

**Preliminary Design Package
for the Proposed New**



VIGO COUNTY SHERIFF'S OFFICE AND JAIL

Terre Haute, Indiana

**Vigo County Board of Commissioners Presentation
December 6, 2016**

**Vigo County Council Presentation
December 13, 2016**

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TABLE OF CONTENTS

Cover	
Table of Contents	TOC - 2
Executive Summary	ES - 1
Building Program	BP - 1
Site Selection	SS - 1
Preliminary Design	PD - 1
Narratives	
Landscape Architecture	LA - 1
Architectural	A - 1
Structural Engineering	SE - 1
Heating, Ventilation, and Air Conditioning (HVAC)	ME - 1
Plumbing Engineering	PE - 1
Fire Protection	FP - 1
Electrical Engineering	EE - 1
Estimate of Probable Costs	PC - 1
Project Schedule	PS - 1
Project Plan	PP - 1
Previous Meeting Minutes	MM - 1

EXECUTIVE SUMMARY

At the request of the Vigo County Commissioners, Garmong Construction Services and DLZ, have prepared the following:

- Preliminary design of new jail and Sheriff's office
 - Rated beds in accordance with Feasibility Study including rated beds for juvenile classification (534 rated beds)
 - Future rated bed expansion consideration (144 beds)
 - Sheriff's Office Administration
 - Evidence storage and processing
 - Public and Staff entrances
 - Training room space
 - Visitation space
 - Intake/Booking/Processing with video arraignment
 - Medical, pharmacy, dental, laboratory, and x-ray spaces
 - Medical cells
 - Program spaces
 - Employee locker room, fitness area, break and dining spaces
 - Laundry facilities
 - Food service space
 - Building systems
 - Fleet maintenance, large evidence storage and processing spaces
- Proposed location and site layout
- Project preliminary budget
- Project preliminary schedule
- Pre-construction plan for controlling project costs
- Construction services for controlling project budget and schedule
- Post-construction services for quality assurance

The following outline summarizes meetings, activities, discussions, and decisions made for the purposes of developing this project for resolution by County authorities.

1. Owner Kickoff Meeting held October 11, 2016
 - a. Introductions of Project Team and future communications
 - b. Review of Feasibility Study, potential sites, and outline of Preliminary Design Phase
 - i. Discussion of rated bed breakdowns
 - ii. Site selection criteria
 - iii. Building Programming strategies and current jail trends
2. Workshop #1, Building Program Meeting, October 14, 2016
 - a. Developed Building Program from user input
3. Workshop #2, October 26, 2016
 - a. Review of Building Program developed at previous meeting and proposed design scheme prepared by DLZ
 - b. Discussion of proposed and potential sites and elimination of the 1st Street site
 - c. Developed proposed future meeting schedule and proposed meeting agendas
4. Workshop #3, November 3, 2016
 - a. Visit potential site on West Lombardi Drive and proposed site on Industrial Drive
 - b. Reviewed and modified Building Program to include juvenile secured housing
 - c. Reviewed three potential design Schemes and selected Scheme A
5. Workshop #4, November 9, 2016
 - a. Review of design scheme, Building Program, and site layouts of West Lombardi Drive and Industrial Drive with Commissioners
 - i. Vigo County Commissioners directed project team to assume Industrial Drive site
 - b. DLZ presented proposed layouts of Intake/Booking/Process and Sheriff's Office spaces
 - c. Garmong discussed budgeting strategy of using historical cost analysis as well as a detailed budget estimate for presentation to Commissioners and Council
6. Workshop #5, November 15, 2016
 - a. DLZ presented structural, mechanical, and electrical design approaches
 - b. DLZ presented layouts of Employee and Medical areas
 - c. Garmong presented historical cost and square foot data
 - i. Garmong will prepare potential escalation costs for consideration if project is deferred
7. Workshop #6, November 21, 2016
 - a. DLZ presented revised site layout for Industrial Drive and further detail information for Sheriff's Office, Intake/Booking Processing, Employee, Laundry, Building Systems, Trustee Housing, Food Service, Medical, and Secure Housing
 - b. DLZ presented massing models

BUILDING PROGRAM



VIGO COUNTY
Sheriff's Office and Jail
 Terre Haute, Indiana

BUILDING PROGRAM

	SPACE DESCRIPTION	#	NET SF	ASSIGNED AREA NSF	AREA NSF	AREA GROSSING %	AREA GROSSING SF	AREA GSF	REMARKS
A	PUBLIC ENTRY SPACES - COMMON				4,410	30%	1,323	5,733	
A.1	Vestibule	1	150	150					
A.2	Metal detector	1	150	150					
A.3	Public Lobby and Waiting	1	1,000	1,000					Drug drop off / commissary
A.4	Public Toilet - Male	1	140	140					Single occupancy
A.5	Public Toilet - Female	1	140	140					Single occupancy
A.6	Public Toilet - Transgender	1	70	70					Single occupancy
A.7	Janitor	1	50	50					
A.8	Memorial	1	100	100					
A.9	Public Lockers	1	100	100					
A.10	Facility Master Control	1	400	400					
A.11	Search	1	120	120					
B.7	Video Visitation	1	800	800					
B.8	Non-Contact Visitation	1	400	400					
B.9	Interview Room	1	100	100					
B.11	Public Lockers	1	100	100					
B.12	Receptionist	1	120	120					Enclosed / likely not 24-7
B.13	Sex Offender - Register / Lobby	1	120	120					
B.14	Sex Offender - Office	1	200	200					Two people
B.15	Sex Offender - Processing Room	1	150	150					DNA, photo, fingerprint, process, supplies
		0	0	0					
		0	0	0					
B	PUBLIC ENTRY SPACES - JAIL				0	25%	0	0	
B.1	Vestibule	0	100	0					
B.2	Metal Detector	0	120	0					Possible

C.20	Squad Room	1	400	400					4 people
C.21	Conference Room / Press	0	700	0					Space deleted
C.22	Not used	0	0	0					
C.23	Training Room - Vestibule	1	100	100					Separate entrance
C.24	Training Room	1	4,000	4,000					200 people / divide into 3 or 4
C.25	Training Room - Kitchenette	1	150	150					
C.26	Training Room - Male Toilet	1	200	200					
C.27	Training Room - Female Toilet	1	200	200					
C.28	Training Room - Transgender	1	70	70					
C.29	Training Room - Supplies	1	100	100					
C.30	Sheriff's Office Toilet - Male	1	175	175					Single occupancy
C.31	Sheriff's Office Toilet - Female	1	175	175					Single occupancy
C.32	Janitor	1	50	50					
C.33	Armory - Guns	1	200	200					Work bench
C.34	Tazor Storage	0	0	0					Prefer to be in a locked tall storage
C.35	Defensive Tact Storage	1	200	200					
C.36	Evidence Storage	1	2,000	2,000					
C.37	Evidence Deputy Processing	1	200	200					
C.38	CSI Tech Work Area	1	200	200					2 staff
C.39	CSI Processing / Lab	1	150	150					
C.40	Cold Case Storage	1	1,000	1,000					
C.41	Break Room	1	200	200					
C.42	CID Waiting	2	100	200					
C.43	CID Group Work Area	1	1,000	1,000					12 staff
C.44	CID Toilet - Male	0	0	0					Space deleted
C.45	CID Toilet - Female	0	0	0					Space deleted
C.46	CID - LT Office	1	120	120					
C.47	CID - Kitchenette	1	120	120					
C.48	CID Interview A	1	200	200					10 people
C.49	CID Interview B	1	200	200					10 people
C.50	CID Interview C	0	0	0					Space deleted
C.51	CID Interview Equipment	1	100	100					
C.52	CID Entry - Separate	1	100	100					
		0	0	0					
		0	0	0					

D	INTAKE BOOKING PROCESSING				18,280	40%	7,312	25,592	
D.1	Vehicular Sallyport	1	6,000	6,000					2 drive thru bays and angled parking
D.2	Hazard / Chemical Showers	1	50	50					
D.3	Receiving Sallyport / Metal Detector	1	300	300					
D.4	Sallyport Toilet - Arresting Officers	1	70	70					
D.5	Breathalyzer Room	1	100	100					
D.6	Temporary Evidence Storage	1	100	100					
D.7	Booking Counter	1	500	500					
D.8	Bullpen Seating - Male	1	200	200					
D.9	Bullpen Seating - Female	1	100	100					
D.10	Search Rooms	2	100	200					
D.11	Toilet - Inmate	1	70	70					
D.12	Photo / Index Area	1	100	100					
D.13	Video Arraignment	3	500	1,500					Each with 25 occupants
D.14	Video Arraignment - inmate toilet	1	60	60					
D.15	Interview Room	1	200	200					Audio / video / 5 people
D.16	Classification Officer	1	120	120					
D.17	Holding Cells - Male	10	80	800					Double bunk
D.18	Holding Cells - Female	4	80	320					Double bunk
D.19	Detox - Male	1	500	500					
D.20	Detox - Male	1	200	200					
D.21	Detox - Female	1	300	300					
D.22	Detox - Female	1	200	200					
D.23	Padded Cells	4	80	320					
D.24	Padded Cells - Toilet / Shower	2	80	160					
D.25	Inmate Property Storage	1	1,500	1,500					
D.26	Washer / Dryer	1	150	150					
D.27	Jail Clothing Issue	1	1,000	1,000					
D.28	Inmate Changing Room	2	70	140					
D.29	Inmate Shower	2	70	140					
D.30	Miscellaneous Storage	1	400	400					
D.31	Transport Officer	1	120	120					
D.32	Transport Holding	1	200	200					
D.33	Transport Sallyport	1	100	100					
D.34	Janitor	1	50	50					
D.35	Professional NC Visitation	4	100	400					Glass separation / 3 people

H	EMPLOYEE AREA					7,810	35%	2,734	10,544
H.1	Employee Entrance	1	100	100					
H.2	Locker Room - Male	1	2,000	2,000					80 lockers
H.3	Locker Room - Male Shower	8	120	960					
H.4	Locker Room - Female	1	1,000	1,000					40 lockers
H.5	Locker Room - Female Shower	4	120	480					
H.6	Locker Room - Transgender	1	200	200					
H.7	Locker Room - Transgender Shower	1	120	120					
H.8	Fitness Room	1	2,000	2,000					
H.9	Break Room	1	250	250					
H.10	Staff Dining	1	600	600					Market approach / vending
H.11	Lactation Room	1	100	100					
		0	0	0					
		0	0	0					
I	LAUNDRY					3,170	25%	793	3,963
I.1	Washer and Dryer Room	1	2,000	2,000					
I.2	Housekeeping Room	1	200	200					
I.3	Toilet - Inmate	1	70	70					
I.4	Janitorial	1	50	50					
I.5	Cart Storage	1	100	100					
I.6	Linen / Towel Storage	1	750	750					
		0	0	0					
		0	0	0					
J	FOOD SERVICES					7,110	25%	1,778	8,888
J.1	Manager's Office	1	120	120					
J.2	Food Prep	1	1,100	1,100					
J.3	Cooking Area	1	1,100	1,100					
J.4	Dry Storage	1	800	800					
J.5	Walk In Cooler	1	500	500					
J.6	Walk In Freezer	1	500	500					
J.7	Dishwashing	1	800	800					
J.8	Cart Wash	1	500	500					
J.9	Cart Storage	1	500	500					
J.10	Kitchen Trash Room	1	200	200					
J.11	Staff Locker Room	1	200	200					

RATED BEDS SUMMARY

AREA	RATED BEDS
Infirmiry Cells - Male	12
Infirmiry Cells - Female	6
Medical Cells - Male	4
Medical Cells - Female	2
Holding Cells - Male	20
Holding Cells - Female	8
Dormitory - Trustees	24
Dormitory - Trustees	8
General Population Unit - 24 beds	144
General Population Unit - 24 beds	264
Behavior Management Unit - Male	24
Behavior Management Unit - Female	12
Waived Juvenile Unit	6
TOTAL	534

NOTE: Detox and Padded Cells do not count for Rated beds

SITE SELECTION

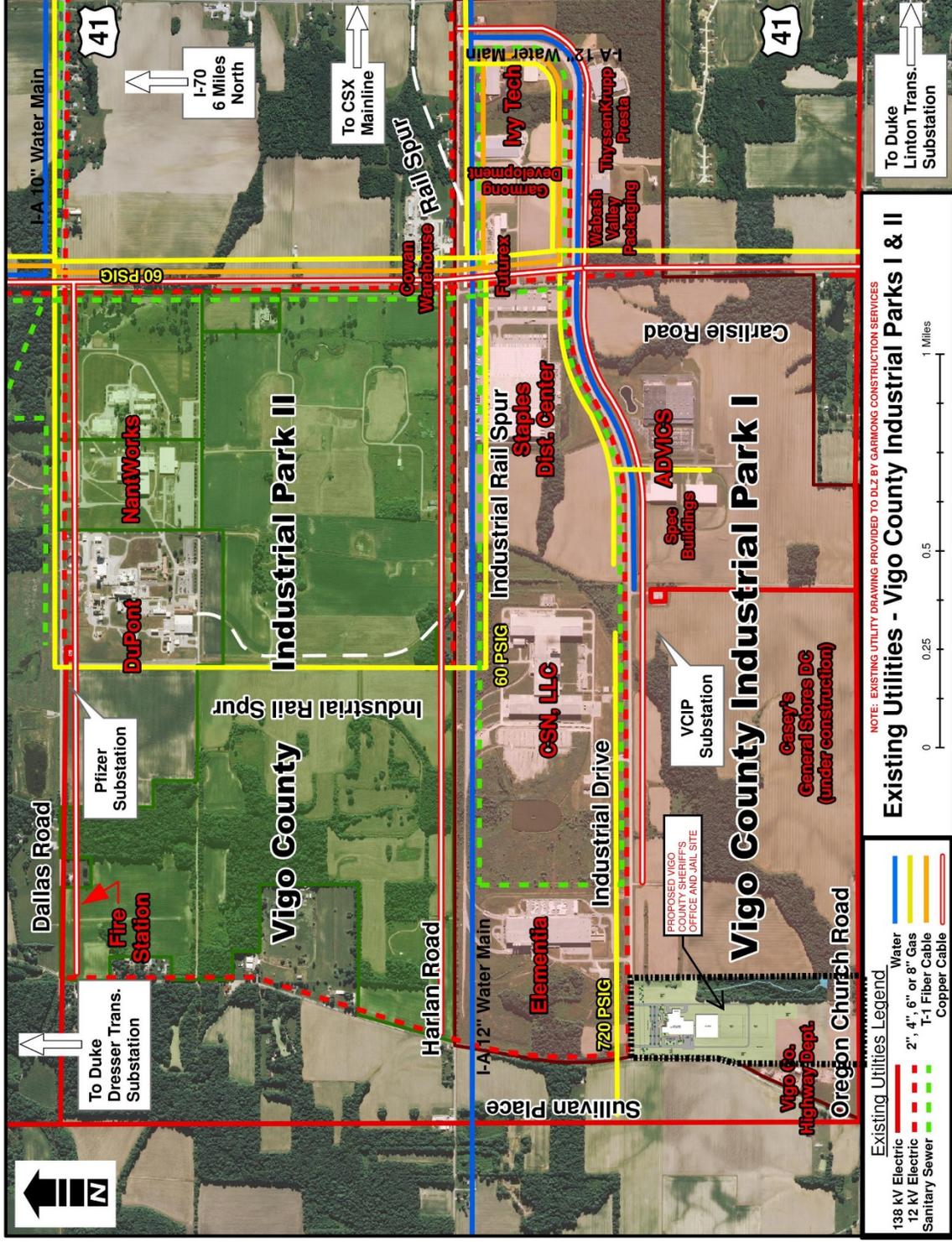
1. Five potential locations were identified
 - a. 13th & Hulman
 - i. Eliminated due to nearby environmental hazard, limited expansion potential, likely potential of underground debris, and potential resistance from neighboring property owners
 - b. Airport location
 - i. Eliminated because no parcel was identified, and potential of underground mines
 - c. North 1st Street (24 acres)
 - i. Eliminated due to nearby environmental hazard, likely potential of underground debris, current zoning, limited expansion potential, property bordered floodplain and wetland, parcel was not continuous; two separate Owners may not entertain sell offer
 - d. West Lombardi Drive (60+ acres)
 - i. Eliminated due to multiple parcel ownership and sellers may not entertain offers
 - e. Industrial Park (67 acres)
 - i. Selected due to cost, expansion potential, availability, current zoning, location of utilities, no resistance from neighboring property owners, and no flood plain/wetland classification

Refer to next page for property comparison matrix of North 1st Street, Lombardi Drive, and Industrial Park properties.

Vigo County Commissioners - New Jail
 Site Evaluation
 November 9, 2016

	Industrial Park	North 1st Street	SR63 & Lombardi Drive
Acreage	67	24	30+
Cost/Acre	\$0	TBD (cost of parcels paid by ISU)	Unknown - seller may not entertain offer
Utilities			
<i>Electric (Duke Energy)</i>	?	Yes	Yes
<i>Water (IAWC)</i>	Needs extended	?	Needs extended from SR63
<i>Sanitary (TH Sanitary District)</i>	Needs extended	?	North side of Lombardi
<i>Gas (Vectren)</i>	?	?	High pressure
<i>Frontier</i>	?	?	Yes
<i>Fiber (Joiink & possibly others)</i>	At east end of park, needs extended	Yes	Yes
<i>Time Warner Cable</i>	?	?	?
<i>Storm</i>	No	No	Needs extended
Soil Type	Clay	Sand/Gravel	Sand/Gravel
<i>Potential Debris</i>	Not likely	Highly Likely	Not likely
<i>Stabilization Necessary</i>	Likely	Not likely	Not likely
Nearby Environmental Hazards	No	Yes (IAWC Treatment Facility)	No
Architectural Requirements	Minimal	Moderate	Minimal
Access to Public Transportation	No	Yes	No
Distance to Courthouse	10 miles	1 mile	6 miles
Space for Future Expansion	Yes	Limited	Yes
Current Zoning	M2	R2	A1
Required Zoning	M1 (or M2)	M1 (or M2)	M1 (or M2)
Flood Plain/Flood Way	Possibly a small portion of SE corner- need to verify	Bordering property in flood plain	No
Wetland	Possibly a small portion of SE corner- need to verify	Bordering property is a wetland	No
Other		Not a continuous parcel. Two parcels owned by others	Not a continuous parcel. Two parcels owned by private individuals

SITE LAYOUT - INDUSTRIAL PARK



Existing Utilities - Vigo County Industrial Parks I & II

NOTE: EXISTING UTILITY DRAWING PROVIDED TO DLZ BY GARMONG CONSTRUCTION SERVICES

Existing Utilities Legend

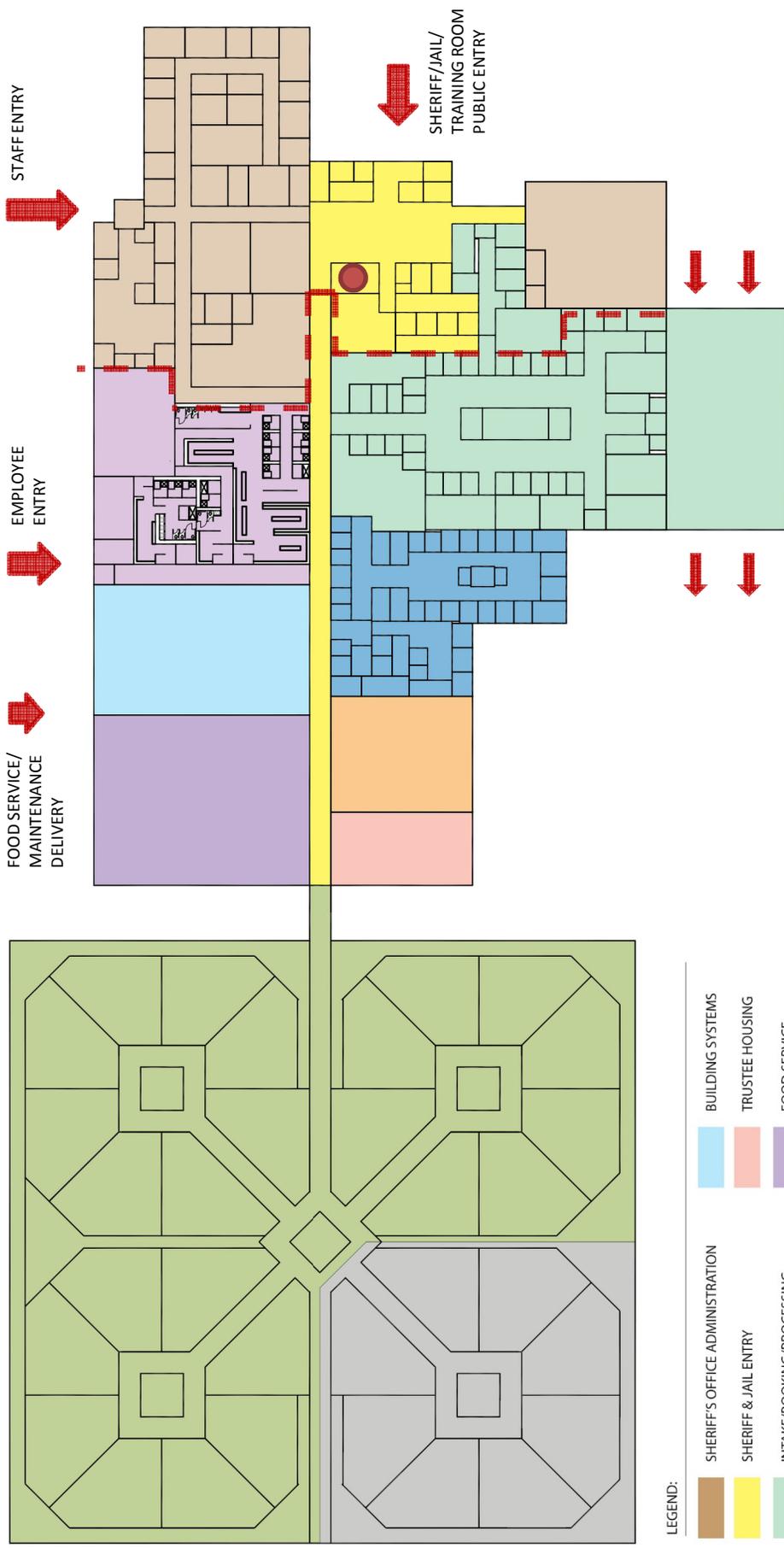
	Water
	138 KV Electric
	12 KV Electric
	2", 4", 6" or 8" Gas
	T-1 Fiber Cable
	Copper Cable



SITE LAYOUT - INDUSTRIAL PARK



OVERALL PLAN



- LEGEND:
- SHERIFF'S OFFICE ADMINISTRATION
 - SHERIFF & JAIL ENTRY
 - INTAKE/BOOKING/PROCESSING
 - EMPLOYEE AREA
 - LAUNDRY
 - BUILDING SYSTEMS
 - TRUSTEE HOUSING
 - FOOD SERVICE
 - MEDICAL
 - SECURE HOUSING
 - SECURE HOUSING SHELL SPACE - BUILD OUT ALT.



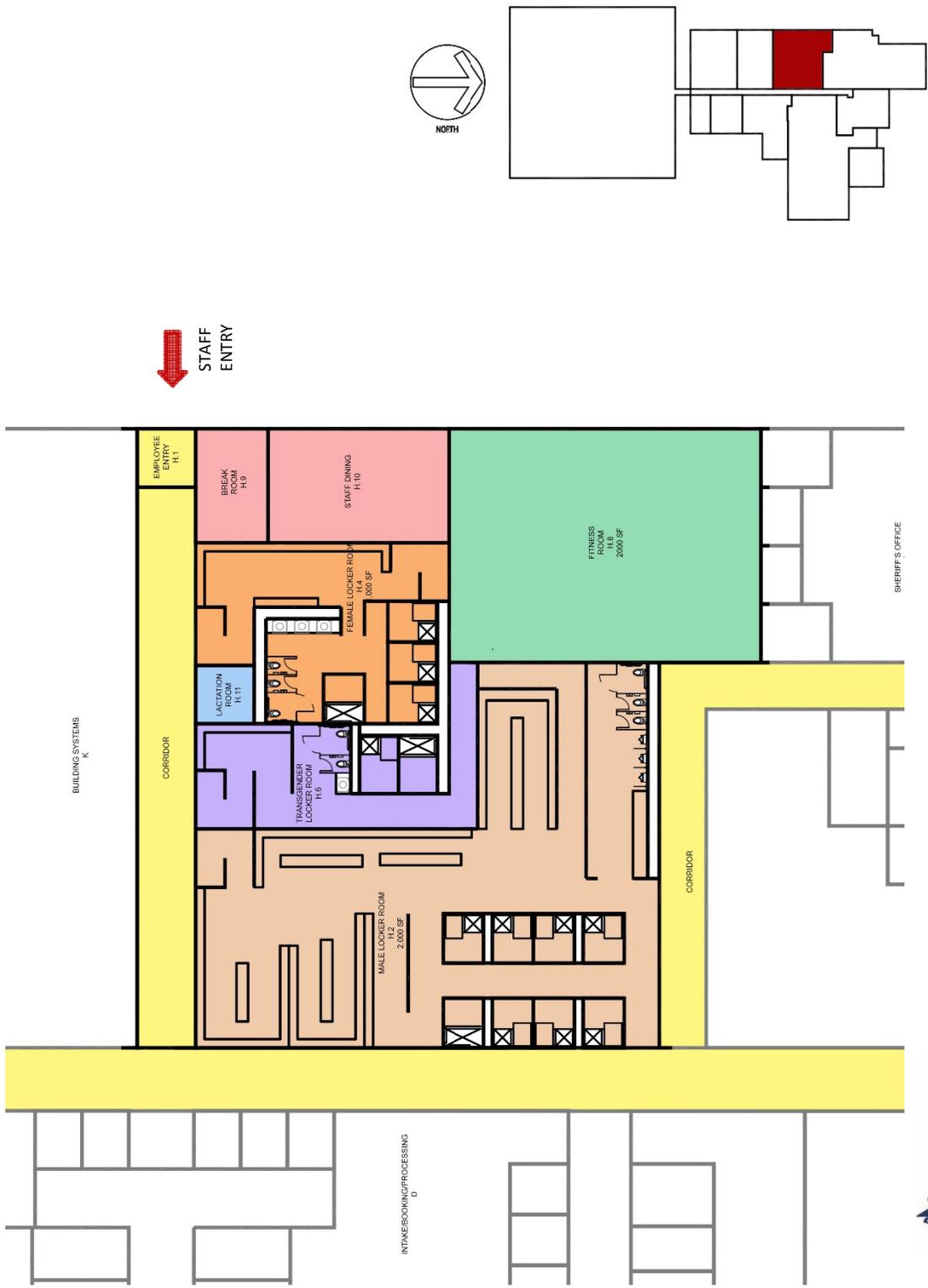
SHERIFF'S OFFICE



INTAKE/BOOKING/PROCESSING



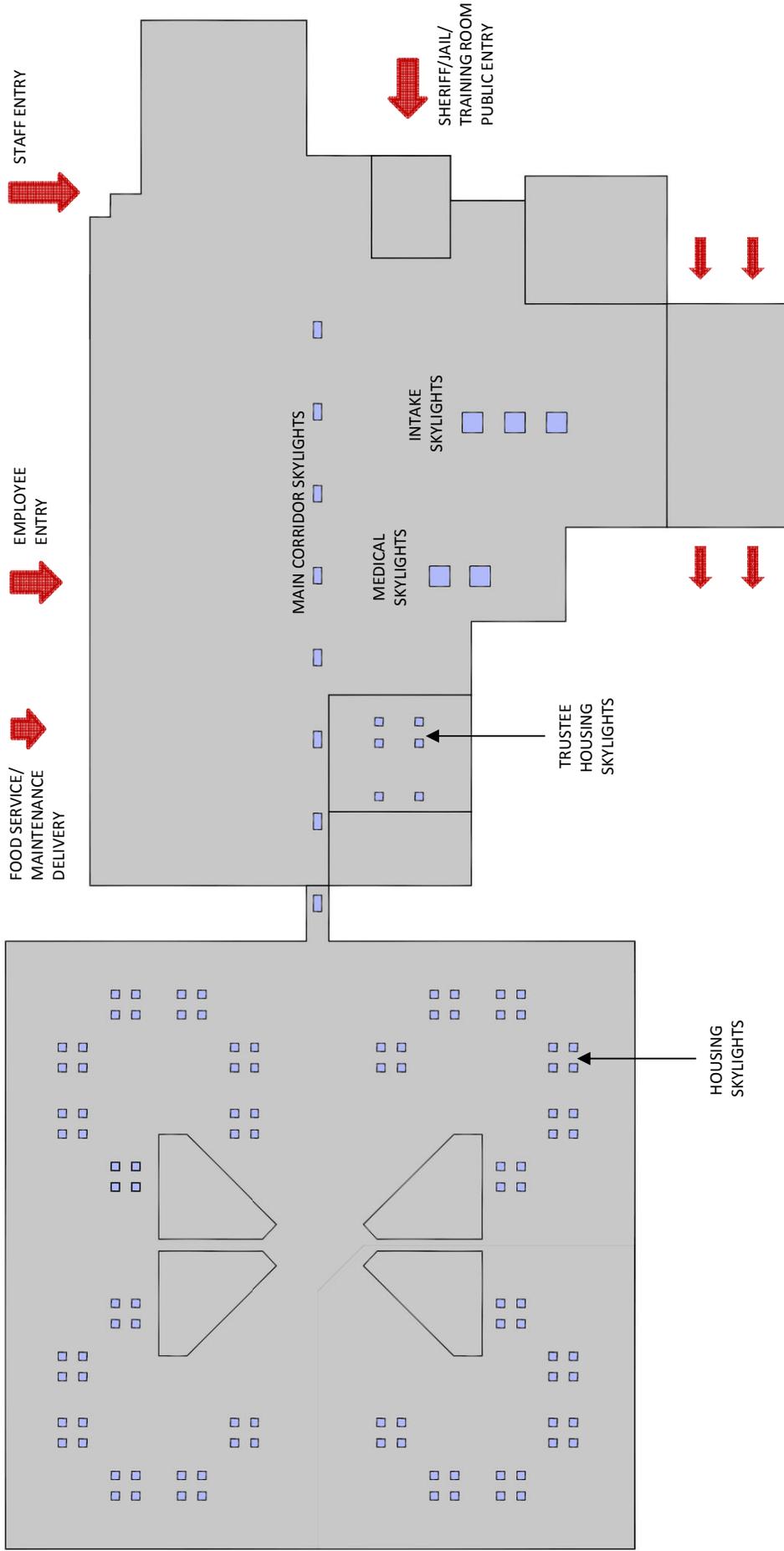
EMPLOYEE AREA



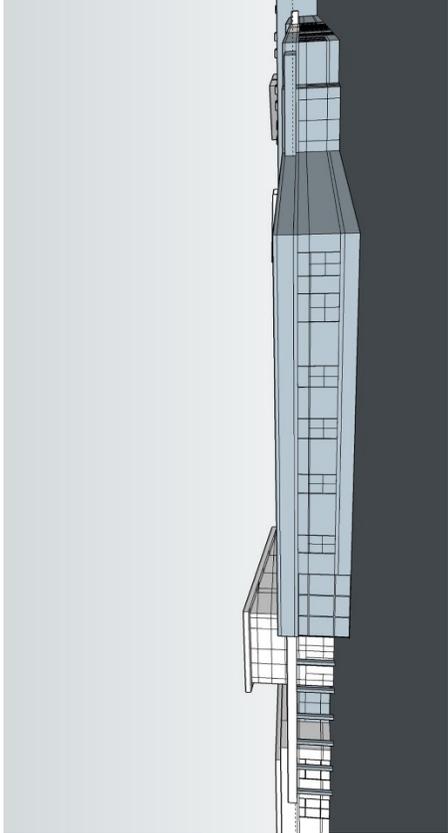
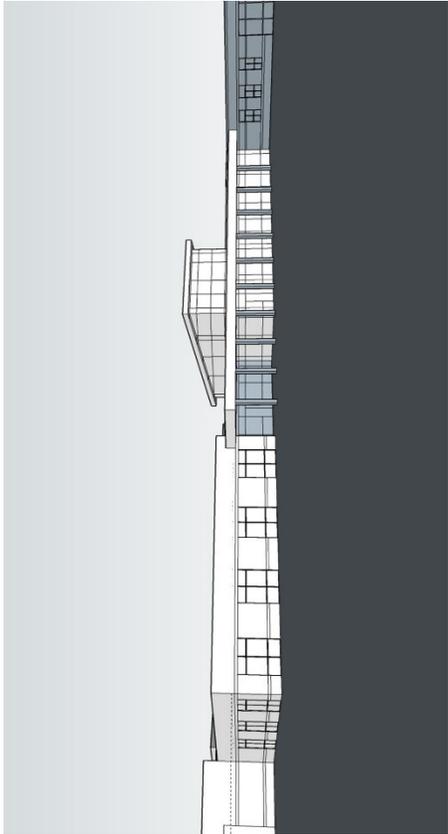
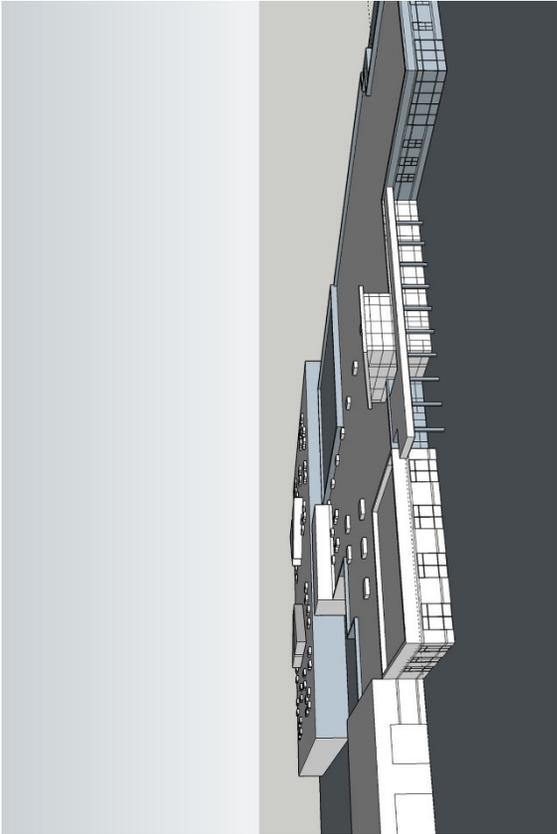
PUBLIC ENTRY



ROOF PLAN



BUILDING MASSING



NARRATIVES

LANDSCAPE ARCHITECTURE

PROPERTY AND ZONING INFORMATION

The subject properties are existing parcels within the County Industrial Park. Currently the parcels are undeveloped and are being farmed. The land uses of the surrounding developed properties within the park are industrial/manufacturing. At this time no survey or geotechnical borings have been completed for the property. The land, in general, slopes to the southeast.

The site is zoned Heavy Industrial District (M-2).

The proposed Sheriff's Office and Jail is listed as a special exception use in the M-2 zoning district and subject to provisions of Section 18 of the Unified Zoning Ordinance for Vigo County, IN. The special exception use will require an application process and approval of the Board of Zoning Appeals (BZA).

Minimum Lot Width and Frontage - 100'

Minimum Front Yard and Setback - shall be provided along all street rights-of way as follows:

1. along a minor or local street - 25'
2. along a sub collector street - 30'
3. along a collector - 40'

Minimum Rear Setback - shall be provided from the property line as follows:

1. Minimum Rear Yard 15'
2. Minimum Rear Buffer Yard - 40'

Minimum Side Yard and Setback - shall be provided from the property line as follows:

1. Minimum Side Yard - 15'
2. Minimum Side Buffer Yard - 40'

Use of Minimum Yards and Minimum Buffer Yards - all minimum yards and minimum buffer yards shall be landscaped with grass, trees, shrubbery, or hedge, or in combination with other suitable ground cover materials and shall remain free from structures except where expressly permitted below:

1. Minimum Front Yards - may include driveways and parking areas provided that a minimum buffer strip of 10' in depth measured from and paralleling the right-of-way line shall be maintained as open space free from buildings or structures;
2. Minimum Front Buffer Yard - may include parking areas and driveways provided that a minimum buffer strip of 20' in depth measured from and paralleling the right-of-way line shall be maintained, as open space free from buildings or structures;
3. Minimum Side and Rear Yards - minimum side and rear yards may include internal driveways connecting to adjoining lots provided that the remainder of said yards shall be maintained as open space free from buildings or structures;

4. Minimum Side and Rear Buffer Yards - shall be landscaped with grass and shrubbery, trees, or hedge, or in combination with other suitable ground cover materials and maintained as open space free from buildings or structures.

BUFFER YARD PLANTING REQUIREMENTS

1. One Standard Plant Unit (SPU) shall be provided for each 150' lineal feet of required buffer yard. Buffer yard type to be determined.

BUILDING HEIGHT LIMITATIONS

1. Principal Use Building - 85', provided, however, any Principal Use Building may be increased in height up to a maximum of 125' feet subject to the increasing of the required yards by 1' for each 1' of additional structural height above 85'
2. Accessory Use Building - 45'

OFF STREET PARKING AND LOADING REQUIREMENTS

1. Exit drives shall not be located within 100' of an intersection
2. Parking Spaces: 9'x18' minimum
3. Parking Drives: 24' width minimum

The number of off-street parking spaces required for this use is not listed therefore parking requirements shall be determined by the Director based upon requirements for similar uses, expected demand and traffic generated by the proposed use, and other information from appropriate traffic engineering and planning criteria.

STORMWATER DRAINAGE

An on-site storm water detention system will be required in accordance with all applicable Vigo County Requirements.

UTILITY SERVICE AND PROVIDERS

Utilities are not currently extended to the site however most are available within the industrial park for extension. Confirmation of utility availability is ongoing.

Area Utility Providers:

Duke Energy (Electric)
Indiana American Water Co. (Water)
Terre Haute Sanitary District (Sanitary Sewer)
Vectren (Natural Gas)
Frontier (Cable)
Time Warner Cable (Cable)
Joink (Fiber)

SITE DESIGN

Proposed site design improvements include access drives, general parking lot with drop off, entrance plaza, pedestrian walkways, staff parking lot, outdoor break area, facility service/utility area, loading dock, drive through sallyport, and perimeter circulation drive.

Two points of access to the site are provided from Industrial Drive leading to the main public parking lot, drop off, and main public entry plaza. Drives continuing south of the public parking area are gated and screened from the public. The east drive provides sallyport access and connection to the perimeter circulation drive. The west drive serves truck access to loading docks, trash/recycling service, and general facility maintenance in addition to staff parking, entrance and outdoor break area.

General parking provided in the public parking lot north of the facility contains 120 spaces for visitors. All parking will be accessible via 2-way circulation drives. A total of 5 accessible parking spaces shall be located within close proximity to the main public entry plaza.

Staff parking for 30 is provided on the west side of the building separated from the general parking lot. The area is expandable for additional parking as applicable. Two accessible parking spaces will be provided nearest the staff entry and outdoor break area.

Service, Utility, and Loading areas shall consist of continuous concrete surfacing in order to allow sufficient maneuvering, loading and unloading area for the anticipated delivery vehicles.

Ground mounted utilities shall include an electrical transformer, generator, and HVAC equipment. This equipment shall be located in a secured utility yard and screened from view.

Freestanding facility monument signage featuring building identification will be located at the access points along Industrial Drive.

Landscaping will be provided to meet the minimum local code, including planting buffers and parking lot screening.

Refer to Electrical and Security narratives for site lighting and security cameras.

ARCHITECTURAL

The current Vigo County Sheriff’s Office and Jail, located in Terra Haute, IN was constructed in 1980 with a significant renovation in 2001. The current Vigo County Sheriff’s Office and Jail has a rated bed capacity of 268 inmates.

The new Vigo County Sheriff’s Office and Jail is approximately 181,000 GSF and will provide accommodations for the following primary spaces; Sheriff’s Office, Employee Area, Video Visitation, Intake Booking Processing, Medical, Laundry, Food Service, Program Area, Indoor/Outdoor Recreation, Secure Housing for 534 rated beds, and associated support spaces for mechanical, plumbing, electrical, and security electronic systems.

The Secure Housing 538 rated bed distribution is proposed as follows:

• Infirmery Cells – Male		12 beds
• Infirmery Cells – Female		6 beds
• Medical Cells – Male		4 beds
• Medical Cells – Female		2 beds
• Holding Cells – Male	10 cells with 2 beds/cell	20 beds
• Holding Cells – Female	4 cells with 2 beds/cell	8 beds
• Dormitory – Male Trustees	1 dormitory with 24 beds	24 beds
• Dormitory – Female Trustees	1 dormitory with 8 beds	8 beds
• General Population Unit	6 units with 24 beds (2 beds/cell)	144 beds
• General Population Unit	11 units with 24 beds (4 beds/cell)	264 beds
• Behavior Management Unit – Male	2 cells with 1 bed/cell x 12 cells/unit	24 beds
• Behavior Management Unit – Female	1 cell with 1 bed/cell x 12 cells	12 beds
• Waived Juvenile Unit	1 cell with 1 bed/cell x 6 cells	6 beds
Total Rated Beds (Base Bid):		534 beds

Three General Population Housing Units will be provided at two-story volume spaces with upper level housing at the mezzanine level. A fourth two-story General Population Housing unit shell space will be provided. The three two-story General Population Housing units will each be comprised of six inmate dayrooms with a combination of both two-man and 4-man premanufactured modular steel cells, Indoor/Outdoor Recreation, Program Classroom, and Satellite Control. Master Control will also be provided. Base bid rated bed capacity is 534.

Finishing out the fourth two-story General Population Housing unit with reinforced interior concrete masonry walls, satellite control, premanufactured steel cells, detention furnishings, and required mechanical, electrical, plumbing, fire protection, security electronic components, etc. is proposed by Alternate Bid. If this Alternate Bid is accepted, the rated bed capacity would be 678.

Inmate cells at the Infirmery, Medical, Holding, Behavior Management, and Waived Juvenile locations will be constructed of, or a combination of premanufactured modular steel cells or possibly reinforced concrete masonry units (CMU).

A full service Kitchen and Laundry will also be contained in the secure area of the facility and will be sized to accommodate future expansion.

The Sheriff's Office Administration area and employee area are located in the non-secure area of the facility. Features of this area include a Training Room, which can be divided into smaller spaces that may be used for after-hours public meetings; Video Arraignment; Video Visitation, as well as Professional Noncontact Visitation; Crime Scene Investigation areas; and the Criminal Investigation department. The employee area will include a Fitness area, Break/Dining Rooms, and Staff Locker Rooms. There will also be a two-bay Vehicle Sallyport adjacent to the Intake Booking Processing area with a single row of angled parking.

The Indoor/Outdoor Recreation areas will have a toilet and shower to eliminate the need for jail staff escorting inmates to a remote toilet facility during scheduled recreation time, as well as allow the Indoor Recreation area to serve as temporary housing space during potential jail overcrowding. Rolling shutters with security screens will be used to allow natural ventilation into these spaces.

Video Visitation will be provided to maximize staff efficiencies by not requiring staff escort of inmates to a remote non-contact visitation. Tablets for video visitation will be used in secure areas.

The following primary building system components are anticipated to be utilized throughout the facility as noted.

EXTERIOR ENCLOSURE

The proposed exterior shell of the building will be constructed from the following primary list of materials:

EXTERIOR WALL CONSTRUCTION:

Load bearing architectural precast structural insulated panels will comprise the majority of the exterior wall construction. Reveals and change in texture will be incorporated into the panels.

The architectural precast structural insulated panels at the Sheriff's Administration area, Sheriff/Jail/Training Room Public Entry, and Training Room will incorporate more architectural detail such as thin-brick veneer inlay, reveals, texture, colors, etc.

DOOR AND WINDOW OPENINGS:

At non-secure areas of the facility, aluminum storefronts, punched openings and skylights/clerestory will be used as window systems on the exterior to bring natural light into the building.

No windows at inmate cells/holding cells to the exterior will be provided. All daylight requirements will be achieved with detention grade skylights to Dayrooms.

Glass and frame systems will either be standard commercial grade or detention grade, as applicable.

Single exterior door systems will either be standard commercial grade or detention grade, as applicable. Automatic door operators will be incorporated at all public, staff, employee entrances.

ROOF SYSTEM:

A 1/4:12 sloped TPO membrane roof system will be provided. A minimum of four inches of insulation will be designed. A thirty warranty will be specified.

EXTERIOR SOFFITS:

Exterior insulation and finish system.

INTERIOR SPACES

The proposed interior finishes of the building will be constructed from the following primary list of materials:

INTERIOR WALLS:

Walls in secure areas (except inmate cells – reference below) will be constructed with concrete masonry units (CMU). Walls will be grouted solid with steel reinforcing as required. Walls at secure areas will extend to the bottom of structure or above security ceiling systems. Walls at Administrative Office spaces (non-secure areas) will be constructed of metal stud framing with gypsum board and will extend above the ceilings. Walls at non-secure areas at primary circulation and/or areas prone to high-abuse (i.e. Fitness Room, Locker Rooms, etc.) will be constructed of CMU. Exposed walls in occupied areas will be painted. Conference rooms, training room, and select offices will have vinyl wallcovering.

Inmate cells will be five-sided premanufactured modular steel cells (i.e. four walls and ceiling). Cell walls, ceiling, and primary cell detention furnishings shall receive factory applied high-performance coating for durability.

DOOR AND WINDOW OPENINGS:

Non-secure doors/door frames at Administrative Office areas will be fully welded, painted hollow metal steel frames and flush wood doors with standard commercial grade hardware.

Secure detention doors/door frames and windows will be heavy-gauge steel – fully welded and painted. Most detention doors will be swinging with some Sallyport/Interlock, Food Service, Laundry, and primary secure circulation doors as sliders. Doors will typically be full glass with food passes serving inmates. Shutters over glazing will be used at applicable in secure areas.

Security glazing will be provided at secure locations. A combination of annealed and tempered glazing will be provided at non-secure locations.

FLOORS:

Floor surfaces at secure areas such as Inmate Dayrooms/Dorms, corridors, Satellite Control, Master Control, storage areas, mechanical/electrical rooms, etc. will be exposed sealed concrete as Base Bid. Slip resistant epoxy floor coating will be provided at all first floor inmate shower drying areas just outside of all showers (approximately 3'x4') as Base Bid. An Alternate Bid will be included to provide epoxy floor coating at secure primary corridors, intake booking processing common staff area and at the medical common staff area. This epoxy floor coating Alternate Bid does not include any areas of secure housing/cells – either at general population, intake booking processing, medical, infirmary, or trustee

holding (other than at inmate shower drying areas noted above).

Vinyl Composition Tile (VCT) is proposed at locations such as Staff Break/Dining Room, work rooms, file storage, etc.

Ceramic wall and/or floor tile will be provided at non-secure wet locations such as Staff Toilets, Locker Rooms, etc. Ceramic floor tile is anticipated at the kitchen.

Carpet tile is proposed at locations such as Administrative Offices, Conference Rooms, Training Room, etc.

Terrazzo will be provided at the main lobby area. A county logo will be part of the terrazzo floor.

CEILINGS:

At secure areas readily accessible to inmates, the ceilings will be a security steel plank type with factory applied paint. Ceilings at premanufactured modular steel cells will be steel with factory applied high-performance coating. Ceilings at inmate cell areas other than at premanufactured modular steel cell locations will be security steel plank type with factory applied paint or precast concrete with field applied paint. Ceilings at inmate dayrooms will be an acoustical security steel panel system for abuse resistance with factory applied paint.

A suspended acoustical panel ceiling will be provided at locations such as Administrative Offices, Satellite/Master Control stations, Staff Toilets and corridors where inmates will be escorted.

A suspended ceiling cloud will be designed for the main entry lobby.

Gypsum board bulkheads will be used at corridor intersections, training room, conference rooms, and in the lobby.

ACOUSTIC WALL PANELS

Acoustic wall panels will be provided at the main lobby and possibly in the training room.

CASEWORK AND COUNTERS:

Plastic laminate will be used throughout the facility. Counters will typically be solid surface in non-secure areas and stainless steel in secure areas.

WALL BOARDS:

Marker boards and tack boards will be used in the training room, conference rooms, break rooms, and select offices.

SIGNAGE:

Painted graphics will be used in the secure area to designate door numbers, housing units, cell numbers, and egress paths.

Acrylic panel signage will be used to identify room names, rules and regulations.

A cast bronze building plaque will be incorporated in the main lobby.

A cast aluminum sheriff's logo will be provided on the exterior of the building.

Cast aluminum letters will be provided on the exterior of the building to identify the building name, entrances, and similar.

MOBILE STORAGE SHELVING:

High Density Mobile Storage Shelving will be used for Inmate Property Storage, Evidence Storage, and Medical File Storage.

GUARDIAN EQUIPMENT:

Guardian equipment will be provided for inmate property storage – bulk storage and personal belongings.

KEY MANAGEMENT:

A key management system will be provided – such as Morse Watchmans.

STRUCTURAL ENGINEERING

1. EARTHWORK

- a. Sediment and Erosion Control: Temporary and permanent sediment and erosion control elements and storm sewer inlets as required by site development and local regulatory agencies.
- b. Site Grading: Strip surface soils containing organic matter in areas indicated for disturbance. Store stripped soil adjacent to work for testing and subsequent placement in landscape fill areas and conversion to topsoil if found to be suitable.
 - 1) Maintain adequate and positive drainage of entire site for duration of project; do not allow groundwater, surface water or direct precipitation to accumulate on subgrades or in excavations.
 - 2) Excavation: Excavate to depth and limits required for construction of buildings, structures, paving sections, utilities, landscaping items, and topsoil placement.
 - a) Segregate approved select materials for storage and subsequent backfill and fill operations.
 - b) Over excavation of loose material: Excavate loose material to limits shown on drawing. Proofroll all subgrade areas to verify compaction requirements.
 - c) Do not remove soil from site until project landscape area fill requirements have been met.
 - d) Dispose of excess soil on-site unless off-site disposal is required in accordance with local codes, regulation, and laws. Dispose of unsuitable materials off-site in accordance with local codes, regulation, and laws.
 - 3) Backfill: Fill uniformly in 6-inch horizontal layers, over approved subgrade.
 - a) Compact and test subgrade and fill materials to meet required minimum percentage of specified proctor density.
 - b) Fine grade site subgrade as necessary to receive building pad, paving sections, and landscape materials.
 - c) Lime stabilization is anticipated based on preliminary discussions.
 - 4) Backfill materials are as follows:
 - a) Landscape area fill and backfill: On-site suitable excess material.
 - b) Building and paved area fill and backfill: Select on-site suitable material or imported pit run sand and gravel.
 - c) Material under interior slab-on-grade: 6 inches, compacted aggregate.
 - 5) Moisture/Vapor Barrier: Under slab vapor barrier meeting ASTM E 1745, Class A, which is a minimum of 15 mils in thickness, is to be placed under slab-on-grade. Include manufacturer's recommended adhesive or pressure-sensitive tape. Placement of vapor retarder is between 6" of compacted aggregate and bottom of slab-on-grade.

2. FOUNDATION SYSTEMS

- a. Overview: The preliminary foundation system is anticipated to consist of shallow spread and strip wall footings. The following preliminary allowable bearing capacities have been assumed at this time (Final foundation system design shall be based upon recommendations from geotechnical investigation and recommendations. Verification of assumed shallow spread

and strip wall footings will be determined with the geotechnical investigation and recommendations as well.)

- 1) Footings:
 - a) Allowable bearing pressure = 2000 pounds per square foot.
 - b) Minimum width for spread footing = 24 inches.
 - c) Minimum width for wall footing = 18 inches.
 - d) Minimum depth of exterior footing below grade = 3 feet.
 - e) Minimum depth of interior footing below grade = 3 foot.
- 2) Foundation Walls:
 - a) Minimum thickness of foundation walls = thickness of construction supported.

3. SLAB-ON-GRADE

- a. Interior Slab-on-Grade: 4 inch thick, 4000 psi concrete slab with welded-wire fabric in addition to fibrillated propylene fibers. Place on compacted aggregate.
 - 1) Vapor barrier is placed between 6" of compacted aggregate and bottom of slab-on-grade.
- b. Interior Vehicular Trafficked Slab-on-Grade: 6 inch thick, 4000 psi concrete slab with concrete rebar reinforcement in addition to fibrillated propylene fibers. Place on compacted aggregate.
 - 1) Vapor retarder is placed between 6" of compacted aggregate and bottom of slab-on-grade.
- c. Equipment Pads:
 - 1) Interior equipment housekeeping pads shall be set atop roughened slab-on-grade, minimum of 4" thick and 6" larger than equipment supported on all sides.
 - 2) Exterior equipment pads shall 10" thick with turned down edges extending below code prescribed frost depth and set atop 6" minimum of compacted aggregate.

4. STRUCTURAL FRAMING SYSTEM

- a. Administration Building Overall Structural Concept:
 - 1) Combination structural steel frame and ten-inch thick load bearing architectural precast structural insulated panels.
 - 2) Roof Construction is anticipated to be comprised of 1 ½" – 20-gauge wide rib steel roof deck supported by steel beams/joists and columns extended to the foundation. Generally, steel roof joists will be spaced at or near 5'-0" on center.
 - 3) Lateral Force Resisting System Concept: Precast concrete structural insulated panels in combination with braced steel frames, where appropriate, will provide gravity and lateral load support.
- b. Secure Building Overall Structural Concept:
 - 4) Ten-inch thick load bearing architectural precast structural insulated panels.
 - 5) Interior precast concrete columns.
 - 6) Roof and elevated floor structure hollowcore precast concrete slabs with 2-inch composite topping as appropriate.
 - 7) Lateral Force Resisting System Concept: Precast concrete structural insulated panels will provide gravity and lateral load support.

5. LOADINGS

- a. Risk Category from ASCE 7-10 is "III" for Detention Facility.

- b. Roof Loads:
 - 1) Minimum Live Load 20 pounds per square foot live load.
 - 2) Minimum Ground Snow Load 20 pounds per square foot plus consideration for snow drifting
 - a) ASCE 7-10, snow loading criteria:
 - 1) Exposure Factor, $C_e = 1.00$
 - 2) Thermal Factor, $C_t = 1.00$
 - 3) Importance Factor, $I_s = 1.10$
 - 3) Minimum Wind Loading ±10 PSF
 - a) ASCE 7-10, wind loading criteria:
 - 1) Exposure Category, C
 - 2) Three-Second-Gust Wind Speed, 120 miles per hour (Ultimate Level)
 - 4) Mechanical Equipment Self Weight
 - 5) Roofing materials Self Weight
 - 6) Dead Loads Self Weight
- c. Floor Loads:
 - 1) Second Floor Live Loading 100 PSF
 - 2) Mechanical Live Loading 150 PSF
 - 3) Stairs and Exit Ways 100 PSF
 - 4) Dead Loads Self Weight
- d. Lateral Loads:
 - 1) Minimum Wind Loading ±20 PSF
 - a) ASCE 7-10, wind loading criteria:
 - 1) Exposure Category, C
 - 2) Three-Second-Gust Wind Speed, 120 miles per hour (Ultimate Level)
 - 2) Seismic Loading
 - a) ASCE 7-10, seismic loading criteria:
 - 1) Site Class, D (Assumed)
 - 2) Seismic Acceleration Parameters:
 - a. Short period, $S_s = 0.287g$
 - b. Second period, $S_1 = 0.121g$
 - 3) Design Seismic Acceleration Parameters:
 - a. Short period, $S_{DS} = 0.300g$
 - b. Second period, $S_{D1} = 0.187g$
 - 4) Importance Factor, $I_E = 1.25$
 - 5) Seismic Design Category, C; a Seismic Design Category of C requires the geotechnical investigation report evaluate the following potential geologic and seismic hazards:
 - a. Slope instability;
 - b. Liquefaction;
 - c. Total and differential settlement;
 - d. Surface displacement due to faulting or seismically induced lateral spreading or lateral flow;
 - e. Measures to mitigate the effects of previously mentioned hazards.

- f. If a Site Class of E or worse were encountered, the geotechnical engineer should notify the Construction Manager and Architect/Engineer immediately to determine a recommended course of action as this may impact requirements of the Geotechnical Recommendations needed based on Seismic Design Category of proposed building.

6. SERVICEABILITY

- a. Roof Structural Members:
 - 1) Supporting Brittle Finishes L/360
- b. Wall Members (Not at Floor):
 - 1) Horizontal L/240 (10-year wind load)

7. FIELD QUALITY CONTROL & SPECIAL INSPECTIONS AND TESTING

- a. Field Quality Control and Special Inspections and Testing shall be completed for the following construction and will be specified through requirements in the specifications.
 - 1) Cast-in-Place Concrete
 - 2) Prestressed and Precast Structural Concrete
 - 3) Concrete Unit Masonry Construction
 - 4) Structural Steel Framing
 - a) Structural steel specification will require use of an AISC Certified fabricator and erector or equal quality assurance program.
 - 5) Steel Joist Framing
 - 6) Steel decking
 - 7) Post-Installed Anchors
 - 8) Cold-Formed Metal Framing
 - 9) Soils

HEATING, VENTILATION, AND AIR CONDITIONING (HVAC)

HVAC DESIGN CRITERIA

Provide conditioned air in all occupied offices, working spaces, and offender areas. The systems shall provide at least the minimum required amounts of outside air for ventilation through use of a variable air volume supply system with variable air volume boxes and reheat coils located within or adjacent to conditioned spaces.

Comply with American Society of Heating, Refrigeration and Air Conditioning Engineers (ASHRAE) Standard 90.1-2007, Energy Standard for Buildings, and ASHRAE Standard 62-2007, Ventilation for Acceptable Indoor Air Quality, as well as all applicable federal, state and local codes.

Outside Design Conditions

Summer 91 degrees F DB/75 degrees F WB
Winter -3 degrees F DB/ -4.4 degrees F WB

Indoor Design Conditions

Summer 75 degrees F/50% RH
Winter 70 degrees F/30% RH

Outside Air Requirements

Outside Air Requirements for each space are determined by ASHRAE Standard 62-2007.

HEATING

High efficiency, condensing, gas fueled boilers will provide 180° F water for building heating. The water is then pumped to coils at the air-handling units for preheating the outside air and the zone VAV boxes for the room heating. The distribution system will consist of two (2) base-mounted variable speed pumps that distribute the hot water through a piping system. The piping shall be Type L copper for the heating water piping 2" and smaller and schedule 40 steel for piping larger than 2".

Heating in the vehicle sallyport shall be by an overhead two-stage, gas-fired infrared heater. The heater shall be interlocked with the doors, so that if the vehicle doors are open, the heat shall be off.

COOLING

A high efficiency, variable speed water-cooled chiller located in the mechanical room that chills water to about 42° F will provide cooling. The chilled water is pumped to coils in the central air handlers. The distribution system will consist of two (2) base-mounted variable speed pumps that distribute the hot water through a piping system. The piping shall be Type L copper for the chilled water piping 2" and smaller and schedule 40 steel for piping larger than 2".

The water-cooled chiller will be served by a cooling tower located outside adjacent to the mechanical room. The cooling tower will consist of a variable speed fan and an electric resistance basin heater. The cooling tower will need to be elevated to allow the return water to gravity drain to the pumps. The condenser water system from the cooling tower will be distributed by two (2) constant volume pumps

that have variable frequency drives (VFDs) for soft-start. The condenser water system will include an automatic chemical treatment system. The piping shall be schedule 40 steel.

AIR DISTRIBUTION

Variable Air Volume (VAV) air handlers shall supply conditioned air to all occupied spaces at all times. VAV systems modulate the amount of primary air provided to each zone based on the cooling load sensed. Typically, a zone may consist of four, six or eight offender cells, or anywhere from two to four office spaces, or a single conference room, depending on its size and intended use.

The air-handling units shall be modular type units consisting of a hot water preheat coil, a chilled water cooling coil, a supply fan, filter mixing box, and access plenums. Each fan shall have a variable frequency drive. The unit will be mounted on a 6" concrete housekeeping pad. The air handling unit(s) serving the inmate housing areas will include an Energy Recovery Ventilator such as an enthalpy wheel.

A thermostat in each zone controls the temperature. Each thermostat is connected to a series fan-powered or shut-off type VAV box with a volume damper, which varies the amount of primary air supplied to the zone. In offender and public areas, the temperature sensors shall be located in return air ducts to prevent abuse or tampering with the controls. The controller shall be located adjacent to the appropriate VAV box in those spaces. In private offices or non-public areas, the thermostat shall be located on the wall to allow for individual control.

As the temperature rises due to heat gains, the VAV box increases the volume of primary air to provide additional cooling, typically supplied at 55 degrees. As the thermostat is satisfied, the box throttles the primary airflow back to a minimum position. The fan on the series fan powered VAV boxes run continuously to ensure a steady total flow of air through the zone. Fan powered VAV boxes will primarily serve inmate areas.

As the zone air temperature falls during heating season, the VAV box closes down to a minimum primary airflow position. If the zone air temperature continues to fall, a control valve on the hot water reheat coil on the box opens, raising the temperature of the supply air, typically to around 100 degrees.

The building shall be maintained at a slightly positive pressurization. While the air handlers are running in the economizer mode, with large quantities of outdoor air being brought into the building, air will relieve through louvers or roof vents.

All registers, grilles and diffusers in offender areas shall be maximum-security grade with ligature resistance. Ducts with a dimension greater than 8" in any direction, which penetrate the secure envelope, shall have security bars at the penetration.

VENTILATION

Ventilation air is fresh outdoor air that is drawn into the central air handlers and then distributed to each zone through the VAV boxes. Heating and cooling ventilation air is energy intensive and expensive.

The minimum volume of ventilation air shall be the amount required by ASHRAE Standard 62.1-2007. A CO₂ sensor located in the return duct of each AHU shall monitor the level of carbon dioxide and modulate

the outside air damper to bring in more ventilation air if required. In high occupancy zones such as conference rooms or training areas, CO₂ sensors shall also monitor carbon dioxide levels.

If a zone sensor indicates carbon dioxide levels above an acceptable threshold, that VAV box shall first open up to provide additional primary air, reheating as required to maintain space temperature. If the box is opened up to the maximum primary air position, and the carbon dioxide level remains above an acceptable threshold, then the outside air damper to the air handler shall open up to introduce additional fresh air into the system.

The housing units shall be exhausted at a rate approximately 10% higher than the amount of supply air provided in the cells. An energy wheel shall be utilized to recover energy from the exhaust air to temper incoming fresh air, thus reducing the amount of mechanical heating and cooling required.

Other restrooms, locker rooms and shower rooms shall be ventilated at a rate required by ASHRAE Standard 62.1-2007.

Smoke exhaust fans will be provided in each dayroom and offender area (such as Intake/Booking and Medical). Manual switches located at central security will also allow individual exhaust fans to operate in the event tear gas is utilized in a particular offender area.

An exhaust fan shall be provided in the vehicle sallyport and connected to an CO/NO₂ sensor. The fan shall be activated when unacceptable levels of CO/NO₂ occur in the space.

INDOOR AIR QUALITY

Good indoor air quality involves intake of the freshest air possible, optimal filtration and suppression of mold growth and other organisms within the system. This is accomplished by air intakes directed away from vehicle exhaust fumes, by maintaining indoor humidity between 40% and 60%, and by filtering air for supply both at the central air handlers and at the VAV box.

CONTROL ROOMS

The security control rooms shall be primarily cooled off the central air-handling units with a VAV box. A back-up, ductless split system will be provided for each space. The ductless split system will consist of a ceiling mounted cassette unit and an air-cooled condensing unit located on the roof or outside on-grade.

SERVER EQUIPMENT, IT EQUIPMENT, AND SECURITY ELECTRONICS ROOMS

The rooms that contain server equipment, IT equipment, and security electronics shall be served by dedicated Computer Room Air Conditioning (CRAC) units. The units shall be ceiling mounted, cassette type units similar to the Liebert Mini-Mate. The associated air-cooled condensing units shall be located on the roof or outside on-grade.

FLEET MAINTENANCE AREA

The vehicle maintenance bay(s) in the fleet maintenance building shall be heated by a gas-fired, two-stage infrared heater. The office/administration area(s) shall be served by a gas-fired furnace with DX-cooling. The associated air-cooled condensing unit shall sit outside the building on-grade.

The restroom(s) in the building shall be provided with an exhaust fan. The vehicles being serviced in the bay(s) are not intended to operate inside the space other than to pull the vehicles in and out. Therefore, source capture exhaust is not required. An exhaust fan shall be provided in the maintenance bays and connected to a CO/NO2 sensor to operate when acceptable levels are exceeded.

DIRECT DIGITAL CONTROL (DDC) SYSTEM

A direct digital temperature control system allows accurate monitoring and control of all HVAC systems and building temperatures from a central workstation. The computer graphics of digital control systems are highly developed so that monitoring and control of HVAC systems is readily and simply accomplished from a central station through a web-based browser. Sequences of control for each of the mechanical systems shall be provided to assist future maintenance.

MECHANICAL SPACES AND ACCESS

All HVAC equipment, except for the air-cooled condensing units and cooling tower, shall be located indoors in mechanical spaces. VAV boxes for offender areas shall be located in an accessible space above the cellblock areas, with sufficient access for future maintenance. Boilers, hot water pumps, and related equipment shall be located in a mechanical equipment room inaccessible to offenders. Any ductwork or piping that is within reach of or subject to possible abuse by offenders shall be suitably protected.

PLUMBING ENGINEERING

In general, the plumbing work will consist of, but is not limited to, the following:

- New water service for domestic and fire protection systems.
- New water treatment equipment for domestic water needs.
- Complete sanitary and storm drainage systems.
- Floor drains and hose bibs

SANITARY SYSTEM DRAINAGE

Sanitary waste from the building will discharge by gravity into the city sewer. Floor drains will be provided in all toilet rooms, mechanical rooms, shower rooms, and in kitchen areas. A grease interceptor will be provided for the kitchen and an oil/solids interceptor for the vehicle sallyport and fleet maintenance. A grinder, such as Muffin Monster, will be provided.

STORM DRAINAGE SYSTEM

Storm drainage system design will be based on 3.0 inches of rain per hour duration and a 100-year return period. All storm water piping shall be collected by roof drains and interior piping that will be routed below grade and collected by the storm sewer system.

The overflow drains shall be connected to a separate piping system that discharges at downspout nozzles located above grade. The overflow system daylighting will allow the staff to realize when there is a blockage in the primary storm drainage system.

DOMESTIC COLD AND HOT WATER SYSTEMS

Domestic water system will be designed to provide sufficient flow and pressure to all plumbing fixtures and equipment during maximum anticipated demand.

The water service main, branch lines, risers, and branch lines to a fixture group will have individual shut-off valves. Manual shutoff valves will be provided for each of the cell blocks as part of the base bid. This will provide the Owner with an opportunity to shut off water in each cell block if needed.

The system will include a Water Management System (Willoughby WMSII or equivalent) that will provide electronic solenoid valves with each security plumbing fixture. The controllers included in the Water Management System will allow the Owner to remotely turn off individual fixtures, groups of fixtures, and entire cell blocks if needed. The system also allows settings that limit the number of flushes/uses per hour of each fixture.

DOMESTIC HOT WATER HEATING

A semi-instantaneous water heater system (similar to the AERCO Innovation) will be utilized to provide domestic hot water to the facility. Hot water for general use will be supplied at 105 degrees Fahrenheit and will be re-circulated to reduce the time needed to deliver hot water to each fixture. An ASSE 1017 thermostatic mixing valve will be provided as required by code.

The 140-degree water required for the dishwasher equipment will be provided with a separate storage type water heater.

WATER TREATMENT

A water conditioning system similar to the Frieje Easywater system will be utilized to prevent scaling within the domestic cold and hot water piping. A Reverse Osmosis Water System (similar to the Easywater Smart Guard) will be provided for the kitchen to protect the kitchen equipment that utilizes steam.

PLUMBING FIXTURES

Plumbing fixtures of high-quality non-absorptive acid resistance will be used. Fixtures located within holding cells shall be stainless steel, combination water closet-lavatory type fixtures using vandal-proof and suicide resistant push button mechanical valves. The fixtures will be provided with the prefabricated steel cells and be pre-piped for connection points in the secure chase area. The outlet of the water closets shall have a pinned trap capable of capturing any contraband that may be flushed by an inmate.

The detention grade shower head shall be located at the ceiling of the stainless steel shower stall. The floor of the shower stall shall be raised to provide a sanitary drain connection to the back chase. Detox Toilets/Flushable Floor drains will be provided in the Detox cells.

Plumbing fixtures located in the administrative/staff/public space shall be made of wall-hung, vitreous china. All urinals and water closets in public or staff restrooms shall be hard-wired, sensor-operated. Faucets shall be hard-wired, sensor-operated.

Water hammer arrestors will be installed to individual or group of plumbing fixtures per PDI standards.

PLUMBING PIPING

Schedule 40 cast iron pipe will be used for above ground sanitary and vent piping. Schedule 40 PVC will be used for underground sanitary systems.

Schedule 40 cast iron pipe will be used for above ground storm piping. Horizontal piping will be required to be insulated. Schedule 40 PVC will be used for underground storm piping.

Ductile iron pipe will be used for underground domestic water main supply line with polyethylene encasement.

Copper pipe (type K and L) will be used for domestic water (hot and cold) distribution system for piping 2" and smaller. Schedule 40 galvanized steel will be used for piping larger than 2".

Black steel pipe schedule 40 will be used for domestic gas line above ground and inside the building.

FIRE PROTECTION

SYSTEM DESCRIPTION

An automatic wet sprinkler system and will be provided throughout the facility. Institutional, standard response, standard coverage sprinkler heads will be utilized in all secure areas. The wet sprinkler system will include providing sprinklers in the space above the cells and dayrooms in the housing area.

A Fire Department Connection will be provided on the building as directed and approved by local fire officials.

Any area not having a sprinkler system will be fire rated construction to meet the applicable building codes.

DESIGN CRITERIA

The sprinkler system will be hydraulically calculated based on the I-3 and B occupancies and shall meet all applicable requirements of NFPA 13 and 14.

FIRE PROTECTION PIPING

Ductile iron pipe will be used for underground supply line into the building. Black, schedule 40 steel pipe will be used for the main distribution line, and branch lines.

SPRINKLER HEADS

Sprinkler heads maximum coverage area will not exceed 225 square feet, and have a temperature rating of 165 degrees Fahrenheit. Design density shall be 0.10 gpm over the most remote area of 1,500 square feet for Light Hazard areas and 0.15 gpm over the most remote 1,500 square feet for Ordinary Hazard areas.

DRY CHEMICAL TYPE SYSTEMS

Spaces such as the IT Equipment Room, Server Room, and Security Electronic Rooms shall be protected by a Dry Chemical Type system (FM200 or equivalent) to prevent damage to the equipment. The system would include a storage tank for the dry chemical and associated sprinkler nozzles and piping as required by the manufacturer.

ELECTRICAL ENGINEERING

Design Criteria:

Load Densities (in watts per square foot)

1)	General lighting	1.0W/sq. ft.
2)	Office and convenience receptacles	1.5W/sq. ft.
3)	Mechanical	4.5W/sq. ft.

Voltage Drop

1)	Feeders	1%
2)	Branch circuits	2%

Normal Electrical Power Distribution System:

The incoming power service will be provided by utility Duke Energy. The utility service will be routed from the existing utility near the roadway and routed below grade to the Utility pad-mounted transformer. The Utility pad-mounted transformer will be located near the Main Electrical Room. The service entrance conductors will be routed underground in PVC, concrete encased duct bank from the Utility pad-mount transformer to the 480/277V, 3000A, 3-phase, 4-wire Service Entrance Main Distribution Panel located in the Main Electrical Room. The Main Distribution Panel will have a service entrance rated, 3000A, main circuit breaker. The Service Entrance Main Distribution Panel will feed power to various distribution panels and lighting panel boards. These panels will be located in satellite electrical rooms.

The electrical service to the facility will be a 480/277V, 3-phase, 4-wire, grounded wye system. Large power equipment (i.e. mechanical HVAC) will be fed at 480V. Lighting will be fed at 277V. Customer owned dry type transformers will be used to step-down the voltage to feed 208/120V, 3-phase, 4 wire distribution panels and lighting panel boards. Small power equipment (i.e. electric water heaters, air compressors, overhead doors) will be fed at 208V. Convenience and equipment receptacles will be fed at 120V.

Underground circuits, located outside the building exterior, will be routed in direct buried PVC conduits. Rigid sleeves will be used where the conduits cross underneath drives, roads, and parking with heavy vehicular traffic. This includes raceways for electric, telephone, and cable TV utility services and raceways for site electrical such as exterior lighting poles, entry signage lighting, and flag pole lighting.

Feeder and branch circuits will use type THHN/THWN wire, minimum 12 AWG. Minimum conduit size will be 3/4". Electrical Metallic Tubing (EMT) conduit will be used in interior finished spaces and interior un-finished spaces not susceptible to physical damage. Galvanized rigid steel conduit (GRC) in exterior spaces, wet/damp spaces, and where susceptible to damage. All EMT connections will be made with compression fittings. Neutral wires will not be shared between circuits. Each raceway will contain a separate equipment grounding conductor.

VIGO COUNTY SHERIFF'S OFFICE AND JAIL

Duplex or quad receptacles will be used throughout the facility. Dedicated circuits will be provided for receptacle outlets for copiers, coffee machines, refrigerators, ice machines, microwave ovens, vending machines, and other equipment as required. Receptacles fed from a normal power source will be 'gray' in color.

Emergency Electrical Power Distribution System:

The facility will be equipped with two (2) automatic transfer switches per generator for prioritization of emergency loads. The transfer switches will be located in the Main Electrical Room.

The legally required transfer switches will be rated 480V, 200A and will be used to feed the legally required panel boards (i.e. for legally required loads such as exit and egress lights, telephone, security, and fire alarm equipment).

The standby transfer switches will be rated 480V, 1200A and will be used to feed essential/critical distribution panels and panel boards (i.e. for critical building loads such as HVAC, and other equipment loads).

The automatic transfer switches will be 4-pole overlapping neutral type. Transfer switches will be equipped with maintenance bypasses.

Each transfer switch will contain an automatic exerciser which will automatically start and run (exercise) the generator at a specific date, time and duration.

The facility will be equipped with two parallel 480/277V, 3-phase, 4-wire, diesel engine-generator sets which will be used to provide backup power to legally required and all other building loads via the aforementioned transfer switches. The generator sets will be housed in a sound resistant, non-walk-in enclosure and located on the ground near the utility padmount transformer.

The generators will be equipped with vibration isolators. The enclosure will be suitable for up to 100 mph winds. The enclosure will be equipped with a 208/120V, 1 phase, 3 wire, 60A panel board to power generator auxiliary equipment (i.e. receptacles, lighting, enclosure heater, anti-condensate heaters, battery charger, battery pad heater, controls, emergency stops, etc.).

A base mounted fuel tank will be sized for 24-hour operation.

Uninterruptible Power Supply System:

Two (2) rack-mountable UPSs will be provided and located inside the LAN Voice/Data Cabinet.

Additional UPS will be provided for security electronics systems.

Receptacles fed from a UPS-backed power source will be 'orange' in color.

Grounding and Bonding:

Grounding

The electrical distribution system service entrance will be connected to all available grounding electrodes in accordance with NEC (i.e. steel, rebar, water pipe, grounding electrodes).

A tri-rod grounding electrode system will be installed. Grounding impedance will not exceed 5 ohms.

A building ground bus bar will be installed in the Main Electrical Room and connected to the service entrance grounding electrode system. Equipment in the Main Electrical Room (i.e. transformers) and IT/Server Room (i.e. UPS batteries, fire alarm batteries, voice/data cabinet) will be bonded to the building ground bus bar.

Lighting Systems:

Lighting Control

The Indiana Energy Code requires that each partitioned interior space have automatic lighting shut-off control. Occupancy sensors will be provided within each partitioned interior space for public and common areas (office areas).

The Energy Code requires that exterior lighting have automatic lighting shut-off control. Exterior lighting will be automatically controlled with an astronomic time clock with a photocell override (located in Main Electrical Room).

Interior Lighting

The standard voltage rating for all interior light fixtures will be 277V. The standard lamp utilized will be LED, 3500 degrees K color corrected energy efficient. Lighting in main corridors and hallways will have recessed mounted within gyp or lay-in grid.

Lighting in offices will be basket style, direct/indirect, LED fixtures.

Detention area lighting will be LED corner mount heavy duty steel with polycarbonate lens.

Emergency egress lighting will be provided throughout the building interior and at the exterior near exit discharge doors. The egress lighting will illuminate in excess of the NFPA 101 1-foot candle minimum along the path of egress. Egress fixtures will be powered from the emergency power system and will operate within 10 seconds of a power outage in accordance with NFPA 101.

Emergency exit lighting will be provided throughout the facility. Exit lights will be polycarbonate with red LED lamps for energy as well as long lamp life (15 to 20 years). The exit lights will be placed to direct occupants to the exit discharge doors. Exit fixtures will be will be powered from the

emergency power system and will operate within 10 seconds of a power outage in accordance with NFPA 101.

Exterior Lighting

The standard voltage rating for all exterior light fixtures will be 277V. Exterior lighting will consist of 25'-0" high pole mounted LED lights for the parking lot and roadway areas. Building façade fixtures, located along the exterior perimeter wall, will be LED fixtures.

LED floodlights will be used for entrance signage and flagpoles. These can be mounted on the flagpole.

Light Level Requirements

All foot-candle levels will be based on average values recommended by the Illuminating Engineering Society of North America (IESNA) and Indiana Energy Conservation Code and or exceed the minimum standards required by Indiana Jail Standards.

Telephone and Network Data System:

An IT/Server closet will be located per the plan layout. Cable trays will be installed and routed from the Voice/Data Cabinet to an above ceiling space for any future voice/data 'drop' installations.

Rough-in back boxes, device plates, conduit, and structured Category 6 cabling will be provided throughout the facility for the structured telephone and data cabling system. This equipment and cabling will be provided and installed by Contractor.

A 30"W x 30"D x 84"H voice/data cabinet(s) will be provided in the IT/Server closet. Cabinet will be equipped with power supplies, cabling wire way, and cross connect patch panels. Sufficient vertical mounting space will be provided in the cabinet to accommodate Owner furnished Ethernet Switch equipment and Owner furnished VOIP equipment. The owner will furnish the telephone switch and handsets.

A telephone terminal board (TTB) will be installed in the Main Electrical Room. The TTB will be a 48"W x 96"H fire resistant plywood board and will be painted to match wall color.

Utility service requirements will be coordinated with the local utility and a raceway (with pull string) will be installed into the Main Electrical Room. A 100-pair UTP copper telephone trunk cable will be provided from the point of demarcation and punched-down at a 100-pair, 110-block located on the TTB. A raceway (with pull string) will be installed into the IT/Server closet for future fiber optic cable.

Computer/data cable shall be installed within a complete raceway/ cable tray system that will routed up thru the accessible ceiling space and to the IT/telecom closet for ease of cable and any cable modifications in the future.

MATV System:

Rough-in back boxes, device plates, conduit, and coaxial cabling will be provided throughout the facility for the Cable Television system. The coaxial system will be connected to the coaxial Cable TV Utility service at the point of demarcation. Cable TV service and TV sets to be owner provided.

TV amplifiers and splitters for the system will be installed in an equipment room.

High speed data via fiber optic is available through a service provider. Owner shall provide service to the building through a conduit installed by this contractor.

Fire Alarm/Detection System:

An addressable fire alarm and detection system will be installed throughout the facility. The fire alarm system will be provided with a battery backup system that shall be capable of operating for 24 hours by a 10-minute continuous alarms.

Devices

Addressable photoelectric smoke detectors will be installed in all common areas (i.e. corridors) and high combustible areas (i.e. storage rooms, janitor rooms, mechanical/electrical equipment rooms).

Addressable combination rate-of-rise/fixed-temperature heat detectors will be installed in the Kitchen.

Addressable duct type smoke detectors will be installed on all air-handling units over 2,000 CFM and interlocked to shut down AHUs upon detection.

Addressable alarm activation 'pull-stations' will be installed at all exits and at 200' intervals in corridors, in accordance with the requirements of the ADA.

Addressable horn/strobe signaling devices will be installed in corridors and assembly areas, such a signaling device is no farther than 50' in any direction.

Addressable ADA strobes will be installed in all day rooms, conference rooms and restrooms.

Raceway

Cabling for fire alarm system will be installed in a continuous raceway throughout the facility. Conduit will be painted red. Fire alarm cabling will be red. The fire alarm system will be the only electrical system to use red cabling and conduit. This will ensure that the fire alarm system cabling is never mistaken for another building system such as temperature control, voice/data, or security electronics.

Public Address System:

A public address system will be provided. Speakers will be located in public and common areas. Interface hardware will be provided to connect into the Owner's Voice head-end equipment (i.e. for paging through the telephone handset system).

Head-end equipment will be rack mounted in the Voice/Data cabinet (located in the IT/Server closet). Speakers will be equipped with adjustable volume control located on the speaker assembly. A desktop microphone will be installed in the Control room for the PA system.

Video Arraignment, Video Visitation, Inmate Telephones and Commissary:

Conduits, boxes, wiring and equipment will be planned for. Vendors will provide electronic equipment and programming.

Surge Protective Devices (SPDs):

SPDs will be installed at the service entrance main distribution panel, and at the 480V distribution panels and 208V distribution panels. The SPDs will be externally mounted adjacent to the panels and will have 7-mode surge protection (phase-to-neutral, phase-to-ground and neutral-to-ground).

The SPD will have advanced monitoring capabilities and features which allow users to monitor surge events on the incoming AC power line, including magnitude, date and time of the event. Audible alarm will sound and a red indicator light illuminate when protection level is at 50% or less.

Lightning Protection:

Lightning Protection will not be provided.

Raceway System**Finished & Unfinished Areas**

The raceway system installed in finished areas will be concealed in the building wall or above accessible ceiling space. Raceways in unfinished or mechanical areas will be surface mounted rigid galvanized steel (RGS) type of conduit.

Thru Walls & Above Ceilings

Unless otherwise noted, Systems cabling within the building walls shall be installed in continuous conduit from the endpoint of termination to 12 inches above accessible ceiling. Where there are non-accessible ceilings, the conduit will be installed in continuous conduit from the endpoint of termination to the point of origin. Cabling passing through walls and between floors shall be in conduit sleeves.

All systems wiring not in conduit will be installed concealed above accessible suspended ceiling plenums using J-hooks spaced 4' on center. Systems cabling in finished spaces without a suspended ceiling will be installed in conduit. Systems cabling will be plenum rated.

Basic Materials

Raceways

Electric Metallic Tubing (EMT), Galvanized Rigid Steel (GRC), and intermediate metal conduit (IMC), complete with outlets, connections, couplings and fittings shall support the insulated electrical conductors. All conduit systems, including armored clad, metal clad and flexible, to form a continuous ground system.

Minimum conduit size: 3/4 inch.

Non-metallic conduit below grade: Schedule 40 PVC except PVC Coated GRC under paved roads and parking areas with vehicular traffic.

EMT Connections shall be compression type only.

Wires & Cables

600V conductors are copper, #12 AWG minimum with type THWN/THHN. All branch circuit and feeder conductors installed in raceway with an equipment grounding conductor. All, including system neutrals, to be color coded and labeled at each junction or outlet box. A maximum of six (6) current carrying conductors per raceway will be used.

Provide separate neutrals for 120V branch circuits. Shared neutrals shall not be used.

Boxes

Power and communication raceway systems interconnected with metal boxes. Outlet boxes are non-gangable, 4 inches square, with one or two gang square corner extension. Junction and pull boxes will be mounted to maintain accessibility.

Outlets will not be mounted back to back.

Boxes will be supported independently of conduit systems.

Exterior boxes shall be cast type.

Wiring Devices

Includes receptacles, switches and device cover plates. Receptacles are specification grade, grounding type, 20 ampere. Ground fault outlets branch circuits or receptacles will be used where required by NEC code. Switches are specification grade 20A, quiet-type toggle. Device cover plates in

finished areas will be stainless steel type 430 with beveled edges or detention grade where required. Devices to be 'gray' unless noted otherwise.

Manufactured Wiring Systems

Surface mounted, multiple outlet assemblies (i.e. wiremold), field assembled with separate channels for power and communication.

Cabinets & Enclosures

Pre-manufactured equipment racks, terminal cabinets and enclosures for mounting and cable terminations.

ESTIMATE OF PROBABLE COSTS

- Historical Cost Analysis

- **Square Footage Cost Analysis**

Total Square Footage	180,930
Historical Average Cost/SF (updated costs)	\$ 301
Construction Cost	\$ 54,502,469
Soft Costs @ 25%	\$ 13,625,617
Total Project Cost	\$ 68,128,087

- **Bed Count Cost Analysis**

Total # of beds	534
Historical Average Cost/Bed (w/ escalation)	\$ 95,977
Construction Cost	\$ 51,251,867
Soft Costs @ 25%	\$ 12,812,967
Total Project Cost	\$ 64,064,834

- Unit Price Cost Analysis

- **Unit Price Analysis**

Construction Cost	\$
Soft Costs @ 25%	\$
Total Project Cost	\$

- Averages Analysis

- **Averages Analysis**

Construction Cost	\$ 52,877,168
Soft Costs @ 25%	\$ 13,219,292
Total Project Cost	\$ 66,096,460

- Deferment Costs

- Increase costs at 3.5% per year (based on ENR calculations)

Vigo County Commissioners
 Sheriff's Office & Jail
 December 6, 2016



Cost Comparison

	Year Completed	Rated Beds	SF	ORIGINAL COST			UPDATED COST			
				Construction Cost	Cost/bed	Cost/SF	ENR CCI History	Construction Cost	Cost/bed	Cost/SF
Montgomery Co. Jail	2006	224	65,950 \$	13,000,000 \$	58,036 \$	197	1.356 \$	17,624,674 \$	78,682 \$	267
Vanderburgh County Jail	2006	553	146,000 \$	32,750,000 \$	59,222 \$	224	1.356 \$	44,400,620 \$	80,290 \$	304
Elkhart Co. Correctional Complex	2007	1002	415,890 \$	83,000,000 \$	82,834 \$	200	1.318 \$	109,385,152 \$	109,167 \$	263
Perry Co. Jail & Sheriff's Office	2014	143	40,000 \$	10,200,000 \$	71,329 \$	255	1.075 \$	10,960,989 \$	76,650 \$	274
Stark Co. Sheriff's Office and Justice Center	2015	148	48,000 \$	13,100,000 \$	88,514 \$	273	1.041 \$	13,637,100 \$	92,143 \$	284
Tipton County Jail	2018	87	35,280 \$	11,408,000 \$	131,126 \$	323	1.000 \$	11,408,000 \$	131,126 \$	323
Posey County Jail	2018	208	48,554 \$	14,897,671 \$	71,623 \$	307	1.000 \$	14,897,671 \$	71,623 \$	307
Rush Co. Jail & Sheriff's Office	2018	139	46,000 \$	17,811,000 \$	128,137 \$	387	1.000 \$	17,811,000 \$	128,137 \$	387
AVERAGE		313	105,709 \$	24,520,834 \$	86,353 \$	271		30,015,651 \$	95,977 \$	301

Vigo County Sheriff's Office & Jail

PROJECT SCHEDULE

1. Design Development and Contract Documents – 7 months
2. Bidding and Contract Award – 2 months
3. Construction – 20 months
4. Owner Occupancy – 1 month

Total Project Duration – 30 months

Refer to preliminary project schedule on next page.

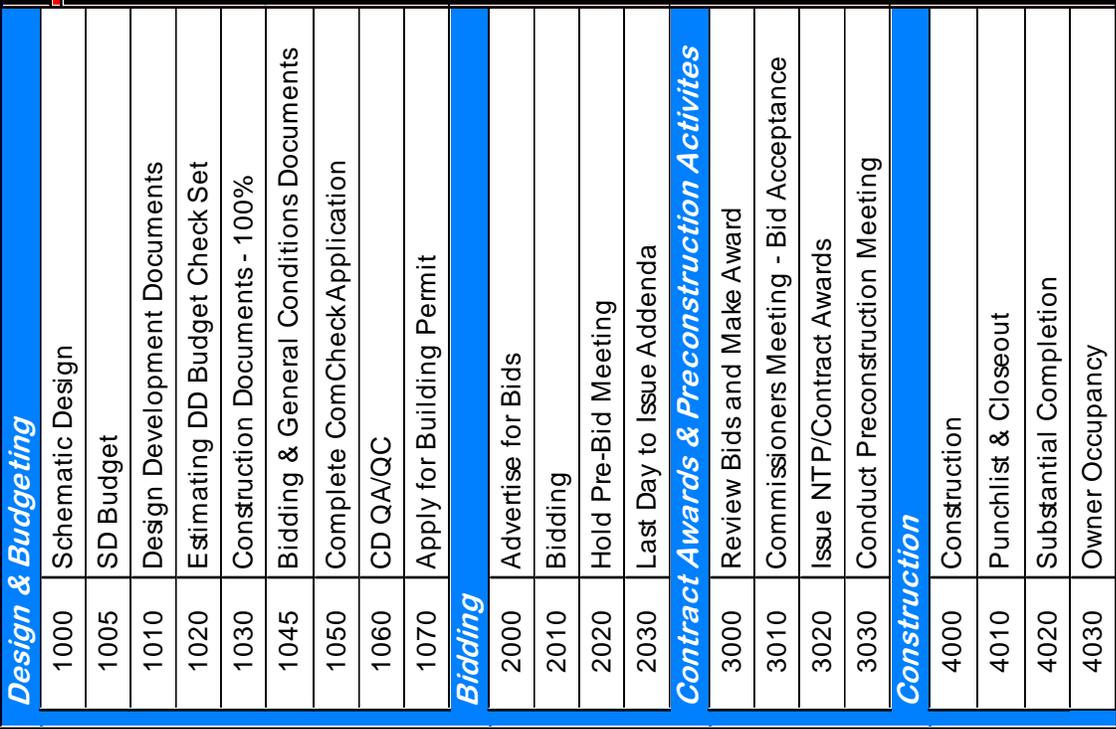
Activity	Description	MONTH
		2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43

Design & Budgeting	
1000	Schematic Design
1005	SD Budget
1010	Design Development Documents
1020	Estimating DD Budget Check Set
1030	Construction Documents - 100%
1045	Bidding & General Conditions Documents
1050	Complete ComCheck Application
1060	CD QA/QC
1070	Apply for Building Permit

Bidding	
2000	Advertise for Bids
2010	Bidding
2020	Hold Pre-Bid Meeting
2030	Last Day to Issue Addenda

Contract Awards & Preconstruction Activities	
3000	Review Bids and Make Award
3010	Commissioners Meeting - Bid Acceptance
3020	Issue NTP/Contract Awards
3030	Conduct Preconstruction Meeting

Construction	
4000	Construction
4010	Punchlist & Closeout
4020	Substantial Completion
4030	Owner Occupancy



Start date 11OCT16
 Finish date 11JUL19
 Data date 11OCT16
 Run date 30NOV16
 Page number 1A
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Vigo County Commissioners
Proposed New Jail and Sheriff's Office

Legend:
 Early bar (green)
 Progress bar (blue)
 Critical bar (red)
 Summary bar (purple)
 Start milestone point (orange diamond)
 Finish milestone point (yellow diamond)

PROJECT PLAN

Summary of plan to manage project budget and schedule throughout design, construction, and post-construction phases

- Pre-Construction Phase
 - Prepare budget estimates throughout design, at appropriate intervals of design process
 - Present Value Engineering to reduce potential costs
 - Continually review project constructability for assembly efficiencies and completeness
 - Evaluate material selections for local craft expertise and availability
 - Assign Bid Packages to entice interest and competition
 - Conduct pre-award conferences for evaluation of bid scope and cost
- Construction Phase
 - Provide full time site supervision
 - Conduct Owner, Contractor, and Architect coordination and progress meetings for review of schedule and issues
 - Maintain project master schedule
 - Provide quality assurance and control
 - Analyze and validate Change Proposal costs
 - Track complete project budget
- Post-Construction Phase
 - Oversee equipment commissioning
 - Conduct warranty walk-through

PREVIOUS MEETING MINUTES

Meeting Minutes

Vigo County Commissioners
New Jail
Project Team Meeting
October 26, 2016 at 7:30 AM – Commissioners Conference Room



Attendees: Greg Ewing – Vigo County Sheriff; Eric Ratts – DLZ; Brian Kooistra, Rochelle Gardner – Garmong Construction Services; Jon Marvel, Brad Anderson, Judy Anderson – Vigo County Commissioners

1. MEETING PURPOSE

- a. Review Building Programming
- b. Discuss potential project sites
- c. Establish dates for subsequent meetings

2. DESIGN

- a. The Sheriff's office has reviewed the Building Program forwarded by DLZ and acknowledge some spaces will be considered "Wish List" spaces
- b. The Sheriff's office had no corrections to the Building Program submitted by DLZ
- c. E. Ratts presented a design scheme for the inmate housing using a "block" design connected by a main corridor and noted that additional blocks may be added as housing needs increase or may be proposed as an alternate for the current project

3. PROPOSED SITES

- a. Significant discussion on the proposed sites included the Project Team and Commissioners
- b. Garmong presented a Site Evaluation, and maps of the proposed 1st Street location for discussion; the 1st Street location borders the Wabash River Flood Plain
 - i. Garmong noted that zoning of the 1st Street property is currently R2; the new facility will require zoning of M1 or M2
 - ii. The Commissioners agreed that the parcel size and location adjacent to the Wabash River Flood Plain make the site less desirable than alternative locations
 - iii. Garmong indicated that the Industrial Park site has utilities that appear to require extension but it appears all utilities are available
 1. Judy Anderson suggested contacting Steve Witt with the Economic Development Corporation for specific utility information
 - iv. Sheriff Ewing noted several parcels of land south of the federal prison may be an alternate location if the current owner would be willing to sell the property
 - v. Another parcel of land south of Springhill Drive at the intersection of SR63 was also discussed as potentially large enough to accommodate the project
 - vi. The Commissioners agreed that the 13th and Hulman site is undesirable due to the location of the chemical plant and potential cost of the air systems required in case of a chemical spill
 - vii. The Commissioners agreed that the undetermined airport site was also undesirable

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4. MEETING SCHEDULE & PROPOSED AGENDA

- a. November 3, 2016 at 10:00 AM – review potential sites, building program, and preliminary design sketches
- b. November 9, 2016 at 1:00 PM – review preliminary site design, building program revisions, preliminary floor plan area, site recommendation, and preliminary budget
 - i. Commissioners are invited to attend to review overall progress of design and budgeting to provide feedback on project
- c. November 15, 2016 at 9:00 AM – review structural, mechanical, plumbing, fire protection, electrical systems approaches and overall building floor plan
- d. November 21, 2016 at 9:00 AM – review overall building floor plan, building massing, and site plan
- e. December 6, 2016 at 9:00 AM 0 presentation of preliminary schematic design, site recommendation, preliminary budget to Commissioners

5. ACTION ITEMS

- a. Garmong will obtain utility information from Steve Witt for the proposed site at the Industrial Park
- b. DLZ will continue to work on preliminary design sketches
- c. The Commissioners and Sheriff will discuss the project, and desired project site locations with County Council members

6. ATTACHMENTS

- a. Building Program prepared by DLZ, dated October 26, 2016
- b. Site Evaluation prepared Garmong Construction Services dated October 26, 2016
- c. Map of proposed 1st Street site location
- d. Flood plain map of proposed 1st Street site location



VIGO COUNTY
Sheriff's Office and Jail

October 26, 2016

BUILDING PROGRAM

SPACE DESCRIPTION	#	NET SF	ASSIGNED AREA NSF	AREA NSF	AREA GROSSING %	AREA GROSSING SF	AREA GSF REMARKS
PUBLIC ENTRY SPACES - SHERIFF				880	30%	264	1,144
Vestibule	1	100	100				
Metal detector	1	120	120				
Public Lobby and Waiting	1	200	200				
Public Toilet - Male	1	70	70				Single occupancy
Public Toilet - Female	1	70	70				Single occupancy
Public Toilet - Transgender	1	70	70				Single occupancy
Janitor	1	50	50				
Memorial	1	100	100				
Public Lockers	1	100	100				
	0	0	0				
	0	0	0				
PUBLIC ENTRY SPACES - JAIL				3,010	30%	903	3,913
Vestibule	1	100	100				
Metal Detector	1	120	120				Possible
Public Lobby and Waiting	1	400	400				Drug drop off / commissary
Public Toilet - Male	1	140	140				
Public Toilet - Female	1	140	140				
Public Toilet - Transgender	1	70	70				Single occupancy
Video Visitation	1	800	800				
Non-Contact Visitation	1	400	400				
Interview Room	1	100	100				
Janitor	1	50	50				
Public Lockers	1	100	100				
Receptionist	1	120	120				Enclosed / likely not 24-7

SHERIFF'S OFFICE					17,590	35%	6,157	23,747	
Waiting	1	100	100						Public side
Receptionist / Admin Support	1	400	400						4 staff
Sheriff's Office	1	300	300						Single occupancy
Sheriff's Toilet	1	70	70						Close to sheriff
Sheriff's Admin Support	1	120	120						12 people
Sheriff's Conference Room	1	300	300						
Chief Deputy	1	150	150						
Major Operations Office	1	150	150						
Civil Office	1	150	150						
Civil Process Office Area	1	400	400						4 people
Training Sergeant Office	1	150	150						
Agency Office	1	200	200						2 people
Crime Scene Tech Office	1	200	200						2 people
Sex Offendor - Office	1	200	200						Two people
Sheriff's Office Staff Entry	1	70	70						
Mailboxes	1	100	100						150 staff
Work Room	1	250	250						
File Storage - Short Term	1	200	200						10 file cabinets
File Storage - Long Term	1	1,000	1,000						High Density
Squad Room	1	400	400						4 people
Conference Room	1	600	600						30 / divide into 2 so 15 each
Sheriff's Conference Room	1	300	300						12 people
Training Room - Vestibule	1	100	100						Separate entrance
Training Room	1	4,000	4,000						200 people / divide into 3 or 4
Training Room - Kitchenette	1	150	150						
Training Room - Male Toilet	1	200	200						
Training Room - Female Toilet	1	200	200						
Training Room - Transgender	1	70	70						
Training Room - Supplies	1	100	100						
Sheriff's Office Toilet - Male	1	140	140						Single occupancy
Sheriff's Office Toilet - Female	1	140	140						Single occupancy
Janitor	1	50	50						
Armory - Guns	1	200	200						Work bench

INTAKE BOOKING PROCESSING						16,260	40%	6,504	22,764	
Vehicular Sallyport	1	6,000	6,000							2 drive thru bays and angled parking
Hazard / Chemical Showers	1	50	50							
Receiving Sallyport	1	100	100							
Sallyport Toilet - Staff	1	70	70							
Breathalyzer Room	1	100	100							
Temporary Evidence Storage	1	100	100							
Booking Counter	1	500	500							
Bullpen Seating - Male	1	200	200							
Bullpen Seating - Femal	1	100	100							
Search Rooms	2	100	200							
Toilet - Inmate	1	70	70							
Photo / Index Area	1	100	100							
Video Arrangement	1	500	500							
Interview Room	1	200	200							Audio / video / 5 people
Classification Officer	1	120	120							
Holding Cells - Male	10	80	800							Double bunk
Holding Cells - Female	4	80	320							Double bunk
Detox - Male	2	200	400							
Detox - Female	2	150	300							
Padded Cells	4	80	320							
Padded Cells - Toilet / Shower	2	80	160							
Inmate Property Storage	1	1,500	1,500							
Washer / Dryer	1	150	150							
Jail Clothing Issue	1	1,000	1,000							
Inmate Changing Room	2	70	140							
Inmate Shower	2	70	140							
Storage	1	400	400							
Transport Officer	1	120	120							
Transport Holding	1	200	200							
Transport Sallyport	1	100	100							
Janitor	1	50	50							
Professional NC Visitation	4	100	400							Glass separation / 3 people
Jail Commander Office	1	150	150							

Matron Office	1	150	150						2 people
Jail Supervisors	1	800	800						10 people
Mailboxes	1	100	100						
Agency Office	1	150	150						
	0	0	0						
	0	0	0						

SECURE HOUSING					3,260	35%	1,141	4,401	
Housing Control Rooms	6	400	2,400						
Toilet Room - Staff	6	60	360						
Dormitory - Trustees	1	0	0						24 rated beds
Dormitory - Trustees	1	0	0						8 rated beds
General Population Unit - 2 Beds / Cell	6	0	0						2 rated beds per cell
General Population Unit - 4 Beds / Cell	11	0	0						4 rated beds per cell
Behavior Management - Male - 12 beds	2	0	0						1 rated bed per cell
Behavior Management - Female - 12 beds	1	0	0						1 rated bed per cell
Indoor / Outdoor Recreation	0	0	0						
Professional NC Visitation	4	100	400						One per housing area / 2 staff / 1 inmate / group together
Janitorial	2	50	100						
	0	0	0						
	0	0	0						
	0	0	0						
	0	0	0						
Current Males 2016 10-14	297	0	0						
Current Feales 2016 10-14	35	0	0						
	0	0	0						
	0	0	0						

MEDICAL					4,830	35%	1,691	6,521	
Waiting Area	1	150	150						
Holding Cells	2	80	160						
Exam Rooms	2	100	200						
Medical Records	1	150	150						
Pharmacy	1	150	150						
Nurse's Office	1	120	120						
Visiting Doctor's Office	1	120	120						
Counselor's Office	1	120	120						
Laboratory	1	120	120						
X-Ray Room	1	200	200						
Film Room	1	60	60						
Toilet - Staff	1	70	70						
Toilet - Inmate	1	70	70						
Dentist Exam	1	150	150						
Dental Storage	1	100	100						
Janitorial	1	50	50						
Infirmiry Cells - Male	6	100	600						Two rated beds per cell
Infirmiry Cells - Female	3	100	300						Two rated beds per cell
Medical Cells - Male	4	150	600						One rated bed per cell
Medical Cells - Female	2	150	300						One rated bed per cell
Padded Cell	1	80	80						
Padded Cell - Toilet / Shower	1	80	80						
Suicide Watch Cell	2	80	160						
Inmate Showers	2	80	160						
Contaminated Laundry	1	80	80						
Video Visitation	2	40	80						
Indoor / Outdoor Recreation	1	200	200						
Storage	1	200	200						
	0	0	0						
	0	0	0						

PROGRAM AREA					5,390	35%	1,887	7,277	
Program - Classrooms	8	600	4,800						
Program - Office	1	120	120						25 occupancy
Program - Storage	1	200	200						
Program - Inmate Toilet	2	70	140						
Program - Holding Cell	1	80	80						
Janitorial	1	50	50						
	0	0	0						
	0	0	0						

EMPLOYEE AREA					7,010	35%	2,454	9,464	
Employee Entrance	1	100	100						
Locker Room - Male	1	2,000	2,000						80 lockers
Locker Room - Male Shower	8	120	960						
Locker Room - Female	1	1,000	1,000						40 lockers
Locker Room - Female Shower	4	120	480						
Locker Room - Transgender	1	200	200						
Locker Room - Transgender Shower	1	120	120						
Fitness Room	1	1,200	1,200						
Break Room	1	250	250						
Staff Dining	1	600	600						Market approach / vending
Lactation Room	1	100	100						
	0	0	0						
	0	0	0						

LAUNDRY					3,170	25%	793	3,963
Washer and Dryer Room	1	2,000	2,000	2,000				
Housekeeping Room	1	200	200	200				
Inmate Toilet	1	70	70	70				
Janitorial	1	50	50	50				
Cart Storage	1	100	100	100				
Linen / Towel Storage	1	750	750	750				
	0	0	0	0				
	0	0	0	0				

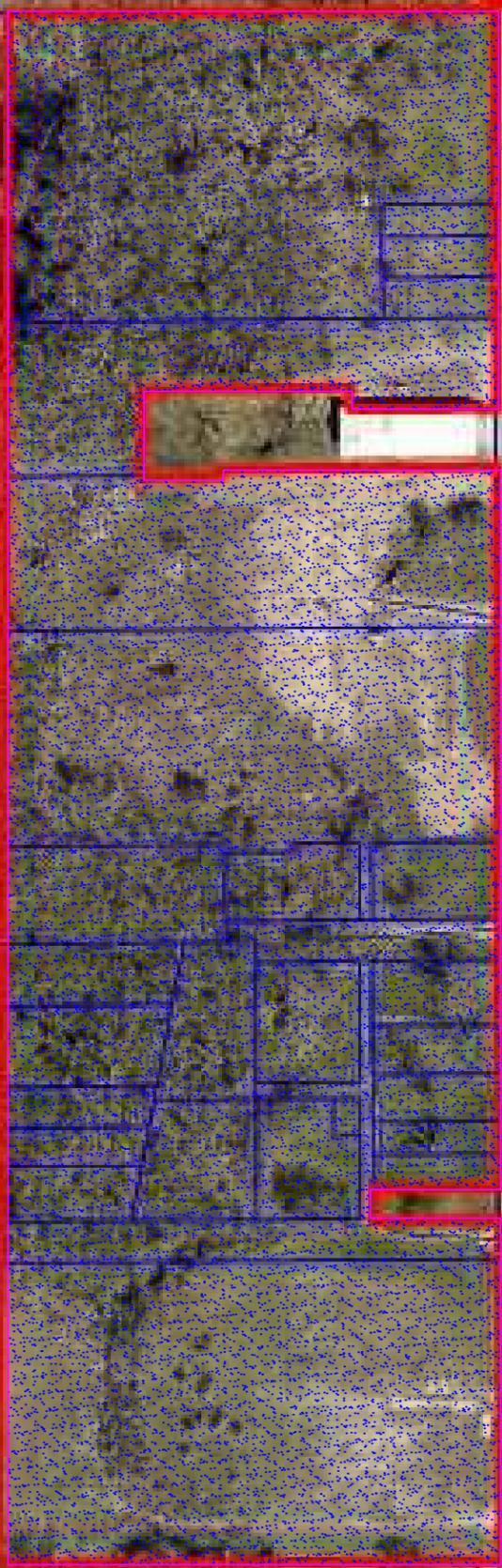
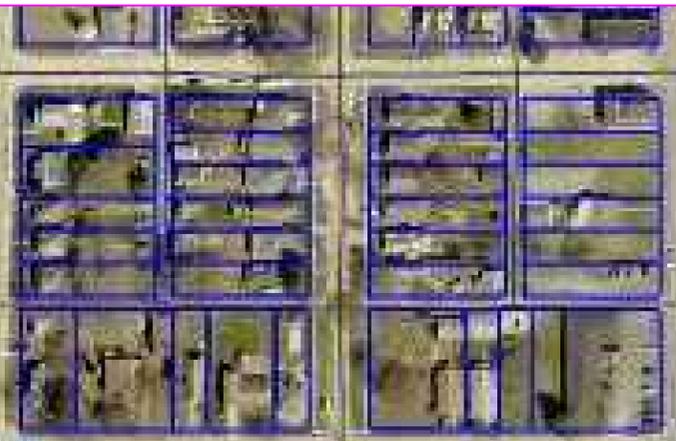
FOOD SERVICES							7,110	25%	1,778	8,888
Manager's Office	1	120	120							
Food Prep	1	1,000	1,000							
Cooking Area	1	1,000	1,000							
Dry Storage	1	800	800							
Walk In Cooler	1	500	500							
Walk In Freezer	1	500	500							
Dishwashing	1	1,000	1,000							
Cart Wash	1	500	500							
Cart Storage	1	500	500							
Kitchen Trash Room	1	200	200							
Staff Locker Room	1	200	200							
Staff Toilet	1	70	70							
Inmate Toilet	1	70	70							
Janitorial	1	50	50							
Trash Compactor	1	200	200							
Trash Room	1	200	200							
Storage	1	200	200							
	0	0	0							
	0	0	0							
BUILDING SYSTEMS							8,470	25%	2,118	10,588
Mechanical	1	2,000	2,000							
Water Service Room	1	200	200							
Electrical Service Room	1	200	200							
Secure Housing Perimeter Chase	0	0	0							
Electrical	1	1,000	1,000							
IT / Communication Closets	8	100	800							
IT / Communication Office	1	120	120							
Security Electronics	1	250	250							
Building Receiving	1	750	750							
Building Maintenance	1	1,000	1,000							
Building Maintenance Office	1	150	150							
Warehouse	1	2,000	2,000							
	0	0	0							

OUTBUILDING					6,770	25%	1,693	8,463	
Fleet Vehicle Maintenance Work Bay	2	250	500						
Large Evidence - Storage	1	2,000	2,000						
Large Evidence - Processing	1	200	200						
Toilet	1	70	70						
Fleet Storage	1	4,000	4,000						
	0	0	0						
	0	0	0						
				AREA NSF	83,750		AREA GROSSING SF	27,379	AREA GSF REMARKS
TOTAL PROPOSED AREA NET SQUARE FEET								111,129	
TOTAL PROPOSED GROSS SQUARE FEET								111,129	

DRAFT AREA	RATED BEDS
Infrimary Cells - Male	12
Infrimary Cells - Female	6
Medical Cells - Male	4
Medical Cells - Female	2
Holding Cells - Male	20
Holding Cells - Female	8
Dormitory - Trustees	24
Dormitory - Trustees	8
General Population Unit - 24 beds	144
General Population Unit - 24 beds	264
Behavior Management Unit - Male	24
Behavior Management Unit - Female	12
TOTAL	528

10 at 2 beds per cell
 4 at 2 beds per cell
 1 at 24 beds
 1 at 8 beds
 6 2 beds per cell in each Housing Unit
 11 4 beds per cell in each Housing Unit
 2 at 1 bed per cell / 12 cells in each unit
 1 at 1 bed per cell / 12 cells

84-06-16-176-013.000-002



3RD

84-06-16-401-002.000-002

84-06-16-451-001.000-002

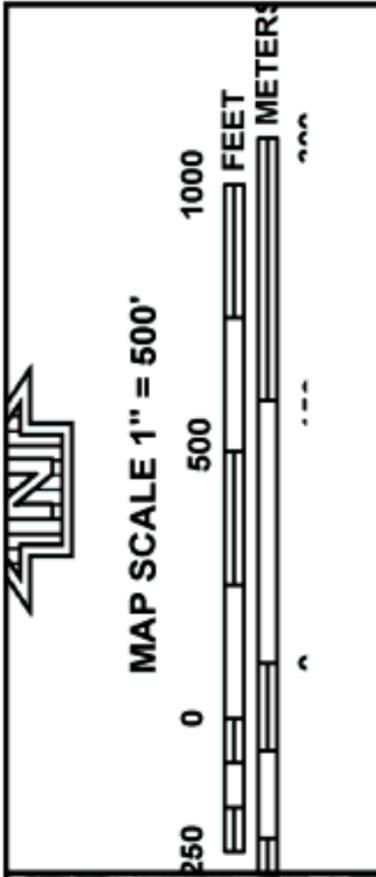
84-06-16-377-001.000-002

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84-06-16-453-001.000-002



1S



NFIP NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0131C

FIRM
FLOOD INSURANCE RATE MAP
VIGO COUNTY,
INDIANA
AND INCORPORATED AREAS

PANEL 131 OF 300
 (SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:
 COMMUNITY NUMBER PANEL SUFFIX
 TERRE HAUTE, CITY OF 180264 0131 C
 VIGO COUNTY 180263 0131 C

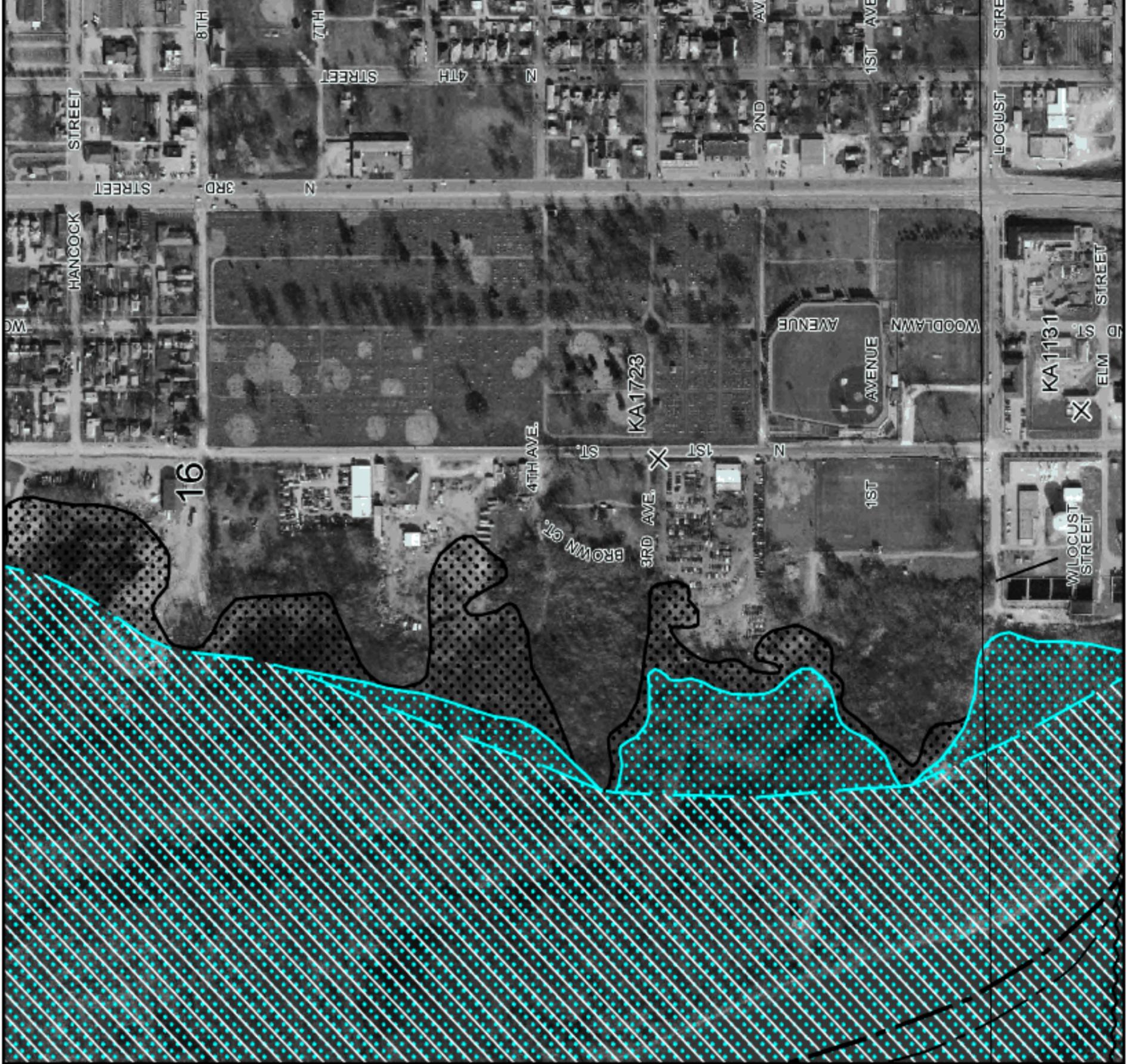
Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.



MAP NUMBER
18167C0131C
EFFECTIVE DATE
FEBRUARY 18, 2011

Federal Emergency Management Agency

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at www.msc.fema.gov



Meeting Minutes

Vigo County Commissioners
New Jail
Project Team Meeting
November 3, 2016 10:00 AM – Proposed Site Locations and Dawg Leg



Attendees: Greg Ewing, John Moats, Jeff Fox, Charlie Funk – Vigo County Sheriff's Office; Eric Ratts, Scott Carnegie, Jeff Hirsch – DLZ; Brian Kooistra, Rochelle Gardner – Garmong Construction Services

1. MEETING PURPOSE

- a. Review Potential Sites
- b. Review Building Program
- c. Review Preliminary Design Sketches

2. PROPOSED SITES

- a. A visit was made to two potential project sites
 - i. SR63 and Lombardi Drive – the acreage at this site appears to be adequate and soil conditions are expected to be sand/gravel with little to no debris; utilities appear to be in close proximity, however further investigation will be needed to determine the exact extent of existing utilities; location is desirable given its proximity to the Federal Penitentiary and access to the courthouse; it is unknown if this site would be available – the Owner has not been contacted
 - ii. Industrial Park – the acreage at this site appears to be adequate and soil conditions are expected to be clay requiring stabilization; utilities at this site are in close proximity; location is desirable in terms of anticipated resistance, but less desirable in terms of proximity to the courthouse; the site is owned by the Economic Development Corporation and is available to the county

3. DESIGN

- a. The updated Building Program was presented. Requested modifications were:
 - i. Three Video Arraignment spaces in lieu of one
 - ii. A juvenile secured housing area separate from the adult secured area spaces will be required. The juvenile secured housing will need to have approximately 5-6 cells
- b. DLZ presented three design schemes to begin developing floor plan areas, developing the preliminary site plan, and preparing the preliminary budget
- c. Each scheme presented will have inherent positive and negative aspects – the design is still very preliminary and modifications will continue throughout the design process
- d. The design intent is to separate the secure and non-secure areas while maintaining building access for deliveries, public, staff, and transport/receiving of inmates
- e. Each design scheme incorporates block secure housing with Master Control and Satellite Control locations connected via corridor to the secure and non-secure areas of the proposed project
 - i. Each block contains 144 secure beds
 - ii. Three blocks provide 432 secure beds along with Holding Cells, Trustee Dormitory beds, Infirmary Cells, and Medical Cells provides for 528 cells as required in the Facility Assessment prepared by DLZ

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- iii. A fourth block may be considered as the project progresses
- f. Scheme A - preferred Scheme by Owner representatives
 - i. Single entrance for general public and jail visitation potentially decreasing the need for duplication of entry spaces, metal detector, waiting areas, and toilet rooms
 - ii. Separation of delivery, public entry, staff entry, and sallyport
 - iii. Food Service and Trustee area needs to be adjusted for clear line of site
- g. Scheme B
 - i. Separate entrances for general public and jail visitation duplicating entry spaces, metal detector, waiting areas, and toilet rooms
 - ii. Food service and maintenance delivery areas potential interference with sallyport
 - iii. Intake/Booking/Processing areas distance from Secure Housing block is not ideal
- h. Scheme C
 - i. Single entrance for general public and jail visitation potentially decreasing the need for duplication of entry spaces, metal detector, waiting areas, and toilet rooms
 - ii. Food service and maintenance delivery areas potential interference with sallyport
 - iii. Intake/Booking/Processing areas distance from Secure Housing block is not ideal

4. ACTION ITEMS

- a. Garmong will obtain utility information on proposed site at SR63 and Lombardi Drive
- b. Garmong will meet with detention equipment and security automation contractors
- c. Garmong will continue to develop the preliminary budget
- d. DLZ will continue to develop the preliminary floor plan, preliminary site plan, mechanical, electrical, plumbing, fire protection, and structural systems

5. ATTACHMENTS

- a. Building Program prepared by DLZ, dated November 3, 2016
- b. Building Design Schemes prepared by DLZ
- c. Map of Industrial Park utilities



BUILDING PROGRAM

SPACE DESCRIPTION	#	NET SF	ASSIGNED AREA NSF	AREA GROSSING NSF	AREA GROSSING %	AREA GROSSING SF	AREA GSF	REMARKS
A PUBLIC ENTRY SPACES - SHERIFF				880	25%	220	1,100	
A.1 Vestibule	1	100	100					
A.2 Metal detector	1	120	120					
A.3 Public Lobby and Waiting	1	200	200					
A.4 Public Toilet - Male	1	70	70					Single occupancy
A.5 Public Toilet - Female	1	70	70					Single occupancy
A.6 Public Toilet - Transgender	1	70	70					Single occupancy
A.7 Janitor	1	50	50					
A.8 Memorial	1	100	100					
A.9 Public Lockers	1	100	100					
	0	0	0					
	0	0	0					
B PUBLIC ENTRY SPACES - JAIL				3,010	25%	753	3,763	
B.1 Vestibule	1	100	100					
B.2 Metal Detector	1	120	120					Possible
B.3 Public Lobby and Waiting	1	400	400					Drug drop off / commissary
B.4 Public Toilet - Male	1	140	140					
B.5 Public Toilet - Female	1	140	140					
B.6 Public Toilet - Transgender	1	70	70					Single occupancy
B.7 Video Visitation	1	800	800					
B.8 Non-Contact Visitation	1	400	400					
B.9 Interview Room	1	100	100					
B.10 Janitor	1	50	50					
B.11 Public Lockers	1	100	100					
B.12 Receptionist	1	120	120					Enclosed / likely not 24-7
B.13 Sex Offender - Register / Lobby	1	120	120					

B.14	Sex Offender - Office	1	200	200	200							Two people
B.15	Sex Offender - Processing Room	1	150	150	150							DNA, photo, fingerprint, process, supplies
		0	0	0	0							
		0	0	0	0							
C	SHERIFF'S OFFICE					17,770	35%	6,220	23,990			
C.1	Waiting	1	100	100	100							Public side
C.2	Receptionist / Admin Support	1	400	400	400							4 staff
C.3	Sheriff's Office	1	300	300	300							Single occupancy
C.4	Sheriff's Toilet / Shower	1	100	100	100							Close to sheriff
C.5	Sheriff's Admin Support	1	120	120	120							12 people
C.6	Sheriff's Conference Room	1	300	300	300							
C.7	Chief Deputy	1	200	200	200							
C.8	Major Operations Office	1	150	150	150							
C.9	Civil Office	1	150	150	150							4 people
C.10	Civil Process Office Area	1	400	400	400							
C.11	Training Sergeant Office	1	150	150	150							2 people
C.12	Agency Office	1	200	200	200							2 people
C.13	Crime Scene Tech Office	1	200	200	200							Two people
C.14	Sex Offender - Office	1	200	200	200							
C.15	Sheriff's Office Staff Entry	1	70	70	70							150 staff
C.16	Mailboxes	1	100	100	100							
C.17	Work Room	1	250	250	250							
C.18	File Storage - Short Term	1	200	200	200							10 file cabinets
C.19	File Storage - Long Term	1	1,000	1,000	1,000							High Density
C.20	Squad Room	1	400	400	400							4 people
C.21	Conference Room / Press	1	700	700	700							30 / divide into 2 so 15 each
C.22	Sheriff's Conference Room	1	300	300	300							12 people
C.23	Training Room - Vestibule	1	100	100	100							Separate entrance
C.24	Training Room	1	4,000	4,000	4,000							200 people / divide into 3 or 4
C.25	Training Room - Kitchenette	1	150	150	150							
C.26	Training Room - Male Toilet	1	200	200	200							
C.27	Training Room - Female Toilet	1	200	200	200							
C.28	Training Room - Transgender	1	70	70	70							
C.29	Training Room - Supplies	1	100	100	100							
C.30	Sheriff's Office Toilet - Male	1	140	140	140							Single occupancy

E.6	General Population Unit - 2 Beds / Cell	6	2,250	13,500						24 rated beds per unit
E.7	General Population Unit - 4 Beds / Cell	11	2,250	24,750						24 rated beds per unit
E.8	Behavior Management - Male - 12 beds	2	1,250	2,500						1 rated bed per cell
E.9	Behavior Management - Female - 12 beds	1	1,250	1,250						1 rated bed per cell
E.10	Indoor / Outdoor Recreation	3	1,000	3,000						
E.11	Indoor / Outdoor Recreation	2	500	1,000						
E.12	Professional NC Visitation	4	100	400						One per housing area / 2 staff / 1 inmate / group together
E.13	Janitorial	2	50	100						
		0	0	0						
		0	0	0						
F	MEDICAL			4,830	35%	1,691	6,521			
F.1	Waiting Area	1	150	150						
F.2	Holding Cells	2	80	160						
F.3	Exam Rooms	2	100	200						
F.4	Medical Records	1	150	150						
F.5	Pharmacy	1	150	150						
F.6	Nurse's Office	1	120	120						
F.7	Visiting Doctor's Office	1	120	120						
F.8	Counselor's Office	1	120	120						
F.9	Laboratory	1	120	120						
F.10	X-Ray Room	1	200	200						
F.11	Film Room	1	60	60						
F.12	Toilet - Staff	1	70	70						
F.13	Toilet - Inmate	1	70	70						
F.14	Dentist Exam	1	150	150						
F.15	Dental Storage	1	100	100						
F.16	Janitorial	1	50	50						
F.17	Infirmiry Cells - Male	6	100	600						Two rated beds per cell
F.18	Infirmiry Cells - Female	3	100	300						Two rated beds per cell
F.19	Medical Cells - Male	4	150	600						One rated bed per cell
F.20	Medical Cells - Female	2	150	300						One rated bed per cell
F.21	Padded Cell	1	80	80						
F.22	Padded Cell - Toilet / Shower	1	80	80						
F.23	Suicide Watch Cell	2	80	160						
F.24	Inmate Showers	2	80	160						

RATED BEDS SUMMARY

AREA	RATED BEDS
Infirmary Cells - Male	12
Infirmary Cells - Female	6
Medical Cells - Male	4
Medical Cells - Female	2
Holding Cells - Male	10 at 2 beds per cell
Holding Cells - Female	4 at 2 beds per cell
Dormitory - Trustees	1 at 24 beds
Dormitory - Trustees	1 at 8 beds
General Population Unit - 24 beds	6 2 beds per cell in each Housing Unit
General Population Unit - 24 beds	11 4 beds per cell in each Housing Unit
Behavior Management Unit - Male	2 at 1 bed per cell / 12 cells in each unit
Behavior Management Unit - Female	1 at 1 bed per cell / 12 cells
TOTAL	528

TOTAL INMATES - IN COUNTY and OUT OF COUNTY HOLDS

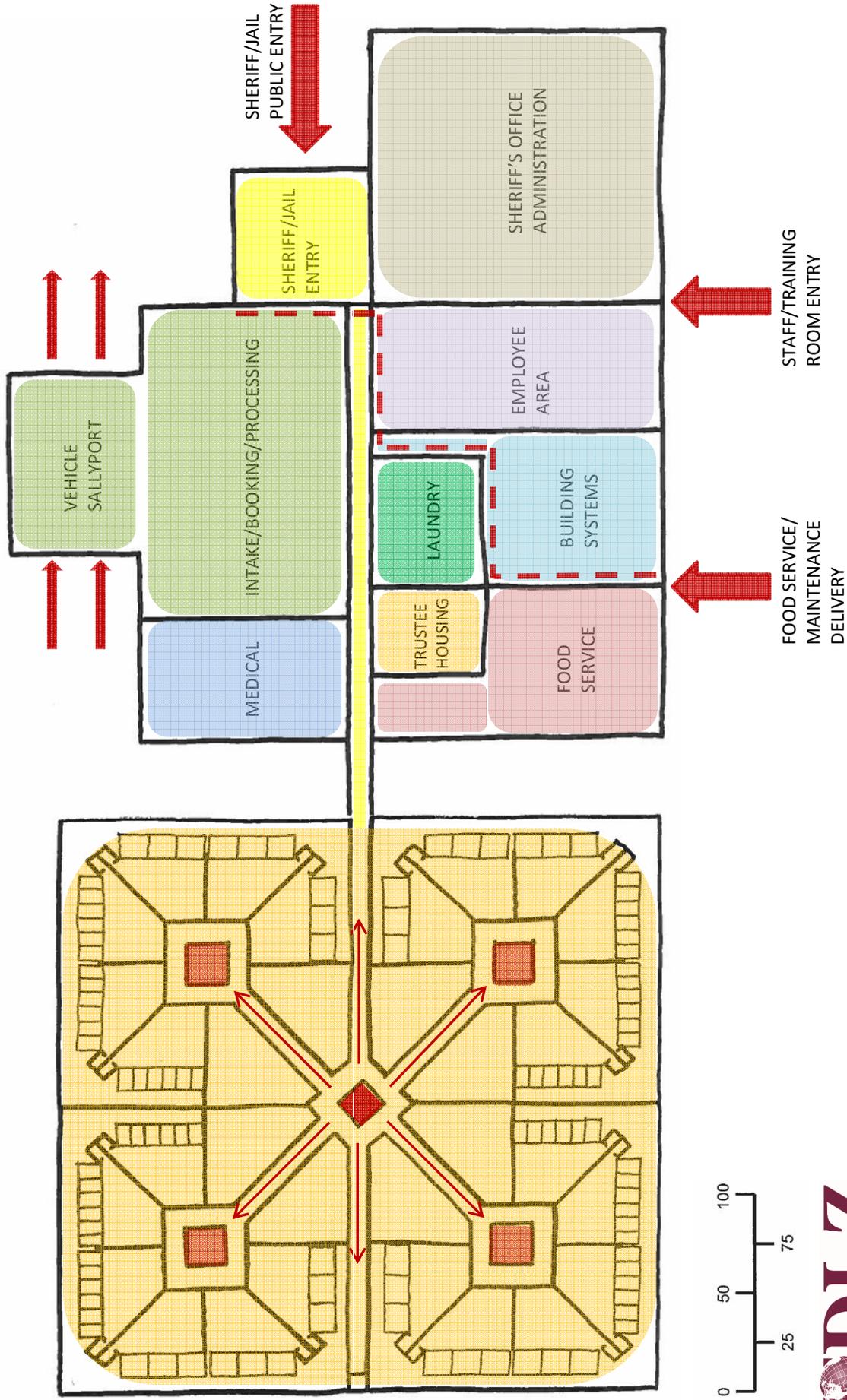
2016 10-14	
Current Males	297
Current Females	35
TOTAL	332
2016 11-03	
Current Males	259
Current Females	42
TOTAL	301

Conceptual Design
Progress Meeting
Terre Haute, Indiana
November 3, 2016

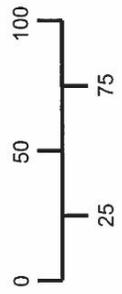
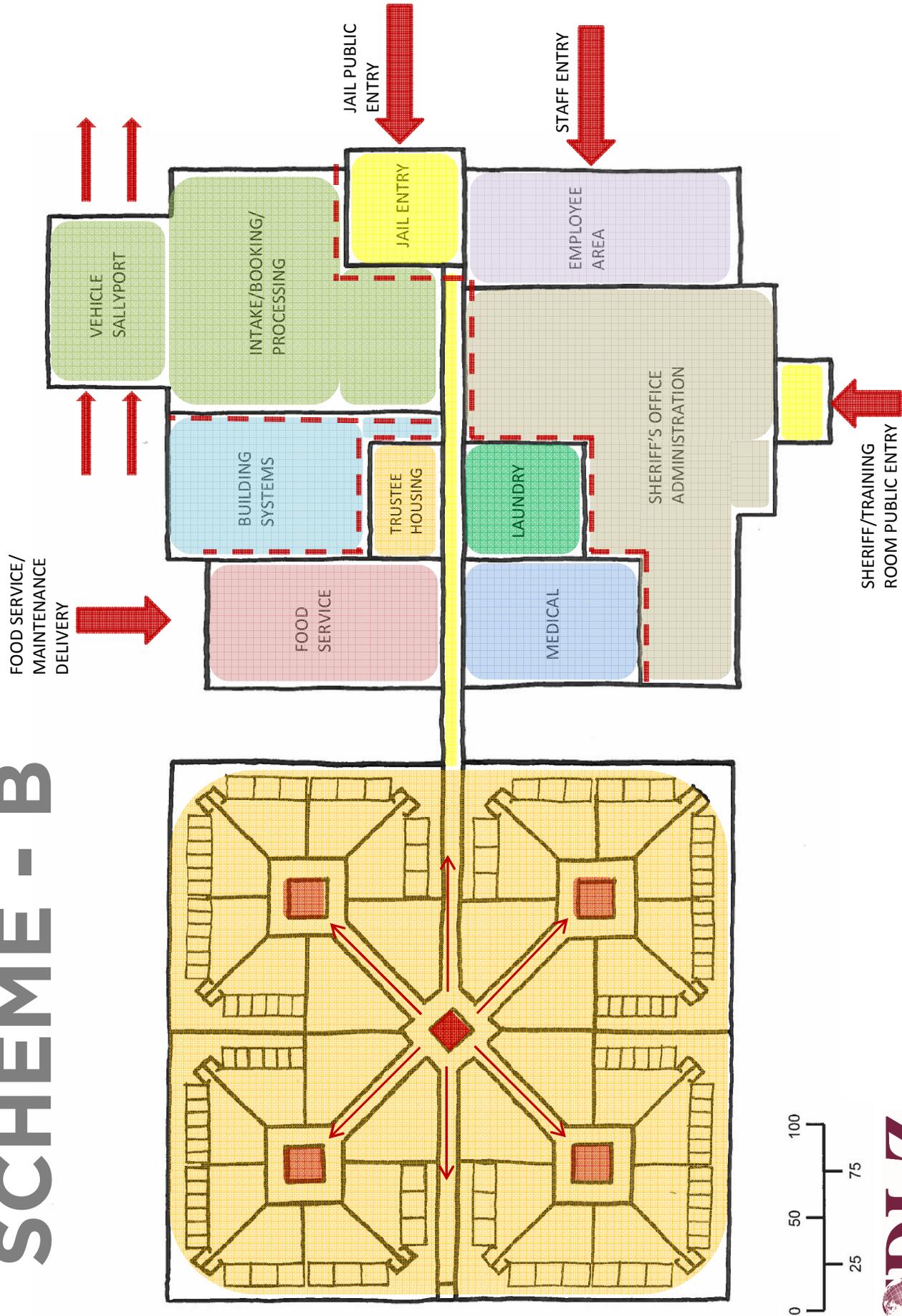
VIGO COUNTY SHERIFF'S OFFICE AND JAIL



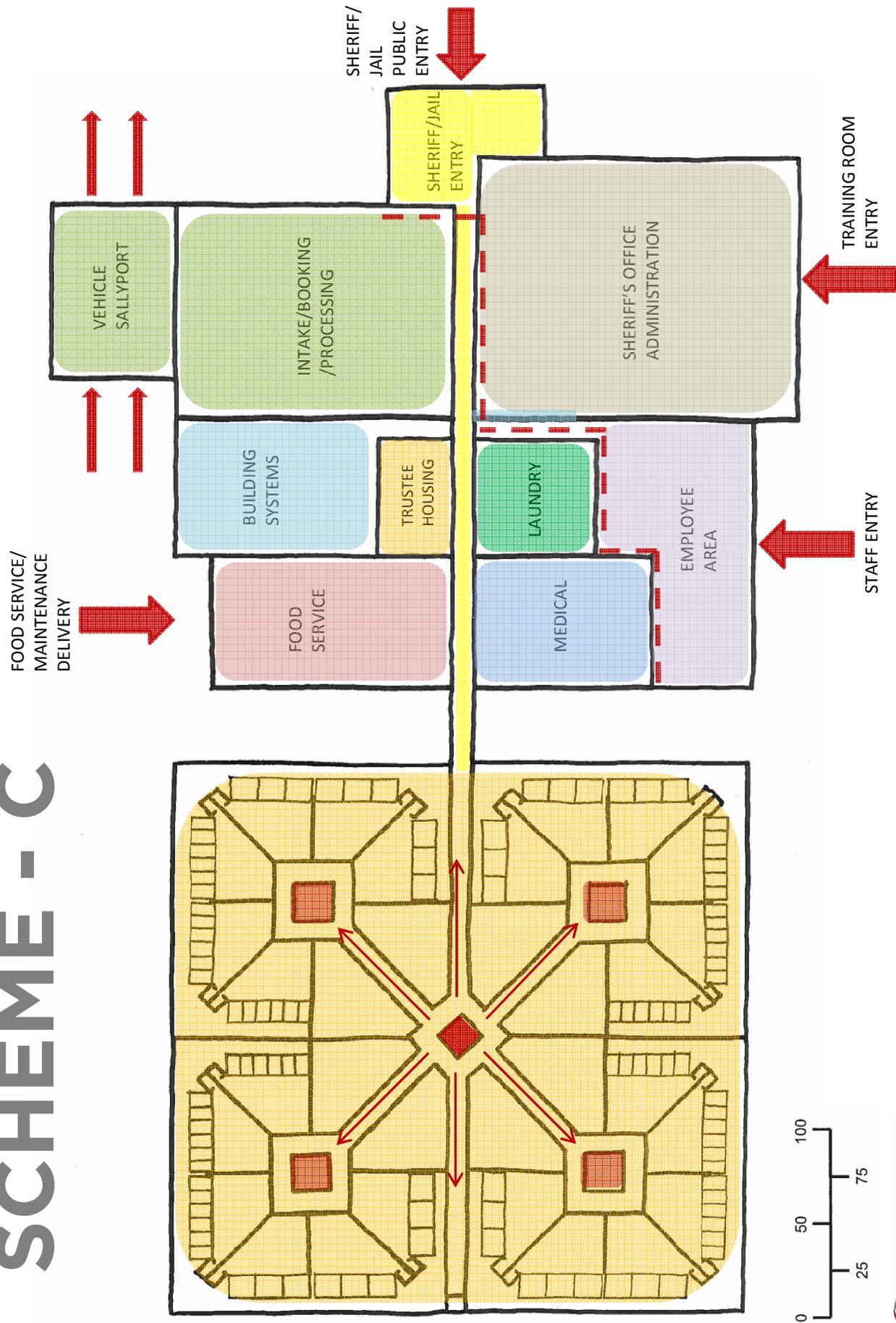
SCHEME - A



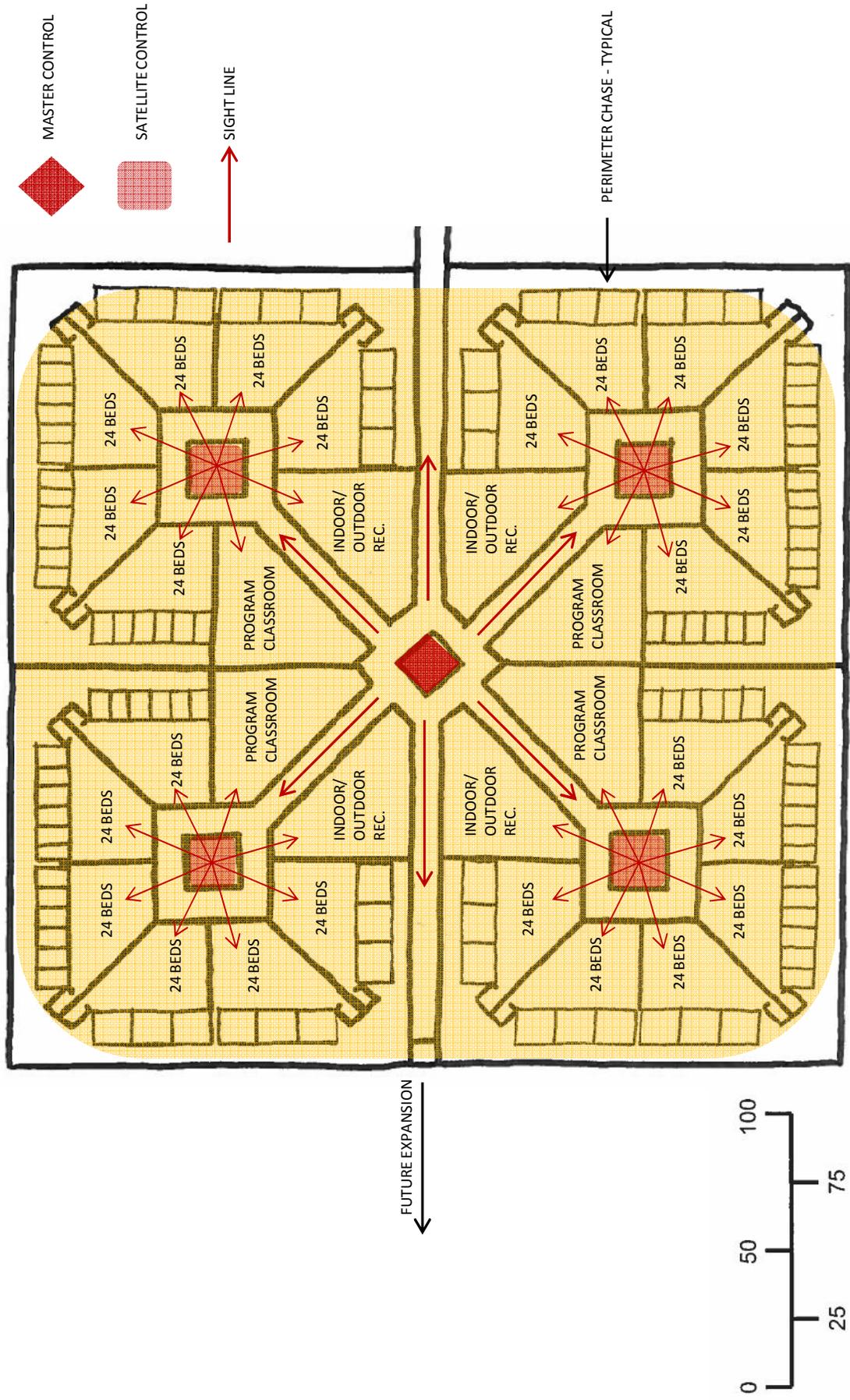
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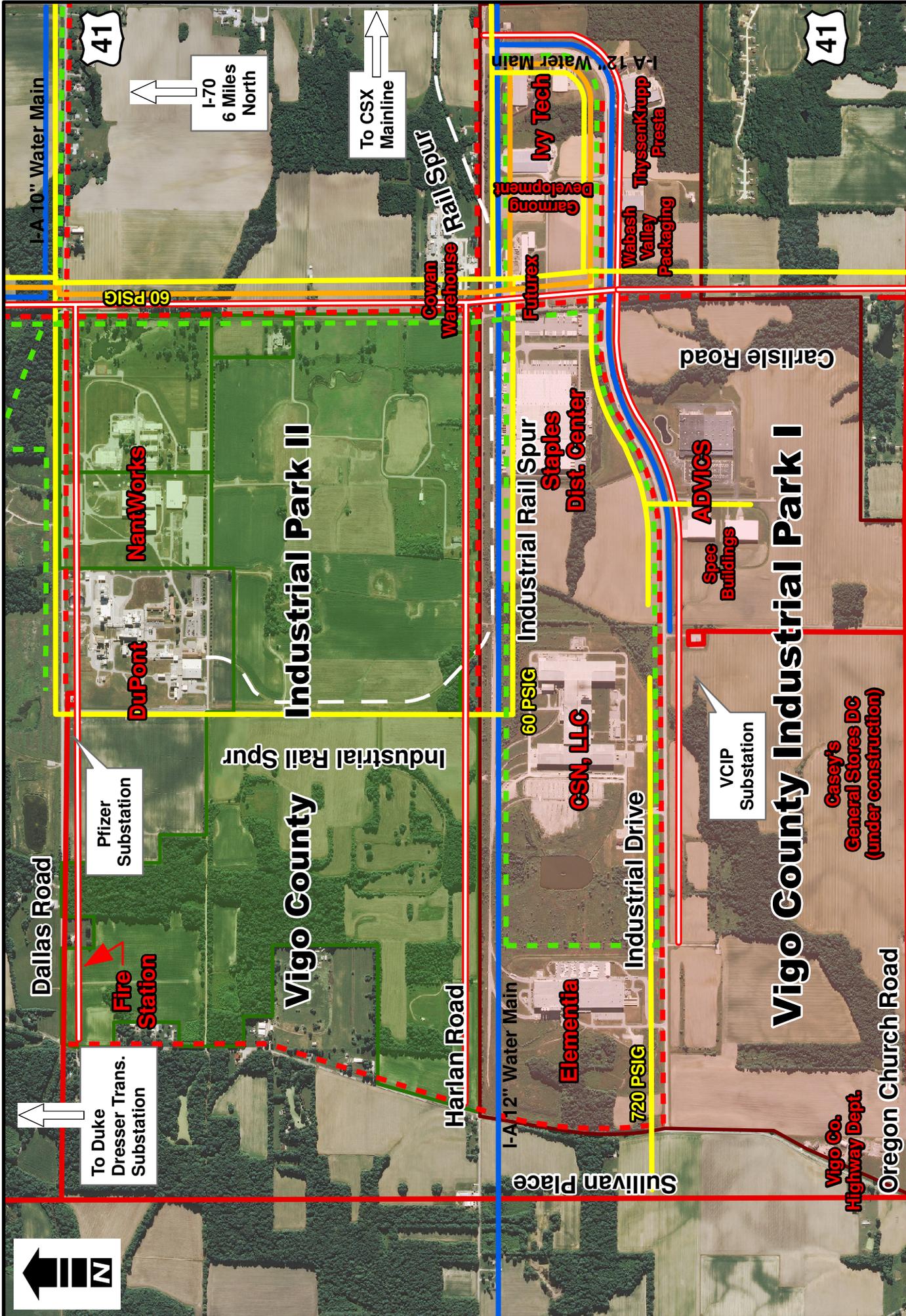
SCHEME - C



ENLARGED SECURE HOUSING



 **WORLDZ**



To Duke Linton Trans. Substation

Existing Utilities - Vigo County Industrial Parks I & II

Existing Utilities Legend

- 138 kV Electric
- 12 kV Electric
- Sanitary Sewer
- Water
- 2", 4", 6" or 8" Gas
- T-1 Fiber Cable
- Copper Cable



I-70 6 Miles North

To CSX Mainline

I-A 10" Water Main

60 PSIG

Industrial Rail Spur

60 PSIG

720 PSIG

I-A 12" Water Main

Industrial Drive

Industrial Rail Spur

60 PSIG

Industrial Rail Spur

I-A 12" Water Main

Industrial Drive

60 PSIG

I-A 12" Water Main

Duke Dresser Trans. Substation

Fire Station

Pfizer Substation

Dallas Road

Industrial Rail Spur

60 PSIG

Industrial Drive

60 PSIG

Industrial Rail Spur

60 PSIG

Industrial Drive

60 PSIG

Industrial Rail Spur

720 PSIG

Industrial Drive

I-A 12" Water Main

NantWorks

DuPont

Industrial Park II

60 PSIG

Industrial Drive

60 PSIG

Industrial Rail Spur

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Industrial Drive

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Industrial Rail Spur

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Industrial Drive

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Industrial Drive

I-A 12" Water Main

Elementia

CSN, LLC

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To Duke Linton Trans. Substation

Industrial Park I & II

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To Duke Linton Trans. Substation

Industrial Park I & II

60 PSIG

Industrial Drive

60 PSIG

Meeting Minutes

Vigo County Commissioners
New Jail
Project Team Meeting
November 9, 2016, 1:00 PM Vigo County Commissioner's Conference Room



Attendees: Judy Anderson, Brad Anderson, Jon Marvel – Vigo County Commissioners; Greg Ewing, John Moats – Vigo County Sheriff's Office; Michael Wright – Vigo County Attorney; Eric Ratts, Scott Carnegie, Jeff Hirsch – DLZ, Inc.; Brian Kooistra, Rochelle Gardner – Garmong Construction Services

1. MEETING PURPOSE

- a. Building Program update
- b. Preliminary floor plan
- c. Preliminary site layout
- d. Site evaluation

2. DESIGN

- a. To date, three Workshops have been conducted to obtain Building Program information, discuss potential sites, and develop preliminary design schemes
 - i. A review of the Building Program and preliminary design schemes was presented to the Commissioners for discussion
 1. E. Ratts explained development of the Building Program spaces, and determination of assigned and grossing factor square footage for those spaces
 - a. E. Ratts provided graphing of the average daily jail population to evaluate the potential jail population growth
 2. S. Carnegie reviewed preliminary design schemes, discussed advantages/disadvantages to each scheme and presented preliminary design Scheme A as the current working design
 - ii. General design discussions included
 1. Secure and non-secure areas
 2. Secure Housing layout for staffing redundancy
 3. Proposed Secure Housing block layout
 - a. 4 person cells
 - b. 2 person cells
 - c. Indoor/Outdoor recreation spaces
 - d. Program Classroom spaces
 - e. Proposed natural lighting
 - f. Proposed stacked design with secure catwalks
 - g. Cell privacy concerns
 - h. Proposed exterior wall construction
 4. Proposed Site Layout
 - a. Layouts were presented for the West Lombardi Drive site and Industrial Park site

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Fax: (812) 401-1212

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- i. Both sites have adequate utilities requiring extension to the proposed site
 - ii. Both sites have adequate acreage for future development
 - iii. The Industrial Park site distance to the courthouse is approximately an additional 10 minutes
 - iv. The West Lombardi site would require purchasing from private Owners who may not be willing to sell for the appraisal value
 - b. The proposed site layouts provided Visitor Parking outside of staff parking
 - c. The proposed site layouts provide for future Visitor and Staff parking
 - d. The proposed site layouts provide for inmate transport away from the proposed public entrance
 - e. The proposed site layouts provide for adequate delivery space
 - f. The preferred site is the Industrial Park location
- b. DLZ presented a preliminary layout of the Intake/Booking/Processing area which includes the Vehicle Sallyport Training Room
 - i. S. Carnegie discussed flow of the proposed layout from the secured corridor and sallyport
 - ii. The proposed Building Program spaces within the Intake/Booking/Processing will fit the Building Program square foot with grossing factor
- c. DLZ presented a preliminary layout of the Sheriff's Office Administration area
 - i. S. Carnegie discussed the flow and entry points from the main and staff entrances
 - ii. The proposed Building Program spaces within the Sheriff's Office Administration will fit the Building Program square foot with grossing factor

3. COST/ BUDGET

- a. Garmong is meeting with detention equipment and security access suppliers to assist in development of the preliminary budget
- b. Garmong is reviewing historical cost data for development of the preliminary budget

4. NEW BUSINESS

- a. Future workshops and presentation meetings were scheduled/confirmed
 - i. November 15, 2016 at 9:00 AM – Meeting to review the building systems and structural approaches and overall building floor plan for further development of the preliminary budget
 - ii. November 21, 2016 at 9:00 AM – Meeting to review overall building floor plan and building massing and preliminary budget
 - iii. December 6, 2016 – presentation of proposed project schematic design with preliminary budget to County Commissioners
 - iv. December 13, 2016 – presentation of proposed project schematic design, proposed site, and preliminary budget to County Council

5. ACTION ITEMS

- a. DLZ will continue development of schematic design
- b. Garmong Construction will continue to develop the preliminary budget based

6. ATTACHMENTS

- a. Building Program prepared by DLZ dated 11/9/2016
- b. Average Daily Population graphic prepared by DLZ
- c. Workshop #4 Agenda and proposed design information prepared by DLZ



BUILDING PROGRAM

SPACE DESCRIPTION	#	NET SF	ASSIGNED AREA NSF	AREA GROSSING NSF	AREA GROSSING %	AREA GROSSING SF	AREA GSF	REMARKS
A PUBLIC ENTRY SPACES - SHERIFF				880	25%	220	1,100	
A.1 Vestibule	1	100	100					
A.2 Metal detector	1	120	120					
A.3 Public Lobby and Waiting	1	200	200					
A.4 Public Toilet - Male	1	70	70					Single occupancy
A.5 Public Toilet - Female	1	70	70					Single occupancy
A.6 Public Toilet - Transgender	1	70	70					Single occupancy
A.7 Janitor	1	50	50					
A.8 Memorial	1	100	100					
A.9 Public Lockers	1	100	100					
	0	0	0					
	0	0	0					
B PUBLIC ENTRY SPACES - JAIL				3,010	25%	753	3,763	
B.1 Vestibule	1	100	100					
B.2 Metal Detector	1	120	120					Possible
B.3 Public Lobby and Waiting	1	400	400					Drug drop off / commissary
B.4 Public Toilet - Male	1	140	140					
B.5 Public Toilet - Female	1	140	140					
B.6 Public Toilet - Transgender	1	70	70					Single occupancy
B.7 Video Visitation	1	800	800					
B.8 Non-Contact Visitation	1	400	400					
B.9 Interview Room	1	100	100					
B.10 Janitor	1	50	50					
B.11 Public Lockers	1	100	100					
B.12 Receptionist	1	120	120					Enclosed / likely not 24-7
B.13 Sex Offender - Register / Lobby	1	120	120					

B.14	Sex Offender - Office	1	200	200	200						Two people
B.15	Sex Offender - Processing Room	1	150	150	150						DNA, photo, fingerprint, process, supplies
		0	0	0	0						
		0	0	0	0						
C	SHERIFF'S OFFICE					17,770	35%	6,220	23,990		
C.1	Waiting	1	100	100	100						Public side
C.2	Receptionist / Admin Support	1	400	400	400						4 staff
C.3	Sheriff's Office	1	300	300	300						Single occupancy
C.4	Sheriff's Toilet / Shower	1	100	100	100						Close to sheriff
C.5	Sheriff's Admin Support	1	120	120	120						12 people
C.6	Sheriff's Conference Room	1	300	300	300						
C.7	Chief Deputy	1	200	200	200						
C.8	Major Operations Office	1	150	150	150						
C.9	Civil Office	1	150	150	150						4 people
C.10	Civil Process Office Area	1	400	400	400						
C.11	Training Sergeant Office	1	150	150	150						2 people
C.12	Agency Office	1	200	200	200						2 people
C.13	Crime Scene Tech Office	1	200	200	200						Two people
C.14	Sex Offender - Office	1	200	200	200						
C.15	Sheriff's Office Staff Entry	1	70	70	70						150 staff
C.16	Mailboxes	1	100	100	100						
C.17	Work Room	1	250	250	250						
C.18	File Storage - Short Term	1	200	200	200						10 file cabinets
C.19	File Storage - Long Term	1	1,000	1,000	1,000						High Density
C.20	Squad Room	1	400	400	400						4 people
C.21	Conference Room / Press	1	700	700	700						30 / divide into 2 so 15 each
C.22	Sheriff's Conference Room	1	300	300	300						12 people
C.23	Training Room - Vestibule	1	100	100	100						Separate entrance
C.24	Training Room	1	4,000	4,000	4,000						200 people / divide into 3 or 4
C.25	Training Room - Kitchenette	1	150	150	150						
C.26	Training Room - Male Toilet	1	200	200	200						
C.27	Training Room - Female Toilet	1	200	200	200						
C.28	Training Room - Transgender	1	70	70	70						
C.29	Training Room - Supplies	1	100	100	100						
C.30	Sheriff's Office Toilet - Male	1	140	140	140						Single occupancy

E.4	Dormitory - Trustees	1	2,250	2,250					24 rated beds - near Kitchen and Laundry
E.5	Dormitory - Trustees	1	1,000	1,000					8 rated beds - near Kitchen and Laundry
E.6	General Population Unit - 2 Beds / Cell	6	2,250	13,500					24 rated beds per unit
E.7	General Population Unit - 4 Beds / Cell	11	2,250	24,750					24 rated beds per unit
E.8	Behavior Management - Male - 12 beds	2	1,250	2,500					1 rated bed per cell
E.9	Behavior Management - Female - 12 beds	1	1,250	1,250					1 rated bed per cell
E.10	Indoor / Outdoor Recreation	3	1,000	3,000					
E.11	Indoor / Outdoor Recreation	2	500	1,000					
E.12	Professional NC Visitation	4	100	400					One per housing area / 2 staff / 1 inmate / group together
E.13	Janitorial	2	50	100					
E.14	Waived Juveniles Unit - 1 Bed / Cell	1	1,000	1,000					8 rated beds per unit
		0	0	0					
		0	0	0					
F	MEDICAL			4,910	35%	1,719	6,629		
F.1	Waiting Area	1	150	150					
F.2	Holding Cells	2	80	160					
F.3	Exam Rooms	2	100	200					
F.4	Medical Records	1	150	150					
F.5	Pharmacy	1	150	150					
F.6	Nurse's Office	1	120	120					
F.7	Visiting Doctor's Office	1	120	120					
F.8	Counselor's Office	1	120	120					
F.9	Labatory	1	120	120					
F.10	X-Ray Room	1	200	200					
F.11	Film Room	1	60	60					
F.12	Toilet - Staff	1	70	70					
F.13	Toilet - Inmate	1	70	70					
F.14	Dentist Exam	1	150	150					
F.15	Dental Storage	1	100	100					
F.16	Janitorial	1	50	50					
F.17	Infirmary Cells - Male	6	100	600					Two rated beds per cell
F.18	Infirmary Cells - Female	3	100	300					Two rated beds per cell
F.19	Medical Cells - Male	4	150	600					One rated bed per cell

F.20	Medical Cells - Female	2	150	300								One rated bed per cell
F.21	Padded Cell	2	80	160								
F.22	Padded Cell - Toilet / Shower	1	80	80								
F.23	Suicide Watch Cell	2	80	160								
F.24	Inmate Showers	2	80	160								
F.25	Contaminated Laundry	1	80	80								
F.26	Video Visitation	2	40	80								
F.27	Indoor / Outdoor Recreation	1	200	200								
F.28	Storage	1	200	200								
		0	0	0								
		0	0	0								
G	PROGRAM AREA			4,390		30%	1,317	5,707				
G.1	Program - Classrooms	6	600	3,600								25 occupancy
G.2	Program - Office	1	120	120								
G.3	Program - Storage	1	200	200								
G.4	Program - Inmate Toilet	2	70	140								
G.5	Program - Holding Cell	1	80	80								
G.6	Law Library	1	200	200								
G.7	Janitorial	1	50	50								
		0	0	0								
		0	0	0								
H	EMPLOYEE AREA			7,810		35%	2,734	10,544				
H.1	Employee Entrance	1	100	100								
H.2	Locker Room - Male	1	2,000	2,000								80 lockers
H.3	Locker Room - Male Shower	8	120	960								
H.4	Locker Room - Female	1	1,000	1,000								40 lockers
H.5	Locker Room - Female Shower	4	120	480								
H.6	Locker Room - Transgender	1	200	200								
H.7	Locker Room - Transgender Shower	1	120	120								
H.8	Fitness Room	1	2,000	2,000								
H.9	Break Room	1	250	250								
H.10	Staff Dining	1	600	600								Market approach / vending
H.11	Lactation Room	1	100	100								
		0	0	0								
		0	0	0								

RATED BEDS SUMMARY

AREA	RATED BEDS
Infirmiry Cells - Male	12
Infirmiry Cells - Female	6
Medical Cells - Male	4
Medical Cells - Female	2
Holding Cells - Male	10 at 2 beds per cell
Holding Cells - Female	4 at 2 beds per cell
Dormitory - Trustees	1 at 24 beds
Dormitory - Trustees	1 at 8 beds
General Population Unit - 24 beds	6 2 beds per cell in each Housing Unit
General Population Unit - 24 beds	11 4 beds per cell in each Housing Unit
Behavior Management Unit - Male	2 at 1 bed per cell / 12 cells in each unit
Behavior Management Unit - Female	1 at 1 bed per cell / 12 cells
Waived Juvenile Unit	1 at 1 bed per cell / 6 cells
TOTAL	534

NOTE: Detox and Padded Cells do not count for Rated beds

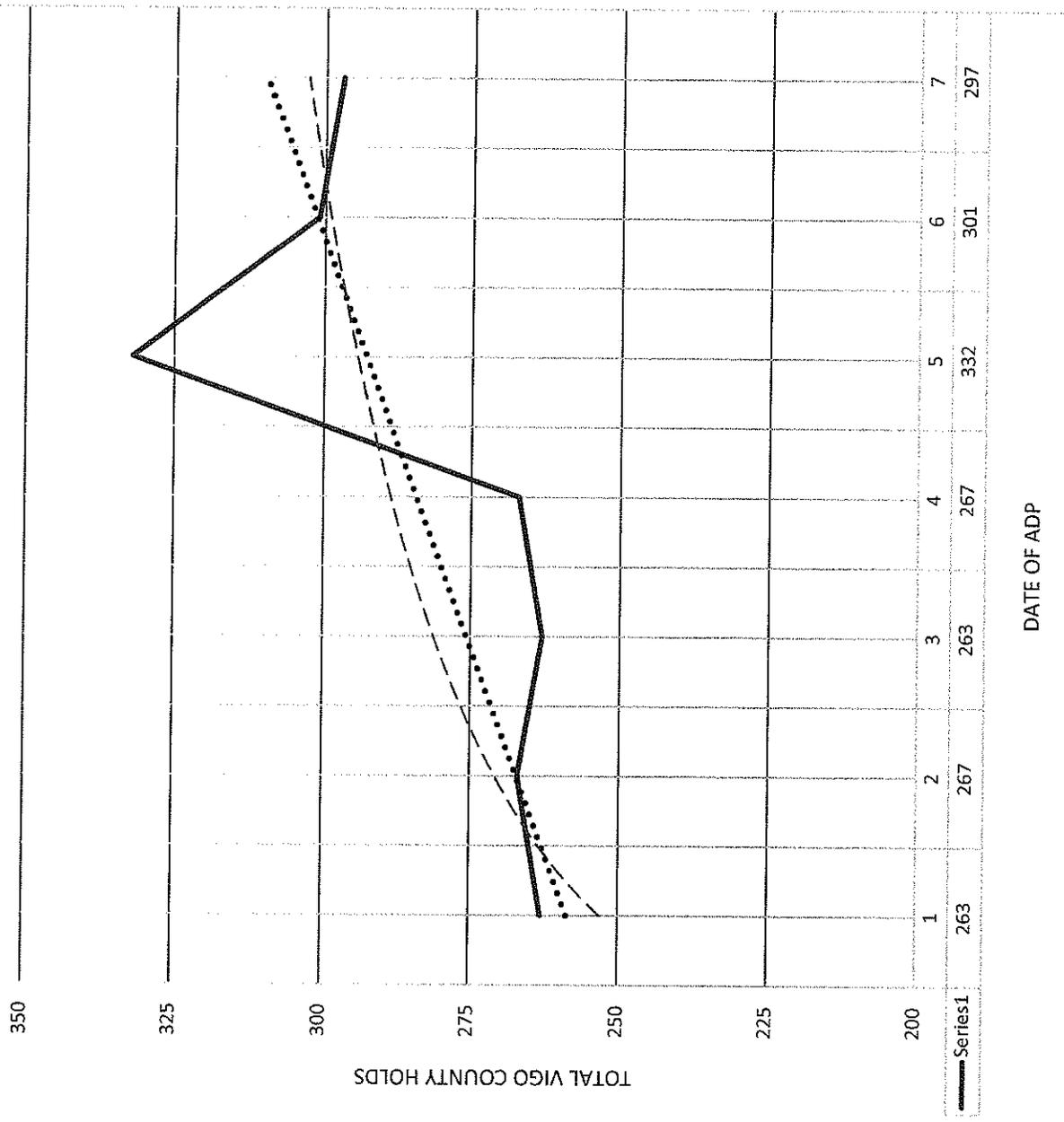
TOTAL INMATES - IN COUNTY and OUT OF COUNTY HOLDS

2016 10-14	
Current Males	297
Current Females	35
TOTAL	332
2016 11-03	
Current Males	259
Current Females	42
TOTAL	301
2016 11-09	
Current Males	0
Current Females	0
TOTAL	0

TOTAL INMATES - IN COUNTY and OUT OF COUNTY HOLDS

1 YEAR 2012		
Males	216	
Females	47	
TOTAL	263	
2 YEAR 2013		
Males	229	
Females	38	
TOTAL	267	
3 YEAR 2014		
Males	216	
Females	47	
TOTAL	263	
4 YEAR 2015		
Males	229	
Females	38	
TOTAL	267	
5 2016 10-14		
Current Males	297	
Current Females	35	
TOTAL	332	
6 2016 11-03		
Current Males	259	
Current Females	42	
TOTAL	301	
7 2016 11-09		
Current Males	259	
Current Females	38	
TOTAL	297	

AVERAGE DAILY POPULATION



Workshop # 4
Terre Haute, Indiana
November 9, 2016

VIGO COUNTY

SHERIFF'S OFFICE AND JAIL



WORKSHOPS

October 11, 2016

Workshop #1 / Owner Kickoff Meeting

- Feasibility Study recap
- Discussed process and deliverables for Preliminary Design Phase

October 26

Workshop #2

- Presented draft Building Program

November 3

Workshop #3

- Visited potential Project Sites
- Reviewed updates to Building Program
- Presented initial Preliminary Building Design approach

November 9

Workshop #4

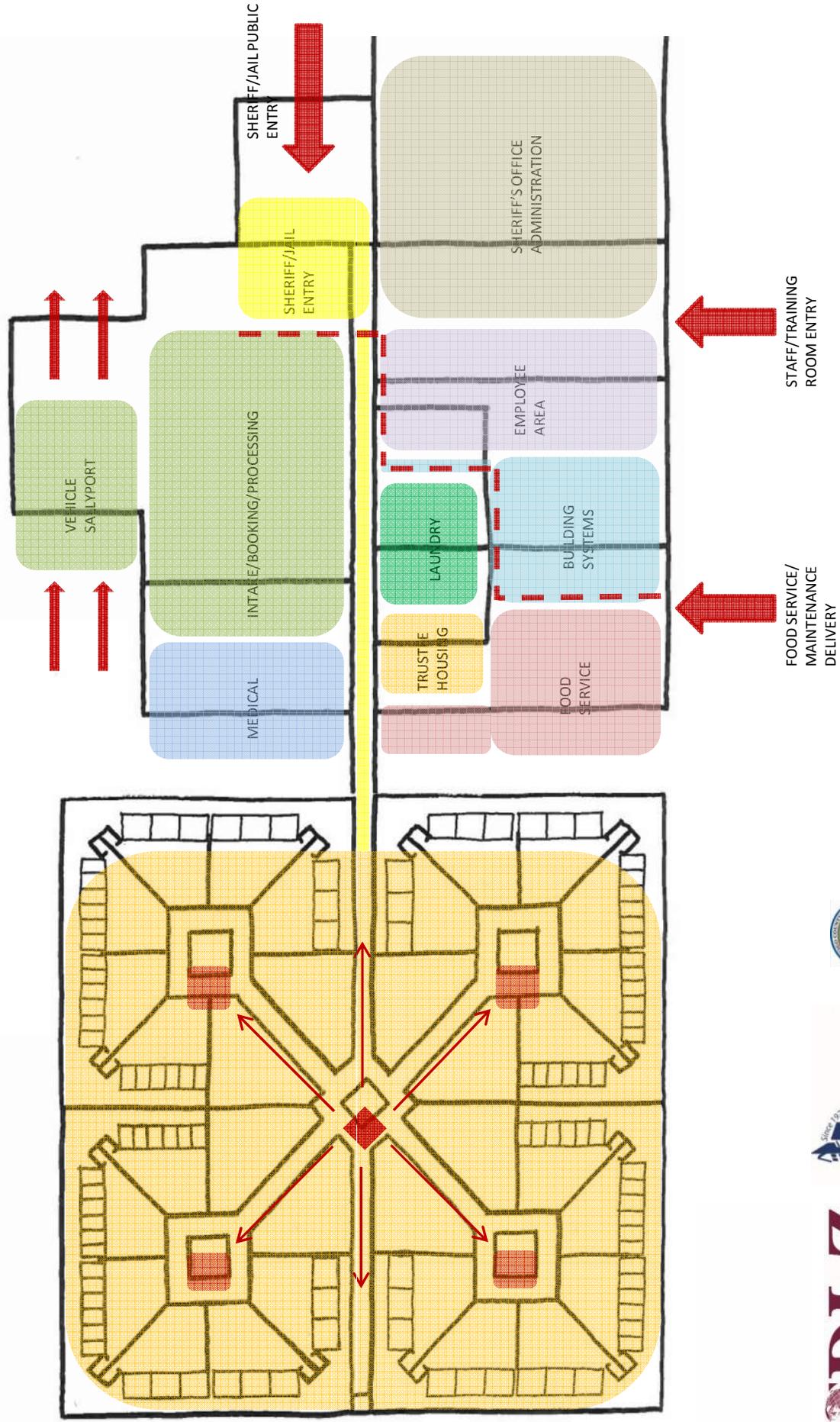
- Recap Work Shops to date
- Review Building Program
- Review Preliminary Site Plan
- Review Preliminary Building Plan



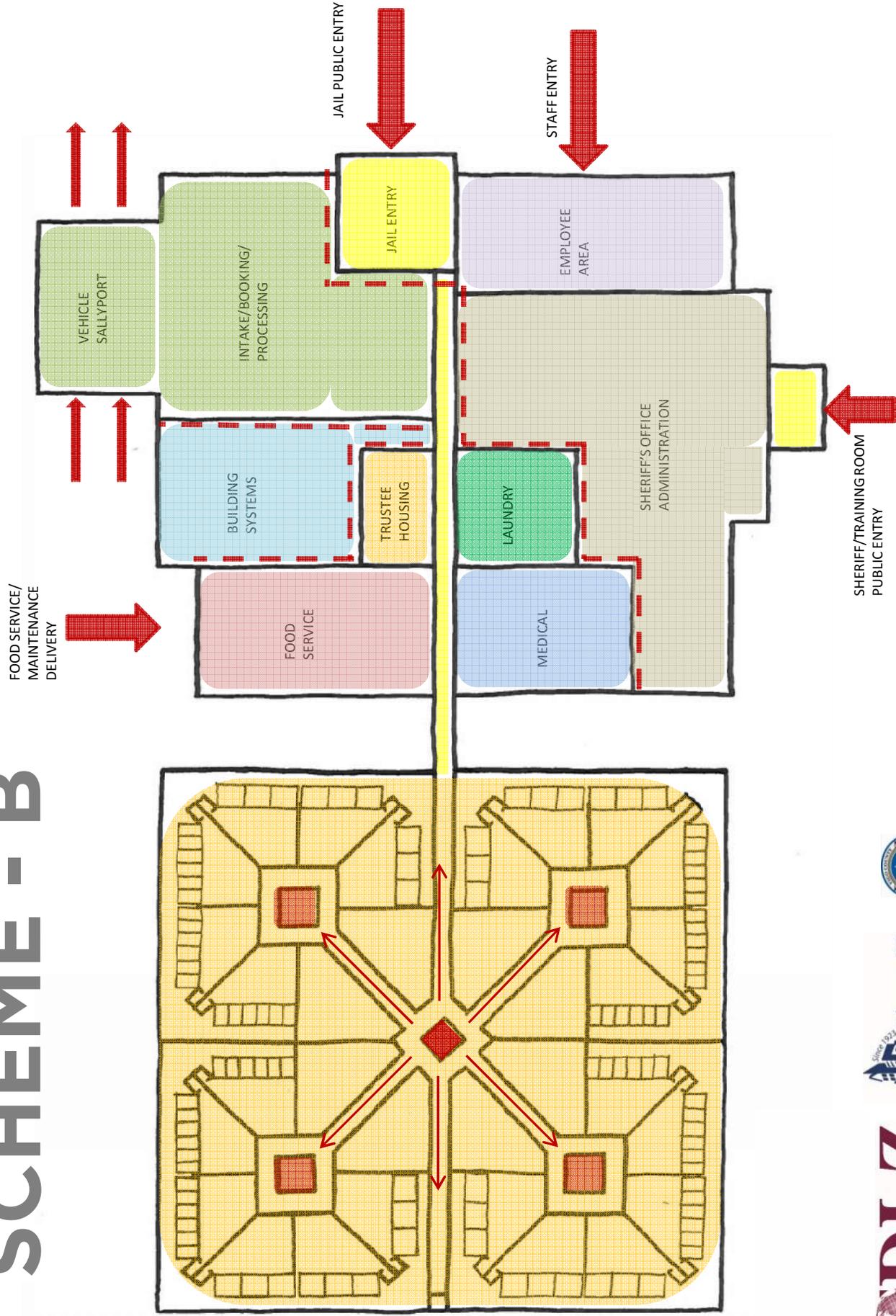
INFORMATION PRESENTED AT NOVEMBER 3 WORKSHOP #3



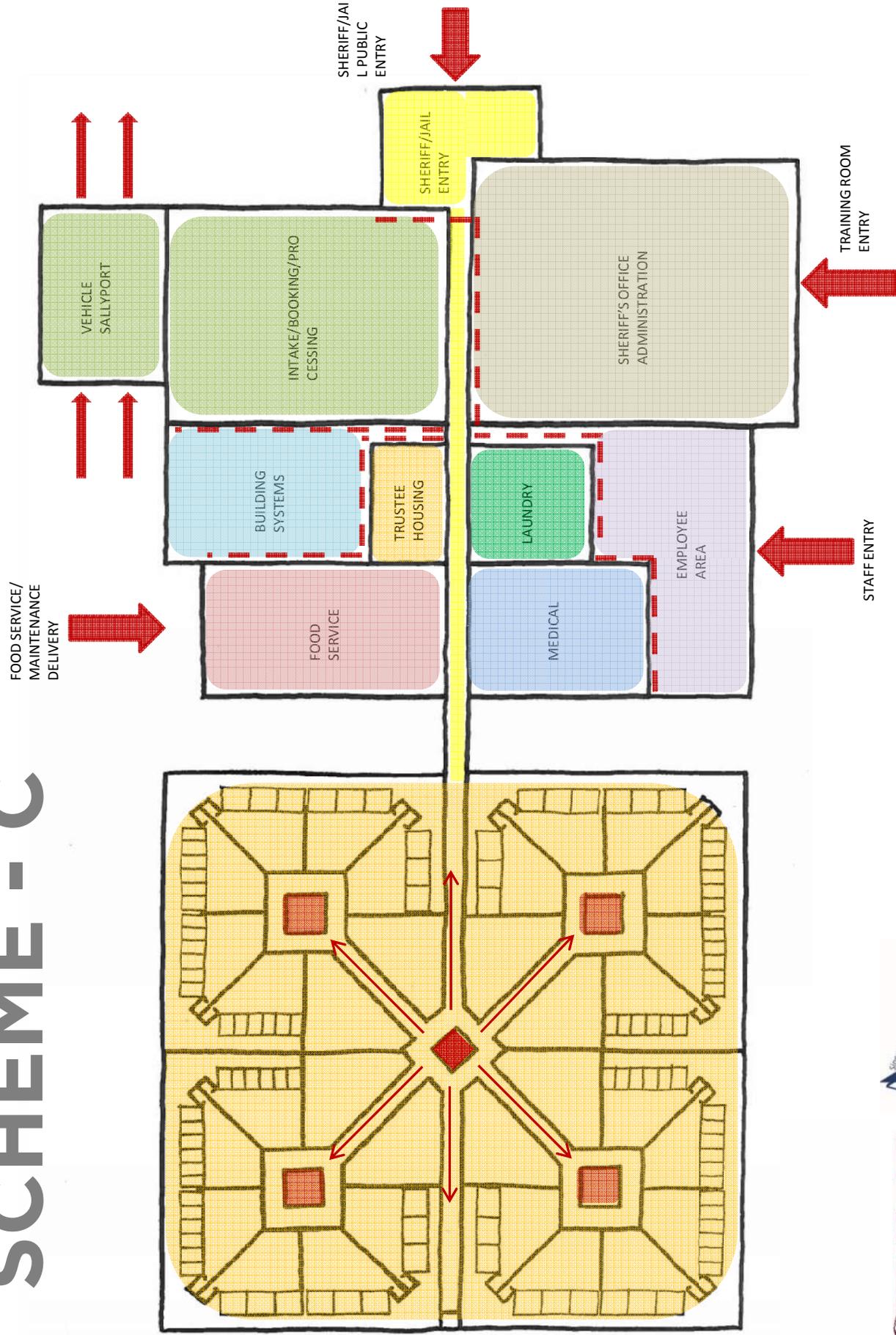
SCHEME - A



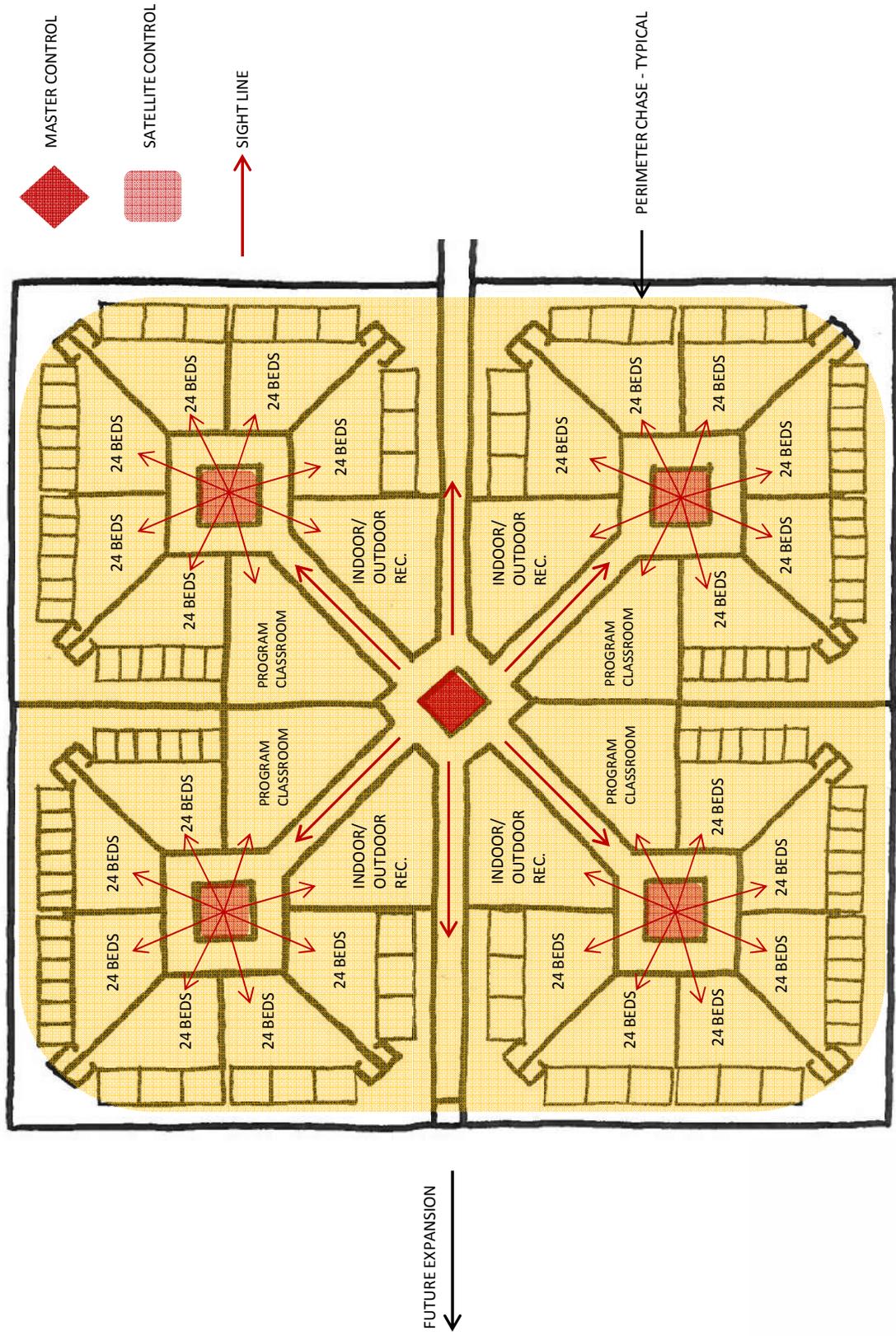
SCHEME - B



SCHEME - C



ENLARGED SECURE HOUSING



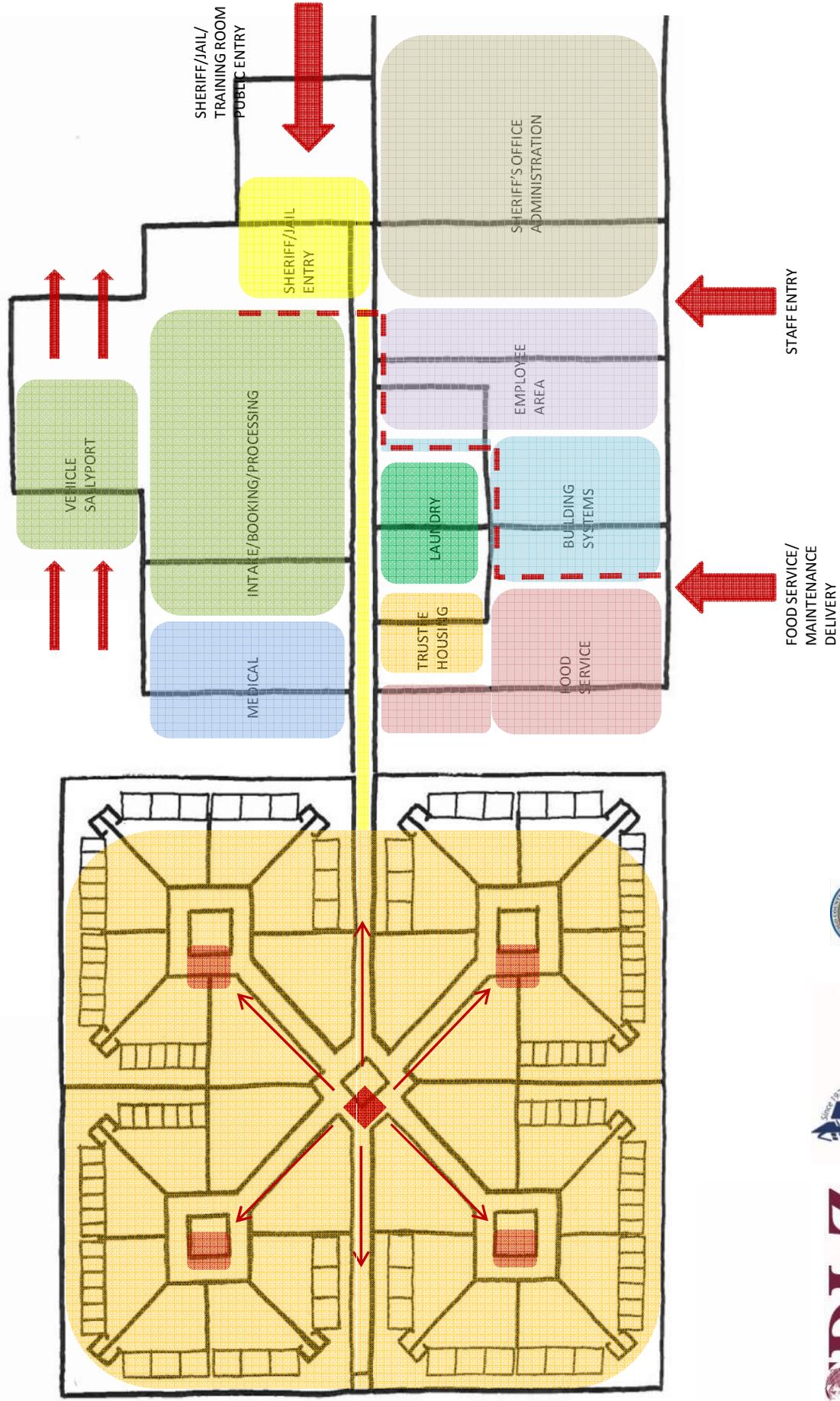
NOVEMBER 9 WORKSHOP #4



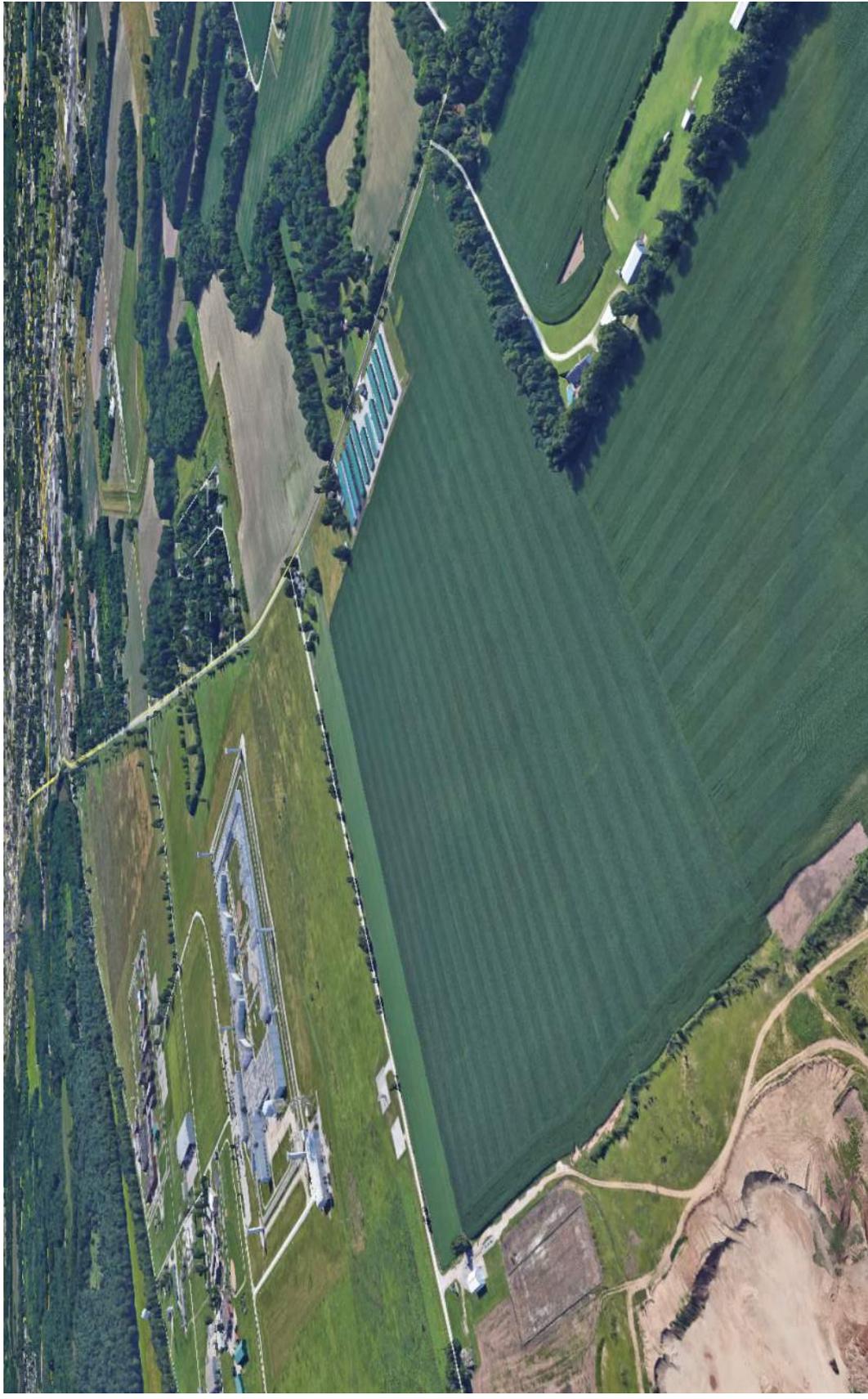
BUILDING PROGRAMMING



SCHEME - A



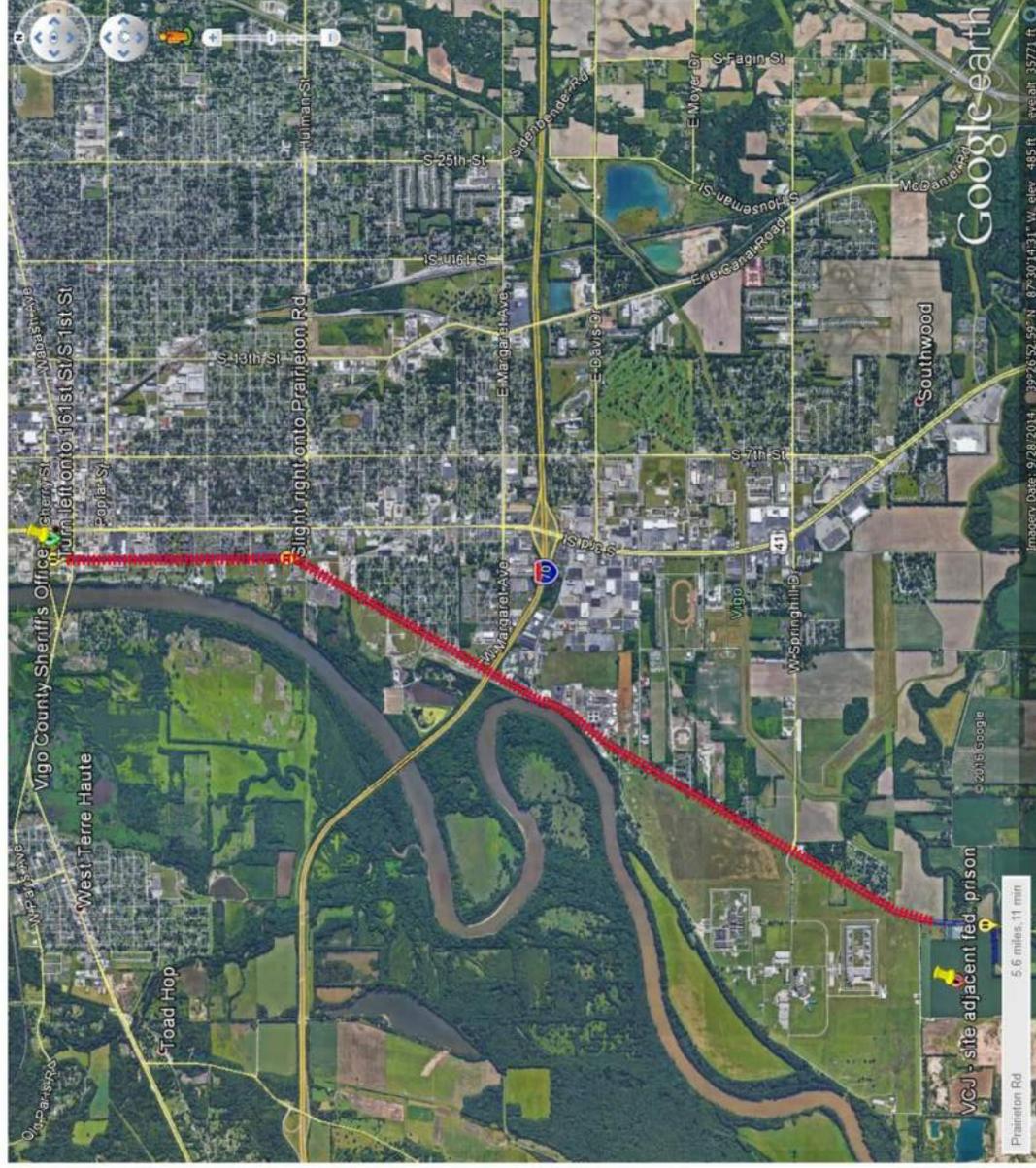
SITE LAYOUT - WEST LOMBARDI DRIVE



SITE LAYOUT - WEST LOMBARDI DRIVE



SITE LAYOUT - WEST LOMBARDI DRIVE



TO COURTHOUSE:
DISTANCE: 5.6 MILES
DRIVE TIME: 11 MINUTES



SITE LAYOUT - WEST LOMBARDI DRIVE



SITE LAYOUT - WEST LOMBARDI DRIVE



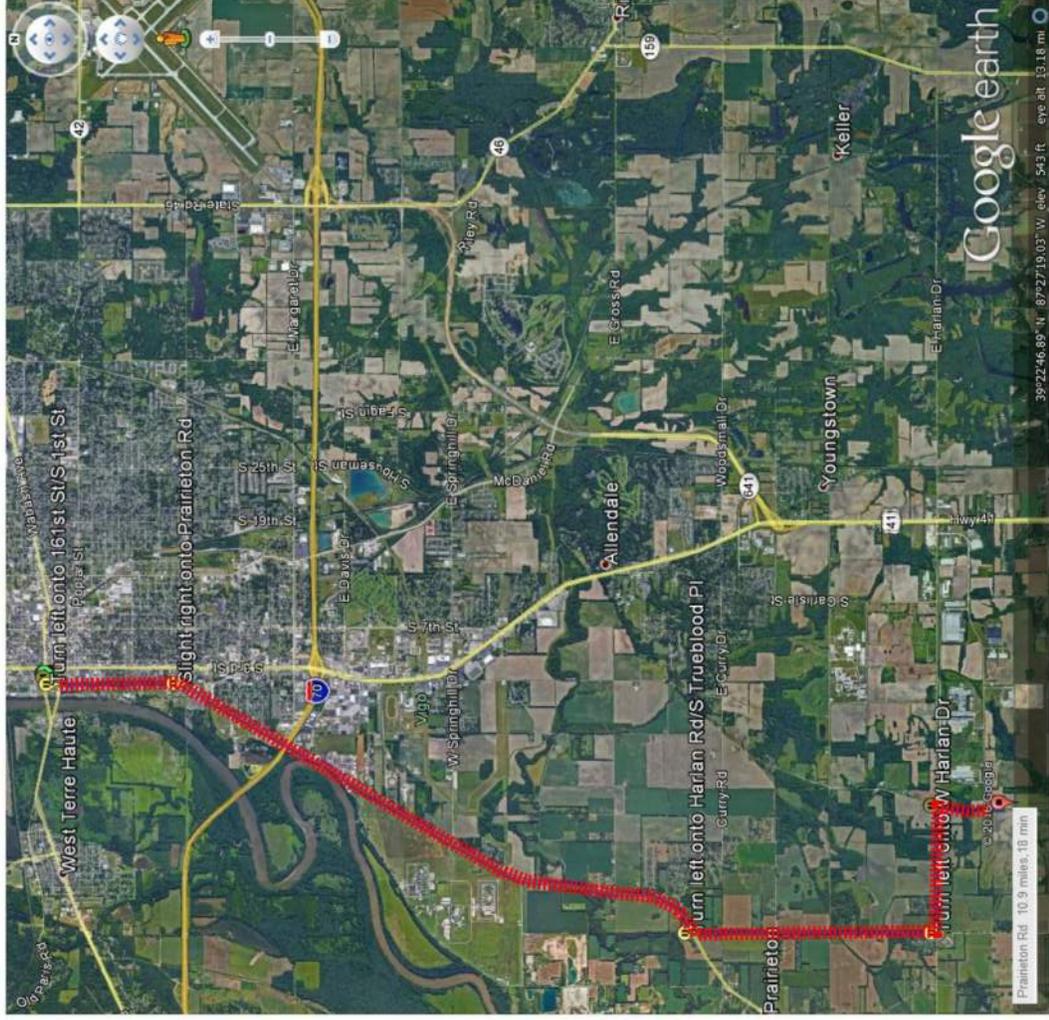
SITE LAYOUT - INDUSTRIAL PARK



SITE LAYOUT - INDUSTRIAL PARK



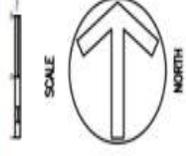
SITE LAYOUT - INDUSTRIAL PARK



TO COURTHOUSE:
DISTANCE: 10.9 MILES
DRIVE TIME: 18 MINUTES



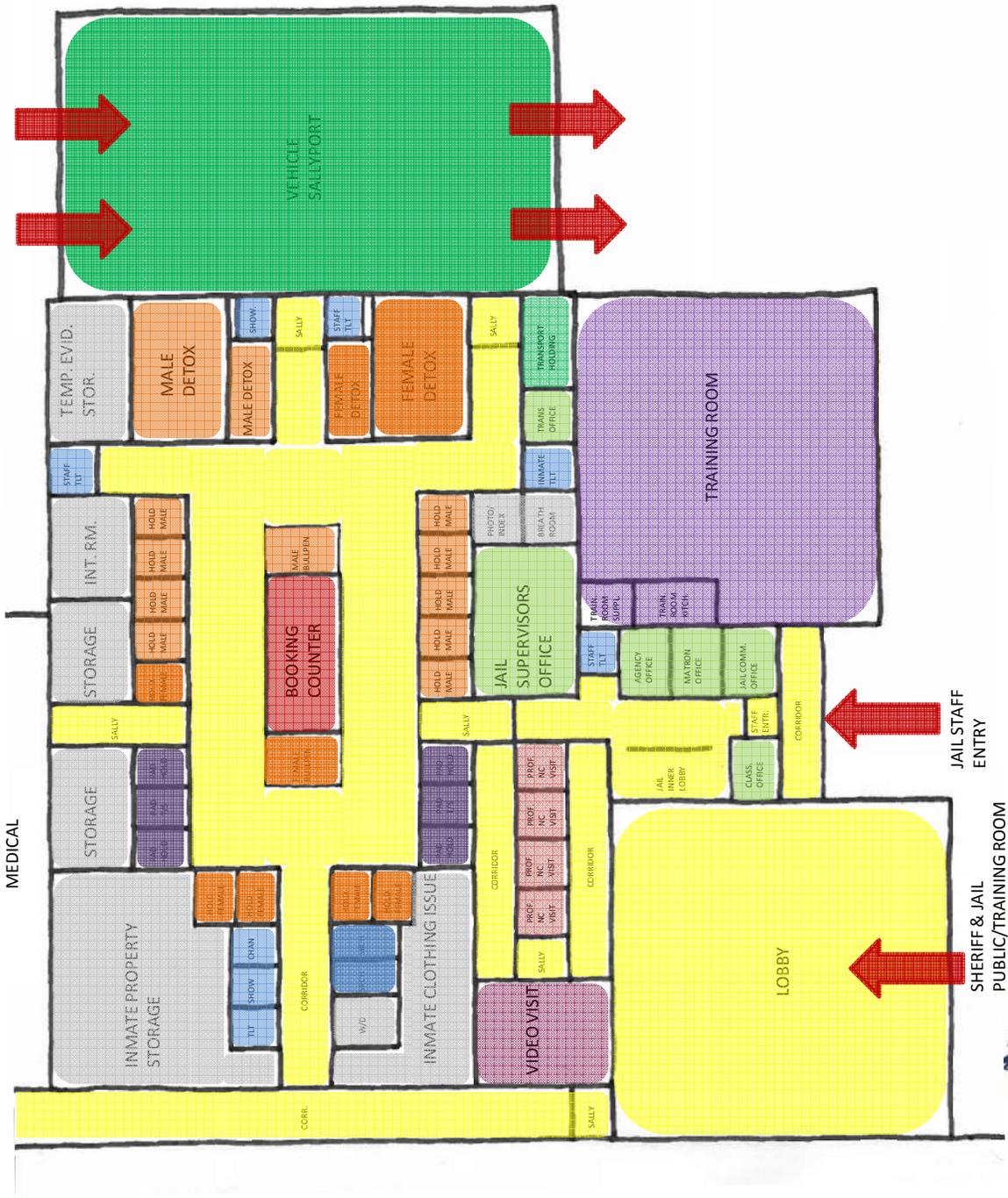
SITE LAYOUT - INDUSTRIAL PARK



SITE LAYOUT - INDUSTRIAL PARK



INTAKE/BOOKING/PROCESSING

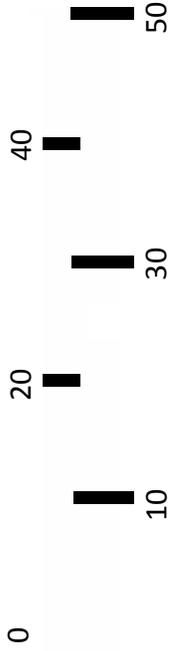


SHERIFF & JAIL
PUBLIC/TRAINING ROOM
ENTRY

JAIL STAFF
ENTRY

SHERIFF'S OFFICE ADMINISTRATION

LOBBY



UPCOMING WORKSHOPS

November 15

Workshop #5

- Meet with DLZ Engineers to review Building Systems approach
- Review Preliminary Building Plan

November 21

Workshop #6

- Review Preliminary Site Plan
- Review Preliminary Building Plan
- Submit Preliminary Design Package

November 30

Week of December 5

Meet with Vigo County Board of Commissioners

- Present Preliminary Design Package
 - Scope of Work
 - Probable Construction and Project Costs
 - Probable Project Schedule

Week of December 12

Meet with Vigo County Council

- Present Preliminary Design Package
 - Scope of Work
 - Probable Construction and Project Costs
 - Probable Project Schedule
 - Various Funding Approaches



Meeting Agenda

Vigo County Commissioners
New Jail
Project Team Meeting
November 15, 2016, 9:00 AM Vigo County Commissioner's Conference Room



Attendees: Sheriff Greg Ewing, Jeff Fox, Charlie Funk – Vigo County Sheriff's Office; Eric Ratts, Scott Carnegie, Elliott Allen, Josh Apling, Marvin Hitchcock – DLZ; Brian Kooistra, Rochelle Gardner – Garmong Construction Services; Judy Anderson, Brad Anderson – Vigo County Commissioners; Michael Wright – Vigo County Attorney

1. MEETING PURPOSE

- a. Structural engineering approach
- b. Mechanical engineering approach
- c. Plumbing engineering approach
- d. Fire protection approach
- e. Electrical engineering approach
- f. Preliminary budgeting

2. DESIGN

- a. DLZ proposal for the structural design secure housing
 - i. Foundations are assumed to be shallow spread foundations pending results of geotechnical investigation
 - ii. Overall structural concept will include precast architectural insulated panels with interior precast concrete columns
 - iii. Roof and elevated floor structure will be hollowcore slabs with composite topping
 - iv. Slab on grade would be 4"
 - v. The fourth pod in the secure housing will be considered an alternate. The finish out of the space will be bid as an alternate
- b. DLZ proposal for the structural design of the administration building
 - i. Foundations are assumed to be shallow spread foundations pending results of geotechnical investigation
 - ii. Combination of structural steel and load bearing architectural precast concrete structural insulated panels
 - iii. Combination of interior precast concrete and steel columns
 - iv. Roof and elevated floor structure will be hollowcore slabs with composite topping
 - v. Slab on grade would be 4" and 6" in sally port with hardener
 - vi. Interior masonry partitions in secure areas where steel cells are not utilized
 - vii. Brick veneer exterior on Sheriff Office Administration and Training Room
- c. DLZ proposal for the site utilities
 - i. Electrical and gas service appear adequate
 - ii. The sanitary will likely require a lift station
 - iii. The water piping will require extension of approximately 2500 lineal feet
- d. DLZ proposes the heating plant be a high efficiency condensing boiler with variable flow pumps

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- e. DLZ proposes the cooling plant be a high efficiency, variable speed drive water cooled chiller with variable flow pumps (approximately 500 ton)
 - i. The Owner requested the chiller units be elevated on the exterior of the building
- f. DLZ proposes the VAV air handling units be ERV due to the exhaust and outside air requirements
 - i. The Owner requested that the units be indoor modular type units on the ground floor where possible – Garmong noted this may substantially increase the size of the building and this request will be accommodated as the budget permits
- g. DLZ proposes VAV boxes – series fan powered
 - i. The zoned areas within the secured housing area will likely be cells, dayroom, and classrooms
- h. The temperature control system will need to have remote access for remote servicing and monitoring
- i. DLZ proposes smoke exhaust in dayrooms
- j. DLZ proposes negative air pressure in the secure areas and medical area
- k. DLZ proposes the primary air for the Main Control Room be supplied from the AHU with a split system as backup
- l. There will be requirement for capturing vehicle exhaust in the fleet maintenance space
- m. Separate HVAC computer room units will serve the security electronics and IT rooms
- n. The sallyport will be equipped with infrared heaters and a vehicle exhaust fan
- o. DLZ proposes the domestic water heating be supplied by a central plant instantaneous water heater
 - i. There will be a separate storage water heater to provide 140 degree water to the kitchen
 - ii. A solar water heater system may be considered as a bid alternate. DLZ will provide information to the Owner for consideration
- p. The Owner utilizes EasyWater in their facility and will likely continue in the proposed facility
- q. Plumbing fixtures for public/staff areas may be equipped with automatic or manual flush valves; if equipped with automatic flush valves these should be hard wired
- r. The secure housing will be equipped with stainless steel security fixtures with overflow protection and pinned cleanouts
- s. A water management system may be proposed as a bid alternate (Willoughby)
- t. Grease interceptor will be specified for the kitchen and an oil separator will be specified for the sallyport
- u. A wet pipe automatic sprinkler fire protection system will be specified for the unsecured areas
 - i. A water flow test will be required to determine in a fire pump is required
 - ii. Security heads will be specified for secure housing locations
- v. A dry chemical sprinkler system for the security electronics and IT rooms will be specified
 - i. Garmong should assume the FM200 system for budgeting
- w. DLZ will be contacting Duke Energy engineering for project coordination and request underground service to pad mounted transformers
- x. The Owner prefers Indiana Fiber Network as their source for Data/Voice/TV – IFN is current provider
 - i. Recording at interview rooms (iRecord)
 - ii. 800 MHz booster will be required
- y. Emergency standby power will be included in the project
 - i. The generators should be diesel powered
 - ii. The generators should feed the cooling for the areas providing the security access electronics
 - iii. The generator should run in parallel
- z. Uninterruptable Power Supplies for continuous power during brownouts and prior to generator startup will be specified for security systems with a separate UPS for the local area network
- aa. Power distribution will originate from a main electrical room with multiple sub-distribution rooms and will have additional capacity for future expansion/remodeling

- i. Main distribution panel and critical sub-panels will include surge suppression
 - bb. Project will have interior and exterior LED lighting
 - i. Controls will include dimming, day/night controls, daylight and occupancy controls
 - cc. The telephone and data network systems will be expandable systems routed in cable tray
 - i. The building will be fully wireless
 - ii. Coordination of design will include County IT staff
 - iii. Dedicated fiber will be required
 - iv. Voice over IP
 - v. Auto-record system for interview room (iRecord)
 - dd. The fire alarm system shall be digital, addressable with remote monitoring capability
 - i. The Owner prefers to refrain from proprietary type systems for local repair/service
 - ii. Fire protection system will be monitored
 - iii. Design coordination with Honey Creek Fire
 - ee. The project will include video arraignment, video visitation, and electronic commissary systems
 - i. Video visitation equipment will be provided by outside vendor
 - ff. DLZ provided layout options for the Sheriff's Office, Intake/Booking/Processing, Employee Area, and Medical Area for discussion

3. COST/ BUDGET

- a. Garmong provided historical data on jail projects based on cost per square foot; cost per bed; and square foot per rated bed, for discussion on preliminary overall budget
 - i. The historical data pricing provided for escalation to today's dollars
 - ii. Every project is different. The analysis provides historical information and will be one analysis presented to the Commissioners and Council
- b. The proposed shell space can be provided at minimal cost and provides for future expansion at "today's dollars"
- c. Garmong will include analysis for escalation for a 5 and 10 year period

4. NEW BUSINESS

- a. The Sheriff and County Attorney will discuss the need and urgency for the project with new and existing council members
- b. Future Workshop dates, package turnover date, and presentation dates were reviewed and confirmed

5. ACTION ITEMS

- a. DLZ will provide a master list of loose equipment providers

6. ATTACHMENTS

- a. DLZ Workshop #5 discussion items and sketches
- b. DLZ structural, mechanical, and electrical Talking Points

Workshop # 5
Terre Haute, Indiana
November 15, 2016

VIGO COUNTY SHERIFF'S OFFICE AND JAIL



WORKSHOPS

November 15

Workshop #5

- Review Building Systems Approach
 - Structural
 - Mechanical
 - Plumbing
 - Fire Protection
 - Electrical
- Review Overall Building Floorplan



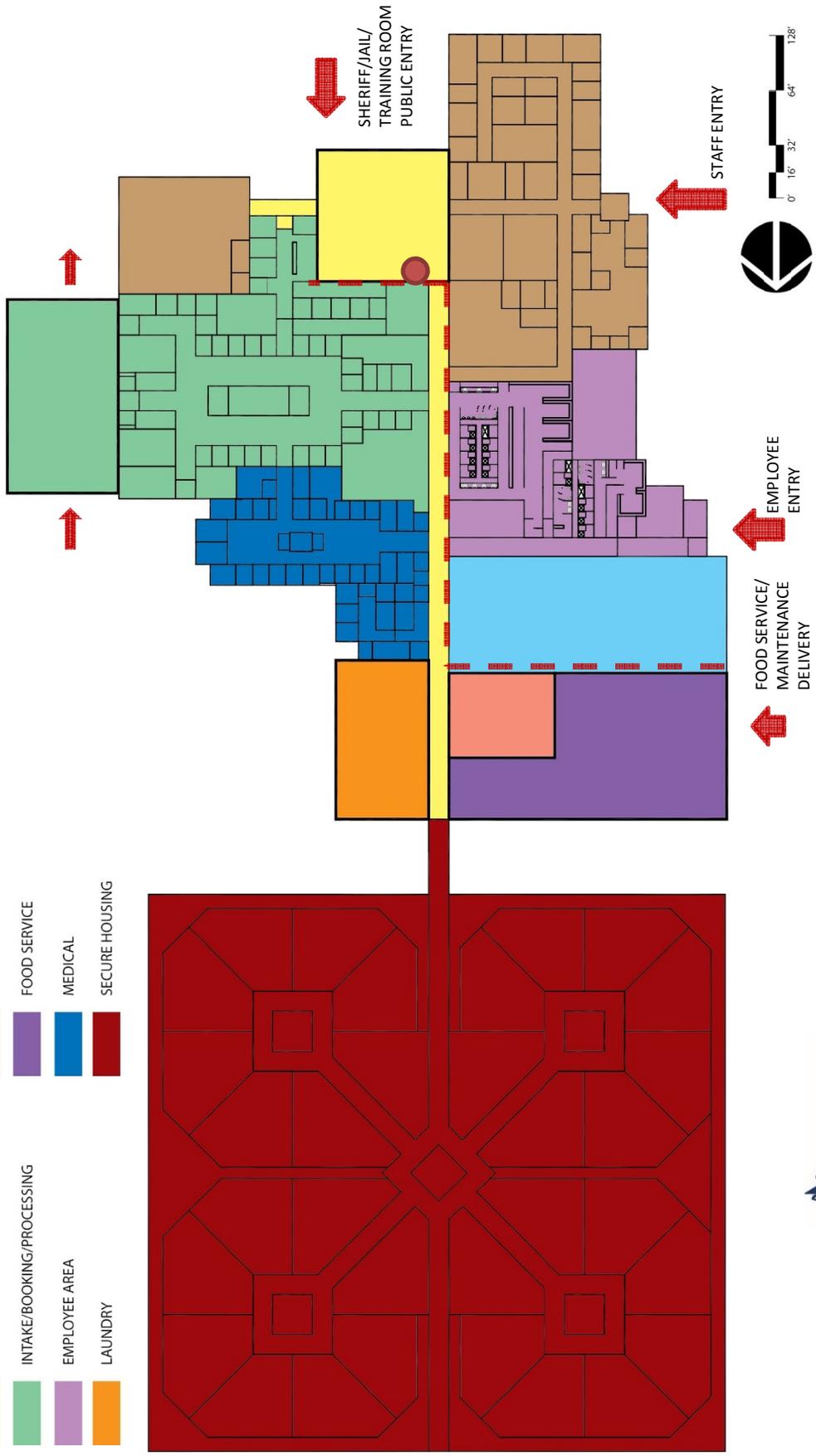
NOVEMBER 15 WORKSHOP #5



OVERALL PLAN

LEGEND:

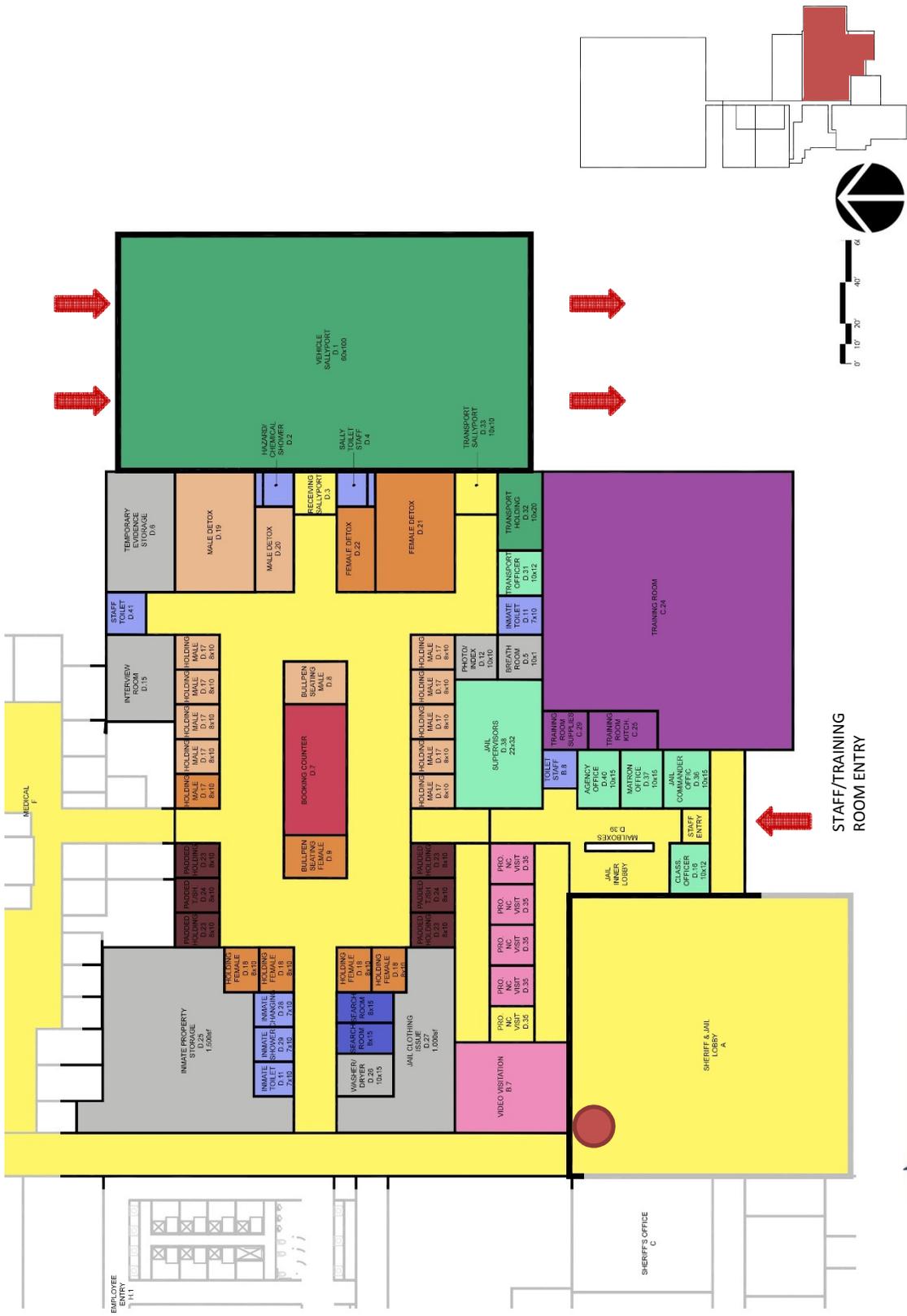
	SHERIFF'S OFFICE ADMINISTRATION		BUILDING SYSTEMS
	SHERIFF & JAIL ENTRY		TRUSTEE HOUSING
	INTAKE/BOOKING/PROCESSING		FOOD SERVICE
	EMPLOYEE AREA		MEDICAL
	LAUNDRY		SECURE HOUSING



SHERIFF'S OFFICE



INTAKE/BOOKING/PROCESSING



UPCOMING WORKSHOPS

November 21

Workshop #6

- Review Preliminary Site Plan
- Review Preliminary Building Plan

November 30

Submit Preliminary Design Package

Week of December 6

Meet with Vigo County Board of Commissioners

- Present Preliminary Design Package
 - Scope of Work
 - Probable Construction and Project Costs
 - Probable Project Schedule

Week of December 13

Meet with Vigo County Council

- Present Preliminary Design Package
 - Scope of Work
 - Probable Construction and Project Costs
 - Probable Project Schedule
 - Various Funding Approaches



Meeting 11-15-2016 - Talking Points:

Utilities:

1. Electric – 12 kV, looks OK
2. Natural Gas – high pressure, looks OK
3. Sanitary: ~1500 ft away. Enough fall available?
4. Water: 12" @ ~2500 ft away on Harlan Dr

Hydronic Distribution:

1. Heating Plant
 - a. High Efficiency Condensing Boiler (AERCO Benchmark or Equivalent).
 - b. Variable Flow pumps.
2. Cooling Plant
 - a. High Efficiency, Variable Speed Drive Water Cooled Chiller.
 - b. Variable Flow pumps.
 - c. 30-35% Propylene Glycol Mixture for freeze protection.

Air Distribution:

1. Administration Area:
 - a. VAV Air Handling Unit
 - i. No ERV
 - ii. Indoor Modular or Outdoor Rooftop TBD
 - b. VAV Boxes (shutoff & parallel fan powered)
2. Housing Area:
 - a. VAV Air Handling
 - i. ERV due to Exhaust/OA Requirements.
 - ii. Indoor Modular or Outdoor Rooftop TBD.
 - b. VAV Boxes (series fan powered)
 - c. Smoke Exhaust in Dayrooms
3. Main Control Room:
 - a. Primary air off AHU.
 - b. Separate Secondary Backup req'd?

4. Fleet Maintenance:
 - a. Source Capture Vehicle Exhaust?

Security Electronics/IT Rooms:

1. Separate Systems – Computer Room Units.

Sallyport:

1. Infrared Heater(s)
2. Vehicle Exhaust Fan

Plumbing:

1. Domestic Water Heating
 - a. Central Plant Instantaneous Water Heater (AERCO Innovation or Equivalent)
 - b. Separate Storage HW (140-deg) for Kitchen.
2. Water Softening/Conditioning
 - a. Need Water Hardness information.
 - b. Water Softener required?
 - c. Water Conditioning/Scale Prevention? (i.e. EasyWater)
3. Plumbing Fixtures
 - a. Public/Staff – Automatic vs Manual?
 - b. Housing – Stainless steel security fixtures
 - i. Overflow Protection
 - ii. Cleanouts (pinned)
4. Water Management System (Alternate?)
5. Interceptors
 - a. Grease Interceptor for Kitchen.
 - b. Oil Interceptor for Sallyport.

Fire Protection:

1. Wet pipe automatic sprinkler system.
-

- a. Water Flow tests req'd to determine if Fire Pump needed.
 - b. Security Heads in Housing spaces.
2. Dry chemical sprinkler system.
 - a. Security Electronics/IT Room (FM200 or Ceasefire).

Meeting 11-15-2016 - Talking Points:

Utility Services:

1. Utility Power
 - a. Duke Energy, will contact local engineer for coordination
 - b. We will request an underground service to a padmount transformer(s)

2. Data/Voice/TV
 - a. We will contact local vendors to get an idea of what is available.
 - b. Owner will contract with vendor of their choice.

3. Emergency Standby Power
 - a. Design will include Emergency power for both code required and optional loads
 - b. One or more backup generators will be located near the building.

4. Uninterruptable Power Supplies “UPS” (provide continuous power during brownouts and before generator startup).
 - a. UPS for security systems
 - b. Separate UPS for local area network

Power Distribution:

1. One main electrical room with multiple sub-distribution rooms
 - a. Higher voltage feeders to supply transformers in sub-distribution rooms.
 - b. Extra capacity for future expansion and remodeling.

Surge Suppression:

1. Main Distribution panel and critical sub-panels shall have surge suppression to protect against voltage spikes on the power lines.

Lighting and Controls:

1. LED lighting throughout, indoor and outdoor, for maximum efficiency and minimal maintenance.
 - a. Almost all light fixtures have a 5 year warranty
 - b. Fixtures are instant on and off.
 - c. Controls will include: dimming, day and night controls, daylighting controls and occupancy sensing controls.
 - d. Building lighting will exceed the current Indiana Energy Code.

Telephone and Data Network System

1. Expandable systems in cable trays.
 - a. Hardwired multiple data and voice jacks throughout.
 - b. Wireless network in selected areas.
 - c. Coordination of design with County IT staff.

Fire Alarm System

1. Digital, Addressable system with remote monitoring capabilities.
 - a. Smoke detection and audible visible alarms.
 - b. Sprinkler system monitoring
 - c. Design Coordination with local fire department.

Video Arraignment Systems

1. Design or provisions per direction from County Officials

Inmate Video Visitation & Electronic Commissary Systems

1. Design or provisions per direction from County Officials

Television Distribution System

1. Amplifier, cabling, outlets as directed by the Sheriff Staff.
-

Meeting Minutes

Vigo County Commissioners
New Jail
Project Team Meeting
November 21, 2016, 9:00 AM Vigo County Sheriff's Training Room



Attendees: Sheriff Greg Ewing, Jeff Fox – Vigo County Sheriff's Office; Eric Ratts, – DLZ; Rochelle Gardner – Garmong Construction Services; Gary Hughes, Mark Flahee – Energy Systems Group

1. MEETING PURPOSE

- a. Review preliminary site plan
- b. Review preliminary building plan

2. DESIGN

- a. DLZ presented a brief history of the project, the schematic design process, and current status for Energy Systems Group information
- b. The site layout has been revised so that the sallyport faces east, with the public entrance facing Industrial Drive
 - i. The comments regarding landlocking the parcel to the south were discussed. The challenges with this parcel would be the wetlands area in the southeast corner and the further cost of extending utilities already located along Industrial Drive. It was determined that the parcel shown would continue to be the focus for design and budgeting
- c. The project will be presented to Vigo County Commissioners and Council as Sheriff's office with public, intake/booking/processing, employee area, laundry, building systems, trustee housing, food service, medical, and secure housing with one pod as a shell space for future secure housing
- d. The individual areas of the building will indicate room function, cross-reference designation to Building Program as prepared by DLZ, and approximate square footage of the space
 - i. The spaces within the areas may be modified as design develops. All spaces currently fit within the parameters provided in the Building Program
- e. Preliminary massing models were included in the presentation.

3. COST/ BUDGET

- a. Garmong has begun preparing a "detailed" cost estimate for discussion with the Commissioners and Council. The detailed estimate will provide scope information to the Commissioners and Council.
- b. Energy Systems Group has been in contact with Michael Wright to determine potential areas of funding for the project.

4. NEW BUSINESS

- a. Future Workshop dates, and proposed agenda were discussed and confirmed

5. ATTACHMENTS

- a. DLZ Workshop #6 discussion items and sketches

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Workshop # 6
Terre Haute, Indiana
November 21, 2016

VIGO COUNTY

SHERIFF'S OFFICE AND JAIL



WORKSHOPS

November 21

Workshop #6

- Review Preliminary Site Plan
- Review Preliminary Building Plan



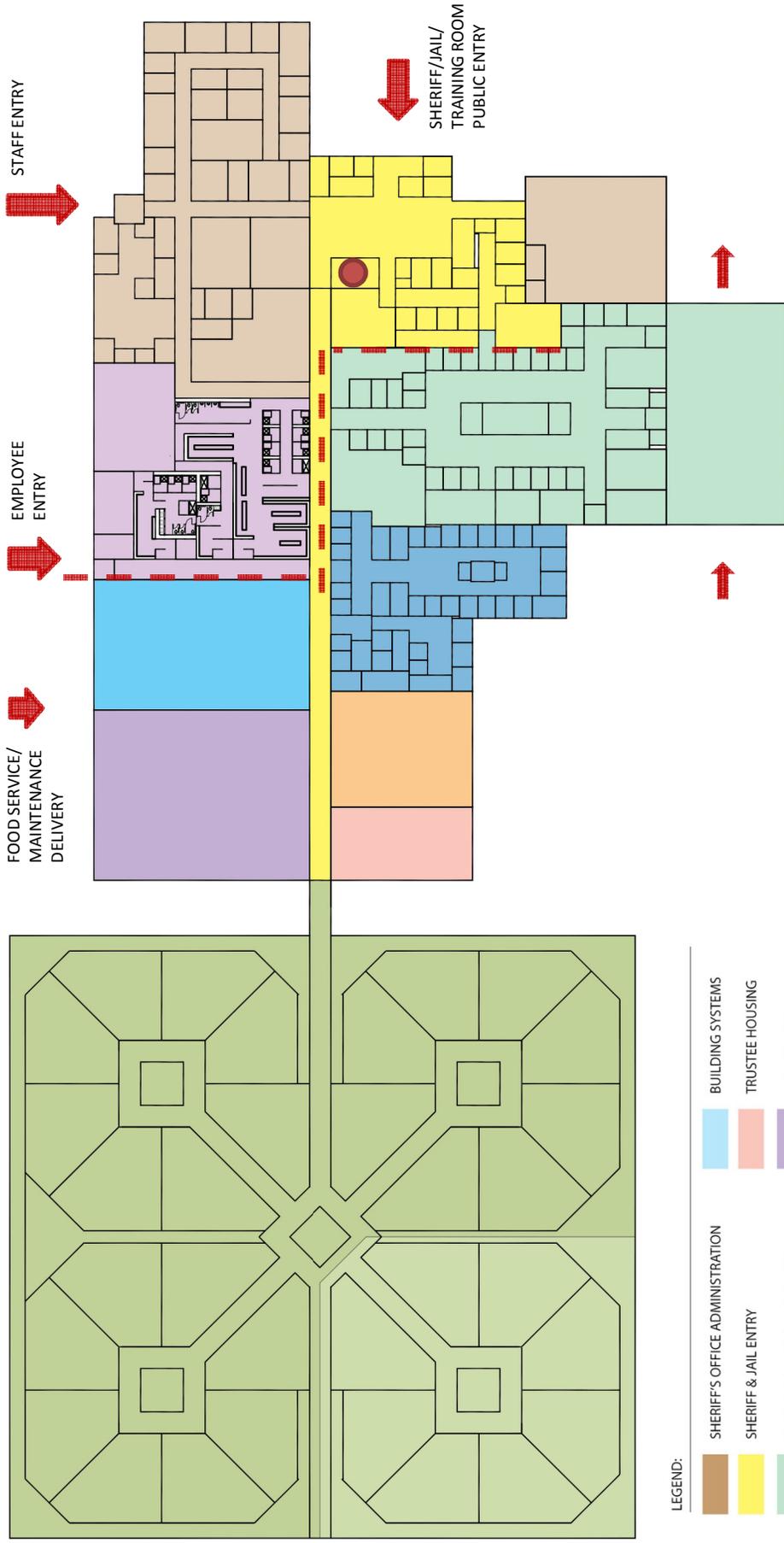
NOVEMBER 21 WORKSHOP #6



SITE LAYOUT - INDUSTRIAL PARK



OVERALL PLAN

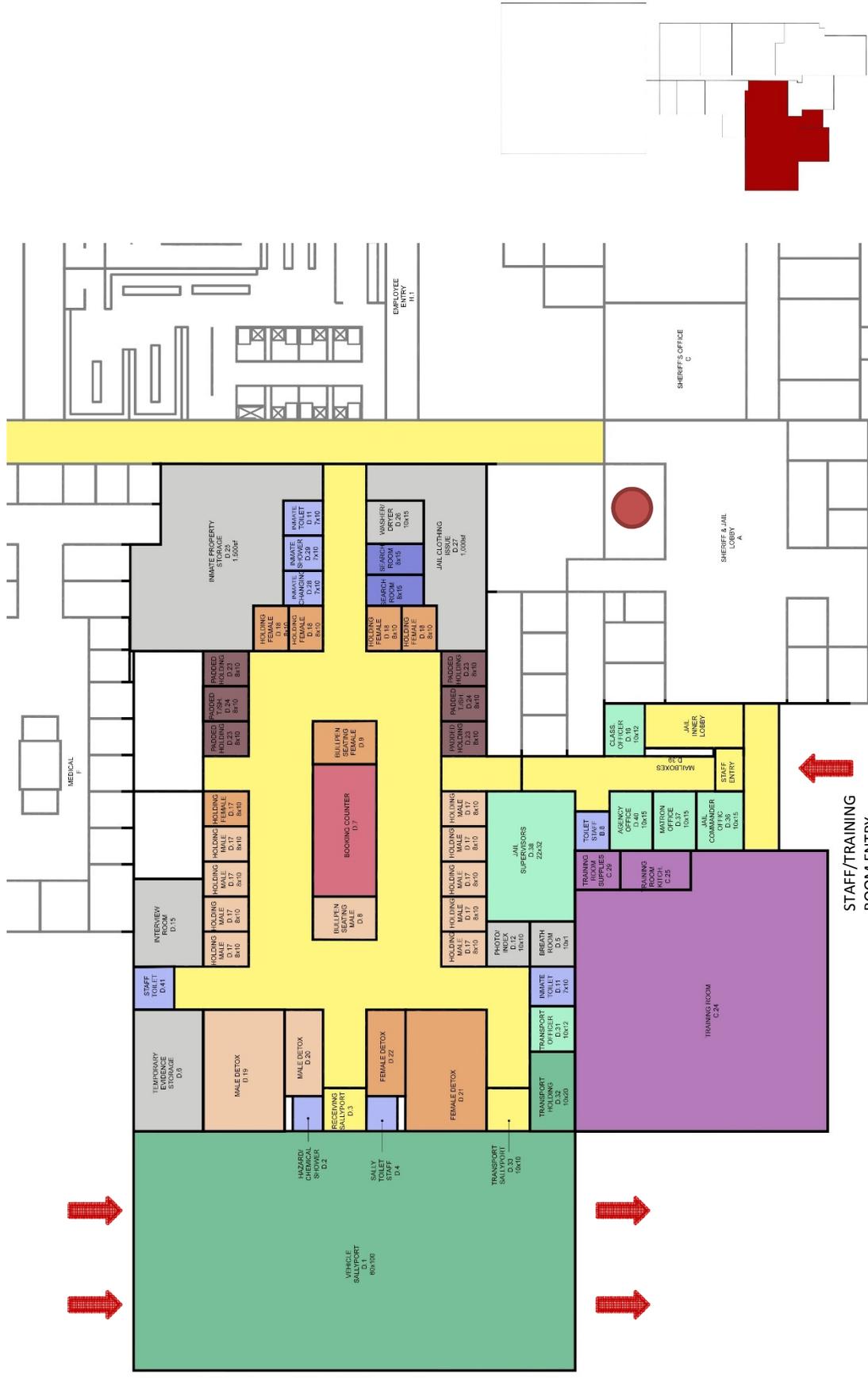


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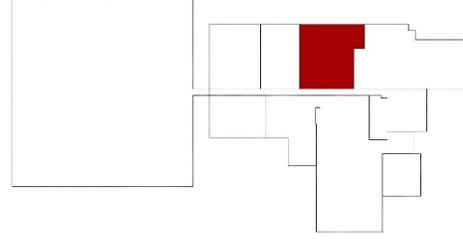
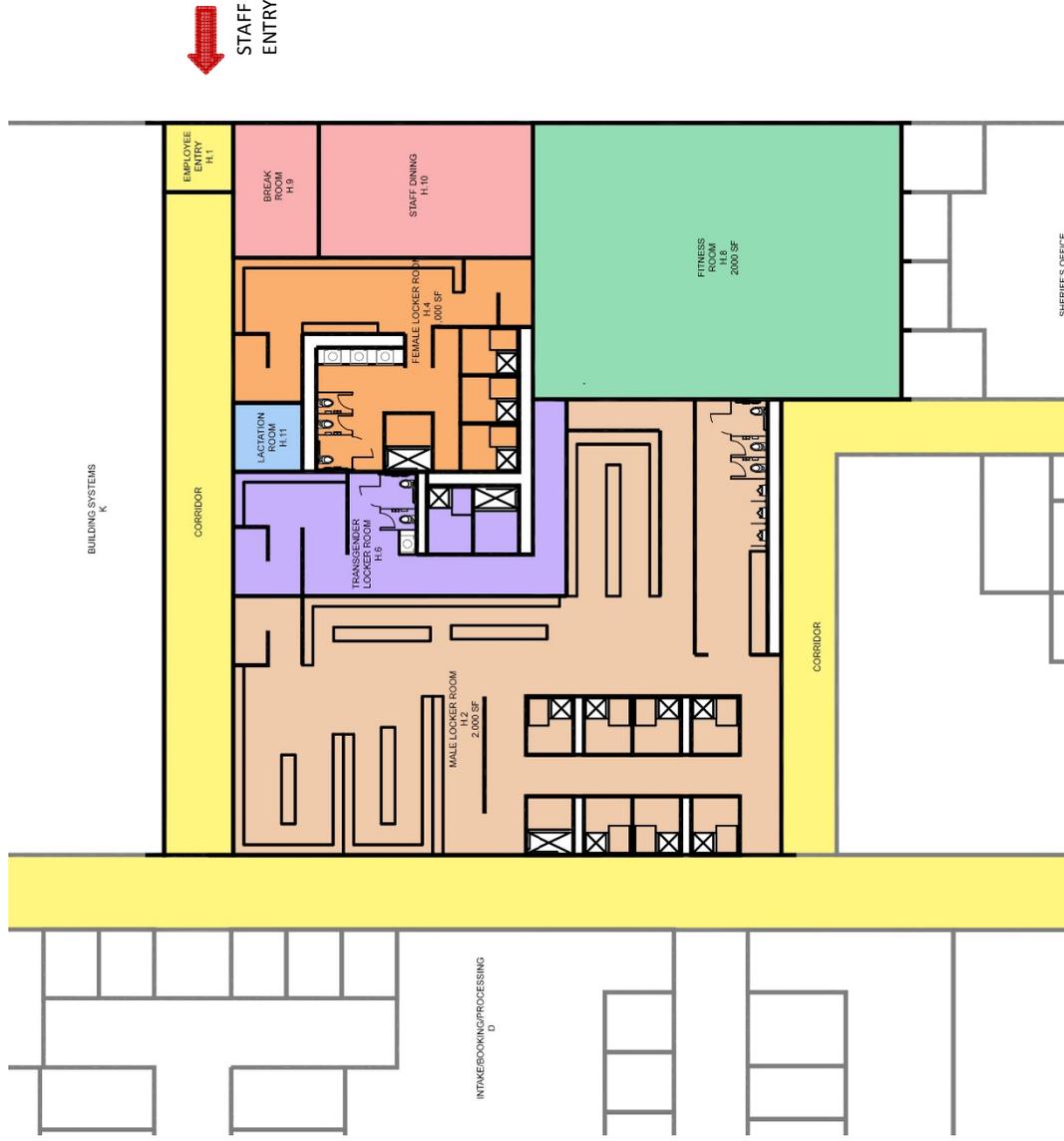
	SHERIFF'S OFFICE ADMINISTRATION		BUILDING SYSTEMS
	SHERIFF & JAIL ENTRY		TRUSTEE HOUSING
	INTAKE/BOOKING/PROCESSING		FOOD SERVICE
	EMPLOYEE AREA		MEDICAL
	LAUNDRY		SECURE HOUSING



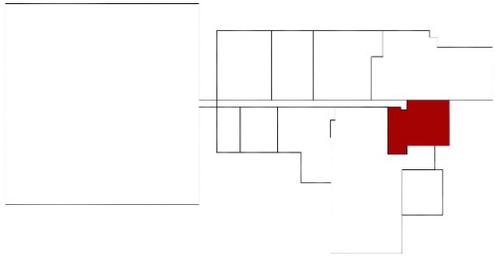
INTAKE/BOOKING/PROCESSING



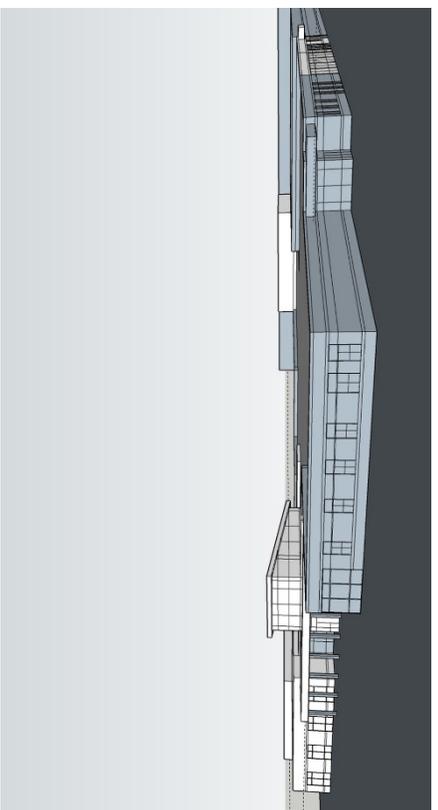
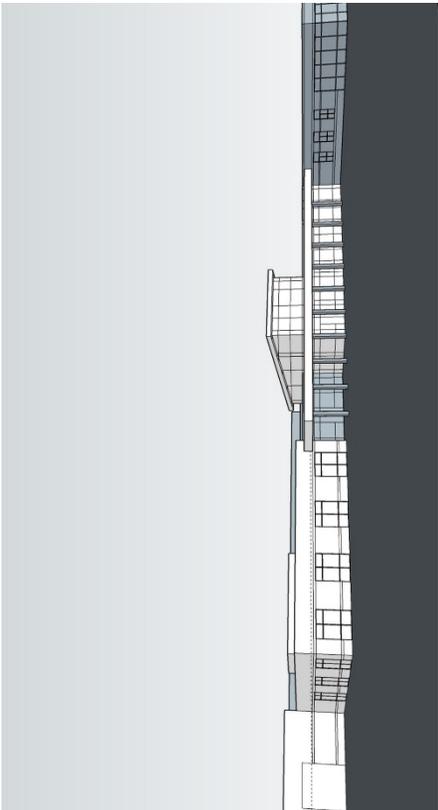
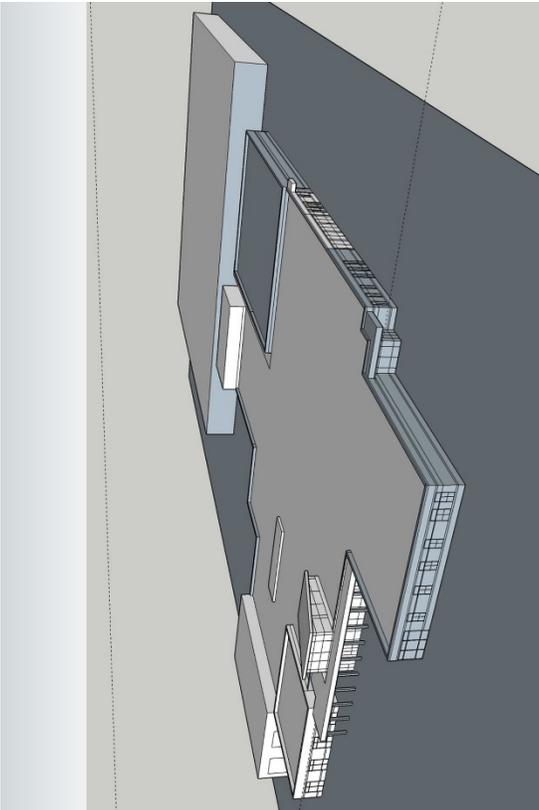
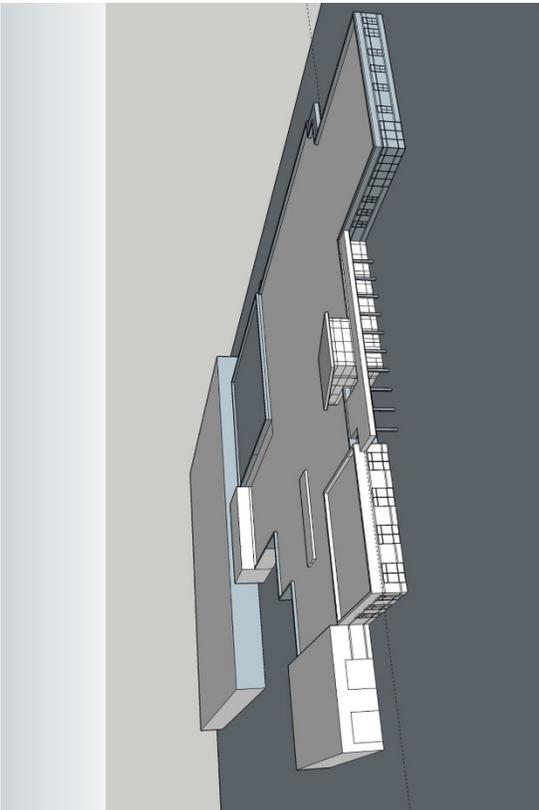
EMPLOYEE AREA



PUBLIC ENTRY



BUILDING MASSING



UPCOMING WORKSHOPS

November 30

Submit Preliminary Design Package

December 6

Meet with Vigo County Board of Commissioners

- Present Preliminary Design Package
 - Scope of Work
 - Probable Construction and Project Costs
 - Probable Project Schedule

December 13

Meet with Vigo County Council

- Present Preliminary Design Package
 - Scope of Work
 - Probable Construction and Project Costs
 - Probable Project Schedule
 - Various Funding Approaches

