

PRELIMINARY ARCHITECTURAL REPORT (PAR) GUIDE QUALITY SCHOOLS GRANT PROGRAM

I. A PRELIMINARY ARCHITECTURAL REPORT MUST:

- a. be prepared by a professional architect licensed to practice in the State of Montana;
- b. adequately describe existing building conditions and problems, present and analyze reasonable alternatives, and propose a specific course of action for solving the identified problems;
- c. provide sufficient information to support the need for, feasibility, and general, estimated cost of the proposed project; and
- d. thoroughly address all of the other issues identified in this PAR outline

II. WHY PARs ARE IMPORTANT IN THE QUALITY SCHOOLS GRANT PROJECT SCORING PROCESS:

Note: Information an analysis contained in the PAR is crucial to Quality Schools' scoring of Attribute 2 (Project Management) and Attribute 3 (Project Planning). If the PAR does not provide the required information -- including a clear analysis of existing conditions, a thorough and reasonable proposal to address the deficiencies, and reasonable cost estimates -- the application may receive fewer points in the competitive ranking for Quality Schools grants and, as a result, may not receive funding.

- a. The PAR outline presented here is by no means all-inclusive. The architect should use his or her professional judgment to present sufficient information during preparation of the PAR, taking into account that different projects require varying levels of detail (rehabilitation of an existing building versus construction of a new building) and consideration of reasonable alternatives.
- b. The architect should provide appropriate documentation, wherever possible, to support the analysis of alternatives, estimates of cost, and the final proposal submitted.
- c. The public should be involved in the selection of the preferred architectural alternative, especially representatives or members of any groups that are expected to be the principal users the proposed facility.

III. ENVIRONMENTAL CONSIDERATIONS RELATED TO THE PAR

All Quality Schools Program-funded projects are subject to the **Montana Environmental Policy Act (MEPA)**, which seeks to avoid adverse impacts on the environment by mandating careful consideration of the potential impacts of any development assisted with state funds or approved by a state agency. See [Chapter 2 of the Quality Schools Project Grant Administration Manual & Guidelines for detailed guidance on the environmental review process.](#)

IV. PRELIMINARY ARCHITECTURAL REPORT OUTLINE

- a. **EXECUTIVE SUMMARY** – Provide:

- i. A summary of the basic needs or deficiencies of the facility being evaluated,
- ii. A brief description of the alternatives considered,
- iii. A brief description of the preferred alternative, and
- iv. The estimated total project cost (complete design & construction cost) to construct the preferred alternative.
- v. Note any other pertinent conclusions.

b. PROBLEM DEFINITION

- i. **DESCRIBE AND DOCUMENT THE NEED FOR THE PROJECT AND THE PROBLEM(S) TO BE SOLVED.** Describe the need for the project according to the one of the following criteria that best applies:

1. **HEALTH AND SAFETY** – Describe concerns and deficiencies relating to urgent and serious public health or safety problems, or to enable public school districts to meet state or federal health or safety standards.

Attach pertinent documents or correspondence to or from appropriate federal, state, and local regulatory authorities or agencies, especially information that provides documentation of health and safety concerns and deficiencies.

2. **CODES AND STANDARDS** – Describe concerns and deficiencies relating to improvements necessary to bring the school facility up to current local, state or federal codes and standards. Include any concerns or compliance issues with relevant regulations or codes. Architects and Engineers should consult: http://bsd.dli.mt.gov/bc/current_codes.asp for codes and standards that may be applicable to the project. This site is not inclusive, and other federal, state, local, or tribal requirements concerning the existing facility(ies) may still apply.

Attach pertinent correspondence to or from appropriate federal, state, and local regulatory agencies, especially information that provides documentation violation of compliance with codes or regulations.

3. **ACCREDITATION STANDARDS** – Describe deficiencies and concerns related to the school district's ability to offer specific services related to the requirements of the accreditation standards provided for in §20-7-101, MCA; <http://data.opi.mt.gov/bills/mca/20/7/20-7-101.htm>

Attach pertinent correspondence to or from appropriate federal, state, and local regulatory agencies, such as the Office of Public Instruction or Board of Public Education, especially information that provides documentation of failure to comply with an accreditation standard.

4. **ENERGY EFFICIENCY** – Describe concerns and deficiencies related to projects necessary to improve the school facility's

energy efficiency. Include information and documentation relating to the proposed project, such as energy audits (general or investment grade) energy models, analysis of utility costs, etc.

5. **TECHNOLOGY** – Describe concerns and deficiencies related to improvements necessary to develop and expand the school facility's technology needs. Explain the particular technology project (Broadband Internet, Computers, ITV, etc.) and how the proposed improvement project would benefit the facility.
6. **EDUCATIONAL OPPORTUNITIES** – Describe concerns and deficiencies related to improvements necessary to enhance educational opportunities for students. This may include renovations, additions, new construction, developing cooperatives, or consolidation.

c. BACKGROUND INFORMATION

- i. **FACILITY OPERATION & MAINTENANCE (O&M)** - Describe O&M concerns regarding the existing facility (ies) with an emphasis on those with the greatest financial and operational impact.

Discuss operational, administrative and management capacity.

If the high cost of maintaining the existing facility (ies) is related to a proposal to modify or replace the existing facility, describe and document these concerns and potential cost savings.

- ii. **GROWTH** - Describe the facility's capacity to meet projected growth needs from the completion of construction through the anticipated useful life of the building

Discuss any potential for future expansion, if applicable, or any consideration given to designing for phased construction or incremental expansion of the facility in the future.

Provide both the number of current users served by the facility (ies) and the projected number of users to be served by the proposed project upon completion.

- iii. **UNRESOLVED PROBLEMS** - Describe any of the problems identified above that are not to be addressed and the reasons for not addressing them. Discuss phasing if applicable.

- d. **IDENTIFY THE PLANNING AND SERVICE AREA, INCLUDING BOTH THE EXISTING LOCATION AND THE POTENTIAL, ALTERNATE LOCATIONS OF THE FACILITY.** Using narrative and drawings, describe the planning and service area and alternate building(s) or sites under review or consideration. The description should include the following information:

- i. **LOCATION** - Indicate legal and natural boundaries, major obstacles, environmental constraints, etc., using maps, photographs, and sketches of the planning and service area, including both the existing location and potential alternate locations for the facility.
- ii. **GROWTH AREAS AND PROJECTED POPULATION TRENDS** - Identify specific areas of projected, concentrated population growth and relate these to the forecasted growth in the clientele to be served by the proposed project.

Provide population projections for the school's planning and service area as well as for the projected design period (i.e., the anticipated useful life of the proposed facility).

Base projections for the clientele to be served upon historical records, Census data, or economic projections, citing recognized sources.

- iii. **PHYSICAL CHARACTERISTICS OF THE AREA** - Describe the physical character of the project area including geology, topography, soil types, ground water, surface water, vegetation, etc. that may have an impact on the project costs, performance, simplicity of operation, etc. or allow for a more complete understanding of the problem. Provide a copy of the USGS topographic quadrangle, FEMA floodplain map, wetlands inventory map, and USGS soil identification map in instances where maps have been published. Include a discussion of all known environmental and geologic hazards and the presence of brownfields sites. Discuss known potential hazards such as radon, active seismic zones, landslide areas, soil-, ground-water, or surface-water contamination, air pollution, etc.

e. **EVALUATE THE CONDITION OF THE EXISTING FACILITY (IES).** Describe the existing facility(ies), including at least the following information:

- i. **SCHEMATIC LAYOUT** – Provide a schematic layout for the existing facility. The schematic map should provide basic information on the location and size of the components in the facility.
- ii. **HISTORY** - Provide a brief history of the facility (ies), including when the structure was constructed, major improvements implemented in the past, and any past problems.
- iii. **CONDITION OF FACILITIES** - Describe the present condition and any problems such as code deficiencies, general structural decay, presence of asbestos, mold or moisture, lead based paint, subsidence issues, overcrowding, or handicapped accessibility. Describe the adequacy or capacity of the existing facility (ies) to meet existing and long-term needs. Include pictures if appropriate.

- f. **GENERAL DESIGN REQUIREMENTS FOR IMPROVEMENTS** – Describe the general design requirements that will need to be met in discussing the potential alternatives to remedying the facility’s problems. Discussion should include consideration of the following, and any other pertinent factors.
- i. Site availability,
 - ii. Square footage requirements,
 - iii. Site geometry and topography,
 - iv. Property acquisition at reasonable price,
 - v. Adequate water supply,
 - vi. Adequate wastewater disposal,
 - vii. Public services such as emergency medical, fire protection, law enforcement, and solid waste pickup.
 - viii. Compatible adjacent and nearby land uses, safety and security, traffic; address hazards such as utility corridors or high traffic or other public safety hazards,
 - ix. Access to paved streets and sidewalks for automobiles, emergency vehicles, deliveries, public transit, bicycles, and pedestrians,
 - x. Site conditions or (environmental or geologic) hazards presenting increased construction or operational costs such as expansive soils, high ground water, rock outcroppings, etc.,
 - xi. Handicapped accessibility (ADA and HUD 504),
 - xii. Location with respect to significant aircraft routes or runway protection zones deemed hazardous by FAA,
 - xiii. Location with respect to 100-year floodway of floodplain storm water system as determined by FEMA maps,
 - xiv. Local, state, tribal, and federal statutory and code (IBC) requirements, and
 - xv. Other pertinent design requirements
- g. **ALTERNATIVE ANALYSIS.** For each alternative considered provide:
- i. **DESCRIPTION OF ALTERNATIVE SOLUTION.** Describe each alternative design, building, or site considered -- i.e., identify and describe existing buildings with potential for rehabilitation or alteration, or alternative building sites considered for new construction.
 - 1. **IF PROPOSING REHABILITATION OR ALTERATION OF EXISTING BUILDINGS** - Describe existing district buildings that could be modified or rehabilitated to accommodate the proposed facility need.

Describe the potential benefits and possible deficiencies with each alternative design, building or site considered, including code compliance issues, floor space, handicapped accessibility, and potential for long-term expansion, as applicable.
 - 2. **IF PROPOSING NEW CONSTRUCTION** - If proposing new construction, describe alternative building sites considered for new construction, any existing structures on the site(s), potential for

long-term expansion, proximity to other services, environmental constraints, comparative cost to renovate the existing facility, etc.

- ii. **SCHEMATIC LAYOUT.** Provide a schematic layout for the alternative.
- iii. **ENERGY REQUIREMENTS.** Discuss energy consumption and efficiency for the alternative.
- iv. **REGULATORY COMPLIANCE AND PERMITS.** Describe issues that need to be addressed concerning compliance (for either a new building or a rehabilitated building) with appropriate regulations such as the International Building Code and other relevant codes, zoning issues, asbestos, lead-based paint, permits, handicapped accessibility (American Disabilities Act and HUD 504 regulations), designated 100-year floodplains, and other applicable federal, state, local or tribal requirements.
- v. **LAND ACQUISITION ISSUES.** Identify sites to be purchased or leased and any easements needed, if applicable. Specify whether these properties are currently owned, to be purchased or leased, and whether options have been obtained, contingent upon receipt of funding.
- vi. **CONSTRUCTION PROBLEMS.** Discuss unique concerns such as geological constraints, high water table, limited access, brownfields sites, leaking underground storage tanks (LUST) sites, contaminated soil, asbestos, lead-based paint, noise, odors, or other conditions that may affect cost of construction or long-term operation of the proposed (new or rehabilitated) facility.

If applicable, discuss any special considerations to keep existing facilities operable during construction. Provide an estimated dollar amount to mitigate such problems.
- vii. **ENVIRONMENTAL CONSIDERATIONS.** Discuss any specific impacts that a particular alternative may have beyond those already discussed
- viii. **COST ESTIMATES.** For each alternative considered, include both:
 - 1. **PROJECT COSTS** (i.e., administrative, financial, engineering, architecture, and construction costs) and
 - 2. **PROJECTED ANNUAL OPERATION AND MAINTENANCE COSTS.**

d. **SELECTION OF A PREFERRED ALTERNATIVE.** Provide a comparative analysis of all of the alternatives discussed above. Clearly define the criteria utilized for the comparison of each alternative and consistently apply the criteria to each alternative. At a minimum, the evaluation should take into account technical feasibility, environmental impacts, financial feasibility, public health and safety, operational and maintenance considerations, and public comments. Briefly describe each alternative's ability to: meet the owner's needs within its financial and operational

resources, comply with regulatory requirements, be compatible with existing comprehensive area-wide development plans (local government growth policies) and land use zoning (if applicable), and satisfy public and environmental concerns. A matrix or spreadsheet should be used to summarize the logic of the selection process.

e. DETAILED DESCRIPTION OF THE PREFERRED ALTERNATIVE

- a. SITE LOCATION AND CHARACTERISTICS.** Discuss the site location of any current or proposed facilities, and why the preferred alternative was selected over other alternatives.
- b. PRELIMINARY ARCHITECTURAL PLANS AND DESIGN CRITERIA.** Provide preliminary architectural plans (including a proposed floor plan) for the proposed (new or rehabilitated) facility (preferred alternative). Describe in greater detail the design criteria for the selected alternative. Discuss how the selected alternative will meet existing, and anticipated, needs and regulatory requirements.
- c. OPERATIONAL REQUIREMENTS.** Discuss the expertise required to operate the facility and any unique operational requirements or benefits of the facility and describe why the preferred alternative was selected over other alternatives.
- d. ENVIRONMENTAL IMPACTS AND MITIGATION.**

- i. POTENTIAL ENVIRONMENTAL IMPACTS** - The information described in the completed Environmental Assessment is the basis for discussing environmental resources in the area that might be impacted or that might impact the proposed facility. If there has been a previous environmental assessment completed for the project, please include a copy of that assessment in addition to the completed Environmental Assessment. Identify each environmental resource that may be impacted, as applicable.
- ii. MITIGATION** - Evaluate appropriate short and long-term measures to mitigate each potentially adverse impact.

Describe the mitigation measure(s) necessary to minimize potentially adverse impacts upon identified environmental resources. Projects contemplating the renovation of existing structures should thoroughly discuss mitigation measures to address any existing hazards, such as asbestos and lead-based paint, where identified, in accordance with federal and state requirements.

Include any environmentally-related correspondence and agency comments (e.g., comments from the State Historic Preservation Office) and documentation, such as exhibits or maps as applicable to describe potential environmental impacts.

- e. **PROJECT COST SUMMARY - PROJECT COST ESTIMATE.** Provide an itemized estimate of the project cost based on the anticipated period of construction including administrative, development and construction, land and utilities, legal, engineering, interest, equipment, contingencies, refinancing, and other costs associated with the proposed project.
- f. **CONCLUSIONS AND RECOMMENDATIONS.** Provide any other conclusions and recommendations and any additional findings that should be considered in the evaluation of the proposed project and the selected alternative.