50,955	36.0	-365	-\$342	-14%	1,798	-9,932	-19%
5011 Burlington Office Center	Office	78,771	\$101,627	33,556	2,643,240	33.6	82,660	\$136,125	63,744	5,269,079		3,889	\$34,498	34%	30,188	2,625,839	50%
5019 Canton Health Center	Medical Office	51,552	\$100,978	77,131	3,976,257	77.1	51,552	\$108,762	76,920	3,965,380	76.9	0	\$7,784	8%	-211	-10,877	0%
5029 Brighton Heath Center 5038 EAA Surgery Center	Medical Office Ambul. Surgery Ctr	41,500 49,906	\$140,006 \$146,142	188,831 266,959	7,836,487 13,322,856	188.8 267.0	40,865 49,906	\$153,355 \$211,005	185,844 253,435	7,594,515 12,647,927	185.8 253.4	-635 0	\$13,349 \$64,863	10% 44%	-2,987 -13,524	-241,971 -674,929	-3% -5%
5058 Michigan Visiting Nurses	N/A	43,300	\$566	200,939	13,322,030	0.0	43,300	\$0	255,455	12,047,327	0.0	I 0	-\$566	-100%	-13,324	-074,929	0%
5070 Eisenhower CP	Warehouse	37,606	\$42,780	56,189	2,113,044	56.2	37,606	\$43,650	50,302	1,891,657	50.3	0	\$870	2%	-5,887	-221,387	-12%
5079 Eisenhower Commerce Center 2		2,906	\$6,665	54,096	157,203	54.1	2,461	\$2,463	23,549	57,954	23.5	-445	-\$4,203	-63%	-30,547	-99,249	-171%
5098 Kellogg Eye Center - Milford	Medical Office	3,538	\$3,545	66,721	236,059	66.7	3,538	\$2,372	41,430	146,579		0	-\$1,173	-33%	-25,291	-89,480	-61%
5109 Cardiovascular Center 5117 Upjohn Rachel Building	Hospital Medical Office	429,289 117.097	\$2,032,379 \$76.923	202,754 101,244	87,040,062 11.855.369	202.8 101.2	414,392 117.097	\$2,137,366 \$97.036	219,604 97,244	91,002,141 11.386.981	219.6 97.2	-14,897 0	\$104,987 \$20,113	5% 26%	16,850 -4.000	3,962,079 -468,388	4% -4%
517 Opjorin Racher Building 5153 Traverwood III	Office	27,624	\$46,114	61,849	1,708,517	61.8	14,486	\$26,993	64,293	931,348	64.3	-13,138	-\$19.120	-41%	2,444	-777.168	-83%
5165 2205 Commonweath Blvd	N/A	18,306	\$1,036	13,024	238,417	13.0	18,306	\$2,105	24,318	445,165		0	\$1,069	103%	11,294	206,748	46%
5173 Children's & Women's Hospital	Hospital	1,126,305	\$4,773,434	186,778	210,368,995	186.8	1,126,305	\$4,746,766	183,455	206,626,284	183.5	0	-\$26,668	-1%	-3,323	-3,742,712	-2%
5223 NC Auxiliary Support Bldg	Data Center	54,428	\$752,699	518,366	28,213,625	518.4	54,428	\$735,731	505,221	27,498,169		0	-\$16,968	-2%	-13,145	-715,456	-3%
5239 Brighton Center for Specialty Care	Hospital	297,554	\$895,432	214,635	63,865,503	214.6	297,554	\$902,543	203,453	60,538,254	203.5	0	\$7,111	1%	-11,182	-3,327,249	-5%
5332 Oxford Commerce Park 5340 River Place Offices	Office	19,697 7,124	\$6,226 \$17,173	41,972 131,833	826,722 939,178	42.0 131.8	19,952 7,124	\$12,381 \$19,307	60,518 124,189	1,207,455 884,722	60.5 124.2	255 0	\$6,155 \$2,135	99% 12%	18,546 -7,644	380,733 -54,456	32% -6%
5341 Northville Health Center	Medical Office	102,228	\$288,163	146,924	15,019,747	146.9	102,228	\$307,819	147,210	15,048,984	147.2	1 0	\$19,656	7%	286	29,237	0%
5353 719 W Ellsworth Rd	N/A	7,127	\$2,152	51,245	365,223	51.2	6,192	\$2,916	65,648	406,492	65.6	-935	\$764	35%	14,403	41,269	10%
5388 West Ann Arbor Health Center New	Medical Office	75,260	\$179,585	117,759	8,862,542	117.8	75,260	\$180,057	120,091	9,038,049	120.1	0	\$473	0%	2,332	175,506	2%
5393 Kellogg Eye Center - Grand Blanc	Medical Office	8,021	\$24,594	123,258	988,652	123.3	8,021	\$27,516	123,885	993,682		0	\$2,922	12%	627	5,029	1%
5501 345 Metty Drvie		0	\$338	0	0	0.0	0	\$2,767	0	0	0.0	0	\$2,429	718%	0	0	0%
8016 Briarwood 5 8030 Briarwood Cntr	Medical Office Medical Office	9,378 15.924	\$38,041 \$59.094	226,250 219,237	2,121,773 3,491,130	226.3 219.2	9,378 15.924	\$35,394 \$59.682	150,215 191,416	1,408,716 3.048.108	150.2 191.4	0 0	-\$2,647 \$589	-7% 1%	-76,035 -27.821	-713,056 -443,022	-51% -15%
8036 Survival Flight Ann Arbor Airport	N/A	10,000	\$9,094 \$9,186	116,906	1,169,060	116.9	10,000	\$59,062 \$8,131	87.139	871,390	87.1	0	-\$1,056	-11%	-27,621	-297,670	-34%
8039 RP Housing 1011 Cornwell Place	N/A	2,879	\$6,268	117,977	339,656	118.0	2,879	\$2,500	39.676	114,227	39.7	l ő	-\$3,768	-60%	-78,301	-225.429	-197%
8042 Briarwood 4	Medical Office	14,063	\$28,852	55,532	780,947	55.5	14,063	\$30,967	53,668	754,733	53.7	0	\$2,115	7%	-1,864	-26,213	-3%
8060 101 Simpson Rd	N/A	0	\$750	0	0	0.0	0	\$313	0	0	0.0	0	-\$437	-58%	0	0	0%
8065 Briarwood 3	Medical Office	10,611	\$24,185 \$295,221	68,154 144,556	723,182	68.2	10,262	\$24,008 \$336,390	63,464	651,268 11,670,945		-349 0	-\$177 \$41,169	-1% 14%	-4,690 7,556	-71,915 579,742	-11% 5%
8072 Eisenhower Corporate Park West 8076 Briarwood 1	Medical Office Medical Office	76,726 17,699	\$295,221 \$81,110	144,556 292,432	11,091,204 5,175,754	144.6 292.4	76,726 17,857	\$336,390 \$79,850	152,112 215,556	11,670,945 3,849,183	152.1 215.6	158	\$41,169 -\$1,260	14% -2%	-76,876	-1,326,570	-34%
8096 Livonia Specialty Care	Medical Office	46,637	\$166,160	189,127	8,820,316		46,637	\$157,560	179,573	8,374,746		0	-\$8,600	-2 % -5%	-9,554	-445,570	-5%
8100 Plymouth Park	Office	36,851	\$49,625	70,278	2,589,815	70.3	26,246	\$29,216	56,530	1,483,686		-10,605	-\$20,410	-41%	-13,748	-1,106,128	-75%
8110 West Ann Arbor Health Center	Medical Office	0	\$186	0	0	0.0	0	\$0	0	0	0.0	0	-\$186	-100%	0	0	0%
8112 Occupational Medicine Bldg	Medical Office	9,020	\$28,219	166,979	1,506,151	167.0	9,020	\$30,313	162,361	1,464,496		0	\$2,094	7%	-4,618	-41,654	-3%
8116 Ann Arbor Ice Cube 8120 Ypsilanti Health Center	N/A	8,672 17,110	\$3,047 \$6,597	80,987 10,309	702,319 176,387	81.0 10.3	8,672 17,110	\$3,159 \$23,303	77,829 35,187	674,933 602,050	77.8 35.2	0 0	\$112 \$16,705	4% 253%	-3,158 24,878	-27,386 425,663	-4% 71%
8121 Saline Health Center	Medical Office	8.924	\$23.088	112.893	1.007.457	112.9	8.924	\$23,303 \$24.962	98.781	881.522		0	\$10,705	253%	-14.112	-125,935	-14%
8126 KMS Fusion Bldg	Office	125,908	\$194,506	75,738	9,536,020	75.7	125,908	\$160,663	69,439	8,742,926	69.4	0	-\$33,844	-17%	-6,299	-793,094	-9%
8130 Briarwood 10	Medical Office	17,435	\$58,232	169,486	2,954,988	169.5	17,299	\$62,475	166,690	2,883,570	166.7	-136	\$4,243	7%	-2,796	-71,418	-2%
8137 Michigan House	Office	72,028	\$132,761	59,231	4,266,290	59.2	69,862	\$124,452	55,262	3,860,714	55.3	-2,166	-\$8,310	-6%	-3,969	-405,577	-11%
8142 Briarwood 9	Medical Office	5,287	\$25,881	261,460	1,382,339		5,324	\$27,795	235,203	1,252,221	235.2	37	\$1,914	7%	-26,257	-130,118	-10%
8149 Dexter Family Practice 8155 Livonia Health Center	Medical Office Medical Office	10,065 11,130	\$14,797 \$17,636	65,407 62,918	658,321 700,277	65.4 62.9	10,065 11,130	\$13,899 \$22,178	55,190 72,139	555,487 802,907	55.2 72.1	0 0	-\$899 \$4,542	-6% 26%	-10,217 9,221	-102,834 102,630	-19% 13%
8161 Kellogg Eye Center - Brighton	Medical Office	11,130	\$3,938	02,910	700,277	0.0	11,130	\$22,176	12,138	002,907	0.0	1 0	-\$3,938	-100%	9,221	102,030	0%
8162 Traverwood 1	Office	9,388	\$11,348	41,726	391,724	41.7	9,676	\$11,119	36,807	356,145		288	-\$229	-2%	-4,919	-35,579	-10%
9599 UMH Sign 1525 Fuller St	N/A	0	\$472	0	0	0.0	0	\$464	0	0	0.0	0	-\$8	-2%	0	0	0%
9601 Hospital Chilled Water Loop	N/A	0	\$197,518	0	0		0	\$312,632	0	0	0.0	0	\$115,115	58%	0	0	0%
5173T C&W Trailer	N/A	0	\$8,036	0	0	0.0	0	\$7,829	0	0	0.0	0	-\$208	-3%	173,694	0	0%