The Mental Health Center is a three building complex that was built in 1967 with a later inpatient addition in 1983. The two story Mental Health Building includes clinics, a pharmacy, administration, a multi-purpose room, and a cafeteria and kitchen. There is a small second floor deck on the north side with a storefront windscreen that was added later. A one story inpatient wing is connected by a corridor. Modifications have been made to reflect changing needs in patient care. For example, converting the recreation room to records storage and craft, cooking and sewing classrooms to offices. The 1983 Annex was built to house some administrative functions, a geriatric wing and an adolescent wing. The adolescent programs have since been moved to the Children’s Psychiatric Hospital and the wing is now used for an outpatient day hospital. To the east are two small, one story buildings used for Programs for Children and Psycho Social Rehabilitation. Programs for Children includes offices, medical exam rooms, and observation and therapy rooms. Psycho Social Rehabilitation is in what was formerly the Children’s Activity Building. This building has a large group therapy room, conference space, a small “life skills” kitchen and offices. All of the original buildings are painted 8” stack bond C.M.U. with painted concrete brise-soleils around both the Mental Health and Programs for Children buildings. Doors are typically painted hollow metal with glass inserts and windows are tinted, single glazed in anodized aluminum frames. Spandrel panels above and below the windows have been replaced with a non-breakable, painted infill panel. The Annex has an EIFS exterior and insulated windows with vertical shading fins. The MHC is well landscaped with mature trees and lawns surrounding the buildings and in the enclosed courtyards off of each inpatient wing.

The roofs are original to all the buildings and are due for replacement. There have been reports of numerous leaks and repairs have been done on an as needed basis. The Annex has some damage to the EIFS and corrosion on some window frames. Outdoor access to the mechanical basement is located in one of the inpatient courtyards and is enclosed on the top and sides by chain link fencing.

Finishes throughout the buildings are in fair condition. The Mental Health Building has brick floors at the first floor public spaces and recent renovation has been done in the waiting and administration areas. A two story atrium with skylights creates a lobby for the pharmacy and cafeteria. Older vinyl tile and stained, worn carpeting is typical throughout. The lay-in ceiling grid is greatly discolored due to cigarette smoke. The kitchen was remodeled in 1983, but is still small and crowded. The dining area includes a small grill and serving line and has a conference area separated by a glass storefront wall. The underutilized multi-purpose room is a two story space with vinyl tile, painted C.M.U. walls and translucent glazing. The original inpatient wings are organized around a central nurse’s station surrounded by patient rooms and recreation area. This layout creates some blind corridors that aren’t visible from the nurse’s station. Minimal upgrading of finishes has been done in these wings. Patient rooms have painted C.M.U. walls, sheet vinyl floors, Lexan windows or translucent panels and heavy wood furniture. The lounge and recreation areas are loud and minimally furnished.

The Mental Health Building and the Annex are connected by a vaulted atrium with clerestory windows. There are some trees, plantings and furniture. The Annex inpatient wings are much more pleasant, with newer finishes and furniture, and some carpeting to deaden noise. All areas are visible from the central nurse’s station. Programs for Children and Psycho Social Rehabilitation have had some finish upgrades in a few places, but most areas of the buildings still have their original floor tile, carpet, lay-in ceilings and furniture.
The life-skills kitchen in Psycho Social Rehabilitation was retrofitted into the corridor, which is an awkward location at best.

All patients enter the Mental Health Building through the main lobby. This has created frequent conflicts and threats between violent emergency patients, staff and non-emergent patients. The security system only allows locking all exit doors in the building, resulting in an entire facility lock-down rather than securing by zone. Programs for Children is administered by the Children’s Psychiatric Hospital and should be relocated to CPH to accommodate patients and staff and facilitate record keeping.

Some efforts have been made to address ADA and building codes in these buildings. Some restrooms have had upgrades to bring them into reasonable compliance with ADA, but most, including the inpatient bathrooms, are inconsistent in their treatment. There is a five year plan in progress for fully sprinklering the Mental Health Building, but not all required doors have labels and closers and most doors have knobs. There isn’t the required Area of Rescue on the second floor, but once the building is fully sprinklered, this will no longer be a requirement. Some exit corridor walls don’t comply with required fire separation requirements from adjoining spaces. Vinyl asbestos floor tile is indicated on the drawings, as well as asbestos pipe insulation. Stair handrails don’t meet extension, spacing or minimum grab requirements. Landings aren’t deep enough and stairs to the basement are very steep. The exterior ramp on the south side of the Annex is too steep and without an acceptable landing at the midpoint.

The Mental Health Building and Annex’s structure is concrete frame and masonry infill walls supporting steel joists, metal deck and lightweight concrete roof slab. Both areas have a small basement. The foundation is concrete spread footings, concrete basement walls and concrete slab on grade. The Annex’s slab was placed over a 6” layer of sand. The lateral load resisting system for Mental Health is masonry shear walls and the Annex uses a steel braced frames. The majority of the roofs of the entire Mental Health Center buildings are built up asphalt plies with gravel ballast. These roofs typically have little or no slope, with the exception of some small pitched sections that are asphalt shingled. No significant structural distress was observed at any of the buildings in this facility and they appear to be supporting design loads adequately.

The Mental Health Center is served by a number of dual duct air handlers that supply air to constant and variable volume terminal units. Heating water is produced by gas fired boilers and chilled water is produced by two centrifugal chillers. Capacity of both systems seems adequate. One of the chillers is in need of a tear down inspection and overhaul. To ensure reliability of the system, this should occur during the next chiller shutdown when it should be considered whether to replace the chiller since it is at the end of its useful service life. With diligent maintenance, the chiller can be kept in operation until it can be replaced. The boiler and heating water system appear to be in satisfactory shape, but require further evaluation and inspection to determine whether the boilers should be replaced, since they too have reached the end of their useful service life. At present there are no reports of poor indoor air quality, poor air distribution or hot/cold spots. The heating water and the chilled water system insulation have been tested for asbestos and the results have returned positive. There are many breaks in the insulation, exposing maintenance personnel to asbestos contamination when they perform maintenance and repair activities. The Annex’s domestic cold water distribution is satisfactory, but in Mental Health there have been some leaks due to deteriorating pipes. The entire cold water distribution system, as well as the sanitary sewer system, should be evaluated and problem areas replaced within the next 1-3 years. The control air compressors appear to be adequately sized, but distribution to the Annex is inadequate. This is due to the length of the run and the size of the tubing that is making control components operate at 10 psi less than the manufacturer’s recommended operating pressure. The problems at the Mental Health Center are not yet serious, but could become so in the near future and should be addressed within the next 1-3 years.
**Electrical**

Typically, normal and emergency distribution equipment, motor control centers and branch circuit panelboards are the original equipment, replacement parts for motor are not available, all electrical equipment is old and should be replaced. The electrical system has the capacity for additional loads, however the electrical equipment can’t be expanded for the additional over current devices required. The primary power infrastructure was updated within the last three years. There is an emergency generator that is not connected to the system, but the facility is in the process of replacing the generator. Some deficiencies include clearance violations, unlabeled panelboards and equipment disconnect switches, inaccurate panelboard directories, and voice/data cables on top of ceiling tiles and strapped to conduits. There appears to be an adequate amount of general receptacles throughout the building. Interior lighting is a mix of fluorescent, incandescent and HID fixtures. Lighting levels are generally adequate, but there are a number of broken or damaged fixtures and antiquated ballasts that should be checked for PCB’s and replaced. Emergency lighting and exit signs are self-contained with battery backup. Emergency lighting coverage is adequate, but additional exit signs are needed in select areas. The fire alarm system consists of a addressable fire alarm panel, with detectors in corridors, storage areas and penthouse, pullstations at stairs, exterior doors and nurses stations with horn/strobes throughout the facility. Some exit doors are missing their required pullstations. We recommend a tamper proof cover be installed over smoke detectors located in seclusion rooms. Fire alarm system coverage is adequate and was approved by the State Fire Marshal. Currently the voice/data system is being upgraded as needed. Security system consists of magnetic door locks on exterior doors.

**Conclusion**

The Mental Health Center is in relatively good condition, but requires some work to bring it to an appropriate level for a facility of this kind. Changes in patient care have required program changes and modifications to the buildings, but further study of current practices could give direction for more effective renovations in the future. Relocating Programs for Children to CPH would free up some space and be more efficient for CPH staff and patients. An improved security system and a secure entrance for emergency patients should be top priorities. Overall refurbishing and replacement of furniture and finishes throughout the buildings, especially the inpatient wings, would improve the appearance and user perception of the Mental Health Center and should also be considered an important item for attention. Life safety and ADA upgrades should be made to bring the building within a consistent level of compliance. The mechanical systems are in serious need of significant upgrading or replacement. The electrical systems need upgrading and replacement to bring them to current operating standards. This will include a dependable emergency generator and standardized, energy efficient light fixtures.
The Health Sciences Library (#234) is on the north side of the main plaza at what is considered the formal entrance to the campus. Built in 1975, the building has largely remained as originally designed with minimal remodeling, primarily partition relocation, wiring upgrades and finish replacement. The Library has stacks, study rooms and reading areas on the third and fourth floors; main lobby, computers, media stacks, archives and meeting rooms on the second floor; and a t.v. studio, multi-media center and poison control on the first floor. Additional storage for the library is in the HSSB basement, which is accessed by a connecting tunnel. The exterior finishes include exposed concrete, stucco and glass curtain wall. Other single glazed, aluminum windows are used in the building, as well as storefront door systems. Mature trees are planted at the main entrance and the first floor opens to a courtyard shared with the Family Practice Center. The courtyard is well planted with trees, shrubs and flowers and furnished with benches, bike racks, a fountain and a basketball court.

The exterior of the Library is showing signs of age that need to be addressed. The stucco on the parapets, walls and sills is cracking, flaking and falling off in places. There is corrosion on the curtain wall frame and the windows bow and move when it’s windy. The roof was replaced in the late 80’s, but there are still some leaks. The parapets and flashing also need to be repaired.

Significant work has been done recently to upgrade the Library’s appearance. New fabrics and carpet, slate flooring in the entrance lobby, custom linoleum patterns at the elevator lobbies and some new lighting has helped make the Library a more comfortable and attractive building. Artwork is distributed throughout the building and display cases are used for the dual purpose of exhibition and storage of study models. The archives area is humidity controlled, but lacking any fire protection. The building is presently being rewired to current computer standards.

The Library appears to have reached its “maximum density”. Increased staff and data has meant that storage area has been taken over for these uses. Electronic storage of information also hasn’t progressed as quickly as predicted, with the net result being a lack of space for filing and archiving of books and other material.

Efforts have been made to address ADA and building code issues in this building. Fixtures have been replaced, grab bars added and drinking fountains lowered. The building is sprinklered (with the exception of the archives) and elevators and stairs are in reasonable compliance with ADA guidelines. Fire lane access to the building can be improved by widening and strengthening the concrete walkway and designating the southwest driveway as fire lane only. A smoke removal system would be advisable in the Library due to the fourth floor mezzanine and the amount of combustibles in the building. The fire extinguisher cabinets and extinguishers are not the correct type for this occupancy. Extinguishers need to be changed to 2-1/2 gallon water and the cabinets changed to accommodate the larger units.

The Library is a steel frame structure supporting composite concrete over metal deck and steel beam floor and roof framing. Cast-in-place concrete shear walls provide resistance to lateral loads. The basement wall on the east side of the first level has a vertical crack which was monitored when it originally occurred and appears to be related to concrete shrinkage, but is not a structural concern. There are some cracked floor tiles in the basement that appear to be over a floor control joint, but according to occupants, the cracking...
has stabilized and not increased in severity in several years. No other signs of structural distress were noted. The roof slope doesn’t meet current building code requirements and the stuccoed roof parapets are badly cracked, chipped and poorly repaired. Moisture penetration behind the stucco exterior may be the cause of the cracked stucco on the exterior wall surface at the third floor. A depressed area of paving in the south parking lot ponds water near the building. Overall, the structure seems to be performing adequately.

The mechanical and plumbing systems are 22 years old and approaching the end of their useful service lives. With rigorous adherence to to maintenance schedules the systems may last another five years. Air quality is a major problem in this building. The toilet exhaust fan duct connections have completely eroded and been patched with duct tape. Duct lining throughout the building has deteriorated to such a degree that dust and debris covers furniture and sores have appeared on the heads of occupants that are in one place most of the day. The outside air intake for the main air handling unit circulates truck exhaust fumes and chemical odors from nearby buildings into the Library. Sewer gas can be smelled in toilet rooms after periods of non-use. The plumbing system doesn’t have a backflow preventer which is a Mechanical Code Violation.

Like many other buildings on the HSC campus, normal and emergency distribution equipment, motor control center and branch circuit panelboards are the original equipment, replacement parts for motor starters are not available, and all electrical equipment is old and should be replaced. The electrical system has the capacity for additional loads, however the electrical equipment can’t be expanded for the additional over current devices required. The primary power infrastructure was updated within the last three years. The emergency generator is about one year old and looks to be in good condition, but the generator was not tested under building load. The automatic transfer switch is original and should be tested, service and replaced if needed. Since the library has become a computer center over the years, additional panelboard with surge protection is recommended. Other deficiencies include clearance violations, exposed live parts, water lines passing over or in front of electrical equipment, unlabeled panelboards and equipment disconnect switches, inaccurate panelboard directories and voice/data cables on top of ceiling tiles and strapped to conduits. There appears to be an inadequate amount of receptacles for computer loads. Interior lighting is a mix of fluorescent, incandescent and HID fixtures. Lighting levels are adequate, but there are a number of broken or damaged fixtures. Emergency lighting and exit signs are connected to the emergency backup system that has inadequate coverage. The fire alarm system consists of a hard wire zone fire alarm panel, with pull stations, detector and horn/strobe with inadequate coverage and should be replaced. Voice/data systems are being replaced on an as needed, building by building basis.

The Health Sciences Library is in good condition, but needs some attention to its exterior and certain Life Safety items. The building should be restuccoed and the curtain wall repaired or replaced before further deterioration causes more significant problems. Recent interior remodeling has brought the Library to its proper place as a significant building on the HSC campus. A greater issue that will need to be addressed is that of space. The first floor uses seem somewhat incompatible with the rest of the building and some thought should be given to relocating those spaces, allowing the Library to use its entire building for its functions. Upgrading or replacing fire alarms and extinguishers should be of prime importance and a smoke removal system should be considered. Air quality issues should be attended to immediately to avert system failures, improve occupant comfort and even avoid possible litigation. The electrical systems need upgrading and replacement to bring them to current operating standards. Light fixtures should be standardized and replaced with energy saving fixtures. The fire alarm system, emergency lighting and exit signs should be upgraded to provide adequate coverage, particularly in light of the amount of combustibles in Library. Mechanical and plumbing systems are still in good working order, but will need to be replaced in the near future.
The Family Practice Center (#248) is located in the northwest portion of the HSC, directly south of a large permitted parking lot. Built in 1977, this four story building has a clinic on the main (or second) level, offices on the third and fourth floors, and offices and the medical/law bookstore at the ground level. The exterior is a combination of stucco, exposed concrete and precast concrete elements (parapets, shading fins and vigas). There is a wrap-around deck at the third floor. Windows are single glazed aluminum framed with shading film on the south side. A glass curtain wall system is used above the north facing entry and at the third floor. There are some mature trees at the front and sides of the building and the ground floor opens to a courtyard shared with the Health Sciences Library. The courtyard is well planted with trees, shrubs and flowers and furnished with benches, bike racks, a fountain and a basketball court.

There are no reports of roof leakage on the Family Practice roof, but the parapets show signs of damage and the sealant between the precast panels is deteriorating. The roof hatch also shows signs of leakage. The areas under the northeast corner of the deck show signs of water damage and there are some cracks in the deck waterproofing. The exposed concrete elements are absorbing water and need to be resealed.

Finishes throughout the building are in fair to poor condition. Interior walls are a combination of painted gypsum board and C.M.U. and still have their original 70's graphics and colors. Furniture is dated and carpeting is stained, worn and torn in places. The Family Practice Clinic was given a facelift in the early 90's with new carpet, sheet vinyl and some furniture, but is already showing signs of wear. Wayfinding is particularly difficult in this area with multiple corridors that wind through the floor. Most offices are small and some are shared with multiple users who also see patients in them. Rooms on the third floor with access to the deck have those doors blocked with furniture and storage. The bookstore is hard to find on campus and it has outgrown its present space. Shelving blocks the windows, stacks are close together and the store is just too small.

Efforts have been made to address ADA and building codes in this building, especially in the Family Practice Clinic, but there are a number of Life Safety issues. Fixtures have been replaced, grab bars added and drinking fountains lowered, but the building doesn’t have any areas of refuge and has inadequate audio/visual alarms. The building isn’t protected by a fire detection or suppression system and fire hoses aren’t properly tested or occupants trained in their use. Extinguisher cabinets are mounted too high. A number of doors in rated corridors aren’t labeled and corridors are used for storing combustibles. Exit gates and signage need to be installed in the stairwells. The elevator doesn’t have smoke detectors or recall systems installed. Fire lane access to the building can be improved by designating the south driveway as fire lane only. There is inadequate fire hydrant coverage for this building, with the nearest hydrants in excess of the 300 foot minimum.

The structure in this building appears to be functioning adequately. The spread footing and slab-on-grade foundation system supports concrete columns, beams and post-tensioned concrete floor and roof slabs. Exterior walls are masonry and battered precast concrete panels. The exterior deck seems to slope adequately to deck drains. The roof has minimal slope but still directs storm runoff to roof drains. Some slight cracks have developed at the main level south entry masonry, but don’t appear to be serious. Some deterioration has occurred at the concrete base of the exterior panels next to the loading dock. While not serious, this damage may require repair in the future.
Currently, all mechanical and plumbing systems appear to be in adequate working condition. The building is 22 years old and all systems are approaching the end of their useful service life. With rigorous adherence to maintenance schedules, the systems may last another five years. The dry standpipe connection on the south side of the building is inoperable. There are some minor odor problems in the building. The outside air intake for the main air handling unit circulates exhaust fumes into the building and musty smells are in the southwest corner of the first and third floors.

Like most buildings on the HSC campus, the normal and emergency distribution equipment, motor control centers and branch circuit panelboards are original equipment, replacement parts for motor starters are unavailable and all equipment is old and should be replaced. The primary power infrastructure was updated within the last three years. The emergency engine looks to be in good condition and is tested under building load once a month. The automatic transfer switch is original and should be tested, service and replaced if needed. Other deficiencies include clearance violations, exposed live parts, water lines passing over or in front of electrical equipment, unlabeled panelboards and equipment disconnect switches, inaccurate panelboard directories and voice/data cables on top of ceiling tiles and strapped to conduits. Flexible conduit connections to motors also needs to be replaced. There is an inadequate amount of general receptacles throughout the facility. Interior lighting is a mix of fluorescent, incandescent and HID fixtures. Lighting levels are generally adequate, but a little low in the corridors and there are a number of broken or damaged fixtures. Emergency lighting and exit signs are connected to the emergency backup system that has inadequate coverage. The fire alarm system consists of a new microprocessor base fire alarm panel, with pull stations and horn/strobe. The fire alarm system coverage is inadequate and should be upgraded. Voice/data systems are being replaced on an as needed, building by building basis.

The Family Practice Center is in fairly good condition, but needs some attention to its roof and exterior to avert future problems. Deterioration on the exterior walls and the parapets need repair and the precast panel joints should be properly detailed. Some upgrading of interior finishes would improve the overall appearance. Fire and Life Safety issues should be prioritized and addressed, including considering the addition of a fire detection and suppression system. Continuing to upgrade the Family Practice Clinic should be an important consideration and thought might be given to relocating the medical/law bookstore to a more prominent location on the HSC campus. The electrical systems need upgrading and replacement to bring them to current operating standards. Light fixtures should be standardized and replaced with energy saving fixtures. The fire alarm system, emergency lighting and exit signs should be upgraded to provide adequate coverage. Mechanical and plumbing systems are still in good working order, but will need to be replaced in the near future.
Novitski Hall (#249) is at the far west of the HSC campus. Built in 1978, this two story building houses the Dental Hygiene program with labs and classrooms on the lower level and administration and the dental clinic on the main floor. The exterior is C.M.U. with a cementitious finish, aluminum framed windows and hollow metal doors. There are two entrances at the main level, one to the administrative area and the other to the clinic. The lower level has an entrance from the south parking lot and there are exterior stairs from the lower lever to the main level. There are mature trees, plantings and grass around the building and a small, weedy courtyard off of the clinic lobby.

There are no reports of roof leakage on the Novitski Hall roof, but wing walls with roof drain outlets at the bottom are showing signs of water penetration and damage, indicating possible roof drain failure. Some of the window frames are showing signs of rust. The tops of the southern retaining wall and the stair guard walls show deterioration of the stucco.

The interior of this building is in good condition and has been well maintained. Some casework laminate could be replaced and the carpet is stained and worn, but all other finishes have been taken care of. Novitski Hall will be rewired to current computer standards this fall.

Efforts have been made to address ADA and building codes in this building. Some fixtures have been replaced and grab bars added, but the elevator is too small for ADA requirements. The building isn’t sprinklered and there is an area separation wall between administration and the clinic. The fire extinguisher cabinets are equipped with inappropriate extinguishers and need to be replaced with the proper size and type of extinguisher. There is inadequate fire hydrant coverage for this building, with the nearest hydrants in excess of the 300 foot minimum.

Novitski Hall is a steel frame structure with masonry exterior walls. The floor construction is concrete over metal deck over steel joists and beams. The roof is gravel ballasted, built-up asphalt over metal deck over steel joists and beams. Some damage has occurred to the stucco exterior and should be repaired before moisture penetration deteriorated the structural elements. Otherwise, no significant structural distress was noted.

All mechanical and plumbing systems appear to be in adequate working condition. There are problems concerning the HVAC system size, the number of zones and their control. The dental procedure lab and administrative area are on the same zone and one space will be comfortable when the other is not. In the winter, the building isn’t warm enough and many occupants use portable space heaters. The building is 21 years old and all systems are approaching the end of their useful service life. With rigorous adherence to maintenance schedules the systems may last another five years.

In general, normal distribution equipment, motor control center and branch circuit panelboards are original equipment, replacement parts for motor starters in the motor control centers are not available, all electrical equipment is old and should be replaced. Other deficiencies include clearance violations, unlabeled panelboards and equipment disconnect switches, inaccurate panelboard directories and voice/data cables on top of ceiling tiles and strapped to conduits. The primary power infrastructure was updated within the last three years. There appears to be an adequate amount of receptacles throughout the building. Interior lighting consists of fluorescent and incandescent fixtures.
Lighting levels are adequate, but there are a few broken or damaged fixtures. Emergency lighting and exit signs are connected to a centrally located battery inverter and coverage is inadequate. The fire alarm system consists of a hard wire zoned system, pull stations at doors, and horn/strobe in corridors. Fire alarm system coverage is inadequate and should be upgraded. Voice/data systems are being replaced on an as needed, building by building basis.

Novitski Hall is in good condition, especially for its age. The exterior and roof may need some repair to avert future problems. The carpet is due for replacement and new or refurbished lobby furniture would be an added improvement. The mechanical system needs some upgrading to make occupants comfortable and will require replacement in the near future. The electrical systems need upgrading and replacement to bring them to current operating standards. Light fixtures should be standardized and replaced with energy saving fixtures. The fire alarm system, emergency lighting and exit signs should be upgraded to provide adequate coverage, particularly in light of the hazardous materials used and stored in the building. The fire extinguishers need to be replaced with the proper equipment and thought may be given towards installation of a fire detection and suppression system. Although not required by the size and occupancy of this building, it may be considered in terms of life safety and property protection. Continued maintenance and timely repairs should keep this building in its current condition.
The Biomedical Research Facility (BRF - #253) is between the Basic Medical Sciences Building (BMSB) and the Cancer Research Facility (CRF) and connected to both buildings by skybridges at each level. Built in 1982, this building has largely remained as originally designed with minimal remodeling, primarily finishing out shell spaces and some finish upgrades. The BRF has four stories and a basement and includes a ground floor addition to the Animal Research Facility (ARF) located on the south side of Basic Medical Sciences. Programmatically, the basement includes mechanical and service spaces, storage, HSC computer services and a small workout room. The other floors are essentially identical with wet labs on the west side of the building and offices and administration on the east. One ground floor office suite is being used for Resident Administration. Each floor also has a classroom. The exterior is EIFS with porcelain panels under the first floor windows and shading bump-outs on the west elevation. Tined, aluminum, insulated strip windows run along the east and west walls and doors are aluminum with glass inserts. Doors and windows both have aluminum frames. The ground level connection between BMSB and BRF is enclosed by a storefront system. There is a pleasant shared courtyard and plaza between BMSB and BRF that has planters, benches, awnings and is well-planted with trees, shrubs and flowers. The northwestern plaza area ties into the new outdoor spaces at the Cancer Research Center. All receiving for the HSC comes through the loading dock off of the (ARF).

The roof appears original to the building and is due for replacement. There has been recent water damage due to clogged roof drains. The roof and parapets have been newly repaired, but water damage on interior walls and ceilings still needs to be fixed. Sealant between joints on the exterior are messy and discontinuous. There is also some exterior window sill deterioration. Due in part to BRF’s location between two other buildings, there isn’t a clear main entry, except possible at the ground level connector between BRF and BSMB. Users of the open skybridge between BSMB and BRF would prefer that it be enclosed, or that the uppermost bridge have a roof. (These walkways are used to transport glassware and supplies as well as for general circulation.) With the addition of the CRF and it’s loading area, the HSC receiving area and loading dock is now very tight. Big trucks have trouble maneuvering into the space and curbs and walls show damage.

The interior of the building is in good to fair condition, with most areas still having their original finishes, equipment and furniture. Labs are configured with a small office off of the corridor that must be gone through to get into the laboratory area. Some of these offices are being used for overflow lab space or storage. A number of labs are overcrowded with benches too close together and equipment that restricts circulation. In order to connect to the CRF, one of the labs was taken over for a corridor with “mini-labs” on one side. The mini-labs are furnished comparably with those in the CRF. The office suites have small offices off of a shared administration area. Offices are cramped and serve double duty as dry labs. V.C.T. is throughout these areas; staff would prefer carpeting for ambience and noise reduction, but some grant funding requires that all spaces related to the research not have carpet for cleanliness reasons. Carpeting in the classrooms is stained and buckling. The workout room has broken equipment, stained carpeting and is very difficult to find on the HSC campus.
The loading dock and receiving are situated so that large pallets need to be brought through an ARF corridor and past clean and dirty glassware rooms to get to the freight elevator. Since all shipments for the HSC are received here, there are a lot of people, vehicles and goods trafficking through an area with “clean/dirty” corridor designations and sensitive security issues. Efforts have been made to address ADA and building code issues in this building, especially in patient areas. Fixtures have been replaced and grab bars added. Doors opening into corridors are painted hollow metal in painted hollow metal frames with non-compliant hardware. These doors also have closers, but most of the doors are propped open. Corridor walls don’t continue to the deck for fire separation. Stair handrails have extensions, but don’t meet spacing requirements.

The BRF is a four story, concrete beam and column frame structure with masonry infill exterior walls. The penthouse is a steel-framed structure with cross bracing for lateral support. Masonry shear walls appear to be the primary lateral load resisting system of this structure. The foundation of is a 2'-6" thick concrete raft slab extending the entire length and width of the four story section of the building. The single story, animal facility foundation is spread footings and concrete slab on grade. The basement and utility tunnel walls are concrete. The floor structure is concrete pan joist and slab construction, except at the penthouse where the floor is an 8” concrete slab. The roof structure is concrete topping slab over metal deck supported by steel joists and beams at the lower animal facility roof and concrete deck, joists and beams at the high roof. The roof surface is built up asphalt with gravel ballast. The exterior walls of the penthouse and the parapet are EIFS with vertical joints at regular spacing. The joints have been caulked and repaired with a variety of materials and appear to be leaking. The penthouse roof appears to be leaking over some of the mechanical equipment and there is water damage in some areas of the fourth floor. No evidence of structural distress was noted and the structure appears to be adequately supporting the applied loads.

This building is approximately 17 years old and all systems are past the midpoint of their useful service life. With rigorous adherence to maintenance schedules, the systems may last another 8 years. A problem needing immediate attention is the inspection and required replacement on all flex connections on the exhaust fans. There is a nuisance problem in the main air handling system. The system was designed to return and recirculate conditioned air and has never been operational. It would require further investigation to determine the exact problem and its solution. Pursuing proper operation of the system could realize significant energy savings.

Typically, normal and emergency distribution equipment, motor control centers and branch circuit panelboards are the original equipment, replacement parts for motor starters in the motor control centers are not available, all electrical equipment is old and should be replaced. The electrical system has the capacity for additional loads, however the electrical equipment can’t be expanded for the additional over current devices required. The primary power infrastructure was updated within the last three years. The emergency generator is original and looks to be in good condition. The automatic transfer switch should be tested, serviced and replaced if needed. The generator was not tested under building load. Some deficiencies include clearance violations, water lines passing over or in front of electrical equipment, unlabeled panelboards and equipment disconnect switches, inaccurate panelboard directories, and voice/data cables on top of ceiling tiles and strapped to conduits. There appears to be an adequate amount of general receptacles throughout the building. Interior lighting is a mix of fluorescent, incandescent and HID luminaries. Lighting levels are generally adequate, but there are a number of broken or damaged fixtures. Emergency lighting and exit signs are connected to the emergency backup system with inadequate coverage throughout the building. The fire alarm system consists of a conventional zone fire alarm panel, with heat detectors, pullstations at stairs, horn/strobe at corridors and smoke detectors in the elevator lobby. Fire alarm system coverage is inadequate and should be upgraded. Current voice/data systems are being upgraded on an as needed, building by building basis. The security system consists of magnetic door locks on exterior doors.
The Biomedical Research Facility is essentially in good condition, but attention needs to be paid to some issues before they become bigger problems in the future. The roof is due for either significant repair or replacement. Staff would prefer to have the walkways between the BRF and BMSB enclosed or covered rather than open. Receiving shipments and subsequent distribution through the ARF with its sensitive security issues seems like a less than ideal situation that should be analyzed for a better solution. Since the loading dock area is now further cramped by the new Cancer Research Facility, perhaps receiving in this location is no longer a viable option. Life safety and ADA upgrades should be made to bring the building within a consistent level of compliance. Replacement of all flex connections on the exhaust fans and investigation into the proper operation of the main air handling system should be done immediately. The electrical systems need upgrading and replacement to bring them to current operating standards. This will include an upgraded fire alarm system and standardized, energy efficient light fixtures.
The Clinical and Magnetic Resonance Research Center (#260) is at the north end of Yale Boulevard, west of the golf course. One of the newer buildings at the Health Sciences Center, CMRRC was built in 1986 for research and to provide MRI services for University Hospital. Since the Hospital now has its own MRI onsite, CMRRC is serving as an outpatient clinic and research facility with related administrative functions. The exterior finishes include stucco and cementitious coating, glass block, exposed concrete and steel elements. Windows are double glazed with hollow metal frames and some reflective glass. Doors and frames are also painted hollow metal. There is a small walled courtyard off of the staff lounge, a walled area to designate the non-ferrous zone, and a porte cochère on the south side. The main entry has a distinctive plaza with a steel shade structure and a raised planter with a specimen tree.

Significant roof repair was recently done on this building, but a portion of the staff lounge ceiling had just fallen in due to water damage. This is currently being repaired. There is also some cracking and damage showing on the parapets and exterior finish. The entry plaza is contemporary with exposed concrete and painted and stainless steel.

Interior finishes in CMRRC are in good condition and interesting architectural spaces and details make this building one of the nicest on the HSC campus. Ceramic tile floors throughout the building are showing some cracking and chipping, mainly in areas subject to heavy loads. Some of the ceiling tiles are damaged and discolored. Lab and some administration areas don’t have enough light. The administrative area and conference room have attractive finishes and furniture. Some offices are overcrowded and numerous computers have created a high heat load in the administrative area. The two story lobby is small but well detailed with clerestory windows, exposed wood decking and beams and a stepped wall with glass block accents. Wayfinding is somewhat difficult in this building, with redundant corridors and travel paths that run through open areas. Some remodeling is in the process of being done to better accommodate the expanded clinical functions.

This building is somewhat compliant with ADA and building codes. The group locker and restrooms don’t have grab bars or proper fixture clearances and heights for accessibility requirements. Some doors on the exit path need panic hardware and exits aren’t all clearly marked.

The CMRRC is a wood frame, single story building. The ballasted EPDM membrane roof is installed over wood decking supported by wood joists and beams. Wood stud exterior walls support portions of the roof structure and the lateral load resisting system is plywood sheathed exterior walls. The foundation is cast in place concrete spread footings and slab on grade. The exterior stuccoed walls do not appear to be distressed and the roof appears to be adequately supporting loads except at the small section above the staff lounge. The roof leaked and caused a collapse of the gypsum board ceiling at this area. Roof leaks appear to have caused stained ceiling tiles in some other areas as well. The section of roof over the south canopy has an overflow scupper that is approximately 4” above the roof level. Therefore, if the primary drain is clogged, the roof could pond 4” of water for an extended period of time, creating a load greater than the roof’s design live load capacity. Site walls are masonry construction and the site drainage slopes away from the structure. Overall the structure appears to be sound.
Currently all mechanical and piping systems appear to be in fair physical shape. The building is 14 years old and the mechanical systems are nearing the end of their useful service life. The heating and cooling are provided by rooftop package units utilizing refrigerated cooling and natural gas fired heating. The systems provide adequate airflow but due to interior remodeling and increased computer use there have been reports of being too hot and stuffy. Control systems have also been reported to need numerous components replaced over the life of the units. Because of their age and control problems, the rooftop package units should not be considered reliable systems. Computer room air conditioning units appear to be in fair shape and of adequate capacity. With strict adherence to maintenance schedules these units may last another 5-8 years. Plumbing and sewer systems appear to be in good shape and of adequate capacity. There have been reports of sewer gas odors during periods of reduced usage. The facility occupants have requirements for bottled gasses and liquid nitrogen and require review and recommendations for exhaust and oxygen monitoring systems by the UNM safety inspector. Overall, the building’s problems are moderate and should be addressed within the next 1-3 years.

In general, normal and emergency distribution equipment, motor control center and branch circuit panelboards are in fair condition and there is no need for replacement. The primary service and pad mounted transformer is owned by the utility company. The emergency generator and the automatic transfer switch look to be in good condition, but the generator was not tested under building load. Some deficiencies include clearance violations, unlabeled panelboards and equipment disconnect switches, inaccurate panelboard directories and unsupported conduit on the roof. There appears to be an adequate amount of general receptacles throughout the building. Interior lighting is a mix of fluorescent, incandescent and HID fixtures. Lighting levels are adequate in most areas, with the exception of exam rooms, the open office area, conference room and MRI area. Emergency lighting and exit signs are connected to the emergency backup system with adequate coverage. The fire alarm system coverage is adequate and consists of a conventional microprocessor base fire alarm panel, with pull stations, detector, duct detectors and horn/strobe.

The Clinical and Magnetic Resonance Research Center is in good condition. The building is contemporary in design and the choice of materials and finishes make it appropriate for a health science center. As changes are made in the function of this building, care should continue to be given in making thoughtful design decisions in keeping with the building. Some modifications may need to be done on the roof in order to avoid further water damage. Rooms with low lighting levels should be upgraded, particularly in clinical areas. The rooftop package units should be considered for immediate replacement due to their age and the number of problems they've had.
The Health Sciences and Services Building (#266) is on the north side of the main plaza at what is considered the formal entrance to the campus. One of the newer buildings at the Health Sciences Center, HSSB was built in 1988 to be a lab building with some administrative functions. When the HSC was created in 1993, the third floor labs were converted to offices and support spaces. The building has three stories and a basement, with administration on the first and third floors and labs and offices on the second floor. The basement houses mechanical space and storage for the Health Sciences Library which is accessed by a connecting tunnel. The exterior finishes include EIFS, glass block, exposed concrete and ceramic tile. There is a large south facing deck on the second floor. A painted metal light shelf shades third floor south-facing windows. Reflective windows are double glazed with aluminum frames. Doors and frames are painted hollow metal.

Being only eleven years old, this building is still functioning well and looking good. The classroom under the deck has experienced some water leakage problems that have been fixed. The third floor labs that were converted to administration don’t work as well as those areas that were designed to be offices. The spaces are broken up and too small without enough storage. The laboratory plumbing and gases was capped and left in place. The second floor labs have natural light from big windows, nice casework and up-to-date equipment. The administrative areas throughout have attractive finishes and furniture. Finishes are holding up well, with the exception of paint chipping on the interior hollow metal doors and frames. Artwork is distributed around the building and a colorful tile mosaic is in the entrance lobby.

Due to its recent construction, HSSB appears to be in reasonable compliance with current ADA recommendations and building codes. Restrooms have grab bars, accessible stalls and fixtures. The elevator and stairs also meet accessibility guidelines. Required doors have labels and lever hardware.

The HSSB’s structure is reinforced concrete columns, beams, basement walls, floor and roof framing. Concrete shear walls at the stair towers resist lateral loads. The foundation is slab-on-grade with continuous spread footings. The roof has minimal slope and has slight ponding in some areas. Stained concrete walls at the top of the southwest stair indicate a past roof leak that has since been repaired. Drainage at the second floor exterior deck isn’t all directed towards drains and flows slightly toward the door leading to this deck. No structural distress was noted and the structure seems to be functioning adequately.

Currently all mechanical and plumbing systems appear to be in good shape. The building is approximately 12 years old and all systems are approaching the midpoint of their useful service life. The 1993 remodel included replacing the air-handling unit. With good maintenance the systems should last another 10 to 15 years. There are no major problems with any system. There are reports of hot and cold spots on the first and third floors. This is a minor problem, but should be addressed.
Electrical
The electrical systems, including the emergency generator, in this building are in good condition. The primary power infrastructure was updated in the last three years. Interior lighting is a mix of fluorescent, incandescent and HID fixtures providing satisfactory lighting levels. Emergency lighting and exit signs are connected to the emergency backup system with adequate coverage. The fire alarm system includes pull stations, detectors and horn/strobe, but no longer meets current standards. Voice/data is being upgraded as needed on a building by building basis.

Conclusion
The Health Sciences and Services Building is in very good condition. The mechanical, plumbing and electrical systems are all in good working order. Fluorescent fixtures could be replaced and standardized with energy saving fixtures. The fire alarm system should be expanded to comply with current standards. The building is contemporary in design and the choice of materials and finishes make it appropriate for a health science center. Due to the scarcity of modern lab facilities on campus and because this building was designed architecturally, mechanically and structurally for laboratories, consideration should be given to converting it back into labs and relocating the administrative functions.
The first phase of the hospital where Carrie Tingley is now located was built in 1959 with later phases in the early 60's. University Hospital acquired the building in the 1984, conducted a major remodel and relocated the Carrie Tingley Hospital from Truth or Consequences, New Mexico. A therapy pool addition was constructed in 1993 and the recreation room was expanded in 1997. The hospital is divided into three parts, “A”, “B” and “C”. “A” is three stories plus a basement and has administration, a small grill and cafeteria, a resident’s library, the Chronic Pain Clinic, a physical therapy room and a pharmacy. The basement has abandoned operating rooms that are now used for storage. “B” is one story and houses the clinic and its functions, including exam rooms, radiology, a prosthetics lab, inpatient rooms, a recreation area and playground. “C” has offices, a large physical and occupational therapy area and the therapy pool on the first floor and a basement with mechanical and pool equipment and a shop. The exterior is primarily brick veneer with painted metal fascias and accent panels. Windows are single glazed aluminum framed with shading fabric on some locations. Doors and frames are painted hollow metal with automatic sliding doors at the main entrances of “A” and “B”. The “B” entrance and lobby is currently undergoing a complete renovation. There are some mature trees at the front and sides of the building and there is a small courtyard between the two main entrances. An enclosed playground is located off of the recreation room.

The roofs were replaced about fifteen years ago and have had some minor leakage that has been recently repaired. There has also been leakage around some of the windows. There is evidence of some caulking failure on the metal panels and premature delamination of several bricks. New signage and contemporary paint colors would help to update the exterior of the buildings.

Finishes throughout the building are in fair to poor condition. Interior walls are painted with color coded graphics and signage. “B” has a number of cartoon character graphics painted with varying skill levels throughout the patient spaces. In general, furniture is dated and carpeting is stained, worn and torn in places. The Pain Clinic exam rooms were recently refurbished and some of the patient rooms have new lighting and are scheduled to receive new furniture. Many of the offices in “A” are converted patient rooms of awkward size. The physical therapy room in “A” was formerly the commercial kitchen for the full service cafeteria that used to be in the hospital. Sheet vinyl was laid directly on top of ceramic tile and lighting and sprinklers have metal cages over them. The finishes, furniture and equipment in the therapy pool and recreation room additions are contemporary and colorful and seem to appeal to the children that use them.

Efforts have been made to address ADA and building codes in this building, particularly in areas that have been remodeled. Some restrooms have had upgrades to bring them into reasonable compliance with ADA, but even the inpatient bathrooms are inconsistent in their treatment. The buildings are partially sprinklered and have dry standpipes, but there isn’t documentation on hydrostatic testing to ensure proper operation. The fire sprinkler riser in the basement of “A” is inaccessible and the fire flow switch doesn’t appear to be connected. The inspection tag noted that the fire alarms didn’t activate during flow testing. The therapy pool area isn’t covered by a fire detection or suppression system and its mechanical room doesn’t meet requirements for one-hour rating. Not all required doors have labels and closers, labeling is inconsistent and most doors have knobs. Stair handrails don’t meet extension, spacing or minimum grab requirements. There isn’t an Area of Refuge in “A”, which is required where there is ADA access at the
ground level. The exit stairs in “A” should also have restricted access to the basement. Elevators are oversized and have updated controls, but the floor indicator shows an extra floor that isn’t in the building. The elevators are not equipped with NFPA required firefighter recall systems. Ladder access to the roof in “A” is non-compliant with OSHA standards and should be replaced. The fire extinguishers and cabinets typically don’t meet current NFPA standards. The proximity of the improperly labeled propane tank to the boiler room, buildings and parking lot is such that a fire could cause extensive damage and relocation of the tank is recommended.

Several addition and renovation projects have been done at Carrie Tingley since it was first built. No construction documents were available for review of the original structure. The foundation is concrete spread footings and slab on grade. Concrete walls at the basement support upper level floor framing, steel columns and unreinforced masonry walls. Suspended floor structure is concrete slab over metal deck over steel joists and beams. Although these steel joists do not appear to have been supplied by a commonly known manufacturer, they seem to be adequately supporting floor loads. The roof construction is similar to the floor structure and it appears to be adequately supporting service loads, although there is some concern about the amount of additional load (more HVAC equipment, firefighters and their equipment, etc.) that these “experimental” trusses can handle. The roof is built up asphalt plies and gravel ballast with little or no slope. Stained ceiling tiles indicate possible roof leaks. The lateral load resisting system appears to be masonry shear walls, which may or may not be reinforced and grouted. The recent therapy pool addition has properly reinforced masonry walls supporting glue laminated wood beams and wood decking roof structure. The foundation of this section of the building is drilled piers and grade beams. No evidence of structural distress was noted at either the original structure or the more recent additions. Floor load capacity was not determined and further analysis would be required to determine structural capacity of the structure should the use of this building change.

Building “A” is served by a variety of HVAC systems. The third floor has packaged rooftop units and the second floor has 4-pipe fan coil units. The perimeter offices have supplemental cooling through two-pipe fan coils. The rooftop units have exceeded their useful service life and have had major components replaced and repaired. Roof exhausters have motor replacements and have adequate capacity. The 4-pipe fan coil units have steam coils and chilled water coils. The steam coils were converted to chilled water for supplemental cooling in the summer. The cooling coils have been converted to heating water for supplemental heating in the winter. The piping systems have been cross connected and the valves are not working. The steam system has many legs that are not in use. The perimeter offices do not have adequate cooling and many areas do not have adequate airflow. The medical records office has complaints of poor indoor air quality and the cafeteria has inadequate exhaust. None of the control systems are operating an zoning appears inadequate. Waste piping in the basement is showing signs of deterioration and should be replaced. “A” has serious problems needing immediate attention that are affecting the occupants' health, comfort and ability to perform their jobs properly.

Building B has plans to upgrade the HVAC system in some areas, but all areas have severe problems that need immediate attention. Building “B” is served by rooftop package DX units with gas fired heating. Users complain of inadequate heating and cooling, airflow and distribution. The perimeter offices have wall mounted 4-pipe fan coil units that provide supplemental heating and cooling. The heating appears satisfactory, but cooling capacity is inadequate. The domestic heating water to “B” was severed and needs to be restored. Recent renovations in the nursing wing included installing rooftop make-up air units that feed 4-pipe fan coil units located and controlled in each room. The units operate well and provide adequate cooling and heating, but the airflow needs balancing. Isolation rooms are required by code to have negative pressure with respect to adjoining corridors, so testing and balancing should occur immediately so the isolation rooms can be used for their intended purpose. The prosthetics department needs a new exhaust/dust collection system. The basement has no ventilation at all. The boiler room has two steam boilers, one chiller and ancillary support systems. The boilers have adequate capacity, but the piping, valves and fittings need replacing. The chiller is in good shape but does not have adequate capacity. A project is in progress to furnish and install another chiller. Air-cooled condensers are already installed and should have adequate capacity. The therapy pool as added in 1994 and is operating satisfactorily.
Typically, normal and emergency distribution equipment, motor control centers and branch circuit panelboards are the original equipment, replacement parts for motor starters and some distribution equipment are not available, all electrical equipment is old and should be replaced. The electrical system has the capacity for additional loads, however the electrical equipment can’t be expanded for the additional over current devices required. The primary service and pad mounted transformer is owned by the utility company. There are three natural gas emergency generators, with 1000 gallon propane fuel tank for back up. A 150 kw generator feeds building “A” and the other two generators feed the hospital wing. One of the main hospital generators is currently being repaired. All the transfer switches are original equipment and should be tested, service and replaced if needed. The generators are tested weekly and serviced once a month but are not tested under building load. Other deficiencies include clearance violations, exposed live parts, water lines passing over or in front of electrical equipment, unlabeled panelboards and equipment disconnect switches, inaccurate panelboard directories, unidentified emergency outlets and voice/data cables on top of ceiling tiles and strapped to conduits. There appears to be an inadequate amount of general receptacles throughout the facility, especially since hospital grade receptacles lose their physical quality over the years and should be replaced regularly. Interior lighting is a mix of fluorescent, incandescent and HID luminaries. Lighting levels are generally adequate, but there are a number of broken or damaged fixtures and antiquated ballasts that should be checked for PCB’s and replaced. Emergency lighting and exit signs are connected to the emergency backup system with additional self contained two headed emergency lighting units with battery backup. Coverage is inadequate for emergency egress lighting and additional exit signs are needed in select areas. The fire alarm system consists of a conventional zone fire alarm panel, with pullstations, horn/strobe, door holders and detectors and has inadequate coverage. There is a partial smoke detection system that should be expanded to include offices, as well as the elevator shaft, storage rooms and other unoccupied areas. The current voice/data system is being upgraded as needed.

Carrie Tingley Hospital is in relatively good condition for its age, but requires significant work to bring it to an appropriate level for a facility of this kind. Replacement of the windows, particularly in the patient areas, should be a high priority. Life safety and ADA upgrades should be made to bring the buildings within a consistent level of compliance. Overall refurbishing and replacement of furniture and finishes throughout the Hospital would improve the appearance and user perception of Carrie Tingley and should also be considered an important item for attention. Remembering that this is a facility serving children, selections should be chosen that appeal to the user while not being trendy. The mechanical systems are in serious need of significant upgrading or replacement, particularly in the administrative and clinical areas. Rooftop units are beyond their useful service life, airflow is inadequate and heating and cooling is inconsistent. Some of these problems are affecting occupant health and comfort and not allowing certain medical areas to be properly used. The electrical systems need upgrading and replacement to bring them to current operating standards. This will include an upgraded addressable fire alarm and smoke detection system that complies with today’s NFPA, Life Safety and ADA Codes. Light fixtures should be standardized and replaced with energy saving fixtures.
History & Description

1209 University Clinic (#271) is located on University Boulevard, north of Carrie Tingley Hospital. This one story building was built in 1968 for office/showroom and warehouse space. University Hospital acquired it in the late 1980's and used it for offices and storage. An extensive 1996 remodel converted the building to its present uses: an outpatient family practice clinic with in-house radiology, the University Hospital outpatient pharmacy and a print shop that also serves University Hospital. The exterior finishes include cementitious plaster, painted C.M.U., painted hollow metal windows, doors and frames. A fabric awning runs around the north and west sides and a decorative screen wall helps define the clinic entrance on the east. There is xeric landscaping at the clinic entrance and around the parking lot.

Remodeled only three years ago, this building is still functioning well and looking good. There have been a few roof leaks that have been repaired recently. The Family Practice Clinic has a vaulted lobby with lighting “skylights” and attractive reception desk and check-in area. The waiting room is large and well lit with decorative pendant fixtures. Finishes and furniture are contemporary and attractive throughout the clinic. Dropped gyp board soffits and downlighting differentiate nursing stations and other areas. Exam rooms are thoughtfully laid out and circulation seems to flow effectively. The pharmacy dispensary and work area seems to work efficiently, especially with the addition of a computerized conveyor belt dispensing system. The lobby was loud and crowded with waiting people. This pharmacy fills 1800 prescriptions a day and staff reports that they are already outgrowing their space.

Due to its recent comprehensive renovation, the 1209 Clinic appears to be in compliance with current ADA and building codes. Restrooms have grab bars and proper clearances, lever hardware is typical and required doors are rated and have closers. The installation of more exit signs is recommended because it’s not clearly evident from some offices and corridors where exits are.

Structural

The original structure of the 1209 Clinic is high bay warehouse space constructed of steel joists, joist girders and metal deck roof structure supported by concrete column and beam wall structure with masonry infill. A new loading dock, exterior ramp, and stair assembly was added during the recent renovation project. Exterior wall finishes are painted masonry and cementitious finish over masonry that are furred out on the interior with metal studs and gypsum board. The non-ballasted EPDM roof surface has adequate slope draining to the south end of the building. No evidence of structural distress was noted and the structure appears to be functioning soundly as constructed.

Mechanical & Plumbing

All mechanical systems were upgraded as part of the 1996 remodel. The HVAC system is a series of heat pumps and a recirculating water loop as the heat sink. In the winter, a boiler maintains the water temperature at 70°F. In the summer the boiler and cooling tower blend cold and hot water to maintain the water at 70°F. Outside air is ducted directly to each heat pump and is heated as required. Currently the system is reported to be operating satisfactorily. There are no complaints of poor indoor air quality or hot or cold spots, and there is adequate airflow and distribution. There have been some minor control problems that have been easily fixed by through control logic adjustment. The renovation also included installation of a wet pipe fire suppression system. The building’s mechanical and plumbing systems are good condition and with regular preventative maintenance, the system should continue operating for at least 15 years.
**Electrical**

Due to the recent major renovation, normal distribution equipment and branch circuit panelboards are in good condition. The primary service and pad mounted transformer is owned by the utility company. Interior lighting is a mix of fluorescent, incandescent and HID fixtures. Lighting levels are adequate and fixtures are in good condition. Emergency lighting and exit signs are self-contained with battery backup and provide adequate coverage throughout the building. The fire alarm system provides adequate coverage and consists of a conventional microprocessor base fire alarm panel, with pull stations, detector and horn/strobe. The voice/data system was upgraded in the last renovation.

**Conclusion**

The 1209 Clinic is in very good condition. The building has some contemporary elements and the choice of interior materials and finishes make it appropriate for a medical clinic. The electrical, mechanical and plumbing systems are only a few years old and are in good working condition. Since the Pharmacy serves all of University Hospital outpatients and fills such a great number of prescriptions, thought already needs to be given to future expansion or relocation of this facility.
The Children’s Psychiatric Hospital Bandelier Office Storage (#222), Jemez Office Building (#244) and Storage/Shop (#245) are located at the northern edge of the CPH campus, near the Day Treatment Center. Bandelier was built in 1975 to be a small barn for domestic animals. The patients were mistreating the animals, so it was converted to storage and a small office for the wilderness course staff. Jemez is a modular building that is used for staff offices. It was built in 1984 and relocated in 1993 to accommodate the Day Treatment Center. The Storage/Shop was built in 1993 as part of the Day Treatment Center project. The building is used for the campus maintenance shop and storage for patient belongings and other CPH materials. The buildings have a stucco finish, aluminum windows with insulated glass and hollow metal doors, some with wire glass inserts. The Storage/Shop has a sectional roll-up door.

All of these buildings have low pitched roofs that haven’t had any reports of leakage. The exterior finishes are original to the buildings, so may need to be replaced in Bandelier. Interior finishes in Jemez are in fair condition. Walls and ceiling are painted gypsum wallboard, the carpet shows signs of wear and restrooms have dated sheet vinyl. A residential cabinet and sink was added in the hallway off of the restrooms. There is a small waiting area that is also used for storage and a copier. The Storage/Shop building has gypsum board walls and exposed joists and insulation. The shop area is large and well organized. Storage is in lockers on the lower level and open shelving at the mezzanine.

Efforts have been made to address ADA and building codes in these buildings. Restrooms in Jemez have grab bars and are somewhat ADA compliant. The Storage/Shop restroom appears to be within reasonable ADA compliance, but the lower level storage area creates a dead end corridor exceeding the allowable travel distance. There is an accessible ramp on the south side of Jemez. Solid core doors off of the corridor in Jemez are propped open and don’t have compliant hardware.

Bandelier has a metal roof and stucco exterior finish on stud wall construction. The foundation system is concrete spread footings at load bearing walls and interior slab on grade. No signs of structural distress were noted. Jemez is lightweight, wood frame construction for the walls, floor and roof. The load carrying capacity of the structure is limited to office type use unless significant structural modifications are made. The structure appears to be functioning as designed since no roof leaks or evidence of structural distress was observed. The Storage/Shop Building is a partial 2-story structure with a shed roof. The standing seam metal roof is supported by light gauge steel ‘C’ shaped joists bearing on steel stud walls. The foundation of this building is cast in place concrete stemwalls and spread footings supporting bearing walls and concrete slab on grade floor. The second floor structure is wood deck on steel bar joists. The upper level is used for building material storage but the structure appears to be adequate to support the loads. The exterior wall finish of this building is stucco and no evidence of distress was noted in these wall finishes.
**Mechanical & Plumbing**

Bandelier, Jemez and the Shop is provided with heating and chilled water by the central mechanical room in the Commons Building. The HVAC system is 4-pipe fan coil units that provide adequate airflow and sufficient heating and cooling without hot or cold spots. There are also no complaints about indoor air quality. All fan coil units and terminal boxes are operating properly. One significant concern is that none of the buildings on the CPH campus have fire sprinklers. The sanitary sewer system is of adequate size and capacity, but a common complaint is that during periods of low usage the traps dry out and sewer gas is smelled in the buildings. The domestic water systems in all buildings are of adequate size and capacity. Nearly all domestic water heaters have been replaced and are in good shape. The recirculating domestic hot water pumps are in poor condition and leak. As a result they are run intermittently or not at all. Overall the facility is in very good condition. There are no serious problems but all systems are nearing the end of their useful service life. The facility may last another 10 years with strict adherence to preventive maintenance schedules.

**Electrical**

In general, the site distribution equipment for these buildings is old and should be replaced. The branch circuit panelboards are in good condition. The buildings are fed from a centrally located distribution switchboard outside the Day Treatment Center that feeds several other buildings. Some deficiencies include unlabeled panelboards and equipment disconnect switches, inaccurate panelboard directories, no emergency shut-off of shop equipment and fire alarm cables running exposed in the Shop. Most of the interior lighting is fluorescent with some incandescent fixtures in Jemez. Lighting levels are satisfactory in Bandelier and Jemez and inadequate in the Shop. Fixtures are in good to fair condition. Emergency lighting and exit signs are self-contained with battery backup with adequate coverage. The fire alarm system for Jemez consists of a conventional zone fire alarm panel, pull stations, horn/strobe and smoke detectors with remote annunciation back to the maintenance department. The pull stations, horn/strobe and detectors in the Shop are connected to the Jemez fire alarm panel. There isn’t any fire alarm system in Bandelier. Although the fire alarm system has been updated over the years, the current system is still inadequate.

**Conclusion**

The Bandelier, Jemez and Storage/Shop buildings are small, straightforward structures that serve their functions adequately. Their exteriors are in keeping with the rest of the campus and they blend in fairly well with their surroundings. The carpeting could be replaced and restrooms upgraded in Jemez, especially if these offices begin to be used for therapy or interview rooms. Mechanical and plumbing systems don’t have any severe problems, but they will need significant upgrading or replacement in the near future. The electrical system has a number of items that should be replaced or upgraded, including installing standardized, energy efficient light fixtures. The fire alarm system should be upgraded to a campus wide addressable system with additional devices added to comply with today’s NFPA, Life Safety and ADA codes. Consideration should be given to installing a sprinkler system in the Shop due to the amount of combustibles stored and the type of shop equipment in the building. Continued maintenance by the CPH campus staff will keep these buildings in their current condition.
The Children’s Psychiatric Hospital Administration Building (#236A) is located at the corner of Yale and Tucker and serves as the main entry point to the CPH campus. This two-story building was built in 1975, along with most of the other buildings on the campus. A small office addition on the south was built in 1991. The Admin Building includes admitting for all in and outpatients, therapy rooms, offices, records and other administrative functions. The exterior has a cementitious finish system, insulated windows with aluminum frames and painted hollow metal doors and frames. There is a walled courtyard off of the staff lounge with a wood shade structure, a small fountain, furniture, paving and grass. The front entry has a wood shade structure and built in benches. The building is connected to the Education Building by a covered walkway. Mature trees, plantings and grass are throughout the campus.

The Admin roof was replaced about 10 years ago and there have been no reports of roof leakage, but the parapets show signs of damage. The exterior finish is original to the building and is due for replacement. Interior finishes throughout the building are in good to fair condition. The interior was recently repainted and some areas have newer furniture. Some ceiling tiles and the carpet are stained. The carpet also shows signs of wear and staff says it is hard to maintain.

Storage is at a premium in this building, with janitor closets and other spaces being taken over for storage. A high density file storage system was added to the records area. The open stairwell is pleasant with planters, a small fountain at its base and a skylight above. The staff room is large, with a kitchenette, seating areas, fireplace and access to a private courtyard. A modular check-in desk has replaced the original office and counter. This area now appears too small, with a lack of storage and a number of people moving in and out of it. Currently the admitting and waiting is used for inpatients and outpatients, including those who may require restraint, with no separation between the groups. The waiting area is well maintained, but finishes and décor don’t seem to be geared towards children.

Efforts have been made to address ADA and building codes in this building. Fixtures have been replaced and grab bars added in the main public restrooms. Single user restrooms are very small and without grab bars. The elevator has updated controls, but is too small and without a floor indicator. There also isn’t an area of refuge on the second floor. The open stair handrail doesn’t meet current minimum grab requirements. Solid core doors in the corridor still have rating labels, but some closers have been removed.

The Children’s Psychiatric Hospital Administration Building is in very good structural condition. The steel frame structure appears to be supporting loads adequately and the strapped steel stud walls, which resist lateral loads, are performing as designed. No significant distress was noted on the exterior or interior finishes of perimeter walls. The interior planter area does not appear to have been overwatered or otherwise created a settlement problem with the foundations in this area. The roof slope is minimal but no roof leaks were observed. Water does appear to collect at the northwest side of the low roof and will accelerate the deterioration of the roofing materials in this area.
The Admin Building is provided with heating and chilled water by the central mechanical room in the Commons Building. The Admin’s HVAC system is 4-pipe fan coil units that was retrofitted with variable volume terminal boxes approximately 15 years ago because of reported hot and/or cold areas. There is adequate airflow and there are no complaints about indoor air quality. All fan coil units and terminal boxes are operating properly. One significant concern is that none of the buildings on the CPH campus have fire sprinklers. The sanitary sewer system is of adequate size and capacity, but a common complaint is that during periods of low usage the traps dry out and sewer gas is smelled in the buildings. The domestic water systems in all buildings are of adequate size and capacity. Nearly all domestic water heaters have been replaced and are in good shape. The recirculating domestic hot water pumps are in poor condition and leak. As a result they are run intermittently or not at all. Overall the facility is in very good condition. There are no serious problems but all systems are nearing the end of their useful service life. The facility may last another 10 years with strict adherence to preventive maintenance schedules.

In general, normal building distribution, site distribution equipment and branch circuit panelboards are the original equipment, replacement parts for some equipment is not available, and all the electrical equipment is old and due for replacement. This building, along with several others on the south side of the CPH campus, is fed from a distribution switchboard that should be upgraded. The electrical system has the capacity for additional loads, however the electrical equipment can’t be expanded for the additional over current devices required. Other deficiencies include clearance violations, unlabeled panelboards and equipment disconnect switches, inaccurate panelboard directories, and voice/data cables on top of ceiling tiles. There appears to be an adequate amount of general receptacles throughout the building. Interior lighting consists of fluorescent and incandescent fixtures. Lighting levels are adequate and fixtures are in fair condition. Emergency lighting and exit signs are self-contained with battery backup and provide adequate coverage in most of the building. Additional emergency lighting should be added to the first floor office area. The fire alarm system consists of a microprocessor base conventional fire alarm panel, pull stations at doors, horn/strobe and smoke detectors in corridors with remote annunciation back to the maintenance department. Although the fire alarm system has been updated over the years, the current system is still inadequate. The voice/data system has been upgraded as needed.

The CPH Administration Building is in very good condition, especially for its age. The head of the CPH maintenance staff has been there for over 20 years and it’s apparent from the condition of the campus that continuity and quality of upkeep has made these buildings some of the best at the Health Sciences Center. The Admin Building stucco should be redone and the carpet replaced. Some consideration should be given towards creating some separation between patients in the waiting area. Attention will continue to be given to the roof to avoid any serious water damage due to lack of drainage. Mechanical and plumbing systems don’t have any severe problems, but they will need significant upgrading or replacement in the near future. Light fixtures should be standardized and replaced with energy saving fixtures. The fire alarm system should be upgraded to a campus wide addressable system with additional devices added to comply with today’s NFPA, Life Safety and ADA codes.
School of Medicine #2 (#201) is located at the east side of the Health Sciences Center plaza. The original building, built in 1950, was a 7-Up bottling plant. The School of Medicine remodeled the building in the mid 60’s for administration, the library, labs and classrooms. Numerous renovations and some expansion have brought the building to its present size, housing a small cafeteria and kitchen, dry and wet labs, a computer classroom, offices and administration. Diabetes Control (#264) is a small building to the east with direct access into SOM #2. There is also a small semi-detached building to the northeast.

The building is primarily one story with a minor two story portion as part of the original building. A tower element helps define the main entry off of the plaza and Pueblo Revival details such as wood columns, corbels and vigas add character to the front elevation. SOM #2 is a combination of painted C.M.U. and C.M.U. with a cementitious finish. There are a variety of window types from residential, single pane casement to aluminum, double-glazed sliders. Diabetes Control has a cementitious finish, aluminum double glazed windows and hollow metal doors and frames. The northeast building is a modular unit with wood siding.

Due to the changes in use and additions to this building, there are inconsistencies in the exterior materials and roofing systems. This disparity gives the building a “hodge-podge” appearance and also has had greater consequences, such as frequent roof leakage problems. The interior of the building looks aged and not well maintained. The finishes are generally in fair to poor condition with the exception of a few recent remodels that have upgraded furniture, carpet and ceiling tile. Carpets are stained and worn, V.C.T. is mis-matched and stained and casework and furniture is outdated. The wet labs appear to be in working order and some of the larger spaces were recently divided into smaller rooms for dry labs. The second floor smells musty, has a sloping floor and water damage on the ceiling. Circulation through the building is circuitous and wayfinding is difficult. Corridors and offices are used for storage and are cluttered with unused equipment.

The cafeteria serves staff and students of the HSC, offering a limited menu in a less than ideal location that is hard to find. The kitchen/grill and storage areas are cramped. The dining area is dimly lit and furnished with folding tables and assorted chairs. The ceiling is low with exposed ductwork and damaged suspended ceiling grid and tiles. The kitchen’s proximity to the labs and offices has also contributed to a building wide cockroach problem.

Minimal effort has been made to address ADA and building code issues in this building. Some fixtures have been replaced and grab bars added, but clearances are not to current standards. The second floor area can only be accessed by a set of stairs that don’t meet riser/tread and handrail requirements. There is also a gap between the landing and the wall that is large enough to be dangerous. Doors opening to the corridor are metal with hollow metal frames and are missing their rating labels. Their hardware is inconsistent and may not be compliant with ADA or building codes for exiting.

SOM #2’s structure is typically made up of load bearing masonry walls supporting steel roof and floor bar
The domestic cold water source comes from the mechanical room in the basement of the Cancer Research Center. It is metered but does not have a backflow preventer which is a Mechanical Code violation. A new grease trap was installed on the cafeteria sewer line recently, as well as two 6” sewer lines from the southeast side of building to the main sewer line. Otherwise, the plumbing system appears to have adequate capacity and is in satisfactory condition. With the exception of a 1-1/2 year old 7 ton combination unit for the computer room, the rooftop air-handling units, which serve the rest of the building, appear near the end of their useful service life. The ductwork has signs of leak repair and deformation and there are hot and cold spots throughout the building.

The electrical systems in this building are generally in poor condition. Normal distribution equipment and branch circuit panelboards are so old that they should be replaced. Other deficiencies include clearance violations, unlabeled panelboards and equipment disconnect switches, inaccurate panelboard directories and voice/data cables on top of ceiling tiles. The primary power infrastructure was updated within the last three years. Interior lighting consists of fluorescent and incandescent fixtures. Lighting levels are adequate except in the lab areas, where they are excessive. There are a number of broken or damaged fixtures and antiquated ballasts that should be checked for PCB’s and replaced. Emergency lighting fixtures are self contained with battery backup and exit signs are connected directly to branch circuiting with no backup. Coverage for emergency lighting and exit signage is inadequate throughout the building. The fire alarm system consists of a microprocessor base fire alarm panel, pull stations at doors and horn/strobe at corridors. Fire alarm system coverage is inadequate and should be upgraded. Voice/data systems are being replaced on an as needed, building by building basis.

SOM #2 seems to have outlived its usefulness for the Health Sciences Center. Significant funds will need to be spent in order for this building to be brought to a current operating standard. This includes upgrading or replacing its mechanical system, replacing the roof, and upgrading it to an acceptable level of compliance with ADA and building codes. The electrical system has a number of items that should be replaced or upgraded, including installing standardized, energy efficient lighting throughout and an adequate fire alarm system. Overall refurbishing and replacement of interior and exterior finishes would make the building read as a coherent whole and improve its appearance. Keeping in mind the “prime real estate” this building is on, serious consideration of whether or not this building is worth significant renovation is recommended before any further actions are taken.
The Children’s Psychiatric Hospital Education Building (#236B) is on Yale north of the Administration Building. This one story building was built in 1975 as one of the original buildings on the CPH campus. The Education Building serves as the school for the inpatients of the campus and includes classrooms, computer room, offices, library, and a combination OT/PT and art room. Each classroom has a restroom and a time-out room. The exterior has a cementitious finish system, double glazed windows with aluminum frames and painted hollow metal doors and frames. There are walled, landscaped courtyards off of the classrooms and the OT/PT room. The building is connected to the Administration Building by a covered walkway. Mature trees, plantings and grass are throughout the campus.

The Education Building roof was replaced about 10 years ago and there have been no reports of roof leakage, but the parapets show signs of damage. The exterior finish is original to the building and is due for replacement. Interior finishes throughout the building are in good to fair condition. The library and OT/PT room have painted exposed metal decking, ductwork and joists and skylights. The carpet is stained, shows signs of wear and is hard to maintain. The time-out rooms had gyp board walls that were covered with textured and painted plywood for greater durability. Standard school furniture is typical throughout.

Lack of space is somewhat of an issue in this building. Areas intended for other uses have been taken over for offices or storage for classroom materials and books. The original administration office was expanded into the library space and still doesn’t look large enough.

Efforts have been made to address ADA and building codes in this building. All restrooms are for single users and appear to be within reasonable ADA compliance. Solid core doors off of the corridor and open library area still have rating labels, but doors are propped open and some closers may have been removed.

The CPH Education Building is a steel frame structure that appears to be supporting loads adequately and the strapped steel stud walls, which resist lateral loads, are performing as designed. The foundation is spread footings with a concrete slab on grade over sand and a vapor barrier. Concrete slabs placed over a vapor barrier often are irregular at control joints due to uneven curing but these slabs have not experienced this problem. The roof structure is exposed in the center of the building and no distress was observed. Interior and exterior wall finishes are in good condition as well. Roofing material is non-ballasted membrane and it appears to be performing adequately. The structure also appears to be functioning as designed with no significant distress noted.

The Education Building is provided with heating and chilled water by the central mechanical room in the Commons Building. Education’s HVAC system is 4-pipe fan coil units and staff complains hot and/or cold areas. There is adequate airflow and there are no complaints about indoor air quality. All fan coil units and terminal boxes are operating properly. One significant concern is that none of the buildings on the CPH campus have fire sprinklers. The sanitary sewer system is of adequate size and capacity, but a common complaint is that during periods of low usage the traps dry out and sewer gas is smelled in the buildings. The domestic water systems in all buildings are of adequate size and capacity. Nearly all domestic water heaters have been replaced and are in good shape. The recirculating domestic hot water pumps are in poor condition and leak. As a result they are run intermittently or not at all. Overall the facility is in very good condition. There are no serious problems but all systems are nearing the end of their useful service life. The facility may last another 10 years with strict adherence to preventive maintenance schedules.
**Electrical**

In general, normal building distribution, site distribution equipment and branch circuit panelboards are the original equipment, replacement parts for some equipment is not available, and all the electrical equipment is old and due for replacement. This building, along with several others on the south side of the CPH campus, is fed from a distribution switchboard that should be upgraded. The electrical system has the capacity for additional loads, however the electrical equipment can’t be expanded for the additional over current devices required. Other deficiencies include clearance violations, unlabeled panelboards and equipment disconnect switches, inaccurate panelboard directories, and disconnect switches for chilled and hot water pumps not in sight of motors. There appears to be an adequate amount of general receptacles throughout the building. Interior lighting consists of fluorescent and incandescent fixtures. Lighting levels are adequate and fixtures are in fair condition. Emergency lighting and exit signs are self-contained with battery backup and provide adequate coverage in most of the building. Additional emergency lighting should be added to the classrooms. The fire alarm system consists of a microprocessor base conventional fire alarm panel, pull stations at doors, horn/strobe and smoke detectors in corridors with remote annunciation back to the maintenance department. Although the fire alarm system has been updated over the years, the current system is still inadequate. The voice/data system has been upgraded as needed.

**Conclusion**

The CPH Education Building is in very good condition, especially for its age and heavy use. Its stucco should be redone and the carpet replaced. Some consideration should be given towards expansion or reconfiguring spaces for more efficient storage. Mechanical and plumbing systems don’t have any severe problems, but they will need significant upgrading or replacement in the near future. Light fixtures should be standardized and replaced with energy saving fixtures. The fire alarm system should be upgraded to a campus wide addressable system with additional devices added to comply with today’s NFPA, Life Safety and ADA codes. Continued foresight and preventative maintenance by the CPH campus staff will keep this building in its current condition.
University of New Mexico
Health Sciences Center
Master Plan
Building Condition Survey

Date: 8/24/99
Name & No.: CPH Cottages: Brazos (#239) & Pecos (#241)
Year Built: 1975
Gross S.F.: Brazos - 3,295; Pecos - 3,094
Floors: 1

History & Description
The Brazos Security Cottage (#239) and the Pecos Cottage (#241) are centrally located on the Children's Psychiatric Hospital campus. Serving as inpatient quarters, the Pecos Cottage is typical of five low security cottages with Brazos being the only high security residence. The cottages were built as part of the CPH campus in 1975 and are all single story with a stucco finish. They have a common lounge, kitchen and eating area, staff desk and office, time-out rooms, bathrooms and sleeping rooms. Pecos also has a guest room and bathroom that is available for parents to stay in. Doors are painted hollow metal with glass inserts and windows are tempered glass in aluminum frames. Windows in the Brazos Cottage also have Lexan panels on the interior. Skylights are also used throughout the cottages. There are walled courtyards with trees, grass and plantings off of each cottage, but patients are no longer allowed in them unattended because the 6' high walls are scaleable.

Building Condition
The cottages roofs were replaced about 10 years ago and there have been no reports of roof leakage. Some cottages have had their stucco replaced, but the rest of the cottages have their original stucco and are due for replacement. Interior finishes throughout the cottages are in fair condition. Gyp board walls have been covered with firetreated, textured and painted plywood for greater durability. Hard ceilings and V.C.T. are throughout, with carpet at the lounge area. Brazos has protection over lights, ducts, fire alarms, video cameras, etc. and a padded time-out room whose padding is deteriorating. It also has large isolation rooms and a strap-down room. The kitchens are used for heating up meals and cooking classes and have old appliances, painted wood cabinets and peeling laminate. Furniture in all the cottages is heavy wood that can be bolted to floors and walls if necessary.

Lack of space has turned group discussion rooms into office and storage space, leaving patients to have meetings in the open lounge area. The staff desk and office located in the lounge seem too small and lack storage for files and supplies.

ADA & Building Codes
Exit doors don’t have panic hardware and are always kept locked. This isn’t a Code violation as long as there is 24 hour onsite supervision of the facility. Door hardware throughout isn’t ADA compliant. The bathrooms are for single users and are within reasonable compliance, but the showers have curbs and aren’t roll-in.

Structural
The six cottages are of similar construction materials and design. The roof structure is metal deck supported by steel joists and beams with structural steel stud exterior walls and interior partitions. Lateral load resistance is accomplished with strapped exterior stud walls. The foundations are concrete spread footings and slab on grade over sand and a vapor barrier. No evidence of structural distress was found in the buildings visited but the roofs are not sloped for drainage and can potentially pond water. Ponding will accelerate roof deterioration and leaks will compromise the structural soundness. Drainage around the structures appears to be adequate with no apparent ponding near the structure.
The cottages are provided with heating and chilled water by the central mechanical room in the Commons Building. Their HVAC systems are 4-pipe fan coil units that provide adequate airflow and sufficient heating and cooling without hot or cold spots. There are also no complaints about indoor air quality. All fan coil units and terminal boxes are operating properly. One significant concern is that none of the buildings on the CPH campus have fire sprinklers. The sanitary sewer system is of adequate size and capacity, but a common complaint is that during periods of low usage the traps dry out and sewer gas is smelled in the buildings. The domestic water systems in all buildings are of adequate size and capacity. Nearly all domestic water heaters have been replaced and are in good shape. The recirculating domestic hot water pumps are in poor condition and leak. As a result they are run intermittently or not at all. Overall the facility is in very good condition. There are no serious problems but all systems are nearing the end of their useful service life. The facility may last another 10 years with strict adherence to preventive maintenance schedules.

In general, site distribution equipment and branch circuit panelboards are old, replacement parts aren’t available and the equipment is due for replacement. This building, along with several others on the south side of the CPH campus, is fed from a distribution switchboard that should be upgraded. Some deficiencies include unlabeled panelboards and equipment disconnect switches and inaccurate panelboard directories. There appears to be an inadequate amount of general receptacles in the office areas. Interior lighting consists of fluorescent and incandescent fixtures that are in fair to poor condition. Lighting levels appear inadequate and should be evaluated on room function and owner needs. Emergency lighting and exit signs are self-contained with battery backup. Emergency lighting coverage is inadequate. The fire alarm system consists of a microprocessor base conventional fire alarm panel, pull stations at doors, horn/strobe, smoke detectors with remote annunciation back to the maintenance department. Additional battery operated smoke detectors are installed in bedrooms. Although the fire alarm system has been updated over the years, the current system is still inadequate.

The Pecos and Brazos cottages are in good condition, especially considering their hard usage. They are residential in scale and are sited close to playground equipment and playfields. Those cottages that haven’t had their stucco replaced should have that done in the near future. The kitchens should be refurbished with new appliances, cabinets and casework. The padded time-out room in Brazos needs to have its padding replaced. Consideration should be given towards reconfiguring or relocating some of the storage and office needs so that each cottage has a private area for group meetings. Attention will continue to be given to the roof to avoid any serious water damage due to lack of drainage. Mechanical and plumbing systems don’t have any severe problems, but they will need significant upgrading or replacement in the near future. Light fixtures should be standardized and replaced with energy saving fixtures. The fire alarm system should be upgraded to a campus wide addressable system with additional devices added to comply with today’s NFPA, Life Safety and ADA codes.
History & Description
The Children’s Psychiatric Hospital Commons and Service Building (#243) is located at the northeast corner of the campus. This one story building was built in 1975 as one of the original buildings on the CPH campus. The Commons houses a multi-purpose room, mechanical services for the campus, a cafeteria and commercial kitchen. An enclosed mechanical yard is located off of the mechanical room. The exterior has a stucco finish, double glazed windows with aluminum frames, painted hollow metal doors and frames, and a storefront wall system. There is a covered patio off of the cafeteria that serves as the main entrance to the building.

The Commons roof was replaced about 10 years ago and there have been no reports of roof leakage. The exterior finish is original to the building and is due for replacement. Interior finishes throughout the building are in fair condition. Walls are painted C.M.U., some with murals and graphics, and the floor covering is primarily V.C.T. The cafeteria had exposed structure that was later covered with sound proofing material to improve acoustics in this room. Restrooms have tile floors and wainscot and pre-fab showers that were added later. The showers were dripping and discolored and should be refurbished or replaced with something more permanent.

The kitchen prepares meals that are transported to all the cottages as well as serving the cafeteria. It is very small and doesn’t seem to have the proper clearances around fixed and movable equipment. The tray drop-off window is in an awkward corner location. The adjacent trash room was converted to a personnel office and chair and table storage has been taken over for more pantry space. A walk-in freezer was added that encroaches into the former maintenance shop, which is now used for maintenance offices and storage.

ADA & Building Codes
Efforts have been made to address ADA and building codes in this building. Fixtures have been replaced and grab bars added in the main public restrooms. Solid core doors have rating labels and closers. Clearances around fixed and movable kitchen equipment may not comply with accessibility guidelines.

Structural
The Commons has a steel joist and metal deck roof structure bearing on exterior masonry bearing walls. The roofing material is unballasted membrane and the surface has very little slope for drainage. Debris has collected around rooftop air conditioners and in corners of the roof. It also appears that drainage ponds in places on the roof. The only evidence of structural distress is a bad construction joint in the slab between the corridor and the cafeteria. The differential settlement which caused the tile to crack in this joint has long since stopped and this settlement is no longer a concern. The structure appears to be in good condition but the roof drainage issue should be corrected when the roof is replaced.

Mechanical & Plumbing
The Commons is provided with heating and chilled water by the building’s central mechanical room. The HVAC system is 4-pipe fan coil units that provide adequate airflow and sufficient heating and cooling without hot or cold spots. There are also no complaints about indoor air quality. All fan coil units and terminal boxes are operating properly. One significant concern is that none of the buildings on the CPH campus have fire sprinklers. The sanitary sewer system is of adequate size and capacity, but a common complaint is that during periods of low usage the traps dry out and sewer gas is smelled in the buildings. The domestic water systems in all buildings are of adequate size and capacity. Nearly all domestic water heaters have been replaced and are in good shape. The recirculating domestic hot water pumps are in poor condition and leak. As a result they are run intermittently or not at all. Overall the facility is in very good condition. There are no serious problems but all systems are nearing the end of their useful service life. The facility may last another 10 years with strict adherence to preventive maintenance schedules.
Electrical

In general, normal building distribution, site distribution equipment, motor control center and branch circuit panelboards are the original equipment, replacement parts for motor starters in the motor control center are not available, and all the electrical equipment is old and should be replaced. This building, along with several others on the north side of the CPH campus, is fed from a distribution switchboard that should be upgraded. The electrical system has the capacity for additional loads, however the electrical equipment can’t be expanded for the additional over current devices required. Other deficiencies include clearance violations, unlabeled panelboards and equipment disconnect switches, and inaccurate panelboard directories. There appears to be an inadequate amount of general receptacles throughout the building. Interior lighting consists of fluorescent and incandescent fixtures. Lighting levels are inadequate and fixtures are in fair to poor condition. Emergency lighting and exit signs are self-contained with battery backup. Exit sign coverage is adequate, but emergency lighting is inadequate in some rooms. The fire alarm system consists of a microprocessor base conventional fire alarm panel, pull stations at doors, horn/strobe and smoke detectors in corridors with remote annunciation back to the maintenance department. Although the fire alarm system has been updated over the years, the current system is still inadequate. The voice/data system has been upgraded as needed.

Conclusion

The CPH Commons and Service Building is in good condition, especially for its age. The stucco should be redone and attention should continue to be given to the roof to avoid any serious water damage due to lack of drainage. Interior finishes could be refurbished or replaced to give this building an appearance more in keeping with the other public buildings on the campus. Some consideration should be given towards kitchen expansion. Mechanical and plumbing systems don’t have any severe problems, but they will need significant upgrading or replacement in the near future. The electrical system has a number of items that should be replaced or upgraded, including installing standardized, energy efficient light fixtures. The fire alarm system should be upgraded to a campus wide addressable system with additional devices added to comply with today’s NFPA, Life Safety and ADA codes. Continued maintenance by the CPH campus staff will keep this building in its current condition.
The Children’s Psychiatric Hospital Day Treatment Center (#254) is at the northern edge of the CPH campus. Built in 1993, this two story building has two main services: an outpatient education facility and an in and outpatient medical clinic, each with its own entrance. The Day Treatment Center has therapy rooms, offices, exam and therapy rooms, a pharmacy, and classrooms with restrooms and time-out rooms. The exterior has a stucco finish, double glazed windows with aluminum frames and painted hollow metal doors and frames. There are walled courtyards off of the classrooms with wood shade structures, paving, grass, furniture and play equipment. The front entry also has a wood shade structure. Mature trees, plantings and grass surround the building.

Being only six years old, this building is functioning well and looks well maintained. There have been no reports of roof leakage. The exterior stair shows rust stains at the metal nosing and the tops of the stair and patio walls have some damaged stucco. Interior finishes throughout the building are in good condition. The carpet is stained and showing signs of wear.

Storage is at a premium in this building, with janitor closets and other spaces being taken over for storage or other uses. The open stairwell is pleasant with a planter at its base and a skylight above. The public restrooms have attractive tile and accent colors are used to highlight walls. The exam rooms have up-to-date equipment. The time-out rooms had gyp board walls that were covered with textured and painted plywood for greater durability.

Due to its age, the Day Treatment Center appears to be in compliance with most current ADA and building codes, however, the open stair handrail doesn’t appear to meet minimum grab requirements. Restrooms are equipped with grab bars and accessible fixtures.

The Day Treatment Center is a two story, steel frame structure with load bearing, steel stud exterior walls. The floor construction is concrete over metal deck over steel joists and beams and the roof is unballasted 90 pound asphalt cap sheet over metal deck over steel joists and beams. Some roof leaks have developed in the north side of the low roof. Exterior walls are steel stud construction and are in good condition. The foundation is concrete spread footings and slab on grade. No significant evidence of structural distress was noted.

The Day Treatment Building is provided with heating and chilled water by the central mechanical room in the Commons Building. The HVAC system is 4-pipe fan coil units and staff complains of hot and/or cold areas. There is adequate airflow and there are no complaints about indoor air quality. All fan coil units and terminal boxes are operating properly. One significant concern is that none of the buildings on the CPH campus have fire sprinklers. The sanitary sewer system is of adequate size and capacity, but a common complaint is that during periods of low usage the traps dry out and sewer gas is smelled in the buildings. The domestic water system is of adequate size and capacity. Overall the facility is in very good condition.
Electrical

In general, the site distribution equipment is old and due for replacement, but the building branch circuit panelboard is in good condition. This building is fed from a centrally located distribution switchboard outside the Day Treatment Center that also feeds several other buildings. Some deficiencies include clearance violations and unlabeled panelboards and equipment disconnect switches. There appears to be an adequate amount of general receptacles throughout the building. Interior lighting consists of fluorescent and incandescent fixtures. Lighting levels are adequate and fixtures are in good condition. Emergency lighting and exit signs are self-contained with battery backup and provide adequate coverage. The fire alarm system consists of a conventional zone fire alarm panel, pull stations, horn/strobe and smoke detectors with remote annunciation back to the maintenance department. Although the fire alarm system has been updated over the years, the current system is still inadequate. The voice/data system has been upgraded as needed.

Conclusion

The CPH Day Treatment Center is in very good condition. The building’s design is contemporary while still in keeping with the rest of the CPH campus. The carpet is due for replacement in the near future, as well as minor repairs to the exterior stucco. Mechanical and plumbing systems don’t have any significant problems. Light fixtures should be standardized and replaced with energy saving fixtures. The fire alarm system should be upgraded to a campus wide addressable system with additional devices added to comply with today’s NFPA, Life Safety and ADA codes. Continued foresight and preventative maintenance by the CPH campus staff will keep this building in its current condition.
The School of Medicine Buildings #4, 5, 6 (#209) is to the north of the Health Sciences Library at what is considered the main entrance to the HSC campus. Acquired in the mid-60’s, the buildings are modular and connected by enclosed breezeways. The buildings were originally used for labs and research. #6 is currently occupied by the Psychiatry department, #5 by the Physician’s Assistant program and #4 has a small meeting room and storage for the Emergency Medical Service (EMS), as well as general storage for the HSC. The buildings are all single story with crawl spaces and have painted metal ribbed siding and painted metal roofs. Covered entrance porches are at the front of #4 and #6. Most windows look original to the buildings and are single paned, residential grade aluminum sliders. Exterior doors are painted hollow metal with glass inserts. Some xeric landscaping has been recently done.

There are several reports of roof leakage in these buildings, with repairs being done on an as-needed basis. Paint has worn off portions of the roof, there are signs of rust and no insulation in the attic space. The interior layouts are essentially a corridor running the length of the buildings with rooms on either side. #5 has new carpeting and some new furniture, but #6 has stained, worn carpet and V.C.T. with dated furniture and other finishes. Suspended ceilings throughout have stained tiles and sagging grid. Old laboratory casework is still used for storage in offices. #4 looks the worst with cracking floors tile, sloping floors, abandoned equipment and haphazard storage methods. Ponding under the buildings has also contributed to a rodent problem and musty smells.

Minimal effort has been made to address ADA and building code issues in this building. Few upgrades have been made in the bathrooms. A wooden ramp was installed at one of the connectors for accessibility, but the handrails don’t meet current codes. Exterior wooden and metal stairs also don’t meet ADA requirements and stairs or ramps leading from exits need to be non-combustible. Fire extinguisher cabinets are mounted too high for accessibility. Fire separation is inadequate throughout the building; required doors don’t have closers, rated doors are inconsistent and corridor walls don’t go to deck. The building has no fire detection, suppression or alarm system of any kind.

These three portable metal building structures are in various stages of deterioration. It appears that SOM #6 has been upgraded more recently than the other two SOM buildings. Some floor tiles in parts of the building show recurrent damage after being replaced, suggesting some differential movement of the foundation. This type of problem is more severe in #5 and especially in #4. The metal roof is typically not insulated and evidence of roof leaks was found in several areas throughout all the buildings. The exterior corrugated metal siding of the buildings is rusting in many locations and drainage around the buildings is poor with rainwater ponding around the perimeter of all the buildings. These buildings appear to be at the end of their usefulness without significant structural upgrading.

The plumbing system appears to be in fair condition, considering its age. The mechanical system is in poor shape and should be demolished and replaced. Four evaporative coolers service Buildings #5 and 6, one has been replaced and the other three are in need of replacement. Building #4 has discontinued using its evaporative coolers and the forced air furnaces have been condemned. Ductwork throughout is old, rusty and leaky. All three buildings have inoperable exhaust fans and there isn’t any source of attic ventilation.
In general, normal distribution equipment and branch circuit panelboards are so old that they should be replaced. The electrical system has the capacity for additional loads, however the electrical equipment can’t be expanded for the additional over current devices required. Some of the many deficiencies include clearance violations, unlabeled panelboards and equipment disconnect switches, and voice/data cables on top of ceiling tiles and strapped to conduits. There appears to be an inadequate amount of general receptacles throughout the buildings. The interior lighting is a combination of fluorescent and incandescent fixtures. Lighting levels are generally adequate, but some fluorescent fixtures may have antiquated ballasts that should be checked for PCB’s and replaced. Typically, emergency lighting and exit signs are self contained, battery backup units, with inadequate coverage throughout the buildings. There aren’t fire alarm systems in any of the buildings. The current voice/data system is being upgraded as needed on a building by building basis.

Conclusion

SOM Buildings #4,5,6 have outlived their useful life and aren’t worth putting additional funds into. The buildings have a number of fundamental problems that would require a huge amount of work and money to resolve. These include a new mechanical system, new electrical and fire alarm systems, replacing the exterior and roof, insulating the entire buildings, replacing windows and extensive upgrades of finishes. These buildings were meant to be temporary structures and their location at the entrance to the campus and their present condition are poor examples of the HSC campus facilities.
Building Condition Survey

History & Description
Building #210 houses the Senior Health Center and the Milagro program, which helps drug addicted mothers and babies. Built in 1966, it was the Women’s Health Clinic until 1992 when it was remodeled for its current users. This one story building is C.M.U. with stucco and T1-11 with a spray-on “stucco” finish and has single glazed windows in aluminum frames. Doors and frames are painted hollow metal. There is an overgrown interior courtyard between the two programs and a small courtyard on the west side of the building. Mature shrubs and trees line the sidewalk at the north entrance to Senior Health. Grass, trees and some planting is at the east entrance to Milagro.

Milagro Entry

Building Condition
The 1992 remodel upgraded many of the finishes in the Senior Health Center: sheet vinyl, casework, carpet, modular furniture and chair rails. The lobby is noisy and starting to look worn, but looks to the interior courtyard and gets plenty of natural light. The exam rooms and bathrooms are in good condition, but the nurse’s station is crowded. The clinic also doesn’t have an intercom system. The west portion of the clinic was an addition with a crawl space that doesn’t drain well, giving the clinic a musty smell. The main entrance on the north side is hard to find and could use directional signage from the east and west.

Milagro got new carpeting and some new casework in the remodel, but most of the furniture and casework is dated. The lobby is dark and small and the playroom has old, stained carpeting, painted C.M.U. walls and high windows. The overall feeling of the spaces is that they are dingy and uninviting. The entrance isn’t protected and the signage is insignificant.

ADA & Building Codes
Many ADA issues were addressed in the 1992 remodel, particularly for the clinic. Some restrooms have been improved with grab bars and accessible fixtures. The Milagro side doesn’t appear to have been upgraded to the same level that the Senior Health side has. Milagro’s corridors are used for storage and employee areas and door hardware is inconsistent. The fire alarm system, emergency lighting and exit signs only cover the west (Senior Health) side of the building.

Structural
This building is an aged masonry structure that was built in two phases. The floor of the east half of the building is concrete slab on grade while the west half of the building is a suspended floor system with a lightweight floor structure. Exterior walls are typically load-bearing masonry construction and the roof is built-up asphalt with gravel ballast. The building’s current condition is structurally sound with no signs of distress, however the relatively light floor construction on the west end of the building limits the range of uses this building can support. Office and clinic functions are acceptable in this building, but vibration sensitive laboratory use or functions which require heavy equipment may not work without structural modifications.

Mechanical & Plumbing
Currently, all mechanical and plumbing systems appear to be in adequate shape. The HVAC system consists of a multi-zone rooftop packaged unit and 3 gas-fired rooftop packaged units. The multi-zone unit was replaced in 1993 and with regular maintenance, it may last another 10 years. One of the zones served by the multi-zone unit has large temperature swings from hot to cold. This problem should be immediately addressed since this affects staff and patient comfort. The single zone, gas-fired packaged units and hot water heater are approximately 34 years old and have outlived their useful service life. Regardless of how thorough continued maintenance is performed, there is no way to estimate the remaining life of this equipment. Even though there are no major problems to report with any system at this time, they are all old and need to be replaced within the next 1-3 years.
Electrical
In general, normal distribution equipment and branch circuit panelboards are old and should be replaced. Some of the deficiencies include clearance violations, unlabeled panelboards and equipment disconnect switches, inaccurate panelboard directories and voice/data cables on top of ceiling tiles and strapped to conduits. There appears to be an adequate amount of general receptacles throughout the building. The interior lighting is a combination of fluorescent and incandescent fixtures. Lighting levels are generally adequate, but some fluorescent fixtures may have antiquated ballasts that should be checked for PCB’s and replaced. Typically, emergency lighting and exit signs are self contained with battery backup. Emergency lighting and exit sign coverage is inadequate and covers only the west side of the building. The fire alarm system only coverage the west side of the building and should be upgraded to include the entire building. The current voice/data system is being upgraded as needed on a building by building basis.

Conclusion
Building #210 is in fairly good condition. Effort could be made to better integrate the exterior finishes and additional signage would be helpful for directions and identification. Senior Health will need some upgrading in the near future, particularly with the carpet and the installation of an intercom system. If the Milagro program is going to continue, consideration should be given to making the space more welcoming for its users – particularly the children. A covered entrance into a well-lit lobby and playroom would help towards a positive perception. Overall refurbishing and replacement of the furniture and finishes would further improve the appearance of this area. The electrical systems need upgrading and replacement to bring them to current operating standards. Light fixtures should be standardized and replaced with energy saving fixtures. Emergency lighting, exit signs and the fire alarm system should be expanded to adequately cover the entire building.
Basic Medical Sciences (#211) is centrally located off of the Health Sciences Center plaza. Built in 1967, the building has largely remained as originally designed with minimal remodeling, primarily partition relocation and some finish upgrades. Programmatically, it houses lecture rooms, wet labs, teaching labs, offices and administration for the School of Medicine. There are also a variety of HSC and administrative functions on the main, ground and basement levels in this building such as the cashier, comptroller, duplicating, key shop, dark rooms, etc. The Animal Research Facility was added on the south side of the ground floor and can also be accessed from the Biomedical Research Facility (BRF). Open skybridges connect BRF and Basic Medical Sciences at each level. The building has four stories above grade with a basement level and a mechanical penthouse. The ground floor has an underground connection to the Nursing and Pharmacy Building. The exterior is C.M.U. with a cementitious finish system, precast concrete “Ts” applied vertically, exposed aggregate panels and a painted concrete brise-soleil on the east and west sides. Aluminum, single-glazed strip windows run along the east and west sides and the entry has a storefront system. The main entry is covered by lecture halls above and has a number of bike racks. The ground level has a courtyard to the west that has planters, benches, awnings and is well-planted with trees, shrubs and flowers.

There are some reports of roof leakage on BMSB and the Animal Research Facility. BMSB has a mechanically attached membrane that is brittle and easily punctured. There are also signs of ponding on the ballast. Painted exterior elements show chipping and cracking. There is some seal deterioration at interior windows. Netting is attached to the west side of the building to catch falling aggregate from the panels and for pigeon control.

The finishes throughout the building are generally in fair to poor condition with the exception of some labs and administration areas that have had some minor remodeling. Walls are painted C.M.U. and suspended ceilings have stained, mismatched tiles and sagging grid. Carpets are stained and worn, V.C.T. is old and stained and laminate colors are very dated (avocado, brown, mustard, etc.). Clocks, blinds, curtains and furniture are also in need of refurbishing or replacement. Some attempts have been made at making lobby areas throughout the building. The ground floor has modular walls partitioning off part of the elevator lobby for a staff lounge, the main floor has a carpeted area with chairs and a coffee cart and the third floor has a carpeted area and some office-type furniture.

Many of the lab functions in this building seem to have reached a level of obsolescence. Laboratory casework and equipment is outdated and in poor condition. Power strips have been installed on most walls. The de-ionized water system is no longer operating at an acceptable level and the exhaust hoods are marginally functional. Curriculum changes have increased use of the anatomy lab and forced overcrowding of students and cadavers. Storage areas for cadavers are currently being remodeled, but this appears to be a short-term solution. Storage is an issue in this building with corridors, classrooms and offices being used to store unused equipment and furniture. Faculty and graduate offices are small with high windows and administration areas look dingy and not well-maintained. The Animal Research Facility is conducting different kinds of research than what the building was originally designed for. It lacks proper areas for sterile gowning up, negative pressure entrances to sterile labs, smells musty and is dimly lit.
ADA & Building Codes
Some effort has been made to address ADA and building code issues in this building, but there are many life safety violations and inconsistent upgrades for ADA. Some fixtures have been replaced, grab bars added and drinking fountains lowered, but many restrooms haven’t had any retrofitting. Stair handrails are not in compliance for extensions, minimum distance between intermediate rails and require gates to prevent occupants from exiting into the basement. The southwest stairwell used to lead directly to an exterior exit, but with the addition of the ARF, the stairs now exit to an interior corridor that exceeds the dead end limit and travel distance requirements. Doors into stairwells have knobs instead of panic hardware. The building also doesn’t comply with emergency refuge area requirements. The elevator controls are also not ADA compliant and the shaft doesn’t have fire sprinklers or detection. All doors onto the rated corridor should be rated and have closers; the doors are missing labels, don’t have closers and most are kept open. Exit signage indicate directions that are no longer exits and travel distances are longer than current standards. The building is protected by a partial sprinkler system in the basement only. Access for emergency vehicles to this building is severely limited, and maintenance staff reports that the plaza cannot support any vehicle without the serious possibility of falling through.

Structural
Basic Medical Sciences appears to have been designed and built with the potential for turning the roof level into another floor. The building has a reinforced concrete frame and the post-tensioned concrete roof structure is designed with joist and beam sizes equal to those of the floors below. The concrete stair tower was also constructed for easy future extension. The 2'-8" thick concrete mat foundation appears to be substantial enough to support another level of loading as well. Although over 30 years old, the structure exhibits no significant evidence of distress due to settlement, lateral load stress or gravity loadings. The vertical chases don’t meet current building code requirements and may inhibit adding another story. The roof is relatively flat and may not drain well during heavy rainfall. Several areas of the roof appear to have been recently repaired. Overall, the structure is meeting design requirements.

Mechanical & Plumbing
All mechanical and plumbing systems are in fair condition, but are 32 years old and past the end of their useful service life. The HVAC system size doesn’t seem to be adequate and occupants complain of lack of air flow and cooling. The HVAC system also doesn’t have adequate fire/smoke dampers. Current electronic and computer heat loads exceed the cooling capacity of the system. The plumbing system has sections that need replacement, most of the isolation valves no longer shut off completely and the glass acid drain lines need to be completely replaced. The laboratory exhaust system fume hoods don’t have required airflow and cannot maintain recommended minimum face velocities, posing a hazard to laboratory operators.

Electrical
In general, normal and emergency distribution equipment, motor control centers and branch circuit panelboards are the original equipment, replacement parts for motor starters in the motor control centers are not available, all electrical equipment is old and should be replaced. The electrical system has the capacity for additional loads, however the electrical equipment can’t be expanded for the additional over current devices required. The primary power infrastructure was updated within the last three years. There are two emergency generators, a new 80 kw unit that was added within the last two years and a thirty year old generator and related automatic transfer switch that should be tested, service and replaced if needed. The generators are not tested under building loads. Other deficiencies include clearance violations, exposed live parts, water lines passing over or in front of electrical equipment, unlabeled panelboards and equipment disconnect switches, inaccurate panelboard directories and voice/data cables on top of ceiling tiles and strapped to conduits. There appears to be an adequate amount of general receptacles throughout the building. Interior lighting is a mix of fluorescent, incandescent and HID fixtures. Lighting levels are adequate, but there are a number of broken or damaged fixtures and antiquated ballasts that should be checked for PCB’s and replaced. Emergency lighting and exit signs are connected to the emergency backup system that has inadequate coverage. The fire alarm system consists of a four-zone conventional fire alarm panel, with heat detectors in storage areas and penthouse, pullstations at stairs, horn/strobe at corridor intersections and elevator control connection. The fire alarm system is outdated, non-addressable and doesn’t power the whole building. Pull stations are poorly located and should be upgraded. Voice/data systems are being replaced on an as needed, building by building basis. Security for this building consists of magnetic door locks on exterior doors with card access in selected areas.
Conclusion

The Basic Medical Sciences Building is essentially in fair condition, but needs attention in several areas before major problems arise. The roof may require significant repair or replacement. The mechanical and plumbing systems are past their useful life and have several deficiencies that need to be addressed. These include an insufficient HVAC system size and capacity for current loads, inadequate lab exhaust system and old plumbing. The electrical systems need upgrading and replacement to bring them to current operating standards. This will include a modern fire detection and suppression system, especially considering the amount of flammable and hazardous materials in this building. Emergency lighting and exit signs should be upgraded to provide adequate coverage. Light fixtures should be standardized and replaced with energy saving fixtures. Life safety and consistent ADA upgrades should be made to bring this building within a reasonable level of compliance. BMS is a major building on the HSC campus and for the School of Medicine. Serious consideration needs to be given to giving this building a thorough facelift of the interior. This would include replacement of laboratory casework and equipment, upgraded floor coverings, new suspended ceilings and better lighting. Lobbies should be better integrated into the building and not look like afterthoughts. Another issue that will need to be addressed is that of lack of space for the School of Medicine. The main, ground and basement levels have various administrative and HSC functions that are hard for users to find and not in ideal spaces for their programs. Thought should be given to relocating those spaces and allowing the School of Medicine to use its entire building.
History & Description

The Surge Building (#226) is located to the east of the Health Sciences Center plaza. Built in 1973, the building was originally intended as an office and lab building for temporary or short-term use. This building has undergone numerous remolds, primarily suite reconfigurations, partition relocations and finish upgrades. The Surge Building had a two story, H-shaped footprint with two wings connected by a corridor, restrooms, stairs and elevator. The exterior has a cementitious finish system with aluminum, single-glazed windows and storefront entry doors. The majority of the windows are located on the east and west interior portions of the “H” and have vertical shading fins. Well planted and furnished front and rear courtyards are also located at the interior portions of the “H”. Ivy covers a portion of the exterior walls, particularly at the courtyards.

Building Condition

Although this building was designed to be used by short-term occupants, some of the users have been there since it opened, while others are using space in ways the building was never designed for. The second story west wing of the Surge Building was the only area originally designed to have a small wet lab. Currently there are additional wet labs on both levels of the east wing. Because this building wasn’t designed to be primarily a lab building, issues such as vibration, venting and precise heating and cooling control weren’t considered in the detail that this technical building type requires. State-of-the-art equipment is highly sensitive to its surroundings and the labs in this building are reporting problems with their equipment and results due to inconsistencies in their environment.

The finishes throughout the building are generally in good to fair condition. Some of the later remolds have upgraded furniture, carpet and ceiling tile. The main entries open into the main corridor with signage used to direct visitors. The signage is dated and inconsistent and the low lighting levels make the corridor “lobby” uninviting. Storage is an issue in this building with corridors and offices being used to store unused equipment and furniture. Earlier water leakage problems seem to have been fixed when a new roof was put on a few years ago.

ADA & Building Codes

Some effort has been made to address ADA and building code issues in this building. Fixtures have been replaced and grab bars added, but clearances are not to current standards. The elevator has two sets of controls, only one of which works, and neither are compliant. It is also missing a door closing sensor. The stairs don’t appear to meet current code requirements for egress width, rise and run and handrails do not have the proper extensions or grip area. One of the sidewalks to the building appears to exceed minimum slope requirements without a handrail. Doors opening to the corridor are metal with hollow metal frames and are missing their rating labels. Some doors required to have closers were propped open or had their closers removed. Door hardware is inconsistent and may not be compliant with ADA or building codes for exiting. Exit signage is inadequate and inconsistent in emergency backup power. The original occupancy didn’t require a fire detection and suppression system, but the occupancy has now changed due to flammable chemicals in the building. There are no audio/visual fire alarms in the building.

Structural

The Surge building is a steel frame structure with no formal lateral load resisting system. Secondary steel stud exterior walls are sheathed and function as a lateral load resisting system. No significant distress was noted. The second floor structure appears to be adequate to support gravity loads, but current tenants complain that the structure vibrates and doesn’t allow some lab activities to be performed accurately. Substandard roof slope to roof drains creates ponding in some areas and a severed mechanical unit condensate line adds to this problem. Otherwise, the structure is adequate, but the vibration concerns suggest relocation of laboratory functions to another building.
Mechanical
& Plumbing
Due to the addition of more laboratory space, the Surge Building is now in violation of various codes. The laboratory areas are not isolated from the offices and make up air has not been installed for the fume hoods. There is also liquid nitrogen use in the second floor lab without adequate exhaust or oxygen monitoring. Other code issues include the lack of fire suppression and alarms. The building HVAC system consists of rooftop packaged multi-zone units with refrigerated cooling and gas heating. The controls for the units are not functioning properly and require extraordinary amounts of time from the maintenance personnel. There is a new single zone rooftop package unit serving the reproductive endocrinology area that is about two years old. There are also several utility set exhaust fans that are not operating and appear to be in poor condition. The glass acid drain system should be replaced.

Electrical
Like many of the buildings on the HSC campus, normal distribution equipment and branch circuit panelboards are moderate to old in age and should be replaced as needed according to future building functions. The electrical system has the capacity for additional loads, however the electrical equipment can’t be expanded for the additional over current devices required. The primary power infrastructure was updated within the last three years. Other deficiencies include clearance violations, unlabeled panelboards and equipment disconnect switches, inaccurate panelboard directories, and voice/data cables on top of ceiling tiles and strapped to conduits. There also isn’t an emergency generator, which is necessary for the types of laboratory experiments and procedures being conducted in the building. There appears to be an adequate amount of general receptacles thought out the building. Interior lighting consists of fluorescent and incandescent fixtures. Lighting levels are adequate, but there are a number of broken or damaged fixtures. Emergency lighting and exit signs are connected to the emergency backup system that has inadequate coverage. The fire alarm system consists of a hard wire zoned system, pull stations at doors, horn/strobe at corridor. The fire alarm system coverage is inadequate and should be replaced. Voice/data systems are being replaced on an as needed, building by building basis.

Conclusion
The Surge Building is essentially in good condition, but has some significant problems that need to be addressed immediately. Roof drainage continues to be an issue and the damaged condensate line should be repaired. The elevator needs to be upgraded to reasonable ADA compliance. The electrical systems need some upgrading to bring them to current operating standards. This would include adding a fire detection and suppression system. Emergency lighting and exit signs should be upgraded to provide adequate coverage, particularly in light of the amount of flammable substances used and stored in this building. Light fixtures should be standardized and replaced with energy saving fixtures. The mechanical problems with the Surge building are severe and need immediate attention. As a separate project a proposal has been submitted to study the mechanical systems and make recommendations for upgrades. Of less pressing importance, but issues still needing consideration are relocating labs to buildings designed to accommodate their functions or doing significant renovation to allow the labs to function properly, some upgrading of finishes and creating a more inviting lobby to improve the appearance of the interior. The courtyards are a nice feature and continued maintenance will continue to help make the exterior attractive.
### History & Description

The Cancer Research and Treatment Center (#227) is located on the south side of the Health Sciences Center plaza. Built in 1972, the building has undergone some renovations, including finishing out the basement, adding a new entry, and various partition relocations and finish upgrades. Programmatically, the CRTC’s patient waiting areas and exam and treatment rooms are on the ground level, with circuitous access to University Hospital on the south. The basement, second (plaza level) and third floors house dry and wet labs, administration, and dedicated space for specific programs like the New Mexico Tumor Registry. The exterior is a combination of exposed aggregate precast panels and a cementitious finish system. Main entrances are storefront door systems and aluminum, single-glazed windows with spandrel glass inserts are located in triangular pop-outs. Some raised planters are adjacent to the building with grass, trees and xeric landscaping.

### ADA & Building Codes

Efforts have been made to address ADA and building code issues in this building, especially in patient areas. Fixtures have been replaced and grab bars added. Doors opening into corridors are either painted hollow metal or solid core wood in painted hollow metal frames. Their hardware is inconsistent and may not be compliant with ADA or building codes for exiting. Stair handrails don’t meet extension, spacing or minimum grab requirements. Wheelchair users have difficulty maneuvering from parking areas to the main entrance due.

### Structural

The Cancer Research Center is a concrete frame structure with cast-in-place concrete columns and post-tensioned concrete beams supporting precast concrete double tee floor structural members and concrete topping slab. A section of the plaza level floor structure is concrete, 2-way, waffle slab. The foundation of this building is made up of concrete spread footings and basement walls at the bottom level and the utility tunnel. Four foot thick minimum concrete walls are constructed around the radiation treatment area of the ground floor level. These walls extend to the basement level to contain the radiation source in this building. Much of the exterior wall construction is precast concrete panel construction with steel stud wall parapets. Masonry and concrete shear walls make up the lateral load resisting system of this building. The structure appears to be adequate in supporting both gravity and lateral loads.
Mechanical & Plumbing

The HVAC system for the Cancer Research Center is a variable volume air handler feeding constant and variable volume terminal units with reheat coils. The system is almost 27 years old and very near the end of its useful service life. All mechanical systems are of adequate capacity and satisfactory condition, with the exception of the domestic cold water piping which has had some leaks. With strict adherence to maintenance schedules the systems may last another 1-5 years. It should be noted that there are abandoned packaged rooftop units and one of the exhaust fans does not operate. Problems in the Cancer Research Center not serious but need to be addressed for long term operation of the building.

Electrical

Typically, normal and emergency distribution equipment, motor control centers and branch circuit panelboards are the original equipment, replacement parts for motor starters in the motor control centers are not available, all electrical equipment is old and should be replaced. The electrical system has the capacity for additional loads, however the electrical equipment can’t be expanded for the additional over current devices required. The primary power infrastructure was updated within the last three years. The emergency generator is over 20 years old and looks to be in good condition. The automatic transfer switch was replaced about 8 years ago. The generators are tested weekly and serviced and tested under load once a month. Other deficiencies include clearance violations, exposed live parts, water lines passing over or in front of electrical equipment, unlabeled panelboards and equipment disconnect switches, inaccurate panelboard directories, and voice/data cables on top of ceiling tiles and strapped to conduits. There appears to be an adequate amount of general receptacles throughout the building. Interior lighting is a mix of fluorescent, incandescent and HID luminaries. Lighting levels are generally adequate, with the exception of the incandescent lit corridors. There are a number of broken or damaged fixtures and antiquated ballasts that should be checked for PCB’s and replaced. Emergency lighting and exit signs are connected to the emergency backup system with satisfactory emergency lighting coverage. Additional exit signs are needed in select areas. The fire alarm system consists of a microprocessor base fire alarm panel connected to the original conventional hard wire pullstations, horn/strobe and detectors. Fire alarm system coverage is inadequate. A new fire alarm system has been designed and is awaiting funding. Current voice/data systems are being upgraded on an as needed, building by building basis. There is no security system for the Cancer Research Center.

Conclusion

The Cancer Research and Treatment Center is essentially in good condition. Overall refurbishing and replacement of the furniture and finishes in laboratory areas would improve the appearance of the building and should be considered an important item for attention. Life safety and ADA upgrades should be made to bring the building within a consistent level of compliance. The mechanical systems are in serious need of significant upgrading or replacement. Air quality issues in the basement are causing otherwise usable space to be abandoned. The electrical systems need upgrading and replacement to bring them to current operating standards. This will include an upgraded fire alarm system and standardized, energy efficient light fixtures.
The Nursing and Pharmacy Building (#228) is centrally located off of the Health Sciences Center plaza. Built in 1975, the building has largely remained as originally designed with minimal remodeling, primarily partition relocation and finish upgrades. Programmatically, it houses classrooms, dry and wet labs, offices and administration for the Nursing and Pharmacy departments. The building has three stories above grade with a basement level that extends under the HSC plaza and a mechanical penthouse. The basement level has a plaza and an adjacent greenhouse that has been abandoned. The exterior has a cementitious finish system with aluminum, single-glazed windows and doors. Windows are located on the north and south sides and have vertical shading fins.

Interior water damage on the wall under the windows is consistent throughout the building. Review of construction drawings shows that the windows were originally installed with an exterior bead of sealant and sloped sills without any kind of flashing. Another area of the building that has experienced significant water damage in the past is the portion of the basement under the HSC plaza. A major deck repair was done in 1995 and there haven’t been any problems since.

The finishes throughout the building are generally in fair to poor condition with the exception of some offices and the Nursing administration area which have been recently remodeled. Carpets are stained and worn, V.C.T. is mis-matched and stained and laminate colors are very dated (hot pink, chartreuse, orange, etc.). Laboratory casework and equipment is outdated and in poor condition. Clocks, blinds, curtains and furniture are also in need of refurbishing or replacement.

Storage is an issue in this building with corridors, classrooms and offices being used to store unused equipment and furniture. Faculty and graduate offices are small and “warren-like” and conference space is at a premium. Some of the clinical labs used by Nursing are currently being used as classrooms and still have working gasses and plumbing in place.

Efforts have been made to address ADA and building code issues in this building. Fixtures have been replaced, grab bars added and drinking fountains lowered. Handrail extensions have also been welded to the ends of existing handrails at the stairwells. Doors opening into the corridor are solid core, stained wood that are full height to the ceiling. Their hardware is inconsistent and may not be compliant with ADA or building codes for exiting.

Nursing and Pharmacy has a slab-on-grade and spread footing foundation system. The floor structure at the main level is concrete waffle slab while upper level floors and roof framing are precast concrete tees with 3” lightweight concrete topping slab. Cast-in-place concrete walls serve are the lateral load resisting system for this structure. The roof appears to have almost no slope and shows signs of drainage ponding. The building has no apparent signs of structural distress and appears to be functioning adequately.

Currently, the mechanical and plumbing systems appear to be in satisfactory working condition with no major problems at this time. The building is almost 25 years old and all systems are approaching the end of their useful service life. With rigorous adherence to maintenance schedules the systems may last another five years.
Electrical  In general, the normal and emergency distribution equipment, motor control centers and branch circuit panelboards are original equipment, replacement parts for motor starters are unavailable and all equipment is old and should be replaced. The electrical system has capacity for additional loads, but the electrical equipment can’t be expanded for the additional over current devices required. The primary power infrastructure was updated within the last three years. The emergency engine generator is over twenty years old and looks to be in good condition, but the automatic transfer switch is humming with hot spots and should be replaced. Other deficiencies include clearance violations, exposed live parts, water lines passing over or in front of electrical equipment, unlabeled panelboards and equipment disconnect switches, and voice/data cables on top of ceiling tiles and strapped to conduits. Interior lighting is a mix of fluorescent, incandescent and HID fixtures. Lighting levels are adequate, but there are a number of broken or damaged fixtures and antiquated ballasts that should be checked for PCB’s and replaced. Emergency lighting and exit signs are connected to the emergency backup system that has inadequate coverage. The fire alarm system coverage is inadequate and should be replaced. Voice/data systems are being replaced on an as needed, building by building basis. Security for this building consists of magnetic door locks on exterior doors.

Conclusion  The Nursing and Pharmacy building is in relatively good condition. Attention should continue to be paid to the roof drainage and areas under the HSC plaza for any leakage and repaired immediately. Replacement of the windows and any related items (interior/exterior finish repair, flashing, etc.) should be the highest priority for this building. Overall refurbishing and replacement of the furniture and finishes would improve the appearance and user perception of the building and should also be considered an important item for attention. The electrical systems need upgrading and replacement to bring them to current operating standards. Light fixtures should be standardized and replaced with energy saving fixtures. The fire alarm system, emergency lighting and exit signs should be upgraded to provide adequate coverage, particularly in light of the amount of flammable substances used and stored in this building. Mechanical and plumbing systems are still in good working order, but will need to be replaced in the near future.
The Cancer Research Facility is on the south side of the Health Sciences Center, directly west of the Biomedical Research Facility. The two buildings are connected by skybridges at each floor. Built in 1997 as a laboratory building, the CRF is the newest building on the HSC campus. The third floor was left a shell space and is currently being built out. The building has four stories and a basement, with administration on the ground level and labs and some support offices on the first, second and third floors. The basement houses mechanical space, storage, communal freezer storage and switchgear for the entire HSC campus. The exterior finishes include stone veneer, EIFS and stained precast concrete panels. Painted metal awning screens shade south and west facing windows. Aluminum with glass inserts and painted hollow metal doors are in painted hollow metal frames. Windows are double glazed in aluminum frames, some with tinted glass. There are some small adjacent landscaped plazas that tie into existing HSC outdoor spaces.

Being only a few years old, this building is functioning well and looking good. There are some signs of ponding on the roof, but no reports of leaks. The finish on the south facing concrete panels is starting to fade and deteriorate. The skybridges have a suspended glazing system that is held out from the walls, but when rain is driven in around the glass panels, there aren’t any drains or scuppers to get rid of the water. The labs have natural light from big windows, nice casework and up-to-date equipment. Areas on the lab floors originally intended for a small administrative area and large conference room for each floor have been made into executive offices. Since these spaces are directly off of the main elevator lobby, which serves as a lounge and mini-kitchen on each floor, there is some awkwardness about bringing visitors through what was never meant to be a general public area. Administrative areas throughout have attractive finishes and furniture. Artwork is distributed around the building and in the entrance lobby and main stairwell.

Due to its age, CRF appears to be in compliance with current ADA and building codes. Review of the drawings show that the sloping floors of the skybridges are below the minimum 1:20 slope to be considered ramps with the accompanying landings, clearances in front of doors, etc., but they appear to be steeper than that. There has also been some question by fire officials regarding the artwork in the main lobby and stairwell.

Drilled piers and concrete slab on grade are the primary elements of the CRF’s foundation system. Some spread footings, concrete basement walls and raft slab foundations also make up a portion of the foundation. The superstructure of this four story building is concrete beams and columns which support cast-in-place concrete, pan joist floor framing. Much of the floor structure is designed for heavy laboratory loads. The roof structure is steel joists supported by concrete beams and columns. The roof is sloped to perimeter drains and is constructed of a mineral surface cap sheet. Small areas of ponding still exist just north of the stair penthouse on the east and the mechanical stacks on the west end of the main roof. Some more significant ponding is evident on the low roof on the southeast corner of the building where it appears that the roof crickets were not installed correctly. The exterior walls are typically steel stud construction with precast concrete exterior finish. The lateral load resisting system of the structure is concrete shear walls at the stair towers in combination with the concrete column and beam frame structure. Included in this construction are three skybridges connecting to Biomedical Research to the east. Precast concrete tees span between the buildings and are supported by the concrete frame on the CRF and a concrete frame constructed next to the existing BRF on the east. Currently the third floor space is being built out with interior tenant improvements. No structural distress was noted during the review of this building and the structure appears to be adequate to support the applied loads. All systems in the CRF are new and with proper maintenance can be expected to last 20-25 years, if the
& Plumbing current control problems are corrected. Apparently the computerized controls system has never worked properly and the mechanical controls contractor is attempting to rectify all control issues. Until these issues are resolved, the HSC will not accept responsibility for the building.

Electrical In general, the primary power infrastructure, normal and emergency distribution equipment, motor control center, branch circuit panelboards and engine generator are in good condition. The generator was not tested under building load. The interior lighting consists of fluorescent, incandescent and HID fixtures. Lighting levels are satisfactory throughout the building. Emergency lighting, exit signs and selected mechanical units are connected to the emergency backup system. Emergency lighting and exit signage coverage is adequate. The fire alarm system consists of a addressable fire alarm panel, with pull stations, detector and horn/strobe, elevator recall, fan shut down and remote annunciator. The fire alarm system provides ample coverage. The security system consists of magnetic locks on exterior and stair shaft doors with card reader access and motion sensors.

Conclusion The Cancer Research Facility is in very good condition. The building is contemporary in design and the choice of materials and finishes make it appropriate for a health science center. Laboratories appear to be sized adequately and are attractive spaces to work in, especially compared to other labs on campus. Deterioration of the precast panel finish should be addressed before it progresses any further. Consideration should also be given to correcting roof ponding before problems develop in the future. The computerized controls system problems should be rectified immediately without further delay.