

2006

Learning about the Natural World through an Inquiry-based Residential Experience

Red Rock Desert Learning Center

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PUBLIC LANDS

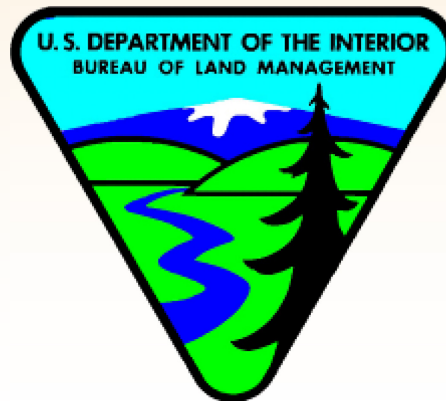


Red Rock Desert Learning Center (RRDLC):

*Learning about the Natural World
through an Inquiry-based
Residential Experience*

Mission Statement

“The mission of the Red Rock Desert Learning Center is to instill stewardship and respect by increasing knowledge and understanding of the Mojave Desert ecosystems and cultures through a unique experiential discovery program.”



Southern Nevada Public Lands Management Act (SNPLMA)

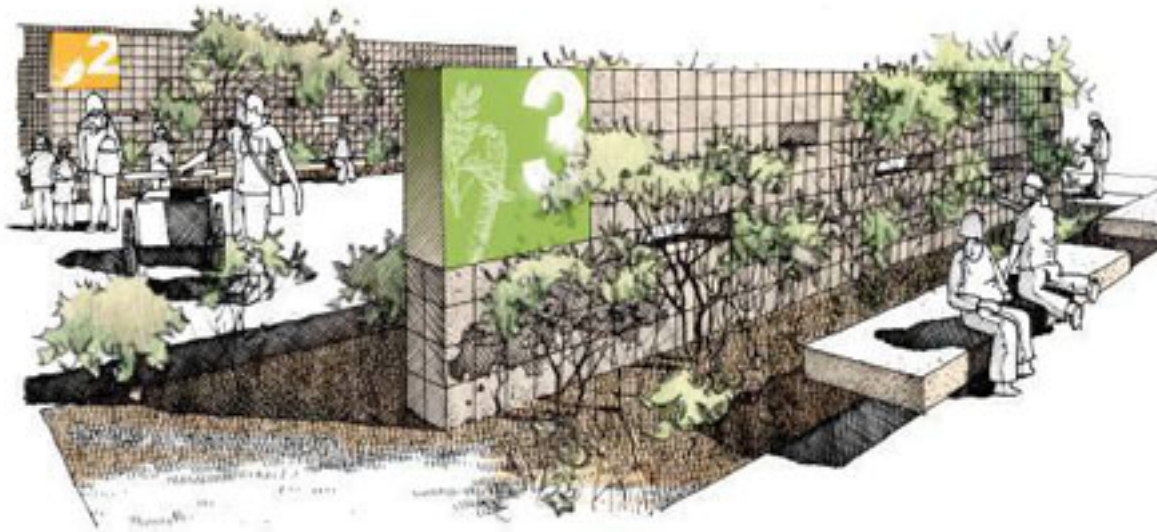
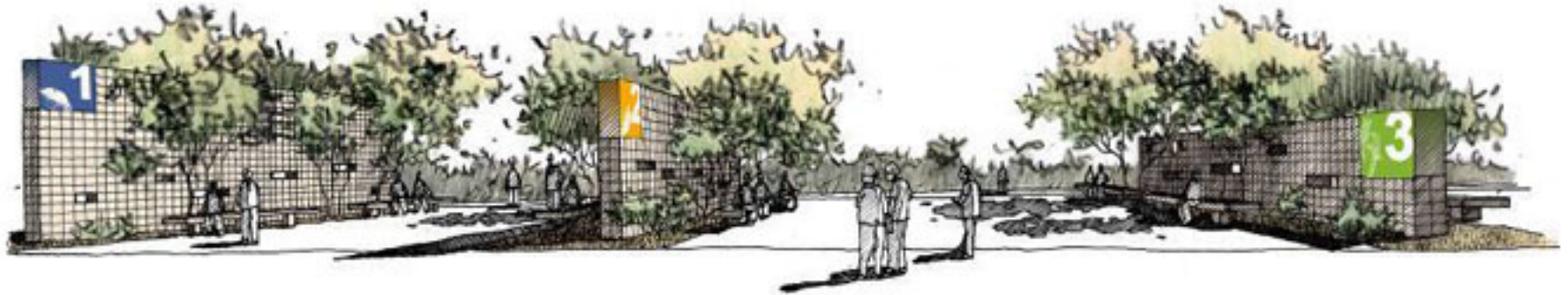
- Overview of SNPLMA
- Explanation of funding
 - Round 4 funding
 - Round 5 funding

Overview

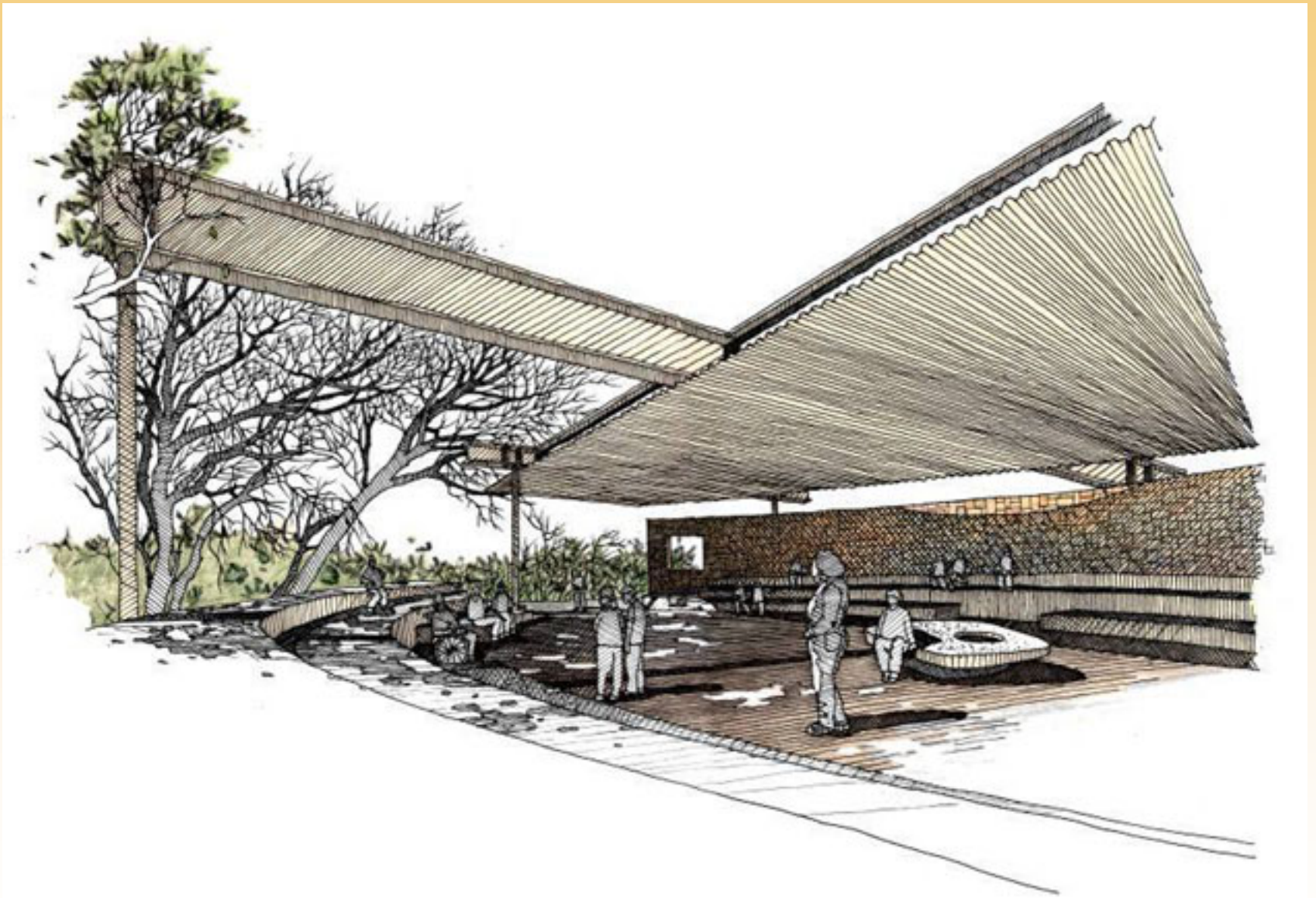
- Oliver Ranch parcel acquired by the Bureau of Land Management (1993)
- Feasibility study for the development of an environmental education center (2000)
- Creation of Oliver Ranch Science School Complex including:
 - *A residential science school*
 - *A field research station*
 - *An astronomical observatory*
 - *A Wild Horse and Burro (WHB) facility*
 - *State-of-the-art sustainable design concepts*



Campus Site Plan



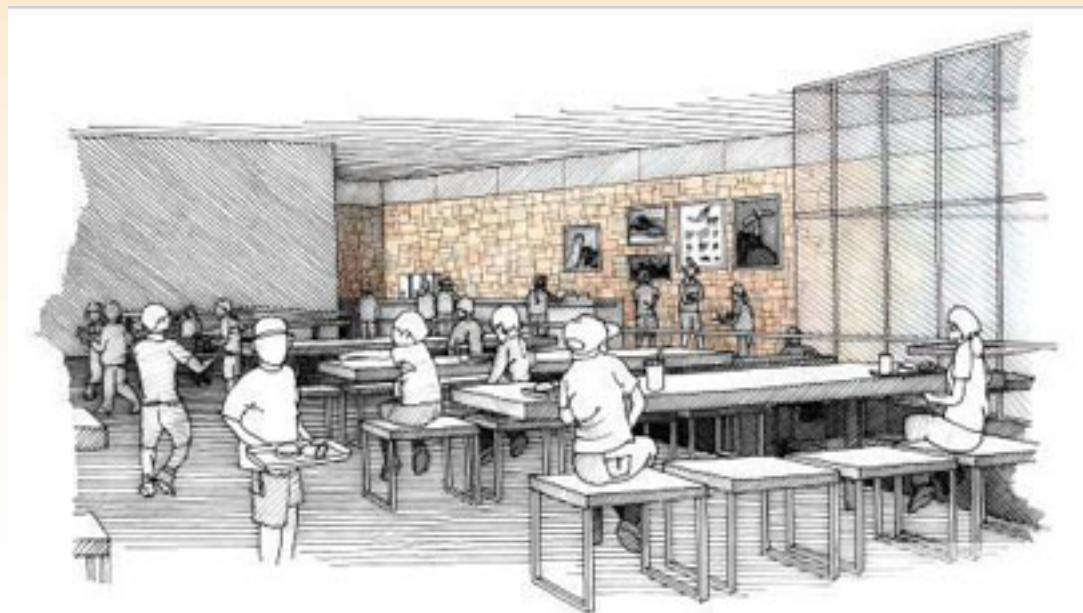
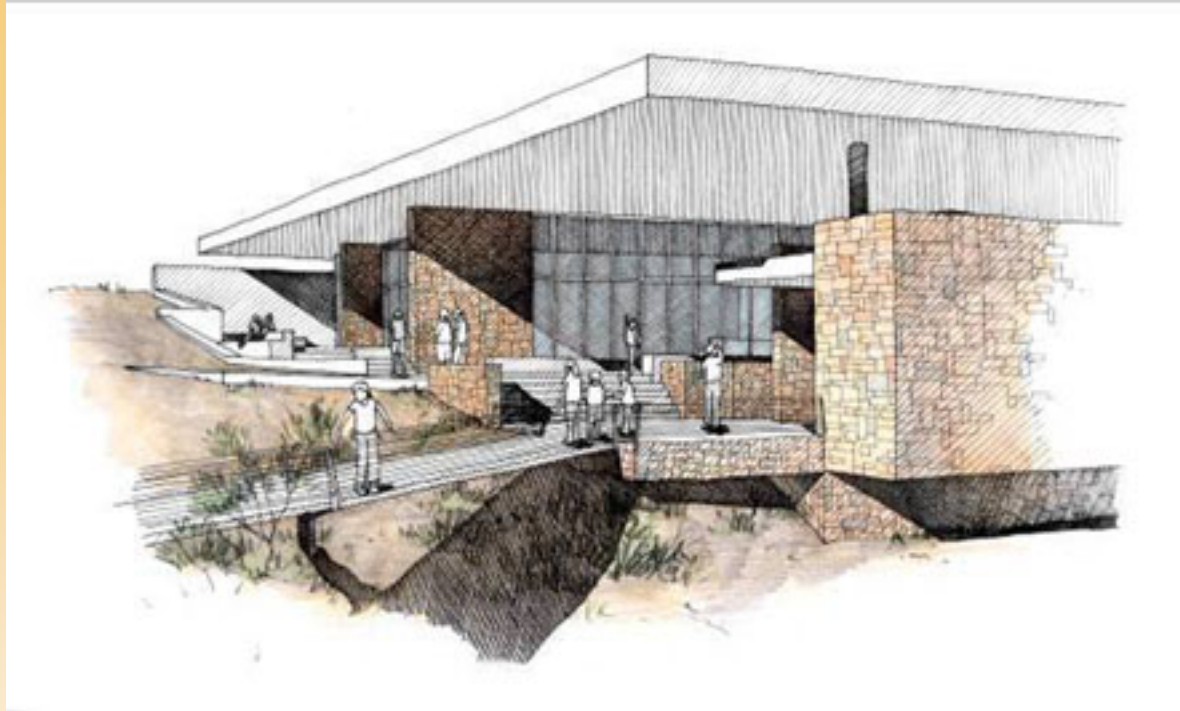
Bus Drop-off



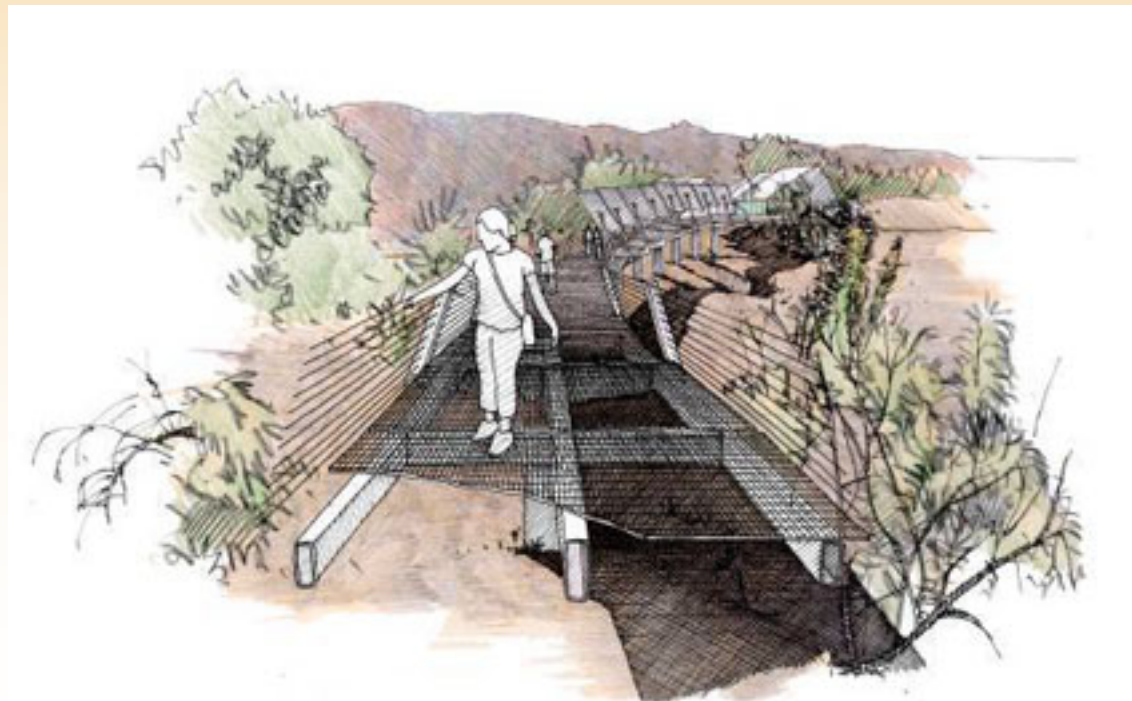
Friendship Circle



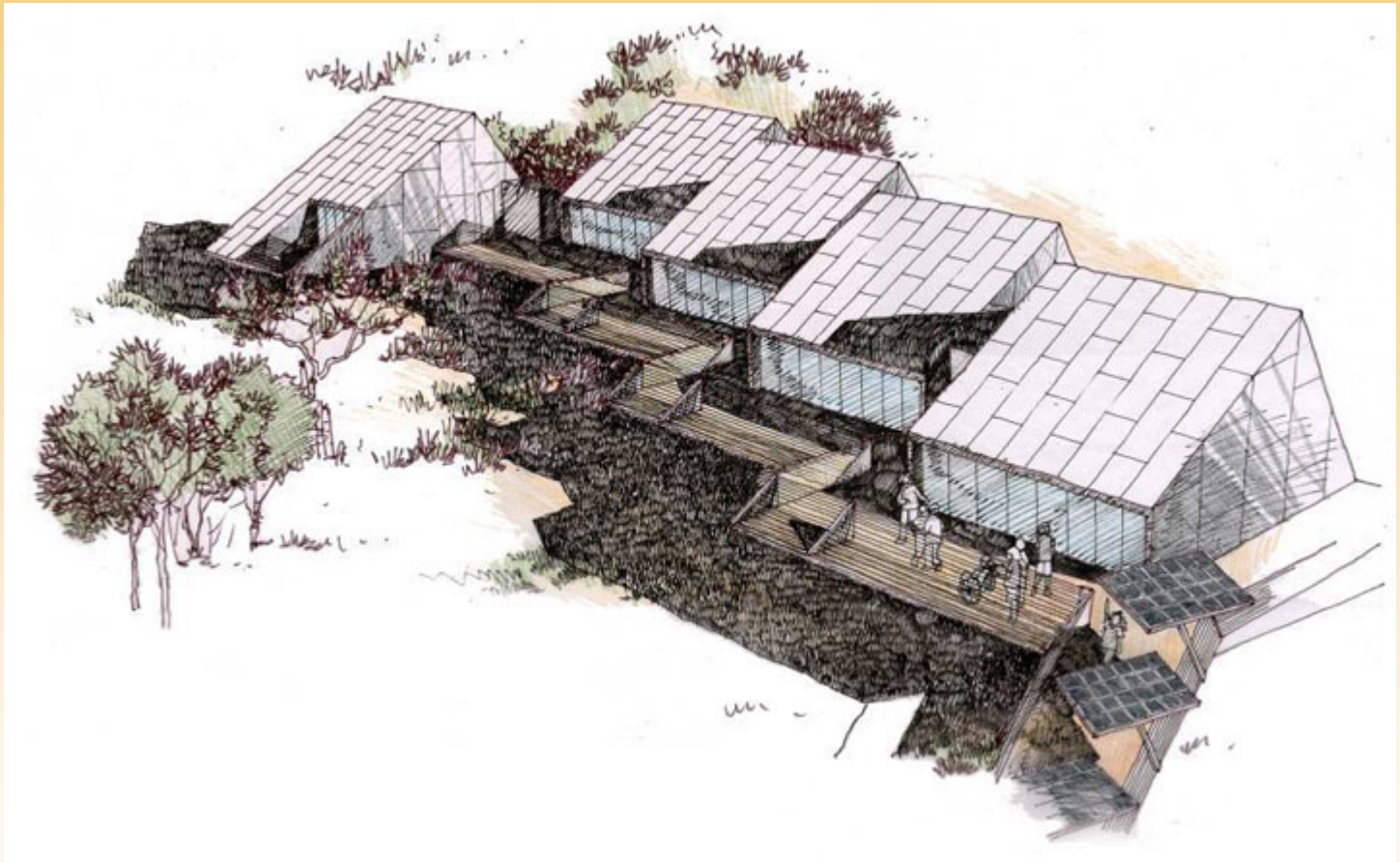
Dormitory

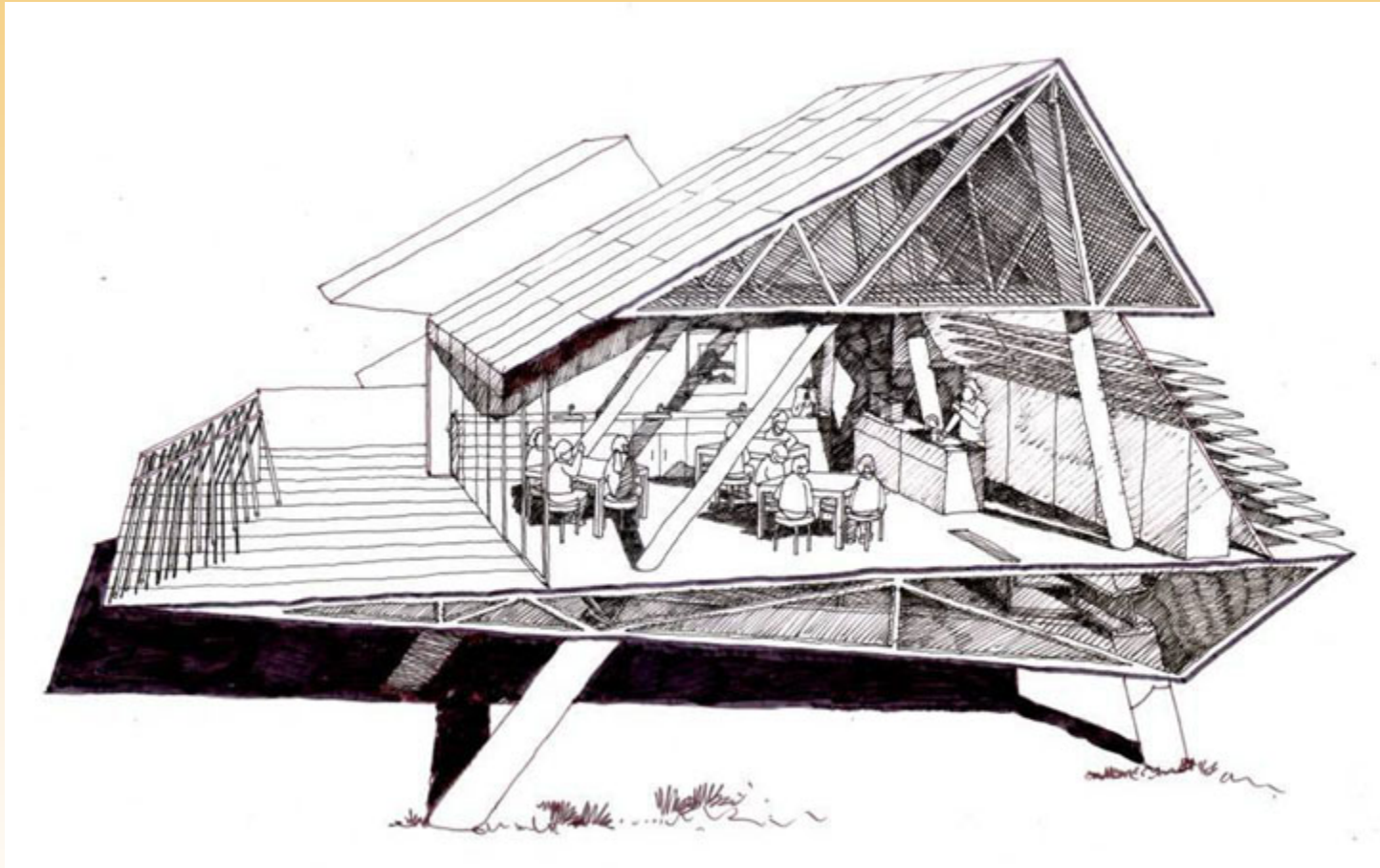


Dining Hall



Solar Bridge





Flex Lab
Section Perspective



Art Pavilion



Wild Horse & Burro Facility

Wild Horse and Burro (WHB) Facility

- Mission Statement:

“The Oliver Ranch WHB Facility is to provide and inform the public with educational, interactive and interpretive programs that: preserve and promote the well-being of wild horses and burros”

Wild Horses and Burros on Public Lands

- Historical overview
 - Velma B. Johnston's letter writing campaign (1950's)
 - Wild Horse Annie
 - Establishment of 2 wild horse ranges
 - Nevada Wild Horse Range 1961
 - Public Law 92-195
 - The Wild and Free-roaming Horse and Burro act of 1971

Wild Horse and Burro Management

- Objectives of management
 - Viewed as an integral part of the natural system of public lands
 - Protection
 - Humane care and treatment

Wild Horse and Burro Management

- Challenges in management
 - Emotional program
 - Direct and indirect urban interface
 - Budget
 - Room
 - Rate of growth
 - Remote access

Opportunities in Future Management

- Education through RRDLC
- Education and public awareness
- Research
- Study of social behaviors
- Adoption and demonstration programs
- Support for adoptors
- Mentoring programs
- Partnerships

Educational Curriculum Coordinator

- “The role of the Educational Curriculum Coordinator is to provide educational thematic and curricular coordination between numerous stakeholders...”

(UNLV-CESU Task Agreement with BLM)

- The Educational Curriculum Coordinator will:
 - provide educational themes and activities for 5th grade outdoor environmental curriculum appropriate for the school
 - collate and synthesize curricular contributions from stakeholders

Curricular Rationale

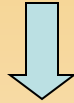
- The goal of the curricular design is to:
 - provide a framework to unify and align curricular programs within SNPLMA Education Strategy
 - provide consistency across projects
 - allow autonomous creativity within each program
 - promote integrated, interdisciplinary, interactive, and inquiry-based programs
 - address Nation, State, and Local standards
 - establish measurable objectives

Guiding Principles

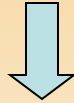
- Open to all valley 5th graders
- Curriculum supports district science objectives
- Immersion experience extends 5th grade classroom learning
- Small group learning
- Campus reflects green building technology
- Community support essential to success

Curricular Process

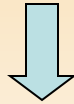
Created Matrix to Identify the Structural Overview of the Integrated Curriculum



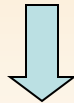
Correlated Curricular Overview to BLM Mission



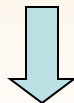
Correlated Curricular Overview to the “Big Ideas”



Identified Common Experiences based on the “Big Ideas” as suggested by CORE Group



Prioritization of Common Experiences by CORE Group

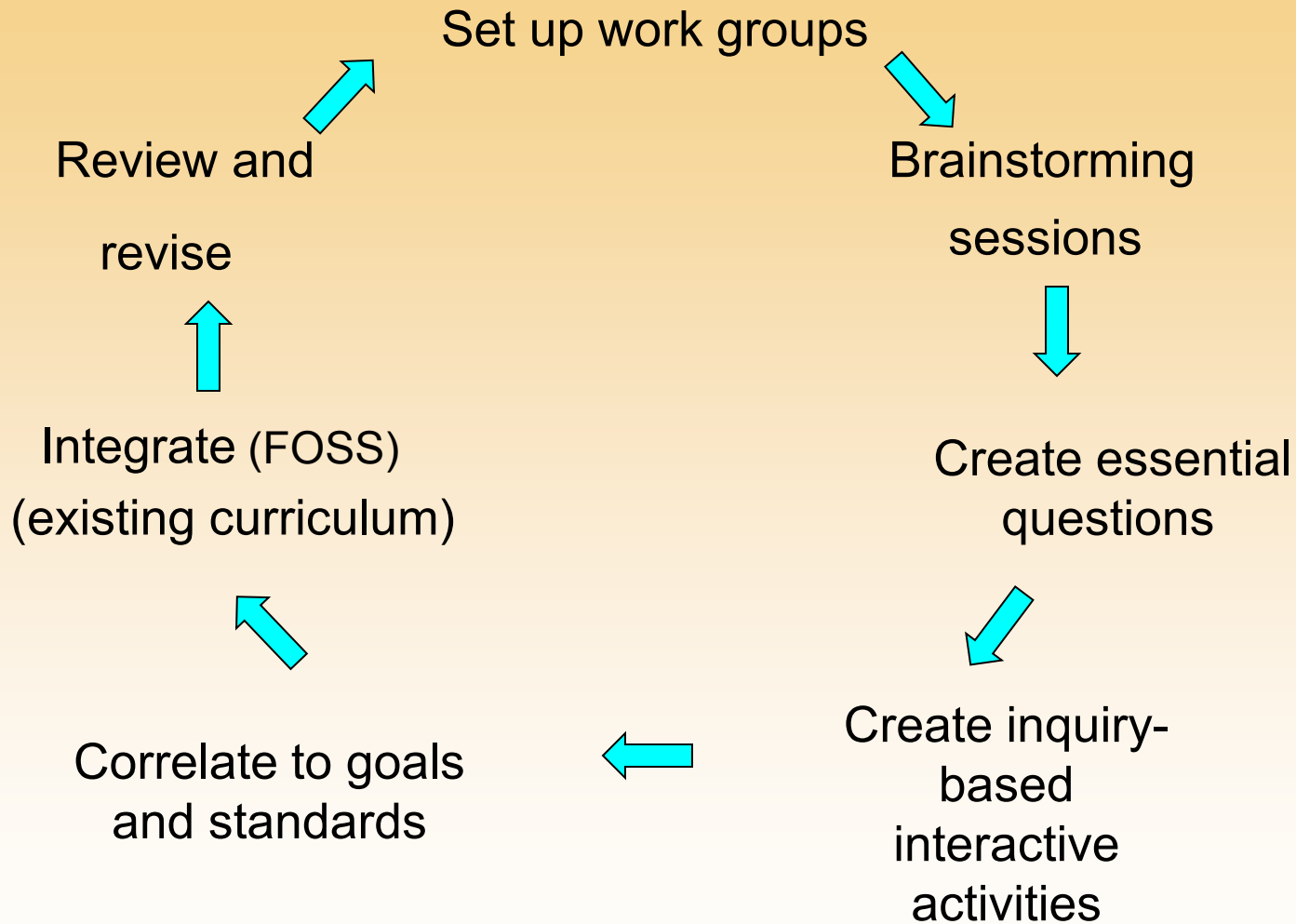


Development of Common Experiences into Curricular Strands with various stakeholders



Review Curricular Strands to Address Curricular Needs

Curriculum Development



Science Strands

- Committee formulated and funded by DRI
- Consisted of CCSD teachers and other various stakeholders
- Formulated essential questions supported by experiential activities
- Correlated to CCSD goals and standards
- Integrated with FOSS science kits

Wild Horse and Burro Strands

- Committee formulated by various stakeholders
- Brainstorming sessions to generate “big ideas”
- Formulated essential questions supported by experiential activities
- Correlated to CCSD goals and standards
- Approved by state & national WHB groups

Curricular Timeline



*****Curricular updates given at monthly CORE group meetings*****

Sample Schedules

5th grade audience/overview of curricular themes

- 4 day/3 night – “Sampler Schedule”
- 3 day/2 night - “Menu Schedule”
 - Sustaining Healthy Ecosystems/Understanding Ecosystems/Geology
- 2 day/1 night - “Focused Introductory Schedule”
 - Geology/Sustaining Ecosystems/Understanding Ecosystems
(i.e. Air Pollution & Weather)

1st-4th grade audience/overview of specific curricular theme

- 1 day - “Excursion Schedule”
 - Rocks/Weather/Adaptations/Mining

Short-term Goals

- Students as stewards:
 - will experience the natural world through inquiry-based experiential and interdisciplinary methods
 - will gain an appreciation of desert ecosystems
- Teachers as partners:
 - will be able to provide input into curricular development through piloting to meet educational needs
 - will be able to provide students opportunities to develop scientific and environmental concepts

Long-term Goals

- Students as stewards:
 - will begin to apply and connect their knowledge to world ecological systems
 - will develop conclusions about how environmental stewardship fosters the continued existence of the natural world
- Teachers as partners:
 - will be able to assist students in meeting ethical challenges of responsible citizenship
 - will develop increased knowledge and awareness as stewards of the environment

Championing the Vision

- Community engagement:
 - provide informative forums for parents, teachers, students, and community members at-large
 - provide informative materials including web-based access
- Teachers as key partners:
 - introduce the curriculum
 - provide teacher training
 - web-based access to curricular materials