

CHAPTER 222: DENTAL SERVICE

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1 PURPOSE AND SCOPE

This document outlines space planning criteria for services and programs provided in VA Chapter 222: Dental Service for the Department of Veterans Affairs (VA). It applies to all medical facilities at the VA.

Dental Clinics may be located in outpatient clinics, which include both freestanding community-based facilities, as well as ambulatory clinics in or directly adjacent to hospital-based services. Dental clinics may also be incorporated within hospitals to provide dental care required as an adjunct to medical care, to support an oral surgery program, and to provide routine beneficiary care.

Policies and directives, VA Subject Matter Experts (SMEs) input, and established and / or anticipated best practice guidelines / standards provide the foundation for the function and space allocation. Workload parameters determined in VA's Office of Dentistry Dental Utilization Modeler are the basis for the space criteria calculations to determine the quantity and area, Net Square Feet (NSF), for each space.

2 DEFINITIONS

Accessible: A site, building, facility, or portion thereof that complies with provisions outlined in the Architectural Barriers Act of 1968 (ABA).

Architectural Barriers Act (ABA): A set of standards developed to insure that all buildings financed with federal funds are designed and constructed to be fully accessible to everyone. This law requires all construction, renovation, or leasing of sites, facilities, buildings, and other elements, financed with federal funds, to comply with the Architectural Barriers Act Accessibility Standards (ABAAS). The ABAAS replaces the Uniform Federal Accessibility Standards (UFAS).

Automated External Defibrillator (AED): An AED or automated external defibrillator is a computerized medical device which can check a person's heart rhythm. It can recognize a rhythm that requires a shock, and it can advise the rescuer when a shock is needed. AEDs are typically placed in targeted public areas such as outpatient clinics, doctor's offices, office complexes, sports arenas, gated communities, shopping malls, and many others. They are wall-mounted, highly visible, and accessible to everyone. The Americans with Disabilities Act requires that objects not protrude more than 4 inches into foot traffic areas of open aisles and walkways (hallways) unless the object's bottom edge is no higher than 27 inches from the ground.

CAD / CAM: CAD / CAM dentistry (computer-aided design and computer-aided manufacturing), is a field of dentistry using CAD or CAM technology to provide a range of dental restorations including: crowns, veneers, inlays / onlays, fixed bridges, dental implant restorations and orthodontic appliances.

Clinic Stop: A clinic stop is one encounter of a patient with a healthcare provider. Per these criteria, the clinic stop is the workload unit of measure for space planning. One individual patient can have multiple procedure / suite stops in a single visit or in one day.

Cone Beam Computerized Tomography: Cone beam computed tomography (or CBCT) is a medical imaging technique. CBCT has become increasingly important in treatment planning, diagnosis, and patient education. During a CBCT scan, the scanner rotates around the patient's head, obtaining up to nearly 600 distinct images. The result is a more accurate image without missing information and a considerably lower radiation exposure. Through the use of specialized software, these images can be used to create a virtual dental model of the patient.

Conscious Sedation: Conscious sedation induces an altered state of consciousness where patients are awake and are usually able to respond to verbal cues throughout the procedure, communicating any discomfort they experience to the provider.

Dental Hygienist: Dental professional specializing in preventive dental care to include cleaning teeth, periodontal maintenance and educating patients in proper oral hygiene.

Dental Utilization Modeler: A VA produced planning tool used to determine the Dental Clinical Resources for a given year for VA Dental Clinics. The modeler addresses each Dental Clinic at the administrative parent level within the VA system by considering workload measured in RVUs, staffing, and space requirements. "What-if" scenarios are easily performed using the Dental Utilization Modeler.

Dentist: A medical professional trained in the evaluation, diagnosis, prevention and treatment of diseases and conditions of the teeth and associated oral structures.

Dental X-ray: Intra-oral, Panoramic, Cephalometric: Cephalometric x-rays capture a radiographic image of the entire head, usually in profile. Intra-oral x-rays provide an image of several teeth at a time, and panoramic x-rays generate a "wrap-around" image of the patient's mouth.

Digital Dentistry: Digital dentistry is any dental technology or device that incorporates digital or computer-controlled components.

Endodontics: The dental specialty concerned with the morphology, physiology and pathology of the dental pulp and associated tissues. The most common procedure done in endodontics is root-canal therapy.

Full-Time Equivalent (FTE) or Full-Time Equivalent Employee (FTEE): A staffing parameter equal to the amount of time assigned to one full time employee. It may be composed of several part-time employees whose total time commitment equals that of a full-time employee. One FTE equals a 40 hours per week.

Functional Area: The grouping of rooms and spaces based on their function within a clinical service. Typical Functional Areas are reception areas, patient areas, support areas, staff and administrative areas, and residency program.

General Dentistry: Dental services that include the diagnosis, treatment, and overall management of the oral health needs of patients, including periodontal care, fillings, crowns, veneers, bridges and preventive education.

General Practice Dental Resident: A dentist participating in an accredited post doctoral dental training program that provides experience in a comprehensive range of dental care. Residency programs may be 1 or 2 years in duration.

Input Data Statement: A set of questions designed to elicit information about the healthcare project in order to create a Program for Design (PFD) based on the criteria parameters set forth in this document. Input Data Statements could be mission related, based in the project's mission; and workload or staffing related, based on projections and data provided by the VHA or the VISN about the estimated model of operation. This information is processed through mathematical and logical operations SEPS 3.

Maxillofacial: Of or relating to the jaws and face with particular reference to specialized surgery of mouth and adjoining structures, often referred to as maxillofacial surgery.

Oral Surgeon: A dentist who specializes in oral and maxillofacial surgery including surgery of the mouth and removal of teeth.

Panoramic / Cephalometric (Pan-Ceph): The Pan-Ceph x-ray is a full lateral high-contrast view of the bony tissues of the head including the mandible, used to make accurate volumetric measurements, evaluate dentofacial proportions and clarify the anatomic basis for a malocclusion.

Panoramic x-ray: A type of extraoral x-ray that shows the entire mouth (all the teeth in both the upper and lower jaws) on a single image using specialized equipment. A panoramic x-ray image allows the dentist to detect the position of erupted as well as erupting teeth, identify impacted teeth, and aid in the diagnosis of tumors.

Picture Archiving and Communication System (PACS): A medical imaging technology which provides economical storage of, and convenient access to, images generated from digital radiography devices.

Periodontics: The dental specialty that includes the prevention, diagnosis and treatment of diseases of the gums and supporting structures of the teeth, and the maintenance of the health of these tissues and structures.

Prep / Recovery Room: Depending on the facility and the mission, after oral surgery procedures, a patient may be allowed to recover in the surgical room, or the patient may be walked to a recliner chair to recover in a recovery room. Sometimes, oral surgeons perform long, complicated procedures in a hospital or in an ambulatory surgery center; in this case a gurney may be used to transfer a patient to the recovery room.

Program for Design (PFD): A space program generated by SEPS 3 based on criteria set forth in this document and specific information about Concept of Operations, Workload projections and Staffing levels authorized.

Prosthodontics: The area of dentistry that included the diagnosis, treatment planning, rehabilitation, and maintenance of patients with complex restorative conditions. Patients may have missing teeth and / or oral tissues that can be rehabilitated with crowns, veneers, fixed and removable partial dentures, and implant-supported prostheses.

Provider: An individual who examines, diagnoses, treats, prescribes medications, and manages the care of patients within the scope of their practice as established by the governing body of a healthcare organization. Dental providers include dentists, dental specialists and dental hygienists.

Room Efficiency Factor: A factor that provides flexibility in the utilization of a room to account for patient delays, scheduling conflicts, and equipment maintenance. Common factors are in the 80 to 90% range. A room with 80% room efficiency provides a buffer to assume that this room would be available 20% of the time beyond the planned operational practices of the room. This factor may be adjusted based on the actual and/or anticipated operations and processes of the room / department.

Relative Value Unit (RVU): A numeric measure of workload developed by VA's Dental Coding Committee absent other CMS measurement standards. One RVU approximates one minute of provider time to deliver clinical patient services based on the original assumption that only one dental operator and only one dental assistant are available to the provider. Current studies indicate greatest efficiency when the assistant to provider ratio is minimally 1.75:1. The assistant to provider ratio is highly correlated to the treatment room to provider ratio which should always exceed the former.

SEPS 3: Acronym for Space and Equipment Planning System version 3.X, a digital tool developed by the Department of Veterans Affairs and the Department of Defense (DoD) to generate a Program for Design (PFD) and a Project Room Contents list (PRC) for a VA healthcare project based on approved Space Planning Criteria, the chapter and

specific project-related Mission, Workload and Staffing information entered in response to the Program Data Required - Input Data Statements (IDSs).

Tele-health: The use of technology, such as computers and mobile devices, to manage healthcare remotely. It includes a variety of health care services, including but not limited to online support groups, online health information and self-management tools, email and online communication with health care providers, remote monitoring of vital signs, video or online doctor visits. Depending on the mission for this space, it may be equipped as an exam room or as a consult room with video / camera capability.

Workload: Workload is the anticipated number of procedures that are processed through a department/service area. The total workload applied to departmental operational assumptions will determine overall room requirements by modality.

3 OPERATING RATIONALE AND BASIS OF CRITERIA

- A. Workload projections for a specific VA medical center, hospital or satellite outpatient clinic project are incorporated in the Dental Utilization Modeler. Based on the Milliman Utilization Projections, these workload values are expressed in Relative Value Units (RVUs) Space planners working on new or renovation projects for VA medical centers, hospitals or outpatient clinics, shall obtain the official Dental Utilization Modeler values for the target year planned through the Office of Dentistry. Those values in conjunction with the criteria parameters set forth herein will generate a baseline space program.
- B. Space Planning Criteria have been developed on the basis of an understanding of the activities involved in the functional areas of Dental. These criteria are based on established and/or anticipated best practice standards as adapted to provide environments supporting the highest quality health care for Veterans; they may be subject to modification relative to development in the standards of practice, equipment, vendor requirements, and healthcare planning and design developments.
- C. Planning methodology for determining number of Dental Treatment Rooms (DTRs) rooms will be based on workload (RVUs), through a calculation process that includes staffing ratios, production targets, labor mapping percentages, and clinical resources.
- D. Space planners shall collaborate with the Office of Dentistry or Dental Service Chief at the VISN or Station level, in order to calculate the Dental Utilization Modeler outputs that will be used as inputs in SEPS when creating a project for a Dental Clinic.
- E. Upon entering the requested values for the project location and projected year in the Dental Utilization Modeler; planner shall enter the requested Dental Utilization Modeler outputs corresponding to specific Input Data Statements (IDSs) in SEPS, and listed in Section 4 of this document. Refer to the Sub-Site Resources tab in the Dental Utilization Modeler for the following data categories:
 1. Projected Staffing,
 2. Staffing Ratios,
 3. Production Targets,
 4. Labor Mapping Percentage,
 5. Modeled Treatment Rooms,
 6. Calculated Available Clinical Resources, and
 7. Workload Demand based on Projection.

When developing a project in SEPS, Planner shall enter values as they appear in the Dental Utilization Modeler, i.e. "Chief Direct Patient Care Time: 50%", enter "50"; or "Time Residents in Off Service Rotations: 0.25", enter "0.25"

- F. SEPS has been implemented following the same logical and mathematical formulae as the Dental Utilization Modeler so as to produce the same outputs in order and to further produce a Program for Design (PFD) and its corresponding Project Room Contents (PRC) based on the Dental Utilization Modeler workload calculations. There are additional Mission, Staffing and Miscellaneous Input Data Statements (IDSs) planner shall enter based on research and authorizations specific for the project.

4 INPUT DATA STATEMENTS

A. Mission Input Data Statements

1. Is a Panoramic / Cephalometric x-ray authorized? (M)
2. Is a Computerized Tomography (CT) Cone-Beam Room authorized? (M)
3. Is a Picture Archiving and Communication System (PACS) authorized? (M)
4. Is a Tele-health Room in the Dental Treatment Patient Area authorized? (M)
5. Is a Dental Surgery Suite authorized? (M)
6. How many Oral Surgery Rooms, greater than one, are authorized? (Misc)
7. Is a General Purpose Laboratory authorized? (M)
8. Is a Porcelain / Ceramics Laboratory authorized? (M)
9. Is a Maxillo-facial Laboratory authorized? (M)
10. Is a Machine Milled Restorations Laboratory authorized? (M)
11. Is an Acrylic Processing Laboratory authorized? (M)
12. Is an Acrylic Finishing Laboratory authorized? (M)
13. Is a Cast Metal Laboratory authorized? (M)
14. Is a Dental Residency Program authorized? (M)
 - a. How many Dental Resident FTE positions are projected? (S) (Enter value from the Dental Utilization Modeler)

B. Workload Input Data Statements

1. What is the projected Dentist Workload RVU? (W) (Enter value from the Dental Utilization Modeler)
2. What is the projected Hygiene Workload RVU? (W) (Enter value from the Dental Utilization Modeler)

C. Staffing Input Data Statements

1. How many Chief FTE positions are projected? (S)
2. How many Dentist Director FTE positions are projected? (S) (Enter value from the Dental Utilization Modeler)
3. How many Staff Dentist FTE positions are projected? (S) (Enter value from the Dental Utilization Modeler)
4. How many Dental Hygienist FTE positions are projected? (S) (Enter value from the Dental Utilization Modeler)
5. How many Dental Assistant FTE positions are projected? (S) (Enter value from the Dental Utilization Modeler)
6. How many Dental Lab Technician FTE positions are projected? (S) (Enter value from the Dental Utilization Modeler)

D. Miscellaneous Input Data Statements

1. Is a Playroom in the Reception Area authorized? (Misc)
2. How many Dental Service Patient Education Workstations are authorized? (Misc)

3. How many Special Needs Patient Dental Treatment Rooms (DTRs), greater than one, are authorized? (Misc)
4. How many Endodontics Dental Treatment Rooms (DTRs), greater than one, are authorized? (Misc)
5. Is a Staff Workroom for the Dental Surgery Suite authorized? (Misc)
6. Is an Administrative Officer FTE position authorized? (Misc)
7. How many Assistant FTE positions are authorized? (Misc)
8. How many Staff Dentist FTE positions are authorized to have a workstation? (Misc)
9. How many Dental Hygienist FTE positions are authorized to have a workstation? (Misc)
10. How many Dental Assistant FTE positions are authorized to have a workstation? (Misc)
11. How many Dental Lab Technician FTE positions are authorized to have a workstation? (Misc)
12. Is a Conference Room for Dental Service authorized? (Misc)
13. How many FTE positions will work on peak shift? (Misc)
14. Is a Toilet / Shower for Dental Service authorized? (Misc)

E. Production Targets

1. What is the Dentist RVU Production Target Adjustment? (Misc) (Enter value from the Dental Utilization Modeler)
2. What is the Modeled Hygiene Provider RVU Production Target? (Misc) (Enter value from the Dental Utilization Modeler)

F. Labor Mapping Percentages

1. What is the projected Labor Mapping Percentage for Chief Direct Patient Care Time? (Misc) (Enter value from the Dental Utilization Modeler)
2. What is the projected average Labor Mapping Percentage for Dentist Director Direct Patient Care? (Misc) (Enter value from the Dental Utilization Modeler)
3. What is the projected average Labor Mapping Percentage for Staff Dentist Direct Patient Care? (Misc) (Enter value from the Dental Utilization Modeler)
4. What is the projected average Labor Mapping Percentage for Hygienist Direct Patient Care? (Misc) (Enter value from the Dental Utilization Modeler)

G. Dental Treatment Rooms (DTRs)

1. How many Dental Treatment Rooms (DTRs) per Dentist are Modeled (projected)? (Misc) (Enter value from the Dental Utilization Modeler)
2. How many Dental Treatment Rooms (DTRs) per Resident are Modeled (projected)? (Misc) (Enter value from the Dental Utilization Modeler)
3. How many Dental Treatment Rooms (DTRs) per Dental Hygienist are Modeled (projected)? (Misc) (Enter value from the Dental Utilization Modeler)
4. What is the Time Residents in Off Service Rotations? (Misc) (Enter value from the Dental Utilization Modeler)
5. What is the (calculated) available Chief / Staff / Resident Dentist RVU? (Misc) (Enter value from the Dental Utilization Modeler)
6. What is the (calculated) available Hygienist RVU? (Misc) (Enter value from the Dental Utilization Modeler)

5 SPACE PLANNING CRITERIA

A. FA 1: Dental Treatment Rooms (DTRs) Calculation:

1. **Number of DTRs (CALC1)**.....**0 NSF (0 NSM)**
Calculated value, no user input needed.

B. FA 2: Reception Area:

1. **Waiting (WTG04)**.....**100 NSF (9.3 NSM)**
Provide one if the projected number of DTRs is two; provide WTG06 if the projected number of DTRs is three; provide WTG08 if the projected number of DTRs is four; provide WTG10 if the projected number of DTRs is five; provide WTG12 if the projected number of DTRs is six; provide WTG14 if the projected number of DTRs is seven; provide WTG16 if the projected number of DTRs is eight; provide WTG18 if the projected number of DTRs is nine; provide WTG20 if the projected number of DTRs is ten; provide WTG22 if the projected number of DTRs is eleven; provide WTG24 if the projected number of DTRs is twelve; provide WTG26 if the projected number of DTRs is thirteen; provide WTG28 if the projected number of DTRs is fourteen; provide WTG30 if the projected number of DTRs is fifteen; provide WTG32 if the projected number of DTRs is sixteen; provide WTG34 if the projected number of DTRs is seventeen; provide WTG36 if the projected number of DTRs is eighteen; provide WTG38 if the projected number of DTRs is nineteen; provide WTG40 if the projected number of DTRs is twenty.

DTRs include:

- a. Multi-Functional Dental Treatment Rooms,
- b. Special Needs Patient Dental Treatment Rooms and
- c. Endodontics Dental Treatment Rooms (DTRs)

WTG04: Allocated space accommodates two standard chairs @ 9 NSF each, one bariatric chair @ 14 NSF, one accessible space @ 10 NSF, and circulation; total four people.

WTG06: Allocated space accommodates four standard chairs @ 9 NSF each, one bariatric chair @ 14 NSF, one accessible space @ 10 NSF, and circulation; total six people.

WTG08: Allocated space accommodates six standard chairs @ 9 NSF each, one bariatric chair @ 14 NSF, one accessible space @ 10 NSF, and circulation; total eight people.

WTG10: Allocated space accommodates eight standard chairs @ 9 NSF each, one bariatric chair @ 14 NSF, one accessible space @ 10 NSF, and circulation; total ten people.

WTG12: Allocated space accommodates ten standard chairs @ 9 NSF each, one bariatric chair @ 14 NSF, one accessible space @ 10 NSF, and circulation; total twelve people.

WTG14: Allocated space accommodates twelve standard chairs @ 9 NSF each, one bariatric chair @ 14 NSF, one accessible space @ 10 NSF, and circulation; total fourteen people.

WTG16: Allocated space accommodates twelve standard chairs @ 9 NSF each, two bariatric chairs @ 14 NSF each, two accessible spaces @ 10 NSF each, and circulation; total sixteen people.

WTG18: Allocated space accommodates fourteen standard chairs @ 9 NSF each, two bariatric chairs @ 14 NSF each, two accessible spaces @ 10 NSF each, and circulation; total eighteen people.

WTG20: Allocated space accommodates sixteen standard chairs @ 9 NSF each, two bariatric chairs @ 14 NSF each, two accessible spaces @ 10 NSF each, and circulation; total twenty people.

WTG22: Allocated space accommodates eighteen standard chairs @ 9 NSF each, two bariatric chairs @ 14 NSF each, two accessible spaces @ 10 NSF each, and circulation; total twenty-two people.

WTG24: Allocated space accommodates twenty standard chairs @ 9 NSF each, two bariatric chairs @ 14 NSF each, two accessible spaces @ 10 NSF each, and circulation; total twenty-four people.

WTG26: Allocated space accommodates twenty standard chairs @ 9 NSF each, three bariatric chairs @ 14 NSF each, three accessible spaces @ 10 NSF each, and circulation; total twenty-six people.

WTG28: Allocated space accommodates twenty-two standard chairs @ 9 NSF each, three bariatric chairs @ 14 NSF each, three accessible spaces @ 10 NSF each, and circulation; total twenty-eight people.

WTG30: Allocated space accommodates twenty-four standard chairs @ 9 NSF each, three bariatric chairs @ 14 NSF each, three accessible spaces @ 10 NSF each, and circulation; total thirty people.

WTG32: Allocated space accommodates twenty-six standard chairs @ 9 NSF each, three bariatric chairs @ 14 NSF each, three accessible spaces @ 10 NSF each, and circulation; total thirty-two people.

WTG34: Allocated space accommodates twenty-eight standard chairs @ 9 NSF each, three bariatric chairs @ 14 NSF each, three accessible spaces @ 10 NSF each, and circulation; total thirty-four people.

WTG36: Allocated space accommodates twenty-eight standard chairs @ 9 NSF each, four bariatric chairs @ 14 NSF each, four accessible spaces @ 10 NSF each, and circulation; total thirty-six people.

WTG38: Allocated space accommodates thirty standard chairs @ 9 NSF each, four bariatric chairs @ 14 NSF each, four accessible spaces @ 10 NSF each, and circulation; total thirty-eight people.

WTG40: Allocated space accommodates thirty-two standard chairs @ 9 NSF each, four bariatric chairs @ 14 NSF each, four accessible spaces @ 10 NSF each, and circulation; total forty people.

2. **Playroom (PLAY1)** **60 NSF (5.6 NSM)**
Provide one if a Playroom in the Reception Area is authorized.

This space is provided to accommodate children's play activities; it shall be outfitted with appropriate furniture and accessories. It can be an open or enclosed area included in or adjacent to Waiting.

3. **Reception (RCP02)** **260 NSF (24.2 NSM)**
Provide one for Dental Service.

Allocated NSF accommodates two Receptionist FTEs, patient privacy area, and circulation.

- 4. **Kiosk, Patient Check-in (RCHK2).....105 NSF (9.8 NSM)**
Provide one for Dental Service.

Allocated NSF accommodates two display kiosks, patient privacy area and circulation. Per VA National Kiosk Plan, locate near Waiting and Reception.

- 5. **Workstation, Patient Education (CLSC2)60 NSF (5.6 NSM)**
Provide one per each Dental Service Patient Education Workstation authorized.

- 6. **Alcove, Wheelchair (SRLW1)30 NSF (2.8 NSM)**
Provide one for Dental Service.

- 7. **Toilet, Public (TNP1).....60 NSF (5.6 NSM)**
Provide two for Dental Service.

Allocated NSF accommodates one accessible toilet @ 25 NSF, one wall-hung lavatory @ 12 NSF, ABA clearances, and circulation. Provide one for male and one for female.

C. FA 3: Dental Treatment Patient Area:

- 1. **Sub-Waiting (WTG03).....80 NSF (7.5 NSM)**
Provide one for the Dental Treatment Patient Area.

Allocated space accommodates one standard chair @ 9 NSF each, one bariatric chair @ 14 NSF, one accessible space @ 10 NSF, and circulation; total three people.

- 2. **Consult Room (OFDC2)120 NSF (11.2 NSM)**
Provide one for the Dental Treatment Patient Area.

In addition to patient consultation, patient education will take place in this room.

- 3. **X-Ray Room, Panoramic / Cephalometric (DNXS1).....120 NSF (11.2 NSM)**
Provide one if a Panoramic / Cephalometric x-ray is authorized.

- 4. **Computerized Tomography (CT) Room, Cone-Beam (DNXC1)120 NSF (11.2 NSM)**
Provide one if a Computerized Tomography (CT) Cone-Beam is authorized.

- 5. **Computerized Tomography (CT) Room, Cone-Beam Control Room (DNXC2).....30 NSF (2.8 NSM)**
Provide one if a Computerized Tomography (CT) Cone-Beam is authorized.

- 6. **Dental Treatment Room (DTR), Multi-Functional (DNTG1)120 NSF (11.2 NSM)**
Minimum two, provide additional ones based on the number of DTRs calculated (refer to FA 1: Dental Treatment Rooms (DTRs) Calculation.

- 7. **Dental Treatment Room (DTR), Special Needs Patient (DNTG5)150 NSF (14.0 NSM)**
Minimum one; provide an additional one per each Special Needs Patient Dental Treatment Room (DTR), greater than one, authorized.

- 8. **Dental Treatment Room (DTR), Endodontics (DNTE1)120 NSF (11.2 NSM)**
Minimum one; provide an additional one per each Endodontics Dental Treatment Room (DTR), greater than one, authorized.

9. **Viewing Room, Picture Archiving and Communication System (XVC01).. 120 NSF (11.2 NSM)**
Provide one if a Picture Archiving and Communication System (PACS) is authorized.
10. **Tele-Health Room (WRTM2) 120 NSF (11.2 NSM)**
Provide one if a Tele-health Room in the Dental Treatment Patient Area is authorized.

This room can also be used for patient education.
11. **Team Collaboration Room, Patient (WRTM1) 120 NSF (11.2 NSM)**
Provide one for the Dental Treatment Patient Area.
12. **Alcove, Crash Cart (RCA01) 15 NSF (1.4 NSM)**
Provide one for the Dental Treatment Patient Area.
13. **Toilet, Patient (TPG01) 60 NSF (5.6 NSM)**
Provide one for the Dental Treatment Patient Area.

Allocated NSF accommodates one accessible toilet @ 25 NSF, one accessible wall-hung lavatory @ 13 NSF, ABA clearances, and circulation.
14. **Medication Room (MEDP1) 120 NSF (11.2 NSM)**
Provide one for the Dental Treatment Patient Area.
15. **Clean Supply Room (UCCL1) 100 NSF (9.3 NSM)**
Minimum one; provide an additional one for every increment of five Multi-Functional, Special Needs Patient and Endodontics Dental Treatment Rooms (DTRs) greater than five.
16. **Storage, Sterile Instruments (DNCS3) 100 NSF (9.3 NSM)**
Minimum NSF; provide an additional 25 NSF per each Multi-Functional, Special Needs Patient and Endodontics Dental Treatment Room (DTR) greater than four.
17. **Storage, Dental Supplies (SRS01) 100 NSF (9.3 NSM)**
Minimum NSF; provide an additional 20 NSF per each Multi-Functional, Special Needs Patient and Endodontics Dental Treatment Room (DTR) greater than five.
18. **Storage, Mobile Equipment (SRE01)..... 120 NSF (11.2 NSM)**
Minimum NSF; provide an additional 10 NSF per each Multi-Functional, Special Needs Patient and Endodontics Dental Treatment Room (DTR) greater than ten.

D. FA 4: Dental Surgery Suite Patient Area:

1. **Sub-Waiting (WTG03) 80 NSF (7.5 NSM)**
Provide one if a Dental Surgery Suite is authorized.

Allocated space accommodates one standard chair @ 9 NSF each, one bariatric chair @ 14 NSF, one accessible space @ 10 NSF, and circulation; total three people.
2. **Toilet, Patient (TPG01) 60 NSF (5.6 NSM)**
Provide two if a Dental Surgery Suite is authorized.

Allocated NSF accommodates one accessible toilet @ 25 NSF, one accessible wall-hung lavatory @ 13 NSF, ABA clearances, and circulation. Provide one for male and one for female.

3. **Patient Prep / Recovery Room (DNTR1)**.....**80 NSF (7.5 NSM)**
Minimum two if a Dental Surgery Suite is authorized; provide an additional one for every increment of two Oral Surgery Rooms greater than two.
4. **Scrub Area (ORSA1)****60 NSF (5.6 NSM)**
Minimum one if a Dental Surgery Suite is authorized; provide an additional one for every increment of two Oral Surgery Rooms greater than two.
5. **Oral Surgery Room (DNTR1)****225 NSF (21.0 NSM)**
Minimum one if a Dental Surgery Suite is authorized; provide an additional one per each Oral Surgery Room, greater than one, authorized.
6. **Workroom, Staff (WRCH1)**.....**120 NSF (11.2 NSM)**
Provide one if a Staff Workroom for the Dental Surgery Suite is authorized.

Flexible, shared open work space for surgical staff (providers & technicians).
7. **Storage, Equipment (SRE01)**.....**120 NSF (11.2 NSM)**
Minimum one if a Dental Surgery Suite is authorized; provide an additional one for every increment of two Oral Surgery Rooms greater than two.
8. **Alcove, Crash Cart (RCA01)****15 NSF (1.4 NSM)**
Provide one if a Dental Surgery Suite is authorized.
9. **Alcove, Blanket Warmer (RCA04)**.....**15 NSF (1.4 NSM)**
Provide one if a Dental Surgery Suite is authorized.
10. **Utility Room, Clean (UCCL1)****120 NSF (11.2 NSM)**
Minimum NSF if a Dental Surgery Suite is authorized; provide an additional 60 NSF per each Oral Surgery Room greater than two.
11. **Utility Room, Soiled (USCL1)****120 NSF (11.2 NSM)**
Minimum NSF if a Dental Surgery Suite is authorized; provide an additional 60 NSF per each Oral Surgery Room greater than two.
12. **Linen Room, Clean (LCCL1)**.....**60 NSF (5.6 NSM)**
Minimum NSF if a Dental Surgery Suite is authorized; provide an additional 15 NSF per each Oral Surgery Room greater than two.
13. **Linen Room, Soiled (LCSL2)****60 NSF (5.6 NSM)**
Minimum NSF if a Dental Surgery Suite is authorized; provide an additional 15 NSF per each Oral Surgery Room greater than two.

E. FA 5: Dental Laboratories Area:

1. **Laboratory, General Purpose (DNPL1)**.....**280 NSF (26.1 NSM)**
Minimum NSF if a General Purpose Laboratory is authorized; provide an additional 60 NSF per each Staff Dentist FTE position and Dental Resident FTE position authorized; provide an additional 120 NSF per each Dental Lab Technician FTE position authorized.

Minimum allocated NSF accommodates three workstations at 60 NSF, storage space for flammable storage cabinet and circulation.
2. **Laboratory, Porcelain / Ceramics (DNPC1)**.....**120 NSF (11.2 NSM)**
Provide one if a Porcelain / Ceramics Laboratory is authorized.

Allocated NSF accommodates one workstation, flammable storage cabinet and circulation.

3. **Laboratory, Maxillo-Facial (DNPL5)** 125 NSF (11.7 NSM)
Provide one if a Maxillo-Facial Laboratory is authorized.
Allocated NSF accommodates one workstation, flammable storage cabinet and circulation.
4. **Laboratory, Machine Milled Restorations (DNPL6)** 60 NSF (5.6 NSM)
Provide one if a Machine Milled Restorations Laboratory is authorized.
Allocated NSF accommodates one workstation, flammable storage cabinet and circulation.
5. **Laboratory, Acrylic Processing (DNPL7)** 50 NSF (4.7 NSM)
Provide one if an Acrylic Processing Laboratory is authorized.
6. **Laboratory, Acrylic Finishing (DNPL8)**..... 50 NSF (4.7 NSM)
Provide one if an Acrylic Finishing Laboratory is authorized.
7. **Laboratory, Cast Metal (DNPL9)**..... 60 NSF (5.6 NSM)
Provide one if a Cast Metal Laboratory is authorized.
8. **Laboratory, Shipping and Receiving (DNSR2)**..... 120 NSF (11.2 NSM)
Minimum NSF, provide an additional 60 NSF if the General Purpose Laboratory is greater than 280 NSF.
9. **Storage, Expendable Laboratory Supplies (SRS01)**..... 120 NSF (11.2 NSM)
Minimum NSF, provide an additional 60 NSF if the General Purpose Laboratory is greater than 280 NSF.
10. **Storage, Dental Models (DNMS1)** 120 NSF (11.2 NSM)
Provide one if a General Purpose Laboratory is authorized.
11. **Storage, Precious Metals (SSS01)** 15 NSF (1.4 NSM)
Provide one if a General Purpose Laboratory is authorized.
12. **Workarea, Dental Models Processing (DNMP1)**..... 120 NSF (11.2 NSM)
Provide one if a General Purpose Laboratory is authorized.
13. **Storage, Equipment (SRSE1)** 120 NSF (11.2 NSM)
Minimum NSF, provide an additional 60 NSF if the General Purpose Laboratory is greater than 280 NSF.

F. FA 6: Support Area:

1. **Workstation, Receiving (OFA07)** 56 NSF (5.3 NSM)
Provide one for Dental Service.
2. **Instrument Supply / Receiving (DNSR1)**..... 90 NSF (8.4 NSM)
Provide one for Dental Service.
3. **Storage, Gas Cylinder / Gas Tank Room (SRGC2)** 60 NSF (5.6 NSM)
Provide one for Dental Service.
Formerly Storage, Chemicals / Corrosives. Centrally piped gas.
4. **Storage, Wheelchairs / Lifts (SRLW1)**..... 60 NSF (5.6 NSM)
Provide one for Dental Service.
5. **Alcove, CAD / CAM Cart (RCA05)** 30 NSF (2.8 NSM)
Provide one for Dental Service.

- 6. **Alcove, AED (RCA01)**.....15 NSF (1.4 NSM)
Provide one for Dental Service.
- 7. **Utility Room, Clean (UCCL1)**120 NSF (11.2 NSM)
Minimum NSF; provide an additional 30 NSF per each Multi-Functional, Special Needs Patient and Endodontics Dental Treatment Room (DTR) greater than four.
- 8. **Utility Room, Soiled (USCL1)**120 NSF (11.2 NSM)
Minimum NSF; provide an additional 30 NSF per each Multi-Functional, Special Needs Patient and Endodontics Dental Treatment Room (DTR) greater than four.
- 9. **Dental Equipment Mechanical Room (MECH1)**120 NSF (11.2 NSM)
Provide one for Dental Service.
- 10. **Housekeeping Aides Closet (HAC) (JANC1)**.....60 NSF (5.6 NSM)
Provide one for Dental Service.
- 11. **Telecom Closet (COMC1)**0 NSF (0 NSM)
Refer to PG 18-9: 232 Office of Information and Technology.

G. FA 7: Staff and Administrative Area:

- 1. **Office, Dental Service Chief (OFA09)**100 NSF (9.3 NSM)
Provide one per each Dental Service Chief FTE position authorized.
- 2. **Office, Dentist Director (OFA09)**100 NSF (9.3 NSM)
Provide one per each Dentist Director FTE position authorized.
- 3. **Office, Administrative Officer (OFA09)**.....100 NSF (9.3 NSM)
Provide one if an Administrative Officer FTE position is authorized.
- 4. **Workstation, Assistant (OFA07)**56 NSF (5.3 NSM)
Provide one per each Assistant FTE position authorized.
- 5. **Workstation, Staff Dentist (OFA07)**56 NSF (5.3 NSM)
Provide one per each Staff Dentist FTE position authorized.
- 6. **Workstation, Dental Staff (OFA07)**.....56 NSF (5.3 NSM)
Provide one per each Dental Hygienist, Dental Assistant and Dental Lab Technician FTE position authorized to have a workstation.
- 7. **Conference Room (CFR02)**.....300 NSF (27.9 NSM)
Provide one if a Conference Room for Dental Service is authorized.

 Allocated NSF accommodates ten conference chairs @ 7.5 NSF each, four 5'-0" x 2'-0" tables at 10 NSF each, one credenza @ 8 NSF, and circulation; total ten people.
- 8. **Team Collaboration Room, Staff (WRTM1)**120 NSF (11.2 NSM)
Minimum NSF; provide an additional 30 NSF for every increment of six Chief, Dentist Director, Staff Dentist, Dental Assistant, Dental Hygienist, Dental Lab Technician and Dental Resident FTE positions greater than twelve.
- 9. **Storage, Secure Documents (FILE1)**100 NSF (9.3 NSM)
Provide one for Dental Service.
- 10. **Copier / Office Supply Room (RPR01)**.....100 NSF (9.3 NSM)
Provide one for Dental Service.

11. **Lounge, Staff (SL001)**..... **120 NSF (11.2 NSM)**
Minimum NSF, provide an additional 60 NSF for every increment of five dental staff FTE positions working on peak shift greater than ten; maximum 360 NSF.
12. **Locker / Changing Room, Staff (LR002)**..... **90 NSF (8.4 NSM)**
Provide two for Dental Service.
One for male and one for female.
13. **Toilet, Staff (TNPG1)**..... **60 NSF (5.6 NSM)**
Minimum two; provide an additional one for every increment of fifteen dental staff FTE positions working on peak shift greater than fifteen.
Allocated NSF accommodates one accessible toilet @ 25 NSF, one wall-hung lavatory @ 12 NSF, ABA clearances, and circulation.
14. **Toilet / Shower, Staff (TSSU1)** **80 NSF (7.5 NSM)**
Provide one if a Toilet / Shower for Dental Service is authorized.
Allocated NSF accommodates one accessible toilet @ 25 NSF, one accessible wall-hung lavatory @ 13 NSF, one accessible shower @ 28 NSF, ABA clearances, and circulation.

H. FA 8: Education Area:

1. **Office, Residency Program Director (OFA09)**..... **100 NSF (9.3 NSM)**
Provide one if a Dental Residency Program is authorized.
2. **Workstation, Dental Auxiliary Training Coordinator (OFA07)**..... **56 NSF (5.3 NSM)**
Provide one if a Dental Residency Program is authorized.
3. **Team Collaboration Room, Residents (WRTM1)** **240 NSF (22.3 NSM)**
Minimum NSF if a Dental Residency Program is authorized; provide an additional 60 NSF per each Dental Resident FTE position authorized greater than six.
This room should contain one workstation per Resident at 60 NSF. In addition to the workstations, a table with chairs for collaboration space and bookcases will be provided.
4. **Workstation, Dental Resident (OFA07)**..... **56 NSF (5.3 NSM)**
Provide one per each Dental Resident FTE position authorized if a Dental Residency Program is authorized.

6 DESIGN CONSIDERATIONS

- A. Net-to-Department Gross Factor: The net-to-department gross factor (NTDG) for the Dental Service is **1.55**. This number when multiplied by the programmed net square foot (NSF) area determines the departmental gross square foot.
- B. General:
 1. Create welcoming environments for patients and families by reducing environmental stressors, and typical "dental stressors". Daylighting, views of nature, gardens, indoor plants, and nature photography may alleviate patient anxiety, and provide positive distractions in waiting areas and treatment rooms.
 2. Design for flexibility and adaptability to accommodate future expansion.
 3. Consider physical layouts and design features that maximize non-institutional environmental aspects in order to provide a more therapeutic environment

4. Comply with safety and ergonomics standards.
5. Design the Dental Clinic to provide access to patients with different levels of ability. It should be fully accessible.
6. Design the Dental Clinic to support patient privacy and patient rights requirements.
7. Where possible, locate clinics proximate to public parking and the main facility entrance to improve access and minimize travel distance.
8. Clearly define patient circulation and provide “visual queues” to facilitate ease of patient wayfinding. Create separate paths of travel where possible between patients and staff (“on stage” and “off stage”) to support privacy, safety and patient / staff satisfaction.
9. Main corridors should be designed to a minimum of 8 feet clear width to accommodate passage of equipment, stretchers, and / or wheelchairs. In non-patient areas, corridors may be 6 feet in clear width.
10. Consider locating treatment areas for high volume, quick turn-around, patient visits near the front of the clinical area.

C. Reception Area:

1. Provide audio privacy at patient registration and check-out areas.
2. Visual access from Reception to the Waiting Area should be provided.
3. The Playroom should be designed with durable and easy to clean surfaces. Consider specifying child “play stations” in lieu of individual toys.

D. Dental Treatment Patient Area:

1. Views to the outside are desirable from Dental Treatment Rooms in order to reduce patient stress. Patients who have PTSD also benefit from having visual access to the outside.
2. Multi-purpose Dental Treatment Rooms are designed to provide a wide range of dental services including General Dentistry, Dental Hygiene, Prosthodontics, and Periodontics.
3. Endodontic Dental Treatment Rooms are designed similarly to Multi-purpose Dental Treatment Rooms with the inclusion of a microscope. Other dental procedures may be performed in this area as scheduled.
4. Special Needs Dental Treatment Rooms are designed to accommodate patients with different levels of ability. The design of these rooms should promote flexibility in order to accommodate each patient’s specific needs. Ceiling lifts in this area must support Bariatric patients.
5. Design Dental Treatment Rooms to accommodate multiple caregivers.
6. Intra-oral X-ray capability will be provided in the Dental Treatment Rooms. A dedicated X-ray room will be provided only for Panoramic / Cephalometric unit and / or Cone Beam Unit.
7. Shielding design for rooms containing dental radiographic equipment does not necessarily require lead-lined walls. Normal building materials may be sufficient in most cases. National Council for Radiation Protection (NCRP) requires that shielding design be provided by a qualified expert for all new or remodeled dental

facilities. When a conventional building structure does not provide adequate shielding, the shielding must be increased by providing a greater thickness of building materials or by adding lead. Adequacy of shielding is determined by a radiation physicist through calculations and checked by survey measurements. These determinations should be made in the design phase of the project.

E. Dental Surgery Suite Patient Area:

1. Locate Oral Surgery Rooms adjacent to each other.

F. Dental Laboratories:

1. Provide natural light in Dental Labs, particularly the Acrylics Finishing Lab, to facilitate the color matching of dental prosthetics.

G. Support Area:

1. Centralized support should be considered to maximize staff and space efficiency.

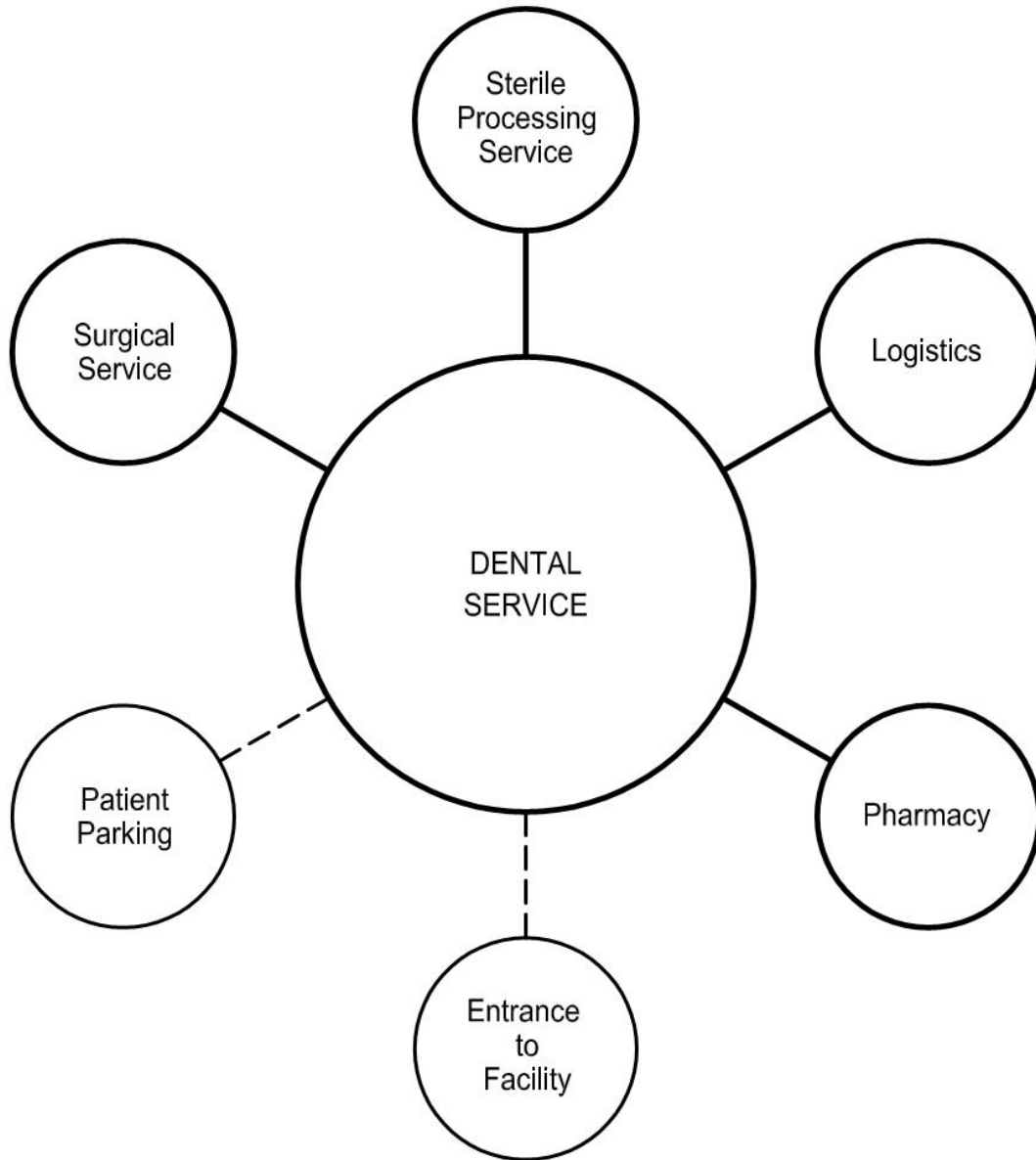
H. Staff and Administrative Area:

1. Locate the Staff Lounge, Staff Locker / Changing Room, Staff Toilets, and Staff Toilet / Shower convenient to staff work areas but separate from patient areas.
2. Design space to foster effective staff collaboration. Central location of circulating corridors and visually open workstations will increase the quality and probability of unplanned interactions. Informal meeting spaces along hallways with flexibly arranged furniture and small niches with surfaces that allow stand-up work will encourage informal collaboration. Locating the team collaboration rooms and conference rooms close to individual spaces will promote problem solving.

I. Residency Program:

1. Work areas for residents should be grouped in one area close to staff dentists. The Conference Room (when provided) should be near the administrative spaces.

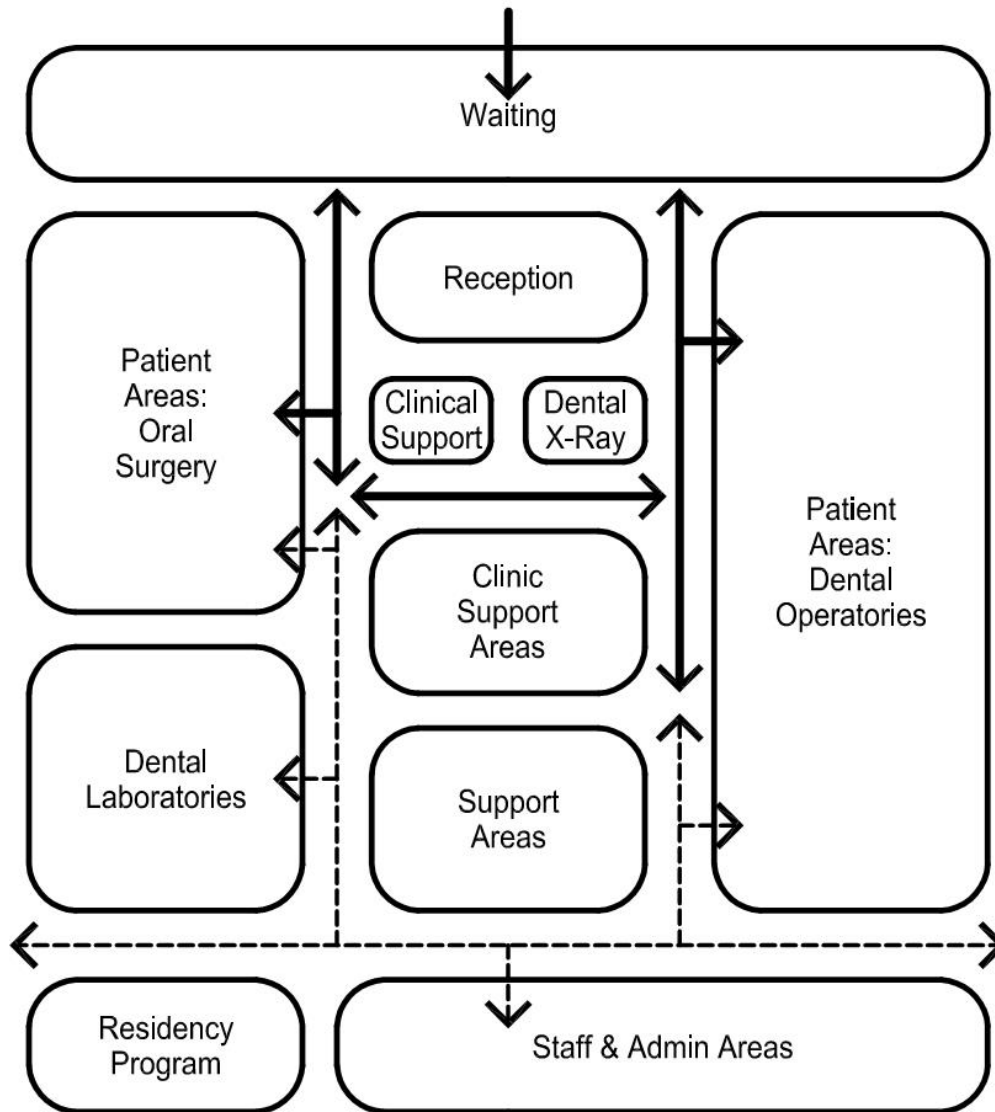
7 FUNCTIONAL RELATIONSHIPS



LEGEND

- Most Critical Adjacency
- - - - - Less Critical Adjacency

8 FUNCTIONAL DIAGRAM



LEGEND

- Patient Circulation
- Staff Circulation

NOTE: Size and shapes of spaces do not reflect actual configuration or square foot area of departments.