BJC HealthCare

MEDICAL OFFICE STANDARDS

401.101 – GENERAL PLANNING REQUIREMENTS

1.1 INTRODUCTION

A. Planning Overview. Planning efforts associated with medical office buildings vary based on the type of project. Tenant fit-out projects are the interior construction of the leased space within a medical office building. The extent of planning for fit-out projects is mostly dictated by the tenant's requirements. The planning efforts for the shell and core of a medical office building involve coordination with the affiliated hospital,

2.1 PLANNING - TENANT FIT-OUT

A. The planning activities for tenant fit-out work can vary significantly based on the tenant and proposed scope of work.

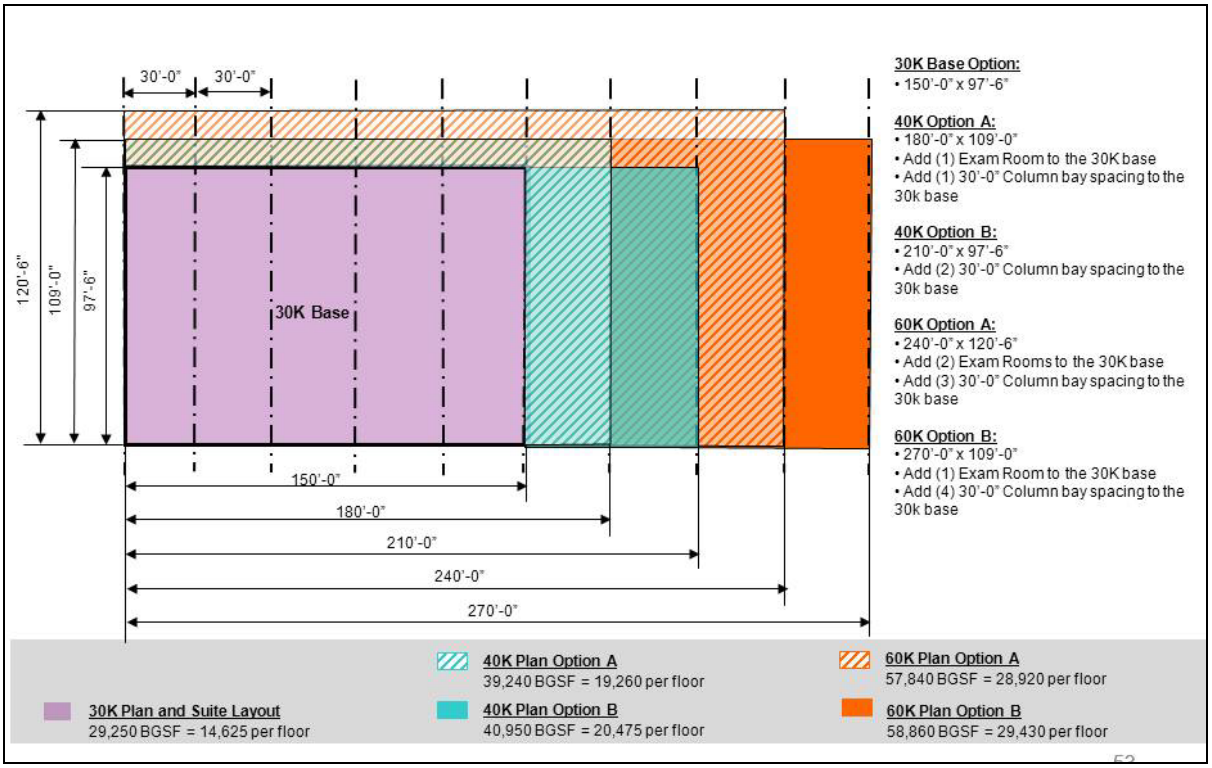
1. BJC Medical Group (BJCMG). As a tenant in a medical office building, planning is developed by BJCMG. The programmatic requirements are pretty well defined: number and types of rooms, relationships of spaces, volume projections, room sizes, etc. These are based on their best practices. As such, the design professional is responsible to verify the accuracy of the information, verify the infrastructure can support the program, ensure compliance with codes and regulations, and move forward into the development of the design phase.
2. BJC HealthCare hospital department. In instances where a hospital department is to be a tenant in a medical office building, the design professional is generally required to develop the program and lead the planning effort. General spaces may be known and volumes may be expected, but adjacencies and other information must be considered in the planning phases. Often, it can be helpful to refer to departmental standards from the hospital chapter to inform the planning and design requirements as an outpatient service in a medical office building.
3. Washington University Physicians. Much like the BJCMG projects, Washington University Physicians generally will have a developed program to which the design professional will need to review and verify the viability of the project with the existing conditions and all applicable codes and regulations.
4. Private practice physicians. A private practice physician will require a planning similar to that of a hospital department. The design team must work with the end users to understand their functional and operational requirements and develop a program before moving into design. Standards are mostly dictated by the private physician however they may choose to adopt some of these standards.

2.2 PLANNING - SHELL AND CORE

A. General. Medical Office Buildings are typically two story, slab-on-grade, steel framed structures. The buildings are most often freestanding structures and usually not adjoining or internally connected to a hospital building. The planning and location of these buildings should consider the potential for future growth and expansion.

B. Standard Building Sizes. Three nominal building sizes are standard - 30,000, 40,000 and 60,000 BGSF. The footprint (overall length and width) of these three building sizes templates are standard

and are depicted in the following diagram and listed below. They have been developed with respect to double loaded internal corridors, proposed tenant fit-out configurations and structural efficiency.



1. 30,000 BGSF, nominal. The layout of this standard building is 150'-0" x 97'-6". This results in a calculated 29,250 BGSF, regardless of projecting and recessed design elements.
2. 40,000 BGSF, nominal. There are two layout options for this standard building. Option 'A' measures 180'-0" x 109'-0" and yields a calculated 39,240 BGSF, regardless of projecting and recessed design elements. Option 'B' measures 210'-0" x 97'-6" and yields a calculated 40,950 BGSF, regardless of projecting and recessed design elements.
3. 60,000 BGSF, nominal. There are two layout options for this standard building. Option 'A' measures 240'-0" x 120'-0" and yields a calculated 57,600 BGSF, regardless of projecting and recessed design elements. Option 'B' measures 270'-0" x 109'-0" and yields a calculated 58,860 BGSF, regardless of projecting and recessed design elements.

C. Structural Elements. In order to accommodate flexibility with tenant fit-out requirements, the following standard bay spacing is recommended. Structural Engineer of Record is responsible to coordinate these requirements with the design and the Architect of Record.

1. Structural Bays for Length of Building. The structural bays running the length of the building should be 30'-0" column spacing (end of building bays are to be 28'-6").
2. Structural Bays for Width of Building. The structural bays running the width of the building should be equally spaced and coordinated with the internal corridor so that the columns are embedded within the corridor wall. Typically, there are 3 structural bays in this direction.
3. Column offset at exterior walls. Column centerlines shall be offset from the exterior wall 1'-6" in both length and width. Relative to the building length, this will result in an end bay spacing of 28'-6" in lieu of the 30'-0" spacing for the other bays.
4. Lateral bracing. Diagonal bracing (or any lateral load carrying structure that occurs below the ceiling plane) should not be considered for internal structural bays since it will limit the

flexibility to fit-out the space. Where required, these elements should occur on the exterior walls and be coordinated with the exterior design.

D. Building Efficiency. A medical office building should fall within a range of 85% to 92% efficient when comparing the actual values of net rentable area to gross building area. Design teams are required to develop designs that yield the greatest efficiency possible.

1. Net Rentable Area. This is a very specific area that defines the tenant's boundary and has implications on the tenant lease agreement.
   a. Lease Line Determination. The most current Building Owners and Managers Association (BOMA) requirements will be followed to determine exact location of lease lines. In general, the following conditions apply:
      1) Tenant to tenant demising wall. Lease line located at centerline of the wall.
      2) Tenant to public corridor wall. Lease line located at finished face of drywall, corridor side.
      3) Tenant's exterior wall. Interior finished face of gypsum board, regardless of line of glass. This is an exception to BOMA requirements. BOMA requirements indicate that when an exterior wall is greater than 50% window system from floor to wall then the face of frame and face of glass shall be used to determine the demarcation of rentable area. While projects are being planned, actual materials may not be known and is often difficult to determine the specific line of demarcation (is the glass centered in the frame, where the frame sits relative to the exterior face, etc.). Other exceptions may arise and will be handled on a project specific basis with the PD&C project manager.

2. Gross Building Area. This is the area that defines the building "footprint" and is tabulated for each floor.
   a. Lease Line Determination. The most current Building Owners and Managers Association (BOMA) requirements will be followed to determine exact gross building area. In general, this line follows the predominant exterior face of the exterior (thermally insulated) wall.

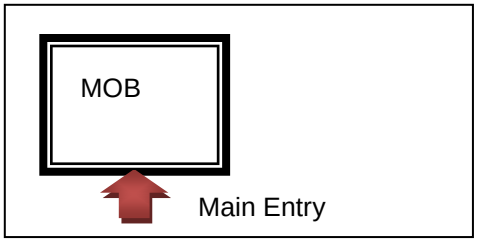
3. Exiting and Public Corridor Length. It is important to understand the building code requirements as they pertain to exiting in order to create an efficient building. Limiting the length of the public corridor will reduce the amount of non-rentable area and therefore increase the building's efficiency. Therefore, early planning efforts should consider corridor location and length relative to

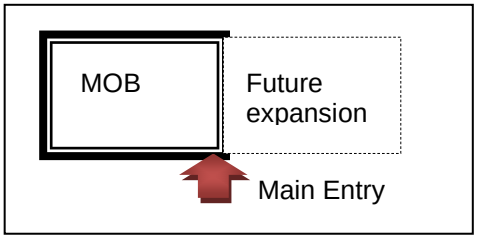
E. Public Corridor offset. The primary public corridor shall be 6'-0" wide, clear and shall run parallel to the length (long dimension) of the building in a multi-tenant building. This allows for tenant spaces to be on both sides of the corridor - a double-loaded corridor condition. In order to provide greater flexibility of tenant space and rentable areas, the corridor should not equally bisect the middle of the building. Rather the corridor should be offset so that the deeper tenant depth is away from the front entry.

1. Tenant space depth. The offset dimensions are based on standard exam room sizes and typical tenant layouts. As measured from the outside face of the exterior wall to the corridor face of the corridor wall, acceptable dimensions will be as follows:
   a. For buildings 97'-6" in width: 1'-0" exterior wall + 39'-0" tenant depth + 6'-0" corridor (clear) + 50'-6" tenant depth + 1'-0" exterior wall.
   b. For buildings 109'-0" in width: 1'-0" exterior wall + 39'-0" tenant depth + 6'-0" corridor (clear) + 62'-0" tenant depth + 1'-0" exterior wall.
   c. For buildings 120'-0" in width: 1'-0" exterior wall + 50'-6" tenant depth + 6'-0" corridor (clear) + 62'-0" tenant depth + 1'-0" exterior wall.

F. Main Entrance. The building entrance shall be located along the length of the building and easily recognizable. When future expansions are planned, consider locating entrance at the building corner on the end where expansion will occur. By doing so, this will allow the existing entrance to be near the middle of building when all phases are completed.

1. Passenger drop-off shall occur as near as possible to the main entry. Rolled curbs or curb-less transitions are required. Drop off areas shall be protected with a roof covering. Minimum height as required to accommodate fire department vehicles.





G. Space Program. The following rooms are standard non-rentable rooms included in the shell and core as either public spaces or building support spaces. These rooms shall be as follows.

		30K Template			40K Template			60K Template			
	Space/Function	No of Units	NSF per Unit	Total NSF	No of Units	NSF per Unit	Total NSF	No of Units	NSF per Unit	Total NSF	Notes
PUBLIC SPACE	Entry Vestibule	1	120	120	1	230	230	1	230	230	1
	Lobby	1	200	200	1	400	400	1	800	800	2
	Men's Room	2	88	176	2	179	358	2	484	968	3
	Women's Room	2	88	176	2	179	358	2	484	968	4
	Subtotal			**672**			**1,346**			**2,966**	
SUPPORT SPACES	Housekeeping	1	50	50	2	50	100	2	50	100	
	IDF Closet	1	130	130	1	130	130	1	130	130	5
	Electrical Closet	1	90	90	1	150	150	1	200	200	
	Elevator Equip	1	80	80	1	80	80	1	80	80	
	Mech. Room	1	40	40	1	40	40	1	40	40	
	Stairs	4	200	800	4	200	800	4	200	800	
	Elevator	2	140	280	2	140	280	2	140	280	
	Corridor	2	750	1,500	2	1,500	3,000	2	2,000	4,000	
	Subtotal			**2,970**			**4,580**			**5,630**	
	TOTAL Non-Rentable Area			**3,642**			**5,926**			**8,596**	

Notes

1	Entry Vestibule shall be a minimum of 10'-0" clear from exterior pair of doors to interior pair of doors
2	See commentary regarding main entry location. Lobby shall be no greater than 1.75% of the gross area
3	Provide 1 Men's Room on each floor
4	Provide 1 Women's Room on each floor
5	Coordinate with IS for maximum length of data cable runs. 2 IDF rooms may need to be provided.

H. Room Location. These shell and core rooms shall be located as follows:

1.	Entry Vestibule	First Floor
2.	Lobby	First Floor
3.	Men's Room	First and Second Floor
4.	Women's Room	First and Second Floor
5.	Housekeeping	First and/or Second Floor, coordinate with PM
6.	IDF Closet	First or Second Floor, coordinate with IS for limits
7.	Electrical Closet	First Floor
8.	Elevator Equipment	First Floor immediately adjacent to the elevator shaft
9.	Mechanical Room	Second floor
10.	Stars, Elevators, Corridors	All floors

END OF DOCUMENT 401.101

BJC HealthCare

RESPONSIBILITY MATRIX

The following matrix identifies those individuals, roles or departments responsible for maintaining the accuracy of the information and those responsible for providing input. Refer to Preface for detailed explanation.

	BJC HealthCare													Hospital/Entity				
	PD&C																	
	Corporate Architect	Corporate Engineer	Director of Planning	Director of Design	Director of Construction	Other:	Clinical Asset Management (CAM)	Risk Management	Real Estate	Ergonomics	Infection Prevention (IP)	Info Systems, Data, Telecom (IS)	Other:	Standards Review Committee	Facilities Engineering	Housekeeping	Security	Other:
Primary Authorship	☐	☐	☐	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Secondary Authorship	☒	☒	☒	☐	☒	☐	☐	☐	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐

DOCUMENT REVISION HISTORY

The following able indicates the date the document originated and any subsequent revisions.

Document 401.101		
Issue	Description of Issue	Prepared by
2012 v1	Original Issue	G. Zipfel
2016 v1	Reorganization and updates	G. Zipfel
2018 v1	Updated and Reissued	G. Zipfel