MATH FAIR 2004

I: INSPIRATION,IMAGINATION, INVENTION

THE FUTURE ANN STREET SCHOOL

Math Fair 2004

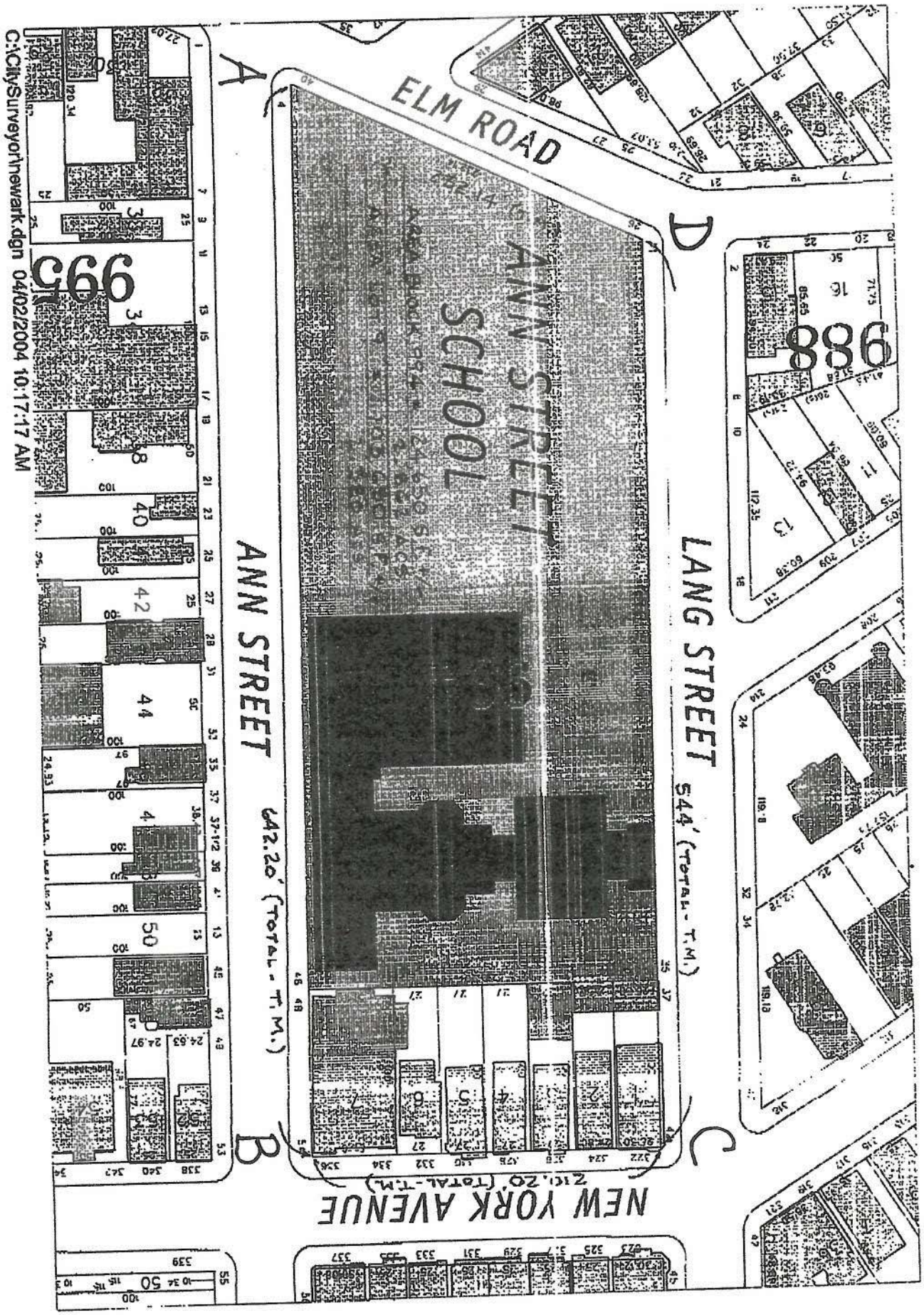
I: Inspiration, Imagination, Invention

For a few years here at Ann Street School we have been hearing about plans to construct a new building. Reflecting on this year's math theme: "I" : Inspiration, Imagination, and Invention, we gathered ideas to develop a project that would fit the criteria, and be worthy to enter this competition.

We were greatly inspired by the talk of the future plans. At School Management Team Meetings the issue was discussed, and this was an influence that played a strong role in planning the project. As we saw drawings and heard about the future plans, we found the desire to have a visual representation to end our community's curiosity regarding the plans. Therefore, we decided to make a 3-D model of the new school plan to scale.

Considering that all we had were the preliminary drawings from the school architect to begin with, our creative abilities were certainly called for to picture what the new building would look like. Using our imagination, we used a 2-dimensional blueprint to create a 3-dimensonal display.

As these ideas came about, we began thinking of how to make the first model of the future building. First, we called the East Ward Councilman, Augusto Amador's office to help us with a survey map of Ann Street School and the surrounding block. (See Attached). Next, we decided on the size of the model. We built it so that 1-inch represented approximately 14 feet. In order to draw the floor plan and model of the building, we used the following math skills: Division, Multiplication, Simple Addition and Subtraction, Squares, Ratios, Proportions, Scale Models, Volumes of Solids, Surface Area, Perimeter, and the Pythagorean Theorem.


ELM ROAD
ANN STREET SCHOOL
ANN STREET
642.20' (TOTAL - T.M.)
LANG STREET
544' (TOTAL - T.M.)
NEW YORK AVENUE
210.20' (TOTAL - T.M.)
A
B
C
D
886
C:\CitySurveyor\newark.dgn 04/02/2004 10:17:17 AM

Math for Math Fair Project

Dimensions of School Area

Street Blocks

Street	Survey Map	Model
Ann Street	A-B: 642.2'	47"
New York Avenue	B-C: 210.2'	16"
Lang Street	C-D: 544'	39"
Elm Road	A-D: 232.14'	17"

Math Work

We knew the actual (Survey Map) dimensions of the Street Blocks, by using this information, we solved for the scale of the whole project.

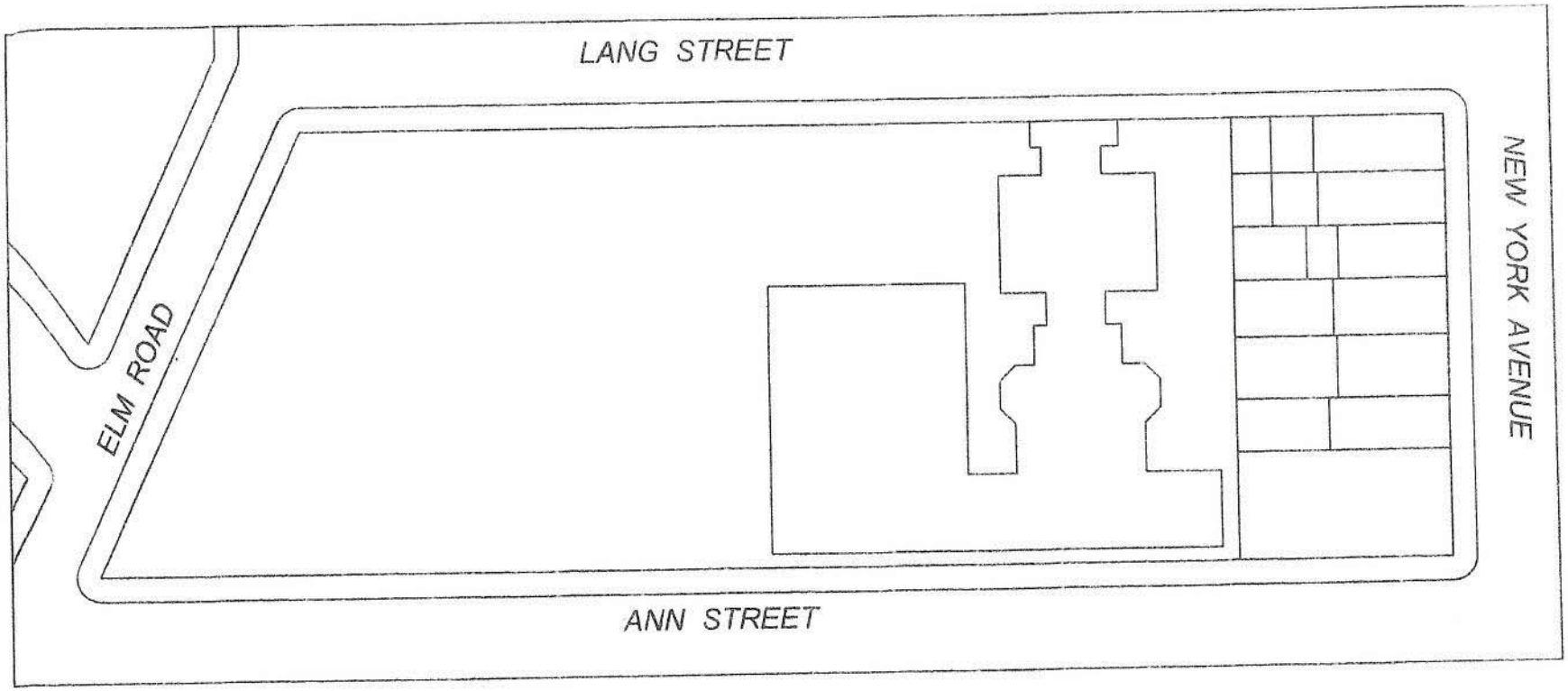
Side A-B: $642.2' \div 47" = 13.7" \approx 14"$.

Side B-C: $210.2' \div 16" = 13.1" \approx 14"$.

Side C-D: $544' \div 39" = 13.9" \approx 14"$.

Side A-D: $232.14' \div 17" = 13.7" \approx 14"$.

Our model is scaled to $1" \approx 14'$.


LANG STREET
NEW YORK AVENUE
ELM ROAD
ANN STREET

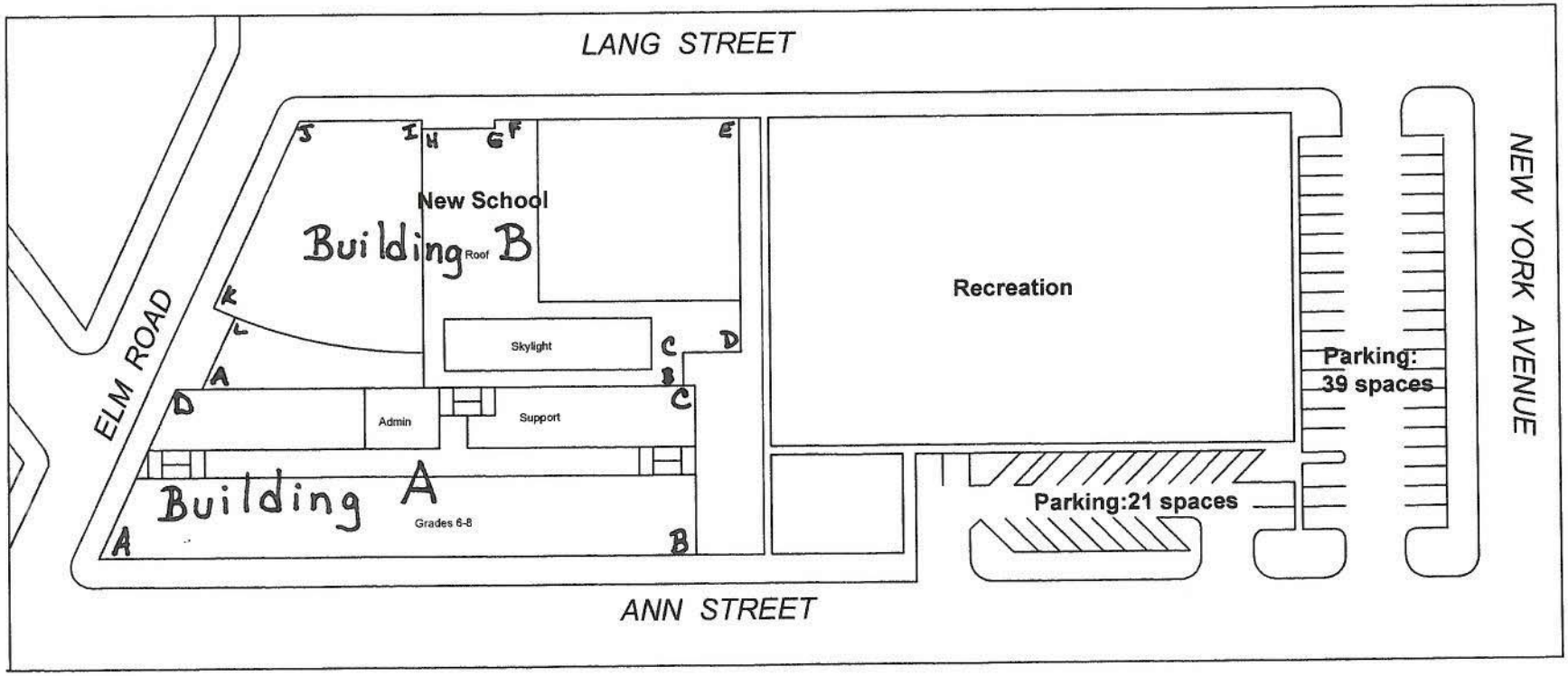
Math for the Math Fair Project

The scale for the old building is: 1":82.01'.
After measuring, I found the ratio:

210.20'÷2.563" = 82.0132'÷1"
x = value measured in inches.
x ×82.01 = value entered in AutoCAD.

The survey map drawing is different from the architects' drawing in size. The details of the new school were multiplied by 1.02 as a result of a slight difference between the two drawings.
The new school was rescaled with the ratio 1':12" so the dimensions are in inches.

12"×82.01'= 984.12"
The scale for the new building should be 1":984.12".


LANG STREET
NEW YORK AVENUE
ELM ROAD
ANN STREET
New School
Building B
Roof
Recreation
Skylight
Admin
Support
Building A
Grades 6-8
Parking:
39 spaces
Parking:21 spaces

Building A

Side	Survey Map	Model
Side A-B	276.5'	19 3/4"
Side B-C	77'	5 1/2"
Side C-D	238'	17"
Side A-D	84'	6"

Math Work

Using the architects' drawings, we created our own AutoCad drawing to match our scale of the whole project

We measured the Model sides of Building A. Then we set up a proportion:

Our model is scaled to 1" ≈ 14'.

Side A-B: $\frac{19\ 3/4"}{x'} = \frac{1"}{14'}$

$x = 276\ 1/2'$

Side B-C: $\frac{5\ 1/2"}{x'} = \frac{1"}{14'}$

$x = 77'$

Side C-D: $\frac{17"}{x'} = \frac{1"}{14'}$

$x = 238'$

Side A-D: $\frac{6"}{x'} = \frac{1"}{14'}$

$x = 84'$

Building B

Side	Survey Map	Model
Side A-B	238'	17"
Side B-C	14'	1"
Side C-D	22 3/4'	1 5/8"
Side D-E	105'	7 1/2"
Side E-F	110 1/4'	7 7/8"
Side F-G	3 1/2'	1/4"
Side G-H	36 3/4'	2 5/8"
Side H-I	3 1/2'	1/4"
Side I-J	54 1/4'	3 7/8"
Side J-K	98'	7"
Side K-L	12 1/4'	7/8"
Side A-L	29 3/4'	2 1/8"

Math Work

We measured the Model sides of Building B. Then we set up a proportion:

Our model is scaled to 1" ≈ 14'.

Side A-B: $\frac{17"}{x'} = \frac{1"}{14'}$
$x = 238'$

Side B-C: $\frac{1"}{x'} = \frac{1"}{14'}$
$x = 238'$

Side C-D: $\frac{1\ 5/8"}{x'} = \frac{1"}{14'}$
$x = 22\ 3/4'$

Side D-E: $\frac{7\ 1/2"}{x'} = \frac{1"}{14'}$
$x = 105'$

Side E-F: $\frac{7\ 7/8"}{x'} = \frac{1"}{14'}$
$x = 110\ 1/4'$

Side F-G: $\frac{1/4"}{x'} = \frac{1"}{14'}$
$x = 3\ 1/2'$

SideG-H: $\frac{2\ 5/8"}{x'} = \frac{1"}{14'}$
$x = 36\ 3/4'$

Side H-I: $\frac{1/4"}{x'} = \frac{1"}{14'}$
$x = 3\ 1/2'$

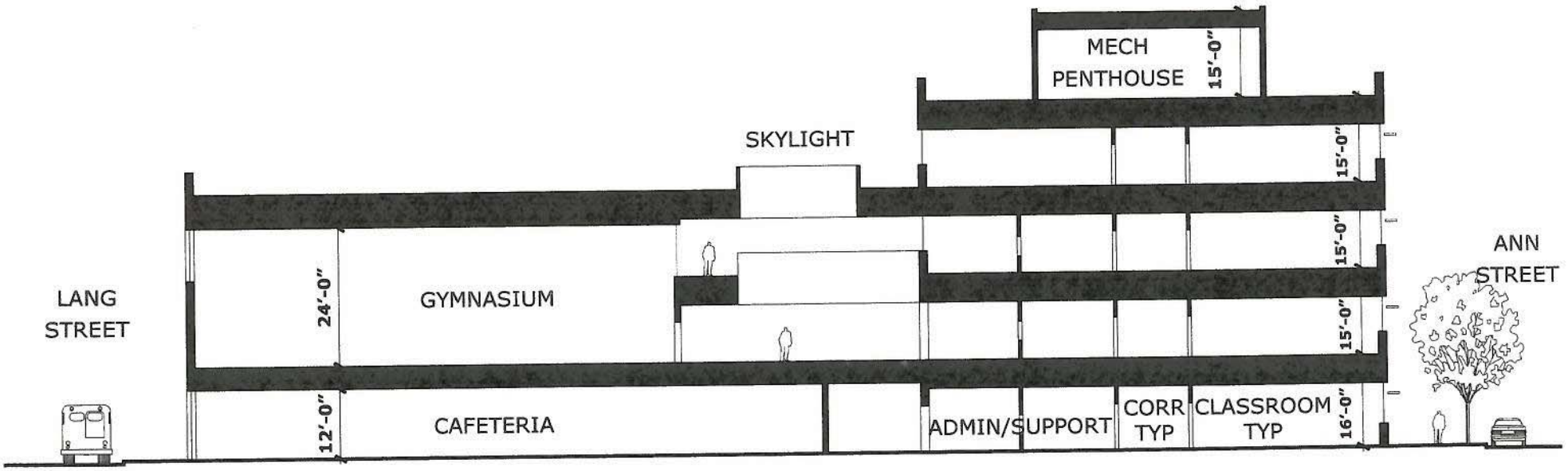
Side I-J: $\frac{3\ 7/8"}{x'} = \frac{1"}{14'}$
$x = 54\ 1/4'$

Side J-K: $\frac{7"}{x'} = \frac{1"}{14'}$
$x = 98'$

Side K-L: $\frac{7/8"}{x'} = \frac{1"}{14'}$
$x = 12\ 1/4'$

Side A-L: $\frac{2\ 1/8"}{x'} = \frac{1"}{14'}$
$x = 29\ 3/4'$

Scheme A : Building Section



Heights

Heights of Floors

Floor	Survey Map	Model
First Floor	1.9 cm	2 3/16"
Second Floor	3.4 cm	3 7/8"
Third Floor	4.8 cm	5 1/2"
Fourth Floor	6.3 cm	7 1/4"

Math Work

Using the architects' Building Section drawing, we calculated that the scale is 1 cm = 16 feet. We measured the heights of each floor and converted the measurements to our scale model

Architects' floor height is scaled to 1cm ≈ 16'.

Then we had to use the proportion:

Our model is scaled to 1" ≈ 14'.

First Floor: $\frac{1.9\text{ cm}}{x} = \frac{1\text{cm}}{16'}$

$x = 30.4'$

$\frac{x"}{30.4'} = \frac{1"}{14'}$

$x = 2\ 3/16"$

Second Floor: $\frac{3.4\text{ cm}}{x} = \frac{1\text{cm}}{16'}$

$x = 54.4'$

$\frac{x"}{54.4'} = \frac{1"}{14'}$

$x = 3\ 7/8"$

Third Floor: $\frac{4.8\text{ cm}}{x} = \frac{1\text{cm}}{16'}$

$x = 76.8'$

$\frac{x"}{76.8'} = \frac{1"}{14'}$

$x = 5\ 1/2"$

Fourth Floor: $\frac{6.3\text{ cm}}{x} = \frac{1\text{cm}}{16'}$

$x = 100.8'$

$\frac{x"}{100.8'} = \frac{1"}{14'}$

$x = 7\ 1/4"$

Height of Windows

Windows	Survey Map	Model
First Floor Window	0.5 cm	9/16"
Second Floor Window	0.5 cm	9/16"
Third Floor Window	0.5 cm	9/16"
Fourth Floor Window	0.5 cm	9/16"

Math Work

Using the architects' Building Section drawing, we calculated that the scale is 1 cm = 16 feet. We measured the heights of each floor and converted the measurements to our scale model

Architects' floor height is scaled to 1cm ≈ 16'.

Then we had to use the proportion:

Our model is scaled to 1" ≈ 14'.

First Floor Window: $\frac{0.5\text{ cm}}{x} = \frac{1\text{cm}}{16'}$

$x = 8'$

$\frac{x"}{8'} = \frac{1"}{14'}$

$x = 9/16"$

Second Floor Window: $\frac{0.5\text{ cm}}{x} = \frac{1\text{cm}}{16'}$

$x = 8'$

$\frac{x"}{8'} = \frac{1"}{14'}$

$x = 9/16"$

Third Floor Window: $\frac{0.5\text{ cm}}{x} = \frac{1\text{cm}}{16'}$

$x = 8'$

$\frac{x''}{8'} = \frac{1''}{14'}$

$x = 9/16''$

Fourth Floor Window: $\frac{0.5\text{ cm}}{x} = \frac{1\text{cm}}{16'}$

$x = 8'$

$\frac{x''}{8'} = \frac{1''}{14'}$

$x = 9/16''$

Recreation

Side	Survey Map	Model
Side A-B	245'	17 1/2"
Side B-C	148 3/4'	10 5/8"
Side C- D	245'	17 1/2"
Side A-D	148 3/4'	10 5/8"

Math Work

We measured the Model sides of the Recreation. Then we set up a proportion:

Our model is scaled to 1" ≈ 14'.

Side A-B: $\frac{17\ 1/2"}{x'} = \frac{1"}{14'}$

$x = 245'$

Side B-C: $\frac{10\ 5/8"}{x'} = \frac{1"}{14'}$

$x = 148\ 3/4'$

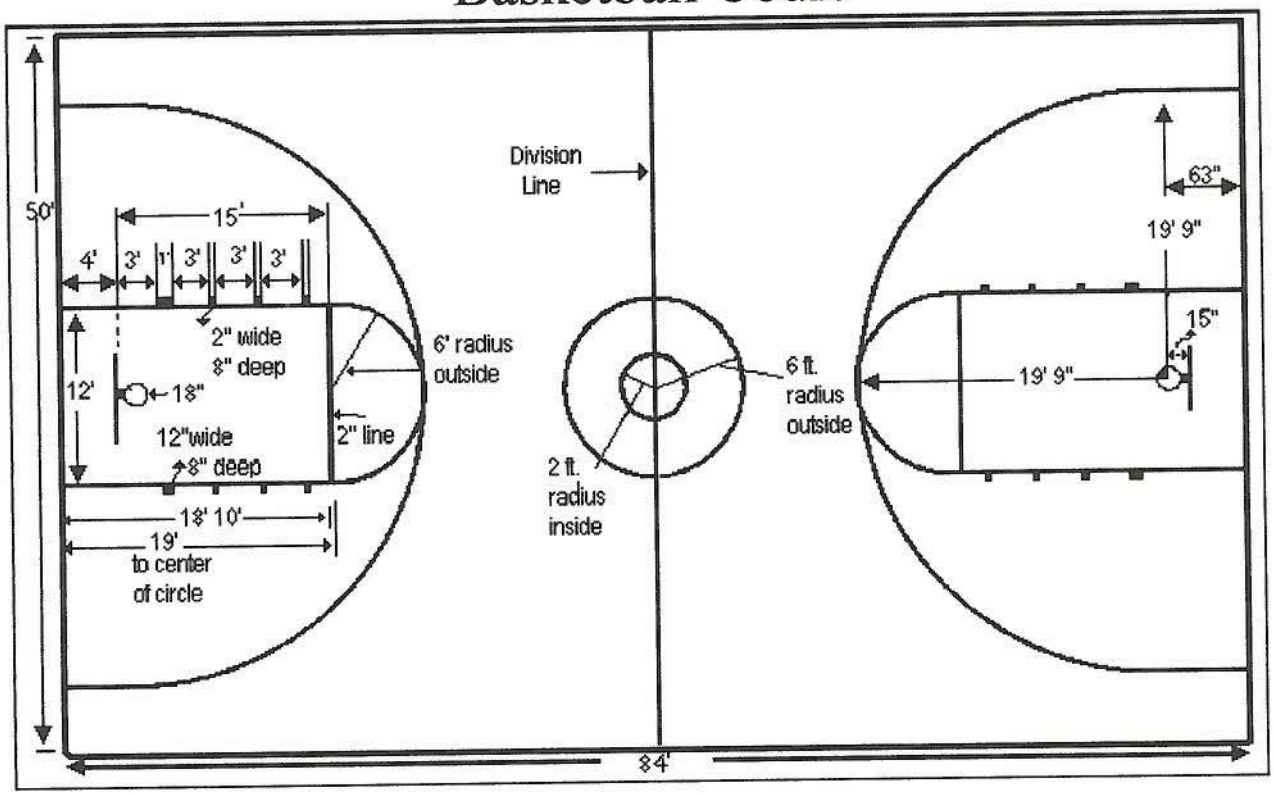
Side C-D: $\frac{17\ 1/2"}{x'} = \frac{1"}{14'}$

$x = 245'$

Side A-D: $\frac{10\ 5/8"}{x'} = \frac{1"}{14'}$

$x = 148\ 3/4'$

Basketball Court



Model Scale: 1 in. = 14 ft.

Center:
2' x 1"/14' = .14"

.14" = (n) 1/16" n= 2

2' = 2/16" = 1/8"

Box Width:

12' x 1"/14' = .86"

.86" = (n) 1/16" n= 14

12' = 14/16" = 7/8"

Court Width:

50' x 1"/14' = 3.6"

.6" = (n) 1/16" n= 10

50' = 3 10/16" = 3 5/8"

Outer Center
6' x 1"/14' = .43"

.43" = (n) 1/16" n= 7

6' = 7/16"

Box Length:

19' x 1"/14' = 1.36"

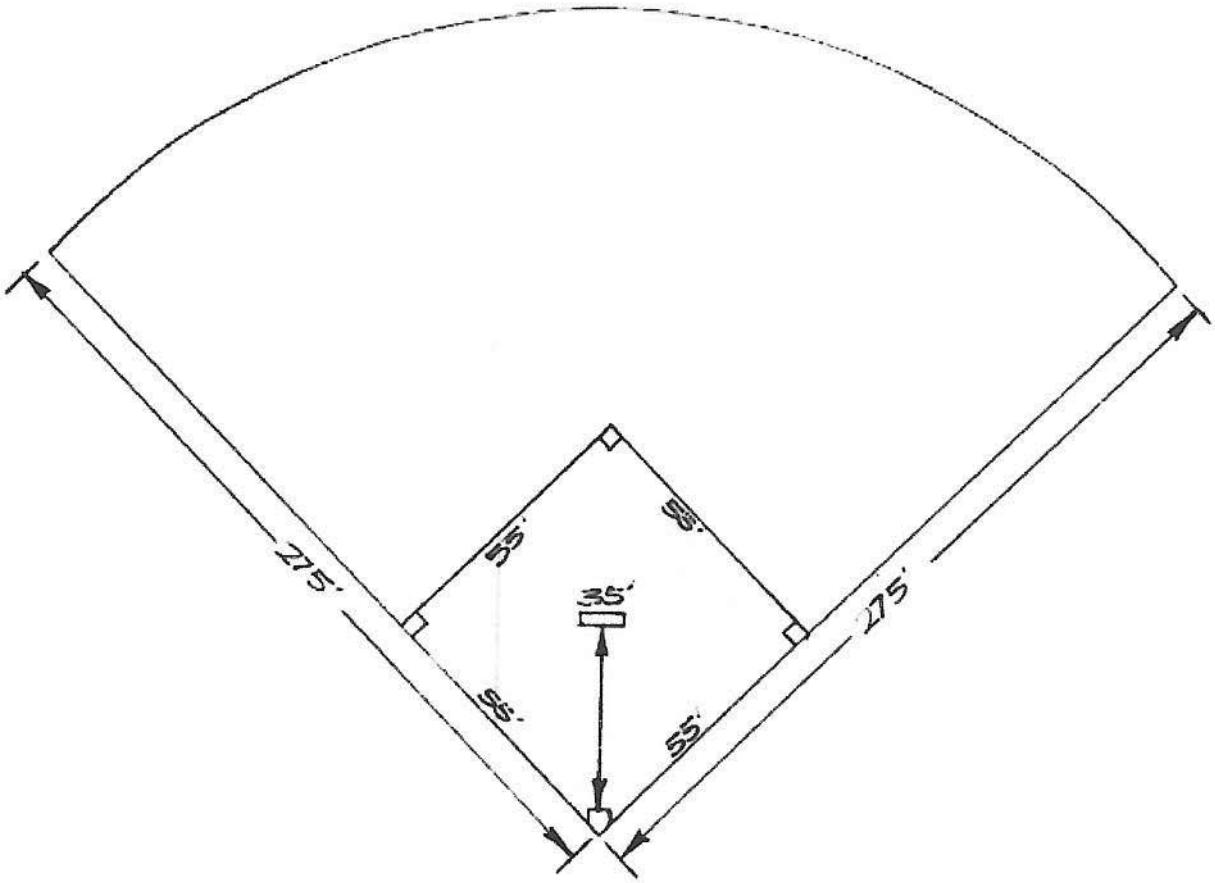
.36" = (n) 1/16" n= 6

19' = 1 6/16" = 1 3/8"

Court Length:

84' x 1"/14' = 6"

Softball Field



Model Scale: 1 in. = 14 ft.

Proportion was used since we only had 126' of field length on the new property, so a smaller scale playing area will be used.

Proportion: 55'/ 275' = (n) / 126' n= 25'

Distance to First Base

25' x 1"/14' = 1.8"

.8" = (n) 1/16" n= 12

25' = 1 12/16" = 1 ¾"

Distance to Pitcher Mound

35'/55' = (n)/ 25' n= 16'

16' x 1"/14' = 1.14"

.14" = (n) 1/16" n= 2

16' = 1 2/16" = 1 1/8"

Soccer/Football Field

Model Scale: 1 in. = 14 ft.

Proportion was used since we only had 119' of field length on the new property, so a smaller scale playing area will be used.

Proportion: 180'/ 301' = (n) / 119' n= 71'

Field Width:
71' x 1"/14' = 5.07"

.07" = (n) 1/16" n= 1

71' = 5 1/16"

Field Length:
119' x 1"/14' = 8.5"

.5" = (n) 1/16" n= 8

119' = 8 8/16" = 8 ½"

Pre-K/K Playground

Side	Survey Map	Model
Side A-B	59 1/2'	4 1/4"
Side B-C	43 3/4'	3 1/8"
Side C- D	59 1/2'	4 1/4"
Side A-D	43 3/4'	3 1/8"

Math Work

We measured the Model sides of the Pre-K/K Playground. Then we set up a proportion:

Our model is scaled to 1" ≈ 14'.

Side A-B: $\frac{4\ 1/2"}{x'} = \frac{1"}{14'}$

$x = 59\ 1/2'$

Side B-C: $\frac{3\ 1/8"}{x'} = \frac{1"}{14'}$

$x = 43\ 3/4'$

Side C-D: $\frac{4\ 1/2"}{x'} = \frac{1"}{14'}$

$x = 59\ 1/2'$

Side B-C: $\frac{3\ 1/8"}{x'} = \frac{1"}{14'}$

$x = 43\ 3/4'$

Parking Lot

Side	Survey Map	Model
Side A-B	17 1/2'	1 1/4"
Side B-C	173 1/4'	12 3/8"
Side C- D	17 1/2'	1 1/4"
Side D-E	28'	2"
Side E-F	17 1/2'	1 1/4"
Side F-G	140'	10"
Side G-H	15 3/4'	1 1/8"
Side H-I	5 1/4'	3/8"
Side I-J	17 1/2'	1 1/4"
Side J-K	26 1/4'	1 7/8"
Side K-L	17 1/2'	1 1/4"
Side A-L	28'	2"
Parking Space Length:	17 1/2'	1 1/4"
Number of Parking Spaces:	20 spaces	
Side B-C	173 1/4'	12 3/8"
Side F-K	173 1/4'	12 3/8"
Parking Space Width:	173 1/4'÷20 spaces=**8 53/80'**	12 3/8"÷20 spaces=**99/160"**

Math Work

We measured the Model sides of the Parking Lot A. Then we set up a proportion:

Our model is scaled to 1" ≈ 14'.

ex. Side A-B: $\frac{1\ 1/2"}{x'} = \frac{1"}{14'}$

$x = 17\ 1/2'$

We measured the parking space length and then used the above proportion.

Parking Space Length: $\frac{1\ 1/2"}{x'} = \frac{1"}{14'}$

$x = 17\ 1/2'$

The Model lengths of Sides B-C and Sides F-K are 12 3/8". Using the above proportion, we solved for the lengths. We divided the Model length as well as the Architects' drawing length by 20 spaces to find how wide each parking space will be.

Side A-B: $\frac{1\ 1/2"}{x'} = \frac{1"}{14'}$

$x = 17\ 1/2'$

Side B-C: $\frac{12\ 3/8"}{x'} = \frac{1"}{14'}$

$x = 173\ 1/4'$

Side C-D: $\frac{1\ 1/2"}{x'} = \frac{1"}{14'}$

$x = 17\ 1/2'$

Side D-E: $\frac{2"}{x'} = \frac{1"}{14'}$

$x = 28'$

Side E-F: $\frac{1\ 1/4"}{x'} = \frac{1"}{14'}$

$x = 17\ 1/2'$

Side F-G: $\frac{10"}{x'} = \frac{1"}{14'}$

$x = 140'$

Side G-H: $\frac{1\ 1/8"}{x'} = \frac{1"}{14'}$

$x = 15\ 3/4'$

Side H-I: $\frac{3/8"}{x'} = \frac{1"}{14'}$

$x = 5\ 1/4'$

Side I-J: $\frac{1\ 1/2"}{x'} = \frac{1"}{14'}$

$x = 17\ 1/2'$

Side J-K: $\frac{1\ 7/8"}{x'} = \frac{1"}{14'}$

$x = 26\ 1/4'$

Side K-L: $\frac{1\ 1/4"}{x'} = \frac{1"}{14'}$

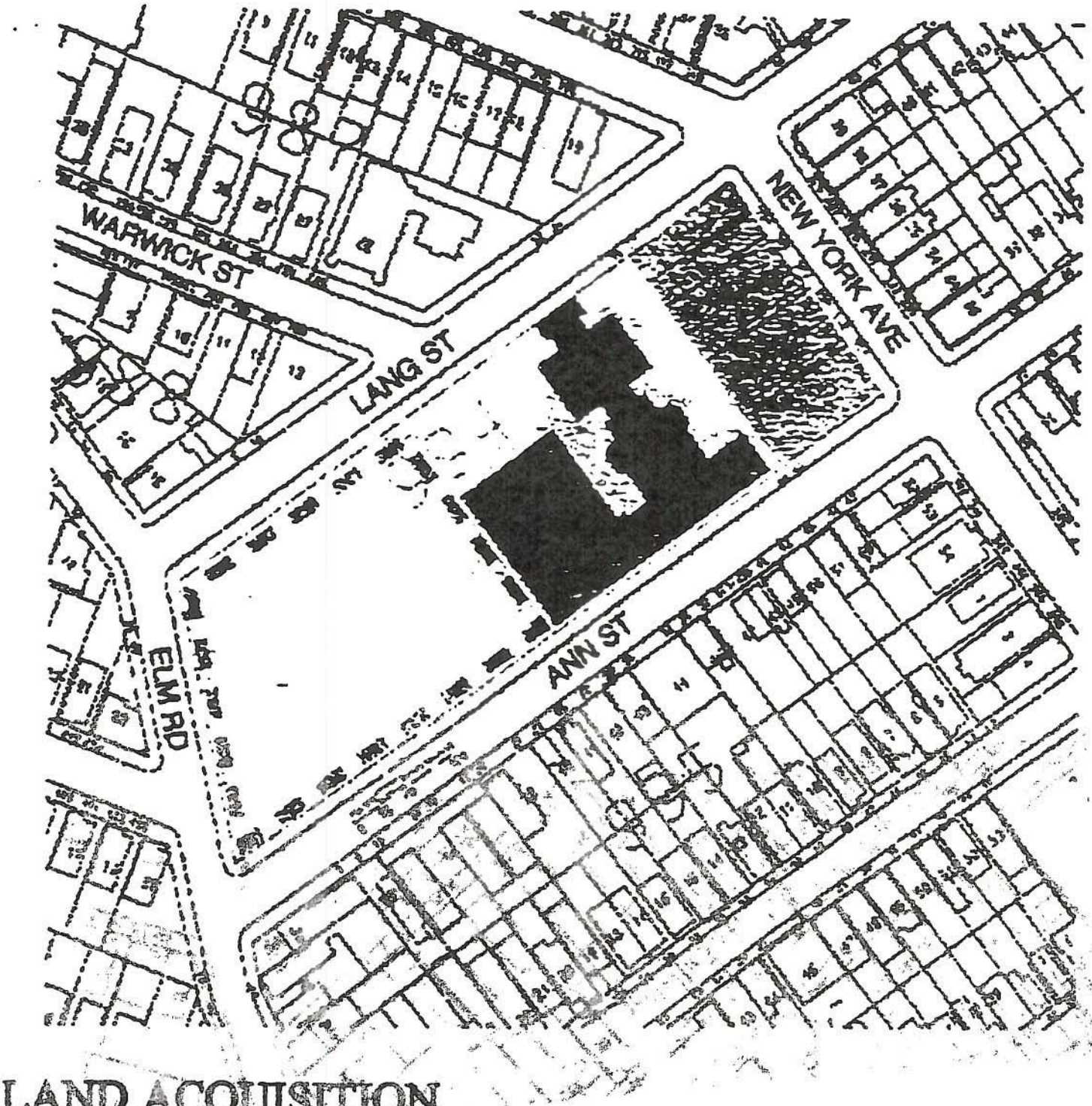
$x = 17\ 1/2'$

Side A-L: $\frac{2"}{x'} = \frac{1"}{14'}$

$x = 28'$

OVERVIEW

The replacement school for Ann Street will be constructed in
school will be demolished and replaced with recreation and
buildings currently stand, will also be acquired with this addit
the school and support space will occupy the full block.



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LAND ACQUISITION

The land acquisition process has started for the parcels of la

EYP/Transmittal

To/ Manny Oliveira @ Ann Street School
30 Ann Street
Newark, NJ 07105

Date: 05 April 04

Project No.: 7003021.50

Attention: Manny Oliveira

Re: Ann Street School
Concept Design Info

We Transmit:

☒ Attached ☐ Under Separate Cover via_____

The Following:

☐ Drawings ☐ Copy of Letter ☐ Specifications

☐ Samples ☐ Shop Drawing ☐ Change Order

☒ Other: Disk with CAD and JPEG drawings

Copies	Date	Drawing No.	Description
1	12 Mar 05		Disk w/ Scheme A plans, site plan, building section, 3D drawings

Transmitted as checked:

☐ For approval ☐ No exception taken ☐ For review and comment

☐ For your use ☐ Make corrections noted ☐ Revise and submit

☒ As requested ☐ Rejected ☐ Prints returned after loan to us

☐ Other_____

Remarks:

Mr. Oliveira,

My associate Matt Barhydt asked that I send to you drawings for Ann Street Students to use.
Please see attached a CD with CAD building plans and section, 3D massing renderings, and a power point file with labeled drawings for reference.
If you have any questions feel free to call me.

Regards,

Michael Buesing/Project Architect

Copy to: From: Michael Buesing

P:\2003\7003021.50\DOC\05. Client\5A. Correspondence\5A.6 To-From-Contact-Other\2004-04-05_OLIVEIRA.doc

Einhorn Yaffee Prescott Architecture & Engineering, P.C.
440 Park Avenue South New York, NY 10016 Telephone 917 981 6000 Fax 917 981 6100 eypae.com

Water Table

Original
56.59in L x 29.75in D x 20in H

Length
$56.59in \times \frac{1ft}{12in} = 4.7ft$
Model

$4.7ft \times \frac{1in}{14ft} = .33in = 5/16in$

Diameter

$29.75in \times \frac{1ft}{12in} = 2.47ft$
Model
$2.47ft \times \frac{1in}{14ft} = .117in = 1.8/16in$
Height
$20in \times \frac{1ft}{12in} = 1.6ft$
Model
$1.6ft \times \frac{1in}{14ft} = .11in = 1.76/16in$

Blackboard

Original
36"in x 24"in

Height
$36in \times \frac{1ft}{12in} = 3ft$
Model
$3ft \times \frac{1in}{14ft} = .21 = 3.36/16in$
Length
$24in \times \frac{1ft}{12in} = 2ft$
Model
$2ft \times \frac{1in}{14ft} = .14in = 2.24/16in$

Chest

Original
32"in x 22"in x 21"in

Length
32in x 1ft = 2.75ft
12in
Model
2.75ft x 1in = .19in = 3.04/16in
14ft
Diameter
22in x 1ft = 1.83ft
12in
Model
1.83ft x 1in = .13in = 2.08/16in
14ft
Height
21in x 1ft = 1.75ft
12in
Model
1.75ft x 1in = .125in = 2/16in
14ft

Tent

Original
18ft x 40ft

Length
18ft x N in = 1.28ft =.28ft x 16 = .48 = 1.48/16in
14ft
Height
40ft x N in = 2.85ft = .85ft x 16 = .6 = 2.6/16in
14ft

Kids Table

Original
25"in x 32"in x 22"in

Length
25in x 1ft = 2.03ft
12in

Model
2.03ft x 1in / 14ft = .14in = 2.24/16in

Height
32in x 1ft / 12in = 2.66ft

Model
2.66ft x 1in / 14ft = .13in = 3.04/16in

Diameter
22in x 1ft / 12in = 1.83ft

Model
1.83ft x 1in / 14ft = .13in = 2.08/16in

Chalk Table

Original
20in x 35in

Height
20in x 1ft / 12in = 1.66ft

Model
1.66ft x 1in / 14ft =.20in = 3.20/16in

Diameter
35in x 1ft / 12in = 2.91ft

Model
2.91ft x 1in / 14ft = .20in = 3.2/16in

Stool

Original
10in x 11in

Height
10in x 1ft / 12in = .83ft

Model
.83ft x 1in = .059in = .94/16in
14ft
Diameter
11in x 1ft = .916ft
12in
Model
.916ft x 1in = .065in = 1.04/16in
14ft

Square Table

Original
21in x 24in

Length
21in x 1ft = 1.75ft
12in
Model
1.75ft x 1in = .125in = 2/16in
14ft
Height
24in x 1ft = 2ft
12in
Model
2ft x 1in = .14in = 2.24/16in
14ft

Round Table

Original
21in x 36in

Height
21in x 1ft = 1.75ft
12in
Model
1.75ft x 1in = .125in = 2/16in
14ft
Diameter
36in x 1ft = 3ft
12in
Model
3ft x 1in = .21in = 3.36/16in
14ft

Hopscotch

Original
7ft x 2ft

Length
$7ft \times \frac{N\ in}{14ft} = .5ft \times 16 = 8/16in$

Width
$2ft \times \frac{N\ in}{14ft} = .14ft \times 16 = 2.24/16in$

Play Area

Original
20ft x 35 ft

Length
$20ft \times \frac{N\ in}{14ft} = 1.42ft \times 16 = 1.72/16in$

Width
$35ft \times \frac{N\ in}{14ft} = 1.78ft \times 16 = 1.48/16in$

402

Christina Silva
Cassiano Dos Santos
Kenny Negrin
Eduardo Silva

403

Jessica Martinho
Elsa Pereira
Jose Estrada

405
Renata Cruz
Thiago Gwadera

404

Anabella Bergamasco
Fabio Goncalves
Bogumil Misiuk
Jessica Alves
Jessica Mendes
Mark Brochado

401
Walter Tardillo
Michael Goncalves

Stephanie Perez
Tiago Nunes
Cesar Enriquez

AUGUSTO AMADOR
COUNCILMAN-EAST WARD
NEWARK, NEW JERSEY
PHONE- #973-733-3665
FAX- 973-733-5822

TO: Ms. Maccia

LOCATION Ann Street School

FROM Maria Liberis

We are transmitting 2 pages, including this cover sheet. If the transmissions are not completed, please call the telephone number listed above.

URGENT ✓ FOR YOUR REVIEW ✓ REPLY NEEDED ___

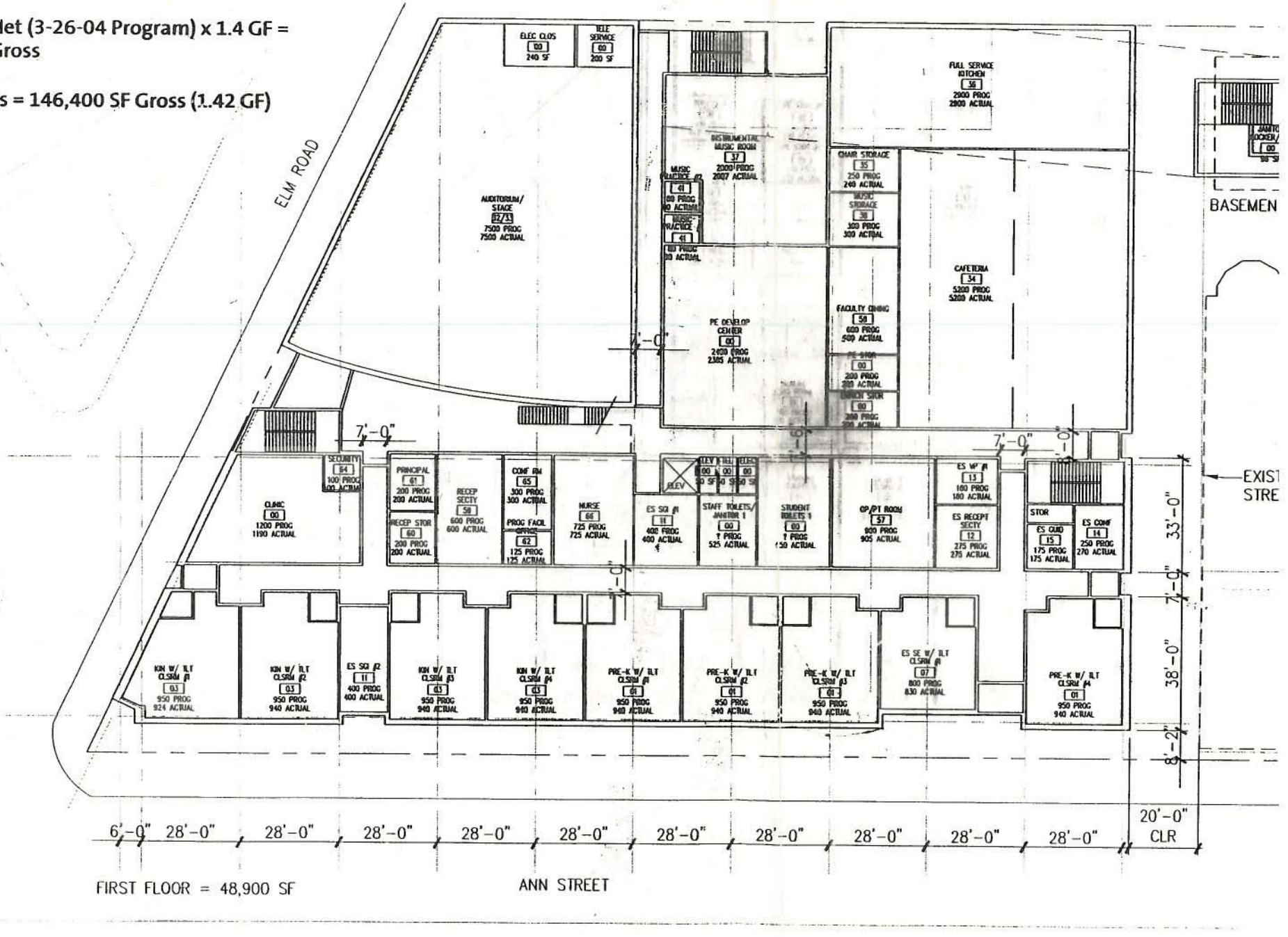
COMMENTS Ms. Maccia, as per your request, enclosed please find the information about the entire block. If you need any more information please feel free to give me a call.

HAVE A NICE DAY

Maria

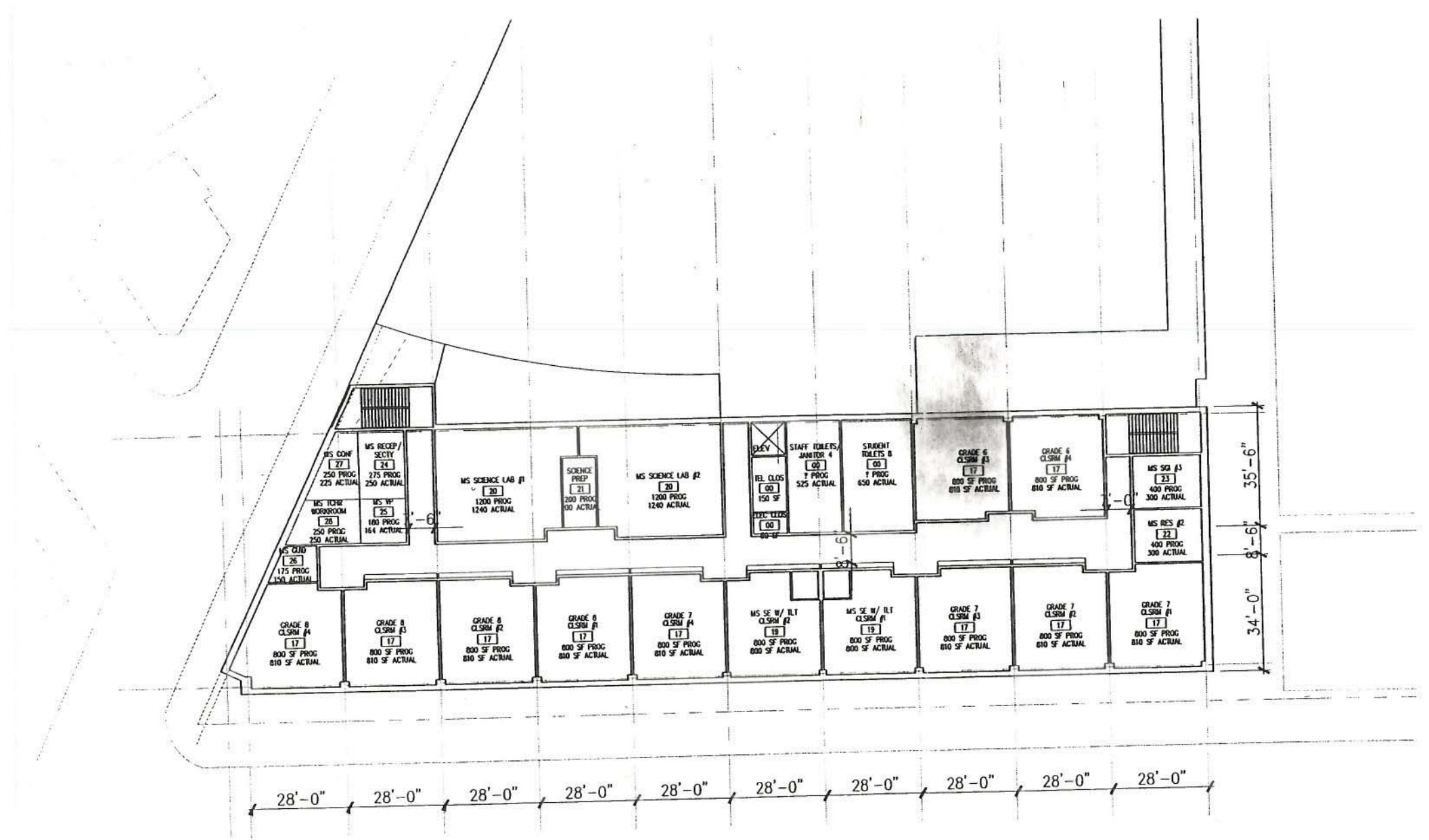
102,765 SF Net (3-26-04 Program) x 1.4 GF = 143,871 SF Gross

Current Plans = 146,400 SF Gross (1.42 GF)

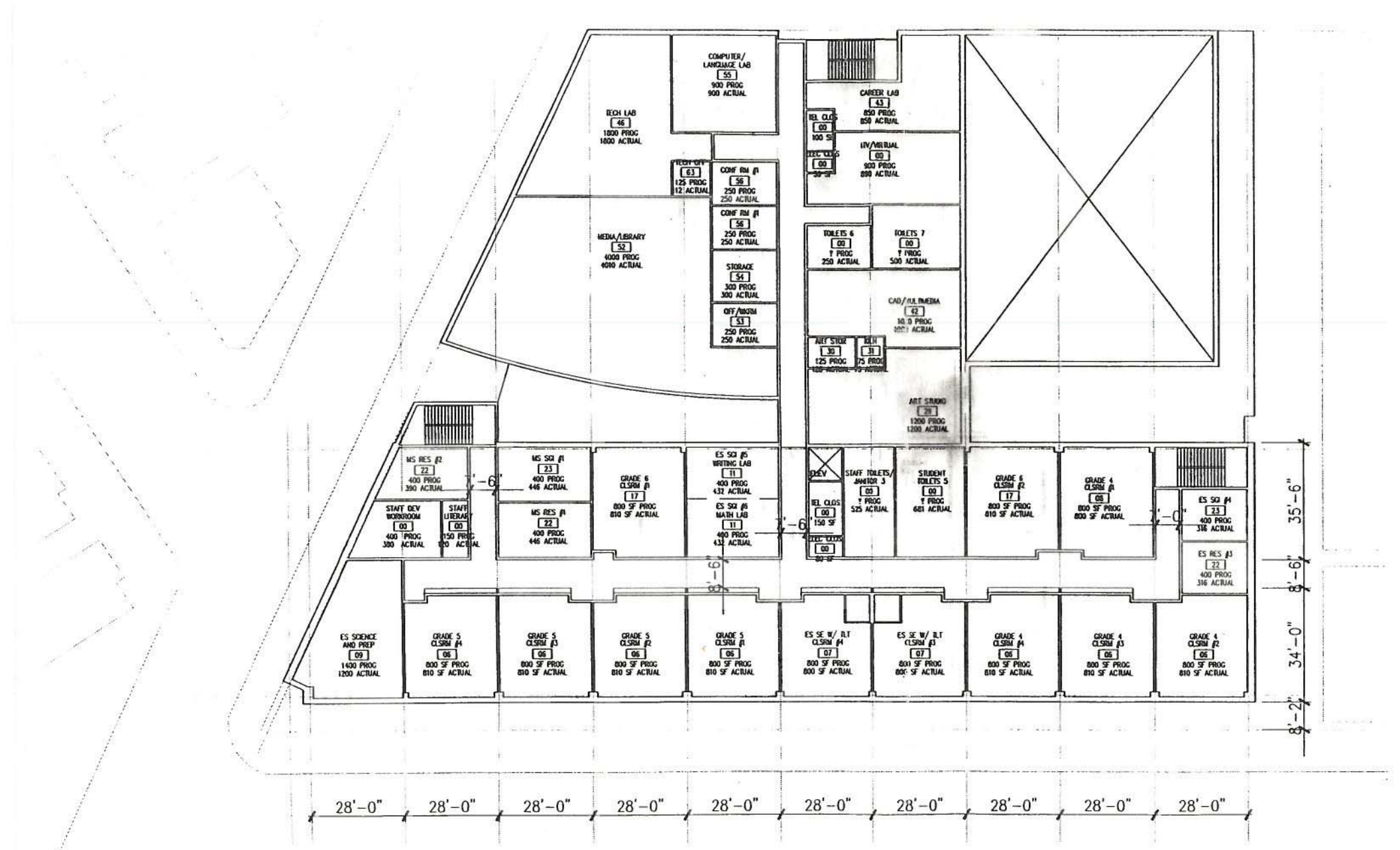


EYP/

NEWARK PUBLIC SCHO
ANN STREET SCHOOL
NEWARK, NEW JERSEY



FOURTH FLOOR = 21,700 SF



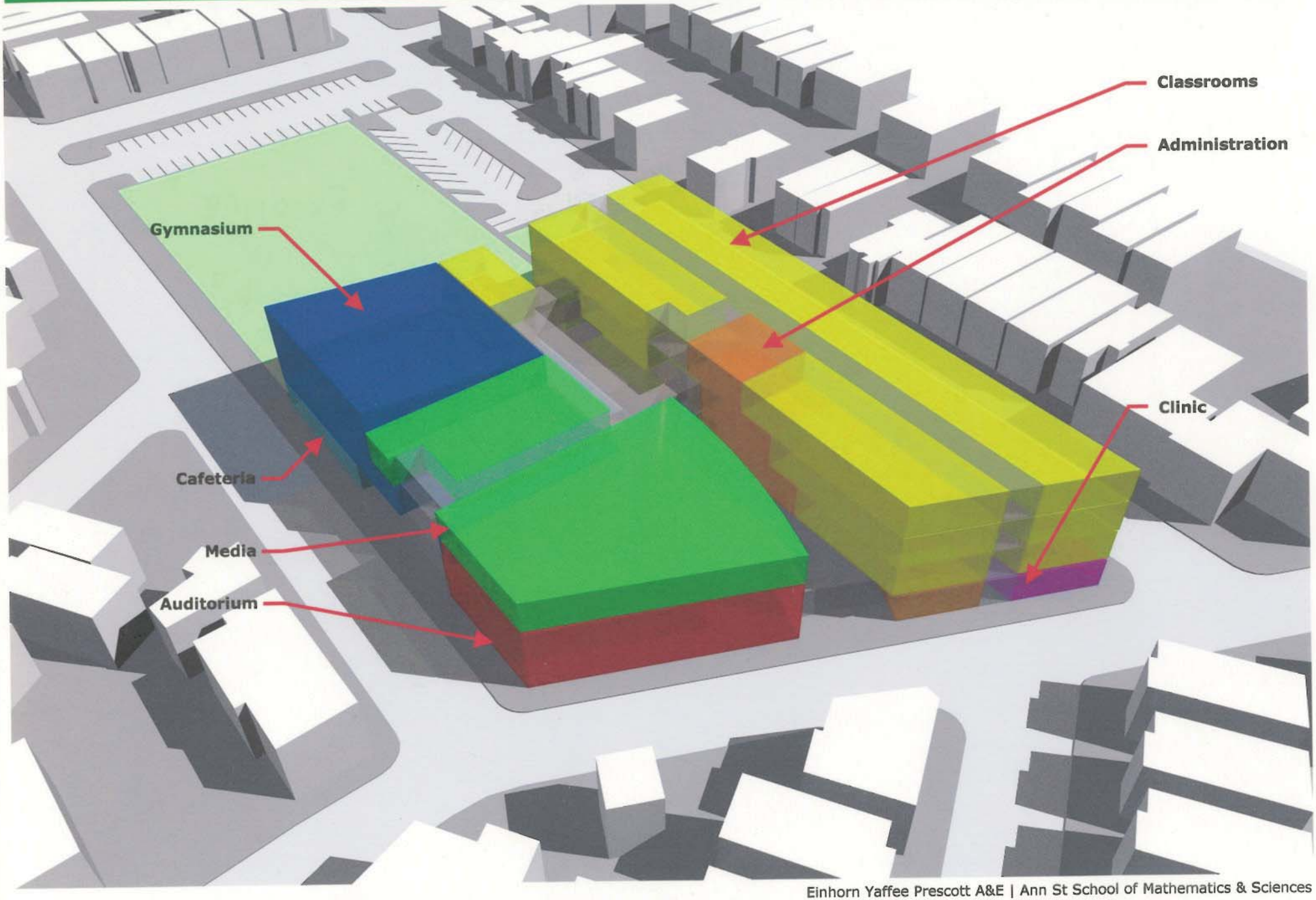
THIRD FLOOR = 37,100 SF

EYP/

NEWARK PUBLIC SCH
ANN STREET SCHOOL
NEWARK, NEW JERSEY

Phasing Plan : Phase 5

Scheme A

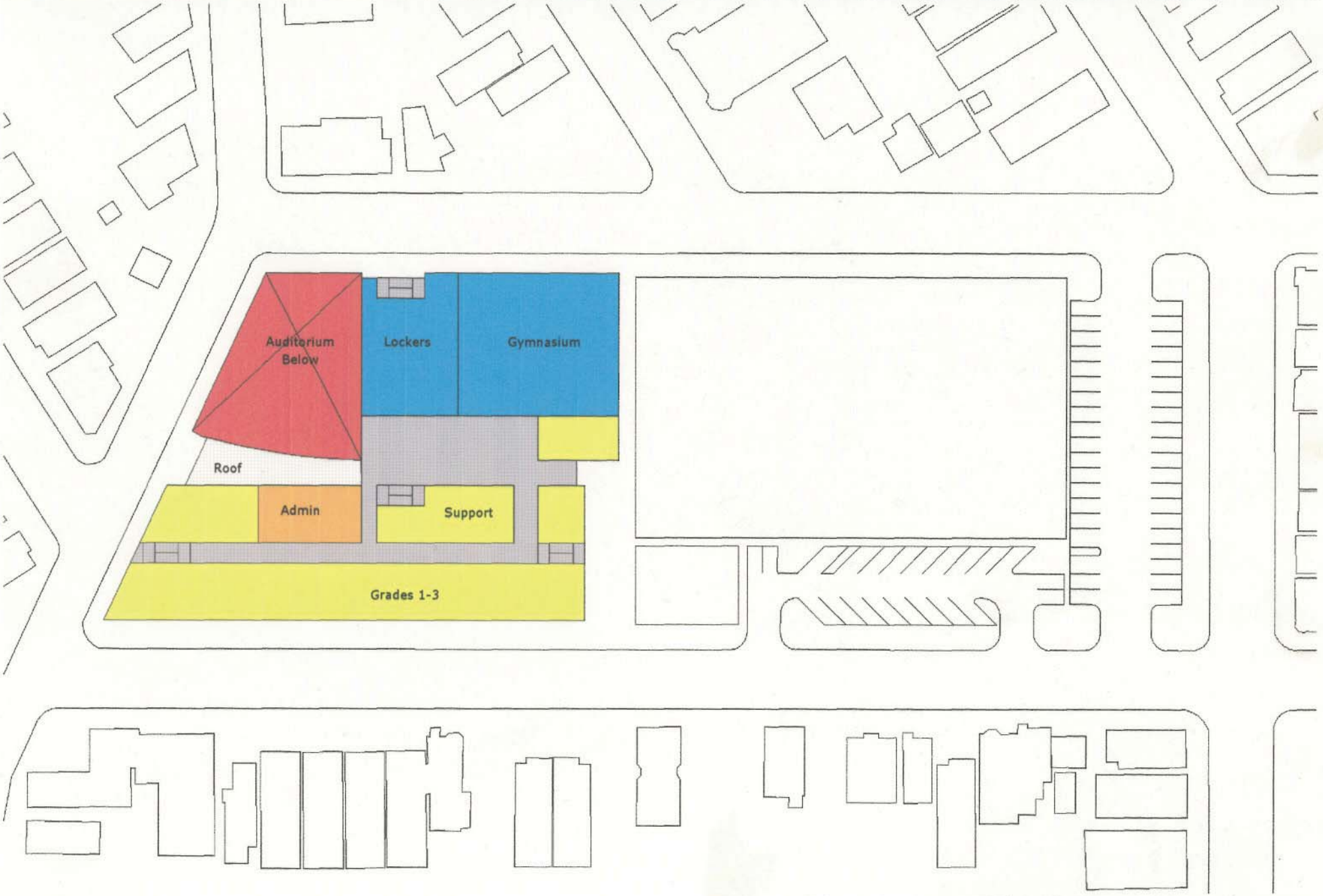

Classrooms
Administration
Gymnasium
Clinic
Cafeteria
Media
Auditorium

Concept Design Phase – Site Analysis

Scheme A : First Floor

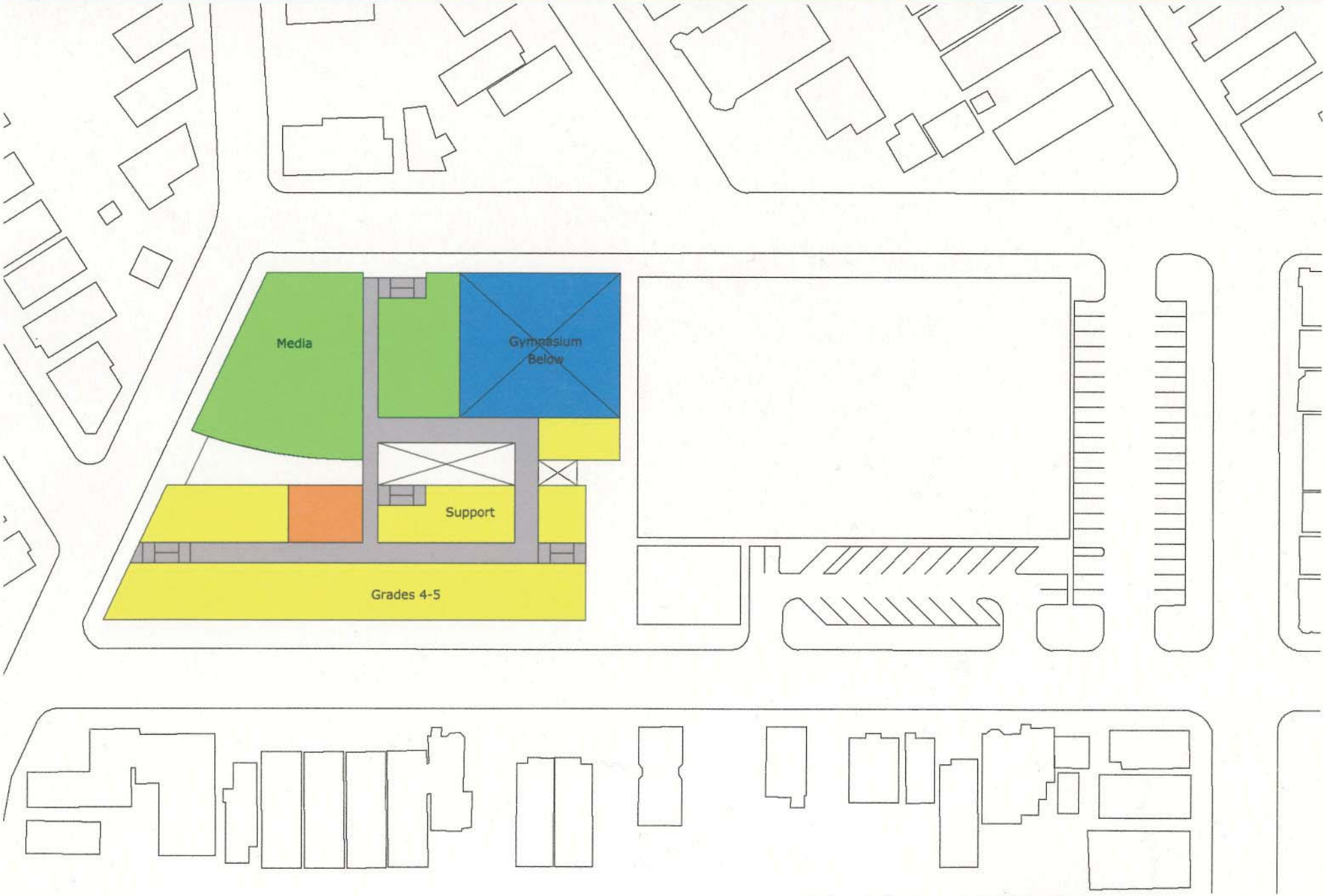
53,400 sq. ft.

Scheme A : Second Floor



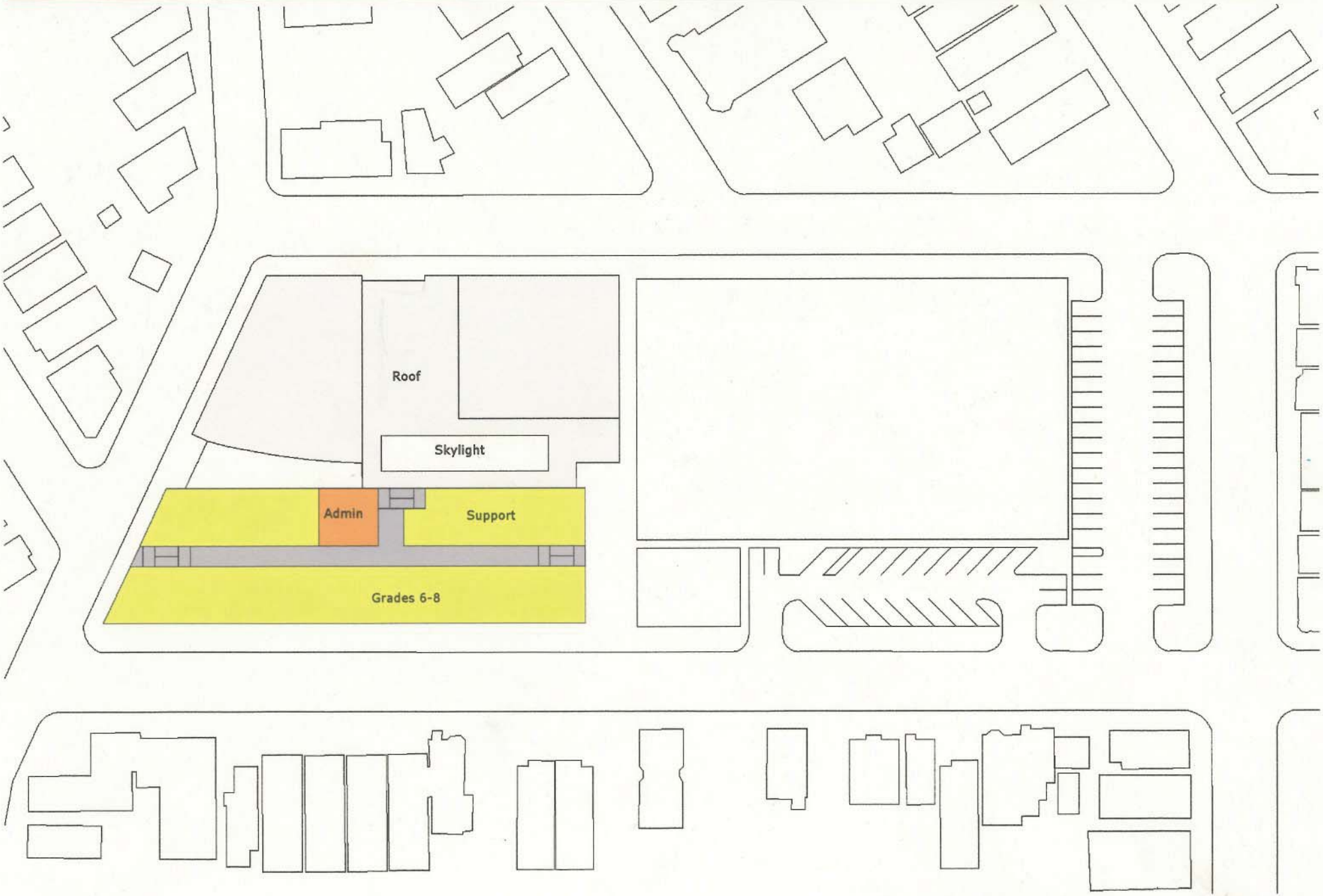
40,000 sq. ft.

Scheme A : Third Floor



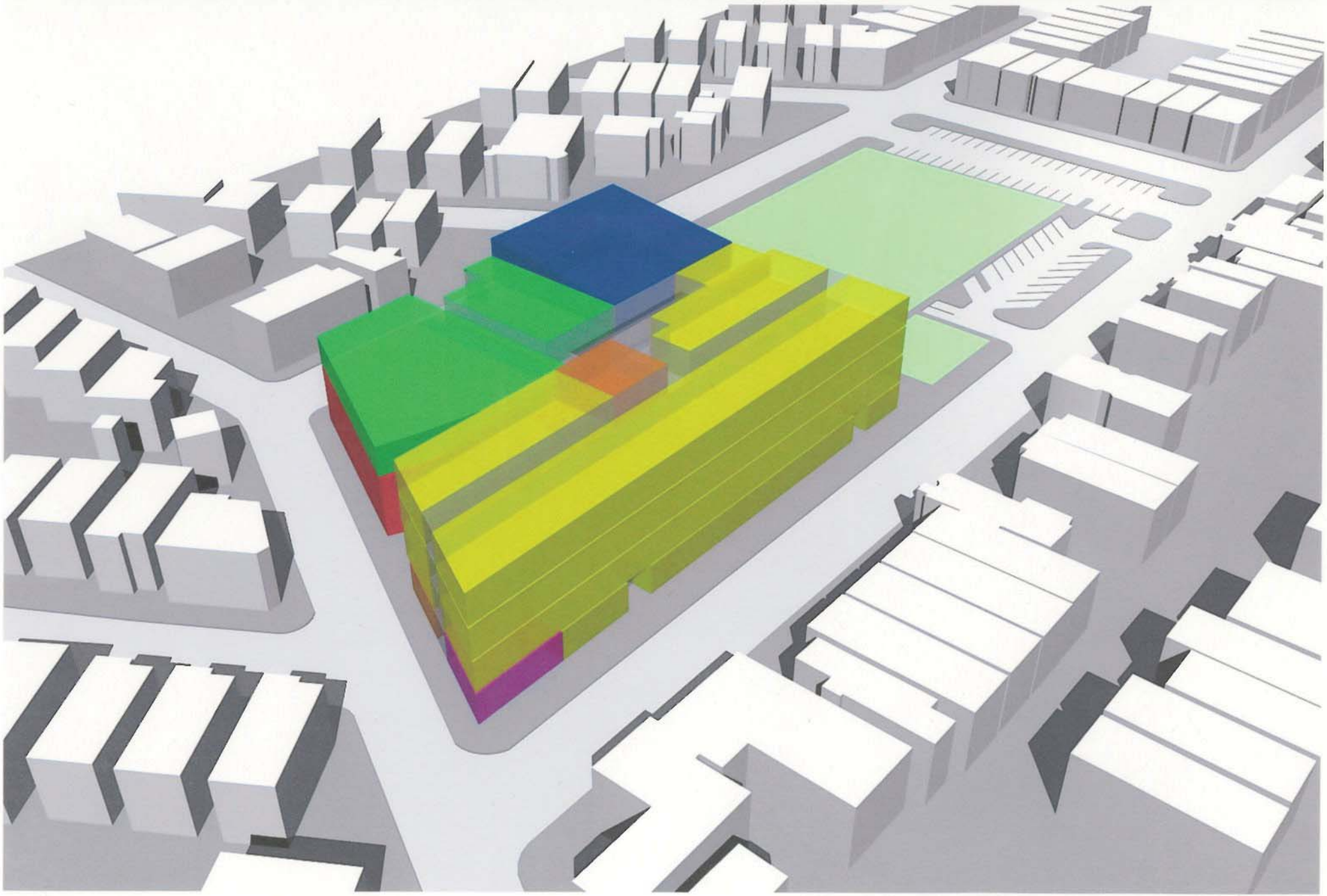
38,000 sq. ft.

Scheme A : Fourth Floor



20,200 sq. ft.

Scheme A



102
Lee
Tago

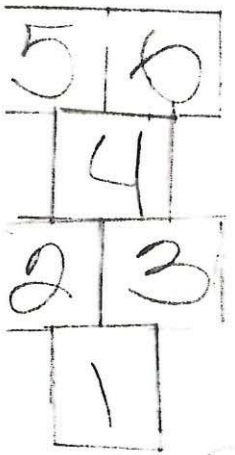
Counting Patterns 3

Fibonacci Table

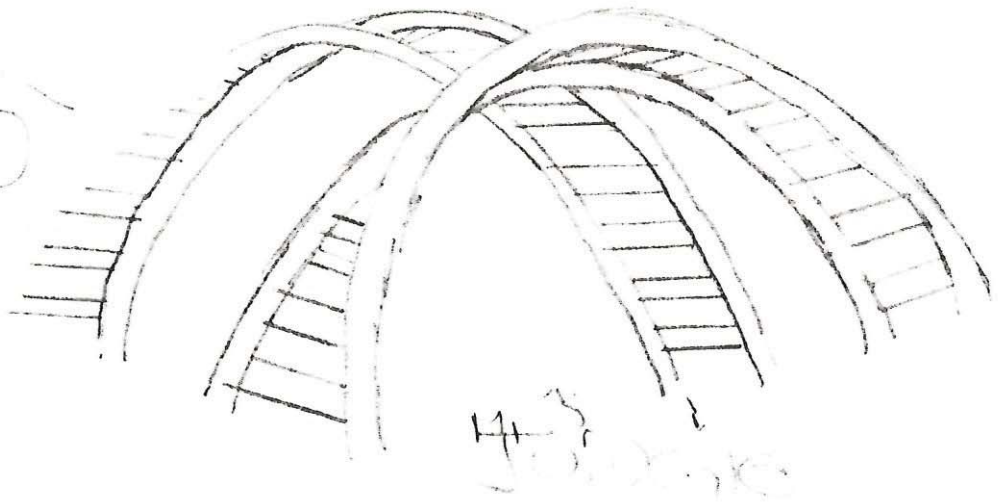
1+1=2	2+1=3	3+1=4
1+2=3	2+2=4	3+2=5
1+3=4	2+3=5	3+3=6
1+4=5	2+4=6	3+4=7
1+5=6	2+5=7	3+5=8
1+6=7	2+6=8	3+6=9
1+7=8	2+7=9	3+7=10
1+8=9	2+8=10	3+8=11
1+9=10	2+9=11	3+9=12
1+10=11	2+10=12	3+10=13
1+11=12	2+11=13	3+11=14
1+12=13		

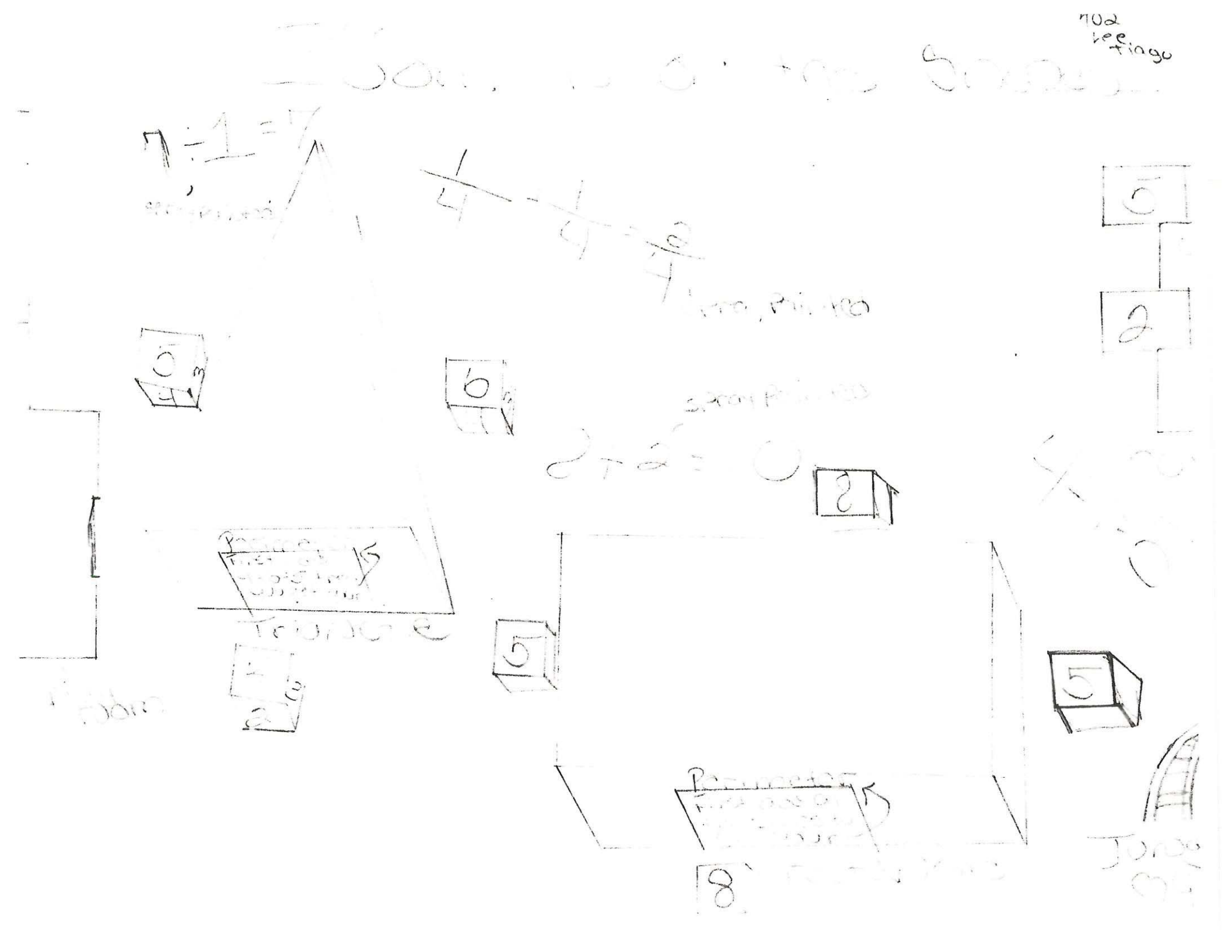
3+3=6

6+1=7



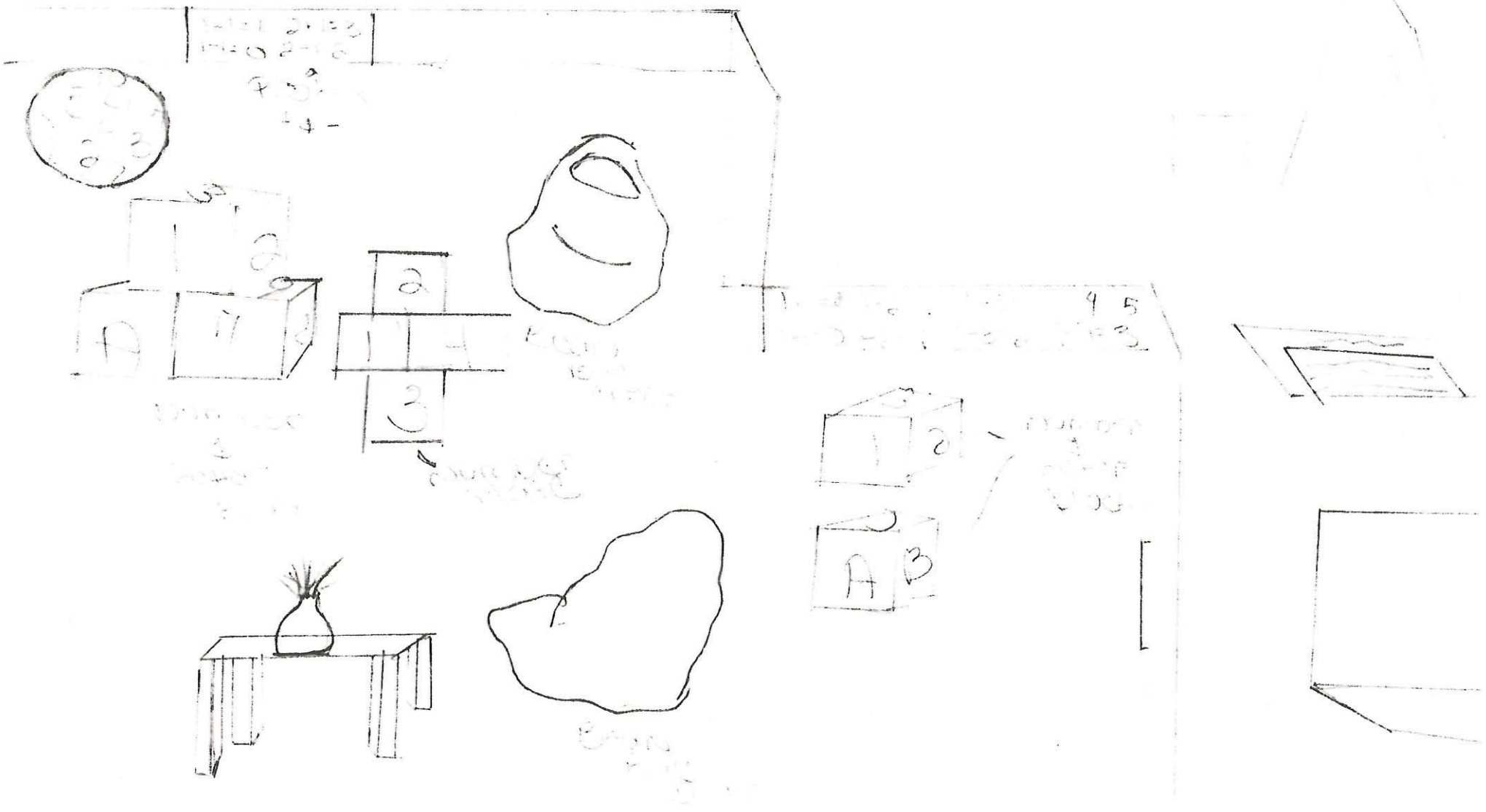
Hopscotch



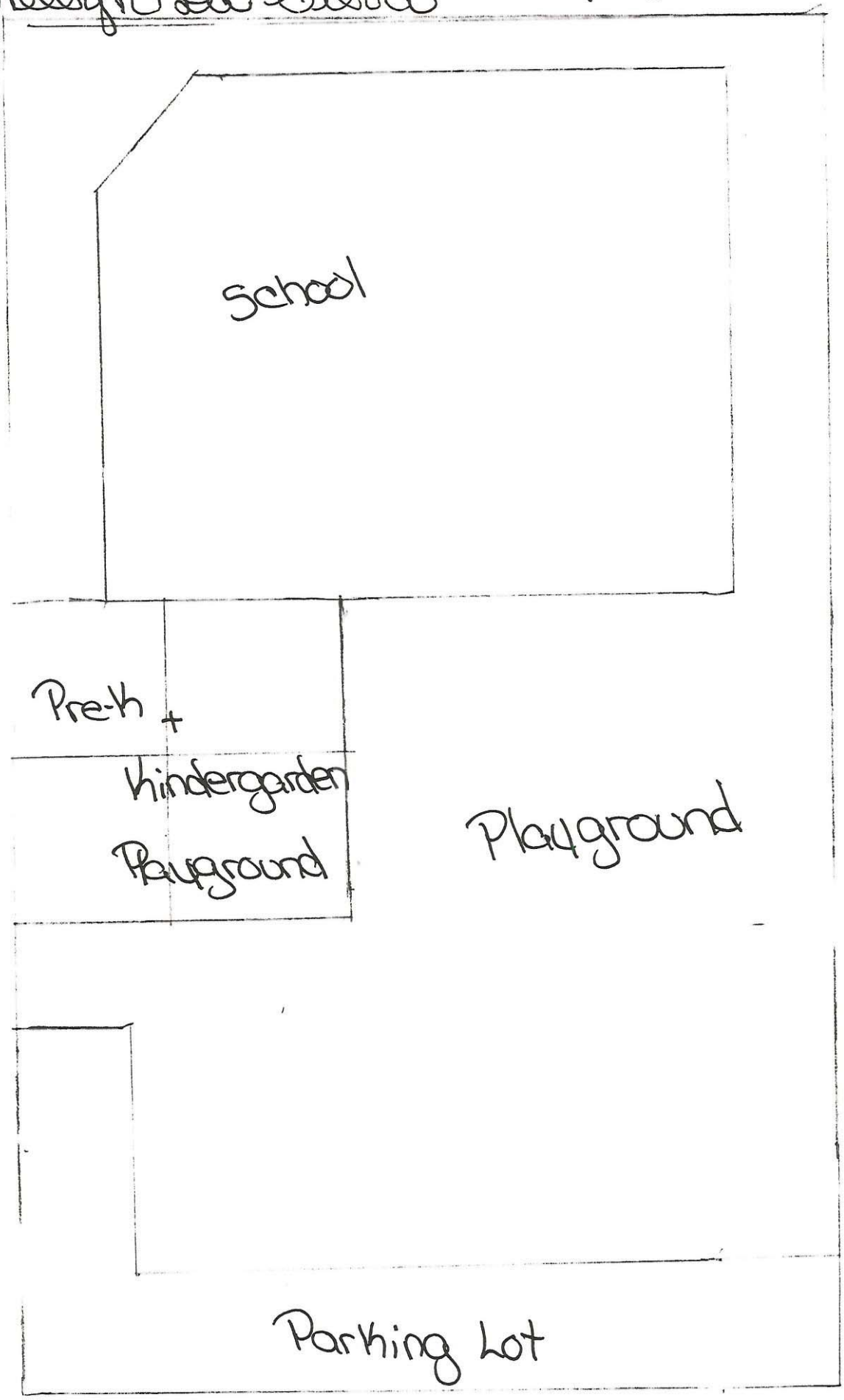


402 Lee
Tiag

Inside



Kathryn da Silva 4U5



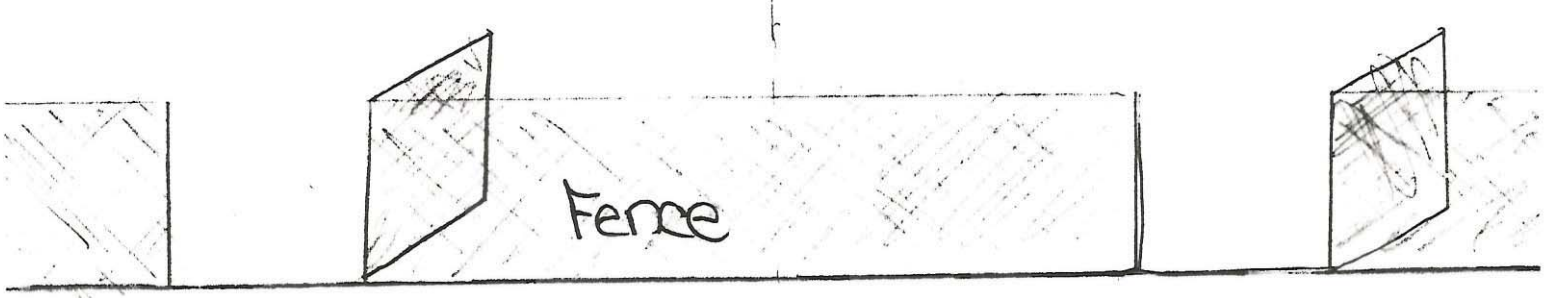
Pre-k + Kindergarden Playground

Section 1

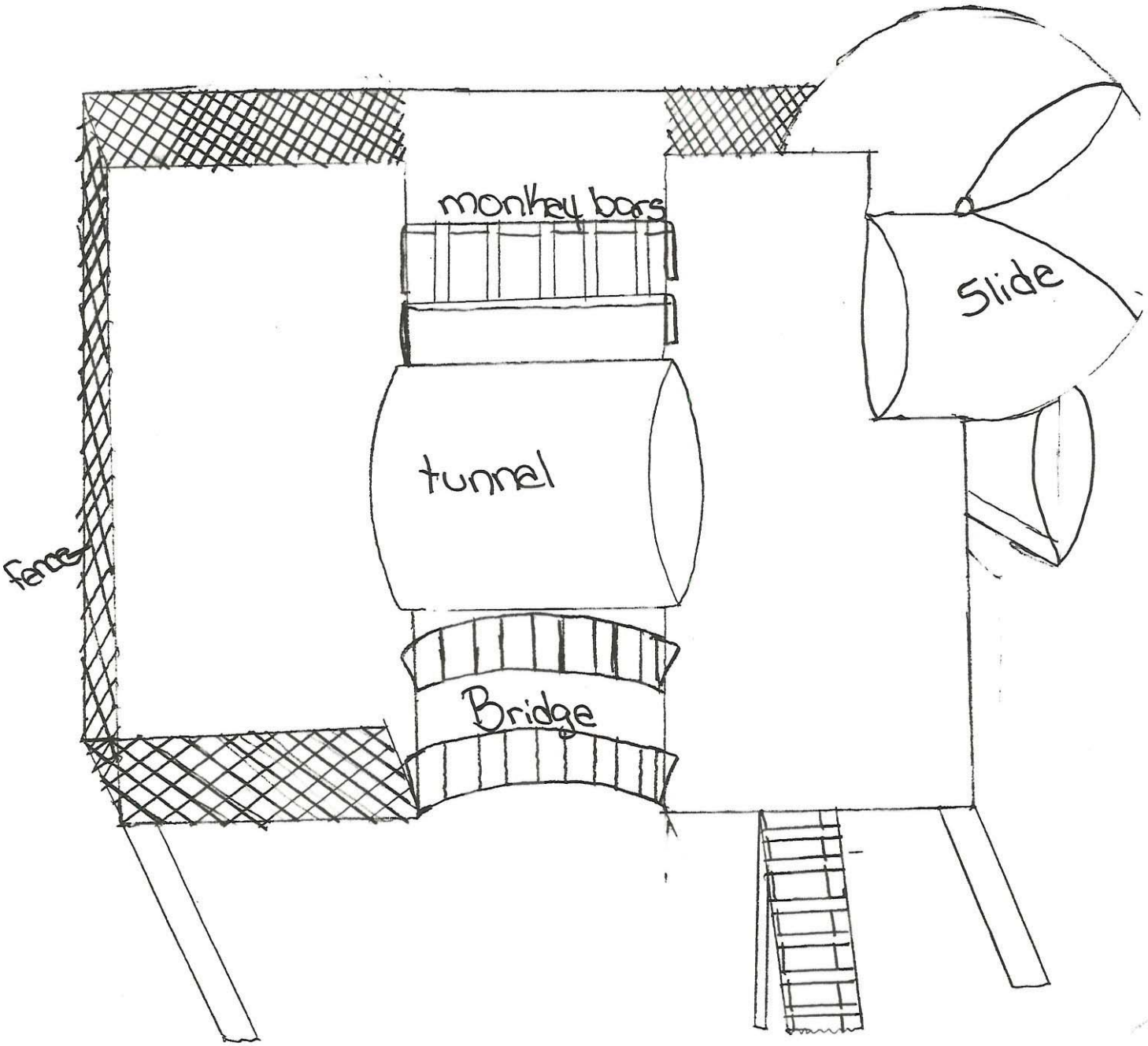
Section 2

Section 3

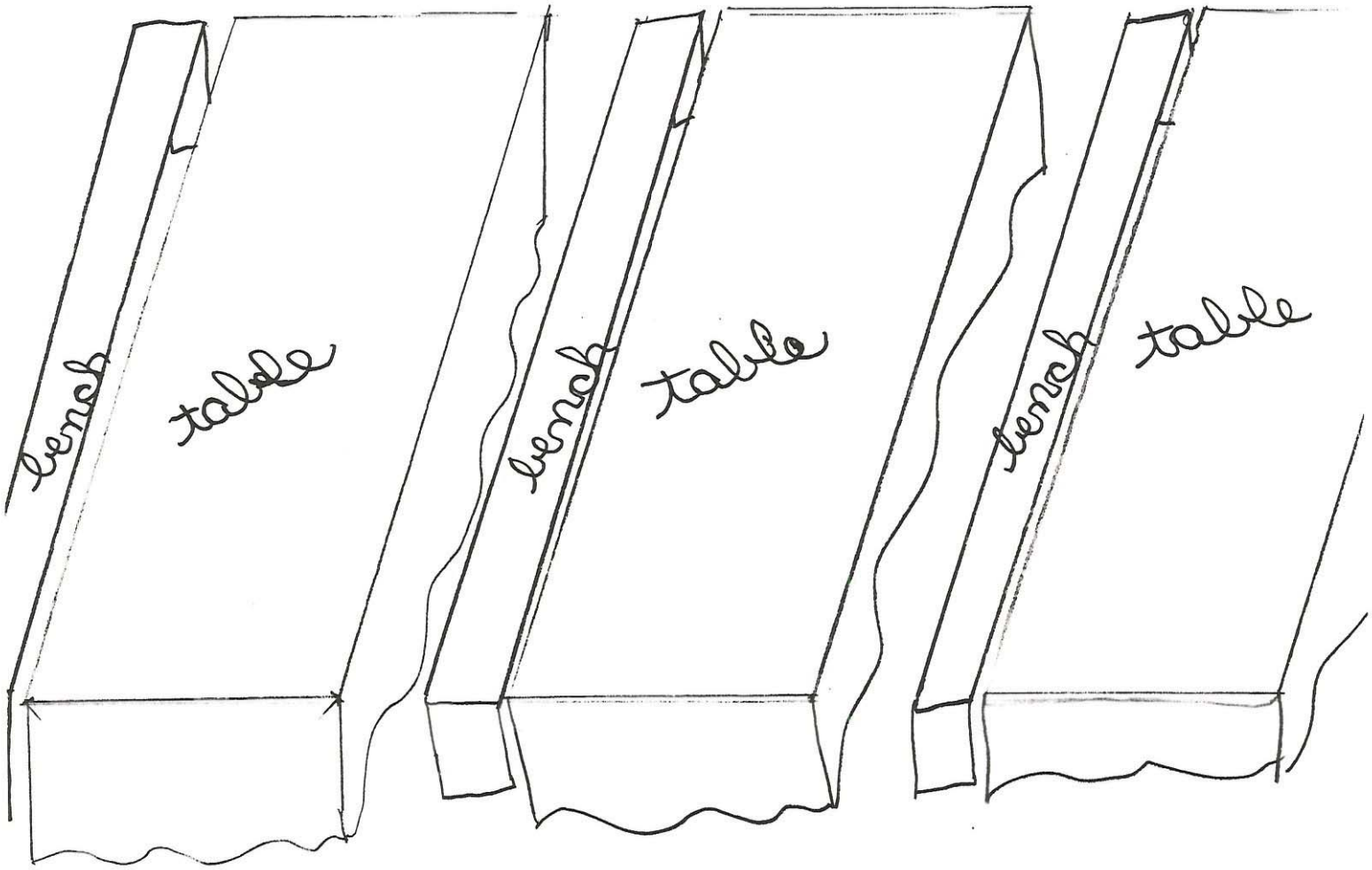
Section 4



Section 1 (close up)



Section 2 (close up)



EISA - 403

8 1/16"

Section 1

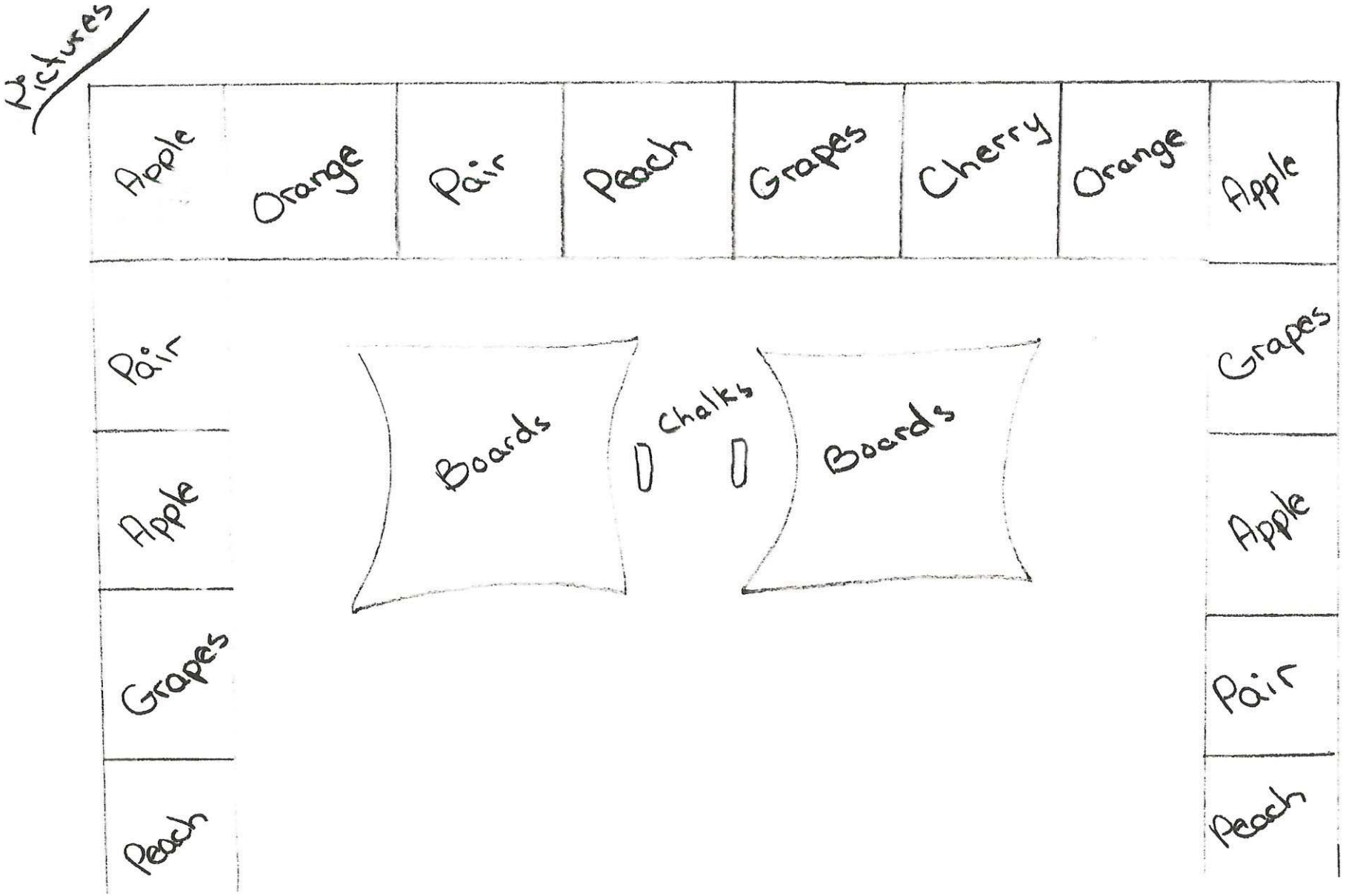
Elsa-403

Section 2

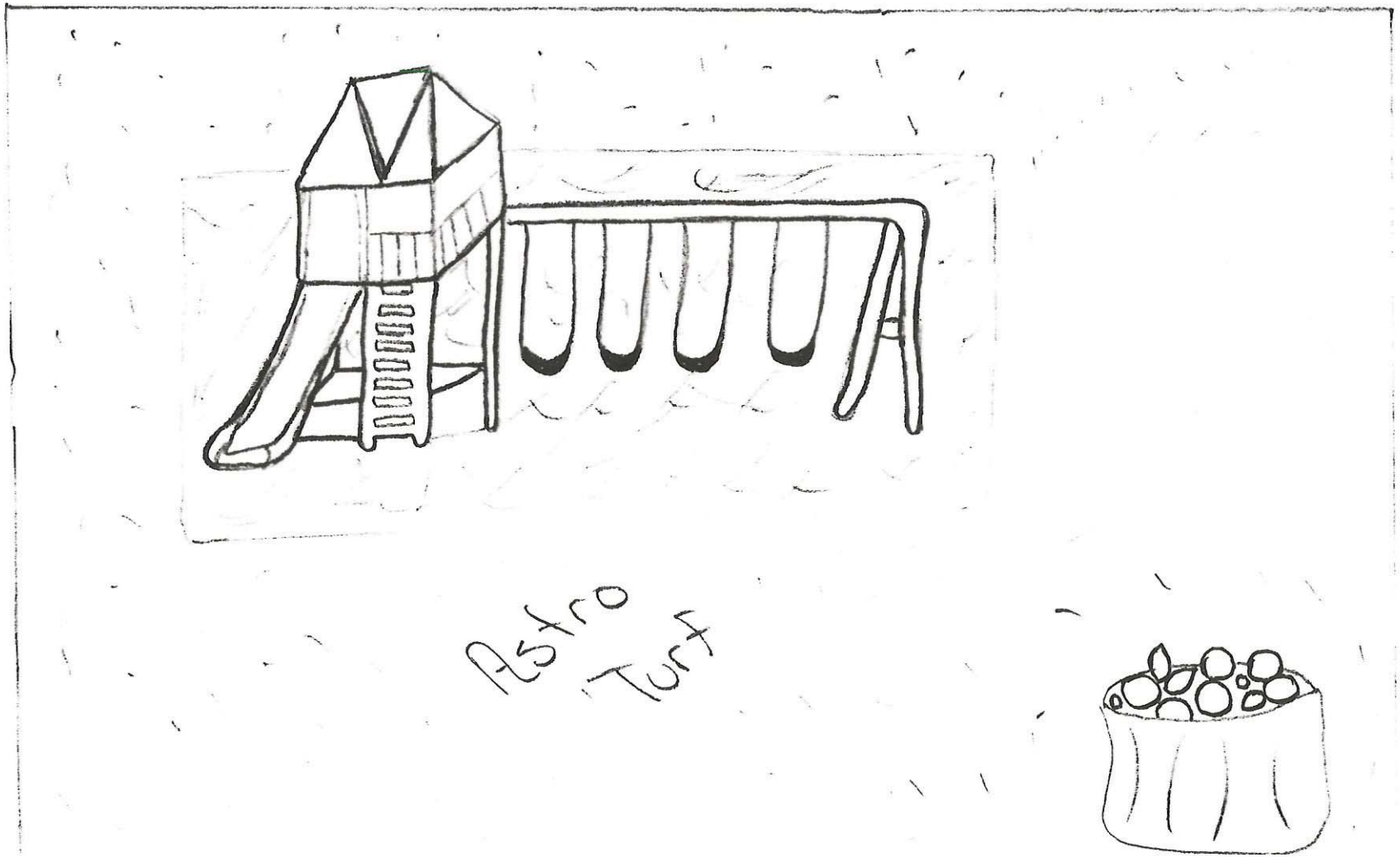
U	C	b	8	4	9	5	H	B	Z
	10	P	Q	L	20	N	T	3	
V	II	E	F	G	H	I	J	2	Y
	12	O	R	K	19	M	S	1	
W	D	13	14	15	16	17	18	A	X

Elsa - 403

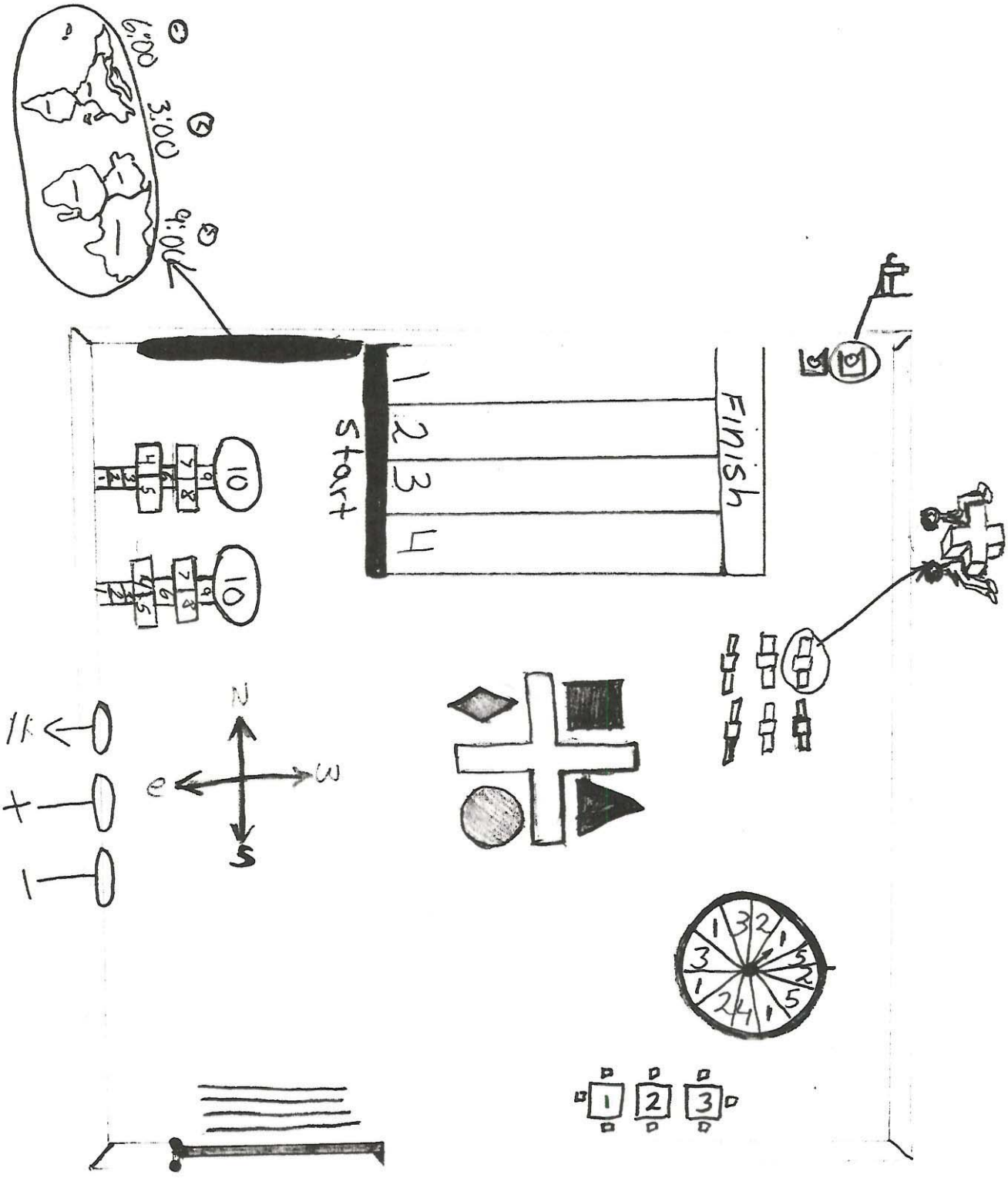
Section 3



Section 4

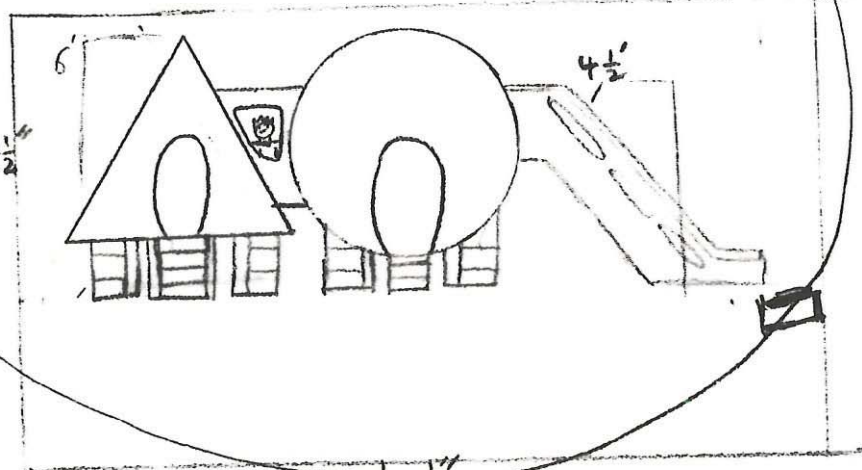


Walter 1. 401

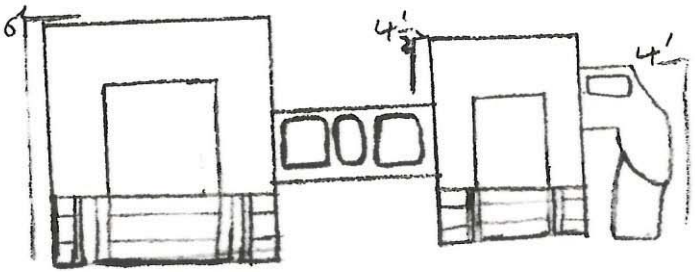


Kindergarden

$4\frac{1}{4}$" 29.75'



$4\frac{1}{4}$" 29.75' Pre-k



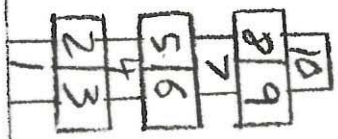
$4\frac{1}{4}$"

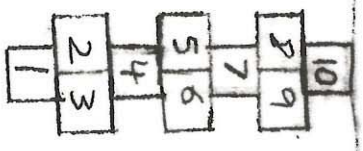
6 in
42 feet

$4\frac{1}{4}$"

6 in
42 feet

$1\frac{1}{4}$"





Sand Box

$1\frac{1}{4}$"

a little over 12.25'

1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31	32	33	34	35

$1\frac{1}{4}$"

1.75"

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34
35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51
52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68
69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85
86	87	88	89	90	91	92	93	94	95	96	97	98	99	100		

$1\frac{1}{2}$"

1.75'

1.75"

$4\frac{1}{4}$ in
29.75 feet

H=1'5" Water Tables .25" .50"

H=1'5" WT .25" .50"

H=1'5" WT .25" .50"

H=1'3" WT .25" .50"

4 $\frac{1}{4}$ in
29.75 feet

Rose Estrada — 403