Micron Technology's State-of-the-Art Fitness Center Construction Project

Integrated Project Management Plan

Andrew L. Hanrahan
Project Manager

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Business Case and Project Requirements Document

Business Case

In light of Micron Technology's $100 billion investment to create a computer chip manufacturing plant in Upstate New York, Onondaga County will partner with Micron in a public-private partnership to build a community center on donated land near the proposed campus of the plant in Clay, New York. Our project team will facilitate the design and installation of a state-of-the-art fitness center on this land and will equip the facility with appropriate athletic training equipment and electronics. The goal of this project is to promote health and wellness among Micron employees and the community at large as part of this exciting investment in the transformation of the Upstate New York economy.

Project Requirements

- Design and equip the fitness center with appropriate and aesthetically pleasing athletic training equipment
- Specify exercise equipment to meet needs of the users
- Determine open-concept floor layout with appropriate aisle spacing in line with OSHA safety standards
- Procure, receive & inspect, and install lighting, mirrors, flooring, water fountains, digital signage, televisions, Wi-Fi connectivity, and sound system
- Provide input to architect on design matters
- When possible, purchase products and services from local companies

Project Scope Statement

Micron Technology's State-of-the-Art Fitness Center Construction Project

Project Manager Andrew L. Hanrahan

Project Scope Statement

PROJECT OBJECTIVES
The team will facilitate the design and installation of a state-of-the-art fitness center on donated land, which will be equipped with appropriate athletic training equipment and electronics.

Project Deliverables

DELIVERABLE NO.	DESCRIPTION
1	Floor-layout diagram with design cues to be provided to architectural firm
2	A fully functioning fitness center furnished with training equipment
3	All technology-related components including smart lighting, digital signage, televisions, and Wi-Fi connectivity

Project Tasks

TASK NO.	DESCRIPTION	DELIVERABLE NO.
1	Design a floor layout diagram that shows placement of equipment, lounge, reception desk, other furnishings, and technology devices, providing design cues of flooring type, wall/ceiling color, and decorations	1
2	Procure all exercise equipment, furnishings, and technology, working with local suppliers when possible (and arrange for the shipping and storage location of these materials)	2
3	Design and specify all exercise equipment, technology, and furnishings to be ordered	2, 3
4	Coordinate the installation of all exercise equipment, furnishings, and technology	2. 3
5	Test all installed technology and fitness equipment to ensure functionality	3
6	Train fitness center staff on the use of installed technology	3
7	Ensure all compliance standards, including OSHA safety standards, have been met to obtain a certificate of occupancy from the Town of Clay	2

Out of Scope

This project **will NOT accomplish or include** the following:	- Hiring and onboarding fitness center employees, inclusive of trainers, customer service staff, or maintenance crew - Providing physical or digital maintenance to completed fitness center or its infrastructure once center has been built - Designing or construction of a locker room facility for fitness center members

Project Assumptions

NO.	ASSUMPTION
1	The project team assumes that the architecture and construction team have been put into place.
2	It is assumed that the land donated for the fitness center is expansive enough to accommodate all wishes as outlined above.
3	The project and construction teams assume there is 24/7 access to fitness center grounds before project closing date.

Project Constraints

Budget Constraints	The allocated budget will accommodate the deliverables above and nothing out-of-scope.
Personnel Constraints	We have a fixed personnel team to accomplish product tasks and cannot hire more.
Regulatory Constraints	The fitness center must meet Occupational Safety and Health Administration (OSHA) standards and be eligible for a certificate of occupancy from the Town.

Work Breakdown Structure

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ID	Task Name
1	**1 Initating**
2	1.1 Identify stakeholders
3	1.2 Meet with stakeholders
4	1.3 Assign roles and responsibilities
5	1.4 Kick-Off Meeting
6	**2 Planning**
7	**2.1 Design and Specify (D&S)**
8	**2.1.1 D&S all exercise equipment to be ordered**
9	**2.1.1.1 D&S cardio equipment**
10	2.1.1.1.1 D&S treadmills
11	2.1.1.1.2 D&S ellipticals
12	2.1.1.2 D&S weight machines
13	2.1.1.3 D&S free weights
14	2.1.1.4 D&S non-machine equipment including kettlebells, resistance bands, yoga mats, and foam rollers
15	**2.1.2 D&S all furnishings to be ordered**
16	2.1.2.1 D&S seating for rest area including couch, tables, and chairs
17	2.1.2.2 D&S office furniture including desks and chairs
18	2.1.2.3 D&S mirrors
19	2.1.2.4 D&S lighting
20	2.1.2.5 D&S water fountains
21	**2.1.3 D&S all technology to be ordered**
22	2.1.3.1 D&S PC workstations to be installed at reception and in recreation office
23	2.1.3.2 D&S television screens to be put throughout the fitness center for digital signage and entertainment
24	**2.1.3.3 D&S network equipment**
25	2.1.3.3.1 D&S Wi-Fi access points
26	2.1.3.3.2 D&S network cabling
27	2.2 Arrange for shipping/storage location
28	2.3 Obtain compliance information (OSHA, Town of Clay)
29	**3 Executing**
30	**3.1 Floor Layout**
31	3.1.1 Design floor layout diagram that shows placement of all furnishings
32	3.1.2 Plan design cues to include flooring type, wall/ceiling color, etc.
33	3.1.3 Meet with architectural firm
34	**3.2 Procurement**
35	**3.2.1 Procure all exercise equipment**
36	**3.2.1.1 Procure cardio equipment**
37	3.2.1.1.1 Procure treadmills

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ID	Task Name
38	3.2.1.1.2 Procure ellipticals
39	3.2.1.2 Procure weight machines
40	3.2.1.3 Procure free weights
41	3.2.1.4 Procure non-machine equipment including kettlebells, resistance bands, yoga mats, and foam rollers
42	**3.2.2 Procure furnishings**
43	3.2.2.1 Procure seating for rest area including couch, tables, and chairs
44	3.2.2.2 Procure office furniture including desks and chairs
45	3.2.2.3 Procure mirrors
46	3.2.2.4 Procure lighting
47	3.2.2.5 Procure water fountains
48	**3.2.3 Procure technology**
49	3.2.3.1 Procure PC workstations to be installed at reception and in recreation office
50	3.2.3.2 Procure television screens to be put throughout the fitness center for digital signage and entertainment
51	**3.2.3.3 Procure network equipment**
52	3.2.3.3.1 Procure Wi-Fi access points
53	3.2.3.3.2 Procure cabling
54	**3.3 Receive and Inspect (R&I)**
55	**3.3.1 R&I exercise equipment**
56	**3.3.1.1 R&I cardio equipment**
57	3.3.1.1.1 R&I treadmills
58	3.3.1.1.2 R&I ellipticals
59	3.3.1.2 R&I weight machines
60	3.3.1.3 R&I free weights
61	3.3.1.4 R&I non-machine equipment including kettlebells, resistance bands, yoga mats, and foam rollers
62	**3.3.2 R& furnishings**
63	3.3.2.1 R&I seating for rest area including couch, tables, and chairs
64	3.3.2.2 R&I office furniture including desks and chairs
65	3.3.2.3 R&I mirrors
66	3.3.2.4 R&I lighting
67	3.3.2.5 R&I water fountains
68	**3.3.3 R&I technology**
69	3.3.3.1 R&I PC workstations to be installed at reception and in recreation office
70	3.3.3.2 R&I television screens to be put throughout the fitness center for digital signage and entertainment
71	**3.3.3.3 R&I network equipment**

Micron Technology Fitness Center Construction Project		
ID		Task Name
72		3.3.3.3.1 R&I Wi-Fi access points
73		3.3.3.3.2 R&I network cabling
74		**3.4 Installation**
75		**3.4.1 Coordinate and oversee installation of exercise equipment**
76		**3.4.1.1 Install cardio equipment**
77		3.4.1.1.1 Install treadmills
78		3.4.1.1.2 Install ellipticals
79		3.4.1.2 Install weight machines
80		3.4.1.3 Install free weights
81		3.4.1.4 Install non-machine fitness equipment
82		**3.4.2 Coordinate and oversee installation of furnishings**
83		3.4.2.1 Install couches, tables, and chairs in rest area
84		3.4.2.2 Install desks and chairs in officce
85		3.4.2.3 Install mirrors
86		3.4.2.4 Install lighting
87		3.4.2.5 Install water fountains
88		**3.4.3 Coordinate and oversee installation of technology**
89		**3.4.3.1 Install PC workstations**
90		3.4.3.1.1 Connect PC workstations to network
91		**3.4.3.2 Install televisions**
92		3.4.3.2.1 Connect televisions to cable and internet
93		**3.4.3.3 Install network equipment**
94		3.4.3.3.1 Install network cabling
95		3.4.3.3.2 Install Wi-Fi access points
96		**3.5 Testing and Verification**
97		3.5.1 Test and verify that all exercise equipment works as intended
98		**3.5.2 Test and verify electronics work as intended**
99		3.5.2.1 Test and verify PC workstations work as intended
100		3.5.2.2 Test and verify televisions work as intended
101		**3.5.2.3 Test and verify network connectivity**
102		3.5.2.3.1 Test and verify network connectivity to PC workstations
103		3.5.2.3.2 Test and verify network and cable connectivity to televisions
104		3.5.2.3.3 Test and verify network connectivity to treadmills
105		3.5.2.3.4 Test and verify network connectivity to ellipticals
106		3.6 Train fitness center staff on the use of installed technology
107		**3.7 Compliance**
108		3.7.1 File paperwork to obtain a certificate of occupancy from the Town of Clay

Micron Technology Fitness Center Construction Project

ID	Task Name
109	3.7.2 Verify facility complies with OSHA safety standards (e.g., minimum aisle spacing)
110	**4 Closing**
111	4.1 Seek approval of sponsor
112	4.2 Acquire signatures
113	4.3 Re-inspect all installed equipment
114	4.4 Make sure vendors have been paid
115	4.5 Close contracts
116	4.6 Update and archive organizational documentation
117	4.7 Lessons learned meeting

Cost Management Plan

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Project Manager Andrew L. Hanrahan

PROJECT COST MANAGEMENT PLAN

1. Introduction

The purpose of the cost management plan is to detail how costs will be planned, structured, and controlled, and more specifically, how the project budget will be created and maintained.

The project manager is responsible for managing the budget, which will use the United States Dollar (USD) as its currency.

The project will be funded by Micron Technology and the Community Center will be built on land donated by Onondaga County in New York State.

2. Documentation and Communication Practices

The project manager believes that documentation and communication are fundamental aspects to a successful project.

The project manager will meet on a weekly basis with the project sponsor to discuss the status of the project. While the official budget reports will be sent monthly via email to the project sponsor, due by the first of every month, it is expected that the project manager will keep the project sponsor informed of the budget status as needed at the weekly status meetings.

3. Cost Estimation Process

The primary cost estimation techniques used will be the three-point estimation method and bottom-up estimate.

The three-point estimate formula that the project team will use is as follows:
[Optimistic cost + (4 * Most Likely Cost) + Pessimistic Cost] / 6 = Expected value

The benefit of this formula compared to other three-point estimating formulas is that it most heavily weights the "most likely" cost, but also takes into account the project's optimistic and pessimistic costs to make the formula more realistic and accurate.

In order to get the figures to enter into the three-point estimation method, the team will be using a bottom-up estimate technique that will involve estimating individual work items and summing them.

The purpose of using both techniques is to lend credibility to our cost estimation technique and to mitigate planning fallacy. The project team is confident that using both estimating techniques will create a high degree of accuracy in project cost estimating.

4. Contingency Reserves

Project Management Institute best practice indicates that, depending on the level of risk of a project, the project manager should allocate 5-10% of the project budget to account for risk. With this in mind, we will reserve an additional 7.5% of the cost of the project for unexpected costs.

The project team has classified this project as **medium risk** and has selected 7.5% for the following reasons.

- The project is to build new construction so there will be no need to anticipate costs pertaining to renovating structural issues, electrical, plumbing, or asbestos and lead removal.
- The weather of Central New York is unpredictable and can delay or set back project execution for any amount of time.

Access of the contingency reserves requires going through the change control process, which is detailed in the next section.

5. Change Control Process

It is impossible to perfectly predict all project costs and accurately account for all possible risks or deviations from the original schedule and budget. In the event that if the project has gone or is projected to go over budget by a certain dollar amount or percentage—planned or unplanned—the following steps, making up the change control plan, will occur:

1. The project team member that discovers the need for more funding, be it as a means to accomplish a project task or to mitigate a planned or unplanned risk, must notify the project manager of the concern *both* informally through an email as soon as the need is discovered and formally through a change control form submitted as soon as possible.
2. If, upon the project manager's review, they believe the request can be accommodated utilizing the contingency reserves, it is at the sole discretion of the project manager to allocate these funds, which would be recorded on the contingency reserve log document.
3. If, upon the project manager's review, they believe the request cannot be accommodated utilizing the contingency reserves, due to lack of funds and/or scope of initiating event, the project manager will begin the process of official notification to the project sponsor by way of meeting (either electronically or in-person) and a formal budget increase request may be necessitated.

Risk Register

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Micron Technology's State-of-the-Art Fitness Center Construction Project
Risk Register

Risk Name	Risk Category	Risk Response	Risk Owner	Risk Trigger	Risk Status	Risk Impact	Risk Likelihood
Project does not meet OSHA and/or Town of Clay compliance standards	Government (Regulation)	Project manager will assemble team to assess report and make appropriate changes	Project manager	OSHA/Town of Clay rejection of compliance letter	Closed	High	Low
Construction employee gets injured during building process	People	Confirm construction firm has insurance policy on their employees and/or purchase additional insurance	Human resources team director	Construction worker gets injury	Closed	High	Low
Funds are not available by start of project	Budget	Restructure project schedule	Project sponsor	Funding not available by project start date	Closed	High	Low
Project is off schedule due to miscalculations in task duration	Schedule	Restrcture project schedule as a result of progressive elaboration	Project manager	Project becomes off schedule	Closed	Medium	High
Inclement weather impedes ability to continue construction	Schedule	Restructure project schedule	Project manager	>2" rain or >6" of snow accumlation	Closed	Medium	Medium
Procured exercise equipment, technology, or furnishings arrive late	Schedule	Restrucutre project schedule, ask for cost reduction from vendor	Operations team director	Materials arrive beyond receive and expect date	Closed	Medium	Low
Materials arrive damaged, broken, or otherwise do not work as expected	Technology	Coordinate shipment of new materials from vendor or have repair team sent to site	Operations team director	Project team notices flaw during receive and inspect process	Closed	Medium	Low
Project anticpated to go over budget	Budget	Use budget reserves or contact project sponsor with proposal for more funding	Financial team director	If at any point it is discovered that project cannot be sustained on current budget	Closed	Low	High
Community demand for fitness center is not yet known	Competitive	Continue process of meeting with stakeholders for status updates and receive community feedback on design cues and proposed layouts	Project sponsor	Low membership upon opening of fitness center	Closed	Low	Low

Communications Plan

Micron Technology's State-of-the-Art Fitness Center Construction Project

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PROJECT COMMUNICATIONS MANAGEMENT PLAN

PROJECT TITLE	PROJECT MANAGER
Micron Technology's State-of-the-Art Fitness Center Construction Project	Andrew Hanrahan

KEY STAKEHOLDERS

NAME	TITLE	PREFERRED METHOD	EMAIL	Phone
Phoebe McCarthy	Micron PMO Community Initiatives (Sponsor)	Email & Phone	pmccarthy@micron.com	(208) 555-3895
Bryce Campbell	Micron Syracuse Branch Director	Email	bcampbell@micron.com	(315) 555-3095
Olivia Palmer	Onondaga County Government Liaison	Phone	opalmer@ongov.net	(315) 555-5692

COMMUNICATION PROCESSES

The project manager believes that strong communication is the most crucial and fundamental component of a successful project. That said, this communication plan will outline the details and structure of project communications.

There are two types of regularly occurring project meetings: one with the project team members and another with the sponsor/stakeholders. Details on these meetings—the modality, time, and purpose—can be found in the next section.

Project status reports will be created by the project manager and distributed to the key stakeholders by end of business each **Thursday** (5 pm) in anticipation of the weekly status report meeting on **Fridays** at 8 am. The report is to be written in Microsoft Word and distributed in **Adobe PDF format** which is easily accessible via a native reader application in all modern-day operating systems.

COMMUNICATION PLAN

ACTIVITY	TYPE	FREQUENCY	ATTENDING	PURPOSE
Project Planning Meeting	Video Conference on MS Teams	As needed on Mon./Wed./Fri. mornings at 8 am for 1 hr. preceding execution phase	Project sponsor, project manager, key stakeholders (as needed), project team members (as needed)	Outline goals, establish budget and timeline with goal of creating project charter
Team "Stand Up" Meeting	In Person	Every morning at 9am for 10 min.	All project team members	Set daily goals to align with project tasks
Sponsor Status Report Meeting	Video Conference on MS Teams	Weekly on Friday mornings at 8 am for 30 min.	Project manager and project sponsor (key stakeholders optional)	Outline achievements and model path forward

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