

# *Draft Programming Report*

*Prepared for:*



## *Richland Lutheran Church*

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## **DRAFT PROGRAMMING REPORT**

### **Executive Summary**

This draft report contains a Prioritized List of Richland Lutheran Church Facility Needs, a Programming Spreadsheet, and a Preliminary Code Review. The spreadsheet lists rooms and approximate sizes, as well as capacities where this applies. The end result provides an approximate building size that the modernized Richland Lutheran Church will need to be to house the functions and spaces that have been obtained and documented in the Summary of Facility Needs report (see Attachment A). The prioritized list of facility needs, delineated following this executive summary, are also noted in Attachment A along with more detailed input regarding facility needs and desires.

Room sizes and capacities listed in the programming spreadsheet were obtained using three factors. The sanctuary and the chapel sizes and capacities are to remain largely unchanged; and the programming spreadsheet reflects this. Other portions of the building are sized based two resources: the “Whole Building Design Guide” (WBDG) as published by the National Institute of Building Sciences; and also using our professional experience in providing design work on many churches (in particular; Trinity Baptist Church, Columbia Community Church, and Bethel Prosser Church), which frequently is more applicable than the WBDG.

Room capacities listed for the new or remodeled assembly spaces such as the narthex, fellowship/multi-purpose room, and various educational and meeting rooms are based on “comfortable” spacing versus code required spacing. For instance, the building code requires spaces like the narthex to house 1 person for every 5 square feet (which is very crowded); and indeed, during conceptual design we will need to make sure we have enough exit doors to handle this capacity. However, for the sake of the programming spreadsheet we used a more comfortable spacing of 15 square feet per person to enable us to have a room that will hold the desired capacity comfortably. A reverse example would be that the building code would require 2 people for every office 150 square feet or larger, yet the reality is that in most instances these offices will house only 1 person. Similar liberties are applied throughout the spreadsheet to assure appropriate room sizing for desired occupancies versus code calculated occupancies.

The Programming Spreadsheet also notes building system and site improvements that are a part of the RLC facility needs. In most cases, these items do not have a building occupancy impact, or much of a square footage impact, but they will have a cost impact and are part of what the church has noted as part overall desired facility needs. The spreadsheet will be used for the basis of conceptual design, both the remodel and the new design concepts. The spreadsheet is also set up to be modified with rough order of magnitude (ROM) cost estimating during the next two project deliverables.

### **Prioritized Facility Needs**

The following prioritized list of Richland Lutheran Church Facility Needs was developed during a meeting held at RLC on October 19, 2014 from noon to 3:00. Meeting attendees included most of the RLC building committee members, RLC ministry leads, and Meier’s representative. The following list is also included in the first part of Attachment A to this report with additional input and more detailed background.

1. More welcoming. This includes items such as:
  - a) Appropriate, adequate & safe parking
  - b) There were many comments related to having a warm, light, open narthex, covered entry and drop off zone, more easily identifiable entry, up-front receptionist, and extend the open, welcoming entry into church grounds; to “be a visible and living extension of the church ministry”.
  - c) Improved interior traffic flow, including more visible and accessible exits, in accordance with building codes.
2. Safe and convenient nursery:
  - a) Closer to Narthex, larger, and more secure.
3. Prayer rooms.
4. Improved worship technology.
5. Children’s Chapel.
6. Unified music area:
  - a) Choir rehearsal space (to accommodate 30 to 40 people).
7. Increased Good News Media Ministry space.
8. Enlarged sacristy.
9. Increased number of meeting and classrooms:
  - a) A range of room sizes, and room configurations better suited for meetings and classes.
10. Multi-purpose room (adequate capacity and function):
  - a) There were many suggestions for a new multi-purpose/ministry/retreat center as well as comments about improving and enlarging the existing fellowship hall. These comments are intended to be captured under this line item.
  - b) Multi-purpose or fellowship room should be defined such that two 70-person events can be held simultaneously.
11. Fully functional industrial (in regard to capacity and durability, not complexity) kitchen.
12. Restrooms capacity (including showers).
13. Use of technology and resources for Biblical studies.
14. Consolidation of Church offices to facilitate service to those entering the Church (be more welcoming):
  - a) Centralized workspace for duplication, graphics, and assembly.
  - b) Improved collaboration among staff.
15. Food pantry:
  - a) Various pantry comments on this ministry included things like consolidated storage, improved access for staff and those served, etc.
16. Central information location to highlight ministries.
17. Dedicated ministry storage including choir/music, sacristy, and other church ministries/functions that need storage space.
18. Adequate shop space:
  - a) An improved or updated shop could also house tools used by Helping Hands ministry.

19. Safety and security:
  - a) Fire systems.
  - b) Access (electronic locks).
  - c) Lighting.
  - d) Disability access.
  - e) Health (including non-hypoallergenic materials and environment).
  - f) Cashier security.
20. Features to facilitate facility care and maintenance.
21. Sound-proofed Chapel, so Chapel and Sanctuary can be use simultaneously.

# Richland Lutheran Church

12/9/2014

	A	B	C	D	E	F	G	H	I
	Department	Group	Staffing or approx capacity	Space Description	Approx size (SF)	Adjacency Primary	Adjacency Secondary	Notes	ROM cost
2	Sanctuary/Worship	Existing sanctuary	400	auditorium	5500	Narthex	Sacristy	exst is 8300sf	
3		Sacristy		room	80	Sanctuary		exst to remain	
4		Combined music ministry room	40	room	600	Sanctuary		could double as brides room	
5		GNMM room		room	250	Sanctuary			
6		Storage		room	200	Sanctuary			
7		Existing halls & restrooms		space	570	Worship Rooms	Sanctuary		
8		Existing chapel	40	room	1100	Sanctuary	Narthex	soundproof from Sanctuary	
9			<b>480</b>		<b>8300</b>				
10	TOTAL Sanctuary								
11									
12									
13	Narthex/Entry	Interior Narthex/lobby	200	lobby	3000	Sanctuary	off/edu/fellowsp	existing Narthex space is 1900sf	
14		Main restrooms		rooms	400	Narthex	fellowship	15 sf/person	
15		Welcome center		space/counter					
16		Cry room		room	200	Narthex	sanctuary	approx 100 sf within Narthex	
17		Entrance vestibules		spaces	200	Narthex	covered entries		
18		Kimball covered exterior entry	20	exterior space	300	Narthex	parking	15 sf/person	
19		Stevens covered entry	20	exterior space	300	Narthex	off-street parking	15 sf/person	
20			<b>240</b>		<b>4400</b>				
21	TOTAL Narthex				<b>12700</b>				
22									
23									
24	Church/Ministry Offices	Ministry Leads							
25		Lead Pastor - Service Lead	1	Office	200	assistant	ministry leads	small mtg space	
26		Assoc Pastor - Spiritual Tr	1	Office	150	assistant	ministry leads		
27		Dir of Admin - Stewardship	1	Office	150	assistant	ministry leads		
28		Director of Music & Worship	1	Office	150	assistant	ministry leads		
29		Assoc Pastor for Visitation	1	Office	150	assistant	ministry leads	no current office	
30		Future	1	Office	150	assistant	ministry leads	no current office	
31		Property & Grounds Coord	1	Office	150	mech/elec eqpt	church staff		
32		Ministry assistants & reception							
33		Christian service	1	private or shared	100	ministry lead	reception		
34		Spiritual transformation	1	private or shared	100	ministry lead	reception		
35		Biblical stewardship	1	private or shared	100	ministry lead	reception		
36		Worship	1	private or shared	100	ministry lead	reception		
37		Reception area	1	space	120	assistants	Narthex		
38		Small waiting area		space	120	reception	Narthex		
39		Misc. Office Support							
40		Server room		room	80	church staff	education wing		
41		Work / Copy room		room	200	church staff	education wing		
42		Conference room	15	room	300	church staff	education wing	20 sf/person	
43		Hospitality / Breakroom	15	room	300	church staff	education wing	20 sf/person	
44		Supply storage	1	1 or more rooms	100	church staff	education wing		
45		Food pantry		room	200	church staff	education wing		
46		Shop		separate building	800	church grounds	main building		
47		Hallways		space	400	church staff	education wing	approx 10%	
48			<b>42</b>		<b>4120</b>				
49	TOTAL Administration								

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	Department	Group	Staffing or approx capacity	Space Description	Approx size (SF)	Adjacency Primary	Adjacency Secondary	Notes	ROM cost
2									
50	Education								
51		Nursery		room	600	Narthex	education	room ranges from 500 to 700sf	
52		Elementary rooms	90	4 rooms	1600	education	Narthex	rooms range from 300 to 500 sf	
53		Preschool rooms	60	4 rooms	1200	education	Narthex	rooms approx 300sf each	
54		Children's chapel	100	room	1200	education	Narthex	room ranges from 800 to 1400sf	
55		Middle school room	30	room	600	education	Narthex	room ranges from 400 to 800sf	
56		High school room	70	room	1200	education	Narthex	room ranges from 800 to 1400sf	
57		Adult meetings & classrooms	60	4 rooms	1600	fellowship	Narthex	rooms range from 300 to 500 sf	
58		Media/Resource area	16	room	400	Narthex	education wing		
59		Prayer Rooms	4	2 rooms	200	Narthex	fellowship	private or semi-private	
60		Educational storage/prep		closet or room	400	education	fellowship	could double w/office work room	
61		Restrooms/Shower/Laundry		rooms	400	education	fellowship		
62		Janitorial		room(s)	80	education	fellowship		
63		Hallways		space	1500	education		approx. 16% of area square footage	
64									
65	TOTAL Educational		180		10980				
66									
67	Fellowship/Kitchen								
68		Fellowship/Multi-purpose room	270	room	4000	Narthex	kitchen	exst fellowship/kit/stg is 4000sf	
69		Commercial kitchen	4	room	700	fellowship	education	15 sf/person	
70		Microministry storage		rooms / closets	500	fellowship	education		
71	TOTAL Fellowship/Kit		274		5200				
72					20300				
73									
74	TOTAL GROSS SF				33000				
75									
76	Building Systems								
77		Elevator				education		elevator plus machine room	
78		HVAC				building wide			
79		Electrical				building wide			
80		Sound & AV systems				sanctuary	fellowship		
81		Acoustic improvements				sanctuary	fellowship		
82		Fire sprinkler system				building wide			
83		Asbestos abatement				building wide		req'd for demo or remodel	
84									
85									
86	Sitework								
87		Parking improvements	125 stalls	paved parking	55000	main building	streets & lawn	increase exst parking lot 20%	
88		Site improvements		sidewalk/lawn	60000	main building	parking & streets		
89		Accessory buildings		exst bldgs	7500				

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## PRELIMINARY CODE REVIEW

### Review Criteria

The following building code analysis is based on the 2012 International Building Code (IBC), including the 2013 Washington State Amendments to this code. In addition, City of Richland parking requirements are included as part of the code analysis. The first part of the following analysis reviews the existing building with respect to the IBC requirements. The second part of the analysis reviews the proposed building with respect to the sizes laid out on the Programming Spreadsheet.

### Existing Building

- Existing Parking: \*103 stalls  
\*this includes 87 paved parking stalls and 16 spaces in the gravel overflow area but does not include parking at the city park lot
  
- Parking required by Richland: \*105 stalls  
\*the city requires 4 stalls per 100 seats in the sanctuary; based on pew lengths, and using the code requirement of 18" per person along a pew; the existing sanctuary seats approx. 420 people
  
- IBC building construction type: \*VB  
\*wood framed buildings are typically type VB construction; most of the existing church facility is wood framed.
  
- IBC occupancy type: \*A3  
\*IBC chapter 3 describes building occupancies; a place of worship is considered an Assembly type 3 occupancy
  
- Fire sprinkler system: No
  
- Fire alarm: Yes
  
- IBC allowable area (if new or extensively remodeled) \*10,500 sf  
\*the allowable area=6000sf (from table 503)+4500sf increase (for over 30' of clearance between building and adjacent property lines on all sides)
  
- Actual building area (excluding unoccupied basement) \*27,665 sf  
\*the present building is larger than the code allows, any significant remodel will require a fire sprinkler system as a minimum, plus creation of a 2-hour fire wall at some point to essentially create two buildings connected at the fire wall)
  
- IBC Allowable building height: \*40'  
\*the existing sanctuary is approximately 55' tall, and would not be allowed per current code requirements. A fire sprinkler system allows the building to be up to 60' tall.
  
- Actual building height: 55'
  
- IBC Allowable stories: \*1-story  
\*an A3 building of type VB construction can only be 1-story; a 2<sup>nd</sup> story can be added if the building has a fire sprinkler system.
  
- Actual stories: 2-stories



## Existing Building Code Review Summary

The existing RLC facility would not be allowed to be constructed today without a fire sprinkler system and a new building of same or larger size, as well as an extensive remodel of the existing building would require a fire sprinkler system. Even with a fire sprinkler system, the building, (remodeled or new if we maintain type VB construction) will need to have a 2-hour fire wall to separate the building into two buildings from a code evaluation standpoint. A 2-hour fire wall in a type VB building is not difficult to construct, and large openings between the two buildings can be provided as long as they have fire rated doors or shutters that separate the building in the event of a fire (as triggered by the fire alarm system).

## Proposed Building Code Review

The proposed RLC building utilizes the sizes noted in the Programming Spreadsheet. The overall building is only slightly larger than the existing building; 33,000 square feet versus 27,665 square feet. However, the new building may be slightly larger or even smaller once conceptual designs have been developed, though it is most likely the conceptual designs will be equal to or slightly larger than the 33,000 square feet developed in the programming spreadsheet. The proposed building is assumed to be of the same construction type as the existing, type VB, which is the least restrictive and allows construction with pretty much any type of building system. This construction type will be necessary in an extensive remodel concept; however, new construction could utilize a more restrictive construction type, however, for the sake of this report and analysis it is best to utilize the most flexible system which is VB. The proposed building will actually consist of two buildings separated by a 2-hour fire rated wall. The 2-hour wall can be designed to be very open, as long as the openings are also fire rated and are tied to the fire alarm system so that they close in the event of a fire. Building 1 consists of the existing sanctuary, chapel, repurposed rooms along the west end of the sanctuary building, and a new and significantly increased narthex. Building 2 will house the remaining components of the church facility, such as administrative offices, educational classrooms, fellowship and multi-purpose rooms, meeting rooms, and the commercial kitchen. Refer to the programming spreadsheet for a more defined list of rooms and spaces contained within these two connected buildings.

### Proposed Building

- Parking: \*125 stalls  
\*this exceeds city parking requirements, as requested by congregants; exactly where the additional parking stalls will be located will be established during the conceptual design process

### Building 1: Sanctuary/Narthex

- IBC building construction type: \*VB  
\*an extensive remodel will likely be type VB since most of the existing building is also this type of construction; plus, this is the least costly construction type in most instances
- IBC occupancy type: A3
- Fire sprinkler system: Required
- Fire alarm: Required
- IBC allowable area (if new or extensively remodeled) \*27,180 sf  
\*the allowable area=6000sf (from table 503)+3180sf frontage



increase+18,000sf for fire sprinklers in a single story building

- Actual Building 1 area 12,700 sf
- IBC Allowable building height: 60'
- Actual Building 1 height: 55'
- IBC Allowable stories: \*1-story  
 \*if we use 18,000 sprinkler area increase, we need to keep Building 1 single story; if we want a 2-story narthex, we reduce the allowable building area to 21,180sf

Building 2: Fellowship/Education/Admin

- Fire wall: \*2-hour  
 A 2-hour fire wall will be required between building 1 and building 2; openings between these two need to be protected by 90 minute fire rated doors or fire curtains (shutters); doors can be held open at hallways and such by using magnetic door holders
- IBC building construction type: \*VB  
 \*an extensive remodel will likely be type VB since most of the existing building is also this type of construction; plus, this is the least costly construction type in most instances
- IBC occupancy type: A3
- Fire sprinkler system: Required
- Fire alarm: Required
- IBC allowable area (if new or extensively remodeled) \*21,489 sf  
 \*the allowable area=6000sf (from table 503)+3489sf frontage increase+12,000sf for fire sprinklers in a two story building
- Actual Building 1 area 20,300 sf
- IBC Allowable building height: 60'
- Actual Building 1 height: 45'
- IBC Allowable stories: \*2-story  
 \*by using only a 12,000sf increase in area for sprinklers we can add a 2<sup>nd</sup> floor (or maintain the 2<sup>nd</sup> floor in a remodel)

**Proposed Building Code Review Summary**

The proposed future remodeled or newly constructed RLC facility will be need to be approximately 33,000 square feet in order to house the staff, functions, and capacities that will meet the church's present and anticipated future needs. It is anticipated that the future facility will have a two story component, which will likely be needed to fit this size of building on the existing church grounds. Specifics regarding the existing accessory buildings that are owned by the church are not determined at this point; they may be remodeled and repurposed, they may be demolished for additional parking, or some combination of these two. Conceptual design will help determine the best uses of the accessory buildings.