



Academies of Loudoun

Presentation to:

Ad Hoc Committee

Loudoun County Public Schools

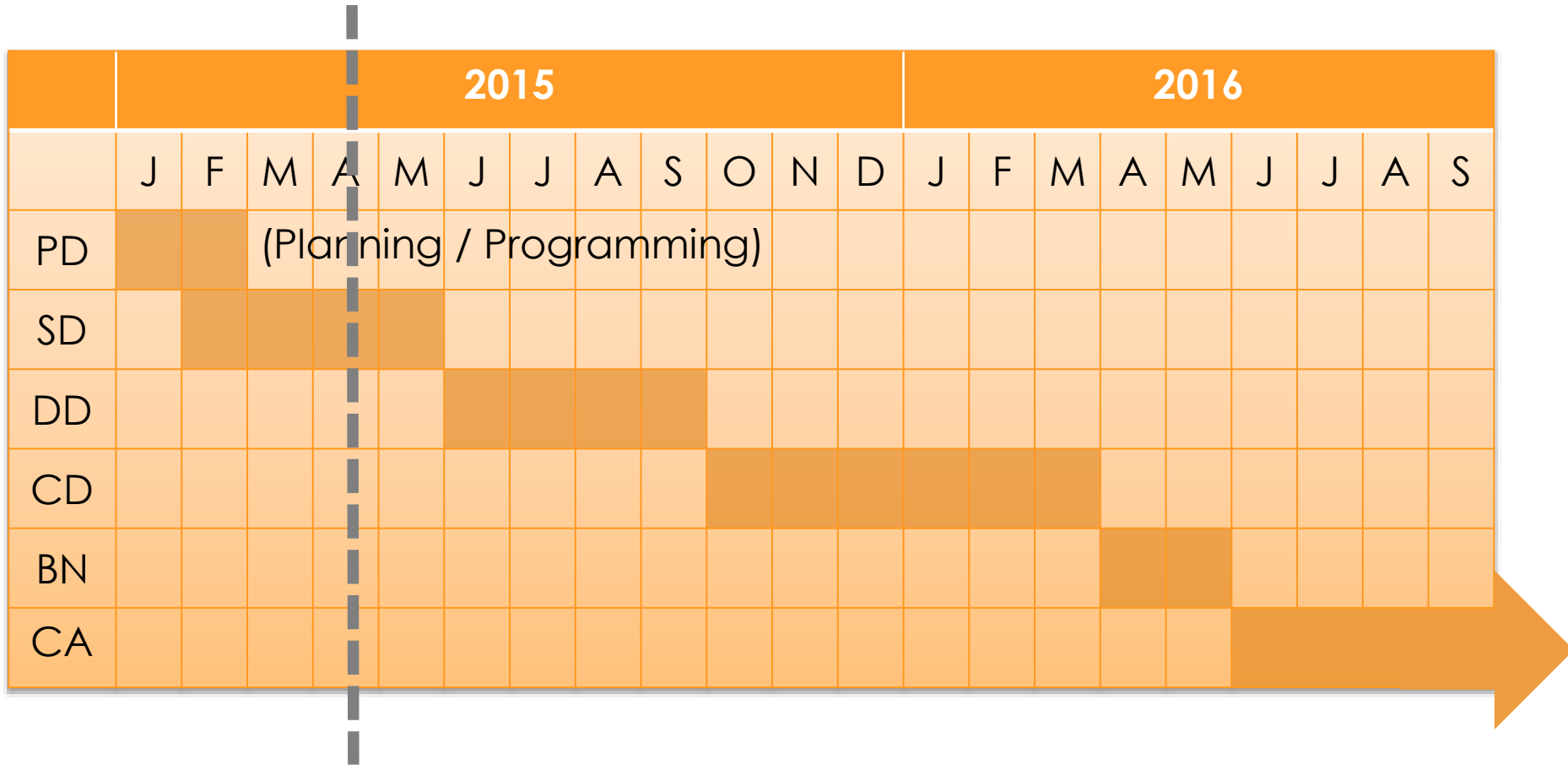
April 21, 2015



Purpose / Outcomes:

- Update of work since first Ad-Hoc Meeting
- Presentation of two design concepts
- Receive feedback needed to move forward
- Schedule next meeting

Project Schedule



Opening: Fall 2018

Project Vision

*"The mission of the Academies is to provide a 21st Century **Science, Technology, Engineering, and Mathematics (STEM)** education that creates opportunities for LCPS students and faculty to **innovate, explore, research and collaborate.**"*

SOURCE: *The Academies of Loudoun: Creating Increased Opportunities for Exploration, Innovation and Advancement*

When the Vision is Realized...

A culture of **interdependence**

Intentional trans-disciplinary spaces

Technology and **engineering** touch all programs

Celebration of **learning process** through **visibility** and **exposure**

What Drives the Design?

Collaboration is key

Not a “typical school”

Authentic, real-world experiences

Community asset/Community access

Flexibility/Adaptability



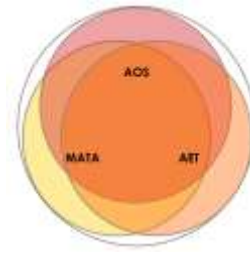
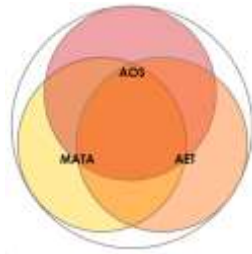
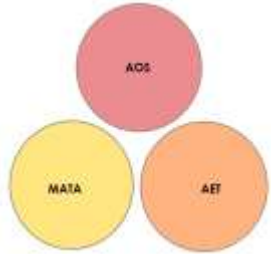
Remember the Design Concepts?

This is *not* a building



A **concept** illustrates how an idea *might* translate into a building design

Creating a STEM Culture



INDEPENDENT

CO-LOCATED

INTEGRATED

INTERDEPENDENT

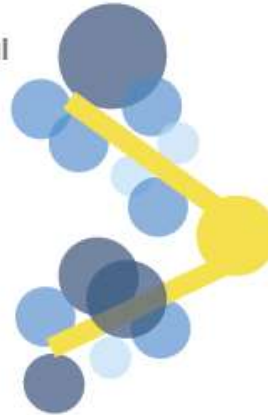
Learning Studio

Low-Intensity Lab

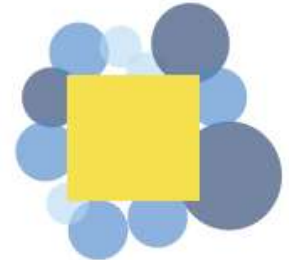
High-Intensity Lab

Innovation Commons

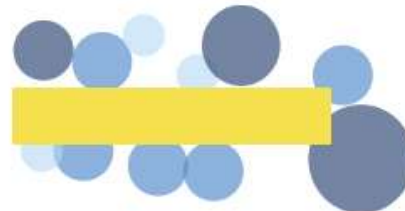
1. Radial



3. Central



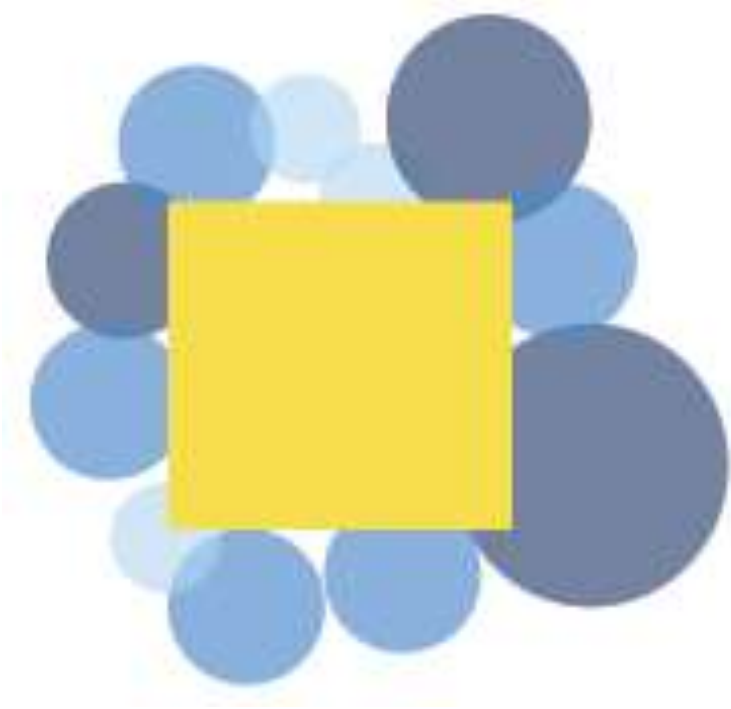
2. Linear



4. Network

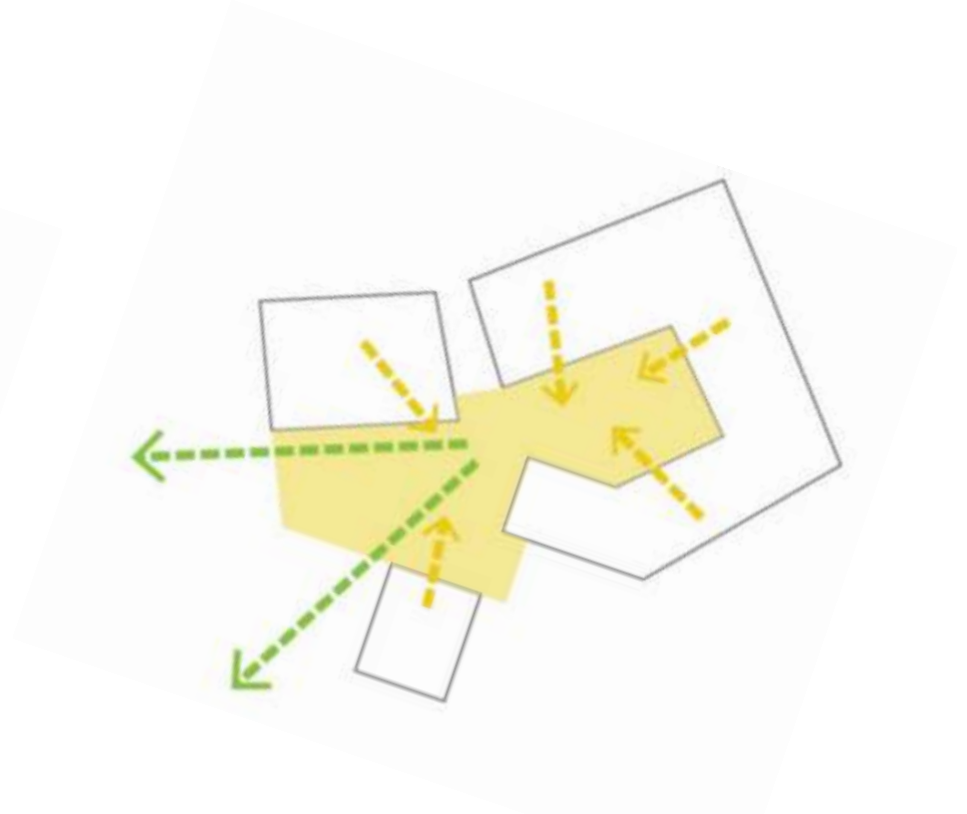
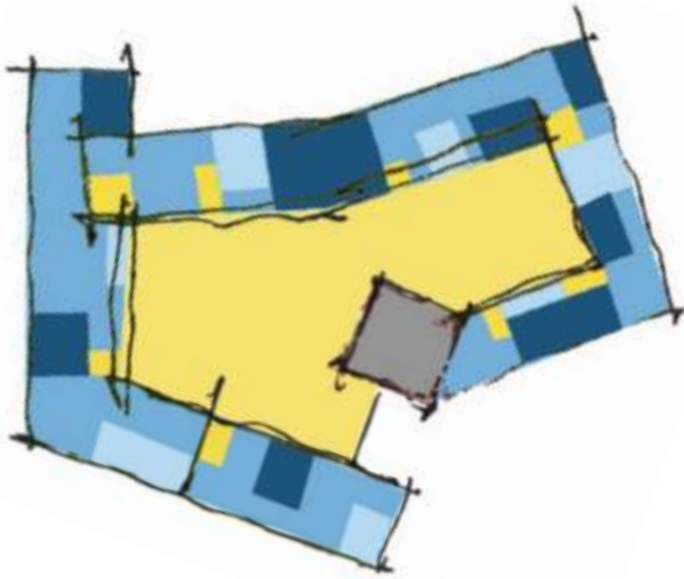


Central



- INNOVATION COMMONS AS THE HEART OF THE SCHOOL
- EVERY PROGRAM HAS A “STOREFRONT”
- IMMEDIATE ACCESS TO COLLABORATION AREAS
- MORE INTERNALLY FOCUSED

Central



L. STUDIO



L.I. LAB.



H.I. LAB.



COMMONS

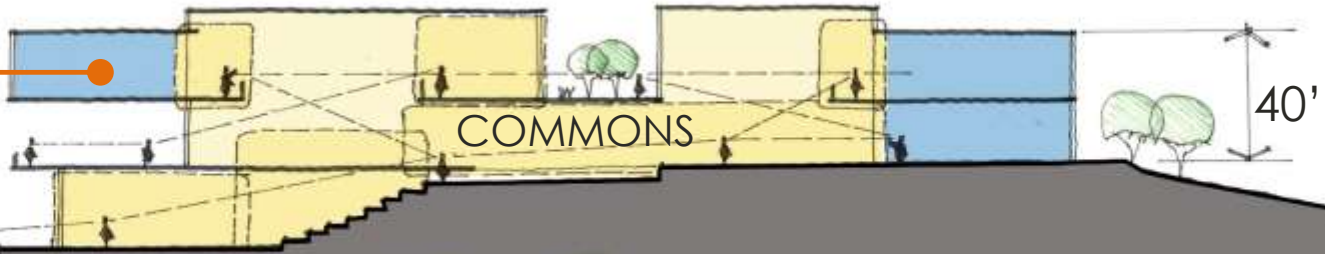


LANDSCAPE

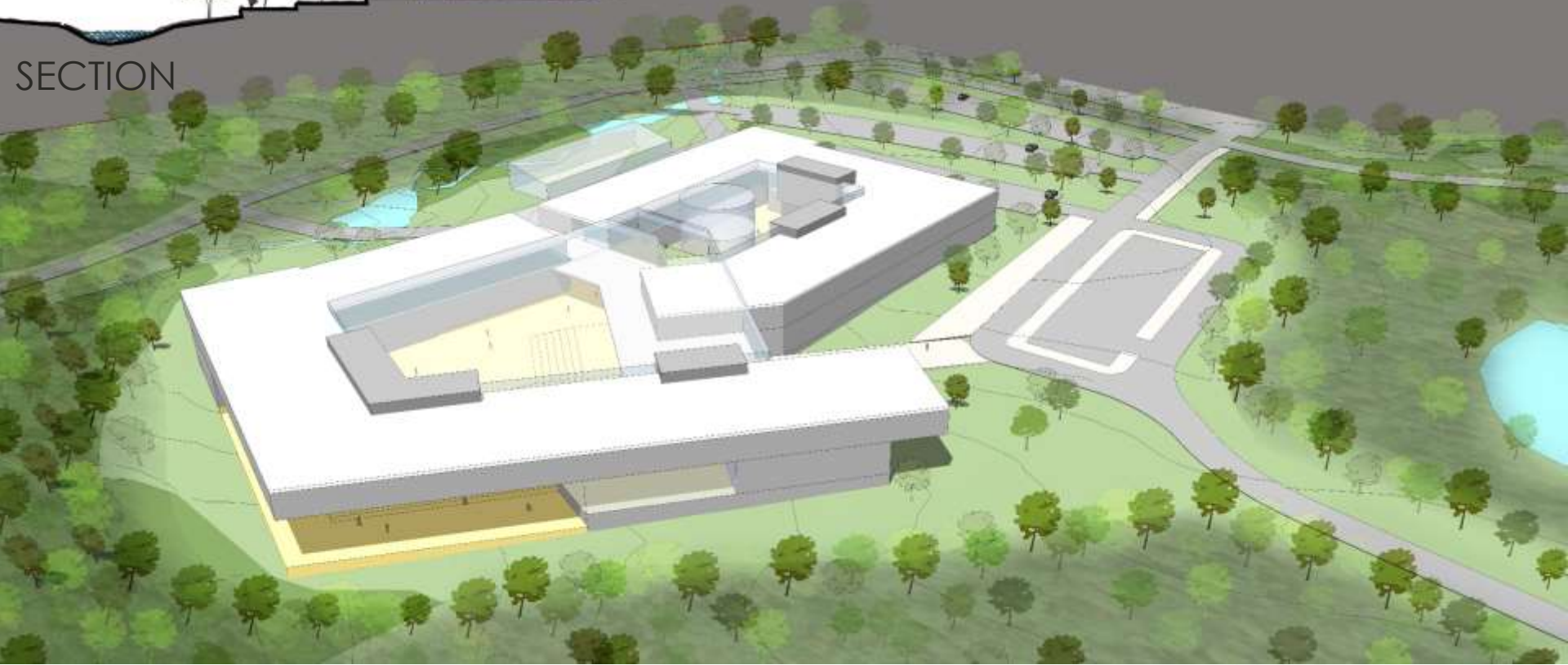


Central

INSTRUCTIONAL SPACES

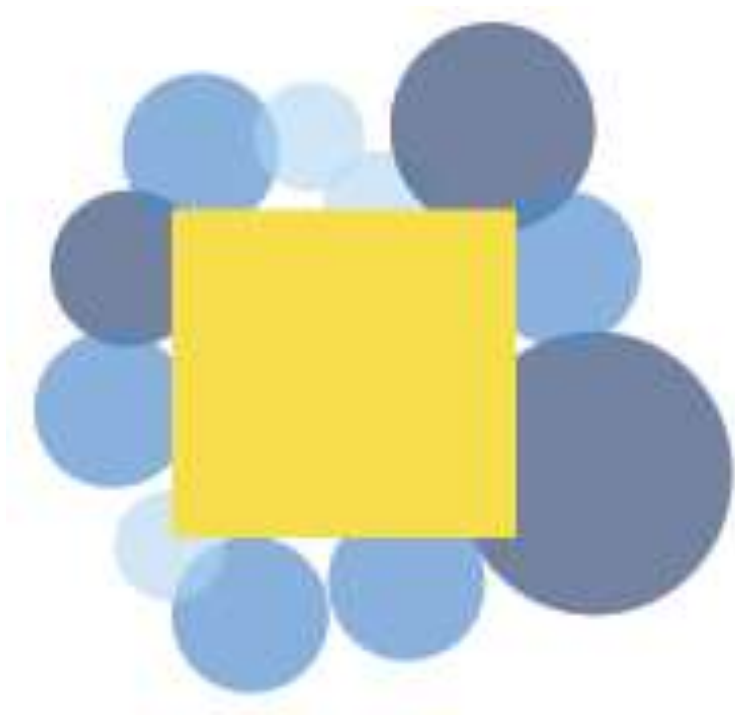


SECTION



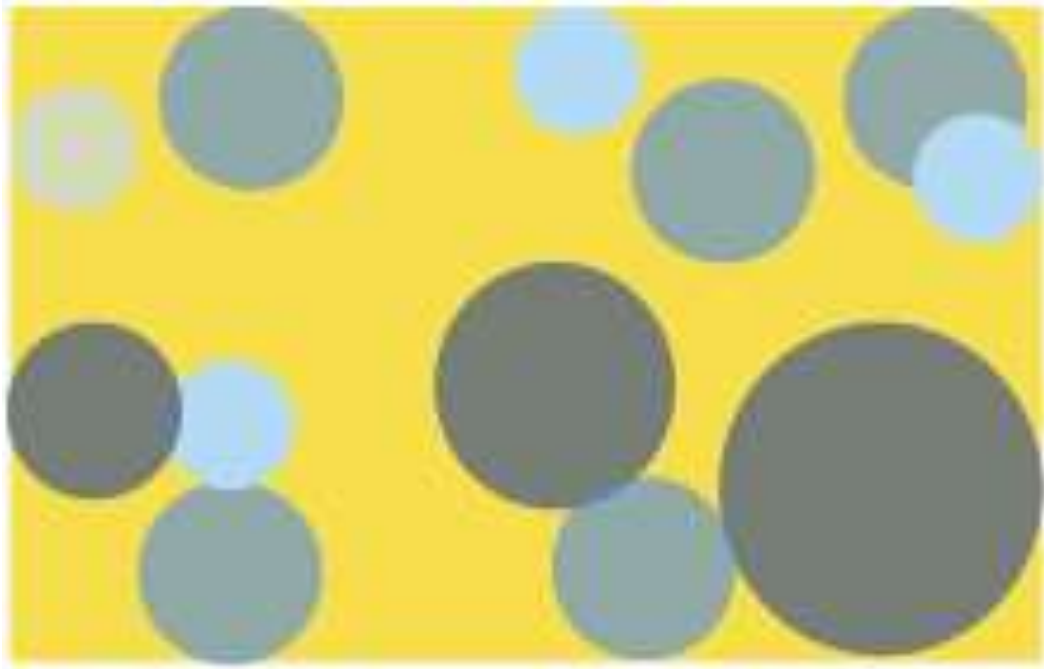
BIRD'S EYE VIEW

Central - comments



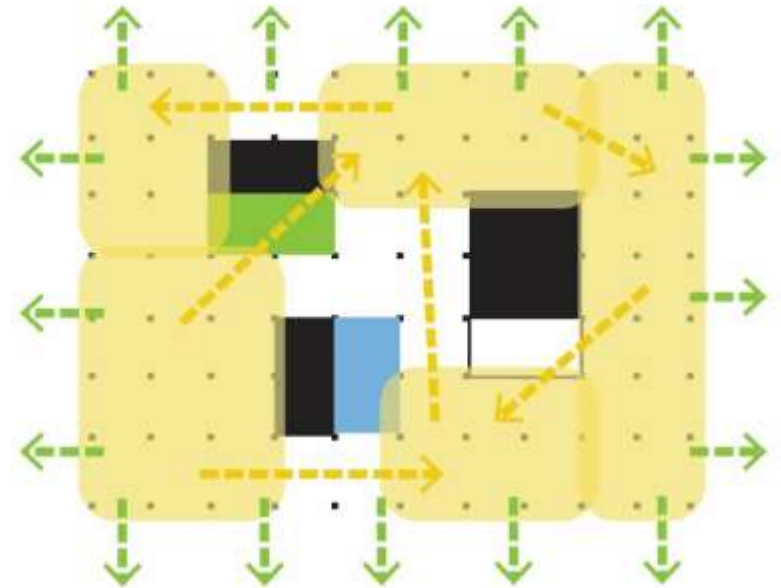
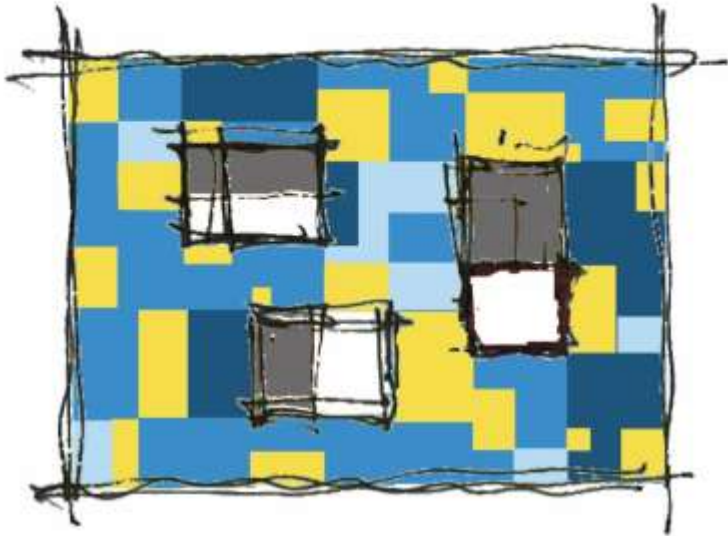
- Grand central space for community events
- Easy to monitor
- Connection of learning theater and dining commons
- Concerns about security, acoustics, cost, and expansion

Network



- INNOVATION COMMONS IS “EVERYWHERE”
- HIGH DEGREE OF VISIBILITY AND CONNECTION
- COMPACT, EFFICIENT FORM
- HIGH LEVEL OF FLEXIBILITY
- MODULAR

Network



L. STUDIO



L.I. LAB.



H.I. LAB.



COMMONS



LANDSCAPE



Network

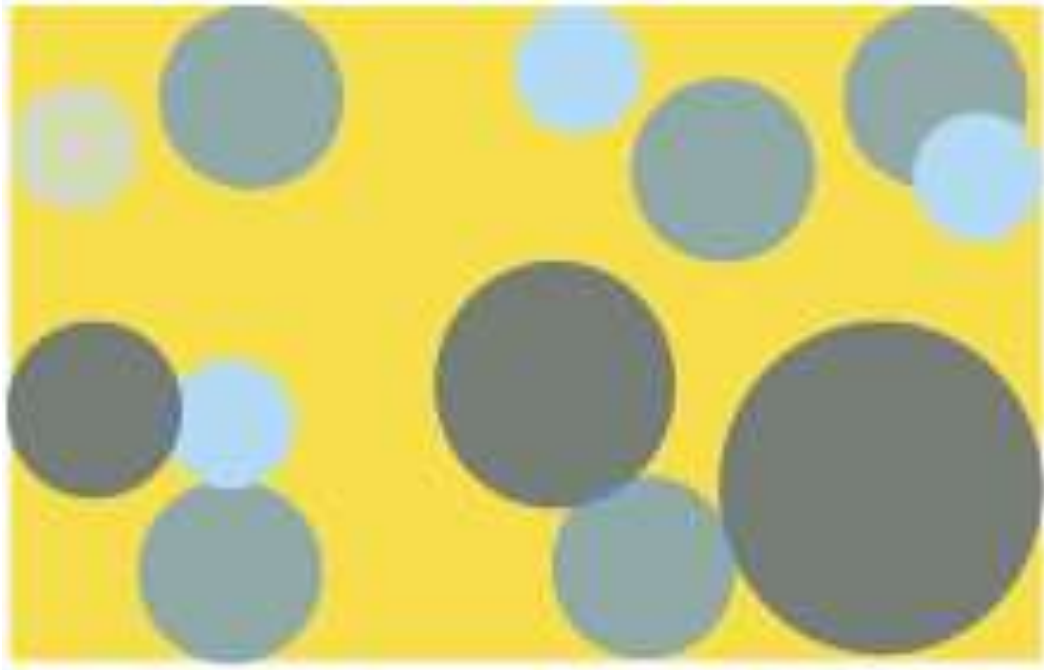


SECTION

40'

BIRD'S EYE VIEW

Network - comments



- Similar to the “real world”
- Flexibility and visibility
- Variety of usable outdoor space
- Community/vendor access
- Concerns about the overall form, cost and expansion

Advisory Committee 4.10

Building Concepts

Solicit Input

Move toward one design

Network



Central

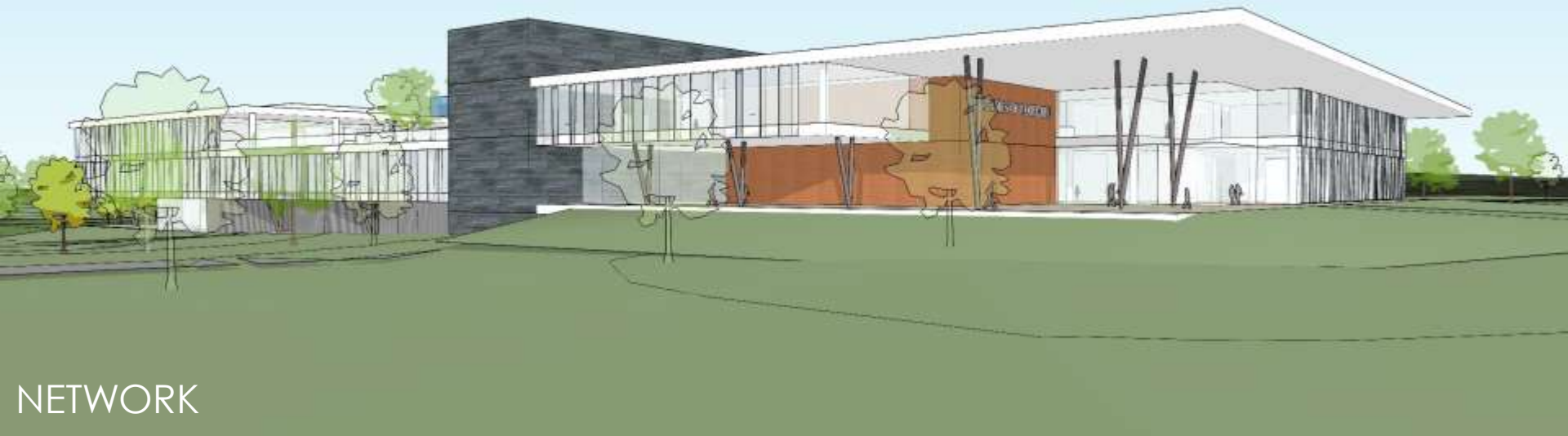




NETWORK



CENTRAL

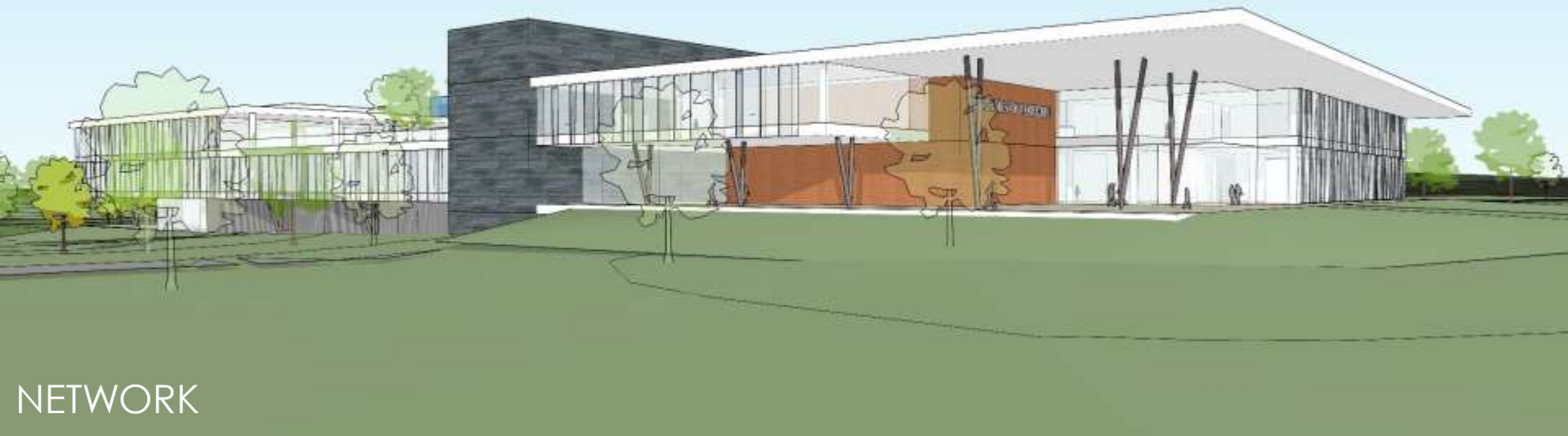


Opportunities:

- Integrated greenhouse
- Covered work yards
- Connectivity

Challenges:

- Rational form



Opportunities:

- Integrated greenhouse
- Covered work yards
- Connectivity
- Flexibility/Modularity
- Integrated systems
- Community Access

Challenges:

- Rational form
- Dispersed gathering
- Relies on transparency



CENTRAL

Opportunities:

- Grand, dynamic central space
- Interesting building form

Challenges:

- GH is not integrated



CENTRAL

Opportunities:

- Grand, dynamic central space
- Interesting building form
- Site response

Challenges:

- GH is not integrated
- Cost
- Flexibility
- Isolation
- Community Access

What Else?

Detailed Planning Surveys

Site Planning and Design



PROGRAM DATA SHEET

PROJECT NAME: **Academics of Loudoun**
 DISTRICT: **Loudoun County Public Schools**
 PROJECT NUMBER: **18033000**
 B.A. #: **000000**
 CONTACT NAME: **Jenny Cooper**
 PHONE NUMBER: **571-757-1222** **jenny.cooper@lpsd.net**
 SPACE NAME / NO.: **Computer Systems Technology**

1100 Lakeside Blvd., Suite 100
 Fairfax, VA 22031
 Phone: 703.441.1000
 Fax: 703.441.1001

GENERAL INFORMATION	
Accessibility (ADA)	Minimum standards, American with Disabilities Act
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Instructions:
 The Program Data Sheet is intended to capture the unique characteristics and requirements of a particular space in the building program. Please fill out this form to the best of your ability, providing the highest possible level of detail. Use in conjunction with a Program Equipment List. The form is a critical resource for the project team during design and construction. The project team will follow up with clarifying questions where necessary. After completed, save the updated file using the naming convention "Project Space Name Data.pdf" and post it to email to the designated project team representative. Thank you for your careful attention to this important information.

Glossary of Terms:
 BAS - Building Automation System; CFM - Cubic Feet per Minute; DOE - Department of Education; GFCI - Ground Fault Circuit Interrupter; HVC - Noise Reduction Coefficient; SHGC - Solar Heat Gain Coefficient; STC - Sound Transmission Coefficient; U-value - measure of the effectiveness of glazing as an insulator; VLT - Visible Light Transmittance

- Utilization
- Adjacencies
- Mechanical
- Electrical
- Plumbing
- Lighting
- Acoustics
- Daylight/Views
- Technology
- Storage

PROGRAM EQUIPMENT LIST



PROJECT NAME: Academies of Loudoun
 CLIENT: Loudoun County Public Schools
 PROJECT NUMBER: 218320060
 DATE: 3/25/2015
 CONTACT NAME: saile sappington
 PHONE/EMAIL: 703-771-6463 saile.sappington@lcps.org
 SPACE NAME / NO.: Medical Laboratory Technology

Instructions:

This Program Equipment List is intended to capture the specific equipment needs and service requirements of a particular space in the building program. Please fill out this form to the best of your ability, providing the highest possible level of detail. Add forms as necessary to account for all pieces of equipment. When completed, save the updated PDF using the naming convention "Project_Space Name_Equipment.pdf" and send it via email to the designated project team representative. Thank you.

11415 Isaac Newton Square
 Reston, VA 20190

P 703.480.4020
 F 703.480.4050

ITEM	EQUIPMENT NAME	MANUF./ MODEL	QUANTITY	EXISTING/ RELOCATED OR NEW	SIZE L X W X H	CLEARANCE REQUIRED	SERVICE REQUIREMENTS (Y/N or detail)							EST. UNIT COST	CFCI OFCI OFOI	COMMENTS
							ELEC	DATA	WATER	GAS	AIR	VENT	OTHER			
1	HP Color printer	HP	1	relocated			Y	Y								
2	Black mini refrigerator	GE	1	relocated			Y									
3	Full size refrigerator		1	NEW			Y									
4	Microscopes	Fisher	8	relocate			Y									
5	Digital microscope	swiff	1	relocate			Y									
6	5 headed microscope	fisher	1	relocate			Y									
7	Plate reader	Pointe Scientific	1	relocate			Y									
8	Chemistry analyzer	pointe scientific	1	relocate			Y									
9	Mini incubator	bio-rad	1	relocate			Y									
10	Water bath	bio-rad	1	relocate			Y									
11	thermocycler	bio-rad	1	relocate			Y									
12	ultra rocker platform	bio-rad	1	relocate			Y									
13	Biosafety cabinet	labConco	1	relocate			Y				Y	Y				
14	Chemical Fume hood		1	New			Y				Y	Y				
15	Incubator	thermo scientific	1	relocate			Y									
16	Analytical scale	Ohaus	1	relocate			Y									
17	spectrophotometer	fisher	1	relocate			Y									
18	centrifuge	zipcraft	1	relocate			Y									
19	centrifuge	LW scientific	1	relocate			Y									
20	microcentrifuge	revsci	1	relocate			Y									

Glossary of Terms: CFCI - Contractor Furnished, Contractor Installed; OFCI - Owner Furnished, Contractor Installed; OFOI - Owner Furnished, Owner Installed



SITE PLAN

What's Next ?

A single Schematic Design (no longer Central or Network)

Detailed Planning Meetings

Sustainability Workshop



Purpose / Outcomes:

- ✓ Update of work since first Ad-Hoc Meeting
- ✓ Presentation of two design concepts
- ✓ Receive feedback needed to move forward
- **Next meeting – Thursday, May 7**