

FY 2016
Capital Development Plan
Arizona State University

EXECUTIVE SUMMARY

Project Name	Approval Date	Occupancy Date	Project Cost	Gift Target	Current Gifts (Cash/ Pledges)
College Avenue Commons	PA 12/2012	7/2014	\$54.5m	\$7.5m	\$7.5m
AZ Center for Law and Society	PA 6/5/2014	7/2016	\$129.0m	\$3.0m	\$10.0m
Sun Devil Stadium Renovation	PA 11/21/2014	8/2017	\$256.0m	\$56.0m	\$46.0m
Gammage Auditorium Rehabilitation	CIP 2017 9/2015	TBD	\$9.0m	\$6.5m	\$4.3m

Committee Review and Recommendation

Arizona State University requests that the Committee forward to the full Board for approval its FY 2016 Revised Capital Development Plan, as described in this Executive Summary.

Requested Action

Arizona State University requests that the Board approve the ASU FY 2016 Revised Capital Development Plan, as presented in this Executive Summary.

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FY 2016 REVISED CAPITAL DEVELOPMENT PLAN

EXHIBIT 1

Project	Board Approval Status	Gross Square Footage	Project Cost	Amount Financed	Funding Method	Annual Debt Service	Debt Ratio
New Academic/Support Project							
ASUT- Biodesign C	CIP Sept 2015	193,000	\$ 120,000,000	\$ 120,000,000	System Revenue Bonds	\$ 8,717,900	0.36%
New Auxiliary Project							
ASUT- Gammage Auditorium Rehabilitation	CIP Sept 2015	10,000	\$ 9,000,000	\$ -	Gifts/Other Local Funds	\$ -	
New Projects Total		203,000	\$ 129,000,000	\$ 120,000,000		\$ 8,717,900	0.36%
Previously Approved Auxiliary Projects							
ASUT-Sun Devil Stadium Renovation-Phase 3	CDP June 2015	850,000	\$ 83,300,000	\$ 33,000,000	System Revenue Bonds/Gifts	\$ 2,620,200	0.09%
ASUT - Student Pavilion	CDP June 2015	74,653	\$ 39,900,000	\$ 39,900,000	System Revenue Bonds	\$ 2,898,700	0.12%
Previously Approved Projects Total		924,653	\$ 123,200,000	\$ 72,900,000		\$ 5,518,900	0.21%
Total		1,127,653	\$ 252,200,000	\$ 192,900,000		\$ 14,236,800	0.57%

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EXHIBIT 2

CAPITAL DEVELOPMENT PLAN - ANNUAL DEBT SERVICE BY FUNDING SOURCE											
Project	Amount Financed	301	TUI	AUX	ICR	OLF	SLP	FGT	DFG	OTH	TOTAL ANNUAL DEBT SERVICE
New Academic/Support Project											
ASUT - Biodesign C	\$ 120,000,000		\$ 2,179,500		\$ 6,538,400						\$ 8,717,900
New Projects Total	\$ 120,000,000		\$ 2,179,500		\$ 6,538,400						\$ 8,717,900
Previously Approved Auxiliary Projects											
ASUT-Sun Devil Stadium Renovation Phase 3	\$ 33,000,000			\$ 2,620,200							\$ 2,620,200
ASUT - Student Pavilion	\$ 39,900,000		\$ 864,500			\$ 2,034,200					\$ 2,898,700
Previously Approved Auxiliary Projects Total	\$ 72,900,000		\$ 864,500	\$ 2,620,200		\$ 2,034,200					\$ 5,518,900
Total	\$ 192,900,000		\$ 3,044,000	\$ 2,620,200	\$ 6,538,400	\$ 2,034,200					\$ 14,236,800

CAPITAL DEVELOPMENT PLAN - OPERATION AND MAINTENANCE BY FUNDING SOURCE											
Project	TOTAL ANNUAL O&M	301	TUI	AUX	ICR	OLF	GFA	FGT	DFG	OTH	TOTAL ANNUAL O&M
New Academic/Support Projects											
ASUT - Biodesign C	\$ 2,795,929				\$ 2,096,947	\$ 698,982					\$ 2,795,929
New Auxiliary Project											
ASUT - Gammage Auditorium Rehabilitation	\$ 63,016			\$ 63,016							\$ 63,016
New Academic/Support Projects Total	\$ 2,858,945	\$ -	\$ -	\$ 63,016	\$ 2,096,947	\$ 698,982	\$ -	\$ -	\$ -	\$ -	\$ 2,858,945
Previously Approved Auxiliary Projects											
ASUT-Sun Devil Stadium Renovation Phase 3	\$ 1,600,000			\$ 1,600,000							\$ 1,600,000
ASUT - Student Pavilion	\$ 431,000					\$ 431,000					\$ 431,000
Previously Approved Auxiliary Projects Total	\$ 2,031,000	\$ -	\$ -	\$ 1,600,000	\$ -	\$ 431,000	\$ -	\$ -	\$ -	\$ -	\$ 2,031,000
Total	\$ 4,889,945			\$ 1,663,016	\$ 2,096,947	\$ 1,129,982					\$ 4,889,945

Debt Service Funding Source Codes:

(301) 301 Fund/Other
 (TUI) Tuition
 (AUX) Auxiliary

(ICR) Indirect Cost Recovery
 (OLF) Other Local Funds
 (SLP) State Lottery Allocation Proceeds

(GFA) General Fund Appropriation
 (FGT) Federal Grant
 (DFG) Debt Financed by Gifts
 (OTH) Other

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**Arizona Board of Regents
Arizona State University
Capital Development Plan Project Justification Report
Biodesign C**

Previous Board Action:

- FY 2017 Capital Improvement Plan September 2015

Statutory/Policy Requirements

- Pursuant to Arizona Board of Regents Policy Chapter 7-102, all capital projects with an estimated total project cost for new construction of \$10 million or more shall be brought to the Business and Finance Committee for approval, regardless of funding source or financing.

Project Justification/Description/Scope

- Biodesign C, located east of Biodesign B on the Tempe campus, will strengthen ASU as a global center for interdisciplinary research and development. The five-story plus basement, approximately 193,000 gross square foot building will include laboratories, lab casework and office layouts that will be modularized to allow for maximum flexibility, adaptability, planning and expansion based on research and user needs. The modular layout also will allow for reconfiguration of research spaces with minimal impact to the built systems when new research projects are located in Biodesign C.
- Biodesign C will be a high-functioning, “workhorse” laboratory facility housing research from the College of Liberal Arts and Sciences, Ira A. Fulton Schools of Engineering and the Biodesign Institute. It will provide a mix of wet and dry labs with high-quality wet lab space as the highest priority. The building is designed to meet specifications for LEED Silver at a minimum, with intentions of achieving a higher LEED certification.
- This new, multi-functional research facility will meet the growing need for additional laboratory space to secure and perform high-quality research. Biodesign C will include critical lab and research support space designed specifically to promote and enable the creation of cutting-edge, collaborative research clusters. The facility’s design will leverage the University’s investment to maximize the opportunities for research growth.
- The primary institutional priorities supported by this project include:

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Position ASU as a national comprehensive university and establishing national standing in academic quality and impact of colleges and schools in every field.

- Specific strategic targets include: 1) doubling of research to \$700 million annually and 2) integration of the teaching, learning and discovery mission into the Phoenix urban fabric and outstate Arizona

Establish ASU as a global center for interdisciplinary research, discovery and development by 2020:

- Become a leading global center for interdisciplinary scholarship, discovery and development
 - Enhance research competitiveness to more than \$700 million annually in research
 - Augment regional economic competitiveness through research, discovery and value-added programs
- The 2012 campus master plan update identified a need for additional research space totaling 350,000 gross square feet. This new, 193,000 gross-square-foot facility will contribute to meeting this need.

Project Delivery Method and Process:

- This project will be delivered through the Construction Manager at Risk (CMAR) method. This delivery approach was selected to provide contractor design input and coordination throughout the project, alleviate potentially adversarial project environments, and allow for the selection of the most qualified contractor team. With the use of two independent cost estimates at each phase, and pre-qualified low-bid subcontractor work for the actual construction, CMAR project delivery also provides a high level of cost and quality control.
- ASU selected McCarthy Building Companies as the CMAR and ZGF/BWS Architects as the design professionals (DP) for this project. During the selection process for the CMAR, there were 23 responses and 5 contractors interviewed. The selection process for the DP included 11 responses and 5 firms were interviewed.

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Project Status and Schedule

- This project is in the design phase, with construction scheduled to begin when all approvals are in place. Construction will be completed approximately 21 months after CMAR construction contracts are awarded.

Project Cost

- The budget for this 193,000 gross-square-foot project is \$120 million. Completion of the programming effort resulted in the addition of one floor and a basement, totaling 42,000 gross square feet and a \$10 million budget increase, since receiving CIP approval in September 2015.
- The budget represents an estimated construction cost of \$498 per gross square foot. The estimated total project cost is \$622 per gross square foot. The following table presents projects considered comparable to the Biodesign C project, with costs adjusted to reflect today's dollars:

Comparable Project	Location	Project Size/GSF	Year Completed	Escalated Const. Cost / SF
Silverman Hall	Northwestern University	149,531	Sep-08	\$509
UCSD BioMed 2	University of California, San Diego	195,975	Jan-11	\$593
Average Comparable Project		172,753		\$551

Considering these relevant comparable construction costs, the Biodesign C budget of \$498 per gross square foot is considered reasonable.

- For this Capital Development Plan phase, DP and CMAR teams have provided external cost estimates from independent programming efforts. Independent cost estimates will continue to be provided by the DP and CMAR as the project progresses through the design process.
- The CMAR will be at risk to provide the completed project within the agreed-upon Guaranteed Maximum Price (GMP). A final report on project control procedures, such as change orders and contingency use, will be provided at project completion.

Fiscal Impact and Financing Plan:

- The \$120.0 million project budget will be funded with system revenue bonds. Debt service will be paid from indirect cost recovery and tuition.
- **Debt Ratio Impact:** The projected incremental debt ratio impact for this project is 0.36 percent.

Occupancy Plan

- The building is designed to provide research space only and will be utilized by researchers from College of Liberal Arts and Sciences, Ira A. Fulton Schools of Engineering and the Biodesign Institute.
- Operations and maintenance costs for this project are estimated at \$2,795,929 annually. The University will fund operations and maintenance through indirect cost recovery and other local funds.

Capital Project Information Summary

University: Arizona State University

Project Name: Biodesign C

Project Description and Location:

Biodesign C, located east of Biodesign B on the Tempe campus, will strengthen ASU's position as a global center for interdisciplinary research and development. The five-story plus basement, approximately 193,000 gross square foot facility will include laboratories, lab casework and office layouts that will be modularized to allow for maximum flexibility, adaptability, planning and expansion based on research and user needs. The modular layout also will allow for reconfiguration of new research space with minimal required demolition of built systems when new research projects are brought into Biodesign C.

Project Schedule:

Planning	July	2015
Design	October	2015
Construction Start	April	2016
Construction Completion	March	2018

Project Budget:

Total Project Cost	\$	120,000,000
Total Project Construction Cost	\$	96,000,000
Total Project Cost per GSF	\$	622
Construction Cost per GSF	\$	498

Change in Annual O & M Cost:

Utilities	\$	1,540,140
Personnel		410,552
All Other Operating		845,236
Subtotal	\$	2,795,929

Funding Sources:

Capital

A. System Revenue Bonds \$ 120,000,000
Debt Service Funding Sources: Indirect Cost Recovery and Tuition

Operation/Maintenance \$ 2,795,929
Funding Sources: Indirect Cost Recovery and Other Local Funds

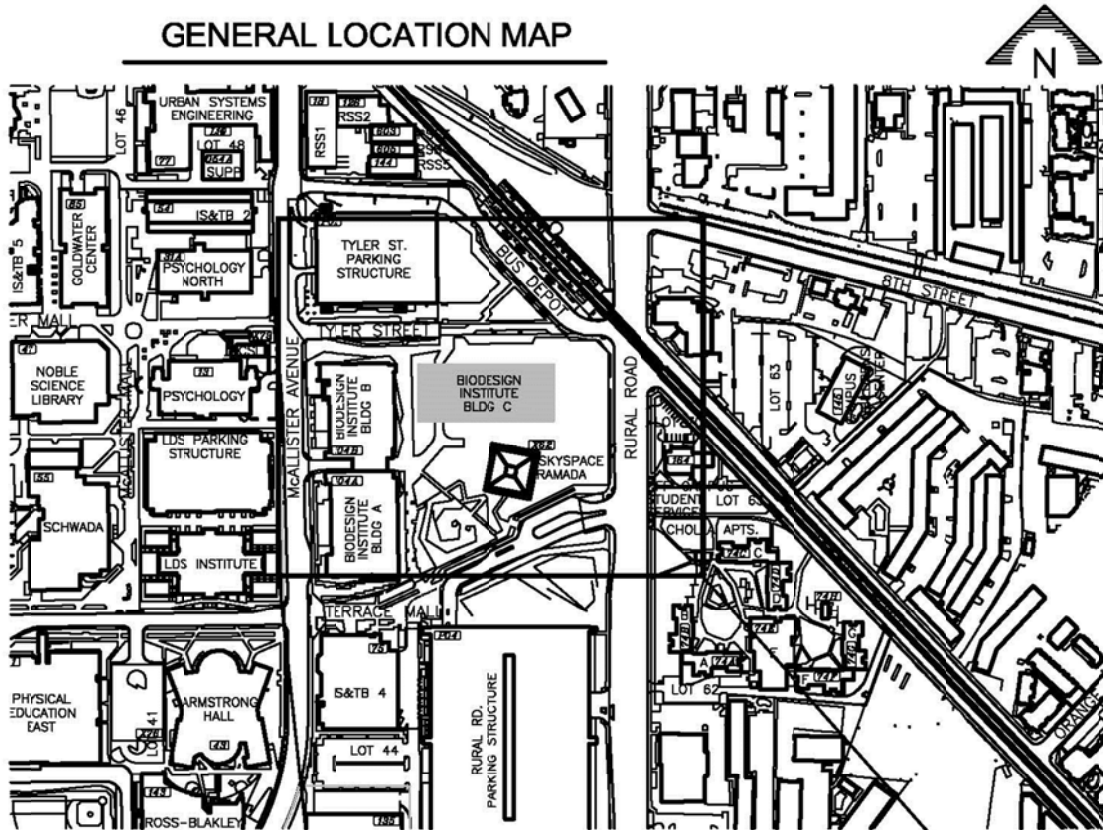
EXECUTIVE SUMMARY**Capital Project Budget Summary****University:** Arizona State University**Project:** Biodesign C

	Capital Development Plan	Project Approval
Capital Costs		
1. Land Acquisition		
2. Construction Cost		
A. New Construction	\$ 87,700,000	
B. Tenant Improvements	4,400,000	
C. Special Fixed Equipment	2,000,000	
D. Site Development (excl. 2.E.)	625,000	
E. Parking and Landscaping	495,000	
F. Utilities Extensions	625,000	
G. Other* (Demolition)	155,000	
Subtotal Construction Cost	<u>\$ 96,000,000</u>	<u>\$ -</u>
3. Fees		
A. CMAR Pre-Construction	\$ 1,728,000	
B. Architect/Engineer	10,752,000	
C. Other	1,425,000	
Subtotal Consultant Fees	<u>\$ 13,905,000</u>	<u>\$ -</u>
4. FF&E Movable	\$ 1,000,000	
5. Contingency, Design Phase	1,200,000	
6. Contingency, Constr. Phase	1,200,000	
7. Parking Reserve	-	
8. Telecommunications Equipment	1,600,000	
Subtotal Items 4-8	<u>\$ 5,000,000</u>	<u>\$ -</u>
9. Additional University Costs		
A. Surveys, Tests, Haz. Mat. Abatement	\$ 325,000	
B. Move-in Costs	100,000	
C. Printing Advertisement	1,000	
D. Keying, signage, facilities support	25,000	
E. Project Management Cost	4,244,000	
F. State Risk Mgt. Ins. (.0034 **)	400,000	
Subtotal Addl. Univ. Costs	<u>\$ 5,095,000</u>	<u>\$ -</u>
Total Capital Cost	<u><u>\$ 120,000,000</u></u>	<u><u>\$ -</u></u>

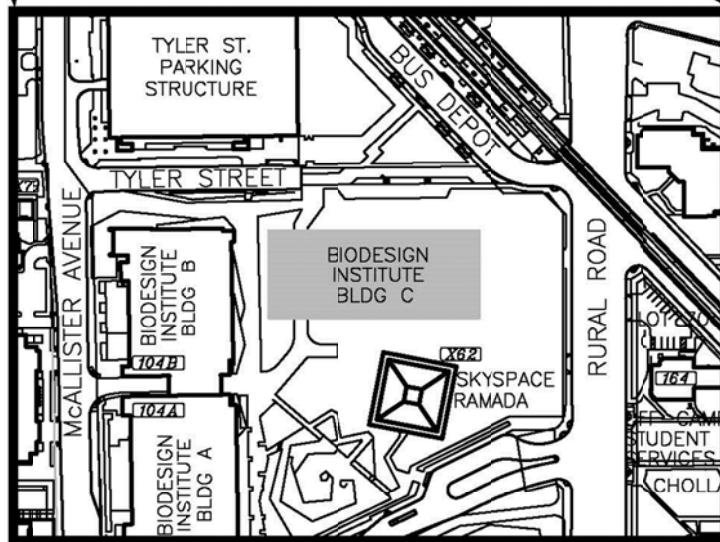
* Universities shall identify items included in this category

** State Risk Management Insurance factor is calculated on construction costs and consultant fees.

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BIODESIGN C



AREA IN DETAIL

**Arizona Board of Regents
Arizona State University
Capital Development Plan Project Justification Report
Gammage Auditorium Rehabilitation**

Previous Board Action:

- FY 2017 Capital Improvement Plan September 2015

Statutory/Policy Requirements

- Pursuant to Arizona Board of Regents Policy, Chapter 7-102, all renovation projects of \$5 million or more shall be brought to the Business and Finance Committee for approval, regardless of funding source or financing.

Project Justification/Description/Scope

- The proposed Gammage Auditorium renovations will expand restroom facilities and add two elevators. The addition of approximately 96 bathroom stalls will increase the total restroom fixture count to current standards. Existing restrooms will be renovated, as the approved budget allows. The addition of two elevators will provide access to the new restrooms and address existing accessibility issues, with access expanded to all levels of Gammage.
- Current restroom fixture counts are inadequate, and thus incapable of supporting peak attendance events without undesirably long waits. The addition of two elevators will provide access to the new restrooms and support accessibility in general.

The primary institutional priorities supported by this project include:

Workforce and Community: Community Engagement Activities Impact

Gammage Auditorium provides a safe, comfortable venue in which to hold various community, entertainment and educational events. ASU and the communities surrounding ASU benefit from the positive economic impact and enhanced quality of life through education and the arts that are supported by Gammage. The facility long has been an integral part of the social, cultural and economic fabric of the community as well as an important part of the architectural heritage of the City of Phoenix and State of Arizona. The rehabilitation of this landmark will preserve this status, as well as allow expanded use of the facility by ASU and community constituencies.

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This project will support this *ABOR 2020 Vision* goal and the ASU Design Principle of enhancing and improving local impact and social embeddedness.

Project Delivery Method and Process:

- This project will be delivered through the Construction Manager at Risk (CMAR) delivery method. This approach was selected to provide contractor design input and coordination throughout the project, alleviate potentially adversarial project environments, and allow for the selection of the most qualified contractor team. With the use of two independent cost estimates at each phase, and pre-qualified, low-bid subcontractor work for the actual construction, CMAR project delivery also provides a high level of cost and quality control.
- ASU selected Core Construction as the CMAR and RSP Architects as the design professionals for this project. During the selection process for the CMAR, there were 16 responses and 5 contractors interviewed. The selection process for the design professional included 22 responses and 5 firms were interviewed.

Project Status and Schedule

- This project is in the design phase, with construction scheduled to begin when all approvals are in place. Construction will be completed approximately 11 months after CMAR construction contracts are awarded.

Project Cost

- The budget for this 10,000 gross-square-foot project is \$9 million.
- The budget represents an estimated construction cost of \$702 per gross square foot. The estimated total project cost is \$900 per gross square foot. The resultant project budget reflects the unique nature of the project and that this is a National Register of Historic Places-listed historic building designed by Frank Lloyd Wright.
- For this Capital Development Plan phase, DP and CMAR teams have provided external cost estimates from independent programming efforts. Independent cost estimates will continue to be provided by the DP and CMAR as the project progresses through the design process.
- The CMAR will be at risk to provide the completed project within the agreed-upon Guaranteed Maximum Price (GMP). A final report on project control procedures,

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such as change orders and contingency use, will be provided at project completion.

Fiscal Impact and Financing Plan:

- The \$9 million project budget will be funded with gifts and other local funds.

Debt Ratio Impact: Not applicable.

- The following table reflects charitable gift funding anticipated in the project plan of finance:

Project Name	Approval Date	Occupancy Date	Project Cost	Gift Target	Current Gifts (Cash/ Pledges)
Gammage Auditorium Rehabilitation	CIP 6/2015	TBD	\$9.0m	\$6.5m	\$4.3m

Occupancy Plan

- Gammage Auditorium use and occupancy will not change as a result of this project.
- Operations and maintenance costs for this project are estimated at \$63,016 annually, and will be funded by Auxiliary Funds.

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Capital Project Information Summary

University: Arizona State University

Project Name: Gammage Auditorium
Rehabilitation

Project Description and Location:

This project will add new restroom facilities and add two new elevators in approximately 10,000 gross square feet of Gammage Auditorium.

Project Schedule:

Planning	August	2015
Design	November	2015
Construction	February	2016
Construction Completion	December	2016

Project Budget:

Total Project Cost	\$	9,000,000
Total Construction Project Cost	\$	7,01,5000
Total Project Cost per GSF	\$	900
Construction Cost per GSF	\$	702

Change in Annual O and M Cost:

Utilities	\$	27,521
Personnel		0
All Other Operating		59,414
Subtotal	\$	63,016

Funding Sources:

Capital

A. Gifts	\$	6,450,000
B. Other	\$	2,550,000

Funding Source for Debt Service: Not Applicable

Operation/Maintenance	\$	63,016
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Funding Sources: Auxiliary

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Capital Project Budget Summary

University: ASU at the Tempe Campus

Project: Gammage Auditorium
Rehabilitation

	<u>Capital Development Plan</u>	<u>Project Approval</u>
Capital Costs		
1. Land Acquisition		
2. Construction Cost		
A. New Construction		
B. Renovation	7,000,000	
C. Special Fixed Equipment		
D. Site Development (excl. 2.E.)		
E. Parking and Landscaping	15,000	
F. Utilities Extensions		
G. Other* (Demolition)		
Subtotal Construction Cost	<u>\$ 7,015,000</u>	<u>\$ -</u>
3. Fees		
A. CMAR Pre-Construction	\$ 70,000	
B. Architect/Engineer	780,000	
C. Other	225,000	
Subtotal Consultant Fees	<u>\$ 1,075,000</u>	<u>\$ -</u>
4. FF&E Movable	\$ 55,000	
5. Contingency, Design Phase	\$ 50,000	
6. Contingency, Constr. Phase	350,000	
7. Parking Reserve		
8. Telecommunications Equipment	98,000	
Subtotal Items 4-8	<u>\$ 553,000</u>	<u>\$ -</u>
9. Additional University Costs		
A. Surveys, Tests, Haz. Mat. Abatement	\$ 83,000	
B. Move-in Costs	6,700	
C. Printing Advertisement		
D. Keying, signage, facilities support	2,700	
E. Project Management Cost (2%)	234,612	
F. State Risk Mgt. Ins. (.0034 **)	29,988	
Subtotal Addl. Univ. Costs	<u>\$ 357,000</u>	<u>\$ -</u>
Total Capital Cost	<u><u>\$ 9,000,000</u></u>	<u><u>\$ -</u></u>

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