NEBRASKA

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DEPT. OF HEALTH AND HUMAN SERVICES

Pete Ricketts, Governor

November 22, 2021

Senator John Arch
Chair, Health and Human Services Committee
District #14 State Capitol
P.O. Box 94604
Lincoln, NE 68509-4604

Dear Senator Arch, members of the Health and Human Services Committee, and Mr. O'Donnell,

Please see the attached Facility-Wide Site Evaluation & Cost Analysis Report for the Youth Rehabilitation and Treatment Center-Kearney (YRTC-K). This report fulfills requirement for DHHS to contract for the completion of a cost analysis for necessary capital improvements and structural changes to the facilities at YRTC-K. The evaluation and cost analysis was completed by Carlson West Povondra Architects in collaboration with Chinn Planning.

The report contains: (1) The cost of restructuring sleeping facilities, bathing facilities, and common areas; (2) The cost of necessary construction, upgrades, or repairs; and (3) The cost of any additional changes necessary to ensure the facilities accommodate their purpose.

Respectfully,

Larry W. Kahl, FACHE
Chief Operating Officer
Department of Health and Human Services

YOUTH REHABILITATION AND TREATMENT CENTER KEARNEY

Facility-Wide Site Evaluation & Cost Analysis Report

November 8, 2021

CARLSON WEST POVONDRA ARCHITECTS

CHINN PLANNING

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INTRODUCTION

In August 2021, the Nebraska Department of Health and Human Services (DHHS) contracted with Carlson West Povondra Architects and Chinn Planning, Inc. to conduct a Facility Wide Site Evaluation and Cost Analysis for YRTC Kearney. The YRTC Kearney is one of four secure treatment facilities operated by the Department of Health and Human Services (DHHS), Division of Children and Family Services (CFS), Juvenile Rehabilitation Division. One of the key items in the legislatures' mandated scope of the study was housing on the YRTC Kearney campus, and assessing costs and parameters of replacement housing that would reflect best practice in juvenile correctional operations and facilities. The Scope of Work as outlined by DAS and DHHS included:

Scope of Desired Consultant Services

DAS-SBD/DHHS requested an evaluation of the YRTC Kearney campus on a facility-wide basis. The scope below identifies legislative mandated items as well as additional scope that both agencies wanted to see incorporated into the evaluation:

Legislature Mandated Scope:

1. The cost of restructuring sleeping facilities, bathing facilities and common areas.
2. The cost of necessary construction, upgrades, or repairs.
3. The cost of additional changes necessary to ensure the facilities accommodate their purpose and current standard of care.

Additional Scope:

1. Each building should be evaluated for (a) fire suppression and fire alarm systems, (b) HVAC, (c) plumbing and sewer, (d) electrical, and (e) general building envelope.
2. Cost evaluations for each building regarding cost of repair vs. cost to build new.
3. Work with DAS-SBD/DHHS to prioritize each potential improvement on a campus-wide priority list.
4. Potential additions/expansion to campus for DHHS specific program needs.
5. Evaluation of the campus central building systems to include central boiler plant and any centralized infrastructure.

Key Components of the Study completed by the Consultant team and presented in this report included:

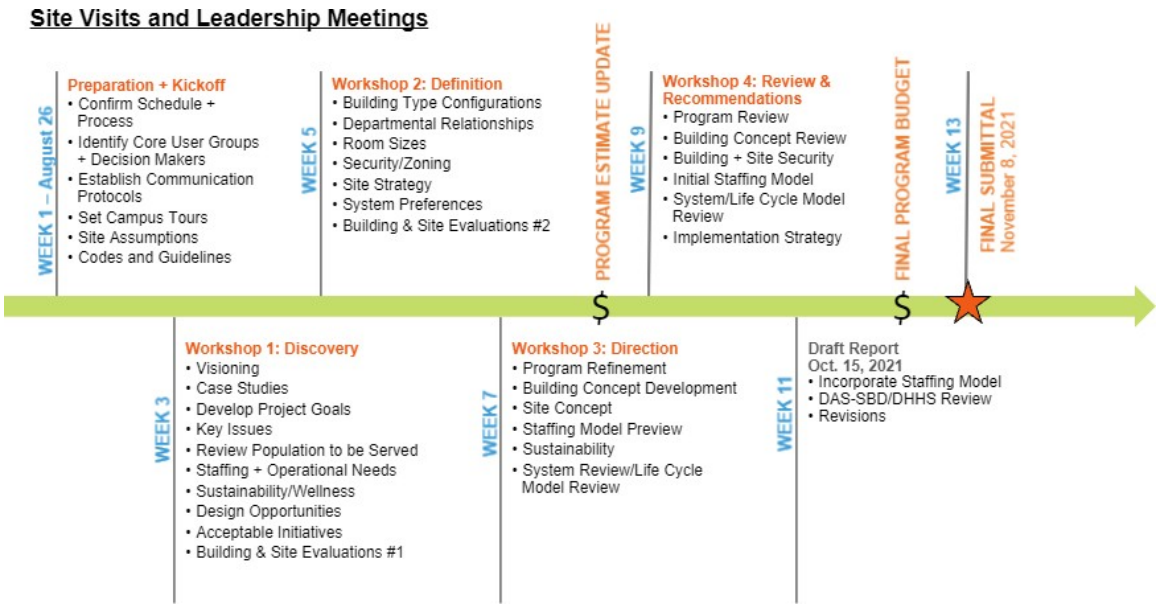
- Review of Trends and Profile characteristics of the YRTC Kearney population
- Review of Best Practice and Standards Juvenile Correctional Facilities
- Assessment of Buildings on the YRTC Kearney Campus
- Development of New Housing Unit Space Program and Concept Diagram
- Identification of Campus Wide Improvements and Enhancement
- Cost Estimates
- Priorities and Phasing Plan

A Project Advisory Committee was established to oversee the study process and provide input during project review meetings. The Project Advisory Committee members include:

Name	Company	Role	Email
Larry Kahl	DHHS	COO	larry.kahl@nebraska.gov
Connor Griess	DHHS	COMS - Facilities Administrator	connor.griess@nebraska.gov
Mark LaBouchardiere	DHHS	OJS Administrator	mark.labouchardiere@nebraska.gov
Paul Gordon	DHHS	YRTC-K Facility Administrator	paul.gordon@nebraska.gov
Edward Szymanksi	DAS	YRTC-K Maintenance Manager	edward.szymanksi@nebraska.gov
Michelle Potts	DAS-SBD	Director	michelle.potts@nebraska.gov

The Project Advisory Committee met with the Consultant team four times during the study process. In addition, engineering and assessment teams toured the YRTC Kearney campus to conduct detailed assessments of all of the buildings on the campus. The project began in August and was completed in November 2021.

The Project Schedule and meeting timeframes are illustrated below:



YRTC KEARNEY YOUTH POPULATION TRENDS AND CHARACTERISTICS

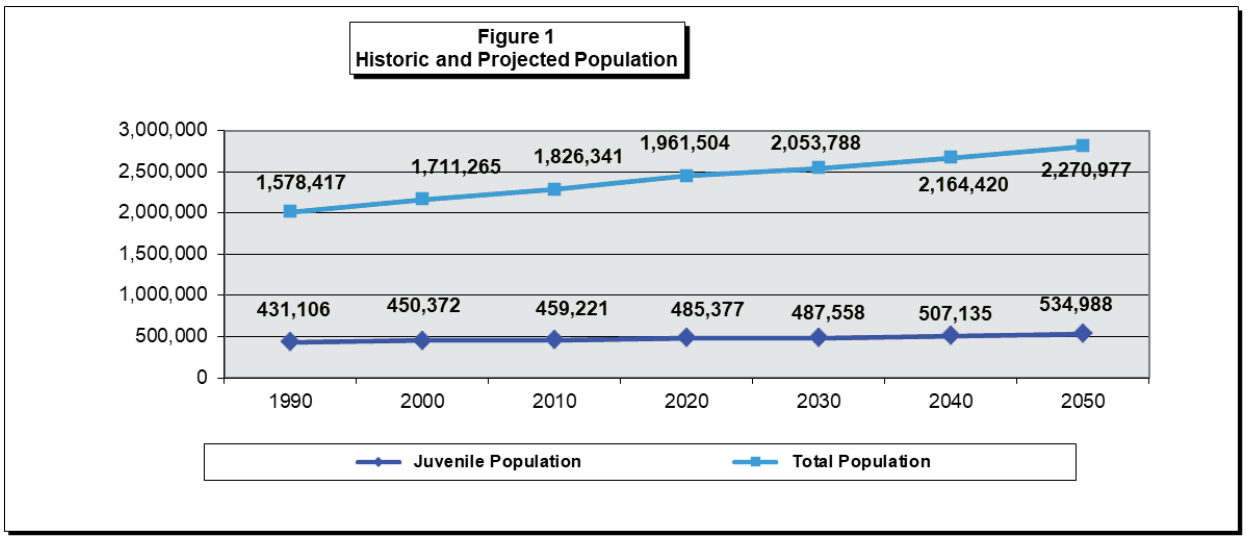
Nebraska Juvenile Demographic Trends

Table 1 and Figure 1 show the historic and projected total and juvenile population trends in Nebraska. Total population increased by 23% between 1990 and 2020, and is projected to grow by 15.8% between 2020 and 2050. Juvenile population in the state grew by 12.6% between 1990 and 2020, and is projected to grow by 10.2% between 2020 and 2050. Both total and juvenile population are projected to grow at a slower pace over the next thirty years compared to the past thirty years.

Table 1
HISTORIC and PROJECTED POPULATION
State of Nebraska

	1990	2000	2010	2020	2030	2040	2050	Avg. Annual % Increase 1990-2020	Avg. Annual % Increase 2020-2050
State of Nebraska									
Total Population	1,578,417	1,711,265	1,826,341	1,961,504	2,053,788	2,164,420	2,270,977	0.81%	0.53%
Juvenile Population *(age 17 and under)*	431,106	450,372	459,221	485,377	487,558	507,135	534,988	0.42%	0.34%

Source: U.S. Census & Center for Public Affairs Research - University of Nebraska - Omaha.



Source: U.S. Census & Center for Public Affairs - University of Nebraska - Omaha.

Table 2 presents Child Welfare Trends in Nebraska from the Kids Count annual report prepared by the Annie E. Casey Foundation. In 2021 Nebraska ranked 7th in Overall Child Well-Being, 2nd in Economic Well-Being, 11th in Education, 15th in Health, and 12th in Family and Community. While Nebraska ranks higher than many other states, the list below indicates there are many youths in the state with risk factors for being involved in the juvenile justice system.

Table 2
CHILD WELFARE/WELL-BEING
State of Nebraska

	United States	Nebraska
Children Living in Poverty	17%	11%
Children Whose Parents Lack Secure Employment	26%	19%
Children Living in Households with a High Housing Cost Burden	30%	20%
Teens Not in School and Not Working	6%	4%
Young Children (ages 3 and 4) Not in School	52%	55%
Fourth-Graders Not Proficient in Reading	66%	63%
Eighth-Graders Not Proficient in Math	67%	63%
High School Students Not Graduating on Time	14%	12%
Low Birth-Weight Babies	8.3%	7.6%
Children without Health Insurance	6%	6%
Child and Teen Deaths per 100,000	25	25
Children & Teens (ages 10-17) who are Overweight or Obese	31%	26%
Children in Single-Parent Families	34%	27%
Children in Families where Household Head Lacks HS Diploma	12%	9%
Children Living in High-Poverty Areas	9%	4%
Teen Births per 1,000	17	15

Source: 2021 Kids Count Data Book.

YRTC Kearney Youth Population Trends and Profile Characteristics

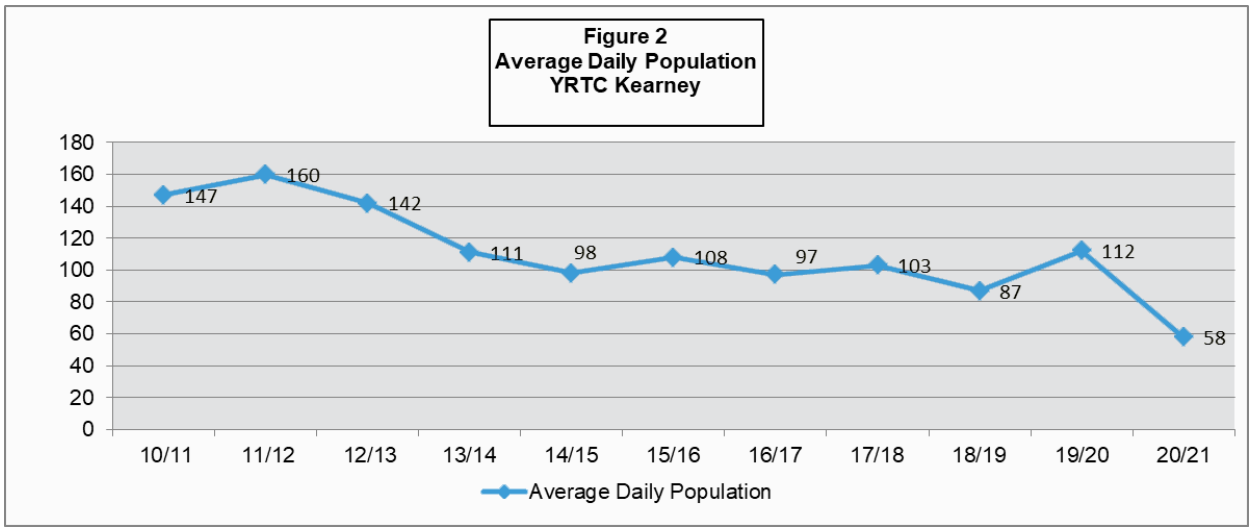
AVERAGE DAILY POPULATION

Table 3 and Figure 2 show the trends in average daily population at YRTC Kearney between SFY 2010/2011 and SFY 2020/2021. The total percent **decrease** in average daily population in the eleven-year period is 60.5%, or 6.5% per year. The August-September 2021 population at YRTC Kearney has been averaging between 45-50 youth or less, a further reduction in population on the campus. While outside the scope of this study to verify, the decline in population from 2019-2021 could be related to the COVID-19 pandemic.

Table 3
AVERAGE DAILY POPULATION TRENDS
YRTC Kearney

	SFY 10/11	SFY 11/12	SFY 12/13	SFY 13/14	SFY 14/15	SFY 15/16	SFY 16/17	SFY 17/18	SFY 18/19	SFY 19/20	SFY 20/21	% Change/ Year
Average Daily Population	147	160	142	111	98	108	97	103	87	112	58	-6.1%

Source: YRTC Kearney.



Source: YRTC Kearney.

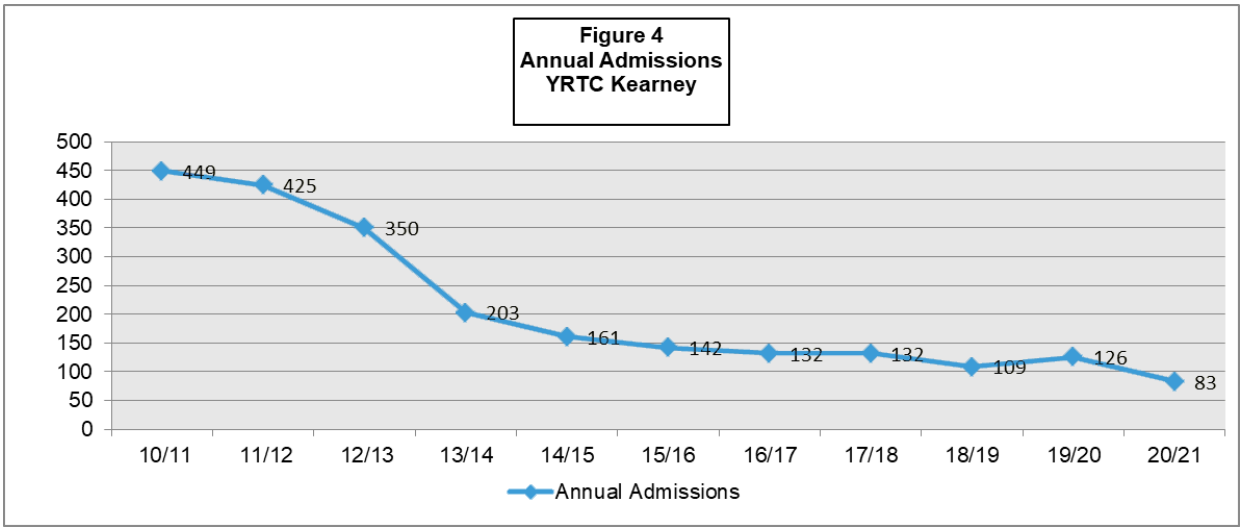
ADMISSIONS

Table 4 and Figure 2 show the trends in annual admissions to YRTC Kearney. The total percentage **decrease** in annual admissions during the eleven-year period is 81.5%, or 8.2%. Prior to Covid in early 2020 the data show a greatly reduced number of annual admissions between 2016-2020, holding steady between 110-130 annuals admissions per year, down from 449 admissions in SFY 10/11. The most recent SFY 20/21 shows a further reduction to 83 annual admissions. While outside the scope of this study to verify, the decline in population from 2019-2021 could be related to the COVID-19 pandemic.

Table 4
ANNUAL ADMISSION TRENDS
YRTC Kearney

	SFY 10/11	SFY 11/12	SFY 12/13	SFY 13/14	SFY 14/15	SFY 15/16	SFY 16/17	SFY 17/18	SFY 18/19	SFY 19/20	SFY 20/21	% Change/ Year
Annual Admissions	449	425	350	203	161	142	132	132	109	126	83	-8.2%

Source: YRTC Kearney.



Source: YRTC Kearney.

AVERAGE LENGTH OF STAY

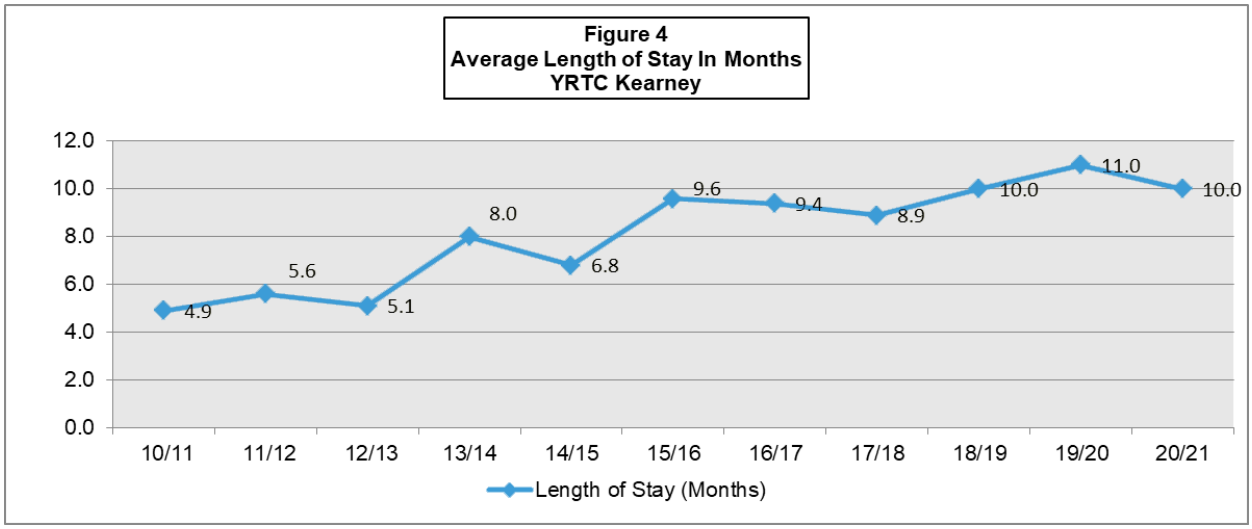
Table 5 and Figure 4 show the trends in average length of stay at YRTC Kearney. Unlike the drastic drop in average daily population and admissions during the eleven-year period, the average length of stay (in months) at YRTC Kearney **increased by 104%,** going from 4.9 months in 2010/2011 to 10 months in 2020/2021.

Increasing average lengths of stay at youth commitment facilities, which is a trend nationally, can be due to several factors. These include longer stays due to the more serious nature of offenses, and also due to drastically reduced admissions which has relieved pressure to move youth out of commitment facilities due to over-crowding which is no longer an issue.

Table 5
AVERAGE LENGTH OF STAY IN MONTHS TRENDS
YRTC Kearney

	SFY 10/11	SFY 11/12	SFY 12/13	SFY 13/14	SFY 14/15	SFY 15/16	SFY 16/17	SFY 17/18	SFY 18/19	SFY 19/20	SFY 20/21	% Change Year
Length of Stay (Months)	4.9	5.6	5.1	8.0	6.8	9.6	9.4	8.9	10.0	11.0	10.0	10.4%

Source: YRTC Kearney.



Source: YRTC Kearney.

YOUTH PROFILE CHARACTERISTICS

Table 6 presents a one-day snapshot (September 1, 2021) of youth at YRTC Kearney. On that day 49 youth were on the YRTC Kearney campus. Key characteristics include:

- Over one-third (34.7%) of youth at Kearney are African American, which is disproportionate to the general population of African Americans in Nebraska at 4.8%.
- Over half (53%) of youth at Kearney were between the ages of 17 and 18
- Over two-thirds (67.4%) of youth at Kearney are from just three counties-Lancaster, Douglas and Madison Counties
- Over 90% of youth at Kearney have a mental health and/or substance abuse diagnosis
- Almost a quarter (22.4%) of youth at Kearney have been recommended for a psychiatric residential treatment facility (PRTF) placement
- Assault and property offenses (36.7%) are the most common commitment offense for youth at Kearney

Table 6
Population Profile
Youth Rehabilitation and Treatment Center-Kearney
Date of Snapshot 9/1/2021
Included are all youth in YRTC-K custody included regardless of physical custody

	Number	% of Total
Sex:		
Male	49	100.0%
Total	*49*	*100.0%*
Race:		
African American	17	34.7%
Asian	0	0.0%
Caucasian	15	30.6%
Hispanic	12	24.5%
Mixed	0	0.0%
Native American	5	10.2%
Other	0	0.0%
Total	*49*	*100.0%*
Age:		
14	1	2.0%
15	10	20.4%
16	12	24.5%
17	11	22.4%
18	15	30.6%
Total	*49*	*100.0%*
County of Commitment:		
Lancaster	15	30.6%
Douglas	14	28.6%
Madison	4	8.2%
Hall	3	6.1%
Red Willow	2	4.1%
Scotts Bluff	2	4.1%
Box Butte	1	2.0%
Buffalo	1	2.0%
Dakota	1	2.0%
Dodge	1	2.0%
Gage	1	2.0%
Lincoln	1	2.0%
Nance	1	2.0%
Omaha Nation	1	2.0%
Sarpy	1	2.0%
Total	*49*	*69.4%*

	Number	% of Total
Chemical Abuse/Dependency:		
No	3	6.1%
Yes - A-CRA	35	71.4%
Yes - Recommend for PRTF	11	22.4%
Total	*49*	*100.0%*
Mental Health:		
Only Conduct Disorder	4	8.2%
Combined Diagnosis	45	91.8%
Total	*49*	*100.0%*
Current Security Level:		
Maximum	0	0.0%
Medium	0	0.0%
Minimum	0	0.0%
Unknown/Other	49	100.0%
Total	*49*	*100.0%*
Average Length of Stay in Current Placement:		
> 90 Days or Less (3 months or less)	18	36.7%
> 91 to 180 Days (3 to 6 months)	16	32.7%
> 181 to 364 Days (6 months to 1 year)	12	24.5%
> 365 to 545 Days (1 year to 18 months)	2	4.1%
> 546 to 729 Days (18 months to 2 year)	1	2.0%
> 730 or More Days (more than 2 years)	0	0.0%
Total	*49*	*100.0%*
Most Serious Commitment Offense:		
Assault	10	20.4%
Burglary	4	8.2%
Murder/Manslaughter	0	0.0%
Sex Offense	2	4.1%
Robbery	5	10.2%
Weapon Offense	3	6.1%
Drug Offense	1	2.0%
Property Offense	8	16.3%
Technical Violation of Probation	0	0.0%
Other Offenses	16	32.7%
Total	*49*	*100.0%*

Source: YRTC Kearney

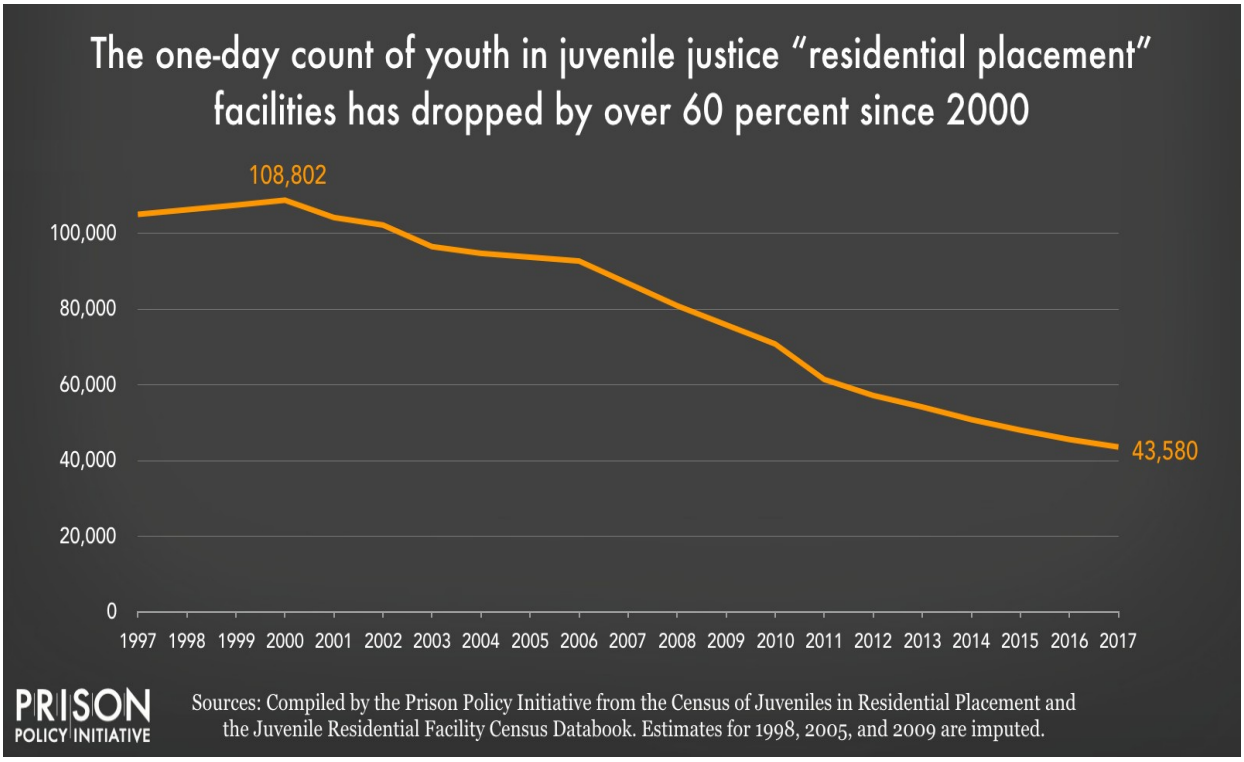
NATIONAL TRENDS AND BEST PRACTICES IN JUVENILE CORRECTIONAL FACILITIES

National trends in youth incarceration, national and state standards and evidence-based approaches to youth correctional facilities provide the framework for evaluating the YRTC Kearney campus. All of this information serves as the basis for planning and space programming for the future campus development options and recommendations at YRTC Kearney.

National Trends in Youth Incarceration

Figure 5 shows the continued decline in youth incarceration in the United States. These national youth incarceration trends are similar to the declining youth incarceration trends experienced in Nebraska.

Figure 5
National Trends in Youth Incarceration



Evidence Based Approaches to Treatment of Juvenile Offenders

Figure 6 shows nine components outlined by the Coalition for Juvenile Justice that are critical to the effective treatment of juvenile offenders. Having a highly structured day with meaningful education, vocation, treatment, visitation, health care and recreational programs and activities is essential to effective treatment. These factors were reviewed in the study process to ensure that any future campus renovations and/or new construction responds to the treatment needs of youth offenders.

Figure 6
TREATMENT FOR JUVENILE OFFENDERS

The Coalition of Juvenile Justice outlines nine components that are critical to effective treatment for juvenile offenders. These include:

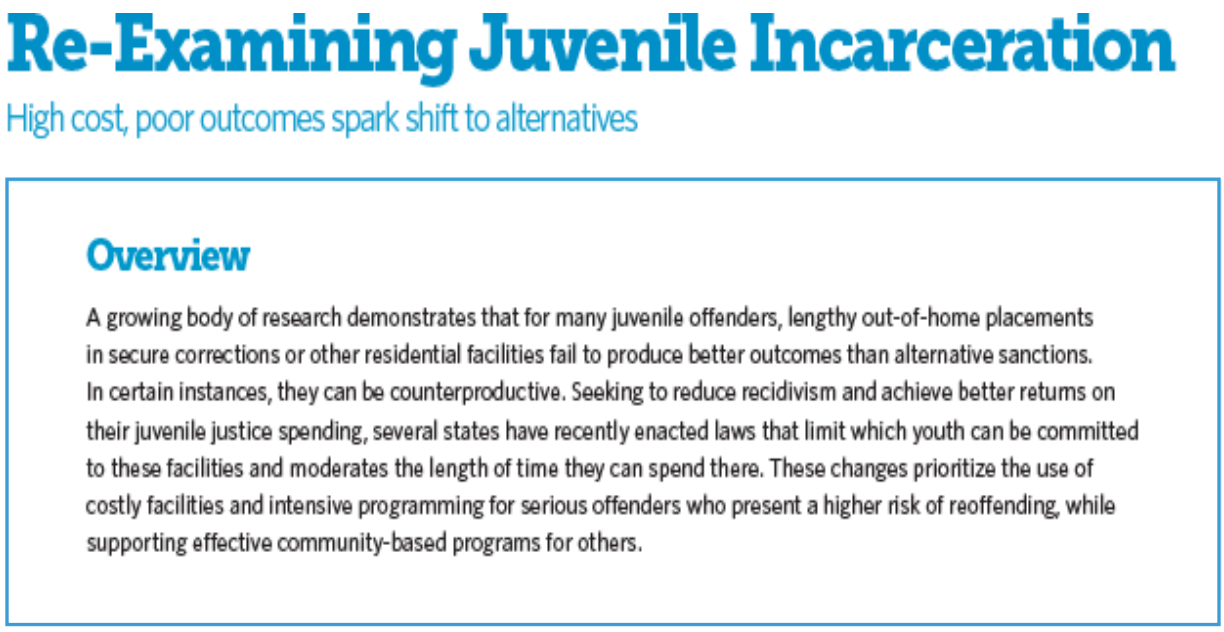
1. ***Highly structured, intensive programs*** *focusing on changing specific behaviors;*
2. Development of ***basic social skills***;
3. ***Individual counseling*** *that directly addresses behavior, attitudes, and perceptions;*
4. ***Sensitivity to a youth's race, culture, gender, and sexual orientation****;*
5. ***Family member*** *involvement in the* ***treatment and rehabilitation*** *of children;*
6. ***Community based****, rather than institution-based treatment;*
7. *Services, support and supervision that "wrap around" a child and family in an individualized way;*
8. *Recognition that youth think and feel differently than adults, especially under stress; and,*
9. *Strong aftercare treatment.*

Source: Coalition for Juvenile Justice, 2012.

Declining admissions and average daily population with increasing length of stay is an issue in most state juvenile correctional systems. “Re-Examining Juvenile Incarceration” shown in Figure 7 summarizes research that indicates lengthy out of home placements fail to produce better outcomes than alternative sanctions. Evidenced based research and best practice in juvenile correctional facility operation suggests a shorter length of stay is more effective than long term (over 2 years) incarceration. The current average length of stay at 10 months at YRTC Kearney falls in the time frame that is shorter compared to many states, but the continued high rate of growth should be monitored.

This increase in length of stay at YRTC Kearney should be monitored so that growth in length of stay does not exceed national research related to the negative impact on longer lengths of stay in youth commitment facilities.

Figure 7
Evidence Based Approaches



Re-Examining Juvenile Incarceration

High cost, poor outcomes spark shift to alternatives

Overview

A growing body of research demonstrates that for many juvenile offenders, lengthy out-of-home placements in secure corrections or other residential facilities fail to produce better outcomes than alternative sanctions. In certain instances, they can be counterproductive. Seeking to reduce recidivism and achieve better returns on their juvenile justice spending, several states have recently enacted laws that limit which youth can be committed to these facilities and moderates the length of time they can spend there. These changes prioritize the use of costly facilities and intensive programming for serious offenders who present a higher risk of reoffending, while supporting effective community-based programs for others.

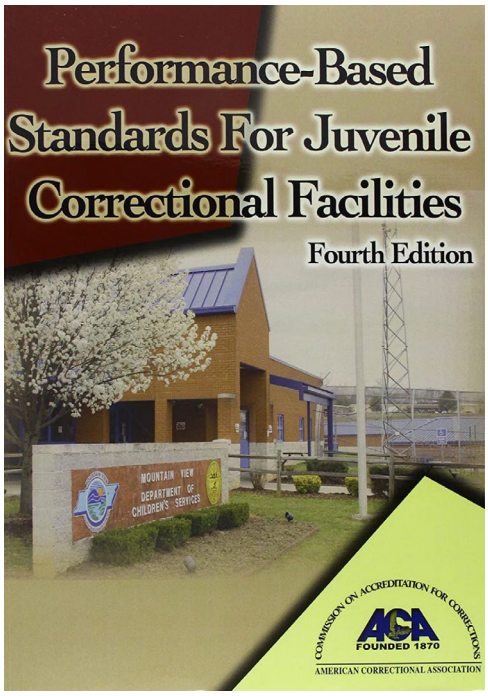
Source: The PEW Charitable Trusts, April 2015.

Summary of Standards

The national standards summarized below were used in the YRTC Kearney campus wide facility assessment and development of the replacement housing space program, site concepts, and minimum staffing requirements. Key national standards include:

– **American Correctional Association (ACA) Juvenile Performance Based Standards for Juvenile Correctional Facilities (4th Edition).** This is a nationally recognized organization that develops and monitors standards compliance for juvenile detention and commitment facilities. A summary of ACA applicable space standards is shown in Figure 8.

Figure 8
Summary of ACA Space Standards for Juvenile Correctional Facilities



- Facilities should not exceed 150-capacity
- Housing units should not exceed 16-capacity
- Primarily single occupancy sleeping rooms (80%)
- Single occupancy rooms required for mental health population
- Dayroom area 35 square feet per youth
- Sleeping room size 70 square feet, 80 square feet if youth is confined more than 10 hours
- Toilets 1:12 ratio male facilities; 1:6 female facilities
- Wash basins 1:12 ratio
- Showers 1:8 ratio
- 100 square feet per youth for indoor activity area (all leisure areas outside of living unit)
- Sufficient space for contact visiting
- Group dining with at least 15 square feet of space per person using the dining room

- **PREA Staffing Standards**. In addition to a detailed set of requirements to ensure that youth are safe in facilities, The Prison Rape Elimination Act (PREA) dictates staffing ratios in youth commitment facilities, which is a minimum of 1:8 staff to youth ratio duringawake hours, and 1:16 during sleep hours. Nebraska standards exceed these minimum direct care staffing ratios with a goal of 1:4 direct care staff during awake hours, and 1:6 at night. This is also based on the layout of current housing which is two story dormitory style housing. These PREA standards are summarized in Figure 9. Again, Nebraska exceeds minimum PREA standards which enhances interventions with youth and staff.

Figure 9
Prison Rape Elimination Act (PREA)

Compliance with Prison Rape Elimination Act (PREA) Juvenile Facility Staffing Standards

Standards for Juvenile Facilities – 115.313 Supervision and Monitoring
(c) Each secure juvenile facility shall maintain staff ratios of a minimum of 1:8 during resident waking hours and 1:16 during resident sleeping hours, except during limited and discrete exigent circumstances, which shall be fully documented. Only security staff shall be included in these ratios. Any facility that, as of the date of publication of this final rule, is not already obligated by law, regulation, or judicial consent decree to maintain the staffing ratios set forth in this paragraph shall until October 1, 2017, to achieve compliance.

Source: National Standards to Prevent, Detect, and Respond to Prison Rape Under the Prison Rape Elimination Act (PREA),28 C.F.R. Part 115, Docket No. OAG-131, RIN 1105-AB34, May 17, 2012.

Summary of Best Practices

Figure 10 is a summary of national best practice concepts for secure youth correctional facilities. These guiding concepts were used in the development of the campus wide assessment and space program to replace the existing housing units at the YRTC Kearney campus.

Figure 10
Best Practice in Juvenile Correctional Facility Operation and Design

- Placement Based on Individualized Assessment
- Structured Decision Making for Placement and Classification
- Identify Behavior Characteristics, Service Needs, and Requirements for Separation
- Programming Responsive to Individual Risks and Needs
- Provide Programming Responsive to "Special Needs Population"
- Extensive Program Opportunities (Education, Vocational, Recreation, and Visiting)
- Structured Daily Routine
- Normative Environmental Character
- Behavior Management is the Basis of Safety and Security
- Maximize Staff Supervision of Youthful Offenders
- Small Facilities That are Not Institutional in Character
- Small Housing Units (8-16 Residents) Results in Improved Classification, Safety, and Management
- Primarily Single Occupancy Sleeping Rooms
- Housing Units Arranged in Groups for Shared Services and Staffing Efficiency
- Access to Natural Light
- Open Dayroom with Contiguous Sleeping Rooms (Improved Supervision)
- Single User Showers/Toilet Rooms (1 per 8 Residents)
- On-Unit Housing Activities (Counseling, Homework, Passive Recreation for Program Flexibility)
- Access to Outdoor Space (Centralized and at Housing)
- Central Dining (No Dining in Living Units)
- Limited and Monitored Use of Isolation
- Minimum Direct Supervision Staffing Ratio of 1:8 Day and 1:16 night base on PREA
- Flexibility – Changing Program and Service Needs
- Incorporate ACA Standards and Performance Based Standards (PbS)
- Design to Accommodate Future Expansion/Reduction

.

YRTC KEARNEY FUTURE PROGRAMMATIC REQUIREMENTS

The mission of YRTC Kearney is:

> The Mission of the Youth Rehabilitation and Treatment Center at Kearney (YRTC-K) is to help youth live better lives through effective services, giving youth the chance to become law-abiding citizens.

YRTC Housing Space Program and Relationship Diagram

HOUSING UNIT DESCRIPTION AND JUSTIFICATION

One of the main concerns related to the YRTC Kearney campus as mentioned in the legislative mandate is housing. The current housing at YRTC is antiquated, and does not meet current standards and best practice for juvenile correctional facilities. The main housing buildings at YRTC Kearney are dormitory style, and the dormitory sleeping area is on the second level. This creates problems for managing the youth population, which as demonstrated have a host of behavioral health issues.

The national standards and best practices outlined in this report support single occupancy sleeping rooms, with smaller living units of 8 to 16 residents in total. Best practice bathroom facilities are also single user, not group use showers and bathrooms. Living units and housing support areas should also have treatment staff offices, group rooms and interview rooms, and calming rooms available to support therapeutic interventions that are needed for the YRTC Kearney population. Access directly to outdoor areas from the living units is also desired as a means to reduce needed movement across campus for all forms of fresh air and recreation, and for the ability outdoor recreation provides to bring additional natural light into living units.

The housing program that has been developed for the YRTC campus is comprised of two 24 room housing units. Each housing unit is comprised of a housing support area attached to (2) 12 bed single occupancy living units. Each of the 12 room living units have two rooms that are sized for ADA compliance and are large enough to accommodate two youth if needed for operational reasons, or due to a surge in population. This allows the housing capacity to go from 48 beds to 56 beds if needed. Based on national and Nebraska trends the capacity of the replacement housing at YRTC Kearney will reflect a leveling off of recent declining population levels, but allow for expanded capacity in the future if it becomes necessary.

The housing unit space program for two (24 room) housing units is comprised of living units and a housing support area between each of two living units. The space program includes the following:

- **(4) 12 room living units (with 2 rooms in each living unit sized to accommodate ADA or 2 youth if needed)**
  - Each of the (4) 12 room living units have:
    - 10 single occupancy sleeping rooms
    - 2 ADA compliant sleeping room with toilet/sink
    - Dayroom
    - individual bathrooms-toilet/sink/shower
    - multipurpose/group room
    - interview room
    - staff workroom
    - nurse office/medication storage
    - sensory/calming room
    - outdoor recreation area off living unit
    - supply/storage
    - kitchenette
    - laundry/linen/janitor closet

- **(2) Housing Support Areas (each serves (2) of the 12 room living units)**
  - Administration and Treatment Staff Offices
    - (2) Housing Unit Managers
    - (2) Case Workers
    - (2) License Mental Health Professional (LMHP)-with additional LMHP located centrally
  - Group Room
  - Interview Room
  - Staff Station
  - Storage

Table 7 (Living Unit) and Table 8 (Housing Support Area) show the detail of the space allocation program. The proposed two new housing units can serve a total capacity of 48-56 male youth at the YRTC Kearney campus. Table 9 shows a summary of the total building gross square feet for one housing unit.

Table 7
YRTC Kearney - DRAFT Housing Program

Component: HOUSING UNIT - 24 Single Occupancy Room
Subcomponent: (4) Living Units
Space No.:
LIVING UNITS (4) 12 SINGLE OCCUPANCY ROOMS

Space No.	Component	Number of Units	Net Area Square Feet	Subtotal Net SqFt (NSF)	Comments
1.100	Living Unit Entry Vestibule	1	40	40	secure entry into living unit from housing support area
1.101	Sleeping Rooms	10	80	800	bed, desk, toilet sink, storage; view to outside
1.102	Sleeping Room (ADA)	2	100	200	ADA; bed, desk, toilet, sink, storage; use as double room if needed; view to outside (one w/negative air flow)
1.103	Dayroom	12	50	600	35sf ACA standard; used 50sf to activities in dayroom; natural lighting/view to outdoor courtyard
1.104	Shower/Sink	1	80	80	lockers at entrance for youth items to use in shower
1.105	Shower/Toilet/Sink ADA	1	110	110	lockers at entrance for youth items to use in shower
1.106	Staff Desk (not station)	1	36	36	open desk in day room; clear sight lines to sleeping rooms, dayroom, and outdoor recreation
1.107	Staff Workroom	1	140	140	shared use for up to 3 staff; computers, office supplies, battery chargers, printer, first aid kit; staff lockers; frig, sink; secured
1.108	Shared Use Office	1	80	80	for use by housing support or off unit treatment staff (is this necessary if there is one interview room?)
1.109	Staff Toilet	1	50	50	
1.110	Calming/Quiet Room	1	100	100	soft furnishings; sound and lighting controls, away from other sleeping rooms and activity areas
1.111	Office/Med Storage	1	60	60	locked; half height door opening for med storage and distribution; cabinets, sink, frig; camera observation
1.112	Multipurpose/Group Room	1	240	240	off dayroom; quiet or scheduled group activity; 10-12 capacity; locked storage
1.113	Program Storage	1	60	60	locked area for group room storage, program material, games, etc.
1.114	Interview Room	1	80	80	view from dayroom
1.115	Kitchenette	1	40	40	dayroom alcove; sink, frig, cabinets, ice machine, counter area; lockable area
1.116	Clothing and Housing Supplies	1	80	80	locked storage for extra youth clothing, youth items, and hygiene supplies
1.117	Laundry Area	1	60	60	off dayroom; staff observation; 2 W/D; lockable doors
1.118	Laundry Linen Storage	2	40	80	separate clean and soiled areas
1.119	Phone Alcove	1	40	40	off dayroom area; sound absorption material; 3 phones w/screen capability; staff visibility
1.120	Janitor Closet	1	30	30	w/sink, cleaning supplies
1.121	Waste/Recycle	1	40	40	
1.122	Outdoor Courtyard Area	-	-	-	not included in SF-Outdoor Area; multicourt surface; covered area; at each unit or shared between 2 units
	Subtotal - (1) Living Unit (NSF)			**3,046**	
	Departmental Grossing Factor 45%			**1,371**	Includes security electronics/IDF Room (140 NSF) and Mechanical Room (110 NSF)
	Total Department Gross SqFt x (4 Living Units) (DGSF)			**17,667**	

Table 8
YRTC Kearney - DRAFT Housing Program
Component: HOUSING UNITS - 24 Single Occupancy Rooms
Subcomponent: HOUSING SUPPORT AREA - (2) Housing Support Areas (Each Serves (2) 12 Bed Living Units)
Space No.:

Space No.	Component	Number of Units	Net Area Square Feet	Subtotal Net SqFt (NSF)	Comments
Housing Support Area - Shared Between (2) 12 Bed Living Units					
1.123	Entry Vestibule	1	60	60	entrance between (2) 12 bed living units
1.124	Multipurpose Room/Commons Area	1	400	400	12-capacity; shared by two housing units through
1.125	Housing Unit Manager	2	100	200	
1.126	Case Workers	2	80	160	
1.127	LMPH	2	80	160	others LMHP offices located at Central Program Area
1.128	Staff Desk (not station)	1	36	36	
1.129	Staff Restroom	1	50	50	
1.130	Youth Restroom	1	50	50	
1.131	Interview Room	1	80	80	
1.132	Group Room	1	300	300	w/storage; 12 youth and 2 staff
1.133	Storage	1	80	80	program materials, supplies for group room and multi-purpose room
1.134	Beverage Station	1	40	40	lockable
1.135	Janitor Closet	1	30	30	
Subtotal - (1) Housing Support Area (NSF)				**1,646**	
Departmental Grossing Factor 35%				**576**	
Total - (1) Housing Support Area (NSF)				**2,222**	
Total - Housing Support x (2 Housing Support Areas) (DGSF)				**4,444**	

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Table 9

TOTAL BUILDING GROSS SQUARE FEET – ONE 24 ROOM HOUSING UNIT (Living Units and Housing Support)

- (2) Living Units 8,833 DGSF
- (1) Housing Support Area 2,222 DGSF

Subtotal 11,055 DGSF

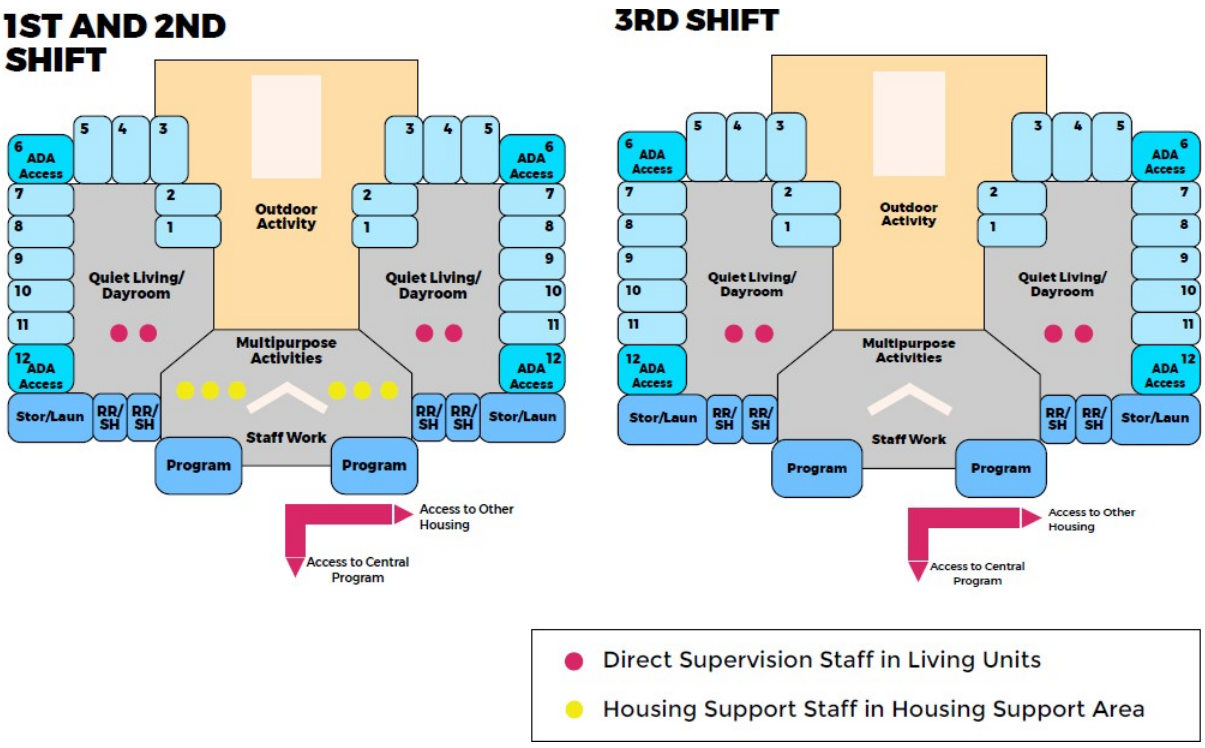
- Building Gross Factor (25%) 2,763

Total Building Gross Sq Feet 13,818 BGSF

YRTC-K Housing Concept Plan

Figure 11 shows the relationship diagram of the living units and housing support area, as well as the staffing level envisioned for the housing unit on each of three shifts. It is anticipated that staff savings will be realized with the replacement housing unit single occupancy, single level configuration. Site lines will be enhanced in new the housing units, and placing treatment staff at the housing units will enhance therapeutic interventions between youth and treatment staff.

Figure 11



Treatment and Youth Programs Center

TREATMENT AND YOUTH PROGRAMS CENTER DESCRIPTION AND JUSTIFICATION

During the YRTC Kearney campus wide facility assessment another component area that could be included to enhance the treatment and rehabilitative nature of YRTC Kearney would be a dedicated Treatment and Youth Programs Center. This would be an area where all additional treatment staff (that aren't assigned and located in the proposed new housing units) would be located. It would be an area where youth could go for group therapy and other treatment programming. An incentives lounge would be accessed by youth as they progress through levels of programming.

In future phases of YRTC Kearney campus development the Treatment and Program Center could be created in one of the existing dormitory housing buildings when it becomes vacant. The components and space allocation for the Treatment and Program Center are shown in Table 10.

Table 10
YRTC Kearney, Nebraska
Component: TREATMENT AND YOUTH PROGRAMS CENTER
Space No.: 1.000

Space No.	Component	Number of Units	Net Area Square Feet	Subtotal Net SqFt (NSF)	Comments
1.100	Entry Vestibule	1	40	40	
1.101	Commons/Multipurpose Area	1	500	500	16-18 capacity, multiple use, groups, table top games, exercise area; access to outdoor area
1.102	Group Room	2	400	800	16 youth and staff; white boards; telecom link
1.103	Interview Room	2	80	160	
1.104	Music Room	1	400	400	sound absorption, storage
1.105	Honors Lounge/Incentive Room	1	160	160	6-8 capacity
1.106	Incentive Storage	1	80	80	storage for youth incentives (food, other items)
1.107	Beverage Station	1	40	40	at commons; capability to lock
1.108	Clinical Director	1	140	140	
1.109	LMPH	4	120	480	clarify total staff- 4 located at housing
1.110	Mental Health Treatment Coordinator	1	120	120	
1.111	Youth Program Coordinator	1	120	120	
1.112	Caseworkers	-	-	-	at housing
1.113	Shared Use Treatment and Counseling Office	1	140	140	3-4 workstations, shared use, treatment meetings, community partners
1.114	Intern Workstations	2	36	72	
1.115	Program Material Storage	1	100	100	
1.116	Copy/File Workroom	1	80	80	printer, fax, shredder; files
1.117	Youth Restrooms	2	60	120	
1.118	Staff Restrooms	2	60	120	
1.119	Janitors Closet	1	30	30	
1.120	Waste/Recycle	1	40	40	
	Total - Treatment and Youth Programs (NSF)			**3,742**	
	Departmental Grossing Factor 30%			**1,123**	
	Total Department Gross SqFt (DGSF)			**4,865**	

Chinn Planning, Inc. *10/9/2021*

SUMMARY AND RECOMMENDATIONS FOR CAMPUS IMPROVEMENTS

The focus of major campus improvement at YRTC Kearney is housing. Two new housing units are proposed to replace the old and antiquated dormitory buildings. Two rooms in each of the four 12-room living units will be oversized to accommodate ADA accessibility or two youth to a room if needed. This allows each of the housing units to go from 24 to 28 youth. Total new housing capacity at YRTC Kearney would be 48 to 56 youth. This will allow for some surge in population. Based on national and Nebraska youth incarceration trends, the declining population levels at YRTC Kearney will eventually level off. If additional replacement housing is needed in the future, it can be added, but the recommendation in this report is for two new replacement housing units on the campus based on best practice concepts for juvenile correctional facilities presented in this report.

Another building component which should be considered for future YRTC Kearney campus development is a Treatment and Youth Programs Center. A space program for this component was completed and includes space for treatment staff, group and multipurpose rooms, youth program rooms, and an incentive area for youth who are advancing in treatment programming. The YRTC Kearney has some limited space for treatment and youth programming, but it is dispersed on the campus. When new housing is developed on the Kearney campus an existing dormitory building may provide a building with reuse potential as a Treatment and Youth Programs Center. This gives youth more ability to move to a central location on the campus for treatment programming and structured enhancement and therapeutic activities.

In addition, two high-priority campus improvements include replacement of the campus fire pump ($250,000) and a new service elevator for the kitchen at Gomez Dining Hall ($160,000).

YRTC KEARNEY - PROPOSED HOUSING UNITS

Design & Construction Narrative

Each of the two identical building plan layouts directly reflect the Space Program provided previously within this study. The program size of 13,818 total gross square footage each may be reduced by approximately 10% due to the use of the existing campus building systems and distribution tunnels and the trial to scale layout provided during this study. A total of 12,520 gross square feet per building is utilized for costs and campus layouts.

The building construction is proposed to consist of conventional commercial framing similar to single story dormitory construction. Building code designation is planned to be R-2 type with fire suppression sprinklers throughout. Interior construction materials and finishes will be designed to be vandal resistant with low maintenance required.

The floor plan layout features sleeping rooms (with water closets & lavatories arranged along the exterior perimeter with windows for views and natural light. The sleeping rooms all open to a large living space (dayroom) that has direct visual and circulation access to showers, laundry, multipurpose room, and staff workspace. In addition, each living space has direct visual and circulation access to an enclosed outdoor activity courtyard and to a central commons area. The housing units may be “staff secured” at night possibly with delayed panic hardware locks at the entry / exit points.

The buildings’ exterior and interior aesthetic character is to be residential, non-institutional. Sloped roofs and / or canopies may be utilized to contribute to this desired image.

Mechanical Narrative

We propose conditioning the new buildings with variable air volume AHUs with terminal units (single duct VAV boxes) used for zoning. AHUs would be located inside the building. An air-cooled chiller (preferred) or DX coil/air-cooled condensing unit would be used to provided cooling. The chiller/air-cooled condensing unit would be located on grade adjacent to the building. Campus steam would be converted to heating hot water for use at the AHUs and terminal unit reheat coils. Pumps controlled by VFDs will circulate the water throughout the building. We anticipate three AHUs – one for each living unit and one for the central support area. Alternatively, the building could be similarly served by packaged VAV RTUs with DX cooling and gas-fired heat. The same zoning concepts would apply. This solution would reduce building mechanical space requirements and overall system cost. All systems will be controlled by a BAS. Exhaust systems (roof mounted fans) will be provided as needed – restrooms, laundry, etc.

The building would be connected to the campus domestic water system. Campus steam would be used to create domestic hot water through a plate & frame heat exchanger. Water would be softened prior to heating. Domestic water piping will be PEX. Sanitary, vent and storm piping will be PVC. Plumbing fixtures will be vitreous china with automatic controls in public areas. Plumbing fixtures will be stainless steel institutional grade in high abuse areas.

The building will be connected to the campus fire water system and protected by a wet-pipe fire suppression system. Piping will be black steel. Fire sprinkler heads will be institutional throughout.

Electrical Narrative

We propose a new padmount transformer connected to a 1000A, 208/120V, 3 phase, 4 wire distribution panel for electrical service to each new dormitory building. 200A, 208/120V, 3 phase, 4 wire electrical panels can be distributed through the building for connection of lighting, receptacle, and HVAC loads. Electrical panels will be commercial-type with bolt-on circuit breakers. Bussing will be copper. Components may be series rated to provide the required AIC. EMT will be the primary raceway used within the building. Receptacles shall be tamper-resistant type. Equipment connections will be provided to all mechanical equipment.
Lighting shall consist of LED fixtures suitable for the spaces. General illumination levels will be as follows:

- Sleeping rooms - 30FC
- Office areas - 40FC
- Corridors - 20FC
- Lounge/dayroom areas - 30FC

Illumination in areas not listed above will be designed to IES standards. The facility will be provided with a relay-based lighting control panel for control of common area, corridor, and exterior lighting. The lighting control panel will provide photocell, timeclock, and local control lighting fixtures in the areas indicated. Sleeping rooms will be controlled with local switches. Occupancy sensors will be used in all remaining interior spaces per the energy code.

The low voltage systems (fire alarm, communications, access controls, video surveillance, etc.) for the buildings should be connected to the existing systems serving the campus.

0’ 125’

CAMPUS SITE PLAN WITH PROPOSED NEW HOUSING

CARLSON WEST POVONDRA ARCHITECTS

Facility Analysis: Concept Phase – Cost Estimate per each Housing Building

A. Preliminary Double Unit (24 – 28 Bed) Project Cost

A. Sitework (25,000 SF)

1	Earthwork / SWM	$ 70,000.00
2	Site Utilities (tunnel connection)	$ 45,000.00
3	Pavement (new & demo existing)	$ 32,000.00
4	Fencing (temporary & permanent)	$ 45,000.00
5	Exterior Lighting	$ 6,500.00
6	Landscaping / Plaza	$ 45,000.00
7	Signage / Miscellaneous	$ 5,000.00
	Subtotal	$ 248,500.00

B. Building Construction (12,520 GSF)

1	Special Construction	$ 250,000.00
2	General / Architecture	$ 2,890,000.00
3	Mechanical / Electrical / Plumbing	$ 1,502,500.00
4	Security / Technology	$ 87,500.00
5	Fixed Equipment	$ 12,500.00
	Subtotal	$ 4,742,500.00

C. Support Expenses

1	Surveys, Soil Test, A/E Fees & Exp, Bidding	$ 425,000.00
2	Fixtures, Furnishings, Non-Fixed Equipment	$ 235,000.00
	Subtotal	$ 660,000.00

Composite Subtotal	$ 5,651,000.00
Inflation to Construction Midpoint (8%)	$ 452,000.00
Project Contingency (10%)	$ 565,000.00
Total Cost:	**$ 6,668,000.00**

Note:

1. Above cost assume project will be bid in the Fall of 2022. Construction inflation will increase project costs if this timeline is extended.
2. Assume project is sales tax exempt.
3. Assume project will be competitively bid with a minimum of 3 bidders.
4. Special Construction includes demolition and/or hazardous material abatement and utility tunnel upgrades.

TIMELINE FOR PROPOSED NEW HOUSING

Note: This timeline is initiated AFTER the project is approved and funded. This schedule assumes that a formal "Program Statement" will not be required by the State of Nebraska.

	TASK	Duration
1	A / E Consultant Selection (Advertise, Short List, Interview, Award)	2.5 months
2	A / E Design (SD, DD, CD Phases)	6.5 months
3	Bidding & Contractor Award	2.5 months
4	Demolition & Construction	18.0 months
5	Transition & Occupancy	1.5 months
	TOTAL TIME	**31 months**

PROPOSED YOUTH TREATMENT & PROGRAMS CENTER

The previous section included a Program Statement for a Treatment & Program Center to provide intensive support for at risk youth on campus. As the new proposed housing is built, one of the two existing dormitory buildings could be re-purposed for this center. New interior construction at the first level of the Washington-Lincoln building would provide a convenient location on the campus grounds.

Work to create this center within the existing building would consist of minor interior demolition and construction of approximately 4,900 square feet of new interior construction. The Estimated Project Cost for this center is $1,300,000 with the assumption that the project would be funded, designed, and bid before the end of 2022.

PROPOSED HIGH-PRIORITY CAMPUS IMPROVEMENTS

From the evaluation of the existing campus, two high-priority, critical needs were identified. These include the replacement of the campus fire pump and a new service elevator at the kitchen. The Estimated Project Cost for these items is $410,000.

1	Chapel	1968
2	Gomez Hall (Dining)	1960
3	Morton Hall	1945
4	Washington & Lincoln Cottage	1955
5	Bryant & Creighton Cottage	1953
6	Dickson Hall	1968
7	Dodge Building	1945
8	Gymnasium	1973
9	Reynolds Hall	1953
10	Trades Building	1978
11	Boiler House	1947
12	Warehouse & Maintenance	1948

EXISTING CAMPUS PLAN

YRTC-Kearney Facility Evaluation

CARLSON WEST POVONDRA ARCHITECTS

EXISTING CAMPUS EVALUATIONS

As part of this study the project team was also tasked to evaluate the existing infrastructure on the YRTC campus and list deficiencies and provide recommendations for future upgrades. The team began this process with a walkthrough of all 14 buildings located on the campus and evaluated each for fire suppression and fire alarm systems, HVAC, plumbing and sewer, electrical, general building envelope, ADA accessibility, and interior finish conditions. The completion dates of the buildings on campus range from 1945 for Morton Hall to 1978 for the Trades Building.

The campus, as a whole, is in good condition. Maintenance staff has done an excellent job of maintaining the existing buildings and grounds. The age and amount of abuse that the buildings sustain is not readily apparent in most buildings due to diligent and thoughtful maintenance. A campus wide tunnel system and access to mechanical and electrical systems has allowed staff to provide repairs and upgrades easily and efficiently. The building grounds are also in very good shape and have been well cared for over time.

Observation of piping (chilled water, steam, steam condensate, heating hot water, sanitary, vent, storm, domestic water, etc.) was limited. Most of the piping is either insulated or concealed from view. Unless in a completely deteriorating state, it is extremely difficult to evaluate the condition of piping since it deteriorates from the inside out. With proper maintenance, most conventional piping (copper, steel, cast iron, etc.) has a service life of 50+ years. See individual building sections for age of piping. One method to evaluate pipe condition is to remove strainers throughout the building and observe the type and amount of debris in the system (applies to hydronic systems). Another method is to contract a third party to measure remaining pipe wall thickness at select locations. A final method is to contract a third party to camera systems to evaluate the condition of the inside of the piping (typically applies to sanitary and storm systems). Recommendations to replace piping should only be considered as a component of a larger renovation project. Replacement of below grade piping as a stand-alone project is typically cost prohibitive.

Where indicated, the number in parentheses following equipment is the ASHRAE mean service life estimate. The mean service life indicates the period of time 50% of the equipment is expected to still be in service. Many variables can shorten or extend actual service life of equipment. With the observed attention to maintenance, we would anticipate most of the equipment to exceed ASHRAE's estimates. Most of the newer equipment was installed through independent projects completed by campus staff with no existing drawings. Where indicated, age of equipment was estimated by campus staff.

A complete ADA analysis was not completed. Several restrooms do not appear to be ADA compliant. Noted corrections should be considered as part of larger renovation projects. Major ADA issues typically cannot be corrected without requiring general construction work.

Observation of electrical systems include electrical service, electrical distribution, lighting, lighting controls, fire alarm and low voltage systems. The majority of the electrical systems have been well-maintained and upgrades/replacements occur at regular intervals when a need occurs. The campus electrical distribution, fire alarm systems, and low voltage systems are all in good condition. See individual building sections for specific observations.

Overall Campus Site Conditions

The grading on site is mostly adequate to ensure proper drainage away from buildings. There is one small area in the middle of the quadrangle that has a low spot. Maintenance has built a berm to alleviate most of the ponding, however there is still a small area of ponding. This ponding does not pose a risk to any buildings on campus, as the ponding is not near any structures, but it does case one of the sidewalks to pond over. The grade should be raised similar to other areas so that this does not occur.

Site lighting at buildings is adequate, however the overall site lighting could be upgraded to ensure increase security in the evening hours. Stand alone light poles should be considered to increase light levels in dark spots.

A campus wide tunnel system that has also fairly been well maintained. The tunnels are in good shape save for a section on the south end that had begun have walls collapse. Maintenance has been proactive and shored these walls up to keep the tunnel from collapsing. The solution that has been used appears to be working and this tunnel should continue to function for the foreseeable future. Structural has noted that the tunnel has some other areas that have not been shored up that show some cracking and bending of the foundation wall. These are noted at individual building locations.

Campus security has been greatly increased with the addition of a security fence that was installed within the last 2 years. The fence surrounds the entire campus with the exception of the maintenance shed and hog barn.

The campus is served by a central steam plant consisting of three natural gas-fired boilers/burners (25). Boilers (and associated major equipment) are approximately 15 years old. Equipment appears to be well-maintained and in good condition. Steam is distributed throughout the campus by insulated distribution piping (Schedule 80 steel) routed in the campus tunnel system; minimal steam piping is direct buried. End loads either use the steam directly or convert it to hot water for building heat. Steam is also used to create most of the domestic hot water for the campus; small electric point-of-use water heaters make up the balance. For a detailed description and review of the steam system see the “Steam and Condensate Line Study” issued on March 18, 2019; attached as an appendix for reference.

The campus is served by an 8” domestic water main. The distribution system originates in the basement of the Boiler House. The service immediately splits into domestic and fire water systems. The domestic water system pressure is boosted to 80 psi by a pump package. The pump package appears to be in good condition. The fire water system can be boosted to 125 psi by a fire pump. The fire pump is in poor condition. Both systems utilize the campus tunnel system for distribution to all buildings. See individual building sections for additional information on end uses.

Campus equipment is controlled by a mix of electronic (DDC) and pneumatic controls. Existing pneumatic controls use compressed air created by an air dryer / air compressor located in the basement of the Boiler House. Again, compressed air is distributed by piping located in the campus tunnel system. Pneumatic controls are antiquated, difficult to calibrate, and cannot be remotely monitored or adjusted.

The campus underground electrical distribution was upgraded in 2008. The campus is served from NPPD from the northwest end of the property at 12.5 kV. Power is fed underground to a

series of padmounted switchgear at 12.5kV. The switchgear feeds padmounted transformers underground at each building. Each building is fed underground at 208/120V, 3 phase, 4 wire. Equipment is well-maintained and appears to be in good condition.

The site lighting for the campus vehicle drives is primarily through pole mounted single head fixtures. Site lighting for the walkway areas is primarily through post top style fixtures. The site lighting was installed in 2008. The majority of the fixtures have been retro-fitted with LED replacement lamps. Select fixtures have been retro-fitted with LED fixture heads. The site lighting appears to be controlled through a contactor system controlled through time of day and photocell controls. The campus site lighting appears to be lacking some uniformity and illuminance levels should be increased in the areas it serves.

The underground tunnel system serves as a pathway for fire alarm wiring, telecommunications backbone, security wiring and other low voltage systems to be distributed to individual buildings on campus. The low voltage systems distribution appears to be in good condition and has been well-maintained.

Recommended Capital Improvements:

- *Site Lighting Replacement*
- *Replace the fire pump.*

Dodge Administration Building

ARCHITECTURAL

The Dodge building was built in 1945 and is one of the oldest buildings on campus. Despite its age the building is in relatively good condition on the first floor. The exterior envelope is brick with CMU back-up and has no real issues except some minor tuck-pointing. The exterior windows on the second floor are original and need to be replaced. The interior finishes on the first level are in fairly good shape, except for the broadloom carpet, which is in the process of being replaced with carpet tile. The second floor is currently begin used for campus storage and needs a complete remodel if the space were to return to inhabitable space. If this were to occur it is anticipated that the VCT flooring on the second floor would contain asbestos and should be removed. The exterior stairs also need to be repainted, and the exterior doors need to be replaced on the second level. There is only one ADA compliant toilet, and it is located in the main lobby. All staff toilets do not meet current codes.

STRUCTURAL

The two-story building consists of a steel/ concrete framed roof and floor system supported by load bearing masonry walls. The perimeter walls consist of clay brick veneer over load bearing masonry walls. The building is supported by traditional concrete shallow spread footings with a lower-level maintenance/ mechanical access tunnel connecting various buildings on the campus. The interior floor is a concrete slab-on-grade.

Overall, the building was in good condition with no significant distressed or deteriorated conditions observed. The exterior masonry walls were in good condition. No evidence was observed suggesting damaging foundation settlements or dislocations. The interior finish surfaces were in average condition with several areas showing distress in the wall and

ceilingfinishes (non-structural). Interior floors were generally level and flat and in good condition.

MECHANICAL

Most of the building's first floor is conditioned by an AHU located in a second floor mechanical room. The AHU is equipped with a direct expansion cooling coil paired with an air-cooled condensing unit located on grade and a steam heating coil (20 to 25). The system is divided into five zones using single duct variable air volume boxes (20). Boxes do not have reheat coils. Three individual rooms (first floor) have ductless evaporators; all connected to a single heat pump located in the basement (15). The second floor is unoccupied and not fully conditioned – minimal heat. The Data Room (located in the basement) is cooled by a residential style through-the-wall air conditioner (10) which rejects the heat to the adjacent space. The AHU system equipment is controlled by the BAS. The steam perimeter heat is control by pneumatic controls. The ductless systems are controlled by stand-alone manufacturer's controls. Campus staff manually changes the building from heating mode to cooling mode. The mix of controls, decoupled systems, and manual cool/heat changeover has significant impacts on occupant thermal comfort and utility consumption. The above grade plumbing has been replaced throughout the building. Domestic water piping is PEX. Waste and vent piping is PVC. Above grade storm and all below grade piping is original to the building. The building is protected by a wet-pipe fire suppression system.

ELECTRICAL

Dodge Administration Building is fed with a 150kVA padmount transformer located on grade. The electrical service is sized at 400A, 208/120V, 3 phase, 4 wire. The service size appears adequate for the function of the building. The electrical service was installed in approximately 2008.

The majority of the lighting has been replaced with LED fixtures. The majority of the lighting controls are local switches. The second floor of this building is primarily utilized for storage. The majority of lighting for the second floor has not been upgraded to LED. The lighting controls do not meet the current energy codes, however, they function well for the occupancy of this space. Emergency lighting is primarily through local battery fixtures as there is no generator power serving this building. The exterior building mounted lighting does not meet current NFPA 101 Life Safety codes for emergency exterior egress.

The building is served through the campus networked fire alarm system. The fire alarm control panel is located at the main entrance. Communication devices and service appears adequate for the function of the building. Access controls are installed at select doors. Video surveillance systems are installed. The low voltage systems appear to have adequate coverage for the current function of the building.

The hub for telecommunications serving the campus is located in the basement of this facility. The facility does not have emergency generator backup power. An emergency generator should be added to this building for the prime function of backing up the telecommunications hub.

Recommended Capital Improvements:

- *Second Floor Window Replacement*
- *Exterior Brick Tuckpointing*
- *Renovation of the Second Floor*
- *Asbestos Survey/Abatement*
- *Repainting Exterior Steel Stairs*
- *Convert control of all equipment to DDC.*
- *Provide proper conditioning of second floor if intended to be occupied.*
- *Consider redundant cooling equipment for the Data Room.*
- *Modify/replace HVAC system to allow simultaneously heating and cooling within the building.*
- *Provide outside air for ventilation to spaces served by the split system.*
- *Add emergency generator*
- *Upgrade lighting controls to meet current energy codes*
- *Upgrade building exterior lighting to meet current life safety codes*

Bryant-Creighton Cottage

ARCHITECTURAL

The Bryant-Creighton Cottage was built in 1953 and is one of four housing units on campus. While the physical plant of this building is in good condition and renovations and maintenance have kept the building from becoming unusable, there are several issues with the layout and configuration that preclude this building from continuing to function as a permanent housing unit. The unit does not meet the current standards and recommendations for housing in a youth setting. The sleeping areas are dorm style on the second floor. There are no ADA accommodations and no elevator. Open showers are problematic, and the stairs do not meet code, due to a lack of handrails. The building would be an excellent candidate for remodel into either overflow housing, or program space.

STRUCTURAL

The two-story building consists of a steel/ concrete framed roof and floor system supported by load bearing masonry walls. The perimeter walls consist of clay brick veneer over load bearing masonry walls. The building is supported by traditional concrete shallow spread footings with a lower-level maintenance/ mechanical access tunnel connecting various buildings on the campus. The interior floor is a concrete slab-on-grade.

Overall, the building was in good condition with no significant distressed or deteriorated conditions observed. The exterior masonry walls were in good condition. No evidence was observed suggesting damaging foundation settlements or dislocations. The interior finish surfaces were in good condition as well. Interior floors were generally level and flat and in good condition.

MECHANICAL

The HVAC systems use chilled and heating hot water. Chilled water is provided by an air-cooled chiller with remote indoor evaporator (20). Campus steam is converted to heating hot water by a heat exchanger (25). In both cases, water is circulated throughout the building by inline pumps controlled by VFDs (20). Most of the building is conditioned by hydronic fan coil units (20). Due to humidity issues, reheat coils have been installed in the distribution ductwork. Room neutral ventilation air provided by a dedicated outside air unit (15) ducted to the return side of each fan coil unit. The Canteen is cooled by floor mounted unit ventilators (20). However, the unit ventilators do not have the ability to ventilate the space. All systems are controlled by the BAS. The Canteen appears to be ADA compliant. The staff and second floor restroom are not ADA compliant. Above slab plumbing piping has been replaced. Domestic water is PEX. Waste and vent is PVC. Below grade piping and all storm piping is original to the building. Domestic hot water is provided by using steam and a plate & frame heat exchanger. Water is softened prior to heating. The building is protected by a wet-pipe fire suppression system.

ELECTRICAL

Bryant-Creighton Cottage is fed with a 225kVA padmount transformer located on grade. The electrical service is sized at 800A, 208/120V, 3 phase, 4 wire. The service size appears adequate for the function of the building. The electrical service was installed in approximately 2008.

The majority of the lighting has been replaced with LED fixtures. The majority of the lighting controls are local switches. The lighting controls do not meet the current energy codes, however, they function well for the occupancy of this space. Emergency lighting is connected to generator power.

Emergency power is provided to the building via a padmount 100kW natural gas generator. The generator is connected through a 400A, 208/120V, 3 phase, 4 wire, 4-pole automatic transfer switch.

Current electrical codes require AFCI type circuit breakers to be installed in the sleeping areas of the facility. The building is served through the campus networked fire alarm system. The fire alarm control panel is located in the main vestibule. Communication devices and service appears adequate for the function of the building. Access controls are installed at select doors. Video surveillance systems are installed. The low voltage systems appear to have adequate coverage for the current function of the building.

Recommended Capital Improvements:

- *Exterior Brick Tuckpointing*
- *Renovation into program space*
- *Consider replacement of original plumbing piping when renovation projects occur.*
- *Upgrade lighting controls to meet current energy codes*
- *Provide AFCI circuit breakers in sleeping areas.*

Washington-Lincoln Cottage

ARCHITECTURAL

The Lincoln-Washington Cottage was built in 1955 and is almost identical to Bryant-Creighton. While the physical plant of this building is in good condition and renovations and maintenance have kept the building from becoming unusable, there are several issues with the layout and configuration that preclude this building from continuing to function as a permanent housing unit. The unit does not meet the current standards and recommendations for housing in a youth setting. The sleeping areas are dorm style on the second floor. There are no ADA accommodations and no elevator. Open showers are problematic, and the stairs do not meet code, due to a lack of handrails. The building would be an excellent candidate for remodel into either overflow housing, or program space.

STRUCTURAL

The two-story building consists of a steel/ concrete framed roof and floor system supported by load bearing masonry walls. The perimeter walls consist of clay brick veneer over load bearing masonry walls. The building is supported by traditional concrete shallow spread footings with a lower-level maintenance/ mechanical access tunnel connecting various buildings on the campus. The interior floor is a concrete slab-on-grade.

Overall, the building was in good condition with no significant distressed or deteriorated conditions observed. The exterior masonry walls were in good condition. No evidence was observed suggesting damaging foundation settlements or dislocations. The interior finish surfaces were in good condition as well. Interior floors were generally level and flat and in good condition.

MECHANICAL

The HVAC systems use chilled and heating hot water. Chilled water is provided by an air-cooled chiller with remote indoor evaporator (20). Campus steam is converted to heating hot water by a heat exchanger (25). In both cases, water is circulated throughout the building by inline pumps controlled by VFDs (20). Most of the building is conditioned by hydronic fan coil units (20). Due to humidity issues, reheat coils have been installed in the distribution ductwork. Room neutral ventilation air provided by a dedicated outside air unit (15) ducted to the return side of each fan coil unit. The Barbershop/Office Area is cooled by floor mounted unit ventilators (20). However, the unit ventilators do not have the ability to ventilate the space. All systems are controlled by the BAS. The babrbershop restroom appears to be ADA compliant. The staff and second floor restroom are not ADA compliant. Above slab plumbing piping has been replaced. Domestic water is PEX. Waste and vent is PVC. Below grade piping and all storm piping is original to the building. Domestic hot water is provided by using steam and a plate & frame heat exchanger. Water is softened prior to heating. The building is protected by a wet-pipe fire suppression system.

ELECTRICAL

Washington-Lincoln Cottage is fed with a 225kVA padmount transformer located on grade. The electrical service is sized at 800A, 208/120V, 3 phase, 4 wire. The service size appears adequate for the function of the building. The electrical service was installed in approximately 2008.

The majority of the lighting has been replaced with LED fixtures. The majority of the lighting controls are local switches. The lighting controls do not meet the current energy codes, however, they function well for the occupancy of this space. Emergency lighting is connected to generator power.

Emergency power is provided to the building via a padmount 100kW natural gas generator. The generator is connected through a 400A, 208/120V, 3 phase, 4 wire, 4-pole automatic transfer switch.

Current electrical codes require AFCI type circuit breakers to be installed in the sleeping areas of the facility.

The building is served through the campus networked fire alarm system. The fire alarm control panel is located in the main vestibule.

Communication devices and service appears adequate for the function of the building. Access controls are installed at select doors. Video surveillance systems are installed. The low voltage systems appear to have adequate coverage for the current function of the building.

Recommended Capital Improvements:

- *Exterior Brick Tuckpointing*
- *Renovation into program space*
- *Consider replacement of original plumbing piping when renovation projects occur.*
- *Upgrade lighting controls to meet current energy codes*
- *Provide AFCI circuit breakers in sleeping areas.*

Morton Hall

ARCHITECTURAL

Morton Hall was built in 1945 and is, with exception of the hog barn, the oldest building on campus. The building is currently unoccupied except for some staff space on the west side and is used for overflow housing. The physical condition of the building is fair with many of the same issues as the Dodge Administration building. Minor tuckpointing is needed, along with paint on the exterior stairs. The exterior windows on this building were all replaced about 20 years ago and are in good condition save for a couple that need to be resealed. The unit was reconfigured 5 years ago when girls were brought on the campus. The rooms are configured to be individual sleeping units; however, they are all located on the second floor and separated from the dayroom and toilets on the first floor with no elevator access. The toilet room on the first floor is currently under construction by maintenance staff. This renovation will not correct issues of

privacy with a gang shower. There is also no ADA toilet or sink. The second floor VCT is suspected to contain asbestos and should be removed. While this is the most logical building to be demolished to make way for new housing, if the unit were to remain open the below improvements should be considered.

STRUCTURAL

The two-story building consists of a steel/ concrete framed roof and floor system supported by load bearing masonry walls. The perimeter walls consist of clay brick veneer over load bearing masonry walls. The building is supported by traditional concrete shallow spread footings with a lower-level maintenance/ mechanical access tunnel connecting various buildings on the campus. The interior floor is a concrete slab-on-grade.

Overall, the building was in good condition with no significant distressed or deteriorated conditions observed. The exterior masonry walls were in good condition. No evidence was observed suggesting damaging foundation settlements or dislocations. The interior finish surfaces were in average condition with several areas showing distress in the wall and ceiling finishes (non-structural). Interior floors were generally level and flat and in good condition.

MECHANICAL

The building is conditioned by a packaged RTU with integral DX cooling (15) and remote steam heat (coil (20) located in ductwork). A portion of the distribution ductwork is exposed on the roof, but does not have weather jacketing. Campus staff reports no issues with water infiltration into ductwork. The system is manually changed between cooling mode and heating mode; it cannot simultaneously cool and heat different spaces within the building. The ductwork is divided into six zones each with a pneumatically controlled damper. All supplemental steam heat has been removed or abandoned in place. Most of the system controls are DDC. Some plumbing fixtures are currently being replaced to improve durability. Restrooms do not appear to be ADA compliant. Domestic hot water is softened prior to heating. Hot water is created by a steam to water plate & frame heat exchanger. The building is protected by a wet-pipe fire suppression system.

ELECTRICAL

Morton Hall is fed with a 150kVA padmount transformer located on grade. The electrical service is sized at 600A, 208/120V, 3 phase, 4 wire. The service size appears adequate for the function of the building. The electrical service was installed in approximately 2008.
The majority of the lighting has been replaced with LED fixtures. The majority of the lighting controls are local switches and dimmers. The lighting controls do not meet the current energy codes; however, they function well for the occupancy of this space. Emergency lighting is connected to generator power.

Emergency power is provided to the building via a padmount diesel generator with sub-base fuel tank. The generator contains two automatic transfer switches with one dedicated to the life safety branch. Current electrical codes require AFCI type circuit breakers to be installed in the sleeping areas of the facility.

The building is served through the campus networked fire alarm system. The fire alarm control

panel is located in the main vestibule. Fire alarm coverage appears to be lacking in the sleeping areas. Communication devices and service appears adequate for the function of the building. Access controls are installed at select doors. Video surveillance systems are installed. The low voltage systems appear to have adequate coverage for the current function of the building.

Recommended Capital Improvements:

- *Exterior Brick Tuckpointing*
- *Repainting Exterior Steel Stairs*
- *Asbestos Survey/Abatement*
- *Campus staff reports ongoing issues with thermal comfort and humidity. Replace HVAC system with zoning and simultaneous heating/cooling capabilities.*
- *Convert all controls to DDC. This is negated if HVAC system is replaced in its entirety.*
- *Evaluate storm piping for replacement.*
- Upgrade lighting controls to meet current energy codes
- Provide AFCI circuit breakers in sleeping areas.
- Upgrade fire alarm in sleeping areas.

Dickson Hall

ARCHITECTURAL

Dickson Hall was built in 1968 and is currently being used as intake and special management housing. The physical plant of the building is in good shape and has had several upgrades in the past ten years. The roof is only 4-5 years old, most of the glazing has been replaced and the interior was recently painted. The only real issue with the building is that there is no ADA accommodations. The showers all have thresholds that don't allow for wheelchair access, and none of the holding cells have ADA toilets.

STRUCTURAL

The building consists of a concrete framed roof system supported by load bearing masonry walls. The perimeter walls consist of clay brick veneer over load bearing masonry walls. The building is supported by traditional concrete shallow spread footings. The interior floor is a concrete slab-on-grade.

Overall, the building was in good condition with no significant distressed or deteriorated conditions observed. The exterior masonry walls were in good condition. No evidence was observed suggesting damaging foundation settlements or dislocations. The interior finish surfaces were in good condition as well. Interior floors were generally level and flat and in good condition.

MECHANICAL

Building is conditioned by a steam heat, direct expansion cooling multizone AHU (hot deck / cold deck) with seven zones (20 to 25). Associated air-cooled condensing unit (20) is located on grade. Equipment appears to be newer. System is controlled by the BAS. All plumbing piping is original to the building (1968). Piping is concealed but accessible in multiple plumbing chases.

Domestic water piping is copper. Waste and vent piping is galvanized steel. Domestic water is created using campus steam and a plate & frame heat exchanger. The building is protected by a wet-pipe fire suppression system.

ELECTRICAL

Dickson Hall is fed with a 112.5kVA padmount transformer located on grade. The electrical service is sized at 400A, 208/120V, 3 phase, 4 wire. The service size appears adequate for the function of the building. The electrical service was installed in approximately 2008.

The majority of the lighting has been replaced with LED fixtures. The majority of the lighting controls are local switches. The lighting controls do not meet the current energy codes, however, they function well for the occupancy of this space. Emergency lighting is connected to generator power.

Emergency power is provided to the building via a padmount 60kW natural gas generator. The generator is connected through a 225A, 208/120V, 3 phase, 4 wire, 4-pole automatic transfer switch. Emergency generator feeds all loads within the building with the exception of the condensing unit.

Current electrical codes require AFCI type circuit breakers to be installed in the sleeping areas of the facility.

The building is served through the campus networked fire alarm system. The fire alarm control panel is located in the main vestibule.

Communication devices and service appears adequate for the function of the building. Access controls are installed at select doors. Video surveillance systems are installed. The low voltage systems appear to have adequate coverage for the current function of the building.

Recommended Capital Improvements:

- *Exterior Brick Tuckpointing*
- *ADA Modifications*
- *Consider replacement of plumbing piping when renovation projects occur.*
- *Upgrade lighting controls to meet current energy codes*
- *Provide AFCI circuit breakers in sleeping areas.*

Gomez Dining Hall

ARCHITECTURAL

Gomez Dining Hall was built in 1960 and serves as the campus dining center, as well as laundry and clothing issue. The roof of this building is the only roof on campus that is not EPDM and is instead a modified bitumen roof with rock ballast. This roof is 20 years old and nearing the end of its life cycle. Several areas of the roof fascia are bent and need to be replaced. The soffits over the entries should also be repaired and painted as part of this project.

The interior is in good shape with the serving counter having been replaced within the last six years. In the kitchen the dishwasher and ovens are nearing the end of their useful lives and should be considered to be replaced. The other major piece of equipment that should be considered to be replaced is the elevator. It is currently strictly a freight elevator that is being used to bring supplies to kitchen from the loading dock. The only way it continues to pass inspection is that it can only be used for this purpose. A new modern elevator should be installed. Lastly, the grade on the building drops severely in the back and there are retaining walls that help to keep the grade from being too steep. A couple of the retaining walls are old rock walls that are starting to become compromised. These should be replaced with new keystone block walls.

STRUCTURAL

The two-story building consists of a steel/ concrete framed roof and floor system supported by load bearing masonry walls. The perimeter walls consist of clay brick veneer over load bearing masonry walls. The building is supported by traditional concrete shallow spread footings with a lower-level maintenance/ mechanical access tunnel connecting various buildings on the campus. The interior floor is a concrete slab-on-grade.

Overall, the building was in good condition with no significant distressed or deteriorated conditions observed. The exterior masonry walls were in good condition. No evidence was observed suggesting damaging foundation settlements or dislocations. The interior finish surfaces were in good condition as well. Interior floors were generally level and flat and in good condition.

MECHANICAL

The upper level is conditioned by three AHUs (20). Two AHUs are new and were not accessible at the time of visit. The AHU serving the kitchen is original to the building. AHUs include DX cooling coils with remote air-cooled condensing units (20) located on grade and steam heating coils. Upper-level exterior rooms have steam perimeter heat (25) controlled by the BAS through electronic to pneumatic transducers. The kitchen has a Type I exhaust hood with associated exhaust fan (25) located on the hood. Unconditioned make-up air is provided by a roof mounted unit (20). The dishwasher also has a condensate only hood with associated fan located on the roof. The lower level is heated only by steam unit heaters. Equipment is controlled by pneumatic controls. The large laundry room has several commercial washers and dryer. Unconditioned make-up air is provided by a roof mounted fan.

ELECTRICAL

Gomez Hall is fed with a 300kVA padmount transformer located on grade. The electrical service is sized at 1000A, 208/120V, 3 phase, 4 wire. The service size appears adequate for the function of the building. The electrical service was installed in approximately 2008.
The majority of the lighting has been replaced with LED fixtures with a handful of fluorescent fixtures remaining in the lower level. The majority of the lighting controls are local switches. The lighting controls do not meet the current energy codes; however, they function well for the occupancy of this space. Emergency lighting is connected to generator power.

Current codes require additional GFCI coverage in the kitchen area.

Emergency power is provided to the building via a 140kW padmount natural gas generator. The generator is connected through a 1000A, 208/120V, 3 phase, 4 wire, 4-pole automatic transfer switch.

The building is served through the campus networked fire alarm system. The fire alarm control panel is located in the main vestibule. Communication devices and service appears adequate for the function of the building. Access controls are installed at select doors. Video surveillance systems are installed. The low voltage systems appear to have adequate coverage for the current function of the building.

Recommended Capital Improvements:

- *Exterior Brick Tuckpointing*
- *Replace Roof and Patch Exterior Soffit*
- *New Elevator*
- *Retaining Wall Replacement*
- *Replace Type I exhaust hood and all associated components (hood, ductwork, make-up air unit, etc.)*
- *Convert all controls to DDC.*
- *Upgrade lighting controls to meet current energy codes*
- *Upgrade GFCI coverage in kitchen*

Chapel

ARCHITECTURAL

The Chapel was built in 1968 and serves the in a number of ways including meetings, programming, and church services. The chapel is in good condition with the only major deficiency being that the exterior windows are single pane aluminum and should be replaced with double paned insulated windows.

STRUCTURAL

The original building consists of a wood framed roof system supported by load bearing masonry walls. The perimeter walls consist of clay brick veneer over load bearing masonry walls. The building is supported by traditional concrete shallow spread footings. The interior floor is a concrete slab-on-grade.

Overall, the building was in good condition with no significant distressed or deteriorated conditions observed. The exterior masonry walls were in good condition. No evidence was observed suggesting damaging foundation settlements or dislocations. The interior finish surfaces were in good condition as well. Interior floors were generally level and flat and in good condition.

MECHANICAL

Most of the Chapel is conditioned by a single zone, direct expansion cooling, natural gas-fired heat air-handling (20 to 25) unit with remote air-cooled condensing unit (20) located on grade. The AHU system is controlled by electronic controls but is not connected to a web-accessible BAS. The controls are “BAS Ready” according to the campus staff. Two small offices are conditioned by stand-alone PTAC units (15). The PTAC units are controlled by manufacturer’s stand-alone controls. There are two public, single occupant restrooms located off the vestibule; both appear to be ADA compliant once minor deficiencies are corrected. The single occupant staff restroom is not ADA compliant. Most of the plumbing piping is original to the building (1968). The building is not protected by a fire suppression system.

ELECTRICAL

The Chapel is fed with a 75kVA padmount transformer located on grade. The electrical service is sized at 225A, 208/120V, 3 phase, 4 wire. The service size appears adequate for the function of the building. The electrical service was installed in approximately 2008.

The majority of the lighting has been re-lamped with LED sources. The majority of the lighting controls are local switches and dimmers. The lighting controls do not meet the current energy codes; however, they function well for the occupancy of this space. Emergency lighting is primarily through local battery fixtures as there is no generator power serving this building. The exterior building mounted lighting does not meet current NFPA 101 Life Safety codes for emergency exterior egress.

The building is served through the campus networked fire alarm system. The fire alarm control panel is located in the main vestibule. Additional notification may be required due to assembly occupancy of the building. Communication devices and service appears adequate for the function of the building. Access controls are installed at select doors. Video surveillance systems are installed. The low voltage systems appear to have adequate coverage for the current function of the building.

Recommended Capital Improvements:

- *Exterior Brick Tuckpointing*
- *Aluminum Window Replacement*
- *Connect HVAC equipment to a web-accessible BAS.*

- *Consider replacement of plumbing piping systems. Systems are 50+ years old.*
- *Correct ADA issues as other renovation projects are completed.*
- *Upgrade lighting controls to meet current energy codes*
- *Upgrade building exterior lighting to meet current life safety codes*
- *Upgrade Fire alarm notification*

Reynolds School

ARCHITECTURAL

The school was built in 1953 and serves all kids on campus year-round. It is for this reason that the school is the furthest behind in its upkeep than the rest of the campus. A full interior facelift of the building is recommended including a complete reconfiguration of the restrooms due to a lack of ADA facilities. The interior finishes have almost all reached the end of their useful life. This building is also suspected to have the worst asbestos issues on campus with several floors suspected to be asbestos VCT and the ceilings in the hallways suspected to contain asbestos as well. All walls that are either plaster or GB need to be painted. This project could be phased to keep the school operational during construction. Other than these interior cosmetic issues, the building envelope is in good shape, although the roof is one of the oldest on campus and should be planned to be replaced within the next five years.

STRUCTURAL

The two-story building consists of a steel/ concrete framed roof and floor system supported by load bearing masonry walls. The perimeter walls consist of clay brick veneer over load bearing masonry walls. The building is supported by traditional concrete shallow spread footings with a lower-level maintenance/ mechanical access tunnel connecting various buildings on the campus. The interior floor is a concrete slab-on-grade.

Overall, the building was in good condition with no significant distressed or deteriorated conditions observed. It was observed that portions of the access tunnels were retro-fitted with a steel framed shoring system to account for foundation walls that were showing distress. It was also observed that other portions of the access tunnel foundation walls that were not shored are also showing distress. It is unknown whether this distress condition was present at the time the previous shoring work performed.

The exterior masonry walls were in good condition. No evidence was observed suggesting damaging foundation settlements or dislocations with the exception to portions of the tunnel system. The interior finish surfaces were in good condition as well. Interior floors were generally level and flat and in good condition.

MECHANICAL

The building HVAC systems utilize chilled water produced by an air-cooled chiller (20) (located on grade) with a remote evaporator located in the mechanical room. Campus steam is used directly for heat. The classroom wing HVAC systems are decoupled; cooling is provided by chilled water fan coil units (20); heating is provided by perimeter radiant steam heat (25); ventilation is provided by a dedicated outside air unit (15) that discharges directly into the spaces. The remainder of the building is conditioned by single zone AHUs (20 to 25). Newer HVAC equipment is controlled by DDC. Some existing pneumatics are controlled by the BAS through electronic to pneumatic transducers. Steam heating equipment is controlled by pneumatic controls. The combination of controls makes it difficult to efficiently control the equipment as a cohesive system especially the decoupled system serving the classroom wing. Most of the piping is original to the building (1953) and has limited access for replacement without causing significant general construction. Campus staff reports regular failures. Domestic water piping is galvanized. The building is protected by a wet-pipe fire suppression system.

ELECTRICAL

Reynolds Hall is fed with a 500kVA padmount transformer located on grade. The electrical service is sized at 1600A, 208/120V, 3 phase, 4 wire. Reynolds Hall provides electrical service to Wimberly Gym. The service size appears adequate for the function of the building. The electrical service was installed in approximately 2008.

The majority of the electrical distribution is original to the building and has reached the end of its expected life. The electrical panels are lacking additional breaker spaces for connection of future loads, and spare parts are becoming obsolete and difficult to obtain. The electrical distribution should be upgraded.

The majority of the lighting has been replaced with LED fixtures. The majority of the lighting controls are local switches. The lighting controls do not meet the current energy codes, however, they function well for the occupancy of this space. Emergency lighting is primarily through local battery fixtures as there is no generator power serving this building. The exterior building mounted lighting does not meet current NFPA 101 Life Safety codes for emergency exterior egress.

The building is served through the campus networked fire alarm system. The fire alarm control panel is located in one of the vestibules.

Communication devices and service appears adequate for the function of the building. Access controls are installed at select doors. Video surveillance systems are installed. The low voltage systems appear to have adequate coverage for the current function of the building.

Recommended Capital Improvements:

- *Exterior Brick Tuckpointing*
- *Full Interior Remodel*
- *Replace all plumbing piping. Systems are approximately 70 years old. Priority should be given to the galvanized domestic water piping.*
- *Convert all controls to DDC.*
- *Modify / replace DOAU to provide room neutral air.*
- *Upgrade Electrical Distribution*
- *LED lighting upgrade*
- *Lighting Controls*
- *Upgrade building exterior lighting to meet current life safety codes*

Wimberly Gymnasium

ARCHITECTURAL

Wimberly Gymnasium was built in 1973 and is connected to the Reynolds school by a breezeway. The building has a Gym, Pool, locker rooms, weight room, and coaches' office. The roof of the Gym is tied into and the same age as the school and is one of the oldest on campus and should be planned to be replaced within the next five years. All the interior walls in the pool and exposed steel structure should be painted.

This paint project should also include a repainting of the pool itself. Lane and distance markers are not clearly visible, and the pool bottom has faded. The building should also be part of the campus wide exterior tuckpointing project.

STRUCTURAL

The two-story building consists of a concrete framed roof and floor system supported by load bearing masonry walls. The perimeter walls consist of clay brick veneer over load bearing masonry walls. The building is supported by traditional concrete shallow spread footings. The interior floor is a concrete slab-on-grade.

Overall, the building was in good condition with no significant distressed or deteriorated conditions observed. The exterior masonry walls were in good condition. No evidence was observed suggesting damaging foundation settlements or dislocations. The interior finish surfaces were in good condition as well. Interior floors were generally level and flat and in good condition. It was observed that areas of the building have experienced distress in the past, this distress has been repaired. We recommend monitoring these areas for any future signs of distress

MECHANICAL

The building is heated (steam) and ventilated only by two air-handling units (20 to 25). One AHU serves the gymnasium and gymnastics mezzanine. The other AHU serves the pool. It is unlikely the pool AHU provides adequate outside air to meet current standards for pool ventilation; these standards have changed dramatically since 1973. All equipment is controlled by original pneumatic controls. Most of the steam piping and plumbing is original to the building. Pool equipment (heat exchanger, filters, etc.) appear to have been recently replaced and are in good condition. Steam is used to heat the pool. The building is protected by a wet-pipe fire suppression system.

ELECTRICAL

Wimberly Gym is fed from the main switchboard located in Reynolds Hall.

The majority of the electrical distribution is original to the building and has reached the end of its expected life. The electrical panels are lacking additional breaker spaces for connection of future loads. The electrical distribution should be upgraded.

The majority of the lighting has been replaced with LED fixtures. The pool area contains a mix of HID sources and LED sources. The pool area lighting should be upgraded. The majority of the lighting controls are local switches. The lighting controls do not meet the current energy codes, however, they function well for the occupancy of this space. Emergency lighting is primarily through local battery fixtures as there is no generator power serving this building. The exterior building mounted lighting does not meet current NFPA 101 Life Safety codes for emergency exterior egress.

The building is served through the campus networked fire alarm system. The fire alarm control panel is located in one of the vestibules (shares with Reynolds Hall).

Communication devices and service appears adequate for the function of the building. Access controls are installed at select doors. Video surveillance systems are installed. The low voltage systems appear to have adequate coverage for the current function of the building.

Recommended Capital Improvements:

- *Exterior Brick Tuckpointing*
- *Interior Paint of Pool Walls, Metal Structure, and Pool Bottom*
- *Replace gymnasium AHU (include cooling capabilities).*
- *Replace pool AHU with a pool dehumidification unit.*
- *Consider converting steam to heating hot water for use by new AHU equipment.*
- *Convert control of all equipment to DDC.*
- *Consider replacement of all plumbing piping. Systems are approximately 50 years old.*
- *When the domestic hot water heater fails, replace with preferred plate & frame heat exchanger.*
- *Upgrade electrical distribution*

- *Upgrade pool area to LED lighting*
- *Upgrade lighting controls to meet current energy codes*
- *Upgrade building exterior lighting to meet current life safety codes*

Vocational Building

ARCHITECTURAL

The Vocational building was built in 1978 and consists of 2 work areas with offices between and a computer lab for CAD classes. The building is in good condition overall, though the exterior envelope does need some minor tuck-pointing. Also, the staff has indicated that they would like to add card readers and delayed panic hardware to the exterior doors in order to increase security. The computer lab flooring is suspected to be an asbestos VCT and should be removed.

STRUCTURAL

The building consists of a concrete framed roof system supported by load bearing masonry walls. The perimeter walls consist of clay brick veneer over load bearing masonry walls. The building is supported by traditional concrete shallow spread footings. The interior floor is a concrete slab-on-grade.

Overall, the building was in good condition with no significant distressed or deteriorated conditions observed. The exterior masonry walls were in good condition. No evidence was observed suggesting damaging foundation settlements or dislocations. Interior floors were generally level and flat and in good condition.

MECHANICAL

The Automotive Shop is heated-only by overhead gas-fire radiant heat. There are no provisions for ventilation. Welding exhaust hoods are located in the Automotive Shop, but are not currently used by the curriculum. There are no provisions for make-up air if these systems were operated. The Automotive Office is conditioned by a ductless split system with remote air-cooled condensing unit (15). The Draft Room is cooled by three ductless evaporators connected to a single heat pump (15). System has the ability to heat, but that functionality is not used. Room is heated by air from the Wood Shop AHU. The Draft Room is not properly ventilated during all occupied hours. Wood Shop is heated only by an AHU with a natural gas-fired heat exchanger (20 to 25). All equipment is controlled by stand-alone controls. The building is not protected by a fire suppression system. However, there is a project currently out to bid to install a fire suppression system.

ELECTRICAL

The Vocational Building is fed with a 225kVA padmount transformer located on grade. The electrical service is sized at 400A, 208/120V, 3 phase, 4 wire. The service size appears adequate for the function of the building. The electrical service was installed in approximately 2008.

The majority of the electrical distribution has reached the end of its expected life. The electrical panels are lacking additional breaker spaces for connection of future loads. The electrical distribution should be upgraded.

The majority of the lighting has been replaced with LED fixtures. The majority of the lighting controls are local switches. The lighting controls do not meet the current energy codes, however, they function well for the occupancy of this space. Emergency lighting is primarily through local battery fixtures as there is no generator power serving this building. The exterior building mounted lighting does not meet current NFPA 101 Life Safety codes for emergency exterior egress.

The building is served through the campus networked fire alarm system. The fire alarm control panel is located at the main entrance. Communication devices and service appears adequate for the function of the building. Access controls are installed at select doors. Video surveillance systems are installed. The low voltage systems appear to have adequate coverage for the current function of the building.

Recommended Capital Improvements:

- *Exterior Brick Tuckpointing*
- *Convert all controls to DDC.*
- *Provide code required ventilation to the Automotive Shop and Draft Room.*
- *Provide make-up air systems if exhaust systems are used in the curriculum.*
- *Upgrade lighting controls to meet current energy codes*
- *Upgrade building exterior lighting to meet current life safety codes*
- *Upgrade electrical distribution*

Maintenance Shed

ARCHITECTURAL

The Maintenance Shed was built in 1947 and consists of some office space, an auto shop, and a wood shop. Despite the age of the building no major problems were encountered. The main concern of the building is the exterior masonry. It is recommended that the masonry be tuck pointed and then painted to ensure that the building maintains its integrity.

STRUCTURAL

The building consists of a concrete framed roof system supported by load bearing masonry walls. The building is supported by traditional concrete shallow spread footings. The interior floor is a concrete slab-on-grade.

Overall, the building was in average condition with no significant distressed or deteriorated conditions observed. The exterior masonry walls were in average condition. No evidence was observed suggesting damaging foundation settlements or dislocations. Interior floors were generally level and flat and in good condition.

MECHANICAL

The office is heated and cooled by a gas-fired furnace paired with a DX cooling coil and remote air-cooled condensing unit (15). There is no outside air to the system. System is controlled by a stand-alone programmable thermostat. The wood shop is cooled by a packaged RTU with an integral DX cooling coil (15). RTU is mounted on an exterior wall with ductwork stubbed into the space. The RTU has an outside air intake hood, but it is unclear if it is being used to provide outside air for ventilation. System is controlled by a stand-alone programmable thermostat. The metal shop is heated only by a gas-fired furnace (15). Back-up heat is provided by gas-fired unit heaters (13). All equipment is controlled by stand-alone line voltage thermostats. System does not have the ability to ventilate the space. All waste and vent piping is original to the building (1947). Domestic water piping has been replaced with PEX. The building is not protected by a fire suppression system.

ELECTRICAL

The Maintenance Building is fed with a 112.5kVA padmount transformer located on grade. The electrical service is sized at 400A, 208/120V, 3 phase, 4 wire. The service size appears adequate for the function of the building. The electrical service was installed in approximately 2008.

The majority of the lighting has been replaced with LED fixtures. The majority of the lighting controls are local switches. The lighting controls do not meet the current energy codes, however, they function well for the occupancy of this space. Emergency lighting is primarily through local battery fixtures as there is no generator power serving this building. The exterior building mounted lighting does not meet current NFPA 101 Life Safety codes for emergency exterior egress.

The building is served through the campus networked fire alarm system. The fire alarm control panel is located at the main entrance.

Communication devices and service appears adequate for the function of the building. Access controls are installed at select doors. Video surveillance systems are installed. The low voltage systems appear to have adequate coverage for the current function of the building.

Recommended Capital Improvements:

- *Exterior Brick Tuckpointing*
- *Paint Exterior of building*
- *Modify existing systems to provide proper ventilation to all spaces.*
- *Provide code required exhaust systems as required by shop functions.*
- *Waste and vent piping has exceeded its useful life – consider replacement.*
- *Upgrade lighting controls to meet current energy codes*
- *Upgrade building exterior lighting to meet current life safety codes*

Boiler House

ARCHITECTURAL

The Boilier House was built in 1947 and as noted below contains most of the infrastructure for the campus. The building is a multi-wythe masonry construction. There is a canopy at the entry that has been damaged and should be repaired to keep the underlying structure from deteriorating. Also, the windows in the building are all single pane and were operable at one time but are now inoperable. Replacement of these to allow for fresh air should be considered.

STRUCTURAL

The two-story building consists of a steel/ concrete framed roof and floor system supported by load bearing masonry walls. The perimeter walls consist of clay brick veneer over load bearing masonry walls. The building is supported by traditional concrete shallow spread footings with a lower-level maintenance/ mechanical access tunnel connecting various buildings on the campus. The interior floor is a concrete slab-on-grade.

Overall, the building was in good condition with no significant distressed or deteriorated conditions observed. The exterior masonry walls were in average condition. No evidence was observed suggesting damaging foundation settlements or dislocations. Interior floors were generally level and flat and in good condition.

MECHANICAL

The Boiler House contains most of the infrastructure related to the campus wide systems – domestic water, fire water, steam, and pneumatic control compressed air. An 8” water service enters the basement and is split into domestic and fire water distribution systems. The domestic water system is boosted to 80 psig by a packaged booster pump system. The fire water system is boosted to 125 psig by a base-mounted pump. The pump is in poor condition. The steam plant consists of three boiler/burners. See “Steam and Condensate Line Study” dated March 18, 2019 for detailed information on the steam plant. An air dryer and air compressor provide compressed air to all campus pneumatic controls. Piping (all systems) is distributed to most buildings via the campus tunnel system; minimal piping is direct buried. Although the building houses the campus fire water system, it does not appear to be protected by a fire suppression system itself.

ELECTRICAL

The Boiler House is fed with a 225kVA padmount transformer located on grade. The electrical service is sized at 400A, 208/120V, 3 phase, 4 wire. The service size appears adequate for the function of the building. The electrical service was installed in approximately 2008.

Emergency power is provided to the building via a 100kW padmount natural gas generator. The generator is connected through a 400A, 208/120V, 3 phase, 4 wire, 4-pole automatic transfer switch.

This facility houses the fire pump for the campus. When it is time to replace the fire pump, the electrical service serving the fire pump should be upgraded to meet current codes.

The majority of the lighting has been replaced with LED fixtures. The majority of the lighting

controls are local switches. The lighting controls do not meet the current energy codes; however, they function well for the occupancy of this space.

The building is served through the campus networked fire alarm system. The fire alarm control panel is located at the main entrance.

Communication devices and service appears adequate for the function of the building. Access controls are installed at select doors. Video surveillance systems are installed. The low voltage systems appear to have adequate coverage for the current function of the building.

Recommended Capital Improvements:

- *Exterior Brick Tuckpointing*
- *Replace Exterior Windows*
- *Convert all controls to DDC – eliminating the need for the pneumatic compressed air system.*
- *Replace the fire pump.*
- *Provide a fire suppression system.*
- *Upgrade lighting controls to meet current energy codes*
- *Upgrade electrical service for fire pump*

Capital Improvement Summary and Cost Estimates

	PRIORITY LEVEL	PROJECTED COST
OVERALL CAMPUS IMPROVEMENTS		
Site Lighting Replacement	Med	$150K
Replace the fire pump	High	$250K
Campus Wide Tuckpointing	Low	$65-75K
Campus Wide Asbestos Survey	Low	$30K ($2,200 per building)
DODGE ADMINISTRATION BUILDING		
Second Floor Window Replacement	Low	$125K
Renovation of the Second Floor	Low	$1.9 million
Redundant cooling equipment in Data Room	Med	$25K
HVAC Modifications	Med	$110K
Generator backup for Dodge	Med	$90K
Convert Controls to DDC	Med	$20K
BRYANT-CREIGHTON COTTAGE		
Renovation into administration space	Low	$4 million
Upgrade lighting controls	Med	$25K
WASHINGTON-LINCOLN COTTAGE		
Renovation into program space	Med	$4 million
Upgrade lighting controls	Med	$25K
MORTON HALL		
Replace HVAC system	Med	$400K
Upgrade lighting controls	Low	$20K
Convert Controls to DDC	Med	$20K
DICKSON HALL		
ADA Modifications	Low	$80K
Upgrade lighting controls	Low	$12K
GOMEZ DINING HALL		
Replace Roof and Patch Exterior Soffit	Med	$150K
New Elevator	High	$160K
Retaining Wall Replacement	Low	$10K
Kitchen Hood Upgrades	Med	$150K
Replace Type I exhaust hood ductwork		
Replace Type I hood make-up air unit		
Upgrade lighting controls	Low	$15K
Upgrade GFCI coverage in kitchen	Med	$8K
Convert Controls to DDC	Med	$45K
CHAPEL		
Aluminum Window Replacement	Low	$30K
Connect HVAC equipment to a web-accessible BAS.	Low	$5K
Upgrade lighting controls	Low	$10K

Capital Improvement Summary and Cost Estimates

	PRIORITY LEVEL	PROJECTED COST
REYNOLDS SCHOOL & WIMBERLY GYMNASIUM		
Full Interior Remodel New Finishes Renovated Restrooms with ADA updates Add Elevator within Building Envelope New MEP Distribution	Med	$7.2 million
Mechanical Upgrades to Pool and Gym	Med	$900K
Convert Controls to DDC	Med	$70K
VOCATIONAL BUILDING		
Provide code required ventilation	Med	$25K
Provide make-up air systems	Med	$80K
Upgrade lighting controls	Low	$7K
Upgrade building exterior lighting	Low	$5K
Upgrade electrical distribution	Low	$29K
Convert Controls to DDC	Med	$35K
MAINTENANCE SHED		
Paint Exterior of building	Med	$25K
Modify existing systems to provide proper ventilation	Med	$10K
Provide code required exhaust systems	Med	$100K
BOILER HOUSE		
Replace Exterior Windows	Low	$80K
Provide a fire suppression system.	Med	$20K
Upgrade lighting controls	Low	$4K
Convert Controls to DDC	Med	$50K

APPENDIX

BUILDING EVALUATION FORM

CAMPUS: YRTC-Kearney

BUILDING: Dodge Building | DATE CONSTRUCTED: 1945

ALTERATIONS/ADDITIONS:

CIVIL EVALUATION

	WARRANTY/AGE IF APPLICABLE	COMMENTS
SECURITY PERIMETER		The wall that seperates the reception from the main entry/waiting room comprises to be a part of the secure perimeter. This door has access control.
UTILITIES		
WATER		4" Line Supplied from Campus Tunnel System
SANITARY		Sanitary tied into campus wide sanitary system. No issues with blockages
POWER SERVICE		3 phase power. See electrical evaluation for loading and back-up power
STORM		Storm tied into campus wide system. No issues at this time.
EARTHWORK/DRAINAGE		The building has sufficient grading to allow for poper drainage.
EXTERIOR LIGHTING		Building lighting is adequate
PAVEMENT		Most of the pavement is adequate. There are some panels that could use replacement. Concrete at the back stoop and steps has dteriorated and will need to be replaced within the next 5 years.
EXPANSION AREAS		This building could be expanded to the north or south

BUILDING EVALUATION FORM

CAMPUS: YRTC-Kearney

BUILDING: Dodge Building

DATE CONSTRUCTED: 1945

ALTERATIONS/ADDITIONS:

ARCH. EVALUATION

	WARRANTY/AGE IF APPLICABLE	COMMENTS
BUILDING ENVELOPE		
ROOFS	20 yrs old	Fully Adhered membrane roof is in good shape and has no leaks. Asuuming proper maintenance, the useful life of this roof should be another 10 years.
WALLS		The buildign is Brick with CMU back-up. Minor Tuckpointing could be done to mainatin the integtriry of the exterior walls. Plaster lathe is the interior finish of the exterior walls. The exterior egress stairs need to be re-painted in order to keep them from rusting through.
WINDOWS		The windows in this building are alum. Storefront and are in the 20-25 year age range. The windows on the second floor need replacement.
DOORS		The doors on this building have already gone through a process that has been happening all over campus over the past several years. The doors are primed and then painted with an automotive paint that has held up quite well to abuse over time.
INTERIORS		
LAYOUT/ CIRCULATION/ ADJACENCIES/ SECURITY		The first floor of this building was configured to be the campus administration space. The second floor of this building is used for campus storage, with old sleeping rooms given out to each program as needed. If the second floor were ever to used for office space, a complete remodel would be needed. Extensive protions of the second floor are taken up with mechanical equipment that is used to serve the first floor. THe only ADA compliant restroom is in the main entry lobby.
FINISHES		
CEILINGS		The ceilings are 2x4 mylar coated GB panels in metal grid. TheseMost of the ceilings on the first floor are in good shape and relatively new. Theay are all 2x2 ACT.
WALLS		Interior walls are stud with several walls being plaster and lathe. Newer walls are GB. All are in good shape with minmal work needing to be done. The paint on the walls is in good shape.
FLOORS		The broanloom carpet in the building has deteriorated significantly and there is currently a process underway to replace this carpet with carpet tile. So far, roughly 25% of the carpet has been replaced.
HAZARDOUS MATERIALS		Suspected asbestos tile on the second floor precludes that an asbestos inspection should be conducted as part of a campus wide asbestos survey.

BUILDING EVALUATION FORM

CAMPUS: YRTC-Kearney

BUILDING: Dodge Building | DATE CONSTRUCTED: 1945

ALTERATIONS/ADDITIONS:

HVAC EVALUATION

SYSTEMS	TYPE/WARRANTY/AGE IF APPLICABLE	COMMENTS
HVAC	Zoned split system is approximately 15 years old - both compressors have recently been replaced.	Building has steam perimeter heat. Steam and steam condensate is drawn from and returned to the campus system. Campus staff manually changes building from heating to cooling. A portion of the building is served by an AHU with grade mounted ACCU. AHU is McQuay and located in a second floor mechanical room. System is zoned into 5 zones using single duct variable air volume boxes. Three individual rooms have ductless evaporates all connected to a single heat pump located in the basement. Data room is cooled by a residential style through the wall air conditioner - heat is rejected to the adjacent room. Second floor is unoccupied and not fully conditioned - minimal heat.
TEMPERATURE CONTROLS		Steam equipment is controlled by pneumatic controls. Zoned AHU and associated terminal units are controlled by the BAS. Ductless system is controlled by manufacturer's stand-alone controls.
VENTILATION		For the AHU, outside air is drawn in through a wall louver and air is relieved through a roof hood. Rooms served by the evaporator units do not appear to be ventilated. The second floor is not ventilated.

BUILDING EVALUATION FORM

CAMPUS: YRTC-Kearney

BUILDING: Dodge Building | DATE CONSTRUCTED: 1945

ALTERATIONS/ADDITIONS:

PLUMBING EVALUATION	TYPE/WARRANTY/AGE IF APPLICABLE	COMMENTS
PLUMBING FIXTURES		Front lobby - electric water cooler with bottle filler. Front lobby restroom - wall mounted water closet with manual flush valve, lavatory with manual faucet. Staff restroom - floor mount water closet with hard-wired sensor flush valve, wall hung lavatory with manual faucet.
PIPING		Above grade plumbing has been replaced throughout. Water piping is PEX. Waste and vent is PVC. Storm piping is original - interior roof drains with overflow scuppers.
DOMESTIC HOT WATER		Most domestic hot water is provided by electric point-of-use heaters.
FIRE PROTECTION		Building is fire sprinklered - system has multiple zones. FDC and PIV are located remotely on site. Visible piping is a mix of black steel and galvanized. Data Room is protected by an inert gas system (Novec 1230).
HAZARDOUS MATERIALS		Identifying hazardous material is outside MEI's area of expertise. We can neither confirm nor deny the presence of hazardous materials.

BUILDING EVALUATION FORM

CAMPUS: YRTC-Kearney

BUILDING: Dodge Building | DATE CONSTRUCTED: 1945

ALTERATIONS/ADDITIONS:

ELECTRICAL EVALUATION

	TYPE/WARRANTY/AGE IF APPLICABLE	COMMENTS
ELECTRICAL SERVICE		Building is fed from a 150kVA pad mount transformer. 400A, 208/120V, 3 phase, 4 wire electrical service. Service size appears adequate for funtion of building. Electrical service was installed in approx 2008.
LIGHTING		Majority of building replaced with LED. Mostly toggle switch controls with a few local occupnacy sensors. 2nd floor is primarily screw-in incandescant fixtures
BACK-UP POWER		No on-site generator for this building. This building should contain a generator to provide emergency power to the telecommunications hub.
EMERGENCY DEVICES		Battery for emergency lighting. Appears to be lacking coverage in some areas. Lacking coverage for emergency exterior egress.

BUILDING EVALUATION FORM

CAMPUS: YRTC-Kearney

BUILDING: Dodge Building | DATE CONSTRUCTED: 1945

ALTERATIONS/ADDITIONS:

TECHNOLOGY EVALUATION	TYPE/WARRANTY/AGE IF APPLICABLE	COMMENTS
FIRE ALARM		Siemens MXL-IQ, Horn/strobe notification, smoke detection along path of egress, manual pull stations at exits
COMMUNICATION		Communication devices and service appear adequate for the function of the building. Campus Hub located in basement. System is not backed up on generator (no generator serving this building). Protected by inert gaseous system
SECURITY		Access controls and video surveillance are installed. Appear to have adequate coverage and function appropriate for the building. Johson Controls.

BUILDING EVALUATION FORM

CAMPUS: YRTC-Kearney

BUILDING: Bryant & Creighton Hall | DATE CONSTRUCTED: 1953

ALTERATIONS/ADDITIONS:

CIVIL EVALUATION

	WARRANTY/AGE IF APPLICABLE	COMMENTS
SECURITY PERIMETER		Insdide of Campus Perimeter fence
UTILITIES		
WATER		4" Line Supplied from Campus Tunnel System
SANITARY		Saniary tied into campus wide sanitary system. No issues with blockages
POWER SERVICE		3 phase power. See electrical evaluation for loading and back-up power
STORM		Storm tied into campus wide system. No issues at this time.
EARTHWORK/DRAINAGE		The building has sufficient grading to allow for poper drainage.
EXTERIOR LIGHTING		Building lighting is adequate
PAVEMENT		Most of the pavement is adequate. There are some panels that could use replacement.
EXPANSION AREAS		The only expansion areas are to the north as this building is adjacent to several other buildings and the tunnel to the south.

BUILDING EVALUATION FORM

CAMPUS: YRTC-Kearney

BUILDING: Bryant & Creighton Hall | DATE CONSTRUCTED: 1953

ALTERATIONS/ADDITIONS:

ARCH. EVALUATION

	WARRANTY/AGE IF APPLICABLE	COMMENTS
BUILDING ENVELOPE		
ROOFS	Approx 15 yrs old	Fully Adhered membrane roof is in good shape and has no leaks. Assuming proper maintenance, the useful life of this roof should be another 15 years.
WALLS		The building is Brick with CMU back-up. Minor Tuckpointing should be done to maintain the integrity of the exterior walls.
WINDOWS		All windows are anodized Alumninum. There are also several Kalwall windows that are in good shape. Much of the glass has been replaced over the years with 1/2" tempered on the interior layer.
DOORS		All exterior doors need to be touched up and painted. This could be a continuation of a process that has been happening all over campus over the past several years. The doors are primed and then painted with an automotive paint that has held up quite well to abuse over time.
INTERIORS		
LAYOUT/ CIRCULATION/ ADJACENCIES/ SECURITY		This unit does not meet the current standards and recommendations for housing in a youth setting. The sleeping areas are dormstyle on the second floor. There are no ADA accomodations and no elevator. Open showers are problematic and the stairs do not meet code. Also, the counters in the toilet rooms are heavliy worn.
FINISHES		
CEILINGS		The lower level ceilings have all been replaced with 2X4 mylar coated drywall panels set in grid. These are in good shape and have held up well. The upstairs is standard 2X4 Act ceilings and show a little more wear. Ceiling tiles have been replaced in several areas as needed.
WALLS		The interior walls are in relatively good shape, however carpet has been used to cover several problem areas in the plaster and lathe, expecially at the exterior walls. Paint on the walls has been kept up.
FLOORS		The tile carpet in the lower level is approximately 7 years old and in excellent shape considering the abuse that it takes. The quarry tile in the toilet rooms is in much worse shape and should be considered to be replaced. The VCT in the dorms is not suspected to be an asbestos tile and is in relatively good shape.
HAZARDOUS MATERIALS		While it is not expected to be found, an asbestos inspection should be conducted as part of a campus wide asbestos survey.

BUILDING EVALUATION FORM

CAMPUS: YRTC-Kearney

BUILDING: Bryant & Creighton Hall | DATE CONSTRUCTED: 1953

ALTERATIONS/ADDITIONS:

HVAC EVALUATION

SYSTEMS	TYPE/WARRANTY/AGE IF APPLICABLE	COMMENTS
HVAC	Chiller is approximately 11 years old.	Chilled water is produced by an air-cooled chiller with indoor remote evaporator (Trane RAUJC50). Condensing unit is located on grade. Inline pumps with VFDs circulate water throughout the building. Most of the building is served by chilled water / hot water fan coil units. Hot water reheat coils have been added in the distribution ductwork to combat humidity issues. Air is distributed at the ceiling level. Canteen is served by chilled water, floor mounted unit ventilators. The restroom/shower rooms have exhaust fans controlled based on humidity levels. Fans are sidewall mounted on the building exterior.
TEMPERATURE CONTROLS		Building systems are controlled by the BAS.
VENTILATION		Outside air for ventilation is pre-conditioned by energy recovery units with supplemental heating and cooling capabilities (room neutral air). Room neutral air is ducted to the return side of fan coil units. Canteen unit ventilators do not appear to provide outside air for ventilation.

BUILDING EVALUATION FORM

CAMPUS: YRTC-Kearney

BUILDING: Bryant & Creighton Hall | DATE CONSTRUCTED: 1953

ALTERATIONS/ADDITIONS:

PLUMBING EVALUATION	TYPE/WARRANTY/AGE IF APPLICABLE	COMMENTS
PLUMBING FIXTURES		Canteen Restroom - Floor-mounted water closet with automatic, battery powered flush valve, wall-hung urinal with automatic, battery powered flush valve, wall-hung lavatory with manual faucet (with ADA insulation). Restroom appears to be ADA compliant. Staff Restroom - Floor-mounted water closet with manual flush valve, wall-hung lavatory with manual faucet (no ADA insulation). This restroom does not appear to be ADA compliant. Second Floor Restroom - Wall-hung water closet with manual flush valve, wall-hung lavatory with manual faucet (no ADA insulation), no floor drain. Restroom does not appear to be ADA compliant.
PIPING		Hydronic piping is insulated copper. Plumbing above slab has been replaced. Domestic water piping is PEX. Waste and vent piping is PVC. Below grade piping is original to the building. Above grade storm is original to the building.
DOMESTIC HOT WATER		Domestic hot water is softened prior to heating. Water is softened by a standard light commercial softener / brine tank system. Domestic hot water is created using campus steam and a plate & frame heat exchanger / storage tank. System includes a recirculation pump. This is the preferred system per the maintenance staff. Domestic hot water for the staff restroom is provided by an electric, point-of-use heater.
FIRE PROTECTION		Building is fire sprinklered served from the campus system. FDC and PIV are located remotely on site. Visible piping was painted - material unknown.
HAZARDOUS MATERIALS		Identifying hazardous material is outside MEI's area of expertise. We can neither confirm nor deny the presence of hazardous materials.

BUILDING EVALUATION FORM

CAMPUS: YRTC-Kearney

BUILDING: Bryant & Creighton Hall | DATE CONSTRUCTED: 1953

ALTERATIONS/ADDITIONS:

ELECTRICAL EVALUATION

	TYPE/WARRANTY/AGE IF APPLICABLE	COMMENTS
ELECTRICAL SERVICE		Building is fed from a 225kVA pad mount transformer. 800A, 208/120V, 3 phase, 4 wire electrical service. Service size appears adequate for funtion of building. Electrical service was installed in approx 2008.
LIGHTING		Majority of the lighting is LED with local toggle switches.
BACK-UP POWER		100 kW standby natural gas Generator
EMERGENCY DEVICES		400A, 120/208V, 3 phase, 4 wire 4-pole ATS. Lighting connected to generator power.

BUILDING EVALUATION FORM

CAMPUS: YRTC-Kearney

BUILDING: Bryant & Creighton Hall | DATE CONSTRUCTED: 1953

ALTERATIONS/ADDITIONS:

TECHNOLOGY EVALUATION	TYPE/WARRANTY/AGE IF APPLICABLE	COMMENTS
FIRE ALARM		Campus networked fire alarm system. Siemens Fire Alarm Control Panel located in vestibule. Horn/strobe notification smoke along path of egress
COMMUNICATION		Communication devices and service appear adequate for the function of the building
SECURITY		Access controls and video surveillance are installed. Appear to have adequate coverage and function appropriate for the building. Johson Controls.

BUILDING EVALUATION FORM

CAMPUS: YRTC-Kearney

BUILDING: Lincoln & Washington Hall | DATE CONSTRUCTED: 1955

ALTERATIONS/ADDITIONS:

CIVIL EVALUATION

	WARRANTY/AGE IF APPLICABLE	COMMENTS
SECURITY PERIMETER		Insdide of Campus Perimeter fence
UTILITIES		
WATER		4" Line Supplied from Campus Tunnel System
SANITARY		Sanitary tied into campus wide sanitary system. No issues with blockages
POWER SERVICE		3 phase power. See electrical evaluation for loading and back-up power
STORM		Storm tied into campus wide system. No issues at this time.
EARTHWORK/DRAINAGE		The building has sufficient grading to allow for proper drainage.
EXTERIOR LIGHTING		Building lighting is adequate
PAVEMENT		Most of the pavement is adequate. There are some panels that could use replacement.
EXPANSION AREAS		The only expansion areas are to the north as this building is adjacent to several other buildings and the tunnel to the south.

BUILDING EVALUATION FORM

CAMPUS: YRTC-Kearney

BUILDING: Lincoln & Washington Hall | DATE CONSTRUCTED: 1955

ALTERATIONS/ADDITIONS:

ARCH. EVALUATION

	WARRANTY/AGE IF APPLICABLE	COMMENTS
BUILDING ENVELOPE		
ROOFS	Approx 15 yrs old	Fully Adhered membrane roof is in good shape and has no leaks. Assuming proper maintenance, the useful life of this roof should be another 15 years.
WALLS		The building is Brick with CMU back-up. Minor Tuckpointing could be done to mainatin the integrity of the exterior walls.
WINDOWS		All windows are anodized Alumninum. There are also several Kalwall windows that are in good shape. Much of the glass has been replaced over the years with 1/2" tempered on the interior layer.
DOORS		All exterior doors need to be touched up and painted. This could be the continuation of a process that has been happening all over campus over the past several years. The doors are primed and then painted with an automotive paint that has held up quite well to abuse over time.
INTERIORS		
LAYOUT/ CIRCULATION/ ADJACENCIES/ SECURITY		This unit does not meet the current standards and recommendations for housing in a youth setting. The sleeping areas are dormstyle on the second floor. There are no ADA accomodations and no elevator. Open showers are problematic and the stairs do not meet code. The restroom finishes have been upgraded in this building, but there are still no ADA accomdations in the toilet rooms.
FINISHES		
CEILINGS		The lower level ceilings have all been replaced with 2X4 mylar coated drywall panels set in grid. These are in good shape and have held up well. The upstairs is standard 2X4 Act ceilings and show a little more wear. Ceiling tiles have been replaced in several areas, as needed.
WALLS		The interior walls are in relatively good shape, however carpet has been used to cover several problem areas in the plaster and lathe, expecially at the exterior walls. Paint on the walls has been kept up.
FLOORS		The tile carpet in the lower level is approximately 7 years old and in excellent shape considering the abuse that it takes. The quarry tile in the toilet rooms is in much worse shape and should be considered to be replaced. The VCT in the dorms is not suspected to be asbestos tile and is in relatively good shape.
HAZARDOUS MATERIALS		While it is not expected to be found, an asbestos inspection should be conducted as part of a campus wide asbestos survey.

BUILDING EVALUATION FORM

CAMPUS: YRTC-Kearney

BUILDING: Lincoln & Washington Hall | DATE CONSTRUCTED: 1955

ALTERATIONS/ADDITIONS:

HVAC EVALUATION

SYSTEMS	TYPE/WARRANTY/AGE IF APPLICABLE	COMMENTS
HVAC		Chilled water is produced by an air-cooled chiller with indoor remote evaporator (Trane RAUJC50). Condensing unit is located on grade. Inline pumps with VFDs circulate water throughout the building. Most of the building is served by chilled water / hot water fan coil units. Hot water reheat coils have been added in the distribution ductwork to combat humidity issues. Air is distributed at the ceiling level. Canteen is served by chilled water, floor mounted unit ventilators. The restroom/shower rooms have exhaust fans controlled based on humidity levels. Fans are sidewall mounted on the building exterior.
TEMPERATURE CONTROLS		Building systems are controlled by the BAS.
VENTILATION		Outside air for ventilation is pre-conditioned by energy recovery units with supplemental heating and cooling capabilities (room neutral air). Room neutral air is ducted to the return side of fan coil units. Canteen unit ventilators do not appear to provide outside air for ventilation.

BUILDING EVALUATION FORM

CAMPUS: YRTC-Kearney

BUILDING: Lincoln & Washington Hall | DATE CONSTRUCTED: 1955

ALTERATIONS/ADDITIONS:

PLUMBING EVALUATION	TYPE/WARRANTY/AGE IF APPLICABLE	COMMENTS
PLUMBING FIXTURES		Canteen Restroom - Floor-mounted water closet with automatic, battery powered flush valve, wall-hung urinal with automatic, battery powered flush valve, wall-hung lavatory with manual faucet (with ADA insulation). Restroom appears to be ADA compliant. Staff Restroom - Floor-mounted water closet with manual flush valve, wall-hung lavatory with manual faucet (no ADA insulation). This restroom does not appear to be ADA compliant. Second Floor Restroom - Wall-hung water closet with manual flush valve, wall-hung lavatory with manual faucet (no ADA insulation), no floor drain. Restroom does not appear to be ADA compliant.
PIPING		Hydronic piping is insulated copper. Plumbing above slab has been replaced. Domestic water piping is PEX. Waste and vent piping is PVC. Below grade piping is original to the building. Above grade storm is original to the building.
DOMESTIC HOT WATER		Domestic hot water is softened prior to heating. Water is softened by a standard light commercial softener / brine tank system. Domestic hot water is created using campus steam and a plate & frame heat exchanger / storage tank. System includes a recirculation pump. This is the preferred system per the maintenance staff. Domestic hot water for the staff restroom is provided by an electric, point-of-use heater.
FIRE PROTECTION		Building is fire sprinklered served from the campus system. FDC and PIV are located remotely on site. Visible piping was painted - material unknown.
HAZARDOUS MATERIALS		Identifying hazardous material is outside MEI's area of expertise. We can neither confirm nor deny the presence of hazardous materials.

BUILDING EVALUATION FORM

CAMPUS: YRTC-Kearney

BUILDING: Lincoln & Washington Hall | DATE CONSTRUCTED: 1955

ALTERATIONS/ADDITIONS:

ELECTRICAL EVALUATION

	TYPE/WARRANTY/AGE IF APPLICABLE	COMMENTS
ELECTRICAL SERVICE		Building is fed from a 225kVA pad mount transformer. 800A, 208/120V, 3 phase, 4 wire electrical service. Service size appears adequate for funtion of building. Electrical service was installed in approx 2008.
LIGHTING		Majority of the lighting is LED with local toggle switches.
BACK-UP POWER		100 kW standby natural gas Generator
EMERGENCY DEVICES		400A, 120/208V, 3 phase, 4 wire 4-pole ATS. Lighting connected to generator power.

BUILDING EVALUATION FORM

CAMPUS: YRTC-Kearney

BUILDING: Lincoln & Washington Hall | DATE CONSTRUCTED: 1955

ALTERATIONS/ADDITIONS:

TECHNOLOGY EVALUATION	TYPE/WARRANTY/AGE IF APPLICABLE	COMMENTS
FIRE ALARM		Campus networked fire alarm system. Siemens Fire Alarm Control Panel located in vestibule. Horn/strobe notification smoke along path of egress
COMMUNICATION		Communication devices and service appear adequate for the function of the building
SECURITY		Access controls and video surveillance are installed. Appear to have adequate coverage and function appropriate for the building. Johson Controls.

BUILDING EVALUATION FORM

CAMPUS: YRTC-Kearney

BUILDING: Dickson Hall | DATE CONSTRUCTED: 1968

ALTERATIONS/ADDITIONS:

CIVIL EVALUATION

	WARRANTY/AGE IF APPLICABLE	COMMENTS
SECURITY PERIMETER		Insdide of Campus Perimeter fence, East Wall makes up a portion of the secure perimeter
UTILITIES		
WATER		4" Line Supplied from Campus Tunnel System
SANITARY		Sanitary tied into campus wide sanitary system. No issues with blockages
POWER SERVICE		3 phase power. See electrical evaluation for loading and back-up power
STORM		Storm tied into campus wide system. No issues at this time.
EARTHWORK/DRAINAGE		The building has sufficient grading to allow for poper drainage.
EXTERIOR LIGHTING		Building lighting is adequate
PAVEMENT		Most of the pavement is adequate. There are some panels that could use replacement.
EXPANSION AREAS		This building could be expanded to the north or west. The east wall forms part of the secure perimter and the south wall is near other buildings.

BUILDING EVALUATION FORM

CAMPUS: YRTC-Kearney

BUILDING: Dickson Hall | DATE CONSTRUCTED: 1968

ALTERATIONS/ADDITIONS:

ARCH. EVALUATION

	WARRANTY/AGE IF APPLICABLE	COMMENTS
BUILDING ENVELOPE		
ROOFS	Approx 4-5 yrs old	Fully Adhered membrane roof is in good shape and has no leaks. Asuuming proper maintenance, the useful life of this roof should be another 25 years.
WALLS		The buildign is Brick with CMU back-up. Minor Tuckpointing could be done to mainatin the integtriry of the exrterior walls. There is also some caulking that needs to be replaced at the pre-cast detail that forms a band around the perimeter of the building.
WINDOWS		The windows in this building are all Hollow Metal with 1/2" tempered glazing on the interior face of the dayroom areas and composite windows in the sleeping rooms.
DOORS		The doors on this building have already gone through a process that has been happening all over campus over the past several years. The doors are primed and then painted with an automotive paint that has held up quite well to abuse over time.
INTERIORS		
LAYOUT/ CIRCULATION/ ADJACENCIES/ SECURITY		This unit does not meet the current standards and recommendations for housing in a youth setting. The sleeping areas are dormstyle on the second floor. There are no ADA accomodations and no elevator. Open showers are problematic and the stairs do not meet code. he restrooms finishes have been upgraded in this building, but there are still no ADA accomdations in the toilet rooms.
FINISHES		
CEILINGS		The ceilings in this building are all painted Concrete Tees. These have been recently painted.
WALLS		Walls have been recently painted within the last year. They are CMU and are in good shape.
FLOORS		The floors in the dayrooms are terrazo and are in excellent shape.
HAZARDOUS MATERIALS		While it is not expected to be found an asbestos inspection should be conducted as part of a campus wide asbestos survey.

BUILDING EVALUATION FORM

CAMPUS: YRTC-Kearney

BUILDING: Dickson Hall | DATE CONSTRUCTED: 1968

ALTERATIONS/ADDITIONS:

HVAC EVALUATION

SYSTEMS	TYPE/WARRANTY/AGE IF APPLICABLE	COMMENTS
HVAC		Building is conditioned by a steam heat, DX cooling (hot deck / cold deck) multizone AHU (Daikin) with seven zones. Steam and steam condensate is drawn from and returned to the campus system. Remote air-cooled condensing unit is located on grade. Air is distributed at the floor level in common spaces and through sidewall registers in holding rooms.
TEMPERATURE CONTROLS		HVAC system is controlled by the BAS.
VENTILATION		AHU draws outside air in through a roof hood.

BUILDING EVALUATION FORM

CAMPUS: YRTC-Kearney

BUILDING: Dickson Hall | DATE CONSTRUCTED: 1968

ALTERATIONS/ADDITIONS:

PLUMBING EVALUATION	TYPE/WARRANTY/AGE IF APPLICABLE	COMMENTS
PLUMBING FIXTURES		Each holding room has a stainless steel institutional water closet / lavatory combination fixture. Staff restroom - floor mounted, manual flush valve water closet and wall hung lavatory with manual faucet (no ADA insulation).
PIPING		Plumbing is concealed but accessible in multiple plumbing chases. All piping is original to the building - domestic water is copper, waste & vent is galvanized steel.
DOMESTIC HOT WATER		Domestic hot water is created using campus steam and a plate & frame heat exchanger / storage tank. This is the preferred system per the maintenance staff.
FIRE PROTECTION		Building is fire sprinklered served from the campus system. FDC and PIV are located remotely on site. Visible piping is a mix of black steel and galvanized
HAZARDOUS MATERIALS		Identifying hazardous material is outside MEI's area of expertise. We can neither confirm nor deny the presence of hazardous materials.

BUILDING EVALUATION FORM

CAMPUS: YRTC-Kearney

BUILDING: Dickson Hall | DATE CONSTRUCTED: 1968

ALTERATIONS/ADDITIONS:

ELECTRICAL EVALUATION

	TYPE/WARRANTY/AGE IF APPLICABLE	COMMENTS
ELECTRICAL SERVICE		Building is fed from a 112.5 kVA pad mount transformer. 400A, 208/120V, 3 phase, 4 wire electrical service. Service size appears adequate for funtion of building. Electrical service was installed in approx 2008. Sleeping areas do not contain AFCI circuit breakers.
LIGHTING		Majority is LED with local control.
BACK-UP POWER		60 kW standby natural gas Generator
EMERGENCY DEVICES		225A, 120/208V, 3 phase, 4 wire 4-pole ATS. Lighting connected to generator power.

BUILDING EVALUATION FORM

CAMPUS: YRTC-Kearney

BUILDING: Dickson Hall | DATE CONSTRUCTED: 1968

ALTERATIONS/ADDITIONS:

TECHNOLOGY EVALUATION	TYPE/WARRANTY/AGE IF APPLICABLE	COMMENTS
FIRE ALARM		Campus networked fire alarm system. Siemens Fire Alarm Control Panel located in vestibule.
COMMUNICATION		Communication devices and service appear adequate for the function of the building
SECURITY		Access controls and video surveillance are installed. Appear to have adequate coverage and function appropriate for the building. Johson Controls.

BUILDING EVALUATION FORM

CAMPUS: YRTC-Kearney

BUILDING: Gomez Hall | DATE CONSTRUCTED: 1960

ALTERATIONS/ADDITIONS:

CIVIL EVALUATION

	WARRANTY/AGE IF APPLICABLE	COMMENTS
SECURITY PERIMETER		Insdide of Campus Perimeter fence
UTILITIES		
WATER		4" Line Supplied from Campus Tunnel System
SANITARY		Saniary tied into campus wide sanitary system. No issues with blockages
POWER SERVICE		3 phase power. See electrical evaluation for loading and back-up power
STORM		Storm tied into campus wide system. No issues at this time.
EARTHWORK/DRAINAGE		The building has sufficient grading to allow for poper drainage. There is a rubble retaining wall that needs to be replaced with a keystone block wall to match the rest of the walls already built into the site.
EXTERIOR LIGHTING		Building lighting is adequate
PAVEMENT		Most of the pavement is adequate, the loading dock is relatively new.
EXPANSION AREAS		The only expansion areas are to the east and south, though expansing to the south would require some extensive grading challenges.

BUILDING EVALUATION FORM

CAMPUS: YRTC-Kearney

BUILDING: Gomez Hall | DATE CONSTRUCTED: 1960

ALTERATIONS/ADDITIONS:

ARCH. EVALUATION

	WARRANTY/AGE IF APPLICABLE	COMMENTS
BUILDING ENVELOPE		
ROOFS	Approx. 20 Years Old	Only building on Campus with modified Bitunimous Roof with Rock Ballast. Several areas of the roof fascia are bent and could be replaced. The exterior soffit at the overhangs over the entry points is discolored and could use a coat of paint.
WALLS		The buildign is Brick with CMU back-up. Minor Tuckpointing could be done to mainatin the integtriry of the exrterior walls. Exterior columns need to be repainted to ensure that they do not rust.
WINDOWS		All windows are nodized Alumninum, These are in relatively good shape, however a sill closure piece needs to be replaced at storefront on east facede of south dining hall
DOORS		All exterior doors nee to be touched up and painted. This could be a coninued process that has been happening all over campus over the past several years. The doors are primed and then painted with an automotive paint that has held up quite well to abuse over time.
INTERIORS		
LAYOUT/ CIRCULATION/ ADJACENCIES/ SECURITY		The serving counter was replaced 5-6 years ago. A wall was added to divide the north dining hall from the serving line. There is no ADA toilet in the Kitchen area. The freight elevator has reached the end of its usefule life and should be replaced. It has passed inspectiondue to grandfathering rules, but does not meet current codes. THe oldest and most problematic kitchen equiepemtn are the ovens and dishwasher. ALso, the Kitchen hood does nto extend over all of the cooking equipement and does not meet code.
FINISHES		
CEILINGS		There are exposed ceilings in the warehouse and laundry on the lower level. These ceilings could use a coat of paint. The 2x4 ACT ceiling in the dining is relatively new and pads have been replaced as required over time. The kitchen has mylar coated ACT. This ceiling has some discoloration and the pads could be replaced.
WALLS		Warehouse and Laundry have painted CMU. The walls could use a fresh coat of paint. In the dining halls the radiant heat has been disconnected and the radiant heaters and covers remain. These are heavily damaged and should be removed.
FLOORS		The lower level is all sealed concrete and requires no attention at this time. The VCT in the dining rooms have several patches that do not match and could be replaced if so desired.
HAZARDOUS MATERIALS		While it is not expected to be found an asbestos inspection should be conducted as part of a campus wide asbestos survey.

BUILDING EVALUATION FORM

CAMPUS: YRTC-Kearney

BUILDING: Gomez Hall | DATE CONSTRUCTED: 1960

ALTERATIONS/ADDITIONS:

HVAC EVALUATION

SYSTEMS	TYPE/WARRANTY/AGE IF APPLICABLE	COMMENTS
HVAC		First Floor is conditioned by three AHUs. Two AHUs are new (not accessible at the time of visit). AHU serving the kitchen is original to the building. AHUs include DX cooling coils with remote air-cooled condensing units located on grade and steam heating coils. First Floor has steam perimeter heat control by electronic to pneumatic transducers. Kitchen has a Type I exhaust hood. Exhaust fan is located on roof. Unconditioned make-up air unit is located on the roof. Hood exhaust ductwork is uninsulated, galvanized steel (not welded carbon steel). Dishwasher exhaust fan is located on the roof. Lower Level is not cooled, heated-only by steam unit heaters. Laundry Room - Unconditioned make-up air for dryers is provided by a roof mounted fan. Walk-in cooler / freezer ACCUs are located inside the building. Heat is rejected by a sidewall mounted wall operated on a manual switch. Walk-in cooler / freezer refrigeration lines are not properly insulated causing condensation to drip. Elevator equipment room has no dedicated cooling or heating.
TEMPERATURE CONTROLS		Lower level is on pneumatic controls. First Floor is controlled by a BAS.
VENTILATION		

BUILDING EVALUATION FORM

CAMPUS: YRTC-Kearney

BUILDING: Gomez Hall | DATE CONSTRUCTED: 1960

ALTERATIONS/ADDITIONS:

PLUMBING EVALUATION	TYPE/WARRANTY/AGE IF APPLICABLE	COMMENTS
PLUMBING FIXTURES		First Floor Restroom (single occupant) - Floor-mount, manual flush valve (concealed). Wall hung, push button stainless steel. Floor drain. Restroom appears to be set up for high abuse. First Floor Restroom (single occupant) - Floor-mount, battery operated automatic flush valve. Wall hung, automatic faucet lavatory. Floor Drain. Restroom appears to be ADA compliant. Kitchen sanitary goes to regular sanitary (no grease interceptor). Chemical treatment is used to combat grease build up. Kitchen Restroom - wall hung, manual flush valve water closet. Wall hung, manual faucet lavatory. No floor drain.
PIPING		Building has a 3" service from the campus distribution system. Laundry Room - It appears all water (cold and hot) is softened. There are three commercial and one residential clothes washers. There are four natural gas and one electric dryer. Domestic water distribution piping is changed from copper to PEX when needed. Above slab-on-grade waste and vent has been replaced with PVC. Below slab waste remains cast iron. All storm piping is original to the building.
DOMESTIC HOT WATER	Converter is approximately 10 to 12 years old.	Campus steam is converted to hot water by a stainless steel "Thermaflo" system. One coil has been replaced. A second coil is in storage in anticipation of another failure. Campus maintenance staff prefers the plate and frame heat exchange solution used in other buildings on campus. Dishwasher has a steam driven booster heater. Campus maintenance staff reports repeated issues with this equipment.
FIRE PROTECTION		
HAZARDOUS MATERIALS		Identifying hazardous material is outside MEI's area of expertise. We can neither confirm nor deny the presence of hazardous materials.

BUILDING EVALUATION FORM

CAMPUS: YRTC-Kearney

BUILDING: Gomez Hall | DATE CONSTRUCTED: 1960

ALTERATIONS/ADDITIONS:

ELECTRICAL EVALUATION	TYPE/WARRANTY/AGE IF APPLICABLE	COMMENTS
ELECTRICAL SERVICE		Building is fed from a 300kVA pad mount transformer. 1000A, 208/120V, 3 phase, 4 wire Switchboard electrical service. Service size appears adequate for funtion of building. Electrical service was installed in approx 2008. Lacking GFCI in the kitchen areas.
LIGHTING		upper level is primarily LED. Some fluorescent in lower level. Consider upgrade for soffit lighting
BACK-UP POWER		140 kW standby natural gas Generator
EMERGENCY DEVICES		1000A, 120/208V, 3 phase, 4 wire 4-pole ATS. Lighting connected to generator power.

BUILDING EVALUATION FORM

CAMPUS: YRTC-Kearney

BUILDING: Gomez Hall | DATE CONSTRUCTED: 1960

ALTERATIONS/ADDITIONS:

TECHNOLOGY EVALUATION	TYPE/WARRANTY/AGE IF APPLICABLE	COMMENTS
FIRE ALARM		Campus networked fire alarm system. Siemens Fire Alarm Control Panel located in vestibule.
COMMUNICATION		Communication devices and service appear adequate for the function of the building
SECURITY		Access controls and video surveillance are installed. Appear to have adequate coverage and function appropriate for the building. Johson Controls.

BUILDING EVALUATION FORM

CAMPUS: YRTC-Kearney

BUILDING: Chapel | DATE CONSTRUCTED: 1968

ALTERATIONS/ADDITIONS:

CIVIL EVALUATION

	WARRANTY/AGE IF APPLICABLE	COMMENTS
SECURITY PERIMETER		This building is completely inside the secure perimeter.
UTILITIES		
WATER		4" Line Supplied from Campus Tunnel System
SANITARY		Sanitary tied into campus wide sanitary system. No issues with blockages
POWER SERVICE		3 phase power. See electrical evaluation for loading and back-up power
STORM		Storm tied into campus wide system. No issues at this time.
EARTHWORK/DRAINAGE		The building has sufficient grading to allow for poper drainage.
EXTERIOR LIGHTING		Building lighting is adequate
PAVEMENT		Most of the pavement is adequate. There are some panels that could use replacement.
EXPANSION AREAS		If needed, the building could expand to the north.

BUILDING EVALUATION FORM

CAMPUS: YRTC-Kearney

BUILDING: Dodge Building | DATE CONSTRUCTED: 1945

ALTERATIONS/ADDITIONS:

ARCH. EVALUATION

	WARRANTY/AGE IF APPLICABLE	COMMENTS
BUILDING ENVELOPE		
ROOFS		The roof ont eh cahpel is asphalt shingle. The large diagonal wood beams that ccomprise the structure of the roof have some deterioration which was mitigated sveral years ago by covering them and redoing their connections to the ground. The fix seems to have held up and upon a visual inspection seems to be adequate.
WALLS		The buildign is Brick with CMU back-up. Minor Tuckpointing could be done to mainatin the integtriry of the exterior walls, otherwise they are in good shape.
WINDOWS		The windows in the chapel are older style single pane aluminum and could be updated to a higher performing insulated type window.
DOORS		The doors on this building havenot gone through a process that has been happening all over campus over the past several years. The doors need to be primed are primed and then painted with an automotive paint that has held up quite well to abuse over time.
INTERIORS		
LAYOUT/ CIRCULATION/ ADJACENCIES/ SECURITY		The first floor of this building was configured to be the campus administration space. The second floor of this building is used for campus storage, with old sleeping rooms given out to each program as needed. If the second floor were ever to used for office space, a complete remodel would be needed. Extensive protions of the second floor are taken up with mechanical equipment that is used to serve the first floor. THe only ADA compliant restroom is in the main entry lobby.
FINISHES		
CEILINGS		The ceilings are all in relatively good shape with the T&G wood ceiling of the chapel in excellent shape.
WALLS		Interior walls are CMU and have been recently been painted.
FLOORS		The broadloom carpet in the building is in good shape and the pews of the chapel are in excellent shape.
HAZARDOUS MATERIALS		There does not seem to be any asbestos, but an asbestos inspection should be conducted as part of a campus wide asbestos survey.

BUILDING EVALUATION FORM

CAMPUS: YRTC-Kearney

BUILDING: Chapel | DATE CONSTRUCTED: 1968

ALTERATIONS/ADDITIONS:

HVAC EVALUATION

SYSTEMS	TYPE/WARRANTY/AGE IF APPLICABLE	COMMENTS
HVAC	AHU and ACCU are approximately 4 years old. Equipment manufactured by Daikin.	Two small offices are heated and cooled by stand-alone PTAC units. The Sanctuary is heated and cooled by a single air-handling unit (AHU) located in the mechanical room. The AHU is equipped with a natural gas-fired heat exchanger; combustion air is drawn directly from outside. The AHU is equipped with a direct expansion cooling coil with remote air-cooled condensing unit located on grade. The AHU delivers air at the floor level through below grade ductwork. Staff reports no water infiltration issues with below grade ductwork. Return air is through grilles located high in the space.
TEMPERATURE CONTROLS		PTAC units are controlled by manufacturer's stand-alone controls. The AHU is controlled by a stand-alone electronic system. The AHU is not currently connected to an accessible BAS, but is "BAS Ready" according to campus staff.
VENTILATION		Two small offices have operable windows. No ventilation is provided by the PTACs. The AHU draws outside air through an exterior louver located above the mechanical room's exterior doors. All restrooms have exhaust.

BUILDING EVALUATION FORM

CAMPUS: YRTC-Kearney

BUILDING: Chapel | DATE CONSTRUCTED: 1968

ALTERATIONS/ADDITIONS:

PLUMBING EVALUATION	TYPE/WARRANTY/AGE IF APPLICABLE	COMMENTS
PLUMBING FIXTURES		Narthex Restrooms - Floor-mount, tank-type water closet., wall-hung lavatory with manual faucet (no ADA insulation) and no floor drain. Restroom appears to be nearly ADA compliant; needing only minor modifications. Electric water cooler with bottle filler is located in the vestibule. Office Restrooms - Floor-mount, tank-type water closet, wall-hung lavatory with manual faucet (no ADA insulation), and no floor drain. It appears lavatories have been moved from their original locations; domestic water piping is exposed and is not properly insulated. Lavatory faucet handles do not appear to be ADA compliant. Restrooms do no appear to be ADA compliant.
PIPING		Staff reports all plumbing is original to the building. All piping was concealed from view (other than minimal exposed copper piping in the Office Restroom) - material could not be verified. Building has a natural gas service to accommodate the AHU heating system.
DOMESTIC HOT WATER		Small, tank-type electric water heater wall mounted in the mechanical room. Newer PEX piping appears to connect to existing insulated (mineral fiber) copper.
FIRE PROTECTION		Building does not have a fire suppression system.
HAZARDOUS MATERIALS		Identifying hazardous material is outside MEI's area of expertise. We can neither confirm nor deny the presence of hazardous materials.

BUILDING EVALUATION FORM

CAMPUS: YRTC-Kearney

BUILDING: Chapel | DATE CONSTRUCTED: 1968

ALTERATIONS/ADDITIONS:

ELECTRICAL EVALUATION

	TYPE/WARRANTY/AGE IF APPLICABLE	COMMENTS
ELECTRICAL SERVICE		Building is fed from a 75kVA pad mount transformer. 225A, 208/120V, 3 phase, 4 wire electrical service. Service size appears adequate for funtion of building. Electrical service was installed in approx 2008.
LIGHTING		The majority of the lighting has been re-lamped with LED. Local lighting controls.
BACK-UP POWER		No on-site generator for this building.
EMERGENCY DEVICES		Battery for emergency lighting. Appears to be lacking coverage in some areas. Lacking coverage for emergency exterior egress.

BUILDING EVALUATION FORM

CAMPUS: YRTC-Kearney

BUILDING: Chapel | DATE CONSTRUCTED: 1968

ALTERATIONS/ADDITIONS:

TECHNOLOGY EVALUATION	TYPE/WARRANTY/AGE IF APPLICABLE	COMMENTS
FIRE ALARM		Campus networked fire alarm system. Siemens Fire Alarm Control Panel located in vestibule. Additional notification may be required due to assembly occupancy.
COMMUNICATION		Communication devices and service appear adequate for the function of the building
SECURITY		Access controls and video surveillance are installed. Appear to have adequate coverage and function appropriate for the building. Johson Controls.

BUILDING EVALUATION FORM

CAMPUS: YRTC-Kearney

BUILDING:Reynolds School | DATE CONSTRUCTED: 1953

ALTERATIONS/ADDITIONS:

CIVIL EVALUATION

	WARRANTY/AGE IF APPLICABLE	COMMENTS
SECURITY PERIMETER		Inside of Campus Perimeter fence. The east wall of the school ties into the fence.
UTILITIES		
WATER		4" Line Supplied from Campus Tunnel System
SANITARY		Sanitary tied into campus wide sanitary system. No issues with blockages
POWER SERVICE		3 phase power. See electrical evaluation for loading and back-up power
STORM		Storm tied into campus wide system. No issues at this time.
EARTHWORK/DRAINAGE		The building has sufficient grading to allow for proper drainage.
EXTERIOR LIGHTING		Building lighting is adequate
PAVEMENT		Most of the pavement is adequate. There are some panels that could use replacement.
EXPANSION AREAS		The only expansion areas are to the east and south as this building is adjacent to several other buildings and the tunnel to the west.

BUILDING EVALUATION FORM

CAMPUS: YRTC-Kearney

BUILDING: Lincoln & Washington Hall | DATE CONSTRUCTED: 1955

ALTERATIONS/ADDITIONS:

ARCH. EVALUATION

	WARRANTY/AGE IF APPLICABLE	COMMENTS
BUILDING ENVELOPE		
ROOFS	25-30 years old	Fully Adhered membrane roof is in good shape and has no leaks. This is the oldest roof on campus and is reaching the end of its useful life.
WALLS		The building is Brick with CMU back-up. Minor Tuckpointing could be done to mainatin the integrity of the exterior walls.
WINDOWS		All windows are anodized Alumninum. These windows are in fairly good shape.
DOORS		The breezeway door and windows were recently replaced with HM doors and frames. The glass at these doors has 1/2" clear tempered glass at the interior layer. The hinges on these doors are missing screws and should be replaced.
INTERIORS		
LAYOUT/ CIRCULATION/ ADJACENCIES/ SECURITY		The layout of the school works for the most part. The major issues all relate to ADA. There is a level change with a ramp on the lower level and there are no railings at the ramp. Noe of the toilets have an ADA stall or sink and there is a second level with no elevator. The stairs in the breezeway do not meet code due to the railings.
FINISHES		
CEILINGS		The ceilings throughout the school need to be replaced. There has been a significant amount of pipiing and surface mounted equipment installed since the original ceilings went it. The new ceilings ahould be lowered to clean up the ceiling. Existing ceilings in the corridors are suspected to contain asbestos.
WALLS		The interior walls need to be repainted. All of the restrooms need to be re-tiled.
FLOORS		The carpet throughout the school needs to be replaced. Tile in the restrooms needs replacement.
HAZARDOUS MATERIALS		The ceiling and vct floor tile is suspected to contain asbestos. This should be confirmed before any renovation takes place.

BUILDING EVALUATION FORM

CAMPUS: YRTC-Kearney

BUILDING:Reynolds School DATE CONSTRUCTED: 1953

ALTERATIONS/ADDITIONS:

HVAC EVALUATION

SYSTEMS	TYPE/WARRANTY/AGE IF APPLICABLE	COMMENTS
HVAC	Chiller is approximately 4 years old. Pumps are original.	York (YLAA0080) air-cooled chiller (located on grade) with remote evaporator (located in mechanical room). Steam and steam condensate is drawn from and returned to the campus distribution system. The classroom wing is conditioned by ceiling hung, cooling only (chilled water) fan coil units and heated by perimeter steam heat. Three AHUs - steam heat and chilled water cooling are located throughout the building. A single AHU serves the five classrooms located in southeast corner of the building. Exterior walls have steam radiators with exposed piping (insulated). A single AHU serves the Media Center. A single AHU serves the large classroom on the east side of the building. The large classrooms has two residential style oven with range tops- no exhaust hoods are present.
TEMPERATURE CONTROLS		A majority of the classroom wing equipment uses the electronic controls but is integrated with old pneumatic controls through electronic to pneumatic transducers. The newer AHUs and DOAU are controlled by the BAS. Some of the perimeter heat is still controlled by pneumatics.
VENTILATION		One DOAU - cooling only, no ability to heat or reheat. Outside air is discharged directly into the classrooms. Outside air for AHUs is introduced through sidewall louvers.

BUILDING EVALUATION FORM

CAMPUS: YRTC-Kearney

BUILDING:Reynolds School | DATE CONSTRUCTED: 1953

ALTERATIONS/ADDITIONS:

PLUMBING EVALUATION	TYPE/WARRANTY/AGE IF APPLICABLE	COMMENTS
PLUMBING FIXTURES		Single occupant restrooms near large classroom - wall mounted water closet with manual flush valve, wall hung lavatory with manual faucet (no ADA insulation) and floor drain.
PIPING		Most of the plumbing is original to the building and has limited access for replacement without major general construction. Staff reports systems are experiencing regular failures which is repaired/replaced as needed - some repairs are unique (i.e. encasing piping in concrete to stop leaks) because replacement is not possible. Domestic water piping is galvanized.
DOMESTIC HOT WATER		Classroom wing restrooms - tank-type, electric water heater wall mounted in janitor's closet.
FIRE PROTECTION		Building is protected by a wet-pipe fire suppression system served from the campus distribution system. FDC and PIV are located remotely on site. Visible piping is black steel or galvanized.
HAZARDOUS MATERIALS		Identifying hazardous material is outside MEI's area of expertise. We can neither confirm nor deny the presence of hazardous materials.

BUILDING EVALUATION FORM

CAMPUS: YRTC-Kearney

BUILDING:Reynolds School | DATE CONSTRUCTED: 1953

ALTERATIONS/ADDITIONS:

ELECTRICAL EVALUATION	TYPE/WARRANTY/AGE IF APPLICABLE	COMMENTS
ELECTRICAL SERVICE		Building is fed from a 500 kVA pad mount transformer. 1600A, 208/120V, 3 phase, 4 wire Switchboard electrical service. Service size appears adequate for funtion of building. Electrical service was installed in approx 2008. Does not contain a arc energy reduction required for overcurrrent protection devices rated at 1200 amps and higher.
LIGHTING		majority of LED fixtures with toggle switch controls
BACK-UP POWER		No on-site generator for this building.
EMERGENCY DEVICES		Battery for emergency lighting. Appears to be lacking coverage in some areas. Lacking coverage for emergency exterior egress.

BUILDING EVALUATION FORM

CAMPUS: YRTC-Kearney

BUILDING:Reynolds School | DATE CONSTRUCTED: 1953

ALTERATIONS/ADDITIONS:

TECHNOLOGY EVALUATION	TYPE/WARRANTY/AGE IF APPLICABLE	COMMENTS
FIRE ALARM		Campus networked fire alarm system. Siemens fire alarm control panel. Appears to contain adequate coverage.
COMMUNICATION		Communication devices and service appear adequate for the function of the building
SECURITY		Access controls and video surveillance are installed. Appear to have adequate coverage and function appropriate for the building. Johson Controls.

BUILDING EVALUATION FORM

CAMPUS: YRTC-Kearney

BUILDING: Wimberly Gymnasium | DATE CONSTRUCTED: 1973

ALTERATIONS/ADDITIONS:

CIVIL EVALUATION

	WARRANTY/AGE IF APPLICABLE	COMMENTS
SECURITY PERIMETER		This building is inside the secure perimeter, however the east wall is considered part of the perimeter, as the fence runs into the building on the north and south.
UTILITIES		
WATER		4" Line Supplied from Campus Tunnel System
SANITARY		Sanitary tied into campus wide sanitary system. No issues with blockages
POWER SERVICE		3 phase power. See electrical evaluation for loading and back-up power
STORM		Storm tied into campus wide system. No issues at this time.
EARTHWORK/DRAINAGE		The building has sufficient grading to allow for poper drainage.
EXTERIOR LIGHTING		Building lighting is adequate
PAVEMENT		Most of the pavement is adequate. There are some panels that could use replacement.
EXPANSION AREAS		If needed, the building could expand to the south and still remain inside the secure perimeter.

BUILDING EVALUATION FORM

CAMPUS: YRTC-Kearney

BUILDING: Wimberly Gymnasium DATE CONSTRUCTED: 1973

ALTERATIONS/ADDITIONS:

ARCH. EVALUATION

	WARRANTY/AGE IF APPLICABLE	COMMENTS
BUILDING ENVELOPE		
ROOFS		The roof on the Gymnsasium is
WALLS		The buildign is Brick with CMU back-up. Minor Tuckpointing could be done to mainatin the integtriry of the exterior walls, otherwise they are in good shape.
WINDOWS		There are no exterior windows on this building.
DOORS		The doors on this building have not gone through a process that has been happening all over campus over the past several years. The doors need to be primed then painted with an automotive paint that has held up quite well to abuse over time.
INTERIORS		
LAYOUT/ CIRCULATION/ ADJACENCIES/ SECURITY		The only real issue on the layout of this space is the fact that the second floor weightroom is not accessible.
FINISHES		
CEILINGS		The ceilings in this building are all basically exposed structures. The steel in the pool should be considered to be repainted/
WALLS		The interior walls in this building are all in decent shape. A fresh coat of paint should be considered in the pool area
FLOORS		The pool bottom needs to be painted. The stairs need to be recarpeted. Currently, the weightoom is a tiled rubber matte that has several gaps in it. It has not been a problem, yet, but the floor could be considered a tripping hazard.

BUILDING EVALUATION FORM

CAMPUS: YRTC-Kearney

BUILDING: Wimberly Gymnasium DATE CONSTRUCTED: 1973

ALTERATIONS/ADDITIONS:

HAZARDOUS MATERIALS		There does not seem to be any asbestos, but an asbestos inspection should be conducted as part of a campus wide asbestos survey.

BUILDING EVALUATION FORM

CAMPUS: YRTC-Kearney

BUILDING: Wimberly Gymnasium | DATE CONSTRUCTED: 1973

ALTERATIONS/ADDITIONS:

HVAC EVALUATION

SYSTEMS	TYPE/WARRANTY/AGE IF APPLICABLE	COMMENTS
HVAC		Entire building is heated (steam) and ventilated only. There is no capability to cool the space. Pool air is distributed at the ceiling level through sheet metal ductwork and drum louvers. A mezzanine level office is cooled by a stand-alone mini-split system. The pool is heated by a dedicated AHU. The gymnasium and gymnastic mezzanine is heated by a separate AHU. AHUs use roll filters. There have been two small chilled water coils added in existing ductwork to cool offices. Significant condensation on the chilled water coils was observed.
TEMPERATURE CONTROLS		Building equipment is controlled by the original pneumatic system.
VENTILATION		Outside air is drawn in through roof hoods. Air is relieved from the building through roof hoods with gravity dampers located in the spaces.

BUILDING EVALUATION FORM

CAMPUS: YRTC-Kearney

BUILDING: Wimberly Gymnasium | DATE CONSTRUCTED: 1973

ALTERATIONS/ADDITIONS:

PLUMBING EVALUATION	TYPE/WARRANTY/AGE IF APPLICABLE	COMMENTS
PLUMBING FIXTURES		Pool has non-chilled water drinking fountains. There is a commercial washer and dryer located in a mechanical room.
PIPING		Most of the plumbing is original to the building. Most of the steam piping is original to the building.
DOMESTIC HOT WATER		Pool is heated by a steam to water heat exchanger. In general, pool equipment (heat exchanger, filters, etc.) appear to be in good condition. Domestic hot water is softened prior to heating. Water softener is a standard brine tank configuration. Campus steam is used to create hot water with a stainless steel "Thermaflo" system. Campus maintenance staff prefers the plate and frame heat exchange solution used in other buildings on campus.
FIRE PROTECTION		Building is fire sprinklered. Visible piping is a mix of black steel and galvanized.
HAZARDOUS MATERIALS		Identifying hazardous material is outside MEI's area of expertise. We can neither confirm nor deny the presence of hazardous materials.

BUILDING EVALUATION FORM

CAMPUS: YRTC-Kearney

BUILDING: Wimberly Gymnasium | DATE CONSTRUCTED: 1973

ALTERATIONS/ADDITIONS:

ELECTRICAL EVALUATION

	TYPE/WARRANTY/AGE IF APPLICABLE	COMMENTS
ELECTRICAL SERVICE		Electrical service located in Reynolds Hall
LIGHTING		majority of LED fixtures with toggle switch controls. Pool area has a mix of HID and LED fixtures.
BACK-UP POWER		No on-site generator for this building.
EMERGENCY DEVICES		Battery for emergency lighting. Appears to be lacking coverage in some areas. Lacking coverage for emergency exterior egress.

BUILDING EVALUATION FORM

CAMPUS: YRTC-Kearney

BUILDING: Wimberly Gymnasium | DATE CONSTRUCTED: 1973

ALTERATIONS/ADDITIONS:

TECHNOLOGY EVALUATION	TYPE/WARRANTY/AGE IF APPLICABLE	COMMENTS
FIRE ALARM		Campus networked fire alarm system. Siemens fire alarm control panel (shares with Reynolds Hall). Appears to contain adequate coverage.
COMMUNICATION		Communication devices and service appear adequate for the function of the building
SECURITY		Access controls and video surveillance are installed. Appear to have adequate coverage and function appropriate for the building. Johson Controls.

BUILDING EVALUATION FORM

CAMPUS: YRTC-Kearney

BUILDING: Vocational Building | DATE CONSTRUCTED: 1978

ALTERATIONS/ADDITIONS:

CIVIL EVALUATION

	WARRANTY/AGE IF APPLICABLE	COMMENTS
SECURITY PERIMETER		This building is inside the secure perimeter.
UTILITIES		
WATER		4" Line Supplied from Campus Tunnel System
SANITARY		Sanitary tied into campus wide sanitary system. No issues with blockages
POWER SERVICE		3 phase power. See electrical evaluation for loading and back-up power
STORM		Storm tied into campus wide system. No issues at this time.
EARTHWORK/DRAINAGE		The building has sufficient grading to allow for poper drainage.
EXTERIOR LIGHTING		Building lighting is adequate
PAVEMENT		Most of the pavement is adequate. There are some panels that could use replacement.
EXPANSION AREAS		The building is landlocked unless the secure perimeter were extended to the north

BUILDING EVALUATION FORM

CAMPUS: YRTC-Kearney

BUILDING: Vocational Building | DATE CONSTRUCTED: 1978

ALTERATIONS/ADDITIONS:

ARCH. EVALUATION

	WARRANTY/AGE IF APPLICABLE	COMMENTS
BUILDING ENVELOPE		
ROOFS	Unknown	The structure of this roof is Concrete Tees. And the mebrane roof is in good condition with no reported leaks.
WALLS		The buildign is Brick with CMU back-up. Minor Tuckpointing could be done to mainatin the integtriry of the exterior walls, otherwise they are in good shape.
WINDOWS		There are no exterior windows on this building.
DOORS		The doors on this building have not gone through a process that has been happening all over campus over the past several years. The doors need to be primed then painted with an automotive paint that has held up quite well to abuse over time. The facility woudl also like to add cardreaders and delayed panic hardware to teh doors for security.
INTERIORS		
LAYOUT/ CIRCULATION/ ADJACENCIES/ SECURITY		There is ample space for the equipment in the facility and no real issues with the layout.
FINISHES		
CEILINGS		The ceilings in this building are either exposed structure or are in good shape.
WALLS		The interior walls in this building are all in good condition and are going through the process of being repainted now.
FLOORS		The floors in the shop are concrete and in fine condition. The computer lab is suspected to have asbestos VCT and should be removed and replaced. The base is also in need of repair in the lab.
HAZARDOUS MATERIALS		The VCT floor in the lab is suspected to be VCT and should be tested as part of a campus wide asbestos survey.

BUILDING EVALUATION FORM

CAMPUS: YRTC-Kearney

BUILDING: Vocational Building | DATE CONSTRUCTED: 1978

ALTERATIONS/ADDITIONS:

HVAC EVALUATION

SYSTEMS	TYPE/WARRANTY/AGE IF APPLICABLE	COMMENTS
HVAC		Draft Room - Cooled by three ductless evaporators (1 ton each) connected to a single heat pump (3 tons). System has the ability to heat, but it is not used. Space continues to be heated by air from the wood shop AHU. Wood Shop - Has a dust collection system with filter bags located inside and all other components located outside on grade. Wood shop is heated only by an AHU with a natural gas-fired heat exchanger. Automotive Shop is heated only by overhead natural gas-fired radiant heaters. Automotive Shop has welding hoods with exhaust system - curriculum does not currently use this system. Automotive Office is conditioned by a 0.75 ton ductless split system with remote air-cooled condensing unit.
TEMPERATURE CONTROLS		All equipment is controlled by stand-alone controls. No BAS.
VENTILATION		The Draft Room HVAC system does not have the ability to provide outside air for ventilation. Wood shop AHU has an outside air duct up through the roof to a hood. The Automotive Shop does not have any mechanical ventilation.

BUILDING EVALUATION FORM

CAMPUS: YRTC-Kearney

BUILDING: Vocational Building | DATE CONSTRUCTED: 1978

ALTERATIONS/ADDITIONS:

PLUMBING EVALUATION	TYPE/WARRANTY/AGE IF APPLICABLE	COMMENTS
PLUMBING FIXTURES		Wall-hung, manual flush valve water closet. Wall-hung, manual faucet lavatory with no ADA insulation.
PIPING		Building is served by a 2" water service. Domestic water piping is copper. Above grade storm piping has been replaced with PVC.
DOMESTIC HOT WATER		Point-of-use water heaters.
FIRE PROTECTION		Building is not currently protected. There is a project currently out to bid to install a fire suppression system.
HAZARDOUS MATERIALS		Identifying hazardous material is outside MEI's area of expertise. We can neither confirm nor deny the presence of hazardous materials.
ADA ISSUES		

BUILDING EVALUATION FORM

CAMPUS: YRTC-Kearney

BUILDING: Vocational Building | DATE CONSTRUCTED: 1978

ALTERATIONS/ADDITIONS:

ELECTRICAL EVALUATION

	TYPE/WARRANTY/AGE IF APPLICABLE	COMMENTS
ELECTRICAL SERVICE		Building is fed from a 225 kVA pad mount transformer. 400A, 208/120V, 3 phase, 4 wire electrical service. Service size appears adequate for funtion of building. Electrical service was installed in approx 2008. Electrical distribution should be upgrades
LIGHTING		Majority of the lighting is LED with local toggle switches.
BACK-UP POWER		No on-site generator for this building.
EMERGENCY DEVICES		Battery for emergency lighting. Appears to be lacking coverage in some areas. Lacking coverage for emergency exterior egress.

BUILDING EVALUATION FORM

CAMPUS: YRTC-Kearney

BUILDING: Vocational Building | DATE CONSTRUCTED: 1978

ALTERATIONS/ADDITIONS:

TECHNOLOGY EVALUATION	TYPE/WARRANTY/AGE IF APPLICABLE	COMMENTS
FIRE ALARM		Campus networked fire alarm system. Siemens Fire Alarm Control Panel located in vestibule.
COMMUNICATION		Communication devices and service appear adequate for the function of the building
SECURITY		Access controls and video surveillance are installed. Appear to have adequate coverage and function appropriate for the building. Johson Controls.

BUILDING EVALUATION FORM

CAMPUS: YRTC-Kearney

BUILDING: Maintenance Shed | DATE CONSTRUCTED: 1948

ALTERATIONS/ADDITIONS:

CIVIL EVALUATION

	WARRANTY/AGE IF APPLICABLE	COMMENTS
SECURITY PERIMETER		This building is inside the Outside the Secure Perimeter
UTILITIES		
WATER		4" Line Supplied from Campus Tunnel System
SANITARY		Sanitary tied into campus wide sanitary system. No issues with blockages
POWER SERVICE		3 phase power. See electrical evaluation for loading and back-up power
STORM		Storm tied into campus wide system. No issues at this time.
EARTHWORK/DRAINAGE		The building has sufficient grading to allow for poper drainage.
EXTERIOR LIGHTING		Building lighting is adequate
PAVEMENT		Most of the pavement is adequate. There are some panels that could use replacement.
EXPANSION AREAS		The building is landlocked unless the secure perimeter were extended to the north

BUILDING EVALUATION FORM

CAMPUS: YRTC-Kearney

BUILDING: Boiler House | DATE CONSTRUCTED: 1949

ALTERATIONS/ADDITIONS:

ARCH. EVALUATION

	WARRANTY/AGE IF APPLICABLE	COMMENTS
BUILDING ENVELOPE		
ROOFS	15-20 Years	Roof membrane is in a good shape. The membrane roof was reaplced 3 years ago.
WALLS		Single Wythe CMU Walls. Needs to be be painted and tuckpointed.
WINDOWS		There are several windows that have been replaced with vinyl.
DOORS		
INTERIORS		
LAYOUT/ CIRCULATION/ ADJACENCIES/ SECURITY		
FINISHES		
CEILINGS		
WALLS		
FLOORS		
HAZARDOUS MATERIALS		

BUILDING EVALUATION FORM

CAMPUS: YRTC-Kearney

BUILDING: Maintenance Shed | DATE CONSTRUCTED: 1948

ALTERATIONS/ADDITIONS:

HVAC EVALUATION

SYSTEMS	TYPE/WARRANTY/AGE IF APPLICABLE	COMMENTS
HVAC	Wood Shop RTU was salvaged from another building and is 25 to 30 years old.	Metal Shop - Primary heat is provided by a single heat-only gas-fired furnace hung in the space. A couple of gas-fired unit heaters are present for back-up heat. Existing oil burning unit heaters have been abandoned in-place. Wood Shop - Space is cooled by a packaged RTU mounted on the exterior wall. RTU supply and return air are stubbed into the space - no distribution ductwork. The office is heated/cooled by a furnace, DX coil and remote air-cooled condensing unit. Air is distributed through uninsulated ductwork.
TEMPERATURE CONTROLS		Metal Shop - Equipment is controlled by stand-alone, line voltage controls. Wood Shop - RTU is controlled by a stand-alone programmable thermostat. Office furnace system is controlled by a stand-alone programmable thermostat.
VENTILATION		Metal Shop does not appear to have any mechanical ventilation. Wood Shop - RTU appears to have an outside air intake hood. It is unclear if the damper is open to allow ventilation. Office furnace does not have any outside air capabilities.

BUILDING EVALUATION FORM

CAMPUS: YRTC-Kearney

BUILDING: Maintenance Shed | DATE CONSTRUCTED: 1948

ALTERATIONS/ADDITIONS:

PLUMBING EVALUATION	TYPE/WARRANTY/AGE IF APPLICABLE	COMMENTS
PLUMBING FIXTURES		Not observed.
PIPING	Original piping is approximately 75 years old.	Domestic water piping is mostly PEX with some miscellaneous copper. All waste and vent piping is original to the building (1947). Visually evaluating the condition of piping is extremely difficult as most piping degrades from the inside out. Piping has exceeded its useful life and should be evaluated for replacement.
DOMESTIC HOT WATER		Not observed.
FIRE PROTECTION		Building is not protected.
HAZARDOUS MATERIALS		Identifying hazardous material is outside MEI's area of expertise. We can neither confirm nor deny the presence of hazardous materials.

BUILDING EVALUATION FORM

CAMPUS: YRTC-Kearney

BUILDING: Maintenance Shed | DATE CONSTRUCTED: 1948

ALTERATIONS/ADDITIONS:

ELECTRICAL EVALUATION

	TYPE/WARRANTY/AGE IF APPLICABLE	COMMENTS
ELECTRICAL SERVICE		Building is fed from a 112.5kVA pad mount transformer. 400A, 208/120V, 3 phase, 4 wire electrical service. Service size appears adequate for funtion of building. Electrical service was installed in approx 2008.
LIGHTING		Majority of the lighting is LED with local toggle switches.
BACK-UP POWER		No on-site generator for this building.
EMERGENCY DEVICES		Battery for emergency lighting. Appears to be lacking coverage in some areas. Lacking coverage for emergency exterior egress.

BUILDING EVALUATION FORM

CAMPUS: YRTC-Kearney

BUILDING: Maintenance Shed | DATE CONSTRUCTED: 1948

ALTERATIONS/ADDITIONS:

TECHNOLOGY EVALUATION	TYPE/WARRANTY/AGE IF APPLICABLE	COMMENTS
FIRE ALARM		Campus networked fire alarm system. Siemens Fire Alarm Control Panel located in vestibule. Additional coverage may be required.
COMMUNICATION		Communication devices and service appear adequate for the function of the building
SECURITY		Access controls and video surveillance are installed. Appear to have adequate coverage and function appropriate for the building. Johson Controls.

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NE Department of Health and Human Services
Youth Rehabilitation and Treatment Center
Structural Assessment

October 1, 2021

INTRODUCTION

OBSERVATIONS

The following is a summary report of our on-site investigation of the NE DHHS YRTC Campus performed on September 15, 2021. This assessment reviewed visible conditions of the structural elements of the building and outlines any observed distress.

The distressed conditions indicated describe both specific and sometimes general instances of problems along with our summary of possible causes and recommended responses. Not all conditions are included due to some conditions being replicated in numerous areas and having the same cause.

Each distressed condition is classified in terms of the severity of the condition as follows:

Critical:
Items that represent code deficiencies, major functional inadequacies, or building/infrastructure systems that are in need of imminent repair/replacement, and are an immediate threat to the health, safety, and welfare of those who use the building.

Serious:
Materials, finishes, and systems that have greater than normal wear and need to be cleaned or replaced. Items can be deferred with no immediate effect on the building/infrastructure or to the health, safety, and welfare of those who use the building.

Minor:
Materials, finishes, and systems that have minimal wear and can be cleaned or replaced. Items can be deferred with no immediate effect on the building/infrastructure or to the health, safety, and welfare of those who use the building.

Report Limitations

Mold

While we are not experts in the analysis, testing or abatement of molds, we did not observe any instance of mold in the building.

Building Finishes

Not included in the facility assessments were issues of building finishes, roofing, flashing, or other architectural finishes. Other building finishes such as wall coverings, carpet, tile, ceiling tiles, and any other miscellaneous material used in a room/area used for aesthetic and practical reasons to cover raw

building materials were observed only in terms of evidence of floor, foundation or structural deflections or settlements.

Material Testing
No material samples or testing was included.

Non-visible issues
This report is based upon a visual examination of structural elements exposed to view at the time of our visit. There may be items or conditions not visible that may affect the conclusions and recommendations herein.

CHAPEL BUILDING

OBSERVATIONS

Original Building – 1968

The original building consists of a wood framed roof system supported by load bearing masonry walls. The perimeter walls consist of clay brick veneer over load bearing masonry walls. The building is supported by traditional concrete shallow spread footings. The interior floor is a concrete slab-on-grade.

Overall, the building was in good condition with no significant distressed or deteriorated conditions observed. The exterior masonry walls were in good condition. No evidence was observed suggesting damaging foundation settlements or dislocations. The interior finish surfaces were in good condition as well. Interior floors were generally level and flat and in good condition.

NOTED AREAS OF DISTRESS

See below:

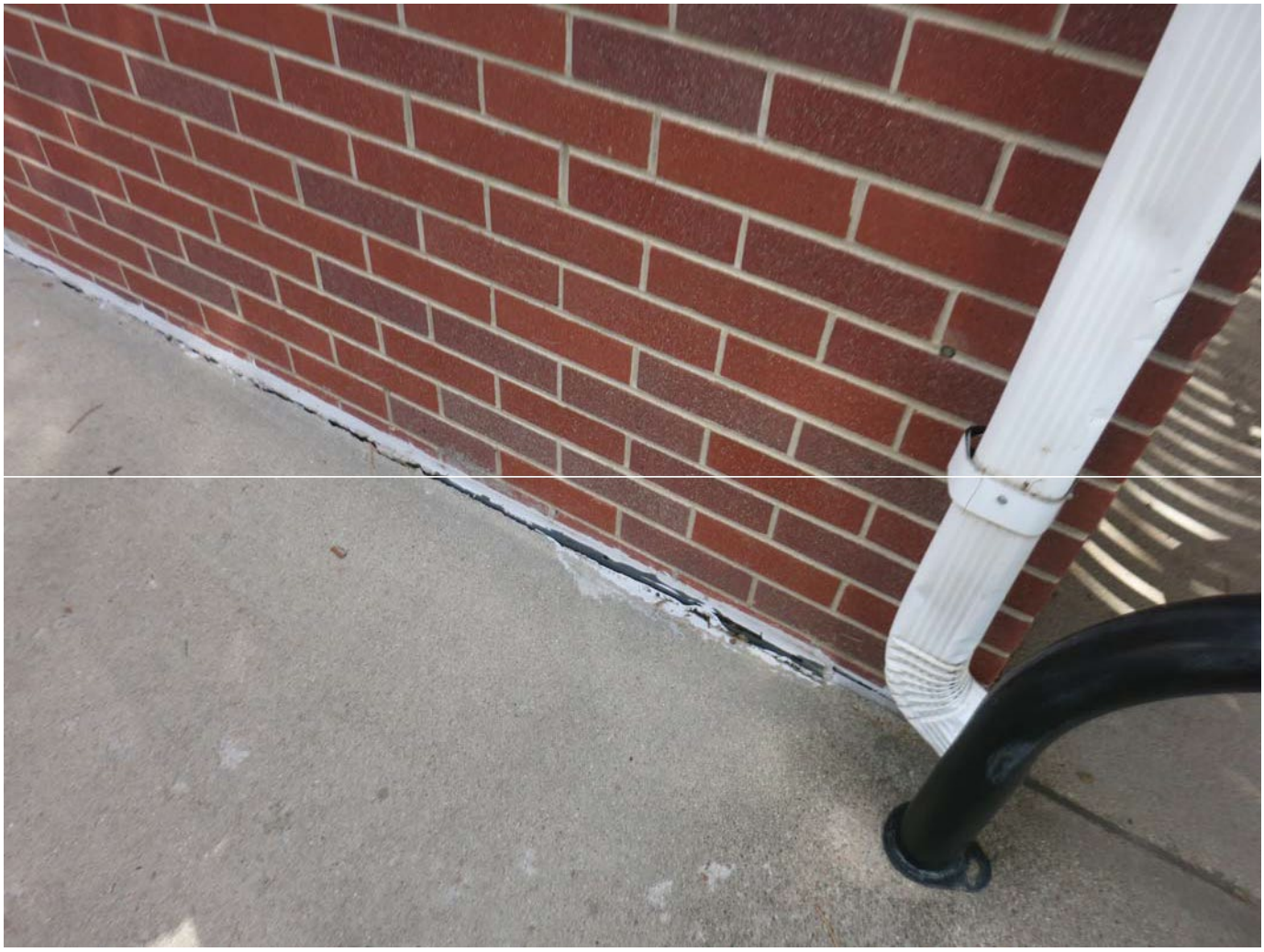
Location
Typical around perimeter of building.

Description
Cracking and open joints between veneer control joints.

Cause
Long term weathering and aging of flexible joint material.

Distress Classification
Minor

Recommendations
This condition has not created any observable damage or distresses to the building, or interior finishes to this point. However, keeping water out of the interior of the wall section is important and the multiple jointing around the perimeter of the entire building should be an on-going maintenance item. Joint materials, when cracked or open, should be stripped out of the joint, the joint fully cleaned, and a new backer rod and flexible joint sealant applied.



Location
Typical around perimeter of building.

Description
The surrounding sidewalks appear to have shifted down and away from the building, tearing the original joint sealant resulting in open joints.

Cause
Settlement of surrounding soils under sidewalks and possible overall pavement settlements.

Distress Classification
Minor

Recommendations
The joints should be filled with a new backer rod and joint sealant and maintained to prohibit water from infiltrating the soils below and causing frost heaving or further settlements.

Location
Exterior column near entry.

Description
Surface corrosion at base of column.

Cause
Long term exposure to weather elements.

Distress Classification
Minor

Recommendations
Remove paint and surface corrosion down to bare steel, provide new primer and high-performance coating.

REYNOLDS HALL

OBSERVATIONS

Original Building - 1953

The two-story building consists of a steel/ concrete framed roof and floor system supported by load bearing masonry walls. The perimeter walls consist of clay brick veneer over load bearing masonry walls. The building is supported by traditional concrete shallow spread footings with a lower-level maintenance/ mechanical access tunnel connecting various buildings on the campus. The interior floor is a concrete slab-on-grade.

Overall, the building was in good condition with no significant distressed or deteriorated conditions observed. It was observed that portions of the access tunnels were retro-fitted with a steel framed shoring system to account for foundation walls that were showing distress. It was also observed that other portions of the access tunnel foundation walls that were not shored are also showing distress. It is unknown whether this distress condition was present at the time the previous shoring work performed. The exterior masonry walls were in good condition. No evidence was observed suggesting damaging foundation settlements or dislocations with the exception to portions of the tunnel system. The interior finish surfaces were in good condition as well. Interior floors were generally level and flat and in good condition.

NOTED AREAS OF DISTRESS

See below:

Location
Foundation wall in access tunnel.

Description
Cracking and bending of concrete foundation wall.

Cause
Possible failure of wall due to lateral soil pressures.

Distress Classification
Serious/ Critical

Recommendations
It is unknown when this distress occurred. The previously issued report (by others) for the access tunnel foundation walls should be reviewed to see if this distress was noted. If this distress was noted, the current crack widths and movements should be recorded and monitored for additional movement. If this distress was not noted or observed in the previous report, action should be taken to stabilize the foundations walls.

Location
Foundation wall in access tunnel.

Description
Cracking and bending of concrete foundation wall.

Cause
Possible failure of wall due to lateral soil pressures.

Distress Classification
Serious/ Critical

Recommendations
It is unknown when this distress occurred. The previously issued report (by others) for the access tunnel foundation walls should be reviewed to see if this distress was noted. If this distress was noted, the current crack widths and movements should be recorded and monitored for additional movement. If this distress was not noted or observed in the previous report, action should be taken to stabilize the foundations walls.

WIMBERLY GYMNASIUM

OBSERVATIONS

Original Building - 1973

The two-story building consists of a concrete framed roof and floor system supported by load bearing masonry walls. The perimeter walls consist of clay brick veneer over load bearing masonry walls. The building is supported by traditional concrete shallow spread footings. The interior floor is a concrete slab-on-grade.

Overall, the building was in good condition with no significant distressed or deteriorated conditions observed. The exterior masonry walls were in good condition. No evidence was observed suggesting damaging foundation settlements or dislocations. The interior finish surfaces were in good condition as well. Interior floors were generally level and flat and in good condition. It was observed that areas of the building have experienced distress in the past, this distress has been repaired. We recommend monitoring these areas for any future signs of distress

NOTED AREAS OF DISTRESS

See below:

Location
Corner of building.

Description
Spalling of veneer surface.

Cause
Long term exposure to elements and aging of veneer material.

Distress Classification
Minor

Recommendations
Remove all loose debris and patch with a repair mortar.

Location
East entry of building.

Description
Concrete canopy is deteriorating and spalling.

Cause
Long term exposure to elements and aging of concrete material.

Distress Classification
Minor

Recommendations
Remove all loose concrete debris and patch with a concrete repair mortar.

DODGE BUILDING - ADMINISTRATION

OBSERVATIONS

Original Building - 1945

The two-story building consists of a steel/ concrete framed roof and floor system supported by load bearing masonry walls. The perimeter walls consist of clay brick veneer over load bearing masonry walls. The building is supported by traditional concrete shallow spread footings with a lower-level maintenance/ mechanical access tunnel connecting various buildings on the campus. The interior floor is a concrete slab-on-grade.

Overall, the building was in good condition with no significant distressed or deteriorated conditions observed. The exterior masonry walls were in good condition. No evidence was observed suggesting damaging foundation settlements or dislocations. The interior finish surfaces were in average condition with several areas showing distress in the wall and ceiling finishes (non-structural). Interior floors were generally level and flat and in good condition.

NOTED AREAS OF DISTRESS

See below:

Location
Exterior columns.

Description
Surface corrosion at base of column.

Cause
Long term exposure to weather elements.

Distress Classification
Minor

Recommendations
Remove paint and surface corrosion down to bare steel, provide new primer and high-performance coating.

Location
Exterior egress stairs.

Description
Surface corrosion.

Cause
Long term exposure to weather elements.

Distress Classification
Minor

Recommendations
Remove paint and surface corrosion down to bare steel, provide new primer and high-performance coating.

Location
Lower level.

Description
Concrete foundation wall crack.

Cause
Possible overstress or concrete shrinkage.

Distress Classification
Minor

Recommendations
Record current crack data and monitor for additional movement.

DICKSON BUILDING

OBSERVATIONS

Original Building – 1968

The building consists of a concrete framed roof system supported by load bearing masonry walls. The perimeter walls consist of clay brick veneer over load bearing masonry walls. The building is supported by traditional concrete shallow spread footings. The interior floor is a concrete slab-on-grade.

Overall, the building was in good condition with no significant distressed or deteriorated conditions observed. The exterior masonry walls were in good condition. No evidence was observed suggesting damaging foundation settlements or dislocations. The interior finish surfaces were in good condition as well. Interior floors were generally level and flat and in good condition.

NOTED AREAS OF DISTRESS

See below:

Location
Typical around perimeter of building.

Description
The surrounding sidewalks appear to have shifted down and away from the building, tearing the original joint sealant resulting in open joints.

Cause
Settlement of surrounding soils under sidewalks and possible overall pavement settlements.

Distress Classification
Minor

Recommendations
The joints should be filled with a new backer rod and joint sealant and maintained to prohibit water from infiltrating the soils below and causing frost heaving or further settlements.

BRYANT - CREIGHTON BUILDING

OBSERVATIONS

Original Building - 1953

The two-story building consists of a steel/ concrete framed roof and floor system supported by load bearing masonry walls. The perimeter walls consist of clay brick veneer over load bearing masonry walls. The building is supported by traditional concrete shallow spread footings with a lower-level maintenance/ mechanical access tunnel connecting various buildings on the campus. The interior floor is a concrete slab-on-grade.

Overall, the building was in good condition with no significant distressed or deteriorated conditions observed. The exterior masonry walls were in good condition. No evidence was observed suggesting damaging foundation settlements or dislocations. The interior finish surfaces were in good condition as well. Interior floors were generally level and flat and in good condition.

NOTED AREAS OF DISTRESS

See below:

Location
Typical around perimeter of building.

Description
The surrounding sidewalks appear to have shifted down and away from the building, tearing the original joint sealant resulting in open joints.

Cause
Settlement of surrounding soils under sidewalks and possible overall pavement settlements.

Distress Classification
Minor

Recommendations
The joints should be filled with a new backer rod and joint sealant and maintained to prohibit water from infiltrating the soils below and causing frost heaving or further settlements.

Location
Lower-level access tunnels.

Description
Concrete joist spalling.

Cause
Possible overstress or concrete deterioration.

Distress Classification
Minor

Recommendations
Remove all loose concrete debris and patch with a concrete repair mortar.

WASHINGTON - LINCOLN BUILDING

OBSERVATIONS

Original Building - 1955

The two-story building consists of a steel/ concrete framed roof and floor system supported by load bearing masonry walls. The perimeter walls consist of clay brick veneer over load bearing masonry walls. The building is supported by traditional concrete shallow spread footings with a lower-level maintenance/ mechanical access tunnel connecting various buildings on the campus. The interior floor is a concrete slab-on-grade.

Overall, the building was in good condition with no significant distressed or deteriorated conditions observed. The exterior masonry walls were in good condition. No evidence was observed suggesting damaging foundation settlements or dislocations. The interior finish surfaces were in good condition as well. Interior floors were generally level and flat and in good condition.

NOTED AREAS OF DISTRESS

See below:

Location
Entry columns.

Description
Cracking in concrete pavement.

Cause
Possibly some freeze-thaw damage from moisture penetrating the joint around the column.

Distress Classification
Minor

Recommendations
Provide sealant along the crack interface to mitigate water intrusion.

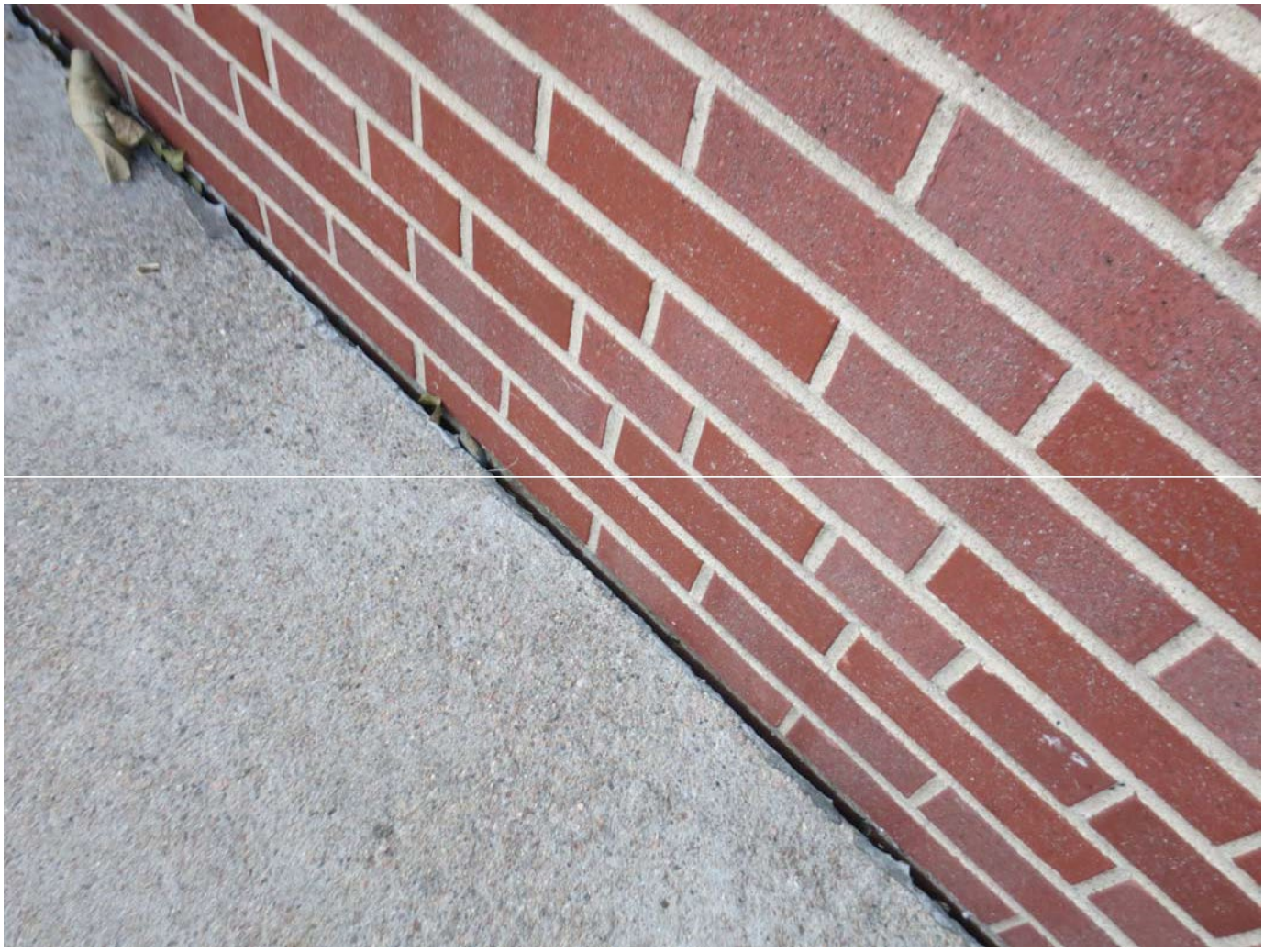
Location
Exterior columns.

Description
Surface corrosion at base of column.

Cause
Long term exposure to weather elements.

Distress Classification
Minor

Recommendations
Remove paint and surface corrosion down to bare steel, provide new primer and high-performance coating.



Location
Typical around perimeter of building.

Description
The surrounding sidewalks appear to have shifted down and away from the building, tearing the original joint sealant resulting in open joints.

Cause
Settlement of surrounding soils under sidewalks and possible overall pavement settlements.

Distress Classification
Minor

Recommendations
The joints should be filled with a new backer rod and joint sealant and maintained to prohibit water from infiltrating the soils below and causing frost heaving or further settlements.

MORTON BUILDING

OBSERVATIONS

Original Building - 1945

The two-story building consists of a steel/ concrete framed roof and floor system supported by load bearing masonry walls. The perimeter walls consist of clay brick veneer over load bearing masonry walls. The building is supported by traditional concrete shallow spread footings with a lower-level maintenance/ mechanical access tunnel connecting various buildings on the campus. The interior floor is a concrete slab-on-grade.

Overall, the building was in good condition with no significant distressed or deteriorated conditions observed. The exterior masonry walls were in good condition. No evidence was observed suggesting damaging foundation settlements or dislocations. The interior finish surfaces were in average condition with several areas showing distress in the wall and ceiling finishes (non-structural). Interior floors were generally level and flat and in good condition.

NOTED AREAS OF DISTRESS

See below:

Location
Exterior egress stairs.

Description
Surface corrosion.

Cause
Long term exposure to weather elements.

Distress Classification
Minor

Recommendations
Remove paint and surface corrosion down to bare steel, provide new primer and high-performance coating.

Location
Exterior columns.

Description
Surface corrosion along length of column.

Cause
Long term exposure to weather elements.

Distress Classification
Minor

Recommendations
Remove paint and surface corrosion down to bare steel, provide new primer and high-performance coating.

Location
Lower-level access tunnels.

Description
Concrete wall spalling.

Cause
Possible overstress or concrete deterioration.

Distress Classification
Minor

Recommendations
Remove all loose concrete debris and patch with a concrete repair mortar.

GOMEZ HALL BUILDING

OBSERVATIONS

Original Building - 1960

The two-story building consists of a steel/ concrete framed roof and floor system supported by load bearing masonry walls. The perimeter walls consist of clay brick veneer over load bearing masonry walls. The building is supported by traditional concrete shallow spread footings with a lower-level maintenance/ mechanical access tunnel connecting various buildings on the campus. The interior floor is a concrete slab-on-grade.

Overall, the building was in good condition with no significant distressed or deteriorated conditions observed. The exterior masonry walls were in good condition. No evidence was observed suggesting damaging foundation settlements or dislocations. The interior finish surfaces were in good condition as well. Interior floors were generally level and flat and in good condition.

NOTED AREAS OF DISTRESS

See below:

Location
Exterior wall.

Description
Penetration of veneer.

Cause
Possible impact or abandonment of utility connection.

Distress Classification
Minor

Recommendations
Remove all loose brick veneer and patch.

Location
North delivery area.

Description
Cracking in concrete overhang.

Cause
Possibly some freeze-thaw damage from moisture penetrating.

Distress Classification
Minor

Recommendations
Provide sealant along the crack interface to mitigate water intrusion. Monitor crack for additional movement.

Location
North delivery area.

Description
Cracking in CMU wall.

Cause
Possible overstress or freeze-thaw damage from moisture penetrating the wall

Distress Classification
Minor

Recommendations
Provide sealant along the crack interface to mitigate water intrusion. Monitor crack for additional movement.

Location
West elevated walkway.

Description
Surface corrosion along length of guardrail.

Cause
Long term exposure to weather elements.

Distress Classification
Minor

Recommendations
Remove paint and surface corrosion down to bare steel, provide new primer and high-performance coating.

STORAGE SHED

OBSERVATIONS

Original Building - Unknown

The building consists of a wood framed roof supported by load bearing masonry walls. The building is supported by traditional concrete shallow spread footings. The interior floor is a concrete slab-on-grade.

Overall, the building was in good condition with no significant distressed or deteriorated conditions observed. The exterior masonry walls were in average condition. No evidence was observed suggesting damaging foundation settlements or dislocations. Interior floors conditions are unknown.

NOTED AREAS OF DISTRESS

See below:

Location
Exterior walls.

Description
Loose joints in CMU wall.

Cause
Long term exposure to elements and aging of joint material

Distress Classification
Minor

Recommendations
Repoint masonry joints.

VOCATIONAL BUILDING

OBSERVATIONS

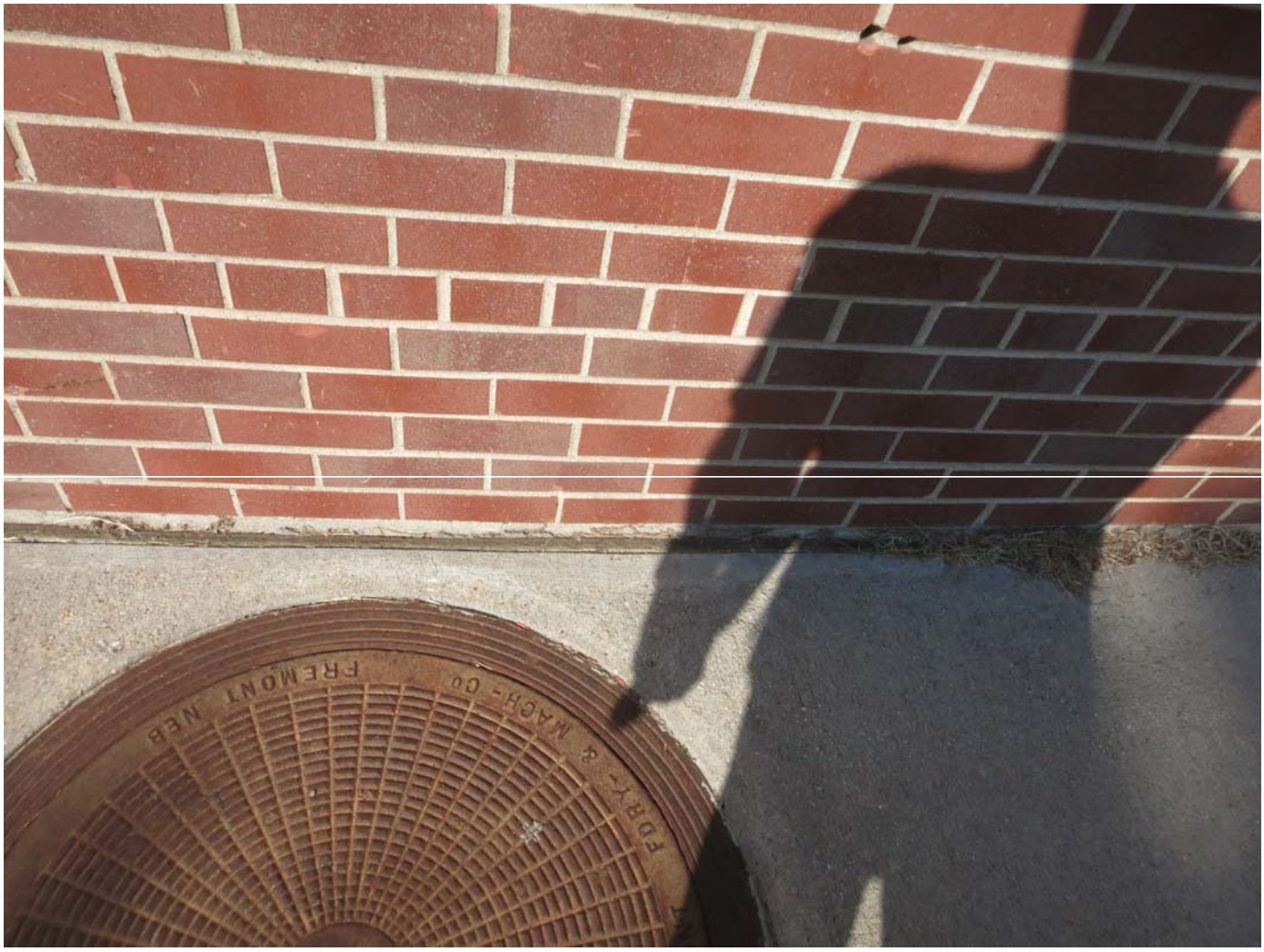
Original Building - 1978

The building consists of a concrete framed roof system supported by load bearing masonry walls. The perimeter walls consist of clay brick veneer over load bearing masonry walls. The building is supported by traditional concrete shallow spread footings. The interior floor is a concrete slab-on-grade.

Overall, the building was in good condition with no significant distressed or deteriorated conditions observed. The exterior masonry walls were in good condition. No evidence was observed suggesting damaging foundation settlements or dislocations. Interior floors were generally level and flat and in good condition.

NOTED AREAS OF DISTRESS

See below:



Location
Typical around perimeter of building.

Description
The surrounding pavement is lacking a sealant joint.

Cause
Not installed

Distress Classification
Minor

Recommendations
The joints should be filled with a new backer rod and joint sealant and maintained to prohibit water from infiltrating the soils below and causing frost heaving or further settlements.

Location
Exterior walls.

Description
Loose joints in CMU wall.

Cause
Long term exposure to elements and aging of joint material

Distress Classification
Minor

Recommendations
Repoint masonry joints.

BOILER HOUSE BUILDING

OBSERVATIONS

Original Building - 1947

The two-story building consists of a steel/ concrete framed roof and floor system supported by load bearing masonry walls. The perimeter walls consist of clay brick veneer over load bearing masonry walls. The building is supported by traditional concrete shallow spread footings with a lower-level maintenance/ mechanical access tunnel connecting various buildings on the campus. The interior floor is a concrete slab-on-grade.

Overall, the building was in good condition with no significant distressed or deteriorated conditions observed. The exterior masonry walls were in average condition. No evidence was observed suggesting damaging foundation settlements or dislocations. Interior floors were generally level and flat and in good condition.

NOTED AREAS OF DISTRESS

See below:

Location
Exterior canopy.

Description
Damage to finish material.

Cause
Impact

Distress Classification
Minor

Recommendations
Provide new finish material to protect wood canopy framing from exposure to the elements.

Location
Various areas.

Description
Cracking and loose joints in CMU wall

Cause
Possible overstress or long-term exposure to elements and aging of joint material

Distress Classification
Minor

Recommendations
Provide sealant along the crack interface to mitigate water intrusion. Monitor crack for additional movement. Repoint masonry joints.

MAINTENANCE BUILDING

OBSERVATIONS

Original Building - 1948

The building consists of a concrete framed roof system supported by load bearing masonry walls. The building is supported by traditional concrete shallow spread footings. The interior floor is a concrete slab-on-grade.

Overall, the building was in average condition with no significant distressed or deteriorated conditions observed. The exterior masonry walls were in average condition. No evidence was observed suggesting damaging foundation settlements or dislocations. Interior floors were generally level and flat and in good condition.

NOTED AREAS OF DISTRESS

See below:

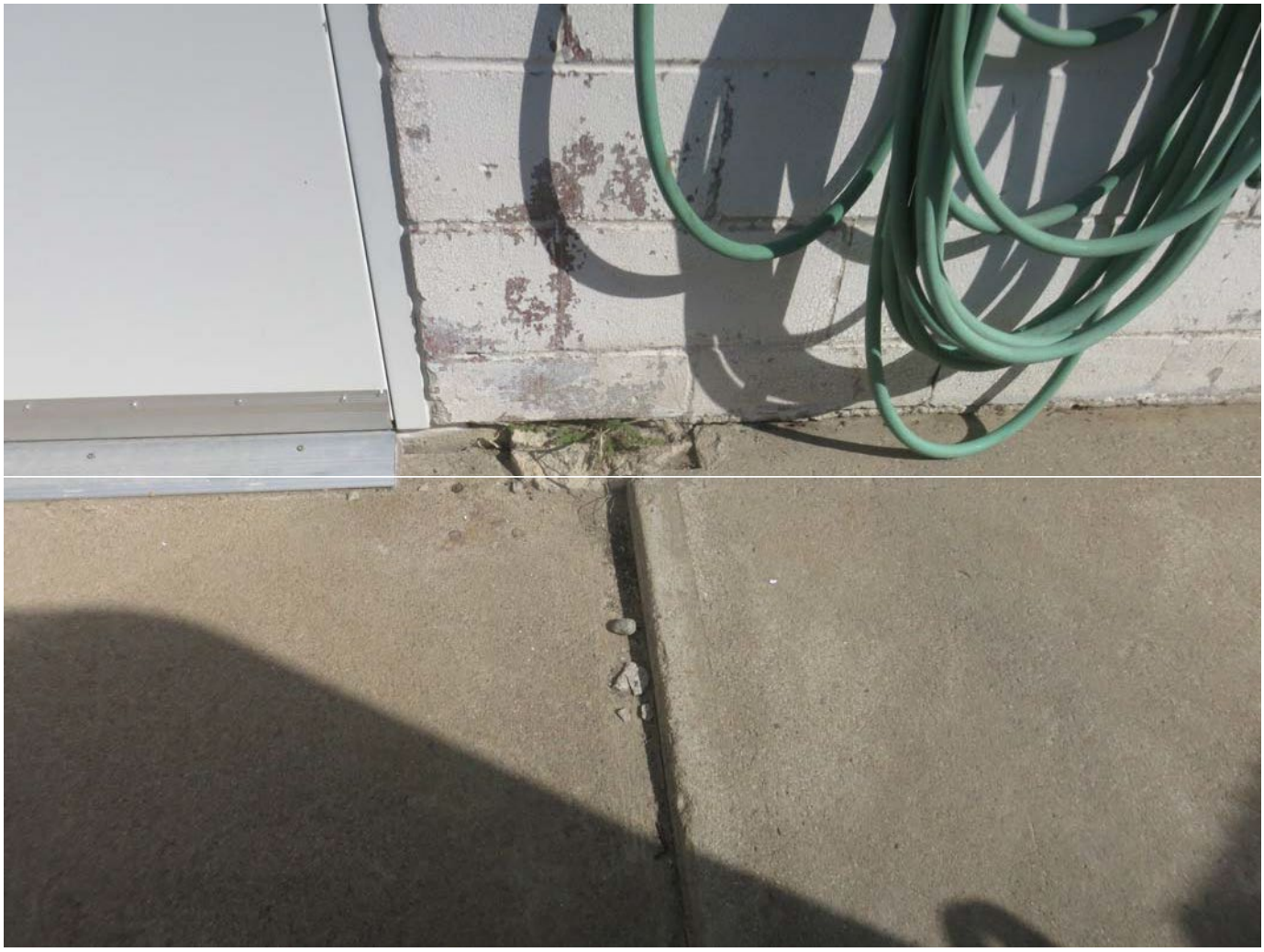
Location
Various locations along exterior walls.

Description
Loose joints in CMU wall.

Cause
Long term exposure to elements and aging of joint material

Distress Classification
Minor

Recommendations
Repoint masonry joints.



Location
Typical around perimeter of building.

Description
The surrounding sidewalks appear to have shifted down and away from the building, tearing the original joint sealant resulting in open joints.

Cause
Settlement of surrounding soils under sidewalks and possible overall pavement settlements.

Distress Classification
Minor

Recommendations
The joints should be filled with a new backer rod and joint sealant and maintained to prohibit water from infiltrating the soils below and causing frost heaving or further settlements.

Location
Typical around perimeter of building.

Description
Cracking in CMU wall.

Cause
Possible overstress or freeze-thaw damage from moisture penetrating the wall

Distress Classification
Minor

Recommendations
Provide sealant along the crack interface to mitigate water intrusion. Monitor crack for additional movement.

HOG BARN BUILDING

OBSERVATIONS

Original Building – 1940'S

The building consists of a wood or steel framed roof system supported by load bearing masonry walls. The building is supported by traditional concrete shallow spread footings. The interior floor is a concrete slab-on-grade.

Overall, the building was in average condition with no significant distressed or deteriorated conditions observed. The exterior masonry walls were in average condition. No evidence was observed suggesting damaging foundation settlements or dislocations. Interior floors conditions are unknown.

NOTED AREAS OF DISTRESS

See below:

Location
Various locations along exterior walls.

Description
Loose joints in CMU wall.

Cause
Long term exposure to elements and aging of joint material

Distress Classification
Minor

Recommendations
Repoint masonry joints.

SUMMARY

Overall, the NE DHHS YRTC buildings are in good condition and constructed of generally durable materials. The items listed above as identified distresses were generally minor in nature. No substantial condition was observed that would suggest a future, expensive, and comprehensive repair effort.

In the access tunnels at Reynolds Hall, it was observed that portions of the access tunnels were retro-fitted with a steel framed shoring system to account for foundation walls that were showing distress. It was also observed that other portions of the access tunnel foundation walls that were not shored are also showing distress. It is unknown whether this distress condition was present at the time the previous shoring work performed. The previously issued report (by others) for the access tunnel foundation walls should be reviewed to see if this distress was noted. If this distress was noted, the current crack widths and movements should be recorded and monitored for additional movement. If this distress was not noted or observed in the previous report, action should be taken to stabilize the foundations walls.

We witnessed numerous areas within the buildings marking the underground access tunnels as “Shelter Areas”. We should note that these are not true shelter areas but would provide some protection from tornados or severe wind events. The marked areas are not “perfect” per storm shelter design standards. However, they may be considered the best of the alternatives/ choices within the campus.

We trust that the above information meets your needs at the present time and if there are any questions that arise, please feel free to contact us.

Sincerely,
InfraStructure, LLC

Jeffrey S. Payne, P.E.
Buildings Group
Member

10/1/2021