

*Feasibility Study:*

*Proposed Renovation Plan  
for Theta Chi Fraternity  
Omega Chapter: Penn State University  
523 South Allen Street  
State College, PA 16801  
April 1, 2003*

*RHA 0309*





March 26, 2003

Mr. Edward Brown  
President  
Theta Chi of Penn State Inc.  
HC 60 Box 531  
Orbisonia, PA 17243

RE: **Feasibility Study**  
*Proposed Renovation Plan*  
*Omega Chapter*

Dear Mr. Brown,

It is with great pleasure that I submit to you our feasibility study for your proposed renovations. To the Theta Chi Fraternity here at Penn State.

As we all discussed at our March 22nd alumni meeting, the goal to once again occupy the chapter house is an exciting venture for all the alumni and most importantly, your student council members.

It is acknowledged that there are a number of significant building issues that need to be addressed over the next five years so as to bring the facility into a better state of repair and to provide needed student services.

The study divides the 5 year plan into three phases so as to map out a plan for these renovations:

- Immediate occupancy of 15 students by August 2003.
- Proposed renovations to occur during the Summer Break of 2004.
- Proposed renovations that might occur in the years 2005 - 2006.

It might also be mentioned that beside the pragmatic scope elements in phases 2 and 3 that are essential for stabilizing and improving the structures condition, there are numerous functional improvements which are discussed that have not been approved by the design committee. This report is in fact only a beginning of identification, and will grow as the students and alumni focus on the facility.

It is hoped that this study delivers to the alumni enough substance to begin on solid ground in achieving their goals and objectives by exploring a finance stream so as to fund the renovations and to assist in prioritizing the components of this plan.



Robert H. Hoffman, AIA  
Robert H. Hoffman Architects  
Boalsburg, Pennsylvania

Moses Ling  
Ling Partnership  
State College, Pennsylvania

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# existing conditions and assessment



### *Existing Building Assessment*

The present 3 story structure, plus ground floor, represents approximately 11,000 sf of living space constructed in 1929 - 1932 and designed by Philadelphia Architect John Irwin.

A walk - thru with local code officials pointed out several items which will need to be addressed prior to occupancy of students in the Fall of 2003 and to assure bringing the total facility up to student and alumni expectations. All items outlined in this assessment and following phase proposals will need to be completed so as to meet the goals set forth by the alumni at the March 22nd meeting and to assure that major Life Safety issues can be corrected.

### *Exterior Building*

1. New windows and door systems to counteract heat loss.
2. Gutters, downspouts, drainage systems to correct building damage.
3. New physically challenged entrance ramp.
4. Building patching, caulking, and painting as an on-going maintenance program.
5. Exterior repairs to stairs, areaway grates, and walkways.



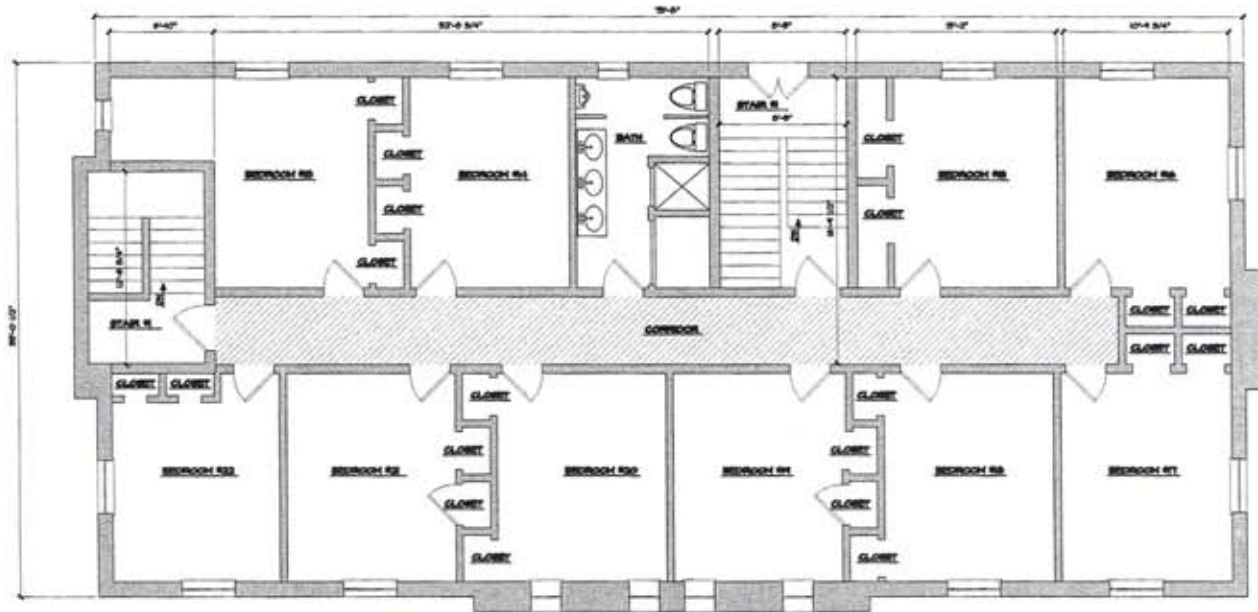
### *Interior Conditions*

1. Address Life Safety issues relating to corridor and exit paths, and flr-flr separations.
2. Install a full coverage sprinkler system in the year 2004
3. Replace all student room doors, frames, and hardware
4. Evaluate and repair/replace all interior finishes such as ceilings, walls, and floors
5. Explore new social spaces such as lounges, fitness room, computer room/study lounges so as to meet present student needs.
6. Continue an on-going interior maintenance program.
7. Replace existing boiler and controls. Determine if existing steam system should be retained, or converted into a hot-water system.
8. Provide new electrical and telecommunications component systems.
9. Provide a new fire alarm system.
10. Record the present building with the Department of Labor and Industry of Pennsylvania.

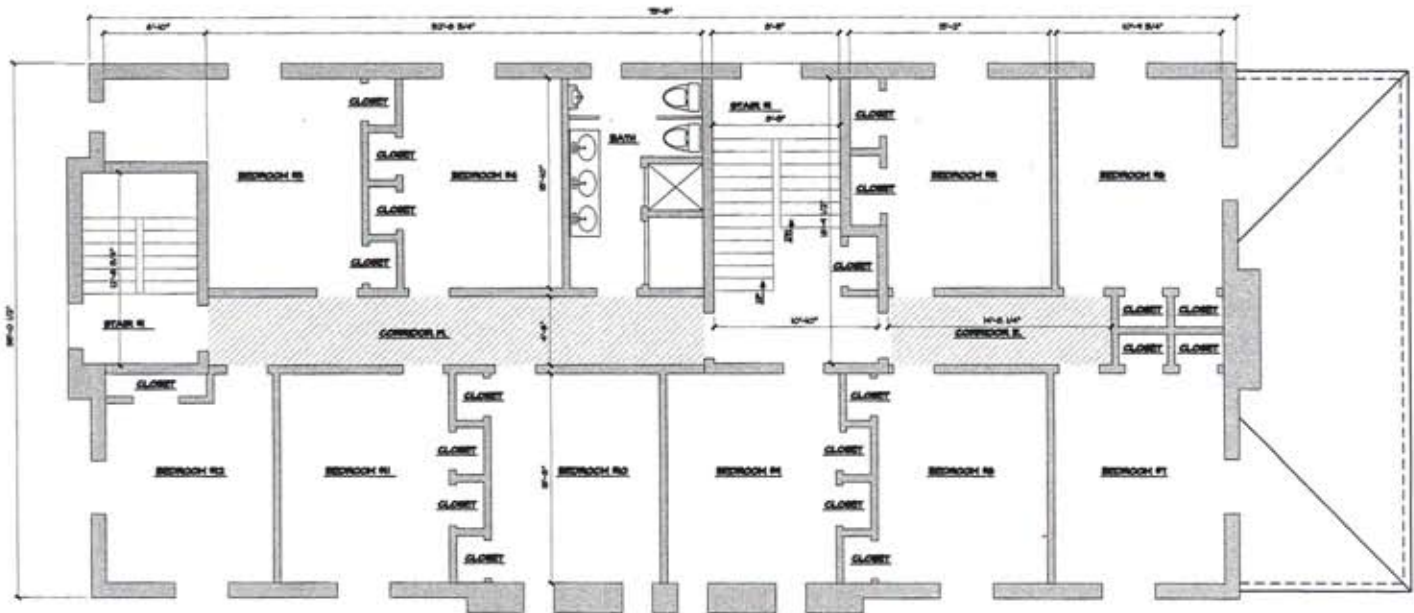


The phasing sections that follow are our initial attempt to address the many issues at hand. We would suggest that prior to addressing Phase I, that the building committee convene with the design professionals so as to establish goals that all can agree to.

# EXISTING CONDITIONS



THIRD FLOOR



SECOND FLOOR

# phasing options

*Theta Chi Fraternity (Omega Chapter)*  
*Feasibility Study*  
*April 1, 2003*

***Phase Number 1:***

Based upon a joint meeting held on March 22, 2003 between alumni, students, and design professionals, it was decided that Phase 1 of the reconstruction effort be focused upon primary repairs that can be achieved prior to mid-August move-in by the students.

In addition, the following items were discussed and given to the architect for his consideration in Phase 1:

1. Roughly 10 - 15 students will sign contracts and occupy the facility by mid-August.
2. The 3rd floor will not be utilized for student occupancy until Phase 2 renovations can be completed.
3. The ground floor and 1st floors will be occupied as per past performances as noted on plans.
4. The structure has not been recorded by the Department of Labor and Industry and must be recorded prior to occupancy. This will be done apart from the responsibilities of the study.
5. The remainder of reconstruction, i.e. Phases 1 and 2, will take place during times when students are not occupying the building - and are included as part of this feasibility study.

***Phase Number 1 Objectives:***

1. Comply with all Centre Region Code Administration Rental Housing Reports latest issue. A copy of this list will be included within this report if received from code administration. It is anticipated that all items noted will become apart of the Phase 1 contract documents scope of work.
2. New solid core 1 hr. doors, metal frames, closures, and latching hardware will be installed on all second floor student rooms or rooms forming the corridor exit paths. The group felt these renovations were important even though sprinklers would minimize some of this life safety requirement.



3. Modify the communicating stair exit path so as to conform with Labor and Industry and Centre Region requirements. This would entail a new door and enclosure wall on the second floor so as to allow the corridor to provide 2 exit paths without entering into a fire tower as presently exists.
4. Examine and reinstall or install new ceilings so as to provide a 1 hr floor to floor separation.
5. Replace all handrails and balusters in communicating stair tower on second and third floor. Repair ornamental handrails and balusters on ground and first floor so as to be able to maintain for usual impact.
6. Repair and or reinstall damaged receptacles and plug-mold in bedroom and through out the public area.
7. Install cover plates on receptacles where missing.
8. Install GFCI receptacles in the bathroom.
9. Install GFCI receptacles in the kitchen.
10. Test emergency lighting system. Replace batteries and devices as required.
11. Repair all exit signs. Replace missing parts and verify operational condition.
12. Install new exit signs at revised exit conditions (i.e. second floor corridor.)
13. Test fire alarm system and restore to operational condition if necessary.
14. Install batteries in bedroom smoke detector and verify operational condition. Replace if required.
15. Perform test on kitchen hood fire suppression system.
16. Reactivate FPA account with Adelphia cable service. Verify the operational condition of the cables.
17. Reactivation of telephone line is the responsibility of the residents.
18. Reinstall ceiling mounted light fixture in laundry room.
19. Repair and re-lamp all lighting fixtures. Use operational fixtures from the third floor as replacements.
20. Reinstall waste line from washers so that it slopes in the proper direction.
21. Maintain the boiler system operation.

*Theta Chi Fraternity (Omega Chapter)  
Feasibility Study  
April 1, 2003*

***Phase Number 2:***

Again based upon the joint meeting of March 22, 2003 Phase 2 is being proposed to define work which could not be addressed in Phase 1 and that could be achieved during the construction window between May 15, 2004 and August 15, 2004.

Phase 2 also allows for fundraising to assure capital to achieve the defined tasks. It is understood, that if the funds are not available or the scope of work in Phase 2 is too large for the construction window, a Phase 3 in the year 2005 will be needed to accomplish all objectives.

***Phase Number 2 Objectives:***

1. Design and specify new operable, insulated windows with screens and divided lights so as to conform with the present window style. The replacement sash will require on-site modifications of wood frames and painting restoration of interior exposed frames.
2. Design and specify replacement wood patio doors for porch and dining area. Investigate if existing doors can be salvaged noting air tight / infiltration issues.
3. Design and specify new roof scupper, leaders, and site discharge for building, so as to eliminate interior wall damage.
4. Design and specify new interior finishes such as tile, carpet, refinishing wood floors, wall painting, new suspended acoustic ceilings.
5. Perform a thorough examination of fire caulking in walls, ceilings and floors at the time new finishes are addressed.
6. Install a NFPA 13R sprinkler system for the entire facility. With this system, install a new water line to the street main.
7. Upgrade all domestic plumbing lines.
8. Replace existing heating system including boiler. An option is to keep the steam system and replace the boiler only.
9. Install air conditioning and ventilation in meeting rooms only.
10. Install new electrical panels, receptacles, and branch wiring.
11. Install new light fixtures.
12. Install new telecommunication system with data ports in student rooms.
13. Provide new emergency and exit sign lighting systems.
14. Upgrade and install new fire alarm system.

*Theta Chi Fraternity (Omega Chapter)*  
*Feasibility Study*  
*April 1, 2003*

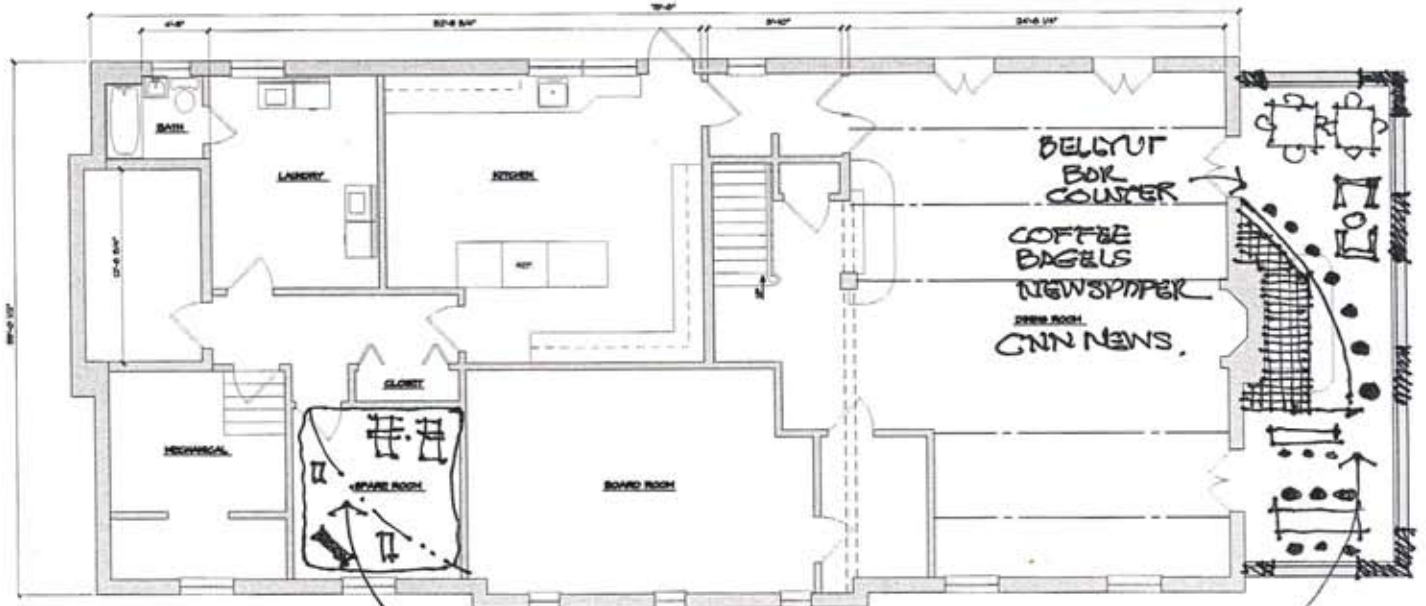
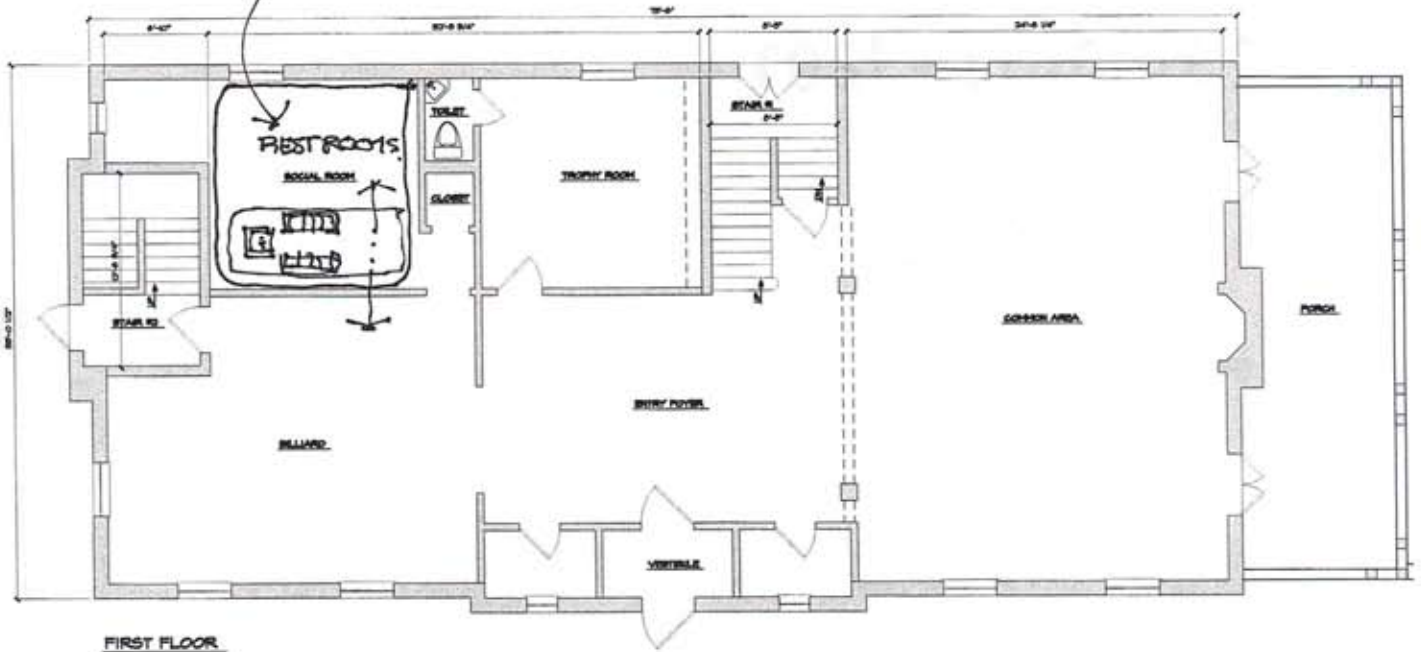
**Phase Number 3:**

The goal of Phase 3 is to contain all components of scope which could not be addressed in the 1st Phase and to provide new student activity spaces relating to their program desires such as:

1. The development of the former bar area on the ground floor as a media, social activity area. A place to begin the day with coffee, a bagel and the morning news.
2. New first floor public restrooms
3. A new computer lounge
4. A weight room/activity space

NEW PUBLIC RESTROOMS  
WITH MEDIA LOUNGE  
IN ENTRY FOYER.

PHASE 3



BASMENT

NEW RECREATION FITNESS  
ROOM. MEDIA WALL.

NEW CYBER BAR.  
ENTERTAINMENT  
LOUNGE.

# cost estimates

*The following cost estimates are based upon means 2003 handbook including modifications for contractor overhead, profit and design contingency.*

*The following items are not included in the construction costs, but should be considered for soft costs.*

- 1. Inflation Factor on a yearly basis. We estimate 2% per year*
- 2. Furniture, equipment (FF & E)*
- 3. Asbestos testing and removal*
- 4. A construction contingency of 7-10 % of the estimate of construction*

ROBERT H. HOFFMAN  
 ARCHITECT  
 110 WEST MAINT ST., BOALSBURG, PA.

**Theta Chi : Omega Chapter**

Project Number 0309  
 April 01, 2003

Feasibility Study

**Estimate of Construction: PHASE 1**

1. ESTIMATE OF CONSTRUCTION COST	<i>Building</i>	<i>\$64,870.00</i>
	<i>Land Development</i>	<i>\$1,689.10</i>
2. ESTIMATE OF TOTAL PROJECT COST		
Estimate of Construction Cost (building & site)		\$66,559.10
Soft Costs at 18%		\$11,980.64
<b>TOTAL PROJECT COST ESTIMATE</b>		<b>\$78,539.74</b>

- SOFT COSTS
- Professional Fees
- Reimbursable Expenses Professional
- Security System
- Furnishings
- Permits connection fees
- Labor and Industry Fees
- Asbestos Testing/Removal
- Construction Contingency

**ESTIMATE OF PROBABLE LAND DEVELOPMENT COST**

Note: This estimate represents hard construction costs only, and does not include soft costs.

DESCRIPTION	QTY.	UNIT	UNIT \$S	TOTAL
<b>2-SITWORK</b>				
<b>SITE DEMOLITION</b>				
Clear and grub site	1	ls	\$200.00	\$200.00
<i>Subtotal</i>				<i>\$200.00</i>
<b>EROSION AND SEDIMENT CONTROL</b>				
<i>Subtotal</i>				<i>\$0.00</i>
<b>SITE GRADING/LANDSCAPING</b>				
Strip/stockpile topsoil (6" depth)	35	cy	\$2.00	\$70.00
Topsoil/fine grade/seed	1	ls	\$200.00	\$200.00
Shrub planting	1	ls	\$300.00	\$300.00
<i>Subtotal</i>				<i>\$570.00</i>
<b>STORM WATER MANAGEMENT</b>				
Repair Parking Lot Drain	1	ls	\$500.00	\$500.00
<i>Subtotal</i>				<i>\$500.00</i>
<b>SUB-TOTAL</b>				<b>\$1,270.00</b>
General Conditions: 8%				\$101.60
CONTRACTOR'S OVERHEAD & PROFIT (15% OF DIV. 2)				\$190.50
DESIGN CONTINGENCY (10%)				\$127.00
<b>TOTAL CONSTRUCTION COSTS - SITE</b>				<b>\$1,689.10</b>

**ESTIMATE OF PROBABLE CONSTRUCTION COST - BUILDING**

*Note: This estimate represents hard construction costs only, and does not include soft costs.*

<b>DESCRIPTION</b>	<b>QTY:</b>	<b>UNIT \$</b>	<b>TOTAL</b>
Basement Demolition Cleanup	1 ls	\$500.00	\$500.00
Ground Floor Patching/Firecaulking	1 ls	\$3,500.00	\$3,500.00
Ground Floor: Stabilize Stair Railing	1 ls	\$400.00	\$400.00
Ground Flr. New 1hr. Suspended Ceilings	800 sf	\$3.50	\$2,800.00
First Floor Patching/Firecaulking	1 ls	\$2,800.00	\$2,800.00
First Floor Painting/Cleaning			<i>By Students</i>
First Floor Stair Railing Stabilization	1 ls	\$400.00	\$400.00
First Floor Fire Door Repair/Replacement	1 ls	\$1,500.00	\$1,500.00
Weatherproofing Present Doors	1 ls	\$1,000.00	\$1,000.00
Door and Window Glazing Replacement	1 ls	\$300.00	\$300.00
Second Flr. Patching/Firecaulking	1 ls	\$800.00	\$800.00
Second Floor New 1 hr. Doors, Frames, Hardw	11 ea	\$1,200.00	\$13,200.00
Second Flr. Stairtower Code Modifications	1 ls	\$4,000.00	\$4,000.00
Second Floor Patching/Painting at New Door	11 ea	\$700.00	\$7,700.00
Second Floor Stair Railing Replacement	1 ls	\$750.00	\$750.00
Stabilize Third Floor: No Occupancy	1 ls	\$250.00	\$250.00
<b>MECHANICAL SYSTEM</b>			
Mechanical Upgrades for Occupancy	1 ls	\$2,000.00	\$2,000.00
Outdoor air for Effected spaces			<i>Unknown</i>
<b>ELECTRICAL SYSTEM</b>			
Electrical Upgrades for Occupancy	1 ls	\$8,000.00	\$8,000.00
Site Lighting	1 ea		<i>Unknown</i>
Existing Service Modifications	1 ea		<i>Unknown</i>
Clean Power Panel Board	1 ea		<i>Unknown</i>
<b>SUBTOTAL</b>			\$49,900.00
<i>General Conditions: 8%</i>			\$3,992.00
<b>CONTRACTORS OVERHEAD AND PROFIT 12%</b>			\$5,988.00
<b>DESIGN CONTINGENCY (10%)</b>			\$4,990.00
<b>TOTAL PROBABLE CONSTRUCTION COST</b>			\$64,870.00

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**ROBERT H. HOFFMAN**  
 ARCHITECT  
 110WEST MAINT ST., BOALSBURG, PA.

**Theta Chi : Omega Chapter**

Project Number 0309  
 April 01,2003

*Feasibility Study*

**Estimate of Construction: PHASE 2**

<b>1. ESTIMATE OF CONSTRUCTION COST</b>	<i>Building</i>	\$544,342.50
	<i>Land Development</i>	\$9,004.10
<b>2. ESTIMATE OF TOTAL PROJECT COST</b>		
Estimate of Construction Cost (building & site)		\$553,346.60
Soft Costs at 18%		\$99,602.39
<b>TOTAL PROJECT COST ESTIMATE</b>		\$652,948.99

- SOFT COSTS
- Professional Fees
- Reimbursable Expenses/Professional
- Security system
- Furnishings
- Permits/ Connection Fees
- Labor And Industry Fees
- Asbestos Testing
- Construction Contingency

**ESTIMATE OF PROBABLE LAND DEVELOPMENT COST**

*Note: This estimate represents hard construction costs only, and does not include soft costs.*

<u>DESCRIPTION</u>	<u>QTY.</u>	<u>UNIT</u>	<u>\$S</u>	<u>TOTAL</u>
<b>2-SITWORK</b>				
<b>SITE DEMOLITION</b>				
Clear and grub site	1	ls	\$200.00	\$200.00
<i>Subtotal</i>				<b>\$200.00</b>
<b>EROSION AND SEDIMENT CONTROL</b>				
<i>Subtotal</i>				<b>\$0.00</b>
<b>SITE GRADING/LANDSCAPING</b>				
Strip/stockpile topsoil (6" depth)	35	cy	\$2.00	\$70.00
Topsoil/fine grade/seed	1	ls	\$1,500.00	\$1,500.00
Shrub planting	1	ls	\$1,500.00	\$1,500.00
<i>Subtotal</i>				<b>\$3,070.00</b>
<b>STORM WATER MANAGEMENT</b>				
Stone sump	1	ls	\$3,500.00	\$3,500.00
<i>Subtotal</i>				<b>\$3,500.00</b>
<b>SUB-TOTAL</b>				<b>\$6,770.00</b>
<i>General Conditions: 8%</i>				<b>\$541.60</b>
<b>CONTRACTOR'S OVERHEAD &amp; PROFIT (15% OF DIV. 2)</b>				<b>\$1,015.50</b>
<b>DESIGN CONTINGENCY (10%)</b>				<b>\$677.00</b>
<b>TOTAL CONSTRUCTION COSTS - SITE</b>				<b>\$9,004.10</b>



## ESTIMATE OF PROBABLE CONSTRUCTION COST - BUILDING

*Note: This estimate represents hard construction costs only, and does not include soft costs.*

DESCRIPTION	QTY.	UNIT	\$S	TOTAL
Building Demolition for New Finishes	12000	sf	\$1.50	\$18,000.00
New Exterior Insulated Window Replacement	56	ea	\$800.00	\$44,800.00
Repair,Caulk,Paint Windows	56	ea	\$350.00	\$19,600.00
Building Caulking	1	ls	\$2,500.00	\$2,500.00
New Wood Insulated Doors, Hardware	12	ea	\$3,000.00	\$36,000.00
Third Floor : 1Hr. Doors,Frames, Hardware	11	ea	\$1,200.00	\$13,200.00
Third Flr. Patching at New Doors	11	ea	\$400.00	\$4,400.00
Third Floor Closet Doors/Patching	20	ea	\$500.00	\$10,000.00
Third Floor Railing Replacement	1	LS	\$1,800.00	\$1,800.00
Second,Third Floor Corridor Ceilings	500	sf	\$3.85	\$1,925.00
Student Room Wall,Ceilings Repair/Repl.	20	ea	\$3,500.00	\$70,000.00
Fire Tower Upgrades	2	ea	\$500.00	\$1,000.00
Third Flr. Patching/Firecaulking	1	ls	\$1,500.00	\$1,500.00
Repair Roof Scupers, Downspouts, Drains	1	ls	\$4,500.00	\$4,500.00
Roof Repairs				<i>Unknown</i>

### MECHANICAL SYSTEM

Install NFPA 13R Sprinkler System	12000	sf	\$2.75	\$33,000.00
New Fire Connection to Street	1	ls	\$15,000.00	\$15,000.00
Install new Water lines	1	LS	\$1,500.00	\$1,500.00
Replace Existing Boiler	12000	sf	\$5.00	\$60,000.00
Install A/C in Board Room	1	LS	\$10,000.00	\$10,000.00
General Mechanical Maintenance/Repair	1	LS	\$5,000.00	\$5,000.00

### ELECTRICAL SYSTEM

Install New Electrical Panels and Wiring	1	ls	\$25,000.00	\$25,000.00
Install New Light Fixtures	1	ls	\$10,000.00	\$10,000.00
New Telecommunications System	1	LS	\$8,000.00	\$8,000.00
New Emergency and Exit sign system	1	ls	\$5,000.00	\$5,000.00
New Fire Alarm System	1	ls	\$12,000.00	\$12,000.00
Electrical Maintenance Repairs	1	ls	\$5,000.00	\$5,000.00

### SUBTOTAL

General Conditions: 8%	\$418,725.00
CONTRACTORS OVERHEAD AND PROFIT 12%	\$33,498.00
DESIGN CONTINGENCY (10%)	\$50,247.00
	<b>\$41,872.50</b>

<b>TOTAL PROBABLE CONSTRUCTION COST</b>	<b>\$544,342.50</b>
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**ROBERT H. HOFFMAN**  
 ARCHITECT  
 110WEST MAINT ST., BOALSBURG, PA.

**Theta Chi : Omega Chapter**  
 Project Number 0309  
 April 01,2003

*Feasibility Study*

**Estimate of Construction: PHASE 3**

1. ESTIMATE OF CONSTRUCTION COST	<i>Building</i>	\$122,850.00
	<i>Land Development</i>	\$2,088.10
2. ESTIMATE OF TOTAL PROJECT COST		
Estimate of Construction Cost (building & site)		\$124,938.10
Soft Costs at 18%		\$22,488.86
<b>TOTAL PROJECT COST ESTIMATE</b>		<b>\$147,426.96</b>

- SOFT COSTS
- Professional Fees
- Reimbursable Expenses/Professional
- Security system
- Furnishings
- Permits/ Connection Fees
- Labor And Industry Fees
- Asbestos Testing
- Construction Contingency

**ESTIMATE OF PROBABLE LAND DEVELOPMENT COST**

*Note: This estimate represents hard construction costs only, and does not include soft costs.*

<i>DESCRIPTION</i>	<i>QTY.</i>	<i>UNIT</i>	<i>\$\$</i>	<i>TOTAL</i>
<b>2-SITework</b>				
<b>SITE DEMOLITION</b>				
Clear and grub site	1	ls	\$200.00	\$200.00
<i>Subtotal</i>				<b>\$200.00</b>
<b>EROSION AND SEDIMENT CONTROL</b>				
<i>Subtotal</i>				<b>\$0.00</b>
<b>SITE GRADING/LANDSCAPING</b>				
Strip/stockpile topsoil (6" depth)	35	cy	\$2.00	\$70.00
Topsoil/fine grade/seed	1	ls	\$800.00	\$800.00
Shrub planting	1	ls	\$500.00	\$500.00
<i>Subtotal</i>				<b>\$1,370.00</b>
<b>STORM WATER MANAGEMENT</b>				
<i>Subtotal</i>				<b>\$0.00</b>
<b>SUB-TOTAL</b>				<b>\$1,570.00</b>
<i>General Conditions: 8%</i>				<b>\$125.60</b>
<i>CONTRACTOR'S OVERHEAD &amp; PROFIT (15% OF DIV. 2)</i>				<b>\$235.50</b>
<i>DESIGN CONTINGENCY (10%)</i>				<b>\$157.00</b>
<b>TOTAL CONSTRUCTION COSTS - SITE</b>				<b>\$2,088.10</b>

**ESTIMATE OF PROBABLE CONSTRUCTION COST - BUILDING**

*Note: This estimate represents hard construction costs only, and does not include soft costs.*

<b>DESCRIPTION</b>	<b>QTY.</b>		<b>UNIT \$</b>	<b>TOTAL</b>
Demolition for Defined Projects	1000	sf	\$0.75	\$750.00
Cyber Bar Lounge	320	sf	\$75.00	\$24,000.00
New Public Restrooms	400	sf	\$75.00	\$30,000.00
Exercise Room	250	sf	\$25.00	\$6,250.00
Computer Lounge	250	sf	\$45.00	\$11,250.00
New Roof	3000	sf	\$5.75	\$17,250.00
Phase 3 Maintenance	1	ls	\$5,000.00	\$5,000.00
Furniture and Equipment				NA
Asbestos Removal				Unknown

<b>SUBTOTAL</b>				<b>\$94,500.00</b>
<i>General Conditions: 8%</i>				<i>\$7,560.00</i>
<b>CONTRACTORS OVERHEAD AND PROFIT 12%</b>				<b>\$11,340.00</b>
<b>DESIGN CONTINGENCY (10%)</b>				<b>\$9,450.00</b>

**TOTAL PROBABLE CONSTRUCTION COST** **\$122,850.00**

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# conclusions

Based upon our research into the building's condition, discussions with the local code officials, and discussions with the alumni and fraternity brothers, the following conclusions are offered for your review and consideration:

1. The present building must be registered with the Pennsylvania Department of Labor and Industry prior to student occupancy in 2003.
2. The amount of Phase 1 initial work does not appear to be substantial in scope as it relates mainly to maintenance/operational issues and Life Safety issues. However the process of preparing bid documents, bidding, and construction could take 3-4 months.
3. Phase 2 represents a serious grouping of project scope components starting with the most important component - installation of a NFPA 13 R sprinkler system. Due to this phase's cost projections, prioritizing may need to be established as our scope items defined may not be achievable in Phase 2 from a cost standpoint.
4. A building committee should not only be appointed, but meetings should be set beginning in April and continuing until bids have been received to conduct the actual construction. I recommend starting with weekly meetings beginning the 1st week in April.
5. A long range finance committee needs to be established so as to guarantee a cash supply to finance Phase 2 and 3. To begin establishing design priorities without a budget will be a waste of all participants time.

The effort now is in the hands of the fraternity to give direction as how to proceed knowing that the Phase 1 objectives will need to be executed prior to occupancy.



Robert H. Hoffman, AIA  
Robert H. Hoffman Architects  
Boalsburg, Pennsylvania

Moses Ling  
Ling Partnership  
State College, Pennsylvania

# appendix

Edward M. Brown, Esq., P.C.

P.O. Box 250  
Orbisonia, PA 17243  
(814) 447-3455

225 Washington Street  
Huntingdon, PA 16652  
(814) 643-9787

FAX TRANSMISSION COVER SHEET

DATE: January 8, 2003  
TO: Bob Hoffman  
FAX: 466-6340  
FROM: Ed Brown  
RE: Theta Chi Fraternity

- ① EXISTING PLANS.
- ② A/E WALKTRU + ASSESSMENT OF NEED.
- ③ NEED COPY OF 1986 VIOLATIONS FROM CODE.

Bob:

As a follow up to our phone conversation:

**My information:** Ed Brown, HC 60, Box 531, Orbisonia, PA 17243; work phone 643-9787; work fax 643-4616.

**Fraternity:** Theta Chi Fraternity, 523 South Allen Street, State College, PA

**General ideas regarding project:**

1. Sprinkler system. Hopefully can be hidden by drop ceilings, and branch into each bedroom from runs in the hallway ceilings.
2. First floor has dining room, kitchen, laundry, pantry, boiler room. Kitchen in good shape; dining room, kitchen and laundry will need work on walls and ceilings. A bathroom in the laundry room needs repairs.
3. Main floor has living room, foyer, pool room, library, small bathroom and another room. We'll be looking at repairs to walls and new drop ceiling throughout. There are also some areas of the floor and walls that have been damaged by water; we've had a problem with the downspouts that seems to cause the exterior brick to get wet and seep inside. Part of the pool room floor and living room floor will need repaired. The other hard wood floors are worn, but seem to be OK.
4. Two floors of bedrooms, each floor with 10 rooms. Each will need work on walls and ceilings, closet doors, plus electrical work and cable/phone lines necessary to make each room internet ready. Hallways also will need new drop ceilings and lighting.

5. Looking at new windows throughout, as well as new interior and exterior doors and jams. There are four sets of french doors, all in poor condition. Also, three walls with a lot of glass block (broken) on bottom level – looking for suggestions here as well.

6. Evaluation of wiring. I think some work was done around 15 years ago but needs an examination.

7. Heating system. Boiler is aged but works. Would like a review of the system.

Looking for input on best use of a couple of rooms in first and main level:

First floor (parking lot level) has a former bar room and a pantry that may have better uses (convert to conference room, study room, weight room?). Laundry room has a bathroom with operational sink and toilet; tub not working.

Main floor has a fairly large room off the pool room; there used to be a bathroom in it which we would like to have reinstalled (convert this to study room, alumni gathering room?).

Also following:

↙ CAN WE GET A COPY OF

1. Ancient "Master Plan" from 1988; some items have been addressed, some that remain; also some potentially useful information about the heating system.

2. Report and recommendations prepared October 11, 2002 as a result of a Code Inspection and walk-through by a representative of our national fraternity. There ARE a few Code items that need to be addressed.

Hope this information is helpful.

Thanks.



**NUMBER OF PAGES, INCLUDING THIS PAGE: 13**





L I N G P A R T N E R S H I P

Renovation of Theta Chi Fraternity  
LP Project No. 03013  
MEP Narrative

22 March 2003

<b>Code</b>  1. BOCA Code 1996 will be the standard by which the study is conducted.  Code Issues: 1. Public washrooms. 2. Ventilation for the Meeting Room. 3. Fire Alarm System 4. Sprinkler System 5. Electrical system  Upgrades: 1. Heating system 2. Electrical system 3. Telecommunication Infrastructure 4. Emergency lighting and exit signs	
<b>Existing Conditions</b>	<b>Recommendations</b>
<b>Utilities:</b> 1. Water – <ul style="list-style-type: none"><li>• The water meter is located in the boiler room.</li><li>• Backflow preventor is installed.</li><li>• Water service is 1-1/2"</li></ul> 2. Sanitary Sewer <ul style="list-style-type: none"><li>• Sanitary service provided by Borough of State College.</li></ul> 3. Storm Drainage <ul style="list-style-type: none"><li>• The roof appears to slope slightly toward the front corners.</li><li>• One scupper is located at the front corners of the parapet wall.</li></ul>	<b>Utilities</b> 1. Water <ul style="list-style-type: none"><li>• Upgrade to 2-1/2" water service of domestic use with new meter and backflow preventor.</li><li>• New 4" water main for sprinkler service with meter and backflow preventor.</li><li>• Trenching to the street main for new connection is necessary.</li></ul> 2. Sanitary Sewer <ul style="list-style-type: none"><li>• No work is anticipated.</li></ul> 3. Storm Drainage <ul style="list-style-type: none"><li>• Architect to rework the downspout and scuppers.</li><li>• Architect to design and second scupper to relief storm water from the roof.</li></ul>

<ul style="list-style-type: none"> <li>• Two downspouts are mounted from the scupper down to the ground. Piping is damaged.</li> <li>• There is no gutter or downspout on the side porch.</li> </ul> <p>4. Natural Gas</p> <ul style="list-style-type: none"> <li>• The existing meter is mounted on the exterior wall outside the kitchen.</li> <li>• Piping is routed across the basement ceiling.</li> </ul> <p>5. Electric Service (to be verified)</p> <ul style="list-style-type: none"> <li>• Overhead electric service is located in the rear of the building from a pole in the alley.</li> <li>• The meter is located on the rear wall of the house.</li> <li>• Main panels are in the laundry room.</li> </ul> <p>6. Telephone</p> <ul style="list-style-type: none"> <li>• Overhead service is provided in the rear of the house from a pole in the alley. The cable is hung on the exterior of the building.</li> <li>• The demarcation point is a closet on the second floor adjacent to the stairs.</li> </ul> <p>7. Cable</p> <ul style="list-style-type: none"> <li>• Overhead service provided in the rear of the house from a pole in the alley.</li> <li>• Demarcation point is a box on the rear wall of the house.</li> <li>• The cable bundle is routed up the exterior wall to the stair tower. The cables are routed through the stair tower into the ceiling on each floor.</li> </ul>	<ul style="list-style-type: none"> <li>• Architect to reroute the downspouts to a new disposal path.</li> </ul> <p>4. Natural Gas</p> <ul style="list-style-type: none"> <li>• No change to the service is anticipated.</li> </ul> <p>5. Electric Service</p> <ul style="list-style-type: none"> <li>• Verify existing service with the aid of an electrician.</li> <li>• No work is anticipated.</li> <li>• Depending on the reassignment of space, the service may be relocated.</li> </ul> <p>6. Telephone</p> <ul style="list-style-type: none"> <li>• Relocate the service to the first floor electrical/telecom room.</li> <li>• Provide a patch panel for connection to individual rooms...</li> </ul> <p>7. Cable</p> <ul style="list-style-type: none"> <li>• Reroute service into the new telecom room. (confirm with Adelphia)</li> <li>• Provide a patch panel for termination of cables from individual rooms.</li> <li>• Negotiate with FPA for favorable rates.</li> <li>• Premium service and cable modem service may be added individually.</li> </ul>
<p><b>Heating Ventilation and Air Conditioning System (HVAC)</b></p> <p>1. Heating System</p> <ul style="list-style-type: none"> <li>• The heating system consists of one steam boiler and a series of radiators.</li> <li>• The system has reached the end of its useful life.</li> <li>• The steam heating system is obsolete. Contemporary expectations of HVAC</li> </ul>	<p><b>Heating Ventilation and Air Conditioning System (HVAC)</b></p> <p>1. Heating System (recommended)</p> <ul style="list-style-type: none"> <li>• Install a new hot water boiler</li> <li>• Convert the current heating system to hot water.</li> <li>• Replace the radiators with finned tube radiators. Install new hot water piping.</li> </ul>

<p>system performance demand greater comfort control.</p> <ul style="list-style-type: none"> <li>• Presence of asbestos is suspected on piping and the breeching. This should be verified and removal commissioned.</li> </ul> <p>2. Air Conditioning System:</p> <ul style="list-style-type: none"> <li>• No air-conditioning currently</li> </ul> <p>3. Ventilation System</p> <ul style="list-style-type: none"> <li>• Ventilation through a mechanical system is not needed in rooms with adequate window openings.</li> <li>• Meeting room in the basement lacks ventilation.</li> <li>• Kitchen hood exhaust is in place in the kitchen</li> <li>• Toilet exhaust in place at the two central bathrooms</li> </ul>	<p>Heating System (alternate)</p> <ul style="list-style-type: none"> <li>• Replace existing steam boiler with new unit.</li> <li>• Maintain existing steam radiator and piping.</li> </ul> <p>2. Air Conditioning System:</p> <ul style="list-style-type: none"> <li>• No air-conditioning is proposed.</li> <li>• If air-conditioning is proposed, increase in electrical service must be considered.</li> </ul> <p>3. Ventilation System</p> <ul style="list-style-type: none"> <li>• Move meeting room to the first floor where adequate windows exist.</li> <li>• No work is anticipated in other area.</li> </ul>
<p><b>Kitchen Exhaust System</b></p> <ul style="list-style-type: none"> <li>• Grease hood is exhausted through the wall.</li> <li>• A fire suppression system exists.</li> <li>• No makeup air is provided.</li> </ul>	<p><b>Kitchen Exhaust System</b></p> <ul style="list-style-type: none"> <li>• No work is anticipated.</li> </ul>
<p><b>Plumbing</b></p> <ul style="list-style-type: none"> <li>• The existing 1-1/2" service is not adequate. The flush valves in particular are not functioning well.</li> <li>• The existing water heater and storage tank has reached the end of their useful life.</li> </ul>	<p><b>Plumbing</b></p> <ul style="list-style-type: none"> <li>• Install a 2-1/2" domestic water service.</li> <li>• Install new horizontal piping in the basement.</li> <li>• Install new pipe risers to second and third floor bathrooms.</li> <li>• Install a new water heating system.</li> <li>• Provide recirculation piping for hot water temperature maintenance.</li> </ul>
<p><b>Fire Protection</b></p> <ul style="list-style-type: none"> <li>• No sprinkler system is present. (With the exception of the few heads in the boiler room).</li> </ul>	<p><b>Fire Protection</b></p> <ul style="list-style-type: none"> <li>• Install a NFPA 13R wet pipe sprinkler system through out the facility.</li> <li>• Provide sidewall sprinkler heads where possible to reduce cutting and patching.</li> <li>• Conceal sprinkler piping where possible.</li> </ul>

	<ul style="list-style-type: none"> <li>• Where piping is concealed, plastic piping is permitted.</li> <li>• Provide fire department Siamese connection on the exterior of the building in the front.</li> </ul>
<p><b>Electrical</b></p> <ol style="list-style-type: none"> <li>1. Service and main distribution       <ul style="list-style-type: none"> <li>• Overhead service located in the alley</li> <li>• Two 200 amp electrical panels provide power to the house.</li> </ul> </li> <li>2. Power distribution to individual rooms       <ul style="list-style-type: none"> <li>• Distribution panels are located in the kitchen, stairway on the first floor and in the corridor of each floor.</li> <li>• Kitchen panel – 100 amp</li> <li>• First floor stair - 50 amp panel</li> <li>• Second floor hallway – 100 amp panel</li> <li>• Third floor hallway – 100 amp panel</li> </ul> </li> <li>3. Receptacles in the rooms       <ul style="list-style-type: none"> <li>• Many of the receptacles are damaged.</li> <li>• Surface mounted raceways were installed in some rooms. Most of these are damaged.</li> <li>• Bathroom and kitchen receptacles are not GFCI.</li> </ul> </li> <li>4. Lighting       <ul style="list-style-type: none"> <li>• Lighting fixtures in public area are general in poor condition</li> <li>• Lighting in bedrooms is in bad condition. They are typically modified by the previous occupants.</li> </ul> </li> <li>5. Emergency lighting       <ul style="list-style-type: none"> <li>• Emergency Lighting is provided throughout the facility.</li> </ul> </li> <li>6. Exit signs are in poor condition.</li> </ol>	<p><b>Electrical</b></p> <ol style="list-style-type: none"> <li>1. Existing service to remain.</li> <li>2. The two 200 amp panels shall remain in the laundry room unless the room is reassigned.       <ul style="list-style-type: none"> <li>• Kitchen panel shall remain.</li> <li>• Provide new panels and feeders on the first, second and third floor.</li> </ul> </li> <li>3. Provide a new 20 circuit for each bedroom. Provide new branch circuit conductors, receptacles, switches. Use BX wiring. Existing Romex wiring may be reused where appropriate.       <p>Provide GFCI receptacles in bathrooms and kitchen.</p> </li> <li>4. Lighting will be new throughout the facility.</li> <li>5. Provide new emergency lighting.</li> <li>6. Provide new exit signs where required. Repair existing units as required.</li> </ol>
<p><b>Fire Alarm</b></p> <ol style="list-style-type: none"> <li>1. A fire alarm system is provided for the existing facility.</li> <li>2. The fire alarm panel is located in the laundry room.</li> </ol>	<p><b>Fire Alarm</b></p> <ol style="list-style-type: none"> <li>1. Provide new alarm system throughout the house.</li> <li>2. Provide a new fire alarm panel in the first floor electrical/telecommunication room.</li> </ol>

<ol style="list-style-type: none"> <li>3. Wiring appears to be in poor condition as evidenced by the exposed portion in the first floor closet.</li> <li>4. Annunciator panel is obsolete.</li> <li>5. Smoke and Heat detectors are located in the public area.</li> <li>6. Battery operated smoke detectors are located in each bedroom.</li> <li>7. No manual pull station was found with the exception of the one in the kitchen.</li> <li>8. Horn strobe units are located in public areas.</li> </ol>	<ol style="list-style-type: none"> <li>3. Provide an annunciator panel in the first floor vestibule.</li> <li>4. Provide smoke detectors in the public area.</li> <li>5. Provide heat detectors in kitchen and boiler room.</li> <li>6. Reuse existing horn strobes. Where required provide new horn strobes.</li> <li>7. In the individual bedrooms, provide a 120 volt smoke detector (not interconnected per Code Office recommendations).</li> <li>8. Provide new manual pull station at exits.</li> <li>9. Provide horn strobe units bathrooms.</li> <li>10. Connect to sprinkler system.</li> </ol>
<p><b>Telecommunications</b></p> <ol style="list-style-type: none"> <li>1. Telephone       <ul style="list-style-type: none"> <li>• Telephone punch down blocks are found in the laundry room and the closet on the second floor.</li> <li>• Cables are in disarray.</li> <li>• Phone jacks are sporadic and in poor condition.</li> </ul> </li> <li>2. Cable       <ul style="list-style-type: none"> <li>• Cable is currently provided by Adelphia, although inactive.</li> <li>• Cables are in disarray.</li> <li>• Very few wall mounted outlets were found.</li> </ul> </li> <li>3. Data       <ul style="list-style-type: none"> <li>• No dedicated data cabling was found.</li> </ul> </li> </ol>	<p><b>Telecommunication</b></p> <ol style="list-style-type: none"> <li>1. Telephone       <ul style="list-style-type: none"> <li>• Provide one new phone jack in each room.</li> <li>• Provide new cables</li> <li>• Provide new patch panel in new telecom room.</li> </ul> </li> <li>2. Cable Television       <ul style="list-style-type: none"> <li>• Provide in patch panel in the new telecom room (confirm with Adelphia).</li> <li>• Provide one outlet in each room.</li> <li>• Provide new coax cable to individual outlets.</li> </ul> </li> <li>3. Data       <ul style="list-style-type: none"> <li>• Provide two outlets in each room.</li> <li>• Provide CAT5e cables to each individual outlet.</li> <li>• Provide new patch panel, router and switch in new telecom room.</li> <li>• Consider ISP via new DSL line.</li> <li>• Consider how the IT system will be managed by the users.</li> </ul> </li> </ol>