

# **Parmly Billings Library Billings, Montana**

## **Feasibility Study**



**May 18, 2009  
CTA Project No.: PLIBFS09**



**Parmly Billings Library Feasibility Study**  
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# **Parmly Billings Library Feasibility Study**

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## **Parmly Billings Library Feasibility Study**

### **Executive Summary:**

At the request of Bill Cochran of Billings Parmly Library, CTA performed a feasibility study to relocate the Parmly Billings Library into the existing downtown Gainan's building. The extents of the feasibility study included creating a new library program, building assessment of the existing Gainan's building, preliminary plans, 3D massing model, and cost estimate. Because Gainan's wishes to maintain a downtown presence on the same site, CTA also included a program and cost estimate of their needs in the study.

This feasibility study is intended to help determine if relocating the existing Parmly Billings Library to the existing downtown Gainan's building is both feasible and beneficial for all parties involved. This study will provide useful information to both parties to help facilitate discussions for this potential project.

**\*Vision notes from Parmly Billings Library Board Meeting held March 12, 2009 are located in the Appendix at the end of this study.**

## **Program:**

### **Library -**

Programming meetings with the Library included reviewing previous studies conducted for the Library and meeting with key staff members to discuss specific needs. Possible future Library branches were also discussed and taken into account in the final program. Once finalized, the new Libraries program showed that the size of the existing Gainan's building would be inadequate without expansion. The current Gainan's building has approximately 33,500 sf of space including the greenhouse located on the South side of the building. An addition of approximately 27,000 sf would be required to fulfill the libraries programmatic needs. This addition would be added to the North side of the existing building and would include expanding the basement, main and second floor. This new addition would also require redesigning the North end of the site to provide access and parking.

### **Gainan's -**

Programming meetings were also held with Gainan's. Early discussions with Gainan's revealed the need to explore two separate options of where the Gainan's retail space would be located. The first option provides retail space for Gainan's within the extents of the Library. The second option provides a separate building to the North of the Library. Gainan's program needs for either option remained the same along with their need to have a distinct identity to set it apart from the Library.

**PARMLY BILLINGS LIBRARY  
PROPOSED PROGRAM  
BILLINGS, MONTANA**

**Program Comparison**

<u>Allocated Spaces</u>	<u>Existing</u>	<u>Proposed</u>	<u>Proposed Notes</u>	<u>Proposed w/ Branches</u>	<u>Potential Location</u>
<b>Public Areas</b>					
<u>Public Entrance/Lobby</u>	515 sf	600 sf		600 sf	Main Floor
<u>Circulation Desk Area</u>	744 sf	600 sf		600 sf	Main Floor
<u>Access Services Workroom</u>	1,656 sf	1,930 sf		1,930 sf	Basement
<u>Youth Services</u>	4,959 sf	6,565 sf	<b>Potential Decrease of 565sf for Branch Libraries</b>	6,000 sf	Main Floor
<u>Listening/Viewing Area</u>	- sf	240 sf	6 Stations - 40sf each (Carol Layout)	240 sf	Main Floor
<u>Young Adult</u>	1,152 sf	1,500 sf	Includes Computer Section & Diner Seating	1,500 sf	2nd Floor
<u>Adult Fiction Collection</u>	2,939 sf	3,000 sf	<b>Potential Decrease of 1000sf for Branch Libraries</b>	2,000 sf	Basement
<u>A/V Collection Area (Non-Print)</u>	1,746 sf	1,500 sf	<b>Potential Decrease of 400sf for Branch Libraries</b>	1,100 sf	Main Floor
<u>Public Access Catalog Computers</u>	358 sf	300 sf	15 Stations (2/3 Standup)	300 sf	Dispersed Throughout
<u>Genealogy</u>	288 sf	300 sf	Adjacent to Montana Rm.	300 sf	2nd Floor
<u>Montana Room</u>	2,155 sf	1,500 sf	Adjacent to Genealogy	1,500 sf	2nd Floor
<u>Magazine/Newspaper Area</u>	415 sf	250 sf		250 sf	Anywhere
<u>Non-Fiction Collection (Includes Biography)</u>	4,020 sf	5,800 sf	<b>Potential Decrease of 3,300sf for Branch Libraries</b>	2,500 sf	2nd Floor
<u>General Public Seating</u>	4,065 sf	9,000 sf	<b>Potential Decrease of 3,000sf for Branch Libraries</b>	6,000 sf	Dispersed Throughout
<u>Reference Collection</u>	654 sf	850 sf		850 sf	Basement
<u>Reference Services</u>	- sf	150 sf		150 sf	2nd Floor
<u>Computer Lab (25 Computers)</u>	1,224 sf	1,000 sf		1,000 sf	2nd Floor
<u>Computer Teaching Space (12 Computers)</u>	- sf	500 sf		500 sf	2nd Floor
<u>New Release Area</u>	716 sf	800 sf	<b>Potential Decrease of 300sf for Branch Libraries</b>	500 sf	Main Floor
<u>Large Type Area</u>	812 sf	800 sf		800 sf	Main Floor
<u>General Display Area</u>	- sf	200 sf		200 sf	Main Floor
<u>Reserve Area</u>	- sf	100 sf		100 sf	Main Floor
<u>Study Rooms (3ea @ 150sf)</u>	- sf	450 sf		450 sf	Anywhere
<u>Large Meeting Room (100p)</u>	2,520 sf	1,500 sf	Divisible	1,500 sf	Main Floor
<u>Conference Room (15-20p)</u>	- sf	500 sf		500 sf	Anywhere
<b>Total Public Allocated Space</b>	<b>30,938 sf</b>	<b>39,935 sf</b>		<b>31,370 sf</b>	

**PARMLY BILLINGS LIBRARY  
PROPOSED PROGRAM  
BILLINGS, MONTANA**

Allocated Spaces Non-Public Areas	Existing	Proposed	Proposed Notes	Proposed w/ Branches	Potential Location
<u>Mending &amp; Technical Service Area</u>	2,142 sf	1,500 sf		1,500 sf	Basement
<u>Computer Service Area</u>	633 sf	700 sf	Including Closets for Network Equip.	700 sf	Basement
<u>Custodial Supply/Work &amp; Office Area</u>	1,488 sf	1,200 sf		1,200 sf	Basement
<u>Garage/Loading Dock</u>	1,290 sf	0 sf		0 sf	
Outreach Services - Offices	- sf	200 sf		200 sf	Basement
Outreach Services - Bookmobile Loading Garage	1,469 sf	800 sf		800 sf	Main Floor
Bike Storage	- sf	200 sf		200 sf	Main Floor
Equipment Storage	Included Above	350 sf		350 sf	Main Floor
Receiving Area	Included Above	200 sf		200 sf	Main Floor
Vehicle Storage	Included Above	0 sf	Off Site Vehicle Storage	0 sf	Main Floor
<u>Meeting Area Lobby &amp; Expanded Restrooms</u>	1,188 sf	0 sf	Included in Non-/Assignable Area	0 sf	
<u>Library Staff Offices (30 Staff Total)</u>	1,219 sf				
Directors Office	Included Above	200 sf		200 sf	2nd Floor
Assistant Director	Included Above	150 sf		150 sf	2nd Floor
Administrator	Included Above	150 sf		150 sf	2nd Floor
Tech. Manager	Included Above	150 sf		150 sf	Basement
Reference Staff (4staff)	Included Above	320 sf		320 sf	Basement
Children's Staff (2 Offices)	Included Above	350 sf		350 sf	Main Floor
<u>Admin. Workspace</u>	- sf	200 sf	Attached/Adjacent to Children's Offices	200	2nd Floor
<u>"Friends" Space/Office</u>	4,925 sf				
Retail Space		200 sf		200 sf	Main Floor
Work Space		400 sf		400 sf	Anywhere
Conference Rm. (12-15p)	- sf	400 sf		400 sf	Anywhere
Staff Break Room (10p)	- sf	250 sf		250 sf	Anywhere
Shower/Locker Room	- sf	200 sf		200 sf	Anywhere
<b>Total Non-Public Allocated Space</b>	<b>14,354 sf</b>	<b>8,120 sf</b>		<b>8,120 sf</b>	
<b>TOTAL ASSIGNABLE AREA</b>	<b>45,292 sf</b>	<b>48,055 sf</b>		<b>39,490 sf</b>	
<b>NON-ASSIGNABLE AREA</b> (Including Walls, Hallways, Stairs, Restrooms, Etc.)	<b>8,280 sf*</b> (Actual Area)	<b>16,018 sf</b> (25% of Gross Area)		<b>13,163 sf</b> (25% of Gross Area)	
<b>TOTAL GROSS AREA</b>	<b>53,572 sf</b>	<b>64,073 sf</b>		<b>52,653 sf</b>	

\* Comparable non-assignable ratio using 1st & 2nd floor only plus their share of mechanical space approximately 20%.

**GAINAN'S FLOWERS AND GIFTS  
 PROPOSED PROGRAM  
 BILLINGS, MONTANA**

**Gainan's Downtown Store**

Spaces	Number	Area	Total SF
<b>MAIN FLOOR</b>			
General Retail Space	1	1,400 sf	1,400 sf
Cooler	1	100 sf	100 sf
Utility/Workroom	1	100 sf	100 sf
ADA Restrooms	2	45 sf	90 sf
Small Conference Room	1	150 sf	150 sf
Loading Bay	1	350 sf	350 sf
<b>TOTAL ASSIGNABLE AREA</b>			<b>2,190 sf</b>
<b>NON-ASSIGNABLE AREA</b>			<b>219 sf</b>
<b>TOTAL GROSS AREA</b>			<b>2,409 sf</b>
<b>Greenhouse Area Pop-Out</b>			<b>300 sf</b>



**Building Assessment:**

A building assessment of the existing Gainan's building was done in order to understand the extents of the work needed for the change in building function.

The existing building is wood construction and structurally designed for floor loading of 100 lbs/sf. This is a higher floor loading capacity than standard office buildings but is not adequate for high stack loading. Book stacks located in the existing building would be limited in height to remain under the design load capacity. The proposed addition's structure would be steel with concrete floors to allow for the additional floor load required for library stacks.

The existing mechanical and electrical systems are not adequate for the size of the new building and would need to be replaced with the exception of a few electrical panels. The proposed new mechanical system would be a VAV system with a rooftop air-handler contained within a penthouse on the roof. A new electrical transformer would be needed for the power requirement of the new building along with new light fixtures and layout to better accommodate the new building layout.

The existing site will need to be modified in order to accommodate the new building function and layout. The Southern portion of the site will be able to stay primarily intact with the majority of the major site work being done on the North side of the existing building.

## **Preliminary Design:**

### **Library -**

The preliminary design of the new Library was back and forth effort between the Library and CTA. One larger factor in the design was loading and storage of the Bookmobile. One option was to have the Bookmobile be stored off site and loaded on the South side of the building using an inflatable rail seal for protection from the elements. The other option utilized a garage on the North side of the building for both loading and storage of the Bookmobile.

The greenhouse space was given careful consideration given its existing use. Early on, Chuck Gainan expressed his concern that the greenhouse space may need to be addressed mechanically to maintain a comfortable temperature level. A large component of the greenhouse's environmental quality is its roof structure. After looking at several options, it was decided that in order to provide a comfortable space with still maintaining the openness of the greenhouse, the existing greenhouse roof would need to be replaced. The new roof would implement a ridge skylight down the entire length of the roof. This would allow large amounts of natural light to penetrate into the space while better controlling heat gain and allowing for better light control in the large meeting space on the West end of the greenhouse. Replacing the greenhouse roof is also the least expensive alternative to address drift loading which was not required to be addressed when this building was originally designed.

The floor layouts for the programmed Library spaces were determined from various meetings with the Library.

The Main Floor would consist of spaces such as the A/V Collection and New Release which are high traffic spaces, Large Type which needs to be easily located by the visually impaired and Youth Services which holds numerous public programs. The main Circulation Desk would be located adjacent to the main entrance to control pedestrian flow and overall building security. A large Reading Space would be located just inside the greenhouse with "Friends" Retail and a potential coffee space. A Large Public Meeting Room would be located at the West end of the greenhouse with public toilets serving the entire greenhouse space to allow for use during off Library hours.

The Basement would house a large portion of the Non-Public spaces such as Access Services, Reference Services & Offices, Mending & Technical Services, Custodial Supply/Work Area and the "Friends" Work Space. The main Mechanical and Electrical Rooms would be located in the basement as well. Adult Fiction, Reading Space and a smaller public Conference Room would account for the public areas located in the Basement.

The Second Floor would primarily accommodate the research portion of the Library program. Spaces such as Non-Fiction, Newspaper/Magazine, and the Montana & Genealogy Room would make up a large portion of the second floor public space along with the majority of the computer services such as the Computer Lab and Computer Teaching Area. The Young Adult Area is located on this floor to allow separation

between the teen and youth areas and would be designed to allow for public exposure while providing a sense of privacy. The Library Staff Offices would be located on the second floor as well as an Administrative Workspace, a small Circulation Desk and additional Reading Space.

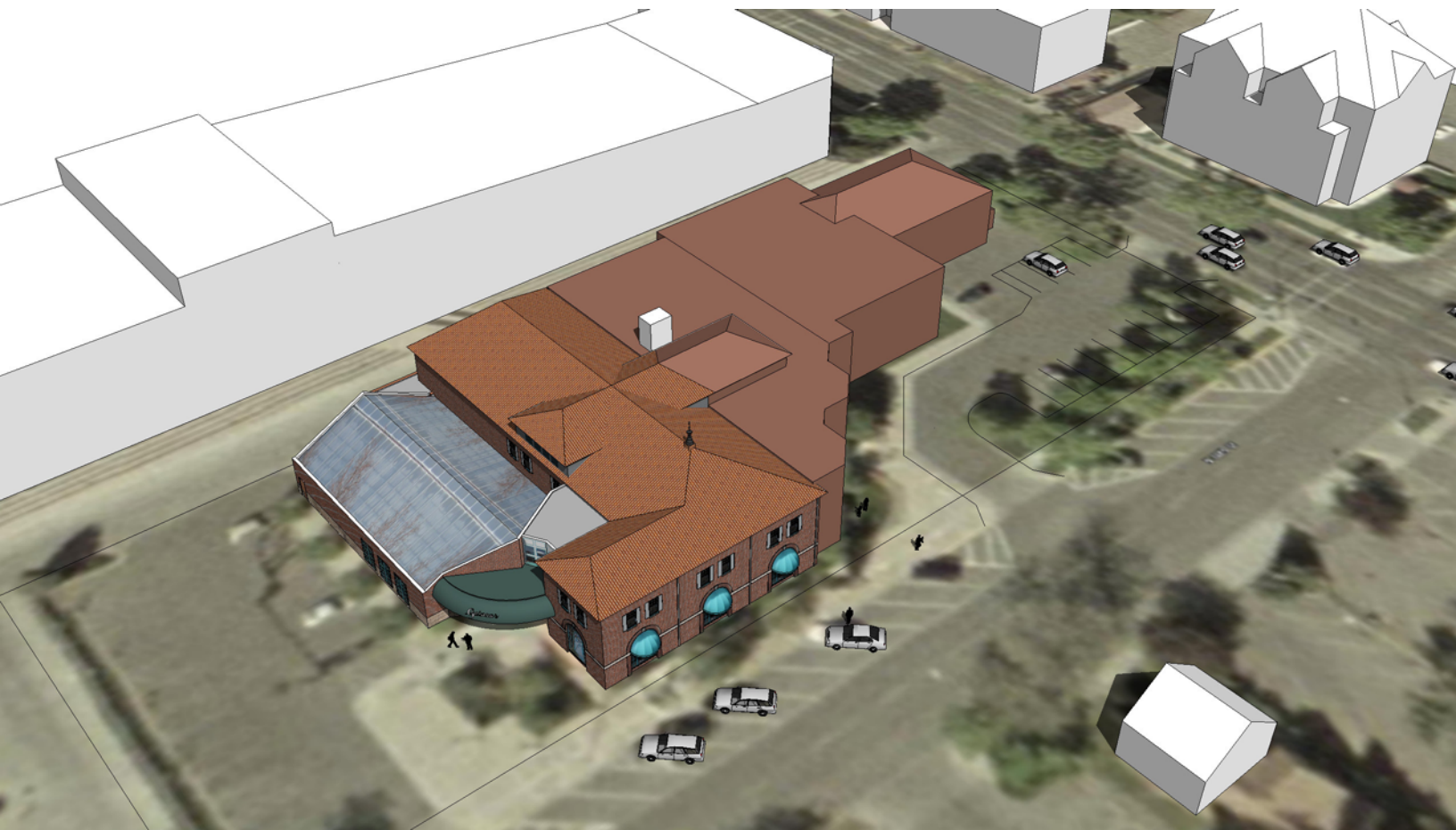
All floors are connected by an open staircase which allows natural daylight to penetrate into each floor. This staircase would be the main circulation of the building with a new elevator located just North of the staircase. Public restrooms would also be located on each floor along with Public Access Catalog Computers and General Public Seating.

### **Gainan's -**

The Gainan's layout was done as two separate options.

The first option has Gainan's located within the Library shell with Library space extending above and below. Gainan's would be located on the North side of the building extending towards 6<sup>th</sup> Street which would allow for more design opportunity for creating it's own identity while also allowing for prominent public exposure. The greenhouse space would extend off the North side further defining Gainan's presence on the site. The main entrance and parking would be off the East side with delivery access off the alley to the West. Gainan's mechanical service would be fed off the Library's mechanical system served by individual zones. Electrical service could be separately metered and billed.

The second option is a freestanding Gainan's building located on the North side of the site. This option would allow Gainan's design to be completely independent of the Library including its mechanical and electrical systems. The main entrance and parking would be located on the South side of the building with delivery access off the alley to the West. The greenhouse space is shown directly connected to the main entrance on the North side creating a natural separation between public and non-public space while also drawing attention due to its prominent exposure to the street.

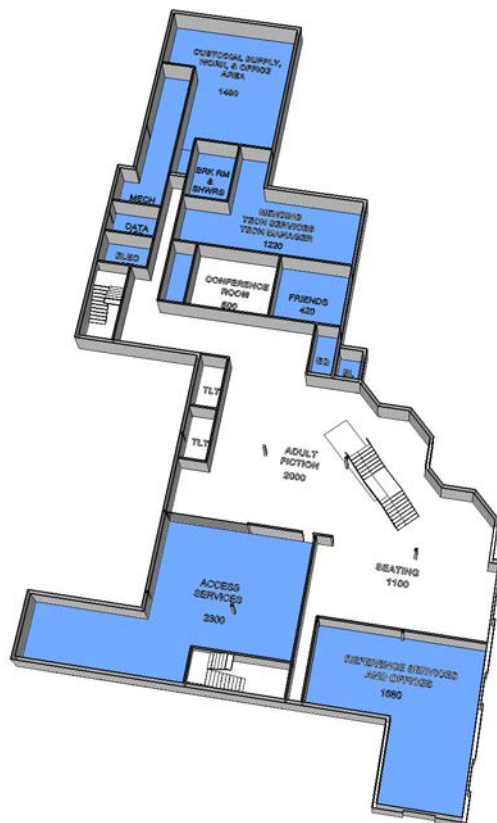


Option 1 - SE Aerial



Option 1 - NE Aerial





Option 1 - Library Basement



Option 1 - Library Upper Floor





Option 2 - SE Aerial



Option 2- NE Aerial



Option 2 - Library Main Floor



Option 2 - Gainan's Main Floor