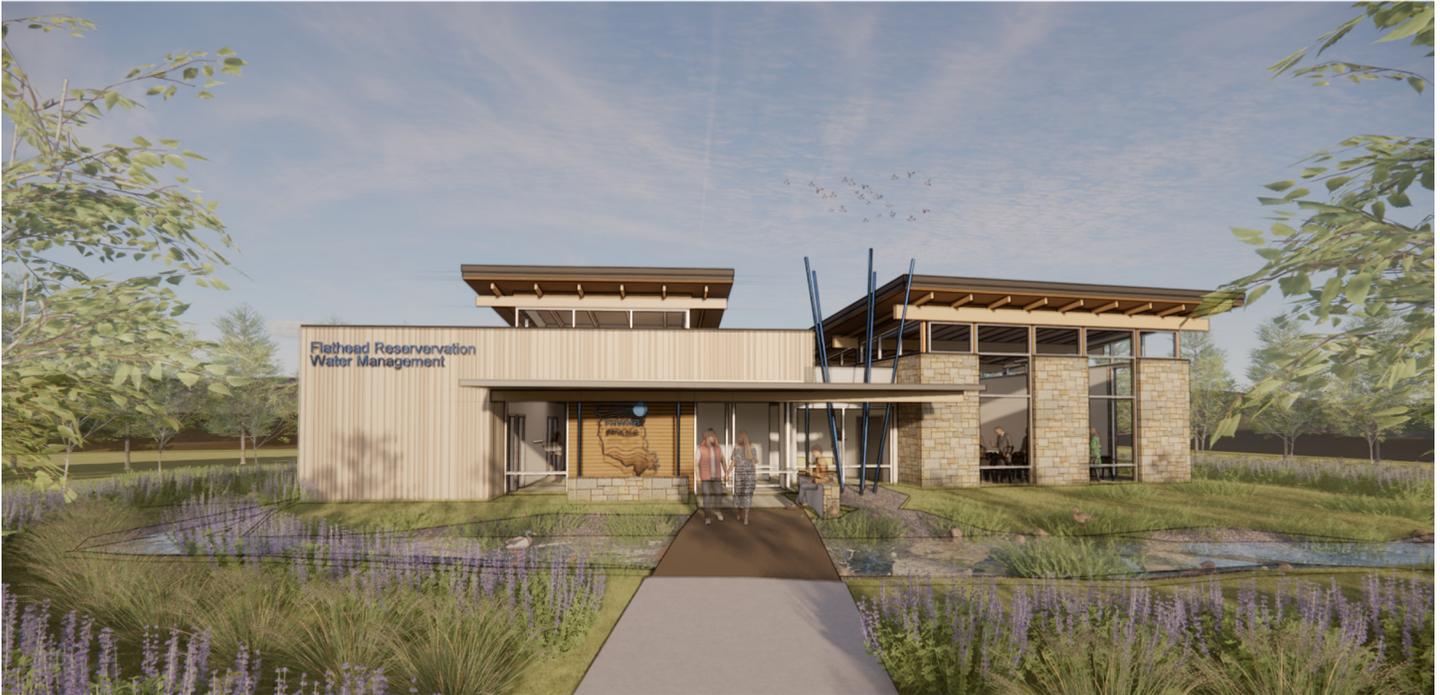


A NEW FACILITY FOR  
FLATHEAD RESERVATION WATER  
MANAGEMENT BOARD



SEPTEMBER 2025

DRAFT

**LOCI**  
ARCHITECTURE + DESIGN

## Project Narrative

### **Flathead Reservation Water Management Board**

---

Architect's Project #: 25.011  
Date: September 22, 2025

#### **Overview**

Flathead Reservation Water Management Board (FRWMB) helps users secure water rights, resolve water right issues, and administer water uses on the Flathead Reservation. Established in 2022, the Flathead Reservation Water Management Board is an independent board created by the CSKT-Montana water rights compact to be the exclusive regulatory body for water rights administration on the Flathead Reservation. FRWMB seeks to build a new facility to house and support Staff and Board needs. Loci Architecture + Design was selected through a public RFP process in 2025 to develop a building and site program, project vision, preliminary design, and marketing images to support funding requests from the State of Montana and Confederated Salish & Kootenai Tribes.

#### **Codes**

Project development is anticipated to conform to the following Codes:

- International Building Code, 2021
- ICC A117.1 – Accessibility, 2017
- International Energy Conservation Code, 2021
- Municipal zoning requirements (if applicable; TBD based on selected site)
- International Mechanical Code, 2021
- International Fire Code, 2021
- National Fire Protection Association (NFPA) codes 13 72
- National Electrical Code (NEC-NFPA 70), 2021
- Uniform Plumbing Code, 2021

#### **General Information**

The building program is focused on providing office and meeting spaces to support FRWMB activities. Approximate building area: 6,480 SF main floor, 1560 basement mechanical/storage, and 912 SF garage.

- Construction type: V-B construction type anticipated (no structural fire ratings required; any type of construction materials permitted)
- Primarily a single-story building to avoid elevator or lift costs. A partial basement is included for support spaces.
- Fire sprinkler not required
- B (office) occupancy with A-3 (assembly) occupancy for large meeting room (assuming >50 occupants or >750 SF)
- Seismic Design Category D. Seismic bracing where Code-required for mechanical duct systems and piping/fire sprinkler piping.
- 4,500 psi concrete all locations with steel reinforcing
- Any structural deferred submittal items (roof trusses, etc) required to be designed and stamped by a structural engineer licensed in the State of Montana
- Full ADA-compliance throughout facility.

- Building envelope (blower door) and mechanical and lighting systems commissioning anticipated. Special inspections to conform to IBC requirements.

### **Site Considerations**

Future building expansion is not accommodated within minimum site areas identified during initial project program analysis. An ideal project site is relatively flat and rectangular, has access to all site utilities, does not have bad soils, is near arterial streets, and is 2 acres or larger (depending on site configuration).

Site has not been identified, and site is assumed to be donated to the Flathead Water Management Board.

Zoning requirements are not known, but on-site water retention and detention are anticipated; this will have impact on site development layout and site development costs. Retention/detention areas are included in site areas outlined during initial program analysis. Sites with slopes and poor soils will require additional acreage to accommodate building construction and water retention/detention needs.

Landscaping and on-site stormwater retention is anticipated. Asphalt paving sections are anticipated for all drive surfaces with concrete sidewalks and aprons.

### **Sustainability/Building Performance**

Our goal is to balance energy-efficient building performance with occupant comfort, health, safety and budget considerations. Decisions made in terms of sustainability and building performance will demonstrate a strong return on investment, comfort, and long-term maintenance and durability. The following measures plan to be incorporated into the final design:

- Mechanical and plumbing systems commissioning
- Building envelope verification by blower door tests
- Implement State of Montana High Performance Building Standard Goals where feasible and accommodated within budget
- Exceed IECC minimum requirements by 20%
- On-site renewables – 50kW system with net metering
- Maximum 1/3 of improved landscaping to be irrigated
- Outdoor air monitoring with filtration to respond outdoor air conditions
- Building envelope minimum values to exceed ASHRAE 90.1
- Low- or zero-VOC requirements at interior construction
- Building flush-out – 72 hours
- Domestic water reduction: 35% reduction to Code allowance
- Further discussion with Board and Staff will be required to determine if a third-party certification (LEED or Green Globes, etc.) is desired.

### **Building Envelope**

All building areas, including garage

- Flat Roof: low slope roof membrane over R-35 min. rigid insulation, over wood roof sheathing, over premanufactured wood trusses (clear span).
- Butterfly Roof: metal roof panels over R-35 min. rigid insulation over CLT roof panels over timber roof beams (premanufactured wood trusses at flat ceiling areas)

- Exterior Walls: metal wall panel siding over 2" overall insulated sheathing with integral weather barrier (Zip sheathing or similar), over wood studs with blown-in fiberglass batts, over smart vapor retarder, over interior gypsum board wall finish.
  - Wall Cladding:
    - Exterior metal wall panel siding
    - Thermally-treated wood siding
    - Stone veneer siding
  - Windows:
    - Aluminum storefront exterior window system (entry and ribbon windows).
    - Fiberglass window system (punched window openings)
- Floor framing: Premanufactured wood framed floor trusses with wood sheathing over basement or tempered crawlspace. Floor trusses and wood sheathing will be exposed at basement ceiling.
- Exterior frost-protected foundation walls (48" below grade) with 2" minimum rigid insulation at perimeter.
- Covered awnings at primary entry and break room: CLT roof panels with timber beams and steel columns; membrane roof
- Insulated hollow metal exterior doors and frames and thermally broken aluminum storefront window and door openings.

### **Specific design considerations**

#### Entry, Reception

- Natural stone tile, wood wall base and trim, GWB wall finish, full-height walls with ceiling open to roof structure above, solid surface countertops with wood cabinets. ACT ceiling installed in areas, and acoustic wall or ceiling panels installed to provide proper acoustics.

#### Large Meeting Room

- Carpet tile floor finish, wood wall base and trim, GWB wall finish, ceiling open to roof structure above, acoustic wall panels installed to provide proper acoustics.

#### Offices and enclosed work rooms/meeting rooms

- Carpet tile, wood wall base and trim, GWB wall finish, ACT ceiling.

#### Bathrooms

- Natural stone tile, wood wall base and trim, GWB ceilings, solid surface countertops, tile wall finish full height

#### Hallways and open work spaces

- Natural stone tile, wood wall base and trim, GWB ceilings or ceiling open to roof structure, GWB wall finish, acoustic wall panels installed to provide proper acoustics.

#### Plumbing

- Commercial-grade, low water consumption fixtures with operation by sensors. Heat pump high-efficiency domestic water heater with recirc domestic hot water system.
- Code-compliant domestic water service and isolation/backflow.
- Cast iron waste piping above grade and PVC waste piping below grade.
- Roof drains with overflow with insulated cast iron piping within all conditioned spaces.

#### Mechanical

- High-efficiency ground source heat pump system. Ducted air system serving multiple zones, with distribution in crawlspace to floor grilles and low-wall registers
- Computer-based building management system.

#### Automatic Fire Sprinkler System

- Not provided/required

#### Electrical

- Commercial-grade service and distribution, switchboards, and panels. Damp or wet location equipment and ground fault protection where required by Code. Copper feeder/conductors all locations (no aluminum). Rigid metallic conduit.
- PV-ready switchgear.
- Surge protection in conformance with Code.
- 100% LED lighting with occupancy sensors, daylight sensors, and daylight dimming.

#### Fire Alarm

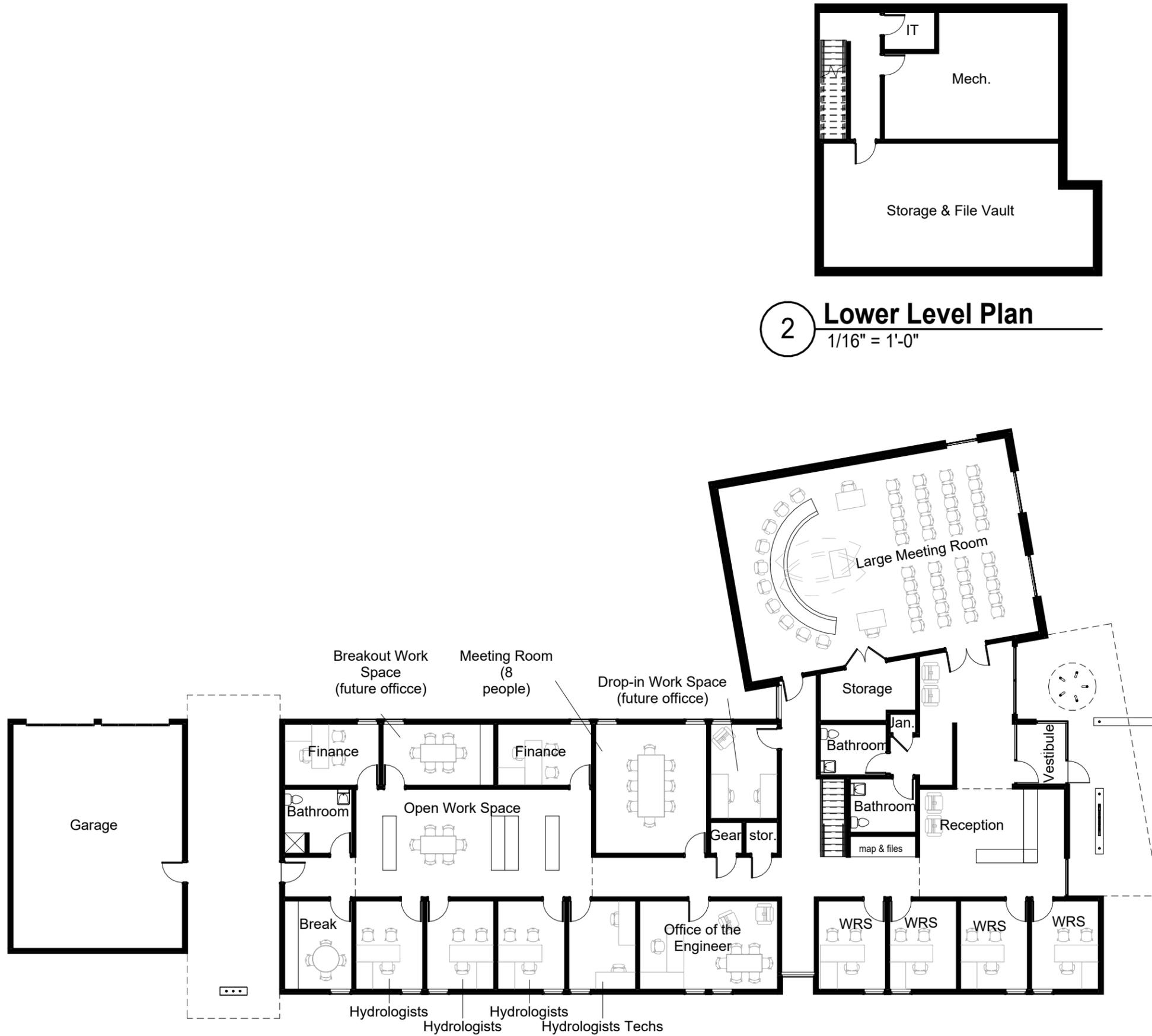
- Programmable and addressable system per Code.

#### Low-Voltage

- IT room with equipment rack, panels, cable management and backboards/grounding.
- Fiber optic, voice/data, cable, access control, security cameras, and intrusion detection wiring, termination, and devices included in contract.

**Flathead Reservation Water Management Board**

Description	#	Width	Length	Area	Subtotal	Sub +40%	Comments
<b>Public Entry</b>							
Vestibule	1	8	10	80	80		
Reception/Check-in	1	14	24	336	336		workstations + education
Waiting	1	4	8	32	32		
				<b>Total</b>	<b>448</b>	<b>627</b>	
<b>Office of the Engineer</b>							
Office of the Engineer	1	14	20	280	280		
Hydrologists	3	10	14	140	420		
Interns	1	10	14	140	140		shared space - 2 people
Water Resource Specialists	4	10	12	120	480		
Finance Director	1	10	14	140	140		
Accountant	1	10	12	120	120		
Breakout Work Space	1	10	17	170	170		
Open Work Space	1	8	32	256	256		
Meeting Room (8 people)	1	16	20	320	320		
Large Meeting Room (50 people)	1	30	44	1320	1320		
Work Space	1	10	14	140	140		flexible use
Break Area	1	12	14	168	168		
				<b>Total</b>	<b>3954</b>	<b>5536</b>	
<b>Support Spaces</b>							
Bathrooms	2	7	10	140	280		
Bathroom w/ Shower	1	10	10	100	100		
Office supply	1	5	6	30	30		
Document storage (vault?)	1	8	8	64	64		
Server + Security	1	6	8	48	48		
Mechanical - Electrical	1	14	20	280	280		
Janitor	1	4	6	24	24		
Gear Storage	1	6	6	36	36		
Garage/Workspace (2-car size)	1	28	34	952	952		
				<b>Total</b>	<b>1814</b>	<b>2540</b>	
<b>Total Estimated Project Areas (Building)</b>						<b>8702</b>	
<b>Site Amenities</b>							
FRWMB Vehicle Parking Spaces	2		400	800		1120	2 outdoor + 2 in garage
Vehicle Parking Spaces	20		400	8000		11200	
Entry	1		250	250		350	
Patio	1		150	150		210	
Other (setbacks, stormwater etc.)	1		30000	30000		42000	
<b>Total Estimated Project Areas (Site)</b>						<b>63232</b>	
Property size -		1.5 acres - minimum		<b>Recommended site size 2 acres</b>			



**1 Main Floor Plan**  
1/16" = 1'-0"

**2 Lower Level Plan**  
1/16" = 1'-0"

**Building Area**  
 Lower Level = 1,560 sf  
 Main Level = 6,480 sf  
 Garage = 912 sf  
**Total Building Area = 8,952 sf**

**DRAFT**

JOB #	25-011
DATE	9.22.2025
Rev No	
Descr.	
Date	



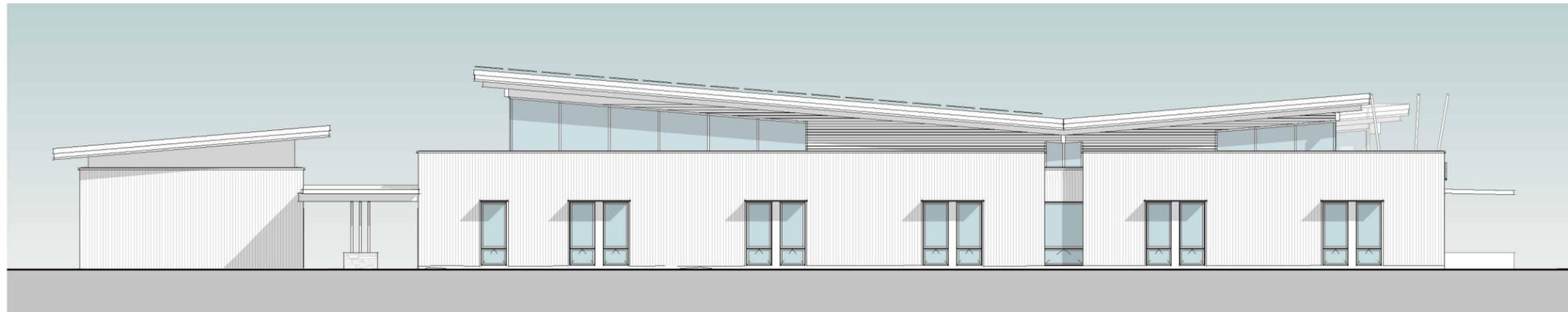
1 **East Elevation**  
1/16" = 1'-0"



2 **West Elevation**  
1/16" = 1'-0"



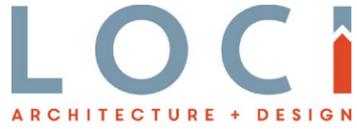
3 **North Elevation**  
1/16" = 1'-0"



4 **South Elevation**  
1/16" = 1'-0"

DRAFT

JOB #	DATE	Rev No	Descr.	Date
25-011	9.22.2025			



**Flathead Reservation Water Management Board - Estimated Project Cost**

9.22.2025

<b>Estimated Construction Cost</b>			<b>Base Cost</b>
<b>Division</b>			
Division 1 - General Conditions	9.0%	\$	417,136.09
Division 2 - Site Work/ DEMO	17.8%	\$	825,002.49
Division 3 - Concrete	5.0%	\$	231,742.27
Division 4 - Masonry	2.5%	\$	115,871.14
Division 5 - Metals	1.8%	\$	83,427.22
Division 6 - Woods & Plastics	13.2%	\$	611,799.60
Division 7 - Thermal & Moisture Protection	7.8%	\$	361,517.94
Division 8 - Doors & Windows	7.0%	\$	324,439.18
Division 9 - Finishes	9.2%	\$	426,405.78
Division 10 - Specialties	1.5%	\$	69,522.68
Division 11 - Equipment	0.5%	\$	23,174.23
Division 12 - Furnishings	2.0%	\$	92,696.91
Division 13 - Special Construction	0.0%	\$	-
Division 15 - Mechanical & Plumbing	13.7%	\$	634,973.83
Division 16 - Electrical, IT & Security	9.0%	\$	417,136.09
			<b>Subtotal Estimated Division Costs \$ 4,634,845.44</b>
			Contractor Overhead and Profit @ 6% \$ 278,090.73
			<b>Total including O&amp;P \$ 4,912,936.17</b>
			Bidding Contingency @ 10% \$ 491,293.62
			<b>Total Cost of Construction \$ 5,404,229.78</b>

<b>Estimated Project Cost (soft cost)</b>		Fixed Cost	Allowances
(A E Fees)	Architectural and Engineering Design Fees	\$ 540,422.98	
	Loci Architectural		
	Apex Structural		
	WGM Civil		
	WGM Landscape		
	M-M Mechanical		
	M-M Plumbing		
	M-M Electrical		
	M-M ICT		
(Soft Cost)	Design Team Reimbursable Costs (0.5%)		
	Geotechnical Investigation		
	Site Survey/Mapping		
	Permit Fees & Impact Fees (1.5% construction cost)		
	Energy Distribution Costs / Initiation Fee		
	Sewer and Water Development Fees		
	Construction Testing Services & Commission		
	Builder's Risk Insurance		
	Sound and Video Systems		
	Furniture & Artwork		
	Contingency - Construction & Design		
		<b>Subtotal \$ 540,422.98</b>	<b>\$ 810,634.47</b>

<b>Overall Project Cost</b>	
Cost of Construction	\$ 5,404,229.78
Project Cost (soft cost)	\$ 810,634.47
Project Cost (A E Fees)	\$ 540,422.98
<b>TOTAL PROJECT BUDGET</b>	<b>\$ 6,755,287.23</b>

Construction cost escalation	
3.8% per year	\$ 7,278,443.693
Assume construction 2027	

<b>Potential cost adds - NOT INCLUDED IN ESTIMATED PROJECT COST</b>	
Unknown site factors	\$ 700,000.00
Solar system (50kw system)	\$ 162,890.00
Land - assumed by donation	\$ -

DRAFT



Flathead Reservation  
Water Management



DRAFT



**FRWMB**  
Forest Reserve  
Management Board

**LOCI**  
ARCHITECTURE + DESIGN

DRAFT





Flathead Reservation  
Water Management



DRAFT



DRAFT



**FRWMB**  
Flathead Reservation  
Water Management Board

**LOCI**  
ARCHITECTURE + DESIGN

DRAFT