Institution Name: Grand Valley State University

Capital Outlay Code: Blue Dot Lab

Request Code: Academic

Project Title: New Construction

Project Focus: 130,000 sf

Type of Project: $75 million

Approximate Square Footage: Three Years

Total Estimated Cost: Yes

Estimated Duration of Project: Yes

Is the Five-Year Plan posted on the department’s public Internet site? Yes

Is the requested project included in the Five-Year Capital Outlay Plan? Yes
Project Purpose.
GVSU Blue Dot Lab

Technological innovation is fundamentally transforming the world we live in, requiring all institutions of learning to update their spatial layouts and courses of study to align with the skills and dispositions required for the contemporary workplace.

Here in Michigan, Grand Valley State University seeks to become a regional spark for this challenge by establishing the Blue Dot Lab, a trans-disciplinary hub of teaching and learning that will model a new way of nurturing innovation, honing skills of creativity and trans-media production, and fostering a culture of digital fluency that will impact lives, professions and industries across the state -- and beyond.

GVSU seeks to establish the Blue Dot Lab as a regional and national beacon for what the future of teaching and learning must ultimately look like - and require. Indeed, we have prioritized this project at our university because we know that the moment in which we find ourselves requires more than merely retrofitting existing buildings with technological gadgetry, or urging more collaboration across siloed departments.

Instead, what's required is an entirely new type of space, program, and sensibility on campus -- one that does not yet exist here, or anywhere else across the state.

Whereas the majority of our existing spaces on campus are fixed in place, the Blue Dot Lab's spaces will be flexible in form.

Whereas some of the future-ready dispositions we seek to cultivate in our students can still be acquired through a traditional course of study, many others cannot.

And whereas the majority of our existing course offerings are specific to each department, the Blue Dot Lab's courses will weave together students, concepts, and expertise that crosses all departments.

Clearly, this is what the current and future employers of Michigan will need to see more of if we want our state to remain an attractive option for investment and growth. Earlier this year, in fact, a survey of the state's primary employers revealed that the ideal future worker is a good teammate and communicator; an experienced and adept problem-solver; and a fluent digital navigator and content creator.

It is equally clear that a building, by itself, can do none of these things. Consequently, beginning in 2022, we are adding digital literacy as a required outcome of all undergraduate students, regardless of program. The purpose is to ensure that all GVSU students have the requisite digital skills to function in today’s society and beyond.

Although this requirement will eventually impact and reshape all of our departments and departmental offerings, GVSU intends for the Blue Dot Lab to serve as the central hub of this ongoing university-wide re-imagination of our shared work and purpose.

This facility will provide the unique learning spaces that do not exist elsewhere on campus, that encourage interdisciplinary work that are key to deep learning desired by employers. The Blue Dot Lab will serve as GVSU’s response to this new approach to teaching and learning -- one that is founded on a vision of creating proficiency in digital skills, catalyzing the highest forms of cooperation amongst the entire GVSU community, and reducing the degree of separation between resources and the people needing them.
Scope of the Project.

The Blue Dot Lab will feature technology-rich teaching environments, flexible learning spaces, and trans-disciplinary collaboration centers. Resources available will be aligned with a shift in the university’s curriculum to focus on digital fluency while promoting connections between people and the environment. A curated slate of physical - audio and video studios, fabrication labs, research centers, and presentation space - and software tools - audio and video editing, graphic design, data visualization, 3-D modeling, and website development - will be integrated to create an easily accessible hub for the development of digital skills. Students, faculty, and the community will leverage Blue Dot Lab for its digital resources as well as one-on-one consultations, workshops, and peer educators.

The Blue Dot Lab on GVSU’s campus will have a series of classrooms, labs, studios, production, and fabrication spaces all open to anyone, regardless of their areas of interest or skill set, to explore, learn, and develop the additional digital skills and knowledge that the 21st century workforce requires. Below are examples of the types of spaces the Blue Dot Lab will incorporate:

- **Active Learning Classrooms** - places to learn and develop critical digital competencies, whether that be how to create a succinct presentation or how to use photo/video editing tools to enhance a project for class.

- **Audio / Video Production Labs** – spaces to experiment and hone skills using the latest technology and software to create, develop and publish digital content. Creating new ways to use virtual reality or produce podcasts and digital videos. These are spaces to create digital content, not just consume it.

- **3D Fabrication Labs** - creating hands-on learning opportunities where users can take the digital concepts they have created and turn them into physical objects and prototypes. These spaces bridge the gap between theory and reality.

- **Research and Design Studios** – reserve-able places for long-term or semester long project teams can use as a “home base”; for their research or project based learning courses. These places are located adjacent to the production and fabrication labs to take advantage of the latest technology and tools for these teams to further their exploration.

- **Huddle Rooms** – reserve-able and open rooms for short-term group projects. A place to collaborate with peers to work on course work and class projects.

- **Technology Help Desk** – It is not only important to have the latest technology available, it is equally important that someone is there to show the users how to use the technology or software. The Help Desk will provide experts that are trained to use the equipment and technology in the Blue Dot Lab. They will also provide seminars and training courses on a variety of software and digital topics (cyber security, social media safety, etc.)

- **Emerging Technology Hub** – this space will have GVSU staff and students researching up-and-coming technologies, partnering with industry leaders to beta test the new technologies and software that is coming on to the market. It is important not only be digitally competent with today’s digital world but be prepared for tomorrow’s as well.

- **Global Classroom** – this space will allow GVSU learners to collaborate with industry leaders and other institutions from around the world. These spaces will be equipped with technology that allows for easy transfer of information and collaboration virtually anywhere in the world. There will be places to practice giving presentations or presenting to potential employers and investors.

- **Faculty Research and Collaboration space** – creating spaces for faculty and staff to get together and collaborate on an interdisciplinary scale. This is a space where faculty can find other “Big Idea Thinkers” to create new cross disciplinary challenge courses or research new ways to increase on-line course offerings.

- **Start-up and Community Partner space** - This is an area specifically designed for the interaction of GVSU and Industry Partners to explore, hone, and innovate with each other. This space is intended to create synergies with new and existing businesses, industry partners and GVSU students looking to innovate resulting in partnerships to create the next generation of digital technology and content. The benefits to this collaboration, creates a win-win scenario where these GVSU partners gain access to the latest technology and students with a passion for it and GVSU students have access to potential future employers and mentors.
Program Focus of Occupants.

According to Bear and Skorton (2019), “When students can understand and make connections across a diverse array of knowledge and skills, they embark on a path to more rewarding lives and employment opportunities. Higher education can and must do a better job of leading the way out of disciplinary silos.”

A recent Gallop poll indicated that a student with a nursing degree with a cyber-security credential was twice as likely to be hired over a student without that cyber-security credential. In another study by Gallop polling HR hiring professionals, a person with major in English, with skills in the Adobe Suite of software (Photoshop, Illustrator, etc.) was 4x more likely to be hired, than an English major without those skills.

No matter the major or degree pathway, all GVSU students need to have enhanced digital skills to meet the expectations of today’s fast-moving and ever-changing workforce. The main purpose of the Blue Dot Lab is to function as a learning and teaching place, for all, dedicated to supporting team-based, project-based, and problem-based learning through making, while becoming increasingly more fluent with the emerging digital language and skill-sets demanded by today’s workforce and post-secondary education.
How does the project support Michigan’s talent enhancement, job creation and economic growth initiatives on a local, regional and/or statewide basis?

Employers in 2021 have identified the most in-demand ‘soft’ skills are teamwork, communication and problem solving while the most desirable ‘hard’ skills include analytical skills, IT skills, and technical skills/computer knowledge (survey by zety.com of 200 hiring managers in 2021). According to the National Association of Colleges and Employers (naceweb.org), the top 10 attributes in demand by employers for 2021 are: Ability to work in a team (#1), problem solving skills (#2), analytical/quantitative skills (#3), communication skills (#4), and technical skills (#8).

Encouragingly, this aligns with what most Americans want from their higher education institutions moving forward. The national survey by Populace revealed that “American priorities for higher education paint a dynamic picture of learning in action, on-the-job training in the form of internships, hands-on workshops and lab-based classes, and instruction from professors who have industry bonafides over textbook credentials.” The Blue Dot Lab will serve as GVSU’s response to this new approach to teaching and learning -- one that can help drive job creation throughout the region and serve as a national model of what the re-imagined, modern learning culture actually looks like -- and require.

In sum, the work of the Blue Dot Lab would be in service of preparing GVSU students to imagine and actively create our shared future. The Lab’s work should be part of an early wave of practices that would help reorient the entire university to a different set of outcomes, something the World Economic Forum has characterized as “Education 4.0.”

• Building awareness about the wider world, sustainability, and playing an active role in the global community.
• Fostering skills required for innovation, including complex problem-solving, analytical thinking, creativity, and systems analysis.
• Developing digital skills, including programming, digital responsibility, and the use of technology.
• Focusing on interpersonal emotional intelligence, including empathy, cooperation, negotiation, leadership, and social awareness.
• Moving from a system where learning is standardized, to one based on the diverse individual needs of each learner, and flexible enough to enable each learner to progress at their own pace, and in their own space.
• Moving from process-based to project- and problem-based content delivery, requiring peer collaboration and more closely mirroring the future of work.
• Moving from a system where learning opportunities decrease over one’s lifespan to one in which everyone is continuously improving their existing skills and acquiring new ones based on their individual needs.

The Blue Dot Lab’s infrastructure could create a “local innovation ecosystem,” something MIT’s Elizabeth Hoffecker defines as a “place-based community of interacting actors engaged in producing innovation and supporting processes of innovation, along with the infrastructure, resources, and enabling environment that allow them to create, adopt, and spread more effective ways of doing things.”

The impact this sort of program would have on job creation is compelling. Michigan employers need people with digital skills and knowledge, that are career-ready, to keep pushing our industries and research institutions to innovate and create better products, processes and systems for our future.
Beginning in 2022, GVSU will be adding digital literacy as a required outcome of all undergraduate students, regardless of program. The purpose is to ensure that all students have the requisite digital skills to function in today’s society and beyond. This would include directed and self-directed pathways, and curricular/co-curricular/extracurricular mechanisms, needed academic supports, and practice opportunities. Faculty from every department will integrate the resources in the Blue Dot Lab into their course work. Digital literacies are those capabilities which fit an individual for living, learning, and working in a digital society. Here are just a few examples of digital skills, fluencies, competencies:

- Email communication
- Digital image manipulation
- Data searches and interpretation
- Digital object creation
- Multimedia composition creation
- Digital collaboration with teams and projects
- Selection, use, and critique of digital tools and platforms
- Digital learning and personal learning networks
- Digital identity management and wellbeing

The Blue Dot Lab will provide the learning spaces/environment that will allow students from across all academic programs to engage in active, team-based learning centered on the new university-wide learning outcome requirement of digital literacy. This facility will provide the unique learning spaces that do not exist elsewhere on campus, that encourage interdisciplinary work that are key to deep learning desired by employers. The Blue Dot Lab will provide this environment that facilitates this type of critical learning to help prepare students for the new world of work. Ultimately, through a common platform of digital literacy required as a learning outcome across all undergraduate programs, top employability skills of collaboration/teamwork, technical/digital literacy, and interdisciplinary are taught, experienced and practiced in this learning laboratory.

The Blue Dot Lab has been designed to be accessible to all students, faculty, and community members to enhance the development of their educational pathway, through providing access to cutting-edge programs, experiential learning, relationship-rich community spaces, and personal network of mentors and advisors. The Blue Dot Lab will create the opportunity for people to connect and learn from each other. This reciprocity of learning (learning from not only experts but peer-to-peer learning) will be embedded in the culture of the space.

As an example, a student who is majoring in World History described her experience searching for help in creating some digital content (cloud-based research and graphical help) for a class project as “luck”. Her roommate was a Computer Sciences major and was able to point her in the right direction to ask for help from the CIS department. The ability of a student to find the help they are looking for should not be based on “luck”, the Blue Dot Lab will provide a solution to that problem.

The Blue Dot Lab is not “owned” by any one department or college at the University, rather it will be managed by an internal team who are responsible to all degrees, departments, and colleges at the University. It will not matter which educational pathway a person is on; they will be able to utilize
the Blue Dot Lab to further their understanding of the digital world. No longer will a student’s ability to have access to this new digital technology be based on who they know.

Key to the DNA of the Blue Dot Lab is its ability to create hands-on, experimental learning for the GVSU community. Students, faculty and staff will have the same access to these tools to further the research and innovation of their education and course work. There are places and spaces for teams to work on innovating new technology, and spaces “to find other Big Idea Thinkers.” There are places for people to see what others are doing and to be seen by others. This will build a community of innovation that give GVSU students an advantage in their future pursuits.

**GVSU Reach Higher 2025**

Concurrently, with the development of the Blue Dot Lab program, GVSU is developing a strategic plan for the university called Reach Higher 2025. There are three key strategies developed in the Reach Higher 2025 plan:

**Empowered Educational Experience** - develop an educational pathway reflective of our students’ unique experiences and passions. We accomplish this through cutting-edge programs, experiential learning, a foundation of liberal education, a relationship-rich community, and your personal network of mentors and advisors.

**Lifelong Learning** - the approach to teaching and learning integrates liberal and professional education in both disciplinary and interdisciplinary ways and is directly relevant to the worlds you will shape. Our faculty will model the passionate pursuit of lifetime learning through cutting-edge research, scholarship, and expression. We will pursue reciprocal relationships with alumni and community partners to create sustainable and supportive learning networks.

**Educational Equity** - Together, we ensure that our community serves as a catalyst towards a more just and sustainable world on our campuses and beyond. We work to eliminate disparities and obstacles for student success, especially those that have historically been along lines of race, gender, class, and social structures.

The Blue Dot Lab will be an integral component for GVSU to achieve these strategic goals.
Is the requested project focused on a single, stand-alone facility?

Yes, the Blue Dot Lab is a stand-alone facility on the Grand Valley State University Campus.

How does the project support investment in or adaptive re-purposing of existing facilities and infrastructure?

The site selection of the Blue Dot Lab is based on the ability for the project to utilize the campus infrastructure. The building would be adjacent to campus utilities utilizing campus heating and cooling systems infrastructure, electrical service, and campus data systems which have sufficient capacity to serve this building and continue GVSU's commitment to providing energy efficient and maintainable facilities.

Does the project address or mitigate any current health/safety deficiencies relative to existing facilities?

The Blue Dot Lab will be constructed as a new state-of-the art building with all the health/safety and wellness amenities built into the design of the facility. The selected site of the project accounted for the safe travel of people both from on-campus and those who will be utilizing the facility from off-campus. Careful consideration has been made for the locations of the building’s entrance, walking paths and vehicle/pedestrian interaction.
How does the institution measure utilization of its existing facilities, and how does it compare relative to established benchmarks for educational facilities? How does the project help to improve the utilization of existing space and infrastructure, or conversely how does current utilization support the need for additional space and infrastructure?

Utilization: GVSU has a detailed report of its facility utilization within the Capital Outlay 5 Year Master Plan submittal.

Benchmarking: As written in the GVSU Campus Master plan, a benchmarking study was completed of GVSU-identified peers, both in-state and out-of-state, to understand how GVSU compared in the amount of space/student (NASF/headcount). Currently, GVSU is slightly below the target for space/student set in 2008, the university has not kept pace with its peer competitors in terms of space/student. The peer benchmarking conducted for the 2018 campus master plan continues to show that the campus remains undersized compared to many of its peer institutions.

Michigan public institutions were evaluated in regards to total NASF/headcount. This study set offers a great range of differences in regards to student enrollment, demographics, and academic programs. To create a more equitable peer comparison, GVSU elected to take out data from public institutions that had student enrollment less than 9,000 students or larger than 30,000 students, or were categorized as Carnegie High Research Intensive institutions. In the large enrollment, high research category, public universities in Michigan that were eliminated from the study were University of Michigan and Michigan State University. Those universities with enrollment under 9,000 students that were not included are the University of Michigan-Flint, Michigan Technological University, Northern Michigan University, and Lake Superior State University.

The remaining eight in-state, public, four-year universities selected by GVSU for benchmarking were:

- Central Michigan University
- Ferris State University
- Saginaw Valley State University
- Western Michigan University
- Eastern Michigan University
- Oakland University
- Wayne State University
- University of Michigan-Dearborn

At 89 NASF per student headcount for academic space, GVSU is well below the state peer average of 136 NASF/headcount.

The Blue Dot Lab will provide opportunities for centralized digital learning, use of software tools, production labs, and fabrication labs on campus for students in all colleges and areas of study. Colleges will integrate the Blue Dot Lab’s resources into their own coursework. Currently, some colleges have their own dedicated computer/digital labs, production, and fabrication spaces but the technology is specific to needs of the curriculum and use is restricted to that cohort of students.

By contrast, the Blue Dot Lab will combine technology-rich teaching spaces, flexible learning spaces, and trans-disciplinary working spaces into one facility for all learners and faculty to share and utilize in collaboration with one another. The Blue Dot Lab will promote cross disciplinary teaching, collaboration and connection between faculty, students, community and industry with spaces right sized and technology enhanced. The Blue Dot Lab will bring together people, concepts and expertise that crosses all disciplines.
How does the institution intend to integrate sustainable design principles to enhance the efficiency and operations of the facility?

GVSU has established LEED Silver as a minimum goal for the Blue Dot Lab. Through its use as a design guideline, LEED strives to improve the environment for human beings to live, work, and learn. Occupant well-being, environmental performance and economic returns are achieved using established and innovative practices, standards and technologies that are incorporated in the design, construction and operation. GVSU strives to achieve a balance between creating environmental responsible buildings that concentrate on energy efficiency and low waste, being fiscally responsible stewards of public funds. GVSU has 26 LEED certified buildings, which represent nearly 33% of GVSU operated space.

Are match resources currently available for the project? If yes, what is the source of the matching resources? If no, identify the intended source and estimated timeline for securing said resources.

The land is University owned. Yes, matching resources will come from a combination of University Reserves, Debt Issuance, and/or, University donor Funds. If bank or market financing is determined to be required for this project, funds can be obtained in 6 months.

If authorized for construction, the state typically provides a maximum of 75% of the total cost for university projects and 50% of the total cost of community college projects. Does the institution intend to commit additional resources that would reduce the state share from the amounts indicated? If so, by what amount?

Yes, GVSU is requesting the State to fund $29.9 Million of the project cost, with GVSU funding the remaining $45.1 Million of the project cost.

Will the completed project increase operating costs to the institution? If yes, please provide an estimated cost (annually, and over a five-year period) and indicate whether the institution has identified available funds to support the additional cost.

Yes, estimated annual operating cost for the Blue Dot Lab is $133,950 (based on 2021 costs). The operating costs over 5 years is expected to be $744,200 (based on 2021 adjusted dollars). Funding is available for the operations and maintenance of the proposed building.
What impact, if any, will the project have on tuition costs?

There will be no impact on tuition costs as a result of this project.

If this project is not authorized, what are the impacts to the institution and its students?

The type of skills and learning opportunities the Blue Dot Lab will provide its students are among the most essential for those entering the workforce. Consequently, not authorizing this project would seriously hinder not just Grand Valley’s, but also Michigan’s, efforts to proactively prepare its residents for the challenges and opportunities of our rapidly changing modern world.

Projects like Blue Dot allow our state to demonstrate its understanding of the ways the world is changing -- and how its own systems and structures must change as well. Indeed, our hope and expectation is that the insights and energy that it generates will help spread across campuses and communities, as a living model of what the future of learning must actually look like -- and require.

What alternatives to this project were considered? Why is the requested project preferable to those alternatives?

Without the Blue Dot Lab, GVSU will not have the spaces, structures, and curriculum that can provide an integrated experience for its students.

For example, whereas some spaces located in 1960-era buildings could be made available, the electrical and mechanical systems of those spaces are not suited for the proposed use. Additionally, the spaces that could be retrofitted to provide these services are spread widely across campus, which prevents the possibility of a more synergistic center for the work to emerge, take root and spread.

As a result, our firm belief is that this project is vital precisely because it will demonstrate the exponential benefits of a more integrated approach to re-imagining the structure and purpose of higher education.