Agency: Department of Education and Early Development

Project Title: **Project Type:** New Construction and Land Acquisition

St. Mary's School District - Andreafski High School Gym Construction

State Funding Requested: $13,909,146 **House District:** 38 / S
One-Time Need

Brief Project Description:

Build new high school gynmnasium. St. Mary's is one of the few high schools in the state without a gym/multipurpose facility.

Funding Plan:

Total Project Cost:	$13,909,146
Funding Already Secured:	($0)
FY2015 State Funding Request:	($13,909,146)
Project Deficit:	$0

Funding Details:

None to date.

Detailed Project Description and Justification:

At present, the high school in St. Mary's has no gymnasium. Limited gym facilities are available at the elementary school -- only 4,650 square feet featuring an elementary-sized basketball court, limited bleacher seating on one side of the court, and very small locker room facilities -- and are shared among the entire student populations of the elementary and high schools.

The St. Mary's School District has worked diligently over the past years to renovate and modernize the academic spaces in its facilities. Now that those improvements are complete or in the final stages of completion, the District turns its attention to gymnasium facilities. Larsen Consulting Group, which designed the District's other facilities, has provided conceptual planning and a schematic design for a new gymnasium.

The proposed facility will be no more than 14,825 square feet adjacent to the existing high school and connected by a heated corridor, allowing students to come and go without having to leave the building, providing sound isolation of noisy gym space from quieter academic areas, allowing after-hours public access to the gym space without persons entering the main high school, and providing a staging area for events using the gym. The new facility would consist of a full-sized gym with a high school basketball court and bleacher seating on both sides, locker rooms, restrooms, a concession space, mechanical space, physical education storage space, an entrance/lobby area, and other supplemental spaces.

Contact Name: Ron Clarke
Contact Number: (907) 465-4457

For use by Co-chair Staff Only:

$11,762,891
Approved

11:57 AM 5/13/2014

Project Timeline:

Summer 2014: contract with design team
Fall 2014: begin design work
Early winter 2015: design work complete
Late winter 2015: project out to bid
Early spring 2015: award contract
Spring 2015: begin construction
Late summer 2015: complete construction
Fall 2015: occupy facility for school startup

Entity Responsible for the Ongoing Operation and Maintenance of this Project:

St. Mary's School District

Grant Recipient Contact Information:

Name:	David Herbert
Title:	Superintendent
Address:	P.O. Box 9
	St. Mary's, Alaska 99658
Phone Number:	(907)438-2735
Email:	dherbert@smcsd.us

Has this project been through a public review process at the local level and is it a community priority? [X] Yes [ ] No

Contact Name: Ron Clarke
Contact Number: (907) 465-4457

For use by Co-chair Staff Only:

11:57 AM 5/13/2014

Application for Funding
Capital Improvement Project by Grant
or
State Aid for Debt Retirement

FY2014

*For each funding request submit **one original** and **three complete copies of this application** and **two copies of each attachment**.*

For instructions on completing this application, please refer to the department's Capital Project Information and References website at:

http://www.eed.alaska.gov/Facilities/FacilitiesCIP.html

(Note: The department will only score ten projects from each district during a single rating period)

School District: St. Mary's City School District

Community: St. Mary's, Alaska

School Name: Andreafski High School

Project Name: Andreafski High School Gym Construction

TYPE OF PROJECT AND FUNDING REQUEST

1. Type of funding requested *(Choose only **one** funding source.)*

☒ Grant Funding ☐ Aid for Debt Retirement (Bonding)

2a. Primary purpose of project *(Choose only **one** category, per AS 14.11.013 for grant projects, or AS 14.11.100(j)(4) for debt retirement projects). The department will change a project category as necessary to reflect the primary purpose of the project.*[1]

School Construction:	**Major Maintenance:**
☐ Health and life-safety (Category A, this category is not available for debt retirement)	☐ Protection of structure (Category C, this category is not available for debt retirement)
☒ Unhoused students (Category B; Category A for debt retirement)	☐ Building code deficiencies (Category D; Category B for debt retirement)
☐ Improve instructional program (Category F; Category D for debt retirement)	☐ Achieve operating cost savings (Category E; Category C for debt retirement)

b. Phases of project to be covered by this funding request *(Indicate **all** applicable phases)*

☒ Planning (Phase I) ☒ Design (Phase II) ☒ Construction (Phase III)

[1] The department's authority to assign a project to its correct category is established in AS 14.11.013(c)(1) and in AS 14.11.013(a)(1) under its obligation to verify a project meets the criteria established by the Bond Reimbursement & Grant Review Committee under AS 14.11.014(b)

c. Is the work identified in this project request partially or fully complete? ☐ yes ☒ no
(If the answer is yes, attach 2 copies of documentation that establishes compliance with 4 AAC 31.080 and please note the attachment in question 31.)

BASIC ELIGIBILITY REQUIREMENTS

3. Has a six-year Capital Improvement Plan (CIP) been approved by the district school board? ☒ yes ☐ no
(Refer to AS 14.11.011(b), and 4 AAC 31.011(c); attach a copy of the 6-year Plan.)

4. Does the school district have a functional fixed asset inventory system? ☒ yes ☐ no
(Refer to AS 14.11.011(b)(1).)

5. Is evidence of required insurance attached to this application or has evidence been submitted as required to the department? ☒ yes ☐ no
(Refer to AS 14.11.011(b)(2).)

6a. Is the project a capital improvement project and not part of a preventive maintenance program or custodial care? ☒ yes ☐ no
(The scope of work as outlined in the project description, question 18, must meet the requirements of AS 14.11.011(b)(3).)

b. Is adequate documentation provided? ☒ yes ☐ no
(Reference: AS 14.11.013(c)(3)(A) and 4 AAC 31.022(d)(1)

DISTRICT INFORMATION

7a. Districtwide maintenance expenditures for the last 5 years will be gathered by the department from audited financial statements. *(Costs for teacher housing, utilities, or expenditures for which reimbursement is being sought will be excluded. See instructions for specific accounting codes to be included.)*

7b. Districtwide replacement cost insurance values for the last 5 years will be gathered by the department from annual insurance certification and schedule of values.

EXISTING FACILITIES

8. The existing building(s) will be (check all that apply):

☐ renovated ☒ added to ☐ demolished ☐ surplused ☐ other

(If the project will result in demolition or surplus of building(s), provide for hazardous material abatement and demolition as part of the project. If the building(s) are state-owned or state-leased facilities, attach a transition plan for protection and disposal of the properties.)

9. What buildings or building portion (i.e. original building or addition) will be included in the scope of work of the project?

(The department will utilize GSF records to establish project points (up to 30) in the "Weighted Average Age of Facilities" scoring element. Refer to the EED Facilities Database at http://www.eed.alaska.gov/Facilities/SchoolFacilityReport/SearchforSchoolFac.cfm for facility number, name, year, and size information on record.)

Facility #	Building or Building Portion	Year Built	GSF
46002001	Andreafski High School	1983	13,997
56002003	Yup'ik Cultural Building (Voc Ed)	1989	2,875
	Only half of Yup'ik space is counted		
	as secondary space.		
TOTAL GSF			**16,872**

RELATED FUNDING

10. Provide AS 14.11 administered grants that have already been appropriated by the legislature as partial funding in support of this project. This does not include debt retirement projects. (30 points possible for previous funding)

EED grant # _____

EED grant # _____

11. Is the district applying for a waiver of participating share? ☐ yes ☒ no

Only municipal districts with a full value per ADM less than $200,000 are eligible to apply for a waiver of participating share. REAA's are not eligible to request a waiver of participating share. (If the district is applying for a waiver, attach justification. Refer to AS 14.11.008(d) and Appendix E of the application instructions.)

PROJECT INFORMATION

12. What is the rank of this project under the district's six-year Capital Improvement Plan? (30 points possible for CIP priority) Rank: **2**

13. Does this project impact multiple facilities? ☐ yes ☒ no

(If the answer is yes, describe in the project description and provide applicable data as identified in the instructions.)

14. Is this project an emergency? (50 points possible) ☐ yes ☒ no

(Refer to AS 14.011.013(b)(1) and the instructions. If the answer is yes, *describe the nature of the emergency and actions the district has taken to mitigate the emergency conditions.)*

15. Will this project require acquisition of additional land or utilization of a new school site? ☐ yes ☒ no

(If the answer is yes, *attach site description or site requirements. If a new site has been identified, attach the site selection analysis used to select the new site. Note the attachment in question 31.)*

16. Has a facility condition survey been completed?* (5 points possible) ☒ yes ☐ no

(If the answer is yes, *attach 2 copies and Note the attachment in question 31.)*

Has a facility appraisal been completed? (5 points possible) ☒ yes ☐ no

(If the answer is yes, attach 2 copies and Note the attachment in question 31.)

Has work been completed on planning?* (10 points possible) ☒ yes ☐ no

(If yes, attach documentation supporting planning as described in Appendix A, and please note the attachment in question 31.)

Has work been completed on schematic design?* (10 points possible) ☒ yes ☐ no

(If yes, attach documentation supporting schematic design as described in Appendix A, and please note the attachment in question 31.)

Has work been completed on design development?* (10 points possible) ☐ yes ☒ no

(If yes, attach documentation supporting design development as described in Appendix A, and please note the attachment in question 31.)

* - Identify the Design consultant. If there is no Design consultant for this project, provide a detailed explanation of why a consultant is not required.

Design Consultant - *Larsen Consulting Group*

17. Project Description/Scope of Work: The project description should provide a clear description of the project scope to be completed with this project. If prior or subsequent work is included as a part of the description, be sure to clearly identify the components of work to be completed with THIS project. Provide an estimated project timeline that includes an estimated date for receipt of funding, construction start date, and construction completion date. (50 points possible for description of severity of life/ safety and code issues)

(Refer to AS 14.11.011(b)(1) and to the instructions accompanying this form. Appendices A and C accompanying the instructions may be particularly helpful. If attached documentation is intended to address this question, please note the attachment in question 31.)

Project Background and Description

St. Mary's is a Yup'ik Eskimo community of over 500 people located on the north bank of the Andreafski River, 5 miles from its confluence with the Yukon River, and 450 air miles west-northwest of Anchorage. The climate in St. Mary's is continental with a significant maritime influence. Temperatures range between -44 and 83 °F. Annual precipitation averages 16 inches, with 60 inches of snowfall.

The school district operates two main school facilities on a single campus. The Elicarvicuar Elementary School is located at the lower end of the campus, and houses the district's K-6 students, while Andreafski High School is located at the upper end of the campus, and houses the 7-12 students. A third smaller facility, the Yup'ik Building, houses bilingual and vocational programs and is used by students from both schools. While the elementary building is adequately sized for its student population, the high school building is currently at almost double its capacity.

There is currently no gymnasium in the high school. The only gym available on campus for physical education and athletics is located in the elementary building. Typical for most elementary schools, this gym is only about 4,650sf. It has an elementary sized basketball court, limited bleacher seating on one side of the court, and very small locker room areas. As it is the only facility available, the space must be shared between the elementary and high school students, which means that the district's youngest and oldest students must comingle more than would normally be preferred. High school students must walk about 650 feet each way to and from their PE classes. Walking back up to the high school after a PE class with wet hair, etc. can be a very uncomfortable experience during the cold and windy winter months in St. Mary's.

While this is an adequate facility for an elementary setting, it is unacceptable for junior high and high school sports programs. The court is far smaller than regulation size, and the seating does not have sufficient capacity for varsity games and tournaments. The gym is also a very important facility for school assemblies, awards, and special events, as well as for large community events. The current space is simply not large enough to accommodate these activities. In addition, having the additional facility would allow much more flexibility in class scheduling, and allow more physical activities to take place each day, which is extremely important in rural Alaska.

The district has long sought to provide a proper gymnasium for the high school, but has been fully committed with renovating and modernizing other academic spaces in its facilities for the past several years. These various renovation projects have now been completed or are in the final stages of completion. Feeling it now had the resources to finally take on the construction of a new gym, the district contracted with Larsen Consulting Group, who had provided the design work for all the district's recent renovation projects, in 2011 to provide conceptual planning for a new facility. Guided by the districts educational specification, Larsen came up with several layout and design options for the building, and for positioning the new facility on the school site. They found that constructability and the educational program were somewhat at odds in this case, in that the site becomes easier to build on

as you move farther away from the existing high school building. Of the various combinations, Option 1 was ultimately selected as the preferred option due to its close proximity to the existing school, and better integration with the academic program, even though construction would be more difficult.

In an effort to further advance the project, the district again contracted with Larsen Consulting Group in 2012 to advance the selected concept design to the Schematic Design level. Several variations of the original concept were explored, and the final SD plan alters the position of the building on the site to allow for the slightly larger overall space, allow better access for entry and parking while still allowing connection to the main building and maintaining the line of sight between the high school and elementary buildings.

This project proposes to construct a new facility of no more than 14,825sf adjacent to the high school building as shown in the schematic design drawings. Although an independent structure, it would connect to the existing building via a heated corridor, allowing students to come and go without having to leave the building. This separation helps to isolate the noisy gym space from quieter academic areas, allows after hours public access to the building without entering the main building, and provides a staging area for events using the gym. It also allows construction to take place during the school year without impacting classes. The new space would consist of a full sized gym with a high school basketball court with bleacher seating on both sides, locker rooms, restrooms, a concession space, mechanical space, PE storage space, an entrance/lobby area, and other supplemental spaces.

The building is anticipated to be constructed on helical steel pile, with wood and steel structural framing. Structural insulated panel construction will allow for an R-50 roof and R-32 walls and floor. The exterior will consist of membrane roofing, metal siding, fiberglass windows, and galvanized steel doors for durability and ease of maintenance. Interior finishes will also be designed for durability and ease of maintenance. The gym flooring will either rolled rubber or engineered wood athletic flooring. The gym will also receive acoustical treatments to improve usability of the space for assemblies and other events.

Power will be provided by a new 200 amp service. A 50kw emergency generator with automatic switching will be installed outside the building in a weatherproof enclosure. Lighting will be provided by T-8 and T-5 fluorescents or LED lighting with emergency ballasts and battery backup as required. Exterior lighting will make use of LED fixtures. An addressable fire alarm system will integrate with the existing system in the school, as will communication and security systems. A PA system will be provided in the gym.

Heating and ventilation will be provided by two oil-fired boilers and a single air handler with variable speed pumps and motors, and integrated with the existing DDC control system for efficiency. Wet pipe sprinklers will be provided. Water, sewer, and fire protection water will make use of existing infrastructure serving the high school.

Site and utility work necessary for the construction will be included in the project, including construction of a gravel pad at the public entry/parking area. In addition to the day tank serving the gym boilers, a second heating fuel storage tank will be added at the existing high school bulk fuel storage to accommodate the fuel needs for the increased square footage.

A copy of the 2011 Conceptual Design report and Educational Specifications for the new facility have been included in the attachments, along with the Schematic Design documents and cost estimate.

Unhoused Students

As of the 2011-12 school term there were 79.20 secondary students housed in 15,435 gross square feet of educational space at the Andreafski High School. This square footage is comprised of the main high school building and half of the space in the 2875sf Yupik Building, which is shared between elementary and secondary classes. According to allowable space guidelines, this puts the high school currently at 199.14% capacity with 39.68 students unhoused. It is estimated that by fiscal year 2020 there will be 99.17 students attending this school, bringing it to 247.78% capacity with 59.15 unhoused students. These numbers were computed from the average annual ADM change method using the EED Combined worksheets. Based on the allowable gross square footage worksheet, the high school qualifies for 30,260sf, or an additional 14,825sf of educational space. Copies of these worksheets are included in the attachments.

Scope of Work

1. Construct a new gymnasium with associated spaces of approximately 14,802sf on a thermopile foundation system, adjacent to the Andreafski High School building, as shown in the schematic design documents.
2. Install an additional 25,000 gallon fuel oil tank to accommodate the increased square footage adjacent to the existing high school fuel tank.
3. Perform site and utility work required for the construction.

Project Costs

The project budget has been derived from the HMS schematic design estimate. This estimate assumes a bid date of winter 2014, and includes costs for site work, and additional fuel oil storage.

Standard project costs have been added. A lump sum amount for limited soils testing has been included. An equipment and technology budget of one half of one percent has also been added to provide the additional PE equipment needed.

Project Schedule

July 2013 – Receive project funding.
Summer 2013 – Contract with design team.
Fall 2013 – Begin design work.
Early winter 2014 – Design work 100% complete.
Late winter 2014 – Project out to bid.
Early spring 2014 – Award contract.
Spring 2014 – Begin construction.
Late summer 2014 – Complete construction.
Fall 2014 – Occupy facility for school startup.

COST ESTIMATES

18. Complete the following tables using the Department of Education & Early Development's **12th Edition Update Revised** Cost Model or an equivalent cost estimate. Completion of the tables is **mandatory**. (30 points possible)

(Percentages are based on construction cost. See Appendix C for additional information. If your project exceeds the recommended percentages, you must provide a detailed justification for each item exceeding the percentage. The total of all additive percentages should not exceed 130%, if the additive percentages exceed 130% a detailed explanation must be provided or the department will adjust the percentages to meet the individual and overall percentage guidelines)

Table 1. TOTAL PROJECT COST ESTIMATE

Project Budget Category	Maximum % without justification	I Prior AS 14.11 Funding	II Current Project Request	III % of Total Construction Cost	IV Project Total
CM - By Consultant [1]	2 - 4%		217,791	2.00%	217,791
Land [2]					0
Site Investigation [2]			25,000		25,000
Seismic Hazard [7]					0
Design Services	6 - 10%		1,088,953	10.00%	1,088,953
Construction [3]			10,889,526	100.00%	10,889,526
Equipment & Technology [2,5]	up to 10%		108,895	1.00%	108,895
District Administrative Overhead [4]	up to 9%		980,057	9.00%	980,057
Art [6]	0.5% or 1%		54,448	0.50%	54,448
Project Contingency	5%		544,476	5.00%	544,476
Project Total		**$0**	**$13,909,146**	**127.50%**	**$13,909,146**

1. *Percentage is established by AS 14.11.020(c) for consultant contracts (Maximum allowed percentage by total project cost: $0-$500,000 – 4%; 500,001- $5,000,000 – 3%; over $5,000,000 – 2%).*
2. *Include only if necessary for completion of this project. Amounts included for Land and Site Investigation costs need to be supported in the Project Description (Question 17), and supporting documentation should be provided in the attachments.*
3. *Attach detailed construction cost estimate and life cycle cost if new-in-lieu-of-renovation.*
4. *Includes district/municipal/borough administrative costs necessary for the administration of this project; This budget line will also include any in-house construction management cost.*
5. *Equipment and technology costs should be calculated based on the number of students to be served by the project. See the department's publication, Guidelines for School Equipment Purchases for calculation methodology (2005). The department will accept a 5% per year inflation rate (from the base year of 2005) added to the amounts provided in the Guideline. Technology is included with Equipment.*
6. *Only required for renovation and construction projects over $250,000 that require an Educational Specification (AS 35.27.020(d)).*
7. *Costs associated with assessment, design, design review, and special construction inspection services associated with seismic hazard mitigation of a school facility. This amount needs to be provided by a design consultant, and should not be estimated based on project percentage.*

Table 2. CONSTRUCTION COST ESTIMATE						
	New Construction			Renovation		
Construction Category	Cost	GSF	Unit Cost	Cost	GSF	Unit Cost
Base Building Construction [2]	4,977,450	14,802	$336.27			
Special Requirements [1]		n/a			n/a	
Sitework and Utilities	1,254,508	n/a			n/a	
General Requirements	2,773,124	n/a			n/a	
Geographic Cost Factor		n/a			n/a	
Size/Dollar Adj. Factor		n/a			n/a	
Contingency	1,350,762	n/a			n/a	
Escalation	543,682	n/a			n/a	
Construction Total	**$10,899,526**	**14,802**	**$736.35**			

1. *Explain in detail and justify special requirements*
2. *If using the Cost Model, Base Construction = Divisions (1.0+2.0) for new construction, and Division 11.00 for Renovation, otherwise, the Base Construction = the total construction cost less the costs that correspond with other cost categories in the table.*

ATTENDANCE AREA AND AVERAGE DAILY MEMBERSHIP (ADM)

Please Note: *If you have classified this project as Major Maintenance (Category C or D) and you are not including any new space skip to question 25.* ***All applications requesting new or replacement space must provide the information requested in this section.*** *For the purposes of this section, gross square footage is calculated in accordance with 4 AAC 31.020(e).*

19. Indicate the student grade levels to be housed by in the proposed project facility: 7-12

20. Within the attendance area, is there any work (other than this project) that has been approved by local voters, or has been funded, or is in progress that houses any student grade levels included in the proposed project? ☐ yes ☒ no

(If the answer is yes, *please provide information below about size, student capacity, and grades to be served in the table below.)*

Project Name	GSF	Grades	Capacity

21. Within the attendance area, are there school facilities that house any student grade levels included in the proposed project? ☒ yes ☐ no

(If the answer is yes, *please provide information below about size, student capacity, and grades served in the table below.)*

School Name	GSF	Grades	Capacity
Andreafski High School	13,997	7-12	40.02
Yup'ik Cultural Building (Voc Ed)	1,438	7-12	
(Only half of Yup'ik is counted in project.			
Capacity shown is total both buildings.)			

In lieu of data in the format above for questions 20 and 21, we are providing detailed attachments. ☐ yes ☒ no

22. What is the anticipated date of occupancy for the proposed facility? *(Provide a project schedule if available.)* 2014

23. In the table below provide the attendance area's current and projected ADM: (80 points possible for unhoused students)

Table 3. ATTENDANCE AREA ADM

School Year	K-6 ADM	7-12 ADM	Total ADM
2011-2012		79.70	
2012-2013		81.91	
2013-2014		84.18	
2014-2015		86.51	
2015-2016		88.90	
2016-2017		91.36	
2017-2018		93.89	
2018-2019		96.49	
2019-2020		99.17	
2020-2021		101.91	

24. By what method(s) were ADM projections calculated? *(Attach calculations and justifications.)* Average Annual ADM Change

PROJECT SPACE

25. Completion of this table is mandatory for **all projects that add space or change existing space utilization**. If the project does not alter the configuration of the existing space, it is not necessary to complete this table. Use gross square feet for space entries in this table. (30 points possible available for type of space constructed)

Table 4. PROJECT SPACE EQUATION

Space Utilization	A Existing Space	I Space to remain "as is"	II Space to be Renovated	III Space to be Demolished	IV New Space	B Total Space upon Completion
Elem. Instructional/Resource	0					0
Sec. Instructional/Resource	5,382	5,382			7,773	13,155
Support Teaching	598	598				598
General Support	3,582	3,582			1,254	4,836
Supplementary	5,873	5,873			5,775	11,648
Total School Space	**15,435**	**15,435**	**0**	**0**	**14,802**	**30,237**

Note: Existing Space includes High School and half of Yupik Building (46002003)

26. Describe inadequacies of existing space. Specifically address how the inadequacies impact the educational program and facility operations. (40 points possible for inadequacy of space)
(Refer to 4 AAC 31.022 (c)(4). If attached documentation is intended to address this question, please note the attachment in question 31.)

Currently, secondary students are forced to share a small gym facility located in the elementary school with the elementary students. This imposes scheduling compromises to try to accommodate the competing uses for the facility, forcing the mingling of the older and younger students throughout the day, and making high school students traverse back and forth between buildings throughout the school year, including during winter months when temperatures can be well below zero.

In addition to the physical education program, the gym is used by the junior and senior high school students for boys' and girls' basketball, volleyball, native youth Olympics, and cross country training. The elementary gym has only an elementary sized basketball court, and very limited seating for these sporting events, as well as for school events and ceremonies, and large community events. A gym large enough to house a regulation sized court, with much greater seating capacity is badly needed.

ALTERNATIVE FACILITIES AND OPTIONS

27. List below any alternative regional, community, and school facilities in the area that are capable of housing students. (5 points possible)

(Refer to AS 14.11.013(b)(4). If attached documentation is intended to address this question, please note the attachment in question 31.)

The alternative to the construction of the new gymnasium would be to continue to use the elementary gym as the district has been doing. If that facility were to become unavailable, there are no other facilities available in town to house the PE program, or athletic events.

In the event that all or part of one of the main school buildings could not be occupied temporarily, students could be accommodated into the remaining main school facility and the Yupik Building.

The old St. Mary's Mission facilities could also be used to house students. This option was used temporarily for the start of the 2008-09 school year as renovations were completed on the elementary school building.

28. Describe at least two and preferably more viable (realistic) options in addition to the proposed project that have been considered in the planning and development of this project. Major maintenance projects should include consideration of project execution options (phasing, in-house vs. contracted construction), and material selection options; New school construction projects need to include a discussion of existing building renovation, acquisition or use of alternative facilities, a life cycle cost analysis and cost benefit analysis, and service area boundary changes where there are adjacent attendance areas; Projects proposing the addition or replacement of space need to consider acquisition or use of alternative facilities, a life cycle cost analysis and cost benefit analysis, and a service area boundary change option where there are adjacent attendance areas. (25 points possible)

(Refer to AS 14.11.013(b)(6). If attached documentation is intended to address this question, please note the attachment in question 31.)

Option No. 1 +2 – Construct new space adjoining High School building, originally represented as Option 1 in the conceptual design. This was the preferred option as it better integrates the new space with the existing building and educational program, and allows students to access the gym for classes and assemblies directly from within the existing building, without needing to go outside in the cold. It also makes it somewhat easier to provide utilities for the new addition. The down side of this location is that the terrain and soils are not as good around the existing school as farther down the site closer to the elementary building.

In developing the schematic design, the architects put forward two different options for locating the gym in relation to the existing building as shown in the drawings. The selected design placed the farther to the west off the rear corner of the existing building. This location allowed better access to parking, and allowed to the open sightlines between the high school and elementary buildings to be maintained. The alternate design would have required modification of the administrative offices, and would have lost the visual control of the campus.

Option No. 3 – Construct an independent structure between the High School and elementary buildings, represented as Option 2 in the conceptual design. This was the second choice of the concepts, as it would still locate the new space much closer to the existing high school building. Because of some of the site limitations, it also would have allowed somewhat easier public access than Option 1. However, this location would also likely require a thermopile foundation due to the soil conditions.

Option No. 4 – Construct new space adjoining Elementary building, represented as Option 3 in the conceptual design. This option would be have been a fallback choice. Construction at this location was thought to be the easiest, and anticipated that standard piling could be used for the foundation. The site is also flatter down around the elementary, and public parking and access are easier to accommodate than farther up on the site. However, placing the new gym here would still require the high school students to hike back and forth in the cold for PE classes, and would still intermingle the elementary and secondary students as happens currently.

Option No. 5 – Gym flooring. Sheet rubber flooring and engineered wood athletic flooring have both been considered viable. Rolled rubber is typically less expensive and can be easier to maintain, but wood is considered a superior surface for the basketball court. However, new generations of engineered wood flooring is more durable and easier to maintain than traditional strip wood flooring. This decision will be finalized later in design.

Option No. 6 – Siding options. There was discussion on the type of siding that would be used on the building. Originally, a stained, lapped cedar plywood siding was envisioned. This was thought to be more visually interesting, and slightly less expensive. However, looking at the long term maintenance of the building, it was decided that prefinished metal panels, though slightly more expensive, would provide greater durability and need less ongoing maintenance.

29. Quantify the project's annual operational cost savings, if any, in relation to the project total cost. (30 points possible)

(Refer to 4 ACC 31.022(c)(3). If attached documentation is intended to address this question, please note the attachment in question 31.)

Since the square footage of the high school will nearly double with the addition of the gym facility and no changes will be made to the existing building, by definition costs will only increase with the construction of the new gymnasium. However, as described in the schematic design report, the additional space will be constructed to be as energy efficient as possible, with a very well-insulated building envelope, T5/T8 or LED interior lighting, LED exterior lighting, and DDC mechanical controls and CO2 sensors integrated into the existing DDC system recently installed at the school as part of the 2007 renovations. High efficiency boilers, and variable speed pumps and motors will be used for mechanical systems.

Materials used inside and out will be designed for maximum durability and minimum ongoing maintenance requirements.

FACILITY MANAGEMENT

30. Provide documents related to the district's maintenance and facility management program. Include management reports, renewal and replacement schedules, work orders, energy reports, training schedules, custodial activities, and any other documentation that will enhance the requirements listed in the instructions. *(Refer to AS 14.11.011(b)(1), AS 14.11.011(b)(4), AS 14.14.090(10), 4 AAC 31.013 and accompanying instructions. Note attached documentation in question 31.)* (55 points possible)

Assessment # 1)	*Maintenance Management Narrative (Up to 5 Evaluative Points)*
Assessment # 2)	*Maintenance Labor Reports (Up to 15 Formula-Driven Points)*
Assessment # 3)	*PM/corrective maintenance reports (Up to 10 Formula-Driven Points)*
Assessment # 4)	*5-Year Average Expenditure on maintenance (Up to 5 Formula-Driven Points)*
Assessment # 5)	*Energy Management Narrative (Up to 5 Evaluative Points)*
Assessment # 6)	*Custodial Narrative (Up to 5 Evaluative Points)*
Assessment # 7)	*Maintenance Training Narrative (Up to 5 Evaluative Points)*
Assessment # 8)	*Capital Planning Narrative (Up to 5 Evaluative Points)*

ATTACHMENTS — Andreafski High School Gym Construction

31. Please check to indicate all items that are attached to this application and note that two copies of each attachment should be included. Attachments designated as **Required** must be included for the application to be considered complete. Some items may not be applicable to specific projects.

- ☐ Documentation establishing compliance with 4 AAC 31.080 *(question 2c)*
- ☒ Six-year Capital Improvement Plan (CIP) *(question 3)*; **Required for eligibility**
- ☒ Description of maintenance and facilities management program *(question 30)*; **Required for eligibility**
- ☐ Transition plan for state-owned or state-leased properties *(question 8)*
- ☐ Justification for waiver of participating share *(question 11)*
- ☐ Site description, site requirements, and/or site selection analysis *(question 15)*
- ☒ Facility condition survey *(question 16)*
- ☒ Facility Appraisal (*question 16*)
- ☒ Planning documentation (*question* 16)
- ☒ Schematic Design documentation *(question 16)*
- ☐ Design Development documentation *(question 16)*
- ☐ Cost/benefit analysis *(questions 17, 18, 28, 29)*
- ☐ Life cycle cost analysis *(questions 17, 18, 28, 29)*
- ☐ Value analysis provided *(question 17, 18, 28, 29)*
- ☐ Budget variance justification *(question 18)*
- ☒ Cost estimate worksheets *(question 18)*
- ☒ Capacity calculations of affected schools in the attendance area/areas *(question 20, 21)*
- ☐ Enrollment projections and calculations *(question 23)*
- ☐ Appropriate compliance reports *(i.e., Fire Marshal, AHERA, ADA, etc.)*

CERTIFICATION

32. I hereby certify that this information is true and correct to the best of my knowledge, and that the application has been prepared under the direction of the district school board and is submitted in accordance with law.

Superintendent or Chief School Administrator

Date

Supplementary Information

ADM Projection Comparison

School District: Saint Mary's
School Name: St. Mary's School
Project Number: 14-xxx
School Type: **Secondary**
Attendance Area: St. Mary's

High School only.

2012 :ADM Year

Historical Attendance Area ADM by Fiscal Year

	FY2004	FY2005	FY2006	FY2007	FY2008	FY2009	FY2010	FY2011	FY2012	Average Annual ADM Change	Overall ADM Growth
Attendance Area	147.50	154.70	164.80	185.35	186.30	176.80	164.15	176.50	180.90	**2.77%**	**22.64%**

Future School ADM Projections by School Year

		2012-2013	2013-2014	2014-2015	2015-2016	2016-2017	2017-2018	2018-2019	2019-2020	Average Annual ADM Change	Overall ADM Growth
District's K-6 Projection	--	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
District's 7-12 Projection	--	81.91	84.18	86.51	88.90	91.36	93.89	96.49	99.17	**2.77%**	**24.43%**
									99.17		
EED's K-6 Projection	--										
EED's 7-12 Projection	--	81.91	84.18	86.51	88.90	91.36	93.89	96.49	99.17	**2.77%**	**24.43%**
									99.17		

Future school projections based on school ADM population for the 2011-2012 school year:

0.00 K-6 students
79.70 7-12 students
79.70

Note: District projection numbers shown in italics were not provided by the school district.

Allowable Gross Square Footage

District:	Saint Mary's
School:	St. Mary's School
Project Number:	14-xxx
School Type:	**Secondary**

Projected ADM (K-6):	#VALUE!	* #	
Projected ADM (7-12):	99.17	* #	
Existing DEED designated GSF	15,435 SF	^	
Existing GSF To Remain:	15,435 SF		Includes high school and half of Yupik Bldg
Additional GSF Requested:	14,825 SF		
Total GSF Proposed:	**30,260 SF**		
Eligible Base GSF:	16,363 SF		
Eligible Supplemental GSF:	13,897 SF		
Total GSF Eligible:	**30,260 SF**		
Additional GSF Allowable:	14,825 SF		
Additional GSF Reduction:	0 SF		

Current Capacity and Unhoused

District:	Saint Mary's
School:	St. Mary's School
Project Number:	14-xxx
School Type:	**Secondary**

Current ADM (K-6):	0.00
Current ADM (7-12):	79.70
Existing GSF:	15,435 SF
Existing GSF Elementary Capacity:	0.00
Existing GSF Secondary Capacity:	40.02
Existing Base GSF:	6,604 SF
Existing Supplemental GSF:	8,831 SF
Existing GSF Serving Total ADM:	15,435 SF
Unhoused Students:	39.68
Current Percent Capacity:	**199.14%**

Projected Capacity and Unhoused

District:	Saint Mary's
School:	St. Mary's School
Project Number:	14-xxx
School Type:	**Secondary**

Projected ADM (K-6):	#VALUE!
Projected ADM (7-12):	99.17
Existing GSF:	15,435 SF
Existing GSF Elementary Capacity:	0.00
Existing GSF Secondary Capacity:	40.02
Existing Base GSF:	6,604 SF
Existing Supplemental GSF:	8,831 SF
Existing GSF Serving Total ADM:	15,435 SF
Unhoused Students:	59.14
Projected Percent Capacity:	**247.77%**

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SMCSD HIGH SCHOOL GYMNASIUM — ST. MARY'S, ALASKA

August 4, 2011

TO: Dave Herbert, Principal
St. Mary's Community School District

FROM: Ryan Wrocklage, Architect
Larsen Consulting Group

RE: Gymnasium Conceptual Plans

DESIGN SUMMARY

In developing the conceptual design for the new gymnasium several major priorities and impediments were considered. The way in which these factors worked together led to examining different options and weighing the pros and cons of each. Three options have been included, with summaries below and sketches attached, for your review that take into account the following factors:

PRIORITIES	IMPEDIMENTS
Location near High School	Soil Conditions
Public Access	Surface Access Conditions
Use of Existing Facility	Existing Structures (utility lines, water and fuel tanks, housing)
Efficient Use of Space	

No option could be conceived that included all of the priorities or avoid all of the impediments. Ultimately, since the new facility is to be a high school gymnasium, Option 1 is determined to be the most desirable on account of being directly attached directly to the high school building.

DESIGN OPTIONS

Option 1 (Preferred Solution)

In this option the new gymnasium is directly attached to the high school building increasing accessibility to the facility and no longer requiring students to walk over to the elementary school. Both school buildings will have their own gymnasiums which facilitates more efficient scheduling and utilization. The major technical hurdle to overcome is the very poor soils in this area. Silty contents create very unstable soils which will require a more elaborate and expensive thermal pile installation that mimics the high school foundation. Additionally, the gymnasium would be located over an existing, buried water line. The new pile foundation may not negatively impact the water line during installation but may create more difficult maintenance or repair in the future. Public access to the gym in this location is also very limited. One side of the gymnasium sits very close to the property line and another side faces the recently installed fuel and fire water tanks. At the main entrance shown on the floor plan public access is across a large section of commonly wet ground.

Option 2

As an alternate, using a similar design, the location o f the gymnasium was moved to be near the high school but not directly attached. The benefit to this solution is to keep the new building from being constructed above the buried water line. This location will also provide better public access. The same technical hurdle remains, however, and the existence of poor soils will still require the more expensive thermal pile installation.

Option 3

In an attempt to remove all of the impediments of the first two options, building the gymnasium attached to the elementary was explored. While it is not preferred to require the high school students to walk over to the gymnasium, this option does work very well. The soils between the elementary school gymnasium and the Yup'ik building are extremely stable with solid rock. Thus, a traditional, and less expensive, pile installation can be used. This location will not be over any existing, buried utilities but will require an existing teacher housing duplex to be relocated elsewhere on the campus. Public access for this location is much better and can be accessed either through the existing elementary school gymnasium or through its own exterior entrance near the road. By being attached to the existing gymnasium the kitchen and restroom facilities in the elementary school can now be used for required concessions and public facilities. This will make better use of the available building area for the remaining spaces of the building – an added benefit that does not exist in the first two options.

CONSTRUCTION SYSTEMS

Building Structure:

- Foundation: Steel piles with steel bracing and thermal radiators
- Floor Framing: Glulam beams with plywood web joists
- Wall Framing: 8" Structural Insulated Panels (SIP)
- Roof Framing: Pre-manufactured wood trusses

Insulation Values:

- Floor: R35
- Walls: R35
- Roof: R50

Exterior Finishes:

- Walls: Pre-finished steel siding
- Roof: EPDM roofing membrane
- Windows: Triple-pane, low-E
- Doors: Painted steel doors and frames

Gymnasium Finishes:

- Floor: Sport Court modular rubberized system
- Walls: Painted gypsum wall board with impact protection and sound attenuation panels
- Ceiling: Sound attenuation panels attached to the ceiling structure
- Equipment: Built-in bleachers with storage below, retractable stage, retractable backboards

Interior Finishes:

- Floor: Rubber tile
- Walls: Painted gypsum wall board and prefinished FRP and MDF panels.
- Ceiling: Suspended acoustical tile

Mechanical & Electrical:

- Heating / Ventilation: Forced air heating and ventilation to match the other buildings
- Exterior Lighting: Low-consumption, vandal-resistant LED wall packs
- Gym Lighting: Suspended, impact-resistant fluorescent to match existing gymnasium
- Interior Lighting: High-efficiency T5 fluorescent to match other buildings

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CONSTRUCTION ESTIMATE

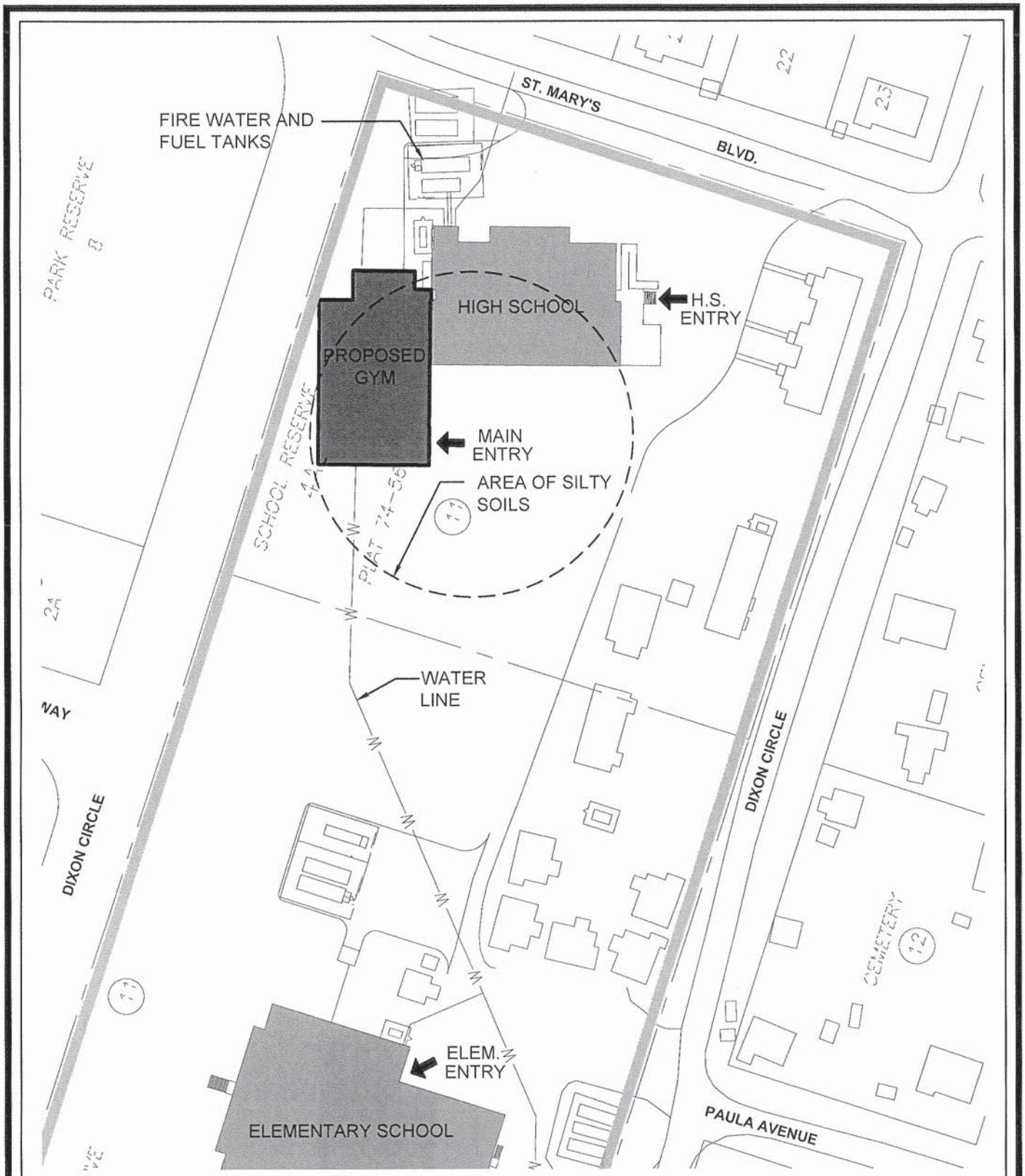
The construction cost estimate of is an area-based rough order of magnitude (ROM) based on the construction systems listed above. Options 1 and 2, which include the thermal pile installation, is based on a ROM value $750/square foot while Option 3, with the traditional pile installation, is based on a ROM value $700/square foot.

Option 1 – Attached to HS	11,509 sf x $750/sf	**$8,631,750**
Option 2 – Detached Near HS	11,543 sf x $750/sf	**$8,657,250**
Option 3 – Attached to ES	11,542 sf x $700/sf	**$8,079,400**

Prepared by,

Ryan Wrocklage, Architect | LEED AP | AIA
Larsen Consulting Group, Inc.

Attachments: Conceptual Gymnasium Plans



OPTION 1 - SITE PLAN

SCALE: 1"=100'

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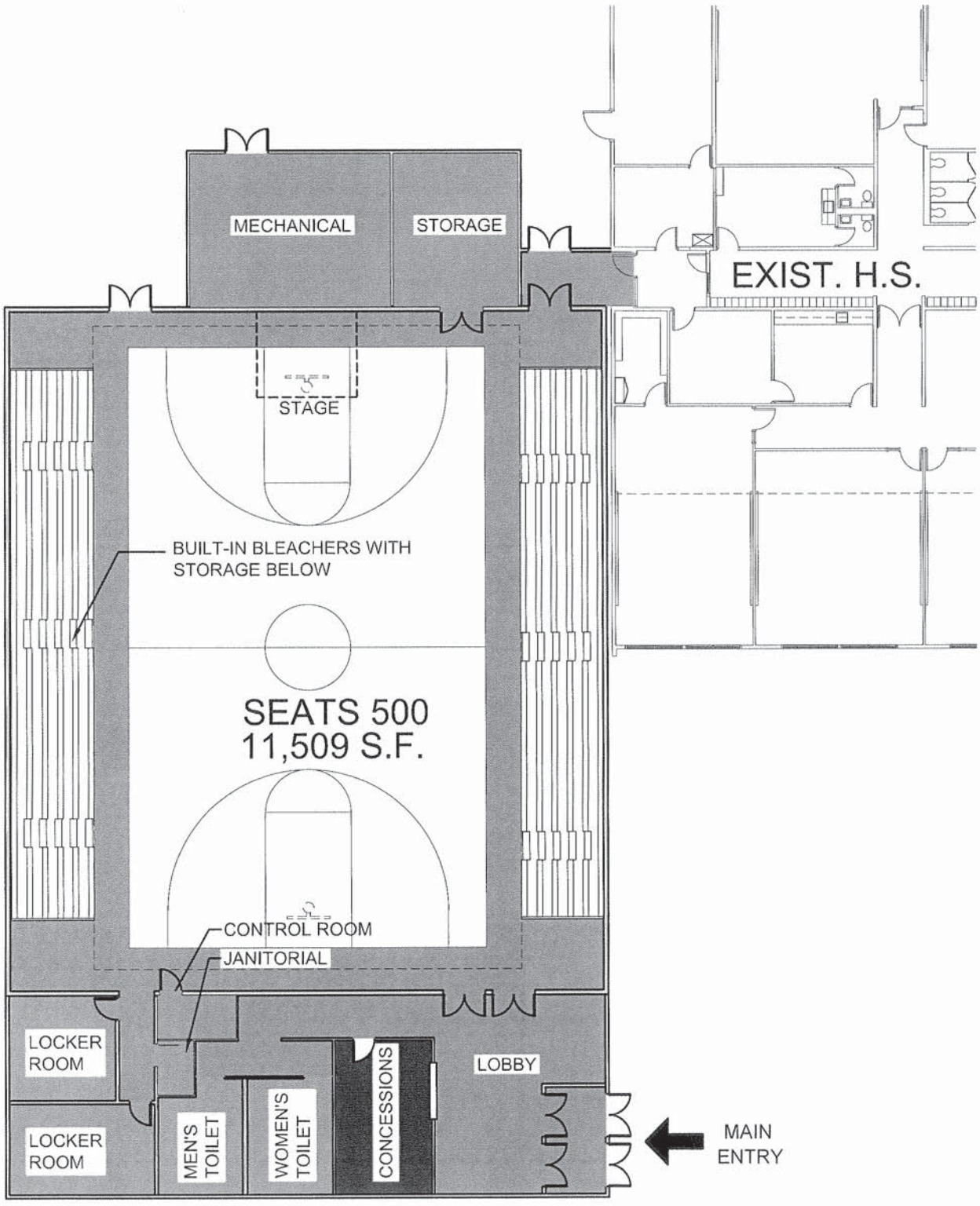

OPTION 1 - FLOOR PLAN

SCALE: 1"=20'

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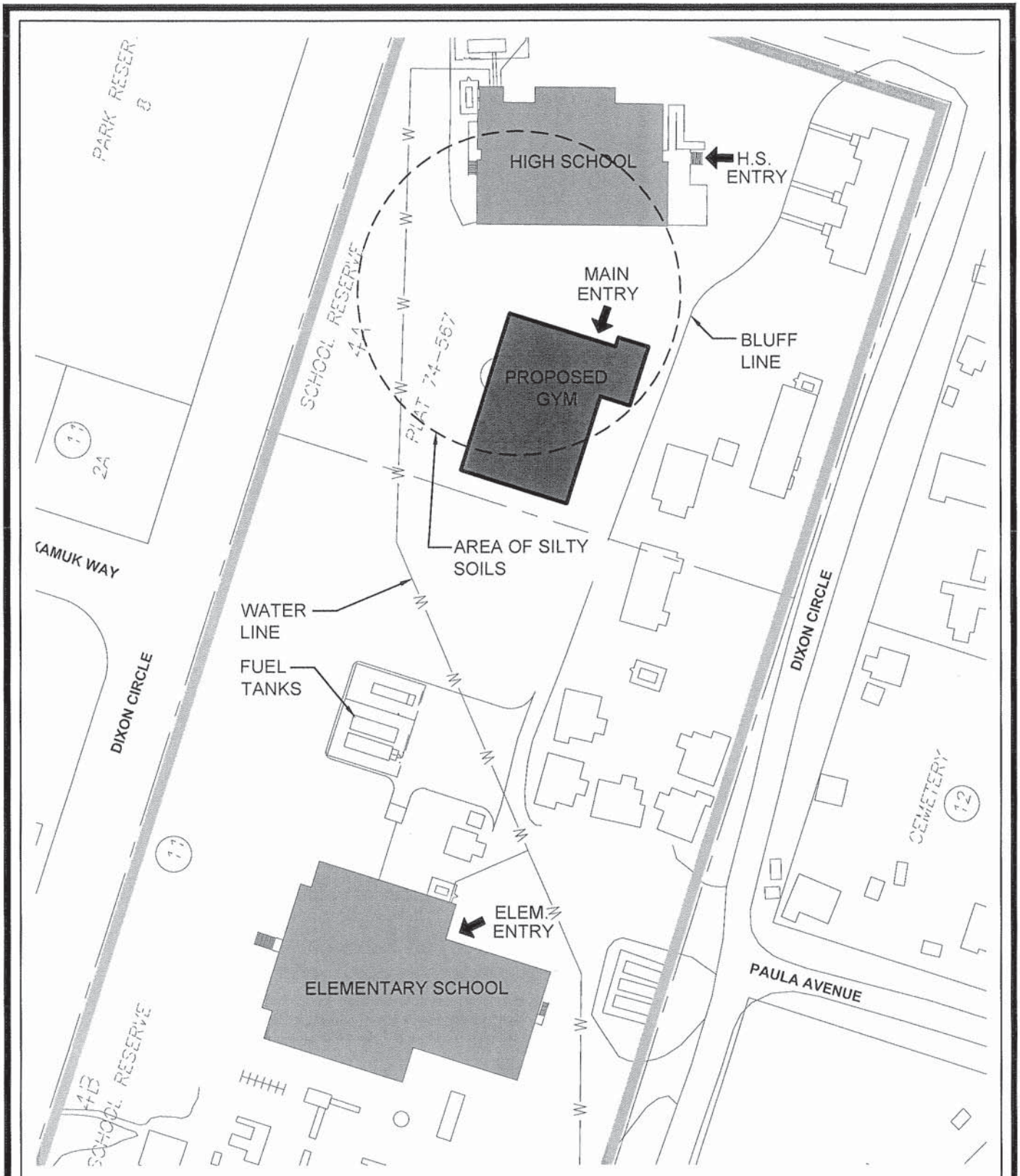

OPTION 2 - SITE PLAN

SCALE: 1"=100'

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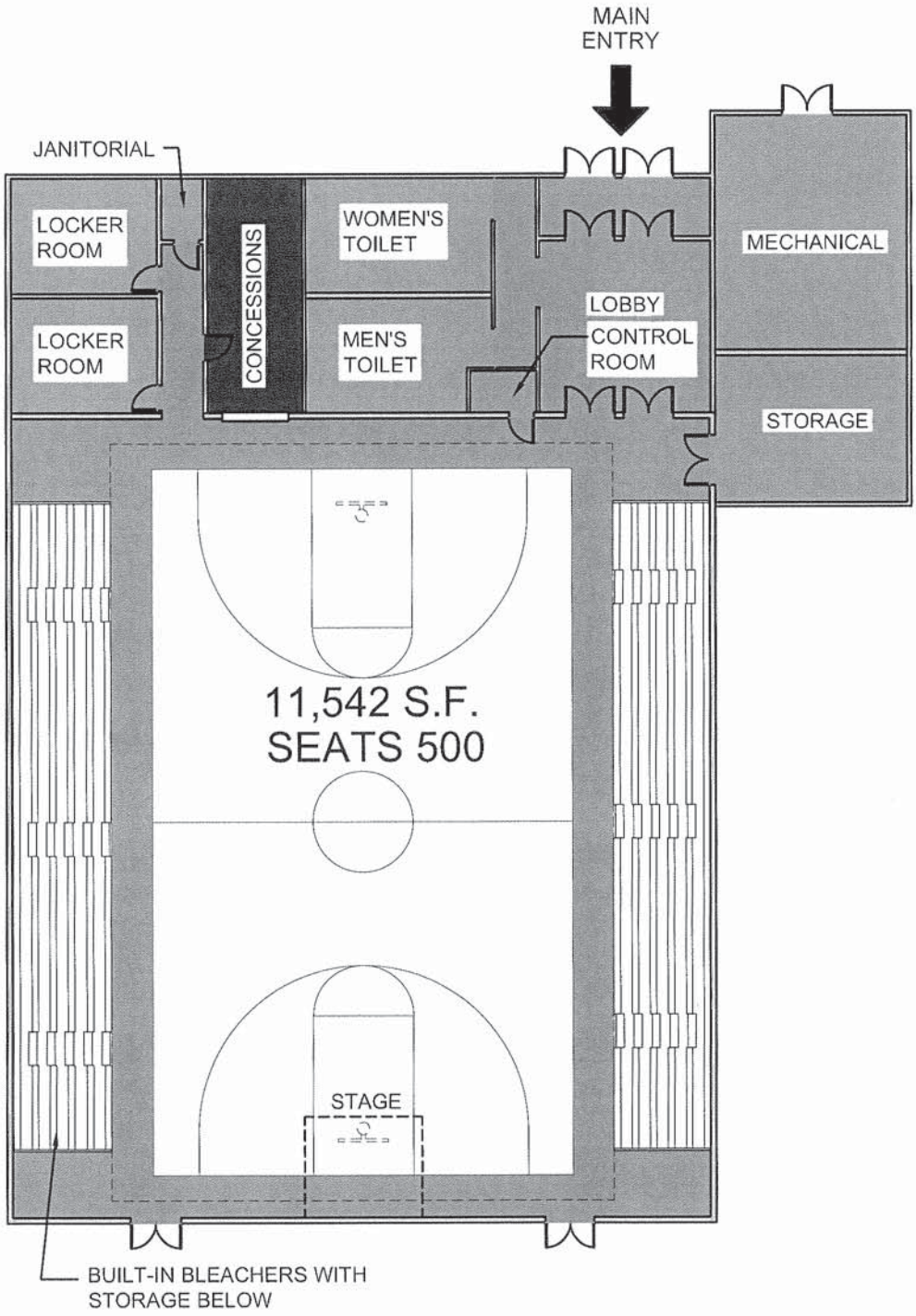

OPTION 2 - FLOOR PLAN

SCALE: 1"=20'

JULY 27, 2011

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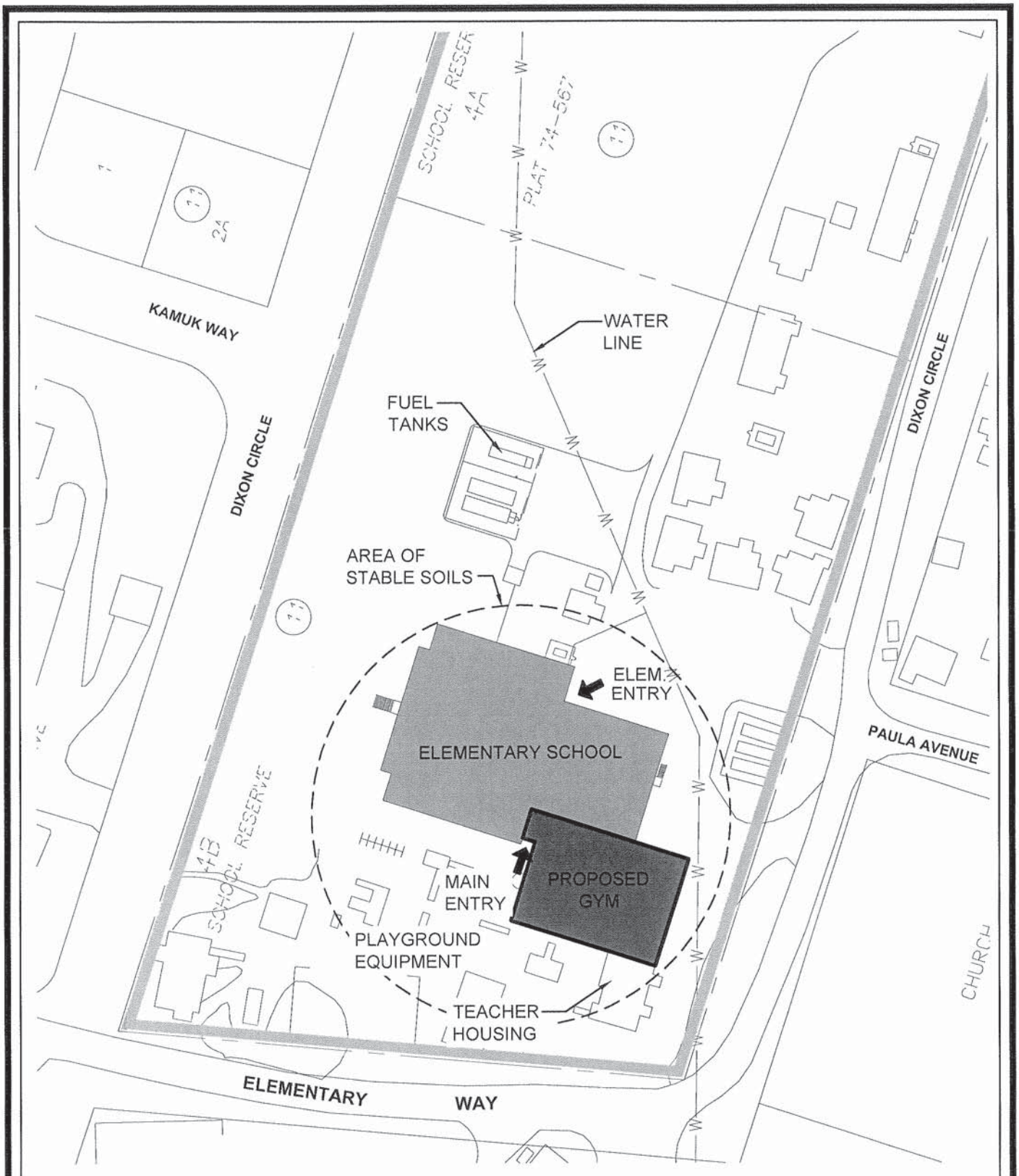

OPTION 3 - SITE PLAN

SCALE: 1"=100'

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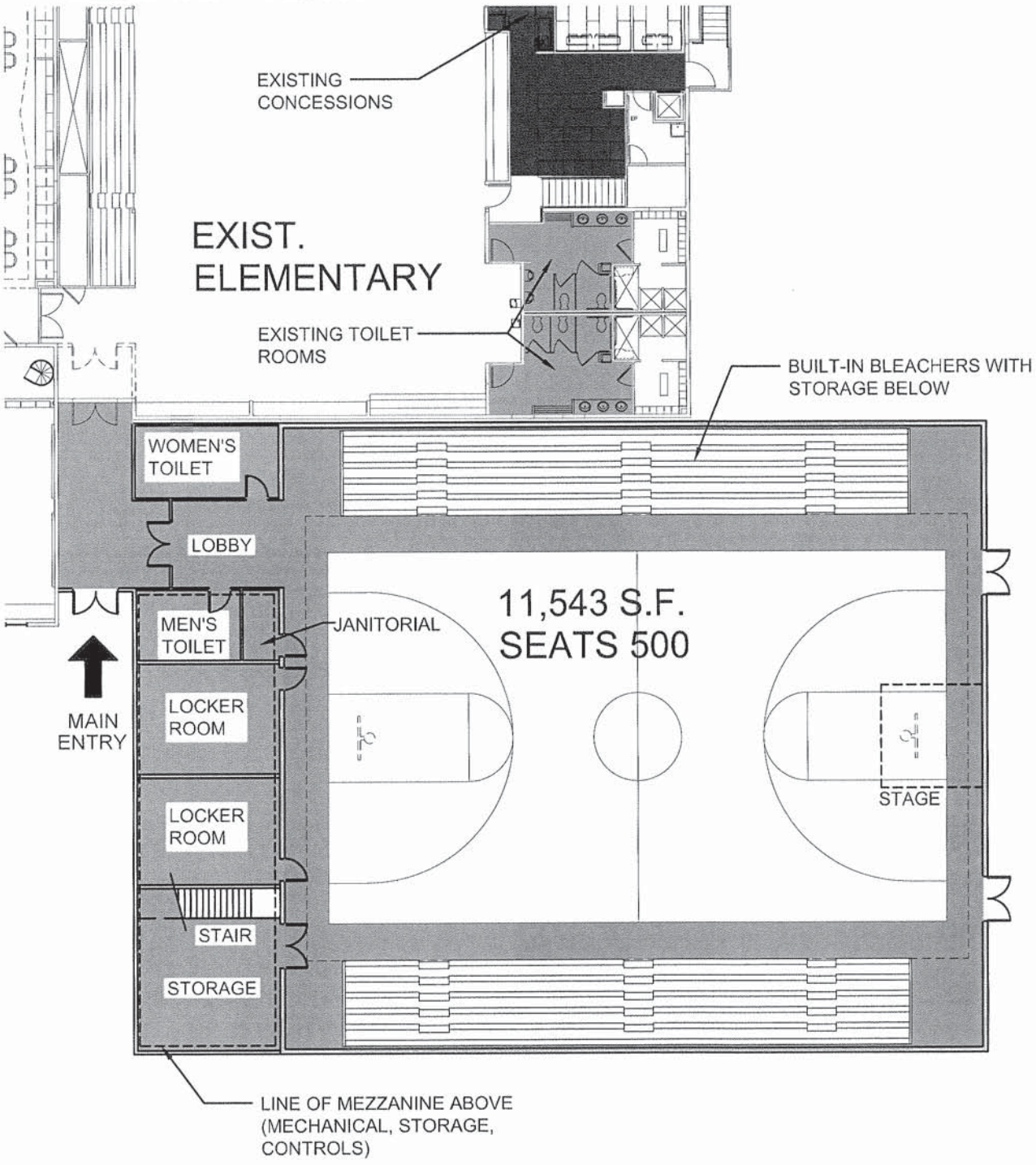

OPTION 3 - FLOOR PLAN

SCALE: 1"=20'

JULY 21, 2011

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