

CODE ANALYSIS

ZONING CODE

For items related to the Philadelphia Zoning Code, please turn to Section 5, "Preferred Development Option" which has a full discussion on items related to Zoning Issues.

BUILDING CODE

The City of Philadelphia currently follows the 2006 International Building Code (IBC). The next code change will occur in 2009, therefore when the design documentation of each proposed phase begins, it should be confirmed if any code updates will be relevant.

Because of the schematic nature of the proposed design shown in the Preferred Development Option, a detailed building code analysis cannot be undertaken and is not considered to be within the scope of this report. The following is a general synopsis of the major points of the 2006 IBC building code, which were helpful in determining the allowable expansion of the Church's buildings along with scope of work and phasing of construction. It should be noted that the International Construction Codes (ICC) series has a specific code for "Existing Buildings" (IEBC) which can be used for renovations that occur within the existing building. New Additions will need to follow all codes for 'new construction'.

Existing Buildings Use and Occupancy

Sanctuary: Assembly A-3: Places of Religious Worship

Assembly Room, Dining Room and Sullivan Chapel:
Assembly A-3: Community Halls

Meeting/Class Rooms: Assembly A-3 or Education E:
Religious education rooms which are accessory to churches (in accordance with 508.3.1) and have an occupant load of <100 shall be classified as A-3 occupancies, otherwise these rooms would be classified as E: Education.

Administration Area: Business B: Offices and professional services
(Due to the small square footage of this use, this may be considered an 'accessory use' to the main use group of the building, A-3)

Austin Youth Lodge: Education E:
Structures which accommodate more than 6 persons for educational purposes through the 12th grade (from 2 ½ years and older).

308.5 A facility that cares for more than 5 children **under** 2.5 years is an Institutional I-4 use, but places of worship during religious functions are excluded. It should be noted that if the preschool admits children under 2.5 years, the space should be sprinklered.

Buildings Containing more than one Use Group (Section 508)

Both the existing building and the proposed building will be classified as a building with “Non-separated Use Groups”: Each portion of the building is classified as to use though the most restrictive height and area limitations as well as the most restrictive items for Chapter 9 (Fire Protection Systems) for each of the applicable use groups shall apply. A fire separation assembly is not required *between* use groups, unless required by other sections of the code.

The Preferred Development Option anticipates that the existing and proposed building masses be separated into two fire areas separated by a two hour fire barrier and door opening protectives. This should alleviate the need to sprinkler the existing building, unless it is determined that the Church would prefer to sprinkler the entire complex for safety and possible insurance cost reductions. The logical place for this separation would be at the break between the existing building and the proposed additions on both the upper and lower levels. Costs associated with sprinklering the existing building are shown in the cost estimates portion of the report. It is assumed that all new additions to the building will be sprinklered.

Chapter 5: General Building Heights and Areas, stories and SF per floor

T. 503	Occupancy	Type III B	
	A-3	2 stories	9,500 sf
	B	4 stories	19,000 sf
	E	2 stories	14,500 sf

- 504.2 Automatic sprinkler system increases heights by 20 feet on one story
- 506.2 Frontage Increase up to 75% based on existing configuration
- 506.3 Automatic sprinkler system increases area by 200%

Chapter 6: Types of Construction

T. 601	Fire Resistance Ratings for building elements (hours) for:	III B construction
	Structural Frame	0
	Bearing Walls - Ext	2
	Bearing Walls - Int	0
	Non-bearing ext walls	0
	Non-bearing int walls	0
	Floor construction	0
	Roof construction	0

602.3 Type III construction: Exterior walls are noncombustible, interior are any material permitted by code

Chapter 9: Fire Protection Systems (B does not require sprinklers)

Use Group A-3 requires sprinklers if:

- Fire area exceeds 12,000 sf
- Occupant load more than 300
- Fire area on level other than exit discharge

Use Group E requires sprinklers if:

- Fire area greater than 20,000
- Area below level of discharge

Chapter 29: Plumbing Systems

It should be noted that the required number of toilet facilities in buildings with mixed occupancies (shown on the next page) shall be considered by the local Building Official. The tables below, showing the required number of plumbing fixtures based on use group, do not take into consideration a "non-simultaneous" use of the building complex. It is reasonably perceived that at no one time will the entire building be occupied to its maximum potential.

Existing Building Plumbing fixtures

	water closets		lavatories		EWC	JAN
	male	female	male	female		
Lower Level	4	3	3	3	0	1
A-3 Reqmt's Religious	1 / 150	1 / 75	1 / 200	1 / 200	1 / 1000	1
Exist Fixts Can Serve:	600	225	600	600	0	na

It is clear that the existing female water closets do not meet the needs of the current occupancy.

Proposed Master Plan Plumbing fixtures

	water closets		lavatories		EWC	JAN
	male	female	male	female		
Lower Level	5	5	4	4	2	1
Upper Level	6	6	6	6	2	2

(Note the Upper Level also provides 2 showers)

Based on the non-simultaneous use and the requirement that fixtures are allowed to be one floor level away from the occupancy it serves, the proposed number of fixtures should be more than adequate.