

CONSTRUCTION PROJECT MANAGEMENT



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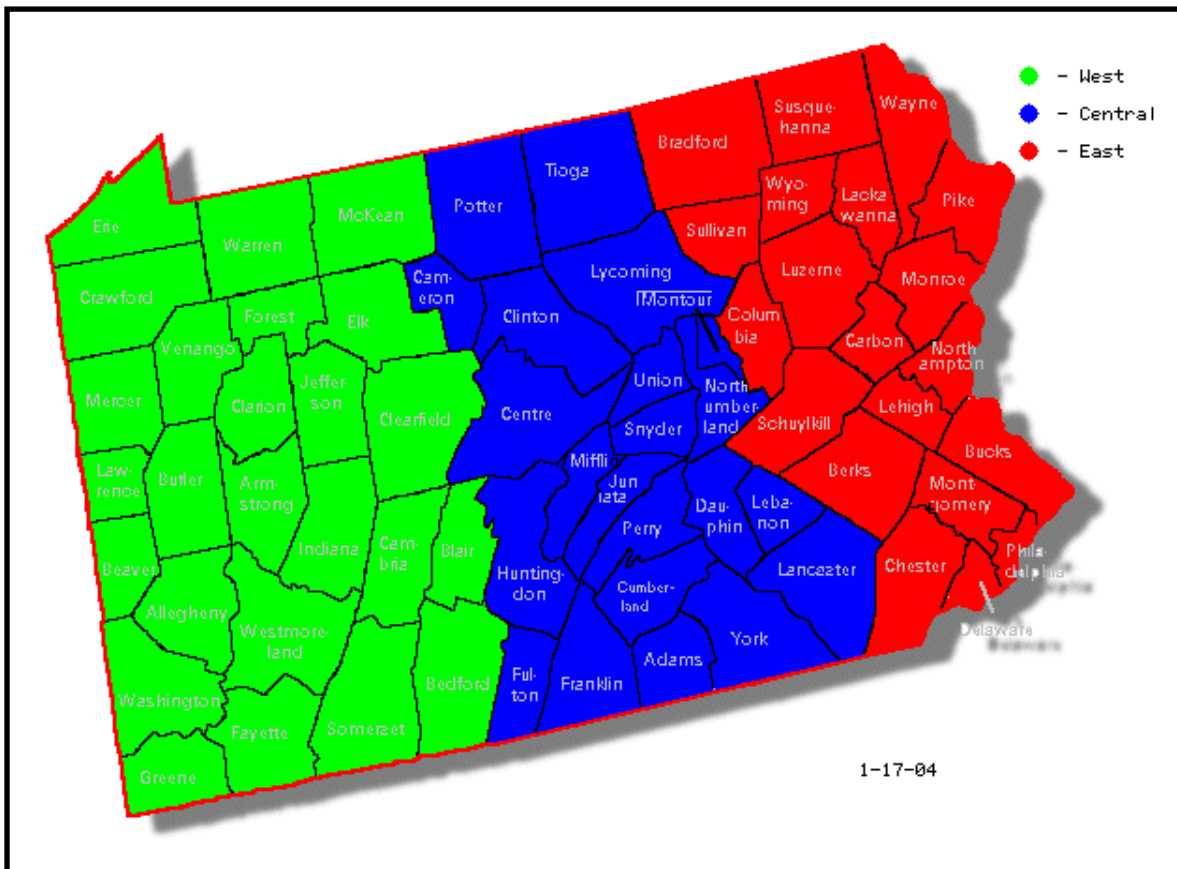
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SITE PLAN

Please See Appendix A.2 for Site Plan

The site plan shown in Appendix A.2 shows the existing conditions as well as the building footprint. There will be two additions to the existing building structure. One addition will connect in to the existing Health Care Center from the south, while the other addition (the gymnasium) will connect from the east. The parking lot south of the existing building will be demolished to make room for the new addition. A new parking lot will be built in which it will serve for contractor parking and trailers. The location of this lot is south east of the current Health Care Center. Three crane locations have been designated on the site plan to show where their possible locations may be. Also, a neighboring campus building, located west of the existing building, is within 50 feet of the construction site. It will be important during construction not to interfere or damage that neighboring building. It also brings up a safety concern for the pedestrians who visit the building.

LOCAL CONDITIONS



(Figure 1) Picture of Pennsylvania's counties

LOCATION

The location of the Health Care Center is in Dauphin County, central Pennsylvania (see Figure 1). In this particular area of Pennsylvania, structural steel framing with slab-on-deck buildings seems to be the most common or specific method of construction. Some reasons for these types of buildings are that steel buildings tend to cost less and can be erected fast.

Since the site of the building is located in a rural area, construction parking is not as big a concern compared to a project located in a congested city area. In the first part of the phasing plan, construction will start with excavation and demolition of the existing parking. During this period new roads and parking lots will be built which will serve as parking for the contractors. Also one of the permanent parking lots will be expanded and made into a temporary lot to allow for 50 parking spaces for the contractors.

LOCAL CONDITIONS

WASTE

All waste on site will be disposed by dumpsters. These dumpsters will be placed by the entrance gate and will cost \$300 per dumpster. The construction manager, Gilbane, will also be implementing their waste management plan to make the work environment a “green” environment. Gilbane plans on salvaging and recycling 75% by weight of the waste generated on site. There will be five segregated waste dumpsters to separate wood, scrap metal, cardboard, and concrete from all other waste. All waste will be monitored so that salvageable material can be reused and all other waste will be taken to a landfill.

SUBSURFACE CONDITIONS

The Health Care Center falls in the Valley and Ridge Physiographic Province (see Appendix B.2), which is predominantly made up of bedrock and limestone. Topsoil and bituminous pavement cover large parts of the site. Sieve and hydrometer tests were taken to determine that subsurface soil conditions also consist of sands, silts, clay, and mixtures between all of them. Based on all the information from the tests, the soils were concluded to be suitable for the proposed construction. The water table was measured to be 20’ below the existing ground surface elevation at an elevation of 380. Since the basement elevation will be positioned at 391.7 the water table should not impact the construction of the building. The contour of the Health Care Center site tends to slope downward in a south to southwest direction in which gradients range from 2 to 3 percent in some areas to 6 to 8 percent in other areas.

CLIENT INFORMATION

CLIENT

The Health Care Center is owned by an anonymous boarding school that was originally founded in 1909. It started as an idea from a wealthy and successful businessman and his wife who lived in the area, for children who were less fortunate. Since then the school grew to over 1400 students, and with the increase in the student body the existing Health Care Center needed additions to provide more care for the students. The owner is very experienced in construction and the additions are one of many buildings that have expanded the boarding school. The owner has its own planning, designing, and construction division who deals with the construction of buildings. Many expectations have been set by the owner on this project including cost, schedule, quality, safety, and LEED certification.

BUDGET & SCHEDULE

Both the budget and the schedule are important to the owner. The project, like many projects, is on a tight budget and it is very important that the building stays within the budget. Change orders and such will not only cost more money but it will also push back the length of completion. Time is also a concern for the owner. It is crucial that the building is and operational in its proposed schedule. The existing Health Care Center must remain open and operational until the additions are completed. Once finished renovation work may begin. This will allow for an easy transfer of care from the existing building to the new addition without shutting down the entire facility.

QUALITY & SAFETY

Quality and Safety are two more expectations that the owner has. A quality plan has been formed to prevent errors on the project and to ensure that all work is in conformance to the contract documents and requirements. Some requirements in the quality plan are kick-off/pre-installation meetings and several different kinds of inspections. Also warranties are written into the contract to guarantee that materials and equipment is of good quality. On the other side, safety is one of the most important expectations of a construction project. Again a safety plan was developed to over look the entire safety of the project. This plan is to make certain that all performed jobs and the work environment is safe and free from injury meeting all of the OSHA requirements.

CLIENT INFORMATION

LEED CERTIFICATION

Lastly, the Health Care Center was designed to be environmentally friendly to receive LEED certification. Several things were added into the design and in the construction of the building to ensure that the additions will be certified. Such examples are the indoor air quality plan, the green roofing system, and waste management plans. It is very important that any LEED rated material is to be called out in the specs as well as submitted.

PROJECT DELIVERY SYSTEM

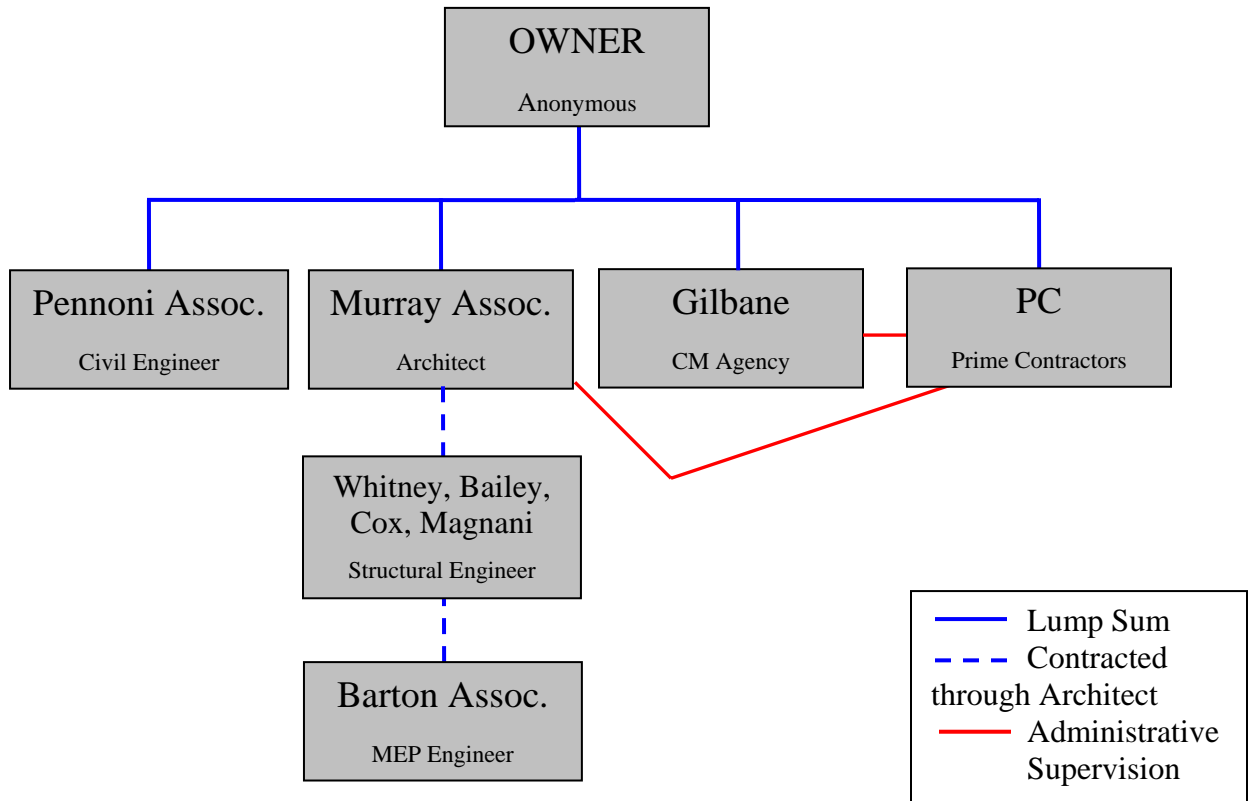
The project delivery system is very interesting in that it is kind of a hybrid with design-bid-build and CM agency. The system has gone through the design-bid-build processes but Gilbane is acting as a CM agent. As mentioned earlier the owner has a division called Planning, Designing, and Construction (PDC). This division works on projects such as the additions and renovation for the Health Care Center. The PDC will go out and hire a program manager for all of their projects.

In this type of delivery system the owner will hold all of the contracts, with the contracts being Lump Sum. The PDC chose to run the project this way because they run all of their projects this way. The PDC has become very comfortable and familiar with this system. The previous relations that Murray Associates had with the owner helped them win this job. The mechanical and electrical engineers are contracted through the architect. The civil engineer on the other hand is contracted directly through the owner, just like the CM and prime contractors. Together, there are 18 contracts that have gone out to bid.

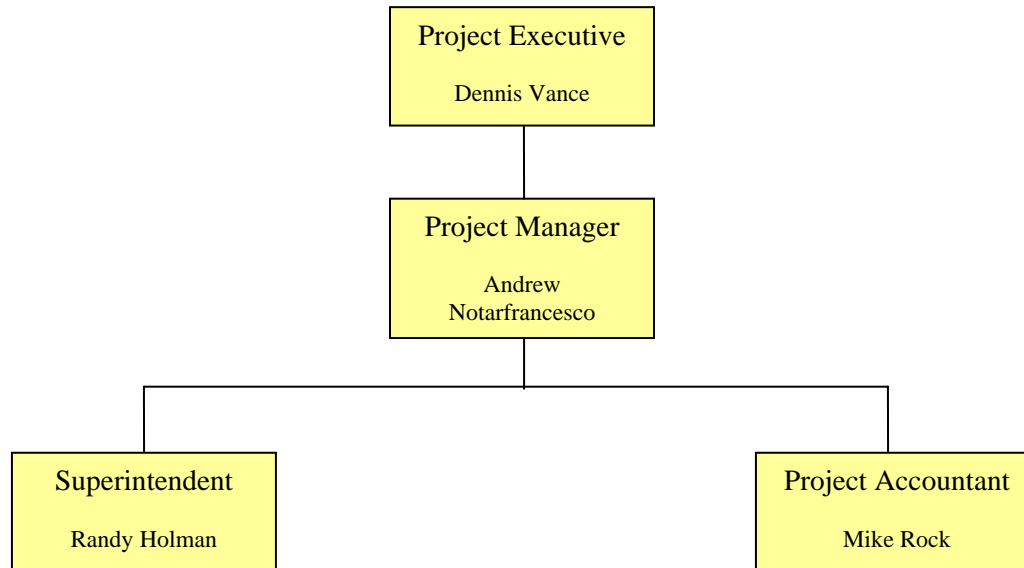
The Architect and CM will provide administration of the contract as described in the contract documents as well as advise and consult with the owner. The CM has several responsibilities including the following; determination of work being performed in accordance with the contract, schedule and coordinate the activities of the contractor, communication between owner and contractor, review and certify all payments by the contractor, and prepare change orders.

There are some insurance and bonds that are required also. The contractor must purchase Contractor's Liability Insurance. The contractor is also required to buy performance and payment bonds. The owner is also required to buy Owner's Liability Insurance along with any other insurance for self-protection against claims. Along with liability insurance, the owner must purchase Property Insurance in the amount of the contract sum and Boller and Machinery Insurance. At the owner's option, the owner may buy Loss of Use Insurance to cover property loss due to fire or other hazards.

HEALTH CARE CENTER PROJECT ORGANIZATIONAL CHART



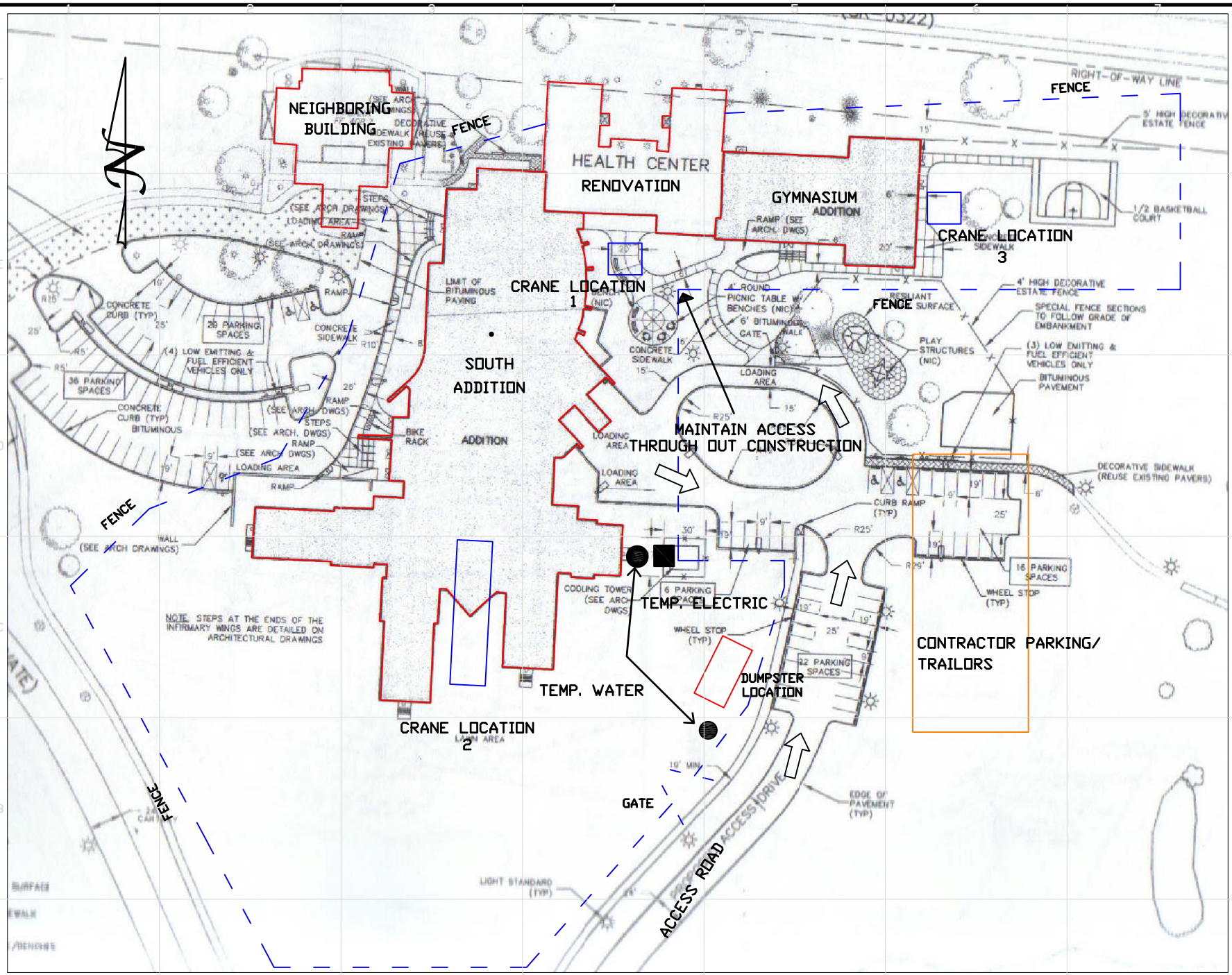
STAFFING PLAN FOR GILBANE



Gilbane's staffing on the Health Care Center consists of a project executive, project manager, superintendent, and project accountant (pictured above). Dennis Vance, the Project Executive, will be on and off for the duration of the project because the Health Care Center will be one of several projects in which he is the Project Executive. Andrew Notarfrancesco is the project manager and has several responsibilities. Andrew will be holding project meetings, dealing with logistic issues and managing Gilbane's staff. It is also his responsibility to review and process submittals, RFIs, Field Directives and Change Orders. Randy Holman, the Superintendent, will also help Andrew with Field Directives, but Randy will focus more on issues that arise in the field. The Project Accountant, Mike Rock, will be handling all of the project expenses, payment applications and payment requisitions.

APPENDIX A.2

Site Plan



CREATED BY:
KEN LORENZ

SYMBOL

 TRAFFIC FLOW & AMBULANCE PATH

HEALTH CARE CENTER

OWNER:
ANONYMOUS
 LOCATION:
DAUPHIN COUNTY, PA

MARK	DATE	DESCRIPTION

PROJECT NO.	PROJECT
CAD DWG FILE	FILE
DRAWN	DRAWN
CHECKED	CHECKED

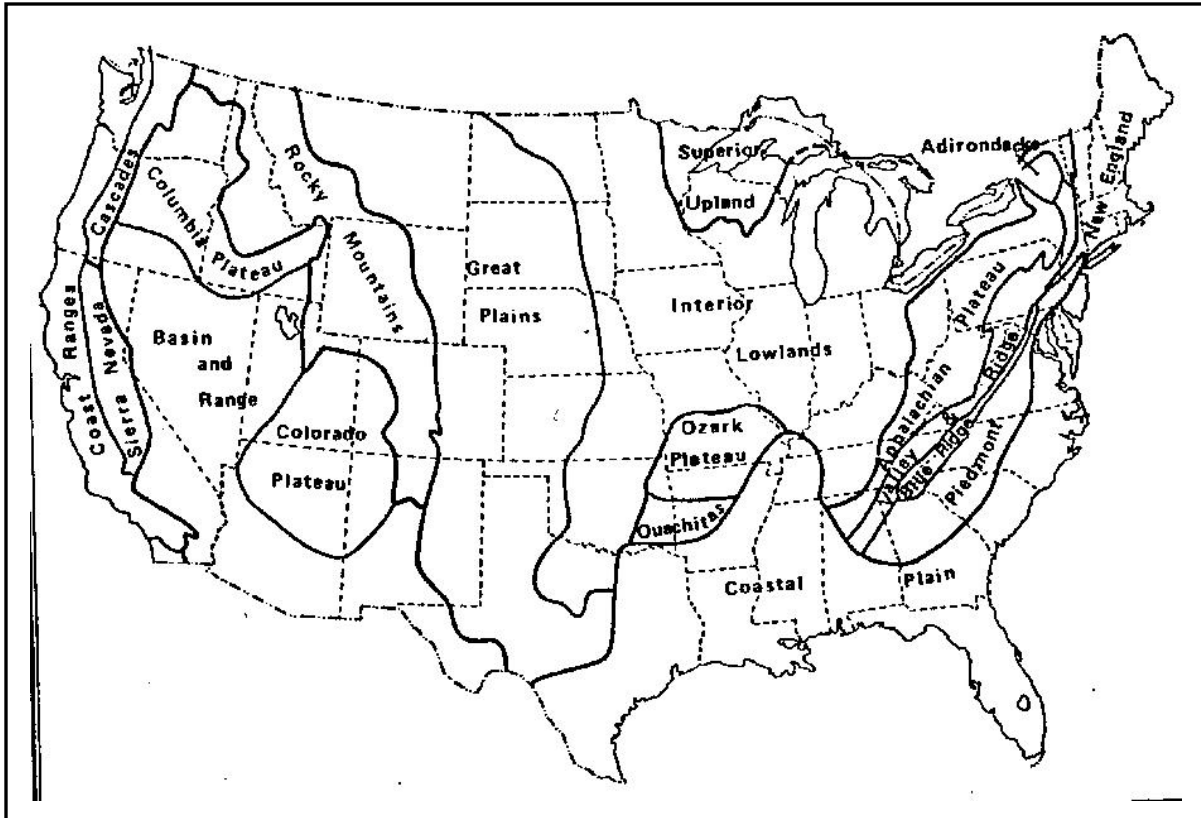
SITE PLAN

HEALTH CARE CENTER SITE PLAN
 SCALE: 1/4" = 1'



APPENDIX B.2

Local Conditions



Shown above is the Valley and Ridge Physiographic Province.