

7.0 Rooms and Spaces

7.1 Zones or Groupings

The new facility for the Oliver Ranch School will consist of the following major areas or zones. Each zone contains component rooms, areas and/or spaces.

- Administration
- Student Arrival/Departure
- Student/Teacher/Chaperone Housing
- Dining Area
- Kitchen
- Central Restroom Facility
- Fitting and Laundry
- Classroom/Labs
- Research Area
- Student/Teacher Restrooms
- Art Room
- Greenhouse
- Observatory
- Outdoor Areas
- Instructor Housing¹⁰
- Laundry
- Caretaker Housing
- Maintenance and Support
- Water Supply⁹
- Wastewater
- Recycle/Trash⁹
- Parking

⁹Per BLM – 7/9/2004

¹⁰For planning purposes only: dependent upon business model

7.0 Rooms and Spaces

7.2 Space/Room Index

Administration

- Reception 7.3.1.1
- Administrative Workroom 7.3.1.2
- Gift Shop/Store 7.3.1.3
- Director's Office 7.3.1.4
- Director's Restroom/Sleeping Nook 7.3.1.5
- Business Manager's Office³ 7.3.1.6
- Administrative Offices/Spaces 7.3.1.7
 - School Secretary (to be confirmed*)
 - Bookkeeper (to be confirmed*)
 - Marketing/Scheduler/CCSD (to be confirmed*)
 - Security (to be confirmed*)
 - Other Spaces (to be confirmed*)
- Conference Room 7.3.1.8
- Instructor Spaces 7.3.1.9
- Instructor Prep/Workroom 7.3.1.10
- Instructor Lounge 7.3.1.11
- Infirmary 7.3.1.12
- Infirmary Restroom 7.3.1.13
- Server/Telephone Room 7.3.1.14
- Staff Restrooms¹ 7.3.1.15
- Public Restroom¹ 7.3.1.16
- Janitor's Closet 7.3.1.17
- Storage 7.3.1.18

**Administrative offices subject to business plan development*

Student Arrival/Departure

- Shaded Drop-off Area* 7.3.2.1
 - *could be friendship circle or separate element
- Restrooms???¹ 7.3.2.2

Student/Teacher/Chaperone Housing

- Gathering Spaces 7.3.3.1
- Restroom 7.3.3.1a
- Student Sleeping Spaces with Bathrooms 7.3.3.2
- Teacher/Chaperone Sleeping Spaces w/ Bathrooms 7.3.3.3
- Janitor's Closets 7.3.3.4

Dining Area

- Indoor Eating (including general serving space) 7.3.4.1
- Presentation Space 7.3.4.2
- Outdoor Eating 7.3.4.3
- Restrooms¹ 7.3.4.4

¹Possible combine separate restrooms into one or two centralized facilities

³Per D.O.C. (Design Oversight Committee) – 5/17/2004

7.0 Rooms and Spaces

Kitchen

- Receiving 7.3.5.1
- Interior Recycling/Trash 7.3.5.2
- Storage 7.3.5.3
- Administration 7.3.5.4
- Preparation 7.3.5.5
- Bakery 7.3.5.6
- Warewashing 7.3.5.7
- Employee Area 7.3.5.8
- Restroom/Hygiene 7.3.5.9
- Exterior Recycling/Trash 7.3.5.10
- Mat Washing 7.3.5.11
- Janitor's Closet 7.3.5.12

Central Restroom Facility²

(serves Administration, Dining, Teaching Areas, and Research Area, sized to accommodate 150 persons)

- Central Restrooms 7.3.6.1
- Janitor's Closet 7.3.6.2
- Custodial Supply 7.3.6.3

Fitting and Laundry

- Gear Room 7.3.7.1
- Fitting Area 7.3.7.2
- Storage 7.3.7.3

Classroom/Labs

- Indoor Flex-Lab (4 ea.) 7.3.8.1
- Outdoor Flex-Lab (2 ea.) 7.3.8.2
- Central Storage and Prep Room 7.3.8.3

Research Area

- Research Lab 7.3.9.1
- Lab Storage 7.3.9.2
- Library 7.3.9.3

Student/Teacher Restrooms¹ 7.3.10.1

Art Room 7.3.11.1

Greenhouse 7.3.12.1

Observatory 7.3.13.1

Outdoor Areas

- Amphitheater/Friendship Circle 7.3.14.1
- Trails⁴ 7.3.14.2
- Env. Teaching Shade Structures (12 ea.)⁴ 7.3.14.3
- Outdoor Play Area 7.3.14.4

¹Possible combine separate restrooms into one or two centralized facilities

²Replaces separate facilities at Administration and Teaching areas

³Per BLM – 7/9/2004

7.0 Rooms and Spaces

Instructor Housing (maximum of 10 ea.)¹⁰	
• Public Space	7.3.15.1
• Kitchenette	7.3.15.2
• Sleeping Space	7.3.15.3
• Bathroom	7.3.15.4
• Storage	7.3.15.5
Laundry	7.3.16.1
Caretaker Housing	
• Living Room	7.3.17.1
• Kitchen	7.3.17.2
• Dining	7.3.17.3
• Bedrooms (2 ea.)	7.3.17.4
• Bathroom	7.3.17.5
• Storage/Mechanical	7.3.17.6
Maintenance and Support	
• Office	7.3.18.1
• Restroom	7.3.18.2
• Maintenance Shop	7.3.18.3
• Custodial Storage (2 locations)	7.3.18.4
• Electrical Room	7.3.18.5
Water Supply⁹	7.3.18a.1
Wastewater	7.3.19.1
Recycle/Trash⁹	7.3.19a.1
Parking	7.3.20.1

⁴For planning purposes only: pending SNPLMA Round 5 funding

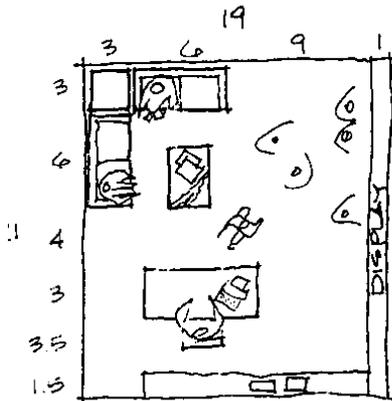
⁹Per BLM – 7/9/2004

¹⁰For planning purposes only: dependent upon business model

7.0 Rooms and Spaces

7.3 Space/Room Sheets

In this section related spaces and rooms will be discussed in terms of function, people, furnishings, equipment, technical requirements, storage needs, sensory, feelings or emotions, and critical issues.



7.3.1 Administration

7.3.1.1 Reception

400 sf

Function:

To welcome and coordinate visitors (non-student) . . .
Interface with the parents/public . . . Demonstrate mission of Oliver Ranch so that people will walk-in and understand; real-time display of various conservation aspects . . .
Waiting to meet with Director

People:

5-10 Visitors
1 Staff

Furnishings/Equipment:

Comfortable seating for 4 persons . . . Reception Desk and Chair . . . CPU and Monitor . . . Phone . . . Credenza . . .
Display space

Storage Requirements:

None (see Administrative Workroom)

Adjacency:

Administrative Workroom . . . Director's Office . . . Public Restroom . . . Gift Shop/Store

Sensory:

Visual connection to outside . . . Natural ventilation

Feeling/Emotion:

Dynamic/attention grabber . . . Rich and vibrant . . . Timeless . . . Enveloping (walking into a piece of RRC) . . . Coming from the luxury of Las Vegas to a different environment . . . Peak one's interest but draw them in further

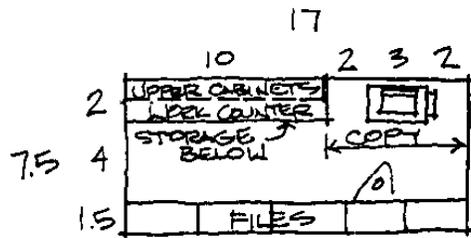
Critical Issues:

Welcoming . . . Non-institutional . . . Visual connection to public parking

7.0 Rooms and Spaces

7.3.1.2 Administrative Workroom

130 sf



Function:

Workroom ••• Support of administration ••• Copying ••• Collating ••• Mailings ••• Filing

People:

Enough space for 2 people to work comfortably

Furnishings/Equipment:

10 lineal feet of counter, 24" wide w/cabinets above and below ••• Xerox – floor model ••• Files (assume paper files not yet obsolete - recommend lateral system; assume 1 file per class (50 weeks X 3 classes X 10 years = 1500 files, 8 files per inch) – management model to advise filing requirements, i.e. is a file folder required for each student) ••• Fax ••• CPU, Monitor and Printer ••• Phone

Storage Requirements:

10 lineal feet above counter supply cabinets ••• 10 lineal feet below counter supply cabinets

Adjacency:

Reception

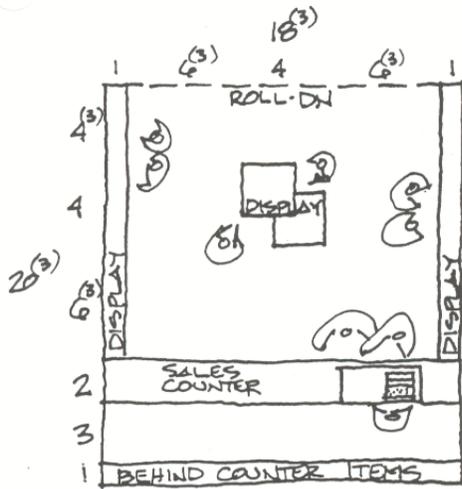
Critical Issues:

Sufficient power receptacles ••• Visible and accessible storage

7.0 Rooms and Spaces

7.3.1.3 Gift Shop/Store

360 sf



Function:

to sell merchandise in support of the machine of the school and as a remembrance of the students experience ••• This space will be open intermittently ••• No snacks/food will be available for purchase³

People:

Sufficient for a group of 10-12 students plus Instructor and/or Chaperone(s) ••• Sales accomplished by Receptionist or Instructor assigned to that duty

Furnishings/Equipment:

Sales Counter ••• Display shelving ••• Display kiosk ••• Electronic cash/inventory control system

Storage Requirements:

Point-of-sales inventory storage ••• small storage closet

Adjacency:

Receptionist

Sensory:

Visual connection to outside

Feeling/Emotion:

There are lessons to be learned in this little shop

Critical Issues:

Fully visible from Reception Area ••• Easily visually monitored ••• Merchandising plan to be developed in conjunction with business plan

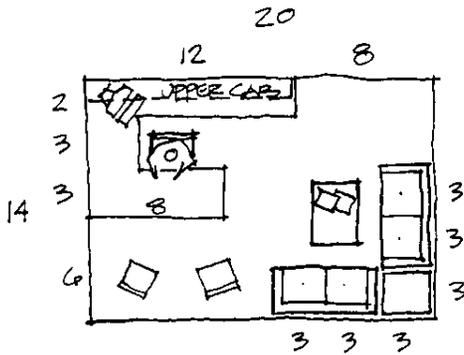
(3) ADDED CIRCULATION SPACE
PER D.O.C. MEETING 5.17.04

³Per D.O.C. – 5/17/2004

7.0 Rooms and Spaces

7.3.1.4 Director's Office

280 sf



Function:

General administrative duties ••• Private meetings (parents, staff, etc.)

People:

4 Visitors

Furnishings/Equipment:

Desk 7' ••• Credenza ••• Couch ••• Coffee table ••• (2) Office chairs/opposite desk ••• CPU, monitor, and personal printer⁹ ••• Phone

Adjacency:

Reception ••• Administrative Workroom ••• Director's Restroom/Sleeping Nook ••• Flex-labs (relatively close)

Sensory:

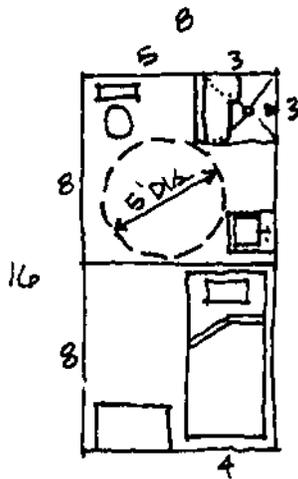
Visual connection to the outside

Feeling/Emotion:

Comfortable but not extravagant

Critical Issues:

Comfortable and welcoming ••• Ability to exit directly to the outside



7.3.1.5 Director's Restroom/Sleeping Nook

130 sf

Function:

Small restroom with shower and sleeping nook for possible overnight stays

People:

1 Executive Director

Furnishings/Equipment:

Sink ••• Shower ••• Toilet ••• Daycouch or Murphy Bed

Storage Requirements:

Shelf with hanging bar and drawers below – 3' lineal

Adjacency:

Director's Office

Critical Issues:

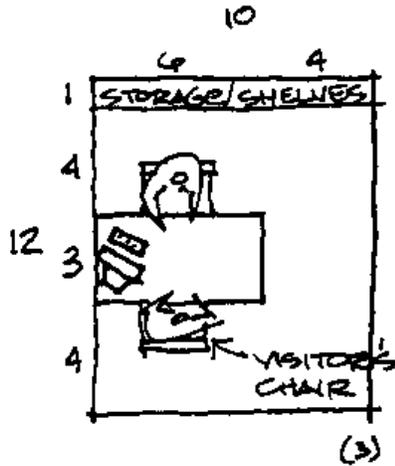
Easily maintained materials

⁹Per BLM – 7/9/2004

7.0 Rooms and Spaces

7.3.1.6 Business Manager's Office³

120 sf



(3) ADDED OFFICE PER
D.O.C. MEETING
5.17.04

Function:

General financial issues ••• Managing business ••• Private discussion

People:

1 Visitor

Furnishings/Equipment:

3' X 6' Desk w/ chair ••• (1) Office chair/opposite desk •••
CPU and computer (printing occurs in workroom) •••
Bookshelf/Filing system ••• Phone

Adjacency:

Reception ••• Administrative Workroom

Sensory:

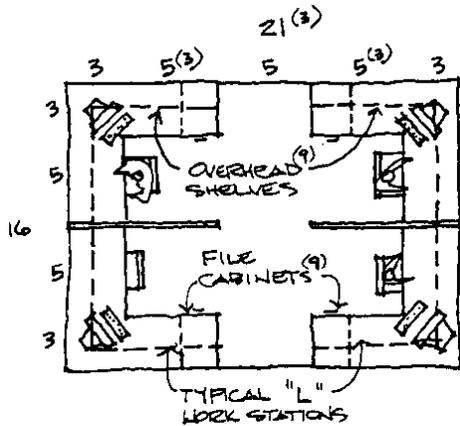
Visual connection to the outside

³Per D.O.C. – 5/17/2004

7.0 Rooms and Spaces

7.3.1.7 Administrative Offices/Spaces

340 sf



Function:

Administration of various school needs: bookkeeping³, marketing, scheduling, liaising to the school district, and security

*Administrative staffing subject to business development plan, i.e. Administrative offices may be off-site

People:

4 People (maximum)

Furnishings/Equipment:

(4) 8'x8' workstations w/ 'L-shaped' desk, chair³ ••• (4) CPU and monitor (printing to be done at administrative workroom) ••• (4) phones

Adjacency:

Administrative workroom ••• Conference room ••• Instructor areas

Sensory:

Visual Connection to the Outside

Critical Issues:

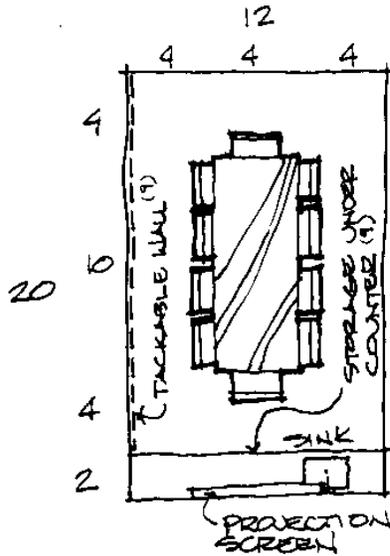
Provide flexible 'universal administration space' ••• Note: philosophies of management are subject to change over time ••• For private meetings, phone calls, etc. nearby Conference Room will be provided ••• Note: If privacy is an issue, additional space will need to be added to create separate offices

³Per D.O.C. – 5/17/2004

7.0 Rooms and Spaces

7.3.1.8 Conference Room

240 sf



Function:

Group meetings • • • Satisfy privacy requirements of open office planning for Administrators • • • Staff Meetings • • • Fund-raising³

People:

Maximum Capacity: Instructors + Administrator, say 12

Furnishings/Equipment:

Table, 42" X 120" • • • (10) Stacking Chairs • • • 12' X 24" Counter w/sink • • • Projection screen

Storage Requirements:

Continuous storage below counter w/sink

Adjacency:

Administrative Offices/Spaces • • • Director's Office • • • Instructor Offices • • • Instructor's Lounge (allows use of Lounge kitchen)³

Sensory:

Visual connection to the outside • • • Acoustical separation⁵

Feeling/Emotion:

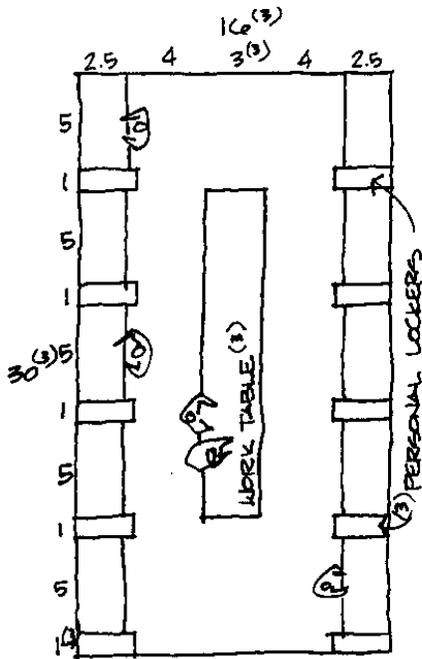
Needs to be suitable for fundraising³

³Per D.O.C. – 5/17/2004

⁵Per D.O.C. – 6/15/2004

7.0 Rooms and Spaces

7.3.1.9 Instructor Spaces (Integrated w/Instructor Prep/Workroom) 480 sf



(3) CHANGES PER D.O.C.
MEETING 5.17.04

Function:

Preparation of instructional materials • • • Phone calls • • •
Personal storage of materials

People:

10 Instructors

Furnishings/Equipment:

(10) Individual 5' X 30" desk with personal locker³ • • • (10)
Chairs • • • 3' x 18' worktable³ • • • Bookshelves above • • •
(10) phones • • • (10) CPU and monitor (printing in Instructor
Prep/Workroom)

Storage Requirements:

Lockable file drawer • • • Pencil drawer

Adjacency:

Integrated with the Instructor Prep/Workroom • • • Instructor
Lounge

Sensory:

Visual connection to the outside

Critical Issues:

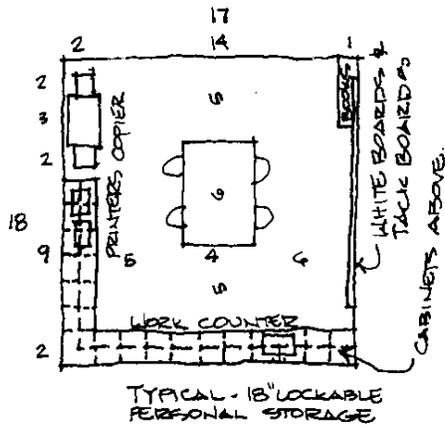
Open office planning provides maximum flexibility • • • Note:
privacy is minimum but Conference Room is available • • •
Printer and copying machine in adjacent Instructor
Prep/Workroom

³Per D.O.C. – 5/17/2004

7.0 Rooms and Spaces

7.3.1.10 Instructor Prep/Workroom

310 sf



Function:

Copying ••• Preparation of printed materials ••• Prepare classes

Furnishings/Equipment:

20' X 24" Counter space w/ sink ••• Cabinets above and below work counter ••• Bookshelves 9' X 6 shelves high ••• Xerox machine (floor model) ••• Fax ••• (2) Printers (serving Instructor Spaces) ••• Whiteboard ••• Work table w/ 4 chairs ••• Tackboard

Storage Requirements:

Cabinet storage above and below counter

Adjacency:

Instructor Spaces

Sensory:

Visual connection to the outside

Critical Issues:

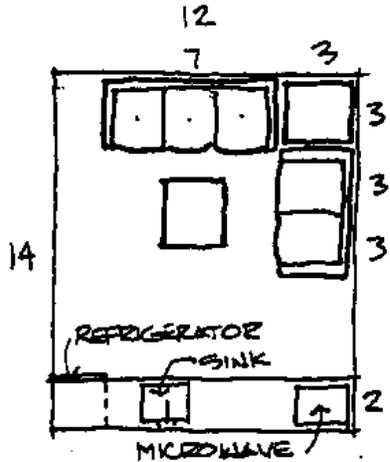
Want teachers to feel valued⁹

⁹Per BLM – 7/9/2004

7.0 Rooms and Spaces

7.3.1.11 Instructor Lounge

170 sf



Function:

Informal interaction among Instructor's regarding class issues • • • Small group gathering (in effect another small conference room) • • • Food support for Administrative Conference Room³

People:

5 People

Furnishings/Equipment:

Informal seating for 5 • • • Coffee table • • • 12' x 24" Counter w/ sink • • • Microwave • • • Refrigerator (undercounter)

Storage Requirements:

Cabinet storage under counter

Adjacency:

Instructor Spaces • • • Consider next to Conference Room³

Sensory:

Direct opening to the outside • • • Visual connection to the outside • • • If next to Conference Room, noise impact is an issue³

Feeling/Emotion:

Relaxed setting for coffee breaks, etc. • • • Privacy⁹

Critical Issues:

Assumed 4-6 Instructor's at one time, nearby conference room is available for larger meetings

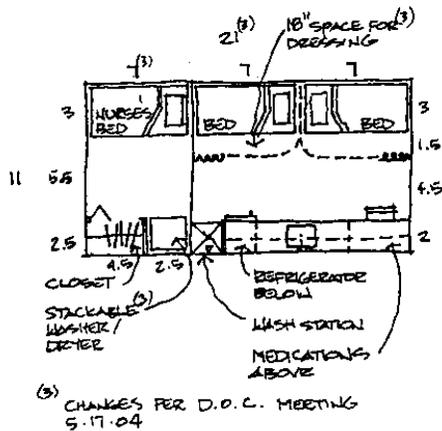
³Per D.O.C. – 5/17/2004

⁹Per BLM – 7/9/2004

7.0 Rooms and Spaces

7.3.1.12 Infirmary

230 sf



Function:

First-Aid station ••• For sick/hurt children ••• Holding area until student is transported to hospital/home⁹ ••• Place for nurse to sleep (as needed)³ ••• Store and dispense medications³ ••• Receiving medications from parents³

People:

1 Nurse
2 People

Furnishings/Equipment:

Counter w/ sink ••• Built-in desk w/ chair ••• 2 beds with partition and curtain ••• File Cabinet ••• Refrigerator for medications ••• Nurse's bed³ ••• Stackable washer/dryer³

Storage Requirements:

Lockable storage above counter ••• Lockable supply cabinets below counter ••• Lockable shelf with hanging bar and drawers below – 3' lineal (for nurse use)

Adjacency:

Infirmary Restroom

Sensory:

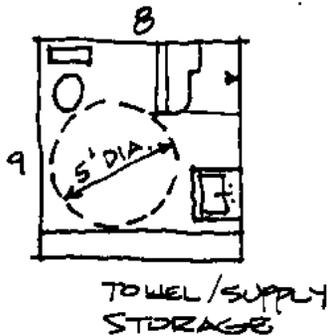
Connection with the outside

Feeling/Emotion:

Comforting

Critical Issues:

Glass doors on cabinets ••• Privacy will be achieved through use of curtains ••• Nurse's area to be lockable



7.3.1.13 Infirmary Restroom

80 sf

Function:

Small restroom with shower to clean up children if necessary ••• Restroom for nurse to utilize for overnight stays

Furnishings/Equipment:

Toilet ••• Shower ••• Lavatory

Adjacency:

Infirmary ••• Janitor's closet

Critical Issues:

ADA accessible ••• Easily maintained materials

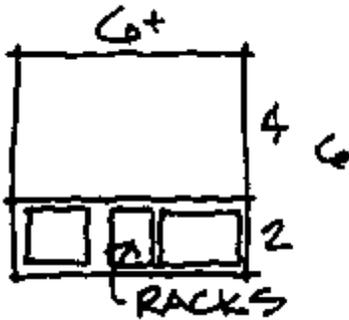
³Per D.O.C. – 5/17/2004

⁹Per BLM – 7/9/2004

7.0 Rooms and Spaces

7.3.1.14 Server/Telephone Room

40 sf



Function:

Houses server . . . Distance learning . . . Interaction with Observatory

Furnishings/Equipment:

Campus servers . . . 6' equipment rack . . . Mass storage device(s) . . . UPS . . . Front-end surge suppression system . . . Switchboard

Storage Requirements:

Adjacency:

Easy-access

Critical Issues:

Temperature controlled for equipment

7.3.1.15 Staff Restrooms (2 ea.)

n/a sf

(Assumed will utilize Central Restrooms)

7.3.1.16 Public Restroom

n/a sf

(Assumed will utilize Central Restrooms)

7.3.1.17 Janitor's Closet

40 sf

Furnishings/Equipment:

Mop Sink . . . Mop Bucket . . . Shelving

7.3.1.18 Storage

80 sf

Function:

General storage (office supplies are stored in various workrooms)

7.0 Rooms and Spaces

7.3.2 Student Arrival/Departure

7.3.2.1 Shaded Drop-Off Area* ??? sf

*could be friendship circle or separate element

Function:

Entry: Welcome ••• Staging and directing arrival/departure functions ••• Orientation ••• Transition zone ••• Teaching opportunity with layers of discovery

Exit: Learning realization ••• “Don’t leave by conventional means” ••• Ending ceremony??? ••• Recognition of impact while here ••• Summary of active engagement (i.e. food waste, water use) ••• Communicate who they are and their benefit to communicate and how they have participated ••• Waste vs. conservation ••• Transition zone

People:

105 students
3 Teachers
6 Chaperones
10 Instructors
Concerned parents/guardians

Furnishings/Equipment:

Direction/Signage (know where to go) ••• Exhibits (description of learning: entry=?, exit=oh yeah!) ••• Wall of environmental heroes

Storage Requirements:

Luggage (area to offload luggage)

Sensory:

Shaded

Feeling/Emotion:

‘WOW’ ••• Dynamic/attention grabber ••• Rich and vibrant ••• Timeless ••• Enveloping (walking into a piece of RRC)

Critical Issues:

Possible drop-off away from complex to allow a transition zone upon entry and exit ••• Demonstrate mission ••• Project image of school for students and visitors ••• Reflects the desert environment (aspects of the area) ••• Coming from the luxury/chaos/poverty⁹ of Las Vegas to a different environment ••• Peak one’s interest but draw them in further

7.3.2.2 Restrooms (2 ea.; 1 male, 1 female) n/a sf **(Assumed will utilize Central Restrooms)**

⁹Per BLM – 7/9/2004

7.0 Rooms and Spaces

7.3.3 Student/Teacher/Chaperone Housing

7.3.3.1 Gathering Space (3 ea.)

3 ea. @ 530sf

Function:

Gathering the class ••• Coordination of students ••• Orientation ••• Social interaction ••• Rainy-day activities ••• Use as a multi-purpose room⁵

People:

35 Students
1 Teacher
2 Chaperones
3 Instructors

Furnishings/Equipment:

Comfortable seating for 12 ••• (12) Beanbags ••• (16) stacking chairs ••• Large whiteboard⁵ ••• Projection screen⁵ ••• Generator feed for life safety requirements??? (design will determine need)⁹

Storage Requirements:

Space for stacking chairs and beanbags

Adjacency:

Student Sleeping Spaces ••• Teacher/Chaperone Sleeping Spaces ••• Direct access to the outside

Sensory:

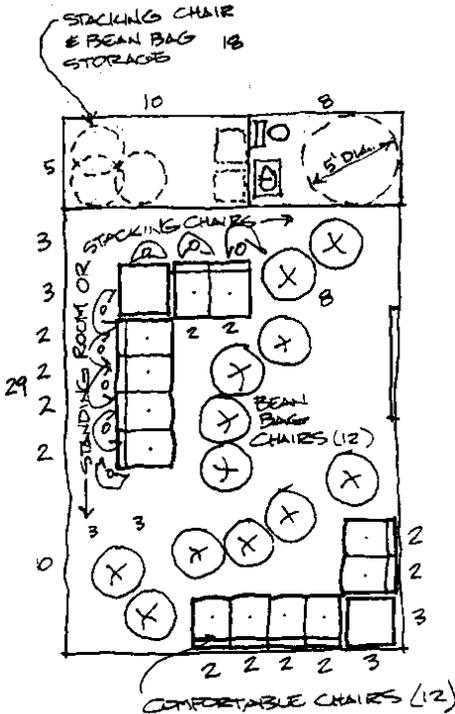
Connection to outdoors/opens to outside⁵

Feeling/Emotion:

Comfortable in the sense of a Living Room

Critical Issues:

10 square feet per student allowed, this presupposes following statement ••• Comfortable for small groups of 10-15, but may be somewhat cramped for complete classes ••• This is the control point for student entry/exit of their sleeping areas



7.3.3.1a Restroom⁵ (1 unisex)

3 ea. @ 70 sf

Furnishings/Equipment:

Water closet ••• Lavatory

Adjacency:

Gathering Space

Critical Issues:

ADA accessible

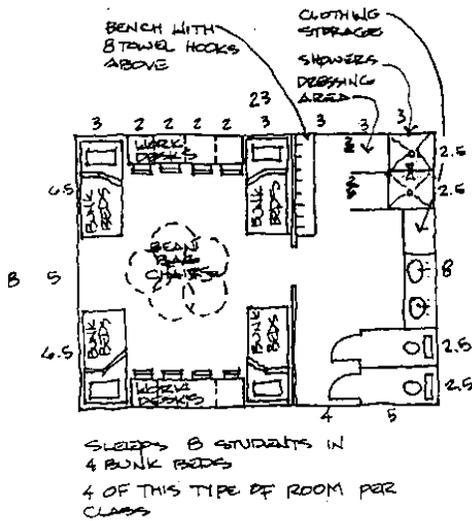
⁵Per D.O.C. – 6/15/2004

⁹Per BLM – 7/9/2004

7.0 Rooms and Spaces

7.3.3.2 Student Sleeping Spaces w/ Bathrooms* 7800 sf

*Sleeping space changed from 4-6 per room to 6-8 per room based upon preference of 5th grade students during school visits



Assumptions: Maximum class size is 35 . . . All students from a 5th grade class will be housed in a contiguous manner, i.e. a separate building or strongly identifiable zone . . . Maximum of 8 students per room, ea. room shall have its own bathroom . . . Each class may have up to (4) disabled boys and (4) disabled girls, therefore (2) rooms per class (1 male, 1 female) will be ADA compliant with (4) ADA sleeping spaces and (2) spaces for other students for a total of (6) sleeping spaces . . . If 8 students maximum per other (4) rooms, and (6) students maximum for (2) ADA rooms, then (6) rooms are required (see case studies) to account for asymmetry among boys and girls . . . With (2) ADA rooms and (4) regular rooms, total sq. ft. per class = 2500sf . . . 3 classes attending at Oliver Ranch School at any one time, a total of 7500 sq. ft. (3 classes X 2500 sq. ft.) is required to house students

Function:

Sleeping . . . Changing . . . Bathing . . . Journaling/reflection

People:

Each room is 6-8 Students, a total of 105 students will be accommodated at any one time

Furnishings/Equipment:

$[(4 \times 8) + (2 \times 6)] \times 3 = (132)$ Beds, maximum of 105 to be occupied at any one time (considering alternatives to 'beds': sleeping shelves, hammocks, etc.) . . . (36) Toilets . . . (30) Showers . . . (36) Lavatories . . . (18) benches . . . Towel Hooks . . . Generator feed for life safety requirements??? (design will determine need)⁹

Storage Requirements:

'Cubbyhole' for backpacks, personal effects, etc.; 1 per bed

Adjacency:

Gathering Space

Sensory:

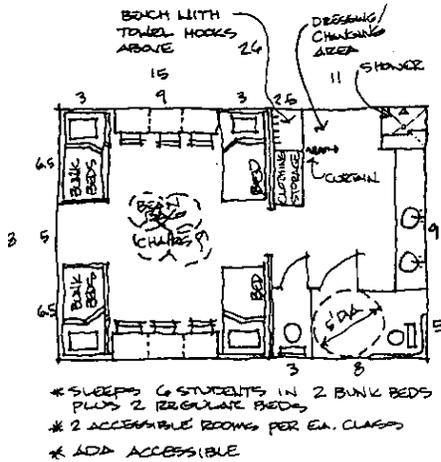
Visual connection to outside from each sleeping space

Feeling/Emotion:

Intimate . . . Promote serenity among smaller groups . . . Accessibility to chaperones⁹

Critical Issues:

Smaller groups present less behavioral difficulties . . . ADA compliance . . . Accommodating asymmetrical populations of boys and girls . . . Measurable energy and water use by classroom



7.0 Rooms and Spaces

⁹Per BLM – 7/9/2004

7.0 Rooms and Spaces

Case Studies:

- 1) Class size = 30; 15 boys (1 disabled), 15 girls (1 disabled)
(Assume (3) rooms assigned to boys, (3) rooms assigned to girls)
Boys: (1) @ 6 boys/ADA rm; (1) @ 5 boys/rm; (1) @ 4 boys/rm
Girls: (1) @ 6 girls/ADA rm; (1) @ 5 girls/rm; (1) @ 4 girls/rm
- 2) Class size = 30; 15 boys, 15 girls
(Assume (2) rooms assigned to boys, (2) rooms assigned to girls, and (2) ADA rooms vacant)
Boys: (1) @ 8 boys/rm; (1) @ 7 boys/rm
Girls: (1) @ 8 girls/rm; (1) @ 7 girls/rm
- 3) Class size = 35; 17 boys (3 disabled), 18 girls (2 disabled)
(Assume (3) rooms assigned to boys, (3) rooms assigned to girls)
Boys: (1) @ 6 boys/ADA rm; (1) @ 6 boys/rm; (1) @ 5 boys/rm
Girls: (1) @ 6 girls/ADA rm; (2) @ 6 girls/rm
- 4) Class size = 35; 17 boys, 18 girls
(Assume (3) rooms assigned to boys, (3) rooms assigned to girls)
Boys: (1) @ 6 boys/ADA rm; (1) @ 6 boys/rm; (1) @ 5 boys/rm
Girls: (1) @ 6 girls/ADA rm; (2) @ 6 girls/rm
- 5) Class size = 35; 10 boys (4 disabled), 25 girls
(Assume larger group, in this case the girls, gets (4) rooms, and the smaller group, in this case the boys, gets (2) rooms)
Boys: (1) @ 4 boys/ ADA rm; (1) @ 6 boys/rm
Girls: (1) @ 6 girls/ADA rm; (1) @ 7 girls/rm; (2) @ 6 girls/rm
- 6) Class size = 35; 10 boys, 25 girls
(Assume larger group, in this case the girls, gets (4) rooms, and the smaller group, in this case the boys, gets (2) rooms)
Boys: (2) @ 5 boys/room
Girls: (3) @ 6 girls/room; (1) @ 7 girls/room
- 7) Class size = 35; 13 boys (1 disabled), 22 girls (3 disabled)
(Assume larger group, in this case the girls, gets (3) rooms, and the smaller group, in this case the boys, gets (2) rooms)
Boys: (1) @ 6 boys/ADA rm, (1) @ 7 boys/rm
Girls: (1) @ 6 girls/ADA rm, (2) @ 8 girls/rm
- 8) Class size = 35; 13 boys, 22 girls (or vice-versa)*
(Assume larger group, in this case the girls, gets (3) rooms, and the smaller group, in this case the boys, gets (2) rooms)
Boys: (1) @ 6 boys/ADA rm, (1) @ 7 boys/rm
Girls: (1) @ 6 girls/ADA rm, (2) @ 8 girls/rm

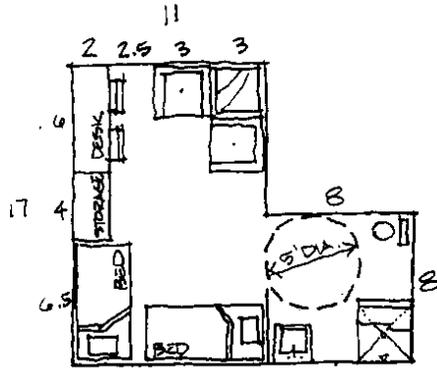
**worst case scenario is when the attendance of 1 sex is equal to ADA room capacity (4) + 1; i.e. 13 boys and 22 girls. Problems also occur when more than 4 disabled students of one sex are in a class with a disabled student of the opposite sex.*

7.0 Rooms and Spaces

7.3.3.3 Teacher/Chaperone Sleeping Spaces with Bathrooms

6 ea. @ 250 sf

Assumptions: (3) Chaperones are required per classroom, consisting of 1 Teacher plus 2 others . . . Chaperone rooms will be the same as the student rooms (except for furnishings) to allow maximum flexibility . . . (2) Chaperone rooms are required each sleeping (2) persons to allow for asymmetry between male and female . . . Each Chaperone room is within the same building or identifiable zone as the students



Function:

Sleeping . . . Changing . . . Washing . . . Space for journaling/reflection

People:

2 Persons

Furnishings/Equipment:

(2) Beds . . . (2) Easy-chairs. . . . 6' Deskspace 4' wardrobe, divided into two lockable compartments⁵ (1) Toilet (1) Showers (1) Lavatory Generator feed for life safety requirements??? (design will determine need)⁹

Storage Requirements:

Towel/supply storage

Adjacency:

Gathering Space

Sensory:

Visual connection to outside from each sleeping space

Feeling/Emotion:

Intimate

Critical Issues:

Occupants must have control over student entry/exit from Gathering Space . . . Lockable individual storage⁵

7.3.3.4 Janitor's Closet

3 ea. @ 40 sf

Furnishings/Equipment:

Mop sink . . . Mop bucket . . . Shelving

⁵Per D.O.C. – 6/15/2004

7.0 Rooms and Spaces

7.3.4.2 Presentation Space

allow 200 sf

Function:

Presentations, lectures, etc.

Furnishings/Equipment:

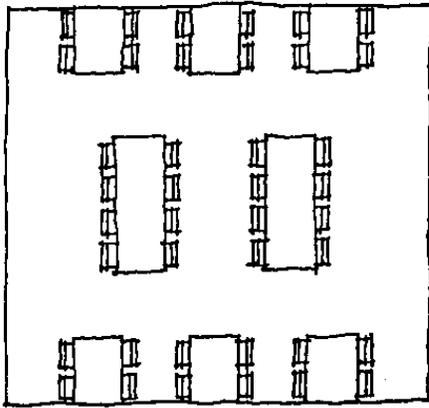
Lectern ••• Raised portable platform

Adjacency:

Interior Dining

7.3.4.3 Outdoor Eating

1000 sf*



Function:

Eating ••• Multi-purpose space/classroom ••• Orientation •
•• Viewing Presentation Space ••• Rainy-day activities

People:

40 Persons (1 classroom + Teachers/Chaperones/
Instructors)

Furnishings/Equipment:

(10) 42" X 42" tables suitable for outdoor use ••• (40)
stackable chairs suitable for outdoor use ••• Barbecues •••
Waiter station

Adjacency:

Kitchen ••• Indoor Eating

Sensory:

Connection to the outside

Feeling/Emotion:

Non-institutional

Critical Issues:

During nice weather, 'outdoor seating capacity' will be
attained by opening up Indoor Dining to the outside •••
Additional outdoor eating options include eating as part of
excursions to Friendship Circle, and other various outdoor
areas

7.3.4.4 Restrooms

n/a sf

(Assumed will utilize Central Restrooms)

7.0 Rooms and Spaces

7.3.5 Kitchen

7.3.5.1 General

1000 sf

Assumptions: Based on a general rule of thumb allocated Kitchen area = 50% of Dining room

One of many possible scenarios, dependent upon the business plan, would be to serve breakfast and dinner with staff, and an outside concessionaire would provide a box/sack lunch.

Employees, dependent upon the business plan:

- 1 Kitchen Manager
- 1 Cook
- 2 Helpers
- 1 Dishwasher
- 1 Clean-up

Outside Kitchen consultant will complete program

Critical Issues:

Minimize water use • • • Optimize energy use • • • Grease management • • • Flexibility⁹ • • • Generator feed for Freezers/Refrigerators??? (design will determine need)⁹ • • • Relationship to Recycling/Trash area(s) and the Commercial Restaurant compactor/dumpster

⁹Per BLM – 7/9/2004

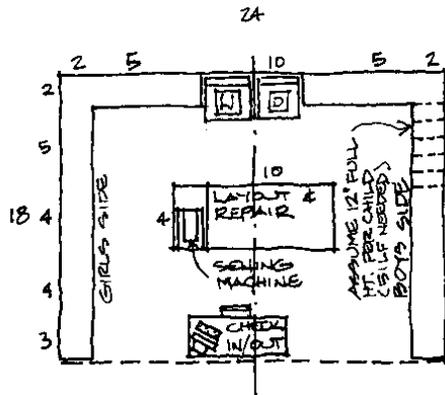
7.0 Rooms and Spaces

7.3.7 Fitting and Laundry

7.3.7.1 Gear Room*

430 sf

*the gear room will contain a stackable washer/dryer to be used in cases of student 'accidents'



Assumptions:

Gear for 50 Kids: Number is based upon (1) complete low-income class of 35 students + 25% of (2) other classes require gear, due to low-income, forgetful, or damaged equipment, at any one time (maximum worst case scenario) ••• 1 lineal foot of full-height storage per kid = 50 lineal feet of storage ••• As part of the message, gear will be repaired as necessary to allow for maximum use

Function:

Provide equipment for students without equipment ••• Provide specialized equipment for instruction (i.e. geologists hammers and safety glasses, paintbrushes and picks for archaeological digs) ••• Store gear (bedding, backpacks, jackets/raingear, boots, etc.) ••• Equipment check-out/check-in ••• Repair of equipment ••• Receiving and unpacking ••• Inventorying and quality control ••• Needs assessment ••• Washer/dryer for student 'accidents'

Furnishings/Equipment:

4' X 8' worktable (clean) ••• Workbench (dirty) ••• Check-out/check-in system ••• Large whiteboard ••• Desk w/ chair ••• CPU/monitor w/ printer ••• Commercial heavy-duty sewing machine ••• Commercial washing machine and dryer⁵

Storage Requirements:

50 lineal feet of full-height storage w/ clothing rod and cubbies ••• computer supplies ••• check-in/check-out forms ••• General office supplies ••• Misc. tools for repairs ••• Misc. supplies for repairs (shoelaces, rivets, glue, etc.)

Adjacency:

Fitting Area ••• Laundry (easy-access)

Critical Issues:

Sanitization ••• Special requirements of sponsors?

⁵Per D.O.C. – 6/15/2004

7.0 Rooms and Spaces

7.3.7.2 Fitting Area

150 sf

Assumptions:

Privacy will not be needed for trying on gear⁵

Function:

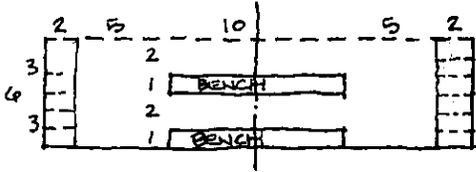
Trying on gear (shoes, safety glasses, hats, etc.)

Furnishings/Equipment:

Benches

Adjacency:

Gear Room



7.3.7.3 Storage

400 sf

Function:

General storage (actual gear is stored in the gear room)

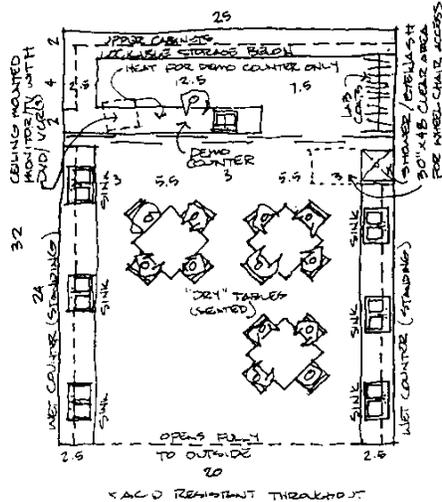
⁵Per D.O.C. – 6/15/2004

7.0 Rooms and Spaces

7.3.8 Classrooms/Labs

7.3.8.1 Indoor Flex-Lab (4 ea.)

4 ea. @ 800 sf



Assumptions:

Labs will be identical . . . Lab use will be defined by its resource materials, i.e. botany lab would have herbarium and other plant specimens, microscopes, appropriate reading/computer materials, etc.; geology lab would have mineral specimens, black lights, geologist's magnifying lupes, geologist hammers, appropriate reading/computer materials, etc.

Function:

Teaching . . . Demonstrating . . . Experimenting:
Hypothesizing, Observing, Recording, Concluding

People:

12 Students (maximum)
1 Instructor
1 Teacher/Chaperone

Furnishings/Equipment:

(3) 48" X 48", 4-person lab stations w/ chemical resistant surface @ 30" seated height, each with (4) chairs³ . . . 46' wet counters w/ (6) double-compartment sinks (w/ sand traps) and gas⁵ (with master shut-off), standing height³ . . . (6) stools . . . Eye-wash shower . . . Fire extinguisher . . . First-Aid station . . . Large whiteboard . . . Eyewash/shower⁵

Storage Requirements:

Lockable 8' X 25' space w/ work counter, cabinets above and below, and double-compartment sink

Adjacency:

Central storage and prep room . . . 'Green Machine' (easy access)

Sensory:

Connection to outside

Feeling/Emotion:

Real lab

Critical Issues:

Safety . . . Clear separation between wet and dry functions within lab . . . Power at table locations for computers³

³Per D.O.C. – 5/17/2004

⁵Per D.O.C. – 6/15/2004

7.0 Rooms and Spaces

7.3.8.2 Outdoor Flex-Lab (2 ea.)

n/a sf

Assumptions:

Certain experiments make more sense to perform in an outdoor environment, i.e. streamtable, geology, etc. This lab will provide only shade, water, and power. . . . All equipment and resource material will be stored in separate indoor prep room.

Function:

Teaching . . . Demonstrating . . . Experimenting: Hypothesizing, Observing, Recording, Concluding

People:

12 Students (maximum)
1 Instructor
1 Teacher/Chaperone

Furnishings/Equipment:

Shade . . . Water source . . . Power . . . Lockable outside storage (similar to a waiter station)³

Adjacency:

Central storage and prep room (convenient to)

Feeling/Emotion:

Performing the experiment where the associated natural phenomena is occurring

Critical Issues:

Safety

7.3.8.3 Central Storage and Prep Room

250 sf

Function:

Prepare materials for Outdoor Flex-Labs . . . Note: Indoor Flex-Labs each have their own storage/prep area

People:

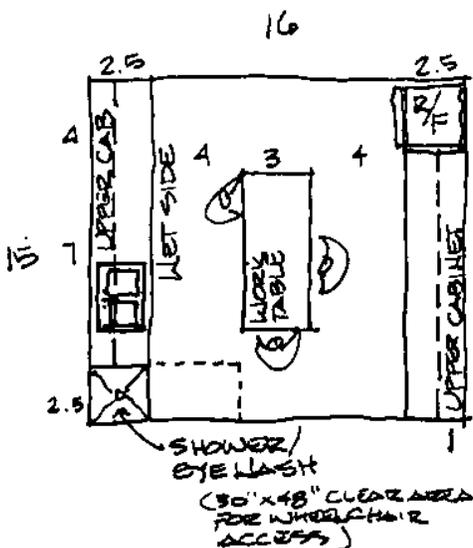
2-3 Persons working simultaneously

Furnishings/Equipment:

30 lineal feet of counter w/ sink . . . Storage below and shelves above counter . . . 3' X 7' Central worktable . . . CPU and monitor . . . Printer . . . Refrigerator/Freezer⁵ . . . Eyewash/shower⁵

Adjacency:

Outdoor Flex-Labs(2) (convenient to)



³Per D.O.C. – 5/17/2004

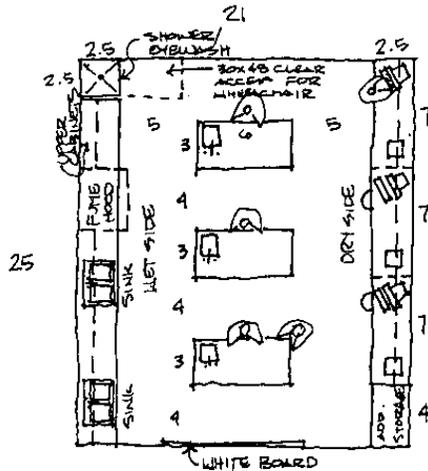
⁵Per D.O.C. – 6/15/2004

7.0 Rooms and Spaces

7.3.9 Research Area

7.3.9.1 Research Lab

530 sf



Assumptions:

Lab would accommodate 2 different researchers at any one time

Function:

Studies associated with developing programming linked to the outdoor environmental themes of ecological monitoring and restoration . . . Continuing research by professional researchers (hydrologists, botanists, geologists, ecologists, biologists, etc.)

People:

3 Persons

Furnishings/Equipment:

(3) 36" X 72", lab stations each with: chemical resistant surface, sink w/ sand traps, and vacuum/compressed air turrets (table to be at @ standing height) (all sinks to have sand traps) . . . 24' wetside counter, standing height, w/ (2) double-compartment sinks w/ sand traps, each with tap water faucet and deionized water faucet (all sinks to have sandtraps) . . . Reverse osmosis system (to supply the deionized water) . . . Lab rack . . . Fume hood . . . 24' dryside counter for computers, microscopes, etc., seated height . . . (3) stools . . . Eye-wash shower . . . Fire extinguisher . . . First-Aid station . . . (3) Large whiteboard . . . Eyewash/shower⁵

Storage Requirements:

Lockable storage below wetside and dryside counters . . . Note: chemical/hazardous material storage to occur in adjacent Lab Storage

Adjacency:

Lab Storage . . . Library

Sensory:

Connection to outside

Feeling/Emotion:

Real lab

Critical Issues:

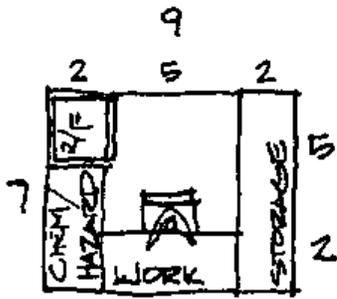
Safety

⁵Per D.O.C. – 6/15/2004

7.0 Rooms and Spaces

7.3.9.2 Lab Storage

70 sf



Assumptions:

Researchers will bring their own chemicals and remove them when their studies are completed

Function:

Chemical/hazardous material storage in support of Research Lab ••• Storage of equipment/materials associated with the Research Lab (microscopes, etc.) ••• Refrigerator/Freezer⁵

Critical Issues:

Safety ••• Code requirements

7.3.9.3 Library

300 sf

Assumptions:

Paul Buck to provide information

Function:

Research and resource materials ••• Accessible to both Researchers and Instructors

⁵Per D.O.C. – 6/15/2004

7.0 Rooms and Spaces

7.3.10 Student/Teacher Restrooms

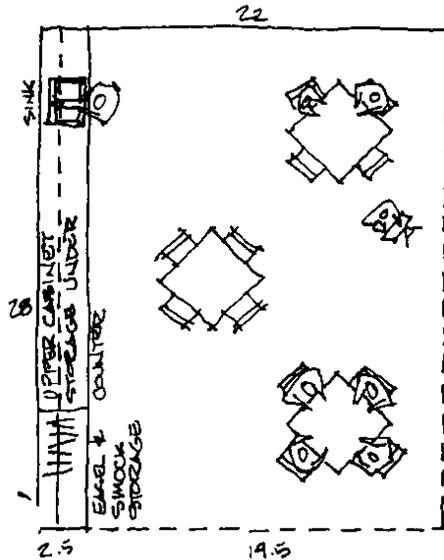
7.3.10.1 Student/Teacher Restrooms n/a sf
(Assumed will utilize Central Restrooms)

7.0 Rooms and Spaces

7.3.11 Art Room

7.3.11.1 Art Room

600 sf



Function:

Sketching/Drawing ••• Painting ••• Sculpting ••• Sand Art
••• Collecting/using plants ••• Making videos of experiences/ experiments⁹

People:

12 Students (maximum)
1 Instructor
1 Teacher/Chaperone

Furnishings/Equipment:

Easels ••• Tables w/ chairs ••• Pillows ••• Double-compartment sink ••• Computer station with digital video camera⁹ ••• TV with VCR/DVD⁹ ••• Note: need to better define activities which will occur in order to verify appropriate equipment, possibly get input from CCSD⁵

Storage Requirements:

Art supplies

Adjacency:

Natural Area

Sensory:

Strong visual connection to outside ••• Views (different kinds) ••• Consider unusual shape, etc.⁵

Feeling/Emotion:

Inspirational

Critical Issues:

Natural lighting ••• Easily cleaned and maintained

⁵Per D.O.C. – 6/15/2004

⁹Per BLM – 7/9/2004

7.0 Rooms and Spaces

7.3.12 Greenhouse

7.3.12.1 Greenhouse with Herbarium

1020 sf

Function:

Growing plants . . . Teaching about plants . . .
Experimenting with plants . . . Focus on native plant populations . . . Propagate plants for revegetation of disturbed areas . . . Grow/harvest native plants for food . . . Possibly incorporate plant material that will be used in waste water treatment, possibly riparian plants from the site⁵

Planted Areas:

'Non-traditional' desert garden areas at multiple locations⁹

People:

3 Master Gardeners
10-12 Students (maximum)
1 Instructor
1 Teacher/Chaperone

Furnishings/Equipment:

'Greenhouse system' (i.e. structure with transparent/translucent roof) . . . (3) 3' x 8' Tables, ea. w/ water supply and drainable @ standing height . . . 8' X 8' Large plant area w/ floor drain . . . 32' X 36" Counter/tables with misters above, drainable . . . 48' X 3' Counter/tables, chemical/moisture resistant @ standing height . . . (17) Stools . . . 4' X 10' Demonstration table, chemical/moisture resistant . . . Watering system (hoses/fittings around walls, hanging from ceiling) . . . Herbarium . . . Exhaust fans . . . Air washer

Storage Requirements:

Pegboard tool storage along wall . . . Lockable storage below 32' counter/tables

Sensory:

Daylighting . . . Ventilation

Adjacency:

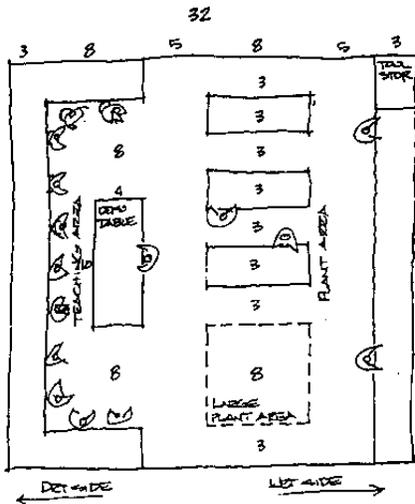
Wastewater⁵

Critical Issues:

Donated 18' to 24' (standardized) greenhouse building, contact the company to see if they are interested in experimenting with customizing the greenhouse . . . Wastewater management . . . Grey-water reuse . . . Link to water capturing . . . Building orientation (solar) . . . Greenhouse effect: heat in winter, but overheating in the summer

⁵Per D.O.C. – 6/15/2004

⁹Per BLM – 7/9/2004



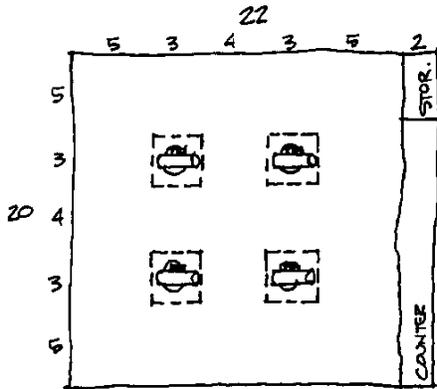
7.0 Rooms and Spaces

7.3.13 Observatory

7.3.13.1 Observatory*

440 sf

* In order to mitigate impact upon Oliver Ranch, the possibility of relocating the public portion of the observatory described in SNPLMA Round 4 to the Visitor Center has been discussed. The suitability of this concept was confirmed with Dr. Dale Ethridge. Additionally, the availability of a meeting room at the Visitor Center eliminates the need for construction of a new one at Oliver Ranch (if the public portion of the Observatory is moved to the Visitor Center), thus freeing the allocated funds to be utilized on other aspects of the project. *This concept remains to be reviewed by Visitor Center Personnel/BLM for concurrence.*



Function:

Night sky viewing with telescopes

People:

12 kids
1 instructor
3 teachers/chaperones

Furnishings/Equipment:

Roll-off or operable roof ••• (4) 8" to 10" telescopes (1 per 3 students) ••• 4' Storage cabinet

Storage Requirements:

lenses and other misc. telescope equipment ••• star charts, etc.

Sensory:

Light pollution shielding ••• View up

Feeling/Emotion:

Awe/wonderment⁹

Critical Issues:

Isolate from light pollution of adjacent buildings •••
Telescope area must reach ambient temperature quickly

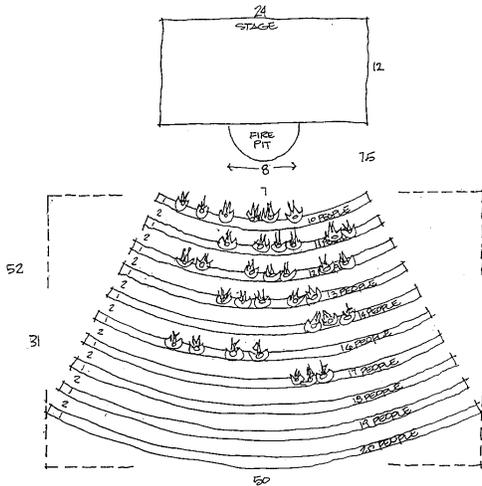
⁹Per BLM – 7/9/2004

7.0 Rooms and Spaces

7.3.14 Outdoor Areas

7.3.14.1 Amphitheater/Friendship Circle* **2600 sf**

**Do we actually need a space for the whole school to meet in one outdoor space? Possibly use this funding for (3) outdoor Friendship Circle's adjacent to Gathering Spaces⁵*



Function:

Large outdoor gathering space for: orientation, education, singing the school song, entertainment, awards ceremonies, cultural reenactments

People:

±135 people (105 kids ••• 9 Teachers/Chaperones ••• 10 Instructors ••• 11 Staff/Guests)

Furnishings/Equipment:

12' X 24' Stage ••• Firepit ••• 338' X 12' bench-type seating ••• Guardrails/handrails (@ raised seating/steps) ••
• Lighting (nighttime activities) ••• Power

Storage Requirements:

P/A system

Adjacency:

Friendship circle???

Sensory:

Views ••• Shade???

Feeling/Emotion:

Rustic

Critical Issues:

Terrain to guide the design ••• Merge with friendship circle???

⁵Per D.O.C. – 6/15/2004

7.0 Rooms and Spaces

7.3.14.2 Trails⁴

8 miles

Assumptions:

All trails between facility areas will be ADA accessible . . .
Trails to other destinations should be accessible unless there is a very significant reason for them not to be

Function:

Nature hikes . . . Link different components of the facility, i.e. Dining Room, Student/Teacher/Chaperone Housing, Env. Teaching Shade Structures, etc.

Furnishings/Equipment:

Guardrails (some areas) . . . Hardened surface . . .
Interpretive signage . . . Seating, bench type . . . Fencing (some areas)

Sensory:

Outdoor . . . Various experiences

Critical Issues:

ADA accessibility

⁴*For planning purposes only: pending SNPLMA Round 5 funding*

7.0 Rooms and Spaces

7.3.14.3 Env. Teaching Shade Structures (12 ea.)⁴ n/a sf

Assumptions:

Visits will be by Teaching Unit i.e. 10-12 students • • • Will not always be a 'traditional structure,' but may be a teaching place

Function:

Observing • • • Relaxing (breaks between hikes) Teaching

People:

10-12 Students (maximum)
1 Instructor
1 Teacher/Chaperone

Furnishings/Equipment:

Shade structure • • • Seating, bench-type • • • Other equipment for teaching: walk-thru lysimeter, weather station, monitoring plots, etc. • • •

Storage Requirements:

Storage per teaching venue

Adjacency:

Hardened Trail(s)

Sensory:

Shade

Feeling/Emotion:

Outside

Critical Issues:

Focus @ each shade structure (1 at the topo/mapping area, 1 or more at the spring(s), 1 at the weather station, 2 for the outdoor labs, 1 at the walk-thru lysimeter, 1 or more at the monitoring plots, 1 at the water supply/constructed wetlands, 1 at stream table, 1 for solar cooking, 1 for mine)???

7.3.14.4 Outdoor Play Area n/a sf

Function:

Playing

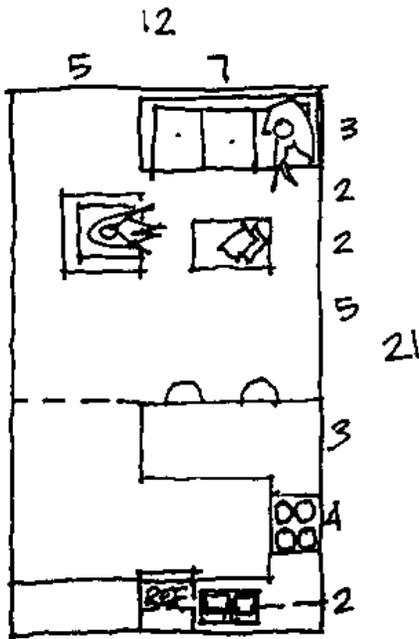
Furnishings/Equipment:

Desert Volleyball • • • Burro shoes (horseshoes) • • • Desert Croquet, etc.

⁴For planning purposes only: pending SNPLMA Round 5 funding

7.0 Rooms and Spaces

7.3.15 Instructor Housing (maximum of 10 ea.)¹⁰



Assumptions:

(8) units are not ADA accessible, (2) units are ADA accessible . . . If ADA accessibility is a requirement for all Instructor housing, additional space will be needed

7.3.15.1 Public Space **150 sf (same with ADA)**

Function:

Relaxing . . . Socializing with small groups . . . Place of reflection

People:

1-4 Persons (maximum)

Furnishings/Equipment:

Couch . . . Chair . . . Coffee table . . . (2) Barstools (share with Kitchen at eating space) . . . Phone

Adjacency:

Kitchen

Sensory:

Visual connection to outside . . . Direct connection to the outside

Feeling/Emotion:

Comfortable but not extravagant

7.3.15.2 Kitchenette **110 sf (130 sf with ADA)**

Function:

Cooking of small meals on weekends . . . Making coffee

Furnishings/Equipment:

8' X 36" Dining/prep counter . . . 8' x 24" counter w/ double compartment sink . . . Refrigerator, undercounter but large enough for separate freezing compartment . . . Microwave . . . Stove, 2-burner . . . Recycling/trash receptacle

Storage Requirements:

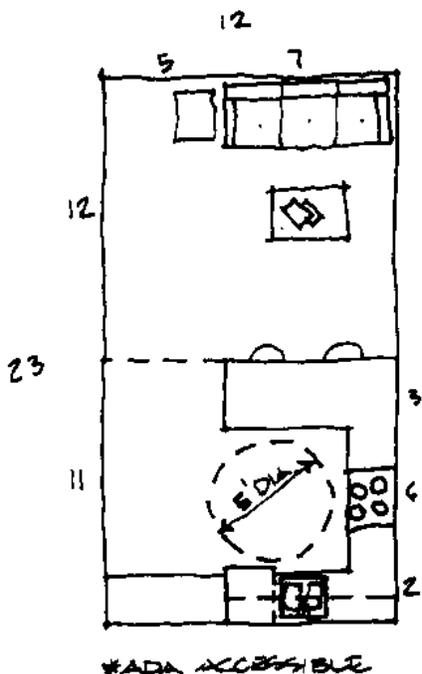
Storage above and below counter for: dishes, utensils, washcloths, pots and pans, cleaning supplies, dry goods, etc.

Adjacency:

Public Space

Critical Issues:

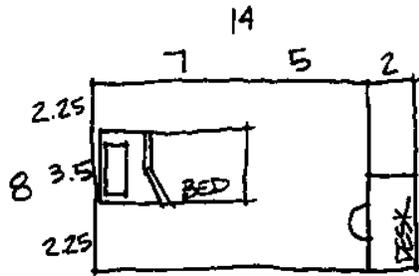
Efficiency . . . Wastewater management



¹⁰For planning purposes only: dependent upon business model

7.0 Rooms and Spaces

7.3.15.3 Sleeping Space 120 sf (140 sf with ADA)



Furnishings/Equipment:
Twin bed ••• Night stand ••• 3' Dresser

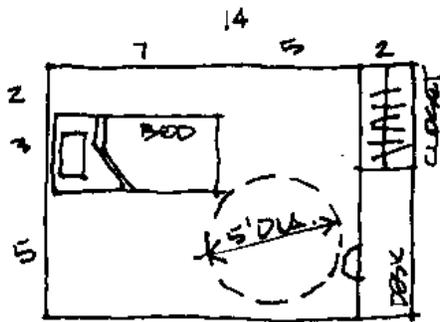
Storage Requirements:
Closet w/shelf and hanging bar – 6' lineal

Adjacency:
Public space ••• Restroom

Sensory:
Visual connection to outside

Feeling/Emotion:
Private

Critical Issues:



7.3.15.4 Bathroom 50 sf (70 sf with ADA)

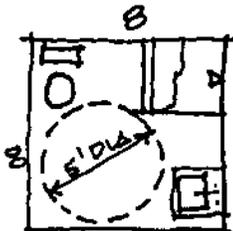
Furnishings/Equipment:
Lavatory ••• Toilet ••• Shower ••• Mirror/medicine cabinet

Storage Requirements:
Bathroom supplies ••• Personal hygiene supplies

Adjacency:
Sleeping space

Critical Issues:
Wastewater management

*ADA ACCESSIBLE



7.3.15.5 Storage 20 sf

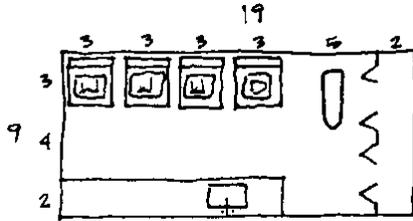
Function:
General storage for occupant (vacuum cleaner, brooms, personal possessions) ••• Small water heater

7.0 Rooms and Spaces

7.3.16 Laundry

7.3.16.1 Laundry

200 sf



Assumptions:

Laundry is for instructor/caretaker use only ••• If a student has an accident the facilities at the gear room will be used

Function:

Multi-housing scale laundry washing/drying/folding clothing

Furnishings/Equipment:

(3) Low-water use washing machines ••• (1) Low-energy use dryer ••• 24" X 12' counter @ standing height w/ sink ••• (1) 3' X 7' Folding table w/storage below for laundry detergent for incidental uses

Adjacency:

Easily-accessed by appropriate personnel ••• Exterior Drying area (when appropriate)

Critical Issues:

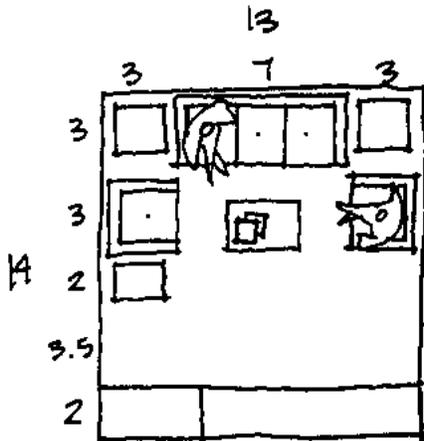
Low-water/energy use ••• Check Health Department Requirements ••• Wastewater harvesting

7.0 Rooms and Spaces

7.3.17 Caretaker Housing

7.3.17.1 Living Room

200 sf



Function:

Relaxing . . . Socializing with small groups . . . Place of reflection . . . Watching TV/movies

People:

1-4 Persons (maximum)

Furnishings/Equipment:

Couch . . . (2) Chairs . . . Coffee table . . . (2) Endtables . . . Entertainment center w/ TV, VCR, DVD, Stereo . . . Hose bib (outside entry) . . . Phone

Storage Requirements:

Small coat closet with resilient floor adjacent to entry for coats/dirty boots

Adjacency:

Kitchen . . . Direct connection to the outside

Sensory:

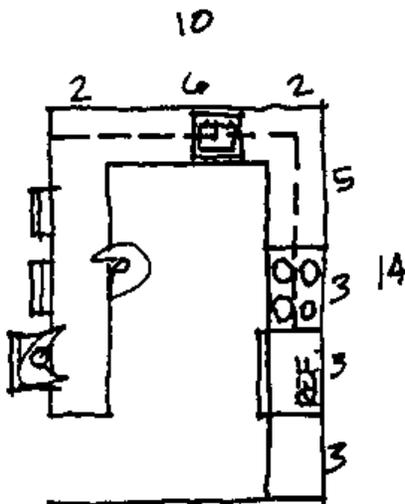
Visual connection to outside

Feeling/Emotion:

Comfortable but not extravagant

7.3.17.2 Kitchen

140 sf



Function:

Furnishings/Equipment:

27' x 24" Counter w/ double compartment sink . . . Oven/range . . . Hood . . . Refrigerator/Freezer . . . Dishwasher . . . Microwave

Storage Requirements:

Storage above and below counter for: dishes, utensils, washcloths, pots and pans, cleaning supplies, dry goods, etc. . . . Broom closet: vacuum cleaner, brooms, etc.

Adjacency:

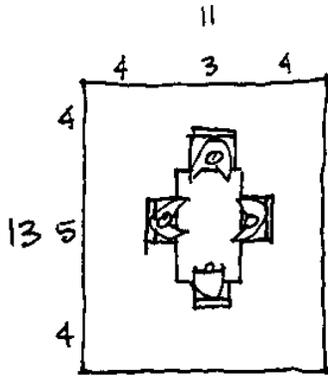
Living Room . . . Dining Room

Critical Issues:

Wastewater management . . . UFAS guidelines for accessible kitchens

⁹Per BLM – 7/9/2004

7.0 Rooms and Spaces



7.3.17.3 Dining **150 sf**

Furnishings/Equipment:
 (1) 3' x 5' Dining table ••• (4) Chairs

Adjacency:
 Kitchen

7.3.17.4 Bedrooms (2 ea.) **160 sf**

Furnishings/Equipment:
 King bed or (2) Twins ••• (2) Night stands ••• 4' Dresser ••
 • Phone

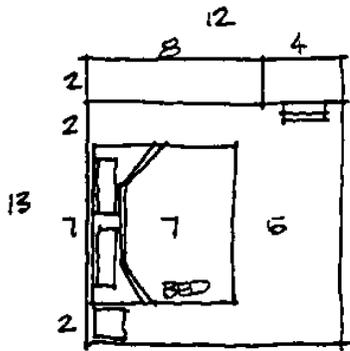
Storage Requirements:
 Closet w/shelf and hanging bar – 8' lineal

Adjacency:
 Restroom

Sensory:
 Visual connection to outside

Feeling/Emotion:
 Private

Critical Issues:



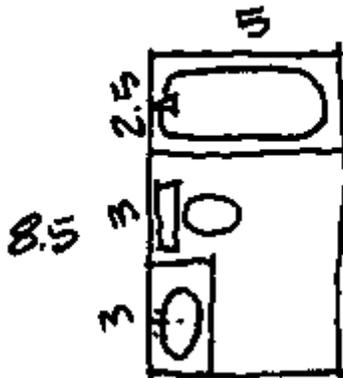
7.3.17.5 Bathroom **50 sf**

Furnishings/Equipment:
 (2) Lavatories ••• Toilet ••• Shower ••• Mirror/medicine cabinet

Storage Requirements:
 Bathroom supplies ••• Personal hygiene supplies

Adjacency:
 Bedrooms

Critical Issues:
 Wastewater management



7.3.17.6 Storage/Mechanical **40 sf**

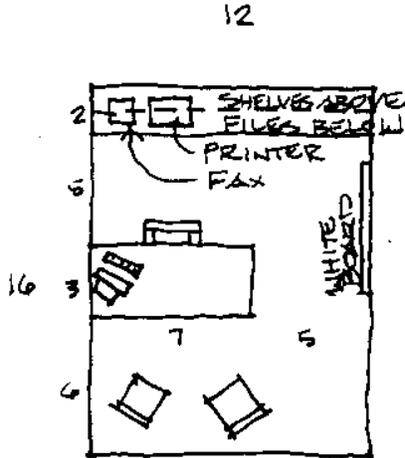
Function:
 General storage for occupant (personal tools, etc.) •••
 Water heater

7.0 Rooms and Spaces

7.3.18 Maintenance and Support

7.3.18.1 Office

200 sf



Function:

Coordinate/schedule maintenance/service of facility . . . Track maintenance/service of facility . . . Phone calls . . . Meet with service people . . . Storage of Maintenance manuals/records . . . Houses the: EMCS for HVAC control/monitoring system, fire protection monitoring, security monitoring, etc.

People:

2 Visitors

Furnishings/Equipment:

(1) 3' X 7' Desk w/ chair . . . CPU and monitor w/ printer . . . Phone . . . Fax . . . (2) Chairs . . . File cabinet . . . Bookshelf . . . Large whiteboard . . . EMCS . . . Fire protection monitoring panel . . . Security monitoring panel

Storage Requirements:

Files . . . Binders . . . Maintenance manuals

Adjacency:

Maintenance Shop

Sensory:

Mechanically heated/cooled (break from heat of summer/cold of winter)

Critical Issues:

Durable materials

7.3.18.2 Restroom

40 sf

Furnishings/Equipment:

Lavatory . . . Toilet

7.0 Rooms and Spaces

7.3.18.3 Maintenance Shop

650 sf

Assumptions:

Maintenance Shop will not be used in conjunction with the shop at the Wild Horse and Burro Facility as they may be run by separate operators

Function:

Equipment/tool storage and repair . . . Storage of maintenance supplies and materials . . . Repair and maintenance of equipment

Furnishings/Equipment:

3' X 7' Worktable w/ vice . . . 18' X 2' Work counter w/ lockable storage (compressor, welder, portable generator) below . . . (2) stools . . . Wheelbarrow . . . Shop sink . . . Misc. hand tools (drills, grinder, shovels, rakes, etc.) . . . Hose Bib(s) . . . Hazardous material storage (oil, vehicle fluids, paints) . . . Ladder, extension and A-frame . . . Large pegboard . . . (2) Operable walls (large barn doors) (1) at each end for drive-thru with trailer . . . Phone

Storage Requirements:

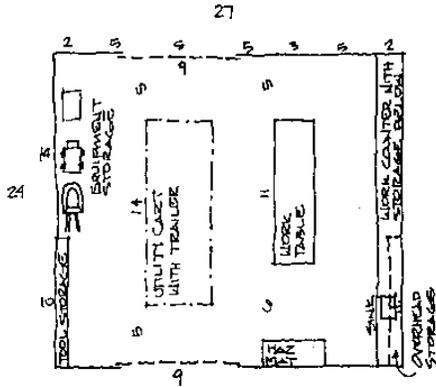
Lockable storage below work counter . . . Storage below worktable . . . (1) ATV/Maintenance cart (with trailer)

Adjacency:

Maintenance Office

Critical Issues:

Sufficient Power . . . Durable materials



7.3.18.4 Custodial Supply

50 sf

Function:

Central storage of custodial supplies for dispersement to Janitor's Closets

Furnishings/Equipment:

6' X 24" deep shelves . . . 6' x 12" deep shelves

7.0 Rooms and Spaces

7.3.18.5 Electrical Room

50 sf

Function:

Houses incoming electrical service and service to different areas within facility

Furnishings/Equipment:

Main breaker panel • • • Sub-panels for individual areas • • •
Switch-gear • • • Front-end surge suppression system • • •
Additional electrical requirements as needed if Round 5
funding is approved for photovoltaic system (inverter, power
conditioner, etc.)⁵

Critical Issues:

Safety • • • Fire

⁵Per D.O.C. – 6/15/2004

7.0 Rooms and Spaces

7.3.18a Water Supply⁹

7.3.18a.1 Water Supply allow 400 sf*

**This is a 'wild' guess and is intended as a placeholder*

Assumptions:

The size of this space will be determined by the size and type of the system (it is currently assumed to be a well) • • • It is critical to the mission of the facility that in addition to the actual space for the system, an area be provided for the students to visit and learn

Function:

This is to be a 'transparent' function, to be interpreted and woven into the curriculum and experience • • • Water supply and treatment • • • Teaching about water/aquifers/hydrology • • • Demonstrating

People:

10-12 Students (maximum)
1 Instructor
1 Teacher/Chaperone

Furnishings/Equipment:

Enclosure for supply system components (booster pump, tank(s), control panel, etc.) • • • Power/storage (for teaching/demonstrating) • • • (1) 3' X 8' table for demonstrations, etc. • • • Visual educational displays (metering, tanks, etc.) • • • Floor Drain

Critical Issues:

Isolation/security of system components from students • • •
Monitoring of system • • • Safety of students (electrocution)

⁹Per BLM – 7/9/2004

7.0 Rooms and Spaces

7.3.19 Wastewater

7.3.19.1 Wastewater

allow 800 sf*

**This is a 'wild' guess and is intended as a placeholder*

Assumptions:

Primary treatment will occur in buried (probably septic) tanks
••• Secondary treatment will be by custom-designed natural treatment system using living organisms, etc. (based on concept of 'Living Machine') ••• Integration with the Greenhouse (the greenhouse could be a source of plant material for the treatment system, and the system can be a water source for the greenhouse) is a key factor in promoting the sustainability mission of the facility

Function:

Treating septic tank effluent with a goal of reclamation for reuse (it is possible that if delivered below grade for Irrigation or use in flush toilets, graywater does not need to be treated) ••• Education about cycle of water and environment ••• Experimenting ••• Incorporation of plant material from the greenhouse in the custom-designed treatment system

Furnishings/Equipment:

Combination of indoor and outdoor spaces ••• Indoor space to include a small laboratory with a workbench and file storage (for maintenance needs)

Adjacency:

Greenhouse

Critical Issues:

Sanitation ••• Odors ••• Ease of operation/maintainance

7.0 Rooms and Spaces

⁹Per BLM – 7/9/2004

7.0 Rooms and Spaces

7.3.19a Recycling/Trash

7.3.19a.1 Recycling/Trash⁹ 800 sf*

*800 sf is for the primary recycling/trash storage until pick-up. Other recycling/trash areas will be placed throughout campus at appropriate locations.

Assumptions:

Multiple dedicated collection points for recycling/trash are critical to the mission of this project from a sustainability standpoint • • • If a pickup with a waste/recycling contractor can not be arranged, other alternatives, including partnership with the Clark County School District, need to be explored

Function:

Recycling/trash sorting over entire site

Furnishings/Equipment:

(5) 6-yard recycling dumpsters (separate dumpsters for metal, aluminum, glass, paper, plastics) • • • (1) Commercial restaurant type trash compactor/dumpster for non-recyclable waste

Adjacency:

Primary Recycling/Trash should be adjacent to a service road • • • Additional Recycling/Trash collection points shall be within/adjacent to appropriate areas throughout the facility

Sensory:

Visible/ "exhibit-able" • • • These spaces are critical from a sustainability standpoint • • • They should not be "hidden" because of a desire for integrating sustainability messages into the design.

Critical Issues:

Smell, sustainability, potential wind blown refuse

⁹Per BLM – 7/9/2004

7.0 Rooms and Spaces

7.3.20 Parking

7.3.20.1 Parking

n/a sf

Assumptions:

Parking provisions will be minimized to meet identified needs and will be designed to avoid disruption of natural drainage and hydrological systems and patterns and to mitigate undesirable microclimate effects⁹.

⁹Per BLM – 7/9/2004

Narrative:

Guest parking for large events will be accommodated at the Visitor's Center with guests arriving at Oliver Ranch by bus; for smaller events of less than a bus load on site parking will be provided in several small lots. It is critical that these parking spaces are visible, and somewhat controlled by the Reception area.

20 spaces

2 HC spaces

(7) Vans, funded by Round 4 of SNPLMA, will be located on site.

7 spaces

Each class may arrive by a different bus, and depending upon the operation/management of the facility and CCSD, the buses may need to park for an extended period of time. Bus spaces will also be used during large events.

3 bus spaces

Administrative staffing, and subsequent required parking, varies dependent upon business plan. Currently, 7 spaces will be necessary to staff the facility. It has been requested that these spaces be shaded.

7 spaces

1 HC space

Kitchen staffing, and subsequent required parking, varies dependent upon business plan. Currently, 6 spaces will be necessary to staff the facility according to assumptions set forth in the Kitchen section.

6 spaces

A maximum of 10 Instructor Housing units may be built, 2 of which are ADA accessible.

10 spaces

2 HC spaces

An on-site caretaker will require parking for a maximum of 2 vehicles.

2 spaces

Service vehicles will park by the maintenance area.

2 spaces