

Dental Project

Project/Class: Project 2: Dental Clinic Research and Schematics
ID 440 – Contract Design II
Fall 2009

Project Statement: This project encompasses a team investigation summarizing the **evidence-based design research** of dental clinics along with individual **schematic designs** for the professional dental suite of Dr. Jonathan Allgood and Dr. Charles Lovejoy, both general dentists in Hattiesburg, MS. The majority of their patients range in age from 18 to 60, therefore, no specialized pediatric or geriatric equipment is required.

General Criteria: The doctors are evaluating a space available for lease of approximately 3,300 square feet which will begin construction in January, 2010 as part of "Phase III" of Wesley Medical Park (see floor plan). Only phase I and II of the medical buildings have been constructed at this time. The buildings consist of a one level non-sprinklered facility and will include a fire alarm system. Exterior walls are concrete block covered by stucco and brick on the outside and drywall on the inside. The tenant demising wall is 1 hour fire-rated and the door into the shared tenant corridor is 1 ½ hour rated with a glass lite (window in the door). The main door into the space is glazed tempered glass.

Interior partitions will be standard metal stud partitions covered with 5/8" gypboard. The exposed ceiling height is 15'. All windows are 1'-6" above the finished floor (AFF) and are 8'-0" high. Interior door height is standard at 6-8" high. Interior walls (including wet walls) will be constructed after individual tenant plans are approved. (For the purpose of this project, you will not be limited by existing plumbing line.)

An atmosphere is desired that is professional and high end, not cold and depressing. Colors should comfort nervous patients. Materials should be easily cleanable, particularly in operatory rooms and lab areas. You will be asked to do a team research assignment along with observations on dental offices prior to beginning this project.

The facility shall meet the minimum requirements of all applicable building codes, the NFPA Life Safety Code, and the Americans with Disabilities Act of 1990.

Program Requirements

Waiting Area (1) 350 sq. ft.

- Comfortable seating for a minimum of 12-15 people
- Guest chairs (ganged or attached seating)
 - Tables (end tables/ coffee tables)
 - Magazine rack
 - Coat rack (freestanding or bolted to wall)
 - Space provision for one wheelchair (30" w x 49" L)
 - Adjacent to payment area (business office) through door
 - Counter with window accessible to receptionist (overall window width should be 4'-0" minimum)

Business Office (1) 350 sq. ft. (total)

A. Receptionist/Payments Clerk (1 person): Main responsibilities are to sign in patients, answer telephone, receive payments as patients leave, and schedule new appointments.

- 6 lin. Ft. of worksurface accessible to front window which opens to waiting room; this window should provide the receptionist with visual access to the main public entrance.
- 5 lin. Ft. of worksurface and transaction counter accessible to patients that are coming from operatory rooms, for paying and exiting through the waiting room. Provide mirror area for combing hairs and applying makeup.
- Task chair
- Computer
- Fax machine
- Phone

B. Office Manager/Finance: Main responsibilities are to manage accounting, patient invoicing and patient files. Visual privacy is needed from check-in window.

- 10 lin.ft. of worksurface space,
- Location should be accessible to patient files.
- Task chair
- 1 guest chair for consultation with patients
- computer
- printer (shared with receptionist)
- Phone

Filing Space

- Minimum of 520 filing inches, end tab filing.
- Floor Copy machine
- Supply storage for office supplies.

Staff Lounge 150 sq. feet

- Table and seating for 4-6
- Sink/refrigerator/microwave/coffee maker
- Water dispenser or filtered water
- Recycling center
- Tv/phone

Private Office (2) 120 - 150 sq. ft. each

The doctors rarely consult with patients in their offices. The space is used to read mail, return phone calls, and relax between procedures. The doctors want to express their own individual style through their office environments, therefore, the offices do not have to tie in exactly with the finish selections for the remainder of the facility; however, they should not clash harshly. Dr. Allgood prefers contemporary furnishings and abstract art. Dr. Lovejoy is a Navajo Indian from New Mexico and prefers his office to express the Native American culture.

For each office:

- Executive desk with return
- High back executive chair
- Computer, small printer
- 15 Linear feet (min.) of shelving storage for medical books.
- Comfortable seating arrangement for 2 people

Operatory (6) minimum of 90 -120 max. sq. ft. each

Used for hygiene visits, restorative and surgical procedures as well as for x-rays, viewing films, charting and numbering teeth, and various consultation

- 2 ea counters each with a small single bowl sink in the base cabinet (48" wide min.)
- Hook for handbag/coat
- Mobile tool cart
- Dentist Stool
- Dental Asst. Stool
- Dental (patient) Chair
- Window with a view
- Must utilize two passageways into each operatory
- Equipment: x-ray head, view box (6" x 12"), dental light, various instrumentation (to be researched thru interviews and observations)

Equipment Room: Min. 40 sq. feet

- Located centrally to the operatories
- Central vacuum pump (suction)
- Air compressor
- Medical gasses
- Water heater
- Telephone terminal panel
- Special attention to sound transmission is critical

Sterilization (1) 120 sq. ft.

Centrally located to operatories, large enough for 2-3 people to work simultaneously. There will be a clean side and a dirty side.

- 6 lin. ft. min of worksurface clean side
- 6 lin. Ft. min of worksurface dirty side
- 1 Double sink with sprayer (dirty side)
- Ultrasonic cleaner (dirty side)
- Autoclave (sterilizer; dirty side)
- upper and lower cab. storage
- Clean side should have 3' kneespace (desk area)
- 1 phone
- 1 F/F drawer
- 1 center drawer

Dental Lab (1) 100 sq. ft. total

- Located remotely from operatory due to noise issues from lab equipment.
- 1ea centrally located sink
- Provide upper storage accessible to the seated technician
- Use continuous plug strips
- Equipment needs will be researched from interview and observations.
- 1 ergonomic stool with arms

Dark Room: 50 sq. feet

- Automatic processor (research dimensions)
- Processor should sit on a 25" deep counter @30" AFF
- single bowl sink, counter height
- floor drain and exhaust fan
- upper cabinet storage for dark room supplies
- two light sources (a safe light and a work light)

Patient Education: 72-80 sq. feet

- built-ins
- computer with flat screen LCD-TV monitor
- light box for viewing x-rays
- table and 3 chairs
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General

- Panoramic x-ray unit in an alcove (5'w x 4' d)
- 1 accessible public drinking fountain
- 1 accessible public restroom
- 1 accessible staff restroom
- 20% of sq. footage allowed for circulation (Approx. 660 sq. feet)

PROJECT REQUIREMENTS

- All drawings will be in schematic presentation on 11 x 17 trash paper with loose borders. Absolutely no AutoCAD will be used for this project.
- Include a title page that includes the logo for your design firm and the Family Dental Clinic logo.
- Include a Table of Contents on the Title Page along with the design concept statement
- Sheet one shall be a bubble diagram- color rendered and labeled with legend
- Sheets two - five shall be progressive block plans with labeling, color coded with legend
- Sheet six shall be a preliminary plan with labeling
- Sheet seven shall be the final floor plan with furniture layout and labeling
- Sheet eight shall include 4ea 3 x 5 sketched perspectives of choice
- Prepare one digital board with final sketched floor plan noting evidence-based design findings and a sampling of the preliminary furnishings and finish materials in digital format only. Labeling should be typed on the digital board.

CHECK DATES: All work to be done on trash paper. Checks do not have to be in final presentation format. All preliminary check work should be submitted in a folder with final project.

Monday	Nov. 16	1 Bubble and 1 block plans with traffic flow and primary adjacencies shown.
Wednesday	Nov. 18	Concept statement Team Research Presentations Due
Monday	Nov. 23	Preliminary block plans (minimum of 4)
Monday	Nov. 30	Preliminary floor plan with door and built-ins
Wednesday	Dec. 2	Final Plan with furniture layouts (last day of class)
Monday	Dec. 7	Email: Perspective sketches
Wednesday	Dec. 9	Email : Digital Color Boards with plan and evidence based design notations

PROJECT DUE DATE December 11, 2009 by 5:00

**Schematic Design Project
Dental Project (150 points)
Grade Sheet
ID-440: Fall, 2009**

Name: _____

Cover Page	(10 points)	
Logos and Table of Contents		5
Concept Statement		5
Bubble Diagram	(15 points)	
Adjacencies/ sq. footages		5
Legend		5
Graphic quality		5
Block Diagrams (4 ea)	(10 points)	
Adjacencies		10
<i>(plans do not need to be graphically presented)</i>		
Preliminary Plan	(15 points)	
Design development from block		10
Adjacencies/Sq. footages		5
<i>(Plan does not need to be graphically presented)</i>		
Final Plan	(35 points)	
Continued Design Development		5
Adjacencies /Sq. footages		5
Furniture plan/ Meets program		10
Codes		10
Graphic presentation		5
Perspectives	(20 points)	
Visual correctness/technique		10
Understanding of elements and principles		10
Digital Board	(20 points)	
Evidence based design notations		10
Preliminary furniture/finish selections		10
Overall	(25 points)	
Overall Graphic Presentation		10
Labeling and hand lettering		10
Spiral bound notebook		5

Project notebook should be organized and include all team research, program, and all trash drawings.