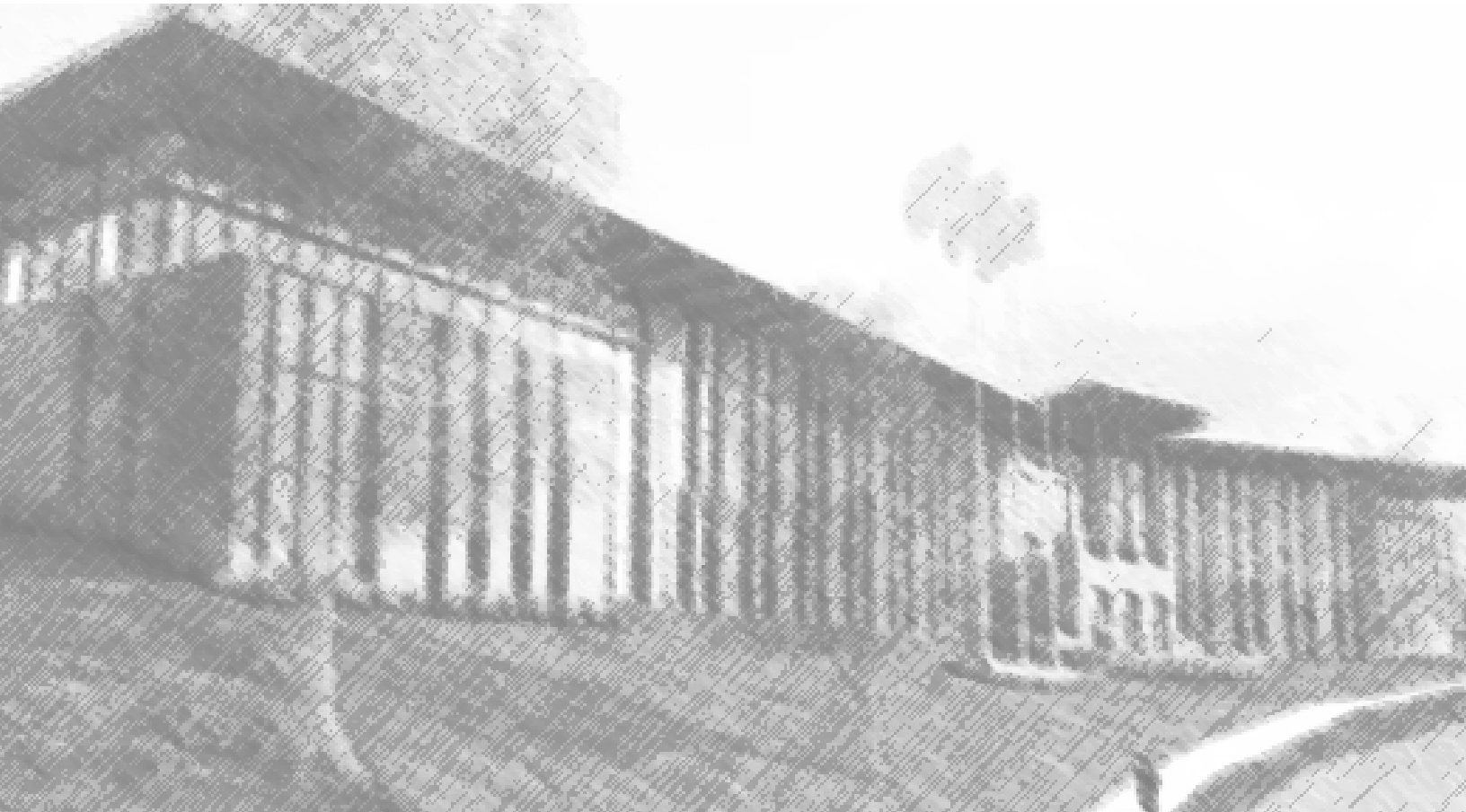


# Graham County

ROBBINSVILLE NC



## SITE MASTERPLAN FOR COMBINED COURTHOUSE, SHERIFF, AND JAIL

CONCEPTUAL DESIGN REPORT  
DECEMBER 21, 2020

**HEERY DESIGN**

a  SLAM studio

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Site Masterplanning for Combined Courthouse, Sheriff, and Jail

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# EXECUTIVE SUMMARY



## GRAHAM COUNTY COURTHOUSE

### Background

The current Graham County Courthouse, constructed in 1942 and located in downtown Robbinsville, North Carolina is registered in the National Register of Historic Places. The current building is located on the same site as the original courthouse built in 1872. The Courthouse and Jail need additional space to expand, since the facilities currently experience issues with security, accessibility, and technology.

In January of 2018 CBRE | Heery [now part of the SLAM Collaborative] were contacted by Graham County to evaluate the existing building, perform a facility condition assessment and a program analysis of the departments located in the facility. Based on this data set, we developed strategies to meet the needs of the judicial court functions in the facility. The options conceptually considered both a renovation/expansion strategy as well as a replacement [new facility] strategy. The proposed replacement facility was to be approximately 29,000 square feet including space for the courts and court support departments as well as a modest jail component.

### Site Masterplan

This Site Masterplan study builds on the work of the previous study but further developed the proposed space needs and replacement facility development. This study also specifically studies the potential of a specific site parcel in effect develops a test fit of the forecast program and associated parking spaces on the site.

This Program Update included review and update of the 2018 Space Program and the addition of Sheriff Program space. Heery Design conducted individual review meetings with representatives of the participating departments to verify the projected space needs and identify any new operational and technology factors that might influence growth projections. The resulting program is based on current best practice models for judicial space needs. The revised space program resulted in a projected 58,000 gross square feet accommodating Superior and District Court, Clerk of Court, Magistrate, District Attorney, Juvenile Court, Probation, Sheriff's Office and a Jail facility.

The design team prepared architectural planning options for locating projected space needs at the proposed parcel on West Fort Hill Road adjacent to the Senior

Center, 911 Call Center, a County Transit Center, and the High Voltage Transformer Station. The concept development includes the new Justice Center, site development planning issues (land utilization, pedestrian and vehicular circulation, parking, areas for expansion, storm water retention/detention and landscape forms), and architectural concepts. The architectural concepts include blocking and stacking diagrams, massing studies and preliminary character renderings. These planning options illustrate how court space needs can be accommodated with proposed new facilities. In addition, the conceptual planning serves to demonstrate a realistic vision and implementation strategy for the County's justice program.

Heery Design then performed a cost modeling exercise to establish probable cost ranges for the project scope. Outline narratives describing the anticipated scope and complexity of the facility establish quality and level of finish to develop a cost model that accurately depicts the proposed facility. During the development of the preliminary cost models, the design team researched historical unit costs for existing and comparable court buildings. The range of probable Project Costs fall between \$ 18.4 and 22 million .

# A. EXISTING FACILITIES



## EXISTING COURTHOUSE FACILITY

The existing facility houses seven court agencies that include Superior Court, Jail, Clerk of Court, Magistrate, District Attorney, Juvenile, Probation and four county departments that include Tax Collector, Tax Assessor, Register of Deeds, and Economic Development.

**Superior/District Court**  
The court suite is located on the second floor of the courthouse and is approximately 2000 SF, the Judge's Office is 79 SF, the Toilet is 27 SF, and the Jury Deliberation Room is 176 SF. The toilet, jury box and witness stand do not meet ADA requirements.

**County Jail/Detention**  
The jail is located on the first floor of the of the courthouse and is approximately 2900 SF. and accommodates about (8) male detainees. All female and juvenile detainees must be housed in other facilities. The area is inadequate for current needs and regulations.

**Clerk of Court**  
The Clerk's office is located on the second floor of the courthouse and is approximately 1174 SF.

**Magistrate**  
The Magistrate office is located on the first floor and is approximately 252 SF.

**District Attorney**  
The District Attorney office is located on the first floor and is approximately 200 SF.

**Juvenile**  
The Juvenile office is located on the first floor and is approximately 146 SF.

**Probation**  
The Probation office is located on the first floor and is approximately 450 SF.

**Tax Collector**  
The Tax Collector office is located on the first floor and is approximately 347 SF.

**Tax Assessor**  
The Tax Assessor office is located on the first floor and is approximately 281 SF.

**Register Of Deeds**  
The Register Of Deeds office is located on the second floor and is approximately 672 SF.

**Economic Development**  
The Economic Development office is located on the first floor and is approximately 120 SF.

**Sheriff**  
The current Sheriff's Administrative Office is located less than a mile from the existing courthouse and comprises approximately 4,500 SF on two levels. The building was previously a bank building and staff was moved into the facility without modifications, a result the layout is very inefficient. The existing building is not ADA compliant, all patrol officers share a single workstation, and the building does not accommodate evidence storage or provide a private area for witness/advocate meetings.



## B. PROGRAM

### Program Confirmation

#### Initial Program Assessment 2018

In January of 2018, our office was contacted by Graham County to evaluate the existing building, which included a facility condition assessment and a program analysis of the departments located in the facility. Then, based on the data, develop strategies to meet the needs of the judicial court functions in the facility. A general review of the courthouse was conducted to understand options for accommodating the county's long-term needs and to evaluate support of efficient and effective operations and functions for the court components; maintaining the judicial image of the building; general building conditions; expansion and/or renovation suitability; inmate movement; and public and staff access and safety. A cost modeling exercise establish an order of magnitude cost for the 21,700 GSF courthouse renovation/expansion and a 13,396 GSF new detention center behind the courthouse in the downtown location and a new 28,923 GSF combination courthouse and detention facility at another location. This document blends space needs, design guidelines, space standards, concept development and established a preliminary budget cost of \$12,776,099.00 for downtown location and \$12,732,460.00 for the new courthouse and detention facility at another location. The project cost did not account for land acquisition, site development or utility construction beyond normal circumstances, or financing cost. In summary the analysts indicate it would be more cost effective to build a new facility at another location rather than renovate and expand at the downtown site.

#### Program Re-Assessment 2018

In January of 2020, Graham County contracted our office to study locating a new courthouse and jail at the Fort Hill Road property. The original program developed in 2018 was based on the constraint of expanding on the existing historic courthouse site. To kick-off the new analysis the design team and county representatives reviewed the 2018 program with the key court agencies including: Sheriff, Jail, Courts, Clerk of Court, Magistrate, District Attorney, Juvenile, and Probation.

#### Interviews

Interviews were focused on understanding the mission and operation of the new combined Courts and Detention facility. Along with the interviews the team recommended current design standards and trends to develop sound projections; identify functional and location requirements; confirming future operational space needs, plus future personnel requirements for each of the agencies. The major update to the original program was the addition of a separate Jury Assemble Suite, a dedicated medium size non-trial Courtroom/Hearing Room, the Sheriff Office, and increasing the Detention Center to accommodate 40 inmates with a future capacity of 60 by adding bunk beds in the dormitory housing units . The new Courthouse and Detention facility is approximately 58,000 building gross square feet.

## B. PROGRAM

### Program Format and Description

#### Program Format

##### Organization and Explanation

This Section contains facility Space Program spreadsheets for each department based on the survey responses, department interviews, and reasonable projections based on population growth. Each department or component is designated by a four-digit number (i.e.: 1.000 Public Area & Support Service or 2.000 Superior & District Court)

##### Facility Space Program Spreadsheet

The facility Space Program spreadsheets have a detailed listing of those spaces that will be included in either the existing or new facilities. Each of the spreadsheets is comprised of columns, some of which have been grouped under common headings. The major headings are from left to right: Space Description, Person or Units Per Area, Number of Areas, Space Standard, Net Square Feet, and Remarks.

##### Space Description

The items in this column show each of the types of spaces considered to be Program requirements for the particular courtroom(s), agency or departments. Some of these spaces are named in terms of the staff position assigned the use of a space. For example, a judge is assigned chamber space, or a Court clerk is assigned a workstation in an open office. These are termed "Personnel" spaces. The rest of the spaces are named in terms of the functions or use. For example, a conference room, or a reception/waiting area because these spaces are not tied directly to particular staff positions but may, instead, be used by any number of people. They are called "Departmental" space.

##### Number of Areas

These columns present the numbers of spaces that will be required. The projected number of units generally corresponds to the projected number of staff positions.

##### Space Standard

The figures in this column indicate the size expressed in net square feet of the space standard that has been developed for each of the common space types. These standards have been derived from space standards common to court jurisdictions across the country or found in governmental standards documents.

##### Net Square Feet (NSF)

The figures in each column indicate the total net areas required for each space type at each column. The total net area requirement is determined by multiplying the unit areas by the number of units required per phase.

##### Subtotals and Totals

For each detailed facility Space Program spread sheet the numbers of existing and projected Personnel spaces are Subtotaled as are the Departmental spaces. The rows labeled "TOTAL" present the sum of the Personnel space or Departmental space. The last row of each spreadsheet presents the "GRAND TOTAL PROGRAMMED AREA". The internal circulation factor provides an allowance for the circulation space within a department to provide user access among the various spaces listed.

##### Space Program Summary

For the Space Program Summary, the building support (building grossing) provides an allowance factor for building support and circulation space for the whole building and all departments.

## B. PROGRAM

### Program Format and Description

#### Agency Description

##### 1000 Public Lobby and Support Services

Court Services/Support Space is included in the program to provide for customary conveniences like the main lobby, security screening station, and public toilets.

##### 2000 Superior/District Court

Graham County does not have a resident Superior or District court judge. All court cases are presided over by visiting judges.

##### 3000 Clerk of Court

This department provides a range of support services to the Court System in Graham County. Staff is responsible for maintenance of all official records and receipt of case filings for processing in the courts. Staff members also work in the courtrooms maintaining the files and recording actions. Public service over the counter involving receipt of papers and collection of funds is a significant responsibility.

##### 4000 Magistrate Office

Magistrates are responsible for issuing arrest warrants, setting bail and release conditions, processing driving while impaired cases, holding revocation hearings, taking guilty pleas on waiver able offenses, issuing search warrants, performing marriage ceremonies, issuing petitions for mental evaluations and collecting fines/costs and cash bonds.

##### 5000 District Attorney Office

This department is charged with prosecution of criminal offenses in the District and Superior Courts. The component is a law office whose attorneys represent the citizens of Graham County.

##### 6000 Juvenile Court Office

This department is charged with providing intake, probation and protective custody services for court involved youth. Work involves meetings with offenders in the office and in the field and appearances in the courtroom to present reports.

##### 7000 Probation

This department provides supervision services for the Courts with responsibility for adult offenders who have been released from incarceration with sentences requiring continuing supervision. Work of the staff involves meetings with offenders in the office and in the field, drug testing, investigations and preparation of reports and appearances in the courtroom to present reports.

##### 8000 Sheriff Office

Sheriff's Office is a full-service law enforcement agency for the County and is responsible for court security, patrol, investigations, administration and daily operation of the County Jail, central booking, and the transportation of inmates.

##### 9000 Jail/Detention

The Sheriff's department is responsible for the secure detention of dangerous individuals in the community held in lawful custody; under the jurisdiction of a local county government for the confinement of persons awaiting trial or those convicted of minor crimes. The facility design needs provide an environment that will foster staff/inmate interaction and effective supervision.

## B. PROGRAM

### Program Summary

#### Summary

Space No.	Court Component	Net Square Feet (NSF)	Dept. Grossing Factor (DGF)	Total Dept. Gross Square Feet (DGSF)
<b>1.000</b>	<b>PUBLIC LOBBY AND SUPPORT SERVICES</b>			<b>2722</b>
1.100	Public Lobby	1,310	262	1,572
1.200	Building Support	1,000	150	1,150
<b>2.000</b>	<b>SUPERIOR/DISTRICT COURT</b>			<b>7612</b>
2.100	Large Standard Trial Courtroom	3,932	1,376	5,308
2.200	Hearing Room/Courtroom/Multi-Purpose Suite	1,772	532	2,304
<b>3.000</b>	<b>CLERK OF COURT</b>			<b>5096</b>
3.100	Divisions/Support	1,720	516	2,236
3.200	Jury Assembly	2,200	660	2,860
<b>4.000</b>	<b>MAGISTRATE OFFICE</b>			<b>446</b>
4.100	Divisions/Support	330	116	446
<b>5.000</b>	<b>DISTRICT ATTORNEY OFFICE</b>			<b>446</b>
5.100	Divisions/Support	330	116	446
<b>6.000</b>	<b>JUVENILE COURT OFFICE</b>			<b>446</b>
6.100	Divisions/Support	330	116	446
<b>7.000</b>	<b>PROBATION</b>			<b>1196</b>
7.100	Divisions/Support	920	276	1,196
<b>8.000</b>	<b>SHERIFF OFFICE</b>			<b>6087</b>
8.100	Administration Office	732	220	952
8.200	Sheriff Divisions	1,640	492	2,132
8.300	General Support	2,310	693	3,003
<b>9.000</b>	<b>JAIL/DETENTION</b>			<b>16653</b>
9.100	Public Lobby & Support Services	732	220	952
9.200	Intake/Release Processing	2,094	628	2,722
9.300	Medical Services	334	100	434
9.400	Holding Area	6,690	3,011	9,701
9.500	General Support	2,188	656	2,844
	<b>Total Department Gross Square Feet</b>			<b>40702</b>
	<b>Building Efficiency @ 70%</b>			<b>17444</b>
	<b>COURTHOUSE - TOTAL BUILDING GROSS SQUARE FEET</b>			<b>58145</b>

Source: HEERY DESIGN

General Notes:

Net Square Feet (NSF) refers to the inside dimensions of individual spaces.

Department Gross Square Feet (DGSF) is the area required to support a departmental area, including wall thickness, corridors, etc.

Building Gross Square Feet (BGSF) is the square footage for exterior walls, elevators/lobbies, mechanical shafts, fire stairs, etc.



# B. PROGRAM

## Program Departmental Breakdown

Table: 1.000

SPACE NO.	SPACE DESCRIPTION	PERSONS OR UNITS PER AREA	NO. OF AREAS	SPACE STD.	NSF	GENERAL COMMENTS
<b>1.000</b>	<b>PUBLIC LOBBY AND SUPPORT SERVICES</b>		<b>(General Administration)</b>			
<b>1.100</b>	<b>Public Lobby</b>					
1.101	Entry Vestibule	1	1	100	100	Central public entry for the Courts and the Sheriff/Jail functions
1.102	Security Queuing Area	1	1	150	150	
1.103	Security Screening Area	2	1	200	200	(1) screening station
1.104	Gun Removal Locker Area	1	1	40	40	
1.105	Public Lobby	1	1	200	200	Centrally located between the Courts and the Sheriff/Jail functions; Courts side of the facility to be secured nominal working hours
1.106	Security Office	1	1	100	100	
1.107	Public Toilet (Family)	1	1	80	80	Public restrooms for the Courts and the Sheriff/Jail
1.108	Female Public Restroom	1	1	220	220	Public restrooms for the Courts and the Sheriff/Jail
1.109	Male Public Restroom	1	1	220	220	Public restrooms for the Courts and the Sheriff/Jail
				<b>Sub-Total Net Area</b>	<b>1,310</b>	
				Departmental Gross Factor	0.2	
				<b>TOTAL DGSF - PUBLIC LOBBY</b>	<b>1572</b>	
<b>1.200</b>	<b>Building Support</b>					
1.201	Staff Toilets	1	4	60	240	
1.201	Maintenance Supply Storage	1	1	100	100	
1.202	Janitor's Primary Storage	1	1	100	100	
1.203	Janitor's Closet	1	4	40	160	
1.204	General Storage	1	1	200	200	
1.205	Maintenance Shop/Office	1	1	200	200	
	<i>Exterior Spaces</i>					
1.206	Loading Dock	1	1	200		Exterior space not included in building total DGSF
1.207	Dumpster Area	1	1	100		Exterior space not included in building total DGSF
				<b>Sub-Total Net Area</b>	<b>1,000</b>	
				Departmental Gross Factor	0.15	
				<b>TOTAL DGSF - BUILDING SUPPORT</b>	<b>1150</b>	
				<b>TOTAL DGSF - PUBLIC LOBBY AND BUILDING SUPPORT</b>	<b>2722</b>	

Source: HEERY DESIGN

Table: 2.000

SPACE NO.	SPACE DESCRIPTION	PERSONS OR UNITS PER AREA	NO. OF AREAS	SPACE STD.	NSF	GENERAL COMMENTS
<b>2.000</b>	<b>SUPERIOR/DISTRICT COURT</b>					
<b>2.100</b>	<b>Standard Trial Courtroom</b>					
2.101	Soundlock Vestibule	1	1	80	80	
2.102	Victim/Witness/Atty Conf. Room	1	2	90	180	Adjacent to courtroom
2.103	Large Courtroom	1	1	2000	2000	Raised bench +18" w/1 side opening, large well, technology-compatible; 106 spectator capacity; 14 person jury box
2.104	Waiting Area/Courtroom	16	1	7	112	
2.105	Jury Deliberation Room	14	1	25	350	Sound attenuated; 14 person
2.106	Juror Toilet	1	2	60	120	Unisex, ADA
2.107	Soundlock Vestibule	1	1	80	80	Not included
2.108	Coat Closet/ Telephone Locker	1	1	10	10	Not included
2.109	Visiting Judge's Office	1	2	200	400	
2.110	Judge's Toilet	1	2	60	120	Shared with Hearing Room
2.111	Service Unit	1	1	50	50	
2.112	Technology Equipment Room	1	1	50	50	Shared with Hearing Room
2.113	Storage	1	1	30	30	
2.114	<i>Secure Holding</i>					
2.115	Single Holding Cell w/Toilet	1	2	55	110	Shared with Hearing Room
2.116	Officer station	1	1	60	60	
2.117	Non Contact Interview Room	1	1	100	100	
2.118	Vestibule	1	2	40	80	
				<b>Sub-Total Net Area</b>	<b>3,932</b>	
				Departmental Gross Factor	0.35	1376
				<b>TOTAL SQ. FT. - TYPICAL CRIMINAL COURTROOM</b>		<b>5308</b>
				Number of Standard Courtrooms	1	<b>5308</b>
<b>2.200</b>	<b>Hearing Room/Courtroom/Multi-Purpose Suite</b>					
2.201	Soundlock Vestibule	1	1	80	80	
2.202	Victim/Witness/Atty Conf. Room	1	2	90	180	Adjacent to courtroom
2.203	Waiting Area	16	1	7	112	
2.204	Hearing Room	1	1	1200	1200	Raised bench +12" w/1 side opening, technology-compatible; gallery area to have flexible seating
2.205	Conference Room	1	1	200	200	Located in secure area near the visiting judge office
				<b>Sub-Total Net Area</b>	<b>1,772</b>	
				Departmental Gross Factor	0.3	532
				<b>TOTAL SQ. FT. - GENERAL HEARING ROOM</b>		<b>2304</b>
				<b>TOTAL DGSF - SUPERIOR COURT</b>		<b>7,612</b>

Source: HEERY DESIGN

## B. PROGRAM

### Program Departmental Breakdown

Table: 3.000

SPACE NO.	SPACE DESCRIPTION	PERSONS OR UNITS PER AREA	NO. OF AREAS	SPACE STD.	NSF	GENERAL COMMENTS
<b>3.000</b>	<b>CLERK OF COURT</b>					
<b>3.100</b>	<b>Divisions/Support</b>					
3.101	Clerk of Superior Court	1	1	200	200	Enclosed Office
3.102	Clerk's Toilet	1	1	60	60	
3.103	Bookkeeper	1	1	120	120	Enclosed Office
3.104	Clerk	1	4	45	180	Workstation
3.105	Reception Area	1	1	150	150	
3.106	Shared Public Counter	1	1	50	50	
3.107	Supply Storage	1	1	60	60	
3.108	Vault	1	1	250	250	
3.109	Copy/Work Room	1	1	150	150	Shared with other small divisions
3.110	Library/Conference Room	1	1	350	350	Seating for 8-10, to accommodate small hearings
3.111	Break Room	1	1	150	150	Shared with other small divisions
3.112	Victim Advocate Office	1	1	180	180	Locate office adjacent to the Clerk's office space
				<b>Sub-Total Net Area</b>	<b>1,720</b>	
				Departmental Gross Factor	0.30	516
				<b>TOTAL DGSF - CLERK OF COURT</b>	<b>2236</b>	
<b>3.2000</b>	<b>Jury Assembly</b>					
3.2001	Queuing Area	1	1	120	120	
3.2002	Check-In Station	1	1	100	100	
3.2003	Jury Room	70	1	20	1400	Seating for 70
3.2004	Break/Vending Area	1	1	180	180	
3.2005	Female Toilets	1	1	200	200	
3.2006	Male Toilets	1	1	200	200	
				<b>Sub-Total Net Area</b>	<b>2,200</b>	
				Departmental Gross Factor	0.30	660
				<b>TOTAL DGSF - JURY ASSEMBLY</b>	<b>2860</b>	
	<b>Staff</b>		<b>7</b>			

Source: HEERY DESIGN

Table: 4.000

SPACE NO.	SPACE DESCRIPTION	PERSONS OR UNITS PER AREA	NO. OF AREAS	SPACE STD.	NSF	GENERAL COMMENTS
<b>4.000</b>	<b>MAGISTRATE OFFICE</b>					
<b>4.100</b>	<b>Divisions/Support</b>					
4.101	Office	3	1	200	200	(3) Part-time Magistrates share (1) office, office needs a transaction window to the public waiting
4.102	Secure Storage	1	1	50	50	Secure storage
4.103	Public Waiting	4	1	20	80	Locate adjacent to the Sheriff/Jail waiting area & the Breathalyzer Testing Room; Area needs after hour access
				<b>Sub-Total Net Area</b>	<b>330</b>	
					0.35	
				<b>TOTAL DGSF - MAGISTRATE OFFICE</b>	<b>446</b>	
	<b>Staff</b>		3			
				<b>TOTAL DGSF - MAGISTRATE OFFICE</b>	<b>446</b>	

Source: HEERY DESIGN

Table: 5.000

SPACE NO.	SPACE DESCRIPTION	PERSONS OR UNITS PER AREA	NO. OF AREAS	SPACE STD.	NSF	GENERAL COMMENTS
<b>5.000</b>	<b>DISTRICT ATTORNEY OFFICE</b>					
<b>5.100</b>	<b>Divisions/Support</b>					
5.101	District Attorney Office	1	1	200	200	Transaction window to the public waiting
5.102	Secure Storage	1	1	50	50	
5.103	Public Waiting	4	1	20	80	
				<b>Sub-Total Net Area</b>	<b>330</b>	
					0.35	
				<b>TOTAL DGSF - DISTRICT ATTORNEY</b>	<b>446</b>	
	<b>Staff</b>		1			
				<b>TOTAL DGSF - DISTRICT ATTORNEY OFFICE</b>	<b>446</b>	

Source: HEERY DESIGN

## B. PROGRAM

### Program Departmental Breakdown

Table: 6.000

SPACE NO.	SPACE DESCRIPTION	PERSONS OR UNITS PER AREA	NO. OF AREAS	SPACE STD.	NSF	GENERAL COMMENTS
<b>6.000</b>	<b>JUVENILE COURT OFFICE</b>					
<b>6.100</b>	<b>Divisions/Support</b>					
6.101	Counselor Office	1	1	200	200	Transaction window to the public waiting
6.102	Secure Storage	1	1	50	50	
6.103	Public Waiting	4	1	20	80	
				<b>Sub-Total Net Area</b>	<b>330</b>	
					0.35	116
				<b>TOTAL DGSF - JUVENILE COURT OFFICE</b>	<b>446</b>	
	<b>Staff</b>		1			
				<b>TOTAL DGSF - JUVENILE COURT OFFICE</b>	<b>446</b>	

Source: HEERY DESIGN

Table: 7.000

SPACE NO.	SPACE DESCRIPTION	PERSONS OR UNITS PER AREA	NO. OF AREAS	SPACE STD.	NSF	GENERAL COMMENTS
<b>7.000</b>	<b>PROBATION</b>					
<b>7.100</b>	<b>Divisions/Support</b>					
7.101	Judicial System Coordinator	1	3	120	360	
7.102	Waiting Area	8	1	20	160	Transaction window to the public waiting from general office area; department to have convenient access to courts an jail
7.103	Conference Room	1	1	20	250	Seating for 8-10; shared with other court agencies
7.104	Secure Storage	1	1	50	50	
7.105	Drug Testing Station	1	1	25	25	
7.106	Drug Testing Toilet	1	1	75	75	
				<b>Sub-Total Net Area</b>	<b>920</b>	
				Departmental Gross Factor	0.3	276
				<b>PROBATION TOTAL SQ. FT. -</b>	<b>1196</b>	
	<b>Staff</b>		3			
				<b>PROBATION TOTAL DGSF -</b>	<b>1196</b>	

Source: HEERY DESIGN

Table: 8.000

SPACE NO.	SPACE DESCRIPTION	PERSONS OR UNITS PER AREA	NO. OF AREAS	SPACE STD.	NSF	GENERAL COMMENTS
<b>8.000</b>	<b>SHERIFF OFFICE</b>					
<b>8.100</b>	<b>Administration Office</b>					
8.101	Sheriff	1	1	200	200	Secure private office
8.102	Private Toilet	1	1	60	60	
8.103	Closet	1	1	12	12	
8.104	Conference Room	1	1	200	200	Seating for 8-10
8.105	Chief Deputy	1	1	180	180	Secure private office
8.106	Administrative Assistant	1	1	80	80	Workstation
				<b>Sub-Total Net Area</b>	<b>732</b>	
			Departmental Gross Factor	0.3	220	
				<b>ADMINISTRATIVE OFFICES</b>	<b>952</b>	
<b>8.200</b>	<b>Sheriff Divisions</b>					
8.201	Patrol Officer	1	6	40	240	Workstations; located in a separate area
8.202	Civil Process Sergeant	1	1	64	64	Workstations
8.203	Investigators	1	4	64	256	Workstations; located in a separate area
8.204	Detectives	1	4	120	480	Secure private office
8.205	Narcotics Officer	1	4	120	480	Secure private office
8.206	Lieutenant	1	1	120	120	Secure private office; adjacent to Evidence Storage
				<b>Sub-Total Net Area</b>	<b>1,640</b>	
			Departmental Gross Factor	0.3	492	
				<b>SHERIFF DIVISIONS</b>	<b>2132</b>	
<b>8.300</b>	<b>General Support</b>					
8.301	Waiting Area	1	1	0	0	Shared with the Jail waiting area
8.302	Dispatch	1	1	0	0	Dispatch currently located at another facility
8.303	Security Control Room	1	1	200	200	Room to include toilet/service unit; monitor courthouse & jail
8.304	Interview Room	1	2	120	240	Secured rooms
8.305	Monitor Room	1	1	120	120	Located between the (2) interview rooms with 1-way glass
8.306	Victim Advocate Office	1	1	120	120	Secured rooms
8.307	Training Room	25	1	20	500	Seating for 25
8.308	Locker Room	1	1	120	120	24 lockers
8.309	Shower (shared)	1	1	60	60	Near toilets and locker room
8.310	Staff Toilet (Male)	1	1	60	60	
8.311	Staff Toilet (Female)	1	2	60	120	
8.312	Staff Break Room	1	1	150	150	Cabinets w/sink; refrigerator; microwave; coffee maker
8.313	General Storage Room	1	1	150	150	
8.314	Closed Case File Room	1	1	150	150	
8.315	Secure Equipment/Weapons Storage	1	1	100	100	
8.316	Evidence Vault	1	1	120	120	
				<b>Sub-Total Net Area</b>	<b>2,310</b>	
			Departmental Gross Factor	0.3	693	
				<b>TOTAL DGSF-GENERAL SUPPORT</b>	<b>3003</b>	
	<b>Staff</b>		<b>23</b>			

Source: HEERY DESIGN

## B. PROGRAM

### Program Departmental Breakdown

Table: 9.000

SPACE NO.	SPACE DESCRIPTION	PERSONS OR UNITS PER AREA	NO. OF AREAS	SPACE STD.	NSF	GENERAL COMMENTS
<b>9.000</b>	<b>JAIL/DETENTION</b>					
<b>9.100</b>	<b>Public Lobby &amp; Support Services</b>					
9.101	Public Waiting	1	1	200	200	Public waiting for the Sheriff Office & Jail; Seating for 10-12 people
9.102	Reception Station	1	2	80	160	(2) Administrative workstations
9.103	Secure Non-Contact Interview	1	1	100	100	Locate near waiting area
9.104	Secure Contact Interview	1	1	100	100	Locate near waiting area
9.105	Breathalyzer Testing Room	1	1	60	60	Located near waiting area at the Magistrate office
9.106	Video Visitation	1	2	40	80	(2) Video visitation stations near lobby area
				<b>Sub-Total Net Area</b>	<b>700</b>	
				Departmental Gross Factor	0.3	210
				<b>PUBLIC LOBBY &amp; SUPPORT SERVICES</b>	<b>910</b>	
<b>9.200</b>	<b>Intake/Release Processing</b>					
9.201	Secured Vehicle Sallyport	1	1	950	950	Controlled access to secure parking for officers; Entrance to the sallyport should be shielded from public
9.202	Entry Sallyport	1	1	100	100	Controlled access to the Intake area
9.203	Booking Area	2	1	120	240	Built-in workstation for officers processing detainees
9.204	Finger Print/Photo Station	1	1	64	64	
9.205	Drug Testing /Toilet	1	1	80	80	
9.206	Search Room	1	1	80	80	
9.207	Toilet	1	1	80	80	
9.208	Shower	1	1	60	60	
9.208	Group Holding	1	2	100	200	
9.209	Single Holding	1	2	60	120	
9.209	Property Room	1	1	120	120	Transaction window to the detainee processing
				<b>Sub-Total Net Area</b>	<b>2,094</b>	
				Departmental Gross Factor	0.3	628
				<b>INTAKE/RELEASE PROCESSING</b>	<b>2722</b>	
<b>9.300</b>	<b>Medical Services</b>					
9.301	Treatment /Exam Room	1	2	80	160	Space for a officer, patient and medical personnel; Furnished as a typical medical examination room; Sick detainees will be moved out of the facility for medical care
9.302	Inmate Toilet	1	1	60	60	
9.303	Medical Office	1	1	64	64	Secure office; Pharmacy supplies locked in secure cabinet
9.304	Supply Storage	1	1	50	50	Secure room
				<b>Sub-Total Net Area</b>	<b>334</b>	
				Departmental Gross Factor	0.3	100
				<b>MEDICAL SERVICES</b>	<b>434</b>	

Table: 9.000 CONTINUED

SPACE NO.	SPACE DESCRIPTION	PERSONS OR UNITS PER AREA	NO. OF AREAS	SPACE STD.	NSF	GENERAL COMMENTS
<b>9.400</b>	<b>Holding Area</b>					
	<i>Holding Area (Male)</i>					
9.401	Housing Control Station	1	2	50	100	
	<i>Single Cell Unit</i>					
9.402	Single Cell	1	4	80	320	Single bed, toilet, sink, drinking fountain and security
9.403	Dayroom	1	1	320	320	Fixed table & stools
9.404	Shower	1	1	50	50	
	<i>Dormitory Unit (3)</i>					
9.405	Dormitory Area	1	3	950	2850	10 Single beds; Tables & seating for 10
9.406	Toilet/Lavatory Unit (1 per 8 detainees)	2	3	50	300	toilet, sink, drinking fountain and security mirror
9.407	Shower (1 per 8 detainees)	2	3	50	300	
	<i>Holding Area (Female)</i>					
9.408	Housing Control Station	1	1	50	50	
	<i>Single Cell Unit</i>					
9.409	Single Cell	1	2	80	160	Single bed, toilet, sink, drinking fountain and security
9.410	Dayroom	1	1	160	160	Fixed table & stools
9.411	Shower	1	1	50	50	
	<i>Dormitory Unit (1)</i>					
9.412	Dormitory Area	1	1	950	950	10 Single beds; Tables & seating for 10
9.413	Toilet/Lavatory Unit (1 per 8 detainees)	2	1	50	100	toilet, sink, drinking fountain and security mirror
9.414	Shower (1 per 8 detainees)	2	1	50	100	
	<i>Support Areas</i>					
9.415	Library	1	1	100	100	Book Storage
9.416	Multipurpose Room	1	1	300	300	Multipurpose activity room
9.417	Interview Room	1	1	80	80	Small conference space
9.418	Commissary	1	1	100	100	Storage of products available to detainees to be purchased with funds in their individual accounts established by facility policy
9.419	Galley/Food Storage	1	2	100	200	Food prep area not required all meals will be provided by the Senior Center
9.420	Secure Janitor Closet	1	2	50	100	
9.421	Outdoor Exercise Space	1	1	500		Enclosed with screening in all areas not enclosed by solid structure; Screening to prevent climbing and transmission of contraband; No furnishings or equipment in the space; Exterior space not included in building total DGSF
				<b>Sub-Total Net Area</b>	<b>6,690</b>	
				Departmental Gross Factor	0.45	3011
				<b>TOTAL DGSF - HOLDING AREA</b>	<b>9701</b>	
<b>9.500</b>	<b>General Support</b>					
9.501	Security Control Room	1	1	100	100	
9.502	Captain Office	1	1	150	150	
9.503	Deputy Workstation	1	1	48	48	
9.504	Officers' Locker Room	1	1	60	60	
9.505	Officers' Toilet (Unisex)	1	3	60	180	
9.506	Officers' Toilet (Unisex)	1	3	60	180	
9.507	Staff Break Room	1	1	150	150	
9.508	Supply/Storage Room	1	2	200	400	
9.509	Janitor Closet	1	3	50	150	
9.510	Secure Equipment/Weapons Storage	1	1	100	100	
9.511	Clean Uniform Storage	1	1	100	100	Storage for clean uniforms
9.512	Clean Linen Storage	1	1	120	120	Storage for clean linens
9.513	Laundry Room	1	1	150	150	Accommodate one commercial washer, dryer and folding area
9.514	Secure Laundry Supply Storage	1	1	60	60	
9.515	Dirty Laundry Storage/Holding	1	1	120	120	Space to sort/storage dirty laundry; Cart storage
9.516	IDF room	1	1	120	120	
				<b>Sub-Total Net Area</b>	<b>2,188</b>	
				Departmental Gross Factor	0.3	656
				<b>TOTAL DGSF - GENERAL SUPPORT</b>	<b>2844</b>	
<b>Staff</b>		<b>7</b>				

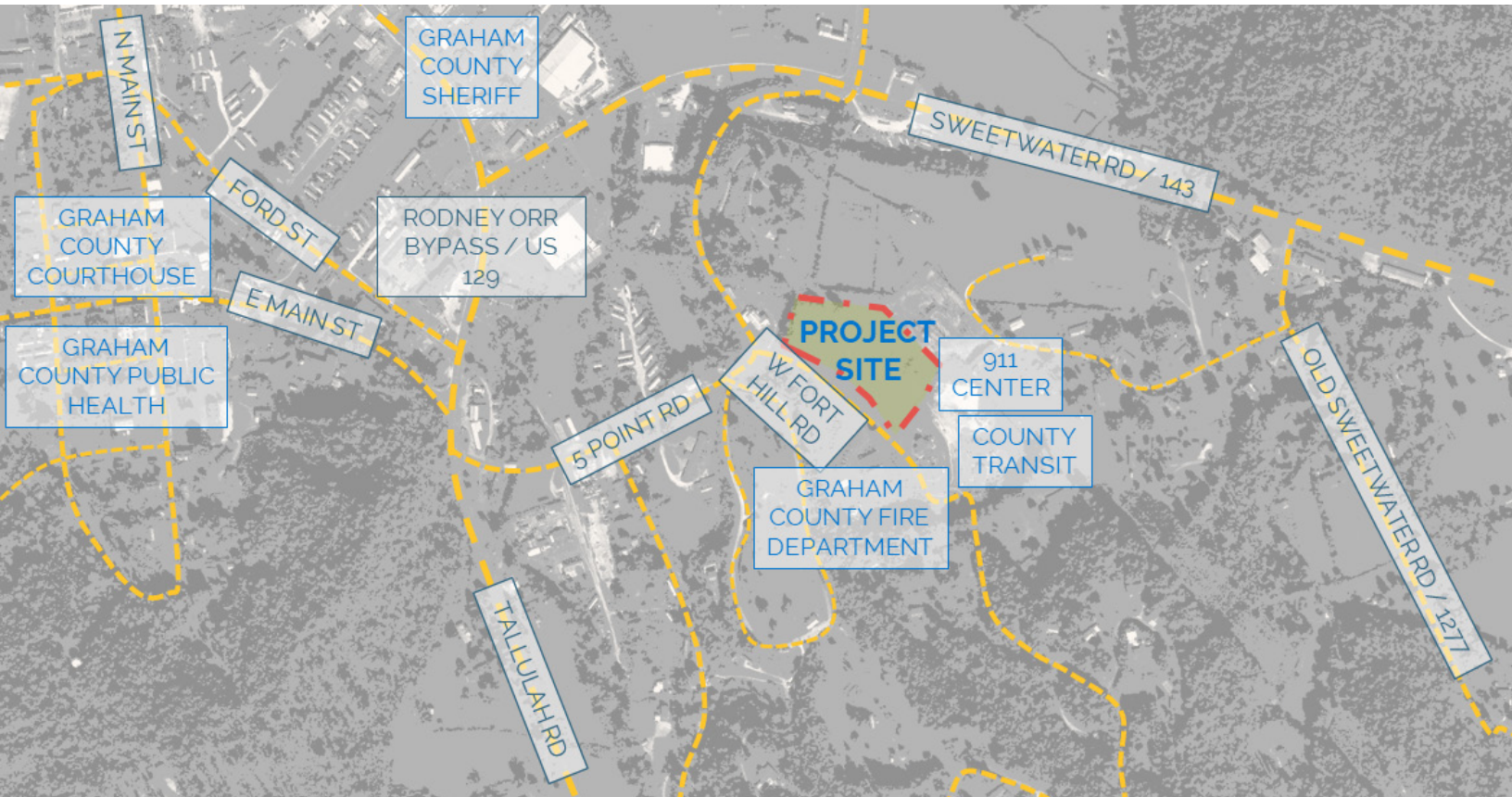


# C. CONCEPT DEVELOPMENT

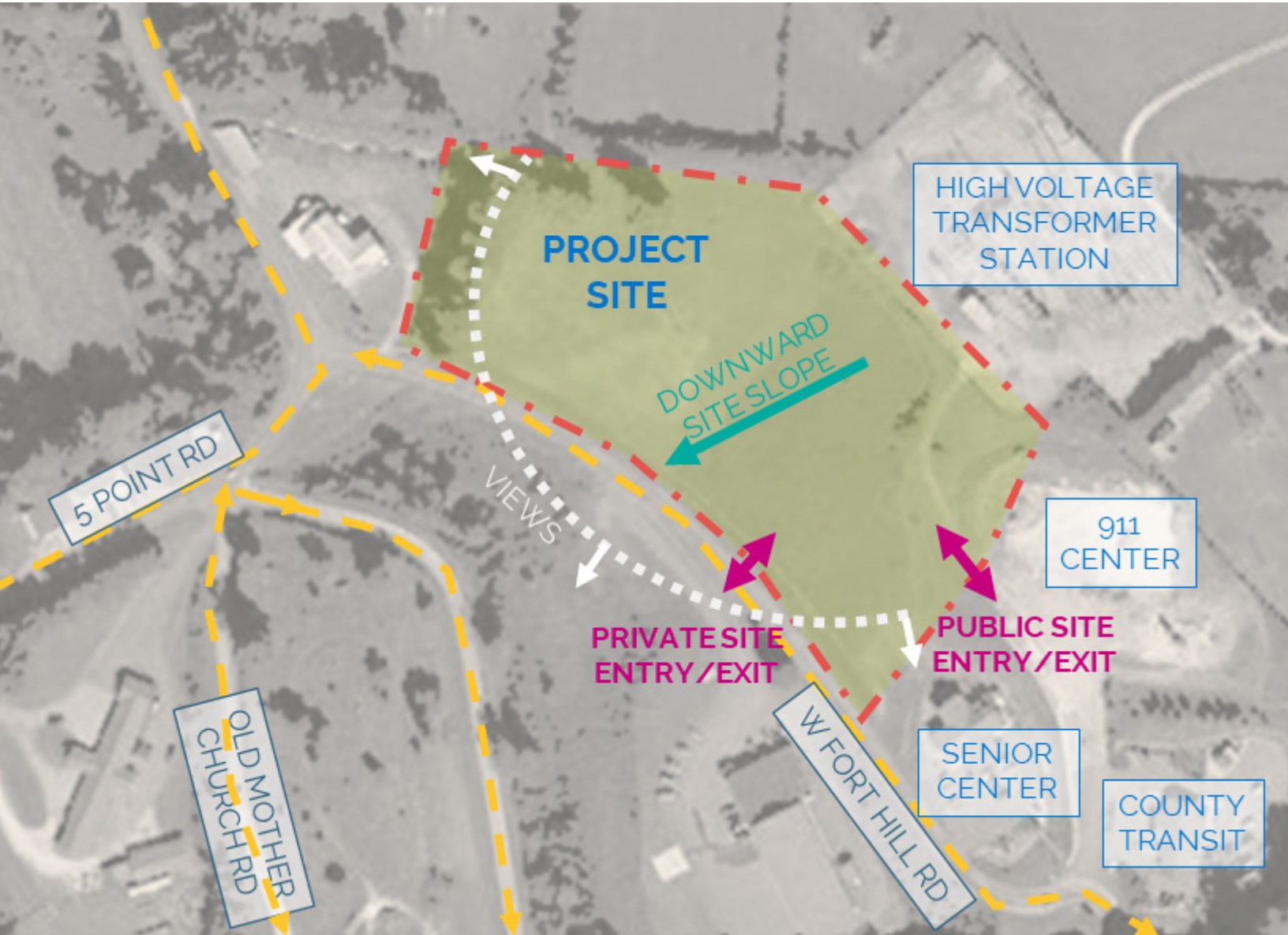
## Site Analysis and Masterplan

### Site Analysis

All design options focus on the same proposed project site on West Fort Hill Road (Parcel A). This new location is relatively flat at the east end of the parcel with a strong slope leading down to the west, flattening out somewhat again as the site meets West Fort Hill Road. The slope of the site affords the project with many positive views of downtown Robbinsville and the natural landscape surrounding the town. The challenge lies in trying to avoid drastic regrading of the site and doing so affordably and sustainably for this new use. This conscientiousness of cut/fill drove the conceptual layout of the building, parking, and site access for all design options. The site has an established entry point, sharing an access point from West Fort Hill Road with a Senior Center, 911 Call Center, a County Transit Center, and a High Voltage Transformer Station. This shared access places the public parking and proposed building entry to the east side of the site. There is a point in the site grading where adding a small, secure parking area and access to West Fort Hill Road is achievable. This allows the project to feature a private access point for limited staff to park and securely enter the building, as well as provide a dedicated access point for detention and holding.

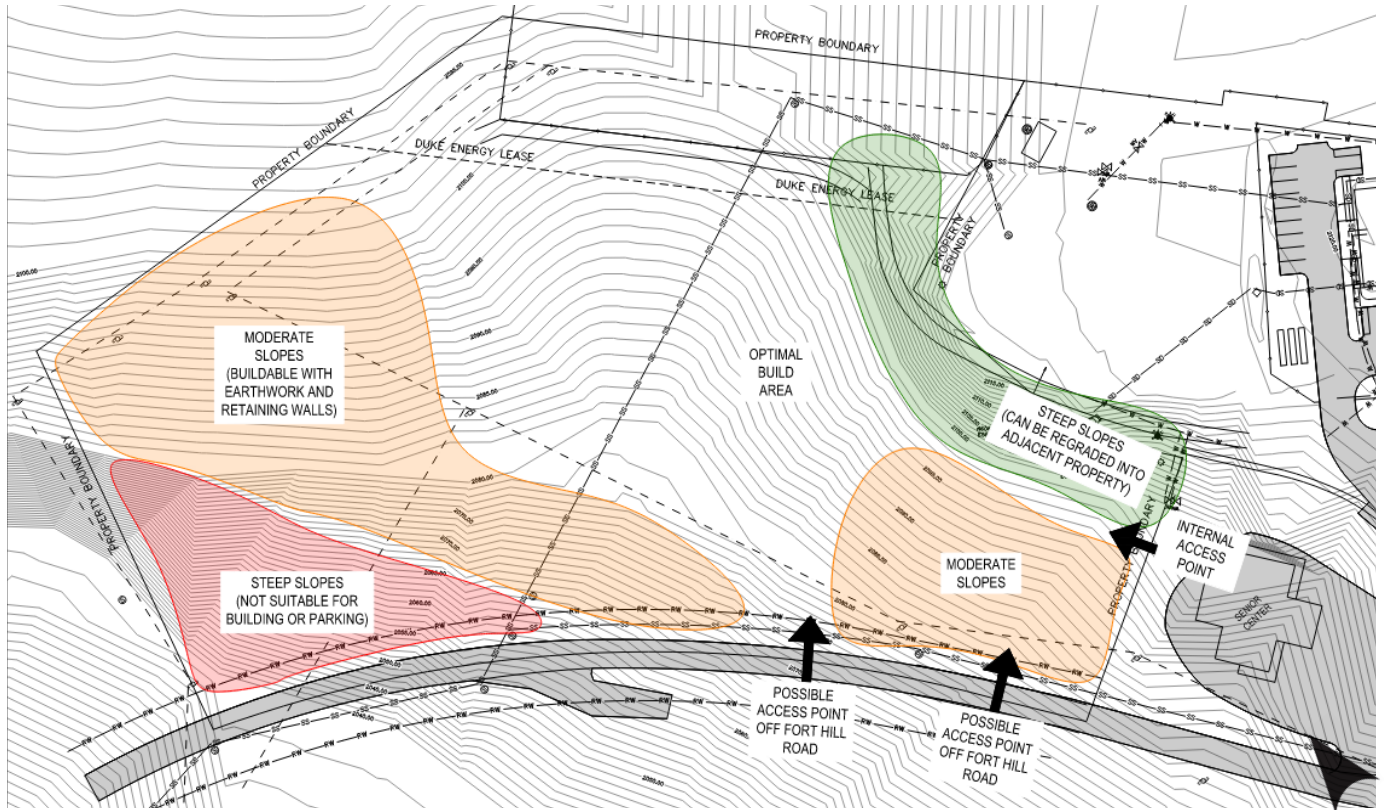


Masterplan



# C. CONCEPT DEVELOPMENT

## Site Analysis and Masterplan



### Topography

The site includes an area of very steep slopes that is essentially unbuildable. Other areas of moderate slope can be adjusted by earthwork and retaining walls to make the areas suitable for building and parking areas. As noted previously, significant earthwork and retaining wall construction can drive the project costs upward so the goal of our design is to limit substantial regrading and focus on the optimal build areas of the site. The sketch above summarizes the topography conditions and challenges of the site.

### Utilities

The site has readily available utilities nearby. A 12-inch water main is located south of the Transit Building and could be extended to the site for domestic and fire water service. A fiber line runs adjacent to the High Voltage Transformer Station fence line. Power lines run through the middle of the site and would need to be relocated. A sanitary sewer line runs through the site to Ft. Hill Road. The sanitary line would need to be relocated through the site but could also provide service to the building. Storm sewers were not observed on site and stormwater is likely conveyed from the site through sheet flow and roadside ditches along Fort Hill Road. A stormwater management system will be required to control the flow and velocity of stormwater leaving the site. Solutions could include retention ponds, bioretention systems and reuse options. We strongly recommend reuse options be considered where the stormwater would be captured, minimally treated, and reused for anything from irrigation, to washing of sheriff patrol cars, to flushing water inside the building.

### Traffic/Vehicular Access

Due to the topography of the site and the existing grades on the adjacent Fort Hill Rd., there are limited locations where a driveway could be connected to Fort Hill Road. Possible locations are shown on our study sketches. These locations also provide a good site line for drivers on Fort Hill Road. Vehicular access is also achievable as an extension to the driveway that serves the adjacent County facilities including the 911 Center.

### Easements

Duke Power has a 150 ft easement into the property. The County has negotiated a reduction in the easement which will add about 50 ft of useable area to the property. The new easement would be 30 ft off the existing High Voltage Transformer Station fence line for a total easement width of about 100 ft.

## Parking

This study includes an estimate of required parking spaces for verification that the parking needs can be met within the site. The required parking needs were calculated two different ways. The first way was to estimate the number of staff and visitors present on any given day based on the Program. The second way was to calculate parking based on the Graham County Zoning Ordinance and similar City of Asheville and City of Charlotte Land Development Codes as they specifically apply to Civic Buildings.

### 1. Parking by Program

This calculation was based a full Superior Court representing the highest level of occupancy in the building with a 160-visitor capacity. The calculation assumed the 160 visitors would arrive at the site in 100 separate vehicles. At the same time security, maintenance, sheriff, probation, and other staff and visitors would still be present in the building. It was presumed that jury duty would not be concurrent with the days that the Superior Court was in full use.

Result = 220 parking spaces required.

### 2. Parking by Code

a. The Graham Zoning Ordinance (paragraph 5.3.3) requires 1 space per 300 SF of gross floor area for Commercial Buildings as supported by a parking study.

Result = 194 spaces

b. Comparable Land Development Code – City of Asheville – the City of Asheville has specific recommendation for Civic and Social Services Buildings. The requirement is a minimum of 1 space per 350 SF and a maximum of 1 space per 250 SF.

Result = 166 to 233 spaces.

c. Comparable Land Development Code – City of Charlotte – the City of Charlotte has specific recommendations for Civic and Social Services Building and Jails. The requirement is 1 space per 250 SF for Civic and Social Services Buildings and 1 space for every 2 Jail employees.

Result = 243 spaces.

As a result of these various calculations, the concept plans are providing about 220 parking spaces. In addition, there is an opportunity for overflow grass parking just to the west of the 911 Center. The concept plans show a mix of about 75% of parking as visitor spaces and 25% as secure/sheriff parking.

## Building Location

All our site recommendations place the parking to the east with the building to the west on the site. This is the most efficient arrangement that we believe reduces construction costs and optimizes available parking. Our assessment is driven by the preferred building stacking, for ADA required accessibility, and for simplified wayfinding and secured access.

Based on the recommend stacking strategy, the public functions would be on the upper floor and thus we logically would want the parking and pedestrian access to be at that level. This alignment would provide the best accessibility without additional ramps and elevators to provide ADA compliant access. We elected to use the topography of the site parcel to bring vehicles, parking and primary public access up the slope toward the back [eastern portion] of the site to a natural plateau that would easily achieve the preferred second floor access.

We considered an option to place the parking adjacent to West Fort Hill Road. This would place the parking at the lowest elevation of the site. It is likely that the parking elevation would be below the jail and sheriff floor level and thus require some vertical transition outside the building. This would also require a lower level lobby with security screening before requiring all public accessing the courts to take stairs or elevators to get to that upper level. Additionally, the building placed higher on the site creates taller retaining walls or greater slope transitions to provide sufficient slopes to accommodate vehicular parking. It is reasonable to assume that these measures could increase construction costs by potentially 20%. We also expect this configuration would result in a reduction in the number of available parking spaces due to the steep, unbuildable slopes at the northwest corner of the site.

Another advantage of this site deployment strategy is that it places the new justice center in a very visible and prominent position as one approaches the site. The building is thrust forward into the cone of vision for all public arriving along Fort Hill Road. If the building were recessed into the hill at the eastern portion of the site it would be less visible and also approached via a parking lot which is a more suburban or strip retail arrangement. The recommended placement lets the courthouse sit prominently in the landscape, anchored to the ground and aiding public wayfinding.

## C. CONCEPT DEVELOPMENT

### Conceptual Blocking, Stacking, Massing and Design

Three proposed concept options were explored to provide updated and correctly sized spaces for the court and its related departments, and to comply with the national standards for a court and detention facilities. The comprehensive masterplan would have the historic courthouse renovated and backfilled with County government departments and transitioned into a County Administration Building.

#### Proposed Blocking and Stacking Diagrams

All three options share a similar execution plan. The new facility is planned as a two-story building, keeping all public spaces and Court functions on the upper floor (the public entry level) and all secure spaces on the lower level (the secure entry level). The public lobby is centered in the building, connecting to a common, double loaded core that runs centrally through the building. Large public spaces, like the Courts and Jury Assembly, are placed on the back side of the building, allowing these spaces opportunity for the westerly views that the site provides. The Sheriff, Sallyport, and Detention areas are all on the lower floors, keeping separation between the secure spaces and the public accessible spaces.

It should be noted that this proposed stacking and site strategy gives the facility two important public faces. There is an approach elevation that presents itself to the vehicular arrival to the site and is a prominent touchpoint on one's procession to the facility. This face of the facility should convey an image of balance, order and symbolism, distinguishing the building as public domain. The upper level pedestrian entrance and façade would reinforce that expression on the uphill face of the facility echoing that symbolic role for public approach and arrival to the front door.

#### Proposed Massing

The main difference among the options suggested is the geometry or the "bend" of the building and how it addresses the site. Each option explores a different roof configuration as well. The entry on all options features a differing slope on the central entry core with a large overhang, helping to define the entry for the public and the wings of the building mass.

Option A is a concave bend layout, following more closely with the existing site contours. Option A also illustrates a single sloped roof for each side of the building.

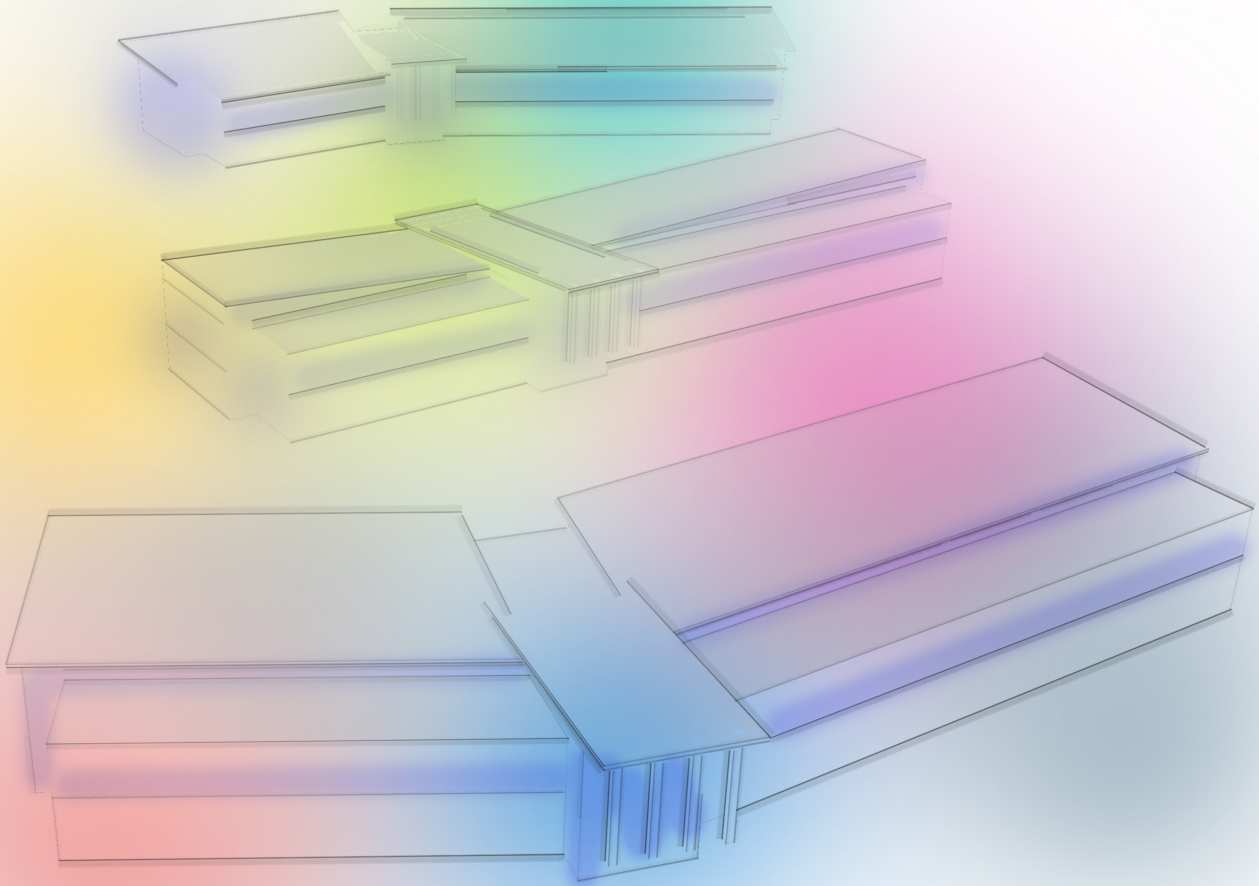
Option B is a straight bar layout, creating a more straightforward interior corridor. Option B slopes the roof out from the central entry core to the extents of the building similar to a butterfly roofline. The office areas in the front of the building would feature a smaller roofline, where the larger assembly spaces in the back would have increased ceiling and roof height, allowing opportunities for more natural daylight to filter into these spaces.

Option C is a convex bend layout, digging more into the site and allowing more separation between the building and the adjoining roadway. Option C is a blending of the other two options, with a single slope on the branches opening out to the West and the lower roof height on the office spaces on the front of the building, affording the forced views and opportunity for skylight and increased natural daylight from the previous options.

#### Proposed Project Conceptual Design and Recommendation

Option C was selected for further development, study, and conceptual imagery. The convex shape fit best into the contours of the site and provided the best layout for public parking on the east portion of the site. The design features the central entry core with sloping roof that opens to both the public entry on the east and again to the staff area on the West. For each side of the building, the roof slope opens out to the West as well, affording more views toward downtown Robbinsville for all spaces on the West side of the building. The roof is conceptualized as a heavy wood timber roof, recalling the natural, sustainable materials of the area. The main building materials which highlight stonework that is reminiscent of the historical courthouse on the public entry level, with a thicker, darker, block or brick material on the lower level of the building. This dual materiality is showcased on the West façade, which faces the entry road, allowing the building to telegraph its' levels to the public. The selection of these materials, heavy wood timber and natural stone, are evocative of historical Robbinsville and the surrounding area.

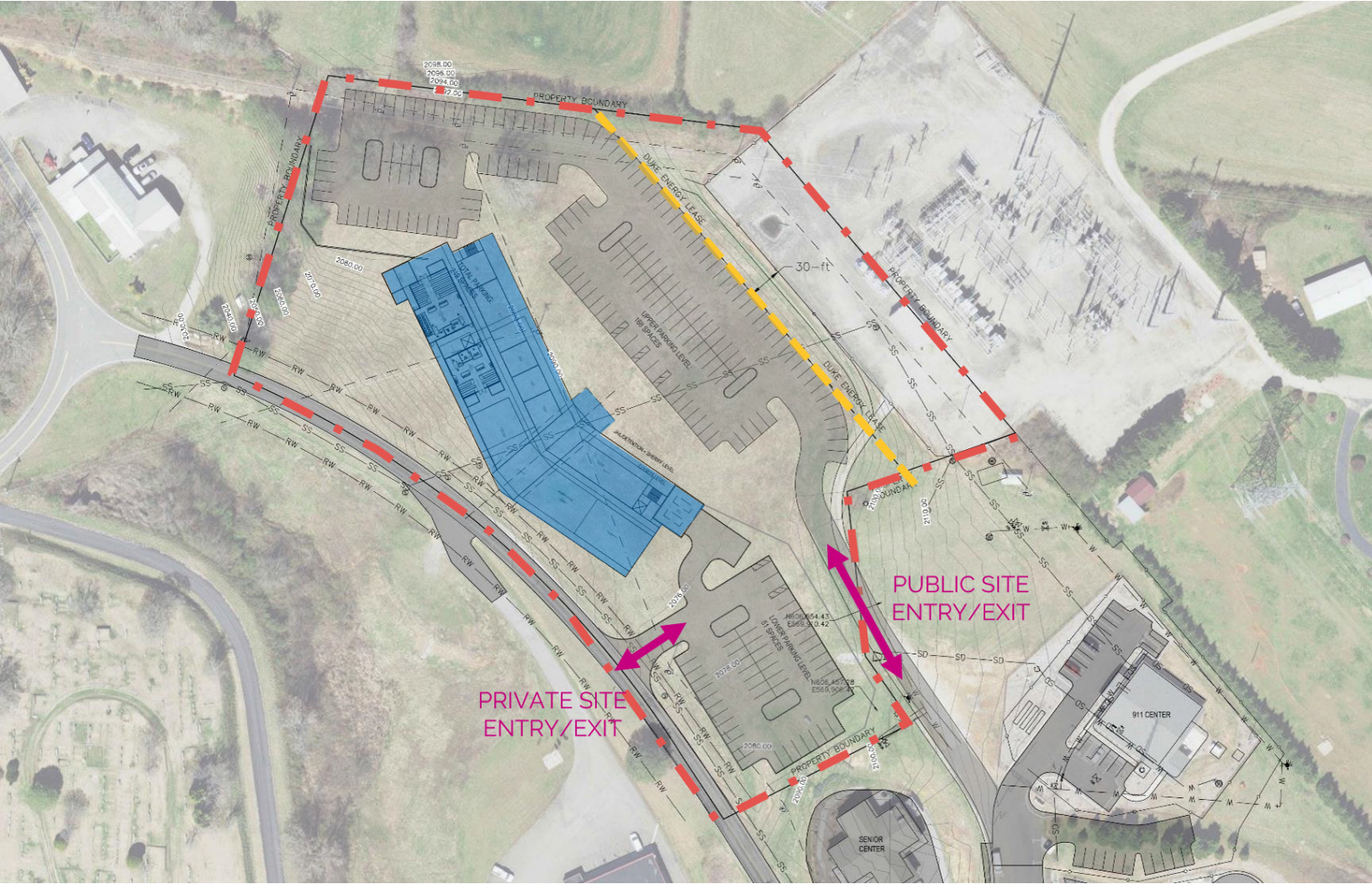
This development of option C is only a suggested architectural expression and a more thorough and detailed exercise will result in a new justice center that will continue to be a strong example of civic architecture-reflecting the unique conditions in Robbinsville. The new justice facility will represent a definitive statement about the symbolic hierarchy that the judicial system represents in the community. It is these three guiding principles; functionality, hierarchy and historic context that will establish the design objectives for this important structure and the future of Graham County.



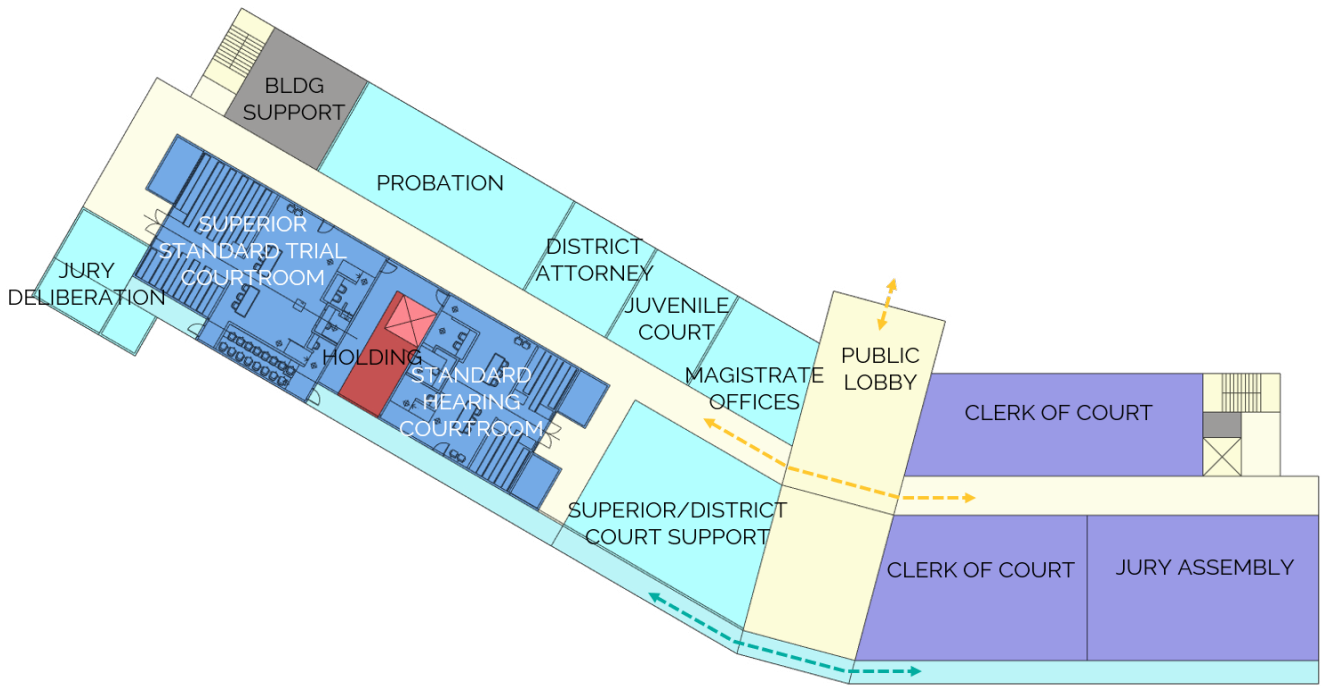
# C. CONCEPT DEVELOPMENT

## Site Plan and Floor Plans

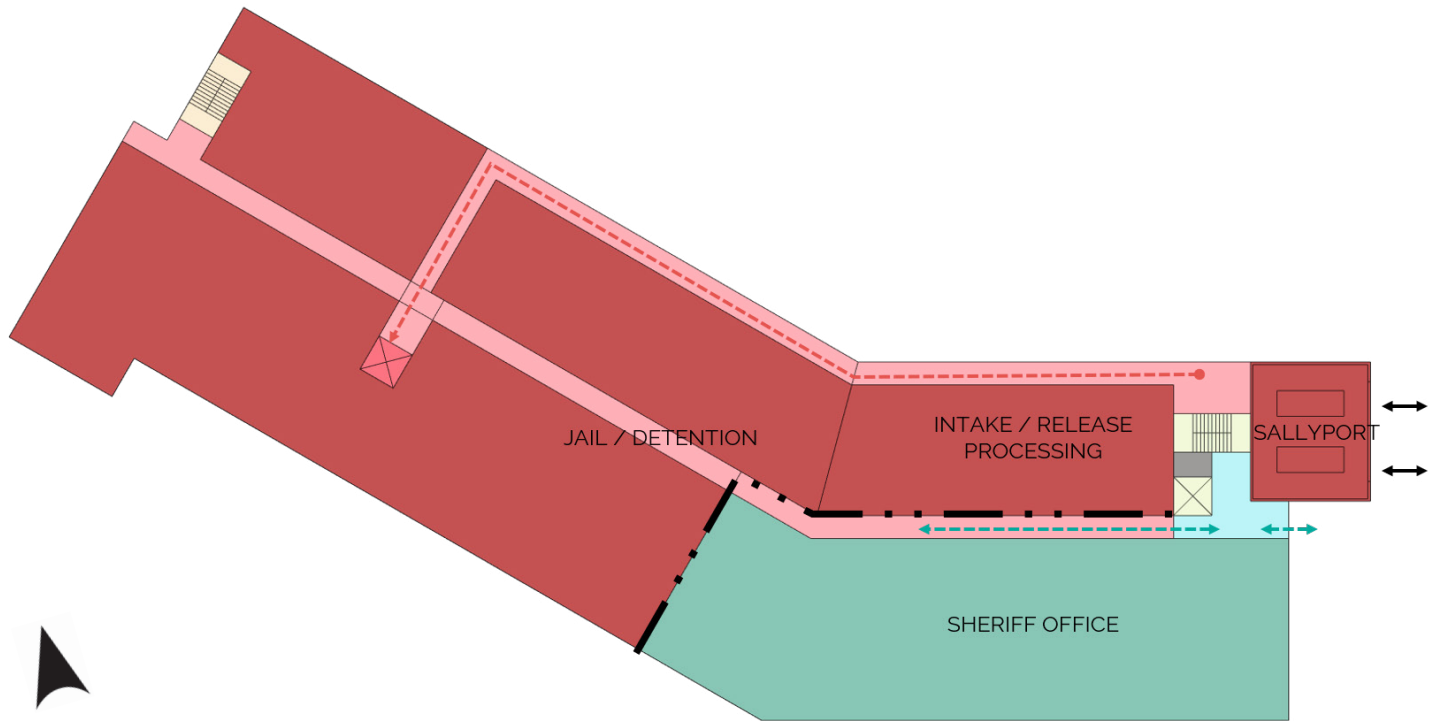
### Option A - Site Plan



Option A - Upper Level



Option A - Lower Level

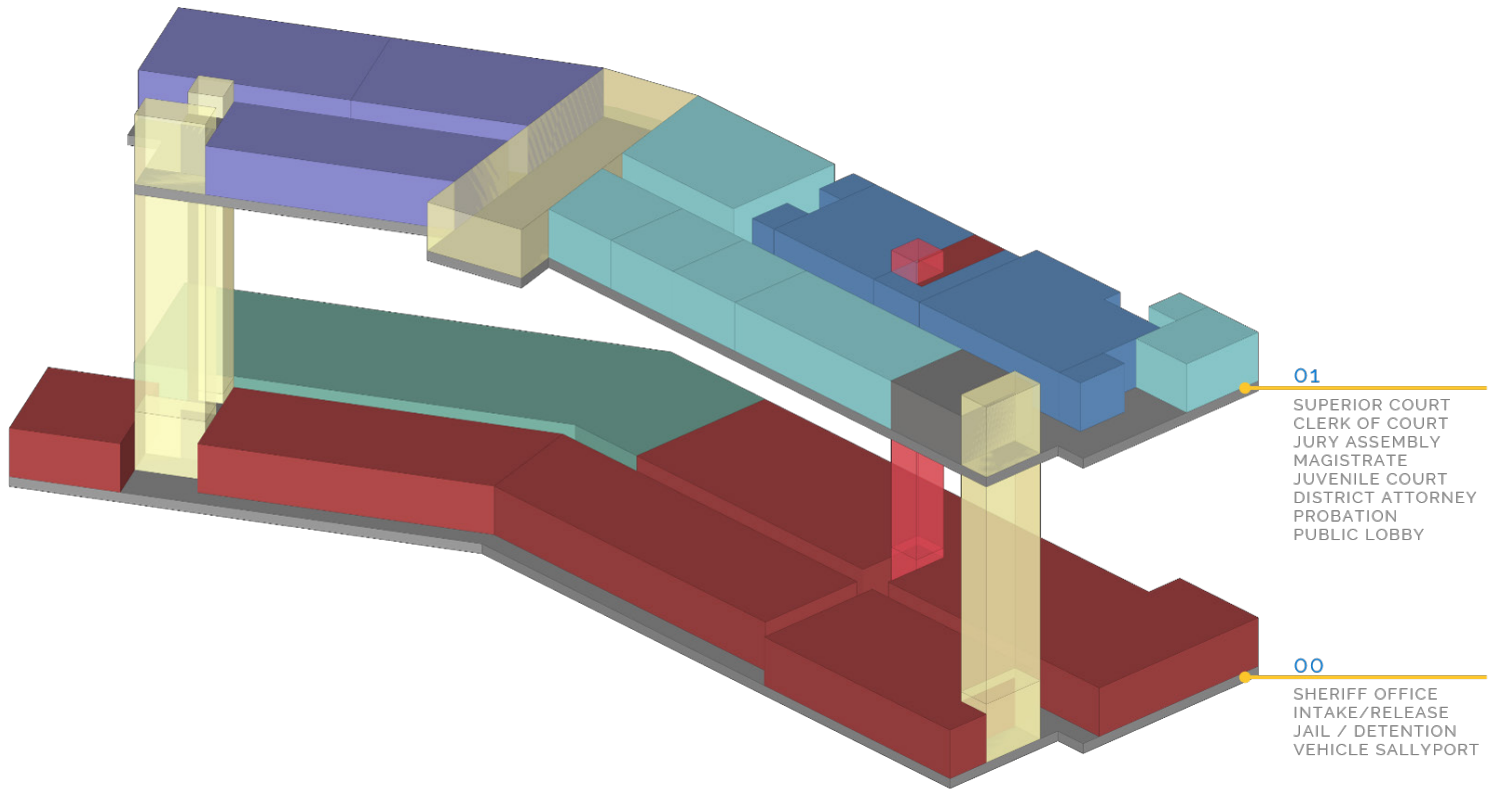




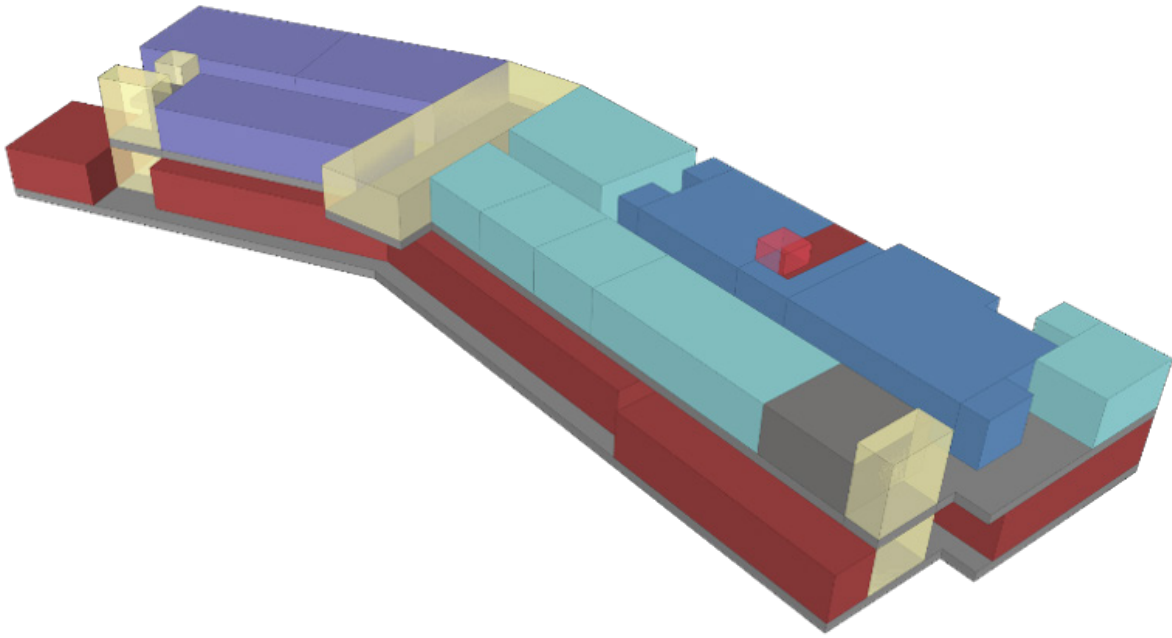
# C. CONCEPT DEVELOPMENT

Stacking, Blocking, and Massing Concepts

Option A - Stacking Diagram



Option A - Blocking Diagram



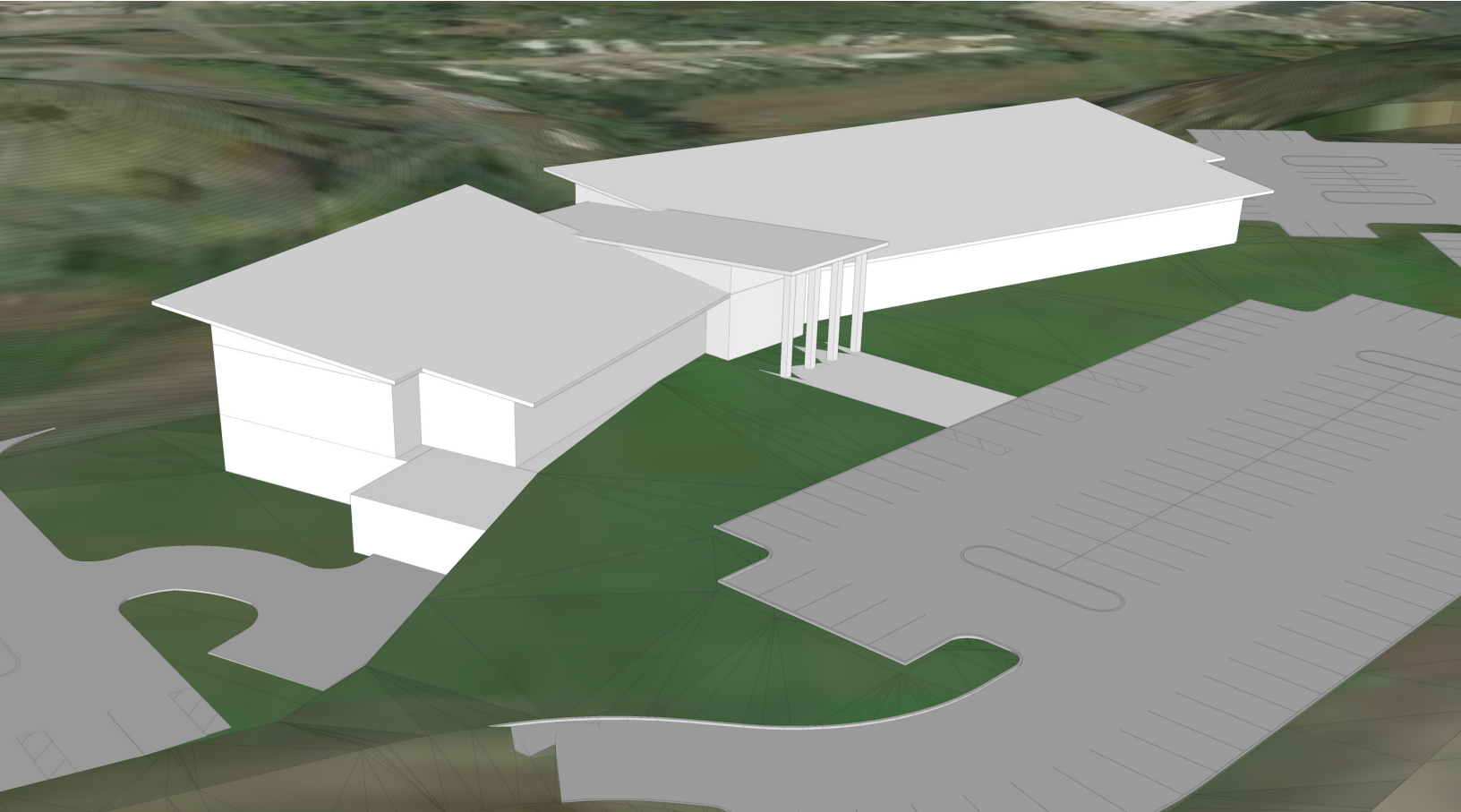
Option A - Massing Concept



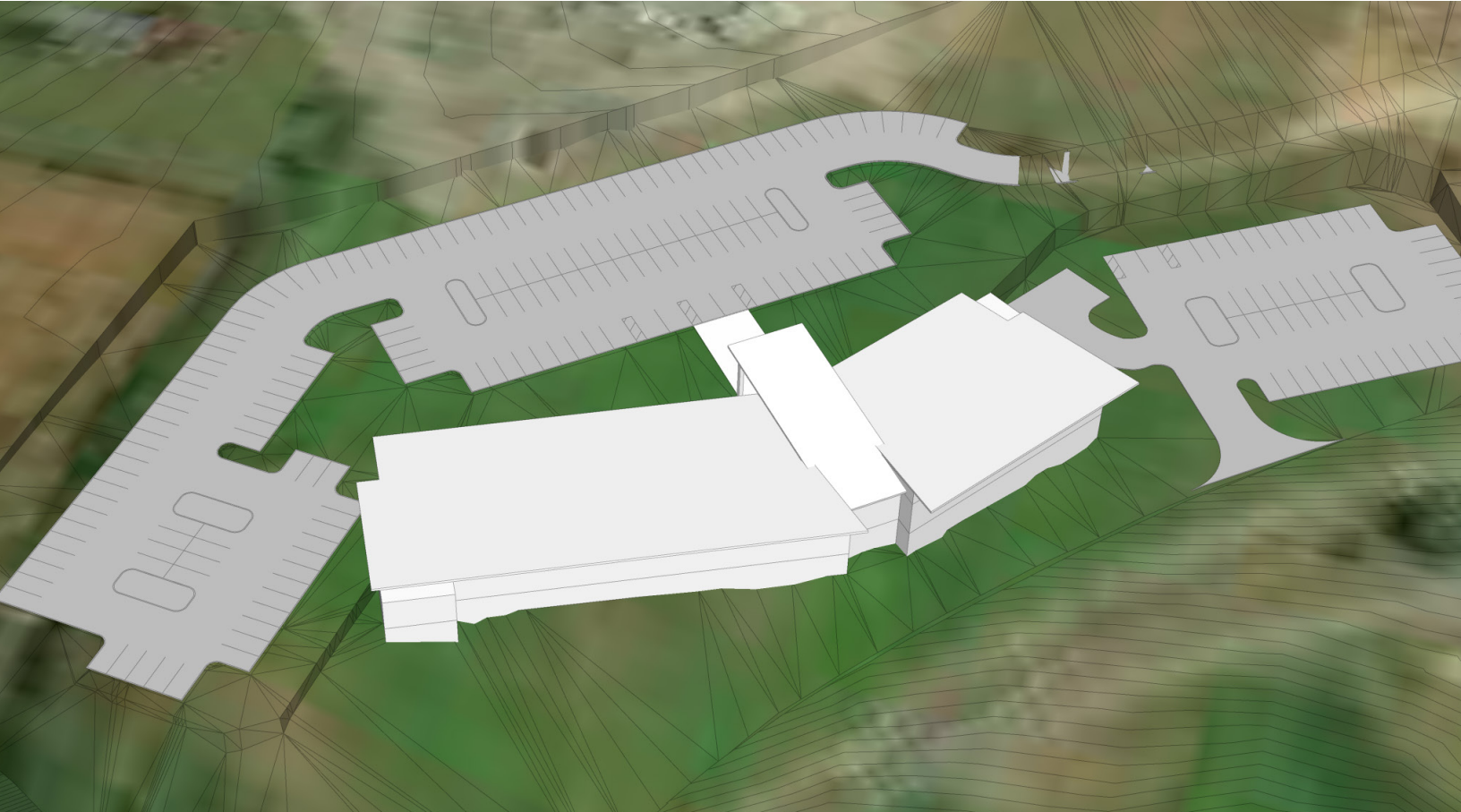
# C. CONCEPT DEVELOPMENT

Massing Models

Option A - Entry Birdseye View



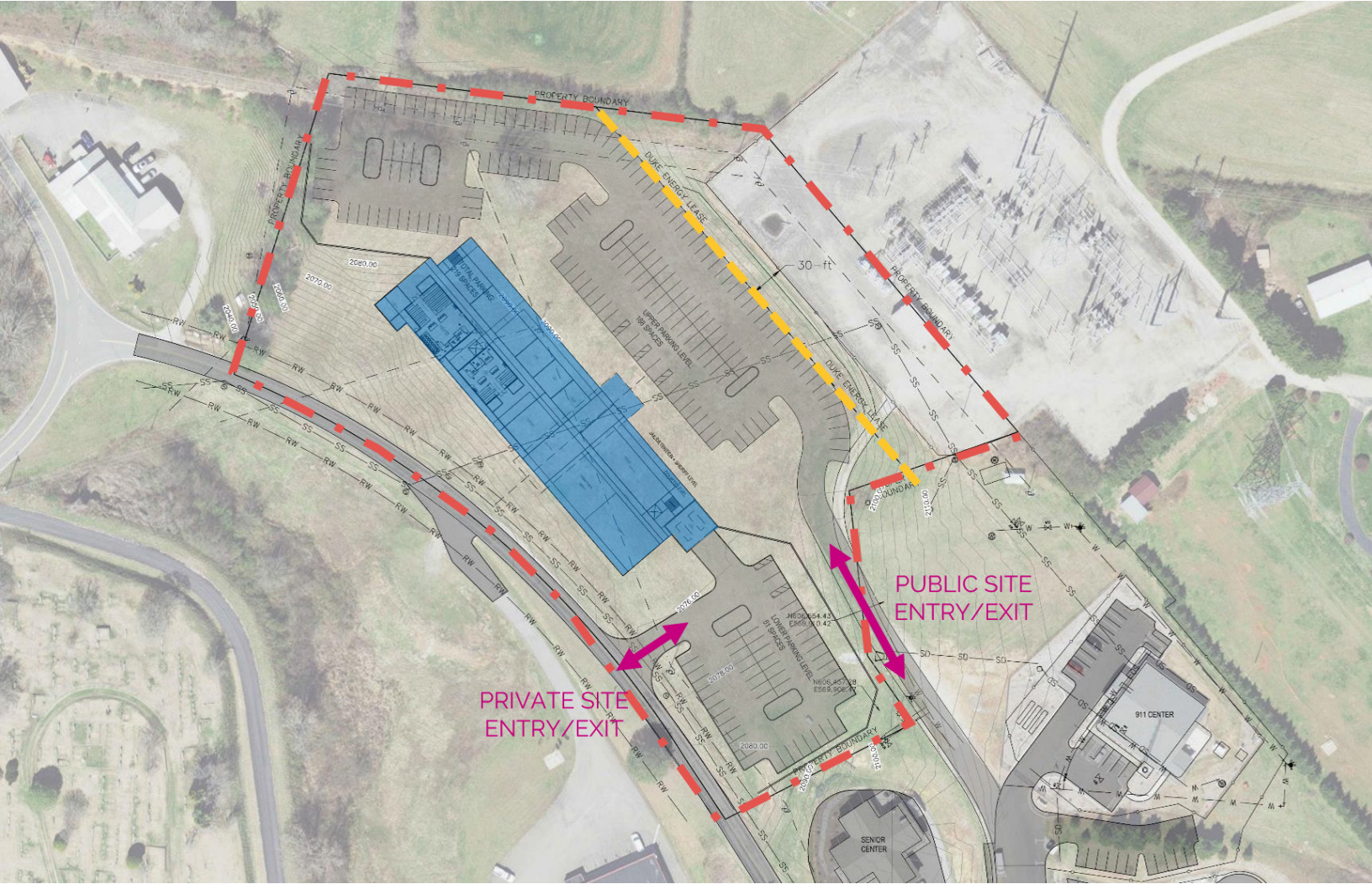
Option A - Street Approach Birdseye View



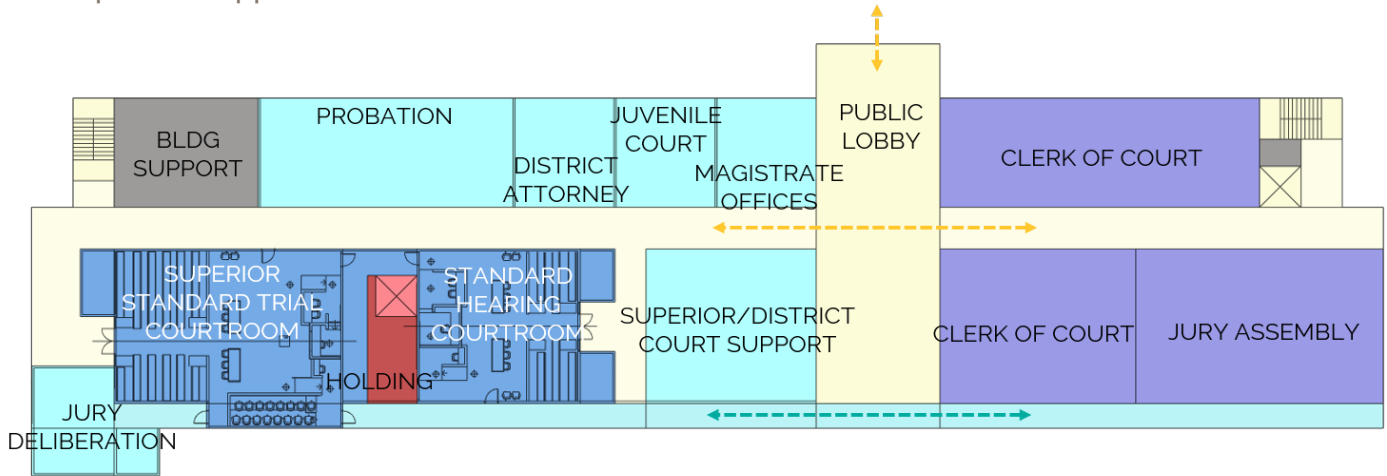
# C. CONCEPT DEVELOPMENT

## Site Plan and Floor Plans

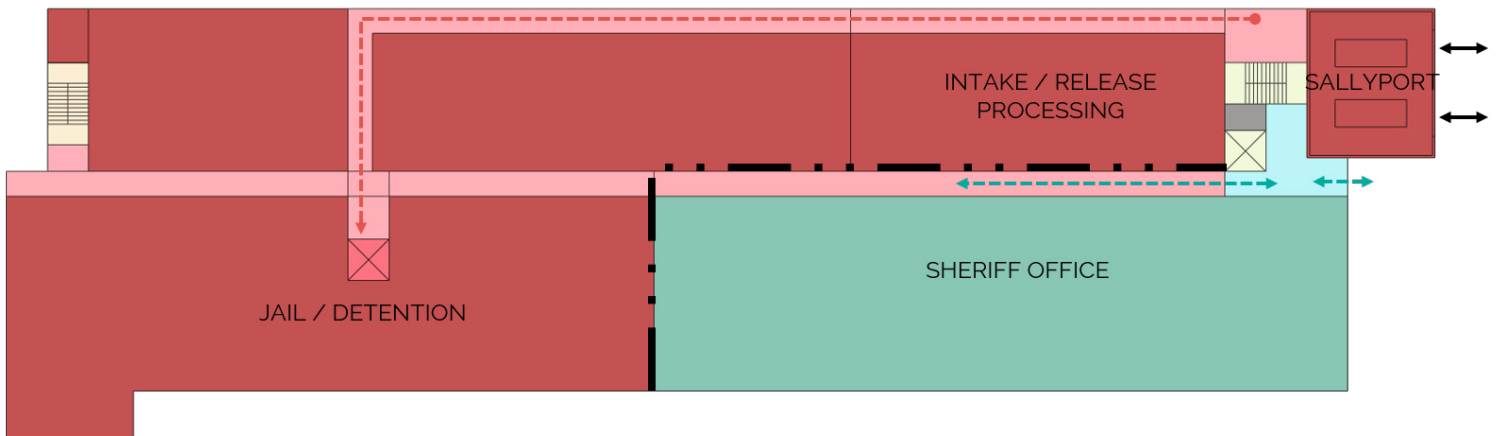
### Option B - Site Plan



Option B - Upper Level



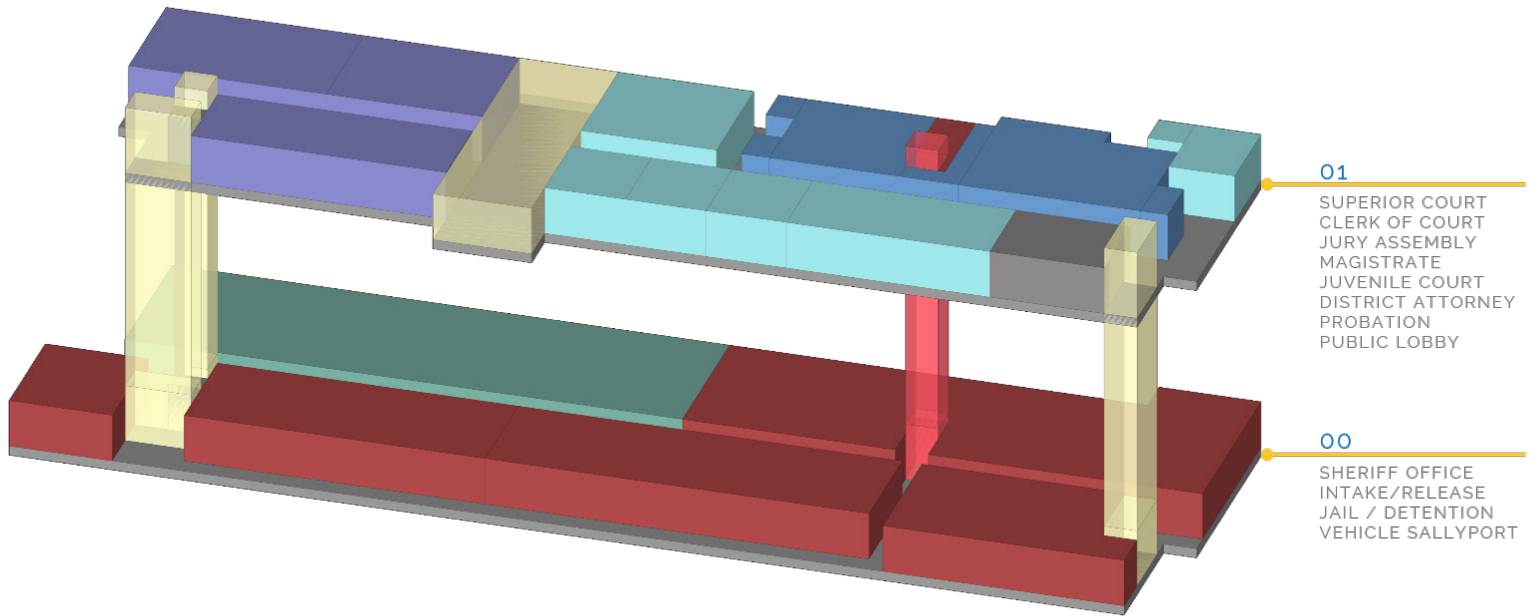
Option B - Lower Level



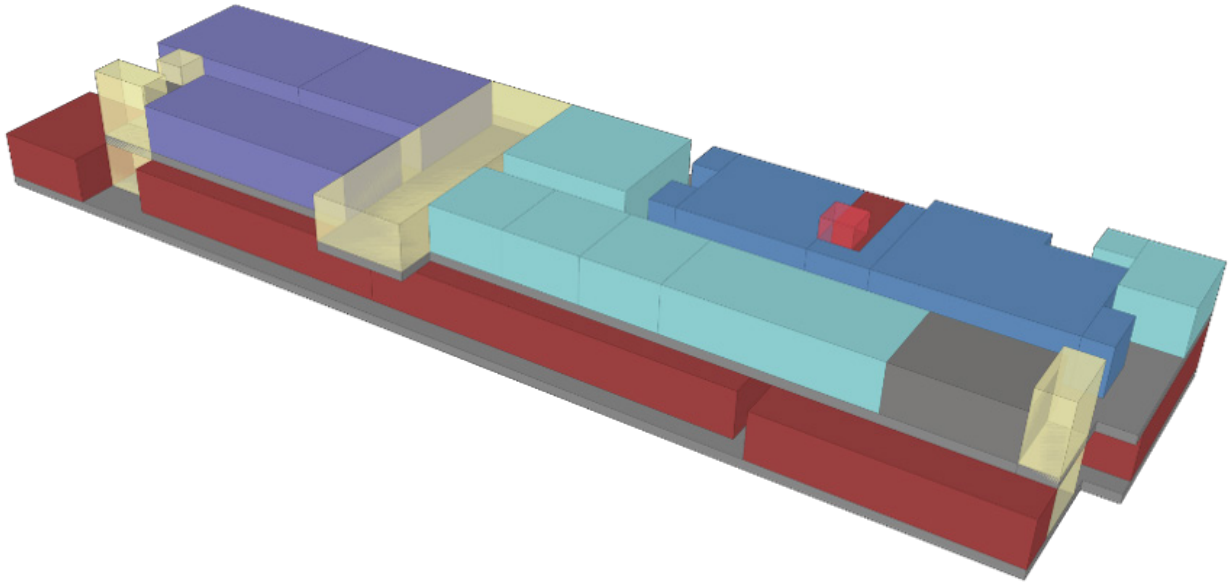
# C. CONCEPT DEVELOPMENT

Stacking, Blocking, and Massing Concepts

Option B - Stacking Diagram



Option B - Blocking Diagram



Option B - Massing Concept





# C. CONCEPT DEVELOPMENT

Massing Models

Option B - Entry View



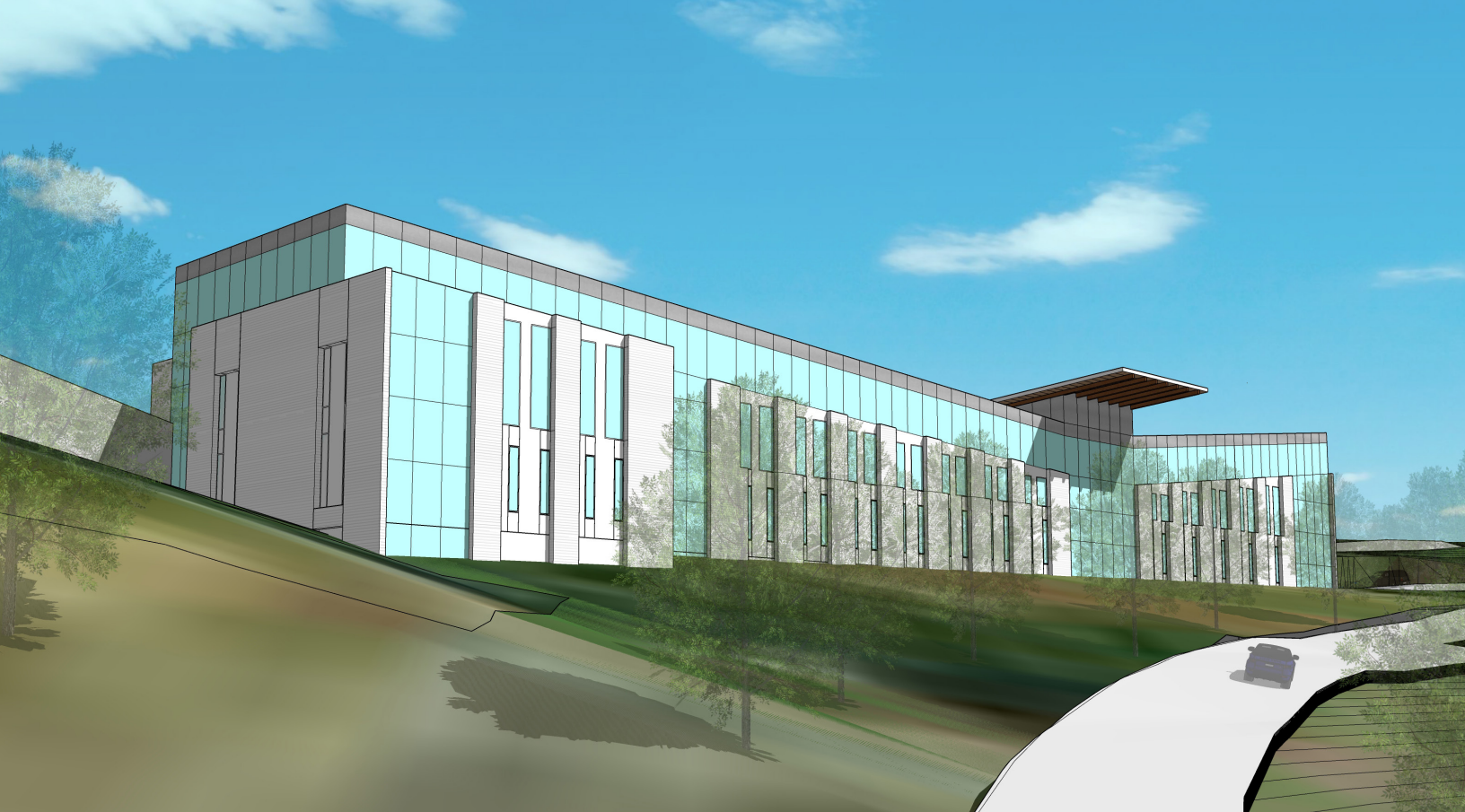
Option B - Entry Birdseye View



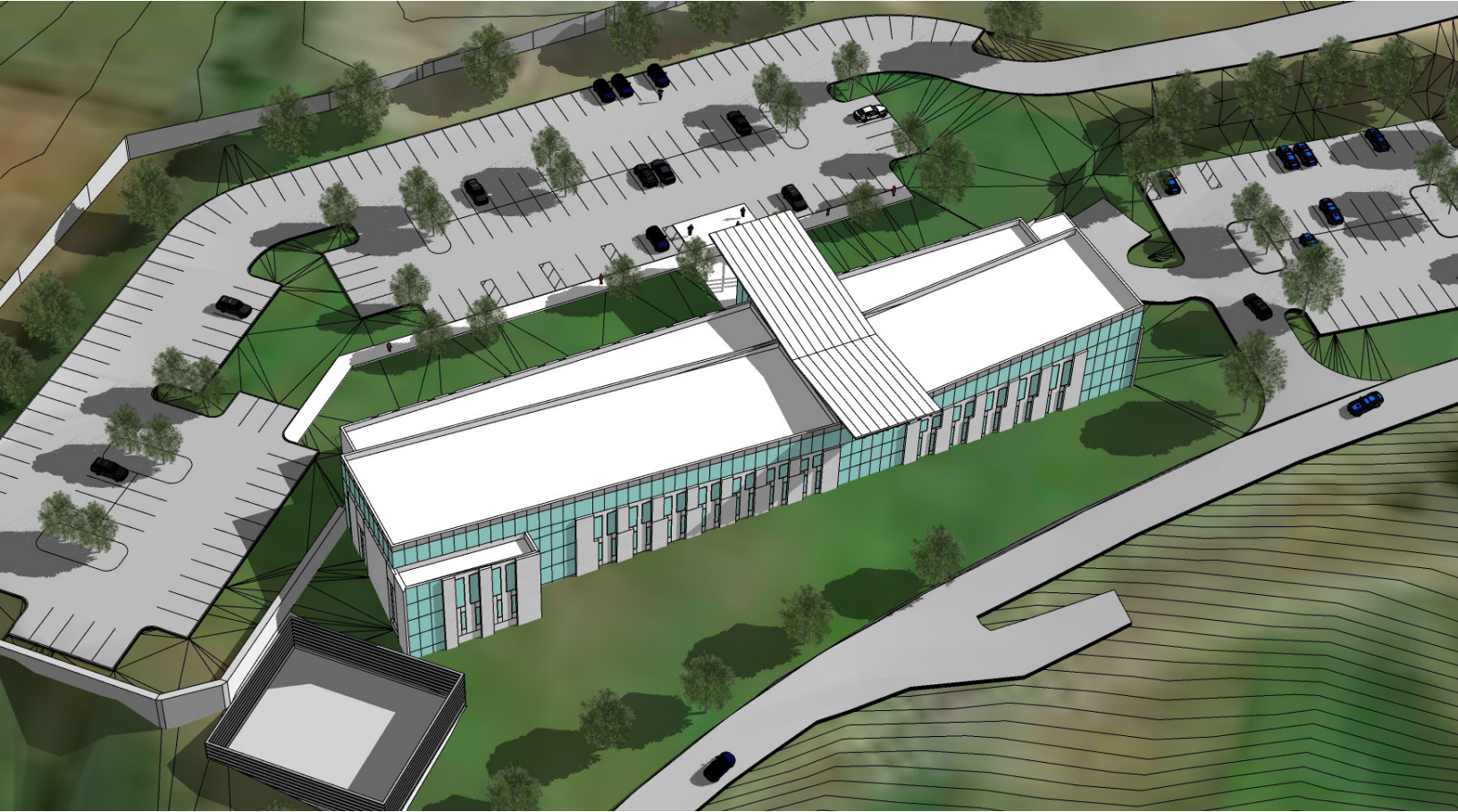
# C. CONCEPT DEVELOPMENT

Massing Models

Option B - Street Approach View



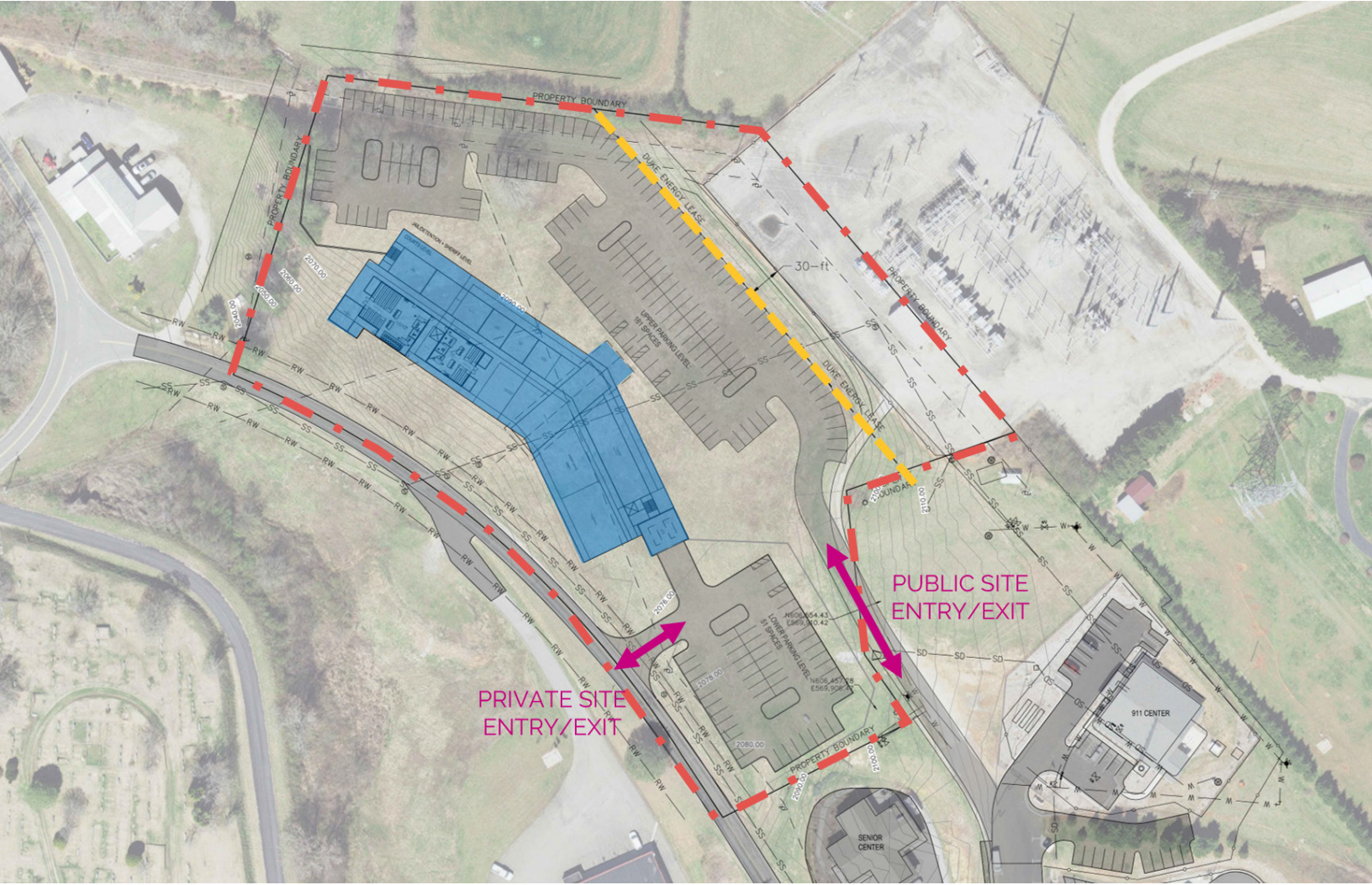
Option B - Street Approach Birdseye View



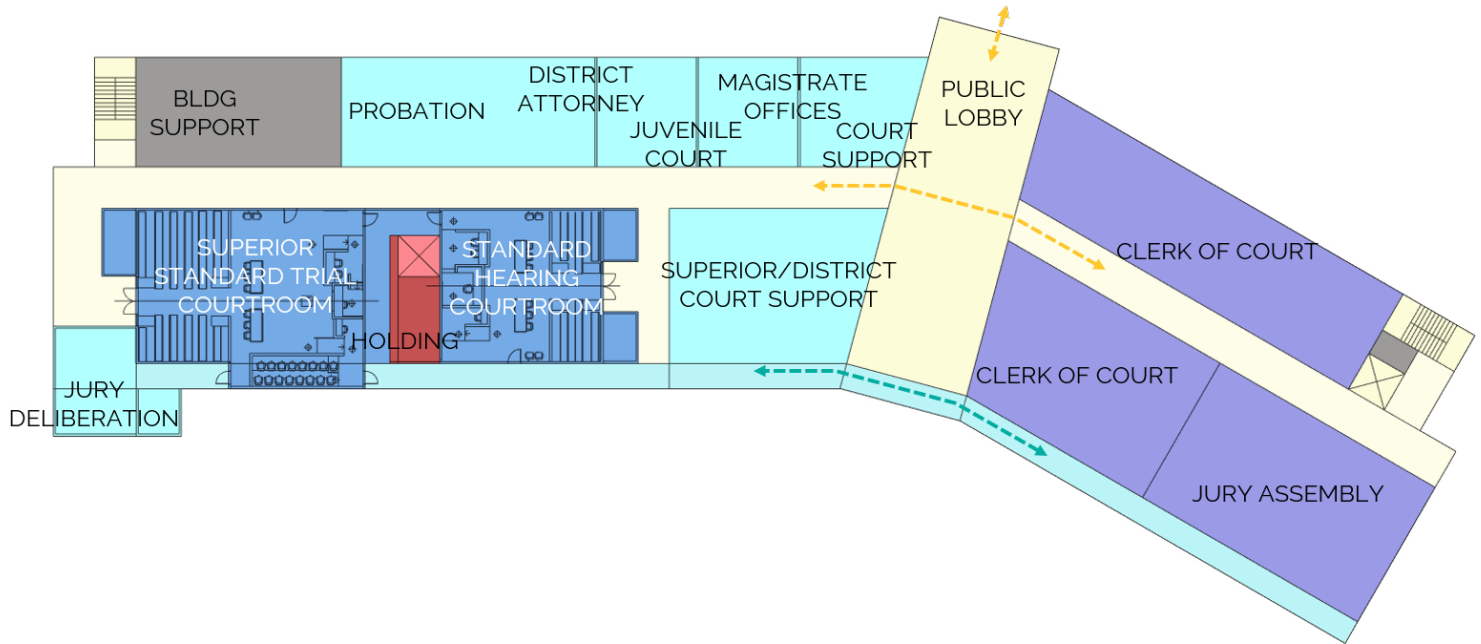
# C. CONCEPT DEVELOPMENT

## Site Plan and Floor Plans

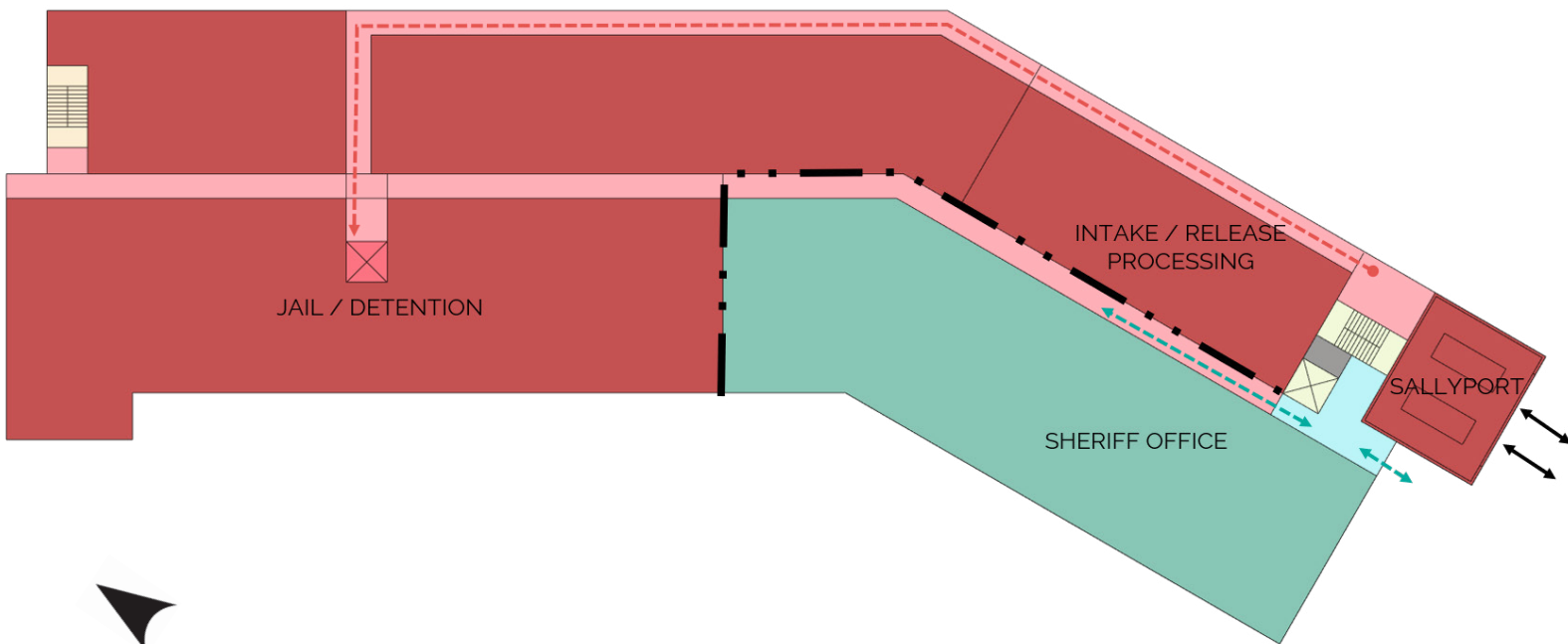
### Option C - Site Plan



Option C - Upper Level



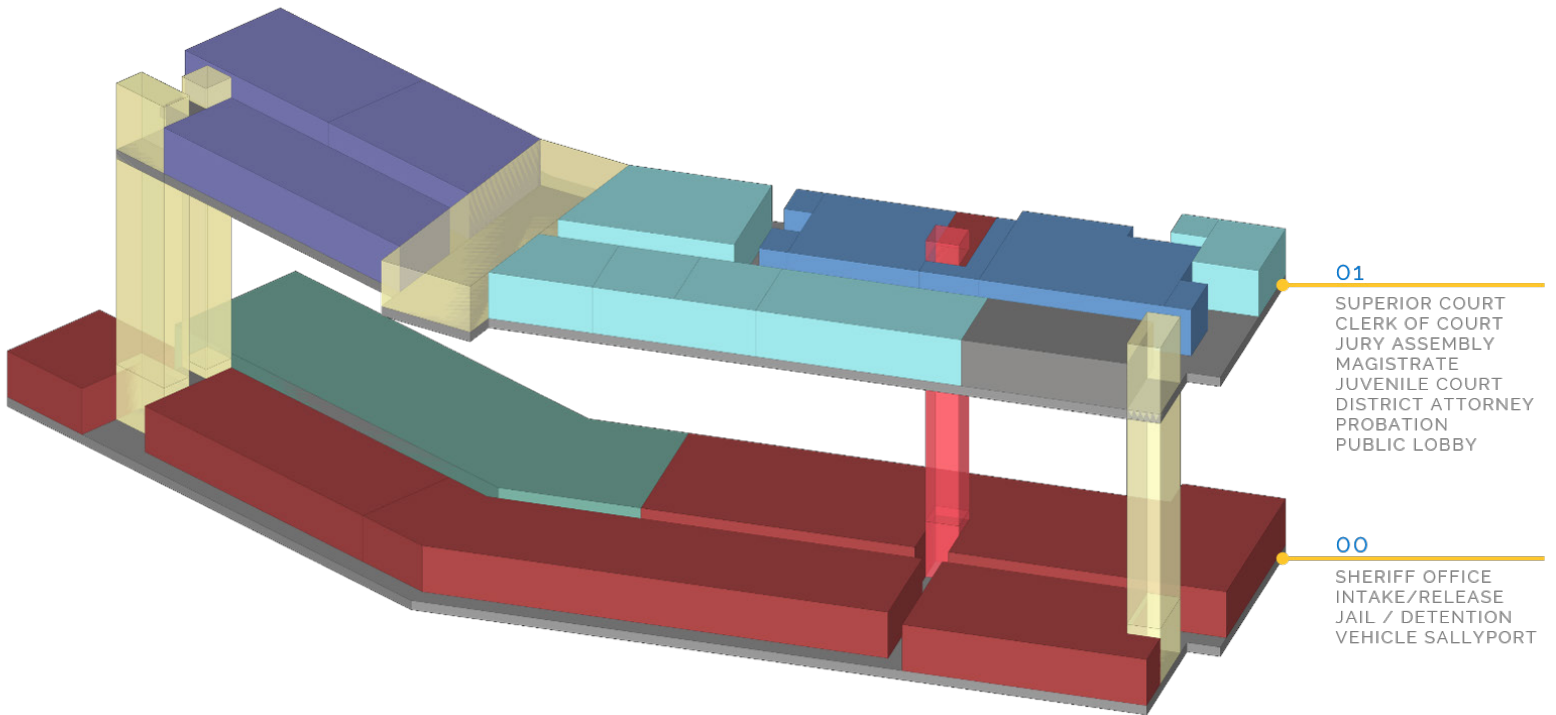
Option C - Lower Level



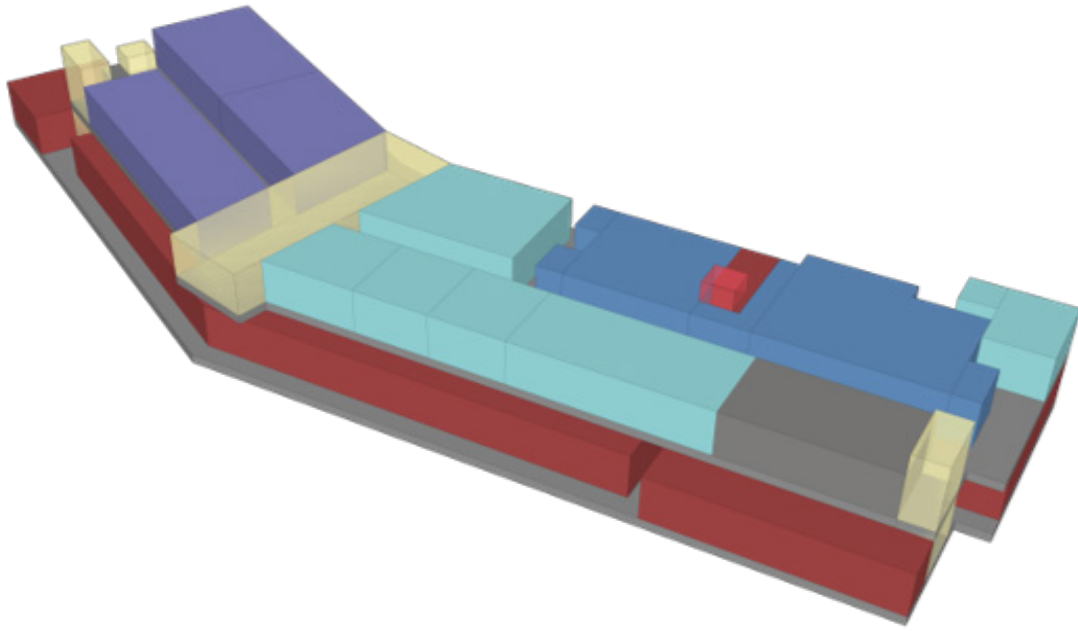
# C. CONCEPT DEVELOPMENT

Stacking, Blocking, and Massing Concepts

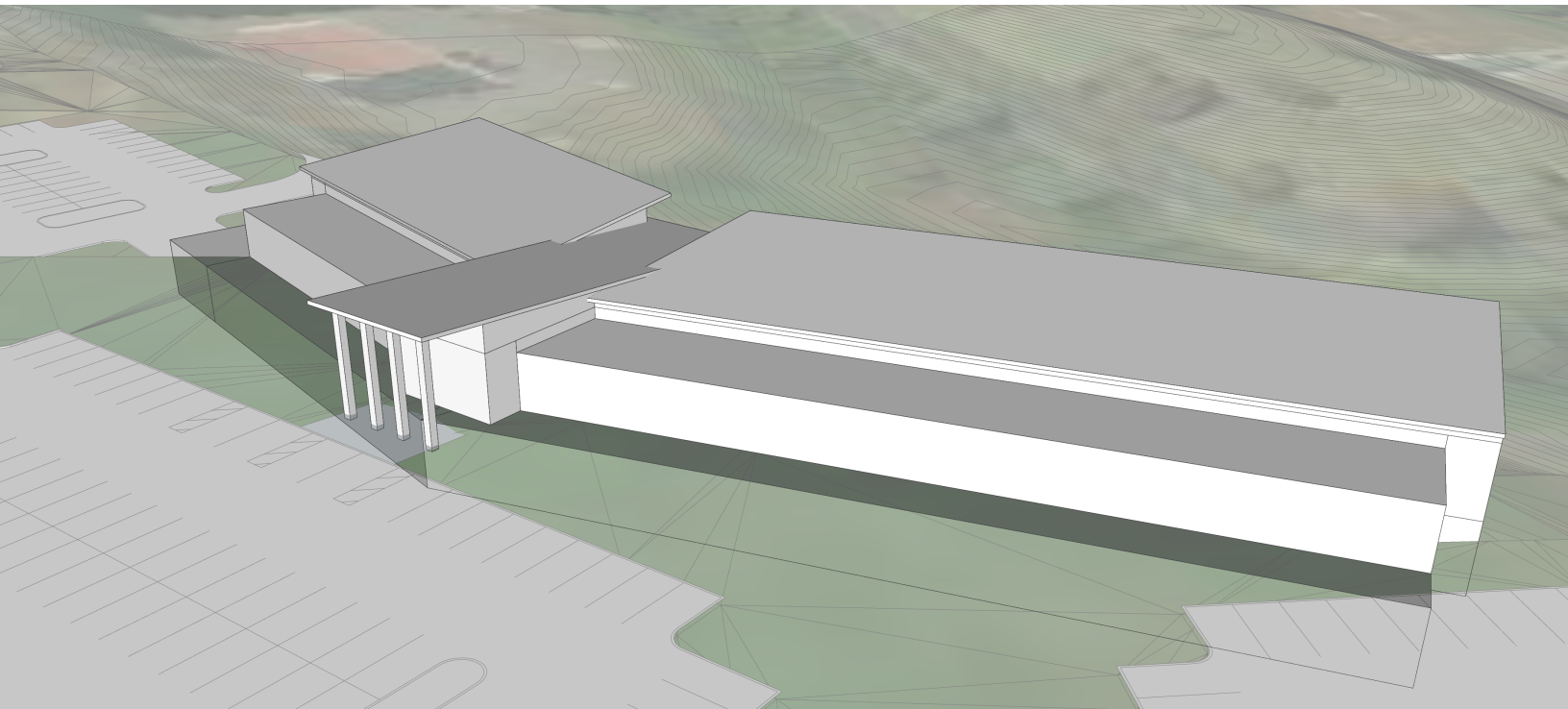
Option C - Stacking Diagram



Option C - Blocking Diagram



Option C - Massing Concept





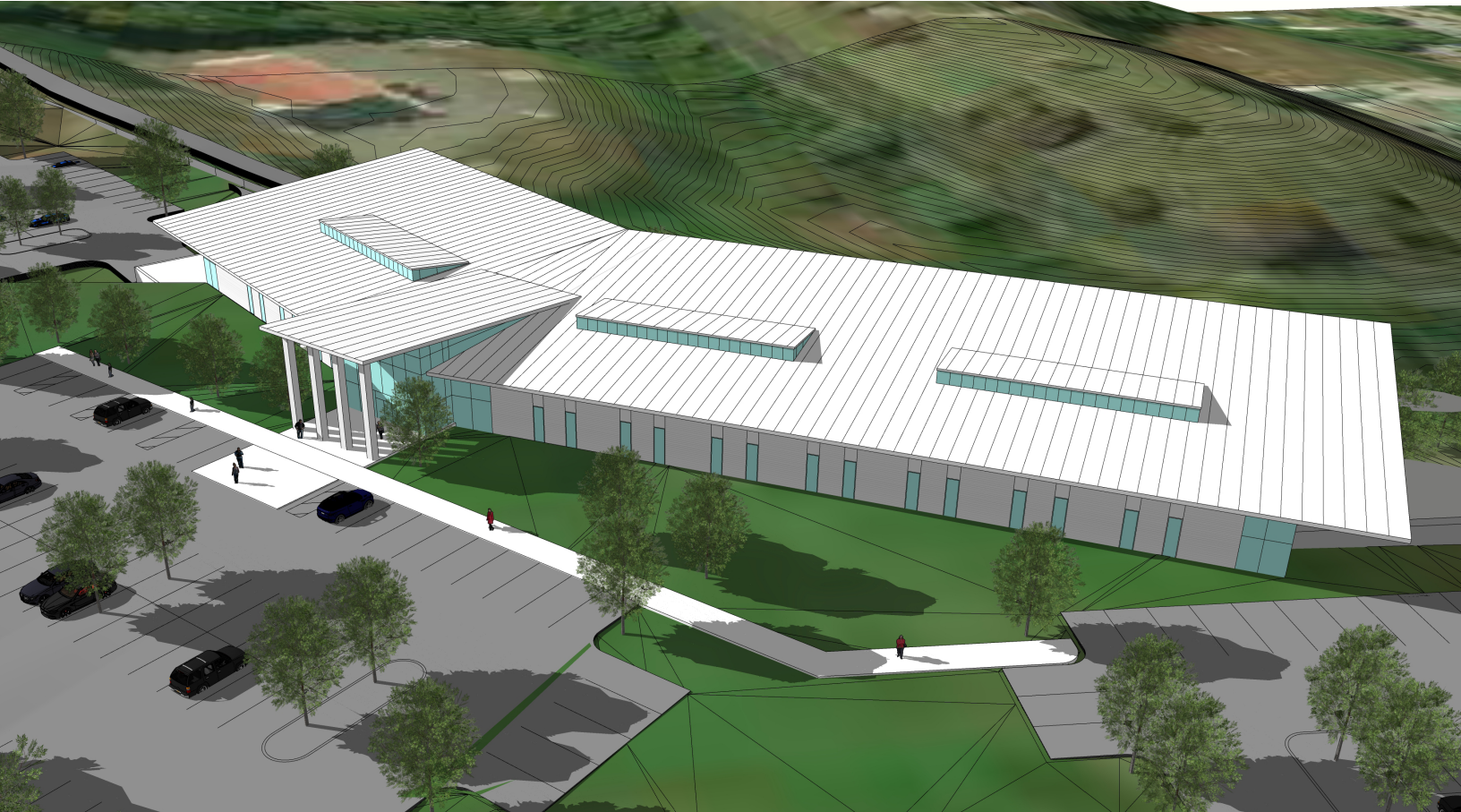
# C. CONCEPT DEVELOPMENT

Massing Models

Option C - Entry View



Option C - Entry Birdseye View



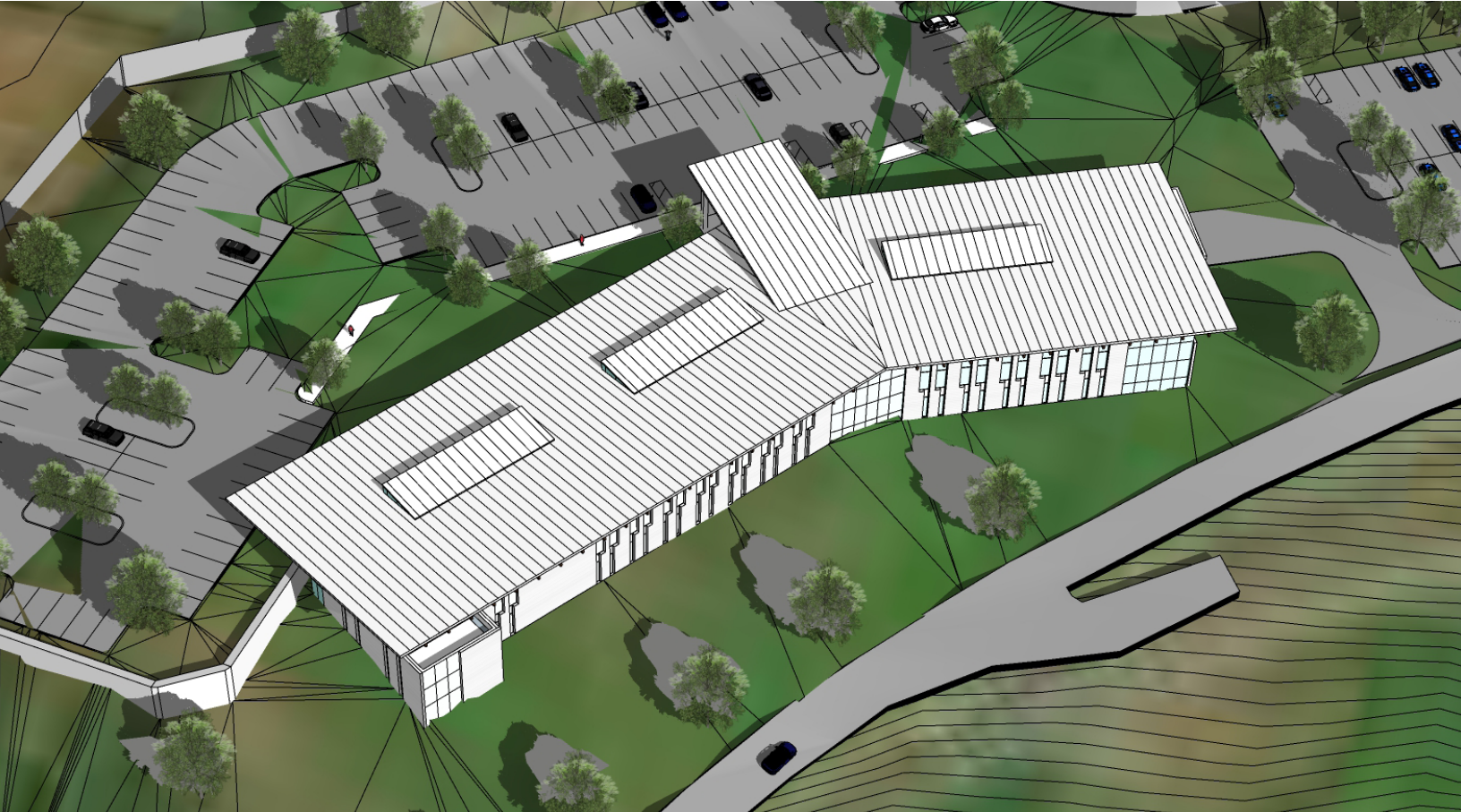
# C. CONCEPT DEVELOPMENT

Massing Models

Option C - Street Approach View



Option C - Street Approach Birdseye View



# C. CONCEPT DEVELOPMENT

Proposed Project Conceptual Design

Option C - Entry and Building Facade



Option C - Site Birdseye View Looking West



# C. CONCEPT DEVELOPMENT

Proposed Project Conceptual Design

Option C - Building Approach from West Fort Hill Road



Option C - Site Birdseye View Looking East





## D. COST ESTIMATE

### Statement of Probable Cost

The courthouse is a two story approximately 58,000 square foot structure with a linear floor plan with the public space organized as a double loaded corridor serving courtrooms and court related agencies on either side. The courtrooms have adjacent chambers that have secure court access via a perimeter corridor. This court arrangement includes secure inmate delivery via a dedicated inmate elevator and satellite holding area, delivering in-custody participants to the courts from the lower level jail. The proposed court facility is a purpose-built judicial facility with both specialized courtroom and corrections construction and redundant secure circulations. We have applied our recent justice experience in the southeast and our understanding of the unique requirements of the project type as it relates to level of finish, security measures and safety of all occupants.

#### Conceptual Cost Analysis

The following are our Clarifications & Assumptions, as well as, any Exclusions we considered in developing the conceptual cost forecast as it relates to the major components of the project. We will end with a summation of escalation costs to consider depending upon the true schedule (unknown at this time) of the project:

#### 1. Site Costs:

- a. We have assumed standard-duty pavement with a 24" curb and gutter. A percentage of the paving will be heavy-duty to support emergency or maintenance vehicles nearer the building.
- b. Stormwater management has been considered and is expected to tie into a new underground storm sewer system.
- c. Utilities are available and will be coordinated with the new construction. On-site required utility relocation is included.
- d. Potential phasing of site work has not been considered.
- e. Parking low-voltage (CCTV) requirements will be handled by the Owner (County) in separate contract.
- f. An 8-foot tall security (vinyl-coated chain-link) fence (no concertina or barbed-wire) and 1 operable card access gate at the driveway entrance of the lower parking lot has been considered.
- g. All site retaining walls will be constructed of reinforced poured concrete.
- h. Sod to be used for any grassing. A minimal amount has been considered for other landscaping, as we do not want to provide obstructions for adequate CCTV coverage.

#### 2. New Construction Costs:

- a. We have assumed no temporary facilities will be needed for the duration of the project.
- b. We have assumed a superstructure of steel framing, supported with a standard spread-footing foundation, supporting a two-story structure.
- c. There will be a hierarchy of finishes within the facility. Public spaces including courtrooms will receive durable high-grade finishes while staff offices will receive typical commercial grade level of finish.
- d. Exterior materials are assumed to match, or closely match, the existing architecture of the courthouse with a combination of modular brick and stone masonry.
- e. Roofing to be a 60-mil TPO roof or equal.
- f. Allowance is included for new hydraulic elevators.
- g. New HVAC equipment to be commercial split systems.

3. Soft Costs: Often, easily forgotten when dealing with the hard costs of 'brick-n-mortar', we have assumed the following:
- a. Design and Engineering Fees (7.75% of construction cost).
  - i. We have assumed the fees for all disciplines for a full A/E design service (Architectural, Civil, Structural, Mechanical, Electrical, Plumbing, Fire Protection and low-voltage Security)
  - ii. We assumed the architect and engineers will perform monthly site visits throughout the project. We have assumed a construction period of 18 months.
  - iii. We have assumed no cost for an Owner's representative, such as a Construction Manager (advisor) or Program Manager.
  - b. We have assumed the Owner will engage a geotechnical and survey company under a separate contract, as well as coordinate the special inspections. That cost is included.
  - c. Stormwater permitting fees are included.
  - d. A modest allowance for FF&E is included.
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- 1. Owner - 3% of construction cost (uncertainties within the defined project scope and changes made after the bid)
  - 2. Construction- 7% of construction cost (unforeseen and unpredictable conditions, include force majeure)
  - 3. Escalation is addressed separately.

#### Escalation

The project cost estimate is based on average construction/direct costs in the region and a percentage for owner's/indirect costs. For average construction/direct costs, sources included RSMeans, FM Trends/BNI Building News, and local experience. Depending upon the time construction begins, we have allocated a conservative factor of escalation through 2024. This helps to address the buy-out risk in the form of potential cost increases due to the tried and true market forces of supply and demand.

## D. COST ESTIMATE

Probable Cost

### CONCEPTUAL COST BREAKDOWN [LOW]

<b>SITE</b>	<b>\$ 600,000</b>
SURFACE PARKING	
GRADING	
SECURITY FENCING	
LANDSCAPE	
<b>NEW CONSTRUCTION</b>	<b>\$ 15,990,000</b>
58,145 SQUARE FEET	
<b>SOFT COSTS</b>	<b>\$ 1,850,000</b>
TESTING/ SPECIAL INSPECTIONS	
GEOTECHNICAL SURVEY	
STORMWATER PERMITTING	
DESIGN FEES [ALL DISCIPLINES]	
FURNITURE, FIXTURES, & EQUIPMENT	
<b>TOTAL PROJECT COST</b>	<b>\$ 18,440,000</b>

## CONCEPTUAL COST BREAKDOWN [HIGH]

<b>SITE</b>	<b>\$ 1,000,000</b>
SURFACE PARKING	
GRADING	
SECURITY FENCING	
LANDSCAPE	
<b>NEW CONSTRUCTION</b>	<b>\$ 19,187,000</b>
58,145 SQUARE FEET	
<b>SOFT COSTS</b>	<b>\$ 2,000,000</b>
TESTING/ SPECIAL INSPECTIONS	
GEOTECHNICAL SURVEY	
STORMWATER PERMITTING	
DESIGN FEES [ALL DISCIPLINES]	
FURNITURE, FIXTURES, & EQUIPMENT	
<b>TOTAL PROJECT COST</b>	<b>\$ 22,187,000</b>

## D. COST ESTIMATE

Probable Cost

### CONCEPTUAL ESCALATION

TOTAL PROJECT COST	LOW	\$ 18,440,000
	HIGH	\$ 22,187,000

PROJECT START 2022	\$ 19,039,300
3.25% ESCALATION	\$ 22,908,087

PROJECT START 2023	\$ 19,776,900
7.25% ESCALATION	\$ 23,795,558

PROJECT START 2024	\$ 20,745,000
11.25% ESCALATION	\$ 24,960,375

# HEERY DESIGN

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