



VOLUME 1

FACILITIES PLANNING
STUDY CONSULTATION

of

TREMPEALEAU
COUNTY
PROPERTIES

January 9, 2017

Executive Summary

Introduction

ADG Architects has been retained to provide Trempealeau County, Wisconsin with a facility analysis of both the existing (former) County Health Care Center at W20298 WI_21, Whitehall, Wisconsin and the Trempealeau County Government Center at 36245 Main Street, Whitehall, Wisconsin. This analysis includes a review of the physical condition of each facility and recommendations regarding continued use of the facility. To achieve these goals the ADG Team performed the following tasks:

- The ADG Team reviewed information regarding affected departments that was generated by Trempealeau County in early 2016.
- Created, distributed and reviewed a space needs analysis questionnaire designed to elicit specific space needs information from each department.
- Architects and engineers visited the facilities and performed a physical review of each.
- Architects met with directors and staff of each department occupying the facilities to determine current and future space needs.

The information contained herein has been developed with the cooperation and participation of the department heads of the affected departments and agencies and under the direction of the Trempealeau County Facilities Planning Committee.

Findings

The following is a synopsis of the results of our facility analysis and space needs review efforts:

- Both the former Health Care Center and the Government Center are in relatively good structural repair. Both facilities have some cosmetic repairs that require attention; however, both facilities also have significant infrastructure components in need of repair if the facilities are to continue to be used in their current or other capacities.
- Space was last added at the Government Center in the 1980's; with a major interior renovation occurring in the late 1990's. The County has grown since that time as has the number of personnel required for governance and justice related activities. Space at the existing Government Center is no longer adequate to support the required staff.
- The overall amount of County Government space required to make up the difference between available space and needed space is not large enough to justify maintenance, repair and upkeep for converting the former Health Care Center to use as a Government Center Annex.
- There are safety and security issues in the Jail that cannot be resolved with simple renovations. The report recommends that a priority be given to the construction of either a major Jail addition or the construction of a new jail facility.
- There are safety and security concerns with the areas of the building that serve the Courts, specifically a lack of secure separation between the accused, public, staff and judiciary. These issues cannot be resolved without a major reconfiguring of the facility or new construction.

- The former Health Care Center presents an interesting challenge - and - opportunity to Trempealeau County. The space needs study does not indicate a need for this facility in the continued governance of the county or to provide any other mandated service. And, while it is in good structural repair, there will be significant costs associated with maintenance and infrastructure repair that must be expended if the County wishes to maintain it. The County's Building Committee did identify several potential options for its continued use; however, this report does not included information on those discussions due the ambiguity of the discussions.
 - This report includes information regarding a conversion of the former Health Care Center to a Community Based Residential Facility with supporting information and an estimate of probable cost for that conversion is found at Optional Recommendation No. 1 (below).

Conclusions and Recommendations

The body of the report details a number of different options available to the County. It should be noted that, as with any report of this nature, there are always several sub-options that can be considered. The options presented here and in the body of the report are intended to provide the County with cost and space planning for the primary options that are available.

It is also important to note that compromises may be necessary between projected departmental space needs and actual planning when considering renovation options due to constraints of the existing structure. For instance requested meeting space may be grouped at common areas rather than available directly to office suites.

The order of the following options is not intended to reflect any particular recommendations for implementation from the ADG Architects team or the Facility Planning Committee. Each option should be considered individually and acted upon under its own merits.

Optional Recommendation No. 1:

If no other recommendation from this report is to be acted upon in the next five years and Trempealeau County wishes to maintain these two buildings in good working order, then maintenance and repair work detailed in the report will need to be completed.

- Maintenance and Repair – Existing Government Center\$7.5 to \$8.3M
- Maintenance and Repair – former Health Care Center.....\$7.6 to \$8.4M

Optional Recommendation No. 1A:

- Conversion of TCHC to a CBRF\$15.8 to \$16.5M

Optional Recommendation No. 2:

A conceptual plan showing an option that would renovate the existing Government Center including additions to accomplish the following goals:

- Better utilize space within the facility and improve services through a more appropriate organizational strategy.
- Resolve growing space needs issues with the additions.

- Resolve safety and security issues within the Jail through the construction of a small podular jail addition with a capacity of 58 beds, not including dorms, on the south side of the building.
- Resolve safety and security issues related to the courts by renovating the existing facility to create a secure circulation path (at the basement level) to a new secure holding area, provide a public entrance addition and waiting area for the courts, create a separate and secure circulation path for court staff and judiciary.

This option resolves the space needs issues of most Departments and the Court system. However, the space needs of the Jail are met only at the minimum number of jail cells recommended by the study. It should be noted that additional jail expansion beyond this option will be difficult and the County will need to consider constructing a new Justice Center when the jail again reaches capacity.

- **Exhibit “2”** - Additions and Renovation\$26.5 to \$27.5M
 - Includes \$1.0M allowance for temporary facilities and/or relocation.

Optional Recommendation No. 3:

This option is substantially the same at Optional Recommendation No. 2 except that it provides 91 beds, not including dorms, at the jail addition solving the Jails needs for a more extended time. It should be noted that additional jail expansion beyond this option, while possible, will be difficult and the County may need to consider constructing a new Justice Center should the jail again reaches capacity.

- **Exhibit “3”** - Additions and Renovations\$31.5 to \$32.5M
 - Includes \$1.0M allowance for temporary facilities and/or relocation.

Optional Recommendation No. 4:

A conceptual plan is provided for an option that would construct a new Sheriff and Jail Facility with 110 bed Jail, Sheriff’s Department, with all other Departments and the Court system contained in the renovated existing Government Center.

- Construction of a new Sheriff/Jail facility will provide space for current and future need while providing for future expansion.
- The construction would occur on the neighboring City of Whitehall property and necessitate the demolition of the existing City facility. Plans include construction of a new, multipurpose facility that could serve as a shell for future jail growth.
- The existing Government Center would be renovated to provide better adjacencies and provide expansion space for remaining and/or future occupants.
- **Exhibit “4”** - Construction of a new Sheriff and Jail Facility\$44.0 to \$45.0M
 - Includes \$500K allowance for temporary facilities and/or relocation.
 - Maintains approximately 3,000 square feet of unoccupied area on the second level of the existing Government Center

Optional Recommendation No. 5:

A conceptual plan is provided for an option that would construct a new Justice Center with 110 bed Jail, Sheriff’s Department, Courts and court related functions.

- Construction of a new Justice Center will provide space for current and future need while providing for future expansion.

- The construction would occur on the neighboring City of Whitehall property and necessitate the demolition of the existing City facility. Plans include construction of a new, multipurpose facility that could serve as a shell for future jail growth.
- The existing Government Center would be renovated to provide better adjacencies and provide expansion space for remaining and/or future occupants.
- **Exhibit “5”** - Construction of a new Justice Center**\$43.0 to 44.0M**
 - No allowance for relocation or temporary facilities.
 - Maintains over 17,000 square feet of unoccupied area on the second level of the existing Government Center.

Optional Recommendation No. 6:

This option would consist of the construction of a new Trempealeau County Government Center at a green field site outside the City limits of Whitehall on property currently owned by the county. The estimated size of this facility could range is size of 125,000 to 130,000 square feet with a cost range of \$49.0 to \$55.0M.

We recommend the County review these options in detail, considering both the short-term gains, as well as, the long-term effect of each before acting. It has been a pleasure for our team to work with the County on this important project. If we can provide any additional detail on these options or explore other potential solutions, please contact us.

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Building Assessment – Trempealeau County Government Center

Introduction

ADG and our Consultant EEA conducted and documented site observations on at least two occasions the result of this information gathering effort is outlined below. No destructive tests were performed; therefore, all information gathered was visually and/or verbally gathered.

Narrative

The original Courthouse Structure was constructed in 1954 and consists of a two-story masonry building with a crawl-space below the first floor. An additional Courthouse Structure was added to the north of the '54 building in 1966; construction is similar and very well matched to the original building which provides a seamless building from the exterior. This condition, at the interior, provides some minimal challenges to potential reconfiguration to the central areas of the facility.

In 1979, an Agriculture addition was constructed to west of the '66 addition. Again, exterior construction matches existing construction well. This addition now houses Land Management and the UW Extension offices on the first floor and Child Support and Health Department on the second floor. The addition was constructed with a basement, which provides area for the County Board Room, TCCTV and Mechanical spaces. This addition also includes an elevator that provides access to the original construction and this addition.

1981 saw the construction of a Law Enforcement Addition. This addition is two-story with a basement. The basement level provides meeting room space, storage and mechanical rooms. The first floor is the location for the County Sherriff Department; while, the second level consists of the County Jail. An additional elevator is provided in this addition offering access to all three levels.

A comprehensive renovation was designed in 1995 with implementation occurring in 1996. While that work was the last major modification of the facility, a good deal of regular and scheduled maintenance has taken place – example, the facility was re-roofed with an insulating spray foam system. Therefore, in general, the overall “bones” of the facility are in very good condition.

Also in recent years, several upgrades were made to the buildings physical plant. However, the plumbing and HVAC systems are otherwise in poor condition and will not be able to serve the building for another generation without an even larger additional investment.

Building electrical system is adequate and has capacity for whatever future uses are anticipated for this building, however, during future remodeling projects, the older electrical equipment should be considered for upgrade and the generator should be replaced as soon as practical. The building’s fire alarm system should be adequate for future uses of the building with remodeling projects installing new devise as needed and required by code.

Building Conditions

The following report provides an overview of all building components of the main Building(s) and Grounds; at the **Recommendation(s)** area of each heading, priorities have been assigned to correct the individual deficiencies presented. The final version of our report will provide estimated costs associated with each recommendation.

Priorities are as follow:

- P-1:**
These are code related concerns, life safety concerns and/or building maintenance issues that **must** be addressed should major renovations occur.
- P-2:**
These are items that consideration **could** be given should major renovations and/or building addition(s) occur.
- P-3:**
These are items that would be **nice** to include should budget allow.
- O&M:**
These are items that should be addressed and/or maintained through normal Operations and Maintenance

Building Security

Security concerns within public buildings have changed dramatically since the Trempealeau County Government Center was constructed. Recent high profile protests and attacks on civic institutions across the country including both Wisconsin and Minnesota have increased an awareness of the need for our public institutions to maintain an attitude of safety and security for the citizens who use the facilities, the staff who work within them and those whom we detain and prosecute. Any construction project contemplated by the County should consider resolving shortcomings in the current facilities safety and security systems.

This section of the report will break this issue into the following categories for your consideration; Site and Building Envelope, Jail, and the Judiciary.

Site and Building Envelope

Site Security

Federal guidelines for critical infrastructure facilities such as Federal Courthouses requires 100 foot standoff zones at the perimeter of buildings to prevent car bombs and other terrorist attacks from significantly damaging important facilities. This is not required for County Courthouse however it is good practice to maintain a 50-100 foot stand-off zone around a building. The Trempealeau County Courthouse has areas that meet the 50 to 100 foot set back, specifically the South and East elevations. However, there is parking surrounding the facility that allows vehicles to park immediately adjacent to the facility. And, at those areas that do provide a 50 foot standoff zone, there is little more than a 6 inch curb to prevent vehicles from approaching the building.

Recommendation

If a new building is constructed for any or all of the County functions construct barriers that allow for 50 to 100 foot Standoff zone surrounding the entire facility. If the facility is to remain in its current location consider additional landscaping impediments to prevent vehicle approaches to the facility.

P-2 – Safety and Security

Building Envelope

There are 10 ground floor entrances to the building. The main entrance is controlled with an unarmed, private security contractor and a metal detector. Other openings are controlled by a

variety of different locking systems and controls, some alarmed, many not. County 911 dispatch monitors internal and external cameras for threats along with other duties.

The facility is constructed with predominantly masonry exterior walls which are good for resisting attacks that may be aimed at the facility by protesters or others. The windows however are vulnerable. Blocking up windows is not generally considered acceptable; however, any critical functions such as Dispatch, the Judiciary and Sheriff's Department that may be placed on ground floors should be protected with appropriately hardened construction that may include attack resistant doors, windows and glass as well as masonry construction on all exterior walls of the department.

Recommendation

Any work proposed for the building should include a consistent building perimeter security system that is controlled by a single source. The system should include cameras at all entrances and audio and visual alarms if system is defeated in any way.

P-2 – Safety and Security

Jail

Security

Trempealeau County Jail is an older style jail, often referred to as a linear jail. Linear Jails are considered unsafe because they rely on roving patrols by Corrections Officers for security sweeps, which leaves a lot of unsupervised time for inmates to create challenges in the jail. The addition of cameras such as those employed by Trempealeau County can reduce these concerns, but they cannot eliminate the issue. Modern jails are built with a podular design that provides significantly more direct visual control by fewer Corrections Officers, improving control and reducing operational costs.

- i. There are many additional challenging and unsafe conditions within the Jail a few of which include:
 - 1) Inappropriate classification of inmates due to a lack of segregation ability in the current design.
 - 2) Much of the Jail utilizes steel bars for the separation of inmates from staff causing a suicide concerns.
 - 3) There is no contact or face to face, non-contact visiting spaces for attorneys and clergy. What space did exist was recently converted to a Sergeants office.
 - 4) Many systems throughout the jail are failing including locks and door operators. Given their age a replacement project should be considered.
 - 5) Camera coverage leaves some areas of the jail uncovered such as the elevator.
 - 6) Video arraignment and court proceedings are a growing issue as there has no space dedicated to this function.
 - 7) Files and miscellaneous storage is spread throughout the Jail often in inappropriate locations such as offices, booking areas and corridors.

Recommendation

Either add space or build new to eliminate current unsafe conditions created in the existing jail by its linear nature.

P-1 – Safety and Security

Capacity

Determination of the required capacity of the Jail over the next 20 years that includes the impact of diversion and alternatives to incarceration programs, required classification grouping and staffing costs is not within the scope of this study. This task is complicated by the state of flux that exists in the Trempealeau County Jail populations due the following:

- i. Diversion programs enacted in recent years have continuously reduced jail populations making straight line projections of population need difficult.
- ii. Falling incarceration rates locally and nationally.
- iii. The County is reportedly experiencing a change in incarceration rates due to growth in drug arrests.
- iv. There is a new District Attorney and an Interim Judge that will have an impact on policies over time.
- v. Changes in State and Federal laws are unpredictable.

Trempealeau County Jail Population Statistics

YEAR	ELECTRONIC MONITOR	HUBER	OUT OF COUNTY	AVERAGE DAILY POPULATION (ADP)	TOTAL AVERAGE POPULATION
2007	3.94	12.72	20.71	31.06	55.71
2008	7.00	7.58	23.49	28.24	58.73
2009	6.10	5.74	20.57	26.80	53.47
2010	3.76	5.82	11.38	28.72	43.86
2011	6.53	6.90	9.06	32.34	47.93
2012	7.92	2.95	4.99	31.29	44.20
2013	4.29	2.93	3.41	29.81	37.51
2014	7.84	2.49	7.40	26.16	41.40
2015	5.71	1.63	3.23	23.44	32.38
2016	3.78	1.82	3.23	24.47	32.91
AVERAGE	5.69	5.06	10.75	28.23	49.29

Rated Capacity of Trempealeau County Jail in 2016 is 30. Jail populations have a great deal of fluctuation resulting from the need to book, detain and hold a variety of inmates of different sexes and classifications as well as holding inmates listed as “Out of County” for court appearances and

hearings. The Jail is required to remain at 85% of capacity in order to provide for these fluctuations or in Trempealeau County's case 25.5 inmates would be the total ADP limit.

In consultation with the Trempealeau County Jail and State of Wisconsin Department of Corrections the study is recommending the County consider a potential jail population need in the next twenty years ranging from 80 to 95 inmates. This recommendation is based on the following:

1. An average total jail population of 50 (including In County, Huber and Out of County inmates) required in the past 10 years.
2. A 15% increase as required to create a Rated Capacity for the Jail bringing the total to 58
3. A 1-2% annual, or 20%-40% over 20years, increase to account for expected county population growth as reported by Census.gov increasing the total to a range of 70 to 82.
4. A 15% contingency planning factor for the inaccuracies of the current fluctuating situation will bring the totals recommended by this report to range of 81 to 95 total inmates.

Recommendation 1

A bed needs analysis should be completed to better define this number and to determine classification requirements best suited for the County.

P-1 – Safety and Security

Recommendation 2

Construct a major jail addition or a new jail to resolve overcrowding and unsafe conditions in the Jail.

P-1 – Safety and Security

Justice Related Functions

The Justice Related Functions includes those functions of the Courthouse that are primarily related to dispensing justice such as the Courts, Clerk of Courts, and District Attorney. These functions have specific operation and security protocols that are either mandated by the State or considered best practice.

Trempealeau County Courthouse is typical of the time that it was built with a double loaded corridor off of which the various functions can all be conveniently accessed by staff and public. While some of the design meets basic standards, such as the layout of the court rooms themselves, there are significant failures in other operational and security functions of the current design. Those include:

- A. Combined circulation paths. Security and confidentiality dictates that separate circulation paths are provided for prisoner transport to court, public access to the court and its functions and separate paths for staff and Judges from that of the public and prisoners. The double-loaded corridor design of the existing courthouse combines these into a single, unsecure path where accused, witnesses, victims, judges and staff can all come into contact with each other.
- B. Lack of secure holding and transport for prisoners. Prisoners are currently escorted to court through public corridors to court. Breaks require prisoners to be transported back to the Jail through those same public corridors.
- C. Lack of confidential attorney client meeting spaces for pre- and post-trial conferences between attorneys, district attorneys, judges, public defenders, clients, prisoners, etc.

- D. A lack of office space for staff administering diversion programs. These staff are housed in office space that has been carved from the departments in which they are located without an additional square footage added to those departments to compensate.
- E. Modernization of Courtrooms to include better integration of information technology and multi-media displays.

Recommendation

Reconstruct existing justice related functions of the courthouse to eliminate the security issues noted above and to modernize the courts.

P-1 – Safety and Security

Exterior Building and Grounds

Parking lot

Consists of asphalt paving and is in good condition. No excessive problems were noted or reported by staff. A significant area of concern is the location of handicap parking. Presently, handicap parking is provided in the “alcove” resultant of the 1979 and 1981 additions and to the west of the ’54 and ’66 construction. When this area was designated for HC parking, access to the facility was granted via the vestibules in the ’79 and ’81 additions. Subsequently, with the necessary security measures now in place, this location makes convenient access to the secured entrance very difficult.

Recommendation

Continue regular maintenance. Provide direct handicap access to the main entrance.

P-1 - Access

Sidewalks

Most areas of sidewalk are in good condition with limited areas of cracking. There are some areas where the sidewalks are pulling away from the foundation wall creating a water problem on/in the foundation walls below.

Recommendation

Continue regular maintenance. At the areas of sidewalk against the building – these sidewalk areas should be removed, the ground thoroughly compacted and new sidewalk installed.

O&M

Grounds – General

Overall the exterior grounds are well maintained and in good condition.

Recommendation

Continue regular maintenance

O&M

Footings and Foundation

Existing construction consists of cast in place/poured concrete and appears to be in good condition; as no settling and/or cracks are apparent or reported. The exception being at areas of sidewalk/foundation where water has been able to penetrate to below grade. This is most apparent in the west stair area of the 1981 addition.

Recommendation

Continue regular maintenance (Refer also to B. above).

O&M

Brick Veneer

The existing brick veneer is in good condition – with no, to very minimal areas, requiring tuck pointing. Two areas of tuck-pointing or repair is noted – refer to photo.

Recommendation

Continue regular tuck-pointing maintenance.

O&M

Windows

Windows throughout the facility were replaced during the '95/'96 renovation project with a thermally broken, aluminum framed, double pane units. Most to of these units are in good condition.

Recommendation

Continue regular maintenance.

Exterior Doors

Only a handful of doors were replaced in the '95/'96 work, those that were not replaced are hollow metal systems with door hardware that is or has reached its life expectancy and consideration should be given to their replacement with units that meet today's energy efficiency standard.

Recommendation

Replace hollow metal door frames and associated hardware.

P-1

Parapets, Fascia and Soffits

The overall condition of these components appear to be in good condition, have been replaced/repared in many areas because of regular maintenance projects and no major concerns where expressed by staff.

Recommendation

Continue to monitor condition and make routine repairs as required.

O&M

Roof

As stated in the narrative, the roof was recently overlaid with a spray foam product which increased insulation values and effectively sealed any areas of water leaks. These systems vary in longevity and should be regularly monitored to ensure integrity.

Recommendation

Continue to monitor condition and make routine repairs as required.

O&M

Interior Environment

Flooring

Flooring throughout the facility consists of many differing products, from soft tile to hard tile to carpet and terrazzo. Generally, the areas soft tile and carpet at most locations is showing considerable wear and has reached its useful life expectancy.

Recommendation

As a component of any renovation project these products will be replaced with new floor systems.

P-1



Walls

In most areas of the facility, on the main levels, the interior face of the exterior walls and the main corridors walls consist of a plaster coating or gypsum board product over a masonry structure. Interior partitions, typically, are metal stud and gypsum board construction. The basement areas are typically painted masonry units. Most walls in offices and corridors are painted; while, toilet rooms typically have tiled walls. The overall condition is good, with some finishes are showing typical age related wear. An area of note is in the boiler room associated with the 1981 addition, there is a significant area of cracked masonry units. Staff reports the condition has not “moved” since his tenure and the crack has not “broadcast” itself to the exterior brick veneer.

Recommendation

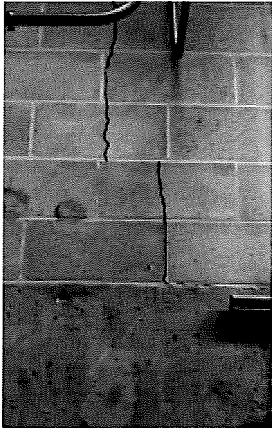
If any renovation projects are pursued, an update of interior finishes would be a component of that process. Consideration should be given to the repair of the cracked masonry units.

Base

The floor to wall transition is covered by a vinyl or rubber base material, in the main corridors it typically consists of terrazzo and is in generally good condition. There are areas of vinyl base where damaged and/or loose base material is evident throughout the facility – this is a common scenario in any facility of this age and use.

Recommendation

If any renovation projects are pursued, an update of interior finishes would be a component of that process.



P-1

Finished Ceilings

Finished ceilings in the overall facility are typically suspended acoustic tile (ACT). Generally, this system is in good condition with limited areas showing excessive deterioration in quality.

Recommendation

Continue to monitor condition and make routine repairs as required.

O&M

Interior Doors

The existing interior doors typically are wood. In most areas of the facility the doors are in good condition; however, some doors are damaged and showing signs of wear – typical with age and use. Also, some doors with-in the facility have had A.D.A. compliant lock-sets installed; however, the majority are lacking this update.

Recommendation

As a component of any renovation project, consideration should be given to the replacement of heavily worn units. During that process door hardware must be upgraded to current code compliancy.

P-1



Casework

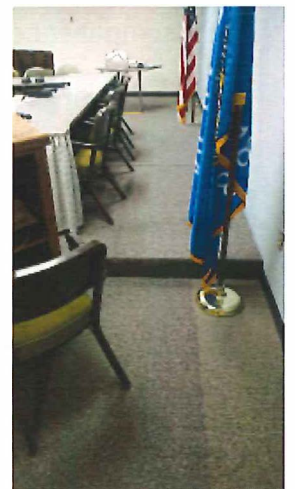
Most casework that is provided was installed as a component of the 1995/96 renovation and remains in good condition. Current configuration in some areas no longer meets the needs of the department in which it is installed. This mainly the case where casework is installed with-in a department and the opens into a main corridor – security being the major concern with this condition.

Recommendation

As a component of department renovations, consideration should be given to replacing casework on a room by room basis with new casework which meets current code and safety/security requirements.

American with Disabilities Act – A.D.A.

The Americans with Disabilities Act (ADA) became law in 1990. The ADA is a civil rights law that prohibits discrimination against individuals with disabilities in all areas of public life, including jobs, schools, transportation, and all public and private places that are open to the general public. The purpose of the law is to make sure that people with disabilities have the same rights and opportunities as everyone else. The ADA gives civil rights protections to individuals with disabilities similar to those provided to individuals on the basis of race, color, sex, national origin, age, and religion. It guarantees equal opportunity for individuals with disabilities in public accommodations, employment, transportation, state and local government services, and telecommunications. The ADA is divided into five titles (or sections) that relate to different areas of public life.



- i. Due to the 1995/96 renovation most all of the present areas of the facilities meet the intent of the A.D.A., a few areas still needing attention are:
- ii. **Dias at Board Room:**
Currently there is a step up for access – a ramp should be provided.
- iii. **Door Hardware:**
As previously reported.
- iv. **Countertop Heights:**
Most countertops are set at a height of 36" – present code requires maximum height of 34".

Evaluation of Existing Building Systems

Fire Suppression Systems

The building does not have a fire sprinkler system. There are hose cabinets for firefighting. The 1½" hoses have been removed. The County has made arrangements with the local Fire Department for them to bring in their hoses and connect to the pipes in the cabinets in the event of a fire. A 20 Horsepower fire pump in the boiler room is used to boost the water pressure for the hoses.

Recently, the County received a price to add a fire sprinkler system. If a fire sprinkler system is added in the future, this will require removal and restoration of ceilings. Prior to the installation, a code review could determine that other upgrades are needed.

P-1

Plumbing Systems

The domestic water service pipe enters in the boiler room. At this point, it splits into a domestic water main (with a meter) and a fire protection main. Two Bradford & White storage type heaters in the boiler room produce domestic hot water for all building uses. These were installed in 2012. In addition, there are older A. O. Smith heaters in the building which generate domestic hot water. Hot and cold water is piped to plumbing fixtures and appliances. Hot water is recirculated with pumps to maintain its temperature set-point. The water pipes are in poor condition. They have rust, and a large amount of sediment has collected inside. Some sections of pipe have had to be replaced, piecemeal. Water quality tests have uncovered a trace amount of lead (possibly from lead solder), which is above the recommended limit. A hot water storage tank was replaced this past year.

There are two sewage ejector systems in the basement level, to lift sanitary drainage to the level of the sewers. Occupants experience odors coming from these. There have been leaks in some of the overhead sanitary drains. There are plans to replace a substantial amount of drain piping in the south half of the building.

Some of the building drains were installed in cavities in outside walls. Subsequently, the cavities were filled with mortar, making the pipes more susceptible to freezing. Portable heaters are used to help prevent freezing.

HVAC Systems

Two Lochinvar hot water boilers were installed in 2012. The primary fuel is natural gas, and propane is a stand-by fuel. The gas meters and a propane tank are installed just outside of the boiler room. Either boiler can produce sufficient heat for the entire building, so they are redundant. Each boiler has a (primary) pump. Two secondary pumps distribute heating water to finned-tube radiation, cabinet unit heaters, heating coils, and other heating terminals throughout the building. The heating water supply temperature is varied automatically according to the change in outdoor temperature.

Two split system chillers provide air conditioning for the building. Each consists of an evaporator tube bundle in the boiler room with refrigerant piping to a Trane outdoor condensing unit. Chilled water is piped to the air handling units, and two circulating pumps are installed. Either chiller has the capacity to meet the building air conditioning demand, except on the warmest days. Chemical feeders are used to treat both the heating water and chilled water.

The Trane air handling units deliver conditioned air to rooms through variable air volume controllers (VAV boxes). All of the VAV boxes are about three years old. Some boxes have downstream hot water booster heating coils and some do not. Each central fan is powered through an adjustable speed drive for variable volume control according to demand. Each has a chilled water coil, but none have heating coils. Motorized dampers regulate the relative amounts of outdoor air and return air according to the varying demand for cooling and outdoor air.

The air handling units are more than 30 years old. Some do not have sufficient fan horsepower to push enough air to rooms which are farther from the fans. Air balancing is difficult to achieve. In some areas turbulent air flow causes sheet metal ducts to pulse as a diaphragm, creating noise.

Some of the office area rooms do not have HVAC except for wall heaters. Corridors on the first floor are not directly ventilated. On humid days, when outside doors are opened, the humidity level in corridors rises.

IT data rooms are cooled with dedicated split-system air conditioning units.

Much of the HVAC piping insulation is in poor condition. Inspections have determined that some of the pipe insulation contains asbestos.

Automatic Control and Building Automation Systems

Originally, the building HVAC systems used pneumatically controlled automatic valves and dampers for temperature control. This has been replaced with an Automated Logic building automation system and electronic direct digital control devices. The old air compressors have been abandoned. Operating staff are able to monitor the HVAC systems operation from their office. Winona Heating and Ventilating is the Service Contractor for the BAS/control system.

Electrical Systems

The building electrical service is a 2000 Amp service at 120/208 volts, 3 phase 4 wire. The electrical service equipment consists of older Cutler Hammer fused switchboard, most likely from the original construction. There is also a much newer Siemens circuit breaker switchboard which is the current main electrical service. All switchboards appear to be well maintained and is in good overall condition. There may be some issues in obtaining replacement parts for some of the switchboards, especially the older Cutler Hammer switchboard.

Building electrical panels are also a mix of similar vintage old and newer panelboards. Again they appear to be in good condition but replacement parts such as circuit breakers could become more difficult to obtain.

There is an existing 100 KW exterior generator that is in poor condition and is in need of replacement. The county has received pricing for a new larger unit that would be capable of powering the entire building.

Building fire alarm system is newer and appears to be in good condition.

Building lighting is mostly fluorescent and is fairly energy efficient.

Security Systems

The existing jail security systems are very old, are at the end of their expected lifespans, the county has had difficulty in obtaining spare parts.

Door control system is an Integrator.com touch screen system with a single touchscreen in Master Control with a spare computer for emergencies.

Camera system uses color analog cameras connected to American Dynamics DVR's. There are approximately 80 cameras in use and all are connected to the DVR's and all are displayed on five large flat screen monitors in Master Control.

There are a very few old intercom stations and a few call buttons. Cell and dayroom speakers have sound threshold alarms and that is how inmates have to communicate with Master Control.

Equipment for the camera and door control systems is located in Master Control and the break room just off Master Control, equipment is not located in a separate secure room, and access for repairs and maintenance is difficult. There is an electrical room off the Rec room that is overcrowded and does not maintain code required clearances of access to the equipment.

Facility uses a wireless guard tour system with sensors at most controlled doors, system is operational.

There is also a newer video visiting that is currently being leased, condition and operation are good.

There is a separate camera system for the remainder of the building, Dispatch views most of the camera except for the Sheriff's department which can view their own cameras. Camera system is operational but is starting to show signs of age as well.

Dispatch and radio systems are newer and have been recently been updated.

Summary

As stated in the narrative, the structure of the facility is sound and in good condition, the infrastructure and finishes are showing various signs of wear with some areas and components are at or exceeding their general life expectancy. It very apparent that an aggressive maintenance program is in place and staff has maintained the facility to the very best of their capabilities.

The Priorities assigned throughout the report classify these issues, in the opinion of the author. Moving forward, this information will be shared with the Facility Planning Committee and the priorities can be adjusted accordingly.

In recent years, several upgrades were made to the buildings physical plant. This includes relatively new boilers, chillers, domestic water heaters, and a building automation system. Air handling systems were fitted with new VAV boxes and variable frequency drives, and split system air conditioning units were added for IT rooms. This involved a considerable investment.

However, the plumbing and HVAC systems are otherwise in poor condition and will not be able to serve the building for another generation without an even larger additional investment.

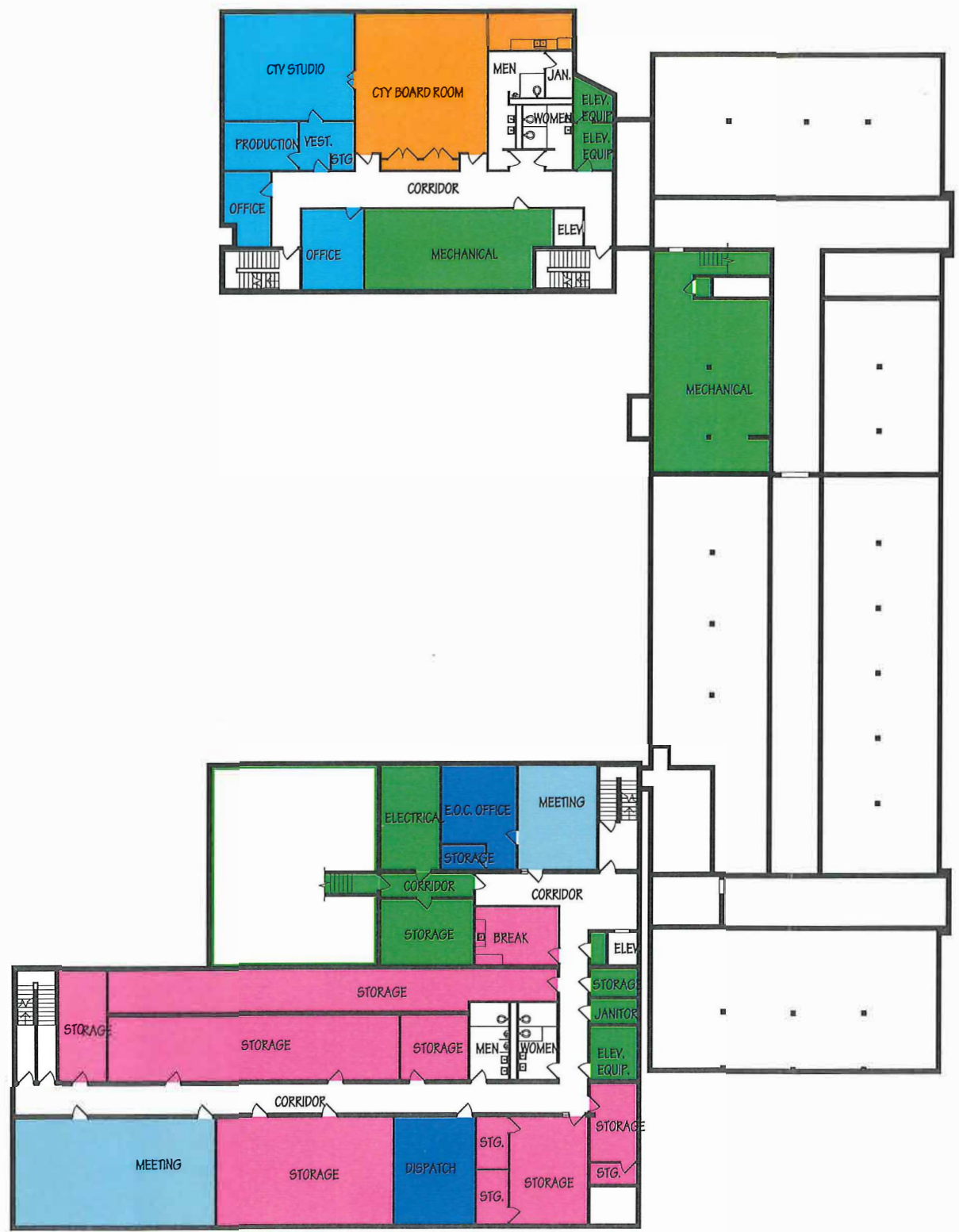
- The central air handlers need to be replaced.
- The plumbing and steam distribution piping needs to be replaced.
- If a large-scale renovation occurs the building will require an automatic fire suppression system be installed.

Building electrical system is adequate and has capacity for whatever future uses are anticipated for this building, however, during future remodeling projects, the older electrical equipment should be considered for upgrade.

- Generator should be replaced as soon as practical.
- As part of future remodeling projects, building lighting could be upgrade to LED and new controls added to conform to current energy codes which would result in decreased energy consumption and less maintenance issues for the facility.

Building fire alarm system should be adequate for future uses of the building with remodeling projects installing new device as needed and required by code.

Jail systems are past their useful life and should be considered for replacement.



AREA AND ROOM KEY:

- CIRCUIT COURT
- COMMUNITY TELEVISION
- COUNTY ADMINISTRATION
- DISTRICT ATTORNEY
- HEALTH
- HUMAN RESOURCES
- HUMAN SERVICES
- JAIL
- LAND MANAGEMENT
- MAINTENANCE/ MECHANICAL
- SHERIFF'S DEPARTMENT
- STAFF
- UW-EXTENSION
- VETERANS SERVICES
- I.T.
- MEETING/CONFERENCE
- CHILD SUPPORT

0 16 32 64

GOVERNMENT CENTER - EXISTING LOWER LEVEL



TREMPEALEAU COUNTY FACILITY STUDY
GOVERNMENT CENTER
WHITEHALL, WI



GOVERNMENT CENTER - EXISTING FIRST LEVEL



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- MEETING/CONFERENCE
- CHILD SUPPORT
- SECURE ENTRY

GOVERNMENT CENTER - EXISTING SECOND LEVEL

