



Proposal to Renovate the Engineering Workspaces at XYZ Company Headquarters

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Project Objectives

Phase 1: Analyze

Phase 2: Plan

Phase 3: Procure

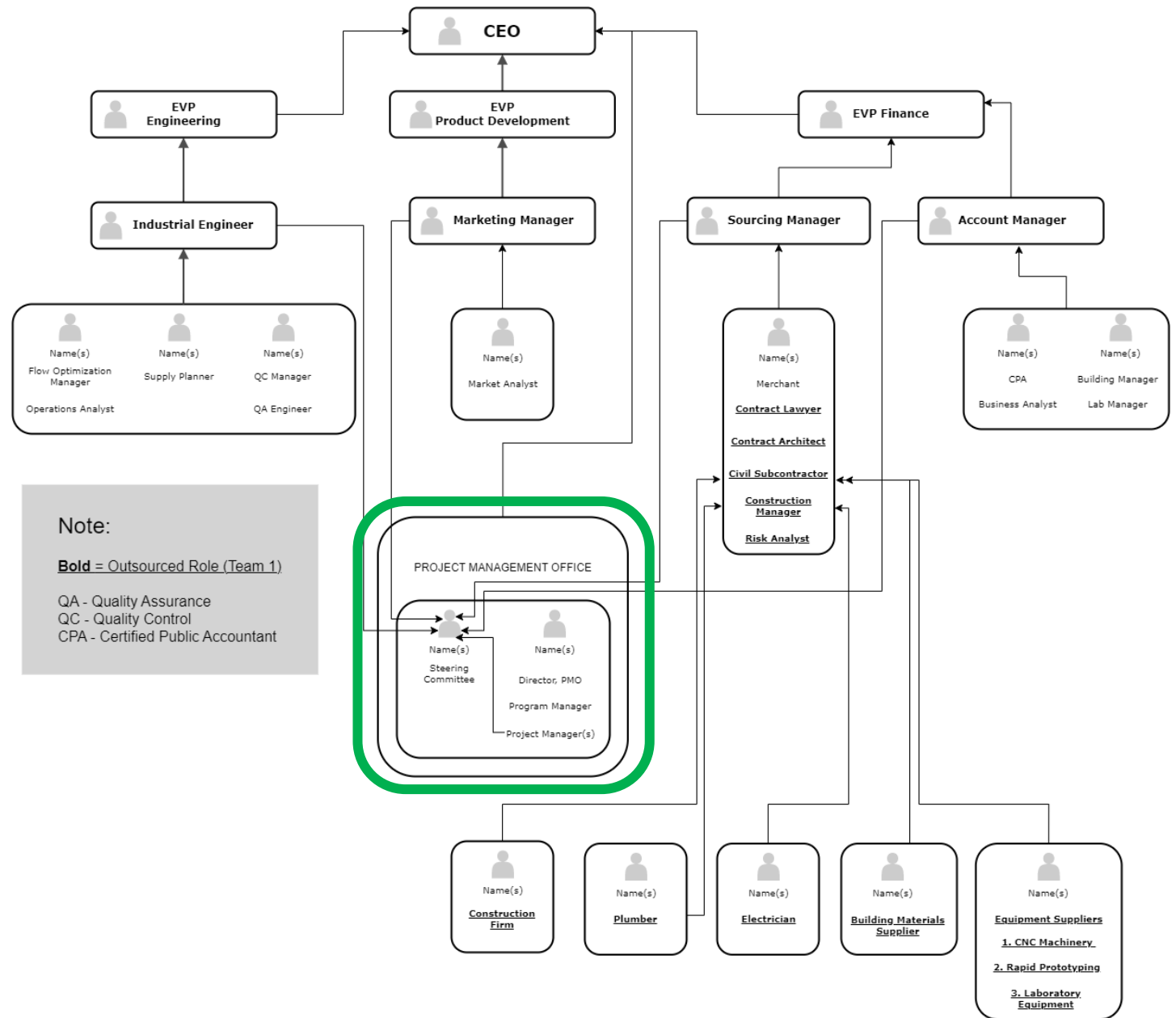
Phase 4: Implement & Optimize

Critical Success Factors:

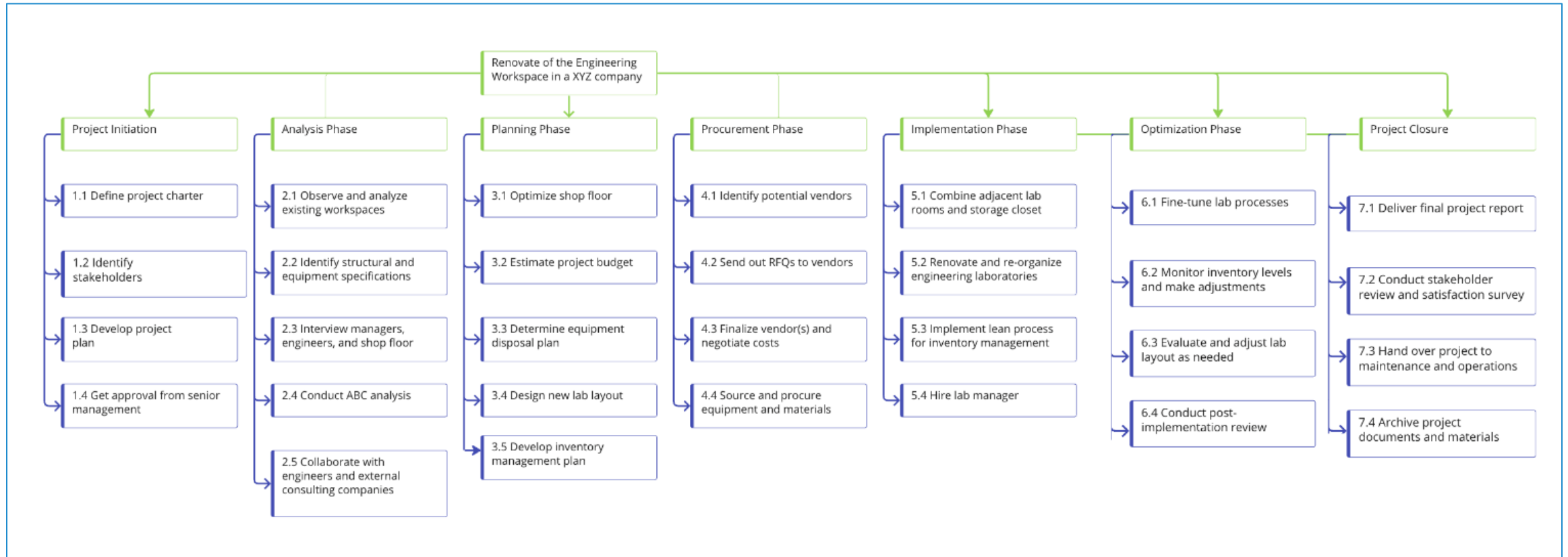
- Issues and needs clearly addressed
- 18-month timeline maintained
- Day-to-day operations at XYZ are not interrupted



Project Organizational Structures



Implementation Plan – Work Breakdown Structure



Implementation Plan – RACI Chart

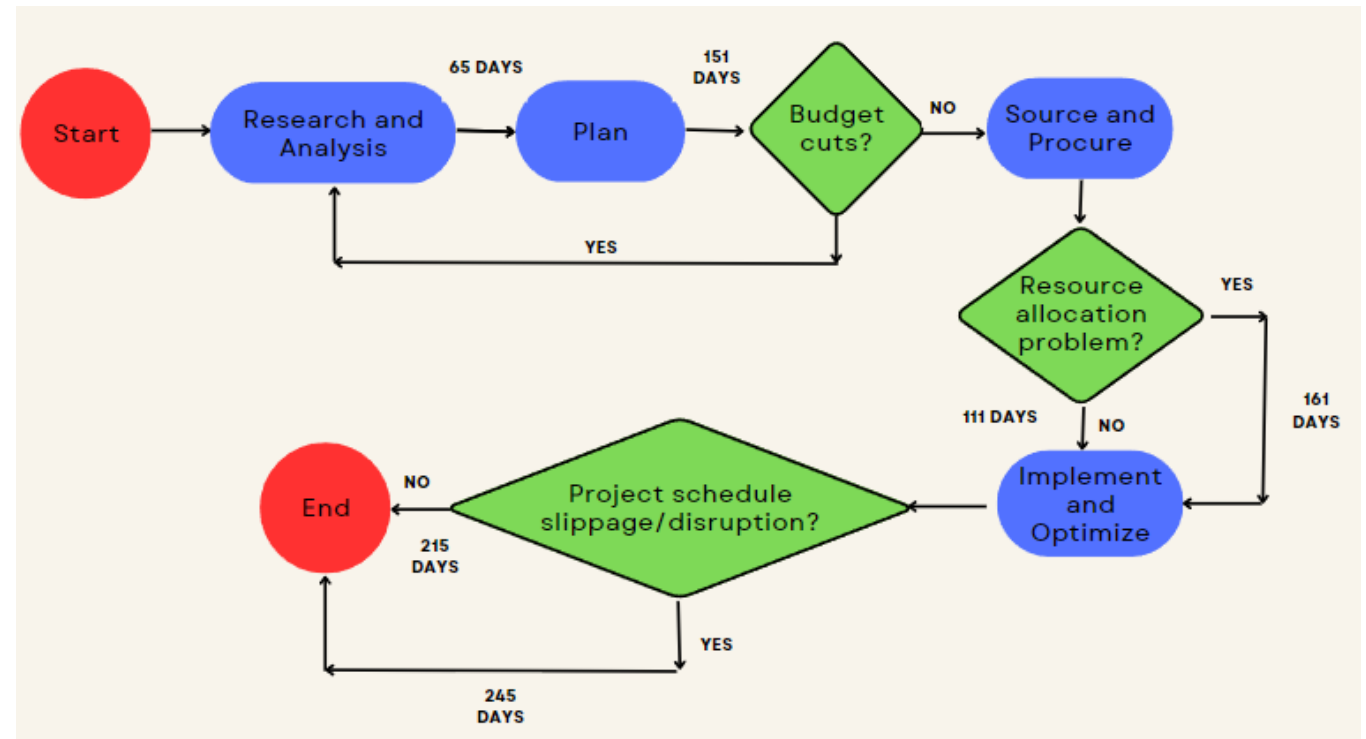
	RACI Chart												
Project Tasks	CEO	EVP Engineering	Industrial Engineer	Flow Optimization Manager	Operations Analyst	Supply Planner	QC Manager	Contract Architect	Civil Subcontractor	EVP Product Development	Marketing Manager	Project Manager	Steering Committee
Phase 1: Research and Analysis													
Evaluate Current Workspaces			C		A			R				I	I
Structural and equipment analysis			A		C				R			I	I
Faculty interview & feedback	I	I	C	C	C		C					R	A
ABC inventory analysis			C	C	A	R						I	I
Current trend analysis				C							A	I	I
Depreciaiton & asset analysis			C		C							I	I
Supplier market analysis						R						I	I
Vendor Analysis						C			R			I	I
Phase 2: Plan													
Project charter	I	C						C	C			R	A
Shop floor design & optimization			A	C	C		C	R	C	C		I	I
Risk Analysis		C	C		C	C	C	C	C			C	I
Inventory Optimization				R	C							I	I
Inventory Replenishment Planning				C		R						I	I
Budget	C	C				C		C	C	C		I	I
Labor Plan			A					R	R			I	I
Capacity Plan	I	C	R	C	C		C	C		C		I	I
Construction Plan (From Subcontractor)	I	I						C	R			I	I
Plan Approval	A									C		I	I
Phase 3: Source & Procure													
RFx						C					C	I	I
Supplier selection (TCO, TLC)			C	C	C	C		I	I			I	I
Contracting												I	I
Phase 4: Implement													
Asset Disposal		A	A				C		A			I	I
Constuction (Outsourced)	I	A						R	R			I	I
Safety Control			A		C		R						I
QA & QC		C	A				R						I
Supplier relationship management						C						I	

Note: Chart truncated for visibility

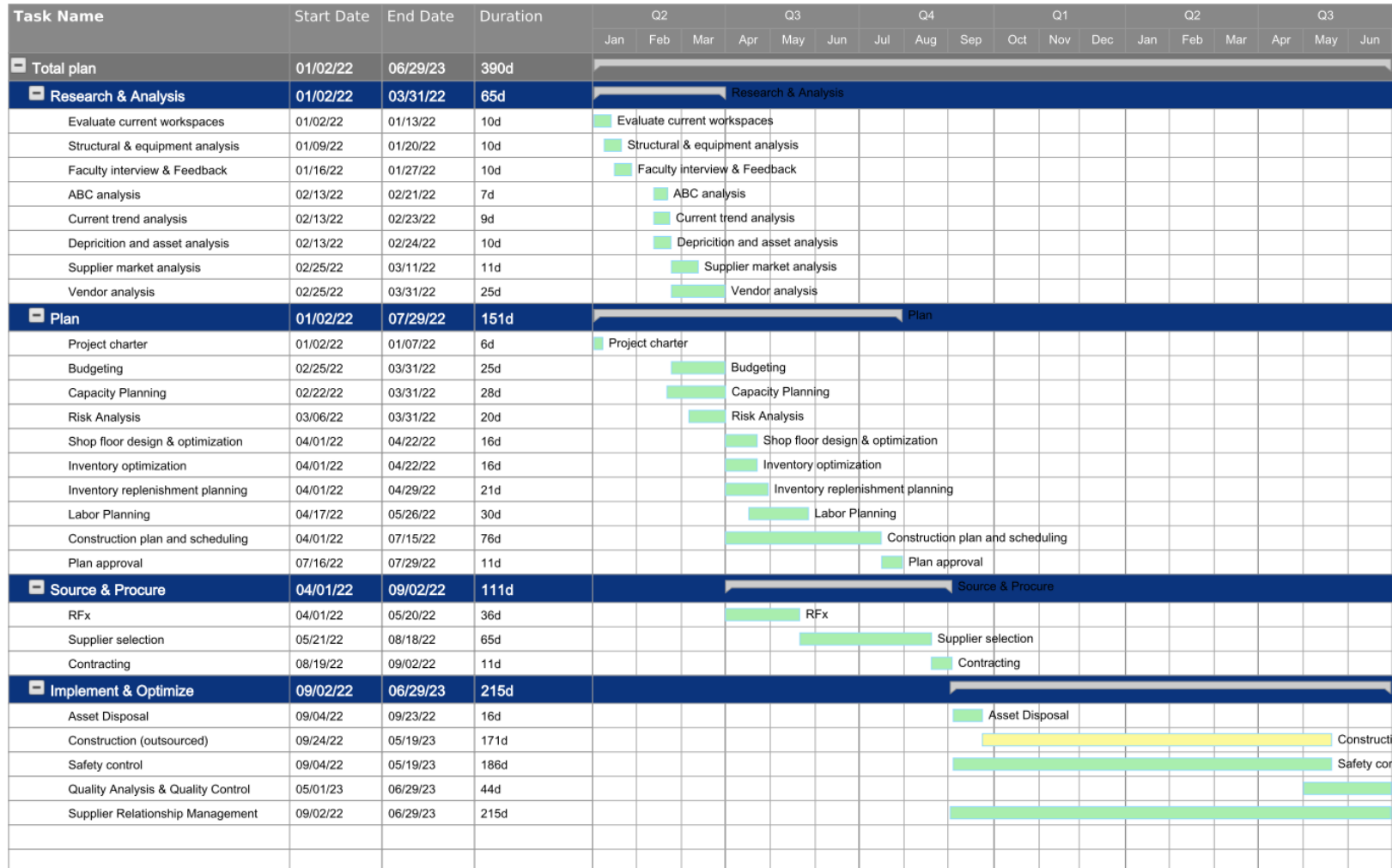
EPM Spring 2023

Implementation Plan – PERT Analysis

TASKS	OPTIMISTICS (O)	MOST LIKELY (M)	PESSIMISTIC (P)
Research and Analysis	65 DAYS	65 DAYS	130 DAYS
Plan	151 DAYS	151 DAYS	302 DAYS
Source and Procurement	111 DAYS	161 DAYS	161 DAYS
Implement and optimize	215 DAYS	245 DAYS	245 DAYS
COMPLETION	390 DAYS	470 DAYS	838 DAYS



Implementation Plan – GANTT Chart



Risk Analysis – Qualitative & Quantitative Analyses

Top 10 Risks

1. Project schedule slippage
2. Cost creep (labor)
3. Resource allocation – workspace being renovated required sooner/earlier
4. Resource allocation – contractors' availability
5. Building requirements grandfathered into building code
6. Cost creep (raw materials)
7. Disruption to company day to day business from construction
8. Weather impact on construction
9. Scope creep – company asks for additional capabilities
10. Budget cuts – company decides to lower project scope/cost

Risk Analysis – Qualitative Analysis

		Impact				
		Negligible	Minor	Moderate	Significant	Severe
Likelihood	Very Likely	Disruption to company day to day business from construction	Cost creep (raw materials)	Weather impact on construction	Resource Allocation - workspace being renovated required sooner	
	Likely			Building requirements grandfathered into building code		
	Possible			Project Schedule Slippage	Scope creep - company asks for additional capabilities	
	Unlikely				Resource allocation - contractor availability	
	Very Unlikely			Cost Creep (Labor)		Budget cuts - company decides to lower project scope/cost

Risk Matrix

Risk Analysis - Quantitative Analysis

FMEA Risk Analysis				
Threat	Severity	Likelihood	Ability to Detect	RPN
Project Schedule Slippage	3	3	4	36
Cost creep (labor)	3	1	5	15
Resource allocation - workspace being renovated required sooner/earlier	4	5	5	100
Resource allocation - contractors' availability	4	2	3	24
Building requirements grandfathered into building code	3	4	1	12
Cost creep (raw materials)	2	5	3	30
Disruption to company day to day business from construction	1	5	1	5
Weather impact on construction	3	5	5	75
Scope creep - company asks for additional capabilities	4	3	5	60
Budget cuts - company decides to lower project scope/cost	5	1	5	25
Key	1 - lowest severity	1 - lowest likelihood	1 - able to detect	
	5 - highest severity	5 - highest likelihood	5 - unable to detect	

Monitoring & Control

Report	Due	Responsible
Progress Report 1	After completion of demolition and preparation work	Construction Manager
Progress Report 2	After completion of electrical and plumbing work	Electrical and plumbing contractors
Progress Report 3	After completion of painting and flooring work	Painting and flooring contractors
Interim Report	After completion of all major renovation work	Project Manager
Progress Report 4	After completion of furniture and equipment installation	Furniture and equipment installation contractors
Progress Report 5	After completion of final clean-up and inspection	Quality Control Manager
Final Report	End of the project and handover to the Engineering Department	Project Manager

Financial
Plan &
Resource
Allocation

Total Project Cost	
Renovation	\$2,000,000
Equipment	\$336,000
Project Consultant Costs	\$351,000
Allowance for Overages	*1.2
Total Budget	\$3,224,400

Conclusion

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- Remodeling and reorganization of engineering labs at XYZ corporation is crucial for the company's long-term survival amid an ever-growing competitive marketplace
 - Project aims to develop a cutting-edge lab that adapts to changing demands, encourages creativity and innovation, and fulfills needs of organization and workers
 - Success factors include excellent communication, cooperation, and flexibility among stakeholders, with continuous monitoring and management.
 - Benefits include improved efficiency and production, satisfied customer demands, and enhanced employee engagement and satisfaction.