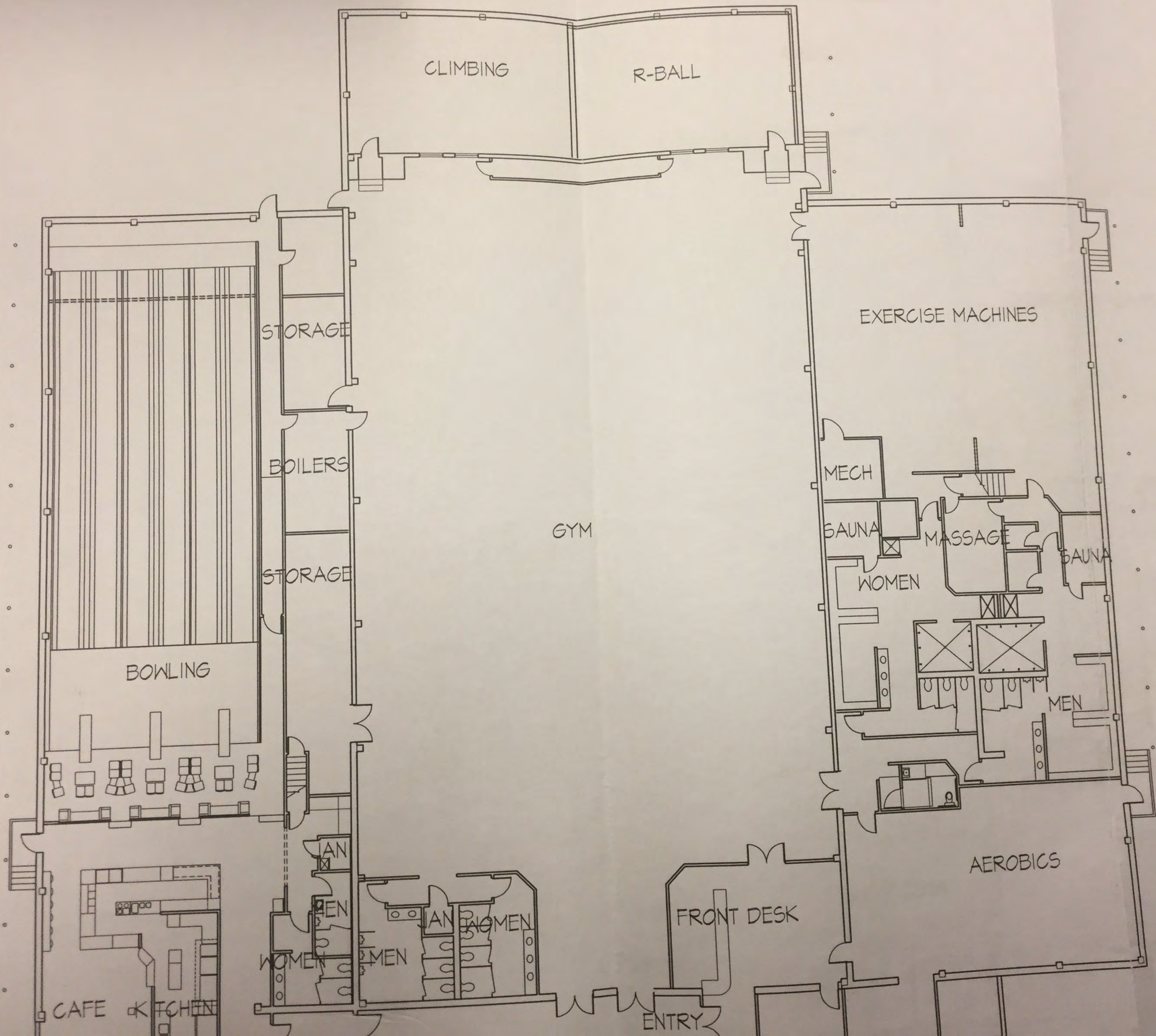
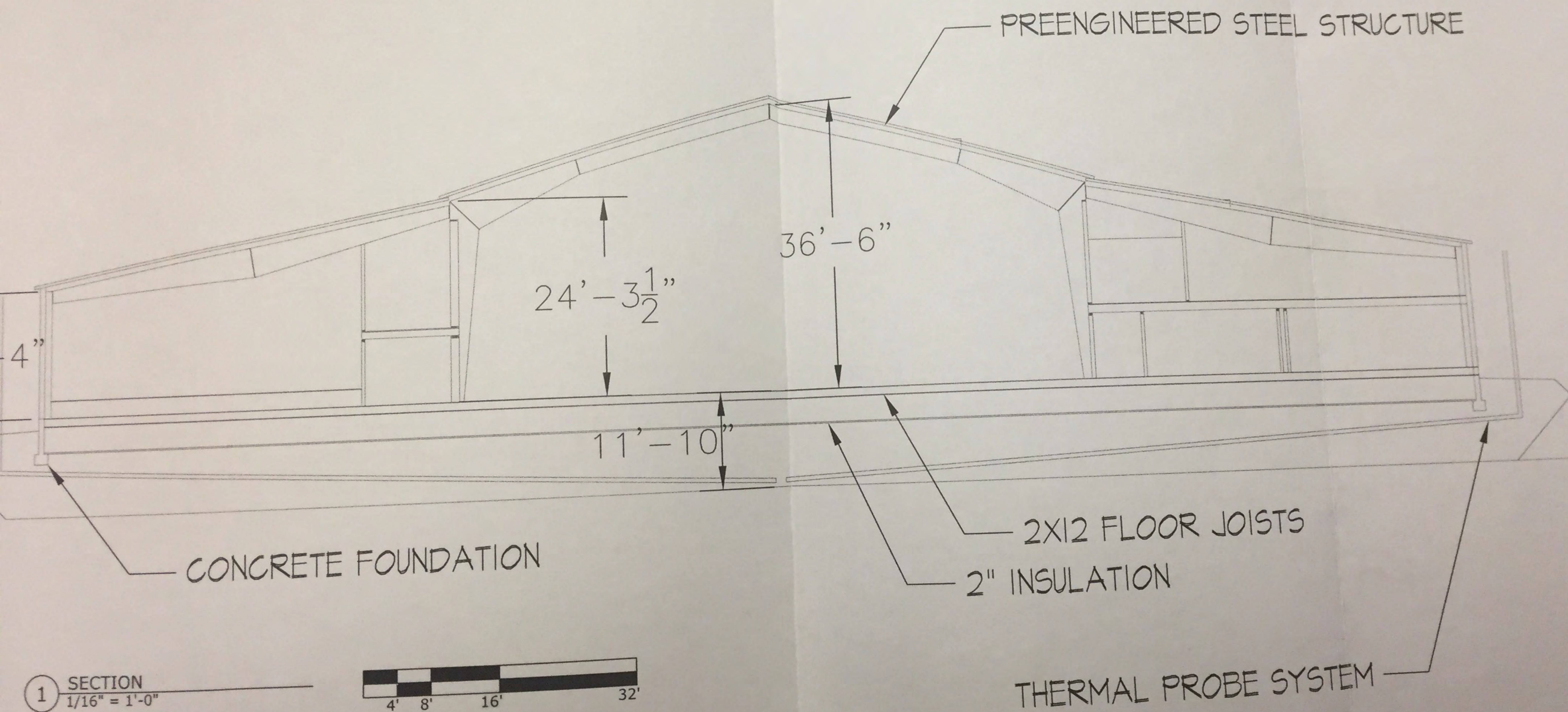
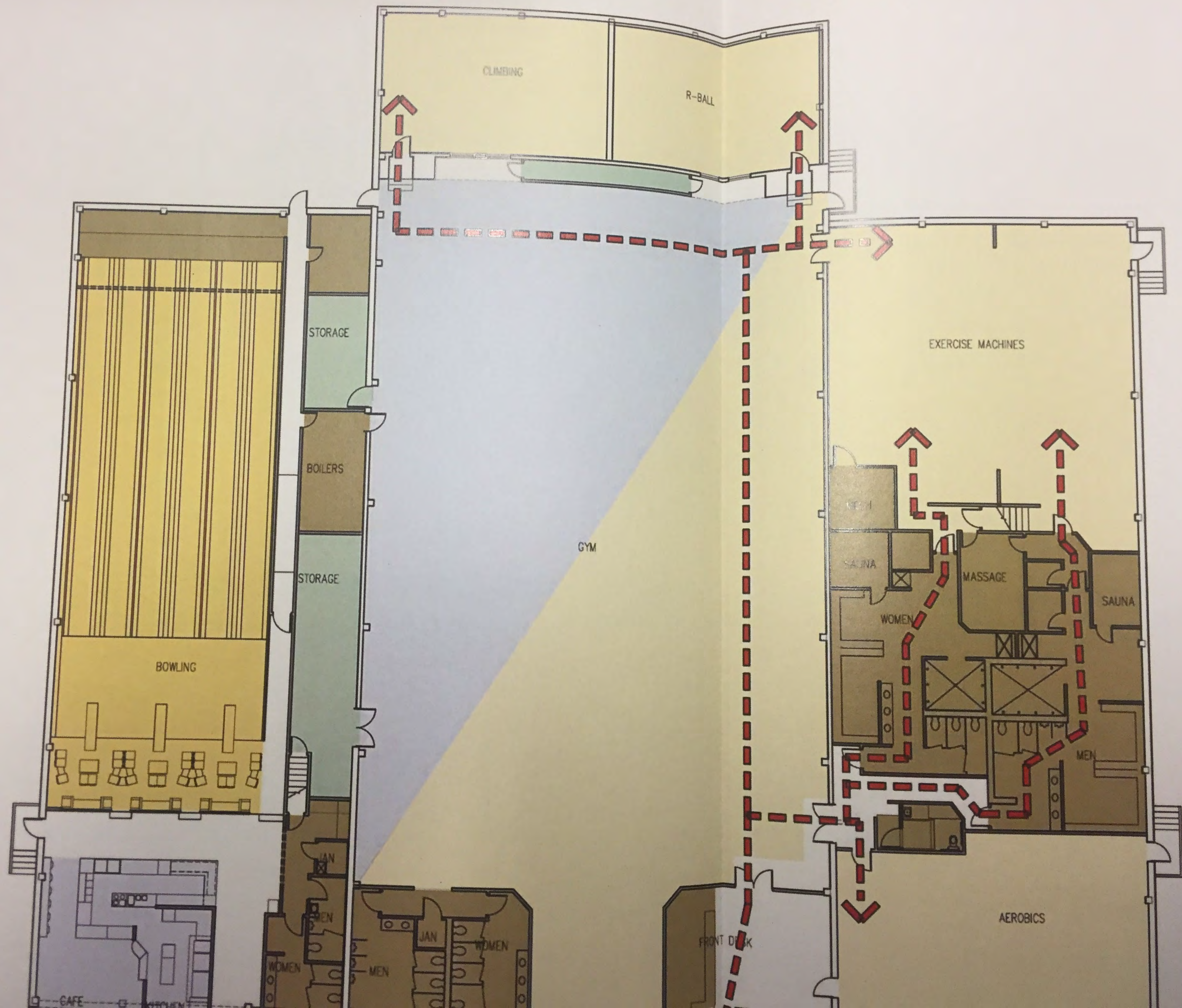
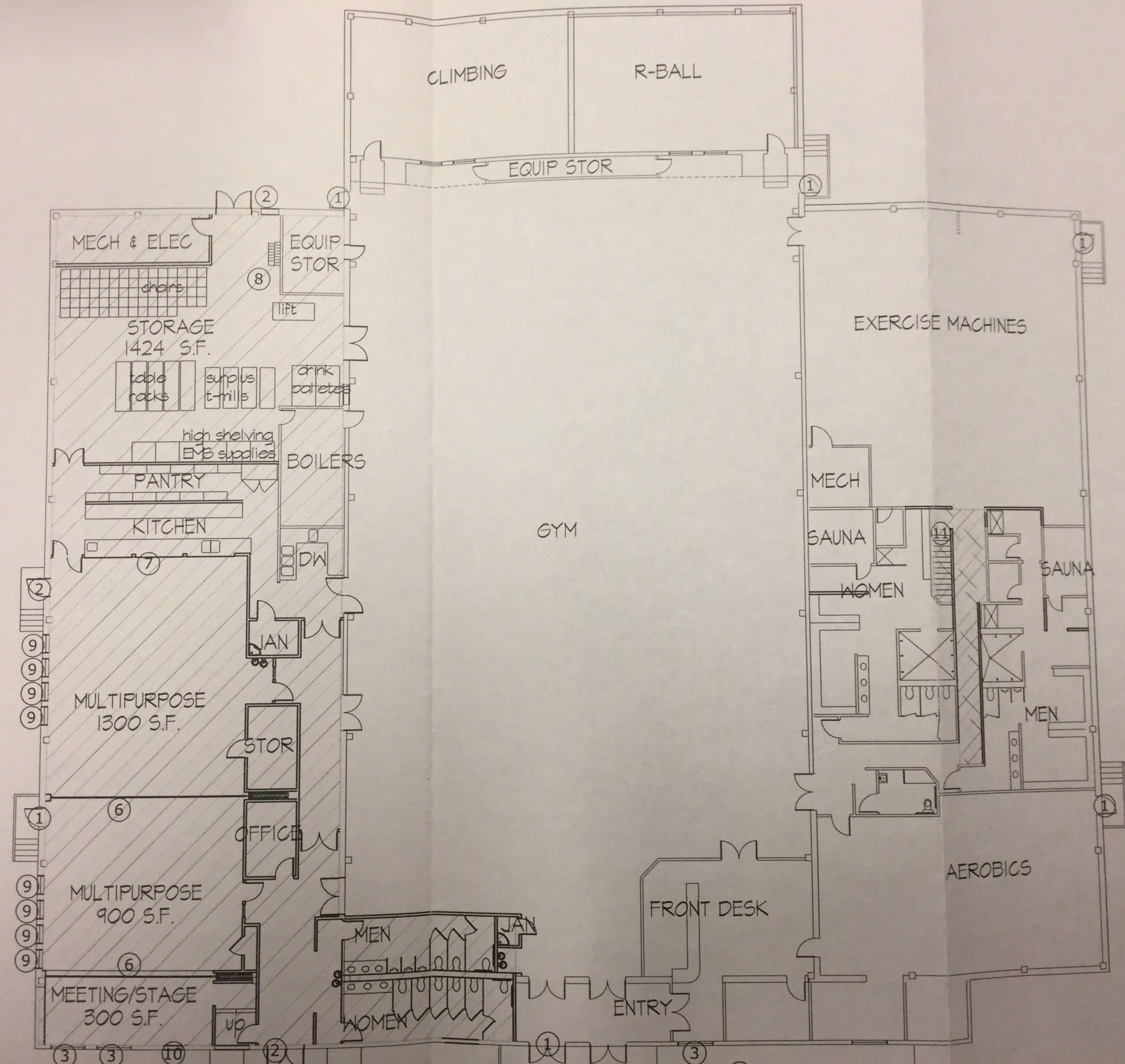






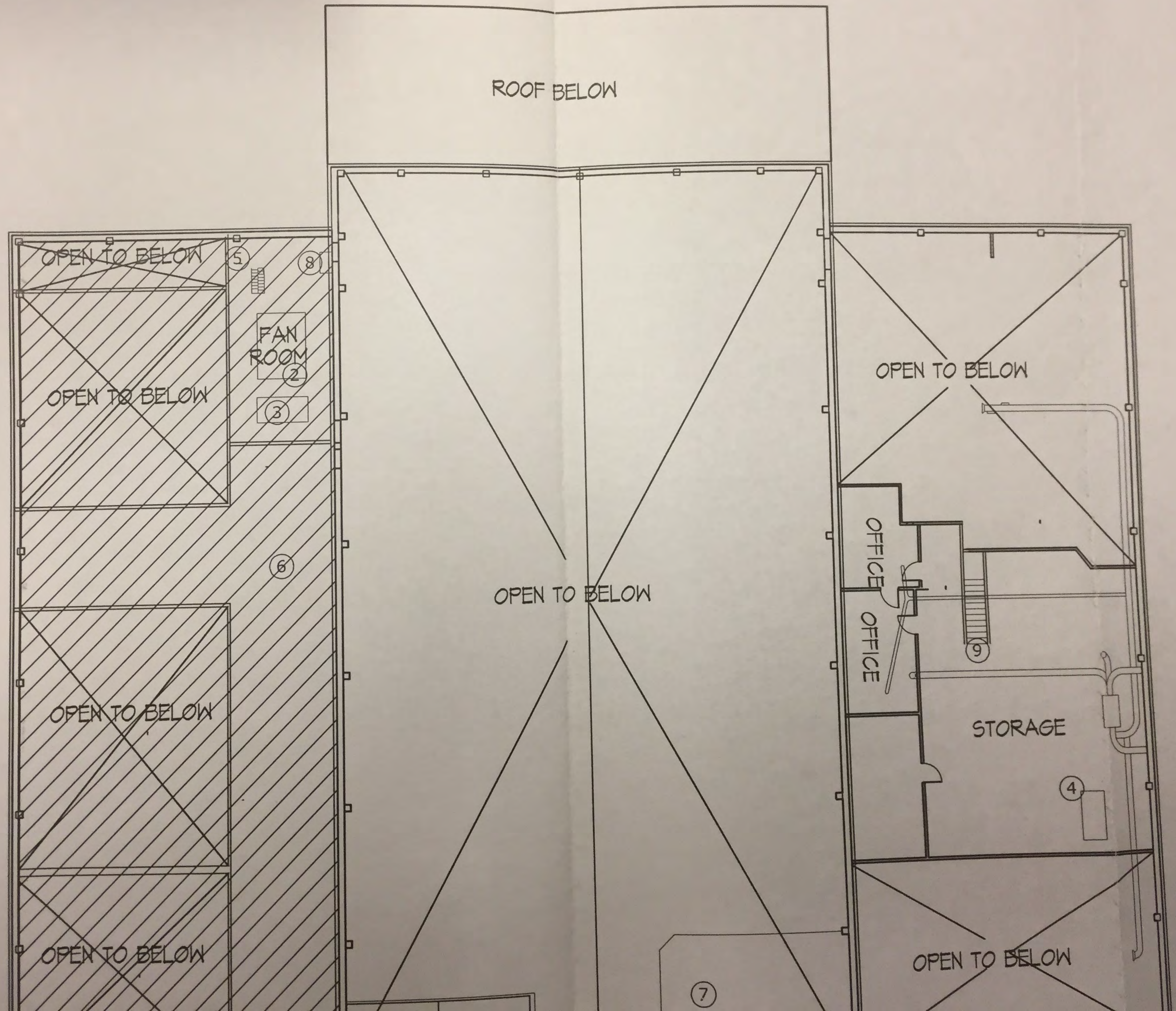




IEVE NEW ROOF AND
FULLY RENOVATED
FINISHES,
CAL SYSTEMS.

STRUCTURE FOR

GYM
RENOVATED AREAS
AEROBICS ROOM
STAIRS
SUSPENDED CEILINGS
GE



CLIMBING

R-BALL

STORAGE

BOILERS

STORAGE

BOWLING

GYM

EXERCISE MACHINES

MECH

SAUNA

MASSAGE

WOMEN

SAUNA

MEN

AEROBICS

FRONT DECK

MAN

WOMEN

MAN WOMEN



100 FEET

216 FEET

FUTURE
SERVICE ENTRY

FUTURE
COVERED
SKATE RINK

LOCATION FOR
SKATE PARK
OUTDOOR AREA
40' X 80'

RECREATION
CENTER

MAIN ENTRY

BY-PASS

FUTURE
COVERED
SECONDARY
ENTRY

MAIN ENTRY

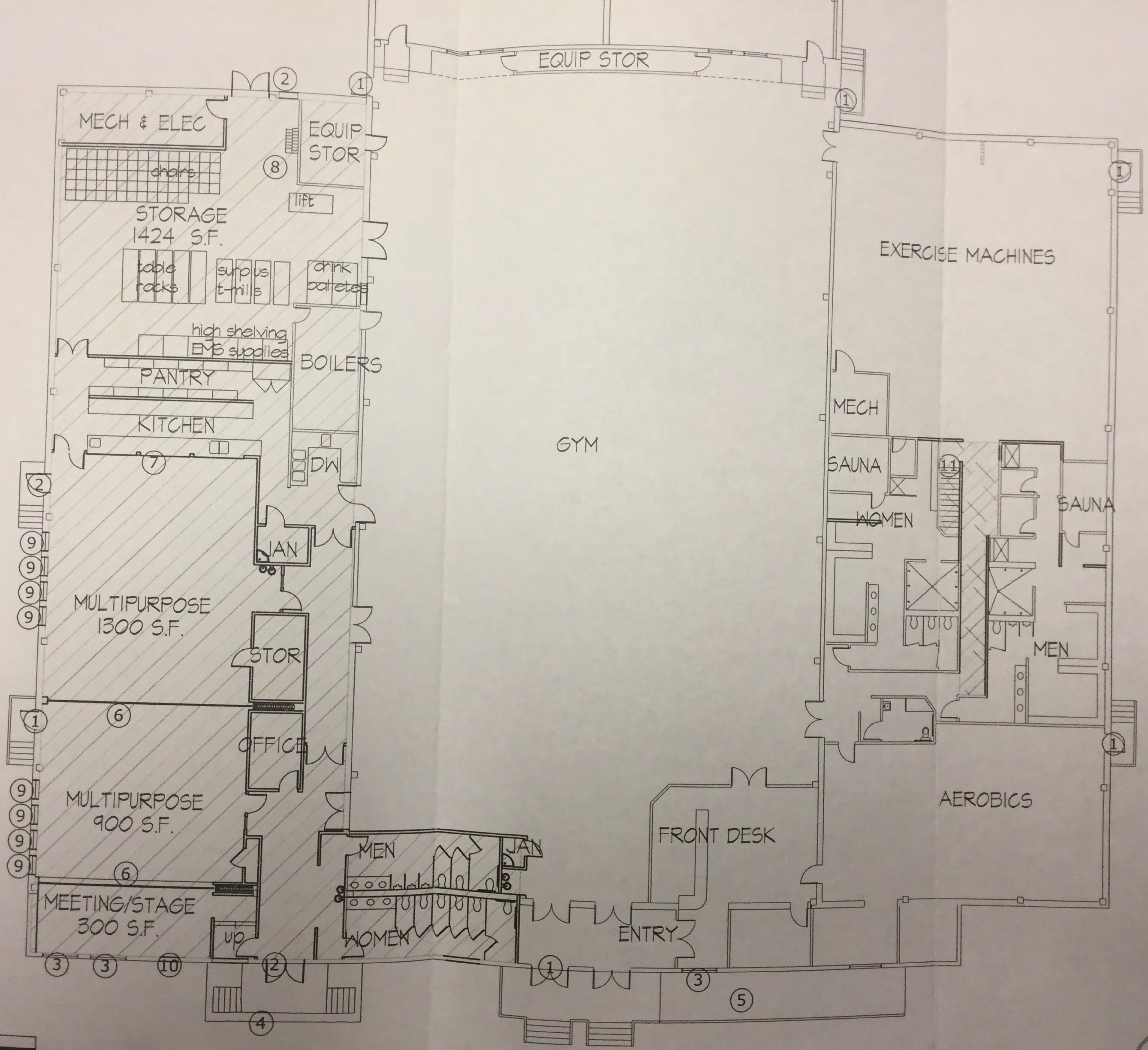
FUTURE WAY
MAIN LOCATION

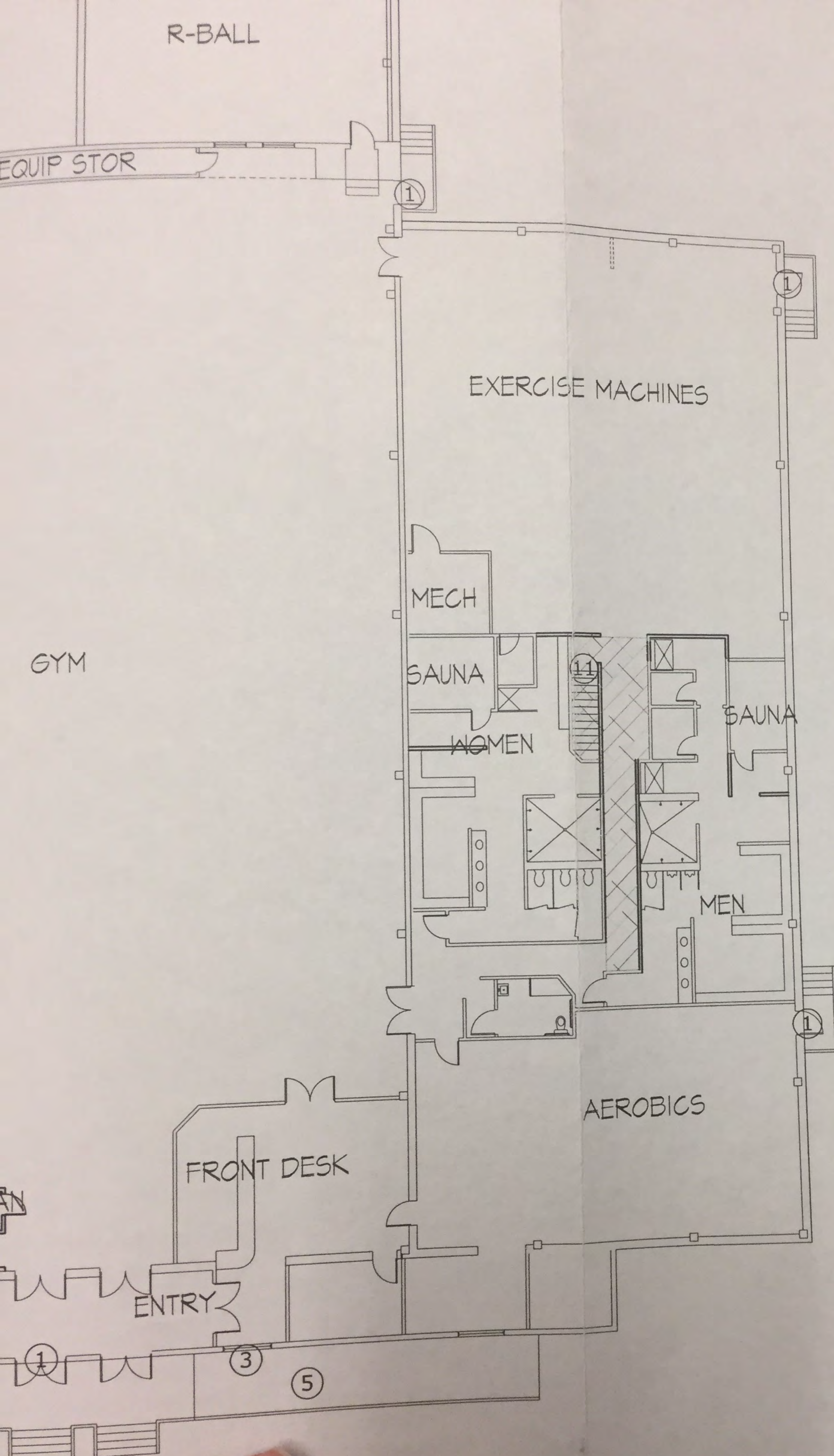
PROPERTY LINE

ON

SH FLOOR

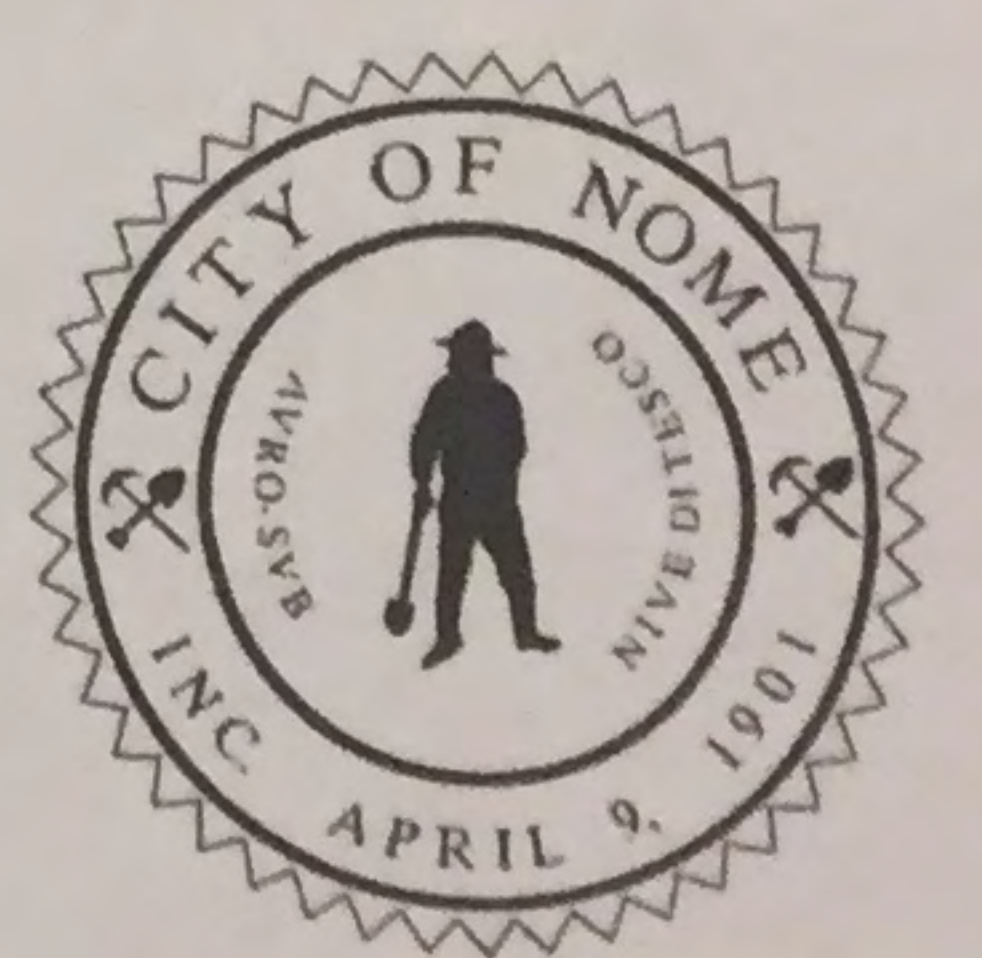
1 NEW





N
NorthWind
Architects LLC
 119A 2ND ST.
 JUNEAU, AK 99801
 PH #907.586.6150
 FX #907.586.6181
 WWW.NORTHWINDARCH.COM

NOME RECREATION CENTER - RENOVATIONS
 208 E. 6th Street ° Nome, Alaska
PLANNING STUDY



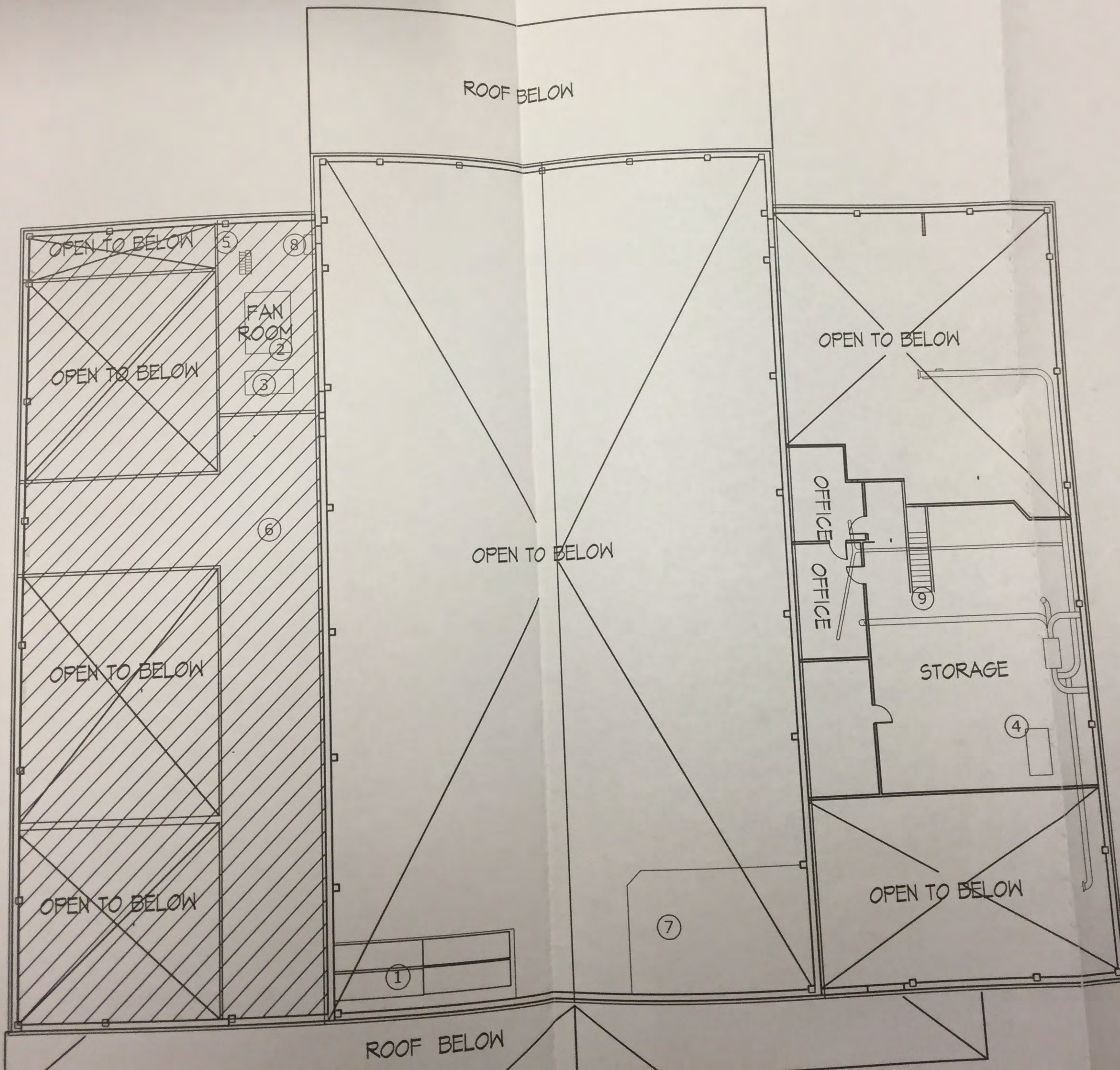
DATE: JUNE 2009

SHEET TITLE:
PROPOSED FIRST FLOOR PLAN



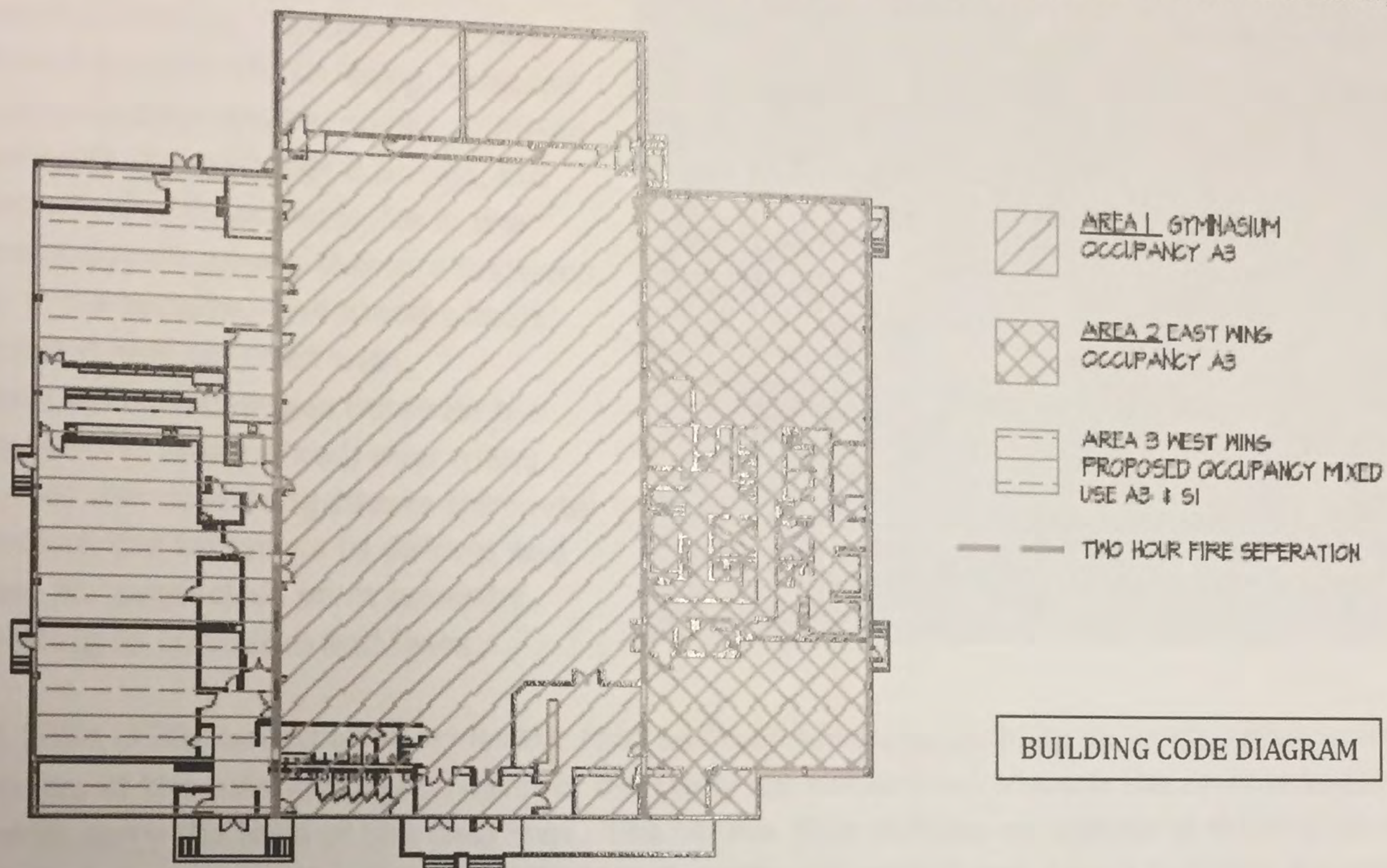
TO RECIEVE NEW ROOF AND
TO BE FULLY RENOVATED
LINGS, FINISHES,
CHANICAL SYSTEMS.

STRUCTURE FOR
OR GYM
OR RENOVATED AREAS
OR AEROBICS ROOM
STAIRS
SUSPENDED CEILINGS
ORAGE
ER



CODE ANALYSIS

It appears that this building was constructed as **three separate fire zones**; the west wing, the gymnasium and the east wing, each separated by rated construction. The 2006 International Building Code, which has been adopted by the State of Alaska, would require a **sprinkler system** for the gym if the building was constructed today. The east and west wings are separated by two hour rated construction they would not need a sprinkler system. Appendix E contains a full code analysis.



The practical application of this code analysis is to guide the recommended renovations in the east and west wings. The recommended improvements can be made without installing a sprinkler system **as long as the integrity of the fire separation walls are reinforced and maintained**. Since a wholesale renovation of the gym is not recommended in this master plan there is no building code requirement to install a sprinkler system. Research on fire resistive design, however, indicates that sprinkler systems are the best way to ensure the safety of inhabitants. Unfortunately it is very easy for the integrity of fire rated walls to be undermined. Something as simple as a non fire stopped electrical outlet in a rated wall can provide a location for fire to quickly spread through a building. Although the sprinkler system is expensive we recommend maintaining installation as a goal for the NRC.

Building code requires that this structure have emergency power for basic **life safety features**. The power source must automatically activate when the electrical system fails to allow a crowd to exit safely. This means speaker systems, lighting at paths and corridors leading to exterior doors and exit signs must remain functional during a power outage long enough for the building to be evacuated. These items are currently on a battery pack to deliver light and power for 90 minutes.

Several years ago the City of Nome bought a package **emergency generator** for the NRC so it can be used as a shelter in an emergency. This unit provides power for the entire building however power must be manually transferred; it is not automatic and therefore cannot be used to power the code required devices. We initially recommended re-working the package unit so that it can provide automatic transfer however we learned it is not possible. If the City of Nome wants to have a system that

**Nome Recreation Center
Building Code Review**

BUILDING CODE SUMMARY

Applicable Codes

State of Alaska

2006 International Building Code (IBC)

N.B. chapter 34 Existing Structures paragraph 3403.1 "portions of the structure not altered and not affected by the alteration are not required to comply with the code requirements of a new structure."

2003 International Mechanical Code (IMC)

2006 International Fire Code (IFC)

2003 Uniform Plumbing Code

2005 National Electrical Code

Occupancy Classifications

Area 1 - A3

Area 2 - A-3

Area 3 Mixed Use

Building is divided into three distinct fire zones. Required separation of two hours

Gym, Climbing wall and Racquet ball court

B accessory area to A-3 use (offices)

Recreation Areas east wing

A-3 Recreation Areas west wing

S-1 Storage

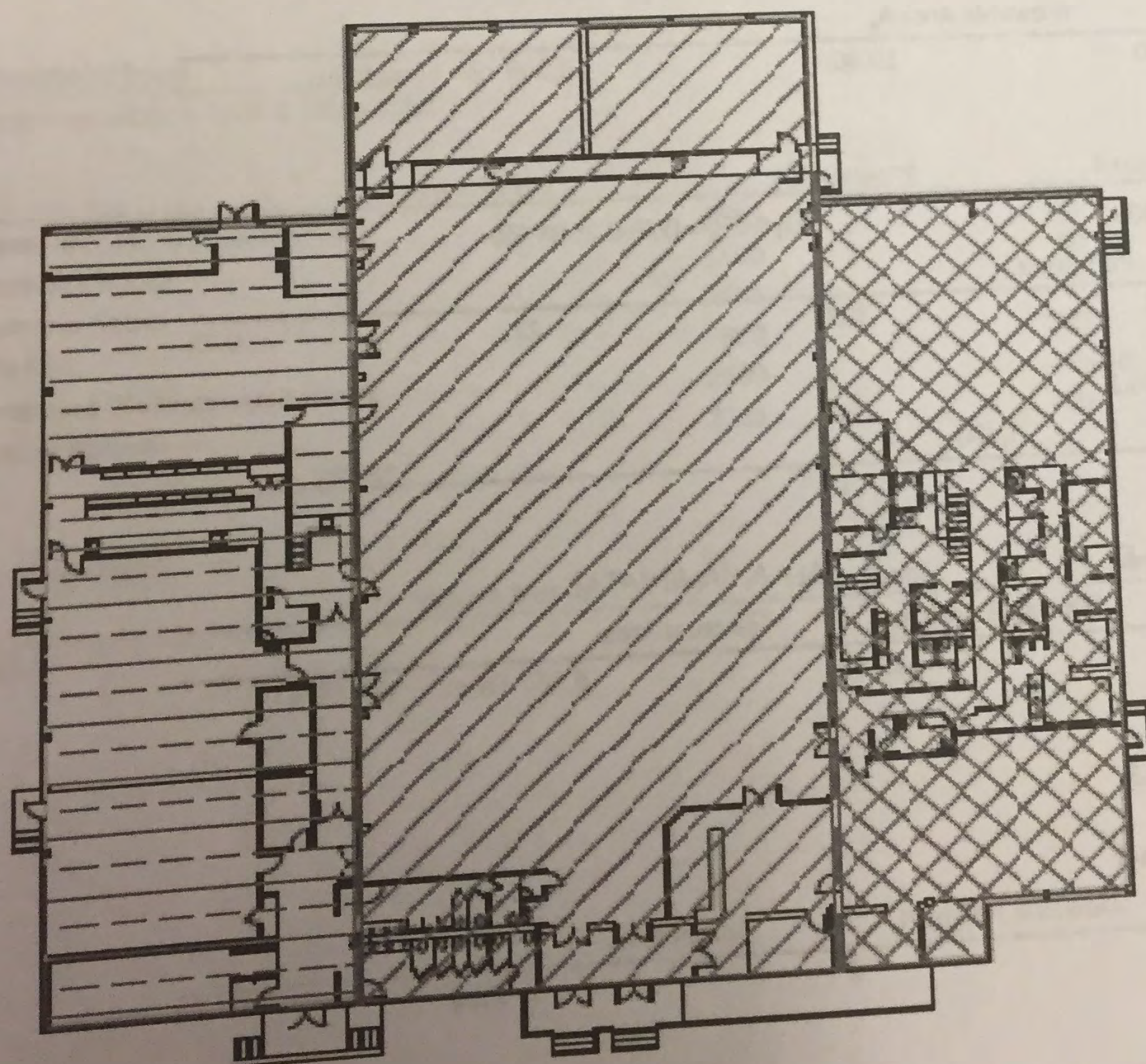
11611 sf

425 sf

6567 sf

4213 sf

2354 sf



AREA 1 GYMNASIUM
OCCUPANCY A3

AREA 2 EAST WING
OCCUPANCY A3

AREA 3 WEST WING
PROPOSED OCCUPANCY MIXED
USE A5 & S1

--- TWO HOUR FIRE SEPERATION

Nome Recreation Center
Building Code Review

Incidental Use Areas Table
508.2

Boiler Room - one hour OR sprinklers
Storage > 100 s.f. - one hour OR sprinkler

Type of Construction

IIB

Automatic Fire Extinguishing

NO

Allowable Area Calculations -
Area One Center

Frontage Increase Section 506.2		Eq 5-2 $I_f = [F/P - 0.25]W/30$		
Frontage	Perimeter	W	I_f	
230	509	22	0.15	

note this assumes that City replots to abandon E street on lot

Sprinkler Increase Section 506.3	
Stories	I_s (%)
1	0

Allowable Area for A-3 & A-4 Eq. 5-1		$A_a = A_t + [A_t \cdot I_f] + [A^* \cdot I_s]$	
A_t (Table 503)	Allowable Area A_a	Actual Area	
9,500	10,906	13,896 non compliant	

Allowable Area Calculations -
Areas 3

Frontage Increase Section 506.2		Eq 5-2 $I_f = [F/P - 0.25]W/30$		
Frontage	Perimeter	W	I_f	
240	382	22	0.28	

note this assumes that City replots to abandon E street on lot

Sprinkler Increase Section 506.3	
Stories	I_s (%)
2	0

Allowable Area for A-3 & A-4 Eq. 5-1		$A_a = A_t + [A_t \cdot I_f] + [A^* \cdot I_s]$	
A_t (Table 503)	Allowable Area A_a	Actual Area	
9,500	12,135	6,567 OKAY	

Allowable Building Height

Sprinkler Increase Section 506.3

Allowable Height for A-3 and A-4

H_t (Table 503)	Allowable Height H_a	Actual Area	
	2	2 Okay	

Fire Walls

Section 705

Fire separation between West Wing and rest of rec center is to be 2hr
Table 705.4 footnote a

Horizontal assemblies
Corridors (1017)

Occupancy greater than 30 - one hour OR Sprinkler

me Recreation Center
ilding Code Review

Common Path of Egress

1014.3 A Occupancies 75' feet max.

Exit Access Travel 1016

A- 200'; 250' with sprinkler

Fire Alarm and Detection

Yes

Means of Egress

3 for gymnasium per table 1019.1
2 in any exercise area greater than 2500 s.f.

Chapter 26

2603.4 f foam plastic insulation must be seperated from occupped space by 1/2" gwb or materials with a 15 minute thermal rating.

Exceptions:

2603.1.5 In roof required seperation is wood panel minimum .47" thick.
2603.4.1.6 in attics & crawl spaces may use 1 1/2" batt insulation; 1/4" wood panel product; .0375" GWB, orcorrosion resistant steel min. .016"

Occupant Load

Based on section 1004 & Table 1004.1.1

	square feet	sf/occupant	basis	total load
Gym -unassembly concetrated	9815	15	net	654.00
Aerobics Room	1500	50	gross	30.00
Exercise Room	2596	50	gross	51.00
Kitchen	800	200	gross	1.00
Proposed Mulit-purpose rooms	2500	15 net	gross	166.00
Locker Rooms	2185	50	gross	43.00
TOTAL				945.00
Second Floor				
	square feet	sf/occupant	basis	total load
Offices	667	100	gross	6.00
TOTAL				951.00

**Nome Recreation Center
Building Code Review**

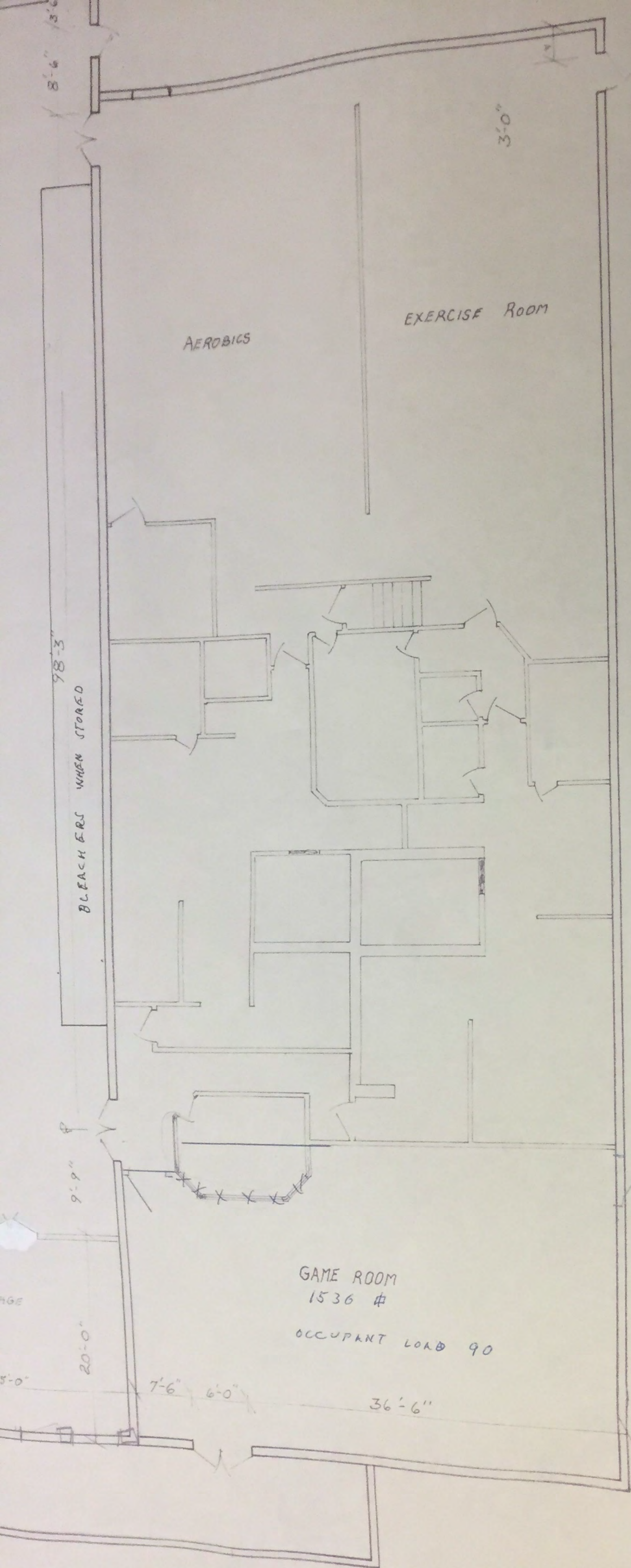
PLUMBING FIXTURE REVIEW

1997 Uniform Building Code as modified by Article 8 section 18.60.705 of the 2008 Alaska Statutes

Required		Water Closets (or urinals)	Lavatories	Shower/tub	Drinking Fountain
Gymnasium + mulit-purpose					
Male	410	7	5	not regulated	0
Female	410	7	5	not regulated	
Exercise Areas					
Male	96	1	1		0
Female	96	1	1		
TOTAL		16	12	0	3

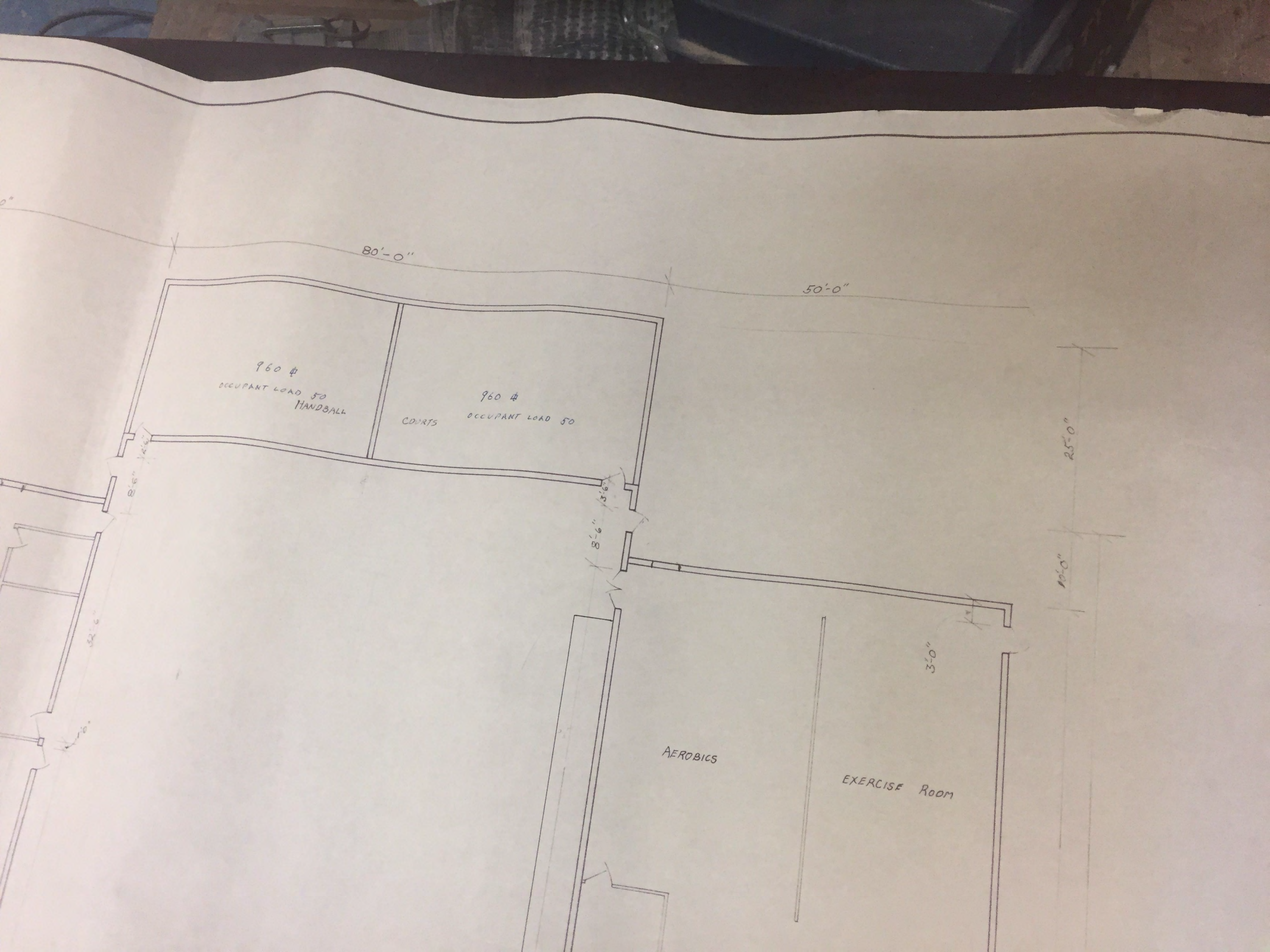
Existing		Water Closets	Urinals	Lavatories	Shower/tub*	Drinking Fountain
Public						
Male						
Female		6	6	6	9	1
Unisex		9	0	8	8	
TOTAL		16	6	15	17	1

Proposed		Water Closets	Urinals	Lavatories	Shower/tub*	Drinking Fountain
Public						
Male						
Female		4	5	6	8	2
Unisex		9	0	6	7	
TOTAL		14	5	13	15	2



130'-0"
140'-0"

GAME ROOM
1536 #
OCCUPANT LOAD 90



80'-0"

50'-0"

960 sq
OCCUPANT LOAD 50
HANDBALL

960 sq
OCCUPANT LOAD 50
COURTS

25'-0"

10'-0"

3'-0"

AEROBICS

EXERCISE ROOM

32'-6"

1'-0"

8'-6"

8'-6"

3'-6"

