6-10-2010

Walking Box Ranch Planning and Design Quarterly Progress Report: Period ending June 10, 2010

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QUARTERLY PROGRESS REPORT

University of Nevada, Las Vegas
Period Covering April 11, 2010 – July 10, 2010

Financial Assistance Agreement #FAA080094

Planning and Design of the Walking Box Ranch Property

Executive Summary

- UNLV has purchased weather equipment, established a weather station at the ranch, and has begun collecting weather data and conducting preliminary research. The station collects hourly data on temperature, humidity, wind speed and direction, and insolation that is transmitted wirelessly to UNLV and captured and projected on the PLI WBR website. A database of weather information will be maintained for further analysis. Research quantifying solar insolation at the ranch will be conducted.

- UNLV has begun preparing informational brochures that will be available to the public at the ranch in the future and will provide information on biology, geology, anthropology, and other topics relevant to the ranch and the Mohave desert.

- Dornbusch and Associates is continuing to conduct a “Visitor Services Feasibility, Compatibility, Market Study, and Business Plan” at the ranch, including all future museum and research center activities. This effort began in April 2010.

- Bill Wood, who recently retired from UNLV Real Estate Management, is continuing to work with Rex Bell and PLI to finalize an inventory of items that Rex would like to donate or sell to UNLV for inclusion in the planned museum at Walking Box Ranch. The inventory process is facilitating identifying items that will eventually be available for exhibit in the ranch house, the blacksmith shop display, and in the barn exhibit area. Items in the house have been inventoried and items in the blacksmith shop will be inventoried during the next quarter.

- UNLV is still awaiting word on a grant proposal to the Broadband Technology Opportunities Program to build, upgrade, extend, and deliver high-speed broadband Internet Connectivity to Community Anchor Institutions located throughout Clark County, Nevada, including Walking Box Ranch.

- UNLV has concluded the Saving America’s Treasures grant with the National Park Service. This grant funded the Master and Preservation Plan that has now...
been finalized and approved by the NPS and the Nevada SHPO, and is being printed for distribution to BLM and other project stakeholders in the near future.

Summary of Attachments

- 070110WeatherStation.pdf
- 32_04_ML_0047_WBR_FINAL_REPORT_NPS2.pdf

Planning and Design, and Construction Phase Items:

1. Provide BLM with consultation and advise to assist the BLM in defining the scope of work for the design of this project. The UNLV shall coordinate with the University departments and schools and act as the academic focal point for information relative to the design of the Science and Training Center for arid land studies.

   - UNLV and Dornbusch and Associates are continuing to conduct a “Visitor Services Feasibility, Compatibility, Market Study, and Business Plan” at the ranch that will cover future museum and research center activities. UNLV and Dornbusch met at the ranch on April 13, 2010 to familiarize Dornbusch with the property and the surrounding area and nearby attractions, and UNLV continues to answer questions for Dornbusch regarding future use of the ranch. The study will take about six to eight months to complete and will provide BLM and UNLV with recommendations on how best to move forward with and fund the project. (See attachment WBR_Dornbusch Proposal Business Plan 3-2-10.doc.)

2. Participate in all phases of scoping and planning meetings and meetings with the BLM’s planners, architects, and contractors for the design and development of the Walking Box Ranch as a Science, Research, and Training Center and Museum for the study of arid lands and development of the Headquarters as a Museum and interpretive center. The UNLV’s participation is to provide input to the BLM relevant to the specific educational and research goals of the project.

   - There were no meetings with BLM architects or contractors as BLM’s contract with these groups for the next phase of the project has not yet been completed.
   - UNLV’s effort to determine the quantity and sizes of rhyolite rock will need to be renewed after BLM and the architectural team complete contracts for the next stage of the project.

3. Assist BLM in developing the environmental assessment by providing technical input and review of the draft environmental assessment.
There were no environmental assessment activities this quarter. However, UNLV is aware that the public comment period will end July 18, 2010, and we will be ready to work with BLM in addressing comments from the public.

4. Provide technical and academic advice to BLM in the development of the museum facilities, by conducting research into the historic records of the ranch and providing recommendations about the appropriate interpretive and environmental education programs that may be presented at the ranch.

- UNLV has established a weather station at the ranch. The station collects hourly data on temperature, humidity, wind speed and direction, and insolation. The data is transmitted wirelessly to UNLV and captured and projected on the PLI WBR website. A database of weather information will be maintained for further analysis.
  - Further development is ongoing to display web pages that offer users different historical data according to their choices. The overall goal is to develop a webpage that will give the user the flexibility to select and view the desired meteorological parameters in graphical or raw data format for any particular day or month or a period from the collected data.
  - A dual axis tracker and pyrheliometer solar radiation measuring device were purchased with funding obtained from the UNLV Sustainability and Multidisciplinary Research Initiative, and the Solar and Renewable Energy Minor program. The solar tracker will track available solar energy as the sun moves across the sky. The tracker and pyrheliometer are being tested on the top of the University of Nevada, Las Vegas engineering building and will be installed at the Walking Box Ranch site once the performance is verified at UNLV. See attached document 070110WeatherStation.pdf for a complete report on the weather station.

- UNLV has begun preparing informational brochures that will be available to the public at the ranch in the future and will provide information on biology, geology, anthropology, and other topics relevant to the ranch and the Mohave desert. UNLV biologists and anthropologists have begun compiling information for brochures on reptiles, mammals, and anthropology. UNLV is also in the process of contracting with B&P Advertising for design of a Walking Box Ranch brochure and presentation folder. These items will be used to produce brochures and advertising documents with a professional appearance that is consistent with the ranch brand.

- Bill Wood, recently retired from UNLV Real Estate Management and continuing to work as a volunteer with PLI, has met with Rex Bell to begin an inventory of items that Rex would like to donate or sell to UNLV for inclusion in the planned museum at Walking Box Ranch. To date this inventory has captured items in the main home that may be donated for use at the ranch in
the future. During the coming quarter the inventory process will continue in the recreated Bell blacksmith shop. Future visits will also include a UNLV professional photographer, who will photograph significant historic items that Bell will not donate for use at the ranch. These photographs can then be displayed at the ranch and contribute to the historic information.

- The Nevada SHPO has approved the WBR Master and Preservation Plan. With this approval, UNLV completed the deliverables required by the Saving America’s Treasures grant from the NPS. Final copies of the Master and Preservation Plan are now being printed and they will be distributed to BLM and other project stakeholders shortly. See attachment 32_04_ML_0047_WBR_FINAL_REPORT_NPS2.pdf

5. **Contribute technical and educational-based assistance to the BLM for the BLM’s consideration during construction development for the Science and Training Center and Museum as it relates to the future operations of these facilities as education centers.**

- UNLV is still waiting to hear about an application to build high-speed broadband internet connectivity to Community Anchor Institutions, including Walking Box Ranch, that The Public Lands Institute joined as a partner with Clark County, Nevada and other partner institutions. The application for funding this work is being made through the Broadband Technology Opportunities Program, which is administered by the U.S. Department of Commerce. This expansion of Middle Mile infrastructure will provide an opportunity for high-speed data services to the Walking Box Ranch project.

6. **Provide input and feedback to the BLM during the construction of the Field Research and Training Center and the Museum.**

- The project is not under construction at this time.

**Phase 1 Deliverables:**

1. **Provide a Facility and Future Needs Alignment Report that will identify the types of future research and training programs that will be conducted at Walking Box Ranch Field Research and Training Center and Museum. The report will also include a matrix that aligns predicted future activities with facility, construction, furnishing, and equipment needs.**

- This report will be prepared following receipt of the business plan that will contribute to identifying future activities and equipment needs.

2. **Assist the BLM in developing a Preservation Plan for Existing Structures on the Headquarters Parcel of the Walking Box Ranch.**
• This process is temporarily suspended owing to a break in contract between BLM and the architecture team.

3. **Provide a Business Plan detailing anticipated future research, training, and other use goals and a financial plan for reaching those goals. The Business Plan should also describe income and operations and maintenance costs.**

• UNLV has contracted with Dornbusch and Associates to provide a business plan during 2010. See the first item under 1. Planning and Design, and Construction Phase Items, above.

**Phase 2 Deliverables:**

1. **Prepare a Project Development Plan that reflects UNLV’s Business Plan. The Project Development Plan should refine the anticipated research, residential training activities, and Museum use; identify recommended new facilities and renovations; outline construction; and plan center management (print and PDF).**

   • The project development plan will be completed following receipt of the business plan.

2. **Assist the BLM in creating a detailed Work Plans for each aspect of project development such as, but not limited to, existing building use, new construction, interpretive programs, and center management, based upon the Comprehensive Master Plan and Preservation Plan.**

   • Assistance will be provided as BLM and the consulting firm AECOM complete contract negotiations and the project resumes.

**Phase 3 Deliverables:**

1. **Assist in the development of Facilities Design Drawings according to the recommendations of the Comprehensive Master Plan generated by the SAT project, in conformance with existing significant architectural features and historical attributes of the property, in a fashion responsive to LEED goals to the extent funding permits, and to meet all property easements.**

   • This process has been suspended owing to a gap in contracting between BLM and the architectural team.

2. **Assist in the development of Facilities Design Drawings for the preservation of facilities according to the recommendations of the Comprehensive Master Plan and Preservation Plan in conformance with historical and architectural attributes of the buildings and property, and to meet all property easements.**
• This process has been suspended owing to a gap in contracting between BLM and the architectural team.

Phase 4 Deliverables (During Construction):

1. Provide the BLM consultation and advice during construction to help the BLM ensure the construction meets the goals of the project.
   • The project is not under construction at this time.

2. Provide the BLM consultation and advice as needed during renovation of preserved facilities, to help the BLM ensure that the renovation meets goals of projects and is in accordance with historical restoration requirements and according to approved designs.
   • The project is not under construction at this time.

Phase 5 Deliverables:

1. Assess and identify furnishings and equipment based upon facility needs; provide the BLM information related to furnishings and equipment for new and preserved facilities so that the BLM can procure these items, within project funding under this Cooperative Assistance Agreement. The UNLV may provide additional furnishings and equipment outside of this Agreement at the UNLV’s sole discretion.
   • While we are not acquiring furnishings at this time, we are continuing to work with Rex Bell Jr. about his desire to see original ranch furnishings now in his possession returned to the ranch. For further details see the third item under Task 4 above.
## SUMMARY OF PROJECT PLAN

*Walking Box Ranch – Planning and Design*

<table>
<thead>
<tr>
<th>Year One Deliverables</th>
<th>Percent Complete as July 10, 2010</th>
<th>Plan for Completion</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Planning and Design:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Provide BLM with consultation and advice in defining the scope of the design of the Science and Training Center.</td>
<td>35%</td>
<td>Continue to consult and advise BLM in the scope of design of the training center.</td>
</tr>
<tr>
<td>2. Participate in all phases of scoping and planning team meetings for the design and development of WBR as a Science, Research, and Training Center and Museum.</td>
<td>35%</td>
<td>Continue to participate in scoping and planning of the Museum and the training center.</td>
</tr>
<tr>
<td>3. Assist BLM in developing the environmental assessment process with technical input and review of drafts.</td>
<td>65%</td>
<td>Continue to work with EDAW and BLM on the Environmental Assessment process, scheduled to be complete later summer/early fall 2009, but now delayed until 2010.</td>
</tr>
<tr>
<td>4. Provide technical and academic advice to BLM in development of the museum facilities with recommendations of interpretive and environmental programs for presentation at the Ranch.</td>
<td>35%</td>
<td>Continue to provide technical and academic advice for interpretive and environmental programs.</td>
</tr>
<tr>
<td>5. Contribute technical and educational-based assistance to the BLM for the BLM’s consideration during construction development for the Science and Training Center and Museum as it relates to the future operations of these facilities as education centers.</td>
<td>35%</td>
<td>Continue to contribute technical and educational-based assistance to the BLM for the Science and Training Center and Museum.</td>
</tr>
<tr>
<td>6. Provide input and feedback to BLM during the construction of Field Research and Training Center and the Museum.</td>
<td>0%</td>
<td>Project is not under construction.</td>
</tr>
<tr>
<td><strong>Phase 1 Deliverables:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Provide a Facility and Future Needs Alignment Report that will identify the types of future research and training programs that will be</td>
<td>0%</td>
<td>Work with faculty at UNLV to identify future research and training programs and incorporate in report. This will be completed</td>
</tr>
<tr>
<td>Deliverables</td>
<td>Percentage</td>
<td>Notes</td>
</tr>
<tr>
<td>----------------------------------------------------------------------------</td>
<td>------------</td>
<td>----------------------------------------------------------------------</td>
</tr>
<tr>
<td>1. Walking Box Ranch – Design · Quarterly Progress Report conducted at Walking Box.</td>
<td></td>
<td>in 2010 in conjunction with a business plan.</td>
</tr>
<tr>
<td>2. Assist the BLM in developing a Preservation Plan for Existing Structures on the Headquarters Parcel of the Walking Box Ranch.</td>
<td>20%</td>
<td>Work with BLM and ARG architects to develop preservation for existing structures.</td>
</tr>
<tr>
<td>3. Provide a Business Plan detailing anticipated future research, training, and other use goals and a financial plan for reaching those goals.</td>
<td>20%</td>
<td>Obtain a detailed business plan that builds on the preliminary building plan prepared by Dornbusch and Associates in 2009-10. This will be accomplished in 2010.</td>
</tr>
</tbody>
</table>

### Phase 2 Deliverables:

<table>
<thead>
<tr>
<th>Deliverables</th>
<th>Percentage</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Prepare a Project Development Plan that reflects UNLV’s Business Plan. The Project Development Plan should refine the anticipated research, residential training activities, and Museum use.</td>
<td>0%</td>
<td>This will begin after a business plan is developed.</td>
</tr>
<tr>
<td>2. Assist the BLM in creating a detailed Work Plans for each aspect of project development based upon the comprehensive master plan and preservation plan.</td>
<td>0%</td>
<td>This will begin after BLM and AECOM conclude their contract negotiations and the project progress resumes.</td>
</tr>
</tbody>
</table>

### Phase 3 Deliverables:

<table>
<thead>
<tr>
<th>Deliverables</th>
<th>Percentage</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Assist in the development of Facilities Design Drawings according to recommendations of the comprehensive master plan generated by the SAT projects.</td>
<td>35%</td>
<td>We will continue to work with BLM, AECOM and AECOM subcontractors to assist with design of the facilities.</td>
</tr>
<tr>
<td>2. Assist in the development of facilities design drawings for the preservation of facilities according to the recommendations of the Comprehensive Master Plan and Preservation Plan.</td>
<td>35%</td>
<td>We will continue to work with BLM, AECOM and AECOM subcontractors to assist with design of the facilities.</td>
</tr>
</tbody>
</table>

### Phase 4 Deliverables (During Construction):

<table>
<thead>
<tr>
<th>Deliverables</th>
<th>Percentage</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Provide the BLM consultation and advice during construction to help the BLM ensure the construction meets the goals of the project.</td>
<td>0%</td>
<td>The project is not yet in construction.</td>
</tr>
</tbody>
</table>
2. Provide the BLM consultation and advice as needed during renovation of preserved facilities, to meet goals of the project.

<table>
<thead>
<tr>
<th>Phase 5 Deliverables:</th>
<th>0%</th>
<th>The project is not in construction.</th>
</tr>
</thead>
</table>

1. Assess and identify furnishings and equipment based upon facility needs; provide the BLM information related to furnishings and equipment for new and preserved facilities so that the BLM can procure these items, within project funding under this Cooperative Assistance Agreement.

<table>
<thead>
<tr>
<th>Phase 5 Deliverables:</th>
<th>10%</th>
<th>We are in the process with Rex Bell Jr of completing an inventory or items he will donate or sell to be exhibited in the planned museum at the ranch. Most equipment and furnishing planning will occur during the construction period.</th>
</tr>
</thead>
</table>

Submitted by:

Margaret N. Rees, Principal Investigator

July 9, 2010

Date
ATTACHMENTS
Objectives:

Install weather station, on-site datalogger and wirelessly transmit the data to UNLV computers. Update the data every hour and display on line. A data base of weather information will be maintained for further analysis.

Major Accomplishments:

Installed the datalogger with wireless communication module:

A Campbell scientific datalogger has been programmed to control and read the sensors and store the data. The installed weather station is shown in Fig.1. The UNLV team comprising a faculty and graduate students visited the Walking Box Ranch and installed the programmed datalogger and connected all the sensors to the logger. A service contract is established with Verizon wireless for the transfer of data from the datalogger at Walking Box ranch to the UNLV on-campus computers. A modem is configured with the static IP address provided by Verizon wireless. This modem and the datalogger are connected as shown in Fig. 2. Using the "Loggernet" software a wireless communication has been established between the modem and the on-campus computer. This communication is set to automatically connect, collect the data from the datalogger and disconnect automatically every hour.
Data collection and analysis:
Data is received from datalogger by an on-campus computer through the Verizon wireless communication. This data is scheduled to be received every hour and updated in the system database tables. It is inspected for any irregularities on a daily basis and is displayed online through the web interface. This live data display includes graphical representation, numerical display and daily summary. The following is the information that is currently presented on the website:

1. Temperature and Humidity
   The temperature (in Fahrenheit) measured is the dry-bulb temperature of air at the Walking Box ranch site and the relative humidity, which is the ratio of the water vapor in the air to the amount of water vapor required to saturate the same air. Both these meteorological variables are measured by a Campbell scientific Inc.’s HMP 45C temperature and relative humidity probe. This probe can be operated between -40 and 60 °C ambient temperatures. It is capable of measuring humidity in the range of 0 to 100 % (non-condensing) and temperature in the range of -40 to 60 °C.

2. Wind Speed and direction
   The wind speed (in miles per hour) is measured by a wind sentry anemometer and the wind direction (angle in clockwise direction from North being 0°) is measured by a wind sentry vane. These instruments can be operated between -50 and 50 °C ambient temperatures.

3. Insolation
   The solar radiation is measured by the Campbell Scientific Inc., LI200X Pyranometer which is designed for daylight spectrum (400 to 1100 nm). It employs high stability silicon photovoltaic detector. It has an operating temperature range of -40 to 65 °C. The graphical representation of the insolation (in KW/m²) versus the time of the day is displayed on the webpage. (see Fig. 3)

All the data is backed up on a regular basis for future use.
Developed web interface to display the live data:

Fig.3: Screenshot of the webpage displaying live meteorological data at Walking Box ranch. (The above live graphical display can be accessed through the following websites: [http://publiclands.unlv.edu/wbr/weatherstation.htm](http://publiclands.unlv.edu/wbr/weatherstation.htm), [http://10.18.11.170:86/](http://10.18.11.170:86/))

The graphical display page is designed and developed using RTMC development tool in 'Loggernet' software. The data from sensors are mapped to their respective graphical representations and set to update as scheduled. RTMC web server is used to display the live status of various sensors of the weather station on web. An iframe is created on the Public Lands Institute (PLI) website which directs the user to the graphical display page. Further development is ongoing to display the web pages that offer users different historical data according to their choices. These dynamic pages are being developed using ASP.Net and C#.Net that uses Microsoft SQL Server as database. The data collected on a regular basis is appended to the database using Triggers. The overall goal is to develop a webpage that will give the user the flexibility to select and view the desired meteorological parameters in graphical or raw data format for any particular day or month or a period from the collected data.
Measurement of direct normal solar radiation

Fig. 4 shows the dual axis tracker and pyrheliometer (a direct normal incidence (NIP) solar radiation measuring device). The tracker and the NIP were purchased from Eppley laboratory Inc. To verify the performance of the tracker and the pyrheliometer, they are being tested on the top of
the University of Nevada, Las Vegas engineering building. The tracker controller (shown in Fig. 5) has been configured for UNLV. A Campbell Scientific datalogger is connected to the NIP, which has been collecting and storing solar radiation data over the past few weeks. The system will be installed at the Walking Box Ranch site once the performance is verified at UNLV. The collected data is being monitored for any abnormalities on a daily basis. Fig. 6 shows the direct normal solar insolation data collected from the tracker and pyrheliometer system installed at UNLV.

Fig. 6 Measured normal incidence solar radiation for different days in June at UNLV
Proposal
Business Plan for Walking Box Ranch, Desert Research Center
Dornbusch Associates
March 2, 2010

The following proposal for a Business Plan for Walking Box Ranch (Ranch or WBR) addresses the project components identified in the UNLV Request for Proposal outline (dated June 30, 2009), and refined during a teleconference and subsequent email correspondence in September and October 2009. Since early discussion with UNLV representatives would be useful to focus the effort, we propose to begin with the following:

Task I. Site Visit and Kick-Off Meeting

We propose to conduct a site visit and kick-off meeting with UNLV representatives, during which we will provide a brief summary of our previous research, present a preview of the financial model that will be used for this project, gather input about the desired format and outline of the Business Plan, and conduct additional market research for the revenue projection component of the project. We expect that the meeting with UNLV staff will last between two and four hours, depending on the level of participation and input.

We understand that our assignment will be to analyze WBR’s research and educational functions as well as its revenue-producing visitor-service activities, to derive a feasibility analysis and Business Plan that addresses revenues and costs associated with all of those functions.

The visitor services would (a) function within the physical site and facilities specified in the EDAW “Walking Box Ranch Final Design and Concept Plan,” dated July 2009 (EDAW Plan) and (b) meet each of the five Planning Assumptions specified in the UNLV RFP (p. 3, Section 3). Indeed, Dornbusch’s previous Market Demand Analysis was based on the EDAW Plan concept, which was presumably approved by UNLV and the BLM.

We also understand that UNLV is seeking a Business Plan that will enable the Ranch to be “financially self-sustaining,” and by implication that the educational/research and revenue-producing visitor services will all be financially self-sustaining. In focusing on these services, we understand that all of the WBR’s life-cycle capital improvement costs will be provided from other sources, and will not require any contribution from operating revenue.

The objective of the Business Plan will be to include and balance a mix of functions whose revenues would be expected to exceed the operating costs to support those functions, and even to design the nature of operations in a way that will most likely yield profitability. The Kick-off meeting will serve to develop the specifications for the Business Plan so that it will be as useful as possible to UNLV.

**Task I Deliverables:**
1) Kick-off Meeting PowerPoint presentation and meeting facilitation;
2) Memorandum that summarizes decisions made during the kick-off meeting, to be delivered one week after the meeting.
**Task II. Market Analysis & Revenue Projections**

We will review our revenue projections for the services and users previously identified, including educational and research groups, tourists and the general public, bus tour groups, school groups, and special event groups. We will conduct follow-up interviews with UNLV staff and staff of other research centers to further define the potential revenue-producing uses of the Ranch.

We will build upon our prior investigations to further expand and refine our judgments about potential revenue producing demand, according to functional types, by interviewing relevant key informants and researching data, reports, and analyses addressing demand for relevant activities and special events in the region and to related facilities/operations.

We will update and refine our previous analyses to estimate revenues that might be derived from special events and the general public’s entry, use and purchase of food and beverages and merchandise.¹

We will re-evaluate the Ranch’s key strengths, opportunities, threats and weaknesses, by first identifying them, then seeking to translate each into terms that will be expected to affect the Ranch’s ability to serve and compete within the markets identified. Such analysis will assist in the design a Business Plan that capitalizes on the Ranch’s strengths and opportunities while recognizing its weaknesses and threats.

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**Task II Deliverable:** Updated Market Analysis report (key findings from this document will be integrated into the Business Plan)

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**Task III. Operating Plan & Expenses**

We will review and revise, as might be necessary, the Ranch’s educational/research and visitor services operating plan and the associated estimates of operating expenses we made in our earlier market analysis. The context will be as described in the RFP. However, we might recommend modest modifications in the facilities to help enhance financial self-sustainability. For example, findings may suggest that visitor demand would increase in response to changes to specific revenue generating activities, which might then translate into the need for a somewhat larger public parking area than was originally envisioned. However, if directed, our Plan will be constrained by the use levels specified in the project EA.

Operating expenses will be derived from our in-house data for comparable enterprises of a similar size, and from trend data published by hospitality industry research firms (such as the

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¹ We previously gathered such data from the University of California Sweeney Granite Mountains Desert Research Center, Boyd Deep Canyon Desert Research Center, Burns Pineion Ridge Reserve, and California State University Desert Studies Center. We also assessed data from the Rocky Mountain Biological Laboratory, but considered it to be somewhat less comparable to Walking Box Ranch for reasons explained in our report.
Operating expense estimates will also be updated with the latest projected repair and maintenance figures available from the EDAW/ARG architecture and planning team. One-time start-up costs and working capital requirements will also be estimated. And, we will project the initial and ongoing investments in furniture, fixtures and equipment that will be required to support the uses identified.

We will not address capital improvement or life-cycle replacement costs, with the understanding that all capital improvement costs will be covered from other sources.

**Task III Deliverable:** Pro forma income statement for a 10-year period after the assumed opening date of WBR, including projected revenue and operating expenses by department, as well as administrative & general and fixed expenses

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**Task IV. Financial Feasibility**

We will perform a financial feasibility analysis to determine whether the Ranch’s revenue generating activities will be sufficient to cover the Ranch’s expenses, according to the definition of sustainability accepted by UNLV. To do that, we will enter the estimated annual operating revenues, expenses and capital costs for all operations into an (Excel-based) interactive financial model that we have developed and refined for similar projects, addressing similar facilities and operations.\(^2\)

The model will allow us, and UNLV representatives, to assess *in real time* the expected marginal impacts of key investment and operating assumptions on revenues, operating costs, cash flow, and return targets. We will use the model to demonstrate whether the functions as structured will be self-sufficient and how to adjust the operations to achieve self-sufficiency, such as not-necessarily developing full-time or even-part time staff to cater special events, but instead contract out such services by event.

We will test the sensitivity of the model’s outputs to observed expected and potential changes affecting the market for, and competition with, the Ranch, considering its unique facilities, location, and services that would be expected to either enhance or reduce visitation and event use, visitor and event spending, and the Ranch’s operating revenues and support costs.

**Task IV Deliverable:** Excel financial model with user-friendly interface that clearly displays inputs and outputs for a variety of investment, revenue and expense scenarios

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\(^2\) Dornbusch most recently applied the model to evaluate the feasibility of redeveloping long-vacant historic buildings at Ellis Island into a conference center, and is currently using it to structure a new (and very complex) NPS concession contract at Yosemite National Park.
Task V. Business Plan

We will teleconference with the UNLV team to obtain guidance and approval of the operating concepts applied in the financial feasibility analysis. Based on that guidance, and the findings and conclusions derived from the previous tasks, we will create a cohesive Business Plan to address implementation, including management, of the WBR project. The Plan will present a timeline that schedules and prioritizes activities. For example, it will likely make financial sense to phase the way various operations are designed, such as whether to use full-time staff, part-time staff or contract caterers for special events until full- and/or part-time staff might be justified.

A marketing strategy will be developed that supports the overall WBR goals and capitalizes on the Ranch’s strengths and opportunities.

The Business Plan will include the following components:

- **Introduction.** Explains the background, purpose and objectives of the Business Plan and provides a brief summary of the implementation process.
- **Vision Statement.** Describes the concept for the Ranch’s adaptive redevelopment and services, and the revenue-producing activities within the overall concept.
- **Analytic Findings.** Summarizes the main findings from the planning process, which will include, as appropriate, portions of the Design Concept Plan, Master & Preservation Plan, Market Study, Operations and Financial Feasibility Assessment.
- **Proposed Programs and Facilities.** Describes the proposed programs and facilities, and explains how the developments and activities will conform to the vision and meet the goals of WBR.
- **Capital Cost Statement.** Will provide a description, with UNLV’s guidance, of how capital costs to redevelop the facility will be covered. Will not address and establish the funding programs or specify capital sources.
- **Operating Plan.** Presents a plan to implement the educational/research and visitor-serving operations, including identification of priorities, schedule of activities and assignments of responsibilities for the initial implementation and ongoing management of the Ranch’s services. We will detail staffing plans by function (such as retail sales, and food and beverages for conferences, special events, and visitation for other purposes). [If desired, as an optional task, Dornbusch will assist in developing requirements and plans for human resources (including job descriptions), volunteer programs, training, security, hours of operation, special event policies, catering and food & beverage specifications, etc.]
- **Financial Plan.** Aligned with the Operating Plan, presents estimates of the initial and continuing operating costs and revenues. Will include an implementation budget and reproduce the annual pro-forma cash flows.
- **Marketing Plan.** Outlines strategies to attract both public and event users to WBR. The marketing plan will include: competitor analysis; SWOT (Strengths, Weaknesses, Opportunities, Threats) analysis; identification of key themes (relating to the mission statement) and branding possibilities; prices, discounts, and tour and retreat packages; marketing channels and media; and projected results of promotional programs.
Note that each of the Business Plan components are inter-related. Therefore, development of the Business Plan will be the product of an iterative process that coordinates each section with all others.

**Task V Deliverable:** Business Plan document containing all of the information described in the bullet points listed above

**Proposed Fee**

The proposed fee for the above scope of work is $65,000. Estimated delivery is seven months from notice to proceed.

The fee assumes one kick-off meeting at the Ranch or at UNLV.

Additional meetings with the UNLV team, BLM, and/or others who might to provide inputs to the analyses, such as with other stakeholders and/or spokespersons for additional funding sources would entail additional fee.

Drawings (such as of facilities layout or concepts) are not proposed to be included in the Business Plan but would be provided for additional fee.
Note: The Final Project Report is due within 90 days of the end date of the grant agreement or completion of the project, whichever comes first. Failure to submit a timely and acceptable Final Project Report places can result in noncompliance with the terms of the Grant Agreement, and will result in NPS withholding payment or possibly requiring repayment of disbursed funds.

1. Project Title: Preservation of the Walking Box Ranch

2. NPS Grant Number: 32-04-ML-0047

3. A completed FFR, Federal Financial Report, for the entire grant period is attached. This form has already been provided separately.

4. Provide a brief summary of the work completed under this grant. Note any difference between the planned and actual scope of work and costs.

The approved scope of work, including objectives and results, for the project is as follows: Provide assistance with research, program planning and facilities design development in accordance with the Secretary of the Interior’s Standards for the treatment of Historic Properties for the Walking Box Ranch, Clark County, Nevada. This work has been completed. There was no difference between the planned and actual scope of work.

Funds were budgeted primarily to fund a consulting firm to conduct the work. Minor funds provided supplemental pay to UNLV employees to contribute historical research, and for minor supplies. Planned personnel costs were $20,000. Actual expenditures from the matching funds for personnel totaled $44,250 plus $9998 for fringe.

5. Describe the status of complying with all applicable Special Conditions required under your grant agreement.
   A. NPS Concurrence with Consultant Selection
      Special condition #19, NPS concurrence with selection of consultants (Architectural Resources Group, San Francisco), was met and approved in a 3/24/06 letter from NPS.
   B. NPS Review of Plans and Specifications or other Draft Products
      Special conditions #17, requirement to compliance with the Secretary of the Interior’s Standards, and #20, NPS review of architectural plans and specifications, were met and approved in a letter received from NPS on 2/4/10.
   C. Section 106 Consultation with the State Historic Preservation Office
      Special condition #16, Compliance with Section 106, was fulfilled in 2005 with the provision that plans and specifications were submitted to and approved by both the NV SHPO and NPS. These documents have been submitted and approved; see item B above and document SECTION_106_NV_SHPO.pdf included in the final report package. Compliance with special condition #16 was communicated to UNLV in a 10/05 NPS letter to Professor Andrew Kirk.
      The Nevada SHPO has informed UNLV that they do not engage in a consultation process in response to a “planning” document. As a result, they would not issue a “Letter of Determination”. Should BLM eventually decide to move forward and implement one of the construction alternatives produced by this project, we would then enter into consultation with the Nevada SHPO prior to construction or ground-breaking. If you have any questions regarding this determination you may wish to contact the Nevada SHPO at 775 684 3448.
   D. Easement Execution
      Regarding special condition #22, Requirement for executing Preservation Easement, we were notified in a letter received from NPS on 3/6/07 that NPS “determined that the University of Las Vegas will not be required to obtain a preservation easement for the Walking Box Ranch” as the site is owned by the BLM.
   E. Project Sign Installation
      Special condition #21, Requirement of project sign, was approved by NPS in a letter we received on 10/1/08.
   F. National Register Nomination
      A National Register nomination was submitted as part of this project (document WalkingBoxRanch-NRreg-form-final.pdf), and Walking Box Ranch was placed on the National Register of Historic Places on 1/30/09. Please see document NRHP_WBR_LISTING_2_13_09.pdf, included in this final report package, for the announcement of this registration.

6. Provide a line-by-line breakdown of the planned and actual expenditures and compare it to the approved budget using the following format: (this is an embedded excel table – double click to open)
7. Provide a summarized list of the non-Federal matching share that was used to complete the grant-assisted work. Identify each source of match, the amount, and the type (cash, donated labor, donated materials, etc.). The match was fully met with Nevada State funds. There was no donated labor or materials.

8. If any publications (books, pamphlets, videotapes, etc.) were produced using federal or matching share under this grant, enclose three (3) copies with the Final Report. All publications must include acknowledgement of the grant assistance and the Federal disclaimer as required by your grant agreement. No publications were produced under this grant.

9. Provide good quality 4 x 6 photographs or high resolution digital images printed on photographic paper, of ALL work completed under this grant. Include at least three (3) views of the overall structure. This was a planning project and no physical work was completed on any buildings. No images are included as there was no work done that could be photographed.

Signature: __ Jean S Cline___________________________________________

Name/Title: __ Jean S Cline, Professor________________________________

Date: 6/24/10_____ Telephone: _702 895 1091___ Email: _jean.cline@unlv.edu_____