

CHAPTER 320: DENTAL CLINIC

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1 PURPOSE AND SCOPE

This chapter outlines space planning criteria for services and programs provided in the Dental Clinic located within the Military Health System (MHS). More specifically, the Dental Clinic chapter covers the departments of General Dentistry, Dental Surgery, Dental Specialties and Dental Imaging.

Dental Clinics may be located in the 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 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. It is imperative that the planner coordinate between the Dental and Surgical services to determine if oral-maxillofacial surgery will be a specialty provided in the Operating Rooms (ORs).

This space planning criteria applies to all Military Medical Treatment Facilities (MTFs). Policies and directives, DoD's Subject Matter Experts (SMEs), established and/or anticipated best practice guidelines / standards, and TRICARE Management Activity (TMA) provides the foundation for the workload based space criteria and Net Square Footages (NSF) for each space. The latest version of DoD's *UFC-4-510-01, Appendix B* cites all Room Codes identified in this chapter.

2 DEFINITIONS

- A. 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.
- B. Average Length of Encounter (ALOE): In these space criteria, an encounter is defined as a face-to-face professional contact between a patient and a provider vested with responsibility for diagnosing, evaluating, and treating the patient's condition. The Length of Encounter is the time between set-up and clean-up of the Exam Room. The Average Length of Encounter is used to capture variations in Length of Encounter among similar clinical encounters that will take place in an Exam Room.
- C. Cephalometric Projection: A type of extra oral x-ray that shows the entire side of the head. This type of x-ray is useful in examining the teeth in relation to the jaw and profile of the patient. Orthodontists use Cephalometric projections to develop their treatment plans. This image can be film-based or digital.
- D. Clean Utility Room: This room is used for the storage and holding of clean and sterile supplies. Additionally it may provide space to prepare patient care items. Clean linen may be stored in a designated area in the clean utility room if space is not provided in a separate room or in an alcove.
- E. Cone Beam CT: Cone Beam 3D imaging uses a cone-shaped beam to acquire the entire image in a single scan using only one rotation. The result is a more

accurate image without missing information and a considerably lower radiation exposure.

- F. Conscious Sedation: A type of sedation that induces an altered state of consciousness in which patients are awake and are usually able to speak and respond to verbal cues throughout the procedure, communicating any discomfort they experience to the provider.
- G. Consult Room: This is a consultation room for family members to meet with physicians or other providers privately and is ideally located near the waiting room.
- H. Dental Hygienist: A person who, under the supervision of a dentist, assumes delegated responsibility for providing preventive and therapeutic dental services for patients.
- I. Dental Treatment Room (DTR): A properly outfitted room including a dental chair, dental unit, and dental light where clinical dental procedures are performed. A dental treatment room (general dentistry) is equipped to support conscious sedation.
- J. Endodontics: The dental specialty that involves diseases of the tooth root, dental pulp, and surrounding tissue. The most common procedure done in Endodontics is root-canal therapy.
- K. Full-Time Equivalent (FTE): 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-hour a week workload.
- L. Functional Area: The grouping of rooms and spaces based on their function within a clinical service. Typical functional areas are Reception Area, Patient Area, Support Area, Staff and Administrative Area, and Education Area.
- M. General Dentistry: The diagnosis, treatment, and management of the overall oral health care needs of patients, including gum care, fillings, crowns, veneers, bridges and preventive education.
- N. 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 chapter. Input Data Statements could be mission related, based on the project's Concept of Operations; and they could be workload or staffing related, based on projections for the facility.
- O. Maxillofacial: Of or relating to the upper jaw and face (particularly with reference to specialized surgery of the maxilla); "maxillofacial surgery".
- P. Net-to-department gross factor (NTDG): This number, when multiplied by the programmed net square foot (NSF) area, determines the departmental gross square feet (DGSF).
- Q. Office:
 - 1. Private Office: Generally speaking, a private office is needed for the supervisory and/or managerial role. It may be justified for a provider or a non-provider, depending upon the nature of their work. Private offices are needed where confidential communication in person or on the telephone takes place. When private offices are justified, they are typically 120 NSF.

2. Shared Office: Staff may be assigned to share an office space of 120 NSF, which amounts up to 60 NSF per person. This can be a good solution for staff for whom a quiet office environment is important for conducting confidential communication in person or on the telephone.
3. Cubicle: A cubicle is provided in an open room. Managers and other staff with no direct reports as well as part-time, seasonal and job-sharing staff may qualify for a cubicle environment. Cubicle environments can have the benefit of being more open, airy and light, and can make more efficient use of space. Such environments are particularly conducive to team-oriented office groupings. Cubicle environments work best when they contain adequate numbers of conference and small group meeting spaces, for confidential conversations and/or group tasks. A 60 square foot cubicle is the preferred size.
- R. Oral Hygiene Dental Treatment Room: A room similar to the Dental Treatment Room (DTR) that is used by the Dental Hygienist to treat patients.
- S. Orthodontics: The dental specialty that involves correcting malocclusions or “bad bites” as a result of crowded, missing or extra teeth, or jaws that are out of alignment. Treatment includes the use of braces, retainers, headgear, and other appliances.
- T. Outpatient Clinic: A clinic providing outpatient service in both freestanding community-based facilities, as well as ambulatory clinics in or directly adjacent to hospital-based services.
- U. 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. For most orthodontics cases, a lateral Pan-Ceph contains much information regarding the location and angulation of unerupted teeth.
- V. 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 x-ray using a special x-ray machine. A Panoramic X-ray allows the dentist to detect the position of fully-emerged as well as emerging teeth, identify impacted teeth, and aid in the diagnosis of tumors.
- W. Periodontics: The dental specialty that involves preventing gum (periodontal) disease — an infection of the tissues surrounding and supporting the teeth. Periodontal disease is a major cause of tooth loss in adults.
- X. Picture Archiving and Communication System (PACS) Viewing Room: A digital radiology reading room that consists of workstations for interpretation.
- Y. Prep/Recovery Room: Depending on the facility and the Concept of Operations, after oral surgery, a patient may be allowed to recover in the surgery 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 would be used to transfer a patient to the recovery room.
- Z. Program for Design (PFD): A listing of all of the spaces and rooms included within a service and the corresponding net square foot area of each space and room. This listing of spaces and rooms is based on criteria set forth in this chapter and specific information about mission, workload projections and staffing levels authorized.

- AA. Prosthodontics: The area of dentistry involving the diagnosis, treatment planning, rehabilitation, and maintenance of patients with complex clinical conditions. These patients have missing or deficient teeth and/or oral tissues that can be rehabilitated with crowns, veneers, fixed and removable partial dentures, and implant-supported prostheses.
- BB. 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 are Dentists, Dental Specialists and Dental Hygienists, expanded function Dental Assistants and enlisted service members trained to provide care are the primary providers in a dental clinic.
- CC. SEPS: Acronym for Space and Equipment Planning System, a digital tool developed by the Department of Defense (DoD) and the Department of Veterans Affairs to generate a Program for Design (PFD) and a Project Room Contents list (PRC) for a DoD healthcare project based on specific information entered in response to Input Data Statements.
- DD. Soiled Utility Room: This space provides an area for cleanup of medical equipment and instruments, and for disposal of medical waste material. It provides temporary holding for material that will be picked up by Central Sterile or similar service. It should be accessible from the main corridor.
- EE. Team Collaboration Room: This space provides staff with an environment conducive to collaboration. Room contains touchdown computer workstations for documentation and a table with chairs to hold meetings.
- FF. Telehealth: 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 concept of operations for this space, it may be equipped as an exam room or as a consult room with video / camera capability.
- GG. Workload: The anticipated number of encounters or procedures processed through a clinic. The projected Dental Clinic workload for a given location determines the number of Exam and Treatment Rooms in the Program for Design.

3 OPERATING RATIONALE AND BASIS OF CRITERIA

- A. Workload projections and planned services / modalities for a specific MHS facility project shall be sought by the planner in order to develop a project based on these Criteria. Healthcare and clinical planners working on military hospitals, medical centers and clinics shall utilize and apply the workload based criteria set forth herein for identified services and modalities to determine space requirements for the project.
- B. Space planning criteria have been developed on the basis of an understanding of the activities involved in the functional areas required for Dental Clinic and its relationship with other services of a medical facility. These criteria are predicated on established and/or anticipated best practice standards, as adapted to provide environments supporting the highest quality health care for service members and their dependents.

- C. These criteria are subject to modification relative to equipment, medical practice, vendor requirements, and subsequent planning and design. The final selection of the size and type of medical equipment is determined during the design process.
- D. The area for each room (NSF) in this chapter has been provided by the Military Health System (MHS) Space Template Board.
- E. Calculation of the General Dental Treatment Room (DTR) in the Functional Area 3: Dental General Patient Area, Functional Area 4: Dental Specialty Patient Area, Functional Area 5: Dental Imaging Patient Area, and Functional Area 6: Dental Surgery Patient Area is derived from workload projections via the workload Input Data Statements as outlined below. Most of the remaining rooms in this functional area and in Functional Area 2: Reception Area and Functional Area 8: Support Area are determined based on the number of General Dental Treatment Room (DTR) generated by workload. Mission, Staffing and Miscellaneous Input Data Questions drive the rest of the spaces in this document.
- F. Section 4: Input Data Questions and Section 5: Space Planning Criteria have been implemented and tested in SEPS II.
- G. Dental Treatment Room (DTR) capacity calculation is based on the following formula / parameters:

Formula:

$$\frac{\text{Operating Days per Year} \times \text{Hours of Operation per Day}}{\text{Average Length of Encounter (ALOE) in Minutes} / 60 \text{ Minutes}} \times \text{Utilization Factor}$$

User-defined Value:

- 1. Operating Days per Year: 232, 240 or 250. (default in SEPS: 240)
- 2. Hours of Operation per Day: 6, 7, or 8 (default in SEPS: 8)

Fixed Value:

- 3. Utilization Factor: 80%

Calculation: Annual Workload for one General Dental Treatment Room (DTR):

$$\frac{240 \text{ Operating Days per Year} \times 8 \text{ Hours of Operation per Day}}{40 \text{ Minutes} / 60 \text{ Minutes}} \times 0.80 = 2,304$$

Minimum Annual Workload to generate a General Dental Treatment Room (DTR):
20% of Annual Workload for one General Dental Treatment Room (DTR).

- H. Workload based room calculation examples:

- 1. Room Criteria Statement (Room 1):

Minimum one if the projected annual clinic encounters is between 307 and 1,536; provide an additional one for every increment of 1,536 projected annual clinic encounters greater than 1,536; the minimum workload to generate an additional room is 307.

- a. Input Data Statement 1, Answer 1:

How many annual clinic encounters are projected? (W) = 4,700

Step 1: Subtract the increment from the projected annual encounters to account for the "Minimum one" condition.

$$4,700 - 1,536 = 3,164$$

One room generated

Step 2: Divide the resulting value by the increment.

$$3,164 / 1,536 = 2.05$$

Two additional rooms generated

Step 3: Multiply the whole value ("2" in the previous step) by the increment.

$$2 \times 1,536 = 3,072$$

Step 4: Subtract Step 3 from Step 1.

$$3,164 - 3,072 = 92$$

Step 5: Compare Step 4 with the "minimum workload to generate an additional room" value; if higher, provide an additional room.

92 is less than 307

No additional rooms generated.

Total number of rooms generated by 4,700 annual encounters: 3

b. Input Data Statement 1, Answer 2:

How many annual clinic encounters are projected? (W) = 15,000

Step 1: Subtract the increment from the projected annual encounters to account for the "Minimum one" condition.

$$15,000 - 1,536 = 13,464$$

One room generated

Step 2: Divide the resulting value by the increment.

$$13,464 / 1,536 = 8.76$$

Eight additional rooms generated

Step 3: Multiply the whole value ("8" in the previous step) by the increment.

$$8 \times 1,536 = 12,288$$

Step 4: Subtract Step 3 from Step 1.

$$13,464 - 12,288 = 1,176$$

Step 5: Compare Step 4 with the "minimum workload to generate an additional room" value; if higher, provide an additional room.

1,176 is greater than 307

One additional room generated.

Total number of rooms generated by 15,000 annual encounters: 10

2. Room Criteria Statement (Room 2):

Minimum two if the projected annual encounters is between 614 and 6,144; provide an additional one for every increment of 3,072 projected annual encounters greater than 6,144; the minimum workload to generate an additional room is 614.

a. Input Data Statement 2, Answer 1:

How many annual clinic encounters are projected? (W) = 12,500

Step 1: Subtract the increment from the projected annual encounters to account for the “Minimum one” condition.

$$12,500 - 6,144 (3,072 \times 2) = 6,356$$

Two rooms generated

Step 2: Divide the resulting value by the increment.

$$6,356 / 3,072 = 2.06$$

Two additional rooms generated

Step 3: Multiply the whole value (“2” in the previous step) by the increment.

$$2 \times 3,072 = 6,144$$

Step 4: Subtract Step 3 from Step 1.

$$6,356 - 6,144 = 212$$

Step 5: Compare Step 4 with the “minimum workload to generate an additional room” value; if higher, provide an additional room.

212 is less than 614

No additional rooms generated.

Total number of rooms generated by 12,500 annual encounters: 4

b. Input Data Statement 2, Answer 2:

How many annual clinic encounters are projected? (W) = 18,000

Step 1: Subtract the increment from the projected annual encounters to account for the “Minimum one” condition.

$$18,000 - 6,144 (3,072 \times 2) = 11,856$$

Two rooms generated

Step 2: Divide the resulting value by the increment.

$$11,856 / 3,072 = 3.85$$

Three additional rooms generated

Step 3: Multiply the whole value (“3” in the previous step) by the increment.

$$3 \times 3,072 = 9,216$$

Step 4: Subtract Step 3 from Step 1.

$$11,856 - 9,216 = 2,640$$

Step 5: Compare Step 4 with the “minimum workload to generate an additional room” value; if higher, provide an additional room.

2,640 is greater than 614

One additional room generated.

Total number of rooms generated by 18,000 annual encounters: 6

TABLE 1: WORKLOAD PARAMETER CALCULATION

320: DENTAL CLINIC				
CLINICAL ENCOUNTERS / PROCEDURES	AVERAGE LENGTH OF CLINIC ENCOUNTER (minutes)	UTILIZATION RATE	ANNUAL WORKLOAD PER DENTAL TREATMENT ROOM (*)	MINIMUM ANNUAL WORKLOAD TO GENERATE ONE ROOM (20%)
General Dental Treatment Room (DTR) (per Chair)	75	80%	1,228	246
Pediatric Dental Treatment Room (DTR)	60	80%	1,536	307
Oral Hygiene Dental Treatment Room (DTR)	60	80%	1,536	307
Dental Surgery Operating Room	120	80%	768	154
Prosthodontics Dental Treatment Room (DTR)	110	80%	838	168
Endodontics Dental Treatment Room (DTR)	80	80%	1,152	230
Periodontics Dental Treatment Room (DTR)	110	80%	838	168
Orthodontics Dental Treatment Room (DTR)	30	80%	3,072	614
Oral, Panoramic / Cephalometric Imaging	20	80%	4,608	922

(*) Values in this column are representative and are based on an 8-hour per day and a 240-day per year default value. SEPS calculates this value dynamically based on answers to the following Input Data Statements:

- (1) Is Dental Clinic authorized to operate outside the standard 8-hour per day shift? (Misc); if not:
- (2) Is Dental Clinic authorized to operate a 6-hour per day shift? (Misc) (If not, a 7-hour per day shift will be used to calculate workload driven spaces), and
- (3) Is Dental Clinic authorized to operate outside the standard 240 days per year? (Misc); if not:
- (4) Is Dental Clinic authorized to operate 232 days per year? (Misc) (If not, 250 days per year will be used to calculate workload driven spaces)

4 PROGRAM DATA REQUIRED (Input Data Questions)

A. Mission Input Data Statements

1. Is a Cone-Beam CT Dental Radiology Room authorized? (M)
2. Is a Picture Archiving and Communication System (PACS) Viewing Room authorized? (M)
3. Are Dental Laboratories authorized? (M)
 - a. Are some of the Dental Prosthodontics Laboratory functions authorized to be performed at an Area Dental Laboratory? (M) (If yes, a Basic Laboratory will be generated, if not, a Full Service Laboratory will be generated.)
 - b. How many Dental Prosthodontics Full Service Laboratory Workstations greater than four are authorized? (Misc)
 - c. Are some of the Porcelain / Ceramics Laboratory functions authorized to be performed at an Area Dental Laboratory? (M) (If yes, a Basic Laboratory will be generated, if not, a Full Service Laboratory will be generated.)
 - d. How many Porcelain / Ceramics Full Service Laboratory Workstations greater than four are authorized? (Misc)
4. Is a Pediatric Dental Specialist authorized? (M)
 - a. How many Pediatric Dental encounters are projected? (W)
5. Are Dental Specialties authorized? (M)
 - a. Is a Prosthodontics Dental Specialty authorized? (M)
(1) How many annual Prosthodontics encounters are projected? (W)
 - b. Is an Endodontics Dental Specialty authorized? (M)
(1) How many annual Endodontics encounters are projected? (W)
 - c. Is a Periodontics Dental Specialty authorized? (M)
(1) How many annual Periodontics encounters are projected? (W)
 - d. Is an Orthodontics Specialty authorized? (M)
(1) How many annual Orthodontics Treatment encounters are projected? (W)
 - e. Is a Sub-Waiting in the Dental Specialty Patient Area authorized? (Misc)
6. Is Dental Surgery authorized? (M)
 - a. How many annual Dental Surgery Procedures encounters are projected? (W)
 - b. Is a Prep / Recovery Room for Dental Surgery authorized? (M)
7. Is a CAD / CAM Cart Alcove for the Dental Laboratory authorized? (M)
8. Is a GDE Education / Training program authorized? (M)
 - a. Is a Residency Program Assistant Director authorized? (Misc)
 - b. How many Graduate Dental Resident / Student FTE positions are authorized? (S) (Do not include Oral Surgery Resident FTEs)

B. Workload Input Data Statements

1. How many annual General Dental Treatment encounters are projected? (W)
2. How many annual Oral Hygiene Dental Treatment encounters are projected? (W)
3. How many annual Oral, Panoramic / Cephalometric Imaging encounters are projected? (W)

C. Staffing Input Data Statements

1. How many Dental Clinic provider FTE positions are authorized? (S)
 - a. How many Dental Clinic provider FTE positions are authorized to have a private office? (Misc)
 - b. How many Dental Clinic provider FTE positions are authorized to have a shared office? (Misc)
 - c. How many Dental Clinic provider FTE positions are authorized to have a cubicle? (Misc)

2. How many Dental Clinic non-provider FTE positions are authorized? (S)
 - a. How many Dental Clinic non-provider FTE positions are authorized to have a private office? (Misc)
 - b. How many Dental Clinic non-provider FTE positions are authorized to have a shared office? (Misc)
 - c. How many Dental Clinic non-provider FTE positions are authorized to have a cubicle? (Misc)

D. Miscellaneous Input Data Statements

1. Is a Playroom in the Reception Area authorized? (Misc)
2. Is a Patient Education Room in the Reception Area authorized? (Misc)
3. Is a Consult Room in the Reception Area authorized? (Misc)
4. Is a Sub-Waiting in the Dental General Patient Area authorized? (Misc)
5. Is a Receiving Workstation dedicated for laboratory / shipping and receiving authorized? (Misc)
6. Is a Sub-Waiting in the Staff and Administrative Area authorized? (Misc)
7. Is a Patient Records Storage Room in the Staff and Administrative Area authorized? (Misc)
8. Are Staff Locker / Changing Rooms authorized? (Misc)
9. How many Dental Clinic FTEs will work on peak shift? (Misc)
10. (1) Is the Dental Clinic authorized to operate outside the standard 8-hour per day shift? (Misc)
 - a. (2) Is the Dental Clinic authorized to operate a 7-hour per day shift? (Misc) (If not, a 6-hour per day shift will be used to calculate workload driven spaces)
11. (3) Is the Dental Clinic authorized to operate outside the standard 240 days per year? (Misc)
 - a. (4) Is the Dental Clinic authorized to operate 250 days per year? (Misc) (If not, 232 days per year will be used to calculate workload driven spaces)

5 SPACE PLANNING CRITERIA

For calculation of the number of Vending Machine areas, Public Toilets, Communication Closets, and Janitors Closets for this Chapter, please refer to DoD Space Planning Criteria Chapter 6.1: Common Areas.

A. FA 1: Reception Area:

1. **Waiting (WRC01)120 NSF**
Minimum NSF; provide an additional 60 NSF for every increment of four General and Pediatric Dental Treatment Chairs, Oral Hygiene Dental Treatment Rooms (DTRs), Prosthodontics, Endodontics, Periodontics, Orthodontics Dental Treatment Rooms (DTRs) and Dental Surgery Operating Rooms greater than four.

 Minimum allocated NSF accommodates three standard seats at 16 NSF plus one wheelchair space at 25 NSF and one bariatric bench seat at 36 NSF and circulation area. Depending on the concept of operations for this chapter, waiting space across all units may be combined or dispersed.
2. **Playroom (PLAY1).....120 NSF**
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 General Waiting.

3. **Reception (RECP1)** **120 NSF**
Minimum NSF; provide an additional 30 NSF for every increment of twelve General and Pediatric Dental Treatment Chairs, Oral Hygiene Dental Treatment Rooms (DTRs), Prosthodontics, Endodontics, Periodontics, Orthodontics Dental Treatment Rooms (DTRs) and Dental Surgery Operating Rooms greater than twelve.

Allocated NSF accommodates up to four receptionists and circulation.
4. **Kiosk, Patient Check-in (CLSC1)** **30 NSF**
Provide one for Dental Clinic.
5. **Patient Education (CLSC3)** **120 NSF**
Provide one for Dental Clinic if authorized.

Room used for one-on-one patient education and includes space for family to accompany the patient.
6. **Consult Room (OFDC2)**..... **120 NSF**
Provide one for Dental Clinic if authorized.
7. **Records Distribution / Signing (MRWK1)**..... **60 NSF**
Provide one for Dental Clinic.

This room may be collocated with Reception or Records Storage.
8. **Alcove, Wheelchair (SRLW1)** **60 NSF**
Provide one for Dental Clinic.

B. FA 2: Dental General Patient Area:

1. **Sub-Waiting, General Dentistry (WRC03)**..... **60 NSF**
Minimum NSF; provide an additional 30 NSF for every increment of two General and Pediatric Dental Treatment Chairs and Oral Hygiene Dental Treatment Rooms (DTRs) greater than four if authorized.

Allocated NSF accommodates three standard seats at 18 NSF and circulation area.
2. **Toilet, Patient (TLTU1)**..... **60 NSF**
Minimum one; provide an additional one for every increment of ten General and Pediatric Dental Treatment Chairs and Oral Hygiene Dental Treatment Rooms (DTRs) greater than ten.
3. **Dental Treatment Room (DTR), General (DNTG1)** **120 NSF**
Minimum two if the projected annual General Dental Treatment encounters is between 246 and 2,456; provide an additional one for every increment of 1,228 projected annual General Dental Treatment encounters greater than 1,228; the minimum workload to generate an additional General Dental Treatment Chair is 246. (Refer to Section 3)

Planner shall allocate the total number of calculated General Dental Treatment Chair in Single-Chair Rooms or in Multi-Chair Rooms as needed.
4. **Dental Treatment Room (DTR), Pediatric (DNTG1)**..... **120 NSF**
Minimum two if the projected annual Pediatric Dental Treatment encounters is

between 307 and 1,536; provide an additional one for every increment of 1,536 projected annual Pediatric Dental Treatment encounters greater than 3,072; the minimum workload to generate an additional Pediatric Dental Treatment Chair is 307. (Refer to Section 3)

Planner shall allocate the total number of calculated Pediatric Dental Treatment Chair in Single-Chair Rooms or in Multi-Chair Rooms as needed.

5. **Dental Treatment Room (DTR), Oral Hygiene (DNTG2)120 NSF**
Minimum one if the projected annual Oral Hygiene Dental Treatment encounters is between 307 and 1,536; provide an additional one for every increment of 1,536 projected annual Oral Hygiene Dental Treatment encounters greater than 1,536; the minimum workload to generate an additional Oral Hygiene Dental Treatment Chair is 307. (Refer to Section 3)

Allocated space includes a dental chair, dental unit, and dental light for one patient and one provider. Several DTRs are typically arranged next to each other forming a DTR area.

C. FA 3: Dental Specialty Patient Area:

1. **Sub-Waiting, Dental Specialty (WRC03)60 NSF**
Minimum NSF; provide an additional 30 NSF per each Prosthodontics, Endodontics, Periodontics, and Orthodontics Dental Treatment Rooms (DTRs) greater than four if Dental Specialties are authorized and if Sub-Waiting is authorized.
- Minimum allocated NSF accommodates three standard seats at 18 NSF and circulation area.
2. **Toilet, Patient (TLTU1)60 NSF**
Provide one for every increment of ten Prosthodontics, Endodontics, Periodontics, and Orthodontics Dental Treatment Rooms (DTRs) greater than ten if Dental Specialties are authorized.
3. **Dental Treatment Room (DTR), Prosthodontics (DNTP1)120 NSF**
Minimum two if the projected annual Prosthodontics encounters is between 167 and 1,674; provide an additional one for every increment of 837 projected annual Prosthodontics encounters greater than 1,674; the minimum workload to generate an additional Prosthodontics Dental Treatment Room is 167. (Refer to Section 3)
- Allocated space includes a dental chair, dental unit, and dental light for one patient and one provider. Several DTRs are typically arranged next to each other forming a DTR area.
4. **Dental Treatment Room (DTR), Endodontics (DNTE1)120 NSF**
Minimum two if the projected annual Endodontics encounters is between 230 and 2,304; provide an additional one for every increment of 1,152 projected annual Endodontics encounters greater than 2,304; the minimum workload to generate an additional Endodontics Dental Treatment Room is 230. (Refer to Section 3)

Allocated space includes a dental chair, dental unit, and dental light for one patient and one provider. Several DTRs are typically arranged next to each other forming a DTR area.

5. **Dental Treatment Room (DTR), Periodontics (DNTP2)..... 120 NSF**
Minimum two if the projected annual Periodontics encounters is between 167 and 1,674; provide an additional one for every increment of 837 projected annual Periodontics encounters greater than 1,674; the minimum workload to generate an additional Periodontics Dental Treatment Room is 167. (Refer to Section 3)

Allocated space includes a dental chair, dental unit, and dental light for one patient and one provider. Several DTRs are typically arranged next to each other forming a DTR area.

6. **Dental Treatment Room (DTR), Orthodontics (DNTP1)..... 120 NSF**
Minimum three if the projected annual Orthodontics encounters is between 614 and 9,216; provide an additional one for every increment of 3,072 projected annual Orthodontics encounters greater than 9,216; the minimum workload to generate an additional Orthodontics Dental Treatment Room is 614. (Refer to Section 3)

Allocated space includes a dental chair, dental unit, and dental light for one patient and one provider. Several DTRs are typically arranged next to each other forming a DTR area.

7. **Workroom, Preparation Area (DNSS1) 120 NSF**
Provide one if a Periodontics Specialty is authorized.

This space is provided for use of the Periodontics Technicians.

8. **Team Collaboration Room (WRCH1) 120 NSF**
Provide one if Dental Specialties are authorized.

Allocated NSF provides space for staff collaboration with touchdown computer stations for documentation and a table with chairs.

9. **Storage, Dental Models (DNMS1) 120 NSF**
Provide one if Dental Specialties are authorized.

10. **Alcove, Crash Cart (RCA01)..... 30 NSF**
Provide one if Dental Specialties are authorized.

11. **Alcove, Blanket Warmer (RCA04)..... 30 NSF**
Provide one if a Periodontics Specialty is authorized.

D. FA 4: Dental Imaging Patient Area:

1. **Sub-Waiting, Dental Imaging (WRC03)..... 60 NSF**
Minimum NSF; provide an additional 30 NSF for every increment of two Intra Oral Panoramic / Cephalometric and Cone-Beam CT Dental Radiology Room greater than four.

Minimum allocated NSF accommodates three standard seats at 18 NSF and circulation area.

2. **Dental Radiology Room, Intra Oral Panoramic / Cephalometric (DNXS1) 180 NSF**
Minimum one if the projected annual Intra Oral Panoramic / Cephalometric imaging encounters is between 922 and 4,608; provide an additional one for every increment of 4,608 projected annual Intra Oral Panoramic / Cephalometric imaging encounters greater than 4,608; the minimum workload to generate an

*additional Intra Oral Panoramic / Cephalometric Dental Radiology Room is 922.
(Refer to Section 3)*

3. **Dental Radiology Room,
Cone-Beam CT (DNXC1).....180 NSF**
Provide one if a Cone-Beam CT Dental Radiology Room is authorized.
4. **Control Room,
Cone-Beam CT Dental Radiology (DNXR1)120 NSF**
Provide one if a Cone-Beam CT Dental Radiology Room is authorized.

Provide outside the Dental Radiology / Cone-Beam CT Room with window for viewing into the room.
5. **Viewing Room,
Picture Archiving and Communication System (PACS) (XVC01)120 NSF**
Provide one if a Picture Archiving and Communication System (PACS) is authorized.

E. FA 5: Dental Surgery Patient Area:

1. **Sub-Waiting, Dental Surgery (WRC03)60 NSF**
Minimum NSF; provide an additional 30 NSF for every increment of two Dental Surgery Operating Rooms greater than four if Dental Surgery is authorized.

Minimum allocated NSF accommodates three standard seats at 18 NSF and circulation area.
2. **Toilet, Patient (TLTU1)60 NSF**
Provide one if Dental Surgery is authorized.
3. **Scrub Area, Dental Surgery (ORSA1)60 NSF**
Provide one for every increment of two Dental Surgery Operating Rooms if Dental Surgery is authorized.

Allocated NSF allows for two scrub positions located near the entrance of the Dental Surgery Operating Room, in the semi-restricted area, recessed into an alcove out of the main traffic area.
4. **Operating Room, Dental Surgery (DNTS1)240 NSF**
Minimum two if the projected annual Dental Surgery procedures is between 154 and 1,536; provide an additional one for every increment of 768 projected annual Dental Surgery procedures greater than 1,536; the minimum workload to generate an additional Dental Surgery Operating Room is 154. (Refer to Section 3)
5. **Prep / Recovery Room (DNTR1).....120 NSF**
Provide one for every increment of two Dental Surgery Operating Rooms if Prep / Recovery Room is authorized.
6. **Dental Treatment Room (DTR), General (DNTG1)..... 120 NSF**
Provide two if Dental Surgery is authorized.

These are dedicated to Dental Surgery. Allocated space includes a dental chair, dental unit, and dental light for one patient and one provider. Several DTRs are typically arranged next to each other forming a DTR area. For general and surgical assessment, pre and post op, including maxillofacial patients.

7. **Workroom, Preparation Area (DNSS1)** 120 NSF
Provide one if Dental Surgery is authorized.

Flexible, shared open work space that accommodates multidisciplinary use, for the preparation of patient specific related tasks (preparing molds).

8. **Alcove, Wheelchair (SRLW1)** 60 NSF
Provide one if Dental Surgery is authorized.

9. **Alcove, Blanket Warmer (RCA04)** 30 NSF
Provide one if Dental Surgery is authorized.

10. **Alcove, Crash Cart (RCA01)** 30 NSF
Provide one if Dental Surgery is authorized.

F. FA 6: Dental Laboratories:

1. **Shipping and Receiving, Dental Laboratories (LBSS1)** 120 NSF
Provide one if Dental Laboratories are authorized.

2. **Laboratory Basic Service, Dental Prosthodontics (DNPL2)** 240 NSF
Provide one if some of the Dental Prosthodontics Laboratory functions are authorized to be performed at an Area Dental Laboratory.

This space is equipped to fabricate oral prostheses; includes Stone Room. Depending on layout, this space can be combined with the other labs in one room. The medium Lab supports Specialty DTRs.

3. **Laboratory Full Service, Dental Prosthodontics (DNPL3)** 360 NSF
Provide one if some of the Dental Prosthodontics Laboratory functions are not authorized to be performed at an Area Dental Laboratory; provide an additional 120 NSF if Dental Surgery is authorized and an additional 60 NSF per each Dental Prosthodontics Laboratory Full Service workstation authorized greater than four.

This space is equipped to fabricate oral prostheses; includes Stone Room. Depending on layout, this space can be combined with the other labs in one room. Allocated NSF accommodates space required for Maxillo-Facial Laboratory and greater than four workstations.

4. **Laboratory Basic Service, Porcelain / Ceramics (DNPC3)** 240 NSF
Provide one if some of the Porcelain / Ceramics Laboratory functions are authorized to be performed at an Area Dental Laboratory.

This space is equipped and used for the construction and molding of dental prosthetics and ceramics, requires special lighting and environmental controls. Depending on layout, this space can be combined with the other labs in one room.

5. **Laboratory Full Service, Porcelain / Ceramics (DNPC2)** 360 NSF
Provide one if some of the Porcelain / Ceramics Laboratory functions are not authorized to be performed at an Area Dental Laboratory; provide an additional 60 NSF per each Porcelain / Ceramics Laboratory Full Service workstation authorized greater than four.

This space is equipped and used for the construction and molding of dental prosthetics and ceramics, requires special lighting and environmental controls.

Depending on layout, this space can be combined with the other labs in one room.

6. **Storage, Equipment (SRSE1)**120 NSF
Provide one if Dental Laboratories are authorized.

G. FA 7: Support Area:

1. **Workstation, Receiving (OFA03)**.....60 NSF
Provide one if a dedicated space for logistics / shipping and receiving is authorized.

2. **Dental Instrument Decontamination Room, Small (DNCS1)**120 NSF
Provide one if the total number of General and Pediatric Chairs, Oral Hygiene, Prosthodontics, Endodontics, Periodontics, and Orthodontics Dental Treatment Rooms (DTRs) and Dental Surgery Operating Rooms is between 1 and 10.

This room is part of a three-room suite: Decontamination, Sterilization and Storage. The Decontamination room should have a pass-through chamber Disinfectant / Washer to Instrument Sterilization Room. There should be a pass-back window between Decontamination and Sterilization.

3. **Dental Instrument Sterilization Room, Small (DNCS2)**.....120 NSF
Provide one if the total number of General and Pediatric Chairs, Oral Hygiene, Prosthodontics, Endodontics, Periodontics, and Orthodontics Dental Treatment Rooms (DTRs) and Dental Surgery Operating Room is between 1 and 10.

This room is part of a three-room suite: Decontamination, Sterilization and Storage. The Sterilization room should have pass-through chamber sterilizers to the Instrument Storage Room. There may be a pass-back window between Sterilization and Storage.

4. **Dental Instrument Storage Room, Small (DNCS3)**.....120 NSF
Provide one if the total number of General and Pediatric Chairs, Oral Hygiene, Prosthodontics, Endodontics, Periodontics, and Orthodontics Dental Treatment Rooms (DTRs) and Dental Surgery Operating Room is between 1 and 10.

This room is part of a three-room suite: Decontamination, Sterilization and Storage.

5. **Dental Instrument Decontamination Room, Medium (DNCS4)**240 NSF
Provide one if the total number of General and Pediatric Chairs, Oral Hygiene, Prosthodontics, Endodontics, Periodontics, and Orthodontics Dental Treatment Rooms (DTRs) and Dental Surgery Operating Room is between 11 and 20.

This room is part of a three-room suite: Decontamination, Sterilization and Storage. The Sterilization room should have pass-through chamber sterilizers to the Instrument Storage Room. There may be a pass-back window between Sterilization and Storage.

6. **Dental Instrument Sterilization Room, Medium (DNCS5)**240 NSF
Provide one if the total number of General and Pediatric Chairs, Oral Hygiene, Prosthodontics, Endodontics, Periodontics, and Orthodontics Dental Treatment Rooms (DTRs) and Dental Surgery Operating Room is between 11 and 20.

This room is part of a three-room suite; it should have a pass-through from Soiled Instrument Wash Utility Room.

7. Dental Instrument Storage Room, Medium (DNSC6)..... 240 NSF

Provide one if the total number of General and Pediatric Chairs, Oral Hygiene, Prosthodontics, Endodontics, Periodontics, and Orthodontics Dental Treatment Rooms (DTRs) and Dental Surgery Operating Room is between 11 and 20.

This room is part of a three-room suite: Decontamination, Sterilization and Storage.

8. Dental Instrument Decontamination Room, Large (DNSC7)..... 360 NSF

Provide one if the total number of General and Pediatric Chairs, Oral Hygiene, Prosthodontics, Endodontics, Periodontics, and Orthodontics Dental Treatment Rooms (DTRs) and Dental Surgery Operating Room is greater than 20.

This room is part of a three-room suite: Decontamination, Sterilization and Storage. The Decontamination room should have a pass-through chamber Disinfectant / Washer to Instrument Sterilization Room. There should be a pass-back window between Decontamination and Sterilization.

9. Dental Instrument Sterilization Room, Large (DNSC8) 360 NSF

Provide one if the total number of General and Pediatric Chairs, Oral Hygiene, Prosthodontics, Endodontics, Periodontics, and Orthodontics Dental Treatment Rooms (DTRs) and Dental Surgery Operating Room is greater than 20.

This room is part of a three-room suite: Decontamination, Sterilization and Storage. The Sterilization room should have pass-through chamber sterilizers to the Instrument Storage Room. There may be a pass-back window between Sterilization and Storage.

10. Dental Instrument Storage Room, Large (DNSC9) 360 NSF

Provide one if the total number of General and Pediatric Chairs, Oral Hygiene, Prosthodontics, Endodontics, Periodontics, and Orthodontics Dental Treatment Rooms (DTRs) and Dental Surgery Operating Room is greater than 20.

This room is part of a three-room suite: Decontamination, Sterilization and Storage.

11. Medication Room (MEDP1) 120 NSF

Provide one for Dental Clinic.

Allocated NSF provides space for a work counter, sink, refrigerator and locked storage for biological or drugs. Accommodates space for automated medication dispensing machine.

12. Utility Room, Clean (UCCL1)..... 120 NSF

Minimum NSF; provide an additional 30 NSF for every increment of eight General and Pediatric Chairs, Oral Hygiene, Prosthodontics, Endodontics, Periodontics, and Orthodontics Dental Treatment Rooms (DTRs), Intra Oral Panoramic / Cephalometric and Cone-Beam CT Dental Radiology Rooms greater than eight.

Allocated NSF provides space for a work counter, a handwashing station and storage facilities for clean and sterile supplies such as shelving and automated dispensing machines.

13. Utility Room, Soiled (USCL1) 120 NSF

Minimum NSF; provide an additional 30 NSF for every increment of eight General and Pediatric Chairs, Oral Hygiene, Prosthodontics, Endodontics, Periodontics,

and Orthodontics Dental Treatment Rooms (DTRs), Intra Oral Panoramic / Cephalometric and Cone-Beam CT Dental Radiology Rooms greater than eight.

Allocated NSF provides space for a handwashing station, a work counter, space for waste receptacles and soiled linen receptacles and provisions for disposal of liquid waste.

14. **Linen Room, Clean (LCCL2)**120 NSF
Minimum NSF; provide an additional 30 NSF for every increment of eight General and Pediatric Chairs, Oral Hygiene, Prosthodontics, Endodontics, Periodontics, and Orthodontics Dental Treatment Rooms (DTRs), Intra Oral Panoramic / Cephalometric and Cone-Beam CT Dental Radiology Rooms greater than eight.
15. **Linen Room, Soiled (LCSL2)**120 NSF
Minimum NSF; provide an additional 30 NSF for every increment of eight General and Pediatric Chairs, Oral Hygiene, Prosthodontics, Endodontics, Periodontics, and Orthodontics Dental Treatment Rooms (DTRs), Intra Oral Panoramic / Cephalometric and Cone-Beam CT Dental Radiology Rooms greater than eight.
16. **Alcove, AED (RCA01)**.....30 NSF
Provide one for Dental Clinic.
17. **Storage, Equipment (SRSE1)**120 NSF
Provide one for Dental Clinic.
18. **Storage, Gas Cylinder (SRGC2)**120 NSF
Provide one for Dental Clinic.
19. **Storage, Chemical / Corrosives (SRHM1)**.....120 NSF
Provide one for Dental Clinic.
20. **Alcove, CAD / CAM Cart (XRM01)**30 NSF
Provide one if Dental Laboratories are authorized and if CAD / CAM imaging is authorized.
21. **Dental Equipment Mechanical Room (MECH1)**.....120 NSF
Provide one for Dental Clinic.

This space to include the appropriate suction, tanks and vacuum equipment.

H. FA 8: Staff and Administrative Area:

1. **Office, Department / Clinic Chief (OFA04)**120 NSF
Provide one for Dental Clinic.
2. **Office, Executive Assistant (OFA04)**.....120 NSF
Provide one for Dental Clinic.
3. **Sub-Waiting (WRC03)**60 NSF
Provide one for Dental Clinic if Staff and Administrative Sub-Waiting is authorized.
Allocated NSF provides space for minimum of two seats plus circulation.
4. **Office, NCOIC / LCPO / LPO (OFA04)**.....120 NSF
Provide one for Dental Clinic.
5. **Team Collaboration Room (WRCH1)**120 NSF
Minimum one; provide an additional one for every increment of eight General and Pediatric Chairs; Oral Hygiene, Prosthodontics, Endodontics, Periodontics,

Orthodontics Dental Treatment Rooms (DTRs), Intra-Oral Panoramic / Cephalometric Dental Radiology Rooms and Dental Surgery Operating Rooms greater than eight.

Allocated NSF provides space for staff collaboration with touchdown computer stations for documentation and a table with chairs.

6. **Office, Private (OFA04)**..... 120 NSF
Provide one per each Dental Clinic provider and non-provider FTE position authorized to have a private office.

7. **Office, Shared (OFA05)**..... 120 NSF
Provide one for every increment of two Dental Clinic provider and non-provider FTE positions authorized to have a shared office.

8. **Cubicle (OFA03)**..... 60 NSF
Provide one per each Dental Clinic provider and non-provider FTE position authorized to have a cubicle.

These cubicles may be collocated in a shared space or dispersed as required.

9. **Storage, Patient Records (MRS01)** 120 NSF
Provide one if storage of Patient Paper Records is authorized.

Collocated with the Distribution / Signing Records Room in the Reception Area. The Military Health System is moving towards an integrated electronic medical record. If required, space for paper medical records for patients will be planned

10. **Conference Room (CRA01)**..... 240 NSF
Minimum NSF; provide an additional 60 NSF if the total number of FTE positions authorized is greater than ten.

Planner must determine adequacy and availability of existing Conference Room space and the ability to optimize resources by sharing Conference Room space with other departments.

11. **Copier (RPR01)** 120 NSF
Provide one for Dental Clinic.

This is a room for the copier/printer/scanner. It may be located directly adjacent to the reception area or in the clinic staff support area.

12. **Storage, Office Supplies (SRS01)**..... 60 NSF
Provide one for Dental Clinic.

Allocated NSF provides space for office supplies, patient forms and literature.

13. **Lounge, Staff (SL001)** 120 NSF
Minimum NSF, provide an additional 60 NSF for every increment of five FTEs working on peak shift greater than ten; maximum 360 NSF.

14. **Locker / Changing Room, Male Staff (LR002)**..... 120 NSF
Provide one if a Male Staff Locker / Changing Room is authorized.

15. **Locker / Changing Room, Female Staff (LR002)**..... 120 NSF
Provide one if a Female Staff Locker / Changing Room is authorized.

16. **Toilet / Shower, Male Staff (TLTS1)** 60 NSF
Provide one if a Male Staff Locker / Changing Room is authorized.

17. **Toilet / Shower, Female Staff (TLTS1)**60 NSF
Provide one if a Female Staff Locker / Changing Room is authorized.

I. FA 9: GDE Education / Training Area:

1. **Office, Residency Program Director (OFA04)** 120 NSF
Provide one if a Graduate Dental Education program for Dental Clinic is authorized.
2. **Office, Residency Program Assistant Director (OFA04)** 120 NSF
Provide one if a Graduate Dental Education Residency Program Assistant Director is authorized.
3. **Dental Treatment Room (DTR), General (DNTG1)**.....120 NSF
Provide one per each Resident / Student FTE position authorized if a Graduate Dental Education program for Dental Clinic is authorized.
4. **Resident Collaboration Room (WKTM1)**.....240 NSF
Minimum NSF; provide an additional 60 NSF per each Resident / Student FTE position authorized greater than two if a Graduate Dental Education program for Dental Clinic is authorized.

This room should contain one cubicle per Resident / Student at 60 NSF. In addition to the cubicles, a table with chairs for collaboration space and bookcases will be provided.

5. **Classroom / Conference Room (CLR01)** 240 NSF
Provide one if the total number of Resident / Student FTE positions is greater than five if a Graduate Dental Education program for Dental Clinic is authorized.

Planner must determine adequacy and availability of existing Classroom / Conference Room space and the ability to optimize resources by sharing Classroom / Conference Room space with other GME programs.

6 PLANNING AND DESIGN CONSIDERATIONS

The following design considerations are intended to provide planners and designers with guidance on how to follow world-class and evidence-based design strategies for new and renovation of existing healthcare facilities. For a more comprehensive list, refer to the *World Class Checklist* (<https://facilities.health.mil/home/>). Also refer to Section 1.2 – 6, Design Considerations and Requirements of the latest version of *Guidelines for Design and Construction of Health Care Facilities of the Facility Guidelines Institute (FGI)*.

A. Net-to-Department Gross Factor

1. The net-to-department gross factor (NTDG) for Dental Clinics is **1.35**. This number when multiplied by the programmed net square foot (NSF) area determines the departmental gross square feet. This factor accounts for the space occupied by internal department circulation and interior partitions and other construction elements not defined by the net square foot area.

B. Reception Areas

1. Where possible, centralized intake should be considered where multiple clinics are co-located.
2. Consider designing clinic areas such that walking distances from intake to exam are kept to a minimum.

3. Visual and auditory privacy is required at intake, vitals collection, and scheduling activities.
4. Consideration should be given to special needs of specific patient groups in a shared/general waiting area. For example, adolescent and geriatric patients may require different seating options and environments.
5. The Playroom shall be constructed of surfaces and materials that are easy to clean and durable (nonporous and smooth).

C. Patient Areas

1. Exam rooms should be designed with dedicated patient, provider, and family zones where appropriate.
2. Consider placing high volume, quick turn encounters near the front of the clinical area.
3. Provide same-handed patient care and treatment rooms where appropriate.
4. Complete visual privacy for patients in examination, treatment and procedure areas is a critical design consideration.
5. Control of sound transmission between examination, treatment and procedure rooms is a critical design consideration.
6. Consider adopting the same NSF for rooms with similar functions, such as treatment and exam rooms, to achieve standardization.
7. Consider sizing rooms such that conversion from one function to another, like a consult room to exam room, can be achieved more readily.
8. Provisions for bariatric patients should be included where applicable.
9. Consider efficiency of operations and a layout such that walking distances of the routes staff repeatedly take from consult room to the exam rooms, to the work areas (e.g. charting, supplies, medications), back to exam rooms are kept to a minimum.

D. Support Areas

1. Medication preparation areas should be enclosed to minimize distractions. A glass wall or window may be advisable to permit observation of patients and clinic activities.

E. Other Design Considerations

1. Provide flexible, standardized and modular blocks of clinic space that include dedicated zones (e.g. intake/waiting, exam room, support core, administrative core, procedure and diagnostic core, etc.)
2. Where possible, clinic modules should include internal connecting corridors to allow circulation of staff, materials, and sometimes patients, in off-stage areas.
3. Design for flexibility and adaptability to accommodate future expansion.
4. Clearly define patient flows and facilitate wayfinding.
5. Design space to foster effective team collaboration, especially important in innovative care delivery models such as the patient-centered medical home model (PCMH). 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.
6. Create separate paths of travel where possible between patients and staff ("on stage" and "off stage") to support privacy, safety and patient/staff satisfaction.

7. Consider physical layouts and design features which minimize institutional and maximize non-institutional aspects in order to provide a more therapeutic healing environment that promotes quicker recovery.
8. Where possible, locate clinics proximate to public parking and the main outpatient building entry to improve access and minimize travel distance.

F. Dental Clinic Specific Design Considerations

1. Design dental treatment rooms to include multiple caregivers as part of the treatment process.
2. Create welcoming environments for patients and families by reducing environmental stressors, and typical "dental stressors". Daylighting, window views of nature, gardens, indoor plants, and nature photography may alleviate patient anxiety, and provide positive distractions in waiting areas and treatment rooms.
3. Consider creation of separate entry/exits for non-sedated patients versus sedated patients to encourage relaxation and improve privacy.

7 FUNCTIONAL RELATIONSHIPS

Relationship of DoD 320: Dental Clinic to services listed below:

TABLE 2: FUNCTIONAL RELATIONSHIP MATRIX

Services	Relationship	Reasons
Logistics Department	3	A, B
Pharmacy Service	4	A, B, H
Supply Processing & Distribution	3	B, G, I
Anesthesia Department	3, 4	C
ENT	4	H
Surgery	2, 3	G
Radiology	2, 3	G
Nursing Units	3	H
Behavioral Health Inpatient Units	3	H
Primary Care/Family Practice Clinic	3	H

Legend:

Relationship:

1. Adjacent
2. Close / Same Floor
3. Close / Different Floor
Acceptable
4. Limited Traffic

Reasons:

(Use as many as appropriate)

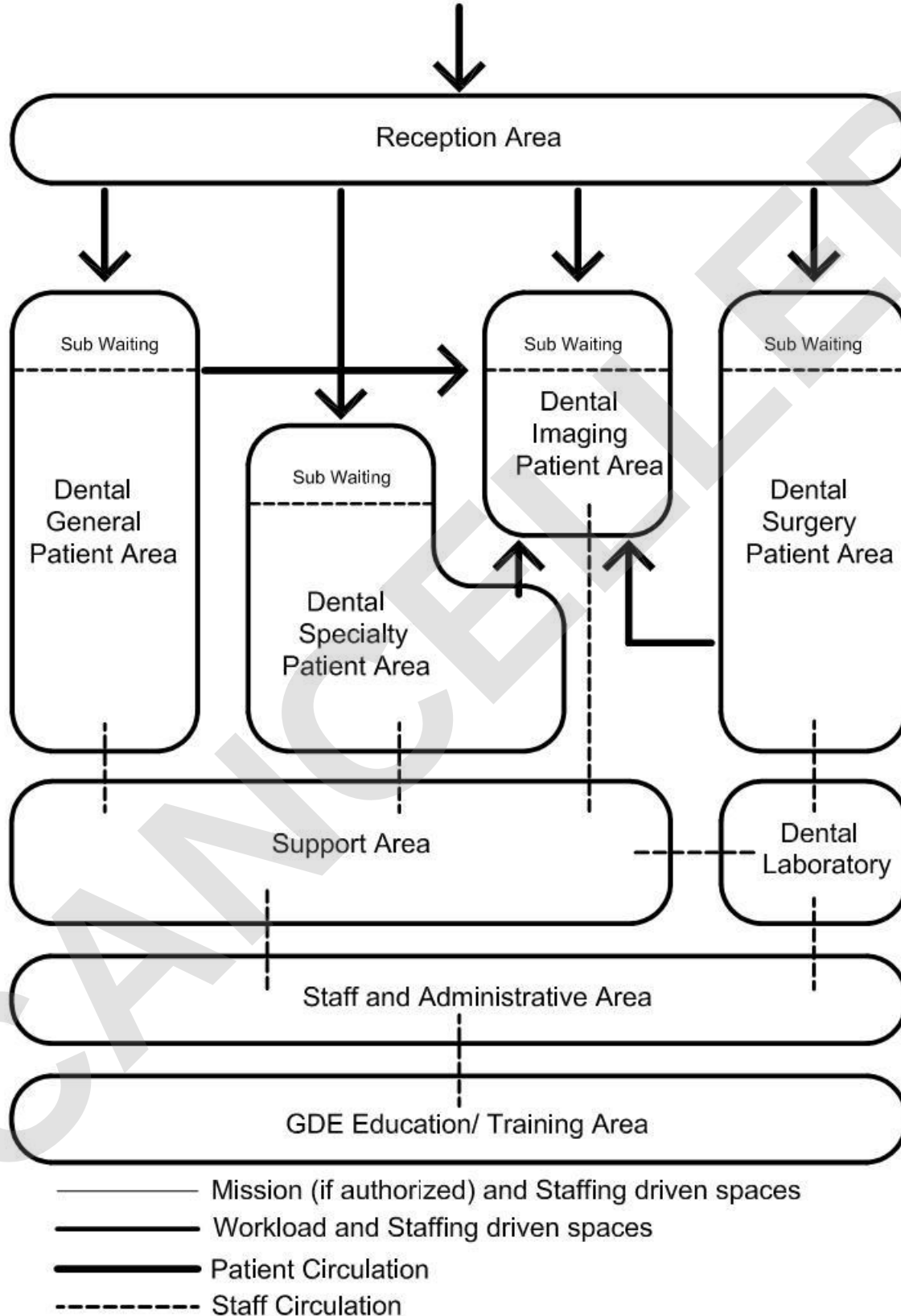
- A. Common use of resources
- B. Accessibility of supplies
- C. Urgency of contact
- D. Noise or vibration
- E. Presence of odors or fumes
- F. Contamination hazard
- G. Sequence of work
- H. Patient's convenience
- I. Frequent contact
- J. Need for security
- K. Others (specify)

8 FUNCTIONAL DIAGRAM

Functional Diagrams show the relationship of each functional area to the whole department. In some instances it shows important spaces within a functional area and how staff and patients may flow through the department. This diagram is not intended to serve as a "bubble diagram" that the planner / designer will create for an individual project. Size and shapes of spaces do not reflect actual configuration or square footage of spaces / rooms.

Refer to Functional Diagram(s) on next page(s)

8 FUNCTIONAL DIAGRAM: DENTAL CLINIC



9 Appendix A: SPACE PLANNING CRITERIA SUMMARY

FA 1: Reception Area:

Room Name	Room Code	NSF	Space Criteria
Waiting	WRC01	120	Minimum NSF; provide an additional 60 NSF for every increment of four General and Pediatric Dental Treatment Chairs, Oral Hygiene Dental Treatment Rooms (DTRs), Prosthodontics, Endodontics, Periodontics, Orthodontics Dental Treatment Rooms (DTRs) and Dental Surgery Operating Rooms greater than four.
Playroom	PLAY1	120	Provide one if a Playroom in the Reception Area is authorized.
Reception	RECP1	120	Minimum NSF; provide an additional 30 NSF for every increment of twelve General and Pediatric Dental Treatment Chairs, Oral Hygiene Dental Treatment Rooms (DTRs), Prosthodontics, Endodontics, Periodontics, Orthodontics Dental Treatment Rooms (DTRs) and Dental Surgery Operating Rooms greater than twelve.
Kiosk, Patient Check-in	CLSC1	30	Provide one for Dental Clinic.
Patient Education	CLSC3	120	Provide one for Dental Clinic if authorized.
Consult Room	OFDC2	120	Provide one for Dental Clinic if authorized.
Records Distribution / Signing	MRWK1	60	Provide one for Dental Clinic.
Alcove, Wheelchair	SRLW1	60	Provide one for Dental Clinic.

FA2: Dental General Patient Area:

Room Name	Room Code	NSF	Space Criteria
Sub-Waiting, General Dentistry	WRC03	60	Minimum NSF; provide an additional 30 NSF for every increment of two General and Pediatric Dental Treatment Chairs and Oral Hygiene Dental Treatment Rooms (DTRs) greater than four if authorized.

Toilet, Patient	TLTU1	60	Minimum one; provide an additional one for every increment of ten General and Pediatric Dental Treatment Chairs and Oral Hygiene Dental Treatment Rooms (DTRs) greater than ten.
Dental Treatment Room (DTR), General	DNTG1	120	Minimum two; provide an additional General Dental Treatment Chair for every increment of 1,228 projected annual General Dental Treatment encounters greater than 2,456; the minimum annual workload to generate one Dental Treatment Chair is 246. (Refer to Table 1)
Dental Treatment Room (DTR), Pediatric	DNTG1	120	Minimum two; provide an additional Pediatric Dental Treatment Chair for every increment of 1,536 projected annual General Dental Treatment encounters greater than 3,072; the minimum annual workload to generate one Pediatric Dental Treatment Chair is 307. (Refer to Table 1)
Dental Treatment Room (DTR), Oral Hygiene	DNTG2	120	Minimum one, provide an additional one for every increment of 1,536 projected annual Oral Hygiene Dental Treatment encounters greater than 1,536; the minimum annual workload to generate an Oral Hygiene DTR is 307. (Refer to Table 1)

FA3: Dental Specialty Patient Area:

Room Name	Room Code	NSF	Space Criteria
Sub-Waiting, Dental Specialty	WRC03	60	Minimum NSF; provide an additional 30 NSF per each Prosthodontics, Endodontics, Periodontics, and Orthodontics Dental Treatment Rooms (DTRs) greater than four if Dental Specialties are authorized and if Sub-Waiting is authorized.

Toilet, Patient	TLTU1	60	Provide one for every increment of ten Prosthodontics, Endodontics, Periodontics, and Orthodontics Dental Treatment Rooms (DTRs) greater than ten if Dental Specialties are authorized.
Dental Treatment Room (DTR), Prosthodontics	DNTP1	120	Minimum two; provide an additional one for every increment of 838 projected Prosthodontics encounters greater than 1,676; the minimum annual workload to generate a room is 168 if a Prosthodontics Dental Specialty is authorized. (Refer to Table 1)
Dental Treatment Room (DTR), Endodontics	DNTE1	120	Minimum two; provide an additional one for every increment of 1,152 projected Endodontics encounters greater than 2,304; the minimum annual workload to generate a room is 230 if a Endodontics Dental Specialty is authorized. (Refer to Table 1)
Dental Treatment Room (DTR), Periodontics	DNTP2	120	Minimum two; provide an additional one for every increment of 838 projected Periodontics encounters greater than 1,676, minimum annual workload to generate a room is 168 if a Periodontics Dental Specialty is authorized. (Refer to Table 1)
Dental Treatment Room (DTR), Orthodontics	DNTB1	120	Minimum three; provide an additional one for every increment of 3,072 projected Orthodontics encounters greater than 9,260, minimum annual workload to generate a room is 614 if Orthodontics Dental Specialty is authorized. (Refer to Table 1)
Workroom, Preparation Area	DNSS1	120	Provide one if a Periodontics Specialty is authorized.
Team Collaboration Room	WRCH1	120	Provide one if Dental Specialties are authorized.
Storage, Dental Models	DNMS1	120	Provide one if Dental Specialties are authorized.
Alcove, Crash Cart	RCA01	30	Provide one if Dental Specialties are authorized.
Alcove, Blanket Warmer	RCA04	30	Provide one if a Periodontics Specialty is authorized.

FA4: Dental Imaging Patient Area:

Room Name	Room Code	NSF	Space Criteria
Sub-Waiting, Dental Imaging	WRC03	60	Minimum NSF; provide an additional 30 NSF for every increment of two Intra Oral Panoramic / Cephalometric and Cone-Beam CT Dental Radiology Room greater than four.
Dental Radiology Room, Intra Oral Panoramic / Cephalometric	DNXS1	180	Minimum one; provide one for every increment of 4,608 projected Intra Oral Panoramic / Cephalometric imaging encounters greater than 4,608; the minimum annual workload to generate a room is 922. (Refer to Table 1)
Dental Radiology Room, Cone-Beam CT	DNXC1	180	Provide one if a Cone-Beam CT Dental Radiology Room is authorized.
Control Room, Cone-Beam CT Dental Radiology	DNXR1	120	Provide one if a Cone-Beam CT Dental Radiology Room is authorized.
Viewing Room, Picture Archiving and Communication System (PACS)	XVC01	120	Provide one if a Picture Archiving and Communication System (PACS) is authorized.

FA5: Dental Surgery Patient Area:

Room Name	Room Code	NSF	Space Criteria
Sub-Waiting, Dental Surgery	WRC03	60	Minimum NSF; provide an additional 30 NSF for every increment of two Dental Surgery Operating Rooms greater than four if Dental Surgery is authorized.
Toilet, Patient	TLTU1	60	Provide one if Dental Surgery is authorized.
Scrub Area, Dental Surgery	ORSA1	60	Provide one for every increment of two Dental Surgery Operating Rooms if Dental Surgery is authorized.

Operating Room, Dental Surgery	DNTS1	240	Minimum two; provide an additional one for every increment of 768 projected annual Dental Surgery procedures greater than 1,536, the minimum annual workload to generate a Dental Surgery Operating Room is 154 if Dental Surgery is authorized. (Refer to Table 1)
Prep / Recovery Room	DNTR1	120	Provide one for every increment of two Dental Surgery Operating Rooms if Prep / Recovery Room is authorized.
Dental Treatment Room (DTR), General	DNTG1	120	Provide two if Dental Surgery is authorized.
Workroom, Preparation Area	DNSS1	120	Provide one if Dental Surgery is authorized.
Alcove, Wheelchair	SRLW1	60	Provide one if Dental Surgery is authorized.
Alcove, Blanket Warmer	RCA04	30	Provide one if Dental Surgery is authorized.
Alcove, Crash Cart	RCA01	30	Provide one if Dental Surgery is authorized.

FA6:Dental Laboratories:

Room Name	Room Code	NSF	Space Criteria
Shipping and Receiving, Dental Laboratories	LBSS1	120	Provide one if Dental Laboratories are authorized.
Laboratory Basic Service, Dental Prosthodontics	DNPL2	240	Provide one if some of the Dental Prosthodontics Laboratory functions are authorized to be performed at an Area Dental Laboratory.
Laboratory Full Service, Dental Prosthodontics	DNPL3	360	Provide one if some of the Dental Prosthodontics Laboratory functions are not authorized to be performed at an Area Dental Laboratory; provide an additional 120 NSF if Dental Surgery is authorized and an additional 60 NSF per each Dental Prosthodontics Laboratory Full Service workstation authorized greater than four.

Laboratory Basic Service, Porcelain / Ceramics	DNPC3	240	Provide one if some of the Porcelain / Ceramics Laboratory functions are authorized to be performed at an Area Dental Laboratory.
Laboratory Full Service, Porcelain / Ceramics	DNPC2	360	Provide one if some of the Porcelain / Ceramics Laboratory functions are not authorized to be performed at an Area Dental Laboratory; provide an additional 60 NSF per each Porcelain / Ceramics Laboratory Full Service workstation authorized greater than four.
Storage, Equipment	SRSE1	120	Provide one if Dental Laboratories are authorized.

FA7:Support Area:

Room Name	Room Code	NSF	Space Criteria
Workstation, Receiving	OFA03	60	Provide one if a dedicated space for logistics / shipping and receiving is authorized.
Dental Instrument Decontamination Room, Small	DNSC1	120	Provide one if the total number of General and Pediatric Chairs, Oral Hygiene, Prosthodontics, Endodontics, Periodontics, and Orthodontics Dental Treatment Rooms (DTRs) and Dental Surgery Operating Rooms is between 1 and 10.
Dental Instrument Sterilization Room, Small	DNSC2	120	Provide one if the total number of General and Pediatric Chairs, Oral Hygiene, Prosthodontics, Endodontics, Periodontics, and Orthodontics Dental Treatment Rooms (DTRs) and Dental Surgery Operating Room is between 1 and 10.
Dental Instrument Storage Room, Small	DNSC3	120	Provide one if the total number of General and Pediatric Chairs, Oral Hygiene, Prosthodontics, Endodontics, Periodontics, and Orthodontics Dental Treatment Rooms (DTRs) and Dental Surgery Operating Room is between 1 and 10.

Dental Instrument Decontamination Room, Medium	DNESC4	240	Provide one if the total number of General and Pediatric Chairs, Oral Hygiene, Prosthodontics, Endodontics, Periodontics, and Orthodontics Dental Treatment Rooms (DTRs) and Dental Surgery Operating Room is between 11 and 20.
Dental Instrument Sterilization Room, Medium	DNESC5	240	Provide one if the total number of General and Pediatric Chairs, Oral Hygiene, Prosthodontics, Endodontics, Periodontics, and Orthodontics Dental Treatment Rooms (DTRs) and Dental Surgery Operating Room is between 11 and 20.
Dental Instrument Storage Room, Medium	DNESC6	240	Provide one if the total number of General and Pediatric Chairs, Oral Hygiene, Prosthodontics, Endodontics, Periodontics, and Orthodontics Dental Treatment Rooms (DTRs) and Dental Surgery Operating Room is between 11 and 20.
Dental Instrument Decontamination Room, Large	DNESC7	360	Provide one if the total number of General and Pediatric Chairs, Oral Hygiene, Prosthodontics, Endodontics, Periodontics, and Orthodontics Dental Treatment Rooms (DTRs) and Dental Surgery Operating Room is greater than 20.
Dental Instrument Sterilization Room, Large	DNESC8	360	Provide one if the total number of General and Pediatric Chairs, Oral Hygiene, Prosthodontics, Endodontics, Periodontics, and Orthodontics Dental Treatment Rooms (DTRs) and Dental Surgery Operating Room is greater than 20.
Dental Instrument Storage Room, Large	DNESC9	360	Provide one if the total number of General and Pediatric Chairs, Oral Hygiene, Prosthodontics, Endodontics, Periodontics, and Orthodontics Dental Treatment Rooms (DTRs) and Dental Surgery Operating Room is greater than 20.
Medication Room	MEDP1	120	Provide one for Dental Clinic.

Utility Room, Clean	UCCL1	120	Minimum NSF; provide an additional 30 NSF for every increment of eight General and Pediatric Chairs, Oral Hygiene, Prosthodontics, Endodontics, Periodontics, and Orthodontics Dental Treatment Rooms (DTRs), Intra Oral Panoramic / Cephalometric and Cone-Beam CT Dental Radiology Rooms greater than eight.
Utility Room, Soiled	USCL1	120	Minimum NSF; provide an additional 30 NSF for every increment of eight General and Pediatric Chairs, Oral Hygiene, Prosthodontics, Endodontics, Periodontics, and Orthodontics Dental Treatment Rooms (DTRs), Intra Oral Panoramic / Cephalometric and Cone-Beam CT Dental Radiology Rooms greater than eight.
Linen Room, Clean	LCCL2	120	Minimum NSF; provide an additional 30 NSF for every increment of eight General and Pediatric Chairs, Oral Hygiene, Prosthodontics, Endodontics, Periodontics, and Orthodontics Dental Treatment Rooms (DTRs), Intra Oral Panoramic / Cephalometric and Cone-Beam CT Dental Radiology Rooms greater than eight.
Linen Room, Soiled	LCCL2	120	Minimum NSF; provide an additional 30 NSF for every increment of eight General and Pediatric Chairs, Oral Hygiene, Prosthodontics, Endodontics, Periodontics, and Orthodontics Dental Treatment Rooms (DTRs), Intra Oral Panoramic / Cephalometric and Cone-Beam CT Dental Radiology Rooms greater than eight.
Alcove, AED	RCA01	30	Provide one for Dental Clinic.
Storage, Equipment	SRSE1	120	Provide one for Dental Clinic.
Storage, Gas Cylinder	SRGC2	120	Provide one for Dental Clinic.
Storage, Chemical / Corrosives	SRHM1	120	Provide one for Dental Clinic.

Alcove, CAD / CAM Cart	XRM01	30	Provide one if Dental Laboratories are authorized and if CAD / CAM imaging is authorized.
Dental Equipment Mechanical Room	MECH1	120	Provide one for Dental Clinic.

FA8:Staff and Administrative Area:

Room Name	Room Code	NSF	Space Criteria
Office, Department / Clinic Chief	OFA04	120	Provide one for Dental Clinic.
Office, Executive Assistant	OFA04	120	Provide one for Dental Clinic.
Sub-Waiting	WRC03	60	Provide one for Dental Clinic if Staff and Administrative Sub-Waiting is authorized.
Office, NCOIC / LCPO / LPO	OFA04	120	Provide one for Dental Clinic.
Team Collaboration Room	WRCH1	120	Minimum one; provide an additional one for every increment of eight General and Pediatric Chairs; Oral Hygiene, Prosthodontics, Endodontics, Periodontics, Orthodontics Dental Treatment Rooms (DTRs), Intra-Oral Panoramic / Cephalometric Dental Radiology Rooms and Dental Surgery Operating Rooms greater than eight.
Office, Private	OFA04	120	Provide one per each Dental Clinic provider and non-provider FTE position authorized to have a private office.
Office, Shared	OFA05	120	Provide one for every increment of two Dental Clinic provider and non-provider FTE positions authorized to have a shared office.
Cubicle	OFA03	60	Provide one per each Dental Clinic provider and non-provider FTE position authorized to have a cubicle.
Storage, Patient Records	MRS01	120	Provide one if storage of Patient Paper Records is authorized.
Conference Room	CRA01	240	Minimum NSF; provide an additional 60 NSF if the total number of FTE positions authorized is greater than ten.

Copier	RPR01	120	Provide one for Dental Clinic.
Storage, Office Supplies	SRS01	60	Provide one for Dental Clinic.
Lounge, Staff	SL001	120	Minimum NSF, provide an additional 60 NSF for every increment of five FTEs working on peak shift greater than ten; maximum 360 NSF.
Locker / Changing Room, Male Staff	LR002	120	Provide one if a Male Staff Locker / Changing Room is authorized.
Locker / Changing Room, Female Staff	LR002	120	Provide one if a Female Staff Locker / Changing Room is authorized.
Toilet / Shower, Male Staff	TLTS1	60	Provide one if a Male Staff Locker / Changing Room is authorized.
Toilet / Shower, Female Staff	TLTS1	60	Provide one if a Female Staff Locker / Changing Room is authorized.

FA9: GDE Education / Training Area:

Room Name	Room Code	NSF	Space Criteria
Office, Residency Program Director	OFA04	120	Provide one if a Graduate Dental Education program for Dental Clinic is authorized.
Office, Residency Program Assistant Director	OFA04	120	Provide one if a Graduate Dental Education Residency Program Assistant Director is authorized.
Dental Treatment Room (DTR), General One-Chair	DNTG1	120	Provide one per each Resident / Student FTE position authorized if a Graduate Dental Education program for Dental Clinic is authorized.
Resident Collaboration Room	WKTM1	240	Minimum NSF; provide an additional 60 NSF per each Resident / Student FTE position authorized greater than two if a Graduate Dental Education program for Dental Clinic is authorized.
Classroom / Conference Room	CLR01	240	Provide one if the total number of Resident / Student FTE positions is greater than five if a Graduate Dental Education program for Dental Clinic is authorized.