11-10-2008

School as a Center for Community: Establishing Neighborhood Identity through Public Space and Educational Facility

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Establishing Neighborhood Identity
through Public Space and Educational Facility

by

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A thesis submitted in partial fulfilment
of the requirements for the degree of
Masters of Architecture
School of Architecture and Community Design
College of Graduate Studies
University of South Florida

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Date Of Approval:
November 10, 2008

Keywords:
Blake High School, Hillsborough River, Down Town Tampa, River Edge

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ABSTRACT

"Safety is an opportunity for people to open their minds"

-Jin Baek, 2008

For my thesis I will design an education facility. That education facility will strive to meet with today's security needs and will provide a safe-feeling place for growth.

In identifying the problem, I found two main causes for the described conditions in today's schools. They are improper adaptation and uniform building type.

Improper adaptation has to do with surface applications, rather than integrating with the social fabric of the school's communal requirements. Unfortunate incidents have caused the solutions to heightened security around schools to be fortressing and disrupting to the human activities. Metal detectors, restricted areas and alarmed doors are some of the possibly necessary but often overlooked attributes of the school design, which in concentration create a trapping, prison-like feeling where they should suggest a place of voluntary education and inspiration for the future. I will utilize CPTED (Crime Prevention Through Environmental Design) strategies, research codes, new building technologies, materials, systems, arrangements, precedent studies, and testing through simulation or experiment, in a form of installation. I can determine possible solutions and interventions using these resources.

Uniform building type sets a counterproductive precedent. Today we must look at places were young people want to be, and splice the desired attributes of those places in to modern schools. In fact, uniform building type is one of the reasons for improper adaptation. Through interviewing school administrators, building officials, students, faculty, psychologists, builders and other construction professionals, I can identify the mandatory requirements. Implementing security and safety attributes as part of the concept, and knowing trends in technology can help secure educational facilities while still maintaining the qualities that are conducive to a learning environment.

As stated by Holly Richmond in Contract magazine, February 2006 edition,

"Students are the most crucial design element in today's schools," says Kerry Leonard, principal and senior planner at O'Donnell, Wicklund, Pigozzi and Peterson Architects in Chicago and chair of the advisory group for the AIA Committee on Architecture for Education. "Understanding how people learn and creating environments that respond to this knowledge is the best building block to start from."

Schools Vs. Prisons

Things in this universe need space to exist. A certain type of space combined with a certain type of thing creates an environment. This type of relationship denotes causation. Causality postulates that there are laws by which the occurrence of one depends on the occurrence of another, or that the conditions of the space directly affect the thing. Like-wise, the thing brings its own set of conditions imposing on the space, thus altering the environment. In wild nature, things and space in which they dwell tend to work in symbiosis, for better or worse of the thing, or the space. Humans alter the symbiosis to secure themselves as a constant beneficiary of the process. Our view of success is the mass accumulation of certain attributes which may provide physical comforts and security. In reality they emit an illusion of safety and stifle creativity. The more we interfere by surface-treating our fears, the less understanding will our future generations become. This confusion is a vast problem: it touches on every aspect of modern human development, from fossil fuels, cars, and pedestrian unfriendly cities, to the binge and purge mentality toward both products and food, or the neglect with which we construct our environments.

In this paper, I will focus on one of the roots of this ongoing problematic development, specifically the neglect with which we construct our environments. In the U.S. there is a big problem with making bad buildings, simply put. Codes and restrictions, although serving a very positive purpose for “preserving life and safety”, also have bogged a lot of architects into thinking that there is no other reason to design for. Preserving life and safety should be the obvious choices in the design decision-making. In addition, a designer must incorporate elements of sustainability and most importantly an element of humanity. If a

structure does not encourage humans to act in a human way, it has failed as architecture.

For my thesis I will design an education facility. That education facility will strive to meet with today's security needs and will provide a safe-feeling place for growth. During the early years in American history, a school-house was just that - a house. Just a simple room with a couple of windows. Over the years, due to higher attendance, the design simply expanded, growing into a multistory building with an occasional Palladian intervention, courtesy of Thomas Jefferson, or a rip off its castle-like European counterparts. During the 1950's the post WWII paranoia of a nuclear attack changed the building approach to some schools. The idea was to make schools "bomb proof". As ridiculous as it sounds, schools were made lower, usually one storied, bunker-like, available to be adapted for a multi-use building in case of the "big one".

Some additional codes and regulations due to lawsuits and the latest few incidents of murderous and drug peddling attendants have resulted in what we right now identify as a place for the education of our future generations. Lots of American schools from the past and presently being built look more like prisons rather than places for education. How do we expect children to progress in places that are reminiscent of places for recuperation and incarceration? Education curriculum has diversified, and there are no more notions that a school structure needs to be a bomb shelter. So why is the archetype of past American schools haunting today's design?

"The 21st-century school should be built to meet the specific needs of the community, teachers, and most importantly, the students." (Richmond, H. (2000) Contract. The 21st-Century School, 48 no2 F 2006, 38-9)

In identifying the problem, I found two main causes for the described conditions in today's schools. They are Improper Adaptation and Uniform Building Type. Improper Adaptation has to do with surface applications, rather than integrating with the social fabric of the school's communal requirements. When a new "threat" arises, the fastest cheapest thing

is applied, often without consideration of the negative attributes that solution might bring. Unfortunate incidents have caused the solutions to needing heightened security around schools to be fortressing and disrupting to the human activities. Metal detectors, restricted areas and alarmed doors are some of the possibly necessary but often overlooked attributes of the school design, which in concentration create a trapping, prison-like feeling where they should suggest a place of voluntary education and inspiration for the future. Lack of foresight in the original schematic design of schools allows for unfortunate additions to occur.

I will utilize CPTED (Crime Prevention Through Environmental Design) strategies, research codes, new building technologies, materials, systems, arrangements, precedent studies, and testing through simulation or experiment, in a form of installation. I can determine possible solutions and interventions using these resources. CPTED in an organization which promotes crime prevention through physical environments that positively influence human behavior and advises that when remodeling your educational facility or developing a new facility, to make sure that security is a major player in the design process. The organization defines four key principals which they suggest to utilize when designing for an educational facility. The principal of Natural Surveillance, referring to keeping intruders easily observable, promotes adequate nighttime lighting and features that maximize visibility of people, parking areas, and building entrances, pedestrian-friendly sidewalks and streets.

With Territorial Reinforcement, physical design can create or extend a sphere of influence. Users then develop a sense of territorial control while potential offenders, perceiving this control, are discouraged. Territorial reinforcement includes defined property lines and distinguished private spaces/public spaces through the use of landscape plantings, pavement designs, gateway treatments, and fences. Natural Access Control is a design concept directed primarily at decreasing crime opportunity by denying access to crime targets

and creating a perception of risk. The perceived risk is gained by designing streets, sidewalks, building entrances, and neighborhood gateways to clearly indicate public routes, discouraging access to private areas with structural elements. Target Hardening is accomplished by features that prohibit entry or access, target hardening involves window locks, dead bolts for doors, and interior door hinges. Though some of the CPTED principals seem obvious, some designers seen to ignore a lot of them in the primary conception of their projects, utilizing principals of such organizations will help me in my research to identify some of the causes of security problems. CPTED is doing for public safety what LEED is doing for the stainability.

When seeking examples of safety through environment, I will research places like public plazas, parks, and neighborhoods. In good examples such places serve as secure and safe feeling places to inhabit. Schools should be part of a neighborhood to which it belongs, possibly integrated in to its fabric. “Tina Blythe, director of facility development at The Boston Architectural Center….She believes that the monolithic school structure built on the edge of town is the 21st-century school's anti-trend.” (Richmond, H. (2000) Contract. The 21st-Century School, 48 no2 F 2006, 38-9)

Uniform Building Type sets a counterproductive precedent. In my observation, I have found that the general school building shape has a lot of similarities with other buildings meant for recuperation and incarceration. Places like prisons and psychiatric hospitals have been under criticism for being shaped as places for harsh punishment, versus places for recuperation, leading further to statistics that show a large percentage of inmates coming out of prisons worse than they went in. With that said, how can a child in adolescence expect to deal with similar visual conditions and prosper, particularly when schools are not places for reformation but rather they are places for innovation and progression? What stimuli can a young person draw from the inhibiting walls of a correctional facility? Other than the deduction that they don’t want to be in there, nor do they want to go back there, just like prisons, here is little to be inspired by such oppressive and entrapping surround-

ings.

Much like the Greek Temple turning into a beach front five-bedroom-five-bath villa, the look of a school building has been morphed from its institutional predecessor, and in many cases the results are shape look-alikes rather than essence or purpose of a school. Looking through the city we can find numerous spaces where kids gather. Today we must look at places were young people want to be, and splice the desired attributes of those places in to modern schools. The design for a new school should be intriguing and forward driven in its every aspect. “Kerry Leonard, principal and senior planner at O'Donnell, Wicklund, Pigozzi and Peterson Architects in Chicago and chair of the advisory group for the AIA Committee on Architecture for Education, believes schools are a living laboratory of math, physics, biology, and poetry to enlighten students to the interconnected community-and world-around them.”(Richmond,H.(2000) Contract.The 21st-Century School, 48 no2 F 2006, 38-9). Replicating the old school prototype and blindly following the basic requirements in design makes a place that may appear safe and secure in presentation, but what it does not show is all the additions that will have to be slapped on after the building is completed. Chain link fences, metal detectors and security guards don’t make pretty renderings. In fact, uniform building type is one of the reasons for improper adaptation. When designing a new school building, we must consider new materials and technologies that are available in the market. Durability is a major concern for the architect, builder, administration, and the maintenance crew. “Knowing trends in technology, how to assess school safety, and the importance of planning ahead can help secure educational facilities.” (Aker. J.M.(2008) Buildings. The Best Defense: Comprehensive School Security,102 no2 F 60-64). Through interviewing school administrators, building officials, students, faculty, psychologists, builders and other construction professionals, I can identify the mandatory requirements. Implementing security and safety attributes as part of the concept, and knowing trends in technology can help secure educational facilities while still maintaining the

qualities that are conducive to a learning environment.

Schools are one of the most important places that we design. Its inhabitants today will be making decisions that will influence ours and future generations. Today's youth has a lot more distractions and a lot less parental influence. I am not saying that a school should be a complete substitute for what is lacking in the society, even if it could be that for some. Rather, I believe it should be a place where kids become aware of the world around them through exploration and safe interaction.

As stated by Holly Richmond in Contract magazine, February 2006 edition,

"Students are the most crucial design element in today's schools," says Kerry Leonard, principal and senior planner at O'Donnell, Wicklund, Pigozzi and Peterson Architects in Chicago and chair of the advisory group for the AIA Committee on Architecture for Education. "Understanding how people learn and creating environments that respond to this knowledge is the best building block to start from."

Progress Diagram

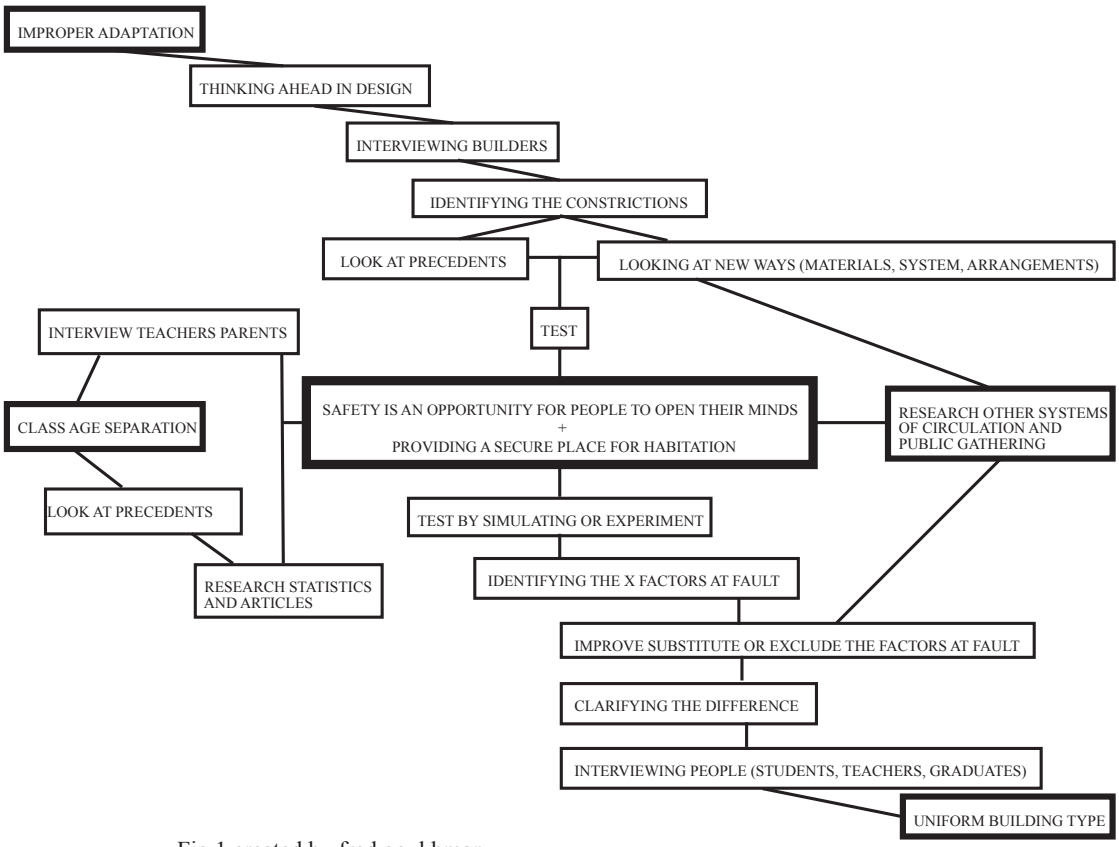


Fig.1 created by fred goykhman

Case study 1

Blake High School

Could a school be more than a place where kids go to from 8am to 3pm?

Could it be a community integrated environment?

How important is the building to this?

Case study #1

Abstract

Blake High School is positioned on the land elbow pushing in to the Hillsborough River just north of the I275 overpass. On the west and south sides the school is pressed by mostly subsidized housing and underprivileged neighborhoods. Being a magnet school Blake draws students from the outside of the neighborhood as well as the local settlements. In its attempt to protect the students the design for Blake High has armored it self ignoring the opportunities that are presented by its strategic location on the river front, crowning a neighborhood and its close proximity to down town Tampa to the south. (fig.1)

Fig.2 Google Earth image

Hypothesis

From over all basic observation the school building does not provide as quality of a space, as it could if:

1. It had stronger relationship to the river and the proposed river walk due to be constructed. Blake is a magnet school for the visual and the performing arts. The river walk could provide an easy access to the art district of down-town Tampa and establish relationships with the performing arts center; also visual art galleries could front the river for public expositions of the student works.
2. It utilize CPTED(Crime Prevention Through Environmental Design) to protect and enhance the student spaces simultaneously. Berm, floor elevation changes, strategic planting, organized gathering areas and scenic paths can create functional and appealing spaces. (Fig. 2.)

Fig.3 courtesy River View

Fig.4 courtesy of ACA INC.

3. High School

3. It had a stronger trust with the adjacent community, strengthening the relationships and gaining better respect from students. Barriers and fences do not provide security they only give an illusion of it, but they contribute an impression of

lack of safety. In fact students sneak out daily during lunch to go to downtown for food variety. If some one can sneak out unnoticed someone can and probably does sneak in. (fig.3.)

Fig.5 courtesy of ACA INC.

Methods of Investigation

From the initial approach Blake High has a very intimidating feel. At ground level the building is a series of staked boxes of brick, mostly solid walls with very occasional upper level penetrations. (fig.4.)

Whether viewing from the West Main St. or North Boulevard the school has a stark disposition. Greeted by the parking structure coming over the bridge going south in North Boulevard and fronted by a large lawn and a baseball field , Blake High design clearly is trying to disconnect from the surrounding community. The current subsidized housing community is pushing in the schools property on the south side. To which the design reacts with a wide service drive and a fence leading to the apparent service end of the building. There is one main entrance in to the school grounds leading through to the court yard facing the river created by the split of the floor plan. The yard is barren and cuts of at a gate necessary for additional security. The inside sides of the building forming the yards are lined with classroom windows. (fig.5.) Unfortunately the window view the opposing window wall rather that

the river. The cafeteria is in the south limb and spills in the court yard, again away from the river. The limbs each end with almost solid structures (fig.6.), the south one being the theater and the north one being the gymnasium. The only interaction with the river is with the art labs at the lower and of the north limb. Again unfortunately no space is designated for gathering.

Fig. 6 ACA INC

Other better local examples are Tampa Preparatory School exhibits manageable central community space. (fig.7) A school in Upper East Side Manhattan opens their doors to allow their students filter into the neighborhood for lunch. (fig.8)

Fig. 7 ACA INC.

Analysis

In my observation of Blake High I have noticed that the biggest problematic issue is the lack of gathering space with in or outside of school. Students lack relaxed interaction time between classes, lunch, and before and after school. Lack of gathering spaces along with the oversized and unusable outdoor area, and inclosing gated appearances. Disconnect from the river and complete brake from down town Tampa. The best course of action is to intervene in the central space all the way to the river with CPTED(Crime Prevention Through Environmental Design) methods to reform the current dead zones, establishing positive

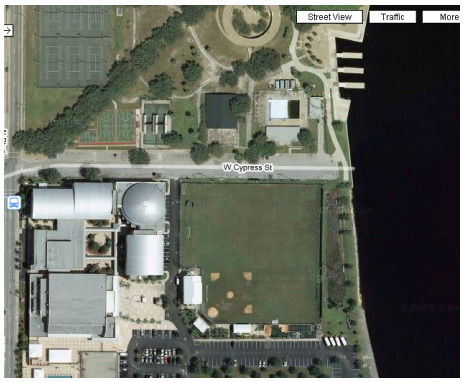


Fig.8 Google maps images

Fig.9 courtesy Ruslan Lisitsa

spaces for gathering, communications, and learning.

Fig. 10 courtesy ACA Inc. **Before**

Fig. 11 ACA Inc. **After**

Conclusion

In theory applying all of these modifications to Blake will improve the overall and individual moral of the student body, and possibly raise the schools over all performance, especially with in the non magnet students. In this demonstration I am proposing a walk way across the grassy retention area which gets flooded during rains. The walk will allow students to access to the busses an accommodation not thought of in the original design. Increasing the depth of the retention area and planting local wetland vegetation will utilize the space as nature intended and add to atmosphere.

Case Study #2

School Building Typology

Abstract

A building is representative of the needs of its inhabitants. A building shapes the perception of its observers and directly controls their perception of it self and the environment it creates. A school building is a representative of the attitude toward what people in the society were and should be in the future. Many civilizations have used design to reinforce particular belief systems. In this case study I will discuss the role a school building type played in the course of history as reflector of the social values of the period and contribute to the values of the future.

Hypothesis

Research in architectural theory and environmental psychology reveals that architects influence, in subtle ways, the paths by which we live and think. Fast-food restaurants use hard chairs that quickly grow uncomfortable so that customers rapidly turn over; elevator designers place the numerals and floor indicator lights over people's heads so that they avoid eye contact and feel less crowded; supermarkets have narrow aisles so that customers

can not easily talk to each other and must focus on the products instead.8 With strategies like these, private architects are currently engaging in social control. Law occasionally harnesses this power, and uses architecture as an expressive tool to embody certain commitments.

The platform ramps required by the Americans with Disabilities Act, for example, not only allow access for the disabled, their physical presence also expresses beliefs about discrimination. If such minute attributes influence general publics behavior how come there are still schools that are built with old fashioned typologies encouraging the future generations to think like the past Should a whole new way of construction language be devised for the incubator of our future generations.

Methods of Investigation

Through review of several articles i had found that there are distinct pattern between school buildings typologies and socioeconomic state of the people at that time. “Philadelphia public schools have been products of the culture and values that made them. When education was embedded in the home, schools looked like houses;
when education became civic, schools took on a civic character; when Philadelphia gave itself over to the forces of industry, schools were derived from industry. In the twentieth century, as schools became places of conflict, they took on the character of the architecture of reform—prisons.”

"The variety of the first neighborhood schools and academies marks them as architectural as well as social experiments whose forms typically reflect the array of domestic building types. These range from simple, rectangular,

Fig. 12: Efficiency of Plan: Fox Chase School, 1803

gable-roofed cabins that evolved into the archetypical one-room schoolhouse to the more original, one-room, octagonal-plan schoolhouse such as the Fox Chase School (see figure 12) on the outskirts of Philadelphia (built 1805; demolished in 1892).4 Octagonal plans provided the largest amount of interior space per linear foot of exterior wall and prove that from the outset, economy was the watchword for schools. A few of these eighteenth century buildings were elaborate multi room structures that provided living space for the teacher as a part of his salary. While most of these larger buildings such as the Lower Dublin Academy (1790; see figure 13) and the Passyunk School (1826) have been demolished, the Germantown and Lower Merion Academies still survive.5 In the case of these early Philadelphia schools, their name, schoolhouse, correlates with their architectural typology.

Fig. 13: School as Mansion: Lower Dublin Academy, 1790

In Philadelphia, another building type had domestic roots—the Quaker place of worship, which was known as the meeting house. Like houses, the early schoolhouses usually shared with their namesake a center-hall plan with rooms on either side that corresponded to the residential hierarchy of public and private spaces. In the case of the school, it typically differentiated the upper and lower grades. These early buildings provide insights into the nature of schooling and the values behind it. In eighteenth-century Philadelphia, few individuals

owned such houses, and judging from the relative rarity and size of schools, an equally limited number of chi dren could afford the time for regular schooling. Hence, the adaptation of the elite house as school

expressed the privatization of education, while its secondary role as home of the teacher allied it with parental mentoring including corporeal punishment that was part of the craft culture of the eighteenth century."

Fig.14: School as Dissenting Chapel:
Locust Street School, 1827

When the First School District of Pennsylvania was established in Philadelphia in 1818, the question of how to design and shape public schools quickly came to the fore. Two distinct strategies evolved. One response to the Model School Act of 1818 was the so-called Model School (figure 14), which was constructed west of Eighth Street above Race Street in one of the city's growing mill districts. This building was based on the economical, three-story brick, gable-roofed mill buildings of the industrial quarters of the city.

Fig.15: School as Mill: Model School, 1818

Then as now, richer districts received schools that looked like mansions and were usually architect designed, while in poorer districts, schools looked like the mills that employed the parents and older siblings.

"The elite were aimed toward high status and the professions, while the children of the working neighborhood would end up in the mill. The future direction of Philadelphia's school building for the next century was set".

"A third model that might seem to be an intermediary was based on the buildings of the dissenting churches of the city, where, in the era before compulsory education, Sunday schools educated many of the city's working class students on their day off from work. Dissenting churches, including the Methodists, Baptists, and Presbyterians, adopted the simple meeting house building type of the Society of Friends but turned the narrow gabled (Figure 15): front toward the street, thereby requiring the minimum valuable urban street frontage. In these churches, the lower floor was usually devoted to school, while the upper level housed the sanctuary. Schools on this model followed suit, with their narrow end toward the street and with classrooms on multiple levels. Among the examples published by Edmunds is the Locust Street School (1827; see figure16). It was built by the same builder as the Model School of nine years earlier and by its cost was closer to the mill model than the mansion."

Fig. 16: School as Civic Landmark: Central High School, 1837

Philadelphians shifted their focus to manufacturing that made their city the nation's center of industrial innovation. Not surprisingly, the city's school builders continued to look to the utilitarian mill buildings as the model for new buildings. Because they were usually built where urban land was expensive, multistory, economically constructed structures were the rule.

Fig. 17: School as Factory: McMichael School, 1890

After the Civil War, all Philadelphia public schools were designed by in-house architects who, despite the over arching goal of economy, continued to distinguish between the city's working-class and middle-class neighborhoods. This was usually represented by the choice of materials—brick for the industrial neighborhoods, while stone was reserved for elite neighborhoods.

Fig. 18: School as Mill: Moyamensing School, 1832

Costs again were telling. While the typical school was built for less than 10 cents per cubic foot, the Girls' High School cost more than 15 cents per cubic foot—and the boy's Central High School came in at four times the cost of the usual school.

Fig. 19: Elite School as Civic Landmark: Central High School, 1894

The downtown elite continued to be educated in high-style palaces like the handsome colonial revival Masterman School with its limestone pilasters and pediments.20 Built in 1932 as Girls' High School, it was located on another civic avenue, Spring Garden Street, near Broad Street and near the boys' Central High School, creating an elite educational zone.(fig 19)

Fig. 20: School as Civic Landmark: Girls' High School, 1932

For the century from the beginning of the Model School Act of 1818 to the Depression, Philadelphia's public schools reflected the centralizing, standardizing, and utilitarian forces of the industrial culture that shaped Philadelphia's architecture and culture. School board policy continued to focus on training workers for the city's industry in buildings that served a culture that prided itself on how little was spent per pupil—a cost-analysis basis that represented the type of engineering that made for economical products in a mass-industrial culture.

Fig. 21: Civic Landmark: School Administration Building, 1931

The similarity between the rear pods and a contemporary prison, the city's new House of Detention (figure 22) along the Delaware River, by Thalheimer Weitz Bellante Clauss Associated Architects, may have been better visualized from the air—but in an era when the physical and entertainment worlds were breaking boundaries, this was clearly an architecture of control. Poured in place, architectural concrete was not cheap—the bean counters were no longer in charge— but the psychological costs were great. To an urban under class that didn't understand and largely didn't accept the values of elite modern design, the school had no positive associations—other than its name for William Penn, a dead white man who had little relevance to the community in which the building was being constructed. When the school facilities crew slapped massive steel and wire-mesh grills over all the windows, presumably to reduce broken windows, the school

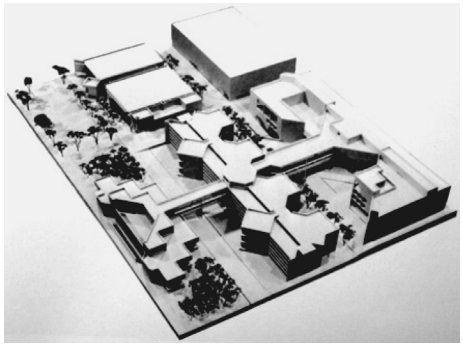


Fig. 22: School as Prison: William Penn High School, 1973

as prison image was clear. Challenged by its unforgiving mass, students set out to transform it by graffiti and destruction, which resulted in open warfare with administrators bent on preserving the pure architectural forms. H2L2's University City High School fared no better (figure 23). It took the form of a giant square surrounding a roofed-over interior courtyard— itself a telling image of an outside world that had lost its bearings.

Fig. 23: School as Fortress: University City High School, 1971

Like a Renaissance palazzo or John Haviland's Eastern State Penitentiary, it appeared to be designed to defy urban insurrection. When the education

House of Detention: Architecture of Order

staffers added grills over the windows, the building looked even more prison-like. There was much of the urban prison in its internal demeanor of cinder-block corridors with metal doors as well.

Lawson-Bell on the site of an Episcopal seminary that had departed for Boston. Although the exterior is a bit oatmeal bland (figure 14), perhaps expressing the corporate culture of the partner university, the interior (figure 15) with broad central halls that serve as sitting and meeting areas recalls the positive contemporary experience of the modern shopping center with its shared spaces and happy colors. For the first time in a century and a half since the last of the schools modeled on homes, the school system had found a positive model rooted in contemporary life. The school district's efforts at transformation in the 1990s took a variety of courses, with different superintendents battling city and state agencies for funding and support. As the twenty-first century began, the fragmentation of contemporary life was undoing old monoliths such as the school district and opening new possibilities.

Fig. 24: Interior, Sadie Alexander School, 2001

Charter schools placed learning in a remarkable variety of public and private buildings. Among the most creative strategies are public-private partnerships such as the University of Pennsylvania's provision of land, design assistance, and teacher training to assist a new neighborhood school. The first fruit of their efforts is the Sadie Alexander School at 42nd and Locust Streets, designed in 2001 by Philadelphia architects Atkin, Olshin,

Fig.25: School as Office Park: Sadie Alexander School, 2001

Stuyvesant High School,
the Ultimate Meritocracy

A modern school in prestigious part of manhattan combines a tributes of past relevance to assert an image for their facility.

Fig. 26 The New York Observer

The front entrance has a fortress feel to resemble a place of strength and authority for any one who enters. where the overall design of the building has a humble factory look or partially resembling a early 20th century housing in New York..

Fig. 27 The New York Observer

The industrial type bridge linking the pedestrian traffic adds to the schools attempt to connect with its community , otherwise isolated on a pier sticking out in the river.. this school makes a fair effort to connect to the community. It employs the typologies of the past in segmented attributes.

Fig. 28 The New York Observer

The typology exhibited in Blake High School can be related to a fortress at the front entrance, with its over lay of brick barriers. It recedes from the neighborhood and prevents the visual and physical contact of the neighborhood with the river.

Fig. 29 courtesy of ACA inc.

From the other view point this high school looks like a prison or a place with relatively high security and impenetrability. Solid brick facades, lack of large windows and eight foot high fences make an impression of a very none welcoming place.


Fig. 30 courtesy of ACA inc.

Blake High is a magnet school for visual and performing arts . yet it as a building is doing nothing to promote that to the surrounding community. the fine arts are tucked away in the building , and the theater (to the right) lack grandeur and public space in relationship to the adjacent community


Fig. 31 courtesy of ACA inc.

Case study #3

Schools and Community Centers

Cristo Rey Jesuit High School and Colin Powell Youth Leadership Center

Fig. 32 community facade

Fig. 33 common space

Fig. 34 gym widows

Two faith-based organizations pull resources to empower inner-city youth

The mission statement for the new Twin Cities Cristo Rey Jesuit High School and Colin Powell Youth Center is “to raise up a new generation of urban leaders that are excellent: educationally, technically, morally and vocationally.” Ryan provided full design and construction services for the project donated the fees for their services.A unique collaboration This project is a strategic partnership between The Twin Cities Jesuit High School Project and Urban Ventures, a local community development agency with a proven track record of addressing social and economic struggles of urban families.

The Jesuit High School is paired with Urban Ventures' Colin Powell Center, providing services and support to help local teenagers graduate from high school and pursue a college education. Ryan had initially been approached by each organization separately. Ryan's leadership saw the synergy between the two projects and introduced the idea of combining the facilities. The building serves 500 students and 25,000 neighborhood children and parents.

Fig.35 main hall

Fig. 36 multiuse space

Portland, Ore. Looks to a School Designed Around "Neighborhoods" as a New Model.

Rosa Parks School is the cornerstone of the new Community Campus at New Columbia, a mixed-use partnership project located in the recently redeveloped New Columbia low-income housing project, the largest revitalization project in Oregon history. Projecting a significant increase in population and needing to serve residents of North Portland, the Community Campus is a public/private partnership that includes a new K-6 school (Rosa Parks), Boys & Girls Club, and Portland Parks Community Center, on land donated by the Portland Housing

Fig. 37 gym widows

The new school is divided into four "neighborhoods," each containing 125 students. Each neighborhood contains five classrooms, a resource/student support room, and support functions around a "Neighborhood Commons."

Fig.38 facility master plan

At the entry to the school, families are provided their own resource room, as well as access to a library information center.

Functions including art, computers, music, and food service are shared with the new Boys & Girls Club.

While the need for these programs was central to the development of New Columbia, financial resources were limited. Dull Olson Weekes Architects was hired to bring together these institutions and non-profits as partners to create the Community Campus, cutting planning costs by as much as half. The centerpiece of the Community Campus is the new Rosa Parks School. Only the second new school designed and constructed by Portland Public Schools in 30 years, Rosa Parks is envisioned as a model for future new school design.

Fig. 39 kids around a sundial

Fig 40 areal plan

Fig. 41 school facade

East YMCA Saint Paul, MN

East YMCA is a recreational facility designed to accommodate the needs of an urban community as well as the needs of an attached elementary school. East YMCA and John A. Johnson Achievement Plus Elementary School is notable for its resourceful approach in locating education and recreation programs within a single facility.

The 60,000 square foot YMCA provides spaces for recreational programs and resources for every age, from infants to senior citizens. Features include a daycare facility with nursery, interior and exterior play spaces, a fitness center, a multi-purpose activity room, a teen center, community meeting rooms, locker rooms, a gymnasium and aquatic center. The aquatic center contains a lap pool and leisure pool with water slide.

Fig 42 YMCA addition front facade

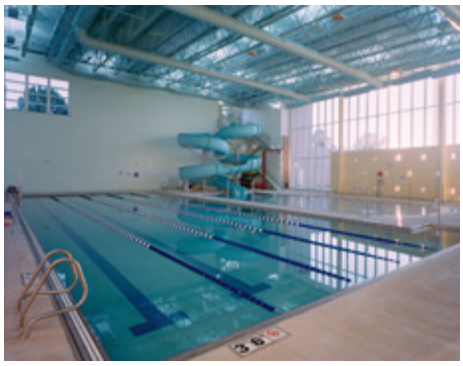


Fig 43 community pool shared by the school

fig 44 community game room

Achievement Plus Elementary School

Saint Paul, MN

Fig 45 restored elementary school

The John A. Johnson Achievement Plus Elementary School and East YMCA is the result of a partnership of school, civic, private organizations with strong community input. The result turned urban blight into a neighborhood beacon. This complex project required a combination of renovation and new construction to complete the neighborhood school and community facility. The interior of the existing 80,000 square foot school building underwent demolition while the exterior shell was preserved through renovation. New construction included an additional 24,000 square feet of educational space and a 60,000 square foot YMCA recreational facility. The YMCA and the school are joined through a link that allows the partners to share resources; locating educational and recreational programs within a single facility. The project became the basis of an American Architectural Foundation video/discussion guide for use by other communities across the country.

Fig 46 cafeteria

Fig 47 classroom

Case study #4
Security and Schools Interview
Interview with

David Friedburg
Director of Security Services
Hillsborough County Public Schools

I have met with Mr. Friedburg on the morning of September 23, Wednesday 10 am to discuss some of the security issues regarding the safety of hillsborough county public schools. in our conversation we spoke on how to eliminate the fortress feel in the school building, major reasons of why security in schools does not symbolise a feeling of safety, and how to engage CPTED (crime prevention through environmental design).honestly if anybody ever reads this thing please understand that this thesis has been one of the more stressful experiences during my school. i am so glad that its over . I am a terrible writer, and wishing i dint have to do this now. Anyway getting back .

I asked Mr. Friedburg a series of questions relating to my exploration.
i mean seriously its 12:05 on a Friday , fnnnn A, man. ok here it is

Questions regarding controlled axes points :

In schools there is usually one access point of entry , many points of exit . Recently schools have been trying to control the access points because of higher rates of crime penetrating in to the school.

A. Have all controlled access points , there is an issue with uncontrolled access points , no mixing community and our kids with uncontrolled access .

What is the degree of controlled access required to achieve3 secure school. Recently drastic measures have been taken by schools to achieve controlled access points of entry . Such techniques are metal detectors , fences solid walls , police on campuses .

A. Access control point monitored so students are coming in and accessing the school.

Are ID cards in phase in Florida schools.

A. Yes, most high schools including Blake.

A lot of schools have metal detectors.

A. Random metal detection selection with hand held detection squad, no permanent metal detectors.

What is the difference between security and safety?

A . People want to feel safe , perceptions are important. natural separation existing walls for barriers with out fences . Goal is to build facilities that will deter unauthorized access but freedom to move about with in. These attributes can be achieved by utilizing parameters set by CPTED.

What role do you play in the security of our schools ?

A. Much of what i do is perception, because, perception is reality at least to those perceiving it. You can feel unsafe and be safe . Or vice versa.. A lot of what i do is balance reality and perception as well as risk and cost. There is just about nothing that i couldn't harden , but at what cost. Doing risk analysis of protection versus value.

What role can cameras play in the security of the school ?

A. Deterring effect of cameras. Sensory cameras motion and sound detection cameras. If people are being watched they are less likely to commit a crime.

We also discussed the four values of CPTED , crime prevention through environmental design.

The Four Strategies of CPTED
1. Natural Surveillance - A design concept directed primarily at keeping intruders easily observable. Promoted by features that maximize visibility of people, parking areas and building entrances: doors and windows that look out on to streets and parking areas; pedestrian-friendly sidewalks and streets; front porches; adequate nighttime lighting.

2. Territorial Reinforcement - Physical design can create or extend a sphere of influence. Users then develop a sense of territorial control while potential offenders, perceiving this control, are discouraged. Promoted by features that define property lines and distinguish private spaces from public spaces using landscape plantings, pavement designs, gateway treatments, and "CPTED" fences.

3. Natural Access Control - A design concept directed primarily at decreasing crime opportunity by denying access to crime targets and creating in offenders a perception of risk. Gained by designing streets, sidewalks, building entrances and neighborhood gateways to clearly indicate public routes and discouraging access to private areas with structural elements.

4. Target Hardening - Accomplished by features that prohibit entry or access: window locks, dead bolts for doors, interior door hinges.

Improve the quality of life.

Fig. 48 a lot in front of Blake High

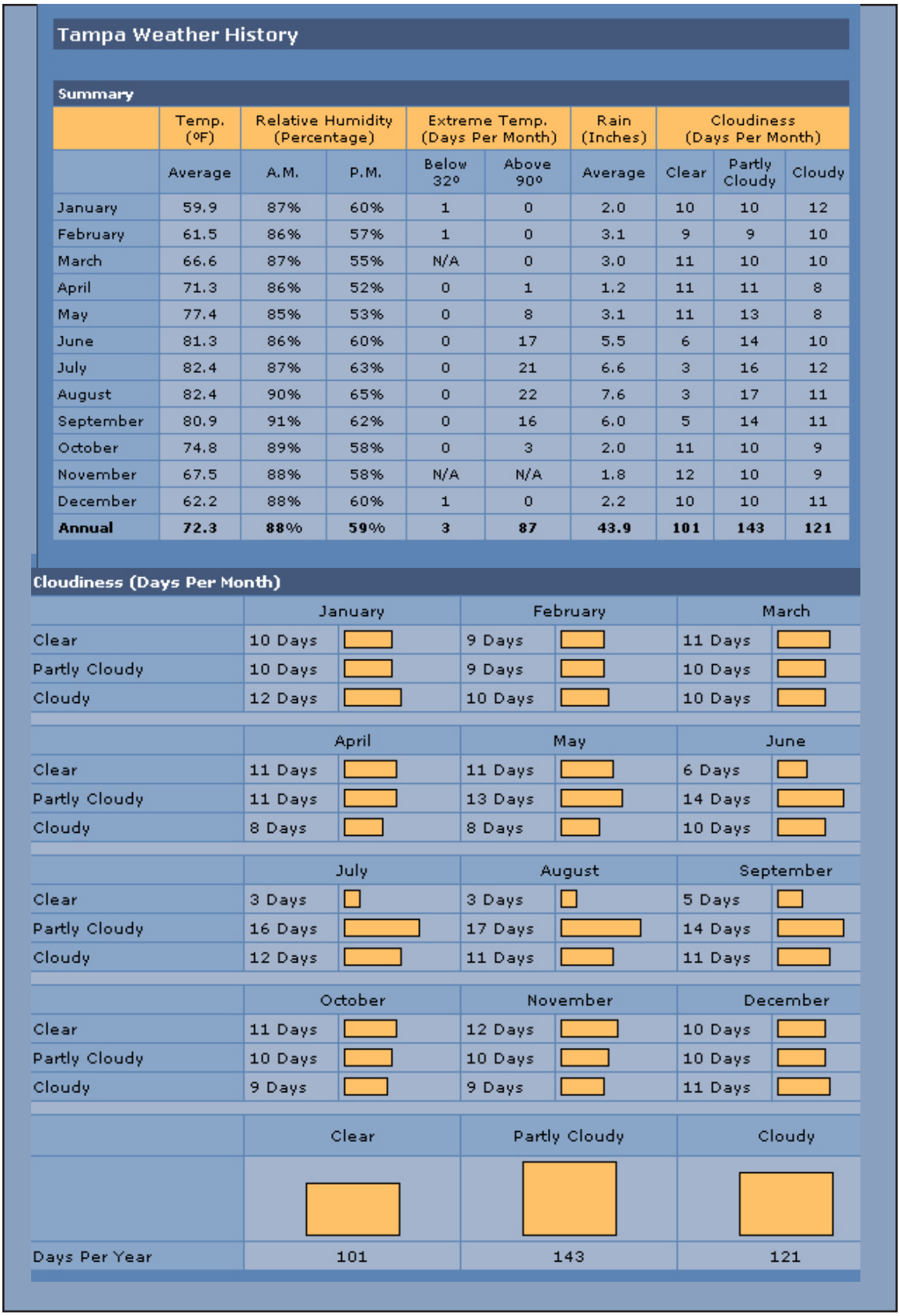
fig 49 goggle earth image

A

Fig 50 drawing

B

Fig 51 drawing



Tampa Weather History

Summary

	Temp. (ºF)	Relative Humidity (Percentage)		Extreme Temp. (Days Per Month)		Rain (Inches)	Cloudiness (Days Per Month)		
	Average	A.M.	P.M.	Below 32º	Above 90º	Average	Clear	Partly Cloudy	Cloudy
January	59.9	87%	60%	1	0	2.0	10	10	12
February	61.5	86%	57%	1	0	3.1	9	9	10
March	66.6	87%	55%	N/A	0	3.0	11	10	10
April	71.3	86%	52%	0	1	1.2	11	11	8
May	77.4	85%	53%	0	8	3.1	11	13	8
June	81.3	86%	60%	0	17	5.5	6	14	10
July	82.4	87%	63%	0	21	6.6	3	16	12
August	82.4	90%	65%	0	22	7.6	3	17	11
September	80.9	91%	62%	0	16	6.0	5	14	11
October	74.8	89%	58%	0	3	2.0	11	10	9
November	67.5	88%	58%	N/A	N/A	1.8	12	10	9
December	62.2	88%	60%	1	0	2.2	10	10	11
Annual	**72.3**	**88%**	**59%**	**3**	**87**	**43.9**	**101**	**143**	**121**

Cloudiness (Days Per Month)

	January	February	March
Clear	10 Days	9 Days	11 Days
Partly Cloudy	10 Days	9 Days	10 Days
Cloudy	12 Days	10 Days	10 Days

	April	May	June
Clear	11 Days	11 Days	6 Days
Partly Cloudy	11 Days	13 Days	14 Days
Cloudy	8 Days	8 Days	10 Days

	July	August	September
Clear	3 Days	3 Days	5 Days
Partly Cloudy	16 Days	17 Days	14 Days
Cloudy	12 Days	11 Days	11 Days

	October	November	December
Clear	11 Days	12 Days	10 Days
Partly Cloudy	10 Days	10 Days	10 Days
Cloudy	9 Days	9 Days	11 Days

	Clear	Partly Cloudy	Cloudy
Days Per Year	101	143	121

Fig . 52 weather chart

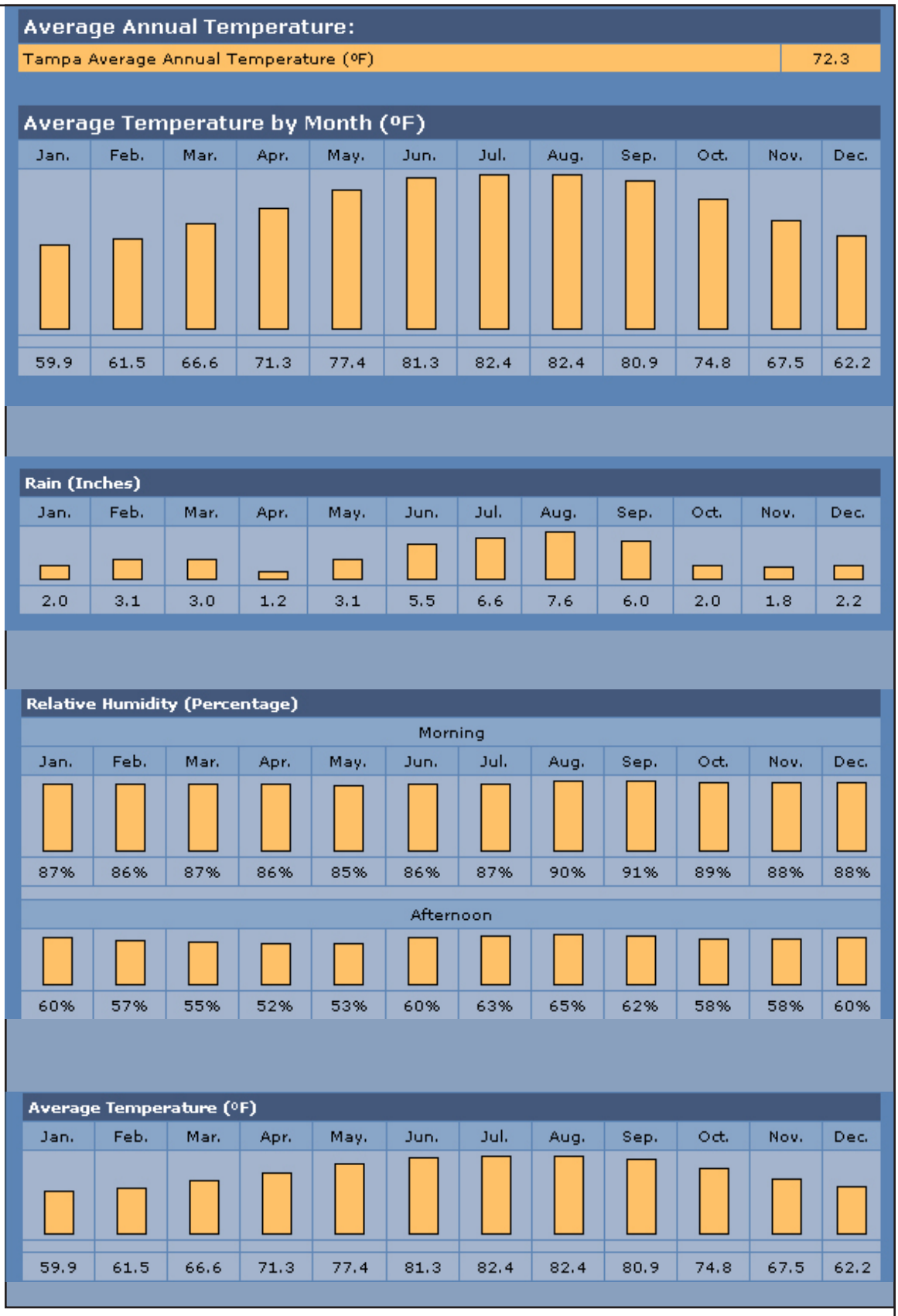


fig. 53 weather chart

Easy transition to and from downtown Tampa , makes the site a excellent adjunct to the city's limits . Students and visitors can travel by foot along the river. The over pass transition is harsh at the moment . The adjacent subsidized housing creates a barrier ..

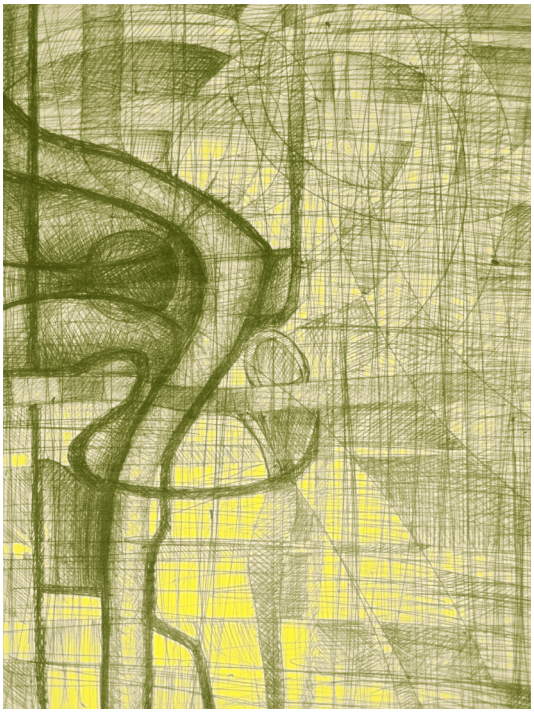
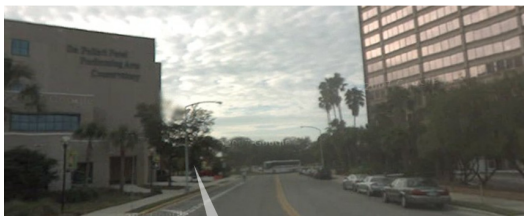
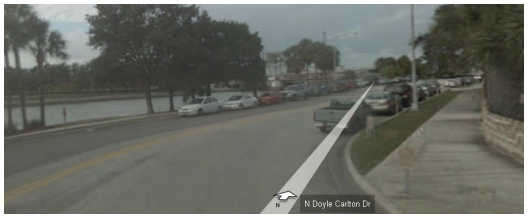
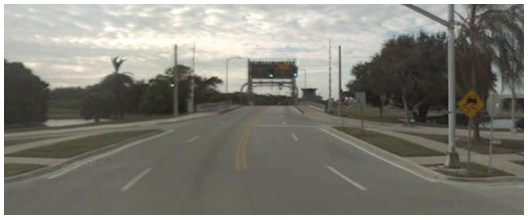


Fig. 54 flow drawing







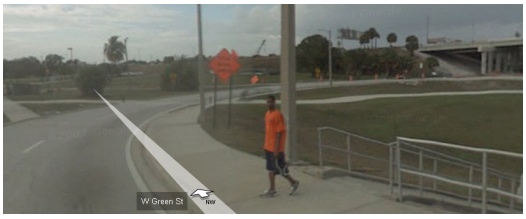


Fig.55 site photos by fred goykhman

Fig. 56 concept model of site and transition

Fig. 57 threshold drawing

Fig.58 site photos by fred goykhman

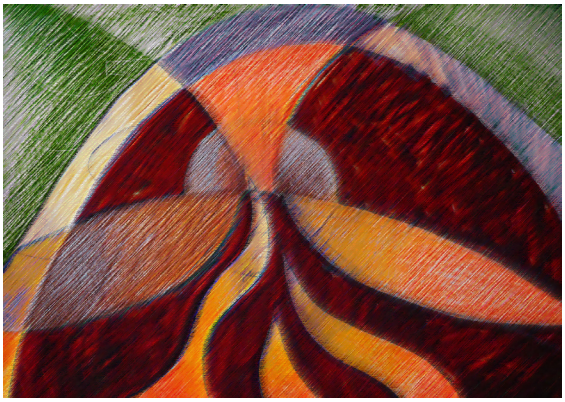


Fig. 61 integration drawing by Fred Goykhman

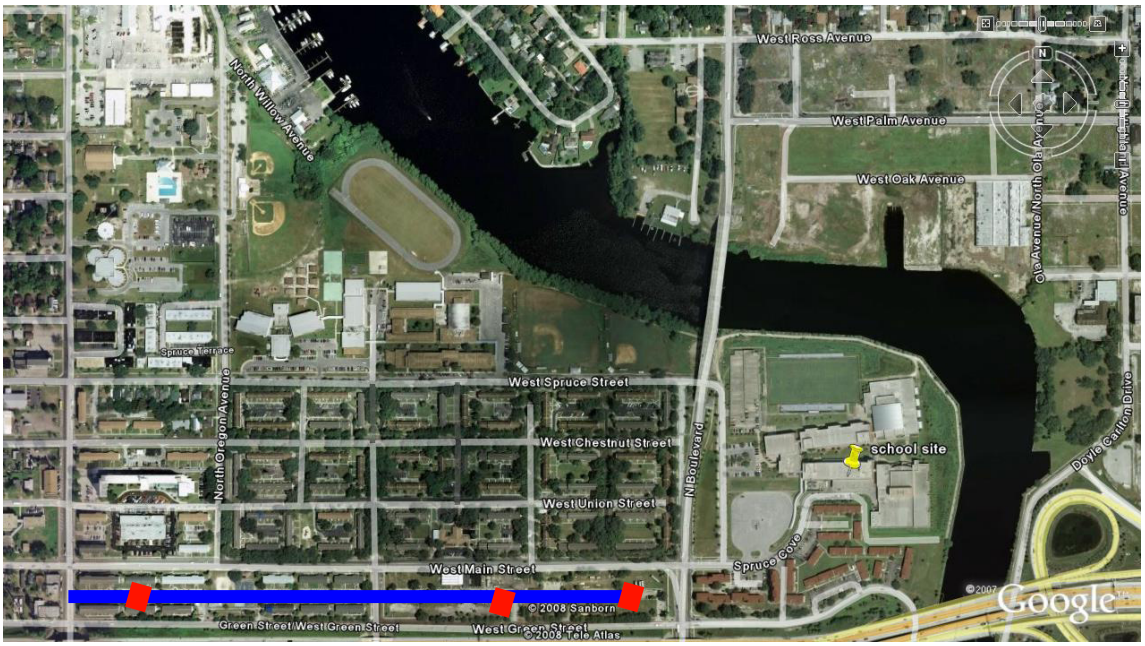


Fig. 62 Goggle maps image Main St. approach

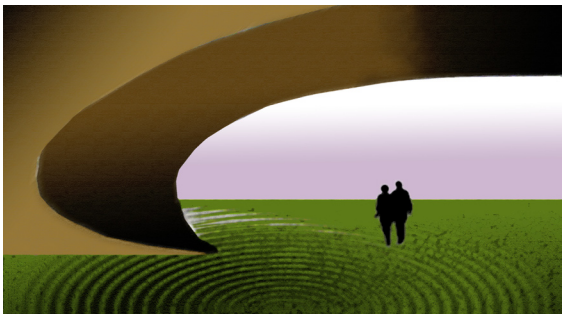
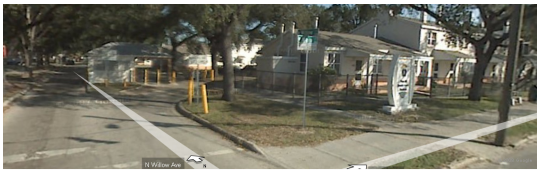


Fig. 59 threshold drawing by Fred goykhman



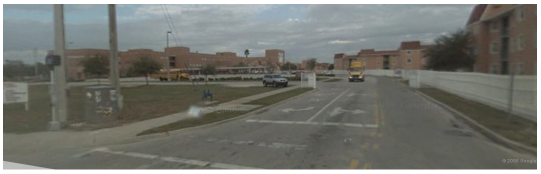


Fig. 60 Site photos taken by ACA

Fig. 63 site relationship diagrams

BEST Building Educational Success Together

Rosa Parks School at New Columbia Community Campus
Location: Portland, Ore.
Architect: Dull Olson

Cristo Rey Jesuit High School/Colin Powell Youth L
Location: Minneapolis
Architect: Ryan Companies

The John A. Johnson Achievement Plus Elementary School and East YMCA
Location: Saint Paul, MN

STATE ACTIONS

a. State Example: California
The state has established standards for school site selection. The criteria established for school sites encourages schools to locate near public resources. A school site should be selected to promote joint use of parks, libraries, museums and other public services.
Title 5, California Code of Regulations, Division 1, Chapter 13, Subchapter1

d. State Example: Arizona
The state allows school districts to enter into agreements, as well as enter into leases, set fees, permit uncompensated use, and expend public monies.
Arizona Statue Title 15-364

a. State Example: North Carolina
The state has enabling legislation in their Community Schools Act (Chapter 115C-204 through 209) "…to encourage greater community involvement in the public schools and greater community use of public school facilities."

School facilities are powerful indicators of community values and aspirations. They not only support the academic needs of the students they serve, but can also address the social, educational, recreational, and personal needs of the members of the broader community. Schools should be a resource to the community at-large. When school facilities are perceived this way, value is created for the school and for the community, since families can be strengthened and communities can realize added vitality.

The State should develop legislation and/or policies that facilitate and encourage the sharing of school facilities for community use through appropriate policies, procedures, and financial incentives.

The State should develop legislation and/or policies to encourage partnerships that implement public-private, intergovernmental and/or interagency use of school facilities and grounds.

Fig. 64 BEST poster

schematic design

Fig. 67 site representation made by Fred Goykhman

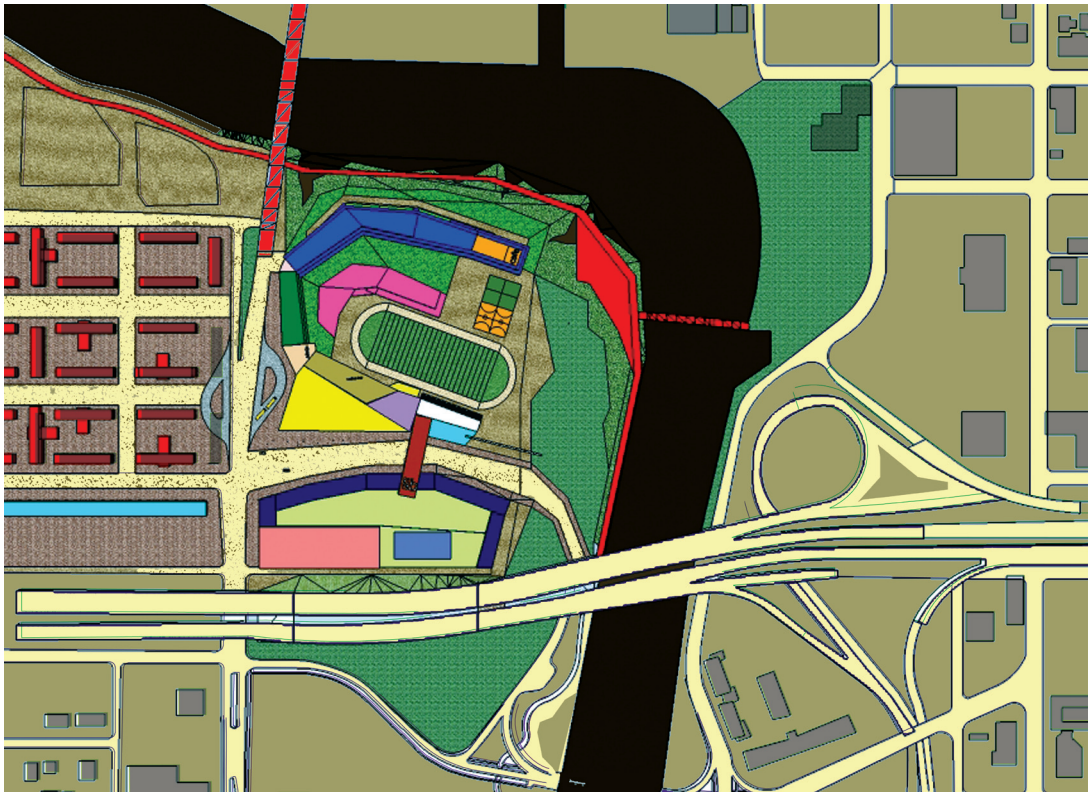


Fig. 68 Schematic diagram by Fred G.

- CLASSROOMS
- PUBLIC RIVER WALK AND PLAZA, BRIDGES, NEIGHBOURHOOD
- THEATER
- ATHLETIC SERVICES
- SPECIAL EDUCATION CLASSROOMS
- GARAGE
- MUSIC AND PERFORMING ARTS
- LIBRARY AND STUDENT WALK
- COMMUNITY CENTER
- CAFETERIA
- GALLERY AND COMMERCIAL SPACE

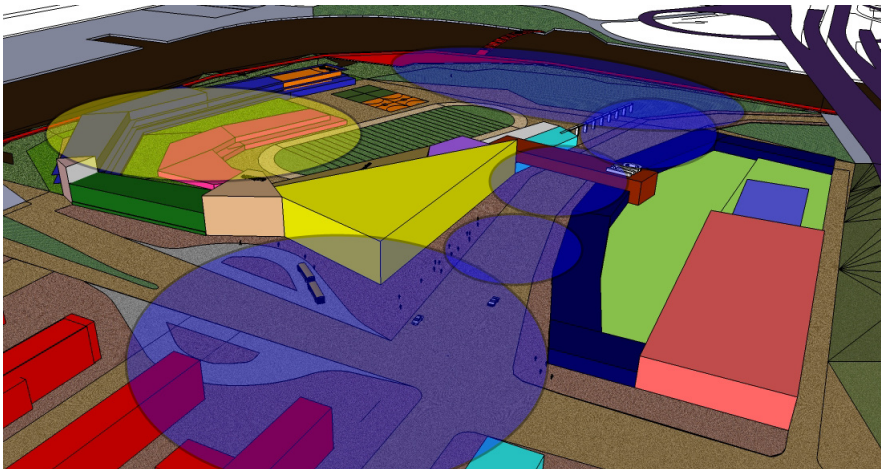


Fig. 69 space transition by Fred G.

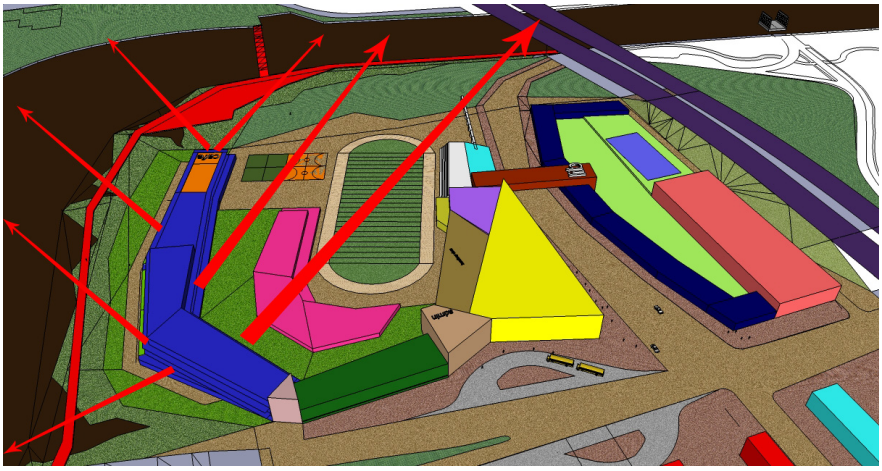


Fig. 70 possible views diagram by Fred G.

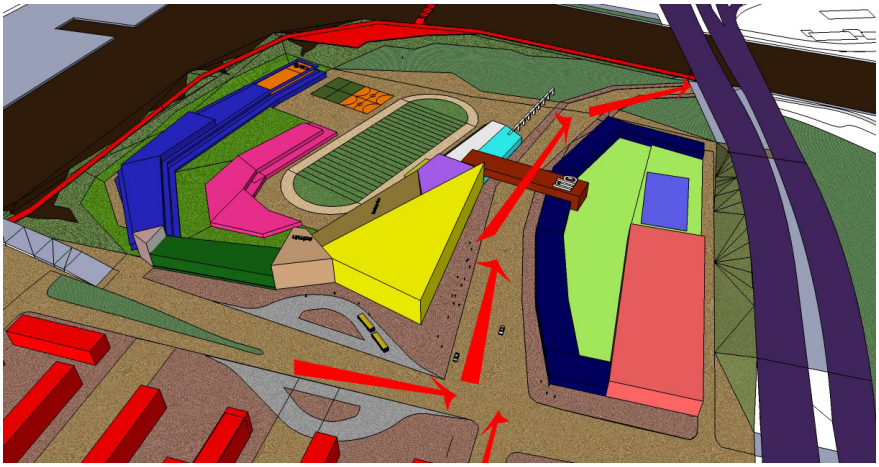
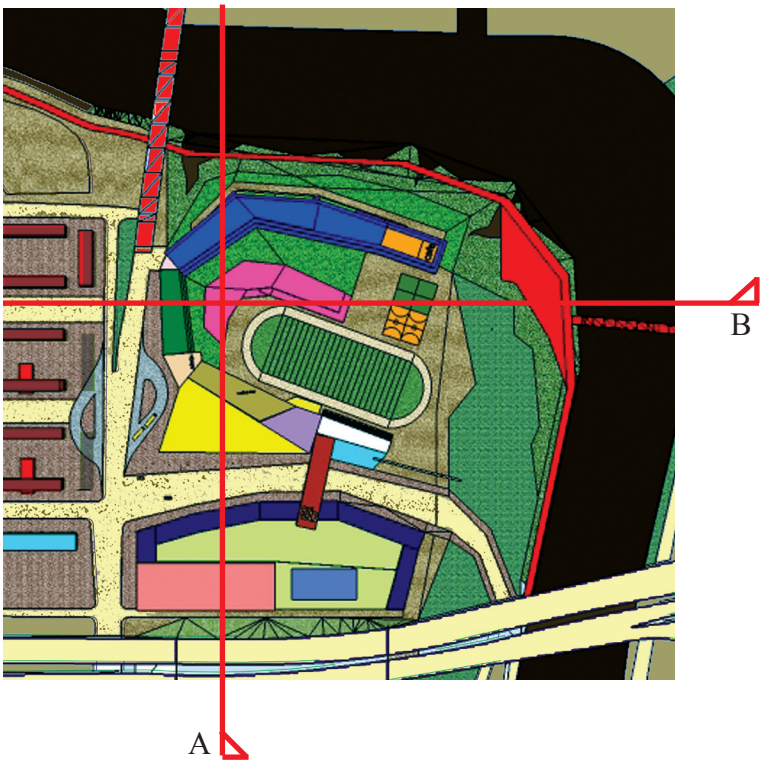


Fig. 71 passage to Tampa downtown

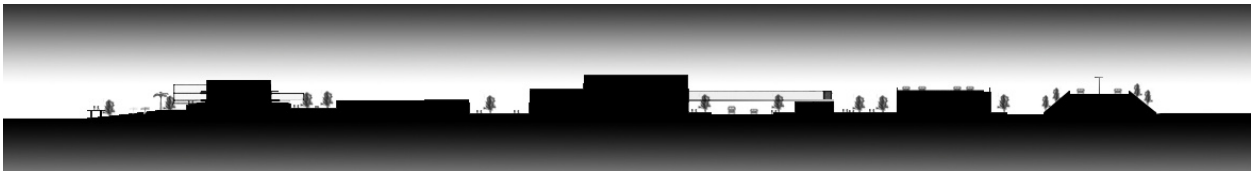


Naturalizing the river bank benefits the local ecology. By utilizing natural barriers the school building separates the student spaces physically with out breaking visual communication between the river and the surrounding pedestrians. Students will be able to engage with the outdoor surroundings , with out having direct contact with the passing pedestrians. Pedestrians can walk the river walk without interfering with the school activities.

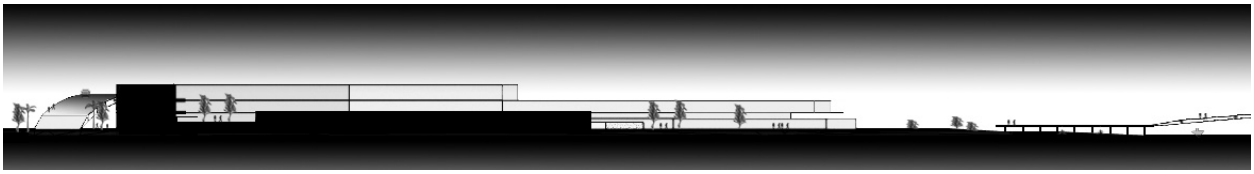
The section cuts demonstrate spacial relationships

In section A right to left : the river and the classroom building forming a visual communication between public river walk and private art and other classrooms, the classroom building and the athletic building forming an inner court yard space for students, the athletic building and the theater spaces form the second court yard for students, the theater and the community centre line the Main st. leading to down town Tampa providing pedestrian plazas and walkway as well as vehicular passage.

In section B from right to left: signifying thee relationship between the North Boulevard bridge and the classroom building, next the classroom building and athletics building forming the student courtyard, then the athletics building ascending toward the field then public park and the river walk.



A



B

Fig. 72 site section diagrams by Fred G.

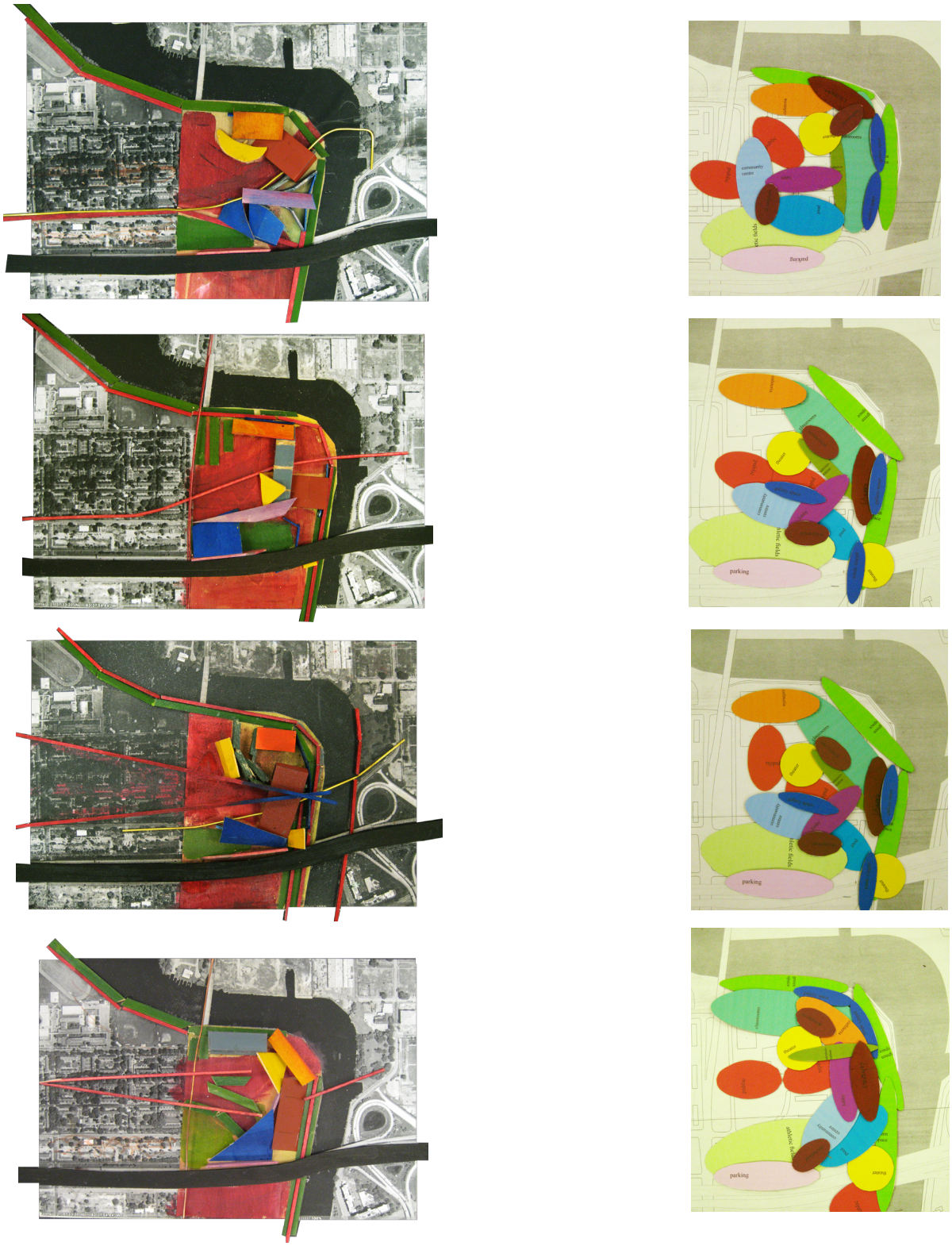


Fig. 73 programming diagrammatic assemblies by Fred G.

Fig. 74 site specific construct diagrams
by Fred Goykhman

In these models I was developing some of the formal moves of the project

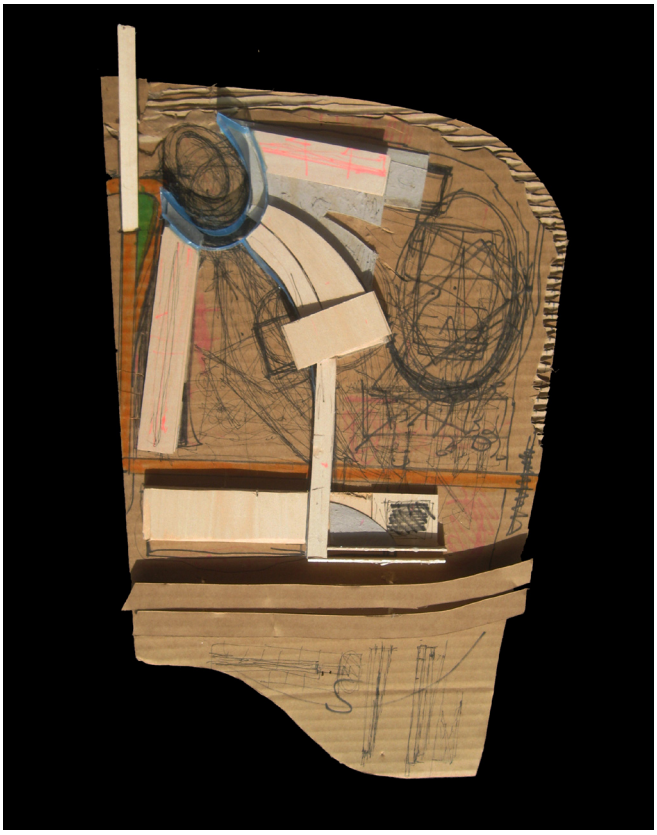


Fig. 75 bug models
by Fred Goykhman

High School and Community Center Program

Code	No. of Spaces	Description of Area	Inventory Sq. Ft. Student Stations	Total Sq. Ft. Each Student Stations	Minimum Unit Sq. Ft. Total		
		GENERAL EDUCATION					
		LANGUAGE ARTS					
003	15	Classrooms*	680	10,200	25	375	
301	2	Publication Offices	100	200			
301	1	Department Head Office			100		
315	1	Teacher Planning/Material Storage Room				450	
819/820		2 Staff Toilet Rooms	40	80			
		Subtotal		11,030			
		*locate one Classroom adjacent to the Media Center					
		MATHEMATICS					
003	15	Classrooms	680	10,200	25	375	
301	1	Department Head Office			100		
315	1	Teacher Planning/Material Storage Room				450	
819/820		2 Staff Toilet Rooms	40	80			
		Subtotal		10,830			
		SOCIAL STUDIES					
003	15	Classrooms	680	10,200	25	375	
301	1	Department Head Office			100		
315	1	Teacher Planning/Material Storage Room				450	
819/20	2	Staff Toilet Rooms	40	80			
		Subtotal		10,830			
		SCIENCE					
023	1	Physics Laboratory		1,440	25		
022	1	Earth Science Demonstration Classroom				1,050	25

808	1	Physical/Earth Science Storage-Preparation Rm.					300	
023	1	Chemistry Laboratory	1,440		25			
022	1	Chemistry Demonstration Classroom		1,050		25		
808	1	Chemistry Storage-Preparation Room				300		
023	3	Integrated Science Laboratories	1,440	4,320	25	75		
022	3	Integrated Science Demonstration Classrooms				1,050	3,150	25
75								
808	3	Integrated Science Storage-Preparation Room				300	900	
023	2	Biology Laboratories	1,440	2,880	25	50		
022	2	Biology Demonstration Classrooms	1,050	2,100	25	50		
808	2	Biology Storage-Preparation Rooms	300	600				
808	1	Hazardous Chemical Storage	100					
301	1	Department Head Office	100					
315	1	Teacher Planning/Material Storage Room				450		
819/820		2 Staff Toilet Rooms	40	80				
		Subtotal	20,260					
		DRIVER EDUCATION						
003	2	Classrooms	680	1,360	25	50		
	1	Driving Range	*					
		Subtotal	1,360					
		* combine with bus loading						
		DROP-OUT PREVENTION						
003	1	Impact Classroom	900		25			
003	1	Graduation Enhancement Classroom		680		25		
		Subtotal	1,580					
		HEALTH EDUCATION						
003	1	Classroom	680		25			
		Subtotal	680					
		FOREIGN LANGUAGE SKILLS						
012	7	Laboratories	680	4,760	25	175		

315	1	Teacher Planning/Material Storage Room					450		
819/820		2	Staff Toilet Rooms		40	80			
		Subtotal		5,290					
		COMPUTER SKILLS							
012	1	Laboratory		760		25			
		Subtotal		760					
		READING RESOURCE							
040	1	Resource Room			680		0		
		Subtotal		680					
		ART							
052	2	Studios	2,000	4,000	28	56			
803	1	Darkroom		300					
805	1	Kiln Room		100					
315	1	Teacher Planning/Material Storage Room					300		
		Subtotal		4,700					
		INSTRUMENTAL MUSIC							
076	1	Classroom		2,250		50			
832	1	Instrument Storage Room				250			
834	1	Uniform Storage Room				180			
		Subtotal		2,680					
		VOCAL MUSIC							
075	1	Classroom		1,485		26			
806	1	Music Library (share w/ Instrumental Music)						100	
808	1	Material Storage Room				300			
315	1	Teacher Planning Area (share w/ Instrumental Music)							150
		Subtotal		2,035					

		PHYSICAL EDUCATION				
092/093		2	Locker/Dressing Rooms (boys/girls)	1,440	2,880	
094/095		2	Shower/Drying Areas (boys/girls)	200	400	
815/816		2	P. E. Toilet Rooms (boys/girls)	120	240	
110	1	Multi-purpose Classroom	680			
098	1	P. E. Storage Room/Laundry	400			
112	1	Gymnasium Floor	6,200	160		
113	1	Gymnasium Seating (2,000 seats)		6,166		
099/100		2	Staff Locker/Shower/Toilet Rooms (men/women)	80	160	
315	1	Male Teacher Planning Area	150			
315	1	Female Teacher Planning Area		150		
118	1	Wrestling/Gymnastics/Dance Room		1,000		
115	1	Training Room/First Aid Room		250		
822/823		2	Public Toilet Rooms (boys/girls)		1,200	
370	1	Lobby	500			
	1	Utility Field (Softball practice)		[160,000]		
	6	Playcourts	*			
		Subtotal	20,376			

*size and configuration in accordance with SDHC standards

EXCEPTIONAL STUDENT EDUCATION (E.S.E.)

		ALLOWANCES:	7,000	75		

EDUCABLE MENTALLY HANDICAPPED (EMH)

062	1	Classroom	680	7		
		Subtotal	680			

TRAINABLE MENTALLY HANDICAPPED (TMH)

062	1	Classroom	680		7
817	1	Student Toilet Room		40	
		Subtotal	720		

SEVERELY/PROFOUNDLY MENTALLY HANDICAPPED (SPMH)

062	1	Classroom	1,000		10
817	1	Student Toilet/Bath Room			70
		Subtotal	1,070		

SEVERELY EMOTIONALLY DISTURBED (SED)

062	1	Classroom	1,000		10
817	1	Student Toilet Room		40	
		Subtotal	1,040		

AUTISTIC

062	1	Classroom	1,000		10
817	1	Student Toilet/Bath Room			70
		Subtotal	1,070		

PHYSICALLY HANDICAPPED

062	1	Classroom	1,000		10
817	1	Student Toilet Room		40	
		Subtotal	1,040		

VISUALLY HANDICAPPED

062	1	Classroom	680		7
817	1	Student Toilet Room		40	
		Subtotal	720		

EMOTIONALLY HANDICAPPED (EH)

062	1	Classroom	680		7
		Subtotal	680		

SPECIFIC LEARNING DISABLED (SLD)

062	1	Classroom	680		7
		Subtotal	680		

E.S.E. RESOURCE

065	4	Resource Rooms	680	2,720	0
		Subtotal	2,720		

VOCATIONAL EDUCATION

		ALLOWANCES:		25,000	340

BUSINESS TECHNOLOGY EDUCATION

211	1	Laboratory	1,620	26	
315	1	Teacher Planning/Material Storage Room			100
		Subtotal	1,720		

SALES MERCHANDISING

221	1	Laboratory	950	22	
315	1	Teacher Planning/Material Storage Room*			150
		Subtotal	1,100		

*combine with Diversified Coop Training Lab Teacher Planning/Mat Stor Rm, if provided, and locate so that it opens onto both Labs

310	1	SCHOOL STORE	100		
		Subtotal	100		

DIVERSIFIED COOPERATIVE TRAINING

221	1	Laboratory	760	18	
315	1	Teacher Planning/Material Storage Room*			100
		Subtotal	860		

*combine with Sales Merch Lab Teacher Planning/Mat Stor Rm, if provided, and locate so that it opens onto both Labs

WORK EXPERIENCE

221	1	Laboratory	760	18	
315	1	Teacher Planning/Material Storage Room			100
		Subtotal	860		

FAMILY AND CONSUMER SCIENCES

234	1	Infant and/or Child Care Laboratory		1,100	17	
700	1	Entry Vestibule	50			
840	1	Related Classroom	680			
842	1	Kitchen	100			
816	1	Student Toilet Room	100			
864	1	Isolation/Exam Room	50			
811	1	Outside Storage Room	50			
315	1	Teacher Planning/Mat. Stor./Observation Rm.			200	
	1	Outdoor Play Area	[1,500]			
		Subtotal	2,330			
234	1	Early Childhood Education Laboratory		1,100	17	
700	1	Entry Vestibule	50			
840	1	Related Classroom	680			
842	1	Kitchen	100			
816	1	Student Toilet Room	100			
864	1	Isolation/Exam Room	50			
811	1	Outside Storage Room	50			
315	1	Teacher Planning/Mat. Stor./Observation Rm.			200	
	1	Outdoor Play Area	[1,500]			
		Subtotal	2,330			
231	1	Culinary Operations Laboratory		1,600	25	
840	1	Multi-Purpose Classroom	680			
810	1	Material Storage Room	200			
		Subtotal	2,480			
232	1	Life Management Skills Laboratory		1,265	23	
808	1	Material Storage Room	100			
		Subtotal	1,365			
231	1	Nutrition and Wellness Laboratory		1,475	23	
808	1	Material Storage Room	100			
		Subtotal	1,575			

232	1	Home and Family Management Laboratory			1,265	23
808	1	Material Storage Room	100			
		Subtotal 1,365				
231	1	Fashion Production Laboratory		700	23	
863	1	Fitting Room	75			
808	1	Material Storage Room	100			
843	1	Laundry Room	75			
		Subtotal 950				
231	1	Interior Design Laboratory	1,475		23	
808	1	Material Storage Room	150			
		Subtotal 1,625				
231	2	Teen Parent Classrooms	900	18	36	
		Subtotal 900				
		TECHNOLOGY AND INDUSTRIAL EDUCATION				
242	1	Technology Studies Lab w/ Tech Resource Area			2,090	
22						
808	1	Material Storage Room	150			
849	1	Project Storage Room	200			
		Subtotal 2,440				
241	1	Principles of Drafting Technology Laboratory			1,440	
22						
808	1	Material Storage Room	150			
849	1	Project Storage Room	150			
		Subtotal 1,740				
242	1	Communications Technology Laboratory			2,090	22
867	1	Audio/Video Production Room		200		
808	1	Material Storage Room	150			
849	1	Project Storage Room	200			
		Subtotal 2,640				
242	1	Production Technology Laboratory		2,090	22	

808	1	Material Storage Room		200		
849	1	Project Storage Room	200			
		Subtotal	2,490			
241	1	Principles of Electronics Laboratory			1,440	22
810	1	Material Storage Room		200		
		Subtotal	1,640			
241	1	Carpentry and Cabinetmaking Laboratory			1,170	18
810	1	Material Storage Room		500		
851	1	Tool Storage Room	250			
840	1	Related Classroom	680			
315	1	Teacher Planning Area		100		
	1	Outside Covered Project Area*			1,800	

*If more that one program is selected that requires an Outside Covered Project Area, calculate the square footage as follows: 1,800 sf for the first Laboratory plus 200 sq. ft. for each additional Laboratory 4,500

243	1	Automotive Service Technology Laboratory			3,240	24
810	1	Material Storage Room		340		
851	1	Tool Storage Room	150			
847	1	Flammable Storage Room		150		
849	1	Project Storage Room	200			
840	1	Related Classroom	680			
315	1	Teacher Planning Area		100		
	1	Exterior Covered Parking/Work Area			1,800	
		subtotal	6,660			
242	1	Ventilation, AC and Refrigeration Laboratory			2,090	
22						
810	1	Material Storage Room		225		
851	1	Tool Storage Room	165			
849	1	Project Storage Room	300			
840	1	Related Classroom	680			
315	1	Teacher Planning Area		100		
	1	Outside Covered Project Area*			1,800	

*If more that one program is selected that requires

an Outside Covered Project Area, calculate the square footage as follows: 1,800 sf for the first Laboratory plus 200 sq. ft. for each additional Laboratory 5,360

242	1	Electrical Trades Laboratory	2,090	22	
810	1	Material Storage Room	325		
851	1	Tool Storage Room	300		
840	1	Related Classroom	680		
315	1	Teacher Planning Area	100		
	1	Outside Covered Project Area*	1,800		

*If more that one program is selected that requires an Outside Covered Project Area, calculate the square footage as follows: 1,800 sf for the first Laboratory plus 200 sq. ft. for each additional Laboratory 5,295

241	1	Introduction to Engineering Design	1,440	22	
808	1	Material Storage Room	150		
849	1	Project Storage Room	150		
		Subtotal	1,740		
241	1	Principles of Engineering	1,440	22	
808	1	Material Storage Room	150		
849	1	Project Storage Room	150		
		Subtotal	1,740		
241	1	Digital Electronics	1,440	22	
810	1	Material Storage Room	200		
		Subtotal	1,640		
241	1	Computer Integrated Manuf/Engineering Design & Developmt			
1,170		18			
810	1	Material Storage Room	350		
851	1	Tool Storage Room	250		
840	1	Related Classroom	680		

315	1	Teacher Planning Area	100		
			2,550		
241	1	Computer System Technology (Computer Repair)			1,440
22					
808	1	Material Storage Room	150		
849	1	Project Storage Room	150		
		Subtotal	1,740		
242	1	Construction Trades	1,050	22	
810	1	Material Storage Room	500		
851	1	Tool Storage Room	250		
840	1	Related Classroom	650		
315	1	Teacher Planning Area	90		
	1	Outside Covered Project Area*	1,000		

*If more that one program is selected that requires an Outside Covered Project Area, calculate the square footage as follows: 1,800 sf for the first Laboratory plus 200 sq. ft. for each additional Laboratory 3,540

245	1	Cosmetology Laboratory	1,620	18	
840	1	Related Classroom	500		
804	1	Dispensary	80		
804	1	Facial Room	80		
818	1	Locker Room	80		
816	1	Toilet Room	40		
700	1	Reception Area	50		
315	1	Teacher Planning /Material Storage Room		100	
		Subtotal	2,550		

PUBLIC SERVICE EDUCATION

261	1	Health Science Laboratory	1,210	22	
808	1	Material Storage Room	100		
		Subtotal	1,310		

261	1	Criminal Justice Assisting Laboratory			1,000	18
808	1	Material Storage Room		100		
		Subtotal	1,100			
262	1	Teacher Assisting Classroom		800	20	
		Subtotal	800			
		CORE SPACES				
		LIBRARY				
380	1	Reading Room	20,000			
381	1	Technical Processing Room		1,000		
383	1	Audio Visual (AV) Storage Room			1,000	
385	1	CCTV Room (Studio and Control Booth)			875	
821	1	Staff Toilet Room	40			
		Subtotal	22,915			
		ADMINISTRATION				
	1	Lobby	15,000			
304	1	Administrative Reception/Secretarial Area			800	
304	1	Asst. Principal's Reception/Secretarial Area			500	
300	1	Principal's Office	200			
821	1	Principal's Shower/Toilet Room			40	
301	6	Assistant Principals' Offices	150	900		
302	1	Bookkeeping Office	150			
301	2	General Offices	150	300		
301	1	Data Processing Office		150		
305	1	Production/Workroom	300			
306	1	Principal's Conference Room			300	
306	1	Assistant Principal's Conference Room			200	
307	2	Clinic Rooms	200	400		
815/816	2	Clinic Toilet Rooms (boys/girls)			40	80
308	1	Administrative Storage Room			300	

368	1	Textbook Storage Room			400		
819/820		2	Staff Toilet Rooms (men/women)			40	80
		Subtotal		20,100			
		GUIDANCE					
304	1	Reception/Secretarial Area			250		
301	8	Offices	150	1,200			
309	1	Records Room		300			
313	1	Success Lab		500			
306	1	Conference Room			200		
		Subtotal		2,450			
		FOOD SERVICE					
340	1	Student Dining Room			8,625		
341	1	Servery		1,850			
349	1	Chair Storage Room			360		
341	1	Kitchen		1,400			
350	1	Receiving Area			80		
343	1	Kitchen Manager's Office			150		
350	1	Cooler	125				
350	1	Freezer		275			
342	1	Dry Storage Room			240		
316	1	Faculty Dining Room			960		
819/820		2	Faculty/Staff Toilet Rooms (men/women)			40	80
351	1	Outside Dining Area			[1,500]		
		Subtotal		14,145			
		THEATER					
360	1	Auditorium Seating			8,000		
363	1	Stage	2,400				
		smaller stage		1,000			
364	1	Storage/Shop		300			
365/366		2	Dressing Rooms (boys/girls)		200	400	
367	1	Control Booth		75			
370	1	Lobby	250				
822/823		2	Public Toilet Rooms (boys/girls)			as req'd	450
		Subtotal		12,875			
		OTHER AREAS					
815/816		*	Student Toilet Rooms (boys/girls)			as req'd	2,800

		Subtotal	2,800				
		*quantity as required					
		CUSTODIAL					
330	1	Central Receiving		500			
301	1	Custodial Office		100			
331	20	Service Closets	20	400			
819/820		2	Locker Rooms (men/women)		50	100	
819/820		2	Toilet Rooms (men/women)		40	80	
333	1	Flammable Storage Room			250		
334	1	Equipment Storage Room			200		
		Subtotal	1,630				
		ATHLETIC COMPLEX					
	1	Football Field w/ Running Track				*	
	1	Football Pressbox		400			
371	1	Concession Stand		400			
371	1	Concession Stand Storage Closet				50	
822/823		2	Home Team Public Toilet Rooms (boys/girls)				1,000
822/823		2	Visiting Team Public Toilet Rooms (boys/girls)				830
372	1	Ticket Booth	50				
98	1	Outside Storage Room			200		
702	1	Irrigation Pump House			100		
		Subtotal	3,030				
		* Comply with SDHC standards					
		Net Subtotal	205,036				
		Mechanical (6%)		12,302			
		Net total:	217,338				
		Circulation, Walls, Lockers, etc. (34%)					73,895
		TOTAL GROSS:		291,233		S.S.:	2,507

Code	No. of Spaces	Description of Area	Inventory Minimum Unit Sq. Ft. Student Stations	Each Student Stations	Total Sq. Ft.	Total
		COMMUNITY CENTRE				
		LOBY				
		main space	7,600			
		Subtotal	7,600			
		ACTIVITY AREAS				
		basketball court	3,375			
		game room	1,500			
		weight room	3,000			
		spinning class room	400			
		activity rooms	2,400			
		climbing wall (along the courts)			0	
		raquet ball courts	2,400			
			13,075			
		SOCIAL AREAS				
		class rooms/ multi rooms			1,200	
		event room	2,500			
			3,700			
110	1	Shower/Drying Areas (boys/girls)			680	
098	1	P. E. Toilet Rooms (boys/girls)			400	
112	1	Multi-purpose Classroom			6,200	160
113	1	P. E. Storage Room/Laundry			6,166	
099/100	2	Gymnasium Floor	80		160	
315	1	Gymnasium Seating (2,000 seats)			150	
315	1	Staff Locker/Shower/Toilet Rooms (men/women)				150
117	1	Male Teacher Planning Area			1,600	
118	1	Female Teacher Planning Area			1,000	
115	1	Weight Room	250			

822/823	2	Wrestling/Gymnastics/Dance Room	1,200	
370	1	Training Room/First Aid Room	500	
	1	Public Toilet Rooms (boys/girls)	[160,000]	
	6	Lobby *		
		Utility Field (Softball practice)	18,456	
		Playcourts		
		Subtotal		

*size and configuration in accordance with SDHC standards

EXCEPTIONAL STUDENT EDUCATION (E.S.E.) 7,000
75

ALLOWANCES:

EDUCABLE MENTALLY HANDICAPPED (EMH) 0

Subtotal

TRAINABLE MENTALLY HANDICAPPED (TMH)

0

Subtotal

SEVERELY/PROFOUNDLY MENTALLY HANDICAPPED (SPMH)

0

Subtotal

SEVERELY EMOTIONALLY DISTURBED (SED)

0

Subtotal

AUTISTIC

0

Subtotal

PHYSICALLY HANDICAPPED
0

Subtotal

VISUALLY HANDICAPPED
0

Subtotal

EMOTIONALLY HANDICAPPED (EH) 0

Subtotal

SPECIFIC LEARNING DISABLED (SLD) 0

Subtotal

E.S.E. RESOURCE 0

Subtotal

VOCATIONAL EDUCATION

BUSINESS TECHNOLOGY EDUCATION
0

Subtotal

SALES MERCHANDISING
0

Subtotal
*combine with Diversified Coop Training Lab Teacher Planning/Mat Stor Rm, if provided, and locate so that it opens onto both Labs
0

Subtotal

DIVERSIFIED COOPERATIVE TRAINING

		0					
		Subtotal					

*combine with Sales Merch Lab Teacher Planning/Mat Stor Rm, if provided, and locate so that it opens onto both Labs

		WORK EXPERIENCE					
		0					
		Subtotal					
234	1		1,100	17			
700	1	FAMILY AND CONSUMER SCIENCES				50	
840	1	Infant and/or Child Care Laboratory			680		
842	1	Entry Vestibule		100			
816	1	Related Classroom		100			
864	1	Kitchen	50				
811	1	Student Toilet Room		50			
315	1	Isolation/Exam Room		200			
	1	Outside Storage Room			[1,500]		
		Teacher Planning/Mat. Stor./Observation Rm.					2,330
		Outdoor Play Area					
234	1	Subtotal	1,100	17			
700	1		50				
840	1	Early Childhood Education Laboratory				680	
842	1	Entry Vestibule		100			
816	1	Related Classroom		100			
864	1	Kitchen	50				
811	1	Student Toilet Room		50			
315	1	Isolation/Exam Room		200			
	1	Outside Storage Room			[1,500]		
		Teacher Planning/Mat. Stor./Observation Rm.					2,330
		Outdoor Play Area					
231	1	Subtotal	1,600	25			
840	1		680				
810	1	Culinary Operations Laboratory			200		
		Multi-Purpose Classroom			2,480		
		Material Storage Room					
232	1	Subtotal	1,265	23			
808	1		100				
		Life Management Skills Laboratory			1,365		
		Material Storage Room					

Final Design

fig. 76 final site model

In the final design I have redeveloped Blake High School to fit better with the surroundings. The school now integrated with the community center, and has a stronger relationship with the adjacent community. Providing a river front park with a connecting river walk for public use. The school utilizes CPTED techniques to accommodate security for the children and the site. I need more words but I'm not to sure what else to say about this, other than my diagrams and research should have explained all of it already. The school shares facilities with the community center. It shares the basketball courts , the theater and the classrooms . All of which are locate in the center wing that can be sectioned off for different events as needed. In the community center the is a shared library and the pool facilities that can be shared according to a schedule. The community center also provides space for the vocational programs that are part of high school curriculum . this enables the programs like auto mechanics training to be closer to the street and service the community

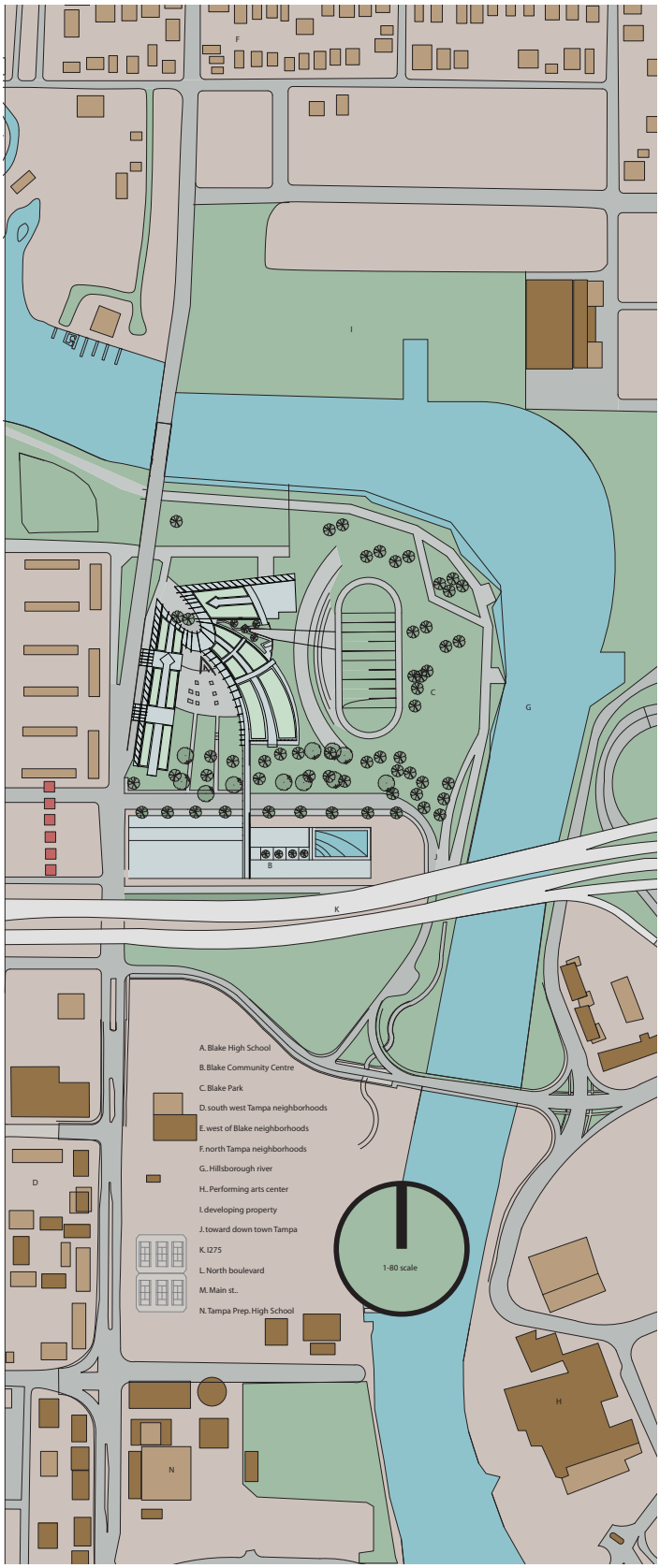
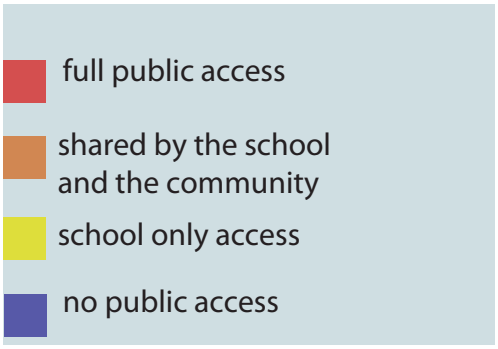


Fig. 76 final site plan

In this diagram i am showing the range of uses for the school and the community centre including the site conditions .



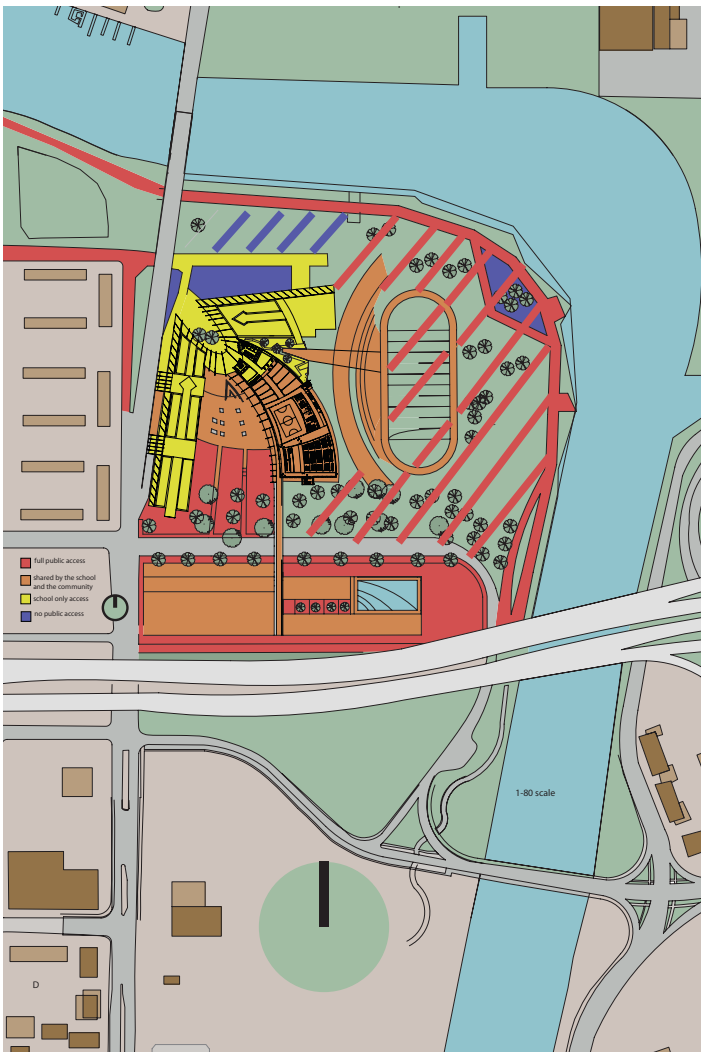


Fig. 77 Final space allocation diagram

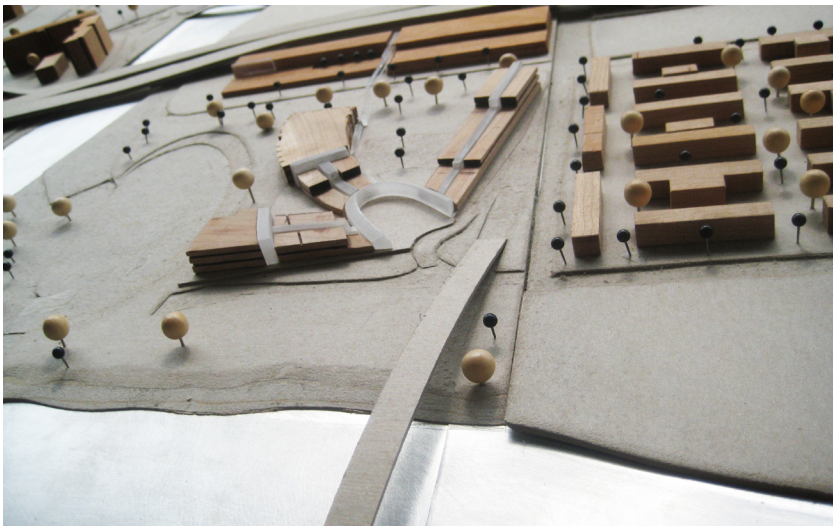


Fig. 78 final site model north boulevard bridge detail

In this diagram I am showing different zones utilizing security elements according with CPTED guidelines.

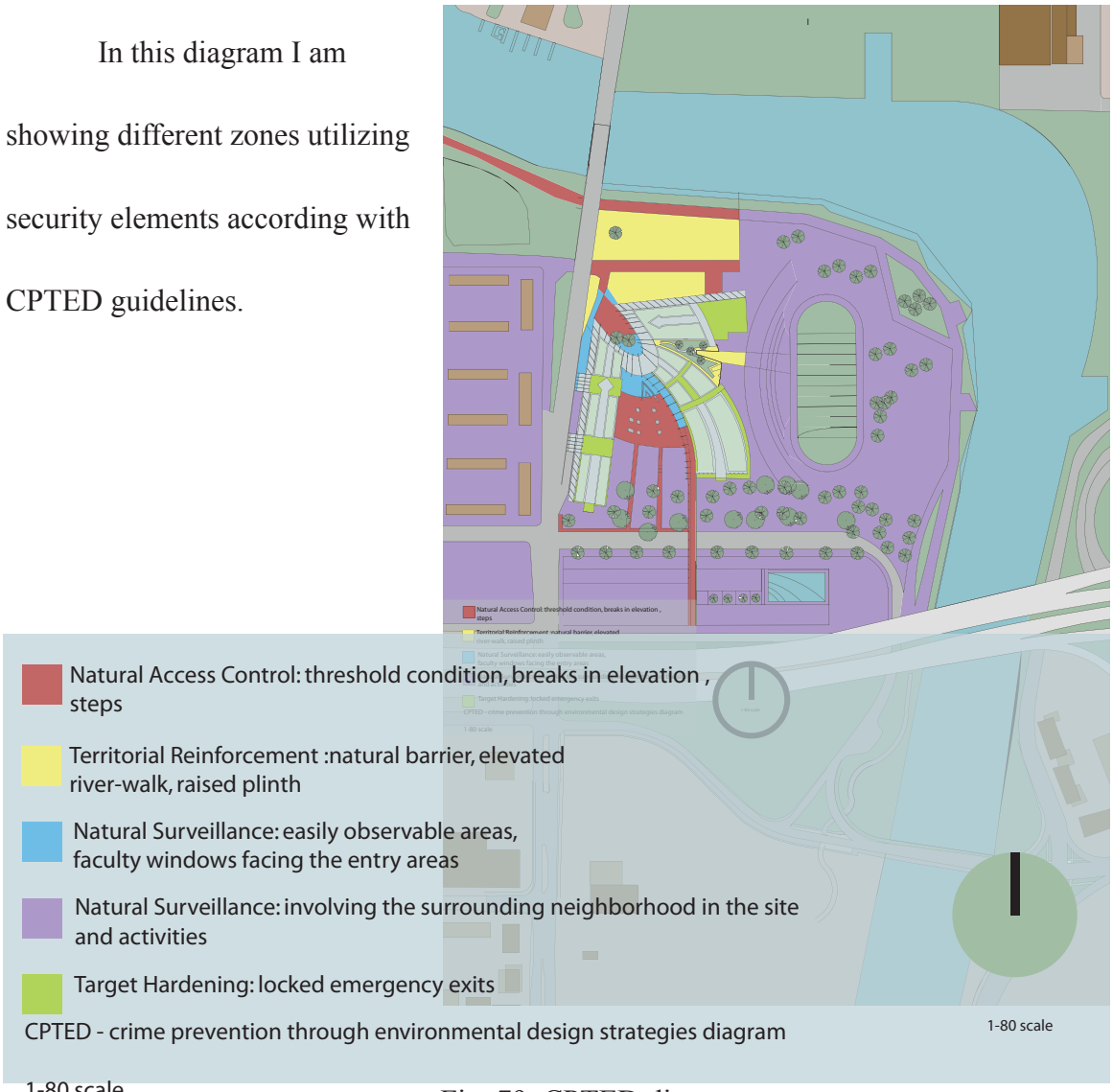


Fig. 79 CPTED diagram

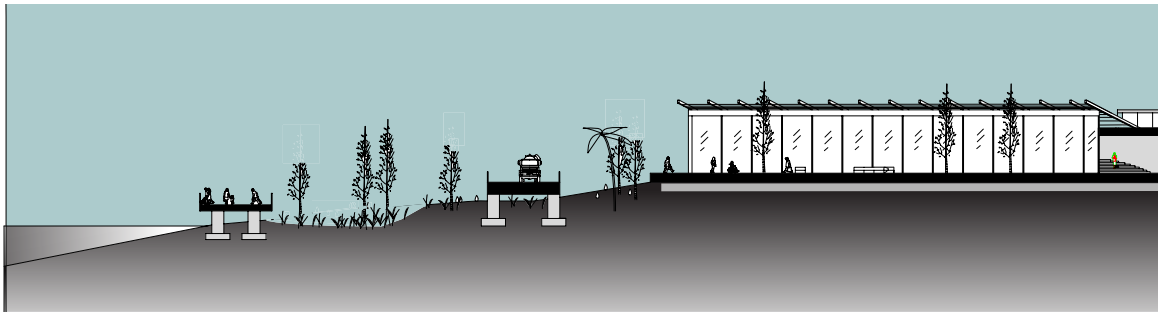
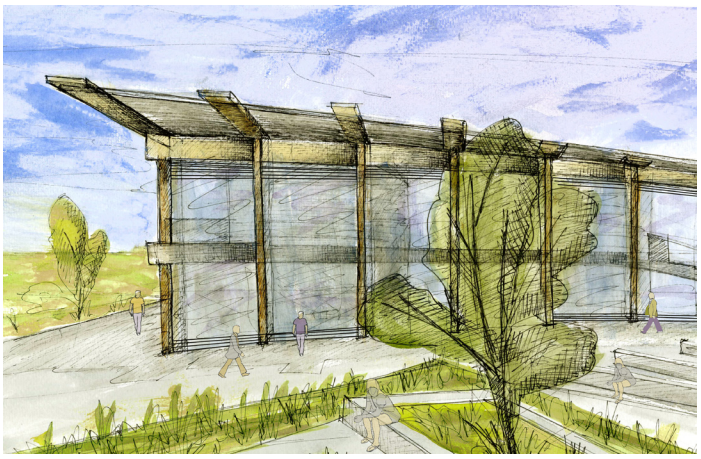
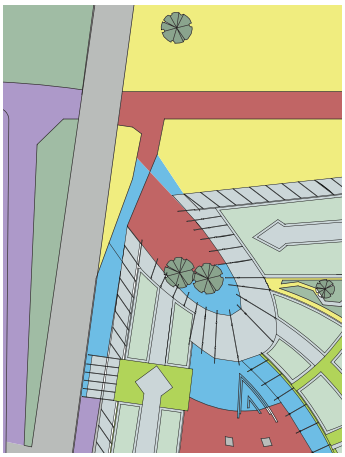
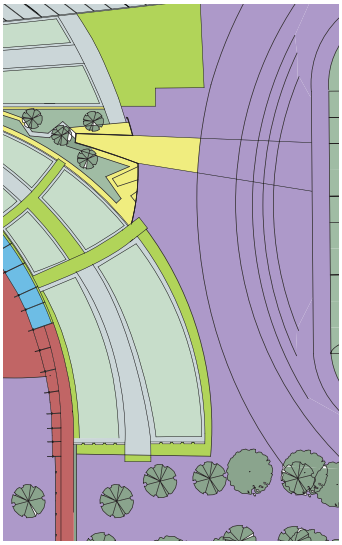


Fig. 80 section detail

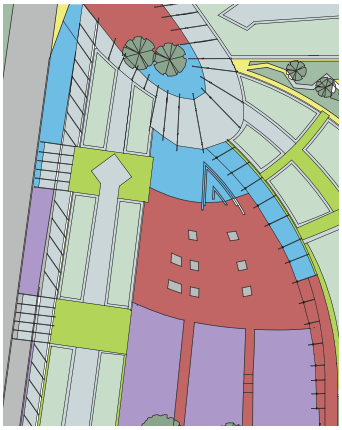




Natural Surveillance easily obser ble area
faculty windows facing the entry areas



Territorial Reinforcement :natural barrie elevated
river-walk, raised plinth



Natural Access Control: threshold condition, breaks in elevation
steps

fig 80.1 CPTED chart

This diagram illustrates the site connection to downtown Tampa

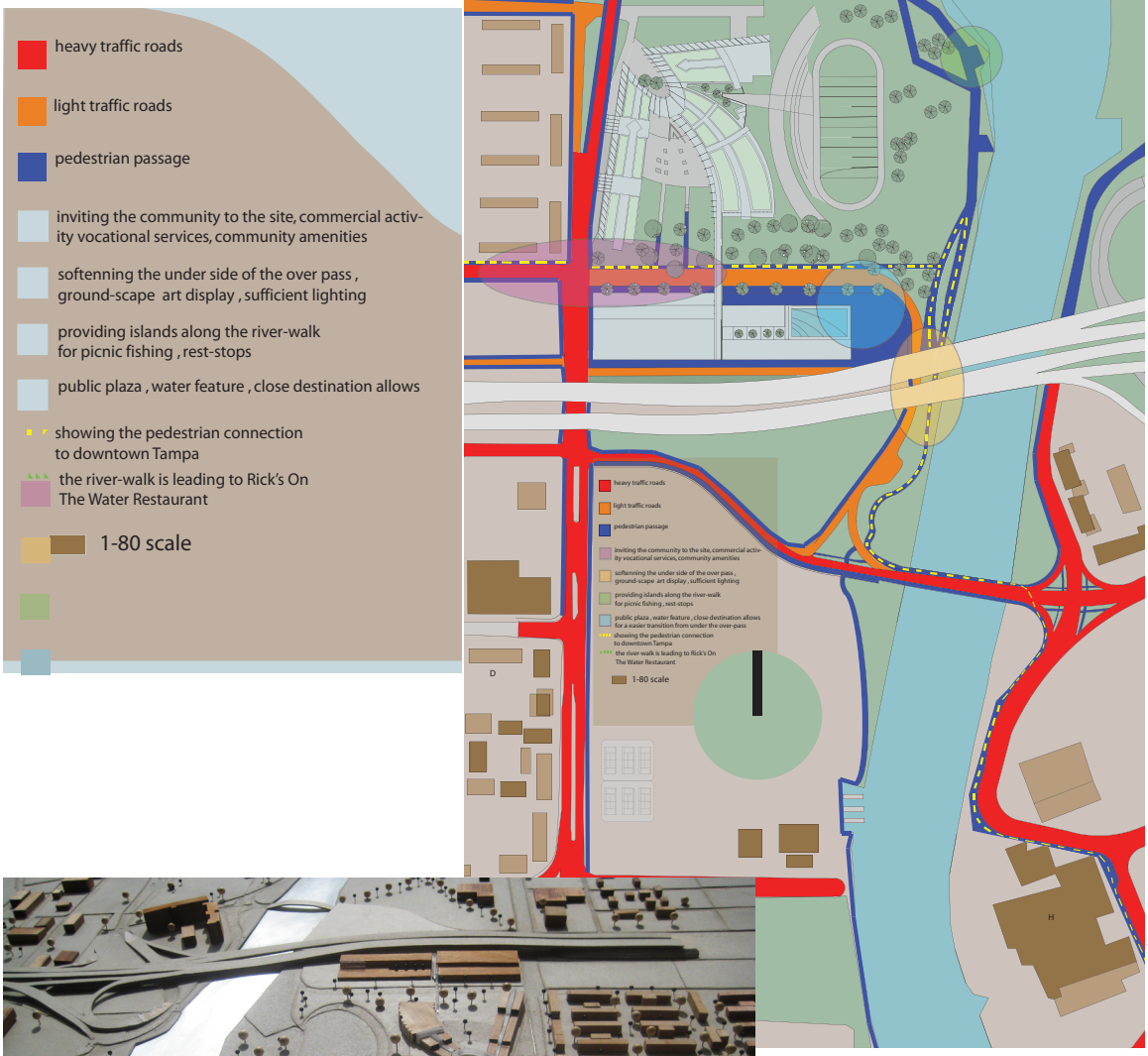


Fig.81 Transition diagram

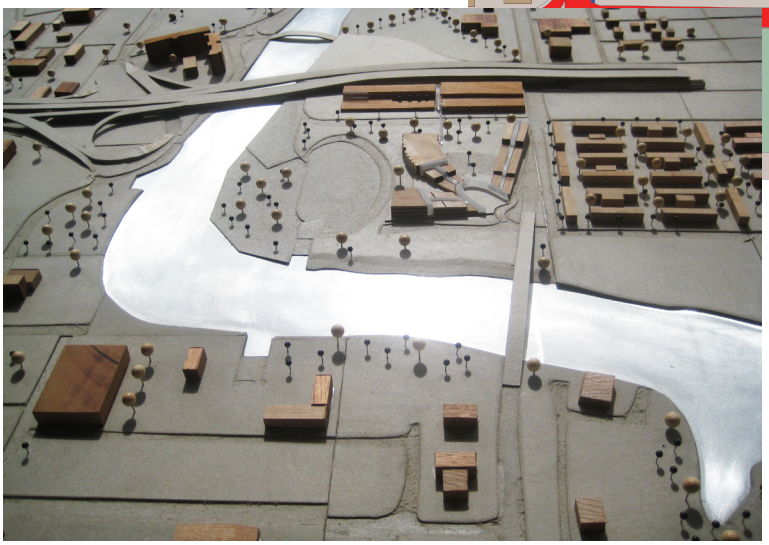


Fig. 82 site model

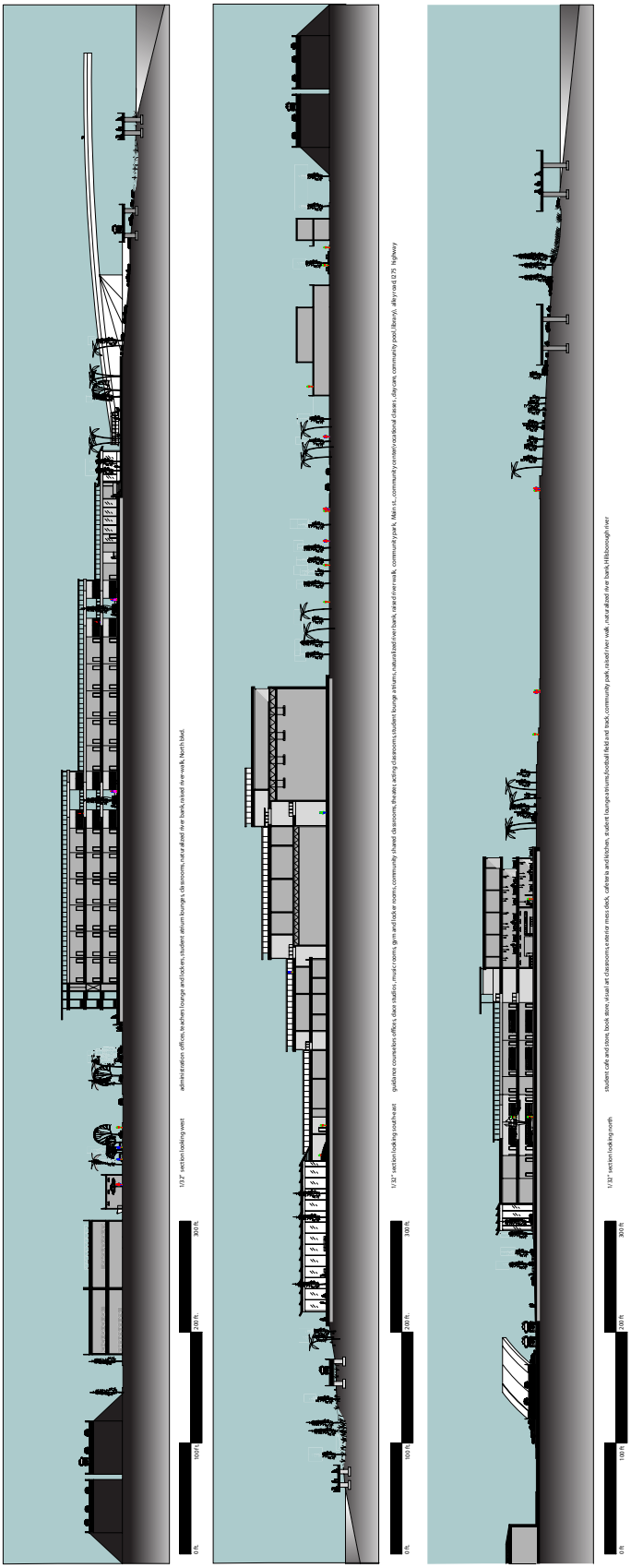


Fig. 83 sections

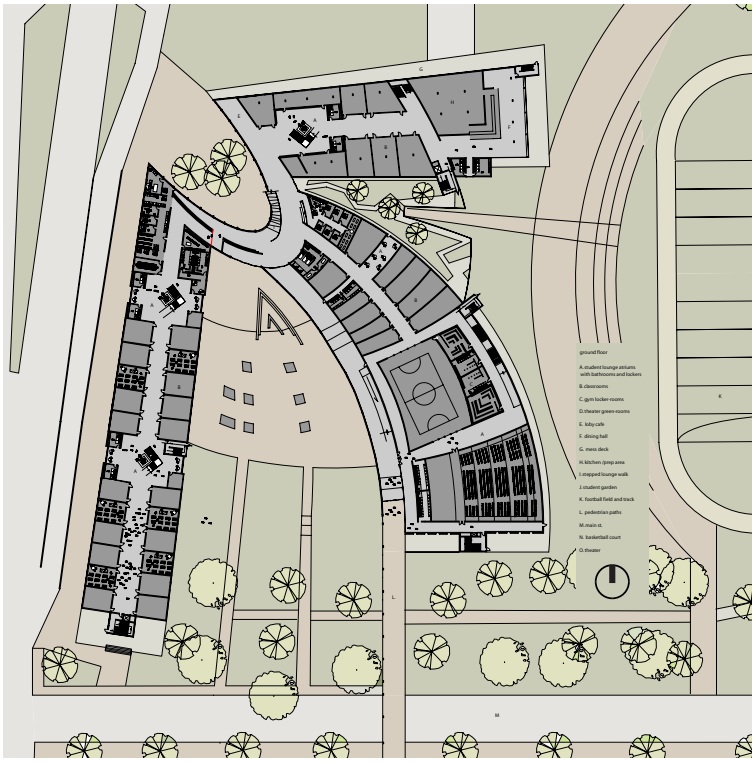


Fig 85 ground plan

ground floor

A. student lounge atriums with bathrooms and lockers

B. classrooms

C. gym locker-rooms

D. theater green-rooms

E. loby cafe

F. dining hall

G. mess deck

H. kitchen /prep area

I. stepped lounge walk

J. student garden

K. football field and track

L. pedestrian paths

M. main st.

N. basketball court

O. theater

The approach yard is more public and has access by the neighborhood at all times facing the theater , sports hall , and the art gallery this public space is sure to turn heads. Fig. 84.

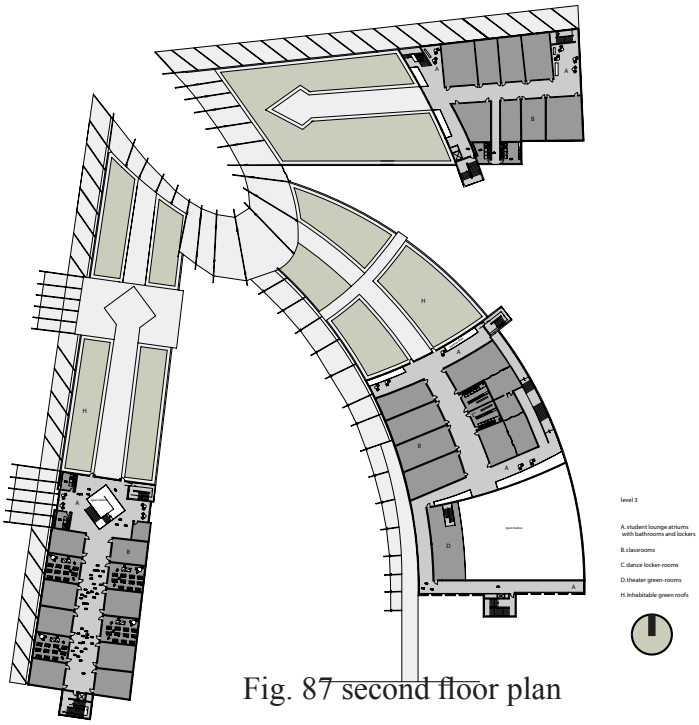


Fig. 87 second floor plan

The school has a welcome feel to the street , the interior space face the neighborhood . the first level is elevated 3' of the street level in addition a 5' brick wall is allowing for the inside views to be focused on the distance.

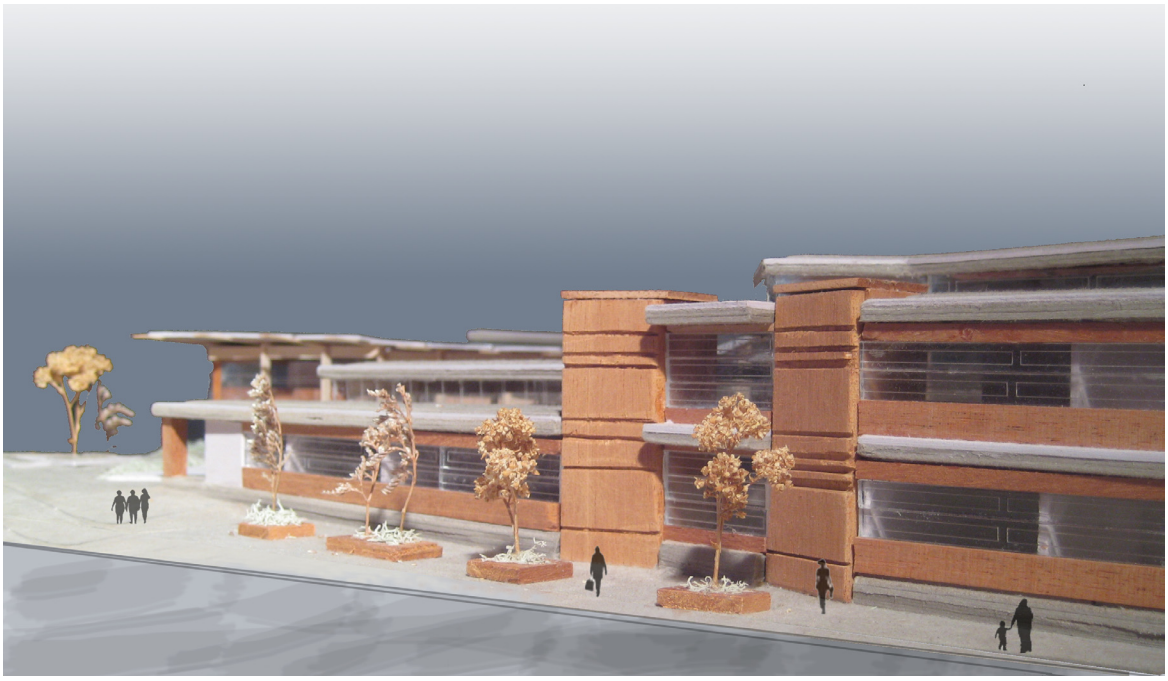


Fig. 86 final model

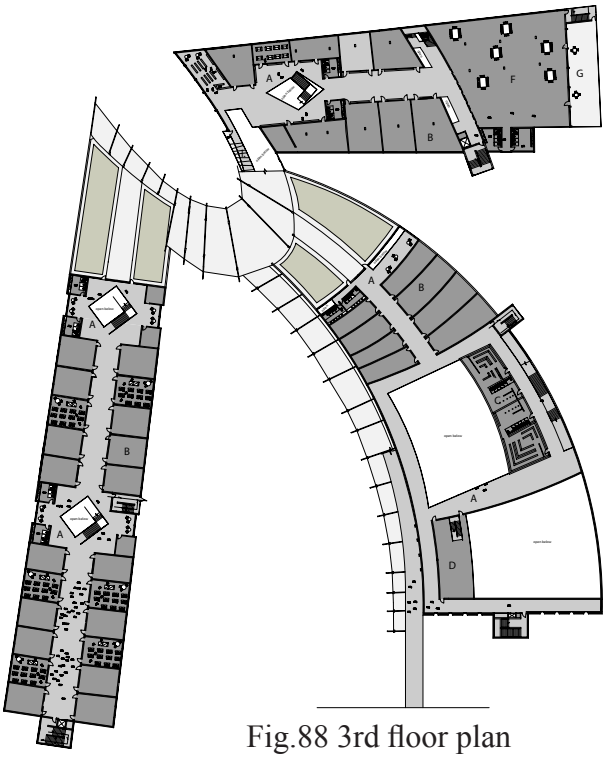


Fig.88 3rd floor plan

level 3

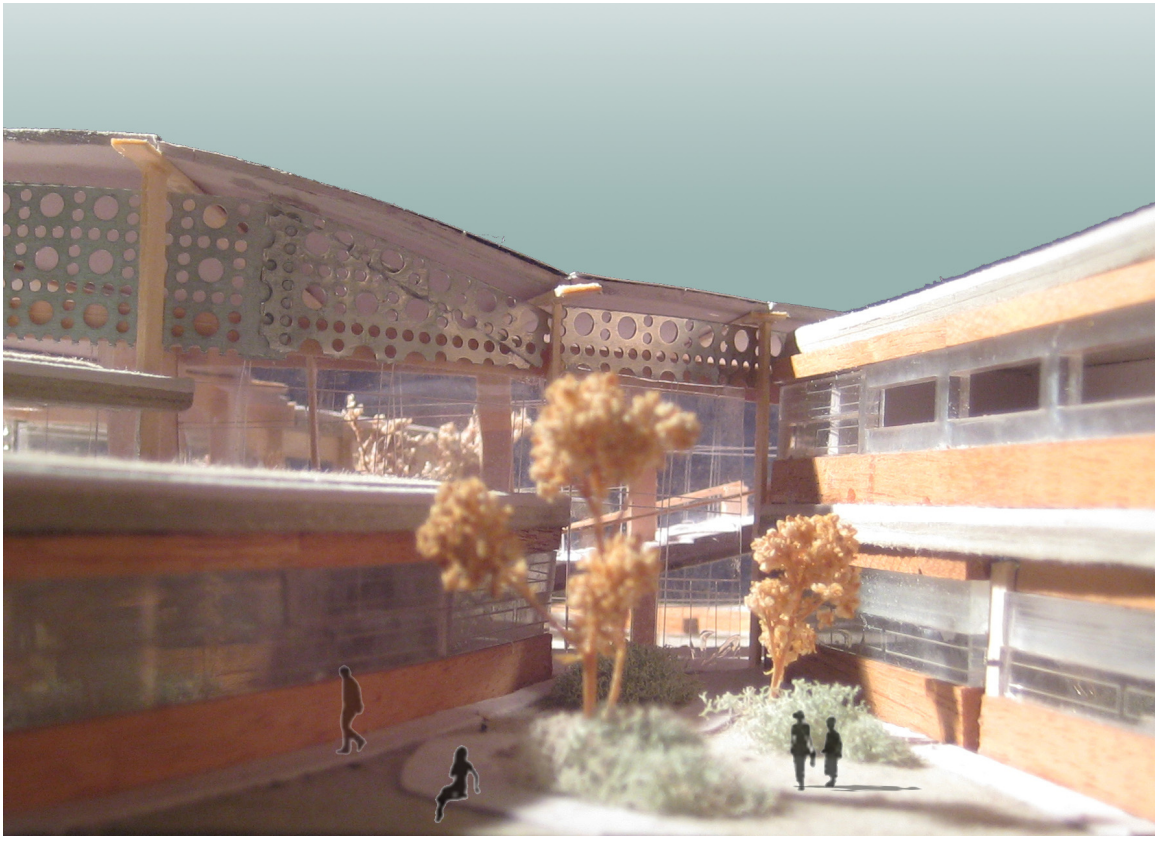
A. student lounge atriums with bathrooms and lockers

B. classrooms

C. dance locker-rooms

D. theater green-rooms

H. Inhabitable green roofs



The court yard provides privacy for the students as well as security with out creating fenced in barriers. Fig. 89

Fig. 90 interior atrium drawing

The atrium serves as main circulation space and as a meeting space. Modern schools should provide ample gathering space for kids to feel welcome and communicate with each other

Fig. 91.4 path to the front door

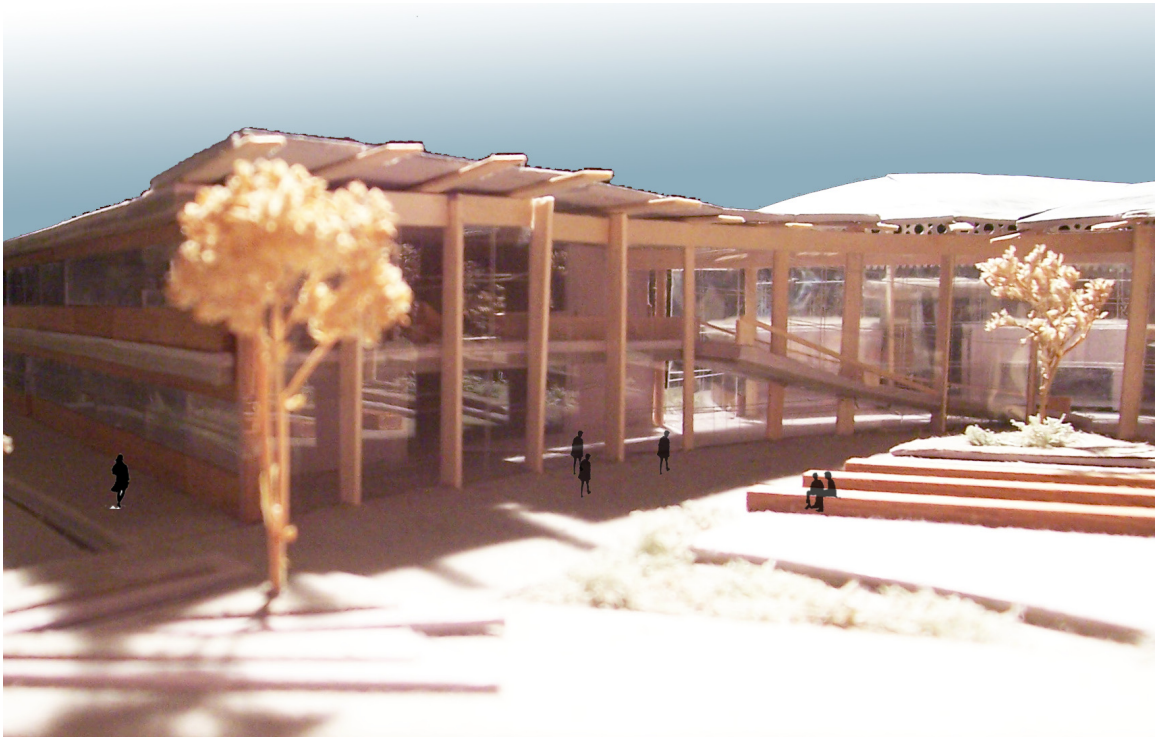


Fig. 91 final model front court yard

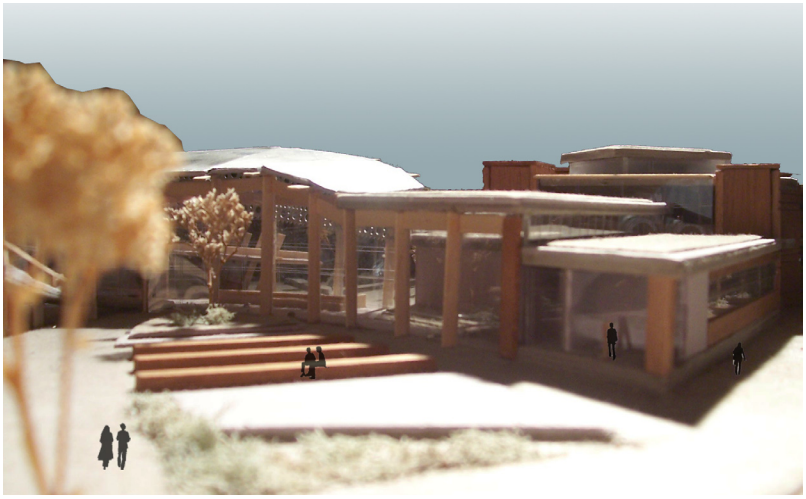


Fig. 91.1 final model court yard

Fig. 91.2 final model court yard

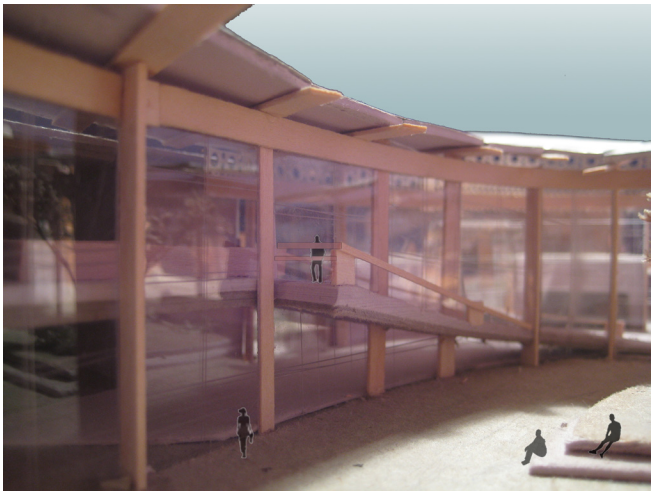


Fig. 91.3 final model court yard

Conclusion

In conclusion I really did learn a lot from this thesis and this educational experience it was tough at times and I defiantly found a lot of my limitations through it , but in the end its worth it. This thesis taught me how to integrate public space with in the secure locked up place like a school , also it has taught me that a school doesn't have to be a place were kids hate to go if you provide space for the to relax for few minutes , catch up on them selves , maybe they will not dread going to school .it has taught me that we can integrate be the school building I to the site in such a way were it can seem open to the public , and even parts of it really can be open to the public . So the school can provide services other than baby sitting the kids . It can be part of a community centre to share facilities. it can allow the community to be part of its surroundings generating natural security and a closer knit society.

Fig. 92

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