

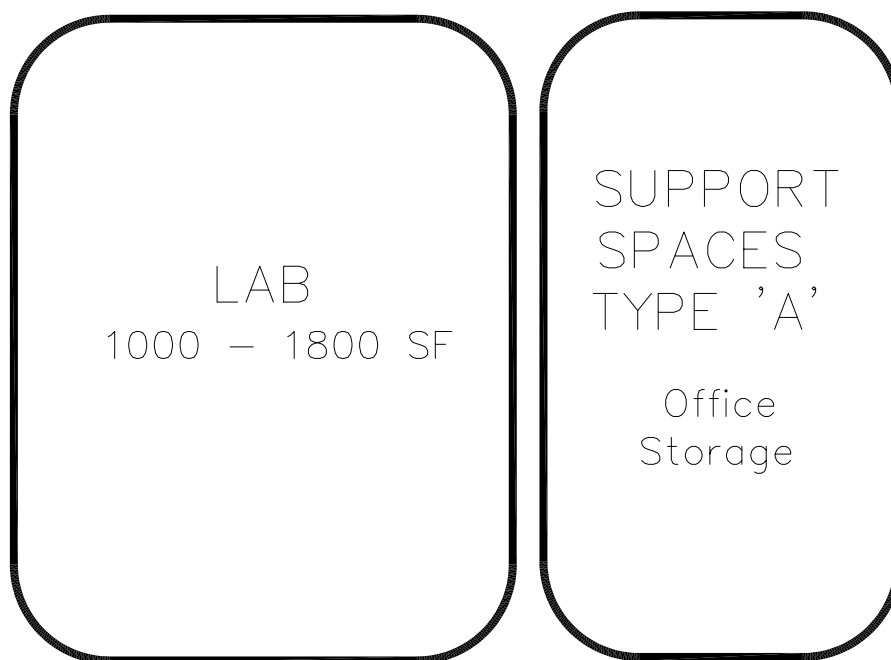
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Program Type 1

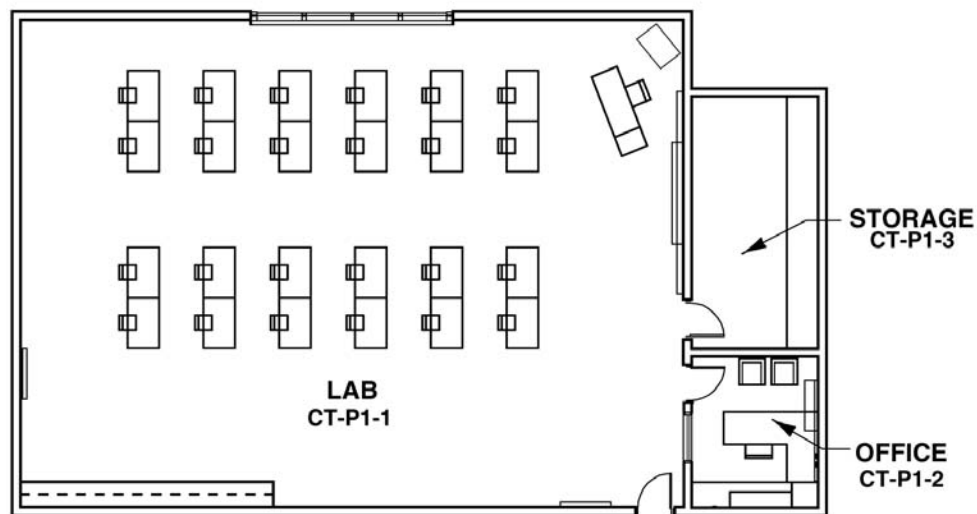
Description: Small to medium sized lab space with typical support space. Lab and support space to have finished floor, painted walls, and suspended acoustical ceiling.

**NOTES:**

This is an example of how the Program Type 1 spaces in a career-technical school could be arranged. This is meant only to demonstrate the relationships between various spaces of this area.

Following are the Program Type 1 space plates:

- CT-P1-1 Lab
- CT-P1-2 Office
- CT-P1-3 Storage

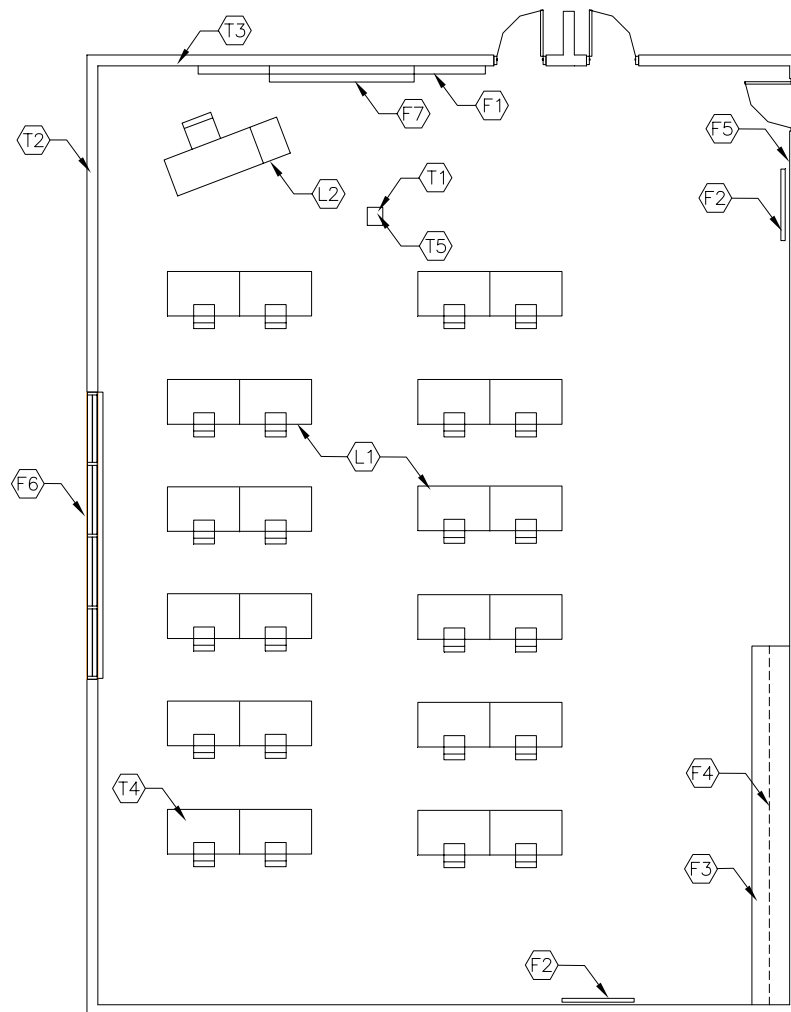


Program Type 1

This is an example to show the possible relationships of spaces for this program type.

NOTES:

1. See lab descriptions within this section for specific lab requirements.
2. See individual space plates at the end of this section for specific requirements for the storage room and office.



CAPACITY:	24 Students
SIZE:	1,000 – 1,800 SF
	(see lab summaries for exact sizes)
ANCILLARY SPACES:	CT-P1-2 and CT-P1-3

NOTES:

1. Loose furnishings shown represent one of many possible arrangements.
2. Graphic plate is an example only. Other labs within this program are not drawn – refer to lab summaries within this program type for information on a particular lab.

PROGRAM ACTIVITIES:

- Large and small group instruction
- Group and individual work
- Demonstrations

SPATIAL RELATIONSHIPS:

- Near other related labs
- Adjacent to typical support spaces
- Proximity to large group restrooms
- Located away from noisy or public activities
- Proximity to core academic area and common use areas
- Flexibility of space

ENVIRONMENTAL CONSIDERATIONS:

- Uniform lighting with 80% visual comfort probability level.
- Optional: Natural light opening equal to 5% minimum of floor area, with an operable vent
- Environmental sound control -
walls minimum STC 50
ceiling minimum CAC 35, NRC **0.70**
- Flexibility of space

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.
2. Loose Furnishings: Refer to Lab Profiles within this section.
3. Loose Furnishings, fixed equipment, utility locations, and general footprint of room shown represent one of many possible arrangements.

PROGRAM DESCRIPTION:		FEATURES¹:		Spec.
		<u>Fixed Items:</u>		<u>Ref.#</u>
Planned learning experiences that include a combination of courses and practical experiences concerned with systematizing information about transactions and activities into accounts and quantitative records, and paying and receiving money.		F1	16' of chalk/marker board	101100
		F2	8' of tack board	101100
		F3	20' of base cabinets	123550
		F4	20' of wall cabinets	123550
		F5	Pencil sharpener support	062000
		F6	Windows with integral blinds	085113
		F7	Projection screen, 6'x8'	115213
Program Type: 1		<u>Fire Suppression:</u>		
Size Requirements: 1,200 SF Lab			Fire suppression system	211000
Lab Requirements:		<u>Plumbing:</u>		
		N/A		
<u>FINISHES:</u>		<u>HVAC:</u>		
Flooring:	Spec.	Supply/return air system		Div. 23
Carpet	Ref #	Independent temperature control		230923
Optional: vinyl composition tile,	096816			
VET, sheet vinyl, or linoleum	096500			
	096516			
Base:		<u>Electrical:</u>		
Resilient	096500	Fluorescent lighting, parabolic lenses:		265100
		Illumination level: See Table 8600-4		
		Multilevel switching		262726
Ceiling:		6 duplex receptacles		262726
Suspended acoustical	095113	Double duplex receptacle adjacent to each data and video port		262726
Walls:		<u>Communications:</u>		
Painted concrete masonry units	042000/099100	T1	1 video port	271533/271543
		T2	1 voice port and phone	271513/273113
		T3	1 data port near teacher workstation	271513
		T4	26 data ports	271513
			Clock	275313
			Central sound system	275123
			Sound reinforcement system	275127
		T5	Overhead projector	274119
		<u>Electronic Safety and Security:</u>		
			Life safety devices per code	283111
		<u>Miscellaneous:</u>		
		N/A		
<u>LOOSE FURNISHINGS:</u>				
L1 (24) Computer workstation furniture & chairs				
L2 (1) Teacher station & chair				
Wastebasket				
Pencil sharpener				

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

**ADMINISTRATIVE/OFFICE TECHNOLOGY
LEGAL OFFICE MANAGEMENT
CT-P1-1**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

<u>PROGRAM DESCRIPTION:</u> <u>A/OT:</u> An instructional program that prepares individuals to provide administrative support services in a variety of business settings. Services could be provided to various levels of management and may or may not be supervised. Instruction emphasis will include office technology, financial functions, records management, and support tasks. <u>LOM:</u> Prepares students to work in the legal environment in occupations such as legal secretary, legal assistant, paralegal, real-time reporter, court reporter, legal office manager, or stenocaptionist.		<u>FEATURES¹:</u> <u>Fixed Items:</u> F1 16' of chalk/marker board 101100 F2 8' of tack board 101100 F3 20' of base cabinets 123550 F4 20' of wall cabinets 123550 F5 Pencil sharpener support 062000 F6 Windows with integral blinds 085113 F7 Projection screen, 6'x8' 115213		Spec. <u>Ref.#</u>
Program Type: 1		<u>Fire Suppression:</u> Fire suppression system 211000		
Size Requirements: 1,200 SF Lab		<u>Plumbing:</u> N/A		
Lab Requirements:		<u>HVAC:</u> Supply/return air system Div. 23 Independent temperature control 230923		
<u>FINISHES:</u>	<u>Spec.</u> <u>Ref #</u>	<u>Electrical:</u> Fluorescent lighting, parabolic lenses:265100 Illumination level: See Table 8600-4 Multilevel switching 262726 6 duplex receptacles 262726 Double duplex receptacle adjacent to each data and video port 262726		
Flooring:		<u>Communications:</u> T1 1 video port 271533/271543 T2 1 voice port and phone 271513/273113 T3 1 data port near teacher workstation271513 T4 26 data ports 271513 Clock 275313 Central sound system 275123 Sound reinforcement system 275127 T5 Overhead projector 274119		
Carpet 096816		<u>Electronic Safety and Security:</u> Life safety devices per code 283111		
Optional: vinyl composition tile, 096500		<u>Miscellaneous:</u> N/A		
VET, sheet vinyl, or linoleum 096516				
Base:				
Resilient 096500				
Ceiling:				
Suspended acoustical 095113				
Walls:				
Painted concrete masonry units 042000/ 099100				
<u>LOOSE FURNISHINGS:</u> L1 (24) Computer workstation furniture & chairs L2 (1) Teacher station & chair Wastebasket Pencil sharpener				

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

PROGRAM DESCRIPTION:

Classroom and practical experiences that include instruction relating to aircraft maintenance, operation, and ground support. Instructor and program must be certified by the Federal Aviation Administration (FAA).

Program Type: 1

Size Requirements: 1,500 SF Lab

Lab Requirements:

FINISHES:

Flooring:	Spec. Ref #
Vinyl composition tile, VET, sheet vinyl, or linoleum	096500 096516

Base:	
Resilient	096500

Ceiling:	
Suspended acoustical	095113

Walls:	
Painted concrete masonry units	042000/ 099100

LOOSE FURNISHINGS:

- (12) 2-person work tables w/epoxy tops
and gas & electric connections
- (24) Student stools/chairs
- (1) Teacher chair or stool
- (4) Computer workstations
- Wastebasket
- Pencil sharpener

Miscellaneous:

N/A

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

FEATURES¹:

<u>Fixed Items:</u>	Spec. Ref.#
16' of chalk/marker board	101100
8' of tack board	101100
Demonstration table/teacher desk	123550
60' of perimeter sink base cabinets with 5 sinks	123550
30' of wall cabinets	123550
Fume hood	115313
(5) Paper towel dispensers	102813
(1) Safety shower/eyewash	224000
Pencil sharpener support	062000
Windows with integral blinds	085113
Projection screen, 6'x8'	115213

Fire Suppression:

Fire suppression system	211000
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Plumbing:

Plumbing connections	221116/221119/224000
Safety shower/eyewash connections	224000
Master shut-off for gas	226313
Gas connections	226313
Compressed air connections	221500

HVAC:

Supply/return air system	Div. 23
Independent temperature control	230923
Manual exhaust	Div. 23
Fume hood exhaust	Div. 23

Electrical:

Fluorescent lighting	265100
Illumination level: See Table 8600-4	
Multilevel switching	262726
6 duplex receptacles	262726
Double duplex receptacle adjacent to each data and video port	262726
Emergency lighting	265100
Means of egress lighting per code	265100

Communications:

1 video port	271533/271543
1 voice port and phone	271513/273113
1 data port near teacher workstation	271513
11 data ports	271513
Clock	275313
Central sound system	275123
Sound reinforcement system	275127
Overhead projector	274119

Electronic Safety and Security:

Life safety devices per code	283111
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BUSINESS MANAGEMENT
CT-P1-1

CHAPTER 6: CAREER-TECHNICAL SCHOOL

<p><u>PROGRAM DESCRIPTION:</u> An instructional program that generally prepares individuals to plan, organize, direct, and control the functions and processes of a firm or organization. Includes instruction in human resources management, strategic planning, managing technology, staffing functions, general office functions, financial functions, telecommunications, and supervisory functions.</p>		<p><u>FEATURES¹:</u> <u>Fixed Items:</u></p>		Spec. Ref.#
<p>Program Type: 1</p>		F1	16' of chalk/marker board	101100
<p>Size Requirements: 1,200 SF Lab</p>		F2	8' of tack board	101100
<p>Lab Requirements:</p>		F3	20' of base cabinets	123550
<p><u>FINISHES:</u></p>		F4	20' of wall cabinets	123550
<p>Flooring:</p>		F5	Pencil sharpener support	062000
<p>Carpet</p>		F6	Windows with integral blinds	085113
<p>Optional: vinyl composition tile, VET, sheet vinyl, or linoleum</p>		F7	Projection screen, 6'x8'	115213
<p>Base:</p>		<u>Fire Suppression:</u>		
<p>Resilient</p>		Fire suppression system		211000
<p>Ceiling:</p>		<u>Plumbing:</u>		
<p>Suspended acoustical</p>		N/A		
<p>Walls:</p>		<u>HVAC:</u>		
<p>Painted concrete masonry units</p>		Supply/return air system		Div. 23
<p><u>LOOSE FURNISHINGS:</u></p>		Independent temperature control		230923
<p>L1 (24) Computer workstation furniture & chairs</p>		<u>Electrical:</u>		
<p>L2 (1) Teacher station & chair</p>		Fluorescent lighting, parabolic lenses:		265100
<p>Wastebasket</p>		Illumination level: See Table 8600-4		
<p>Pencil sharpener</p>		Multilevel switching		262726
		6 duplex receptacles		262726
		Double duplex receptacle adjacent to each data and video port		262726
		<u>Communications:</u>		
		T1	1 video port	271533/271543
		T2	1 voice port and phone	271513/273113
		T3	1 data port near teacher workstation	271513
		T4	26 data ports	271513
			Clock	275313
			Central sound system	275123
			Sound reinforcement system	275127
		T5	Overhead projector	274119
		<u>Electronic Safety and Security:</u>		
		Life safety devices per code		283111
		<u>Miscellaneous:</u>		
		N/A		

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

DIVERSIFIED COOPERATIVE HEALTH OCCUPATIONS

CHAPTER 6: CAREER-TECHNICAL SCHOOL

CT-P1-1

<u>PROGRAM DESCRIPTION:</u> A cooperative program in multi-occupational areas of health occupations.		<u>FEATURES¹:</u> <u>Fixed Items:</u>		Spec. <u>Ref.#</u>
Program Type: 1		16' of chalk/marker board		101100
Size Requirements: 1,500 SF Lab		8' of tack board		101100
Lab Requirements:		20' of sink base cabinets w/1 sink		123550
		20' of wall cabinets		123550
		Pencil sharpener support		062000
		Windows with integral blinds		085113
		Projection screen, 6'x8'		115213
		Paper towel dispenser		102813
		<u>Fire Suppression:</u>		
		Fire suppression system		211000
<u>FINISHES:</u>	Spec. <u>Ref #</u>	<u>Plumbing:</u>		
Flooring:		Plumbing connections		221116/221119/224000
Vinyl composition tile, VET,	096500	<u>HVAC:</u>		
sheet vinyl, or linoleum	096516	Supply/return air system		Div. 23
Optional: carpet	096816	Independent temperature control		230923
Base:		<u>Electrical:</u>		
Resilient	096500	Fluorescent lighting		265100
Ceiling:		Illumination level: See Table 8600-4		
Suspended acoustical	095113	Multilevel switching		262726
Walls:		6 duplex receptacles		262726
Painted concrete masonry units	042000/ 099100	Double duplex receptacle adjacent to each data and video port		262726
<u>LOOSE FURNISHINGS:</u>		<u>Communications:</u>		
(12) Two-person work tables		1 video port		271533/271543
(24) Computer workstation furniture & chairs		1 voice port and phone		271513/273113
(1) Teacher station & chair		1 data port near teacher workstation		271513
Wastebasket		8 data ports		271513
Pencil sharpener		Clock		275313
		Central sound system		275123
		Sound reinforcement system		275127
		Overhead projector		274119
		<u>Electronic Safety and Security:</u>		
		Life safety devices per code		283111
		<u>Miscellaneous:</u>		
		N/A		

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

**DRAFTING OCCUPATIONS • COMPUTER INTEGRATED MANUFACTURING
CIVIL ENGINEERING & ARCHITECTURE • FUEL CELL TECHNOLOGIES
CT-P1-1**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

PROGRAM DESCRIPTION:

DO: Specialized learning experiences that include theory, laboratory and shop work, as each relates to the gathering and translation of data or specifications; and the planning, preparation and interpretation of mechanical, and/or architectural drawings and sketches.

CIM: Utilizes business and industry technical standards and a math, science, and technology framework to introduce concepts of pre-engineering related to robotic manufacturing in the Project Lead The Way (PLTW) model and leads to a post secondary education.

CE&A: Utilizes business and industry technical standards and a math, science, and technology framework to introduce concepts of pre-engineering related to civil engineering & architecture in the Project Lead The Way (PLTW) model and leads to a postsecondary education.

FCT: Utilizes business and industry technical standards and a math, science, and technology framework to introduce concepts of pre-engineering related to fuel cell types, materials, function, and design in the Project Lead The Way (PLTW) model and leads to a postsecondary education.

Program Type: 1
Size Requirements: 1,500 SF Lab
Lab Requirements:

FINISHES:

	Spec. Ref #
Flooring:	
Carpet	096816
Optional: vinyl composition tile, VET, sheet vinyl, or linoleum	096500 096516
Base:	
Resilient	096500
Ceiling:	
Suspended acoustical	095113
Walls:	
Painted concrete masonry units	042000/ 099100

LOOSE FURNISHINGS:

L1 (24) Computer workstation/drawing board furniture & chairs	
L2 (1) Teacher station & chair Wastebasket Pencil sharpener	

FEATURES¹:

<u>Fixed Items:</u>	Spec. Ref.#
F1 16' of chalk/marker board	101100
F2 8' of tack board	101100
F3 20' of base cabinets	123550
F4 20' of wall cabinets	123550
F5 Pencil sharpener support	062000
F6 Windows with integral blinds	085113
F7 Projection screen, 6'x8'	115213

Fire Suppression:

Fire suppression system	211000
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Plumbing:

N/A

HVAC:

Supply/return air system	Div. 23
Independent temperature control	230923

Electrical:

Fluorescent lighting, parabolic lenses:	265100
Illumination level: See Table 8600-4	
Multilevel switching	262726
6 duplex receptacles	262726
Double duplex receptacle adjacent to each data and video port	262726

Communications:

T1 1 video port	271533/271543
T2 1 voice port and phone	271513/273113
T3 1 data port near teacher workstation	271513
T4 26 data ports	271513
Clock	275313
Central sound system	275123
Sound reinforcement system	275127
T5 Overhead projector	274119

Electronic Safety and Security:

Life safety devices per code	283111
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Miscellaneous:

N/A

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

**ELECTRONICS
AUTOMATION & ROBOTICS
CT-P1-1**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

PROGRAM DESCRIPTION:		FEATURES¹:	Spec.
<u>Electronics:</u> Classroom, laboratory, and practical learning experiences that includes both theory and practice. Students learn construction, maintenance, and repair of digital, analog, and microprocessor circuits in applications such as communications equipment, consumer equipment, and industrial equipment.		<u>Fixed Items:</u>	<u>Ref.#</u>
		16' of chalk/marker board	101100
		8' of tack board	101100
		30' of base cabinets	123550
		30' of wall cabinets	123550
		12' of tall storage cabinets	123550
		Pencil sharpener support	062000
		Windows with integral blinds	085113
		Projection screen, 6'x8'	115213
		<u>Fire Suppression:</u>	
		Fire suppression system	211000
		<u>Plumbing:</u>	
		N/A	
		<u>HVAC:</u>	
		Supply/return air system	Div. 23
		Independent temperature control	230923
		<u>Electrical:</u>	
		Fluorescent lighting, parabolic lenses:	265100
		Illumination level: See Table 8600-4	
		Multilevel switching	262726
		6 duplex receptacles	262726
		Double duplex receptacle adjacent to each data and video port	262726
		<u>Communications:</u>	
		1 video port	271533/271543
		1 voice port and phone	271513/273113
		1 data port near teacher workstation	271513
		26 data ports	271513
		Clock	275313
		Central sound system	275123
		Sound reinforcement system	275127
		Overhead projector	274119
		<u>Electronic Safety and Security:</u>	
		Life safety devices per code	283111
		<u>Miscellaneous:</u>	
		N/A	
Program Type:	1		
Size Requirements:	1,800 SF Lab		
Lab Requirements:			
<u>FINISHES:</u>		Spec.	<u>Ref #</u>
Flooring:			
Carpet		096816	
Optional: vinyl composition tile, VET, sheet vinyl, or linoleum		096500	
		096516	
Base:			
Resilient		096500	
Ceiling:			
Suspended acoustical		095113	
Walls:			
Painted concrete masonry units	042000/		
	099100		
<u>LOOSE FURNISHINGS:</u>			
(12) Two-person work tables w/storage below			
(24) Computer workstation furniture & chairs			
(1) Teacher station & chair			
Wastebasket			
Pencil sharpener			

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

**ENTERTAINMENT MARKETING
CT-P1-1**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

<p><u>PROGRAM DESCRIPTION:</u> An instructional program with organized subject matter and learning experiences designed to prepare individuals to perform marketing tasks in the areas of radio broadcasting, television broadcasting, performing arts, and related media.</p> <p>Program Type: 1</p> <p>Size Requirements: 1,000 SF Lab</p> <p>Lab Requirements:</p> <p><u>FINISHES:</u></p> <p>Flooring:</p> <p>Carpet 096816</p> <p>Optional: vinyl composition tile, 096500</p> <p>VET, sheet vinyl, or linoleum 096516</p> <p>Base:</p> <p>Resilient 096500</p> <p>Ceiling:</p> <p>Suspended acoustical 095113</p> <p>Walls:</p> <p>Painted concrete masonry units 042000/ 099100</p> <p><u>LOOSE FURNISHINGS:</u></p> <p>L1 (24) Computer workstation furniture & chairs</p> <p>L2 (1) Teacher station & chair</p> <p>Wastebasket</p> <p>Pencil sharpener</p>		<p><u>FEATURES¹:</u></p> <p><u>Fixed Items:</u></p> <p>F1 16' of chalk/marker board 101100</p> <p>F2 8' of tack board 101100</p> <p>F3 20' of base cabinets 123550</p> <p>F4 20' of wall cabinets 123550</p> <p>F5 Pencil sharpener support 062000</p> <p>F6 Windows with integral blinds 085113</p> <p>F7 Projection screen, 6'x8' 115213</p> <p><u>Fire Suppression:</u></p> <p>Fire suppression system 211000</p> <p><u>Plumbing:</u></p> <p>N/A</p> <p><u>HVAC:</u></p> <p>Supply/return air system Div. 23</p> <p>Independent temperature control 230923</p> <p><u>Electrical:</u></p> <p>Fluorescent lighting, parabolic lenses:265100</p> <p>Illumination level: See Table 8600-4</p> <p>Multilevel switching 262726</p> <p>6 duplex receptacles 262726</p> <p>Double duplex receptacle adjacent to each data and video port 262726</p> <p><u>Communications:</u></p> <p>T1 1 video port 271533/271543</p> <p>T2 1 voice port and phone 271513/273113</p> <p>T3 1 data port near teacher workstation271513</p> <p>T4 26 data ports 271513</p> <p>Clock 275313</p> <p>Central sound system 275123</p> <p>Sound reinforcement system 275127</p> <p>T5 Overhead projector 274119</p> <p><u>Electronic Safety and Security:</u></p> <p>Life safety devices per code 283111</p> <p><u>Miscellaneous:</u></p> <p>N/A</p>		Spec. Ref.#
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NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

PROGRAM DESCRIPTION:		FEATURES¹:		Spec.
		Fixed Items:		Ref.#
Planned learning experiences that include a combination of courses and practical experiences concerned with systematizing information about transactions and activities into accounts and quantitative records, and paying and receiving money.		F1	16' of chalk/marker board	101100
		F2	8' of tack board	101100
		F3	20' of base cabinets	123550
		F4	20' of wall cabinets	123550
		F5	Pencil sharpener support	062000
		F6	Windows with integral blinds	085113
		F7	Projection screen, 6'x8'	115213
Program Type: 1		Fire Suppression:		
Size Requirements: 1,200 SF Lab			Fire suppression system	211000
Lab Requirements:		Plumbing:		
		N/A		
FINISHES:		HVAC:		
Flooring:	Spec.	Supply/return air system		Div. 23
Carpet	Ref #	Independent temperature control		230923
Optional: vinyl composition tile,	096816			
VET, sheet vinyl, or linoleum	096500			
	096516			
Base:		Electrical:		
Resilient	096500	Fluorescent lighting, parabolic lenses:		265100
		Illumination level: See Table 8600-4		
Ceiling:		Multilevel switching		262726
Suspended acoustical	095113	6 duplex receptacles		262726
		Double duplex receptacle adjacent to each data and video port		262726
Walls:		Communications:		
Painted concrete masonry units	042000/099100	T1	1 video port	271533/271543
		T2	1 voice port and phone	271513/273113
		T3	1 data port near teacher workstation	271513
		T4	26 data ports	271513
			Clock	275313
			Central sound system	275123
			Sound reinforcement system	275127
		T5	Overhead projector	274119
		Electronic Safety and Security:		
			Life safety devices per code	283111
		Miscellaneous:		
		N/A		

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

**HOSPITALITY AND TOURISM
CT-P1-1**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

<u>PROGRAM DESCRIPTION:</u> Organized subject matter and learning experiences that prepare individuals to perform marketing functions in any business enterprise primarily engaged in travel services, lodging, leisure activities, food services, attraction and entertainment events, convention services, and transportation.		<u>FEATURES¹:</u> <u>Fixed Items:</u> F1 16' of chalk/marker board 101100 F2 8' of tack board 101100 F3 20' of base cabinets 123550 F4 20' of wall cabinets 123550 F5 Pencil sharpener support 062000 F6 Windows with integral blinds 085113 F7 Projection screen, 6'x8' 115213		Spec. Ref.#
Program Type:	1	<u>Fire Suppression:</u> Fire suppression system 211000		
Size Requirements:	1,200 SF Lab	<u>Plumbing:</u> N/A		
Lab Requirements:		<u>HVAC:</u> Supply/return air system Div. 23 Independent temperature control 230923		
<u>FINISHES:</u>		<u>Electrical:</u> Fluorescent lighting, parabolic lenses:265100 Illumination level: See Table 8600-4 Multilevel switching 262726 6 duplex receptacles 262726 Double duplex receptacle adjacent to each data and video port 262726		
Flooring:		<u>Communications:</u> T1 1 video port 271533/271543 T2 1 voice port and phone 271513/273113 T3 1 data port near teacher workstation271513 T4 26 data ports 271513 Clock 275313 Central sound system 275123 Sound reinforcement system 275127 T5 Overhead projector 274119		
Carpet	096816	<u>Electronic Safety and Security:</u> Life safety devices per code 283111		
Optional: vinyl composition tile, VET, sheet vinyl, or linoleum	096500 096516	<u>Miscellaneous:</u> N/A		
Base:				
Resilient	096500			
Ceiling:				
Suspended acoustical	095113			
Walls:				
Painted concrete masonry units	042000/ 099100			
<u>LOOSE FURNISHINGS:</u>				
L1 (24) Computer workstation furniture & chairs				
L2 (1) Teacher station & chair				
Wastebasket				
Pencil sharpener				

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

**NETWORK SYSTEMS
INFORMATION SUPPORT & SERVICES
PROGRAMMING and SOFTWARE DEVELOPMENT
INTERACTIVE MEDIA**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

CT-P1-1

<u>PROGRAM DESCRIPTION:</u>		Spec.
<u>NS:</u> An instructional program that provides training for careers in communication network system planning, administration, and management. Skills for programs/pathways in this are taken from the itWORKS.OHIO Career Field Technical Content Standards.		<u>Ref.#</u>
<u>IS&S:</u> An instructional program that provides training for careers in dealing in information technology deployment and information systems management.		
<u>P&SD:</u> An instructional program that provides training for careers dealing with hardware and software programming, to design, development, and implementation computer systems and software.		
<u>IM:</u> An instructional program that provides training in the area of interactive multi-media development that includes creating, designing, and producing interactive multimedia products and services and digitally-generated or computer-enhanced media.		
Program Type:	1	
Size Requirements:	1,200 SF Lab	
Lab Requirements:		
<u>FINISHES:</u>	<u>Spec.</u>	
<u>Flooring:</u>	<u>Ref #</u>	
Carpet	096816	
Optional: vinyl composition tile, VET, sheet vinyl, or linoleum	096500 096516	
Base:		
Resilient	096500	
Ceiling:		
Suspended acoustical	095113	
Walls:		
Painted concrete masonry units	042000/ 099100	
<u>LOOSE FURNISHINGS:</u>		
L1 (24) Computer workstation furniture & chairs		
L2 (1) Teacher station & chair		
Wastebasket		
Pencil sharpener		
<u>FEATURES¹:</u>		
<u>Fixed Items:</u>		
F1 16' of chalk/marker board		101100
F2 8' of tack board		101100
F3 20' of base cabinets		123550
F4 20' of wall cabinets		123550
F5 Pencil sharpener support		062000
F6 Windows with integral blinds		085113
F7 Projection screen, 6'x8'		115213
<u>Fire Suppression:</u>		
Fire suppression system		211000
<u>Plumbing:</u>		
N/A		
<u>HVAC:</u>		
Supply/return air system		Div. 23
Independent temperature control		230923
<u>Electrical:</u>		
Fluorescent lighting, parabolic lenses:		265100
Illumination level: See Table 8600-4		
Multilevel switching		262726
6 duplex receptacles		262726
Double duplex receptacle adjacent to each data and video port		262726
<u>Communications:</u>		
T1 1 video port		271533/271543
T2 1 voice port and phone		271513/273113
T3 1 data port near teacher workstation		271513
T4 26 data ports		271513
Clock		275313
Central sound system		275123
Sound reinforcement system		275127
T5 Overhead projector		274119
<u>Electronic Safety and Security:</u>		
Life safety devices per code		283111
<u>Miscellaneous:</u>		
N/A		

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

**MEDICAL OFFICE MANAGEMENT
CT-P1-1**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

<u>PROGRAM DESCRIPTION:</u> Prepares students for employment in office in a variety of medical and healthcare management settings. Sample occupations include medical billing specialist, medical office manager, benefits coordinator, admissions specialist, medical records technical, claims processor, and medical coding specialist.		<u>FEATURES¹:</u> <u>Fixed Items:</u>		Spec. Ref.#
		16' of chalk/marker board	101100	
		8' of tack board	101100	
		20' of sink base cabinets w/1 sink	123550	
		20' of wall cabinets	123550	
		Pencil sharpener support	062000	
		Windows with integral blinds	085113	
		Projection screen, 6'x8'	115213	
		Paper towel dispenser	102813	
Program Type: 1		<u>Fire Suppression:</u>		
Size Requirements: 1,200 SF Lab		Fire suppression system	211000	
Lab Requirements:		<u>Plumbing:</u>		
		Plumbing connections	221116/221119/224000	
<u>FINISHES:</u>		<u>HVAC:</u>		
Flooring:	Spec. Ref #	Supply/return air system	Div. 23	
Vinyl composition tile, VET,	096500	Independent temperature control	230923	
sheet vinyl, or linoleum	096516			
Optional: carpet	096816			
Base:		<u>Electrical:</u>		
Resilient	096500	Fluorescent lighting:	265100	
Ceiling:		Illumination level: See Table 8600-4		
Suspended acoustical	095113	Multilevel switching	262726	
Walls:		6 duplex receptacles	262726	
Painted concrete masonry units	042000/ 099100	Double duplex receptacle adjacent to each data and video port	262726	
<u>LOOSE FURNISHINGS:</u>		<u>Communications:</u>		
(12) Two-person work stables		1 video port	271533/271543	
(24) Student chairs/stools		1 voice port and phone	271513/273113	
(1) Teacher station & chair		1 data port near teacher workstation	271513	
Wastebasket		8 data ports	271513	
Pencil sharpener		Clock	275313	
		Central sound system	275123	
		Sound reinforcement system	275127	
		Overhead projector	274119	
		<u>Electronic Safety and Security:</u>		
		Life safety devices per code	283111	
		<u>Miscellaneous:</u>		
		N/A		

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

TELECOMMUNICATIONS

CT-P1-1

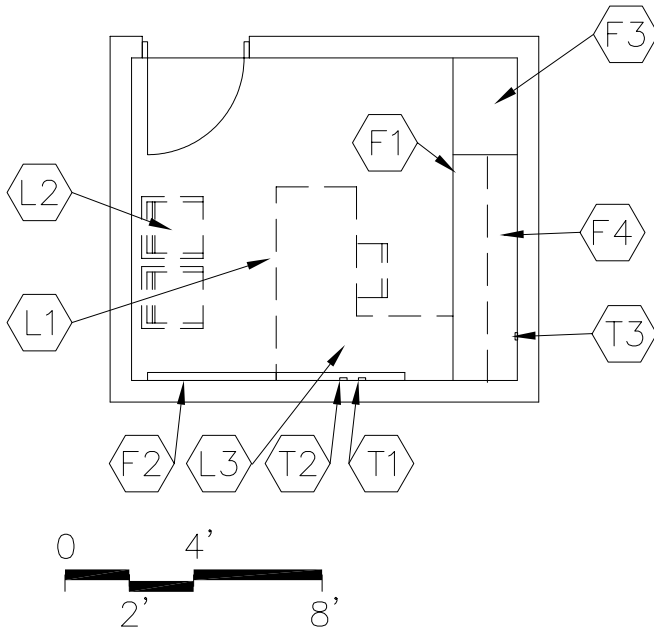
CHAPTER 6: CAREER-TECHNICAL SCHOOL

<u>PROGRAM DESCRIPTION:</u> Specialized classroom and practical experiences concerned with the assembly, installation, operation, maintenance, and repair of telephone equipment, which includes pole climbing, cable construction, cable splicing, cable pulling, job planning, equipment wiring, trouble-shooting procedures of PBX systems, and field repair of telephones.		<u>FEATURES¹:</u> <u>Fixed Items:</u> F1 16' of chalk/marker board 101100 F2 8' of tack board 101100 F3 20' of base cabinets 123550 F4 20' of wall cabinets 123550 F5 Pencil sharpener support 062000 F6 Windows with integral blinds 085113 F7 Projection screen, 6'x8' 115213		Spec. Ref.#
Program Type: 1		<u>Fire Suppression:</u> Fire suppression system 211000		
Size Requirements: 1,200 SF Lab		<u>Plumbing:</u> N/A		
Lab Requirements:		<u>HVAC:</u> Supply/return air system Div. 23 Independent temperature control 230923		
<u>FINISHES:</u> Flooring: Carpet 096816 Optional: vinyl composition tile, 096500 VET, sheet vinyl, or linoleum 096516		<u>Electrical:</u> Fluorescent lighting, parabolic lenses:265100 Illumination level: See Table 8600-4 Multilevel switching 262726 6 duplex receptacles 262726 Double duplex receptacle adjacent to each data and video port 262726		
Base: Resilient 096500		<u>Communications:</u> T1 1 video port 271533/271543 T2 1 voice port and phone 271513/273113 T3 1 data port near teacher workstation271513 T4 26 data ports 271513 Clock 275313 Central sound system 275123 Sound reinforcement system 275127 T5 Overhead projector 274119		
Ceiling: Suspended acoustical 095113		<u>Electronic Safety and Security:</u> Life safety devices per code 283111		
Walls: Painted concrete masonry units 042000/ 099100		<u>Miscellaneous:</u> N/A		
<u>LOOSE FURNISHINGS:</u> L1 (24) Computer workstation furniture & chairs L2 (1) Teacher station & chair Wastebasket Pencil sharpener				

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

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CAPACITY:
SIZE:

1 - 3 persons
120 SF

PROGRAM ACTIVITIES:

- Private space for program instructor
- One-on-one conferences with academic instructors, students, etc.

SPATIAL RELATIONSHIPS:

- Near related lab
- Direct access to school circulation areas

ENVIRONMENTAL CONSIDERATIONS:

- Uniform lighting
- Environmental sound control -
wall minimum STC **45**
ceiling minimum CAC 35, NRC **0.70**

NOTES:

1. Loose furnishings shown represent one of many possible arrangements.

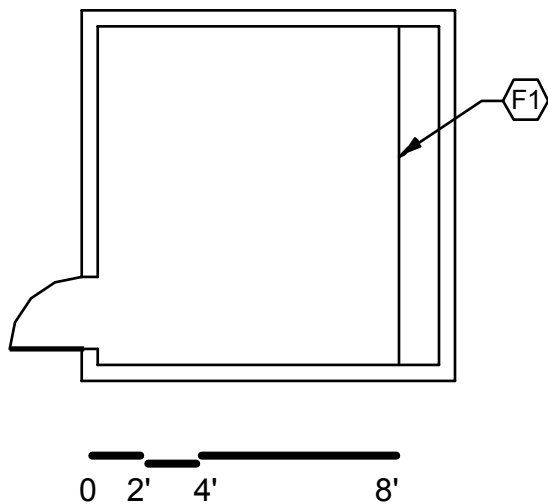
**OFFICE
CT-P1-2**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

<u>FINISHES¹:</u>	Spec. Ref.#	<u>FEATURES¹:</u>	Spec. Ref.#
Flooring:		<u>Fixed Items:</u>	
Carpet <i>or carpet tile</i>	096816 096813	F1 Work surface with file drawers	123550
		F2 4' of tack board or tackable wall surface	101100
Base:		F3 2' of tall wardrobe	123550
Resilient base	096500	F4 Wall cabinets above work surface	123550
Ceiling:		<u>Fire Suppression:</u>	
Suspended, acoustical	095113	Fire suppression system	211000
Walls:		<u>Plumbing:</u>	
Painted gypsum wallboard over metal studs	092116/099100	N/A	
<u>LOOSE FURNISHINGS:</u>		<u>HVAC:</u>	
L1 Desk and chair		Supply/return air system	Div. 23
L2 Visitor chairs		Independent temperature control	230923
L3 Computer desk return		<u>Electrical:</u>	
Wastebasket		Single level switching	262726
		Fluorescent lighting	265100
		Illumination level: See Table 8600-4	
		4 duplex receptacles	262726
		Double duplex receptacle adjacent to data and video port	262726
		<u>Communications:</u>	
		T1 1 voice port and phone	271513/273113
		T2 1 data port near workstation	271513
		T3 1 video port	271533/271543
		Central sound system	275123
		Clock	275313
		<u>Electronic Safety and Security:</u>	
		Life safety devices per code	283111
		<u>Miscellaneous:</u>	
		N/A	

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references. Optional: moveable cabinets
2. Fixed casework and loose furnishings can also be all fixed casework or all loose furnishings.



PROGRAM ACTIVITIES:

- Space for storage of lab equipment

SPATIAL RELATIONSHIPS:

- Near related lab

ENVIRONMENTAL CONSIDERATIONS:

N/A

CAPACITY:
SIZE:N/A
200 SFNOTES:

STORAGE AREA
CT-P1-3

CHAPTER 6: CAREER-TECHNICAL SCHOOL

<u>FINISHES¹:</u>	Spec. Ref.#	<u>FEATURES¹:</u>	Spec. Ref.#
Flooring:		<u>Fixed Items¹:</u>	
Sealed concrete	033000	F1 8'-20' of open shelving	
		Depth may vary (fixed or loose)	123550
Base:		<u>Fire Suppression:</u>	
Resilient base	096500	Fire suppression system	211000
Ceiling:		<u>Plumbing:</u>	
Exposed structure	---	N/A	
Walls:		<u>HVAC:</u>	
Painted concrete masonry units	042000/099100	To be determined by Design Professional	
		Supplemental heat as required	Div. 23
<u>LOOSE FURNISHINGS:</u>		<u>Electrical:</u>	
N/A		Single level switching	262726
		Fluorescent lighting	265100
		Illumination level: See Table 8600-4	
		Duplex receptacles	262726
		<u>Communications:</u>	
		N/A	
		<u>Electronic Safety and Security:</u>	
		Life safety devices per code	283111
		<u>Miscellaneous:</u>	
		N/A	

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

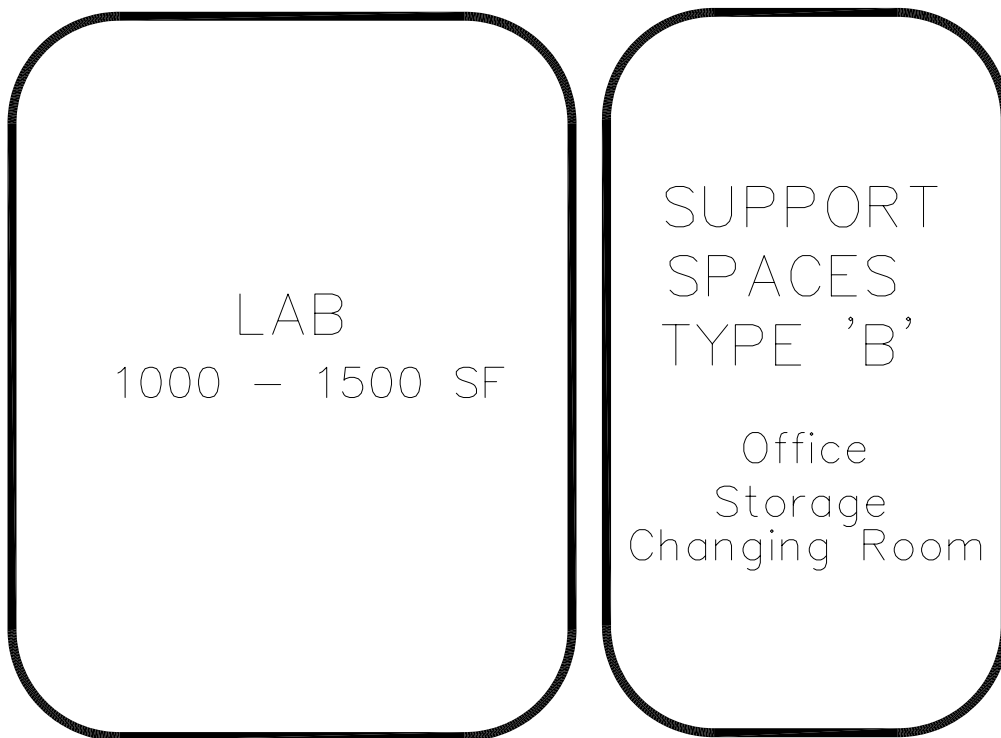
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Program Type 2

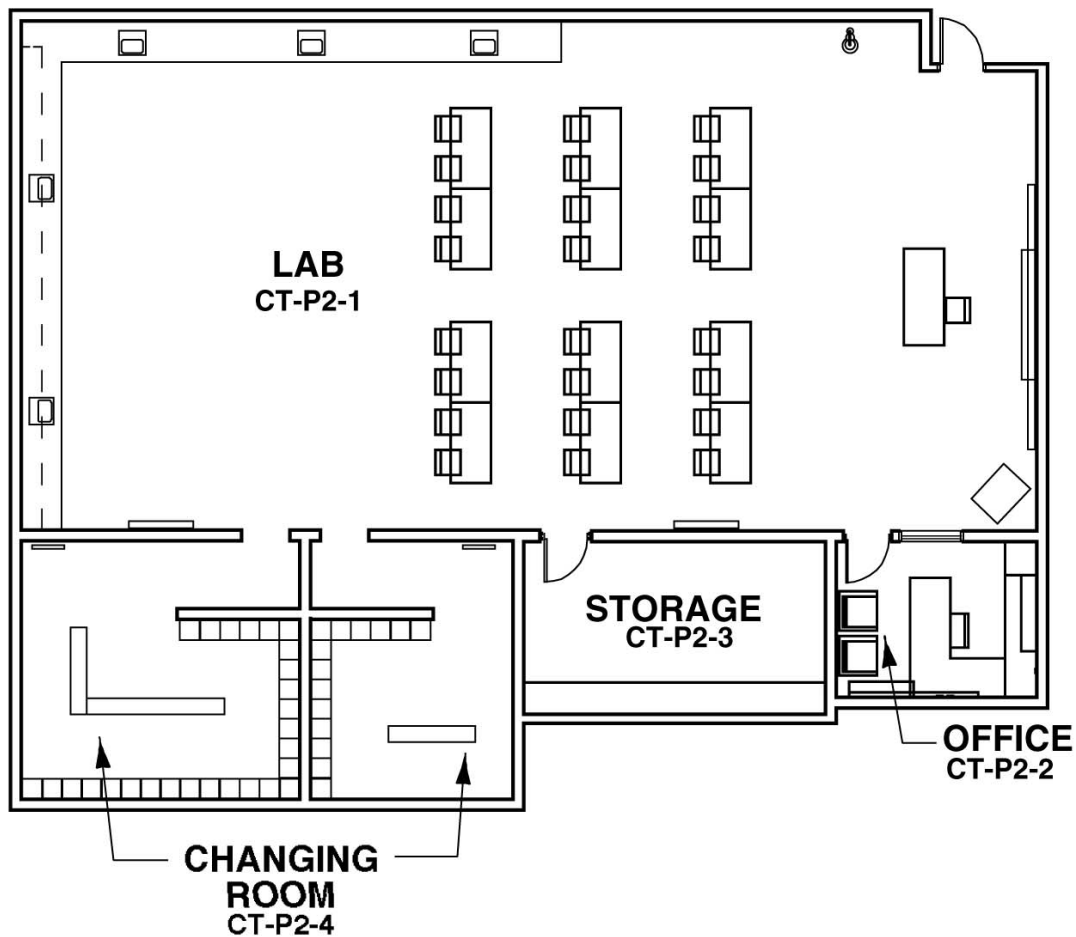
Description: Small to medium sized lab space with typical support space. This program is to utilize standard construction and be one-story (16' +/- tall). Lab and support space to have finished floor, painted walls, and suspended acoustical ceiling.

**NOTES:**

This is an example of how the Program Type 2 spaces in a career-technical school could be arranged. This is meant only to demonstrate the relationships between various spaces of this area.

Following are the Program Type 2 space plates:

- CT-P2-1 Lab
- CT-P2-2 Office
- CT-P2-3 Storage
- CT-P2-4 Changing Room

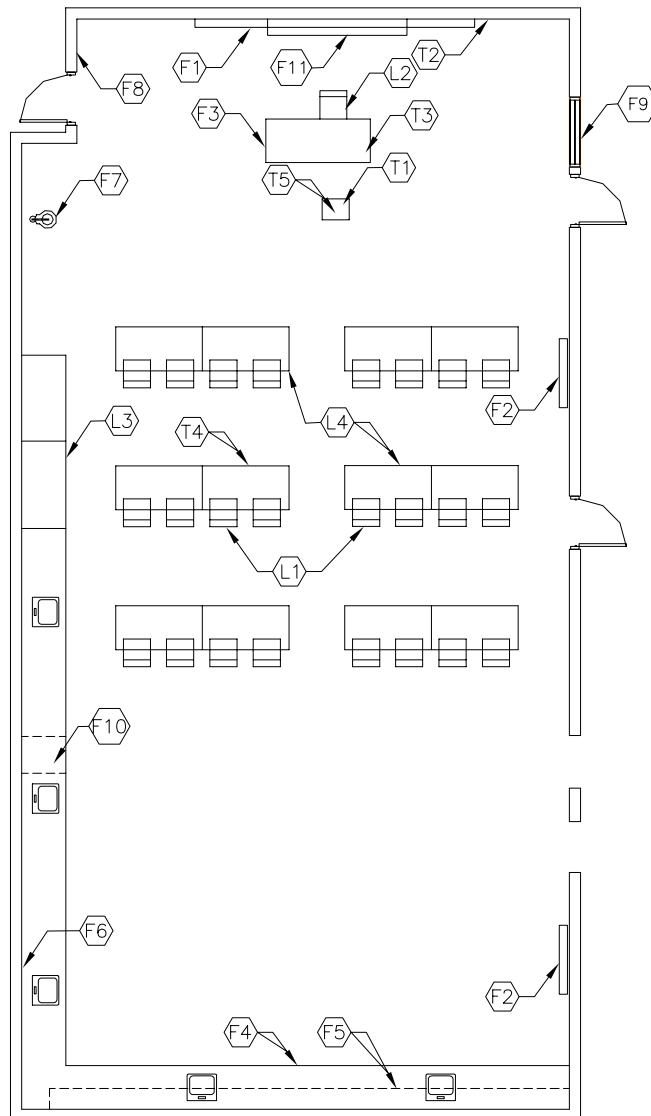


Program Type 2

This is an example to show the possible relationships of spaces for this program type.

NOTES:

1. See lab descriptions within this section for specific lab requirements.
2. See individual space plates at the end of this section for specific requirements for the office, storage room, and changing room.



CAPACITY: 24 Students
 SIZE: 1,500 SF
 (see lab summaries for exact sizes)
 ANCILLARY SPACES: CT-P2-2 thru CT-P2-4

NOTES:

1. Loose furnishings shown represent one of many possible arrangements.
2. Graphic plate is an example only. Other labs within this program are not drawn – refer to lab summaries within this program type for information on a particular lab.

PROGRAM ACTIVITIES:

- Large and small group instruction
- Group and individual work
- Demonstrations

SPATIAL RELATIONSHIPS:

- Near other related labs
- Adjacent to typical support spaces
- Proximity to large group restrooms
- Located away from noisy or public activities
- Proximity to core academic area and common use areas
- Flexibility of space

ENVIRONMENTAL CONSIDERATIONS:

- Uniform lighting with 80% visual comfort probability level.
- Optional: Natural light opening equal to 5% minimum of floor area, with an operable vent
- Environmental sound control -
walls minimum STC 50
ceiling minimum CAC 35, NRC **0.70**
- Flexibility of space

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.
2. Loose Furnishings: Refer to Lab Profiles within this section.
3. Loose Furnishings, fixed equipment, utility locations, and general footprint of room shown represent one of many possible arrangements.

**PHARMACY ASSISTING
BIOTECHNOLOGY
CT-P2-1**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

PROGRAM DESCRIPTION:		FEATURES¹:	Spec. Ref.#
<u>Pharmacy Technician:</u> A combination of subject matter and experiences designed to prepare students to work in a pharmacy under the supervision of a pharmacist. Instruction includes pharmacy law and ethics, pharmaceutical calculations, pharmacy operations, compounding, and pharmacology.		<u>Fixed Items:</u>	
		16' of chalk/marker board	101100
		8' of tack board	101100
		20' of sink base cabinets w/2 sinks	123550
		20' of wall cabinets	123550
		8' of counter (retail area)	123550
		8' of counter (nurse's station)	123550
		Biohazard hood	123550
		Pencil sharpener support	062000
		Windows with integral blinds	085113
		Projection screen, 6'x8'	115213
		(2) Paper towel dispensers	102813
		<u>Fire Suppression:</u>	
		Fire suppression system	211000
		<u>Plumbing:</u>	
		Plumbing connections	221116/221119/224000
		<u>HVAC:</u>	
		Supply/return air system	Div. 23
		Independent temperature control	230923
		Biohazard hood exhaust	Div. 23
		<u>Electrical:</u>	
		Fluorescent lighting	265100
		Illumination level: See Table 8600-4	
		Multilevel switching	262726
		6 duplex receptacles (minimum)	262726
		Double duplex receptacle adjacent to each data and video port	262726
		<u>Communications:</u>	
		1 video port	271533/271543
		1 voice port and phone	271513/273113
		1 data port near teacher workstation	271513
		8 data ports	271513
		Clock	275313
		Central sound system	275123
		Sound reinforcement system	275127
		Overhead projector	274119
		<u>Electronic Safety and Security:</u>	
		Life safety devices per code	283111
		<u>Miscellaneous:</u>	
		N/A	
PROGRAM DESCRIPTION:			
<u>Biotechnology:</u> A tech prep program that combines classroom and laboratory experiences in the bioprocesses of organisms, cells, or their components to create products or solve problems. Program concentrates on biomedical, environmental, pharmaceutical, bioinformatics, and bioethics.			
Program Type:	2		
Size Requirements:	1,500 SF Lab		
Lab Requirements:			
<u>FINISHES:</u>	Spec. Ref #		
Flooring:			
Vinyl composition tile, VET,	096500		
rubber, sheet vinyl, or linoleum	096516		
Optional: carpet	096816		
Base:			
Resilient	096500		
Ceiling:			
Suspended acoustical	095113		
Walls:			
Painted concrete masonry units	042000/ 099100		
<u>LOOSE FURNISHINGS:</u>			
(12) Two-person work tables w/epoxy tops			
(24) Students chairs/stools			
(1) Teacher station & chair			
(4) Computer workstations			
Wastebasket			
Pencil sharpener			

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

**MEDICAL LABORATORY TECHNOLOGY ▪ CHEMICAL LABORATORY ASSISTING
INDUSTRIAL LABORATORY ASSISTING ▪ CRIMINAL SCIENCE TECHNOLOGY**

CT-P2-1

CHAPTER 6: CAREER-TECHNICAL SCHOOL

PROGRAM DESCRIPTION:

MLT, CLA, ILA: A combination of subject matter and experiences designed to prepare to work under the supervision of medical technologist, clinical pathologist, or physician to perform routine clinical laboratory procedures and specimen collection techniques including phlebotomy.

CST: Utilizing business and industry standards as framework for application of clinical and criminal laboratory science, evidentiary testing and analysis, study of society's formal control system, investigative techniques, criminal law, criminal process, administration of Justice System computer applications, record-keeping, and reconstruction techniques.

Program Type: 2
Size Requirements: 1,500 SF Lab
Lab Requirements:

FINISHES:

Flooring:
Vinyl composition tile, VET, 096500
rubber, linoleum, or sheet vinyl 096516

Base:
Resilient 096500

Ceiling:
Suspended acoustical 095113

Walls:
Painted concrete masonry units **042000/**
099100

LOOSE FURNISHINGS:

L1 (24) Student stools/chairs
L2 (1) Teacher chair or stool
L3 (4) Computer workstations
L4 (12) 2-person work tables with epoxy tops
with gas and electric
Wastebasket
Pencil sharpener

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

FEATURES¹:

		Spec. Ref.#
<u>Fixed Items:</u>		
F1	16' of chalk/marker board	101100
F2	8' of tack board	101100
F3	Demonstration table/teacher desk	123550
F4	60' of perimeter sink base cabinets with 5 sinks	123550
F5	30' of wall cabinets	123550
F6	(5) Paper towel dispensers	102813
F7	Safety shower/eyewash	224500
F8	Pencil sharpener support	062000
F9	Windows with integral blinds	085113
F10	Undercounter refrigerator	113100
F11	Projection screen, 6'x8'	115213

Fire Suppression:

Fire suppression system 211000

Plumbing:

Plumbing connections 221116/221119/224000
Safety shower/eyewash connections 224000
Master shut-off for gas 226313
Gas connections 226313

HVAC:

Supply/return air system Div. 23
Independent temperature control 230923
Manual exhaust Div. 23

Electrical:

Fluorescent lighting, parabolic lenses: 265100
Illumination level: See Table 8600-4
Multilevel switching 262726
6 duplex receptacles (minimum) 262726
Double duplex receptacle adjacent to each data and video port 262726
Means of egress lighting per code 265100

Communications:

T1	1 video port	271533/271543
T2	1 voice port and phone	271513/273113
T3	1 data port at demonstration table	271513
T4	11 data ports for student use	271513
	Clock	275313
	Central sound system	275123
	Sound reinforcement system	275127
T5	Overhead projector	274119

Electronic Safety and Security:

Life safety devices per code 283111

Miscellaneous:

N/A

**COMMUNITY HEALTH AIDE
HOME HEALTH
CT-P2-1**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

<u>PROGRAM DESCRIPTION:</u> A combination of subject matter and experiences designed to prepare a person to serve as liaison between professional health workers and the recipients of health services. Instruction emphasizes basic understanding of biology, communicable diseases, environmental health, personal hygiene, infants, medicines, and family and community resources.		Spec. Ref.#
Program Type: 2		
Size Requirements: 1,500 SF Lab		
Lab Requirements:		
<u>FINISHES:</u> Flooring: Vinyl composition tile, VET, rubber, sheet vinyl, or linoleum	Spec. Ref # 096500 096516	
Base: Resilient	096500	
Ceiling: Suspended acoustical	095113	
Walls: Painted concrete masonry units	042000/ 099100	
<u>LOOSE FURNISHINGS:</u> (12) Two-person work tables (24) Students chairs/stools (1) Teacher station & chair Wastebasket Pencil sharpener		
<u>FEATURES¹:</u> <u>Fixed Items:</u> 16' of chalk/marker board 8' of tack board 30' of sink base cabinets w/2 sinks 30' of wall cabinets Pencil sharpener support Windows with integral blinds Projection screen, 6'x8' (2) Paper towel dispensers		101100 101100 123550 123550 062000 085113 115213 102813
<u>Fire Suppression:</u> Fire suppression system		211000
<u>Plumbing:</u> Plumbing connections		221116/221119/224000
<u>HVAC:</u> Supply/return air system Independent temperature control		Div. 23 230923
<u>Electrical:</u> Fluorescent lighting Illumination level: See Table 8600-4 Multilevel switching 6 duplex receptacles Double duplex receptacle adjacent to each data and video port		265100 262726 262726 262726
<u>Communications:</u> 1 video port 1 voice port and phone 1 data port near teacher workstation 8 data ports Clock Central sound system Sound reinforcement system Overhead projector		271533/271543 271513/273113 271513 271513 275313 275123 275127 274119
<u>Electronic Safety and Security:</u> Life safety devices per code		283111
<u>Miscellaneous:</u> N/A		

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

DENTAL LABORATORY TECHNOLOGY
CT-P2-1

CHAPTER 6: CAREER-TECHNICAL SCHOOL

<u>PROGRAM DESCRIPTION:</u> A combination of subject matter and experiences to prepare a person to execute the work in producing restorative appliances required for the oral health of the patients as authorized by the dentist.		<u>FEATURES¹:</u> <u>Fixed Items:</u>		Spec. Ref.#
Program Type: 2		16' of chalk/marker board	101100	
Size Requirements: 1,500 SF Lab		8' of tack board	101100	
Lab Requirements:		40' of sink base cabinets with 6 sinks and natural gas	123550	
<u>FINISHES:</u>		40' of wall cabinets	123550	
<u>Flooring:</u>		(6) Paper towel dispensers	102813	
Vinyl composition tile, VET,	Spec. Ref #	Pencil sharpener support	062000	
rubber, linoleum, or sheet vinyl		Windows with integral blinds	085113	
Base:		Projection screen, 6'x8'	115213	
Resilient	096500	<u>Fire Suppression:</u>		
Ceiling:		Fire suppression system	211000	
Suspended acoustical	095113	<u>Plumbing:</u>		
Walls:		Plumbing connections	221116/221119/224000	
Painted concrete masonry units	042000/ 099100	Safety shower/eyewash connections	224000	
<u>LOOSE FURNISHINGS:</u>		Master shut-off for gas	226313	
(24) Student stools/chairs		Gas connections	226313	
(1) Teacher chair or stool		<u>HVAC:</u>		
(6) 4-person work tables with epoxy tops with gas and electric		Supply/return air system	Div. 23	
Wastebasket		Independent temperature control	230923	
Pencil sharpener		Grinding machine ventilation	Div. 23	
		Localized ventilation for specific lab-produced fumes	Div. 23	
		<u>Electrical:</u>		
		Fluorescent lighting, parabolic lenses:	265100	
		Illumination level: See Table 8600-4		
		Multilevel switching	262726	
		30 duplex receptacles (minimum)	262726	
		Double duplex receptacle adjacent to each data and video port	262726	
		<u>Communications:</u>		
		1 video port	271533/271543	
		1 voice port and phone	271513/273113	
		8 data ports	271513	
		Clock	275313	
		Central sound system	275123	
		Sound reinforcement system	275127	
		Overhead projector	274119	
		<u>Electronic Safety and Security:</u>		
		Life safety devices per code	283111	
		<u>Miscellaneous:</u>		
		N/A		

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

**EMERGENCY MEDICAL TECHNICIAN
CT-P2-1**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

PROGRAM DESCRIPTION: Specialized classroom and practical experiences concerned with the preparation of certified Emergency Medical Technicians. Modules of instruction include preparatory; patient assessment; airway and cardiac arrest management; trauma patient management; medical patient management; and clinical experiences. The training prepares for membership in fire departments or other agencies that are involved in the rescue and emergency treatment of people.		FEATURES¹: <u>Fixed Items:</u>	Spec. Ref.#
Program Type: 2		16' of chalk/marker board 101100 8' of tack board 101100 30' of sink base cabinets w/2 sinks 123550 30' of wall cabinets 123550 Pencil sharpener support 062000 Windows with integral blinds 085113 Projection screen, 6'x8' 115213 (2) Paper towel dispensers 102813	
Size Requirements: 1,500 SF Lab		Fire Suppression: Fire suppression system 211000	
Lab Requirements:		Plumbing: Plumbing connections 221116/221119/224000	
FINISHES:		HVAC: Supply/return air system Div. 23 Independent temperature control 230923	
Flooring:	Spec. Ref #	Electrical: Fluorescent lighting 265100 Illumination level: See Table 8600-4 Multilevel switching 262726 6 duplex receptacles 262726 Double duplex receptacle adjacent to each data and video port 262726	
Base:			
Resilient	096500		
Ceiling:		Communications: 1 video port 271533/271543 1 voice port and phone 271513/273113 1 data port near teacher workstation 271513 8 data ports 271513 Clock 275313 Central sound system 275123 Sound reinforcement system 275127 Overhead projector 274119	
Walls:			
Painted concrete masonry units	042000/ 099100		
LOOSE FURNISHINGS: (12) Two-person work tables (24) Students chairs/stools (1) Teacher station & chair Wastebasket Pencil sharpener		Electronic Safety and Security: Life safety devices per code 283111	
		Miscellaneous: N/A	

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

EXERCISE SCIENCE/SPORTS & RECREATION HEALTH CARE

CT-P2-1

CHAPTER 6: CAREER-TECHNICAL SCHOOL

<u>PROGRAM DESCRIPTION:</u>		<u>FEATURES¹:</u>	Spec.
Utilizing business and industry technical standards and math, science, ELA, and technology framework in the study of organ systems, study of movement & associated functional response and adaptations, understanding scientific basis underlying exercise-induced physiological responses in athletic training, biomechanics, exercise physiology and nutrition for the prevention, diagnosis, and treatment of injuries.		<u>Fixed Items:</u>	<u>Ref.#</u>
		16' of chalk/marker board	101100
		8' of tack board	101100
		30' of sink base cabinets w/2 sinks	123550
		30' of wall cabinets	123550
		Pencil sharpener support	062000
		Windows with integral blinds	085113
		Projection screen, 6'x8'	115213
		(2) Paper towel dispensers	102813
		<u>Fire Suppression:</u>	
		Fire suppression system	211000
		<u>Plumbing:</u>	
		Plumbing connections	221116/221119/224000
		<u>HVAC:</u>	
		Supply/return air system	Div. 23
		Independent temperature control	230923
		<u>Electrical:</u>	
		Fluorescent lighting	265100
		Illumination level: See Table 8600-4	
		Multilevel switching	262726
		6 duplex receptacles	262726
		Double duplex receptacle adjacent to each data and video port	262726
		<u>Communications:</u>	
		1 video port	271533/271543
		1 voice port and phone	271513/273113
		1 data port near teacher workstation	271513
		8 data ports	271513
		Clock	275313
		Central sound system	275123
		Sound reinforcement system	275127
		Overhead projector	274119
		<u>Electronic Safety and Security:</u>	
		Life safety devices per code	283111
		<u>Miscellaneous:</u>	
		N/A	
<u>PROGRAM DESCRIPTION:</u>			
Program Type: 2			
Size Requirements: 1,500 SF Lab			
Lab Requirements:			
	Spec.		
<u>FINISHES:</u>	<u>Ref #</u>		
Flooring:			
Vinyl composition tile, VET,	096500		
rubber, sheet vinyl, or linoleum	096516		
Optional: carpet	096816		
Base:			
Resilient	096500		
Ceiling:			
Suspended acoustical	095113		
Walls:			
Painted concrete masonry units	042000/099100		
<u>LOOSE FURNISHINGS:</u>			
(10) Training tables			
(24) Students chairs/stools			
(1) Teacher station & chair			
Wastebasket			
Pencil sharpener			

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

**HEALTH INFORMATICS PATHWAY
HEALTH UNIT COORDINATOR
CT-P2-1**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

PROGRAM DESCRIPTION:

Health Informatics Pathway: targets three or more technician-level occupations within one or more of the following areas – rehabilitation services (including occupational or physical therapy); medical diagnostic and treatment services (including respiratory therapy, radiography, perfusion, nuclear medicine, surgical technology, cardiovascular, electrocardiogram, sonography); medical laboratory technologies (including hematology, cytology, blood bank, and histology); mental health services; pharmacy; and medical administrative services (including health information/medical records).

Health Unit Coordinator: This is the job exit for grade 12.

This clustered Tech Prep program of study prepares students for continued education and training for employment as an allied health technician.

Program Type: 2

Size Requirements: 1,500 SF Lab

Lab Requirements:

	Spec. Ref #
<u>FINISHES:</u>	
Flooring:	
Vinyl composition tile, VET, rubber, linoleum, or sheet vinyl	096500 096516
Base:	
Resilient	096500
Ceiling:	
Suspended acoustical	095113
Walls:	
Painted concrete masonry units	042000/ 099100

LOOSE FURNISHINGS:

- L1 (24) Student stools/chairs
- L2 (1) Teacher chair or stool
- L3 (4) Computer workstations
- L4 (12) 2-person work tables with epoxy
tops with gas and electric
Wastebasket
Pencil sharpener

FEATURES¹:

	Spec. Ref.#
<u>Fixed Items:</u>	
F1 16' of chalk/marker board	101100
F2 8' of tack board	101100
F3 Demonstration table/teacher desk	123550
F4 60' of perimeter sink base cabinets with 5 sinks	123550
F5 30' of wall cabinets	123550
F6 (5) Paper towel dispensers	102813
F7 Safety shower/eyewash	224000
F8 Pencil sharpener support	062000
F9 Windows with integral blinds	085113
F10 Undercounter refrigerator	113100
F11 Projection screen, 6'x8'	115213

Fire Suppression:

Fire suppression system 211000

Plumbing:

Plumbing connections
221116/221119/224000
Safety shower/eyewash connections 224000
Master shut-off for gas 226313
Gas connections 226313

HVAC:

Supply/return air system Div. 23
Independent temperature control 230923
Manual exhaust Div. 23

Electrical:

Fluorescent lighting, parabolic lenses: 265100
Illumination level: See Table 8600-4
Multilevel switching 262726
6 duplex receptacles (minimum) 262726
Double duplex receptacle adjacent to
each data and video port 262726
Means of egress lighting per code 265100

Communications:

T1 1 video port	271533/271543
T2 1 voice port and phone	271513/273113
T3 1 data port at demonstration table	271513
T4 11 data ports for student use	271513
Clock	275313
Central sound system	275123
Sound reinforcement system	275127
T5 Overhead projector	274119

Electronic Safety and Security:

Life safety devices per code 283111

Miscellaneous: N/A

NOTES:

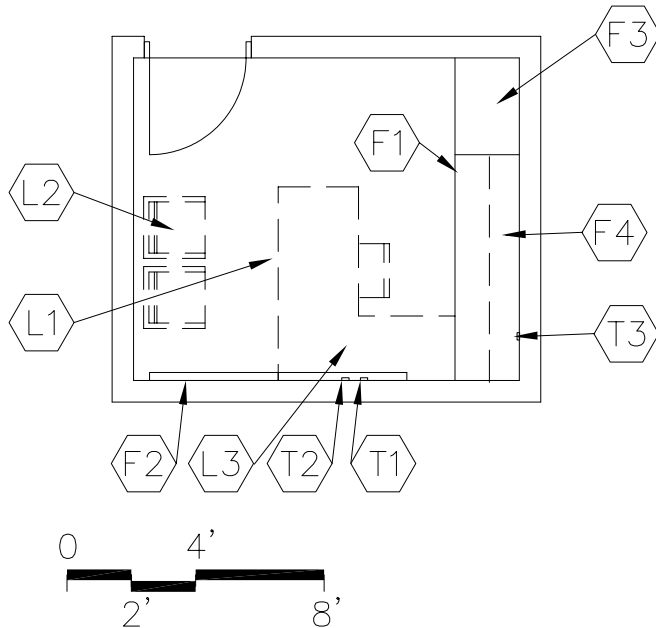
1. Finishes/Features: Refer to Chapter 9 for specification references.

<p><u>PROGRAM DESCRIPTION:</u> A combination of subject matter and supervised clinical experiences designed to prepare a person to give direct nursing care under the supervision of a registered nurse, licensed physician, or dentist. Instruction includes safety and infection control, first-aid and CPR, legal and ethical responsibilities, coordinated care, goal-oriented care, environmental safety, treatments and procedures, physiological adaptation, mobility, comfort, basic care, psychosocial adaptation, growth and development, prevention and early treatment of disease, and reduction of risk potential.</p>		<p><u>FEATURES¹:</u> <u>Fixed Items:</u></p>		Spec. Ref.#
		16' of chalk/marker board	101100	
		8' of tack board	101100	
		30' of sink base cabinets w/2 sinks	123550	
		30' of wall cabinets	123550	
		Pencil sharpener support	062000	
		Windows with integral blinds	085113	
		Projection screen, 6'x8'	115213	
		(2) Paper towel dispensers	102813	
		<u>Fire Suppression:</u>		
		Fire suppression system	211000	
		<u>Plumbing:</u>		
		Plumbing connections	221116/221119/224000	
		<u>HVAC:</u>		
		Supply/return air system	Div. 23	
		Independent temperature control	230923	
		<u>Electrical:</u>		
		Fluorescent lighting	265100	
		Illumination level: See Table 8600-4		
		Multilevel switching	262726	
		6 duplex receptacles	262726	
		Double duplex receptacle adjacent to each data and video port	262726	
		<u>Communications:</u>		
		1 video port	271533/271543	
		1 voice port and phone	271513/273113	
		1 data port near teacher workstation	271513	
		8 data ports	271513	
		Clock	275313	
		Central sound system	275123	
		Sound reinforcement system	275127	
		Overhead projector	274119	
		<u>Electronic Safety and Security:</u>		
		Life safety devices per code	283111	
		<u>Miscellaneous:</u>		
		N/A		
<p>Program Type: 2</p> <p>Size Requirements: 1,500 SF Lab</p> <p>Lab Requirements:</p>				
		<u>FINISHES:</u>	Spec. Ref #	
Flooring:				
Vinyl composition tile, VET,		096500		
rubber, sheet vinyl, or linoleum		096516		
Base:				
Resilient		096500		
Ceiling:				
Suspended acoustical		095113		
Walls:				
Painted concrete masonry units		042000/		
		099100		
<u>LOOSE FURNISHINGS:</u>				
(12) Two-person work tables				
(24) Students chairs/stools				
(1) Teacher station & chair				
Wastebasket				
Pencil sharpener				

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

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CAPACITY:
SIZE:

1 - 3 persons
120 SF

PROGRAM ACTIVITIES:

- Private space for program instructor
- One-on-one conferences with academic instructors, students, etc.

SPATIAL RELATIONSHIPS:

- Near related lab
- Direct access to school circulation areas

ENVIRONMENTAL CONSIDERATIONS:

- Uniform lighting
- Environmental sound control -
wall minimum STC **45**
ceiling minimum CAC 35, NRC **0.70**

NOTES:

1. Loose furnishings shown represent one of many possible arrangements.

**OFFICE
CT-P2-2**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

<u>FINISHES¹:</u>	Spec. Ref.#	<u>FEATURES¹:</u>	Spec. Ref.#
Flooring:		<u>Fixed Items:</u>	
Carpet <i>or carpet tile</i>	096816 096813	F1 Work surface with file drawers	123550
		F2 4' of tack board	101100
		or tackable wall surface	
Base:		F3 2' of tall wardrobe	123550
Resilient base	096500	F4 Wall cabinets above work surface	123550
Ceiling:		<u>Fire Suppression:</u>	
Suspended, acoustical	095113	Fire suppression system	211000
Walls:		<u>Plumbing:</u>	
Painted gypsum wallboard over metal studs	092116/099100	N/A	
<u>LOOSE FURNISHINGS:</u>		<u>HVAC:</u>	
L1 Desk and chair		Supply/return air system	Div. 23
L2 Visitor chairs		Independent temperature control	230923
L3 Computer desk return		<u>Electrical:</u>	
Wastebasket		Single level switching	262726
		Fluorescent lighting	265100
		Illumination level: See Table 8600-4	
		4 duplex receptacles	262726
		Double duplex receptacle adjacent to data and video port	262726
		<u>Communications:</u>	
		T1 1 voice port and phone	271513/273113
		T2 1 data port near workstation	271513
		T3 1 video port	271533/271543
		Central sound system	275123
		Clock	275313
		<u>Electronic Safety and Security:</u>	
		Life safety devices per code	283111
		<u>Miscellaneous:</u>	
		N/A	

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references. Optional: moveable cabinets
2. Fixed casework and loose furnishings can also be all fixed casework or all loose furnishings.

PROGRAM ACTIVITIES:

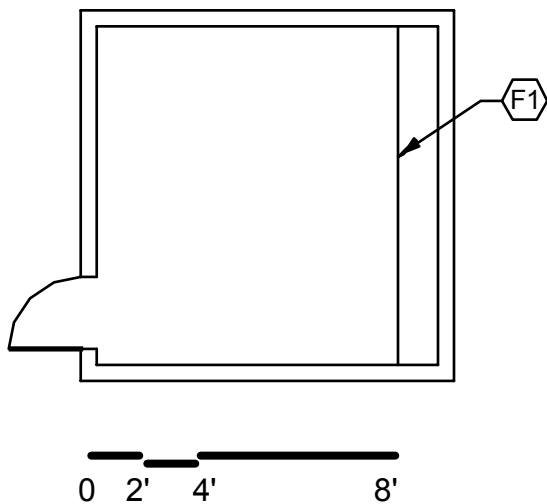
- Space for storage of lab equipment

SPATIAL RELATIONSHIPS:

- Near related lab

ENVIRONMENTAL CONSIDERATIONS:

N/A

CAPACITY:
SIZE:N/A
200 SFNOTES:

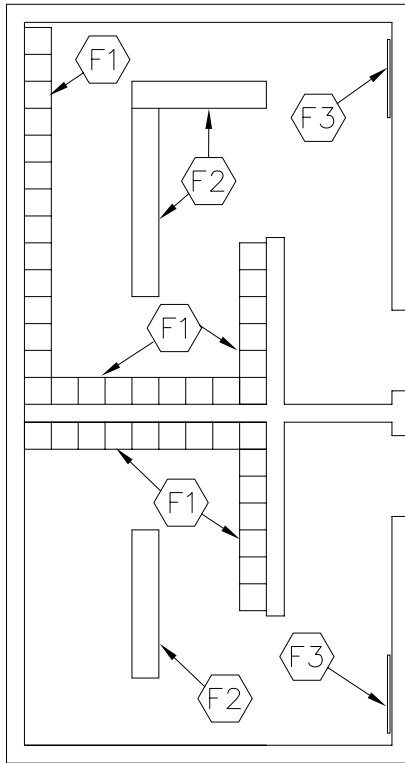
STORAGE AREA
CT-P2-3

CHAPTER 6: CAREER-TECHNICAL SCHOOL

	Spec. Ref.#		Spec. Ref.#
<u>FINISHES¹:</u>		<u>FEATURES¹:</u>	
Flooring:		<u>Fixed Items¹:</u>	
Sealed concrete	033000	F1 8'-20' of open shelving	
		Depth may vary (fixed or loose)	123550
Base:		<u>Fire Suppression:</u>	
Resilient base	096500	Fire suppression system	211000
Ceiling:		<u>Plumbing:</u>	
Exposed structure	---	N/A	
Walls:		<u>HVAC:</u>	
Painted concrete masonry units	042000/099100	To be determined by Design Professional	
		Supplemental heat as required	Div. 23
<u>LOOSE FURNISHINGS:</u>		<u>Electrical:</u>	
N/A		Single level switching	262726
		Fluorescent lighting	265100
		Illumination level: See Table 8600-4	
		Duplex receptacles	262726
		<u>Communications:</u>	
		N/A	
		<u>Electronic Safety and Security:</u>	
		Life safety devices per code	283111
		<u>Miscellaneous:</u>	
		N/A	

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.



50 total lockers

CAPACITY:
SIZE:N/A
450 SF

PROGRAM ACTIVITIES:

- Personal and health needs for the program Specific users.
- Changing of clothes and/or uniforms.
- Storage of personal items while students are in lab.

SPATIAL RELATIONSHIPS:

- Adjacent to related lab

ENVIRONMENTAL CONSIDERATIONS:

- Uniform lighting
- Sanitary and durable finishes.
- Environmental sound control
Wall minimum STC 40
Ceiling minimum CAC 35, NRC **0.70**

NOTES:

1. Large and small changing areas are interchangeable for either males or females.
Determination based on male/female ratio within each program.

CT-P2-4

CHAPTER 6: CAREER-TECHNICAL SCHOOL

<u>FINISHES¹:</u>	<u>Spec. Ref.#</u>	<u>FEATURES¹:</u>	<u>Spec. Ref.#</u>
<u>Flooring:</u>		<u>Fixed Items¹:</u>	
Sealed concrete	033000	F1 Student lockers	105113
Optional: Vinyl composition tile, linoleum, or rubber	096500 096516	F2 Locker benches	062000
		F3 24" x 60" mirror	102813
<u>Base:</u>		<u>Fire Suppression:</u>	
Resilient base	096500	Fire suppression system	211000
<u>Ceiling:</u>		<u>Plumbing:</u>	
Suspended, acoustical	095113	N/A	
with high impact hold down clips		<u>HVAC:</u>	
<u>Walls:</u>		Supply/Return air system	Div. 23
Painted concrete masonry units		Exhaust air system	Div. 23
	042000 / 099100	Supplemental heat as required	Div. 23
		Individual temperature control	230923
<u>LOOSE FURNISHINGS</u>		<u>Electrical:</u>	
Wastebaskets		Single level switching	262726
		Fluorescent lighting	265100
		Illumination level: See Table 8600-4	
		2 Duplex receptacles	262726
		Means of egress lighting per code	265100
		<u>Communications:</u>	
		Clock	275313
		Central Sound System	275123
		<u>Electronic Safety and Security:</u>	
		Life safety devices per code	283111
		<u>Miscellaneous:</u>	
		N/A	

NOTES:

1. **Finishes/Features:** Refer to Chapter 9 for specification references.

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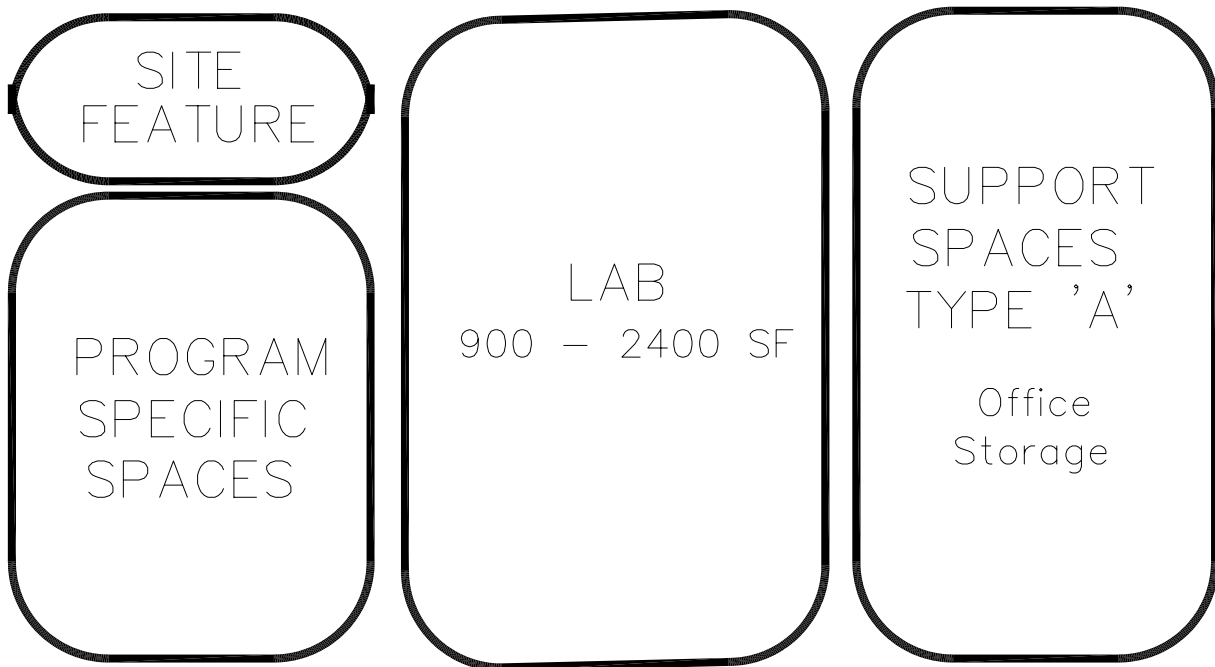
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Program Type 3

Description: Small to medium sized lab space with typical support space. Additionally, this program requires specialized auxiliary spaces and possible site features.

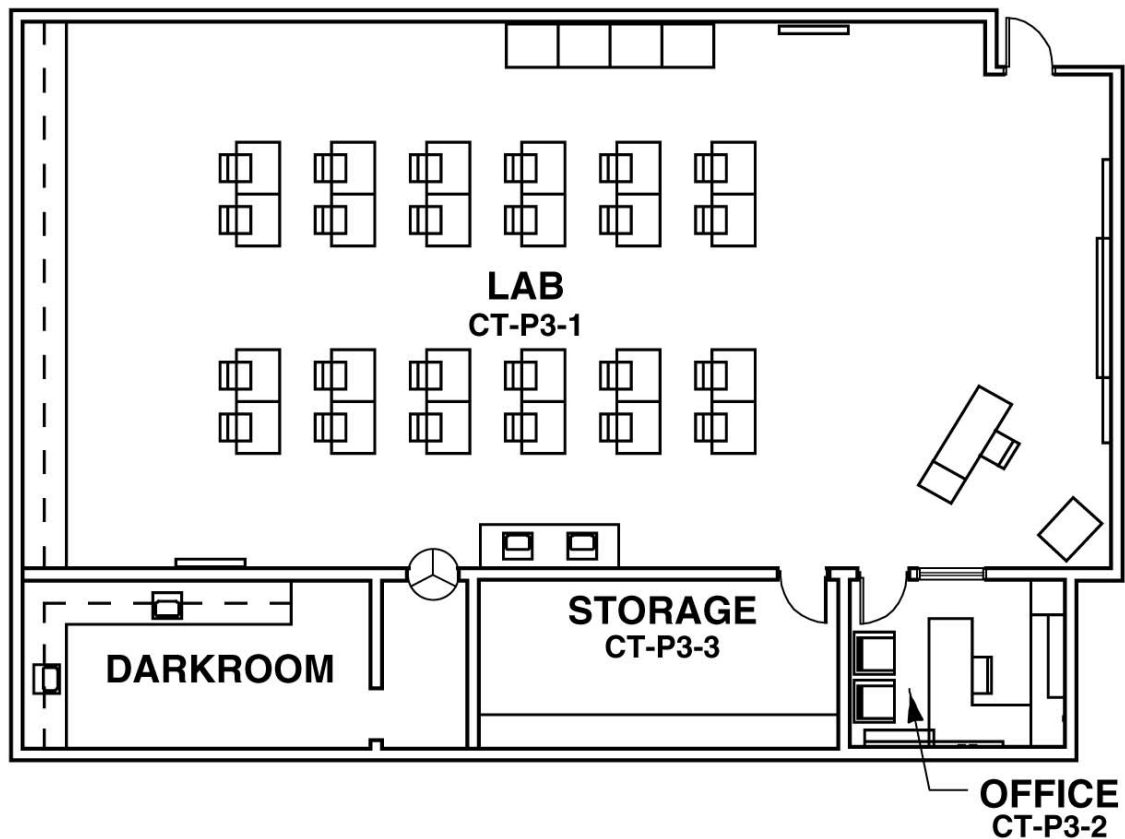
This program is to utilize standard construction and be one-story (16' +/- tall) tall. Lab, support, and specialty spaces to have finished floor, painted walls, and suspended acoustical ceiling.

**NOTES:**

This is an example of how the Program Type 3 spaces in a career-technical school could be arranged. This is meant only to demonstrate the relationships between various spaces of this area.

Following are the Program Type 3 space plates:

- CT-P3-1 Lab
- CT-P3-2 Office
- CT-P3-3 Storage

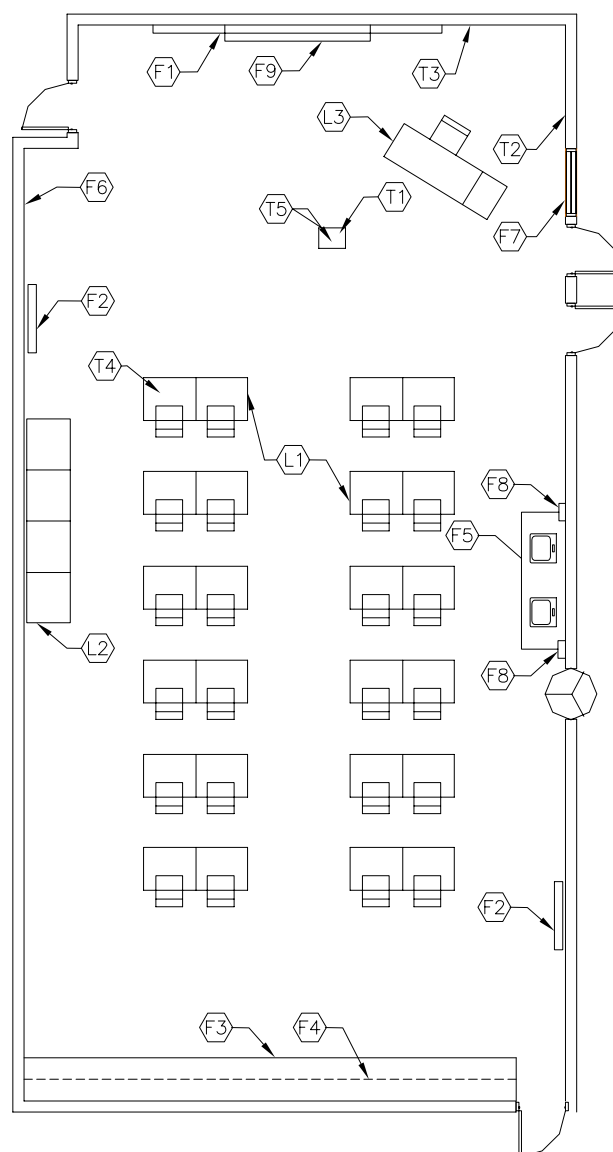


Program Type 3

This is an example to show the possible relationships of spaces for this program type.

NOTES:

1. See lab descriptions within this section for specific lab requirements, including program specific rooms.
2. See individual space plates at the end of this section for specific requirements for the storage room and office.



CAPACITY: 24 Students
 SIZE: 900 – 2,400 SF
 (see lab summaries for exact sizes)
 ANCILLARY SPACES: CT-P3-2 and CT-P3-3

NOTES:

1. Loose furnishings shown represent one of many possible arrangements.
2. Graphic plate is an example only. Other labs within this program are not drawn – refer to lab summaries within this program type for information on a particular lab.

PROGRAM ACTIVITIES:

- Large and small group instruction
- Group and individual work
- Demonstrations

SPATIAL RELATIONSHIPS:

- Near other related labs
- Adjacent to typical support spaces
- Proximity to large group restrooms
- Located away from noisy or public activities
- Proximity to core academic area and common use areas
- Flexibility of space

ENVIRONMENTAL CONSIDERATIONS:

- Uniform lighting with 80% visual comfort probability level.
- Optional: Natural light opening equal to 5% minimum of floor area, with an operable vent
- Environmental sound control -
 - walls minimum STC 50
 - ceiling minimum CAC 35, NRC **0.70**
- Flexibility of space

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.
2. Loose Furnishings: Refer to Lab Profiles within this section.
3. Loose Furnishings, fixed equipment, utility locations, and general footprint of room shown represent one of many possible arrangements.

COMMERCIAL ART OCCUPATIONS

CT-P3-1

CHAPTER 6: CAREER-TECHNICAL SCHOOL

PROGRAM DESCRIPTION:		Spec. Ref.#
Organized specialized learning experiences that include theory, laboratory, and shop work as they relate to the design and execution of layouts and illustrations for advertising, display, and instructional manuals. Instruction includes advertising theory and preparation of copy, lettering, poster design, fashion illustration, silk-screen, air brush and touch-up, inks and color dynamics, package and product design, drawings for line and halftone reproduction, and other display devices and exhibits. Instruction leads to preparation for various types of employment, such as Fashion Illustrator, Technical Illustrator, Interior Decorator, and Advertising Artist.		
Program Type:	3	
Size Requirements:	1,500 SF Lab	
Lab Requirements:		
FINISHES:	Spec. Ref #	
Flooring:		
Carpet	096816	
Optional: vinyl composition tile, VET, sheet vinyl, or linoleum	096500 096516	
Base:		
Resilient	096500	
Ceiling:		
Suspended acoustical	095113	
Walls:		
Painted concrete masonry units	042000/ 099100	
LOOSE FURNISHINGS:		
L1 (24) Computer workstation furniture & chairs		
L2 (4) Computer scanning stations		
L3 (1) Teacher station & chair		
Wastebasket		
Pencil sharpener		
FEATURES¹:		
Fixed Items:		
F1 16' of chalk/marker board		101100
F2 8' of tack board		101100
F3 30' of base cabinets		123550
F4 30' of wall cabinets		123550
F5 8' of sink base cabinets w/2 sinks		123550
F6 Pencil sharpener support		062000
F7 Windows with integral blinds		085113
F8 (2) Paper towel dispensers		102813
F9 Projection screen, 6'x8'		115213
Fire Suppression:		
Fire suppression system		211000
Plumbing:		
Plumbing connections		221116/221119/224000
HVAC:		
Supply/return air system		Div. 23
Independent temperature control		230923
Electrical:		
Fluorescent lighting		265100
Illumination level: See Table 8600-4		
½ cool white, ½ daylight lamps		
Color rendering index=80 minutes		
Kelvin=4,000 minutes		
Multilevel switching		262726
20 duplex receptacles		262726
Double duplex receptacle adjacent to each data and video port		262726
Communications:		
T1 1 video port		271533/271543
T2 1 voice port and phone		271513/273113
T3 1 data port near teacher workstation		271513
T4 34 data ports		271513
Clock		275313
Central sound system		275123
Sound reinforcement system		275127
T5 Overhead projector		274119
Electronic Safety and Security:		
Life safety devices per code		283111
Miscellaneous:		
N/A		

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

COMMERCIAL PHOTOGRAPHY OCCUPATIONS **Darkroom**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

Program Type: 3		Spec. Ref.#
Size Requirements: 250 SF		
Requirements:		
<u>FINISHES:</u>	<u>Spec. Ref #</u>	<u>FEATURES¹:</u>
Flooring:		<u>Fixed Items:</u>
Vinyl composition tile, sealed concrete, VET, or sheet vinyl	096500 033000	20' of epoxy top base cabinets with 2 sinks 123550
Base:		20' of wall cabinets 123550
Resilient	096500	(2) Paper towel dispensers 102813
Ceiling:		Access via revolving darkroom door 083436
Suspended acoustical	095113	<u>Fire Suppression:</u>
Walls:		Fire suppression system 211000
Painted concrete masonry units	042000/ 099100	<u>Plumbing:</u>
		Plumbing connections 221116/221119/224000
		Eyewash 224000
		<u>HVAC:</u>
		Supply/return air system Div. 23
		Independent temperature control 230923
		Independent ventilation Div. 23
<u>LOOSE FURNISHINGS:</u>		<u>Electrical:</u>
Wastebasket		Keyed fluorescent lighting 265100
		Illumination level: See Table 8600-4
		Darkroom lighting on keyed switch 265100
		Single level switching 262726
		6 duplex receptacles 262726
		<u>Communications:</u>
		Clock 275313
		Central sound system 275123
<u>ENVIRONMENTAL CONSIDERATIONS:</u>		<u>Electronic Safety and Security:</u>
▪ Wall minimum STC 45		Life safety devices per code 283111
▪ Ceiling minimum CAC 35, NRC 0.70		
▪ Uniform lighting with 80% visual comfort probability level		<u>Miscellaneous:</u>
		N/A

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

COMMERCIAL PHOTOGRAPHY OCCUPATIONS

CHAPTER 6: CAREER-TECHNICAL SCHOOL

CT-P3-1

PROGRAM DESCRIPTION:		Spec. Ref.#
Organized specialized learning experiences that include theory, laboratory, and studio work as each relates to all phases of camera uses and photographic processing. Instruction includes composition and color dynamics; contact printing and enlarging; film development; airbrush and retouching; coloring; copying; utilization of camera, meters, and other photographic equipment. Areas of study include portrait, commercial, and industrial photography, leading to employment as a Commercial Photographer, Airbrush Artist, Camera person (offset printing), Audiovisual Projectionist, and Camera person (broadcasting).		
Program Type: 3		
Size Requirements: 1,500 SF Lab		
Lab Requirements:		
FINISHES:	Spec. Ref #	
Flooring:		
Carpet	096816	
Optional: vinyl composition tile, VET, sheet vinyl, or linoleum	096500 096516	
Base:		
Resilient	096500	
Ceiling:		
Suspended acoustical	095113	
Walls:		
Painted concrete masonry units	042000/ 099100	
LOOSE FURNISHINGS:		
(12) 2-person work tables with epoxy tops		
(24) Student stools/chairs		
(1) Teacher station & chair		
Wastebasket		
Pencil sharpener		
FEATURES¹:		
Fixed Items:		
16' of chalk/marker board		101100
16' of tack board		101100
30' of wall cabinets		123550
30' of sink base cabinets w/2 sinks		123550
Pencil sharpener support		062000
Windows with integral blinds		085113
(2) Paper towel dispensers		102813
Projection screen, 6'x8'		115213
Safety shower/eyewash		224000
Seamless cove built into one corner of lab		
Overhead metal pipe grid (48" o.c., both ways) to support studio lights & accessories		055000
Cyclorama curtain & track, min. of 2 walls		116143
Ceiling height 10' min., 12' preferred		
Fire Suppression:		
Fire suppression system		211000
Plumbing:		
Plumbing connections		221116/221119/224000
HVAC:		
Supply/return air system		Div. 23
Independent temperature control		230923
Electrical:		
Fluorescent lighting		265100
Illumination level: See Table 8600-4		
½ cool white, ½ daylight lamps		
Color rendering index=80 minutes		
Kelvin=4,000 minutes		
Track lighting		265100
Multilevel switching		262726
20 duplex receptacles		262726
Double duplex receptacle adjacent to each data and video port		262726
Communications:		
1 video port		271533/271543
1 voice port and phone		271513/273113
1 data port near teacher workstation		271513
8 data ports		271513
Clock		275313
Central sound system		275123
Sound reinforcement system		275127
Overhead projector		274119
Electronic Safety and Security:		
Life safety devices per code		283111
Miscellaneous:		
N/A		

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

COMMERCIAL PHOTOGRAPHY OCCUPATIONS
Print Darkroom

CHAPTER 6: CAREER-TECHNICAL SCHOOL

Program Type: 3		Spec. Ref.#
Size Requirements: 350 SF		
Requirements:		
<u>FINISHES:</u>	<u>Spec. Ref #</u>	<u>FEATURES¹:</u>
Flooring:		<u>Fixed Items:</u>
Vinyl composition tile	096500	30' of epoxy top base cabinets with 2 sinks 123550
Option: sealed concrete	033000	15' of wall cabinets 123550
		10' of epoxy shelving 123550
		(2) Paper towel dispensers 102813
		Access via revolving darkroom door 083436
Base:		<u>Fire Suppression:</u>
Resilient	096500	Fire suppression system 211000
Ceiling:		<u>Plumbing:</u>
Suspended acoustical	095113	Plumbing connections 221116/221119/224000
		Eyewash 224500
Walls:		<u>HVAC:</u>
Painted concrete masonry units	042000/ 099100	Supply/return air system Div. 23
		Independent temperature control 230923
		Independent ventilation Div. 23
<u>LOOSE FURNISHINGS:</u>		<u>Electrical:</u>
Wastebasket		Keyed fluorescent lighting 265100
		Illumination level: See Table 8600-4
		Darkroom lighting on keyed switch 265100
		Single level switching 262726
		12 duplex receptacles 262726
		<u>Communications:</u>
		Clock 275313
		Central sound system 275123
<u>ENVIRONMENTAL CONSIDERATIONS:</u>		<u>Electronic Safety and Security:</u>
▪ Wall minimum STC 45		Life safety devices per code 283111
▪ Ceiling minimum CAC 35, NRC 0.70		
▪ Uniform lighting with 80% visual comfort probability level		<u>Miscellaneous:</u>
		N/A

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

COMMERCIAL PHOTOGRAPHY OCCUPATIONS

CHAPTER 6: CAREER-TECHNICAL SCHOOL

Film Darkroom

		Spec. Ref.#
Program Type:	3	
Size Requirements:	200 SF	
Requirements:		
<u>FINISHES:</u>	Spec. Ref #	
Flooring:		
Vinyl composition tile	096500	
Option: sealed concrete	033000	
Base:		
Resilient	096500	
Ceiling:		
Suspended acoustical	095113	
Walls:		
Painted concrete masonry units	042000/ 099100	
<u>LOOSE FURNISHINGS:</u>		
Wastebasket		
<u>ENVIRONMENTAL CONSIDERATIONS:</u>		
▪ Wall minimum STC 50		
▪ Ceiling minimum CAC 35, NRC 0.70		
▪ Uniform lighting with 80% visual comfort probability level		
	<u>FEATURES¹:</u>	
	<u>Fixed Items:</u>	
	16' of epoxy top base cabinets	123550
	with 2 sinks	
	16' of wall cabinets	123550
	(2) Paper towel dispensers	102813
	Access via revolving darkroom door	083436
	<u>Fire Suppression:</u>	
	Fire suppression system	211000
	<u>Plumbing:</u>	
	Plumbing connections	221116/221119/224000
	Eyewash	224500
	<u>HVAC:</u>	
	Supply/return air system	Div. 23
	Independent temperature control	230923
	Independent ventilation	Div. 23
	<u>Electrical:</u>	
	Keyed fluorescent lighting	265100
	Illumination level: See Table 8600-4	
	Darkroom lighting on keyed switch	265100
	Single level switching	262726
	12 duplex receptacles	262726
	<u>Communications:</u>	
	Clock	275313
	Central sound system	275123
	<u>Electronic Safety and Security:</u>	
	Life safety devices per code	283111
	<u>Miscellaneous:</u>	
	N/A	

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

COMMERCIAL PHOTOGRAPHY OCCUPATIONS
Film Loading Room(s)

CHAPTER 6: CAREER-TECHNICAL SCHOOL

Program Type: 3		FEATURES¹:	Spec.
Size Requirements: 80 SF		Fixed Items:	Ref.#
Requirements:		8' of plastic laminate countertop	123550
		Doors to receive light-tight perimeter seal	
FINISHES:		Fire Suppression:	
Flooring:	Spec.	Fire suppression system	211000
Vinyl composition tile	Ref #		
Option: sealed concrete	096500	Plumbing:	
	033000	N/A	
Base:		HVAC:	
Resilient	096500	Supply/return air system	Div. 23
Ceiling:		Electrical:	
Suspended acoustical	095113	Fluorescent lighting	265100
		Illumination level: See Table 8600-4	
Walls:		Darkroom lighting on keyed switch	265100
Painted concrete masonry units	042000/	Single level switching	262726
	099100	4 duplex receptacles	262726
		Warning light outside of room	265100
LOOSE FURNISHINGS:		Communications:	
Wastebasket (1 per room)		Central sound system	275123
		Electronic Safety and Security:	
		Life safety devices per code	283111
ENVIRONMENTAL CONSIDERATIONS:		Miscellaneous:	
▪ Wall minimum STC 50		N/A	
▪ Ceiling minimum CAC 35, NRC 0.70			
▪ Uniform lighting with 80% visual comfort probability level			

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

COMMERCIAL PHOTOGRAPHY OCCUPATIONS
Film Loading Room(s)

CHAPTER 6: CAREER-TECHNICAL SCHOOL

<p>Program Type: 3</p> <p>Size Requirements: 80 SF</p> <p>Requirements:</p> <p><u>FINISHES:</u> Flooring: Vinyl composition tile Spec. 096500 Option: sealed concrete Ref # 033000</p> <p>Base: Resilient 096500</p> <p>Ceiling: Suspended acoustical 095113</p> <p>Walls: Painted concrete masonry units 042000/ 099100</p> <p><u>LOOSE FURNISHINGS:</u> Wastebasket (1 per room)</p> <p><u>ENVIRONMENTAL CONSIDERATIONS:</u></p> <ul style="list-style-type: none"> ▪ Wall minimum STC 50 ▪ Ceiling minimum CAC 35, NRC 0.65 ▪ Uniform lighting with 80% visual comfort probability level 	<p>FEATURES¹: <u>Fixed Items:</u> 8' of plastic laminate countertop 123550 Doors to receive light-tight perimeter seal</p> <p><u>Fire Suppression:</u> Fire suppression system 211000</p> <p><u>Plumbing:</u> N/A</p> <p><u>HVAC:</u> Supply/return air system Div. 23</p> <p><u>Electrical:</u> Fluorescent lighting 265100 Illumination level: See Table 8600-4 Darkroom lighting on keyed switch 265100 Single level switching 262726 4 duplex receptacles 262726 Warning light outside of room 265100</p> <p><u>Communications:</u> Central sound system 275123</p> <p><u>Electronic Safety and Security:</u> Life safety devices per code 283111</p> <p><u>Miscellaneous:</u> N/A</p>
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NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

EARLY CHILDHOOD EDUCATION AND CARE

CHAPTER 6: CAREER-TECHNICAL SCHOOL

CT-P3-1

<u>PROGRAM DESCRIPTION:</u>		<u>FEATURES¹:</u>	Spec.
Preparation for employment in child care and guidance. Includes instruction and experiences to develop competencies in teaching and guiding young children. Areas of study include promoting physical, intellectual, social, and emotional growth and development of children; creating a safe, healthy learning environment; program operations in early childhood education and care; promoting positive and productive relationships with families; law, regulations, and policies related to child care services and maintenance of child care environments.		<u>Fixed Items:</u>	<u>Ref.#</u>
		16' of chalk/marker board	101100
		16' of tack board	101100
		30' of wall cabinets	123550
		30' of sink base cabinets with 1 sink	123550
		10' of reception counter	123550
		10' of toddler height sink base cabinets with 1 sink	123550
		Pencil sharpener support	062000
		Windows with integral blinds	085113
		(2) Paper towel dispensers	102813
		Projection screen, 6'x8'	115213
		<u>Fire Suppression:</u>	
		Fire suppression system	211000
		<u>Plumbing:</u>	
		Plumbing connections	221116/221119/224000
		Toddler height drinking fountain	224000
		<u>HVAC:</u>	
		Supply/return air system	Div. 23
		Independent temperature control	230923
		<u>Electrical:</u>	
		Fluorescent lighting	265100
		Illumination level: See Table 8600-4	
		Multilevel switching	262726
		10 duplex receptacles	262726
		Double duplex receptacle adjacent to each data and video port	262726
		<u>Communications:</u>	
		1 video port	271533/271543
		1 voice port and phone	271513/273113
		8 data ports	271513
		Clock	275313
		Central sound system	275123
		Sound reinforcement system	275127
		Overhead projector	274119
		<u>Electronic Safety and Security:</u>	
		Life safety devices per code	283111
		<u>Miscellaneous:</u>	
		N/A	

PROGRAM DESCRIPTION:

Preparation for employment in child care and guidance. Includes instruction and experiences to develop competencies in teaching and guiding young children. Areas of study include promoting physical, intellectual, social, and emotional growth and development of children; creating a safe, healthy learning environment; program operations in early childhood education and care; promoting positive and productive relationships with families; law, regulations, and policies related to child care services and maintenance of child care environments.

Program Type: 3

Size Requirements: 1,500 SF Lab

Lab Requirements:

	Spec. Ref #
<u>FINISHES:</u>	
Flooring:	
30% Carpet	096816
70% Vinyl composition tile, VET, sheet vinyl, or linoleum	096500 096516

Base:
Resilient 096500

Ceiling:
Suspended acoustical 095113

Walls:
Painted concrete masonry units **042000/**
099100

LOOSE FURNISHINGS:

Wastebasket
Pencil sharpener

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

SITE FEATURES:

Playground Area

- Provide 60 SF per child served
- Follow applicable safety guidelines for different age groups.
- Plan for play activities that include rocking, swinging, balancing, climbing, and sliding.
- Locate equipment with moving parts, such as swings, at the perimeter of the play area. Use fence or planting beds to prevent children from inadvertently stepping into path of moving equipment.
- Surfacing is to be resilient and installed at a sufficient depth to meet current safety guidelines. It should be a nonsplintering surface where children may be crawling. Avoid using black surfacing.
- Provide edging to keep loose soft surfacing within bounds of the play area. Depress soft surfacing material below edging. Provide underground drain system and geotextile below soft surfacing.
- Increase the depth of soft surface material in areas of high use such as the base of swings and slides.
- Possible play equipment includes the following: swing set, modular play structure, tot track, four square, and hop scotch.
- Protect entire play area with fencing.

Program Type: 3		FEATURES¹:	Spec.
Size Requirements: 120 SF		Fixed Items:	Ref.#
Requirements:		Interior window with one-way glass	081113/088000
FINISHES:	Spec.	Fire Suppression:	
Flooring:	Ref #	Fire suppression system	211000
Carpet	096816	Plumbing:	
Option: Vinyl composition tile	096500	N/A	
Base:		HVAC:	
Resilient	096500	Supply/return air system	Div. 23
Ceiling:		Independent temperature control	230923
Suspended acoustical	095113	Electrical:	
Walls:		Fluorescent lighting	265100
Painted concrete masonry units	042000/	Illumination level: See Table 8600-4	
	099100	Single level switching	262726
		2 duplex receptacles	262726
LOOSE FURNISHINGS:		Communications:	
N/A		Central sound system	275123
		Electronic Safety and Security:	
		Life safety devices per code	283111
		Miscellaneous:	
		N/A	
ENVIRONMENTAL CONSIDERATIONS:			
<ul style="list-style-type: none"> Wall minimum STC 50 Ceiling minimum CAC 35, NRC 0.70 Uniform lighting with 80% visual comfort probability level 			

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

EARLY CHILDHOOD EDUCATION AND CARE **Infants Room**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

		Spec. Ref.#
Program Type:	3	
Size Requirements:	700 SF	
Requirements:		
<u>FINISHES:</u>	Spec. Ref #	
Flooring:		
Carpet	096816	
Vinyl composition tile, VET,	096500	
Sheet vinyl, or linoleum at sink	096516	
Base:		
Resilient	096500	
Ceiling:		
Suspended acoustical	095113	
Walls:		
Painted concrete masonry units	042000/ 099100	
<u>LOOSE FURNISHINGS:</u>		
Staff chair		
12' of bookcases		
3 playpens		
12 cribs		
2 rocking chairs		
Table 18"x24"x18"		
Stool		
File cabinet		
Wastebasket		
<u>ENVIRONMENTAL CONSIDERATIONS:</u>		
▪ Wall minimum STC 50		
▪ Ceiling minimum CAC 35, NRC 0.70		
▪ Uniform lighting with 80% visual comfort probability level		
		FEATURES¹:
		<u>Fixed Items:</u>
		14' of base cabinets w/1 sink 123550
		4' of baby changing area 123550
		w/3" high edges and pad
		10' of wall cabinets 123550
		Interior window 088000/081113
		20' of tack board 101100
		8' of chalk/marker board 101100
		Paper towel dispenser 102813
		<u>Fire Suppression:</u>
		Fire suppression system 211000
		<u>Plumbing:</u>
		Plumbing connections 221116/221119/224000
		Baby washing sink 221116/221119/224000
		<u>HVAC:</u>
		Supply/return air system Div. 23
		Independent temperature control 230923
		<u>Electrical:</u>
		Fluorescent lighting 265100
		Illumination level: See Table 8600-4
		Multilevel switching 262726
		10 duplex receptacles 262726
		Double duplex receptacle adjacent to each data and video port 262726
		<u>Communications:</u>
		1 video port 271533/271543
		1 voice port and phone 271513/273113
		1 data port 271513
		Clock 275313
		Central sound system 275123
		<u>Electronic Safety and Security:</u>
		Life safety devices per code 283111
		<u>Miscellaneous:</u>
		N/A

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

		Spec. Ref.#
Program Type:	3	
Size Requirements:	350 SF	
Requirements:		
<u>FINISHES:</u>	Spec. Ref #	
Flooring:		
Vinyl composition tile, VET,	096500	
sheet vinyl, or linoleum	096516	
Base:		
Resilient	096500	
Ceiling:		
Suspended acoustical	095113	
Walls:		
Painted concrete masonry units	042000/ 099100	
<u>LOOSE FURNISHINGS:</u>		
2 Work tables		
Staff table and chairs		
Refrigerator/freezer		
Range and oven		
Microwave		
Dishwasher		
<u>ENVIRONMENTAL CONSIDERATIONS:</u>		
▪ Wall minimum STC 50		
▪ Ceiling minimum CAC 35, NRC 0.70		
▪ Uniform lighting with 80% visual comfort probability level		
		<u>FEATURES¹:</u>
		<u>Fixed Items:</u>
		30' of base cabinets w/1 sink 123550
		30' of tall storage cabinets 123550
		9' of wall cabinets 123550
		1 Coiling counter door 083300
		4' of tack board 101100
		Paper towel dispenser 102813
		<u>Fire Suppression:</u>
		Fire suppression system 211000
		<u>Plumbing:</u>
		Plumbing connections 221116/221119/224000
		<u>HVAC:</u>
		Supply/return air system Div. 23
		Independent temperature control 230923
		Kitchen exhaust system Div. 23
		<u>Electrical:</u>
		Fluorescent lighting 265100
		Illumination level: See Table 8600-4
		Single level switching 262726
		4 duplex receptacles 262726
		<u>Communications:</u>
		1 voice port and phone 271513/273113
		Central sound system 275123
		Clock 275313
		<u>Electronic Safety and Security:</u>
		Life safety devices per code 283111
		<u>Miscellaneous:</u>
		N/A

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

EARLY CHILDHOOD EDUCATION AND CARE Work Room

CHAPTER 6: CAREER-TECHNICAL SCHOOL

		Spec. Ref.#
Program Type:	3	
Size Requirements:	150 SF	
Requirements:		
<u>FINISHES:</u>	<u>Spec. Ref #</u>	<u>FEATURES¹:</u>
Flooring:		<u>Fixed Items:</u>
Vinyl composition tile, VET,	096500	13' of base cabinets w/1 sink 123550
sheet vinyl, or linoleum	096516	12' of tall storage cabinets 123550
Optional: carpet	096816	10' of mail cubicles 123550
		10' of wall cabinets 123550
		10' of open base cabinets 123550
		Paper towel dispenser 102813
Base:		<u>Fire Suppression:</u>
Resilient	096500	Fire suppression system 211000
		<u>Plumbing:</u>
		Plumbing connections 221116/221119/224000
Ceiling:		<u>HVAC:</u>
Suspended acoustical	095113	Supply/return air system Div. 23
		Independent temperature control 230923
Walls:		<u>Electrical:</u>
Painted concrete masonry units	042000/ 099100	Fluorescent lighting 265100
		Illumination level: See Table 8600-4
		Single level switching 262726
		4 duplex receptacles 262726
<u>LOOSE FURNISHINGS:</u>		<u>Communications:</u>
Wastebasket		1 voice port and phone 271513/273113
		Central sound system 275123
		Clock 275313
<u>ENVIRONMENTAL CONSIDERATIONS:</u>		<u>Electronic Safety and Security:</u>
▪ Wall minimum STC 50		Life safety devices per code 283111
▪ Ceiling minimum CAC 35, NRC 0.70		
▪ Uniform lighting with 80% visual comfort probability level		<u>Miscellaneous:</u>
		N/A

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

- Wall minimum STC **48**
- Ceiling minimum CAC 35, NRC **0.70**
- Uniform lighting with 80% visual comfort probability level

Fixed Items:

Paper towel dispenser	102813
Soap dispenser	102813
36" and 42" grab bars	102813
24"x60" mirror	102813
Toilet paper holder	102813
Baby changing station	102813

Fire suppression system	211000
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Toddler height sink
Toddler height toilet
Plumbing connections

Exhaust air system	Div. 23
Supplemental heat as required	Div. 23

Fluorescent lighting	265100
Illumination level: See Table 8600-4	
Single level switching	262726

Central sound system	275123
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Life safety devices per code	283111
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N/A

1. Finishes/Features: Refer to Chapter 9 for specification references.

EARLY CHILDHOOD EDUCATION AND CARE **Reception**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

Program Type: 3		FEATURES¹:	Spec.
Size Requirements: 500 SF		Fixed Items:	Ref.#
Requirements:		Interior windows	088000/081113
FINISHES:		4' of tack board	101100
Flooring:		Literary display cabinet	123550
Carpet	096816	Doors with power assist	087100
Vinyl composition tile in vestibule	096500	Windows with integral blinds	085113
Base:		Fire Suppression:	
Resilient	096500	Fire suppression system	211000
Ceiling:		Plumbing:	
Suspended acoustical	095113	N/A	
Walls:		HVAC:	
Painted concrete masonry units	042000/ 099100	Supply/return air system	Div. 23
LOOSE FURNISHINGS:		Independent temperature control	230923
Visitor chairs		Electrical:	
End table		Fluorescent lighting	265100
ENVIRONMENTAL CONSIDERATIONS:		Illumination level: See Table 8600-4	
▪ Wall minimum STC 48		Single level switching	262726
▪ Ceiling minimum CAC 35, NRC 0.70		2 duplex receptacles	262726
▪ Uniform lighting with 80% visual comfort probability level		Means of egress lighting per code	265100
		Communications:	
		Clock	275313
		Central sound system	275123
		Electronic Safety and Security:	
		Life safety devices per code	283111
		Miscellaneous:	
		N/A	

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

<u>PROGRAM DESCRIPTION:</u>		<u>FEATURES¹:</u>	Spec.
Specialized learning experiences that include theory, laboratory, and shop work as they relate to all phases of layout, composition, presswork, and binding, including flexography, lithography, photoengraving, and other techniques related to the printing industry. Emphasis is placed on camera and platework imposition, offset press makeup and operation, paper cutting, ink and color preparation, binding, and production by silk-screen process. Emphasis is placed on desktop publishing including digital image and electronic process procedures. Instruction leads to preparation for various types of employment, such as Compositor, Photographer, Platemaker, Cost Analyst, Expediter, Production Planner, and Computer Assisted Layout.		<u>Fixed Items:</u>	<u>Ref.#</u>
		16' of chalk/marker board	101100
		8' of tack board	101100
		30' of wall cabinets	123550
		30' of sink base cabinets w/2 sinks	123550
		Pencil sharpener support	062000
		Windows with integral blinds	085113
		(2) Paper towel dispensers	102813
		<u>Fire Suppression:</u>	
		Fire suppression system	211000
		<u>Plumbing:</u>	
		Plumbing connections	221116/221119/224000
		<u>HVAC:</u>	
		Supply/return air system	Div. 23
		Independent temperature control	230923
		<u>Electrical:</u>	
		Fluorescent lighting	265100
		Illumination level: See Table 8600-4	
		Multilevel switching	262726
		20 duplex receptacles	262726
		Double duplex receptacle adjacent to each data and video port	262726
		220 volt service	262726
		Overhead electrical drops for printing equipment	
		Emergency shut-off for all equipment	
		Safety lights over plate making area	265100
		<u>Communications:</u>	
		1 video port and video display system	271533/271543/274119
		1 voice port and phone	271513/273113
		8 data ports	271513
		Clock	275313
		Central sound system	275123
		Sound reinforcement system	275127
		<u>Electronic Safety and Security:</u>	
		Life safety devices per code	283111
		<u>Miscellaneous:</u>	
		N/A	
Program Type:	3		
Size Requirements:	2,400 SF Lab		
Lab Requirements:			
		Spec.	
<u>FINISHES:</u>		<u>Ref #</u>	
Flooring:			
Vinyl composition tile, VET,	096500		
sheet vinyl, or linoleum	096516		
Base:			
Resilient	096500		
Ceiling:			
Suspended acoustical	095113		
Walls:			
Painted concrete masonry units	042000/099100		
<u>LOOSE FURNISHINGS:</u>			
(24) Student stools/chairs			
(6) Work tables			
Wastebasket			
Pencil sharpener			

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

GRAPHICS OCCUPATION
Darkroom

CHAPTER 6: CAREER-TECHNICAL SCHOOL

Program Type:	3	FEATURES¹:	Spec.
Size Requirements:	200 SF	Fixed Items:	Ref.#
Requirements:		20' of epoxy top base cabinets	123550
		with 2 sinks	
		20' of wall cabinets	123550
		(2) Paper towel dispensers	102813
		Access via revolving darkroom door	083436
<u>FINISHES:</u>	Spec.	<u>Fire Suppression:</u>	
Flooring:	<u>Ref #</u>	Fire suppression system	211000
Vinyl composition tile	096500		
Option: sealed concrete	033000		
Base:		<u>Plumbing:</u>	
Resilient	096500	Plumbing connections	
		221116/221119/224000	
		Eyewash	224000
Ceiling:		<u>HVAC:</u>	
Suspended acoustical	095113	Supply/return air system	Div. 23
Walls:		Independent temperature control	230923
Painted concrete masonry units	042000/	Independent ventilation	Div. 23
	099100		
<u>LOOSE FURNISHINGS:</u>		<u>Electrical:</u>	
Wastebasket		Keyed fluorescent lighting	265100
		Illumination level: See Table 8600-4	
		Darkroom lighting on keyed switch	265100
		Single level switching	262726
		6 duplex receptacles	262726
		<u>Communications:</u>	
		Clock	275313
		Central sound system	275123
<u>ENVIRONMENTAL CONSIDERATIONS:</u>		<u>Electronic Safety and Security:</u>	
▪ Wall minimum STC 45		Life safety devices per code	283111
▪ Ceiling minimum CAC 35, NRC 0.70			
▪ Uniform lighting with 80% visual comfort probability level		<u>Miscellaneous:</u>	
		N/A	

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

PROGRAM DESCRIPTION:		FEATURES¹:		Spec.
		Fixed Items:		Ref.#
Classroom and practical experiences concerned with the ground support of commercial aircraft (passenger and cargo). Experiences will include passenger service, including baggage handling, ticket agent, aircraft preflight/post/flight service, and ground traffic control.		16' of chalk/marker board		101100
		8' of tack board		101100
		30' of wall cabinets		123550
		30' of sink base cabinets w/2 sinks		123550
		Pencil sharpener support		062000
		Windows with integral blinds		085113
		(2) Paper towel dispensers		102813
		Projection screen 6'x8'		115213
		Fire Suppression:		
		Fire suppression system		211000
Program Type: 3		Plumbing:		
Size Requirements: 1,500 SF Lab		Plumbing connections		221116/221119/224000
Lab Requirements:		HVAC:		
FINISHES:	Spec.	Supply/return air system		Div. 23
	Ref #	Independent temperature control		230923
Flooring:		Electrical:		
Carpet	096816	Fluorescent lighting		265100
Option: vinyl composition tile, VET,	096500	Illumination level: See Table 8600-4		
sheet vinyl, or linoleum	096516	Multilevel switching		262726
Base:		20 duplex receptacles		262726
Resilient	096500	Double duplex receptacle adjacent to each data and video port		262726
Ceiling:		Communications:		
Suspended acoustical	095113	1 video port		271533/271543
Walls:		1 voice port and phone		271513/273113
Painted concrete masonry units	042000/099100	8 data ports		271513
LOOSE FURNISHINGS:		Clock		275313
(24) Student stools/chairs		Central sound system		275123
(12) 2-person work tables w/epoxy tops		Sound reinforcement system		275127
Wastebasket		Overhead projector		274119
Pencil sharpener		Electronic Safety and Security:		
		Life safety devices per code		283111
		Miscellaneous:		
		N/A		

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

GROUND OPERATIONS
Reference Room

CHAPTER 6: CAREER-TECHNICAL SCHOOL

<p>Program Type: 3</p> <p>Size Requirements: 150 SF</p> <p>Requirements:</p> <p><u>FINISHES:</u> Flooring: Carpet 096816 Option: vinyl composition tile, VET, 096500 sheet vinyl, or linoleum 096516</p> <p>Base: Resilient 096500</p> <p>Ceiling: Suspended acoustical 095113</p> <p>Walls: Painted concrete masonry units 042000/ 099100</p> <p><u>LOOSE FURNISHINGS:</u> Student chairs Wastebasket</p> <p><u>ENVIRONMENTAL CONSIDERATIONS:</u></p> <ul style="list-style-type: none"> ▪ Wall minimum STC 40 ▪ Ceiling minimum CAC 35 ▪ Uniform lighting with 80% visual comfort probability level 	<p style="text-align: right;">Spec. Ref.#</p> <p><u>FEATURES¹:</u> <u>Fixed Items:</u> 34' of plastic laminate counter 062000 27' of adjustable shelving 062000 Interior window 088000/081113</p> <p><u>Fire Suppression:</u> Fire suppression system 211000</p> <p><u>Plumbing:</u> N/A</p> <p><u>HVAC:</u> Supply/return air system Div. 23 Independent temperature control 230923</p> <p><u>Electrical:</u> Fluorescent lighting 265100 Illumination level: See Table 8600-4 Single level switching 262726 2 duplex receptacles 262726 Double duplex receptacle adjacent to each data port 262726</p> <p><u>Communications:</u> 6 data ports 271513 Clock 275313 Central sound system 275123</p> <p><u>Electronic Safety and Security:</u> Life safety devices per code 283111</p> <p><u>Miscellaneous:</u> N/A</p>
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NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

PROGRAM DESCRIPTION:		FEATURES¹:		Spec.
		<u>Fixed Items:</u>		<u>Ref.#</u>
Preparation for employment in service and management occupations in the areas of hospitality, lodging, and facility care. Includes instruction and experiences to develop competencies in hospitality management and services, lodging services, guest relations, hotel security, guest and room services, environmental services, meeting and banquet services, and laundry and linen services.		16' of chalk/marker board		101100
		8' of tack board		101100
		24' of wall cabinets		123550
		24' of sink base cabinets w/2 sinks		123550
		14' of reception counter		123550
		Pencil sharpener support		062000
		Windows with integral blinds		085113
		(2) Paper towel dispensers		102813
		(2) Garbage disposals		113100
		(2) Dishwashers		113100
Program Type: 3		(2) Ovens		113100
Size Requirements: 1,500 SF Lab		(2) Refrigerators		113100
Lab Requirements:		(2) Microwave ovens		113100
		(1) Washer and Dryer		113100
		Projection screen, 6'x8'		115213
		<u>Fire Suppression:</u>		
		Fire suppression system		211000
		<u>Plumbing:</u>		
		1 Utility sink		
		Plumbing connections		221116/221119/224000
		<u>HVAC:</u>		
		Supply/return air system		Div. 23
		Independent temperature control		230923
		Localized exhaust at laundry/		Div. 23
		linen area and oven area		
		<u>Electrical:</u>		
		Fluorescent lighting		265100
		Illumination level: See Table 8600-4		
		Multilevel switching		262726
		20 duplex receptacles		262726
		Double duplex receptacle adjacent to		
		each data and video port		262726
		<u>Communications:</u>		
		1 video port		271533/271543
		1 voice port and phone		271513/273113
		1 data port near teacher workstation		271513
		8 data ports		271513
		Clock		275313
		Central sound system		275123
		Sound reinforcement system		275127
		Overhead projector		274119
		<u>Electronic Safety and Security:</u>		
		Life safety devices per code		283111
		<u>Miscellaneous:</u>		
		N/A		

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

HOTELS AND RESORTS

Banquet Room

CHAPTER 6: CAREER-TECHNICAL SCHOOL

		Spec. Ref.#
Program Type:	3	
Size Requirements:	800 SF	
Requirements:		
<u>FINISHES:</u>	Spec. Ref #	
Flooring:		
Carpet	096816	
Option: vinyl composition tile, VET, sheet vinyl, or linoleum	096500 096516	
Base:		
Resilient	096500	
Ceiling:		
Suspended acoustical	095113	
Walls:		
Painted concrete masonry units	042000/ 099100	
<u>LOOSE FURNISHINGS:</u>		
N/A		
<u>ENVIRONMENTAL CONSIDERATIONS:</u>		
▪ Wall minimum STC 50		
▪ Ceiling minimum CAC 35, NRC 0.70		
▪ Uniform lighting with 80% visual comfort probability level		
		<u>FEATURES¹:</u>
		<u>Fixed Items:</u>
		8' of base cabinets 123550
		<u>Fire Suppression:</u>
		Fire suppression system 211000
		<u>Plumbing:</u>
		N/A
		<u>HVAC:</u>
		Supply/return air system Div. 23
		Independent temperature control 230923
		<u>Electrical:</u>
		Fluorescent lighting 265100
		Illumination level: See Table 8600-4
		Single level switching 262726
		4 duplex receptacles 262726
		Double duplex receptacle adjacent to each data port 262726
		<u>Communications:</u>
		2 data ports 271513
		Central sound system 275123
		Clock 275313
		<u>Electronic Safety and Security:</u>
		Life safety devices per code 283111
		<u>Miscellaneous:</u>
		N/A

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

<u>PROGRAM DESCRIPTION:</u> Organized subject matter and learning experiences related to performing activities that direct the flow of goods and their utilization from producer to consumer. These activities include the marketing functions of distribution, financing, information management, production, product/service planning, pricing, purchasing, risk management, and selling. Also included is a foundation in the areas of human resources, economics, business, and marketing and management concepts.		<u>FEATURES¹:</u> <u>Fixed Items:</u> 16' of chalk/marker board 101100 16' of tack board 101100 30' of wall cabinets 123550 30' of sink base cabinets w/1 sink 123550 Pencil sharpener support 062000 Windows with integral blinds 085113 Paper towel dispenser 102813 Projection screen, 6'x8' 115213		Spec. Ref.#
Program Type: 3		<u>Fire Suppression:</u> Fire suppression system 211000		
Size Requirements: 900 SF Lab		<u>Plumbing:</u> Plumbing connections 221116/221119/224000		
Lab Requirements:		<u>HVAC:</u> Supply/return air system Div. 23 Independent temperature control 230923		
<u>FINISHES:</u>		<u>Electrical:</u> Fluorescent lighting 265100 Illumination level: See Table 8600-4 Multilevel switching 262726 10 duplex receptacles (minimum) 262726 Double duplex receptacle adjacent to each data and video port 262726		Spec. Ref #
Flooring:		<u>Communications:</u> T1 1 video port 271533/271543 T2 1 voice port and phone 271513/273113 T3 1 data port near teacher workstation 271513 T4 26 data ports 271513 Clock 275313 Central sound system 275123 Sound reinforcement system 275127 T5 Overhead projector 274119		
Carpet	096816	<u>Electronic Safety and Security:</u> Life safety devices per code 283111		
Optional: vinyl composition tile, VET, sheet vinyl, or linoleum	096500 096516	<u>Miscellaneous:</u> N/A		
Base:				
Resilient	096500			
Ceiling:				
Suspended acoustical	095113			
Walls:				
Painted concrete masonry units	042000/ 099100			
<u>LOOSE FURNISHINGS:</u> (24) Computer workstation furniture & chairs (1) Teacher station & chair Wastebasket Pencil sharpener				

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

**SPORTS MARKETING
MARKETING MANAGEMENT AND RESEARCH
MARKETING TECHNOLOGY
CT-P3-1**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

PROGRAM DESCRIPTION:		Spec.
<u>SP, MM&R:</u> Organized subject matter and learning experiences designed for the systematic study of the management function in relation to marketing policies, organization, personnel, and financing. This instructional program generally prepares individuals to plan, organize, direct, and control the functions and activities of marketing in a variety of business and marketing related settings. Includes instruction in human resource management, strategic planning, managing technology, staffing functions, financial functions, telecommunications, and supervisory functions.		<u>Ref.#</u>
<u>MT:</u> Preparation for marketing careers focused on product/service planning, financing, promotion, distribution, information management, pricing, and selling.		
Program Type:	3	
Size Requirements:		
	1,000 SF Lab – Sports Marketing	
	1,000 SF Lab – Marketing Technology	
	900 SF Lab – Marketing Management	
Lab Requirements:		
	Spec.	
<u>FINISHES:</u>	<u>Ref #</u>	
Flooring:		
Carpet	096816	
Optional: vinyl composition tile, VET, sheet vinyl, or linoleum	096500 096516	
Base:		
Resilient	096500	
Ceiling:		
Suspended acoustical	095113	
Walls:		
Painted concrete masonry units	042000/ 099100	
<u>LOOSE FURNISHINGS:</u>		
(24) Computer workstation furniture & chairs		
(1) Teacher station & chair		
Wastebasket		
Pencil sharpener		
FEATURES¹:		
<u>Fixed Items:</u>		
	16' of chalk/marker board	101100
	16' of tack board	101100
	30' of wall cabinets	123550
	30' of sink base cabinets w/1 sink	123550
	Pencil sharpener support	062000
	Windows with integral blinds	085113
	Paper towel dispenser	102813
	Projection screen, 6'x8'	115213
<u>Fire Suppression:</u>		
	Fire suppression system	211000
<u>Plumbing:</u>		
	Plumbing connections	221116/221119/224000
<u>HVAC:</u>		
	Supply/return air system	Div. 23
	Independent temperature control	230923
<u>Electrical:</u>		
	Fluorescent lighting	265100
	Illumination level: See Table 8600-4	
	Multilevel switching	262726
	10 duplex receptacles (minimum)	262726
	Double duplex receptacle adjacent to each data and video port	262726
<u>Communications:</u>		
T1	1 video port	271533/271543
T2	1 voice port and phone	271513/273113
T3	1 data port near teacher workstation	271513
T4	26 data ports	271513
	Clock	275313
	Central sound system	275123
	Sound reinforcement system	275127
T5	Overhead projector	274119
<u>Electronic Safety and Security:</u>		
	Life safety devices per code	283111
<u>Miscellaneous:</u>		
	N/A	

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

**SPORTS MARKETING
MARKETING MANAGEMENT AND RESEARCH
MARKETING TECHNOLOGY
Bookstore**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

Program Type: 3		FEATURES¹:		Spec.
Size Requirements: 800 SF		Fixed Items:		Ref.#
Requirements:		8' of plastic laminate counter		062000
		75' of base cabinet		123550
		75' of adjustable display wall system		060565
		Interior window		088000/081113
		Fire Suppression:		
		Fire suppression system		211000
		Plumbing:		
		N/A		
		HVAC:		
		Supply/return air system		Div. 23
		Independent temperature control		230923
		Electrical:		
		Fluorescent lighting		265100
		Illumination level: See Table 8600-4		
		Incandescent track lighting		265100
		Multilevel switching		262726
		6 duplex receptacles (minimum)		262726
		Double duplex receptacle adjacent to each data port		262726
		Communications:		
		2 data ports		271513
		Clock		275313
		Central sound system		275123
		Electronic Safety and Security:		
		Life safety devices per code		283111
		Miscellaneous:		
		N/A		
FINISHES:				
Flooring:				
Carpet				096816
Optional: vinyl composition tile, VET, sheet vinyl, or linoleum				096500
				096516
Base:				
Resilient				096500
Ceiling:				
Suspended acoustical				095113
Walls:				
Painted concrete masonry units				042000/099100
LOOSE FURNISHINGS:				
Stool				
Wastebasket				
ENVIRONMENTAL CONSIDERATIONS:				
▪ Wall minimum STC 48				
▪ Ceiling minimum CAC 35, NRC 0.70				
▪ Uniform lighting with 80% visual comfort probability level				

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

**SPORTS MARKETING
MARKETING MANAGEMENT AND RESEARCH
MARKETING TECHNOLOGY**

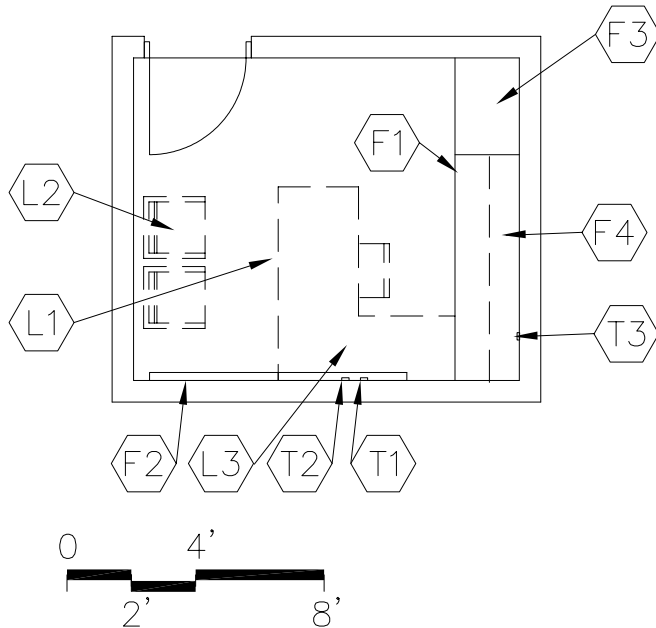
Display

CHAPTER 6: CAREER-TECHNICAL SCHOOL

Program Type: 3		Spec. Ref.#
Size Requirements: 100 SF		
Requirements:		
<u>FINISHES:</u>	<u>Spec. Ref #</u>	
Flooring:		
Vinyl composition tile	096500	
Base:		
Resilient	096500	
Ceiling:		
Suspended acoustical	095113	
Walls:		
Painted concrete masonry units	042000/ 099100	
<u>LOOSE FURNISHINGS:</u>		
N/A		
<u>ENVIRONMENTAL CONSIDERATIONS:</u>		
<ul style="list-style-type: none"> Wall minimum STC 45 Ceiling minimum CAC 35, NRC 0.70 Uniform lighting with 80% visual comfort probability level 		
		<u>FEATURES¹:</u>
		<u>Fixed Items:</u>
		10' of adjustable shelving 062000
		Interior window 088000/081113
		<u>Fire Suppression:</u>
		Fire suppression system 211000
		<u>Plumbing:</u>
		N/A
		<u>HVAC:</u>
		Supply/return air system Div. 23
		Independent temperature control 230923
		<u>Electrical:</u>
		Fluorescent lighting 265100
		Illumination level: See Table 8600-4
		Single level switching 262726
		Incandescent track lighting 265100
		Track lighting 265100
		4 duplex receptacles 262726
		Double duplex receptacle adjacent to data port 262726
		<u>Communications:</u>
		1 data port 271523
		Central sound system 275123
		<u>Electronic Safety and Security:</u>
		Life safety devices per code 283111
		<u>Miscellaneous:</u>
		N/A

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.



CAPACITY:
SIZE:

1 - 3 persons
120 SF

PROGRAM ACTIVITIES:

- Private space for program instructor
- One-on-one conferences with academic instructors, students, etc.

SPATIAL RELATIONSHIPS:

- Near related lab
- Direct access to school circulation areas

ENVIRONMENTAL CONSIDERATIONS:

- Uniform lighting
- Environmental sound control -
wall minimum STC **45**
ceiling minimum CAC 35, NRC **0.70**

NOTES:

1. Loose furnishings shown represent one of many possible arrangements.

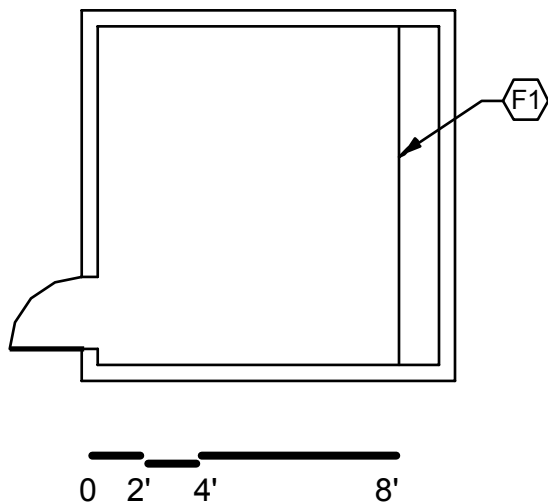
**OFFICE
CT-P3-2**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

<u>FINISHES¹:</u>		<u>FEATURES¹:</u>	
	Spec. Ref.#		Spec. Ref.#
<u>Flooring:</u>		<u>Fixed Items:</u>	
Carpet <i>or carpet tile</i>	096816	F1 Work surface with file drawers	123550
	096813	F2 4' of tack board	101100
		or tackable wall surface	
<u>Base:</u>		F3 2' of tall wardrobe	123550
Resilient base	096500	F4 Wall cabinets above work surface	123550
<u>Ceiling:</u>		<u>Fire Suppression:</u>	
Suspended, acoustical	095113	Fire suppression system	211000
<u>Walls:</u>		<u>Plumbing:</u>	
Painted gypsum wallboard		N/A	
over metal studs	092116/099100		
<u>LOOSE FURNISHINGS:</u>		<u>HVAC:</u>	
L1 Desk and chair		Supply/return air system	Div. 23
L2 Visitor chairs		Independent temperature control	230923
L3 Computer desk return			
Wastebasket		<u>Electrical:</u>	
		Single level switching	262726
		Fluorescent lighting	265100
		Illumination level: See Table 8600-4	
		4 duplex receptacles	262726
		Double duplex receptacle adjacent	
		to data and video port	262726
		<u>Communications:</u>	
		T1 1 voice port and phone	271513/273113
		T2 1 data port near workstation	271523
		T3 1 video port	271533/271543
		Central sound system	275123
		Clock	275313
		<u>Electronic Safety and Security:</u>	
		Life safety devices per code	283111
		<u>Miscellaneous:</u>	
		N/A	

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references. Optional: moveable cabinets
2. Fixed casework and loose furnishings can also be all fixed casework or all loose furnishings.



PROGRAM ACTIVITIES:

- Space for storage of lab equipment

SPATIAL RELATIONSHIPS:

- Near related lab

ENVIRONMENTAL CONSIDERATIONS:

N/A

CAPACITY:
SIZE:N/A
200 SFNOTES:

STORAGE AREA
CT-P3-3

CHAPTER 6: CAREER-TECHNICAL SCHOOL

		Spec. Ref.#			Spec. Ref.#
<u>FINISHES¹:</u>			<u>FEATURES¹:</u>		
Flooring:			<u>Fixed Items¹:</u>		
Sealed concrete		033000	F1 8'-20' of open shelving		
			Depth may vary (fixed or loose)		123550
Base:			<u>Fire Suppression:</u>		
Resilient base		096500	Fire suppression system		211000
Ceiling:			<u>Plumbing:</u>		
Exposed structure		---	N/A		
Walls:			<u>HVAC:</u>		
Painted concrete masonry units		042000/099100	To be determined by Design Professional		
			Supplemental heat as required		Div. 23
<u>LOOSE FURNISHINGS:</u>			<u>Electrical:</u>		
N/A			Single level switching		262726
			Fluorescent lighting		265100
			Illumination level: See Table 8600-4		
			Duplex receptacles		262726
			<u>Communications:</u>		
			N/A		
			<u>Electronic Safety and Security:</u>		
			Life safety devices per code		283111
			<u>Miscellaneous:</u>		
			N/A		

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

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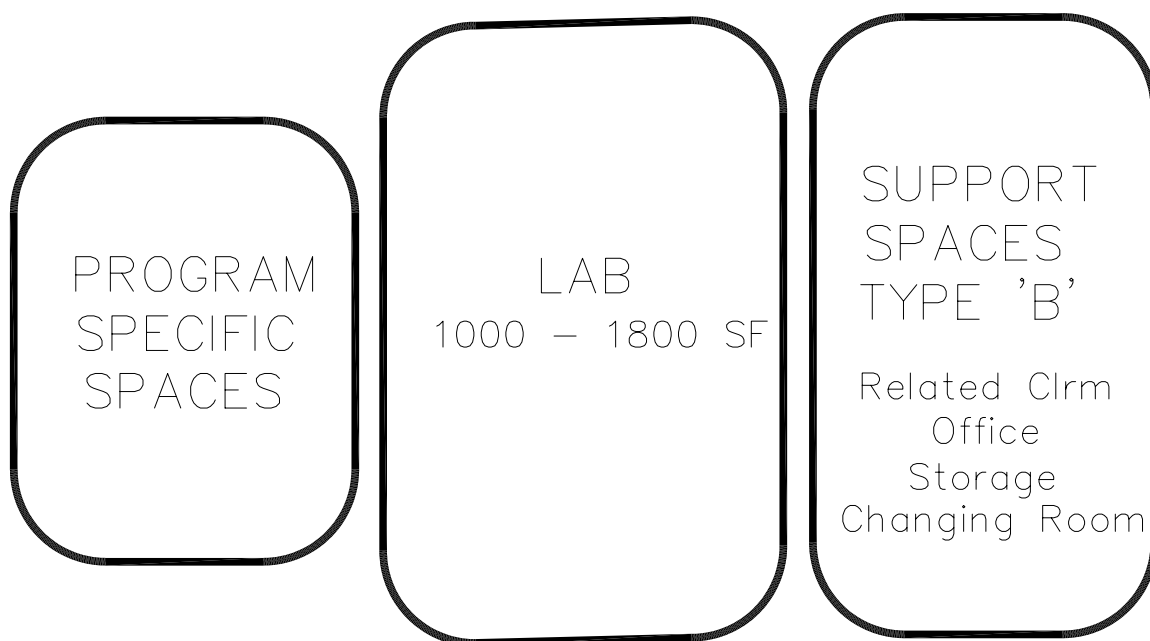
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Program Type 4

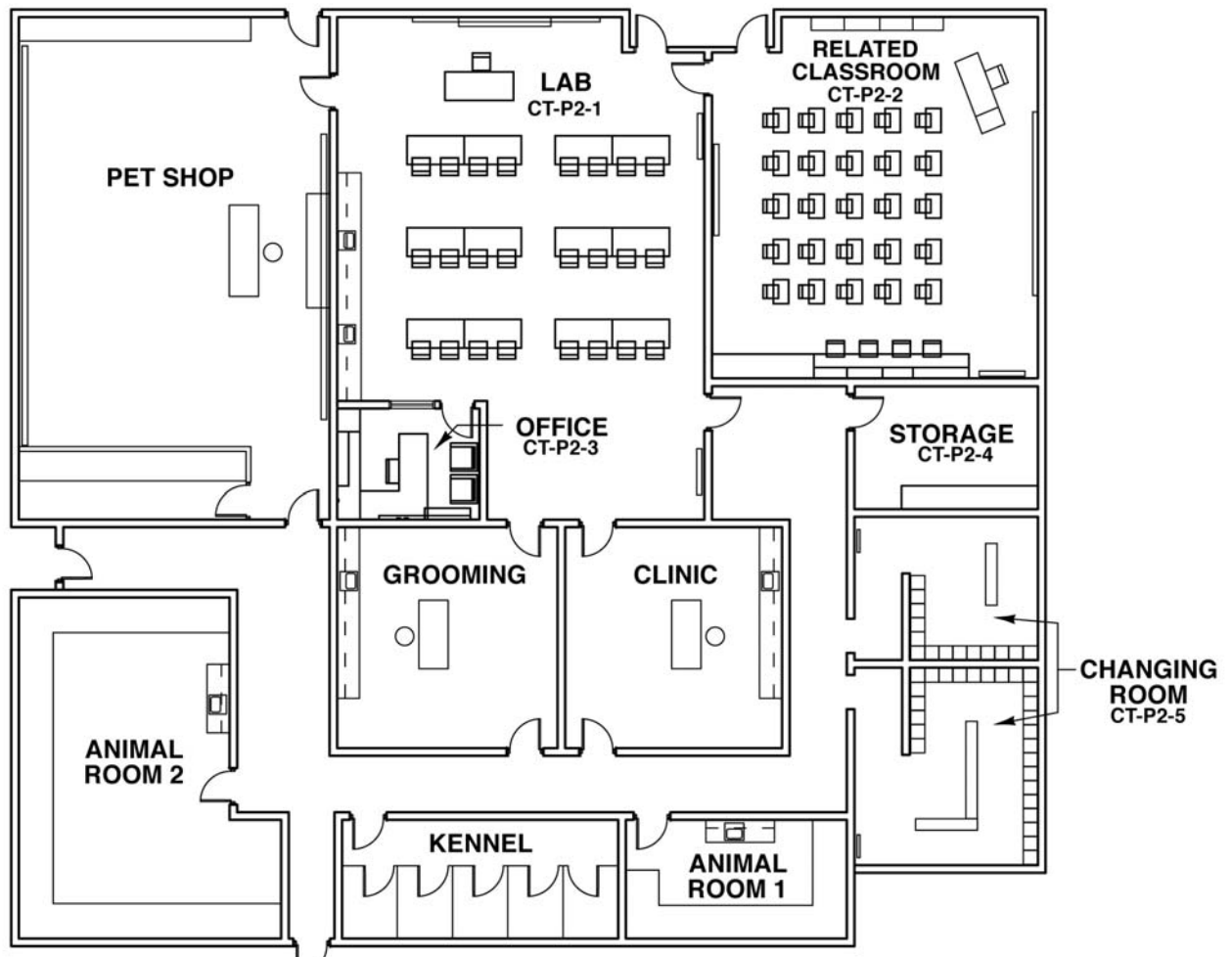
Description: Small to medium sized lab space with typical support space. Additionally, this program requires specialized auxiliary spaces. This program is to utilize standard construction and be one-story (12' +/-) tall. Lab, support, and specialized space to have finished floor, painted walls, and suspended acoustical ceiling.

**NOTES:**

This is an example of how the Program Type 4 spaces in a career-technical school could be arranged. This is meant only to demonstrate the relationships between various spaces of this area.

Following are the Program Type 4 space plates:

- CT-P4-1 Lab
- CT-P4-2 Related Classroom
- CT-P4-3 Office
- CT-P4-4 Storage
- CT-P4-5 Changing Room

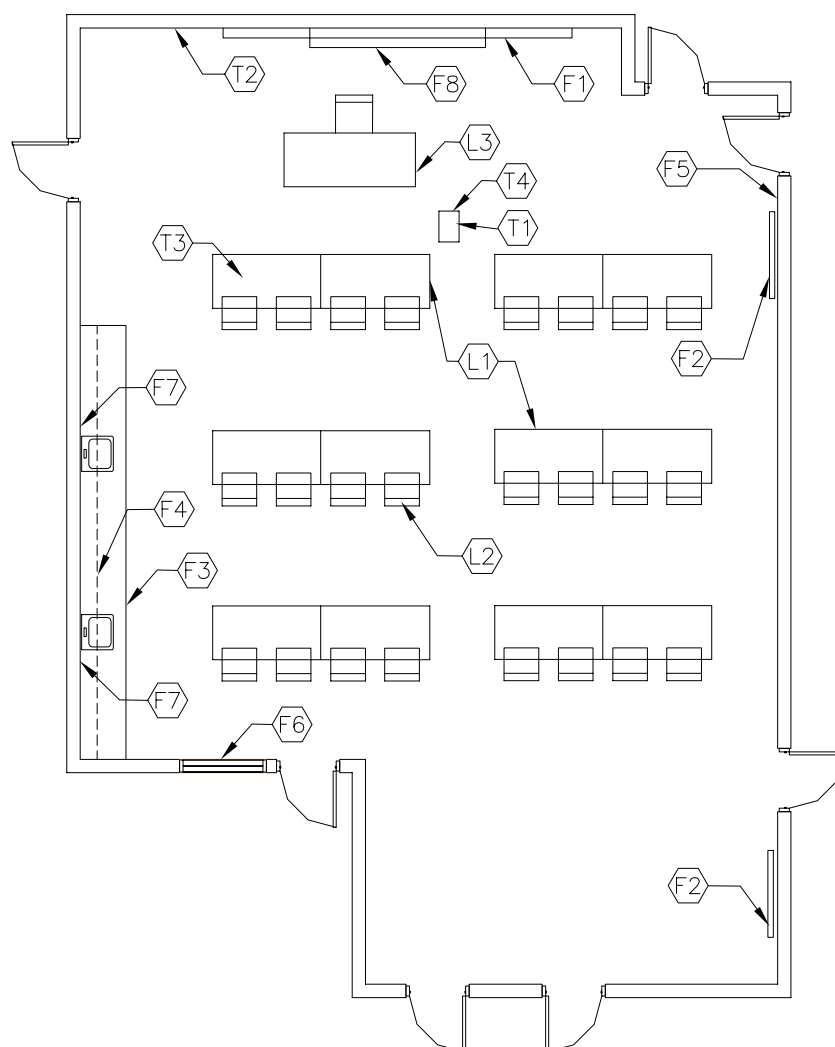


Program Type 4: Animal Science and Management (small animal)

This is an example to show the possible relationships of spaces for this program type.

NOTES:

1. See lab descriptions within this section for specific lab requirements.
2. See individual space plates at the end of this section for specific requirements.



CAPACITY:	24 Students
SIZE:	1,000 – 1,800 SF
	(see lab summaries for exact sizes)
ANCILLARY SPACES:	CT-P4-2 thru CT-P4-5

NOTES:

1. Loose furnishings shown represent one of many possible arrangements.
2. Graphic plate is an example only. Other labs within this program are not drawn – refer to lab summaries within this program type for information on a particular lab.

PROGRAM ACTIVITIES:

- Large and small group instruction
- Group and individual work
- Demonstrations

SPATIAL RELATIONSHIPS:

- Near other related labs
- Adjacent to typical support spaces
- Proximity to large group restrooms
- Located away from noisy or public activities
- Proximity to core academic area and common use areas
- Flexibility of space

ENVIRONMENTAL CONSIDERATIONS:

- Uniform lighting with 80% visual comfort probability level.
- Optional: Natural light opening equal to 5% minimum of floor area, with an operable vent
- Environmental sound control -
walls minimum STC 50
ceiling minimum CAC 35, NRC **0.70**
- Flexibility of space

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.
2. Loose Furnishings: Refer to Lab Profiles within this section.
3. Loose Furnishings, fixed equipment, utility locations, and general footprint of room shown represent one of many possible arrangements.

ANIMAL SCIENCE AND MANAGEMENT (small animal)

CHAPTER 6: CAREER-TECHNICAL SCHOOL

CT-P4-1

PROGRAM DESCRIPTION:		Spec. Ref.#
Programs provide instruction in the principles and practices of producing, caring for, and marketing domesticated non-food animals. Examples of careers for students completing this program include veterinary technicians, zoo keepers, kennel managers, grooming specialists, pet sales associates, horse trainers, and animal laboratory technicians. Animal Science and Management can also serve as a foundation program for careers requiring post-secondary education.		
Program Type:	4	
Size Requirements:	1,000 SF Lab	
Lab Requirements:		
FINISHES:	Spec. Ref #	
Flooring:		
Vinyl composition tile,	096500	
VET, sheet vinyl, or linoleum	096516	
Base:		
Resilient	096500	
Ceiling:		
Suspended acoustical	095113	
Walls:		
Painted concrete masonry units	042000/ 099100	
LOOSE FURNISHINGS:		
L1 (12) Two-person work tables		
L2 (24) Student chairs/stools		
L3 (1) Teacher station & chair		
Wastebasket		
Pencil sharpener		
FEATURES¹:		
Fixed Items:		
F1	16' of chalk/marker board	101100
F2	8' of tack board	101100
F3	20' of sink base cabinets w/2 sinks	123550
F4	20' of wall cabinets	123550
F5	Pencil sharpener support	062000
F6	Windows with integral blinds	085113
F7	(2) Paper towel dispenser	102813
F8	Projection screen, 6'x8'	115213
Fire Suppression:		
	Fire suppression system	211000
Plumbing:		
	Plumbing connections	221116/221119/224000
	Handwashing lavatory	224000
HVAC:		
	Supply/return air system	Div. 23
	Independent temperature control	230923
Electrical:		
	Fluorescent lighting	265100
	Illumination level: See Table 8600-4	
	Multilevel switching	262726
	10 duplex receptacles	262726
	Double duplex receptacle adjacent to each data and video port	262726
Communications:		
T1	1 video port	271533/271543
T2	1 voice port and phone	271513/273113
	1 data port near teacher workstation	271513
T3	8 data ports	271513
	Clock	275313
	Central sound system	275123
	Sound reinforcement system	275127
T4	Overhead projector	274119
Electronic Safety and Security:		
	Life safety devices per code	283111
Miscellaneous:		
	N/A	
SITE FEATURE:		
Plan for a dog kennel if required by school curriculum requirements.		

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

ANIMAL SCIENCE AND MANAGEMENT (small animal)

Pet Shop

CHAPTER 6: CAREER-TECHNICAL SCHOOL

<p>Program Type: 4</p> <p>Size Requirements: 1,200 SF</p> <p>Requirements:</p> <p><u>FINISHES:</u> Flooring: Vinyl composition tile, Spec. 096500 VET, sheet vinyl, or linoleum 096516</p> <p>Base: Resilient 096500</p> <p>Ceiling: Suspended acoustical 095113</p> <p>Walls: Painted concrete masonry units 042000/ 099100</p> <p><u>LOOSE FURNISHINGS:</u> Stool Wastebasket</p> <p><u>ENVIRONMENTAL CONSIDERATIONS:</u></p> <ul style="list-style-type: none"> Wall minimum STC 50 Ceiling minimum CAC 35, NRC 0.70 Uniform lighting with 80% visual comfort probability level 	<p>FEATURES¹: <u>Fixed Items:</u> 8' of counter 123550 30' of base cabinets 123550 60' of adjustable wall display system 060565 Glass enclosed animal display wall 084113</p> <p><u>Fire Suppression:</u> Fire suppression system 211000</p> <p><u>Plumbing:</u> Plumbing connections 221116/221119/224000 Handwashing lavatory 224000</p> <p><u>HVAC:</u> Supply/return air system Div. 23 Independent temperature control 230923 Independent ventilation Div. 23</p> <p><u>Electrical:</u> Fluorescent lighting 265100 Illumination level: See Table 8600-4 Multilevel switching 262726 Incandescent track lighting 265100 9 duplex receptacles 262726 Double duplex receptacle adjacent to each data port 262726</p> <p><u>Communications:</u> 1 voice port and phone 271513/273113 2 data ports 271513 Clock 275313 Central sound system 275123</p> <p><u>Electronic Safety and Security:</u> Life safety devices per code 283111</p> <p><u>Miscellaneous:</u> N/A</p>
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NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

ANIMAL SCIENCE AND MANAGEMENT (small animal)

CHAPTER 6: CAREER-TECHNICAL SCHOOL

Clinic

		Spec. Ref.#
Program Type:	4	
Size Requirements:	350 SF	
Requirements:		
<u>FINISHES:</u>	Spec. Ref #	
Flooring:		
Vinyl composition tile,	096500	
VET, sheet vinyl, or linoleum	096516	
Base:		
Resilient	096500	
Ceiling:		
Suspended acoustical	095113	
Walls:		
Painted concrete masonry units	042000/ 099100	
<u>LOOSE FURNISHINGS:</u>		
Stool		
Wastebasket		
<u>ENVIRONMENTAL CONSIDERATIONS:</u>		
▪ Wall minimum STC 50		
▪ Ceiling minimum CAC 35, NRC 0.70		
▪ Uniform lighting with 80% visual comfort probability level		
		<u>FEATURES¹:</u>
		<u>Fixed Items:</u>
		15' of base cabinets w/1 sink 123550
		15' of wall cabinets 123550
		6' examination island 123550
		Paper towel dispenser 102813
		<u>Fire Suppression:</u>
		Fire suppression system 211000
		<u>Plumbing:</u>
		Plumbing connections 221116/221119/224000
		<u>HVAC:</u>
		Supply/return air system Div. 23
		Independent temperature control 230923
		Independent ventilation Div. 23
		<u>Electrical:</u>
		Fluorescent lighting 265100
		Illumination level: See Table 8600-4
		Single level switching 262726
		4 duplex receptacles 262726
		Double duplex receptacle adjacent to each data port 262726
		<u>Communications:</u>
		2 data ports 271513
		Clock 275313
		Central sound system 275123
		<u>Electronic Safety and Security:</u>
		Life safety devices per code 283111
		<u>Miscellaneous:</u>
		N/A

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

ANIMAL SCIENCE AND MANAGEMENT (small animal)

Grooming

CHAPTER 6: CAREER-TECHNICAL SCHOOL

		Spec. Ref.#
Program Type:	4	
Size Requirements:	350 SF	
Requirements:		
<u>FINISHES:</u>	Spec. Ref #	
Flooring:		
Vinyl composition tile,	096500	
VET, sheet vinyl, or linoleum	096516	
Base:		
Resilient	096500	
Ceiling:		
Suspended acoustical	095113	
Walls:		
Painted concrete masonry units	042000/ 099100	
<u>LOOSE FURNISHINGS:</u>		
Stool		
Wastebasket		
<u>ENVIRONMENTAL CONSIDERATIONS:</u>		
▪ Wall minimum STC 50		
▪ Ceiling minimum CAC 35, NRC 0.70		
▪ Uniform lighting with 80% visual comfort probability level		
		<u>FEATURES¹:</u>
		<u>Fixed Items:</u>
		15' of base cabinets w/1 sink 123550
		15' of wall cabinets 123550
		6' grooming island 123550
		Paper towel dispenser 102813
		<u>Fire Suppression:</u>
		Fire suppression system 211000
		<u>Plumbing:</u>
		Plumbing connections 221116/221119/224000
		<u>HVAC:</u>
		Supply/return air system Div. 23
		Independent temperature control 230923
		Independent ventilation Div. 23
		<u>Electrical:</u>
		Fluorescent lighting 265100
		Illumination level: See Table 8600-4
		Single level switching 262726
		4 duplex receptacles 262726
		Double duplex receptacle adjacent to each data port 262726
		<u>Communications:</u>
		2 data ports 271513
		Clock 275313
		Central sound system 275123
		<u>Electronic Safety and Security:</u>
		Life safety devices per code 283111
		<u>Miscellaneous:</u>
		N/A

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

ANIMAL SCIENCE AND MANAGEMENT (small animal)

CHAPTER 6: CAREER-TECHNICAL SCHOOL

Animal Room #1

Program Type: 4		FEATURES¹:	Spec.
Size Requirements: 200 SF		Fixed Items:	Ref.#
Requirements:		6' of base cabinets w/1 sink	123550
		6' of wall cabinets	123550
		20' of animal cage shelving	062000
		Paper towel dispenser	102813
FINISHES:	Spec.	Fire Suppression:	
Flooring:	Ref #	Fire suppression system	211000
Vinyl composition tile,	096500		
VET, sheet vinyl, or linoleum	096516	Plumbing:	
		Plumbing connections	
Base:			221116/221119/224000
Resilient	096500	Handwashing lavatory	224000
Ceiling:		HVAC:	
Suspended acoustical	095113	Supply/return air system	Div. 23
		Independent ventilation	Div. 23
Walls:			
Painted concrete masonry units	042000/	Electrical:	
	099100	Fluorescent lighting	265100
		Illumination level: See Table 8600-4	
LOOSE FURNISHINGS:		Single level switching	262726
Wastebasket		4 duplex receptacles	262726
		Communications:	
		Central sound system	275123
ENVIRONMENTAL CONSIDERATIONS:		Electronic Safety and Security:	
▪ Wall minimum STC 50		Life safety devices per code	283111
▪ Ceiling minimum CAC 35, NRC 0.70			
▪ Uniform lighting with 80% visual comfort probability level		Miscellaneous:	
		N/A	

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

ANIMAL SCIENCE AND MANAGEMENT (small animal)

Animal Room #2

CHAPTER 6: CAREER-TECHNICAL SCHOOL

		Spec. Ref.#
Program Type:	4	
Size Requirements:	600 SF	
Requirements:		
<u>FINISHES:</u>	Spec. Ref #	
Flooring:		
Vinyl composition tile,	096500	
VET, sheet vinyl, or linoleum	096516	
Base:		
Resilient	096500	
Ceiling:		
Suspended acoustical	095113	
Walls:		
Painted concrete masonry units	042000/ 099100	
<u>LOOSE FURNISHINGS:</u>		
Stool		
Wastebasket		
<u>ENVIRONMENTAL CONSIDERATIONS:</u>		
▪ Wall minimum STC 50		
▪ Ceiling minimum CAC 35, NRC 0.70		
▪ Uniform lighting with 80% visual comfort probability level		
		<u>FEATURES¹:</u>
		<u>Fixed Items:</u>
		6' of base cabinets w/1 sink 123550
		6' of wall cabinets 123550
		50' of animal cage shelving 062000
		Paper towel dispenser 102813
		<u>Fire Suppression:</u>
		Fire suppression system 211000
		<u>Plumbing:</u>
		Plumbing connections 221116/221119/224000
		Handwashing lavatory 224000
		<u>HVAC:</u>
		Supply/return air system Div. 23
		Independent ventilation Div. 23
		<u>Electrical:</u>
		Fluorescent lighting 265100
		Illumination level: See Table 8600-4
		Single level switching 262726
		4 duplex receptacles 262726
		<u>Communications:</u>
		Central sound system 275123
		<u>Electronic Safety and Security:</u>
		Life safety devices per code 283111
		<u>Miscellaneous:</u>
		N/A

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

ANIMAL SCIENCE AND MANAGEMENT (small animal)

CHAPTER 6: CAREER-TECHNICAL SCHOOL

Kennel

Program Type: 4		FEATURES¹:	Spec.
Size Requirements: 250 SF		Fixed Items:	Ref.#
Requirements:		60' of chain link fencing w/5 gates	323113
FINISHES:		(5) exterior animal access doors	323113
Flooring:	Spec.	Fire Suppression:	
Sealed concrete	Ref #	Fire suppression system	211000
	033000	Plumbing:	
Base:		Plumbing connections	221116/221119/224000
Resilient	096500	Keyed hose bibb	224000
		Floor drain	224000
Ceiling:		HVAC:	
Suspended acoustical	095113	Supply/return air system	Div. 23
		Independent ventilation	Div. 23
Walls:		Electrical:	
Painted concrete masonry units	042000/099100	Fluorescent lighting	265100
		Illumination level: See Table 8600-4	
LOOSE FURNISHINGS:		Single level switching	262726
Wastebasket		4 duplex receptacles	262726
		Communications:	
		Central sound system	275123
ENVIRONMENTAL CONSIDERATIONS:		Electronic Safety and Security:	
▪ Wall minimum STC 50		Life safety devices per code	283111
▪ Ceiling minimum CAC 35, NRC 0.70		Miscellaneous:	
▪ Uniform lighting with 80% visual comfort probability level		N/A	

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

COSMETOLOGY
CT-P4-1

CHAPTER 6: CAREER-TECHNICAL SCHOOL

PROGRAM DESCRIPTION:		FEATURES¹:		Spec.
		Fixed Items:		Ref.#
<p>Classroom and practical learning experiences that are concerned with a variety of beauty treatments, including the care and beautification of hair, complexion, and hands. Instruction includes shampoos, rinses, and scalp treatments; hair styling, setting, cutting, dyeing, tinting, and bleaching; permanent waving; facials; manicuring; and hand and arm massaging. Bacteriology, anatomy, hygiene, sanitation, salon management (including keeping records), and customer relations are emphasized. Instruction is designed to qualify completers for licensing examination.</p>		8' of tack board		101100
		12' of base cabinets		123550
		12' of wall cabinets		123550
		16' of reception counter		123550
		8' of adjustable display shelving		062000
		Pencil sharpener support		062000
		Windows with integral blinds		085113
		(24) Student hair stations		123550
		(base cabinet, countertop, mirror, styling chair)		
		Fire Suppression:		
Program Type: 4		Fire suppression system		211000
Size Requirements: 1,600 SF Lab		Plumbing:		
Lab Requirements:		6 Hair washing sinks		224000
		Plumbing connections		221116/221119/224000
		HVAC:		
		Supply/return air system		Div. 23
		Independent temperature control		230923
		Specialized ventilation for pedicure odors		Div. 23
		Electrical:		
		Fluorescent lighting		265100
		Illumination level: See Table 8600-4		
		Multilevel switching		262726
		40 duplex receptacles (minimum)		262726
		Double duplex receptacle adjacent to each data and video port		262726
		Communications:		
		1 video port and video display device		271533/271543/274119
		1 voice port and phone		271513/273113
		8 data ports		271513
		Clock		275313
		Central sound system		275123
		Sound reinforcement system		275127
		Electronic Safety and Security:		
		Life safety devices per code		283111
		Miscellaneous:		
		N/A		

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

Program Type: 4		FEATURES¹:	Spec.
Size Requirements: 175 SF		Fixed Items:	Ref.#
Requirements:		27' of adjustable shelving	062000
FINISHES:		Fire Suppression:	
Flooring:	Spec. Ref #	Fire suppression system	211000
Vinyl composition tile,	096500	Plumbing:	
VET, sheet vinyl, or linoleum	096516	N/A	
Base:		HVAC:	
Resilient	096500	Supply/return air system	Div. 23
Ceiling:		Independent ventilation	Div. 23
Suspended acoustical	095113	Electrical:	
Walls:		Fluorescent lighting	265100
Painted concrete masonry units	042000/ 099100	Illumination level: See Table 8600-4	
LOOSE FURNISHINGS:		Single level switching	262726
Wastebasket		4 duplex receptacles	262726
ENVIRONMENTAL CONSIDERATIONS:		Communications:	
▪ Wall minimum STC 45		Clock	275313
▪ Ceiling minimum CAC 35, NRC 0.70		Central sound system	275123
▪ Uniform lighting with 80% visual comfort probability level		Electronic Safety and Security:	
		Life safety devices per code	283111
		Miscellaneous:	
		N/A	

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

COSMETOLOGY
Laundry Room

CHAPTER 6: CAREER-TECHNICAL SCHOOL

Program Type: 4		FEATURES¹:	Spec.
Size Requirements: 150 SF		Fixed Items:	Ref.#
Requirements:		20' of base cabinets w/1 sink	123550
FINISHES:		20' of adjustable shelving	062000
Flooring:		Paper towel dispenser	102813
Vinyl composition tile,		Fire Suppression:	
VET, sheet vinyl, or linoleum		Fire suppression system	211000
Base:		Plumbing:	
Resilient		Plumbing connections	221116/221119/224000
Ceiling:		Washer/dryer connections	224000
Suspended acoustical		HVAC:	
Walls:		Supply/return air system	Div. 23
Painted concrete masonry units		Independent ventilation	Div. 23
042000/ 099100		Dryer vent system	Div. 23
LOOSE FURNISHINGS:		Electrical:	
Clothes washer		Fluorescent lighting	265100
Electric clothes dryer		Illumination level: See Table 8600-4	
Wastebasket		Single level switching	262726
		4 duplex receptacles	262726
ENVIRONMENTAL CONSIDERATIONS:		Communications:	
▪ Wall minimum STC 45		Clock	275313
▪ Ceiling minimum CAC 35, NRC 0.70		Central sound system	275123
▪ Uniform lighting with 80% visual comfort probability level		Electronic Safety and Security:	
		Life safety devices per code	283111
		Miscellaneous:	
		N/A	

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

Program Type: 4		FEATURES¹:	Spec.
Size Requirements: 200 SF		Fixed Items:	Ref.#
Requirements:		4' of base cabinets w/1 sink	123550
		Paper towel dispenser	102813
FINISHES:		Fire Suppression:	
Flooring:		Fire suppression system	211000
Vinyl composition tile,		Plumbing:	
VET, sheet vinyl, or linoleum		Plumbing connections	221116/221119/224000
Base:		HVAC:	
Resilient		Supply/return air system	Div. 23
Ceiling:		Independent ventilation	Div. 23
Suspended acoustical		Independent temperature control	230923
Walls:		Electrical:	
Painted concrete masonry units		Fluorescent lighting	265100
		Illumination level: See Table 8600-4	
		Single level switching	262726
		4 duplex receptacles	262726
LOOSE FURNISHINGS:		Communications:	
Wastebasket		Clock	275313
		Central sound system	275123
ENVIRONMENTAL CONSIDERATIONS:		Electronic Safety and Security:	
▪ Wall minimum STC 40		Life safety devices per code	283111
▪ Ceiling minimum CAC 35, NRC 0.70		Miscellaneous:	
▪ Uniform lighting with 80% visual comfort probability level		N/A	

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

COSMETOLOGY
Manicure Room

CHAPTER 6: CAREER-TECHNICAL SCHOOL

Program Type: 4		FEATURES¹:	Spec.
Size Requirements: 200 SF		Fixed Items:	Ref.#
		4' of base cabinets w/1 sink	123550
		Paper towel dispenser	102813
Requirements:		Fire Suppression:	
	Spec.	Fire suppression system	211000
	Ref #		
FINISHES:		Plumbing:	
Flooring:		Plumbing connections	
Vinyl composition tile,	096500		
VET, sheet vinyl, or linoleum	096516		221116/221119/224000
Base:		HVAC:	
Resilient	096500	Supply/return air system	Div. 23
Ceiling:		Independent ventilation	Div. 23
Suspended acoustical	095113	Independent temperature control	230923
Walls:		Electrical:	
Painted concrete masonry units	042000/	Fluorescent lighting	265100
	099100	Illumination level: See Table 8600-4	
		Single level switching	262726
		4 duplex receptacles	262726
LOOSE FURNISHINGS:		Communications:	
Wastebasket		Clock	275313
		Central sound system	275123
ENVIRONMENTAL CONSIDERATIONS:		Electronic Safety and Security:	
<ul style="list-style-type: none"> Wall minimum STC 45 Ceiling minimum CAC 35, NRC 0.70 Uniform lighting with 80% visual comfort probability level 		Life safety devices per code	283111
		Miscellaneous:	
		N/A	

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

Program Type: 4		FEATURES¹:	Spec.
Size Requirements: 60 SF		Fixed Items:	Ref.#
Requirements:		Paper towel dispenser	102813
		Soap dispenser	102813
		36" and 42" grab bars	102813
		24"x60" mirror	102813
		Toilet paper holder	102813
FINISHES:	Spec. Ref #	Fire Suppression:	
Flooring:		Fire suppression system	211000
Rubber, linoleum, VET, or	096500	Plumbing:	221116/221119/224000
sheet vinyl	096516		
Option: ceramic mosaic tile,	093000		
porcelain tile base, or	096723	Wall mounted water closet	
resinous flooring		Wall mounted lavatory	
Base:		Plumbing connections	
Resilient	096500		
Option: ceramic mosaic tile base,	093000	HVAC:	
porcelain tile base, or	096723	Exhaust air system	Div. 23
resinous flooring		Supplemental heat as required	Div. 23
Ceiling:		Electrical:	
Suspended acoustical	095113	Fluorescent lighting	265100
Walls:		Illumination level: See Table 8600-4	
Painted concrete masonry units	042000/	Single level switching	262726
	099100	2 duplex receptacles	262726
LOOSE FURNISHINGS:		Communications:	
Wastebasket		Central sound system	275123
ENVIRONMENTAL CONSIDERATIONS:		Electronic Safety and Security:	
▪ Wall minimum STC 48		Life safety devices per code	283111
▪ Ceiling minimum CAC 35, NRC 0.40		Miscellaneous:	
▪ Uniform lighting with 80% visual comfort probability level		N/A	

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

CRIMINAL JUSTICE
CT-P4-1

CHAPTER 6: CAREER-TECHNICAL SCHOOL

<u>PROGRAM DESCRIPTION:</u> Specialized classroom and practical learning experiences that are designed to supplement the training provided by officially designated law enforcement agencies. Instruction includes acquiring and maintaining the uniform; patrolling on foot or in an automobile during the day or night; dealing with misdemeanors, felonies, traffic violations, and accidents; making arrests; testifying in court; legal aspects; defensive tactics; private security; occupational and health safety; and civil emergencies.		<u>FEATURES¹:</u> <u>Fixed Items:</u> 16' of chalk/marker board 101100 16' of tack board 101100 30' of sink base cabinets w/1 sink 123550 30' of wall cabinets 123550 Pencil sharpener support 062000 Windows with integral blinds 085113 Paper towel dispenser 102813 Projection screen, 6'x8' 115213	Spec. Ref.#
Program Type: 4		<u>Fire Suppression:</u> Fire suppression system 211000	
Size Requirements: 1,200 SF Lab		<u>Plumbing:</u> Plumbing connections 221116/221119/224000	
Lab Requirements:		<u>HVAC:</u> Supply/return air system Div. 23 Independent temperature control 230923	
<u>FINISHES:</u>	Spec. Ref #	<u>Electrical:</u> Fluorescent lighting 265100 Illumination level: See Table 8600-4 Multilevel switching 262726 20 duplex receptacles (minimum) 262726 Double duplex receptacle adjacent to each data and video port 262726	
Flooring:		<u>Communications:</u> 1 video port 271533/271543 1 voice port and phone 271513/273113 1 data port near teacher workstation 271513 8 data ports 271513 Clock 275313 Central sound system 275123 Sound reinforcement system 275127 Overhead projector 274119	
Carpet 096816		<u>Electronic Safety and Security:</u> Life safety devices per code 283111	
Option: Vinyl composition tile, 096500		<u>Miscellaneous:</u> N/A	
VET, sheet vinyl, or linoleum 096516			
Base:			
Resilient 096500			
Ceiling:			
Suspended acoustical 095113			
Walls:			
Painted concrete masonry units 042000/ 099100			
<u>LOOSE FURNISHINGS:</u> (12) Two-person work tables (24) Student chairs/stools (1) Teacher station & chair Wastebasket Pencil sharpener			

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

Program Type: 4		FEATURES¹:	Spec.
Size Requirements: 800 SF		Fixed Items:	Ref.#
		N/A	
Requirements:		<u>Fire Suppression:</u>	
		Fire suppression system	211000
	Spec.		
<u>FINISHES:</u>	<u>Ref #</u>	<u>Plumbing:</u>	
Flooring:		N/A	
Vinyl composition tile,	096500		
VET, sheet vinyl, or linoleum	096516	<u>HVAC:</u>	
Option: sealed concrete	033000	Supply/return air system	Div. 23
		Independent temperature control	230923
Base:			
Resilient	096500	<u>Electrical:</u>	
		Fluorescent lighting	265100
Ceiling:		Illumination level: See Table 8600-4	
Suspended acoustical	095113	Single level switching	262726
		4 duplex receptacles	262726
Walls:			
Painted concrete masonry units	042000/	<u>Communications:</u>	
	099100	Clock	275313
		Central sound system	275123
<u>LOOSE FURNISHINGS:</u>			
N/A		<u>Electronic Safety and Security:</u>	
		Life safety devices per code	283111
		<u>Miscellaneous:</u>	
		N/A	
<u>ENVIRONMENTAL CONSIDERATIONS:</u>			
▪ Wall minimum STC 48			
▪ Ceiling minimum CAC 35, NRC 0.70			
▪ Uniform lighting with 80% visual comfort probability level			

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

CRIMINAL JUSTICE
Interrogation Room

CHAPTER 6: CAREER-TECHNICAL SCHOOL

		Spec. Ref.#
Program Type:	4	
Size Requirements:	150 SF	
Requirements:		
<u>FINISHES:</u>	Spec. Ref #	<u>FEATURES¹:</u>
Flooring:		<u>Fixed Items:</u>
Vinyl composition tile,	096500	N/A
VET, sheet vinyl, or linoleum	096516	
Base:		<u>Fire Suppression:</u>
Resilient	096500	Fire suppression system 211000
Ceiling:		<u>Plumbing:</u>
Suspended acoustical	095113	N/A
Walls:		<u>HVAC:</u>
Painted concrete masonry units	042000/ 099100	Supply/return air system Div. 23 Independent temperature control 230923
<u>LOOSE FURNISHINGS:</u>		<u>Electrical:</u>
(1) Table		Fluorescent lighting 265100
(4) Chairs		Illumination level: See Table 8600-4
		Single level switching 262726
		4 duplex receptacles 262726
		Double duplex receptacle 262726 adjacent to data port
		<u>Communications:</u>
		1 data port 271513
		Clock 275313
		Central sound system 275123
		<u>Electronic Safety and Security:</u>
		Life safety devices per code 283111
<u>ENVIRONMENTAL CONSIDERATIONS:</u>		<u>Miscellaneous:</u>
▪ Wall minimum STC 48		N/A
▪ Ceiling minimum CAC 35, NRC 0.70		
▪ Uniform lighting with 80% visual comfort probability level		

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

CULINARY ARTS AND FOOD SERVICE MANAGEMENT

CHAPTER 6: CAREER-TECHNICAL SCHOOL

CT-P4-1

<u>PROGRAM DESCRIPTION:</u>		<u>FEATURES¹:</u>	Spec.
Preparation for employment in managerial, production, and service jobs in a variety of food service and/or baking operations. Includes instruction and experiences to develop competencies in the selection, storage, purchase, preparation, and serving of quantity goods and food products, the production of bakery products, nutrition and special diets, safety and sanitation procedures, use and care of commercial equipment, serving techniques, and management of food establishments.		<u>Fixed Items:</u>	<u>Ref.#</u>
		8' of tack board	101100
		Food service equipment	114000
		(3) Paper towel dispensers	102813
		<u>Fire Suppression:</u>	
		Fire suppression system	211000
		<u>Plumbing:</u>	
		Plumbing connections	221116/221119/224000
		Connections to food service eqpt	224000
		Gas connections	226313
		Hand washing lavatory	224000
		Quick release gas connections	226313
		Master gas shut-off valve	226313
		<u>HVAC:</u>	
		Supply/return air system	Div. 23
		Independent temperature control	230923
		Kitchen canopy exhaust system	Div. 23
		<u>Electrical:</u>	
		Fluorescent lighting	265100
		Illumination level: See Table 8600-4	
		Single level switching	262726
		10 duplex receptacles (minimum)	262726
		Double duplex receptacle adjacent to each data and video port	262726
		Connections for food service eqpt	262726
		Means of egress lighting per code	265100
		220V service	262726
		<u>Communications:</u>	
		1 video port and video display device	271533/271543/274119
		1 voice port and phone	271513/273113
		4 data ports	271513
		Clock	275313
		Central sound system	275123
		Sound reinforcement system	275127
		<u>Electronic Safety and Security:</u>	
		Life safety devices per code	283111
		<u>Miscellaneous:</u>	
		N/A	

PROGRAM DESCRIPTION:

Preparation for employment in managerial, production, and service jobs in a variety of food service and/or baking operations. Includes instruction and experiences to develop competencies in the selection, storage, purchase, preparation, and serving of quantity goods and food products, the production of bakery products, nutrition and special diets, safety and sanitation procedures, use and care of commercial equipment, serving techniques, and management of food establishments.

Program Type: 4

Size Requirements: 1,800 SF Lab

Lab Requirements:

	Spec.
<u>FINISHES:</u>	<u>Ref #</u>

Flooring:	
Quarry tile	093000

Base:	
Quarry tile base	093000

Ceiling:	
Cleanable, suspended acoustical	095113

Walls:	
Epoxy painted concrete masonry units	042000/099100

Option: ceramic wall tile	093000
or latex paint	099100

LOOSE FURNISHINGS:

Wastebasket

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

CULINARY ARTS AND FOOD SERVICE MANAGEMENT

Restaurant

CHAPTER 6: CAREER-TECHNICAL SCHOOL

		Spec. Ref.#
Program Type:	4	
Size Requirements:	1,500 SF	
Requirements:		
<u>FINISHES:</u>	Spec. Ref #	
Flooring:		
Carpet	096816	
Option: Vinyl composition tile, VET, sheet vinyl, or linoleum	096500 096516	
Base:		
Resilient	096500	
Ceiling:		
Suspended acoustical	095113	
Walls:		
Painted concrete masonry units	042000/ 099100	
<u>LOOSE FURNISHINGS:</u>		
Wastebasket		
<u>ENVIRONMENTAL CONSIDERATIONS:</u>		
▪ Wall minimum STC 50		
▪ Ceiling minimum CAC 35, NRC 0.70		
▪ Uniform lighting with 80% visual comfort probability level		
		FEATURES¹:
		<u>Fixed Items:</u>
		6' of base cabinets 123550
		6' of cashier's station 123550
		Interior window 088000/081113
		Projection screen, 6'x8' 115213
		<u>Fire Suppression:</u>
		Fire suppression system 211000
		<u>Plumbing:</u>
		N/A
		<u>HVAC:</u>
		Supply/return air system Div. 23
		Independent temperature control 230923
		<u>Electrical:</u>
		Fluorescent lighting 265100
		Illumination level: See Table 8600-4
		Multilevel switching 262726
		Incandescent can lighting around 265100
		perimeter of room
		4 duplex receptacles 262726
		Double duplex receptacle adjacent to each data port 262726
		<u>Communications:</u>
		1 voice port and phone 271513/273113
		2 data ports 271513
		Clock 275313
		Central sound system 275123
		<u>Electronic Safety and Security:</u>
		Life safety devices per code 283111
		<u>Miscellaneous:</u>
		N/A

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

CULINARY ARTS AND FOOD SERVICE MANAGEMENT

CHAPTER 6: CAREER-TECHNICAL SCHOOL

Dry Storage

Program Type:	4	<u>FEATURES¹:</u>	Spec.
Size Requirements:	150 SF	<u>Fixed Items:</u>	<u>Ref.#</u>
Requirements:	Spec.	N/A	
<u>FINISHES:</u>	<u>Ref #</u>	<u>Fire Suppression:</u>	
Flooring:		Fire suppression system	211000
Linoleum, VET, or sheet vinyl	096500	<u>Plumbing:</u>	
Option: Quarry tile	093000	N/A	
	096516	<u>HVAC:</u>	
Base:		Exhaust air system	Div. 23
Resilient base	096500	Supply/return air system	Div. 23
Option: Quarry tile	093000	<u>Electrical:</u>	
Ceiling:		Single level switching	262726
Cleanable, suspended, acoustical	095113	Fluorescent lighting	265100
Walls:		Illumination level: See Table 8600-4	
Epoxy-painted concrete masonry units		1 duplex receptacle	262726
	042000 /099100	<u>Communications:</u>	
Option: Ceramic wall tile	093000	N/A	
or latex paint	099100	<u>Electronic Safety and Security:</u>	
<u>LOOSE FURNISHINGS:</u>		Life safety devices per code	283111
20' Commercial grade kitchen shelving		<u>Miscellaneous:</u>	
		N/A	
<u>ENVIRONMENTAL CONSIDERATIONS:</u>			
<ul style="list-style-type: none"> • Uniform lighting • Continuous conditioning of air • Cleanable building surfaces 			

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

**DENTAL ASSISTANT
CT-P4-1**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

PROGRAM DESCRIPTION:		Spec. Ref.#
A combination of subject matter and experiences designed to prepare a person to assist the dentist at the chair-side in the dentist operator, perform reception and clerical functions, and carry out selected dental laboratory work. Instruction includes infection control and hazards management, emergency procedures, preventive dental assisting procedures, chair-side assistance, dental specialties, dental laboratory procedures, office procedures, radiographic procedures, and professionalism.		
Program Type:	4	
Size Requirements:	1,500 SF Lab	
Lab Requirements:		
FINISHES:	Spec. Ref #	
Flooring:		
Vinyl composition tile,	096500	
VET, sheet vinyl, or linoleum	096516	
Base:		
Resilient	096500	
Ceiling:		
Suspended acoustical	095113	
Walls:		
Painted concrete masonry units	042000/099100	
LOOSE FURNISHINGS:		
(6) 4-person epoxy-top student tables w/electric and gas		
(24) Student chairs/stools		
(1) Teacher station & chair		
Wastebasket		
Pencil sharpener		
FEATURES¹:		
Fixed Items:		
16' of chalk/marker board		101100
8' of tack board		101100
40' of sink base cabinets w/6 sinks and natural gas		123550
40' of wall cabinets		123550
10' of reception counter		123550
Pencil sharpener support		062000
Windows with integral blinds		085113
(6) Paper towel dispensers		102813
Projection screen, 6'x8'		115213
Fire Suppression:		
Fire suppression system		211000
Plumbing:		
Plumbing connections		221116/221119/224000
Natural gas connections		226313
Master gas shut-off valve		226313
Safety shower/eye wash		224000
HVAC:		
Supply/return air system		Div. 23
Independent temperature control		230923
Localized ventilation for specific lab-produced fumes		Div. 23
Electrical:		
Fluorescent lighting		265100
Illumination level: See Table 8600-4		
Multilevel switching		262726
30 duplex receptacles (minimum)		262726
Double duplex receptacle adjacent to each data and video port		262726
Communications:		
1 video port and video display device		271533/271543/274119
1 voice port and phone		271513/273113
8 data ports		271513
Clock		275313
Central sound system		275123
Sound reinforcement system		275127
Electronic Safety and Security:		
Life safety devices per code		283111
Miscellaneous:		
N/A		

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

Program Type: 4		FEATURES¹:	Spec.
Size Requirements: 80 SF		Fixed Items:	Ref.#
		N/A	
Requirements:		Fire Suppression:	
		Fire suppression system	211000
FINISHES:		Plumbing:	
Flooring:	Spec. Ref #	Plumbing connections	
Vinyl composition tile,	096500	221116/221119/224000	
VET, sheet vinyl, or linoleum	096516		
Base:		HVAC:	
Resilient	096500	Supply/return air system	Div. 23
		Independent temperature control	230923
Ceiling:		Electrical:	
Suspended acoustical	095113	Fluorescent lighting	265100
		Illumination level: See Table 8600-4	
Walls:		Single level switching	262726
Painted concrete masonry units	042000/ 099100	4 duplex receptacles	262726
LOOSE FURNISHINGS:		Communications:	
(1) Chair		Central sound system	275123
		Electronic Safety and Security:	
		Life safety devices per code	283111
		Miscellaneous:	
		N/A	
ENVIRONMENTAL CONSIDERATIONS:			
<ul style="list-style-type: none"> Wall minimum STC 48 Ceiling minimum CAC 35, NRC 0.70 Uniform lighting with 80% visual comfort probability level 			

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

DENTAL ASSISTANT

Darkroom

CHAPTER 6: CAREER-TECHNICAL SCHOOL

Program Type:	4	FEATURES¹:	Spec. Ref.#
Size Requirements:	80 SF	Fixed Items:	
		10' of base cabinets w/1 sink	123550
		Paper towel dispenser	102813
Requirements:		Fire Suppression:	
	Spec. Ref #	Fire suppression system	211000
FINISHES:		Plumbing:	
Flooring:		Plumbing connections	221116/221119/224000
Vinyl composition tile,	096500		
VET, sheet vinyl, or linoleum	096516		
Base:		HVAC:	
Resilient	096500	Supply/return air system	Div. 23
		Independent temperature control	230923
Ceiling:		Electrical:	
Suspended acoustical	095113	Fluorescent lighting	265100
		Illumination level: See Table 8600-4	
Walls:		Single level switching	262726
Painted concrete masonry units	042000/	4 duplex receptacles	262726
	099100	Dark room safelight	265100
LOOSE FURNISHINGS:		Communications:	
Wastebasket		Central sound system	275123
		Clock	275313
		Electronic Safety and Security:	
		Life safety devices per code	283111
ENVIRONMENTAL CONSIDERATIONS:		Miscellaneous:	
▪ Wall minimum STC 45		N/A	
▪ Ceiling minimum CAC 35, NRC 0.70			
▪ Uniform lighting with 80% visual comfort probability level			

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

DIVERSIFIED HEALTH OCCUPATIONS

CHAPTER 6: CAREER-TECHNICAL SCHOOL

CT-P4-1

PROGRAM DESCRIPTION:		Spec. Ref.#
A combination of diversified subject matter and experiences designed to prepare a person for entry into the health field. Instruction includes emergency procedures, infection control and hazards management, legal, ethical, and professional responsibilities, basic personal care, medical database, medical/dental procedures, laboratory-related procedures, care of the elderly, home health care, restorative duties, and office procedures. Field trips and rotations through various health agencies are a part of the planned program.		
Program Type: 4		
Size Requirements: 1,200 SF Lab		
Lab Requirements:		
FINISHES:	Spec. Ref #	
Flooring:		
Vinyl composition tile,	096500	
VET, sheet vinyl, or linoleum	096516	
Base:		
Resilient	096500	
Ceiling:		
Suspended acoustical	095113	
Walls:		
Painted concrete masonry units	042000/ 099100	
LOOSE FURNISHINGS:		
(6) 4-person epoxy-top student tables with electric & natural gas		
(24) Student chairs/stools		
(1) Teacher station & chair		
Wastebasket		
Pencil sharpener		
FEATURES¹:		
Fixed Items:		
16' of chalk/marker board		101100
8' of tack board		101100
40' of sink base cabinets w/6 sinks and natural gas		123550
40' of wall cabinets		123550
10' of reception counter		123550
Pencil sharpener support		062000
Windows with integral blinds		085113
(6) Paper towel dispenser		102813
Projection screen, 6'x8'		115213
Fire Suppression:		
Fire suppression system		211000
Plumbing:		
Plumbing connections		221116/221119/224000
Natural gas connections		226313
Master gas shut-off valve		226313
HVAC:		
Supply/return air system		Div. 23
Independent temperature control		230923
Electrical:		
Fluorescent lighting		265100
Illumination level: See Table 8600-4		
Multilevel switching		262726
30 duplex receptacles (minimum)		262726
Double duplex receptacle adjacent to each data and video port		262726
Communications:		
1 video port and video display device		271533/271543/274119
1 voice port and phone		271513/273113
1 data port near teacher workstation		271513
8 data ports		271513
Clock		275313
Central sound system		275123
Sound reinforcement system		275127
Electronic Safety and Security:		
Life safety devices per code		283111
Miscellaneous:		
N/A		

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

DIVERSIFIED HEALTH OCCUPATIONS
Exam Room(s)

CHAPTER 6: CAREER-TECHNICAL SCHOOL

Program Type: 4		FEATURES¹:	Spec.
Size Requirements: 200 SF		Fixed Items:	Ref.#
Requirements:		8' of sink base cabinets w/2 sinks	123550
		(2) Paper towel dispensers	102813
FINISHES:		Fire Suppression:	
Flooring:		Fire suppression system	211000
Vinyl composition tile,		Plumbing:	
VET, sheet vinyl, or linoleum		Plumbing connections	221116/221119/224000
Base:		HVAC:	
Resilient		Supply/return air system	Div. 23
Ceiling:		Independent temperature control	230923
Suspended acoustical		Electrical:	
Walls:		Fluorescent lighting	265100
Painted concrete masonry units		Illumination level: See Table 8600-4	
		Single level switching	262726
		4 duplex receptacles per room	262726
		Double duplex receptacle adjacent to each data port	262726
LOOSE FURNISHINGS:		Communications:	
(1) Stool per room		1 data port per room	271513
(1) Wastebasket per room		1 clock per room	275313
		Central sound system	275123
ENVIRONMENTAL CONSIDERATIONS:		Electronic Safety and Security:	
▪ Wall minimum STC 48		Life safety devices per code	283111
▪ Ceiling minimum CAC 35, NRC 0.70		Miscellaneous:	
▪ Uniform lighting with 80% visual comfort probability level		N/A	

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

**FIRE FIGHTER TRAINING
CT-P4-1**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

PROGRAM DESCRIPTION: Specialized classroom and practical experiences concerned with the preparation of paid, full-time firefighters.		FEATURES¹: Fixed Items:	Spec. Ref.#
Program Type: 4		16' of chalk/marker board 101100 16' of tack board 101100 30' of sink base cabinets w/1 sink 123550 30' of wall cabinets 123550 Pencil sharpener support 062000 Windows with integral blinds 085113 Paper towel dispenser 102813 Projection screen, 6'x8' 115213	
Size Requirements: 1,500 SF Lab		Fire Suppression: Fire suppression system 211000	
Lab Requirements:	Spec. Ref #	Plumbing: Plumbing connections 221116/221119/224000	
FINISHES: Flooring: Carpet 096816 Option: Vinyl composition tile, 096500 VET, sheet vinyl, or linoleum 096516		HVAC: Supply/return air system Div. 23 Independent temperature control 230923	
Base: Resilient 096500		Electrical: Fluorescent lighting 265100 Illumination level: See Table 8600-4 Multilevel switching 262726 20 duplex receptacles (minimum) 262726 Double duplex receptacle adjacent to each data and video port 262726	
Ceiling: Suspended acoustical 095113		Communications: 1 video port 271533/271543 1 voice port and phone 271513/273113 1 data port near teacher workstation 271513 8 data ports 271513 Clock 275313 Central sound system 275123 Sound reinforcement system 275127	
Walls: Painted concrete masonry units 042000/ 099100		Electronic Safety and Security: Life safety devices per code 283111	
LOOSE FURNISHINGS: (12) Two-person work tables (24) Student chairs/stools (1) Teacher station & chair Wastebasket Pencil sharpener		Miscellaneous: N/A	

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

**FIRE FIGHTER TRAINING
Weight Room**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

Program Type: 4		FEATURES¹:	Spec.
Size Requirements: 800 SF		Fixed Items:	Ref.#
		N/A	
Requirements:		Fire Suppression:	
		Fire suppression system	211000
	Spec.		
FINISHES:	Ref #	Plumbing:	
Flooring:		N/A	
Vinyl composition tile,	096500		
VET, sheet vinyl, or linoleum	096516	HVAC:	
Option: sealed concrete	033000	Supply/return air system	Div. 23
		Independent temperature control	230923
Base:			
Resilient	096500	Electrical:	
		Fluorescent lighting	265100
Ceiling:		Illumination level: See Table 8600-4	
Suspended acoustical	095113	Single level switching	262726
		4 duplex receptacles	262726
Walls:		Double duplex receptacle adjacent to	
Painted concrete masonry units	042000/	data port	262726
	099100		
		Communications:	
LOOSE FURNISHINGS:		Clock	275313
N/A		Central sound system	275123
		Electronic Safety and Security:	
		Life safety devices per code	283111
ENVIRONMENTAL CONSIDERATIONS:		Miscellaneous:	
▪ Wall minimum STC 48		N/A	
▪ Ceiling minimum CAC 35, NRC 0.70			
▪ Uniform lighting with 80% visual comfort probability level			

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

**MEDICAL ASSISTANT
CT-P4-1**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

<u>PROGRAM DESCRIPTION:</u> A combination of subject matter and experiences designed to prepare a person to perform functions and follow procedures concerned with the diagnosis and treatment of patients under the supervision of a physician in a physician's office or clinic. Instruction covers physical examinations, laboratory tests, infection control and hazard material management, quality assurance, medical ethics, patient education, medical emergencies, general office procedures, insurance, and medications.		<u>FEATURES¹:</u> <u>Fixed Items:</u>	Spec. Ref.#
		16' of chalk/marker board	101100
		8' of tack board	101100
		30' of sink base cabinets w/2 sinks	123550
		30' of wall cabinets	123550
		10' of reception counter	123550
		Pencil sharpener support	062000
		Windows with integral blinds	085113
		(2) Paper towel dispensers	102813
		Projection screen, 6'x8'	115213
		100' of cubicle track and curtains	102123
		<u>Fire Suppression:</u>	
		Fire suppression system	211000
		<u>Plumbing:</u>	
		Plumbing connections	221116/221119/224000
		<u>HVAC:</u>	
		Supply/return air system	Div. 23
		Independent temperature control	230923
		<u>Electrical:</u>	
		Fluorescent lighting	265100
		Illumination level: See Table 8600-4	
		Multilevel switching	262726
		20 duplex receptacles (minimum)	262726
		Double duplex receptacle adjacent to each data and video port	262726
		<u>Communications:</u>	
		1 video port and video display device	271533/271543/274119
		1 voice port and phone	271513/273113
		1 data port near teacher workstation	271513
		8 data ports	271513
		Clock	275313
		Central sound system	275123
		Sound reinforcement system	275127
		<u>Electronic Safety and Security:</u>	
		Life safety devices per code	283111
		<u>Miscellaneous:</u>	
		N/A	

PROGRAM DESCRIPTION:

A combination of subject matter and experiences designed to prepare a person to perform functions and follow procedures concerned with the diagnosis and treatment of patients under the supervision of a physician in a physician's office or clinic. Instruction covers physical examinations, laboratory tests, infection control and hazard material management, quality assurance, medical ethics, patient education, medical emergencies, general office procedures, insurance, and medications.

Program Type: 4

Size Requirements: 1,200 SF Lab

Lab Requirements:

<u>FINISHES:</u>	Spec. Ref #
Flooring:	
Vinyl composition tile,	096500
VET, sheet vinyl, or linoleum	096516

Base:	
Resilient	096500

Ceiling:	
Suspended acoustical	095113

Walls:	
Painted concrete masonry units	042000/ 099100

LOOSE FURNISHINGS:
(12) Two-person work tables
(24) Student chairs/stools
(1) Teacher station & chair
Wastebasket
Pencil sharpener

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

**MEDICAL ASSISTANT
Training Restroom**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

		Spec. Ref.#
Program Type:	4	
Size Requirements:	120 SF	
Requirements:		
<u>FINISHES:</u>	Spec. Ref #	
Flooring:		
Rubber, linoleum, VET, or	096500	
sheet vinyl	096516	
Option: ceramic mosaic tile,	093000	
porcelain tile base, or	096723	
resinous flooring		
Base:		
Resilient	096500	
Option: ceramic mosaic tile base,	093000	
porcelain tile base, or	096723	
resinous flooring		
Ceiling:		
Suspended acoustical	095113	
Walls:		
Painted concrete masonry units	042000/ 099100	
<u>LOOSE FURNISHINGS:</u>		
Wastebasket		
<u>ENVIRONMENTAL CONSIDERATIONS:</u>		
▪ Wall minimum STC 48		
▪ Ceiling minimum CAC 35, NRC 0.70		
▪ Uniform lighting with 80% visual comfort probability level		
		<u>FEATURES¹:</u>
		<u>Fixed Items:</u>
		3' vanity with sink 123550
		Paper towel dispenser 102813
		Soap dispenser 102813
		36" and 42" grab bars 102813
		16"x24" mirror 102813
		Toilet paper holder 102813
		Bathtub grab bars 102813
		Bath curtain rod 102813
		<u>Fire Suppression:</u>
		Fire suppression system 211000
		<u>Plumbing:</u>
		Tank-type toilet 224000
		Residential bathtub 224000
		Plumbing connections 221116/221119/224000
		<u>HVAC:</u>
		Exhaust air system Div. 23
		Supplemental heat as required Div. 23
		<u>Electrical:</u>
		Fluorescent lighting 265100
		Illumination level: See Table 8600-4
		Single level switching 262726
		2 duplex receptacles 262726
		<u>Communications:</u>
		Central sound system 275123
		<u>Electronic Safety and Security:</u>
		Life safety devices per code 283111
		<u>Miscellaneous:</u>
		N/A

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

Program Type: 4		FEATURES¹:	Spec.
Size Requirements: 120 SF		Fixed Items:	Ref.#
Requirements:		6' of base cabinets	123550
		6' of adjustable shelving	062000
FINISHES:		Fire Suppression:	
Flooring:	Spec.	Fire suppression system	211000
	Ref #		
Vinyl composition tile,	096500	Plumbing:	
VET, sheet vinyl, or linoleum	096516	Plumbing connections	221116/221119/224000
Base:		Washer/dryer connection	224000
Resilient	096500	HVAC:	
Ceiling:		Exhaust air system	Div. 23
Suspended acoustical	095113	Supplemental heat as required	Div. 23
Walls:		Dryer vent system	Div. 23
Painted concrete masonry units	042000/	Electrical:	
	099100	Fluorescent lighting	265100
LOOSE FURNISHINGS:		Illumination level: See Table 8600-4	
Clothes washer		Single level switching	262726
Electric clothes dryer		4 duplex receptacles	262726
Wastebasket		Communications:	
		Clock	275313
		Central sound system	275123
		Electronic Safety and Security:	
		Life safety devices per code	283111
ENVIRONMENTAL CONSIDERATIONS:		Miscellaneous:	
▪ Wall minimum STC 45		N/A	
▪ Ceiling minimum CAC 35, NRC 0.70			
▪ Uniform lighting with 80% visual comfort probability level			

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

**NURSE ASSISTING
CT-P4-1**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

<u>PROGRAM DESCRIPTION:</u> A combination of subject matter and experiences designed to prepare a person to perform routine tasks involved in the care of individuals receiving nursing service under the supervision of a nurse.		<u>FEATURES¹:</u> <u>Fixed Items:</u>		Spec. Ref.#
Program Type: 4		16' of chalk/marker board		101100
Size Requirements: 1,200 SF Lab		8' of tack board		101100
Lab Requirements:		40' of sink base cabinets w/3 sinks		123550
<u>FINISHES:</u>		40' of wall cabinets		123550
Flooring:		10' of reception counter		123550
Vinyl composition tile,		Pencil sharpener support		062000
VET, sheet vinyl, or linoleum		Windows with integral blinds		085113
Base:		(3) Paper towel dispensers		102813
Resilient		Projection screen, 6'x8'		115213
Ceiling:		<u>Fire Suppression:</u>		
Suspended acoustical		Fire suppression system		211000
Walls:		<u>Plumbing:</u>		
Painted concrete masonry units		Plumbing connections		221116/221119/224000
<u>LOOSE FURNISHINGS:</u>		<u>HVAC:</u>		
(12) Two-person work tables		Supply/return air system		Div. 23
(24) Student chairs/stools		Independent temperature control		230923
(1) Teacher station & chair		<u>Electrical:</u>		
Wastebasket		Fluorescent lighting		265100
Pencil sharpener		Illumination level: See Table 8600-4		
		Multilevel switching		262726
		20 duplex receptacles (minimum)		262726
		Double duplex receptacle adjacent to each data and video port		262726
		<u>Communications:</u>		
		1 video port and video display device		271533/271543/274119
		1 voice port and phone		271513/273113
		1 data port near teacher workstation		271513
		8 data ports		271513
		Clock		275313
		Central sound system		275123
		Sound reinforcement system		275127
		<u>Electronic Safety and Security:</u>		
		Life safety devices per code		283111
		<u>Miscellaneous:</u>		
		N/A		

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

NOTES:
1. Finishes/Features: Refer to Chapter 9 for specification references.

NURSE ASSISTING Laundry Room

CHAPTER 6: CAREER-TECHNICAL SCHOOL

Program Type: 4		FEATURES¹:	Spec.
Size Requirements: 120 SF		Fixed Items:	Ref.#
Requirements:		6' of base cabinets	123550
		6' of adjustable shelving	062000
FINISHES:		Fire Suppression:	
Flooring:		Fire suppression system	211000
Vinyl composition tile,		Plumbing:	
VET, sheet vinyl, or linoleum		Plumbing connections	221116/221119/224000
Base:		Washer/dryer connections	224000
Resilient		HVAC:	
Ceiling:		Exhaust air system	Div. 23
Suspended acoustical		Supplemental heat as required	Div. 23
Walls:		Dryer vent system	Div. 23
Painted concrete masonry units		Electrical:	
		Fluorescent lighting	265100
		Illumination level: See Table 8600-4	
		Single level switching	262726
		4 duplex receptacles	262726
LOOSE FURNISHINGS:		Communications:	
Clothes washer		Clock	275313
Electric clothes dryer		Central sound system	275123
Wastebasket		Electronic Safety and Security:	
		Life safety devices per code	283111
ENVIRONMENTAL CONSIDERATIONS:		Miscellaneous:	
▪ Wall minimum STC 45		N/A	
▪ Ceiling minimum CAC 35, NRC 0.70			
▪ Uniform lighting with 80% visual comfort probability level			

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

OPTOMETRIC OCCUPATIONS

CT-P4-1

CHAPTER 6: CAREER-TECHNICAL SCHOOL

PROGRAM DESCRIPTION:		FEATURES¹:		Spec.
		Fixed Items:		Ref.#
A combination of subject matter and experiences designed to train a person to prepare, assemble, and/or fit corrective lenses prescribed by a physician or optometrist. These occupations may include optical surfacing, optical finishing, optical stylist, and/or optical dispensing.		16' of chalk/marker board		101100
		8' of tack board		101100
		30' of sink base cabinets w/2 sinks		123550
		30' of wall cabinets		123550
		Pencil sharpener support		062000
		Windows with integral blinds		085113
		(2) Paper towel dispensers		102813
		Projection screen, 6'x8'		115213
		Fume hood		115313
		Fire Suppression:		
Program Type: 4		Fire suppression system		211000
Size Requirements: 1,200 SF Lab		Plumbing:		
Lab Requirements:		Plumbing connections		221116/221119/224000
FINISHES:		12 Compressed air connections		221500
Flooring:		Safety shower/eyewash		224000
Vinyl composition tile,		Master gas shut-off valve		226313
VET, sheet vinyl, or linoleum		HVAC:		
Base:		Supply/return air system		Div. 23
Resilient		Independent temperature control		230923
Ceiling:		Fume hood exhaust		Div. 23
Suspended acoustical		Electrical:		
Walls:		Fluorescent lighting		265100
Painted concrete masonry units		Illumination level: See Table 8600-4		
		Multilevel switching		262726
		30 duplex receptacles		262726
		Double duplex receptacle adjacent to		
		each data and video port		262726
		220V service		262726
LOOSE FURNISHINGS:		Communications:		
(6) 4-person epoxy-top student tables		1 video port and video display device		
with electric & natural gas				271533/271543/274119
(24) Student chairs/stools		1 voice port and phone		271513/273113
(1) Teacher station & chair		1 data port near teacher workstation		271513
Wastebasket		8 data ports		271513
Pencil sharpener		Clock		275313
		Central sound system		275123
		Sound reinforcement system		275127
		Overhead projector		274119
		Electronic Safety and Security:		
		Life safety devices per code		283111
		Miscellaneous:		
		N/A		

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

OPTOMETRIC OCCUPATIONS
Exam Room

CHAPTER 6: CAREER-TECHNICAL SCHOOL

Program Type: 4		FEATURES¹:	Spec.
Size Requirements: 100 SF		Fixed Items:	Ref.#
Requirements:		4' of base cabinets	123550
FINISHES:		Fire Suppression:	
Flooring:	Spec.	Fire suppression system	211000
Vinyl composition tile,	Ref #	Plumbing:	
VET, sheet vinyl, or linoleum	096500	N/A	
Base:	096516	HVAC:	
Resilient	096500	Supply/return air system	Div. 23
Ceiling:		Independent temperature control	230923
Suspended acoustical	095113	Electrical:	
Walls:		Fluorescent lighting	265100
Painted concrete masonry units	042000/	Illumination level: See Table 8600-4	
	099100	Single level switching	262726
		4 duplex receptacles	262726
		Double duplex receptacle adjacent to data port	262726
LOOSE FURNISHINGS:		Communications:	
2 stools		1 data port	271513
		1 voice port and phone	271513/273113
		1 clock	275313
		Central sound system	275123
ENVIRONMENTAL CONSIDERATIONS:		Electronic Safety and Security:	
▪ Wall minimum STC 48		Life safety devices per code	283111
▪ Ceiling minimum CAC 35, NRC 0.70		Miscellaneous:	
▪ Uniform lighting with 80% visual comfort probability level		N/A	

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

PROGRAM DESCRIPTION:		FEATURES¹:		Spec.
		Fixed Items:		Ref.#
Subject matter and laboratory experiences to provide students with the knowledge and skills in the care of patients of all ages under the direction and supervision of a registered nurse or licensed practical nurse and for advance nursing skills.		16' of chalk/marker board		101100
		8' of tack board		101100
		30' of sink base cabinets w/2 sinks		123550
		30' of wall cabinets		123550
		10' of reception counter		123550
		Pencil sharpener support		062000
		Windows with integral blinds		085113
		(2) Paper towel dispensers		102813
		Projection screen, 6'x8'		115213
		100' of cubicle track and curtains		102123
Program Type: 4				
Size Requirements: 1,500 SF Lab				
Lab Requirements:				
FINISHES:				
Flooring:	Spec.	Fire Suppression:		
	Ref #	Fire suppression system		211000
Vinyl composition tile,	096500	Plumbing:		
VET, sheet vinyl, or linoleum	096516	Plumbing connections		221116/221119/224000
Base:		HVAC:		
Resilient	096500	Supply/return air system		Div. 23
		Independent temperature control		230923
Ceiling:		Electrical:		
Suspended acoustical	095113	Fluorescent lighting		265100
		Illumination level: See Table 8600-4		
Walls:		Multilevel switching		262726
Painted concrete masonry units	042000/	20 duplex receptacles (minimum)		262726
	099100	Double duplex receptacle adjacent to each data and video port		262726
LOOSE FURNISHINGS:		Communications:		
(12) Two-person work tables		1 video port, monitor, and brackets		271533/271543/274119
(24) Student chairs/stools		1 voice port and phone		271513/273113
(1) Teacher station & chair		1 data port near teacher workstation		271513
Wastebasket		8 data ports		271513
Pencil sharpener		Clock		275313
		Central sound system		275123
		Sound reinforcement system		275127
		Overhead projector		274119
		Electronic Safety and Security:		
		Life safety devices per code		283111
		Miscellaneous:		
		N/A		

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

**PATIENT CARE TECHNICIAN
Training Restroom**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

		Spec. Ref.#
Program Type:	4	
Size Requirements:	120 SF	
Requirements:		
<u>FINISHES:</u>	Spec. Ref #	
Flooring:		
Rubber, linoleum, VET, or	096500	
sheet vinyl	096515	
Option: ceramic mosaic tile,	093000	
porcelain tile base, or	096723	
resinous flooring		
Base:		
Resilient	096500	
Option: ceramic mosaic tile base,	093000	
porcelain tile base, or	096723	
resinous flooring		
Ceiling:		
Suspended acoustical	095113	
Walls:		
Painted concrete masonry units	042000/ 099100	
<u>LOOSE FURNISHINGS:</u>		
Wastebasket		
<u>ENVIRONMENTAL CONSIDERATIONS:</u>		
▪ Wall minimum STC 48		
▪ Ceiling minimum CAC 35, NRC 0.70		
▪ Uniform lighting with 80% visual comfort probability level		
		<u>FEATURES¹:</u>
		<u>Fixed Items:</u>
		3' vanity with sink 123550
		Paper towel dispenser 102813
		Soap dispenser 102813
		36" and 42" grab bars 102813
		16"x24" mirror 102813
		Toilet paper holder 102813
		Bathtub grab bars 102813
		Bath curtain rod 102813
		<u>Fire Suppression:</u>
		Fire suppression system 211000
		<u>Plumbing:</u>
		Tank-type toilet 224000
		Residential bathtub 224000
		Plumbing connections 221116/221119/224000
		<u>HVAC:</u>
		Exhaust air system Div. 23
		Supplemental heat as required Div. 23
		<u>Electrical:</u>
		Fluorescent lighting 265100
		Illumination level: See Table 8600-4
		Single level switching 262726
		2 duplex receptacles 262726
		<u>Communications:</u>
		Central sound system 275123
		<u>Electronic Safety and Security:</u>
		Life safety devices per code 283111
		<u>Miscellaneous:</u>
		N/A

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

**PATIENT CARE TECHNICIAN
Laundry Room**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

Program Type: 4		FEATURES¹:	Spec.
Size Requirements: 120 SF		Fixed Items:	Ref.#
Requirements:		6' of base cabinets	123550
		6' of adjustable shelving	062000
FINISHES:		Fire Suppression:	
Flooring:		Fire suppression system	211000
Vinyl composition tile,		Plumbing:	
VET, sheet vinyl, or linoleum		Plumbing connections	221116/221119/224000
Base:		Washer/dryer connections	224000
Resilient		HVAC:	
Ceiling:		Exhaust air system	Div. 23
Suspended acoustical		Supplemental heat as required	Div. 23
Walls:		Dryer vent system	Div. 23
Painted concrete masonry units		Electrical:	
		Fluorescent lighting	265100
		Illumination level: See Table 8600-4	
		Single level switching	262726
		4 duplex receptacles	262726
LOOSE FURNISHINGS:		Communications:	
Clothes washer		Clock	275313
Electric clothes dryer		Central sound system	275123
Wastebasket		Electronic Safety and Security:	
		Life safety devices per code	283111
ENVIRONMENTAL CONSIDERATIONS:		Miscellaneous:	
▪ Wall minimum STC 45		N/A	
▪ Ceiling minimum CAC 35, NRC 0.70			
▪ Uniform lighting with 80% visual comfort probability level			

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

SURGICAL TECHNOLOGY
CT-P4-1

CHAPTER 6: CAREER-TECHNICAL SCHOOL

<u>PROGRAM DESCRIPTION:</u> A combination of subject matter and experiences designed to prepare a person to serve as a general assistant on the surgical team in the operating unit.		<u>FEATURES¹:</u> <u>Fixed Items:</u>		Spec. Ref.#
Program Type: 4		16' of chalk/marker board	101100	
Size Requirements: 1,000 SF Lab		8' of tack board	101100	
Lab Requirements:		20' of sink base cabinets w/1 sink	123550	
		20' of wall cabinets	123550	
		Pencil sharpener support	062000	
		Windows with integral blinds	085113	
		Paper towel dispenser	102813	
		Projection screen, 6'x8'	115213	
		<u>Fire Suppression:</u>		
		Fire suppression system	211000	
		<u>Plumbing:</u>		
		Plumbing connections	221116/221119/224000	
		<u>HVAC:</u>		
		Supply/return air system	Div. 23	
		Independent temperature control	230923	
		<u>Electrical:</u>		
		Fluorescent lighting	265100	
		Illumination level: See Table 8600-4		
		Multilevel switching	262726	
		10 duplex receptacles (minimum)	262726	
		Double duplex receptacle adjacent to each data and video port	262726	
		<u>Communications:</u>		
		1 video port and video display device	271533/271543/274119	
		1 voice port and phone	271513/273113	
		1 data port near teacher workstation	271513	
		8 data ports	271513	
		Clock	275313	
		Central sound system	275123	
		Sound reinforcement system	275127	
		<u>Electronic Safety and Security:</u>		
		Life safety devices per code	283111	
		<u>Miscellaneous:</u>		
		N/A		

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

NOTES:

2008

SURGICAL TECHNOLOGY
Instrument Room

CHAPTER 6: CAREER-TECHNICAL SCHOOL

Program Type: 4		FEATURES¹:	Spec.
Size Requirements: 700 SF		Fixed Items:	Ref.#
Requirements:		20' of base cabinets w/1 sink	123550
		10' of wall cabinets	123550
		Paper towel dispenser	102813
FINISHES:	Spec.	Fire Suppression:	
Flooring:	Ref #	Fire suppression system	211000
Vinyl composition tile,	096500	Plumbing:	
VET, sheet vinyl, or linoleum	096516	Plumbing connections	221116/221119/224000
Base:		HVAC:	
Resilient	096500	Supply/return air system	Div. 23
Ceiling:		Independent temperature control	230923
Suspended acoustical	095113	Electrical:	
Walls:		Fluorescent lighting	265100
Painted concrete masonry units	042000/	Illumination level: See Table 8600-4	
	099100	Single level switching	262726
LOOSE FURNISHINGS:		6 duplex receptacles	262726
Wastebasket		Double duplex receptacle adjacent to data port	262726
ENVIRONMENTAL CONSIDERATIONS:		Communications:	
▪ Wall minimum STC 45		1 data port per room	271513
▪ Ceiling minimum CAC 35, NRC 0.70		Clock	275313
▪ Uniform lighting with 80% visual comfort probability level		Central sound system	275123
		Electronic Safety and Security:	
		Life safety devices per code	283111
		Miscellaneous:	
		N/A	

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

SURGICAL TECHNOLOGY
Scrub Room

CHAPTER 6: CAREER-TECHNICAL SCHOOL

Program Type: 4		FEATURES¹:	Spec.
Size Requirements: 500 SF		Fixed Items:	Ref.#
Requirements:		6' of base cabinets	123550
		6' of wall cabinets	123550
		Paper towel dispenser	102813
FINISHES:	Spec.	Fire Suppression:	
Flooring:	Ref #	Fire suppression system	211000
Sheet vinyl or linoleum	096500	Plumbing:	
	096516	2 scrub sinks	224000
Base:		Plumbing connections	221116/221119/224000
Resilient	096500		
Ceiling:		HVAC:	
Suspended acoustical	095113	Supply/return air system	Div. 23
		Independent temperature control	230923
Walls:		Electrical:	
Painted concrete masonry units	042000/	Fluorescent lighting	265100
	099100	Illumination level: See Table 8600-4	
		Single level switching	262726
		6 duplex receptacles	262726
LOOSE FURNISHINGS:		Communications:	
Wastebasket		Clock	275313
		Central sound system	275123
ENVIRONMENTAL CONSIDERATIONS:		Electronic Safety and Security:	
▪ Wall minimum STC 45		Life safety devices per code	283111
▪ Ceiling minimum CAC 35, NRC 0.70		Miscellaneous:	
▪ Uniform lighting with 80% visual comfort probability level		N/A	

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

**DIAGNOSTIC PATHWAY
CT-P4-1**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

PROGRAM DESCRIPTION:		FEATURES¹:	Spec.
A Diagnostic Pathway targets three or more technician-level occupations within one or more of the following areas – rehabilitation services (including occupational and physical therapy); medical diagnostic and treatment services (including respiratory therapy, radiography, perfusion, nuclear medicine, surgical technology, cardiovascular, electrocardiogram, sonography); medical laboratory technologies (including hematology, cytology, blood bank, and histology); mental health services; pharmacy; and medical administrative services (including health information/medical records). This clustered Tech Prep program of study prepares students for continued education and training for employment as an allied health technician.		Fixed Items:	Ref.#
		16' of chalk/marker board	101100
		8' of tack board	101100
		20' of sink base cabinets w/1 sink	123550
		20' of wall cabinets	123550
		10' of reception counter	123550
		Pencil sharpener support	062000
		Windows with integral blinds	085113
		(1) Paper towel dispenser	102813
		Projection screen, 6'x8'	115213
		Fire Suppression:	
		Fire suppression system	211000
		Plumbing:	
		Plumbing connections	221116/221119/224000
		Safety shower/eyewash	224500
		HVAC:	
		Supply/return air system	Div. 23
		Independent temperature control	230923
		Electrical:	
		Fluorescent lighting	265100
		Illumination level: See Table 8600-4	
		Multilevel switching	262726
		20 duplex receptacles (minimum)	262726
		Double duplex receptacle adjacent to each data and video port	262726
		Communications:	
		1 video port and video display device	271533/271543/274119
		1 voice port and phone	271513/273113
		1 data port near teacher workstation	271513
		8 data ports	271513
		Clock	275313
		Central sound system	275123
		Sound reinforcement system	275127
		Electronic Safety and Security:	
		Life safety devices per code	283111
		Miscellaneous:	
		N/A	
Program Type:	4		
Size Requirements:	1,200 SF Lab		
Lab Requirements:			
FINISHES:		Spec.	
Flooring:		Ref #	
Vinyl composition tile,		096500	
VET, sheet vinyl, or linoleum		096516	
Base:			
Resilient		096500	
Ceiling:			
Suspended acoustical		095113	
Walls:			
Painted concrete masonry units	042000/		
	099100		
LOOSE FURNISHINGS:			
(12) Two-person work tables			
(24) Student chairs/stools			
(1) Teacher station & chair			
Wastebasket			
Pencil sharpener			

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

		Spec. Ref.#
Program Type:	4	
Size Requirements:	200 SF	
Requirements:		
<u>FINISHES:</u>		
Flooring:		
Vinyl composition tile,	096500	
VET, sheet vinyl, or linoleum	096516	
Base:		
Resilient	096500	
Ceiling:		
Suspended acoustical	095113	
Walls:		
Painted concrete masonry units	042000/ 099100	
<u>LOOSE FURNISHINGS:</u>		
(1) stool per room		
(1) wastebasket per room		
<u>ENVIRONMENTAL CONSIDERATIONS:</u>		
▪ Wall minimum STC 48		
▪ Ceiling minimum CAC 35, NRC 0.70		
▪ Uniform lighting with 80% visual comfort probability level		
		<u>FEATURES¹:</u>
		<u>Fixed Items:</u>
		4' of base cabinets w/1 sink per room 123550
		Paper towel dispenser 102813
		<u>Fire Suppression:</u>
		Fire suppression system 211000
		<u>Plumbing:</u>
		Plumbing connections 221116/221119/224000
		<u>HVAC:</u>
		Supply/return air system Div. 23
		Independent temperature control 230923
		<u>Electrical:</u>
		Fluorescent lighting 265100
		Illumination level: See Table 8600-4
		Single level switching 262726
		4 duplex receptacles per room 262726
		Double duplex receptacle adjacent to each data port 262726
		<u>Communications:</u>
		1 data port per room 271513
		1 clock per room 275313
		Central sound system 275123
		<u>Electronic Safety and Security:</u>
		Life safety devices per code 283111
		<u>Miscellaneous:</u>
		N/A

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

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ARTS AND COMMUNICATIONS - PERFORMING ARTS PATHWAY

Dance • Music • Theater

CHAPTER 6: CAREER-TECHNICAL SCHOOL

CT-P4-1

<u>PROGRAM DESCRIPTION:</u>		<u>FEATURES¹:</u>		Spec.
Integrated learning experience in performing arts consisting of dance, theater, and music.		<u>Fixed Items:</u>		Ref.#
Program Type:	4	8' of tack board		101100
		16' length of 60" high mirrors		088300
		16' of ballet bars		116615
Size Requirements:	1,500 SF Dance/Music Room	<u>Fire Suppression:</u>		
		Fire suppression system		211000
<u>FINISHES:</u>	Spec. <u>Ref #</u>	<u>Plumbing:</u>		
		Drinking water cooler		224000
Flooring:		<u>HVAC:</u>		
Hardwood	096000	Supply/return air system		Div. 23
Base:		Independent temperature control		230923
Resilient	096500	<u>Electrical:</u>		
Ceiling:		Fluorescent lighting		265100
Painted, exposed structure	099100	Illumination level: See Table 8600-4		
Walls:		Track lighting		265100
Painted concrete masonry units	042000/	Multilevel switching		262726
	099100	10 duplex receptacles		262726
Acoustical wall treatment	098000	Double duplex receptacle adjacent to each data and video port		262726
<u>LOOSE FURNISHINGS:</u>		<u>Communications:</u>		
(25) Student stools/chairs		1 video port		271533/271543
		1 voice port and phone		271513/273113
		Clock		275313
		Central sound system		275123
		Sound reinforcement system		275125
		<u>Electronic Safety and Security:</u>		
		Life safety devices per code		283111
		<u>Miscellaneous:</u>		
		N/A		

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

ARTS AND COMMUNICATIONS - PERFORMING ARTS PATHWAY

Practice Room

CHAPTER 6: CAREER-TECHNICAL SCHOOL

Program Type: 4		FEATURES¹:	Spec.
Size Requirements: 150 SF		Fixed Items:	Ref.#
		N/A	
Requirements:		Fire Suppression:	
		Fire suppression system	211000
FINISHES:	Spec.	Plumbing:	
Flooring:	Ref #	Plumbing connections	
Vinyl composition tile, VET,	096500	221116/221119/224000	
sheet vinyl, or linoleum	096516		
Optional: carpet	096816	HVAC:	
Base:		Supply/return air system	Div. 23
Resilient	096500	Independent temperature control	230923
Ceiling:		Electrical:	
Suspended acoustical	095113	Fluorescent lighting	265100
Absorptive 25%, reflective 25%, diffusive		Illumination level: See Table 8600-4	
50%		Single level switching	262726
Walls:		4 duplex receptacles	262726
Painted concrete masonry units	042000/	Communications:	
	099100	1 voice port and phone	271513/273113
Acoustical wall treatment		Central sound system	275123
(varies with geometry of room)	098000	Clock	275313
LOOSE FURNISHINGS:		Electronic Safety and Security:	
L1 Music Stands		Life safety devices per code	283111
L2 Music chairs		Miscellaneous:	
		Interior window	081113/088000

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

ARTS AND COMMUNICATIONS - MEDIA ARTS PATHWAY
Digital TV/Video • Journalism

CHAPTER 6: CAREER-TECHNICAL SCHOOL

CT-P4-1

<u>PROGRAM DESCRIPTION:</u> Integrated learning experience in media arts consisting of digital TV/video, journalism, and photography.		<u>FEATURES</u>¹: <u>Fixed Items:</u> Overhead metal pipe grid (48" o.c., both ways) to support studio lights & accessories 055000 Cyclorama curtain & track, min. of 2 walls 116143		Spec. Ref.#
Program Type:	4	<u>Fire Suppression:</u> Fire suppression system		211000
Size Requirements:	1,500 SF Lab	<u>Plumbing:</u> N/A		
Studio Requirements:		<u>HVAC:</u> Supply/return air system Independent temperature control		Div. 23 230923
<u>FINISHES:</u>		<u>Electrical:</u> Fluorescent lighting Track lighting Multilevel switching 20 duplex receptacles Double duplex receptacle adjacent to each data and video port Emergency lighting		265100 265100 262726 262726 262726 265100
Flooring:	Sheet vinyl, VCT, linoleum	Spec. Ref #	096516 096500	
Base:	Resilient		096500	
Ceiling:	Pipe grid – 14' to bottom		116135	
Walls:	Painted concrete masonry units	042000/ 099100		
	Acoustical wall treatment		098000	
		<u>Communications:</u> 1 video port 1 voice port and phone 2 data ports Clock Cable management system Special A/V Cabling Conveyance Special A/V Cabling		271533/271543 271513/273113 271513 275313
		<u>Electronic Safety and Security:</u> Life safety devices per code		283111
		<u>Miscellaneous:</u> N/A		

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

ARTS AND COMMUNICATIONS – MEDIA ARTS PATHWAY
MEDIA ARTS CONTROL ROOM / EDIT

CHAPTER 6: CAREER-TECHNICAL SCHOOL

		Spec. Ref.#
Program Type:	4	
Size Requirements:	450 SF	
<u>FINISHES¹:</u>		
Flooring:		
Vinyl composition tile, linoleum, VET, or sheet vinyl	096516 096500	
Base:		
Resilient base	096500	
Ceiling:		
Suspended, acoustical (9'-0" high)	095113	
Walls:		
Painted gypsum wallboard		
Acoustical wall treatment	092116 /099100 098000	
<u>LOOSE FURNISHINGS:</u>		
(6) Chairs		
Wastebasket		
		<u>FEATURES:</u>
		<u>Fixed Items:</u>
		10'-20' of equipment/work surface 123550
		6'-8' of tack board 101100
		Window 085113
		6'-8' marker board 101100
		8' of base cabinet 123550
		<u>Fire Suppression:</u>
		Fire suppression system 211000
		<u>Plumbing:</u>
		N/A
		<u>HVAC:</u>
		Supply/return air system Div. 23
		Independent temperature control 230923
		<u>Electrical:</u>
		Fluorescent lighting: overhead 265100
		Illumination level: See Table 8600-4
		Dimmable incandescent task lighting on work surface 265100
		Single level switching 262726
		8 duplex receptacles 262726
		Provisions for hard-wired equipment 260519/260533
		Studio dimming system control panel 265561
		Telecommunications Grounding 270526/260526
		<u>Communications:</u>
		1 voice port and phone 271513/273113
		2 video port 271533/271543
		6 data ports 271513
		Clock 275313
		Central sound system 275123
		Specialized A/V equipment
		<u>Electronic Safety and Security:</u>
		Life safety devices per code 283111
		<u>Miscellaneous:</u>
		N/A

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

ARTS AND COMMUNICATIONS - MEDIA ARTS PATHWAY

CHAPTER 6: CAREER-TECHNICAL SCHOOL

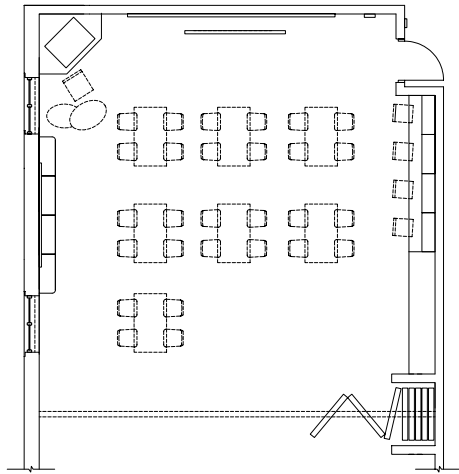
Vestibule

Program Type: 4	FEATURES¹:	Spec.
Size Requirements: 84 SF	Fixed Items:	Ref.#
Requirements:	Doors to receive light-tight perimeter seal 4' of tack board	101100
FINISHES:	Fire Suppression:	211000
Flooring:	Fire suppression system	
Vinyl composition tile, VET, Sheet vinyl, or linoleum	Plumbing:	
	N/A	
Base:	HVAC:	
Resilient	Supply/return air system	Div. 23
Ceiling:	Electrical:	
Suspended acoustical (9'-0" high)	Fluorescent lighting	265100
	Illumination level: See Table 8600-4	
Walls:	Single level switching	262726
Painted concrete masonry units	1 duplex receptacle	262726
	Warning light to control room	265100
Acoustical wall treatment	Communications:	
	Central sound system	275123
	Electronic Safety and Security:	
	Life safety devices per code	283111
	Miscellaneous:	
	N/A	
ENVIRONMENTAL CONSIDERATIONS:		
<ul style="list-style-type: none"> Wall minimum STC 50 Ceiling minimum CAC 35, NRC 0.70 		

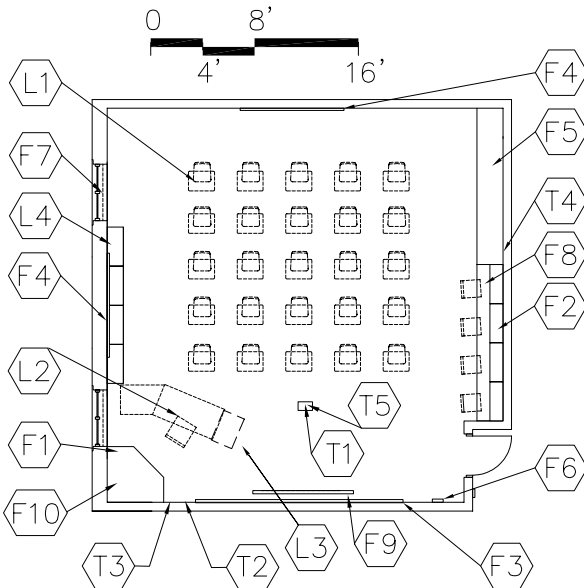
NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

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CLASSROOM WITH OPTIONAL FOLDING WALL



TYPICAL CLASSROOM

CAPACITY:
SIZE:

25 students
900 SF

PROGRAM ACTIVITIES:

- Large group, small group, and individual instruction
- Group and individual work
- Demonstrations
- Accommodates any of the core academic disciplines

SPATIAL RELATIONSHIPS:

- Near other related lab
- Near teacher prep area/workroom
- Classrooms should be located in academic "zone" that is away from noisy or public activities
- Classrooms with access to media center and administrative services
- Flexibility of space
- Proximity to main corridor to accommodate other students without interrupting lab

ENVIRONMENTAL CONSIDERATIONS:

- Uniform lighting
- Natural light opening equal to minimum 5% of floor area, with an operable vent
- Environmental sound control -
wall minimum STC 50
ceiling minimum CAC 35, NRC **0.70**

NOTES:

1. Loose furnishings shown represent one of many possible arrangements.
2. Depending upon the educational program of the district, a tall wardrobe may be placed in this classroom or could be placed in a teacher prep area/workroom.

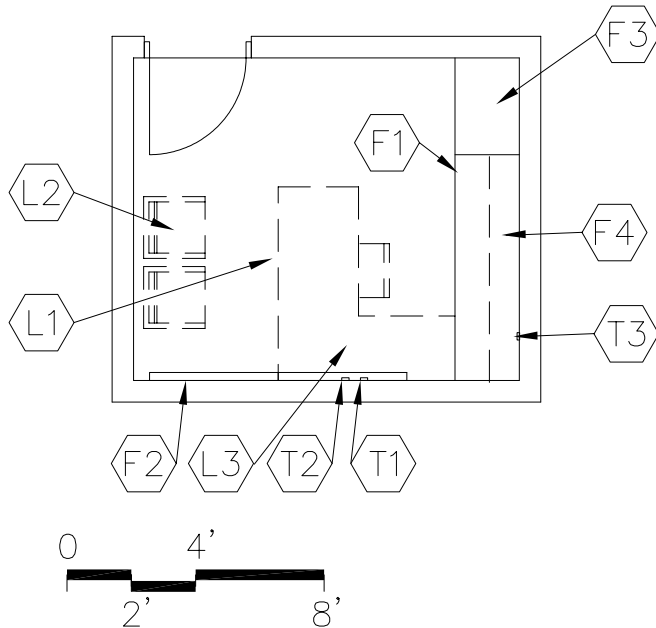
**RELATED CLASSROOM
CT-P4-2**

CHAPTER 6: CAREER-TECHNICAL HIGH SCHOOL

<u>FINISHES¹:</u>	Spec. Ref.#	<u>FEATURES¹:</u>	Spec. Ref.#
Flooring:		<u>Fixed Items:</u>	
Carpet	096816	F1 3' of tall wardrobe with file drawers	123550
Optional: Vinyl composition tile, linoleum, VET, or sheet vinyl	096516 096500	F2 Computer work surface (could be loose)	123550
Base:		F3 10'-16' of chalk/marker board	101100
Resilient base	096500	F4 10'-16' of tack board	101100
Ceiling:		F5 8'-12' of base & wall cabinets	123550
Suspended, acoustical	095113	F6 Pencil sharpener support	062000
Walls:		F7 Windows with integral blinds	085113
Painted concrete masonry units	042000/099100	F8 About 10' of wall cabinets	123550
		F9 Projection screen (optional)	115213
		F10 Technology support casework	123550
<u>LOOSE FURNISHINGS:</u>		<u>Fire Suppression:</u>	
L1 Student desks and chairs		Fire suppression system	211000
L2 Teacher desk or workstation/computer support and chair		<u>Plumbing:</u>	
L3 File cabinet		N/A	
L4 9' of low bookcases (fixed or mobile)		<u>HVAC:</u>	
Wastebasket		Supply/return air system	Div. 23
Pencil sharpener		Independent temperature control	230923
		<u>Electrical:</u>	
		Fluorescent lighting:	265100
		Illumination level: See Table 8600-4	
		Multilevel switching	262726
		4 duplex receptacles	262726
		Double duplex receptacle adjacent to each data and video port	262726
		<u>Communications:</u>	
		T1 1 video port	271533/271543
		T2 1 voice port and phone	271513/273113
		T3 1 data port near teacher workstation	271513
		T4 4 data ports (minimum) for student use	271513
		Clock	275313
		Central sound system	275123
		Sound reinforcement system	275127
		T5 Overhead projector	274119
		<u>Electronic Safety and Security:</u>	
		Life safety devices per code	283111
		<u>Miscellaneous:</u>	
		M1 Operable partitions between classrooms are optional	102226

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.
2. Technology components may be placed in a separate small cabinet, or integrated in the other casework in the room.
3. Where appropriate, some casework may be mobile to add flexibility and become part of the loose furnishings.



CAPACITY:
SIZE:

1 - 3 persons
120 SF

PROGRAM ACTIVITIES:

- Private space for program instructor
- One-on-one conferences with academic instructors, students, etc.

SPATIAL RELATIONSHIPS:

- Near related lab
- Direct access to school circulation areas

ENVIRONMENTAL CONSIDERATIONS:

- Uniform lighting
- Environmental sound control -
wall minimum STC **45**
ceiling minimum CAC 35, NRC **0.70**

NOTES:

1. Loose furnishings shown represent one of many possible arrangements.

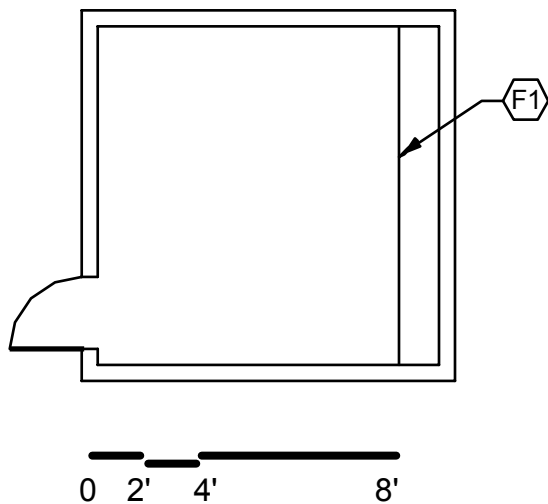
**OFFICE
CT-P4-3**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

<u>FINISHES¹:</u>		<u>FEATURES¹:</u>	
	Spec. Ref.#		Spec. Ref.#
<u>Flooring:</u>		<u>Fixed Items:</u>	
Carpet <i>or carpet tile</i>	096816 096813	F1 Work surface with file drawers	123550
		F2 4' of tack board	101100
		or tackable wall surface	
<u>Base:</u>		F3 2' of tall wardrobe	123550
Resilient base	096500	F4 Wall cabinets above work surface	123550
<u>Ceiling:</u>		<u>Fire Suppression:</u>	
Suspended, acoustical	095113	Fire suppression system	211000
<u>Walls:</u>		<u>Plumbing:</u>	
Painted gypsum wallboard over metal studs	092116/099100	N/A	
<u>LOOSE FURNISHINGS:</u>		<u>HVAC:</u>	
L1 Desk and chair		Supply/return air system	Div. 23
L2 Visitor chairs		Independent temperature control	230923
L3 Computer desk return		<u>Electrical:</u>	
Wastebasket		Single level switching	262726
		Fluorescent lighting	265100
		Illumination level: See Table 8600-4	
		4 duplex receptacles	262726
		Double duplex receptacle adjacent to data and video port	262726
		<u>Communications:</u>	
		T1 1 voice port and phone	271513/273113
		T2 1 data port near workstation	271513
		T3 1 video port	271533/271543
		Central sound system	275123
		Clock	275313
		<u>Electronic Safety and Security:</u>	
		Life safety devices per code	283111
		<u>Miscellaneous:</u>	
		N/A	

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references. Optional: moveable cabinets
2. Fixed casework and loose furnishings can also be all fixed casework or all loose furnishings.



PROGRAM ACTIVITIES:

- Space for storage of lab equipment

SPATIAL RELATIONSHIPS:

- Near related lab

ENVIRONMENTAL CONSIDERATIONS:

N/A

CAPACITY:
SIZE:N/A
200 SFNOTES:

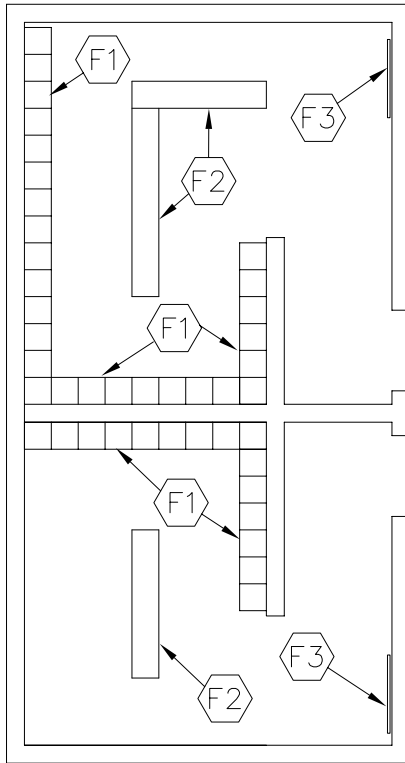
STORAGE AREA
CT-P4-4

CHAPTER 6: CAREER-TECHNICAL SCHOOL

<u>FINISHES¹:</u>	Spec. Ref.#	<u>FEATURES¹:</u>	Spec. Ref.#
Flooring:		<u>Fixed Items¹:</u>	
Sealed concrete	033000	F1 8'-20' of open shelving	
		Depth may vary (fixed or loose)	123550
Base:		<u>Fire Suppression:</u>	
Resilient base	096500	Fire suppression system	211000
Ceiling:		<u>Plumbing:</u>	
Exposed structure	---	N/A	
Walls:		<u>HVAC:</u>	
Painted concrete masonry units	042000/099100	To be determined by Design Professional	
		Supplemental heat as required	Div. 23
<u>LOOSE FURNISHINGS:</u>		<u>Electrical:</u>	
N/A		Single level switching	262726
		Fluorescent lighting	265100
		Illumination level: See Table 8600-4	
		Duplex receptacles	262726
		<u>Communications:</u>	
		N/A	
		<u>Electronic Safety and Security:</u>	
		Life safety devices per code	283111
		<u>Miscellaneous:</u>	
		N/A	

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.



50 total lockers

CAPACITY:
SIZE:N/A
450 SF

PROGRAM ACTIVITIES:

- Personal and health needs for the program Specific users.
- Changing of clothes and/or uniforms.
- Storage of personal items while students are in lab.

SPATIAL RELATIONSHIPS:

- Adjacent to related lab

ENVIRONMENTAL CONSIDERATIONS:

- Uniform lighting
- Sanitary and durable finishes.
- Environmental sound control
Wall minimum STC 40
Ceiling minimum CAC 35, NRC **0.70**

NOTES:

1. Large and small changing areas are interchangeable for either males or females.
Determination based on male/female ratio within each program.

CT-P4-5

CHAPTER 6: CAREER-TECHNICAL SCHOOL

<u>FINISHES¹:</u>	Spec. <u>Ref.#</u>	<u>FEATURES¹:</u>	Spec. <u>Ref.#</u>
Flooring:		<u>Fixed Items¹:</u>	
Sealed concrete	033000	F1 Student lockers	105113
Optional: Vinyl composition tile, linoleum, or rubber	096500 096516	F2 Locker benches	062000 102813
Base:		<u>Fire Suppression:</u>	
Resilient base	096500	Fire suppression system	211000
Ceiling:		<u>Plumbing:</u>	
Suspended, acoustical	095113	N/A	
with high impact hold down clips		<u>HVAC:</u>	
Walls:		Supply/Return air system	Div. 23
Painted concrete masonry units		Exhaust air system	Div. 23
	042000 / 099100	Supplemental heat as required	Div. 23
		Individual temperature control	230923
<u>LOOSE FURNISHINGS</u>		<u>Electrical:</u>	
Wastebaskets		Single level switching	262726
		Fluorescent lighting	265100
		Illumination level: See Table 8600-4	
		2 Duplex receptacles	262726
		Means of egress lighting per code	265100
		<u>Communications:</u>	
		Clock	275313
		Central Sound System	275123
		<u>Electronic Safety and Security:</u>	
		Life safety devices per code	283111
		<u>Miscellaneous:</u>	
		N/A	

NOTES:

1. **Finishes/Features:** Refer to Chapter 9 for specification references.

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Program Type 5

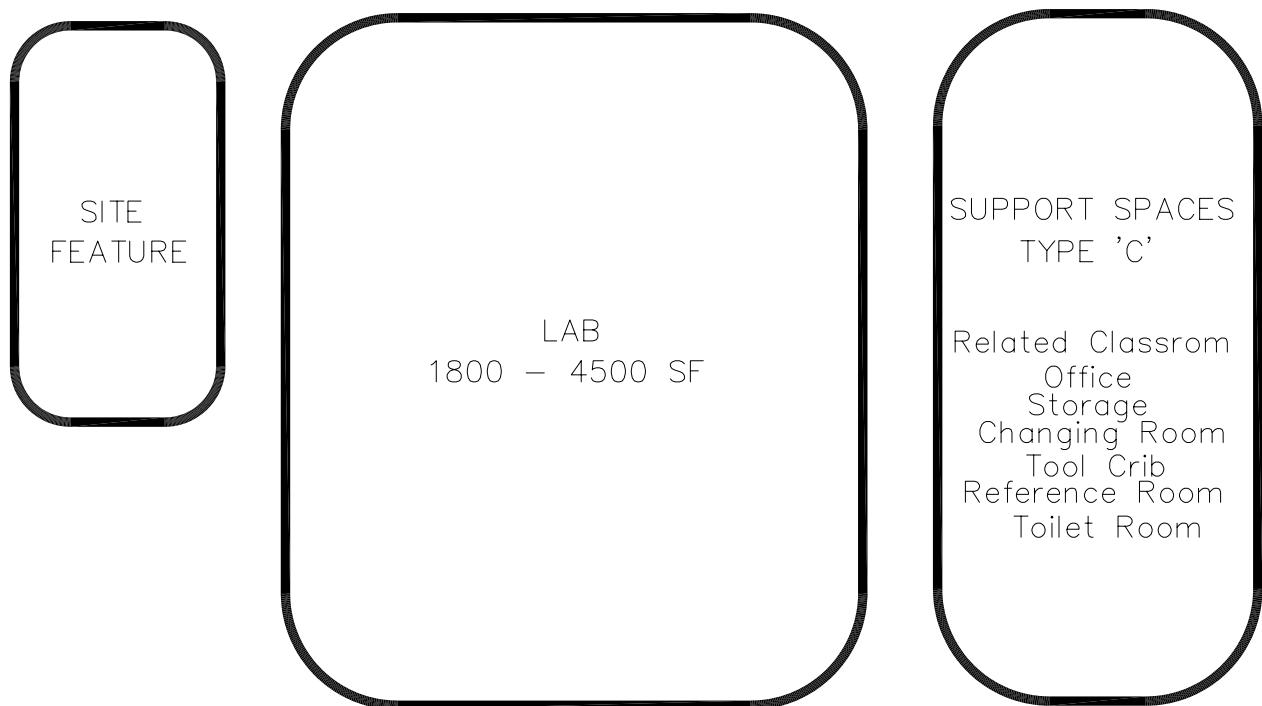
Description: Medium to large sized lab space with enhanced support space.

Lab space to be “high-bay” (**18'** min. clearance) with exposed building structure.

Lab to utilize standard construction with the following exception – lab floor slab to be 8” thick.

Support space to be finished with sealed concrete or vinyl composition tile, paint, and suspended acoustical ceiling. Lab may have possible site feature.

No air-conditioning of any spaces within Program Type 5.

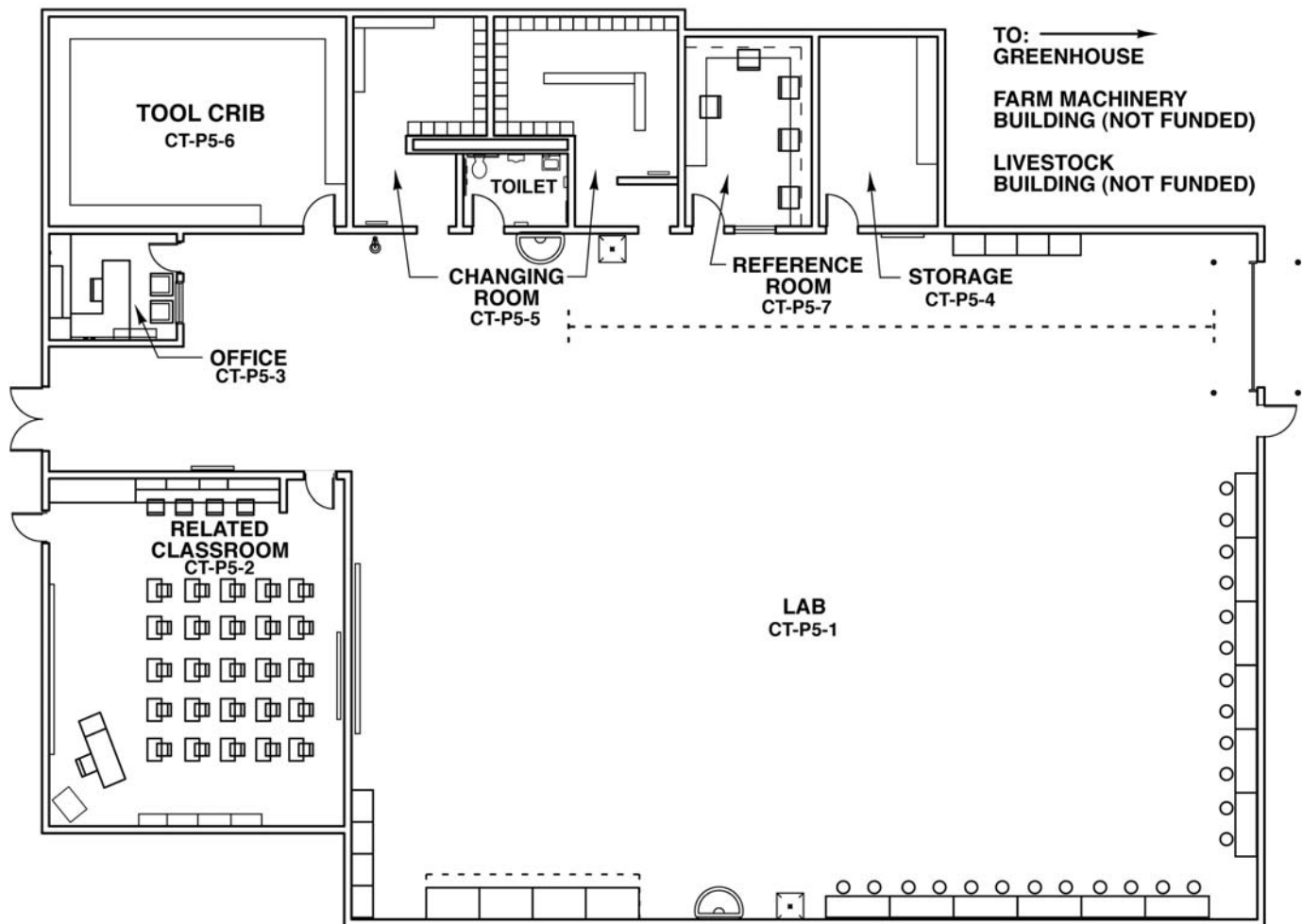
**NOTES:**

This is an example of how the Program Type 5 spaces in a career-technical school could be arranged. This is meant only to demonstrate the relationships between various spaces of this area.

Following are the Program Type 5 space plates:

CT-P5-1	Lab
CT-P5-2	Related Classroom
CT-P5-3	Office
CT-P5-4	Storage
CT-P5-5	Changing Room
CT-P5-6	Tool Crib
CT-P5-7	Reference Room
CT-P5-8	Toilet Room

**PROGRAM TYPE 5
EXAMPLE**

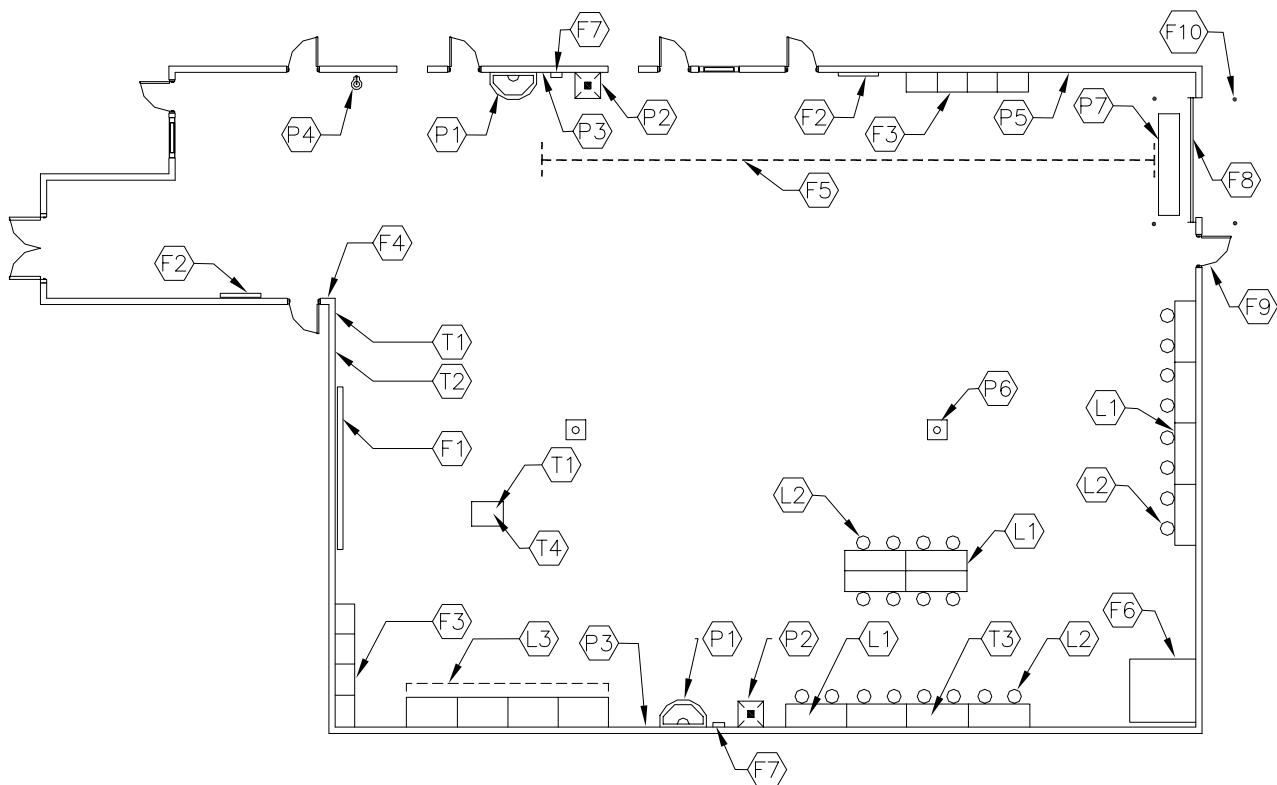


Program Type 5

This is an example to show the possible relationships of spaces for this program type.

NOTES:

1. See lab descriptions within this section for specific lab requirements.
2. See individual space plates at the end of this section for specific requirements.



CAPACITY:	24 Students
SIZE:	1,800 – 4,500 SF
	(see lab summaries for exact sizes)
ANCILLARY SPACES:	CT-P5-2 thru CT-P5-8

NOTES:

1. Loose furnishings shown represent one of many possible arrangements.
2. Graphic plate is an example only. Other labs within this program are not drawn – refer to lab summaries within this program type for information on a particular lab.

PROGRAM ACTIVITIES:

- Large and small group instruction
- Group and individual work
- Demonstrations

SPATIAL RELATIONSHIPS:

- Near other related labs
- Adjacent to typical support spaces
- Proximity to large group restrooms
- Located away from noisy or public activities
- Proximity to core academic area and common use areas
- Flexibility of space

ENVIRONMENTAL CONSIDERATIONS:

- Uniform lighting with 80% visual comfort probability level.
- Optional: Natural light opening equal to 5% minimum of floor area, with an operable vent
- Environmental sound control -
walls minimum STC 50
ceiling minimum CAC 35, NRC **0.70**
- Flexibility of space

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.
2. Loose Furnishings: Refer to Lab Profiles within this section.
3. Loose Furnishings, fixed equipment, utility locations, and general footprint of room shown represent one of many possible arrangements.

ACQUISITION AND LOGISTICS

CHAPTER 6: CAREER-TECHNICAL SCHOOL

CT-P5-1

PROGRAM DESCRIPTION:		Spec. Ref.#
Organized subject matter and learning experiences related to the physical distribution of products including freight transportation and public warehousing. Also included are tasks performed by employees and management in places of business that are engaged primarily in the selling of goods to retailers, and to industrial, commercial, institutional, and professional users, or bringing buyers and sellers together.		
Program Type:	5	
Size Requirements:	3,000 SF Lab	
Lab Requirements:		
FINISHES:	Spec. Ref #	
Flooring:		
Sealed concrete	033000	
Ceiling:		
Painted, exposed structure	099100	
Walls:		
Painted concrete masonry units	042000/099100	
LOOSE FURNISHINGS:		
(6) Workbenches with heavy-duty metal tops		
(24) Stools or chairs		
Wastebasket		
Pencil sharpener		
Miscellaneous:		
N/A		
FEATURES¹:		
Fixed Items:		
16' of chalk/marker board		101100
8' of tack board		101100
24' of tall storage cabinets		123550
Pencil sharpener support		062000
(3) Paper towel dispensers		102813
40' of high-bay pallet storage system/shelving		105613
12'x14' motorized overhead sectional door to exterior		083613
3'x7' hollow metal service door to exterior		081113
Steel bollards at overhead door, both sides		055000
Fire Suppression:		
Fire suppression system		211000
Plumbing:		
1 washfountain (minimum)		224000
2 utility sinks (minimum)		224000
2 hose bibbs (minimum)		224000
Safety shower/eyewash		224000
2 floor drains		224000
1 trench drain		224000
Plumbing connections		221116/221119/224000
HVAC:		
Supply/return air system		Div. 23
Independent temperature control		230923
Electrical:		
High intensity lighting or fluorescent lighting		265100
Illumination level: See Table 8600-4		
Multilevel switching		262726
30 duplex receptacles (minimum)		262726
Double duplex receptacle adjacent to each data and video port		262726
(2) 220 volt receptacles		262726
Communications:		
1 video port and video display device		271533/271543/274119
1 voice port and phone		271513/273113
4 data ports		271523
Clock		275313
Central sound system		275123
Electronic Safety and Security:		
Life safety devices per code		283111

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

AGRIBUSINESS AND PRODUCTION SYSTEMS
CT-P5-1

CHAPTER 6: CAREER-TECHNICAL SCHOOL

PROGRAM DESCRIPTION:		FEATURES¹:		Spec.
Programs provide instruction on the principles and practices of food production allowing students to develop careers in agriculture engineering, crop production and consultation, agricultural journalism, livestock production and consultation, and agricultural supply and sales. The learning activities focus on resource analysis, accounting, financing, resource acquisition, performance records, marketing, crop and animal production, agricultural engineering, and leadership.		<u>Fixed Items:</u>		<u>Ref.#</u>
Program Type: 5		F1	16' of chalk/marker board	101100
		F2	8' of tack board	101100
		F3	24' of tall storage cabinets	123550
		F4	Pencil sharpener support	062000
		F5	Overhead chain hoist	412223
		F7	(4) Paper towel dispensers	102813
		F8	12'x14' motorized overhead sectional door to exterior	083613
		F9	3'x7' hollow metal service door to exterior	081113
		F10	Steel bollards at overhead door, both sides	055000
		Size Requirements: 4,500 SF Lab		<u>Fire Suppression:</u>
Lab Requirements:		Fire suppression system	211000	
		<u>Plumbing:</u>		
<u>FINISHES:</u>	<u>Spec. Ref #</u>	P1	2 washfountains (minimum)	224000
Flooring:		P2	2 utility sinks (minimum)	224000
Sealed concrete	033000	P3	2 hose bibbs (minimum)	224000
Ceiling:		P4	Safety shower/eyewash	224500
Painted, exposed structure	099100	P5	6 compressed air connections	221513
Walls:		P6	2 floor drains	224000
Painted concrete masonry units	042000/099100	P7	1 trench drain	224000
		Plumbing connections 221116/221119/224000		
<u>LOOSE FURNISHINGS:</u>		<u>HVAC:</u>		
L1 (12) Workbenches with heavy-duty metal tops		Supply/return air system		Div. 23
L2 (24) Stools or chairs		Independent temperature control		230923
L3 (4) Welding tables		Welding hood exhaust		Div. 23
Wastebasket		<u>Electrical:</u>		
Pencil sharpener		High intensity lighting or fluorescent lighting		265100
		Illumination level: See Table 8600-4		
		Multilevel switching		262726
		30 duplex receptacles (minimum)		262726
		Double duplex receptacle adjacent to each data and video port		262726
		(6) 220 volt receptacles		262726
<u>SITE FEATURES:</u>		<u>Communications:</u>		
Greenhouse - 1000 SF	133413	T1	1 video port and video display device	271533/271543/274119
Concrete flooring (with drains)		T2	1 voice port and phone	271513/273113
Minimum of one 8'x10' overhead door		T3	4 data ports	271513
Provide electrical, plumbing, and heating/ventilation systems as per greenhouse manufacturer's recommendations			Clock	275313
Minimum of 2 hose bibs			Central sound system	275123
Fire suppression system if required		<u>Electronic Safety and Security:</u>		
Plan for the following if required by school curriculum requirements:		Life safety devices per code		283111
Farm machinery building		<u>Miscellaneous:</u> N/A		
Livestock building				

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

**APPLIANCE REPAIR
CT-P5-1**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

<u>PROGRAM DESCRIPTION:</u>		<u>FEATURES¹:</u>	Spec. <u>Ref.#</u>
Classroom and shop learning experiences concerned with the theory of electrical circuitry, simple gearing, linkages, and lubrication in the operation, maintenance, and repair of components, including relays, time switches, pumps, and agitators, used in appliances such as washers, dryers, vacuum cleaners, toasters, water heaters, and stoves. Related training is provided in the use of tools, test equipment, service manuals, and in making cash estimates for repairs.		<u>Fixed Items:</u>	
		16' of chalk/marker board	101100
		8' of tack board	101100
		24' of tall storage cabinets	123550
		Pencil sharpener support	062000
		(4) Paper towel dispensers	102813
		12'x14' motorized overhead sectional door to exterior	083613
		3'x7' hollow metal service door to exterior	081113
		Steel bollards at overhead door, both sides	055000
Program Type:	5	<u>Fire Suppression:</u>	
		Fire suppression system	211000
Size Requirements:	1,800 SF Lab	<u>Plumbing:</u>	
Lab Requirements:		2 washfountains (minimum)	224000
		2 utility sinks (minimum)	224000
		2 hose bibbs (minimum)	224000
		Safety shower/eyewash	224000
<u>FINISHES:</u>	<u>Spec. Ref #</u>	2 floor drains	224000
Flooring:		1 trench drain	224000
Sealed concrete	033000	6 compressed air connections	221513
		Plumbing connections	221116/221119/224000
Ceiling:		<u>HVAC:</u>	
Painted, exposed structure	099100	Supply/return air system	Div. 23
Walls:		Independent temperature control	230923
Painted concrete masonry units	042000/ 099100	<u>Electrical:</u>	
		High intensity lighting <i>or fluorescent lighting</i>	265100
<u>LOOSE FURNISHINGS:</u>		Illumination level: See Table 8600-4	
(12) Workbenches with heavy-duty metal tops		Multilevel switching	262726
(24) Stools or chairs		30 duplex receptacles (minimum)	262726
Wastebasket		Double duplex receptacle adjacent to each data and video port	262726
Pencil sharpener		(2) 220 volt receptacles	262726
<u>Miscellaneous:</u>		<u>Communications:</u>	
N/A		1 video port and video display device	271533/271543/274119
		1 voice port and phone	271513/273113
		4 data ports	271513
		Clock	275313
		Central sound system	275123
		<u>Electronic Safety and Security:</u>	
		Life safety devices per code	283111

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

AUTO SPECIALIZATION
CT-P5-1

CHAPTER 6: CAREER-TECHNICAL SCHOOL

<u>PROGRAM DESCRIPTION:</u> Learning experiences that involve more detailed training in the adjustment and repair of the automobile, including the cooling system, transmission, fuel system, brake system, and other units to provide greater proficiency in the servicing of selected components.		<u>FEATURES¹:</u> <u>Fixed Items:</u>		Spec. Ref.#
Program Type: 5		16' of chalk/marker board		101100
Size Requirements: 3,500 SF Lab		8' of tack board		101100
Lab Requirements:		24' of tall storage cabinets		123550
		Pencil sharpener support		062000
		(4) Paper towel dispensers		102813
		12'x14' motorized overhead sectional door to exterior		083613
		3'x7' hollow metal service door to exterior		081113
		Steel bollards at overhead door, both sides		055000
<u>FINISHES:</u>		<u>Fire Suppression:</u>		
Flooring:	Spec. Ref #	Fire suppression system		211000
Sealed concrete	033000	<u>Plumbing:</u>		
Ceiling:		2 washfountains (minimum)		224000
Painted, exposed structure	099100	2 utility sinks (minimum)		224000
Walls:		2 hose bibbs (minimum)		224000
Painted concrete masonry units	042000/ 099100	Safety shower/eyewash		224000
<u>LOOSE FURNISHINGS:</u>		2 floor drains		224000
(8) Workbenches with heavy-duty metal tops		1 trench drain		224000
(24) Stools or chairs		6 compressed air connections		221513
Wastebasket		Plumbing connections		221116/221119/224000
Pencil sharpener		<u>HVAC:</u>		
		Supply/return air system		Div. 23
		Independent temperature control		230923
		Vehicle exhaust system		Div. 23
		<u>Electrical:</u>		
		High intensity lighting or fluorescent lighting		265100
		Illumination level: See Table 8600-4		
		Multilevel switching		262726
		30 duplex receptacles (minimum)		262726
		Double duplex receptacle adjacent to each data and video port		262726
		(6) 220 volt receptacles		262726
		<u>Communications:</u>		
		1 video port and video display device		271533/271543/274119
		1 voice port and phone		271513/273113
		4 data ports		271513
		Clock		275313
		Central sound system		275123
		<u>Electronic Safety and Security:</u>		
		Life safety devices per code		283111
		<u>Miscellaneous:</u> N/A		
<u>The following items to be funded by the School District:</u>				
Car lifts				

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

<u>PROGRAM DESCRIPTION:</u> Specialized classroom and laboratory experiences concerned with the cutting, chipping, and fixing in position of brick and concrete block. Included is instruction in the care and use of tools, equipment, and materials for the preparation and performance of masonry construction; the selection and preparation of materials used in the laying of brick and block; and training in blueprint reading, record keeping, estimating, and safety.		<u>FEATURES¹:</u> <u>Fixed Items:</u>		Spec. Ref.#
Program Type: 5		16' of chalk/marker board		101100
Size Requirements: 3,500 SF Lab		8' of tack board		101100
Lab Requirements:		24' of tall storage cabinets		123550
<u>FINISHES:</u>		Pencil sharpener support		062000
Flooring:		(4) Paper towel dispensers		102813
Sealed concrete	Spec. Ref # 033000	12'x14' motorized overhead sectional door to exterior		083613
Ceiling:		3'x7' hollow metal service door to exterior		081113
Painted, exposed structure	099100	Steel bollards at overhead door, both sides		055000
Walls:		<u>Fire Suppression:</u>		
Painted concrete masonry units	042000/ 099100	Fire suppression system		211000
<u>LOOSE FURNISHINGS:</u>		<u>Plumbing:</u>		
(12) Workbenches with heavy-duty metal tops		2 washfountains (minimum)		224000
(24) Stools or chairs		2 utility sinks (minimum)		224000
Wastebasket		2 hose bibbs (minimum)		224000
Pencil sharpener		Safety shower/eyewash		224000
Miscellaneous:		2 floor drains		224000
N/A		1 trench drain		224000
		4 compressed air connections		221500
		Plumbing connections		221116/221119/224000
		<u>HVAC:</u>		
		Supply/return air system		Div. 23
		Independent temperature control		230923
		<u>Electrical:</u>		
		High intensity lighting or fluorescent lighting		265100
		Illumination level: See Table 8600-4		
		Multilevel switching		262726
		30 duplex receptacles (minimum)		262726
		Double duplex receptacle adjacent to each data and video port		262726
		(2) 220 volt receptacles		262726
		<u>Communications:</u>		
		1 video port and video display device		271533/271543/274119
		1 voice port and phone		271513/273113
		4 data ports		271513
		Clock		275313
		Central sound system		275123
		<u>Electronic Safety and Security:</u>		
		Life safety devices per code		283111

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

**BUILDING AND PROPERTY MAINTENANCE
BUILDING TECHNOLOGY
CT-P5-1**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

PROGRAM DESCRIPTION:		Spec. Ref.#	
Organized learning experiences in the classroom and laboratory concerned with the skills necessary to keep the physical structure of an office building, factory, apartment building, house, or similar structure in good repair. Included is instruction in carpentry; roofing application and repair; ceramic tile and masonry application and repair; electrical installation and repair; painting and wallpapering; and plumbing.		FEATURES¹:	
		Fixed Items:	
		16' of chalk/marker board	101100
		8' of tack board	101100
		24' of tall storage cabinets	123550
		Pencil sharpener support	062000
		(3) Paper towel dispensers	102813
		12'x14' motorized overhead sectional door to exterior	083613
		3'x7' hollow metal service door to exterior	081113
		Steel bollards at overhead door, both sides	055000
		Fire Suppression:	
		Fire suppression system	211000
		Plumbing:	
		1 washfountain (minimum)	224000
		2 utility sinks (minimum)	224000
		2 hose bibbs (minimum)	224000
		Safety shower/eyewash	224000
		2 floor drains	224000
		1 trench drain	224000
		6 compressed air connections	221500
		2 natural gas connections	226313
		Master gas shut-off valve	226313
		Plumbing connections	221116/221119/224000
		HVAC:	
		Supply/return air system	Div. 23
		Independent temperature control	230923
		Welding hood and exhaust	Div. 23
		Electrical:	
		High intensity lighting or fluorescent lighting	265100
		Illumination level: See Table 8600-4	
		Multilevel switching	262726
		30 duplex receptacles (minimum)	262726
		Double duplex receptacle adjacent to each data and video port	262726
		(2) 220 volt receptacles	262726
		(2) 277 volt receptacles	262726
		(2) 408 volt receptacles	262726
		Communications:	
		1 video port and video display device	271533/271543/274119
		1 voice port and phone	271513/273113
		4 data ports	271513
		Clock	275313
		Central sound system	275123
Program Type: 5			
Size Requirements: 3,000 SF Lab			
Lab Requirements:			
	Spec. Ref #		
FINISHES:			
Flooring:			
Sealed concrete	033000		
Ceiling:			
Painted, exposed structure	099100		
Walls:			
Painted concrete masonry units	042000/099100		
LOOSE FURNISHINGS:			
(12) Workbenches with heavy-duty metal tops			
(24) Stools or chairs			
(2) Welding tables			
Wastebasket			
Pencil sharpener			
Electronic Safety and Security:			
Life safety devices per code	283111		
Miscellaneous:			
N/A			

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

CUSTODIAL SERVICES

CT-P5-1

CHAPTER 6: CAREER-TECHNICAL SCHOOL

PROGRAM DESCRIPTION:		Spec. Ref.#	
Organized learning experiences in the classroom and laboratory concerned with the skills necessary to provide all phases of care and cleaning of buildings; including fixtures, furnishings, and building interiors. Included is instruction in the care and maintenance of such materials as linoleum, plastic, terrazzo, tile, and wood floors; rugs and carpet; plastic, wood panel, paint, and synthetic wall coatings; and the use and care of hand and power tools. Additional emphasis is placed on (1) characteristics of various cleaning agents and protective coatings – including their reactions on surfaces – and procedures for applying them; (2) sanitation and disinfectants; (3) work scheduling; and (4) purchase of custodial supplies.		FEATURES¹:	
Program Type: 5		Fixed Items:	
Size Requirements: 2,500 SF Lab		16' of chalk/marker board	101100
Lab Requirements:		8' of tack board	101100
		24' of tall storage cabinets	123550
		Pencil sharpener support	062000
		(3) Paper towel dispensers	102813
		12'x14' motorized overhead sectional door to exterior	083613
		3'x7' hollow metal service door to exterior	081113
		Steel bollards at overhead door, both sides	055000
		Fire Suppression:	
		Fire suppression system	211000
		Plumbing:	
		1 washfountain (minimum)	224000
		2 utility sinks (minimum)	224000
		2 hose bibbs (minimum)	224000
		Safety shower/eyewash	224000
		2 floor drains	224000
		1 trench drain	224000
		Plumbing connections	221116/221119/224000
		HVAC:	
		Supply/return air system	Div. 23
		Independent temperature control	230923
		Electrical:	
		High intensity lighting or fluorescent lighting	265100
		Illumination level: See Table 8600-4	
		Multilevel switching	262726
		30 duplex receptacles (minimum)	262726
		Double duplex receptacle adjacent to each data and video port	262726
		(6) 220 volt receptacles	262726
		Communications:	
		1 video port and video display device	271533/271543/274119
		1 voice port and phone	271513/273113
		4 data ports	271513
		Clock	275313
		Central sound system	275123
		Electronic Safety and Security:	
		Life safety devices per code	283111
		Miscellaneous:	
		N/A	

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

ELECTRICAL TRADES
CT-P5-1

CHAPTER 6: CAREER-TECHNICAL SCHOOL

		Spec. Ref.#
<u>PROGRAM DESCRIPTION:</u>		
Specialized classroom and laboratory experiences concerned with the layout, assembly, installation, testing, and maintenance of electrical fixtures and apparatus, and the wiring used in electrical systems. Instruction is provided in worksite safety; electrical principles; the application of codes and standards; residential, commercial, and industrial installations including motors and specialized systems; and the reading, interpretation, and application of blueprints and wiring diagrams. A one year program option is available with an exit in residential wiring, or with an exit in commercial/industrial wiring upon the recommendation of the local advisory committee and the approval of the local board of education.		
Program Type: 5		
Size Requirements: 3,000 SF Lab		
Lab Requirements:		
	Spec. Ref #	
<u>FINISHES:</u>		
Flooring:		
Sealed concrete	033000	
Ceiling:		
Painted, exposed structure	099100	
Walls:		
Painted concrete masonry units	042000/ 099100	
<u>LOOSE FURNISHINGS:</u>		
(12) Workbenches with heavy-duty non-conductive tops		
(24) Stools or chairs		
Wastebasket		
Pencil sharpener		
<u>Electronic Safety and Security:</u>		
Life safety devices per code	283111	
<u>Miscellaneous:</u>		
N/A		
<u>FEATURES¹:</u>		
<u>Fixed Items:</u>		
16' of chalk/marker board	101100	
8' of tack board	101100	
24' of tall storage cabinets	123550	
Pencil sharpener support	062000	
(3) Paper towel dispensers	102813	
12'x14' motorized overhead sectional door to exterior	083613	
3'x7' hollow metal service door to exterior	081113	
Steel bollards at overhead door, both sides	055000	
<u>Fire Suppression:</u>		
Fire suppression system	211000	
<u>Plumbing:</u>		
1 washfountain (minimum)	224000	
2 utility sinks (minimum)	224000	
2 hose bibbs (minimum)	224000	
Safety shower/eyewash	224000	
2 floor drains	224000	
1 trench drain	224000	
Plumbing connections	221116/221119/224000	
<u>HVAC:</u>		
Supply/return air system	Div. 23	
Independent temperature control	230923	
<u>Electrical:</u>		
High intensity lighting or fluorescent lighting	265100	
Illumination level: See Table 8600-4		
Multilevel switching	262726	
30 duplex receptacles (minimum)	262726	
Double duplex receptacle adjacent to each data and video port	262726	
208v 3-phase service	262726	
480v 3-phase service	262726	
100 amp 208v 3-phase bus duct	262726	
100 amp 480v 3-phase bus duct	262726	
Fiber optic service	262726	
Cat 5 service	262726	
<u>Communications:</u>		
1 video port and video display device	271533/271543/274119	
1 voice port and phone	271513/273113	
4 data ports	271513	
Clock	275313	
Central sound system	275123	

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

ENVIRONMENTAL CONTROLS TECHNOLOGIES

CHAPTER 6: CAREER-TECHNICAL SCHOOL

CT-P5-1

PROGRAM DESCRIPTION:		FEATURES¹:		Spec.
Classroom and laboratory experiences that enable the student to become proficient in the installation, repair, and maintenance of residential, commercial, and industrial air-conditioning systems. Included is instruction related to electrical principles; electric motors; controls; refrigeration, heating and air-conditioning principles and practices; and piping systems.		Fixed Items:		Ref.#
Program Type: 5		16' of chalk/marker board		101100
Size Requirements: 3,000 SF Lab		8' of tack board		101100
Lab Requirements:		24' of tall storage cabinets		123550
FINISHES:		Pencil sharpener support		062000
Flooring:		(3) Paper towel dispensers		102813
Sealed concrete	033000	12'x14' motorized overhead sectional door to exterior		083613
Ceiling:		3'x7' hollow metal service door to exterior		081113
Painted, exposed structure	099100	Steel bollards at overhead door, both sides		055000
Walls:		Fire Suppression:		
Painted concrete masonry units	042000/099100	Fire suppression system		211000
LOOSE FURNISHINGS:		Plumbing:		
(8) Workbenches with heavy-duty metal tops		1 washfountain (minimum)		224000
(24) Stools or chairs		2 utility sinks (minimum)		224000
(4) Welding tables		2 hose bibbs (minimum)		224000
Wastebasket		Safety shower/eyewash		224000
Pencil sharpener		2 floor drains		224000
		1 trench drain		224000
		6 natural gas connections		226313
		Master gas shut-off valve		226313
		Plumbing connections		221116/221119/224000
		HVAC:		
		Supply/return air system		Div. 23
		Independent temperature control		230923
		Welding hood and exhaust		Div. 23
		Electrical:		
		High intensity lighting or fluorescent lighting		265100
		Illumination level: See Table 8600-4		
		Multilevel switching		262726
		30 duplex receptacles (minimum)		262726
		Double duplex receptacle adjacent to each data and video port		262726
		(2) 220 volt receptacles		262726
		(2) 227 volt receptacles		262726
		(2) 408 volt receptacles		262726
		Communications:		
		1 video port and video display device		271533/271543/274119
		1 voice port and phone		271513/273113
		4 data ports		271513
		Clock		275313
		Central sound system		275123
Electronic Safety and Security:				
Life safety devices per code	283111			
Miscellaneous:				
N/A				

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

HEAVY EQUIPMENT (Construction)
CT-P5-1

CHAPTER 6: CAREER-TECHNICAL SCHOOL

		Spec. Ref.#
<u>PROGRAM DESCRIPTION:</u>		<u>FEATURES¹:</u>
Classroom and practical work experiences concerned with the operation, maintenance, and repair of heavy-duty construction equipment, such as bulldozers, backhoes, cranes, graders, tractors, concrete mixers, crawler-mounted shovels, trailer-mounted compressors, and the gasoline or diesel engines powering the equipment.		<u>Fixed Items:</u>
		16' of chalk/marker board 101100
		8' of tack board 101100
		24' of tall storage cabinets 123550
		Pencil sharpener support 062000
		(3) Paper towel dispensers 102813
		12'x14' motorized overhead sectional door to exterior 083613
		3'x7' hollow metal service door to exterior 081113
		Steel bollards at overhead door, both sides 055000
Program Type: 5		
Size Requirements: 4,500 SF Lab		<u>Fire Suppression:</u>
		Fire suppression system 211000
Lab Requirements:		<u>Plumbing:</u>
	Spec.	1 washfountain (minimum) 224000
	Ref #	2 utility sinks (minimum) 224000
<u>FINISHES:</u>		2 hose bibbs (minimum) 224000
Flooring:		Safety shower/eyewash 224000
Sealed concrete	033000	2 floor drains 224000
		1 trench drain 224000
Ceiling:		6 compressed air connections 221500
Painted, exposed structure	099100	Plumbing connections 221116/221119/224000
Walls:		<u>HVAC:</u>
Painted concrete masonry units	042000/ 099100	Supply/return air system Div. 23
		Independent temperature control 230923
		<u>Electrical:</u>
<u>LOOSE FURNISHINGS:</u>		High intensity lighting or fluorescent lighting 265100
(8) Workbenches with heavy-duty metal tops		Illumination level: See Table 8600-4
(24) Stools or chairs		Multilevel switching 262726
Wastebasket		30 duplex receptacles (minimum) 262726
Pencil sharpener		Double duplex receptacle adjacent to each data and video port 262726
		(2) 220 volt receptacles 262726
<u>Miscellaneous:</u>		<u>Communications:</u>
N/A		1 video port and video display device 271533/271543/274119
		1 voice port and phone 271513/273113
		4 data ports 271513
		Clock 275313
		Central sound system 275123
		<u>Electronic Safety and Security:</u>
		Life safety devices per code 283111

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

INDUSTRIAL MAINTENANCE AND REPAIR

CT-P5-1

CHAPTER 6: CAREER-TECHNICAL SCHOOL

PROGRAM DESCRIPTION:

Organized learning experiences in the classroom and shop concerned with the maintenance of machinery and mechanical equipment of an industrial plant or factory. Inspection, disassembly, repair, and reassembly of machines and equipment is included in the training experience. Skill training in the use of tools in several trades is also included.

Program Type: 5

Size Requirements: 3,500 SF Lab

Lab Requirements:

FINISHES:

Flooring: Spec. Ref #
Sealed concrete 033000

Ceiling: Spec. Ref #
Painted, exposed structure 099100

Walls: Spec. Ref #
Painted concrete masonry units **042000/**
099100

LOOSE FURNISHINGS:

(12) Workbenches with heavy-duty metal tops
(24) Stools or chairs
(4) Welding tables
Wastebasket
Pencil sharpener

Miscellaneous:

N/A

FEATURES¹:

Fixed Items:

16' of chalk/marker board	101100
8' of tack board	101100
24' of tall storage cabinets	123550
Pencil sharpener support	062000
(4) Paper towel dispensers	102813
12'x14' motorized overhead sectional door to exterior	083613
3'x7' hollow metal service door to exterior	081113
Steel bollards at overhead door, both sides	055000

Fire Suppression:

Fire suppression system	211000
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Plumbing:

2 washfountains (minimum)	224000
2 utility sinks (minimum)	224000
2 hose bibbs (minimum)	224000
Safety shower/eyewash	224000
2 floor drains	224000
1 trench drain	224000
6 compressed air connections	221500
Plumbing connections	221116/221119/224000

HVAC:

Supply/return air system	Div. 23
Independent temperature control	230923
Welding hood and exhaust	Div. 23

Electrical:

High intensity lighting or fluorescent lighting	265100
Illumination level: See Table 8600-4	
Multilevel switching	262726
30 duplex receptacles (minimum)	262726
Double duplex receptacle adjacent to each data and video port	262726
(4) 220 volt receptacles	262726
208v 3-phase service	262726
480v 3-phase service	262726

Communications:

1 video port and video display device	271533/271543/274119
1 voice port and phone	271513/273113
4 data ports	271513
Clock	275313
Central sound system	275123

Electronic Safety and Security:

Life safety devices per code	283111
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NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

INTERIOR DESIGN AND APPLICATION
CT-P5-1

CHAPTER 6: CAREER-TECHNICAL SCHOOL

		Spec. Ref.#
<u>PROGRAM DESCRIPTION:</u>		<u>FEATURES¹:</u>
Specialized classroom and laboratory experiences concerned with the preparation and finishing of exterior and interior surfaces by the application of protective or decorative coating materials, such as lacquer, paint, and wallpapers. Included is instruction in the scraping, burning, or sanding surfaces; making, mixing, and matching paints and colors; applying coatings with brush, roller, or spray-gun; and by cutting, pasting, and hanging wallpaper. Emphasis is on the selection, use, and storage of materials in compliance with all state and federal environmental regulations.		<u>Fixed Items:</u>
		16' of chalk/marker board 101100
		8' of tack board 101100
		24' of tall storage cabinets 123550
		Pencil sharpener support 062000
		(4) Paper towel dispensers 102813
		12'x14' motorized overhead sectional door to exterior 083613
		3'x7' hollow metal service door to exterior 081113
		Steel bollards at overhead door, both sides 055000
		<u>Fire Suppression:</u>
		Fire suppression system 211000
		<u>Plumbing:</u>
		2 washfountains (minimum) 224000
		2 utility sinks (minimum) 224000
		2 hose bibbs (minimum) 224000
		Safety shower/eyewash 224000
		2 floor drains 224000
		1 trench drain 224000
		Plumbing connections 221116/221119/224000
		<u>HVAC:</u>
		Supply/return air system Div. 23
		Independent temperature control 230923
		<u>Electrical:</u>
		High intensity lighting or fluorescent lighting 265100
		Illumination level: See Table 8600-4
		Multilevel switching 262726
		30 duplex receptacles (minimum) 262726
		Double duplex receptacle adjacent to each data and video port 262726
		<u>Communications:</u>
		1 video port and video display device 271533/271543/274119
		1 voice port and phone 271513/273113
		4 data ports 271513
		Clock 275313
		Central sound system 275123
		<u>Electronic Safety and Security:</u>
		Life safety devices per code 283111
<u>Program Type:</u> 5		
<u>Size Requirements:</u> 3,000 SF Lab		
<u>Lab Requirements:</u>		
<u>FINISHES:</u>		Spec. Ref #
<u>Flooring:</u>		
Sealed concrete	033000	
<u>Ceiling:</u>		
Painted, exposed structure	099100	
<u>Walls:</u>		
Painted concrete masonry units	042000/ 099100	
<u>LOOSE FURNISHINGS:</u>		
(12) Workbenches with heavy-duty metal tops		
(24) Stools or chairs		
Wastebasket		
Pencil sharpener		
<u>Miscellaneous:</u>		
N/A		

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

MANUFACTURING OCCUPATIONS

CHAPTER 6: CAREER-TECHNICAL SCHOOL

CT-P5-1

PROGRAM DESCRIPTION:		FEATURES¹:		Spec.
		Fixed Items:		Ref.#
Specialized learning experiences to prepare a semi-skilled worker to run only one machine; e.g., lathe, grinder, drill press, milling machine, or shaper. Could include metal fabrication and assembly. Instruction could include layout; sequencing of operating fabricating machines; positioning, alignment, fitting, and welding.		16' of chalk/marker board		101100
		8' of tack board		101100
		24' of tall storage cabinets		123550
		Pencil sharpener support		062000
		(3) Paper towel dispensers		102813
		12'x14' motorized overhead sectional door to exterior		083613
		3'x7' hollow metal service door to exterior		081113
		Steel bollards at overhead door, both sides		055000
		Fire Suppression:		
		Fire suppression system		211000
		Plumbing:		
		1 washfountain (minimum)		224000
		2 utility sinks (minimum)		224000
		2 hose bibbs (minimum)		224000
		Safety shower/eyewash		224000
		2 floor drains		224000
		1 trench drain		224000
		6 compressed air connections		221500
		Plumbing connections		221116/221119/224000
		HVAC:		
		Supply/return air system		Div. 23
		Independent temperature control		230923
		Electrical:		
		High intensity lighting or fluorescent lighting		265100
		Illumination level: See Table 8600-4		
		Multilevel switching		262726
		30 duplex receptacles (minimum)		262726
		Double duplex receptacle adjacent to each data and video port		262726
		(4) 220 volt receptacles		262726
		208v 3-phase service		262726
		480v 3-phase service		262726
		Communications:		
		1 video port and video display device		271533/271543/274119
		1 voice port and phone		271513/273113
		4 data ports		271513
		Clock		275313
		Central sound system		275123
		Electronic Safety and Security:		
		Life safety devices per code		283111
Program Type: 5				
Size Requirements: 4,500 SF Lab				
Lab Requirements:				
		Spec.		
		Ref #		
FINISHES:				
Flooring:				
	Sealed concrete		033000	
Ceiling:				
	Painted, exposed structure		099100	
Walls:				
	Painted concrete masonry units	042000/		
		099100		
LOOSE FURNISHINGS:				
(12) Workbenches with heavy-duty metal tops				
(24) Stools or chairs				
Wastebasket				
Pencil sharpener				
Miscellaneous:				
N/A				

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

MARINE MAINTENANCE
CT-P5-1

CHAPTER 6: CAREER-TECHNICAL SCHOOL

		Spec. Ref.#
<u>PROGRAM DESCRIPTION:</u>		<u>FEATURES¹:</u>
Organized learning experiences concerned with the planning and supervision of operation, maintenance, and safety of passenger or cargo vessels.		<u>Fixed Items:</u>
		16' of chalk/marker board 101100
		8' of tack board 101100
		24' of tall storage cabinets 123550
		Pencil sharpener support 062000
		(4) Paper towel dispensers 102813
		(3) 7'x5'x3' deep water test tanks
		Thickened slabs under test tanks 033000
		12'x14' motorized overhead
		sectional door to exterior 083613
		3'x7' hollow metal service door
		to exterior 081113
		Steel bollards at overhead door,
		both sides 055000
		<u>Fire Suppression:</u>
		Fire suppression system 211000
		<u>Plumbing:</u>
		2 washfountains (minimum) 224000
		2 utility sinks (minimum) 224000
		2 hose bibbs (minimum) 224000
		Safety shower/eyewash 224000
		4 floor drains 224000
		1 trench drain 224000
		6 compressed air connections 221500
		Plumbing connections 221116/221119/224000
		<u>HVAC:</u>
		Supply/return air system Div. 23
		Independent temperature control 230923
		Welding hood and exhaust Div. 23
		Vehicle exhaust system Div. 23
		Paint hood supply & exhaust system Div. 23
		<u>Electrical:</u>
		High intensity lighting or 265100
		fluorescent lighting
		Illumination level: See Table 8600-4
		Multilevel switching 262726
		30 duplex receptacles (minimum) 262726
		Double duplex receptacle adjacent to
		each data and video port 262726
		(4) 220 volt receptacles 262726
		<u>Communications:</u>
		1 video port and video display device
		271533/271543/274119
		1 voice port and phone 271513/273113
		4 data ports 271513
		Clock 275313
		Central sound system 275123
<u>PROGRAM DESCRIPTION:</u>		
Organized learning experiences concerned with the planning and supervision of operation, maintenance, and safety of passenger or cargo vessels.		
Program Type:	5	
Size Requirements:	3,500 SF Lab	
Lab Requirements:		
<u>FINISHES:</u>		
Flooring:		
Sealed concrete	033000	
Ceiling:		
Painted, exposed structure	099100	
Walls:		
Painted concrete masonry units	042000/ 099100	
<u>LOOSE FURNISHINGS:</u>		
(8) Workbenches with heavy-duty metal tops		
(24) Stools or chairs		
(2) Welding tables		
Wastebasket		
Pencil sharpener		
<u>Electronic Safety and Security:</u>		
Life safety devices per code	283111	
<u>Miscellaneous:</u>		
N/A		
<u>The following item is to be funded by the School District:</u>		
Paint prep station		

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

**NATURAL RESOURCE MANAGEMENT
CT-P5-1**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

<u>PROGRAM DESCRIPTION:</u> Programs provide instruction in the theories, principles, and practices of conserving, improving, and productively managing natural resources including air, water, soil, and wildlife. Program specialization areas include forestry and natural resources.		<u>FEATURES¹:</u> <u>Fixed Items:</u>		Spec. <u>Ref.#</u>
Program Type: 5		16' of chalk/marker board		101100
Size Requirements: 3,000 SF Lab		8' of tack board		101100
Lab Requirements:		24' of tall storage cabinets		123550
		Pencil sharpener support		062000
		(3) Paper towel dispensers		102813
		12'x14' motorized overhead sectional door to exterior		083613
		3'x7' hollow metal service door to exterior		081113
		Steel bollards at overhead door, both sides		055000
<u>FINISHES:</u>	Spec. <u>Ref #</u>	<u>Fire Suppression:</u>		
Flooring:		Fire suppression system		211000
Sealed concrete	033000	<u>Plumbing:</u>		
Ceiling:		1 washfountain (minimum)		224000
Painted, exposed structure	099100	2 utility sinks (minimum)		224000
Walls:		2 hose bibbs (minimum)		224000
Painted concrete masonry units	042000/ 099100	Safety shower/eyewash		224000
<u>LOOSE FURNISHINGS:</u>		2 floor drains		224000
(12) Workbenches with heavy-duty metal tops		1 trench drain		224000
(24) Stools or chairs		6 compressed air connections		221500
(2) Welding tables		4 natural gas connections		226313
Wastebasket		Master gas shut-off valve		226313
Pencil sharpener		Plumbing connections		221116/221119/224000
<u>Miscellaneous:</u> N/A		<u>HVAC:</u>		
<u>SITE FEATURES:</u>		Supply/return air system		Div. 23
Greenhouse – 1,000 SF	133413	Independent temperature control		230923
▪ ½ earth flooring, ½ concrete flooring (with floor drains)		Welding hood and exhaust		Div. 23
▪ Minimum of one 8'x10' overhead door		<u>Electrical:</u>		
▪ Provide electrical, plumbing, and heating/ventilation systems as per greenhouse manufacturer's recommendations.		High intensity lighting or fluorescent lighting		265100
▪ Minimum of 4 hose bibbs		Illumination level: See Table 8600-4		
▪ Fire suppression system if required		Multilevel switching		262726
		30 duplex receptacles (minimum)		262726
		Double duplex receptacle adjacent to each data and video port		262726
		(4) 220 volt receptacles		262726
		<u>Communications:</u>		
		1 video port and video display device		271533/271543/274119
		1 voice port and phone		271513/273113
		4 data ports		271513
		Clock		275313
		Central sound system		275123
		<u>Electronic Safety and Security:</u>		
		Life safety devices per code		283111

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

PLASTICS OCCUPATIONS
CT-P5-1

CHAPTER 6: CAREER-TECHNICAL SCHOOL

		Spec. Ref.#
<u>PROGRAM DESCRIPTION:</u>		<u>FEATURES¹:</u>
Classroom and shop-learning experiences dealing with plastics and their characteristics and with bench molding, fitting, internal carving, and finished plastic and fiberglass materials into products. Instruction includes using hand and power tools.		<u>Fixed Items:</u>
Program Type: 5		16' of chalk/marker board 101100
Size Requirements: 3,000 SF Lab		8' of tack board 101100
Lab Requirements:		24' of tall storage cabinets 123550
		Pencil sharpener support 062000
		(3) Paper towel dispensers 102813
		Thickened slabs under heavy machinery 033000
		12'x14' motorized overhead sectional door to exterior 083613
		3'x7' hollow metal service door to exterior 081113
		Steel bollards at overhead door, both sides 055000
<u>FINISHES:</u>		<u>Fire Suppression:</u>
Flooring:	Spec. Ref #	Fire suppression system 211000
Sealed concrete	033000	<u>Plumbing:</u>
Ceiling:		1 washfountain (minimum) 224000
Painted, exposed structure	099100	2 utility sinks (minimum) 224000
Walls:		2 hose bibbs (minimum) 224000
Painted concrete masonry units	042000/ 099100	Safety shower/eyewash 224000
<u>LOOSE FURNISHINGS:</u>		2 floor drains 224000
(8) Workbenches with heavy-duty metal tops		1 trench drain 224000
(24) Stools or chairs		6 compressed air connections 221500
Wastebasket		Plumbing connections 221116/221119/224000
Pencil sharpener		Adequate service and connections for water-cooled machinery
		<u>HVAC:</u>
		Supply/return air system Div. 23
		Independent temperature control 230923
		<u>Electrical:</u>
		High intensity lighting or fluorescent lighting 265100
		Illumination level: See Table 8600-4
		Multilevel switching 262726
		30 duplex receptacles (minimum) 262726
		Double duplex receptacle adjacent to each data and video port 262726
		277v 3-phase service 262726
		480v 3-phase service 262726
<u>Electronic Safety and Security:</u>		<u>Communications:</u>
Life safety devices per code 283111		1 video port and video display device 271533/271543/274119
<u>Miscellaneous:</u>		1 voice port and phone 271513/273113
N/A		4 data ports 271513
		Clock 275313
		Central sound system 275123

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

PLUMBING AND PIPEFITTING

CT-P5-1

CHAPTER 6: CAREER-TECHNICAL SCHOOL

PROGRAM DESCRIPTION:		FEATURES¹:		Spec.
		<u>Fixed Items:</u>		<u>Ref.#</u>
Specialized classroom and laboratory experiences concerned with layout, assembly, installation, alteration, and repair of piping systems and related fixtures and fittings. Included is instruction in the use of pipe-cutting, bending, grooving, and threading tools; the maintenance and use of welding, soldering, and brazing equipment; the care and safe use of hand and power tools and equipment; and the reading, interpretation, and application of blueprints and piping diagrams.		16' of chalk/marker board		101100
		8' of tack board		101100
		24' of tall storage cabinets		123550
		Pencil sharpener support		062000
		(3) Paper towel dispensers		102813
		12'x14' motorized overhead sectional door to exterior		083613
		3'x7' hollow metal service door to exterior		081113
		Steel bollards at overhead door, both sides		055000
		<u>Fire Suppression:</u>		
		Fire suppression system		211000
Program Type: 5		<u>Plumbing:</u>		
Size Requirements: 3,000 SF Lab		1 washfountain (minimum)		224000
Lab Requirements:		2 utility sinks (minimum)		224000
		2 hose bibbs (minimum)		224000
<u>FINISHES:</u>		Safety shower/eyewash		224000
Flooring:	Spec.	2 floor drains		224000
Sealed concrete	Ref #	1 trench drain		224000
		6 compressed air connections		221500
Ceiling:		6 natural gas connections		226313
Painted, exposed structure	099100	Master gas shut-off valve		226313
Walls:		Plumbing connections		221116/221119/224000
		Painted concrete masonry units	042000/ 099100	
<u>LOOSE FURNISHINGS:</u>		<u>HVAC:</u>		
(12) Workbenches with heavy-duty metal tops		Supply/return air system		Div. 23
(24) Stools or chairs		Independent temperature control		230923
(4) Welding tables		Welding hood and exhaust		Div. 23
Wastebasket		Individual exhaust system for each gas-fired piece of equipment		Div. 23
Pencil sharpener		<u>Electrical:</u>		
<u>Electronic Safety and Security:</u>		High intensity lighting or fluorescent lighting		265100
		Illumination level: See Table 8600-4		
<u>Miscellaneous:</u>		Multilevel switching		262726
N/A		30 duplex receptacles (minimum)		262726
		Double duplex receptacle adjacent to each data and video port		262726
		(6) 220 volt receptacles		262726
		<u>Communications:</u>		
		1 video port and video display device		271533/271543/274119
		1 voice port and phone		271513/273113
		4 data ports		271513
		Clock		275313
		Central sound system		275123

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

POWER EQUIPMENT TECHNOLOGY
CT-P5-1

CHAPTER 6: CAREER-TECHNICAL SCHOOL

		Spec. Ref.#
<u>PROGRAM DESCRIPTION:</u>		<u>FEATURES¹:</u>
Classroom and shop experiences concerned with maintaining and repairing a variety of portable power equipment, e.g., lawnmowers, outbound motorboats, chainsaws, and rototillers. Instruction includes principles of internal-combustion engine operation, reading technical manuals, and customer relations. One year specialization program may be approved in small engine repair and servicing under this course code.		<u>Fixed Items:</u>
		16' of chalk/marker board 101100
		8' of tack board 101100
		24' of tall storage cabinets 123550
		Pencil sharpener support 062000
		(4) Paper towel dispensers 102813
		12'x14' motorized overhead sectional door to exterior 083613
		3'x7' hollow metal service door to exterior 081113
		Steel bollards at overhead door, both sides 055000
Program Type: 5		
Size Requirements: 3,500 SF Lab		<u>Fire Suppression:</u>
Lab Requirements:		Fire suppression system 211000
		<u>Plumbing:</u>
		2 washfountains (minimum) 224000
		2 utility sinks (minimum) 224000
		2 hose bibbs (minimum) 224000
		Safety shower/eyewash 224000
		4 floor drains 224000
		1 trench drain 224000
		6 compressed air connections 221500
		Plumbing connections 221116/221119/224000
		<u>HVAC:</u>
		Supply/return air system Div. 23
		Independent temperature control 230923
		Welding hood and exhaust Div. 23
		<u>Electrical:</u>
		High intensity lighting or fluorescent lighting 265100
		Illumination level: See Table 8600-4
		Multilevel switching 262726
		30 duplex receptacles (minimum) 262726
		Double duplex receptacle adjacent to each data and video port 262726
		(6) 220 volt receptacles 262726
		<u>Communications:</u>
		1 video port and video display device 271533/271543/274119
		1 voice port and phone 271513/273113
		4 data ports 271513
		Clock 275313
		Central sound system 275123
<u>FINISHES:</u>		
Flooring:		Spec. Ref #
Sealed concrete		033000
Ceiling:		
Painted, exposed structure		099100
Walls:		
Painted concrete masonry units		042000/ 099100
<u>LOOSE FURNISHINGS:</u>		
(12) Workbenches with heavy-duty metal tops		
(24) Stools or chairs		
(2) Welding tables		
Wastebasket		
Pencil sharpener		
<u>Electronic Safety and Security:</u>		
Life safety devices per code		283111
<u>Miscellaneous:</u>		
N/A		

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

**POWER TRANSMISSION
CT-P5-1**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

<u>PROGRAM DESCRIPTION:</u> Specialized classroom and laboratory experiences concerned with erecting and maintaining power lines and circuits for transmission and distribution of electrical power, and assembling and erecting related equipment and structures.		<u>FEATURES¹:</u> <u>Fixed Items:</u>		Spec. <u>Ref.#</u>
Program Type: 5		16' of chalk/marker board		101100
Size Requirements: 3,500 SF Lab		8' of tack board		101100
Lab Requirements:		24' of tall storage cabinets		123550
<u>FINISHES:</u>		Pencil sharpener support		062000
Flooring:		(4) Paper towel dispensers		102813
Sealed concrete	Spec. <u>Ref #</u> 033000	12'x14' motorized overhead sectional door to exterior		083613
Ceiling:		3'x7' hollow metal service door to exterior		081113
Painted, exposed structure	099100	Steel bollards at overhead door, both sides		055000
Walls:		Provide (6) holes in floor to accommodate utility poles. Provide removable metal covers when not in use.		
Painted concrete masonry units	042000/ 099100	<u>Fire Suppression:</u>		
<u>LOOSE FURNISHINGS:</u>		Fire suppression system		211000
(12) Workbenches with heavy-duty metal tops		<u>Plumbing:</u>		
(24) Stools or chairs		1 washfountain (minimum)		224000
Wastebasket		2 utility sinks (minimum)		224000
Pencil sharpener		2 hose bibbs (minimum)		224000
<u>Miscellaneous:</u>		Safety shower/eyewash		224000
N/A		2 floor drains		224000
		1 trench drain		224000
		6 compressed air connections		221500
		Plumbing connections		221116/221119/224000
		<u>HVAC:</u>		
		Supply/return air system		Div. 23
		Independent temperature control		230923
		<u>Electrical:</u>		
		High intensity lighting or fluorescent lighting		265100
		Illumination level: See Table 8600-4		
		Multilevel switching		262726
		30 duplex receptacles (minimum)		262726
		Double duplex receptacle adjacent to each data and video port		262726
		<u>Communications:</u>		
		1 video port and video display device		271533/271543/274119
		1 voice port and phone		271513/273113
		4 data ports		271513
		Clock		275313
		Central sound system		275123
		<u>Electronic Safety and Security:</u>		
		Life safety devices per code		283111

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

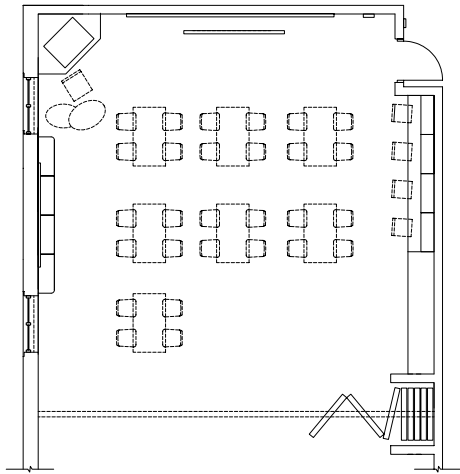
WELDING and CUTTING
CT-P5-1

CHAPTER 6: CAREER-TECHNICAL SCHOOL

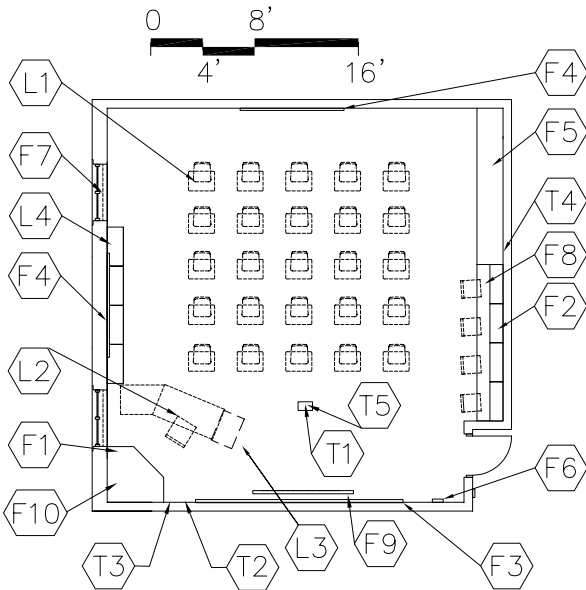
<u>PROGRAM DESCRIPTION:</u> Specialized classroom and shop-learning experiences that are concerned with all types of metal welding, brazing, and flame cutting. Instruction emphasizes properties of metals, blueprint reading, electrical principles, welding symbols, and mechanical drawing.		<u>FEATURES¹:</u> <u>Fixed Items:</u>		Spec. Ref.#
Program Type: 5		16' of chalk/marker board		101100
Size Requirements: 3,500 SF Lab		8' of tack board		101100
Lab Requirements:		24' of tall storage cabinets		123550
		Pencil sharpener support		062000
		Overhead hoist crane		412223
		(3) Paper towel dispensers		102813
		12'x14' motorized overhead sectional door to exterior		083613
		3'x7' hollow metal service door to exterior		081113
		Steel bollards at overhead door, both sides		055000
<u>FINISHES:</u>	Spec. Ref #	<u>Fire Suppression:</u>		
Flooring:		Fire suppression system		211000
Sealed concrete	033000	<u>Plumbing:</u>		
Ceiling:		1 washfountain (minimum)		224000
Painted, exposed structure	099100	2 utility sinks (minimum)		224000
Walls:		2 hose bibbs (minimum)		224000
Painted concrete masonry units	042000/ 099100	Safety shower/eyewash		224000
<u>LOOSE FURNISHINGS:</u>		2 floor drains		224000
(20) Welding tables with heavy-duty metal tops		1 trench drain		224000
(24) Stools or chairs		6 compressed air connections		221500
(4) 4'x4' metal worktables		Plumbing connections		221116/221119/224000
(1) Steel tube storage rack		<u>HVAC:</u>		
(1) Sheet steel storage rack		Supply/return air system		Div. 23
Wastebasket		Independent temperature control		230923
Pencil sharpener		Welding hood and exhaust		Div. 23
<u>Electronic Safety and Security:</u>		<u>Electrical:</u>		
Life safety devices per code	283111	High intensity lighting or fluorescent lighting		265100
<u>Miscellaneous:</u> N/A		Illumination level: See Table 8600-4		
		Multilevel switching		262726
		30 duplex receptacles (minimum)		262726
		Double duplex receptacle adjacent to each data and video port		262726
		(6) 220 volt receptacles		262726
		480v 3-phase service		262726
		<u>Communications:</u>		
		1 video port and video display device		271533/271543/274119
		1 voice port and phone		271513/273113
		4 data ports		271513
		Clock		275313
		Central sound system		275123

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.



CLASSROOM WITH OPTIONAL FOLDING WALL



TYPICAL CLASSROOM

CAPACITY:
SIZE:

25 students
900 SF

PROGRAM ACTIVITIES:

- Large group, small group, and individual instruction
- Group and individual work
- Demonstrations
- Accommodates any of the core academic disciplines

SPATIAL RELATIONSHIPS:

- Near other related lab
- Near teacher prep area/workroom
- Classrooms should be located in academic "zone" that is away from noisy or public activities
- Classrooms with access to media center and administrative services
- Flexibility of space
- Proximity to main corridor to accommodate other students without interrupting lab

ENVIRONMENTAL CONSIDERATIONS:

- Uniform lighting
- Natural light opening equal to minimum 5% of floor area, with an operable vent
- Environmental sound control -
wall minimum STC 50
ceiling minimum CAC 35, NRC **0.70**

NOTES:

1. Loose furnishings shown represent one of many possible arrangements.
2. Depending upon the educational program of the district, a tall wardrobe may be placed in this classroom or could be placed in a teacher prep area/workroom.

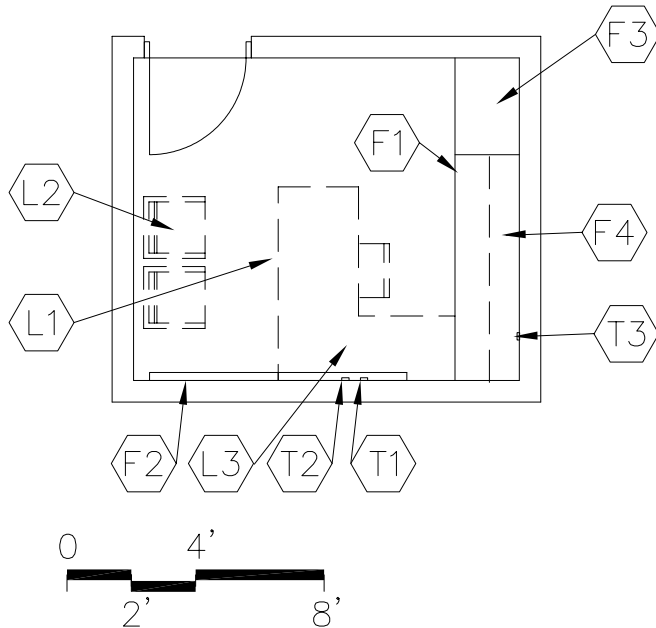
**RELATED CLASSROOM
CT-P5-2**

CHAPTER 6: CAREER-TECHNICAL HIGH SCHOOL

<u>FINISHES¹:</u>		Spec. Ref.#	<u>FEATURES¹:</u>		Spec. Ref.#
<u>Flooring:</u>			<u>Fixed Items:</u>		
Carpet		096816	F1	3' of tall wardrobe with file drawers	123550
Optional: Vinyl composition tile, linoleum, VET, or sheet vinyl		096516 096500	F2	Computer work surface (could be loose)	123550
<u>Base:</u>			F3	10'-16' of chalk/marker board	101100
Resilient base		096500	F4	10'-16' of tack board	101100
<u>Ceiling:</u>			F5	8'-12' of base & wall cabinets	123550
Suspended, acoustical		095113	F6	Pencil sharpener support	062000
<u>Walls:</u>			F7	Windows with integral blinds	085113
Painted concrete masonry units		042000/099100	F8	About 10' of wall cabinets	123550
			F9	Projection screen (optional)	115213
			F10	Technology support casework	123550
<u>LOOSE FURNISHINGS:</u>			<u>Fire Suppression:</u>		
L1	Student desks and chairs			Fire suppression system	211000
L2	Teacher desk or workstation/computer support and chair		<u>Plumbing:</u>		
L3	File cabinet		N/A		
L4	9' of low bookcases (fixed or mobile)		<u>HVAC:</u>		
	Wastebasket			Supply/return air system	Div. 23
	Pencil sharpener			Independent temperature control	230923
			<u>Electrical:</u>		
				Fluorescent lighting:	265100
				Illumination level: See Table 8600-4	
				Multilevel switching	262726
				4 duplex receptacles	262726
				Double duplex receptacle adjacent to each data and video port	262726
			<u>Communications:</u>		
			T1	1 video port	271533/271543
			T2	1 voice port and phone	271513/273113
			T3	1 data port near teacher workstation	271513
			T4	4 data ports (minimum) for student use	271513
				Clock	275313
				Central sound system	275123
				Sound reinforcement system	275127
			T5	Overhead projector	274119
			<u>Electronic Safety and Security:</u>		
				Life safety devices per code	283111
			<u>Miscellaneous:</u>		
			M1	Operable partitions between classrooms are optional	102226

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.
2. Technology components may be placed in a separate small cabinet, or integrated in the other casework in the room.
3. Where appropriate, some casework may be mobile to add flexibility and become part of the loose furnishings.



CAPACITY:
SIZE:

1 - 3 persons
120 SF

PROGRAM ACTIVITIES:

- Private space for program instructor
- One-on-one conferences with academic instructors, students, etc.

SPATIAL RELATIONSHIPS:

- Near related lab
- Direct access to school circulation areas

ENVIRONMENTAL CONSIDERATIONS:

- Uniform lighting
- Environmental sound control -
wall minimum STC **45**
ceiling minimum CAC 35, NRC **0.70**

NOTES:

1. Loose furnishings shown represent one of many possible arrangements.

**OFFICE
CT-P5-3**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

<u>FINISHES¹:</u>		<u>FEATURES¹:</u>	
	Spec. Ref.#		Spec. Ref.#
Flooring:		<u>Fixed Items:</u>	
Carpet <i>or carpet tile</i>	096816	F1 Work surface with file drawers	123550
	096813	F2 4' of tack board	101100
		or tackable wall surface	
Base:		F3 2' of tall wardrobe	123550
Resilient base	096500	F4 Wall cabinets above work surface	123550
Ceiling:		<u>Fire Suppression:</u>	
Suspended, acoustical	095113	Fire suppression system	211000
Walls:		<u>Plumbing:</u>	
Painted gypsum wallboard		N/A	
over metal studs	092116/099100		
<u>LOOSE FURNISHINGS:</u>		<u>HVAC:</u>	
L1 Desk and chair		Supply/return air system	Div. 23
L2 Visitor chairs		Independent temperature control	230923
L3 Computer desk return			
Wastebasket		<u>Electrical:</u>	
		Single level switching	262726
		Fluorescent lighting	265100
		Illumination level: See Table 8600-4	
		4 duplex receptacles	262726
		Double duplex receptacle adjacent	
		to data and video port	262726
		<u>Communications:</u>	
		T1 1 voice port and phone	271513/273113
		T2 1 data port near workstation	271513
		T3 1 video port	271533/271543
		Central sound system	275123
		Clock	275313
		<u>Electronic Safety and Security:</u>	
		Life safety devices per code	283111
		<u>Miscellaneous:</u>	
		N/A	

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references. Optional: moveable cabinets
2. Fixed casework and loose furnishings can also be all fixed casework or all loose furnishings.

PROGRAM ACTIVITIES:

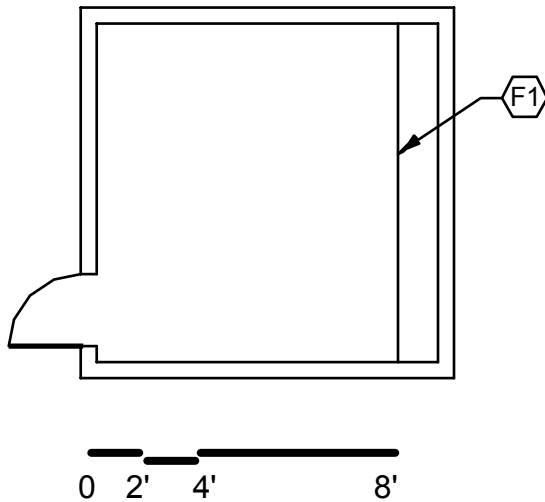
- Space for storage of lab equipment

SPATIAL RELATIONSHIPS:

- Near related lab

ENVIRONMENTAL CONSIDERATIONS:

N/A

CAPACITY:
SIZE:N/A
200 SFNOTES:

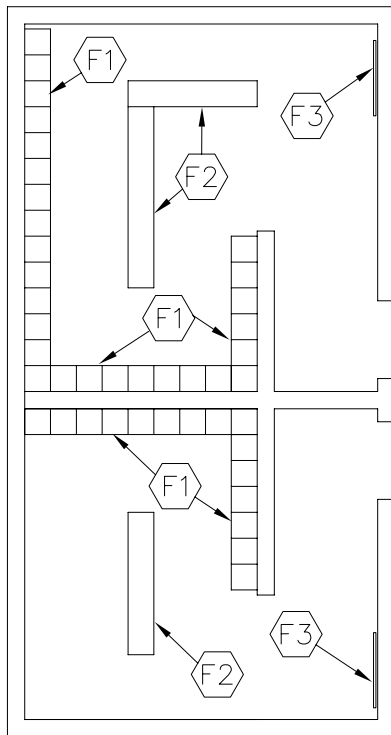
STORAGE AREA
CT-P5-4

CHAPTER 6: CAREER-TECHNICAL SCHOOL

<u>FINISHES¹:</u>	Spec. Ref.#	<u>FEATURES¹:</u>	Spec. Ref.#
Flooring:		<u>Fixed Items¹:</u>	
Sealed concrete	033000	F1 8'-20' of open shelving	
		Depth may vary (fixed or loose)	123550
Base:		<u>Fire Suppression:</u>	
Resilient base	096500	Fire suppression system	211000
Ceiling:		<u>Plumbing:</u>	
Exposed structure	---	N/A	
Walls:		<u>HVAC:</u>	
Painted concrete masonry units	042000/099100	To be determined by Design Professional Supplemental heat as required	
			Div. 23
<u>LOOSE FURNISHINGS:</u>		<u>Electrical:</u>	
N/A		Single level switching	262726
		Fluorescent lighting	265100
		Illumination level: See Table 8600-4	
		Duplex receptacles	262726
		<u>Communications:</u>	
		N/A	
		<u>Electronic Safety and Security:</u>	
		Life safety devices per code	283111
		<u>Miscellaneous:</u>	
		N/A	

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.



PROGRAM ACTIVITIES:

- Personal and health needs for the program Specific users.
- Changing of clothes and/or uniforms.
- Storage of personal items while students are in lab.

SPATIAL RELATIONSHIPS:

- Adjacent to related lab

ENVIRONMENTAL CONSIDERATIONS:

- Uniform lighting
- Sanitary and durable finishes.
- Environmental sound control
Wall minimum STC 40
Ceiling minimum CAC 35, NRC **0.70**

CAPACITY: N/A
SIZE: 9 SF per student (see Note 2)

NOTES:

1. Large and small changing areas are interchangeable for either males or females.
Determination based on male/female ratio within each program.
2. Student count determined by total number of approved program spaces Types 5, 6, and 7 times **30**.

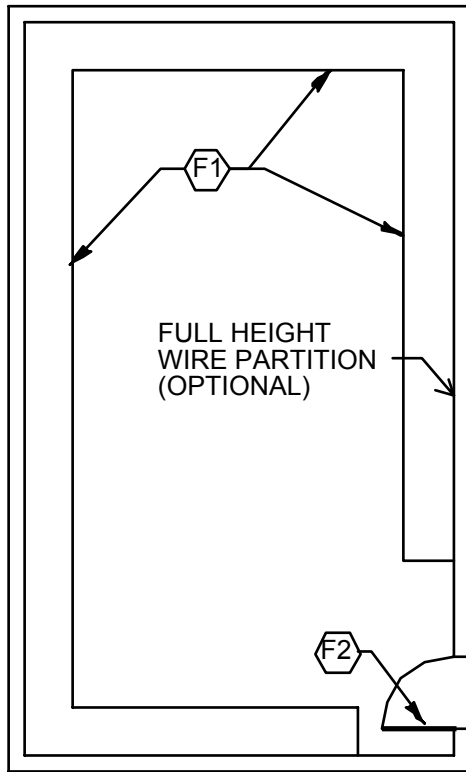
CT-P5-4

CHAPTER 6: CAREER-TECHNICAL SCHOOL

<u>FINISHES¹:</u>		Spec. <u>Ref.#</u>	<u>FEATURES¹:</u>		Spec. <u>Ref.#</u>
Flooring:			<u>Fixed Items¹:</u>		
Sealed concrete		033000	F1 Student lockers		105113
Optional: Vinyl composition tile, linoleum, or rubber		096500 096516	F2 Locker benches		062000
			F3 24" x 60" mirror		102813
Base:			<u>Fire Suppression:</u>		
Resilient base		096500	Fire suppression system		211000
Ceiling:			<u>Plumbing:</u>		
Suspended, acoustical with high impact hold down clips		095113	N/A		
Walls:			<u>HVAC:</u>		
Painted concrete masonry units		042000 / 099100	Supply/Return air system		Div. 23
			Exhaust air system		Div. 23
			Supplemental heat as required		Div. 23
			Individual temperature control		230923
<u>LOOSE FURNISHINGS</u>			<u>Electrical:</u>		
Wastebaskets			Single level switching		262726
			Fluorescent lighting		265100
			Illumination level: See Table 8600-4		
			2 Duplex receptacles		262726
			Means of egress lighting per code		265100
			<u>Communications:</u>		
			Clock		275313
			Central Sound System		275123
			<u>Electronic Safety and Security:</u>		
			Life safety devices per code		283111
			<u>Miscellaneous:</u>		
			N/A		

NOTES:

1. **Finishes/Features:** Refer to Chapter 9 for specification references.



0 2' 4' 8'

CAPACITY:
SIZE:
ANCILLARY SPACES:

N/A
550 SF

PROGRAM ACTIVITIES:

- Storage of program related tools and instruments.
- Storage of students' tools.

SPATIAL RELATIONSHIPS:

- Adjacent to related lab

ENVIRONMENTAL CONSIDERATIONS:

- Uniform lighting
- Sanitary and durable finishes

NOTES:

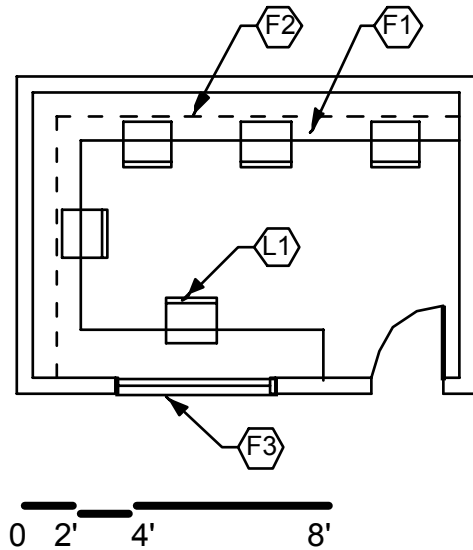
TOOL CRIB
CT-P5-6

CHAPTER 6: CAREER-TECHNICAL SCHOOL

<u>FINISHES¹:</u>	<u>Spec. Ref.#</u>	<u>FEATURES¹:</u>	<u>Spec. Ref.#</u>
<u>Flooring:</u>		<u>Fixed Items¹:</u>	
Sealed concrete	033000	F1 80' of open metal shelving (total), Depth may vary (fixed or loose)	105613
Optional: Vinyl composition tile, linoleum, or rubber	096500 096516	F2 Dutchdoor	105613
<u>Base:</u>		<u>Fire Suppression:</u>	
Resilient base	096500	Fire suppression system	211000
<u>Ceiling:</u>		<u>Plumbing:</u>	
Suspended, acoustical	095113	N/A	
<u>Walls:</u>		<u>HVAC:</u>	
Painted concrete masonry units	042000 / 099100	Exhaust air system	Div. 23
		Supplemental heat as required	Div. 23
<u>LOOSE FURNISHINGS</u>		<u>Electrical:</u>	
N/A		Single level switching	262726
		Fluorescent lighting	265100
		Illumination level: See Table 8600-4	
		4 Duplex receptacles	262726
		<u>Communications:</u>	
		N/A	
		<u>Electronic Safety and Security:</u>	
		Life safety devices per code	283111
		<u>Miscellaneous:</u>	
		N/A	

NOTES:

1. **Finishes/Features:** Refer to Chapter 9 for specification references.



PROGRAM ACTIVITIES:

- Individual computer research.
- Reference program specific manuals.
- Small group meetings.

SPATIAL RELATIONSHIPS:

- Adjacent to related lab

ENVIRONMENTAL CONSIDERATIONS:

- Uniform lighting
- Sanitary and durable finishes
- Environmental sound control
 - Wall minimum STC **45**
 - Ceiling minimum CAC 35, NRC **0.70**

CAPACITY:
SIZE:

N/A
200 SF

NOTES:

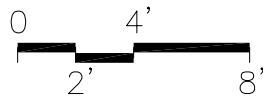
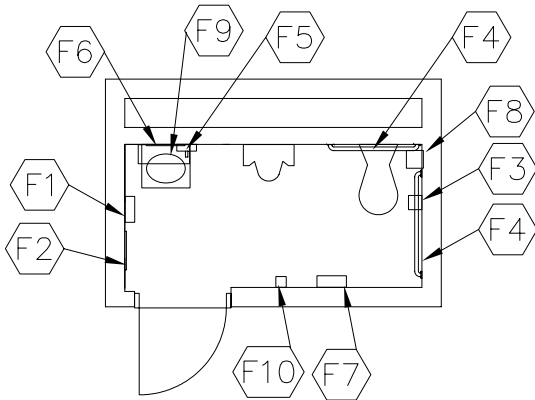
REFERENCE ROOM
CT-P5-7

CHAPTER 6: CAREER-TECHNICAL SCHOOL

	Spec. Ref.#		Spec. Ref.#
<u>FINISHES¹:</u>		<u>FEATURES¹:</u>	
Flooring:		<u>Fixed Items:</u>	
Sealed concrete	033000	F1 34' of plastic lam. counter	062000
Optional: Vinyl composition tile,	096500	F2 27' of adjustable shelving	062000
		F3 Interior window	081113 / 088000
Base:		<u>Fire Suppression:</u>	
Resilient base	096500	Fire suppression system	211000
Ceiling:		<u>Plumbing:</u>	
Suspended, acoustical	095113	N/A	
Walls:		<u>HVAC:</u>	
Painted concrete masonry units		Supply/return air system	Div. 23
	042000 / 099100	Exhaust air system	Div. 23
		Supplemental heat as required	Div. 23
<u>LOOSE FURNISHINGS</u>		<u>Electrical:</u>	
L3 Student chairs		Single level switching	262726
Wastebasket		Fluorescent lighting	265100
		Illumination level: See Table 8600-4	
		2 Duplex receptacles	262726
		Duplex receptacle adjacent to	
		Each data and video port	262726
		<u>Communications:</u>	
		T1 6 data ports	271513
		<u>Electronic Safety and Security:</u>	
		Life safety devices per code	283111
		<u>Miscellaneous:</u>	
		N/A	

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.



PROGRAM ACTIVITIES:

- Personal and health needs for the program
- Specific users
- Changing of clothes and/or uniforms.

SPATIAL RELATIONSHIPS:

- Adjacent to related lab

ENVIRONMENTAL CONSIDERATIONS:

- Uniform lighting
- Sanitary and durable finishes.
- Environmental sound control
 - Wall minimum STC **48**
 - Ceiling minimum CAC 35, NRC **0.70**

CAPACITY:
SIZE:

N/A
68 SF

NOTES:

TOILET ROOM
CT-P5-8

CHAPTER 6: CAREER-TECHNICAL SCHOOL

<u>FINISHES¹:</u>	<u>Spec. Ref.#</u>
Sealed concrete	033000
Optional: Vinyl composition tile	096500
Base:	
Resilient base	096500
Ceiling:	
Suspended, acoustical	095113
Walls:	
Painted concrete masonry units	
	042000 / 099100

LOOSE FURNISHINGS

Wastebaskets

<u>FEATURES¹:</u>	<u>Spec. Ref.#</u>
<u>Fixed Items:</u>	
F1 Towel dispenser	102813
F2 24" x 60" mirror	102813
F3 Toilet tissue holder	102813
F4 36" and 42" grab bars	102813
F5 Soap dispenser	102813
F6 16" x 24" mirror	102813
F7 Sanitary product dispenser	102813
F8 Sanitary product receptacle	102813
F9 Stainless steel shelf (optional)	102813
F10 Coat hook	102813

Fire Suppression:

Fire suppression system 211000

Plumbing:

Plumbing connections
221116/221119/224000

HVAC:

Supply/return air system Div. 23
Exhaust air system Div. 23
Supplemental heat as required Div. 23
Individual temperature control 230923

Electrical:

Single level switching 262726
Fluorescent lighting 265100
Illumination level: See Table 8600-4
2 Duplex receptacles 262726
Means of egress lighting per code 265100

Communications:

Clock 275313

Electronic Safety and Security:

Life safety devices per code 283111

Miscellaneous:

N/A

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

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Program Type 6

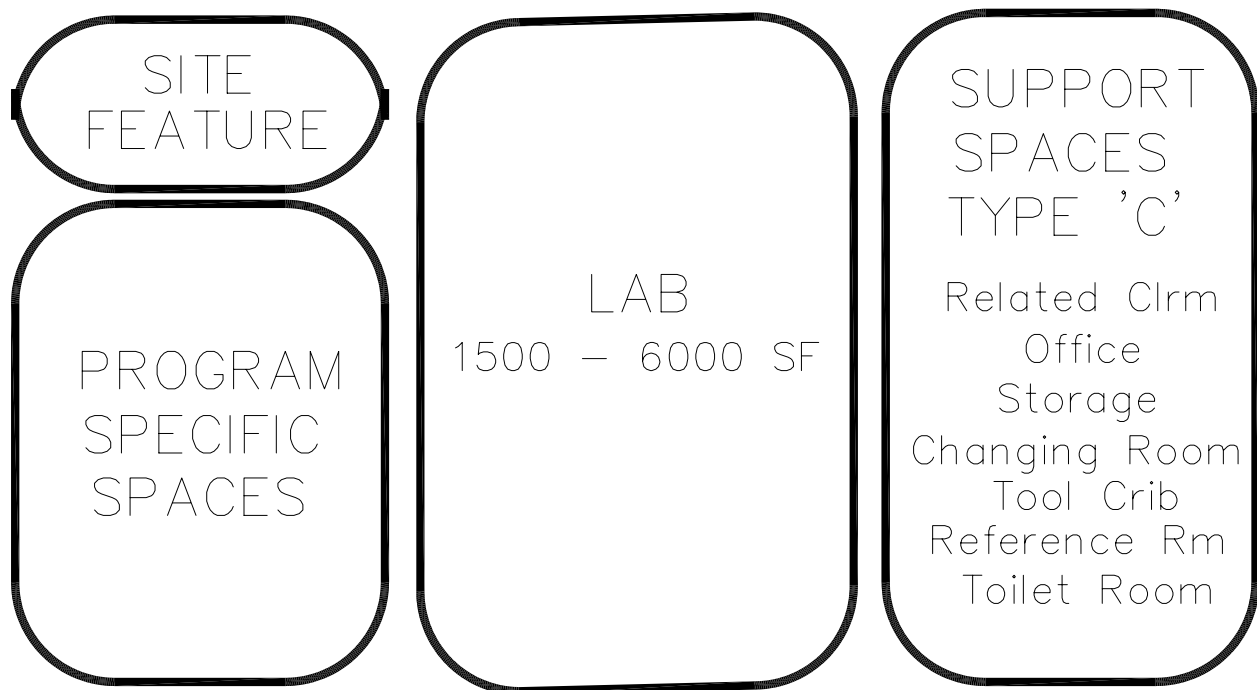
Description: Medium to large sized lab space with enhanced support space.

Lab space to be “high-bay” (**18'** min. clearance) with exposed building structure.

Lab to utilize standard construction with the following exception – lab floor slab to be 8” thick.

Support space to be finished with sealed concrete or vinyl composition tile, paint, and suspended acoustical ceiling. Lab may have possible site feature.

No air-conditioning of any spaces within Program Type 6.

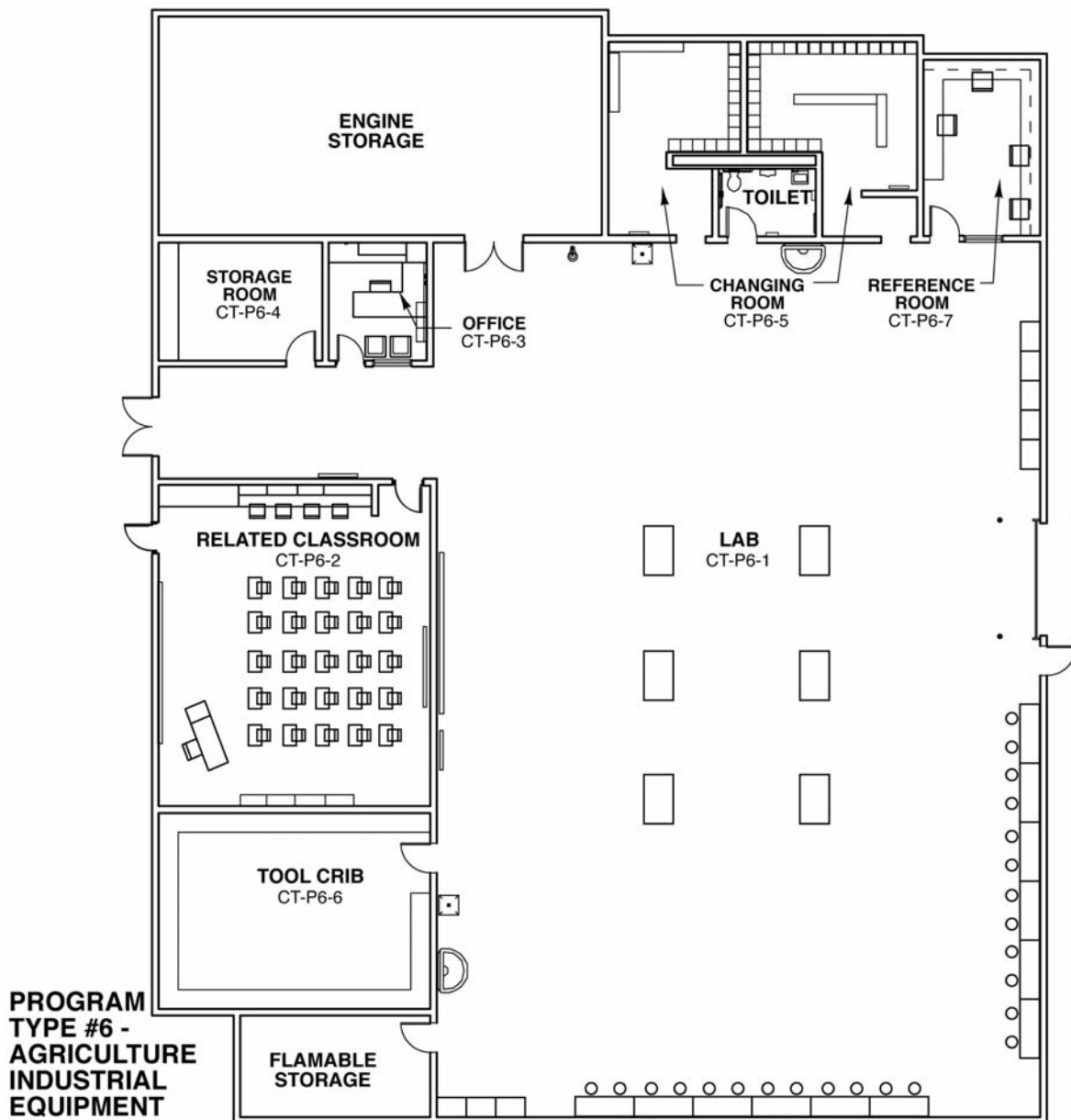
**NOTES:**

This is an example of how the Program Type 6 spaces in a career-technical school could be arranged. This is meant only to demonstrate the relationships between various spaces of this area.

Following are the Program Type 6 space plates:

CT-P6-1	Lab
CT-P6-2	Related Classroom
CT-P6-3	Office
CT-P6-4	Storage
CT-P6-5	Changing Room
CT-P6-6	Tool Crib
CT-P6-7	Reference Room
CT-P6-8	Toilet Room

**PROGRAM TYPE 6
EXAMPLE**

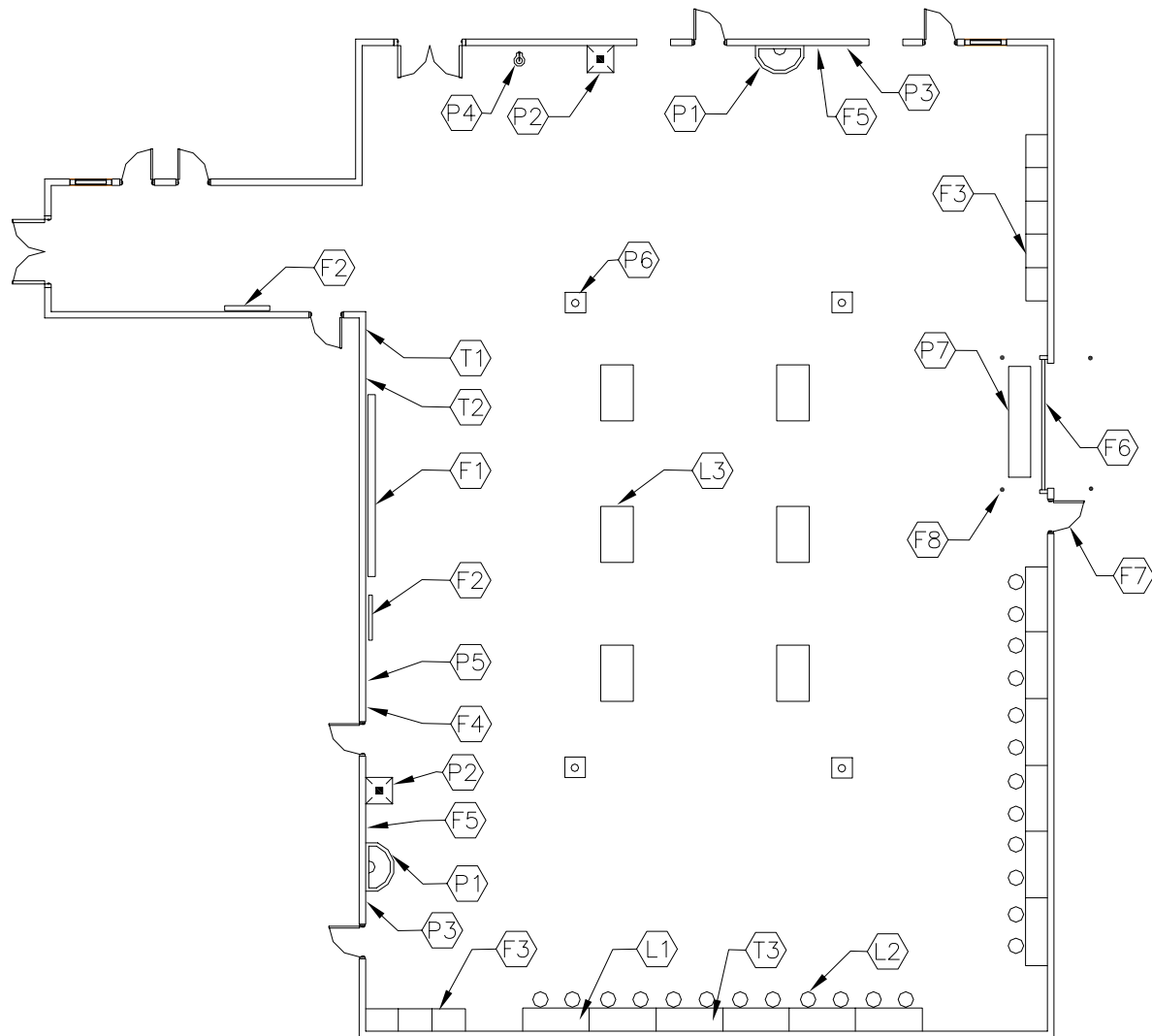


Program Type 6

This is an example to show the possible relationships of spaces for this program type.

NOTES:

1. See lab descriptions within this section for specific lab requirements.
2. See individual space plates at the end of this section for specific requirements.



CAPACITY:	24 Students
SIZE:	1,500 – 6,000 SF
	(see lab summaries for exact sizes)
ANCILLARY SPACES:	CT-P6-2 thru CT-P6-8

NOTES:

1. Loose furnishings shown represent one of many possible arrangements.
2. Graphic plate is an example only. Other labs within this program are not drawn – refer to lab summaries within this program type for information on a particular lab.

PROGRAM ACTIVITIES:

- Large and small group instruction
- Group and individual work
- Demonstrations

SPATIAL RELATIONSHIPS:

- Near other related labs
- Adjacent to typical support spaces
- Proximity to large group restrooms
- Located away from noisy or public activities
- Proximity to core academic area and common use areas
- Flexibility of space

ENVIRONMENTAL CONSIDERATIONS:

- Uniform lighting with 80% visual comfort probability level.
- Optional: Natural light opening equal to 5% minimum of floor area, with an operable vent
- Environmental sound control -
walls minimum STC 50
ceiling minimum CAC 35, NRC **0.70**
- Flexibility of space

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.
2. Loose Furnishings: Refer to Lab Profiles within this section.
3. Loose Furnishings, fixed equipment, utility locations, and general footprint of room shown represent one of many possible arrangements.

AGRICULTURE / INDUSTRIAL EQUIPMENT

CHAPTER 6: CAREER-TECHNICAL SCHOOL

CT-P6-1

PROGRAM DESCRIPTION:		FEATURES¹:		Spec.
Programs provide instruction in the operations or processes concerned with the selection, operation maintenance, and use of agricultural power, agricultural machinery and equipment, structures and utilities, soil and water management.		Fixed Items:		Ref.#
Program Type:	6	F1	16' of chalk/marker board	101100
		F2	8' of tack board	101100
		F3	24' of tall storage cabinets	123550
		F4	Pencil sharpener support	062000
		F5	(4) Paper towel dispensers	102813
		F6	12'x14' motorized overhead sectional door to exterior	083613
		F7	3'x7' hollow metal service door to exterior	081113
		F8	Steel bollards at overhead door, both sides	055000
Size Requirements: 5,000 SF Lab				
Lab Requirements:				
FINISHES:		Spec. Ref #		
Flooring:				
Sealed concrete		033000		
Ceiling:				
Painted, exposed structure		099100		
Walls:				
Painted concrete masonry units		042000/099100		
LOOSE FURNISHINGS:				
L1	(12) Workbenches with heavy-duty metal tops			
L2	(24) Stools or chairs			
L3	(6) Welding tables			
	Wastebasket			
	Pencil sharpener			
Electronic Safety and Security:				
Life safety devices per code		283111		
Miscellaneous:				
N/A				
		Fire Suppression:		
		Fire suppression system		211000
		Plumbing:		
		P1	2 washfountains (minimum)	224000
		P2	2 utility sinks (minimum)	224000
		P3	2 hose bibbs (minimum)	224000
		P4	Safety shower/eyewash	224000
		P5	6 compressed air connections	221500
		P6	4 floor drains	224000
		P7	1 trench drain	224000
		Plumbing connections		221116/221119/224000
		HVAC:		
		Supply/return air system		Div. 23
		Independent temperature control		230923
		Welding hood and exhaust		Div. 23
		Vehicle exhaust system		Div. 23
		Electrical:		
		High intensity lighting or fluorescent lighting		265100
		Illumination level: See Table 8600-4		
		Multilevel switching		262726
		30 duplex receptacles (minimum)		262726
		Double duplex receptacle adjacent to each data and video port		262726
		(6) 220 volt receptacles		262726
		Communications:		
		T1	1 video port and video display device	271533/271543/274119
		T2	1 voice port and phone	271513/273113
		T3	4 data ports	271513
		Clock		275313
		Central sound system		275123

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

AGRICULTURE / INDUSTRIAL EQUIPMENT **Engine Storage**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

Program Type: 6		FEATURES¹:	Spec.
Size Requirements: 1,000 SF		Fixed Items:	Ref.#
Requirements:		Pair of doors	081113
FINISHES:		Fire Suppression:	
Flooring:	Spec.	Fire suppression system	211000
Sealed concrete	Ref #	Plumbing:	
	033000	N/A	
Ceiling:		HVAC:	
Suspended, acoustical	095113	Supplemental heat as required	Div. 23
Option: painted, exposed structure	099100	Electrical:	
Walls:		Fluorescent lighting	265100
Painted concrete masonry units	042000/ 099100	Illumination level: See Table 8600-4	
		Single level switching	262726
		4 duplex receptacles	262726
LOOSE FURNISHINGS:		Communications:	
N/A		Central sound system	275123
		Electronic Safety and Security:	
		Life safety devices per code	283111
ENVIRONMENTAL CONSIDERATIONS:		Miscellaneous:	
▪ Wall minimum STC 50		N/A	
▪ This room to be one-story (14' +/-) tall, located within high-bay program.			

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

Program Type: 6		FEATURES¹:	Spec.
Size Requirements: 200 SF		Fixed Items:	Ref.#
		N/A	
Requirements:		Fire Suppression:	
		Fire suppression system	211000
FINISHES:	Spec.	Plumbing:	
Flooring:	Ref #	N/A	
Sealed concrete	033000	HVAC:	
Ceiling:		Supplemental heat as required	Div. 23
Fire-rated gypsum wallboard	092113	Independent ventilation	Div. 23
Walls:		Electrical:	
Painted concrete masonry units	042000/	Fluorescent lighting	265100
	099100	Illumination level: See Table 8600-4	
		Single level switching	262726
		2 duplex receptacles	262726
LOOSE FURNISHINGS:		Communications:	
N/A		Central sound system	275123
ENVIRONMENTAL CONSIDERATIONS:		Electronic Safety and Security:	
▪ Wall minimum STC 45		Life safety devices per code	283111
▪ This room to be one-story (14' +/-) tall, located within high-bay program.		Miscellaneous:	
		N/A	

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

**AUTO COLLISION REPAIR
CT-P6-1**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

<u>PROGRAM DESCRIPTION:</u> Specialized learning experiences concerned with all phases of the repair of damaged bodies and fenders, including metal straightening by hammering; smoothing area by filing, grinding, or sanding; concealment of imperfections; painting; and replacement of body components, including trim.		<u>FEATURES¹:</u> <u>Fixed Items:</u>		Spec. Ref.#
Program Type: 6		16' of chalk/marker board		101100
Size Requirements: 5,000 SF Lab		8' of tack board		101100
Lab Requirements:		24' of tall storage cabinets		123550
<u>FINISHES:</u>		Pencil sharpener support		062000
Flooring:	Spec. Ref #	(4) Paper towel dispensers		102813
Sealed concrete	033000	12'x14' motorized overhead sectional door to exterior		083613
Ceiling:		3'x7' hollow metal service door to exterior		081113
Painted, exposed structure	099100	Steel bollards at overhead door, both sides		055000
Walls:		<u>Fire Suppression:</u>		
Painted concrete masonry units	042000/ 099100	Fire suppression system		211000
<u>LOOSE FURNISHINGS:</u>		<u>Plumbing:</u>		
(6) Workbenches with heavy-duty metal tops		2 washfountains (minimum)		224000
(24) Stools or chairs		2 utility sinks (minimum)		224000
Wastebasket		2 hose bibbs (minimum)		224000
Pencil sharpener		Safety shower/eyewash		224000
<u>Electronic Safety and Security:</u>		8 compressed air connections		221500
Life safety devices per code	283111	4 floor drains		224000
<u>Miscellaneous:</u>		1 trench drain		224000
N/A		Plumbing connections		221116/221119/224000
<u>The following items are to be funded by the School District:</u>		<u>HVAC:</u>		
Car lifts		Supply/return air system		Div. 23
Frame racks		Independent temperature control		230923
		<u>Electrical:</u>		
		High intensity lighting or fluorescent lighting		265100
		Illumination level: See Table 8600-4		
		Multilevel switching		262726
		30 duplex receptacles (minimum)		262726
		Double duplex receptacle adjacent to each data and video port		262726
		(4) 220 volt receptacles		262726
		<u>Communications:</u>		
		1 video port and video display device		271533/271543/274119
		1 voice port and phone		271513/273113
		4 data ports		271513
		Clock		275313
		Central sound system		275123

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

Program Type: 6		FEATURES¹:	Spec.
Size Requirements: 300 SF		Fixed Items:	Ref.#
Requirements:		30' of heavy duty adjustable steel shelving	105613
FINISHES:	Spec.	Fire Suppression:	
Flooring:	Ref #	Fire suppression system	211000
Sealed concrete	033000	Plumbing:	
		N/A	
Ceiling:		HVAC:	
Suspended, acoustical	095113	Supplemental heat as required	Div. 23
Walls:		Electrical:	
Painted concrete masonry units	042000/	Fluorescent lighting	265100
	099100	Illumination level: See Table 8600-4	
		Single level switching	262726
		4 duplex receptacles	262726
LOOSE FURNISHINGS:		Communications:	
N/A		Central sound system	275123
ENVIRONMENTAL CONSIDERATIONS:		Electronic Safety and Security:	
▪ Wall minimum STC 45		Life safety devices per code	283111
▪ This room to be one-story (14' +/-) tall, located within high-bay program.		Miscellaneous:	
		N/A	

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

AUTO TECHNOLOGY
CT-P6-1

CHAPTER 6: CAREER-TECHNICAL SCHOOL

		Spec. Ref.#
<u>PROGRAM DESCRIPTION:</u>		<u>FEATURES¹:</u>
Learning experiences concerned with the components of the vehicle, including engine, transmissions, steering, suspension, brakes, and electrical/electronic systems. Included is training in the use of diagnostic and testing equipment and tools used in the repair process.		<u>Fixed Items:</u>
		16' of chalk/marker board 101100
		8' of tack board 101100
		24' of tall storage cabinets 123550
		Pencil sharpener support 062000
		(4) Paper towel dispensers 102813
		12'x14' motorized overhead sectional door to exterior 083613
		3'x7' hollow metal service door to exterior 081113
		Steel bollards at overhead door, both sides 055000
		<u>Fire Suppression:</u>
		Fire suppression system 211000
		<u>Plumbing:</u>
		2 washfountains (minimum) 224000
		2 utility sinks (minimum) 224000
		2 hose bibbs (minimum) 224000
		Safety shower/eyewash 224000
		8 compressed air connections 221500
		4 floor drains 224000
		1 trench drain 224000
		Plumbing connections 221116/221119/224000
		<u>HVAC:</u>
		Supply/return air system Div. 23
		Independent temperature control 230923
		Vehicle exhaust system Div. 23
		<u>Electrical:</u>
		High intensity lighting <i>or fluorescent lighting</i> 265100
		Illumination level: See Table 8600-4
		Multilevel switching 262726
		30 duplex receptacles (minimum) 262726
		Double duplex receptacle adjacent to each data and video port 262726
		(6) 220 volt receptacles 262726
		<u>Communications:</u>
		1 video port and video display device 271533/271543/274119
		1 voice port and phone 271513/273113
		6 data ports 271513
		Clock 275313
		Central sound system 275123
<u>PROGRAM DESCRIPTION:</u>		
Learning experiences concerned with the components of the vehicle, including engine, transmissions, steering, suspension, brakes, and electrical/electronic systems. Included is training in the use of diagnostic and testing equipment and tools used in the repair process.		
Program Type:	6	
Size Requirements:	5,000 SF Lab	
Lab Requirements:		
<u>FINISHES:</u>	Spec. Ref #	
Flooring:		
Sealed concrete	033000	
Ceiling:		
Painted, exposed structure	099100	
Walls:		
Painted concrete masonry units	042000/ 099100	
<u>LOOSE FURNISHINGS:</u>		
(6) Workbenches with heavy-duty metal tops		
(24) Stools or chairs		
Wastebasket		
Pencil sharpener		
<u>Electronic Safety and Security:</u>		
Life safety devices per code	283111	
<u>Miscellaneous:</u>		
N/A		
<u>The following items are to be funded by the School District:</u>		
Car lifts		
Frame racks		

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

Program Type: 6		FEATURES¹:	Spec.
Size Requirements: 800 SF		Fixed Items:	Ref.#
		Pair of doors	081113
Requirements:		Fire Suppression:	
		Fire suppression system	211000
FINISHES:		Plumbing:	
Flooring:	Spec. Ref #	N/A	
Sealed concrete	033000		
Ceiling:		HVAC:	
Suspended, acoustical	095113	Supplemental heat as required	Div. 23
Option: painted, exposed structure	099100	Independent ventilation	Div. 23
Walls:		Electrical:	
Painted concrete masonry units	042000/ 099100	Fluorescent lighting	265100
		Illumination level: See Table 8600-4	
		Single level switching	262726
		4 duplex receptacles	262726
LOOSE FURNISHINGS:		Communications:	
N/A		Central sound system	275123
ENVIRONMENTAL CONSIDERATIONS:		Electronic Safety and Security:	
<ul style="list-style-type: none"> Wall minimum STC 45 This room to be one-story (14' +/-) tall, located within high-bay program. 		Life safety devices per code	283111
		Miscellaneous:	
		N/A	

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

AUTO TECHNOLOGY

Machine Room

CHAPTER 6: CAREER-TECHNICAL SCHOOL

Program Type:	6	FEATURES¹:	Spec. Ref.#
Size Requirements:	900 SF	Fixed Items:	
		16' of tall cabinets	123550
		Paper towel dispenser	102813
Requirements:		Fire Suppression:	
		Fire suppression system	211000
FINISHES:	Spec. Ref #	Plumbing:	
Flooring:		Utility sink	224000
Sealed concrete	033000	Plumbing connections	221116/221119/224000
Ceiling:			
Suspended, acoustical	095113		
Option: painted, exposed structure	099100		
Walls:		HVAC:	
Painted concrete masonry units	042000/ 099100	Supplemental heat as required	Div. 23
		Independent ventilation	Div. 23
LOOSE FURNISHINGS:		Electrical:	
(4) Work tables		Fluorescent lighting	265100
Wastebasket		Illumination level: See Table 8600-4	
		Single level switching	262726
		4 duplex receptacles	262726
		220 v service	262726
ENVIRONMENTAL CONSIDERATIONS:		Communications:	
▪ Wall minimum STC 50		Central sound system	275123
▪ This room to be one-story (14'+/-) tall, located within high-bay program.		Electronic Safety and Security:	
		Life safety devices per code	283111
		Miscellaneous:	
		N/A	

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

Program Type: 6		FEATURES¹:	Spec. Ref.#
Size Requirements: 60 SF		Fixed Items: 3' of heavy duty adjustable steel shelving	105613
Requirements:		Fire Suppression: Fire suppression system	211000
FINISHES:	Spec. Ref #	Plumbing: N/A	
Flooring: Sealed concrete	033000		
Ceiling: Fire-rated gypsum drywall	092113	HVAC: Supplemental heat as required Independent ventilation	Div. 23 Div. 23
Walls: Painted concrete masonry units	042000/ 099100	Electrical: Fluorescent lighting Illumination level: See Table 8600-4 Single level switching 2 duplex receptacles	265100 262726 262726
LOOSE FURNISHINGS: N/A		Communications: Central sound system	275123
ENVIRONMENTAL CONSIDERATIONS:		Electronic Safety and Security: Life safety devices per code	283111
<ul style="list-style-type: none"> Wall minimum STC 45 This room to be one-story (14' +/-) tall, located within high-bay program. 		Miscellaneous: N/A	

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

CARPENTRY
CT-P6-1

CHAPTER 6: CAREER-TECHNICAL SCHOOL

		Spec. Ref.#
<u>PROGRAM DESCRIPTION:</u>		<u>FEATURES¹:</u>
Classroom and laboratory experiences involving the layout, construction, and repair of residential and commercial structures. Included is instruction in the care and use of power tools, equipment, and materials used in the construction process; floor, wall, ceiling, and roof framing; the installation of insulation and roofing; and interior and exterior finish detail.		<u>Fixed Items:</u>
		16' of chalk/marker board 101100
		8' of tack board 101100
		24' of tall storage cabinets 123550
		Pencil sharpener support 062000
		(3) Paper towel dispensers 102813
		12'x14' motorized overhead sectional door to exterior 083613
		3'x7' hollow metal service door to exterior 081113
		Steel bollards at overhead door, both sides 055000
		(2) Lumber storage racks 061000
		<u>Fire Suppression:</u>
		Fire suppression system 211000
		<u>Plumbing:</u>
		1 washfountain (minimum) 224000
		2 utility sinks (minimum) 224000
		2 hose bibbs (minimum) 224000
		Safety shower/eyewash 224000
		6 compressed air connections 221500
		2 floor drains 224000
		1 trench drain 224000
		Plumbing connections 221116/221119/224000
		<u>HVAC:</u>
		Supply/return air system Div. 23
		Independent temperature control 230923
		Dust collection system 233513
		<u>Electrical:</u>
		High intensity lighting or fluorescent lighting 265100
		Illumination level: See Table 8600-4
		Multilevel switching 262726
		30 duplex receptacles (minimum) 262726
		Double duplex receptacle adjacent to each data and video port 262726
		<u>Communications:</u>
		1 video port and video display device 271533/271543/274119
		1 voice port and phone 271513/273113
		4 data ports 271513
		Clock 275313
		Central sound system 275123
		<u>Electronic Safety and Security:</u>
		Life safety devices per code 283111
<u>PROGRAM DESCRIPTION:</u>		
Classroom and laboratory experiences involving the layout, construction, and repair of residential and commercial structures. Included is instruction in the care and use of power tools, equipment, and materials used in the construction process; floor, wall, ceiling, and roof framing; the installation of insulation and roofing; and interior and exterior finish detail.		
Program Type:	6	
Size Requirements:	4,000 SF Lab	
Lab Requirements:		
	Spec.	
<u>FINISHES:</u>	<u>Ref #</u>	
Flooring:		
Sealed concrete	033000	
Ceiling:		
Painted, exposed structure	099100	
Walls:		
Painted concrete masonry units	042000/ 099100	
<u>LOOSE FURNISHINGS:</u>		
(12) Workbenches with heavy-duty wooden tops		
(24) Stools or chairs		
Wastebasket		
Pencil sharpener		
<u>Miscellaneous:</u>		
N/A		

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

Program Type: 6		FEATURES¹:	Spec. Ref.#
Size Requirements: 500 SF		Fixed Items:	
		16' of pegboard	060565
		Pair of doors	081113
Requirements:		Fire Suppression:	
	Spec. Ref #	Fire suppression system	211000
FINISHES:		Plumbing:	
Flooring:		N/A	
Sealed concrete	033000		
Ceiling:		HVAC:	
Suspended, acoustical	095113	Supplemental heat as required	Div. 23
		Independent ventilation	Div. 23
Walls:		Electrical:	
Painted concrete masonry units	042000/ 099100	Fluorescent lighting	265100
		Illumination level: See Table 8600-4	
		Single level switching	262726
		4 duplex receptacles	262726
LOOSE FURNISHINGS:		Communications:	
(2) Work tables		Central sound system	275123
		Clock	275313
ENVIRONMENTAL CONSIDERATIONS:		Electronic Safety and Security:	
<ul style="list-style-type: none"> Wall minimum STC 50 This room to be one-story (14' +/-) tall, located within high-bay program. 		Life safety devices per code	283111
		Miscellaneous:	
		N/A	

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

CARPENTRY
Material Storage

CHAPTER 6: CAREER-TECHNICAL SCHOOL

Program Type: 6		FEATURES¹:	Spec.
Size Requirements: 800 SF		Fixed Items:	Ref.#
		N/A	
Requirements:		Fire Suppression:	
		Fire suppression system	211000
FINISHES:	Spec.	Plumbing:	
Flooring:	Ref #	N/A	
Sealed concrete	033000	HVAC:	
Ceiling:		Supplemental heat as required	Div. 23
Suspended, acoustical	095113	Electrical:	
Walls:		Fluorescent lighting	265100
Painted concrete masonry units	042000/	Illumination level: See Table 8600-4	
	099100	Single level switching	262726
		4 duplex receptacles	262726
LOOSE FURNISHINGS:		Communications:	
N/A		Central sound system	275123
ENVIRONMENTAL CONSIDERATIONS:		Electronic Safety and Security:	
▪ Wall minimum STC 45		Life safety devices per code	283111
▪ This room to be one-story (14' +/-) tall, located within high-bay program.		Miscellaneous:	
		N/A	

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

CONSTRUCTION (2 clusters)
Design/Build • Management
CT-P6-1

CHAPTER 6: CAREER-TECHNICAL SCHOOL

<u>PROGRAM DESCRIPTION:</u>		<u>FEATURES¹:</u>	Spec.
In this program students master mathematical and scientific principles and technical skills in support of the design, development, and use of integrated industrial manufacturing systems and processes; includes problem solving in design, integration, and prototype testing, systems logistics and material flow, calibration and maintenance of instruments, statistical process control and production coordination, operational and maintenance procedures, as well as operation diagnosis and repair.		<u>Fixed Items:</u>	<u>Ref.#</u>
		16' of chalk/marker board	101100
		8' of tack board	101100
		24' of tall storage cabinets	123550
		Pencil sharpener support	062000
		(3) Paper towel dispensers	102813
		12'x14' motorized overhead sectional door to exterior	083613
		3'x7' hollow metal service door to exterior	081113
		Steel bollards at overhead door, both sides	055000
		<u>Fire Suppression:</u>	
		Fire suppression system	211000
		<u>Plumbing:</u>	
		1 washfountain (minimum)	224000
		2 utility sinks (minimum)	224000
		2 hose bibbs (minimum)	224000
		Safety shower/eyewash	224000
		6 compressed air connections	221500
		2 floor drains	224000
		1 trench drain	224000
		Plumbing connections	221116/221119/224000
		<u>HVAC:</u>	
		Supply/return air system	Div. 23
		Independent temperature control	230923
		Welding hood and exhaust	233515
		<u>Electrical:</u>	
		High intensity lighting or fluorescent lighting	265100
		Illumination level: See Table 8600-4	
		Multilevel switching	262726
		30 duplex receptacles (minimum)	262726
		Double duplex receptacle adjacent to each data and video port	262726
		480v 3-phase service	262726
		<u>Communications:</u>	
		1 video port and video display device	271533/271543/274119
		1 voice port and phone	271513/273113
		4 data ports	271513
		Clock	275313
		Central sound system	275123
<u>Program Type:</u> 6			
<u>Size Requirements:</u> 3,000 SF Lab			
<u>Lab Requirements:</u>			
	Spec.		
<u>FINISHES:</u>	<u>Ref #</u>		
Flooring:			
Sealed concrete	033000		
Ceiling:			
Painted, exposed structure	099100		
Walls:			
Painted concrete masonry units	042000/ 099100		
<u>LOOSE FURNISHINGS:</u>			
(12) Workbenches with heavy-duty metal tops			
(24) Stools or chairs			
(2) Welding tables			
Wastebasket			
Pencil sharpener			
<u>Electronic Safety and Security:</u>			
Life safety devices per code	283111		
<u>Miscellaneous:</u>			
N/A			

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

CONSTRUCTION
CADD Room

CHAPTER 6: CAREER-TECHNICAL SCHOOL

Program Type: 6		FEATURES¹:	Spec.
Size Requirements: 400 SF		Fixed Items:	Ref.#
Requirements:		6' of chalk/marker board	101100
		8' of tall storage cabinets	123550
		Projection screen, 6'x8'	115213
FINISHES:	Spec.	Fire Suppression:	
Flooring:	Ref #	Fire suppression system	211000
Vinyl composition tile, VET,	096500	Plumbing:	
rubber, sheet vinyl, or linoleum	096516	N/A	
Base:		HVAC:	
Resilient	096500	Supply/return air system	Div. 23
Ceiling:		Independent temperature control	230923
Suspended acoustical	095113	Electrical:	
Walls:		Fluorescent lighting, parabolic lenses:	265100
Painted concrete masonry units	042000/	Illumination level: See Table 8600-4	
	099100	Single level switching	262726
		4 duplex receptacles	262726
		Double duplex receptacle adjacent to	
		each data port	262726
LOOSE FURNISHINGS:		Communications:	
(10) 2-person tables		1 data port near teacher workstation	271513
(20) Student chairs		22 data ports	271513
(1) Teacher station & chair		Central sound system	275123
Wastebasket		Overhead projector	274119
		Electronic Safety and Security:	
		Life safety devices per code	283111
ENVIRONMENTAL CONSIDERATIONS:		Miscellaneous:	
▪ Wall minimum STC 50		N/A	
▪ This room to be one-story (14'+/-) tall, located within high-bay program.			

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

**ENGINEERING TECHNOLOGIES – Design
ENGINEERING TECHNOLOGIES – Process
ENGINEERING TECHNOLOGIES – Product / Service
ENGINEERING TECHNOLOGIES – Emerging
MATERIALS JOINING TECHNOLOGIES**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

CT-P6-1

PROGRAM DESCRIPTION:

MJT: Utilizes business and industry technical standards and a math, science, and technology framework to introduce concepts of pre-engineering related to robotics, material science, and nanofabrication in welding in the Project Lead The Way (PLTW) model and leads to a post secondary education.

ET-D, ET-P, ET-P/S: A combination of subject matter and experiences designed to prepare a person to gain entry level experiences in an engineering technology cluster program, with the option of pursuing a two-year Associate's Degree. The program will follow an approved TCAP and will identify related employment positions locally available for students exiting Tech-Prep after high school.

ET-E: Utilizes business and industry standards and a math, science, and technology framework to introduce pre-engineering skills, problem solving, and critical thinking in the areas of introduction to engineering, principals of engineering, digital electronics, and engineering design and development in the Project Lead The Way (PLTW) model and leads to post secondary education.

Program Type:	6	
Size Requirements:	1,500 SF Lab	
Lab Requirements:		Spec.
FINISHES:		<u>Ref #</u>
Flooring:		
Sealed concrete	033000	
Ceiling:		
Painted, exposed structure	099100	
Walls:		
Painted concrete masonry units	042000/ 099100	

LOOSE FURNISHINGS:

- (12) Workbenches with heavy-duty metal tops
- (24) Stools or chairs
- (4) Welding tables
- Wastebasket
- Pencil sharpener

Electronic Safety and Security:

Life safety devices per code	283111
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Miscellaneous: N/A

FEATURES¹:

Fixed Items:		Spec. <u>Ref.#</u>
16' of chalk/marker board	101100	
8' of tack board	101100	
24' of tall storage cabinets	123550	
Pencil sharpener support	062000	
(3) Paper towel dispensers	102813	
12'x14' motorized overhead sectional door to exterior	083613	
3'x7' hollow metal service door to exterior	081113	
Steel bollards at overhead door, both sides	055000	
Fire Suppression:		
Fire suppression system	211000	
Plumbing:		
1 washfountain (minimum)	224000	
2 utility sinks (minimum)	224000	
2 hose bibbs (minimum)	224000	
Safety shower/eyewash	224000	
6 compressed air connections	221500	
2 floor drains	224000	
1 trench drain	224000	
Plumbing connections	221116/221119/224000	

HVAC:

Supply/return air system	Div. 23
Independent temperature control	230923
Welding hood and exhaust	233515

Electrical:

High intensity lighting or fluorescent lighting	265100
Illumination level: See Table 8600-4	
Multilevel switching	262726
30 duplex receptacles (minimum)	262726
Double duplex receptacle adjacent to each data and video port	262726
(6) 220 volt receptacles	262726

Communications:

1 video port and video display device	271533/271543/274119
1 voice port and phone	271513/273113
4 data ports	271513
Clock	275313
Central sound system	275123

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.
2. This program has the option of being located in high bay or low bay (Type 3) space with associated features adjusted for the needs of the space, building type, and curriculum with OSFC approval.

ENGINEERING TECHNOLOGIES
CADD Room

CHAPTER 6: CAREER-TECHNICAL SCHOOL

Program Type: 6		FEATURES¹:	Spec.
Size Requirements: 400 SF		Fixed Items:	Ref.#
Requirements:		6' of chalk/marker board	101100
		8' of tall storage cabinets	123550
		Projection screen, 6'x8'	115213
FINISHES:	Spec.	Fire Suppression:	
Flooring:	Ref #	Fire suppression system	211000
Vinyl composition tile, VET,	096500	Plumbing:	
rubber, sheet vinyl, or linoleum	096516	N/A	
Base:		HVAC:	
Resilient	096500	Supply/return air system	Div. 23
Ceiling:		Independent temperature control	230923
Suspended acoustical	095113	Electrical:	
Walls:		Fluorescent lighting, parabolic lenses:	265100
Painted concrete masonry units	042000/	Illumination level: See Table 8600-4	
	099100	Single level switching	262726
LOOSE FURNISHINGS:		4 duplex receptacles	262726
(10) 2-person tables		Double duplex receptacle adjacent to	
(20) Student chairs		each data port	262726
(1) Teacher station & chair		Communications:	
Wastebasket		1 data port near teacher workstation	271513
		22 data ports	271513
		Central sound system	275123
		Overhead projector	274119
		Electronic Safety and Security:	
		Life safety devices per code	283111
ENVIRONMENTAL CONSIDERATIONS:		Miscellaneous:	
▪ Wall minimum STC 50		N/A	
▪ This room to be one-story (14'+/-) tall, located within high-bay program.			

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

FOOD SCIENCE AND TECHNOLOGY

CT-P6-1

CHAPTER 6: CAREER-TECHNICAL SCHOOL

		Spec. Ref.#
<u>PROGRAM DESCRIPTION:</u>		
Food Science is a program area where the opportunities for program completers are limitless. Students may begin their study in agriculture's foundation program Agriscience. The following are areas of study specific to food science; Safety Precautions, Sanitation, Livestock Purchasing, Slaughtering, Carcass Grading, Wholesale Processing, Retail Meat Processing, and Merchandising, Dairy and Poultry Products, Fish and Fish Products, Fruits and Vegetables, Grains, Preservation of Agricultural Products, Customer Service, Marketing, Product Handling, Business Management, Decision Making and Problem Solving, Work Ethic, Job-Seeking Skills, Technology in the Workplace, Economic Education, Citizenship in the Workplace, Leadership.		
Program Type: 6		
Size Requirements: 2,000 SF Lab		
Lab Requirements:		
<u>FINISHES:</u>	Spec. Ref #	
Flooring:		
Sealed concrete	033000	
Option: Epoxy, resinous flooring	096723	
Ceiling:		
Painted, exposed structure	099100	
Walls:		
Painted concrete masonry units	042000/ 099100	
Option: Fiberglass reinforced plastic panels		
<u>LOOSE FURNISHINGS:</u>		
(8) Workbenches with heavy-duty stainless steel tops		
(24) Stools or chairs (stainless steel)		
Wastebasket		
Pencil sharpener		
<u>FEATURES¹:</u>		
<u>Fixed Items:</u>		
16' of chalk/marker board	101100	
8' of tack board	101100	
Pencil sharpener support	062000	
(3) Paper towel dispensers	102813	
12'x14' motorized overhead sectional door to exterior	083613	
3'x7' hollow metal service door to exterior	081113	
Steel bollards at overhead door, both sides	055000	
Overhead hoist system between lab, freezer, and cooler	412223	
<u>Fire Suppression:</u>		
Fire suppression system	211000	
<u>Plumbing:</u>		
1 washfountain (minimum)	224000	
2 utility sinks (minimum)	224000	
2 hose bibbs (minimum)	224000	
Safety shower/eyewash	224000	
2 floor drains	224000	
1 trench drain	224000	
Plumbing connections	221116/221119/224000	
<u>HVAC:</u>		
Supply/return air system	Div. 23	
Independent temperature control	230923	
<u>Electrical:</u>		
High intensity lighting or fluorescent lighting	265100	
Illumination level: See Table 8600-4		
Multilevel switching	262726	
20 duplex receptacles (minimum)	262726	
Double duplex receptacle adjacent to each data and video port	262726	
(2) 220 volt receptacles	262726	
<u>Communications:</u>		
1 video port and video display device	271533/271543/274119	
1 voice port and phone	271513/273113	
4 data ports	271513	
Clock	275313	
Central sound system	275123	
<u>Electronic Safety and Security:</u>		
Life safety devices per code	283111	
<u>Miscellaneous:</u>		
N/A		

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

FOOD SCIENCE AND TECHNOLOGY

Freezer

CHAPTER 6: CAREER-TECHNICAL SCHOOL

<p>Program Type: 6</p> <p>Size Requirements: 400 SF</p> <p>Requirements:</p> <p><u>FINISHES:</u></p> <p>Flooring:</p> <p>Quarry tile</p> <p>Ceiling:</p> <p>Quarry tile base</p> <p>Walls:</p> <p>Manufactured insulated panel</p> <p><u>LOOSE FURNISHINGS:</u></p> <p>N/A</p> <p><u>ENVIRONMENTAL CONSIDERATIONS:</u></p> <ul style="list-style-type: none"> Uniform lighting Ventilation for refrigeration machinery Cleanable building surfaces Floor to be flush with adjacent kitchen floor 	<p>Spec. Ref.#</p> <p><u>FEATURES¹:</u></p> <p><u>Fixed Items:</u></p> <p>Overhead hoist system</p> <p><u>Fire Suppression:</u></p> <p>Fire suppression system</p> <p><u>Plumbing:</u></p> <p>N/A</p> <p><u>HVAC:</u></p> <p>Exhaust air system for compressors Div. 23</p> <p><u>Electrical:</u></p> <p>Incandescent lighting</p> <p>Illumination level: See Table 8600-4</p> <p>Single level switching</p> <p>Electrical connections to freezer</p> <p>Refrigeration equipment</p> <p><u>Communications:</u></p> <p>N/A</p> <p><u>Electronic Safety and Security:</u></p> <p>N/A</p> <p><u>Miscellaneous:</u></p> <p>N/A</p>
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NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

FOOD SCIENCE AND TECHNOLOGY

CHAPTER 6: CAREER-TECHNICAL SCHOOL

Cooler

<p>Program Type: 6</p> <p>Size Requirements: 400 SF</p> <p>Requirements:</p> <p><u>FINISHES:</u> Flooring: Quarry tile</p> <p>Ceiling: Quarry tile base</p> <p>Walls: Manufactured insulated panel</p> <p><u>LOOSE FURNISHINGS:</u> N/A</p> <p><u>ENVIRONMENTAL CONSIDERATIONS:</u></p> <ul style="list-style-type: none"> Uniform lighting Ventilation for refrigeration machinery Cleanable building surfaces Floor to be flush with adjacent kitchen floor 	<p><u>FEATURES¹:</u> <u>Fixed Items:</u> Overhead hoist system</p> <p><u>Fire Suppression:</u> Fire suppression system</p> <p><u>Plumbing:</u> N/A</p> <p><u>HVAC:</u> Exhaust air system for compressors Div. 23</p> <p><u>Electrical:</u> Incandescent lighting Illumination level: See Table 8600-4 Single level switching Electrical connections to cooler refrigeration equipment</p> <p><u>Communications:</u> N/A</p> <p><u>Electronic Safety and Security:</u> N/A</p> <p><u>Miscellaneous:</u> N/A</p>
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NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

FOOD SCIENCE AND TECHNOLOGY

Retail

CHAPTER 6: CAREER-TECHNICAL SCHOOL

		Spec. Ref.#
Program Type:	6	
Size Requirements:	400 SF	
Requirements:		
<u>FINISHES:</u>	Spec. Ref #	
Flooring:		
Vinyl composition tile, VET, sheet	096500	
vinyl, or linoleum	096516	
Base:		
Resilient	096500	
Ceiling:		
Suspended, acoustical	095113	
Walls:		
Painted concrete masonry units	042000/ 099100	
<u>LOOSE FURNISHINGS:</u>		
Wastebasket		
		<u>FEATURES¹:</u>
		<u>Fixed Items:</u>
		12' of solid surface counter with storage below 062000
		Cashier's station 123550
		Paper towel dispenser 102813
		12'x14' motorized overhead sectional door to exterior 083613
		3'x7' hollow metal service door to exterior 081113
		Steel bollards at overhead door, both sides 055000
		<u>Fire Suppression:</u>
		Fire suppression system 211000
		<u>Plumbing:</u>
		1 utility sink 224000
		Plumbing connections 221116/221119/224000
		<u>HVAC:</u>
		Supply/return air system Div. 23
		Independent temperature control 230923
		<u>Electrical:</u>
		Fluorescent lighting 265100
		Illumination level: See Table 8600-4
		Single level switching 262726
		4 duplex receptacles 262726
		Double duplex receptacle adjacent to each data port 262726
		<u>Communications:</u>
		1 data ports 271513
		Clock 275313
		Central sound system 275123
		<u>Electronic Safety and Security:</u>
		Life safety devices per code 283111
		<u>Miscellaneous:</u>
		N/A

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

PROGRAM DESCRIPTION:		Spec. Ref.#
Programs focus on the culture of ornamental plants and vegetable crops. Completers have the opportunity for employment in floral design, landscape design, turfgrass management, garden and nursery product sales. The program area offers units of instruction in Greenhouse Production and Maintenance, Equipment Maintenance and Operation, Floral Design, Turf and Landscape Operations, Nursery and Garden Operations, Marketing and Sales, Merchandise Handling, and Business Management.		
Program Type:	6	
Size Requirements:	2,000 SF Lab	
Lab Requirements:		
FINISHES:	Spec. Ref #	
Flooring:		
Sealed concrete	033000	
Ceiling:		
Painted, exposed structure	099100	
Walls:		
Painted concrete masonry units	042000/ 099100	
LOOSE FURNISHINGS:		
(12) Workbenches with heavy-duty metal tops		
(24) Stools or chairs		
Wastebasket		
Pencil sharpener		
SITE FEATURES:		
Greenhouse – 3,000 SF	133413	
½ earth flooring, ½ concrete flooring (w/drains)		
Minimum of one 8'x10' overhead door		
Provide electrical, plumbing, and heating/ventilation systems as per greenhouse manufacturer's recommendations		
Minimum of 4 hose bibs		
Fire suppression system if required		
FEATURES¹:		
Fixed Items:		
16' of chalk/marker board	101100	
8' of tack board	101100	
24' of tall storage cabinets	123550	
Pencil sharpener support	062000	
(3) Paper towel dispensers	102813	
12'x14' motorized overhead sectional door to exterior	083613	
3'x7' hollow metal service door to exterior	081113	
Steel bollards at overhead door, both sides	055000	
Fire Suppression:		
Fire suppression system	211000	
Plumbing:		
1 washfountain (minimum)	224000	
2 utility sinks (minimum)	224000	
2 hose bibbs (minimum)	224000	
Safety shower/eyewash	224000	
2 floor drains	224000	
1 trench drain	224000	
Plumbing connections	221116/221119/224000	
HVAC:		
Supply/return air system	Div. 23	
Independent temperature control	230923	
Electrical:		
High intensity lighting or fluorescent lighting	265100	
Illumination level: See Table 8600-4		
Multilevel switching	262726	
30 duplex receptacles (minimum)	262726	
Double duplex receptacle adjacent to each data and video port	262726	
Communications:		
1 video port and video display device	271533/271543/274119	
1 voice port and phone	271513/273113	
4 data ports	271523	
Clock	275313	
Central sound system	275123	
Electronic Safety and Security:		
Life safety devices per code	283111	
Miscellaneous:		
N/A		

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

HORTICULTURE

Retail

CHAPTER 6: CAREER-TECHNICAL SCHOOL

<p>Program Type: 6</p> <p>Size Requirements: 400 SF</p> <p>Requirements:</p> <p><u>FINISHES:</u> Flooring: Vinyl composition tile, VET, sheet vinyl, or linoleum</p> <p>Base: Resilient</p> <p>Ceiling: Suspended, acoustical</p> <p>Walls: Painted concrete masonry units</p> <p><u>LOOSE FURNISHINGS:</u> Wastebasket</p> <p><u>ENVIRONMENTAL CONSIDERATIONS:</u></p> <ul style="list-style-type: none"> Wall minimum STC 40 Ceiling minimum CAC 35 This room to be one-story (14'+/-) tall, located within high-bay program. 	<p style="text-align: right;">Spec. Ref.#</p> <p><u>FEATURES¹:</u> <u>Fixed Items:</u> 10' of base cabinets 4' of cashier's station Paper towel dispenser</p> <p><u>Fire Suppression:</u> Fire suppression system</p> <p><u>Plumbing:</u> 1 utility sink Plumbing connections</p> <p><u>HVAC:</u> Supply/return air system Independent temperature control</p> <p><u>Electrical:</u> Fluorescent lighting Illumination level: See Table 8600-4 Single level switching 4 duplex receptacles Double duplex receptacle adjacent to each data port</p> <p><u>Communications:</u> 1 data port Clock Central sound system</p> <p><u>Electronic Safety and Security:</u> Life safety devices per code</p> <p><u>Miscellaneous:</u> N/A</p>
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NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

MEDIUM/HEAVY TRUCK TECHNICIAN

CT-P6-1

CHAPTER 6: CAREER-TECHNICAL SCHOOL

PROGRAM DESCRIPTION:		Spec. Ref.#
An instructional program that prepares individuals to engage in the service and repair of truck vehicles. Instruction is included in the diagnosis, maintenance, and repair of diesel engines, including fuel injection systems, the drive train, suspension, brakes, hydraulic units, cooling systems, and electrical/electronic systems. The program also includes the study and use of technical manuals, testing and diagnostic equipment, and a variety of hand and power tools.		
Program Type:	6	
Size Requirements:	6,000 SF Lab	
Lab Requirements:		
FINISHES:	Spec. Ref #	
Flooring:		
Sealed concrete	033000	
Ceiling:		
Painted, exposed structure	099100	
Walls:		
Painted concrete masonry units	042000/ 099100	
LOOSE FURNISHINGS:		
(8) Workbenches with heavy-duty metal tops		
(24) Stools or chairs		
Wastebasket		
Pencil sharpener		
Miscellaneous:		
N/A		
The following items are to be funded by the School District:		
Truck lifts		
Frame rack		
FEATURES¹:		
Fixed Items:		
16' of chalk/marker board		101100
8' of tack board		101100
24' of tall storage cabinets		123550
Pencil sharpener support		062000
(4) Paper towel dispensers		102813
12'x14' motorized overhead sectional door to exterior		083613
3'x7' hollow metal service door to exterior		081113
Steel bollards at overhead door, both sides		055000
Fire Suppression:		
Fire suppression system		211000
Plumbing:		
2 washfountains (minimum)		224000
2 utility sinks (minimum)		224000
2 hose bibbs (minimum)		224000
Safety shower/eyewash		224000
8 compressed air connections		221500
4 floor drains		224000
1 trench drain		224000
Plumbing connections		221116/221119/224000
HVAC:		
Supply/return air system		Div. 23
Independent temperature control		230923
Vehicle exhaust system		Div. 23
Electrical:		
High intensity lighting or fluorescent lighting		265100
Illumination level: See Table 8600-4		
Multilevel switching		262726
30 duplex receptacles (minimum)		262726
Double duplex receptacle adjacent to each data and video port		262726
(6) 220 volt receptacles		262726
Communications:		
1 video port and video display device		271533/271543/274119
1 voice port and phone		271513/273113
4 data ports		271513
Clock		275313
Central sound system		275123
Electronic Safety and Security:		
Life safety devices per code		283111

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

MEDIUM/HEAVY TRUCK TECHNICIAN **Engine Storage**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

<p>Program Type: 6</p> <p>Size Requirements: 800 SF</p> <p>Requirements:</p> <p><u>FINISHES:</u> Flooring: Sealed concrete</p> <p>Ceiling: Suspended, acoustical Option: painted, exposed structure</p> <p>Walls: Painted concrete masonry units</p> <p><u>LOOSE FURNISHINGS:</u> N/A</p> <p><u>ENVIRONMENTAL CONSIDERATIONS:</u></p> <ul style="list-style-type: none"> Wall minimum STC 45 This room to be one-story (14' +/-) tall, located within high-bay program. 	<p>Spec. Ref.#</p> <p><u>FEATURES¹:</u> <u>Fixed Items:</u> Pair of doors</p> <p><u>Fire Suppression:</u> Fire suppression system</p> <p><u>Plumbing:</u> N/A</p> <p><u>HVAC:</u> Supplemental heat as required Independent ventilation</p> <p><u>Electrical:</u> Fluorescent lighting Illumination level: See Table 8600-4 Single level switching 4 duplex receptacles</p> <p><u>Communications:</u> Central sound system</p> <p><u>Electronic Safety and Security:</u> Life safety devices per code</p> <p><u>Miscellaneous:</u> N/A</p>
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NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

MEDIUM/HEAVY TRUCK TECHNICIAN
Flammable Material Storage

Program Type: 6		FEATURES¹:	Spec.
Size Requirements: 60 SF		Fixed Items:	Ref.#
Requirements:		3' of heavy duty adjustable steel shelving	105613
FINISHES:	Spec.	Fire Suppression:	
Flooring:	Ref #	Fire suppression system	211000
Sealed concrete	033000	Plumbing:	
		N/A	
Ceiling:		HVAC:	
Fire-rated gypsum drywall	092113	Supplemental heat as required	Div. 23
		Independent ventilation	Div. 23
Walls:		Electrical:	
Painted concrete masonry units	042000/	Fluorescent lighting	265100
	099100	Illumination level: See Table 8600-4	
		Single level switching	262726
		2 duplex receptacles	262726
LOOSE FURNISHINGS:		Communications:	
N/A		Central sound system	275123
ENVIRONMENTAL CONSIDERATIONS:		Electronic Safety and Security:	
▪ Wall minimum STC 45		Life safety devices per code	283111
▪ This room to be one-story (14' +/-) tall, located within high-bay program.		Miscellaneous:	
		N/A	

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

MEDIUM/HEAVY TRUCK TECHNICIAN Machine Room

CHAPTER 6: CAREER-TECHNICAL SCHOOL

Program Type: 6		FEATURES¹:	Spec. Ref.#
Size Requirements: 900 SF		Fixed Items:	
		16' of tall cabinets	123550
		Paper towel dispenser	102813
Requirements:		Fire Suppression:	
	Spec. Ref #	Fire suppression system	211000
FINISHES:		Plumbing:	
Flooring:		Utility sink	224000
Sealed concrete	033000	Plumbing connections	221116/221119/224000
Ceiling:			
Suspended, acoustical	095113		
Option: painted, exposed structure	099100		
Walls:		HVAC:	
Painted concrete masonry units	042000/ 099100	Supplemental heat as required	Div. 23
		Independent ventilation	Div. 23
LOOSE FURNISHINGS:		Electrical:	
(4) Work tables		Fluorescent lighting	265100
Wastebasket		Illumination level: See Table 8600-4	
		Single level switching	262726
		4 duplex receptacles	262726
		220 v service	262726
ENVIRONMENTAL CONSIDERATIONS:		Communications:	
▪ Wall minimum STC 50		Central sound system	275123
▪ This room to be one-story (14' +/-) tall, located within high-bay program.		Electronic Safety and Security:	
		Life safety devices per code	283111
		Miscellaneous:	
		N/A	

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

PROGRAM DESCRIPTION:

Specialized classroom and shop learning experiences that are concerned with all aspects of shaping metal parts. Instruction involves making computations relating to work dimensions, tooling, feeds, and speeds of machining. Also emphasized is work on the bench, lathes, shapers, milling machines, grinders, and drills; the use of precision measuring instruments, such as layout tools, micrometers, and gauges; methods of machining and heat treatment of various metals; blueprint reading; and the layout of machine parts. Instruction prepares the learner to operate and repair all machines including those with computerized numerical controls (CNC). Programs will be certified by National Institute for Metalworking Skills (NIMS).

Program Type: 6

Size Requirements: 3,500 SF Lab

Lab Requirements:

	Spec. Ref #
FINISHES:	
Flooring:	
Sealed concrete	033000
Ceiling:	
Painted, exposed structure	099100
Walls:	
Painted concrete masonry units	042000/ 099100

LOOSE FURNISHINGS:

- (6) Workbenches with heavy-duty metal tops
- (24) Stools or chairs
- Wastebasket
- Pencil sharpener

FEATURES¹:**Fixed Items:**

16' of chalk/marker board	101100
8' of tack board	101100
24' of tall storage cabinets	123550
Pencil sharpener support	062000
(4) Paper towel dispensers	102813
12'x14' motorized overhead sectional door to exterior	083613
3'x7' hollow metal service door to exterior	081113
Steel bollards at overhead door, both sides	055000

Fire Suppression:

Fire suppression system	211000
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Plumbing:

2 washfountains (minimum)	224000
2 utility sinks (minimum)	224000
2 hose bibbs (minimum)	224000
Safety shower/eyewash	224000
20 compressed air connections	221500
Flat floor – no floor drains	
1 trench drain	224000
Plumbing connections	221116/221119/224000

HVAC:

Supply/return air system	Div. 23
Independent temperature control	230923

Electrical:

High intensity lighting or fluorescent lighting	265100
Illumination level: See Table 8600-4	
Multilevel switching	262726
30 duplex receptacles (minimum)	262726
Double duplex receptacle adjacent to each data and video port	262726
220v 3-phase service	262726
480v 3-phase service	262726

Communications:

1 video port and video display device	271533/271543/274119
1 voice port and phone	271513/273113
4 data ports	271513
Clock	275313
Central sound system	275123

Electronic Safety and Security:

Life safety devices per code	283111
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Miscellaneous:

N/A

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

**PRECISION MACHINING
CNC Room**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

Program Type: 6		FEATURES¹:	Spec.
Size Requirements: 900 SF		Fixed Items:	Ref.#
Requirements:		20' of plastic laminate counter	123550
		20' of adjustable shelving	062000
FINISHES:		Fire Suppression:	
Flooring:	Spec.	Fire suppression system	211000
Sealed concrete	Ref #		
	033000	Plumbing:	
Ceiling:		N/A	
Suspended, acoustical	095113	HVAC:	
Option: painted, exposed structure	099100	Supplemental heat as required	Div. 23
		Independent ventilation	Div. 23
Walls:		Electrical:	
Painted concrete masonry units	042000/ 099100	Fluorescent lighting	265100
		Illumination level: See Table 8600-4	
		Single level switching	262726
		4 duplex receptacles	262726
		Double duplex receptacle adjacent to	
		each data port	262726
		220v service	262726
LOOSE FURNISHINGS:		Communications:	
(4) Chairs		Central sound system	275123
		6 data ports	271513
ENVIRONMENTAL CONSIDERATIONS:		Electronic Safety and Security:	
▪ Wall minimum STC 50		Life safety devices per code	283111
▪ This room to be one-story (14' +/-) tall, located within high-bay program.		Miscellaneous:	
		N/A	

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

Program Type: 6		FEATURES¹:	Spec.
Size Requirements: 150 SF		Fixed Items:	Ref.#
Requirements:		4' of tall storage	123550
FINISHES:		Fire Suppression:	
Flooring:	Spec.	Fire suppression system	211000
Sealed concrete	Ref #	Plumbing:	
	033000	N/A	
Ceiling:		HVAC:	
Suspended, acoustical	095113	Supplemental heat as required	Div. 23
Option: painted, exposed structure	099100	Electrical:	
Walls:		Fluorescent lighting	265100
Painted concrete masonry units	042000/	Illumination level: See Table 8600-4	
	099100	Single level switching	262726
		4 duplex receptacles	262726
LOOSE FURNISHINGS:		Communications:	
(1) Work table		Central sound system	275123
		Electronic Safety and Security:	
		Life safety devices per code	283111
ENVIRONMENTAL CONSIDERATIONS:		Miscellaneous:	
▪ Wall minimum STC 45		N/A	
▪ This room to be one-story (14' +/-) tall, located within high-bay program.			

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

**WOOD PRODUCT TECHNOLOGIES
CT-P6-1**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

PROGRAM DESCRIPTION:		Spec. Ref.#
Utilizing business and industry, math, science, and technology standards, introduces concepts of wood product materials and technologies; design and production of window frames, molding, trims and panels; and wood crafting skills including the design and manufacture of wood products such as furniture, moldings, trim, fixtures, and cabinetry.		
Program Type:	6	
Size Requirements:	3,000 SF Lab	
Lab Requirements:		
FINISHES:	Spec. Ref #	
Flooring:		
Sealed concrete	033000	
Ceiling:		
Painted, exposed structure	099100	
Walls:		
Painted concrete masonry units	042000/ 099100	
LOOSE FURNISHINGS:		
(12) Workbenches with heavy-duty wooden tops		
(24) Stools or chairs		
Wastebasket		
Pencil sharpener		
FEATURES¹:		
Fixed Items:		
16' of chalk/marker board		101100
8' of tack board		101100
24' of tall storage cabinets		123550
Pencil sharpener support		062000
(3) Paper towel dispensers		102813
12'x14' motorized overhead sectional door to exterior		083613
3'x7' hollow metal service door to exterior		081113
Steel bollards at overhead door, both sides		055000
Fire Suppression:		
Fire suppression system		211000
Plumbing:		
1 washfountain (minimum)		224000
2 utility sinks (minimum)		224000
2 hose bibbs (minimum)		224000
Safety shower/eyewash		224000
2 floor drains		224000
1 trench drain		224000
Plumbing connections		221116/221119/224000
HVAC:		
Supply/return air system		Div. 23
Independent temperature control		230923
Dust collection system		233513
Electrical:		
High intensity lighting or fluorescent lighting		265100
Illumination level: See Table 8600-4		
Multilevel switching		262726
30 duplex receptacles (minimum)		262726
Double duplex receptacle adjacent to each data and video port		262726
Communications:		
1 video port and video display device		271533/271543/274119
1 voice port and phone		271513/273113
4 data ports		271513
Clock		275313
Central sound system		275123
Electronic Safety and Security:		
Life safety devices per code		283111
Miscellaneous:		
N/A		

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

WOOD PRODUCT TECHNOLOGIES

Finishing Room

CHAPTER 6: CAREER-TECHNICAL SCHOOL

Program Type: 6		FEATURES¹:	Spec.
Size Requirements: 500 SF		Fixed Items:	Ref.#
Requirements:		16' of pegboard	060565
		Pair of doors	081113
FINISHES:		Fire Suppression:	
Flooring:	Spec. Ref #	Fire suppression system	211000
Sealed concrete	033000	Plumbing:	
Ceiling:		N/A	
Suspended, acoustical	095113	HVAC:	
Option: painted, exposed structure	099100	Supplemental heat as required	Div. 23
Walls:		Independent ventilation	Div. 23
Painted concrete masonry units	042000/ 099100	Electrical:	
LOOSE FURNISHINGS:		Fluorescent lighting	265100
(2) Work tables		Illumination level: See Table 8600-4	
		Single level switching	262726
		4 duplex receptacles	262726
		Communications:	
		Central sound system	275123
		Clock	275313
ENVIRONMENTAL CONSIDERATIONS:		Electronic Safety and Security:	
▪ Wall minimum STC 50		Life safety devices per code	283111
▪ This room to be one-story (14'+/-) tall, located within high-bay program.		Miscellaneous:	
		N/A	

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

WOOD PRODUCT TECHNOLOGIES

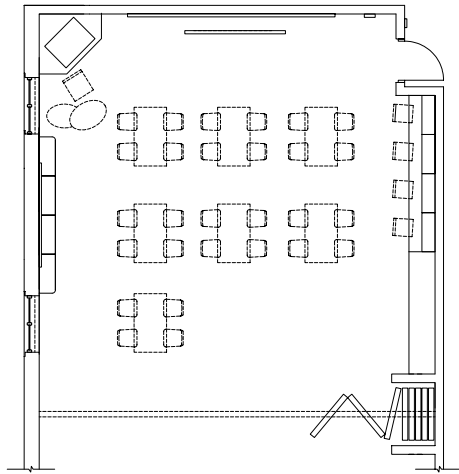
Material Storage

CHAPTER 6: CAREER-TECHNICAL SCHOOL

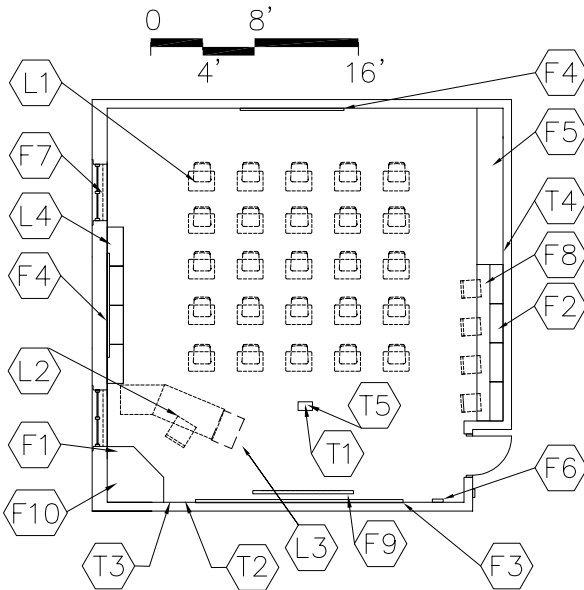
Program Type:	6	FEATURES¹:	Spec. Ref.#
Size Requirements:	800 SF	Fixed Items:	
		N/A	
Requirements:		Fire Suppression:	
		Fire suppression system	211000
FINISHES:		Plumbing:	
	Spec. Ref #	N/A	
Flooring:		HVAC:	
Sealed concrete	033000	Supplemental heat as required	Div. 23
Ceiling:		Electrical:	
Suspended, acoustical	095113	Fluorescent lighting	265100
Option: painted, exposed structure	099100	Illumination level: See Table 8600-4	
Walls:		Single level switching	262726
Painted concrete masonry units	042000/ 099100	4 duplex receptacles	262726
LOOSE FURNISHINGS:		Communications:	
N/A		Central sound system	275123
ENVIRONMENTAL CONSIDERATIONS:		Electronic Safety and Security:	
▪ Wall minimum STC 45		Life safety devices per code	283111
▪ This room to be one-story (14'+/-) tall, located within high-bay program.		Miscellaneous:	
		N/A	

NOTES:

1. **Finishes/Features:** Refer to Chapter 9 for specification references.



CLASSROOM WITH OPTIONAL FOLDING WALL



TYPICAL CLASSROOM

CAPACITY: 25 students
SIZE: 900 SF

PROGRAM ACTIVITIES:

- Large group, small group, and individual instruction
- Group and individual work
- Demonstrations
- Accommodates any of the core academic disciplines

SPATIAL RELATIONSHIPS:

- Near other related lab
- Near teacher prep area/workroom
- Classrooms should be located in academic "zone" that is away from noisy or public activities
- Classrooms with access to media center and administrative services
- Flexibility of space
- Proximity to main corridor to accommodate other students without interrupting lab

ENVIRONMENTAL CONSIDERATIONS:

- Uniform lighting
- Natural light opening equal to minimum 5% of floor area, with an operable vent
- Environmental sound control -
wall minimum STC 50
ceiling minimum CAC 35, NRC **0.70**

NOTES:

1. Loose furnishings shown represent one of many possible arrangements.
2. Depending upon the educational program of the district, a tall wardrobe may be placed in this classroom or could be placed in a teacher prep area/workroom.

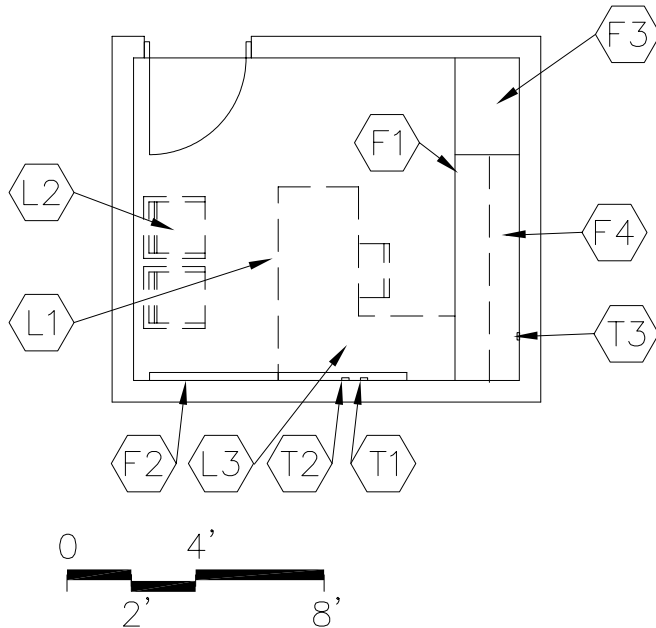
**RELATED CLASSROOM
CT-P6-2**

CHAPTER 6: CAREER-TECHNICAL HIGH SCHOOL

<u>FINISHES¹:</u>		Spec. Ref.#	<u>FEATURES¹:</u>		Spec. Ref.#
<u>Flooring:</u>			<u>Fixed Items:</u>		
Carpet		096816	F1	3' of tall wardrobe with file drawers	123550
Optional: Vinyl composition tile, linoleum, VET, or sheet vinyl		096516 096500	F2	Computer work surface (could be loose)	123550
<u>Base:</u>			F3	10'-16' of chalk/marker board	101100
Resilient base		096500	F4	10'-16' of tack board	101100
<u>Ceiling:</u>			F5	8'-12' of base & wall cabinets	123550
Suspended, acoustical		095113	F6	Pencil sharpener support	062000
<u>Walls:</u>			F7	Windows with integral blinds	085113
Painted concrete masonry units		042000 /099100	F8	About 10' of wall cabinets	123550
			F9	Projection screen (optional)	115213
			F10	Technology support casework	123550
<u>LOOSE FURNISHINGS:</u>			<u>Fire Suppression:</u>		
L1	Student desks and chairs			Fire suppression system	211000
L2	Teacher desk or workstation/computer support and chair		<u>Plumbing:</u>		
L3	File cabinet		N/A		
L4	9' of low bookcases (fixed or mobile)		<u>HVAC:</u>		
	Wastebasket			Supply/return air system	Div. 23
	Pencil sharpener			Independent temperature control	230923
			<u>Electrical:</u>		
				Fluorescent lighting:	265100
				Illumination level: See Table 8600-4	
				Multilevel switching	262726
				4 duplex receptacles	262726
				Double duplex receptacle adjacent to each data and video port	262726
			<u>Communications:</u>		
			T1	1 video port	271533/271543
			T2	1 voice port and phone	271513/273113
			T3	1 data port near teacher workstation	271513
			T4	4 data ports (minimum) for student use	271513
				Clock	275313
				Central sound system	275123
				Sound reinforcement system	275127
			T5	Overhead projector	274119
			<u>Electronic Safety and Security:</u>		
				Life safety devices per code	283111
			<u>Miscellaneous:</u>		
			M1	Operable partitions between classrooms are optional	102226

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.
2. Technology components may be placed in a separate small cabinet, or integrated in the other casework in the room.
3. Where appropriate, some casework may be mobile to add flexibility and become part of the loose furnishings.



CAPACITY:
SIZE:

1 - 3 persons
120 SF

PROGRAM ACTIVITIES:

- Private space for program instructor
- One-on-one conferences with academic instructors, students, etc.

SPATIAL RELATIONSHIPS:

- Near related lab
- Direct access to school circulation areas

ENVIRONMENTAL CONSIDERATIONS:

- Uniform lighting
- Environmental sound control -
wall minimum STC **45**
ceiling minimum CAC 35, NRC **0.70**

NOTES:

1. Loose furnishings shown represent one of many possible arrangements.

**OFFICE
CT-P6-3**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

<u>FINISHES¹:</u>		<u>FEATURES¹:</u>	
	Spec. Ref.#		Spec. Ref.#
Flooring:		<u>Fixed Items:</u>	
Carpet <i>or carpet tile</i>	096816 096813	F1 Work surface with file drawers	123550
Base:		F2 4' of tack board	101100
Resilient base	096500	or tackable wall surface	
Ceiling:		F3 2' of tall wardrobe	123550
Suspended, acoustical	095113	F4 Wall cabinets above work surface	123550
Walls:		<u>Fire Suppression:</u>	
Painted gypsum wallboard		Fire suppression system	211000
over metal studs	092116/099100	<u>Plumbing:</u>	
		N/A	
<u>LOOSE FURNISHINGS:</u>		<u>HVAC:</u>	
L1 Desk and chair		Supply/return air system	Div. 23
L2 Visitor chairs		Independent temperature control	230923
L3 Computer desk return		<u>Electrical:</u>	
Wastebasket		Single level switching	262726
		Fluorescent lighting	265100
		Illumination level: See Table 8600-4	
		4 duplex receptacles	262726
		Double duplex receptacle adjacent	
		to data and video port	262726
		<u>Communications:</u>	
		T1 1 voice port and phone	271513/273113
		T2 1 data port near workstation	271513
		T3 1 video port	271533/271543
		Central sound system	275123
		Clock	275313
		<u>Electronic Safety and Security:</u>	
		Life safety devices per code	283111
		<u>Miscellaneous:</u>	
		N/A	

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references. Optional: moveable cabinets
2. Fixed casework and loose furnishings can also be all fixed casework or all loose furnishings.

PROGRAM ACTIVITIES:

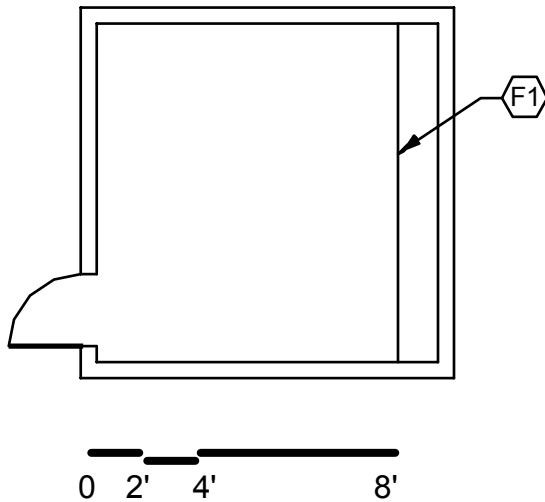
- Space for storage of lab equipment

SPATIAL RELATIONSHIPS:

- Near related lab

ENVIRONMENTAL CONSIDERATIONS:

N/A



CAPACITY:
SIZE:

N/A
200 SF

NOTES:

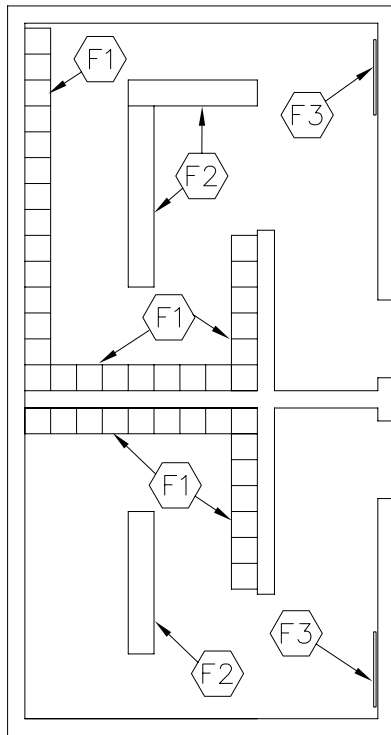
STORAGE AREA
CT-P6-4

CHAPTER 6: CAREER-TECHNICAL SCHOOL

<u>FINISHES¹:</u>	Spec. Ref.#	<u>FEATURES¹:</u>	Spec. Ref.#
Flooring:		<u>Fixed Items¹:</u>	
Sealed concrete	033000	F1 8'-20' of open shelving	
		Depth may vary (fixed or loose)	123550
Base:		<u>Fire Suppression:</u>	
Resilient base	096500	Fire suppression system	211000
Ceiling:		<u>Plumbing:</u>	
Exposed structure	---	N/A	
Walls:		<u>HVAC:</u>	
Painted concrete masonry units	042000/099100	To be determined by Design Professional Supplemental heat as required	
			Div. 23
<u>LOOSE FURNISHINGS:</u>		<u>Electrical:</u>	
N/A		Single level switching	262726
		Fluorescent lighting	265100
		Illumination level: See Table 8600-4	
		Duplex receptacles	262726
		<u>Communications:</u>	
		N/A	
		<u>Electronic Safety and Security:</u>	
		Life safety devices per code	283111
		<u>Miscellaneous:</u>	
		N/A	

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.



PROGRAM ACTIVITIES:

- Personal and health needs for the program Specific users.
- Changing of clothes and/or uniforms.
- Storage of personal items while students are in lab.

SPATIAL RELATIONSHIPS:

- Adjacent to related lab

ENVIRONMENTAL CONSIDERATIONS:

- Uniform lighting
- Sanitary and durable finishes.
- Environmental sound control
Wall minimum STC 40
Ceiling minimum CAC 35, NRC **0.70**

CAPACITY: N/A
SIZE: 9 SF per student (see Note 2)

NOTES:

1. Large and small changing areas are interchangeable for either males or females.
Determination based on male/female ratio within each program.
2. Student count determined by total number of approved program spaces Types 5, 6, and 7 times 30.

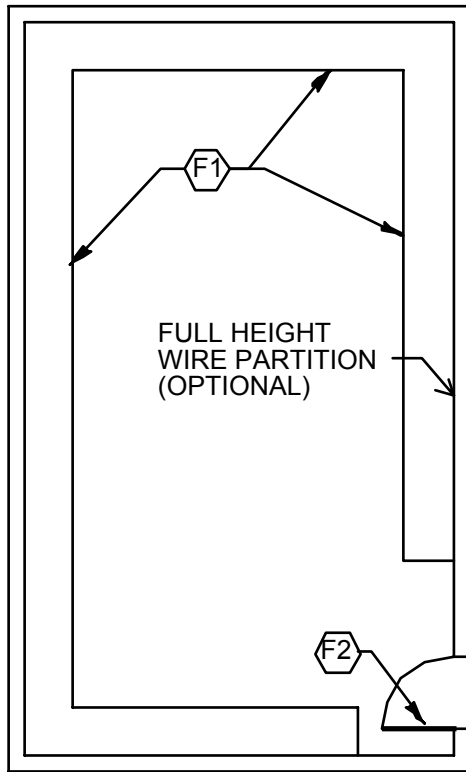
CHANGING ROOM
CT-P6-5

CHAPTER 6: CAREER-TECHNICAL SCHOOL

<u>FINISHES¹:</u>	Spec. <u>Ref.#</u>	<u>FEATURES¹:</u>	Spec. <u>Ref.#</u>
Flooring:		<u>Fixed Items¹:</u>	
Sealed concrete	033000	F1 Student lockers	105113
Optional: Vinyl composition tile, linoleum, or rubber	096500 096516	F2 Locker benches	062000
		F3 24" x 60" mirror	102813
Base:		<u>Fire Suppression:</u>	
Resilient base	096500	Fire suppression system	211000
Ceiling:		<u>Plumbing:</u>	
Suspended, acoustical	095113	N/A	
with high impact hold down clips		<u>HVAC:</u>	
Walls:		Supply/Return air system	Div. 23
Painted concrete masonry units		Exhaust air system	Div. 23
042000 / 099100		Supplemental heat as required	Div. 23
		Individual temperature control	230923
<u>LOOSE FURNISHINGS</u>		<u>Electrical:</u>	
Wastebaskets		Single level switching	262726
		Fluorescent lighting	265100
		Illumination level: See Table 8600-4	
		2 Duplex receptacles	262726
		Means of egress lighting per code	265100
		<u>Communications:</u>	
		Clock	275313
		Central Sound System	275123
		<u>Electronic Safety and Security:</u>	
		Life safety devices per code	283111
		<u>Miscellaneous:</u>	
		N/A	

NOTES:

1. **Finishes/Features:** Refer to Chapter 9 for specification references.



0 2' 4' 8'

CAPACITY:
SIZE:
ANCILLARY SPACES:

N/A
550 SF

PROGRAM ACTIVITIES:

- Storage of program related tools and instruments.
- Storage of students' tools.

SPATIAL RELATIONSHIPS:

- Adjacent to related lab

ENVIRONMENTAL CONSIDERATIONS:

- Uniform lighting
- Sanitary and durable finishes

NOTES:

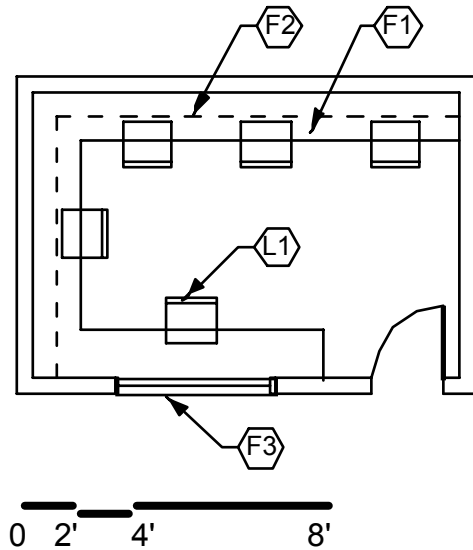
TOOL CRIB
CT-P6-6

CHAPTER 6: CAREER-TECHNICAL SCHOOL

<u>FINISHES¹:</u>	<u>Spec. Ref.#</u>	<u>FEATURES¹:</u>	<u>Spec. Ref.#</u>
<u>Flooring:</u>		<u>Fixed Items¹:</u>	
Sealed concrete	033000	F1 80' of open metal shelving (total),	
Optional: Vinyl composition tile,	096500	Depth may vary (fixed or loose)	105613
linoleum, or rubber	096516	F2 Dutch door	105613
<u>Base:</u>		<u>Fire Suppression:</u>	
Resilient base	096500	Fire suppression system	211000
<u>Ceiling:</u>		<u>Plumbing:</u>	
Suspended, acoustical	095113	N/A	
<u>Walls:</u>		<u>HVAC:</u>	
Painted concrete masonry units		Exhaust air system	Div. 23
042000 / 099100		Supplemental heat as required	Div. 23
<u>LOOSE FURNISHINGS</u>		<u>Electrical:</u>	
N/A		Single level switching	262726
		Fluorescent lighting	265100
		Illumination level: See Table 8600-4	
		4 Duplex receptacles	262726
		<u>Communications:</u>	
		N/A	
		<u>Electronic Safety and Security:</u>	
		Life safety devices per code	283111
		<u>Miscellaneous:</u>	
		N/A	

NOTES:

1. **Finishes/Features:** Refer to Chapter 9 for specification references.



PROGRAM ACTIVITIES:

- Individual computer research.
- Reference program specific manuals.
- Small group meetings.

SPATIAL RELATIONSHIPS:

- Adjacent to related lab

ENVIRONMENTAL CONSIDERATIONS:

- Uniform lighting
- Sanitary and durable finishes
- Environmental sound control
 - Wall minimum STC 50
 - Ceiling minimum CAC 35, NRC **0.70**

CAPACITY:
SIZE:

N/A
200 SF

NOTES:

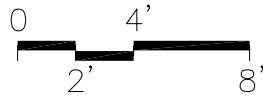
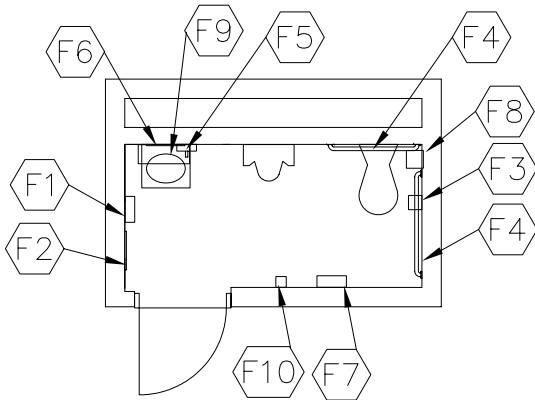
**REFERENCE ROOM
CT-P6-7**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

	Spec. Ref.#		Spec. Ref.#
<u>FINISHES¹:</u>		<u>FEATURES¹:</u>	
Flooring:		<u>Fixed Items:</u>	
Sealed concrete	033000	F1 34' of plastic lam. counter	062000
Optional: Vinyl composition tile,	096500	F2 27' of adjustable shelving	062000
		F3 Interior window	081113/ 088000
Base:		<u>Fire Suppression:</u>	
Resilient base	096500	Fire suppression system	211000
Ceiling:		<u>Plumbing:</u>	
Suspended, acoustical	095113	N/A	
Walls:		<u>HVAC:</u>	
Painted concrete masonry units		Supply/return air system	Div. 23
	042000 / 099100	Exhaust air system	Div. 23
		Supplemental heat as required	Div. 23
<u>LOOSE FURNISHINGS</u>		<u>Electrical:</u>	
L3 Student chairs		Single level switching	262726
Wastebasket		Fluorescent lighting	265100
		Illumination level: See Table 8600-4	
		2 Duplex receptacles	262726
		Duplex receptacle adjacent to	
		Each data and video port	262726
		<u>Communications:</u>	
		T1 6 data ports	271513
		<u>Electronic Safety and Security:</u>	
		Life safety devices per code	283111
		<u>Miscellaneous:</u>	
		N/A	

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.



PROGRAM ACTIVITIES:

- Personal and health needs for the program
- Specific users
- Changing of clothes and/or uniforms.

SPATIAL RELATIONSHIPS:

- Adjacent to related lab

ENVIRONMENTAL CONSIDERATIONS:

- Uniform lighting
- Sanitary and durable finishes.
- Environmental sound control
 - Wall minimum STC **48**
 - Ceiling minimum CAC 35, NRC **0.70**

CAPACITY:
SIZE:

N/A
68 SF

NOTES:

TOILET ROOM
CT-P6-8

CHAPTER 6: CAREER-TECHNICAL SCHOOL

<u>FINISHES¹:</u>	<u>Spec. Ref.#</u>
Sealed concrete	033000
Optional: Vinyl composition tile	096500
Base:	
Resilient base	096500
Ceiling:	
Suspended, acoustical	095113
Walls:	
Painted concrete masonry units	
	042000 / 099100

LOOSE FURNISHINGS

Wastebaskets

<u>FEATURES¹:</u>	<u>Spec. Ref.#</u>
<u>Fixed Items:</u>	
F1 Towel dispenser	102813
F2 24" x 60" mirror	102813
F3 Toilet tissue holder	102813
F4 36" and 42" grab bars	102813
F5 Soap dispenser	102813
F6 16" x 24" mirror	102813
F7 Sanitary product dispenser	102813
F8 Sanitary product receptacle	102813
F9 Stainless steel shelf (optional)	102813
F10 Coat hook	102813

Fire Suppression:

Fire suppression system 211000

Plumbing:

Plumbing connections
221116/221119/224000

HVAC:

Supply/return air system Div. 23
Exhaust air system Div. 23
Supplemental heat as required Div. 23
Individual temperature control 230923

Electrical:

Single level switching 262726
Fluorescent lighting 265100
Illumination level: See Table 8600-4
2 Duplex receptacles 262726
Means of egress lighting per code 265100

Communications:

Clock 275313

Electronic Safety and Security:

Life safety devices per code 283111

Miscellaneous:

N/A

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

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Program Type 7

Description: Large to very large-sized lab space with enhanced support space.

Lab space to be “high-bay” (**18'** min. clearance) with exposed building structure.

Lab to utilize standard construction with the following exception – lab floor slab to be 8” thick.

Support space to be finished with sealed concrete or vinyl composition tile, paint, and suspended acoustical ceiling. No air-conditioning of any spaces within Program Type 7.

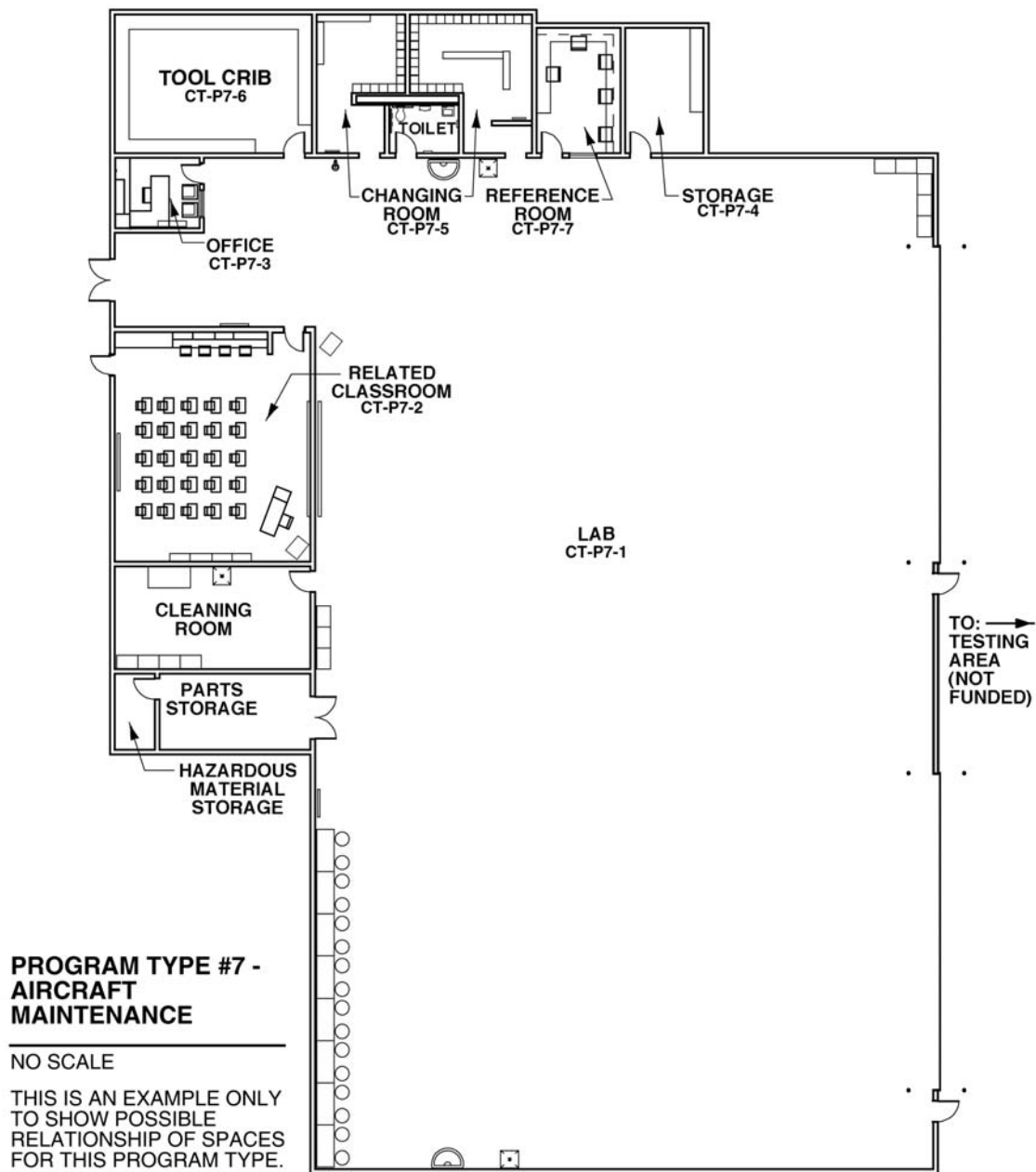
**NOTES:**

This is an example of how the Program Type 7 spaces in a career-technical school could be arranged. This is meant only to demonstrate the relationships between various spaces of this area.

Following are the Program Type 7 space plates:

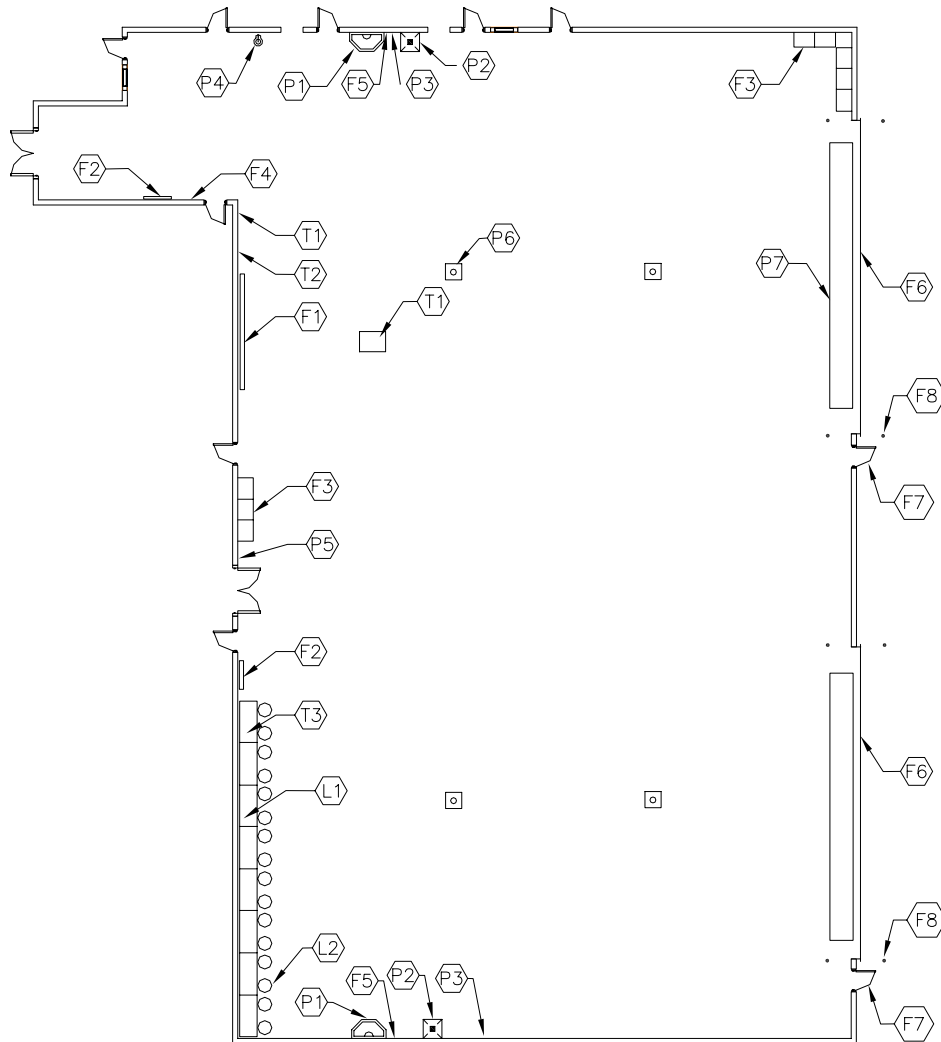
CT-P7-1	Lab
CT-P7-2	Related Classroom
CT-P7-3	Office
CT-P7-4	Storage
CT-P7-5	Changing Room
CT-P7-6	Tool Crib
CT-P7-7	Reference Room
CT-P7-8	Toilet Room

**PROGRAM TYPE 7
EXAMPLE**



NOTES:

1. See lab descriptions within this section for specific lab requirements.
2. See individual space plates at the end of this section for specific requirements.



CAPACITY:	24 Students
SIZE:	8,000 – 13,000 SF
	(see lab summaries for exact sizes)
ANCILLARY SPACES:	CT-P7-2 thru CT-P7-8

NOTES:

1. Loose furnishings shown represent one of many possible arrangements.
2. Graphic plate is an example only. Other labs within this program are not drawn – refer to lab summaries within this program type for information on a particular lab.

PROGRAM ACTIVITIES:

- Large and small group instruction
- Group and individual work
- Demonstrations

SPATIAL RELATIONSHIPS:

- Near other related labs
- Adjacent to typical support spaces
- Proximity to large group restrooms
- Located away from noisy or public activities
- Proximity to core academic area and common use areas
- Flexibility of space

ENVIRONMENTAL CONSIDERATIONS:

- Uniform lighting with 80% visual comfort probability level.
- Optional: Natural light opening equal to 5% minimum of floor area, with an operable vent
- Environmental sound control -
walls minimum STC 50
ceiling minimum CAC 35, NRC **0.70**
- Flexibility of space

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.
2. Loose Furnishings: Refer to Lab Profiles within this section.
3. Loose Furnishings, fixed equipment, utility locations, and general footprint of room shown represent one of many possible arrangements.

<u>PROGRAM DESCRIPTION:</u> Classroom and lab learning experiences concerned with the inspection, repair, servicing, and overhauling of all airplane parts, including engines, propellers, instruments, airframes, fuel and oil tanks, control cables and hydraulic units. Involves learning the use of technical manuals and various types of testing equipment.		<u>FEATURES¹:</u>		Spec.
Program Type: 7		<u>Fixed Items:</u>		<u>Ref.#</u>
Size Requirements: 13,000 SF Lab		F1	16' of chalk/marker board	101100
Lab Requirements:		F2	8' of tack board	101100
<u>FINISHES:</u>		F3	24' of tall storage cabinets	123550
Flooring:	Spec.	F4	Pencil sharpener support	062000
Sealed concrete	Ref #	F5	(4) Paper towel dispensers	102813
		F6	(2) 35'high x 45'long motorized overhead sectional doors to exterior	083613
Ceiling:		F7	(2) 3'x7' hollow metal service doors to exterior	081113
Painted, exposed structure	099100	F8	Steel bollards at overhead door, both sides	055000
Walls:		<u>Fire Suppression:</u>		
Painted concrete masonry units	042000/099100	Fire suppression system		211000
<u>LOOSE FURNISHINGS:</u>		<u>Plumbing:</u>		
L1 (8) Workbenches with heavy-duty metal tops		P1	2 washfountains (minimum)	224000
L2 (24) Stools or chairs		P2	2 utility sinks (minimum)	224000
Wastebasket		P3	3 hose bibbs (minimum)	224000
Pencil sharpener		P4	Safety shower/eyewash	224000
<u>Electronic Safety and Security:</u>		P5	14 compressed air connections	221500
Life safety devices per code	283111	P6	2 floor drains	224000
<u>Miscellaneous:</u>		P7	1 trench drain	224000
N/A		Plumbing connections		221116/221119/224000
The following items to be funded by the School District:		<u>HVAC:</u>		
Paint booth, paint prep station, paint mixing station		Supply/return air system		Div. 23
		Independent temperature control		230923
		<u>Electrical:</u>		
		High intensity lighting or fluorescent lighting		265100
		Illumination level: See Table 8600-4		
		Multilevel switching		262726
		40 duplex receptacles (minimum)		262726
		Double duplex receptacle adjacent to each data and video port		262726
		220v service		262726
		<u>Communications:</u>		
		T1	1 video port and video display device	271533/271543/274119
		T2	1 voice port and phone	271513/273113
		T3	4 data ports	271513
			Clock	275313
			Central sound system	275123

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

AIRCRAFT MAINTENANCE

Cleaning Room

CHAPTER 6: CAREER-TECHNICAL SCHOOL

Program Type:	7	FEATURES¹:	Spec. Ref.#
Size Requirements:	400 SF	Fixed Items:	
		4' of tall storage cabinets	123550
		Paper towel dispenser	102813
Requirements:		Fire Suppression:	
		Fire suppression system	211000
FINISHES:	Spec. Ref #	Plumbing:	
Flooring:		Utility sink	224000
Sealed concrete	033000	Plumbing connections	221116/221119/224000
Ceiling:		Compressed air connections	221500
Suspended, acoustical	095113		
Option: painted, exposed structure	099100		
Walls:		HVAC:	
Painted concrete masonry units	042000/ 099100	Supplemental heat as required	Div. 23
		Independent ventilation	Div. 23
LOOSE FURNISHINGS:		Electrical:	
(1) Work table		Fluorescent lighting	265100
Wastebasket		Illumination level: See Table 8600-4	
		Single level switching	262726
		4 duplex receptacles	262726
ENVIRONMENTAL CONSIDERATIONS:		Communications:	
▪ Wall minimum STC 45		Central sound system	275123
▪ This room to be one-story (14'+/-) tall, located within high-bay program.		Electronic Safety and Security:	
		Life safety devices per code	283111
		Miscellaneous:	
		N/A	

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

Program Type: 7		FEATURES¹:	Spec.
Size Requirements: 300 SF		Fixed Items:	Ref.#
Requirements:		30' of heavy duty steel adjustable shelving	105613
FINISHES:	Spec.	Fire Suppression:	
Flooring:	Ref #	Fire suppression system	211000
Sealed concrete	033000	Plumbing:	
Ceiling:		N/A	
Fire-rated gypsum drywall	092113	HVAC:	
Walls:		Supplemental heat as required	Div. 23
Painted concrete masonry units	042000/099100	Independent ventilation	Div. 23
LOOSE FURNISHINGS:		Electrical:	
N/A		Fluorescent lighting	265100
		Illumination level: See Table 8600-4	
		Single level switching	262726
		2 duplex receptacles	262726
		Communications:	
		Central sound system	275123
ENVIRONMENTAL CONSIDERATIONS:		Electronic Safety and Security:	
▪ Wall minimum STC 45		Life safety devices per code	283111
▪ This room to be one-story (14' +/-) tall, located within high-bay program.		Miscellaneous:	
		N/A	

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

AIRCRAFT MAINTENANCE Hazardous Material Storage

CHAPTER 6: CAREER-TECHNICAL SCHOOL

<p>Program Type: 7</p> <p>Size Requirements: 60 SF</p> <p>Requirements:</p> <p><u>FINISHES:</u> Flooring: Sealed concrete Spec. Ref # 033000</p> <p>Ceiling: Fire-rated gypsum drywall 092116</p> <p>Walls: Painted concrete masonry units 042000/ 099100</p> <p><u>LOOSE FURNISHINGS:</u> N/A</p> <p><u>ENVIRONMENTAL CONSIDERATIONS:</u></p> <ul style="list-style-type: none"> ▪ Wall minimum STC 45 ▪ This room to be one-story (14' +/-) tall, located within high-bay program. 	<p>FEATURES¹: <u>Fixed Items:</u> N/A</p> <p><u>Fire Suppression:</u> Fire suppression system 211000</p> <p><u>Plumbing:</u> N/A</p> <p><u>HVAC:</u> Supplemental heat as required Div. 23</p> <p><u>Electrical:</u> Fluorescent lighting 265100 Illumination level: See Table 8600-4 Single level switching 262726 2 duplex receptacles 262726</p> <p><u>Communications:</u> Central sound system 275123</p> <p><u>Electronic Safety and Security:</u> Life safety devices per code 283111</p> <p><u>Miscellaneous:</u> N/A</p>
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NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

ANIMAL SCIENCE AND MANAGEMENT - EQUINE

CHAPTER 6: CAREER-TECHNICAL SCHOOL

CT-P7-1

<u>PROGRAM DESCRIPTION:</u> Applies principles of anatomy and physiology, nutrition, reproduction, health, and genetics and behavior to the production, management, marketing, and training of domestic animals.		<u>FEATURES¹:</u> <u>Fixed Items:</u> 180' of metal pipe rail fencing 12' x 14' motorized overhead sectional door to exterior 3'x7' hollow metal service door to exterior Steel bollards at overhead door, both sides		Spec. Ref.# 055000 083613 081113 055000
Program Type:	7	<u>Fire Suppression:</u> Fire suppression system		211000
Size Requirements:	8,000 SF Lab	<u>Plumbing:</u> 2 hose bibbs (minimum) Plumbing connections		224000 221116/221119/224000
Lab Requirements:		<u>HVAC:</u> Supply/return air system Independent temperature control		Div. 23 230923
<u>FINISHES:</u>		<u>Electrical:</u> High intensity lighting or fluorescent lighting Illumination level: See Table 8600-4 Multilevel switching 12 duplex receptacles (minimum)		265100 262726 262726
Flooring:	Compacted earth	<u>Communications:</u> 1 voice port and phone Clock Central sound system		271513/273113 275313 275123
Ceiling:	Painted, exposed structure	<u>Electronic Safety and Security:</u> Life safety devices per code		283111
Walls:	Painted exposed structure	<u>Miscellaneous:</u> N/A		
<u>LOOSE FURNISHINGS:</u>	N/A			
<u>SITE FEATURE:</u>				
Plan for the following if required by school curriculum requirements:				
Fenced riding area				

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.

ANIMAL SCIENCE AND MANAGEMENT - EQUINE

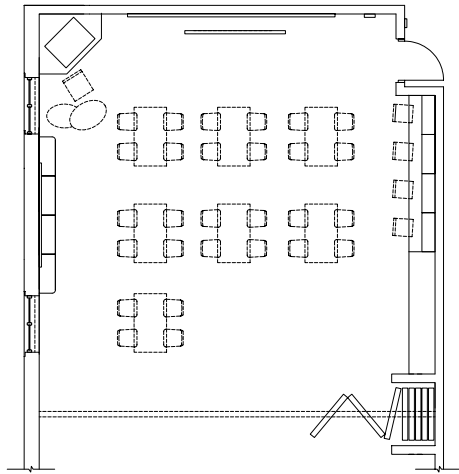
Stables

CHAPTER 6: CAREER-TECHNICAL SCHOOL

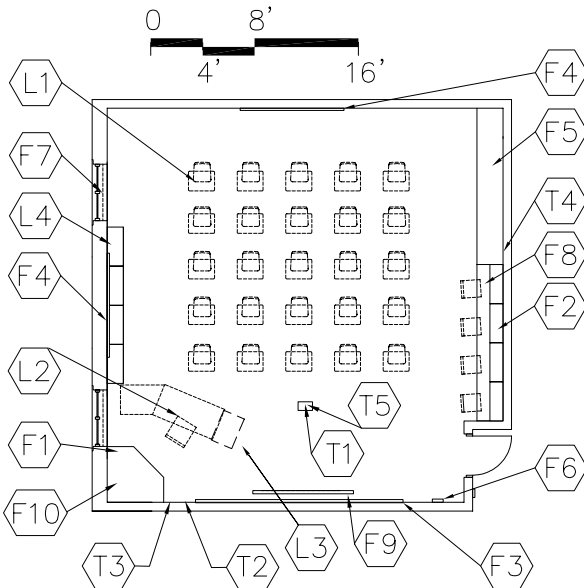
		Spec. Ref.#
Program Type:	7	
Size Requirements:	6,800 SF	
Requirements:		
<u>FINISHES:</u>	Spec. Ref #	
Flooring:		
Sealed concrete	033000	
Ceiling:		
Painted, exposed structure	099100	
Walls:		
Exposed wood	062000	
At wash stalls, provide fiberglass reinforced plastic panels		
<u>LOOSE FURNISHINGS:</u>		
Teacher desk and chair		
File cabinet		
Wastebasket		
<u>ENVIRONMENTAL CONSIDERATIONS:</u>		
<ul style="list-style-type: none"> This room to be one-story (14'+/-) tall, adjacent to indoor riding area. Building is to be of wood construction. Optional: Provide loft space above stalls for storage. 		
		<u>FEATURES¹:</u>
		<u>Fixed Items:</u>
		(4) Paper towel dispensers 102813
		<u>Fire Suppression:</u>
		Fire suppression system 211000
		<u>Plumbing:</u>
		6 frost-free hose bibbs 224000
		Plumbing connections 221116/221119/224000
		Floor drains with clean-out pits 224000
		<u>HVAC:</u>
		N/A
		<u>Electrical:</u>
		Fluorescent lighting 265100
		Illumination level: See Table 8600-4
		Multilevel switching 262726
		12 duplex receptacles (minimum) 262726
		Master cut-off switch for electricity 262726
		<u>Communications:</u>
		1 voice port and phone 271513/273113
		1 data port 271513
		Central sound system 275123
		<u>Electronic Safety and Security:</u>
		Life safety devices per code 283111
		<u>Miscellaneous:</u>
		N/A

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.



CLASSROOM WITH OPTIONAL FOLDING WALL



TYPICAL CLASSROOM

CAPACITY:
SIZE:

25 students
900 SF

PROGRAM ACTIVITIES:

- Large group, small group, and individual instruction
- Group and individual work
- Demonstrations
- Accommodates any of the core academic disciplines

SPATIAL RELATIONSHIPS:

- Near other related lab
- Near teacher prep area/workroom
- Classrooms should be located in academic "zone" that is away from noisy or public activities
- Classrooms with access to media center and administrative services
- Flexibility of space
- Proximity to main corridor to accommodate other students without interrupting lab

ENVIRONMENTAL CONSIDERATIONS:

- Uniform lighting
- Natural light opening equal to minimum 5% of floor area, with an operable vent
- Environmental sound control -
wall minimum STC 50
ceiling minimum CAC 35, NRC **0.70**

NOTES:

1. Loose furnishings shown represent one of many possible arrangements.
2. Depending upon the educational program of the district, a tall wardrobe may be placed in this classroom or could be placed in a teacher prep area/workroom.

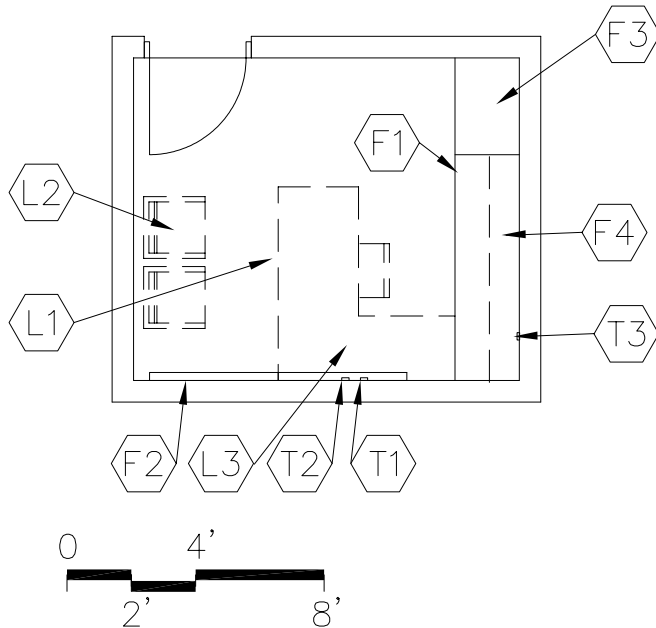
**RELATED CLASSROOM
CT-P7-2**

CHAPTER 6: CAREER-TECHNICAL HIGH SCHOOL

<u>FINISHES¹:</u>		Spec. Ref.#	<u>FEATURES¹:</u>		Spec. Ref.#
<u>Flooring:</u>			<u>Fixed Items:</u>		
Carpet		096816	F1 3' of tall wardrobe with file drawers		123550
Optional: Vinyl composition tile, linoleum, VET, or sheet vinyl		096516 096500	F2 Computer work surface (could be loose)		123550
<u>Base:</u>			F3 10'-16' of chalk/marker board		101100
Resilient base		096500	F4 10'-16' of tack board		101100
<u>Ceiling:</u>			F5 8'-12' of base & wall cabinets		123550
Suspended, acoustical		095113	F6 Pencil sharpener support		062000
<u>Walls:</u>			F7 Windows with integral blinds		085113
Painted concrete masonry units		042000/099100	F8 About 10' of wall cabinets		123550
			F9 Projection screen (optional)		115213
			F10 Technology support casework		123550
<u>LOOSE FURNISHINGS:</u>			<u>Fire Suppression:</u>		
L1 Student desks and chairs			Fire suppression system		211000
L2 Teacher desk or workstation/computer support and chair			<u>Plumbing:</u>		
L3 File cabinet			N/A		
L4 9' of low bookcases (fixed or mobile)			<u>HVAC:</u>		
Wastebasket			Supply/return air system		Div. 23
Pencil sharpener			Independent temperature control		230923
			<u>Electrical:</u>		
			Fluorescent lighting:		265100
			Illumination level: See Table 8600-4		
			Multilevel switching		262726
			4 duplex receptacles		262726
			Double duplex receptacle adjacent to each data and video port		262726
			<u>Communications:</u>		
			T1 1 video port		271533/271543
			T2 1 voice port and phone		271513/273113
			T3 1 data port near teacher workstation		271513
			T4 4 data ports (minimum) for student use		271513
			Clock		275313
			Central sound system		275123
			Sound reinforcement system		275127
			T5 Overhead projector		274119
			<u>Electronic Safety and Security:</u>		
			Life safety devices per code		283111
			<u>Miscellaneous:</u>		
			M1 Operable partitions between classrooms are optional		102226

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.
2. Technology components may be placed in a separate small cabinet, or integrated in the other casework in the room.
3. Where appropriate, some casework may be mobile to add flexibility and become part of the loose furnishings.



CAPACITY:
SIZE:

1 - 3 persons
120 SF

PROGRAM ACTIVITIES:

- Private space for program instructor
- One-on-one conferences with academic instructors, students, etc.

SPATIAL RELATIONSHIPS:

- Near related lab
- Direct access to school circulation areas

ENVIRONMENTAL CONSIDERATIONS:

- Uniform lighting
- Environmental sound control -
wall minimum STC **45**
ceiling minimum CAC 35, NRC **0.70**

NOTES:

1. Loose furnishings shown represent one of many possible arrangements.

**OFFICE
CT-P7-3**

CHAPTER 6: CAREER-TECHNICAL SCHOOL

<u>FINISHES¹:</u>		<u>FEATURES¹:</u>	
	Spec. Ref.#		Spec. Ref.#
Flooring:		<u>Fixed Items:</u>	
Carpet <i>or carpet tile</i>	096816 096813	F1 Work surface with file drawers	123550
Base:		F2 4' of tack board	101100
Resilient base	096500	or tackable wall surface	
Ceiling:		F3 2' of tall wardrobe	123550
Suspended, acoustical	095113	F4 Wall cabinets above work surface	123550
Walls:		<u>Fire Suppression:</u>	
Painted gypsum wallboard		Fire suppression system	211000
over metal studs	092116/099100	<u>Plumbing:</u>	
		N/A	
<u>LOOSE FURNISHINGS:</u>		<u>HVAC:</u>	
L1 Desk and chair		Supply/return air system	Div. 23
L2 Visitor chairs		Independent temperature control	230923
L3 Computer desk return		<u>Electrical:</u>	
Wastebasket		Single level switching	262726
		Fluorescent lighting	265100
		Illumination level: See Table 8600-4	
		4 duplex receptacles	262726
		Double duplex receptacle adjacent	
		to data and video port	262726
		<u>Communications:</u>	
		T1 1 voice port and phone	271513/273113
		T2 1 data port near workstation	271513
		T3 1 video port	271533/271543
		Central sound system	275123
		Clock	275313
		<u>Electronic Safety and Security:</u>	
		Life safety devices per code	283111
		<u>Miscellaneous:</u>	
		N/A	

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references. Optional: moveable cabinets
2. Fixed casework and loose furnishings can also be all fixed casework or all loose furnishings.

PROGRAM ACTIVITIES:

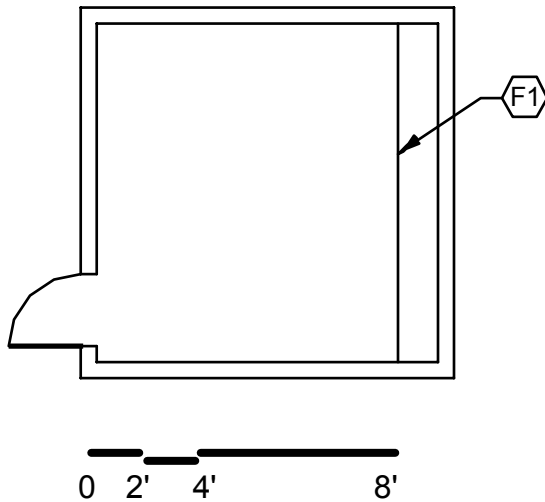
- Space for storage of lab equipment

SPATIAL RELATIONSHIPS:

- Near related lab

ENVIRONMENTAL CONSIDERATIONS:

N/A

CAPACITY:
SIZE:N/A
200 SFNOTES:

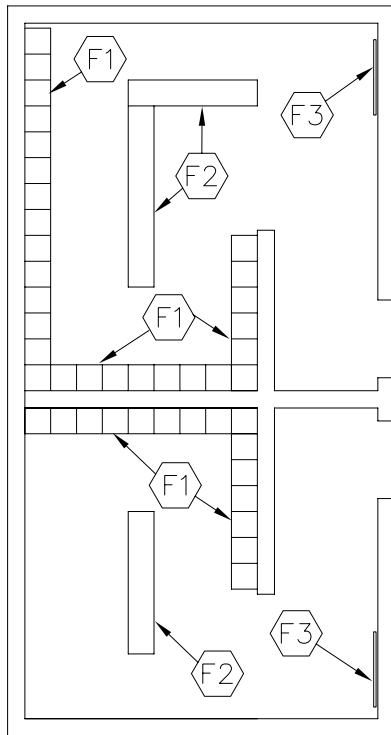
STORAGE AREA
CT-P7-4

CHAPTER 6: CAREER-TECHNICAL SCHOOL

<u>FINISHES¹:</u>	Spec. Ref.#	<u>FEATURES¹:</u>	Spec. Ref.#
Flooring:		<u>Fixed Items¹:</u>	
Sealed concrete	033000	F1 8'-20' of open shelving	
		Depth may vary (fixed or loose)	123550
Base:		<u>Fire Suppression:</u>	
Resilient base	096500	Fire suppression system	211000
Ceiling:		<u>Plumbing:</u>	
Exposed structure	---	N/A	
Walls:		<u>HVAC:</u>	
Painted concrete masonry units	042000/099100	To be determined by Design Professional	
		Supplemental heat as required	Div. 23
<u>LOOSE FURNISHINGS:</u>		<u>Electrical:</u>	
N/A		Single level switching	262726
		Fluorescent lighting	265100
		Illumination level: See Table 8600-4	
		Duplex receptacles	262726
		<u>Communications:</u>	
		N/A	
		<u>Electronic Safety and Security:</u>	
		Life safety devices per code	283111
		<u>Miscellaneous:</u>	
		N/A	

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.



PROGRAM ACTIVITIES:

- Personal and health needs for the program Specific users.
- Changing of clothes and/or uniforms.
- Storage of personal items while students are in lab.

SPATIAL RELATIONSHIPS:

- Adjacent to related lab

ENVIRONMENTAL CONSIDERATIONS:

- Uniform lighting
- Sanitary and durable finishes.
- Environmental sound control
Wall minimum STC 40
Ceiling minimum CAC 35, NRC **0.70**

CAPACITY: N/A
SIZE: 9 SF per student (see Note 2)

NOTES:

1. Large and small changing areas are interchangeable for either males or females.
Determination based on male/female ratio within each program.
2. Student count determined by total number of approved program spaces Types 5, 6, and 7 times 30.

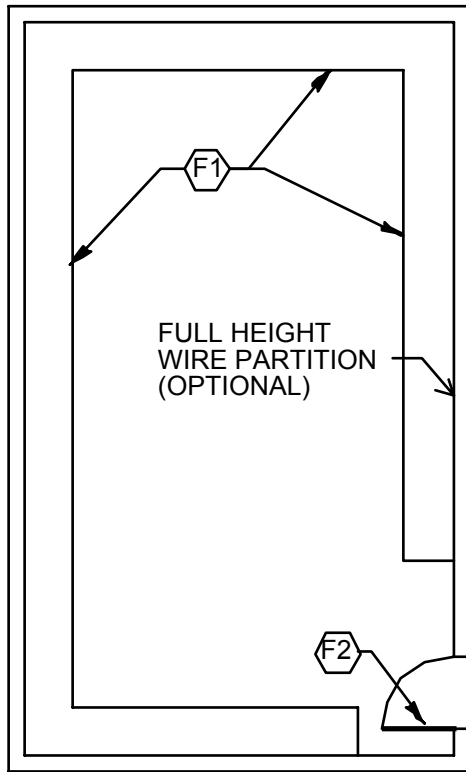
CT-P7-4

CHAPTER 6: CAREER-TECHNICAL SCHOOL

	Spec.		Spec.
<u>FINISHES¹:</u>	<u>Ref.#</u>	<u>FEATURES¹:</u>	<u>Ref.#</u>
Flooring:		<u>Fixed Items¹:</u>	
Sealed concrete	033000	F1 Student lockers	105113
Optional: Vinyl composition tile,	096500	F2 Locker benches	062000
linoleum, or rubber	096516	F3 24" x 60" mirror	102813
Base:		<u>Fire Suppression:</u>	
Resilient base	096500	Fire suppression system	211000
Ceiling:		<u>Plumbing:</u>	
Suspended, acoustical	095113	N/A	
with high impact hold down clips		<u>HVAC:</u>	
Walls:		Supply/Return air system	Div. 23
Painted concrete masonry units		Exhaust air system	Div. 23
042000 / 099100		Supplemental heat as required	Div. 23
		Individual temperature control	230923
<u>LOOSE FURNISHINGS</u>		<u>Electrical:</u>	
Wastebaskets		Single level switching	262726
		Fluorescent lighting	265100
		Illumination level: See Table 8600-4	
		2 Duplex receptacles	262726
		Means of egress lighting per code	265100
		<u>Communications:</u>	
		Clock	275313
		Central Sound System	275123
		<u>Electronic Safety and Security:</u>	
		Life safety devices per code	283111
		<u>Miscellaneous:</u>	
		N/A	

NOTES:

1. **Finishes/Features:** Refer to Chapter 9 for specification references.



0 2' 4' 8'

CAPACITY:
SIZE:
ANCILLARY SPACES:

N/A
550 SF

PROGRAM ACTIVITIES:

- Storage of program related tools and instruments.
- Storage of students' tools.

SPATIAL RELATIONSHIPS:

- Adjacent to related lab

ENVIRONMENTAL CONSIDERATIONS:

- Uniform lighting
- Sanitary and durable finishes

NOTES:

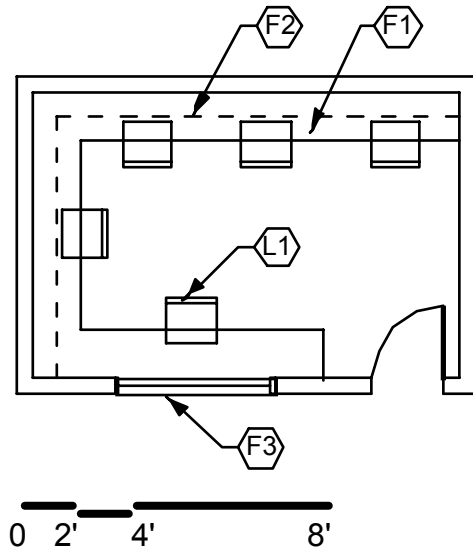
TOOL CRIB
CT-P7-6

CHAPTER 6: CAREER-TECHNICAL SCHOOL

<u>FINISHES¹:</u>	<u>Spec. Ref.#</u>	<u>FEATURES¹:</u>	<u>Spec. Ref.#</u>
<u>Flooring:</u>		<u>Fixed Items¹:</u>	
Sealed concrete	033000	F1 80' of open metal shelving (total),	
Optional: Vinyl composition tile,	096500	Depth may vary (fixed or loose)	105613
linoleum, or rubber	096516	F2 Dutch door	105613
<u>Base:</u>		<u>Fire Suppression:</u>	
Resilient base	096500	Fire suppression system	211000
<u>Ceiling:</u>		<u>Plumbing:</u>	
Suspended, acoustical	095113	N/A	
<u>Walls:</u>		<u>HVAC:</u>	
Painted concrete masonry units		Exhaust air system	Div. 23
042000 / 099100		Supplemental heat as required	Div. 23
<u>LOOSE FURNISHINGS</u>		<u>Electrical:</u>	
N/A		Single level switching	262726
		Fluorescent lighting	265100
		Illumination level: See Table 8600-4	
		4 Duplex receptacles	262726
		<u>Communications:</u>	
		N/A	
		<u>Electronic Safety and Security:</u>	
		Life safety devices per code	283111
		<u>Miscellaneous:</u>	
		N/A	

NOTES:

1. **Finishes/Features:** Refer to Chapter 9 for specification references.



PROGRAM ACTIVITIES:

- Individual computer research.
- Reference program specific manuals.
- Small group meetings.

SPATIAL RELATIONSHIPS:

- Adjacent to related lab

ENVIRONMENTAL CONSIDERATIONS:

- Uniform lighting
- Sanitary and durable finishes
- Environmental sound control
 - Wall minimum STC 50
 - Ceiling minimum CAC 35, NRC **0.70**

CAPACITY:
SIZE:

N/A
200 SF

NOTES:

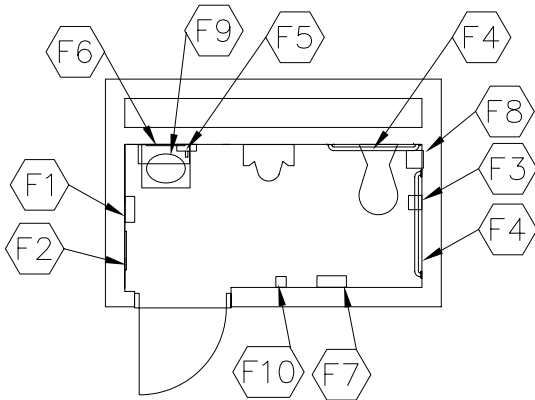
REFERENCE ROOM
CT-P7-7

CHAPTER 6: CAREER-TECHNICAL SCHOOL

	Spec. Ref.#		Spec. Ref.#
<u>FINISHES¹:</u>		<u>FEATURES¹:</u>	
Flooring:		<u>Fixed Items:</u>	
Sealed concrete	033000	F1 34' of plastic laminate counter	062000
Optional: Vinyl composition tile,	096500	F2 27' of adjustable shelving	062000
		F3 Interior window	081113/ 088000
Base:		<u>Fire Suppression:</u>	
Resilient base	096500	Fire suppression system	211000
Ceiling:		<u>Plumbing:</u>	
Suspended, acoustical	095113	N/A	
Walls:		<u>HVAC:</u>	
Painted concrete masonry units		Supply/return air system	Div. 23
	042000 / 099100	Exhaust air system	Div. 23
		Supplemental heat as required	Div. 23
<u>LOOSE FURNISHINGS</u>		<u>Electrical:</u>	
L3 Student chairs		Single level switching	262726
Wastebasket		Fluorescent lighting	265100
		Illumination level: See Table 8600-4	
		2 Duplex receptacles	262726
		Duplex receptacle adjacent to	
		Each data and video port	262726
		<u>Communications:</u>	
		T1 6 data ports	271513
		<u>Electronic Safety and Security:</u>	
		Life safety devices per code	283111
		<u>Miscellaneous:</u>	
		N/A	

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.



PROGRAM ACTIVITIES:

- Personal and health needs for the program
- Specific users
- Changing of clothes and/or uniforms.

SPATIAL RELATIONSHIPS:

- Adjacent to related lab

ENVIRONMENTAL CONSIDERATIONS:

- Uniform lighting
- Sanitary and durable finishes.
- Environmental sound control
 - Wall minimum STC **48**
 - Ceiling minimum CAC 35, NRC **0.70**

CAPACITY:
SIZE:

N/A
68 SF

NOTES:

TOILET ROOM
CT-P7-8

CHAPTER 6: CAREER-TECHNICAL SCHOOL

	Spec. Ref.#
FINISHES¹:	
Sealed concrete	033000
Optional: Vinyl composition tile	096500
Base:	
Resilient base	096500
Ceiling:	
Suspended, acoustical	095113
Walls:	
Painted concrete masonry units	042000 / 099100

LOOSE FURNISHINGS

Wastebaskets

	Spec. Ref.#
FEATURES¹:	
Fixed Items:	
F1 Towel dispenser	102813
F2 24" x 60" mirror	102813
F3 Toilet tissue holder	102813
F4 36" and 42" grab bars	102813
F5 Soap dispenser	102813
F6 16" x 24" mirror	102813
F7 Sanitary product dispenser	102813
F8 Sanitary product receptacle	102813
F9 Stainless steel shelf (optional)	102813
F10 Coat hook	102813

Fire Suppression:

Fire suppression system 211000

Plumbing:

Plumbing connections
221116/221119/224000

HVAC:

Supply/return air system Div. 23
Exhaust air system Div. 23
Supplemental heat as required Div. 23
Individual temperature control 230923

Electrical:

Single level switching 262726
Fluorescent lighting 265100
Illumination level: See Table 8600-4
2 Duplex receptacles 262726
Means of egress lighting per code 265100

Communications:

Clock 275313

Electronic Safety and Security:

Life safety devices per code 283111

Miscellaneous:

N/A

NOTES:

1. Finishes/Features: Refer to Chapter 9 for specification references.