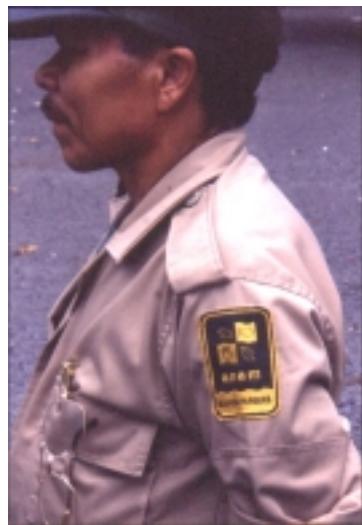




A Sign Plan for
**Soberanía
National
Park,
Republic of
Panama**

Prepared for ANAM
by USAID/Panama
as a part of the
MARENA Project



**A Sign Plan
for Soberanía National Park,
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MARENA Project

by

Barbara Loste, Daniel Mattson,
Ramiro Villalvazo and Jerry Wylie

with the assistance of
Rogelio Correa,
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Spanish version
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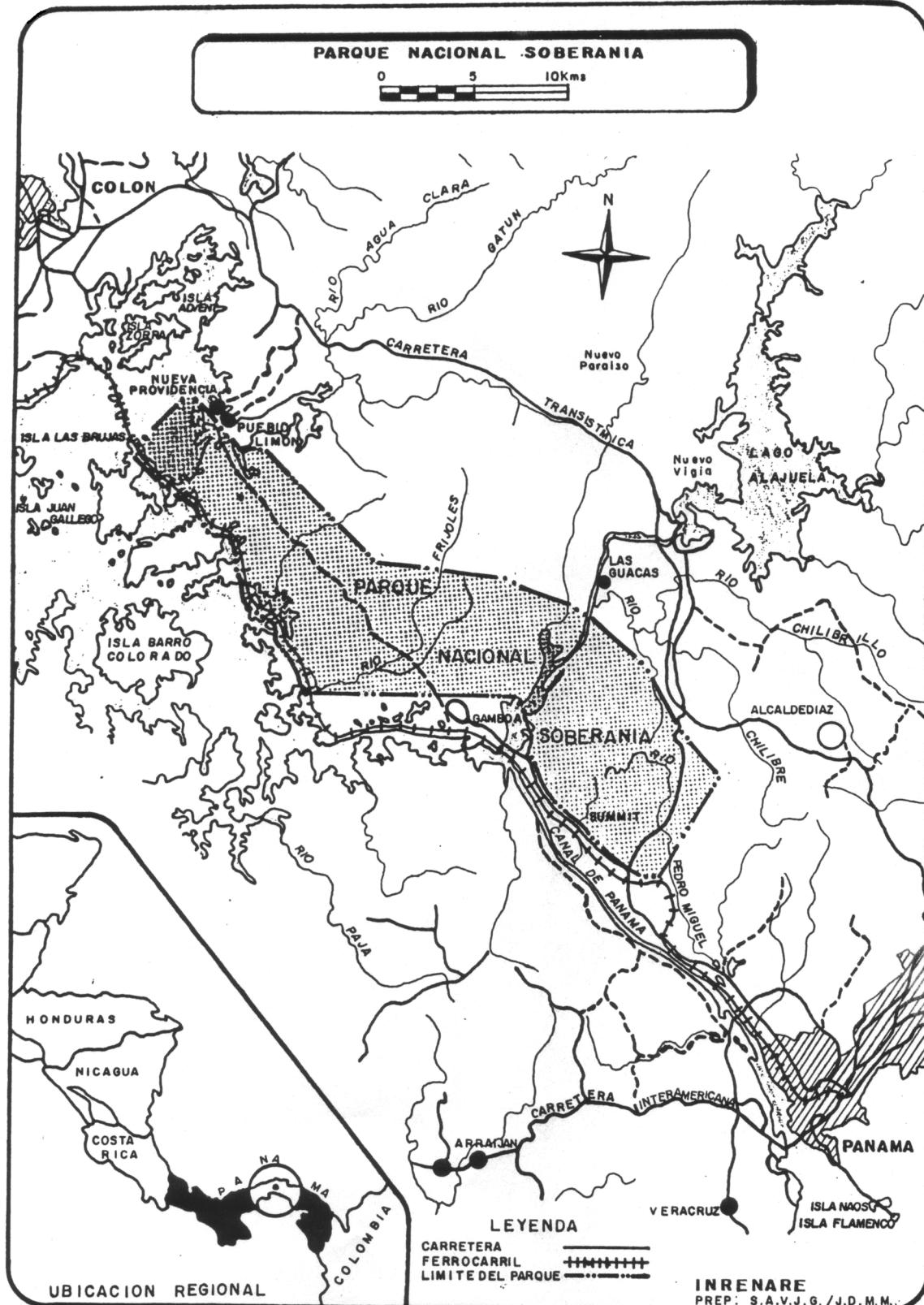


Fig.1. Map of Soberanía National Park

Introduction

This document explores principles of sign planning for park visitors in general, and then focuses on Soberanía National Park (Park) in particular: assessing sign needs, and presenting design and placement recommendations. This effort was initiated in response to the Autoridad Nacional del Ambiente's (ANAM) request for assistance in developing a comprehensive approach to Park signage.

ANAM met with USAID/Panama several times and, as a result, a team was assembled to address their needs. The team consisted of two interpreters, landscape architect, a tourism specialist and an environmental planner. Both in meetings and in the field, ANAM guided the effort so that the team could better understand Park history, current conditions, and future needs.

Because of it's location near the capital city of Panama (pop. 800,000), the Park serves as a natural gateway to Panama's National Park system (Fig. 1). Yet visitors often do not know where the Park is located, how to act in accordance with Park etiquette, and what additional recreational opportunities are available to them once they are in the area. One way to communicate this information is through signage. In this report, signage means both informational signs and cultural, scientific, and historical interpretation.

A world-class park deserves world-class interpretation. We believe that an integrated signage plan for the Park would increase visitor use, facilitate educational opportunities for visitors, and improve the visibility and corporate identity for

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ANAM, while also creating respect and appreciation for Panama's natural resources. Moreover, according to Ricardo Rivera, Director of ANAM, a successful signage system for the Park could serve as a model for other national parks and protected areas.

There are many ways for visitors to obtain information about Panama's national parks. Visitor information planning is provided in this report for development of roadside directional signage and the locations for interpretation at key Park sites. However, an interpretive plan will be needed to further define interpretive signs to be used within the Park.

I. Planning considerations

I.a. Site planning

A prerequisite to placing signs at a location is planning for how the site will best accommodate visitors. The following discussion presents some of the principles and considerations involved with this process. Site planning is a process that seeks to consider all available information about a project before design work and construction takes place. Since construction is an expensive proposition, it is very important to know where, what, how, when, and especially why a piece of land or existing facilities are being modified. Ideally, even before choosing a project location, the following are questions that should be asked:

- Why is this project needed?
- Who will be using the site or facilities?
- How will the site be used?
- When should it be built?
- What elements already exist that can be used or modified, and what else should be included in the design for construction?

The ultimate goal in site planning is to select a site, or specific location on a piece of land that is compatible with its proposed use. In other words, have the plan fit the land, and not make the land fit the plan.

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Fig. 2. Camino de Cruces trailhead on Madden Road



Fig. 3. Sendero Camino de Cruces cobblestone trail tread

Fig. 4. Forest canopy at Camino de Cruces trailhead, Madden Road

Site analysis

The site analysis process deals with understanding the physical characteristics of a site, including opportunities and limitations. In this part of the process we look at factors that include:

- Solar orientation
- Prevailing winds
- Climate conditions
- Soils
- Topography
- Drainage patterns
- Flora
- Fauna
- Geological features
- Water features
- Tree cover
- View/vistas
- Cultural resources
- Endangered species
- Noise
- Odors
- Existing patterns of use
- Existing construction

The method used to analyze all this information depends on the scale of the project and project site. On small projects a simple site visit may be all that is needed to fully understand the project site's physical character. At the other end of the spectrum, where very large parcels of land are being considered, the use of GIS databases may be necessary.

The product of this analysis defines among other things, where construction can take place and where it should not.

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Fig. 5. Rock monument at La Cascada site, Madden Road



Fig. 6. Forest canopy at La Cascada, Madden Road

User/customer analysis

Knowing who will be using the site and how it will be used is essential to appropriately plan for any project. This information can be obtained from a variety of sources including the client or administration, field personnel, user studies/questionnaires, on-site observation, related studies prepared by other agencies or organizations, and demographic studies.

A product of user analysis is an understanding of your “customer base”. It defines what visitors need and what they want. We should always strive to provide people with what they need (usually physical needs), but it may not always be feasible to provide them with what they want at a particular location. This may be because of site limitations or managerial realities such as budgets, personnel, etc.

When visitors stop at a park attraction or information site, we should consider that they will usually arrive with certain physical needs. This includes having them know exactly where to go or park safely, visiting a toilet, getting something to drink, and perhaps getting out of the hot sun or rain. They will not be too interested in anything else until these physical needs are met.

Visitors stopping at an information/interpretation site, will have particular expectations. They will want appropriate and accurate information about where they are, where they can go for particular activities, where it is safe or unsafe to go, what to expect, and even what they can learn.

The key point to visitor analysis is anticipating as much as possible what the public needs so that those elements are planned for and included in the final design of any facility.

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Consideration of administration requirements

This part of the process requires understanding the administrative needs and managerial realities of the entity responsible for managing the facilities being planned. Issues to consider include budgets, personnel, legal requirements, bureaucratic processes, and ownership. Other issues include fees, litter and overuse.

Synthesis

With the information that is pertinent to the project collected and analyzed, we can confidently proceed to synthesize it into a Design Narrative. The Design Narrative describes in a detailed manner the design elements that should be incorporated into the project.



Fig. 7. El Charco trailhead, Gamboa Road

Specific site design considerations

Although the analysis process may reveal special or unique issues, below are examples of specific design considerations that almost always should be considered as the final site plan is prepared.

- Health & safety
- Environmental concerns
- Site carrying capacity
- Signing needs (directional, informative & interpretive)
- Vehicular & pedestrian circulation
- Accessibility for those with physical limitations
- Building and structure placement
- Visitation expected
- Construction materials and their availability
- Sustainability (concern for use of sustainable materials and construction practices)
- Available construction technology and skills
- Construction Costs
- Scale (Appropriate to fit site and use)
- Colors
- Existing landscape character (compatibility with existing elements)
- Cultural/historic influence on architecture and other elements to be constructed
- Budget
- Maintenance

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Fig. 8. Planning meeting at Park administrative headquarters



Fig. 9. Park administrative headquarters



Fig. 10. Park and team personnel discussing planning possibilities

I.b. Sign planning

What do people need to know? What does ANAM want people to know, and then do, with this information? It is important to carefully plan for visitor information and site interpretation, and to integrate it with existing interpretive programs and the larger information network.

The difference between information and interpretation signage can be confusing. Information signs are geared to visitor orientation, locations of what and where facilities and opportunities are for the visitor, or specific information such as the name of a tree or plant. Interpretation explores the bigger story of the connections between things. Not just the name of the tree, but how it grows, how it fits into the life of the forest and the life of the people who live nearby.

Interpretive signs

Interpretative signs are not peripheral to, but rather should be the focus of the Park's public programs. They are the front-line of visitor contact and are always on duty. Effective interpretive signage should contain a thought-provoking element or set the stage for discovery, guiding the visitor's experience of their surroundings.

For ANAM, interpretive planning can focus the objectives and outcomes of what visitors should learn. Interpretive objectives can be learning, behavioral and emotional. Here are some possible objectives and topics that can be addressed.

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- Promote pride and respect for the land
- Understand the importance of the Panama Canal Watershed
- Provide awareness of other important environmental issues
- Improve agency image and recognition
- Reduce littering, poaching, illegal tree cutting
- Promote (increase) public use and tourism
- De-market overused areas
- Understand what parks are and why they were established
- Understand what a protected area is and how to behave there
- Enhance recreational experiences and enjoyment

Questions to think about in sign planning:

- Why would the visitor want to know this? (Not just what the administration wants the visitor to know, but relate it to everyday life of the viewer)
- How do you want the visitor to use the information you are giving them?
- What are the benefits to the administration and visitor as a result?

What outcomes does ANAM want?

- A feeling of ownership of, and respect for, the parks created in visitors
- A public support base for the national parks
- Reduced vandalism and littering
- Reduced poaching of flora and fauna
- Reduced impacts to other resources
- Increase funds generated from use fees
- Understanding of the objectives of protected areas
- Protection for cultural resources

A Sign Plan
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Fig. 11. Logo of Autoridad Nacional del Ambiente (ANAM)

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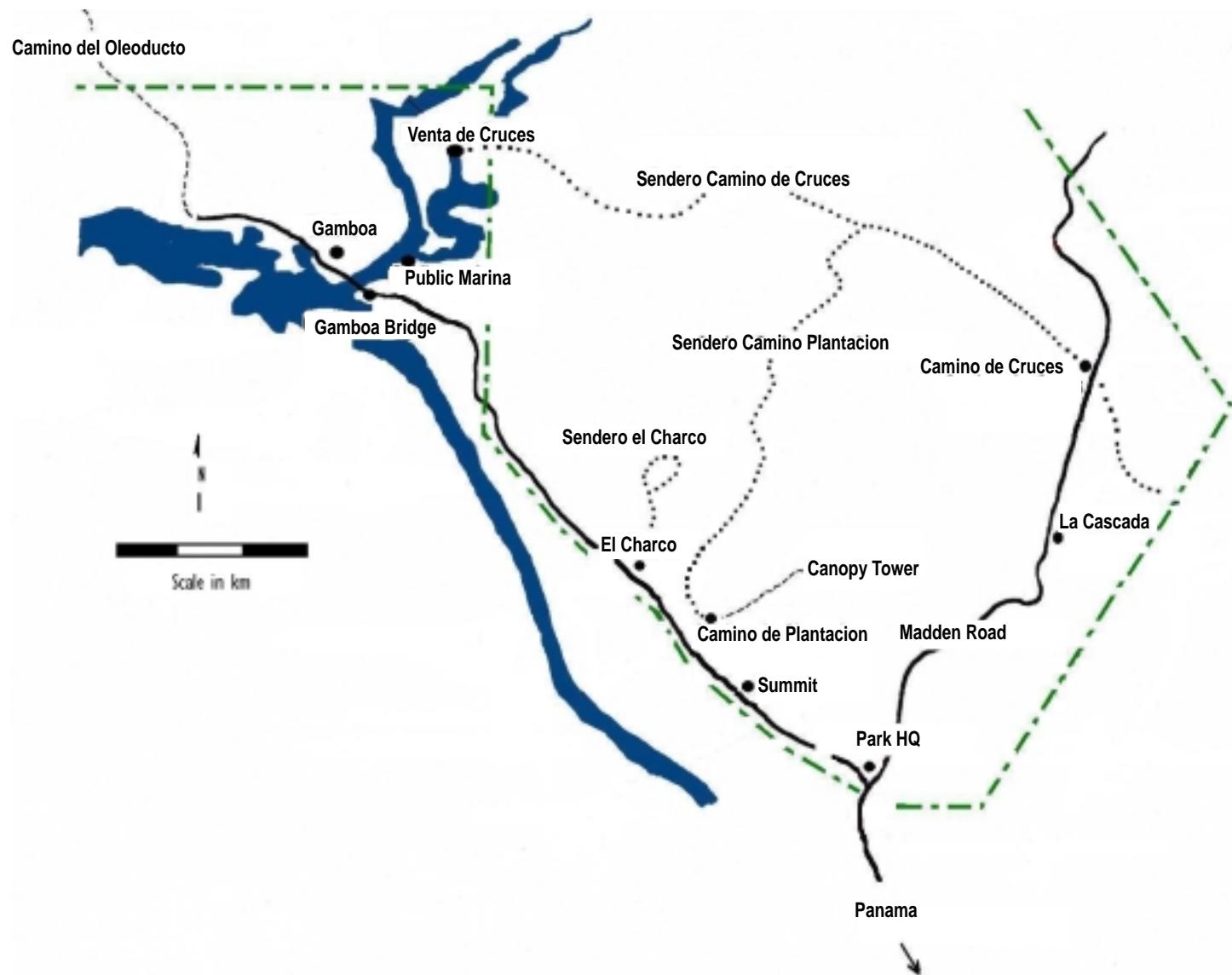


Fig. 12. Map of south end of Soberania National Park

II. Soberanía National Park

II.a. Methodology

Over a period of two weeks, our team looked at the visitor opportunities and existing signage in the Park. We met several times with Park staff and GreenCOM personnel to discuss visitor use, Park needs, and resource issues. We surveyed existing sources of information about the Park available to visitors. We also reviewed the Park Action Plan (1993), and the results of a survey of tour operators in Panama City (1999). Our purpose in this analysis was to create a system of signs for the Park that will address visitor needs, and fit in with the site priorities of the Park. The results of this work are summarized here.

II.b. Assessment of current conditions and administrative needs

Discussions with Park staff revealed the following:

- Signage needs to be improved and standardized
- There is a need for more outdoor orientation and interpretation
- Staff is currently 12 (41 needed)
- Public transportation to the area is spotty
- Communications are inadequate (no phone at HQ)
- Difficult climatic conditions (humidity, rain)
- Vandalism of current signage
- Lack of educational support materials
- Domestic garbage is dumped along highway

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Current signage at the Park consists of a mix of efforts of various ages, with inconsistent use of designs and materials of signs panels and associated structures. Also, most of these features are in different stages of disrepair.

Park staff identified principal sites of interest in the south end of the Park (Fig. 12) as signage priorities:

- Park administrative headquarters
- Park entrance, Madden Road.
- Camino de Cruces trailhead, Madden Road
- La Cascada
- Camino Plantación
- Summit Park
- El Charco trailhead
- Public marina near Gamboa
- Camino del Oleoducto
- Gamboa Bridge

II.c. What signs are needed?

**A Sign Plan
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A Family of Signs

Based on Park staff input and our field review, we developed signs that would address visitor's needs, along with design elements that would visually link them together. A Family of Signs was created in order to provide a visually-integrated system of signage that creates a "sense of place" or identity for the Park.

By using common design elements, the family provides a standard unified approach and look to all directional, information and interpretive signage within the Park. It also provides planners a standard to use in sign development.

Directional and information signs guide visitors by letting them know where they are, how to get to where they need to go, and what to expect when they get there. Interpretive signage enhances visitor experiences by providing educational material about history and resources in the Park .

Here are the members of the Park sign family:

- **Entrance Portal**
- **Highway approach**
- **Highway attraction**
- **Park limits**
- **Park orientation**
- **Park information**
- **Trailhead**
- **Trail marker**
- **Interpretive**

Entrance Portal

sign structures announce the “psychological” entrances to the Park. These may not be the locations of the actual Park boundaries, but are places that provide the best settings for welcoming visitors to the Park. Entrance portal signs structures should be installed at Park administrative headquarters and near the northeast entrance to the Park on Madden Road.

- Materials: poured concrete with 1 inch recessed letters and ANAM logo, supported and framed with basalt rock, surrounded by natural vegetation.
- Colors: gray concrete with black recessed letters
- Type Font: “Parque Nacional” – Times New Roman, “Soberanía” – Impact, “Gracias por su visita” – Times New Roman
- Size: Madden Highway, 4.5 ft. X 10 ft. and Headquarters: 4.5 ft. X 13 ft.

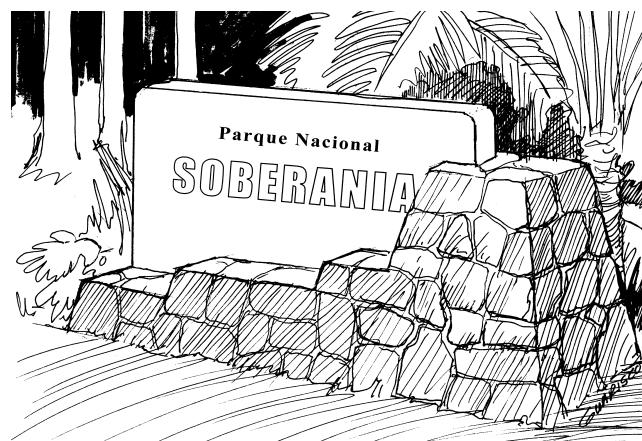
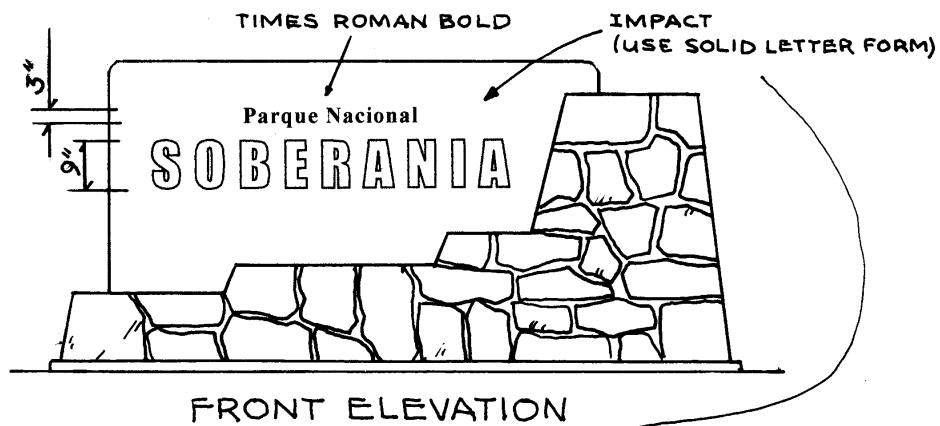


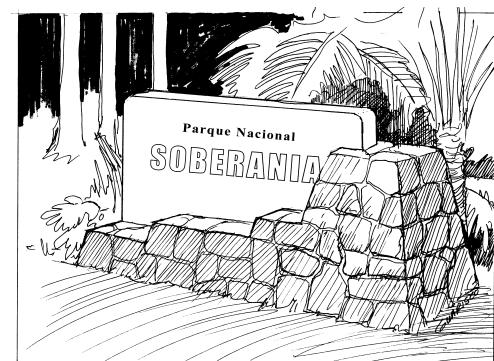
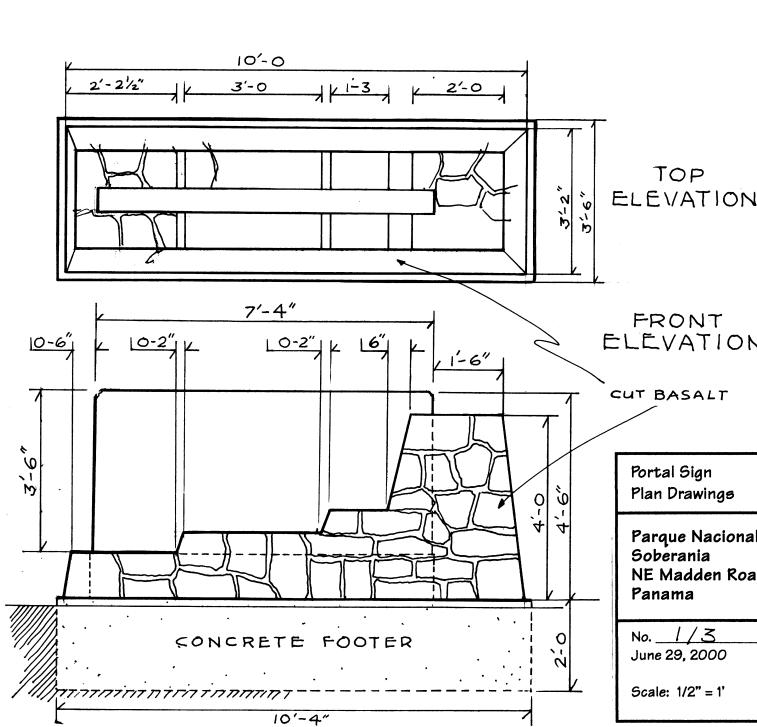
Fig. 14. Backside of portal sign, NE Madden Road Park entrance

Fig. 13. Portal sign, NE Madden Road Park entrance

**A Sign Plan
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Portal Sign Plan Drawings
Parque Nacional Soberanía NE Madden Road Panama
No. <u>3/3</u> June 29, 2000 Scale: 1/2" = 1'

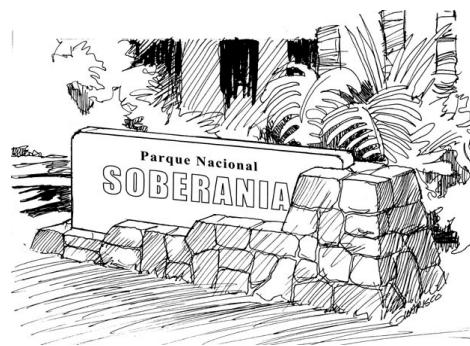
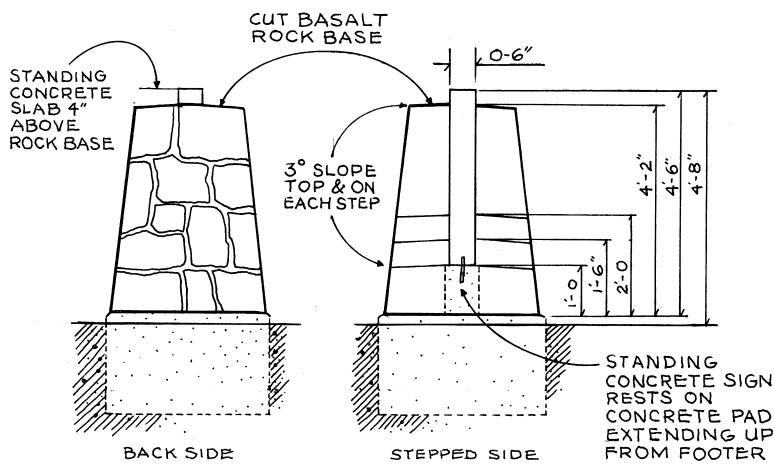


Portal Sign Plan Drawings
Parque Nacional Soberanía NE Madden Road Panama
No. <u>1/3</u> June 29, 2000 Scale: 1/2" = 1'

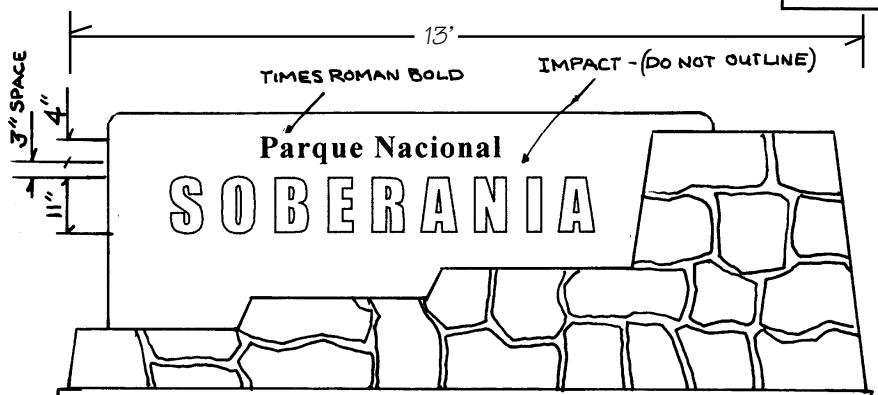
Fig. 15.
**Specifications for portal
sign, NE Madden Road
entrance**

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SIDE ELEVATIONS

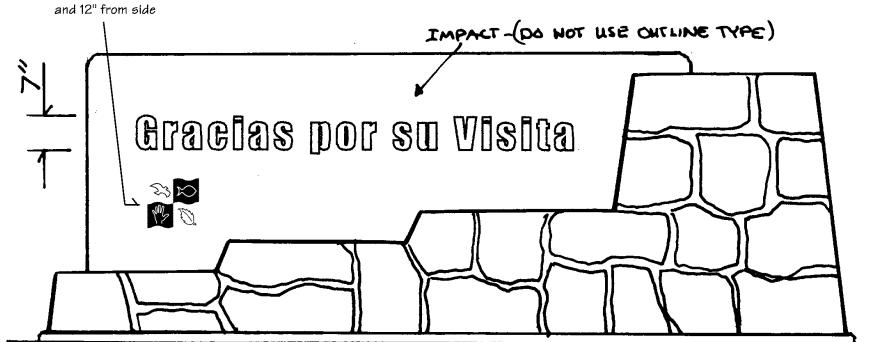


Portal Sign Plan Drawings
Parque Nacional Soberania Headquarters Panama
No. 2/3 June 29, 2000 Scale: 1/2" = 1'



Embed solid letter form into concrete from 3/4 " to 1"

FRONT ELEVATION



BACK ELEVATION

Portal Sign Plan Drawings
Parque Nacional Soberania Headquarters Panama
No. 3/3 June 29, 2000 Scale: 1/2" = 1'

Fig. 16. Specifications for portal sign, Park administrative headquarters

Highway approach

signs announce the proximity of upcoming sites of visitor interest. One should be placed at approximately 1/2 kilometer distance in either direction of the site. This applies to all the attractions within the Park boundaries – trailheads, Park headquarters, Summit Botanical Park, Canopy Tower, Public Marina, etc.

- Materials: standard aluminum highway signs with reflective white lettering on green background.
- Font: Helvetica Bold
- Content: name and distance to site – yellow Park name on black striped graphic.
- Size: 46" x 26"



Fig. 17. Example of Highway approach sign

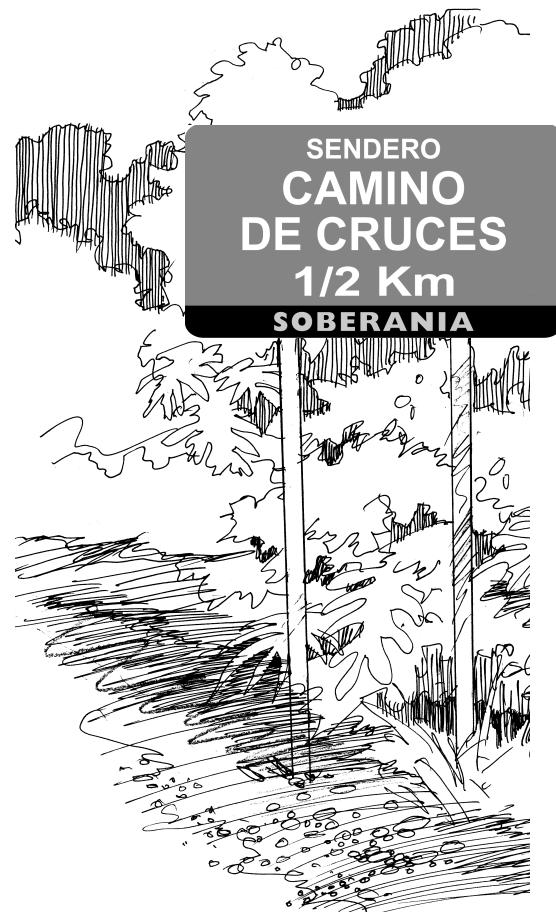


Fig. 18. Highway approach sign for Sendero el Charco

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Fig. 19. Highway approach sign specifications and placement concept



Highway attraction

signs are located directly across the road from the entrance to attractions. They are double-sided so as to be visible from either direction. This applies to all the attractions within the Park boundaries – trailheads, Park headquarters, Summit Botanical Park, Canopy Tower, Public Marina, etc.

- Materials: standard aluminum highway signs with reflective white lettering on green background.
- Font: Helvetica Bold
- Content: name of site with white arrow pointing to the entrance –yellow Park name on black striped graphic.
- Size: 46" x 26"



Fig. 20. Example of Highway attraction sign

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Fig. 21. Highway attraction sign specifications and placement concept



Park limits

are signs marking where the Park's administrative boundary crosses major roadways.

- Materials: standard aluminum highway signs with reflective white lettering on green background.
- Content: name of site with white arrow pointing to the entrance –yellow Park name on black striped graphic.
- Font: Helvetica Bold
- Size: 30" x 18"



Fig. 22. Park Limits sign specifications

Park Information

panels are for posting regulations, information and other changeable materials.

- Materials: carved and painted wood
- Font: Lithos Black
- Content: “Welcome to your Park”, soft backboard for posting notices.
- Size: 30” x 42”



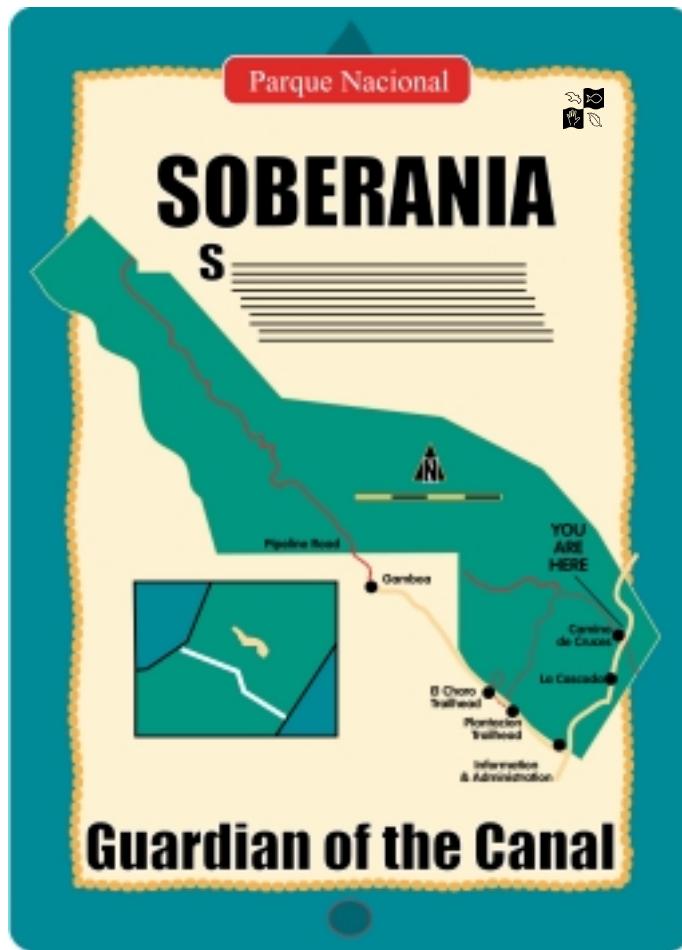
Fig. 23.
Information
panel example

Park orientation

signs feature a detailed Park map with a “you are here” indicator. They also point out additional features and visitor opportunities that can be found in the Park and the immediate surrounding area. Park orientation signs can create a public identity for Soberanía, a “sense of place” for the Park and its opportunities.

- Materials: 1/2 inch thick molded resin with laminated graphic; matte finish
- Font: Titles, Impact. Text, Times New Roman; ANAM logo
- Content: SOBERANÍA as header. Pointer with “You are here.” Park map. Insert of Canal Zone indicating 5 parks and other geographical landmarks
- Size: 30" x 42" (vertical orientation)

Fig. 24. Park orientation sign example



Trailhead

signs feature trail maps that tell visitors the length, difficulty, and expected time to walk the trail, as well as pointing out natural features of the site. They may also contain interpretive information appropriate to the theme of the trail.

- Materials: 1/2 inch thick molded resin with laminated graphic; matte finish
- Font: Titles, Impact. Text, Times New Roman; ANAM logo
- Content: trail map, insert and graphics
- Size: 30 x 42" (vertical orientation)

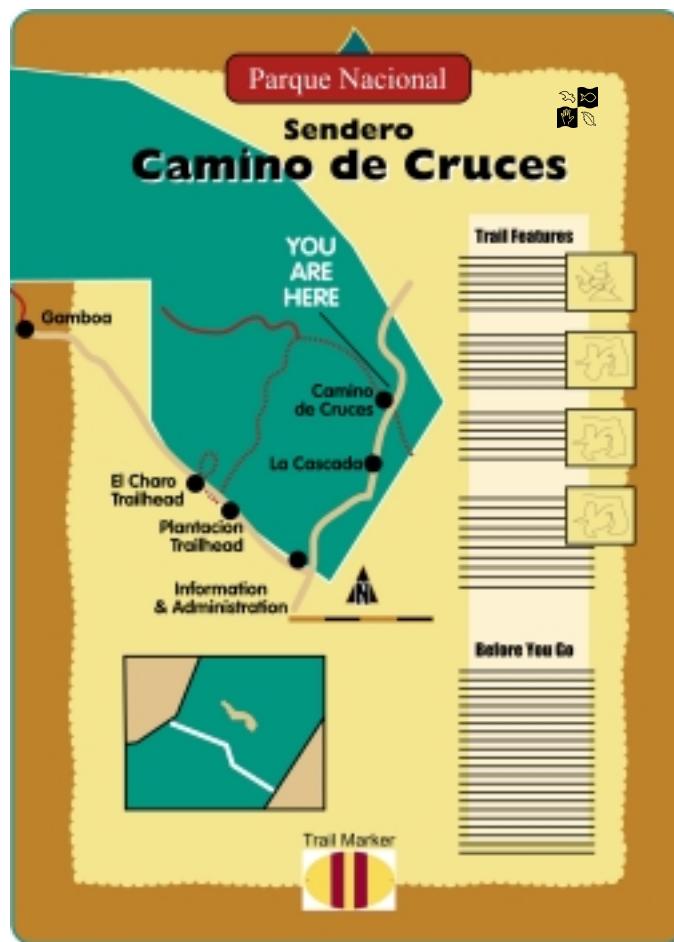


Fig. 25.
Trailhead sign
example

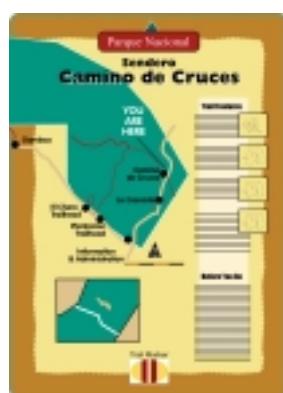
Trail marker

are signs should be used sparingly to indicate which way to proceed on a trail. Trail markers are designed to be inexpensive and easily replaced. These markers are tied graphically to trailhead signs.

- Materials: plastic fabric
- Font: none
- Content: trail graphic
- Size: 10" oval



Fig. 26.
Trail marker
example and
placement
concept.



Interpretive

signs explore a theme topic. This is where we educate and entertain, creating a sense of place and time along with a personal connection that goes beyond just information. Good interpretive signs are memorable, besides being exciting and revealing.

- Materials: 1/2 inch thick molded resin with laminated graphic; matte finish
- Font: titles, Impact. Body text, Times New Roman; ANAM logo
- Content: various text and graphics
- Size: 30" x 42" (vertical orientation)

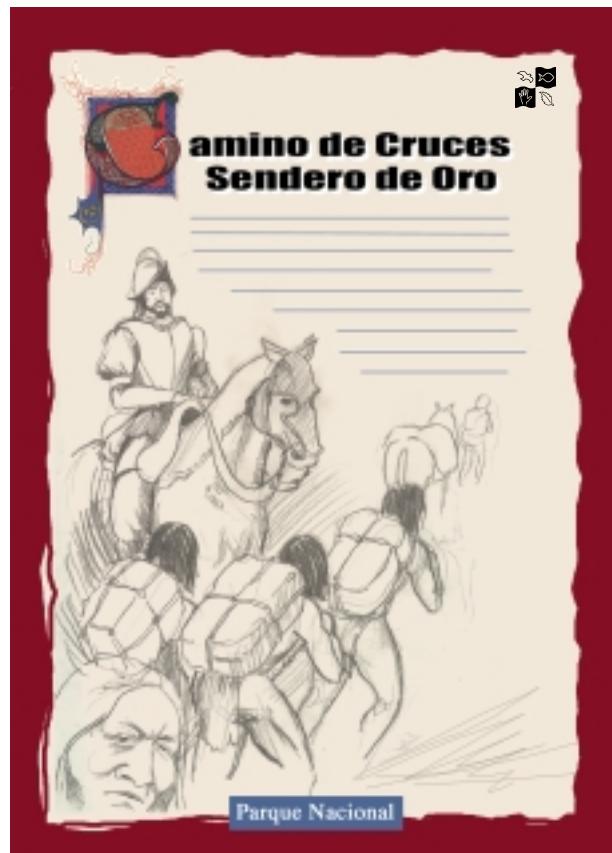


Fig. 27.
Interpretive sign
example

**A Sign Plan
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Type of Sign	Material	Color	Size
Information			
• Entrance portals	concrete	gray with black lettering	10'x4 1/2' / 13'x 4 1/2"
• Park limits	metal	green with white lettering	30"x18"
• Information panel	wood	multicolor	30"x42"
Directional			
• Highway approaches	metal	green with white lettering	46"x26"
• Highway attraction	metal	green with white lettering	46"x26"
• Trail marker	plastic	yellow with red stripes	10" oval
Presentation			
• Park orientation	molded resin	blue border	30"x42"
• Trailhead	molded resin	yellow border	30"x42"
• Interpretive	molded resin	red border	30"x42"

Fig. 28. Family of Signs

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What particular knowledge do we want the visitor to gain?

- Park staff's objectives and activities
- Importance of protecting the watershed
- Basic understanding of the complexity of the rainforest
- Knowledge of some species interconnection with the forest
- History of forest use by indigenous peoples
- History of Camino de Cruces
- History of cocoa and coffee plantations in the forest

What are some possible topics for interpretation?

- Purpose and importance of SNP
- What is a national park?
- Why is the Park named “Soberanía?”
- This is the first national park in the reverted Canal Zone
- Why was it established?

What are the significant Park resources and sites where these can best be interpreted?

- Most accessible lowland wet tropical rainforest in the world (HQ)
- Globally significant Neotropical birds (Pipeline Road)
- Scientific research (Pipeline Road)
- History of construction of the railroad (Headquarters or Chagres River bridge)
- Camino de Cruces Trail (Camino de Cruces picnic area, Venta de Cruces townsite)
- Importance of the watershed (Cascades or El Charco)

Fig. 29. Content of Park orientation, trailhead and interpretive signs

II.d. What design elements should be used for orientation, trailhead and interpretive signs?

Park orientation, trailhead and interpretive signs present material beyond just direction and information. They incorporate varying degrees of educational material about the Park, and its resources and history (Fig. 29). Interpretive planning will focus these efforts.

Design elements

Color in signage sets the stage for your interpretive message - it can draw the viewer and create mood for the story. This is one element of interpretive planning that is often undervalued. The use of background color is essential to highlight text and make it readable. Color can be used as a vehicle to indicate change of subject within a sign, or to highlight the importance of certain information.



Fig. 30. Examples of mola designs

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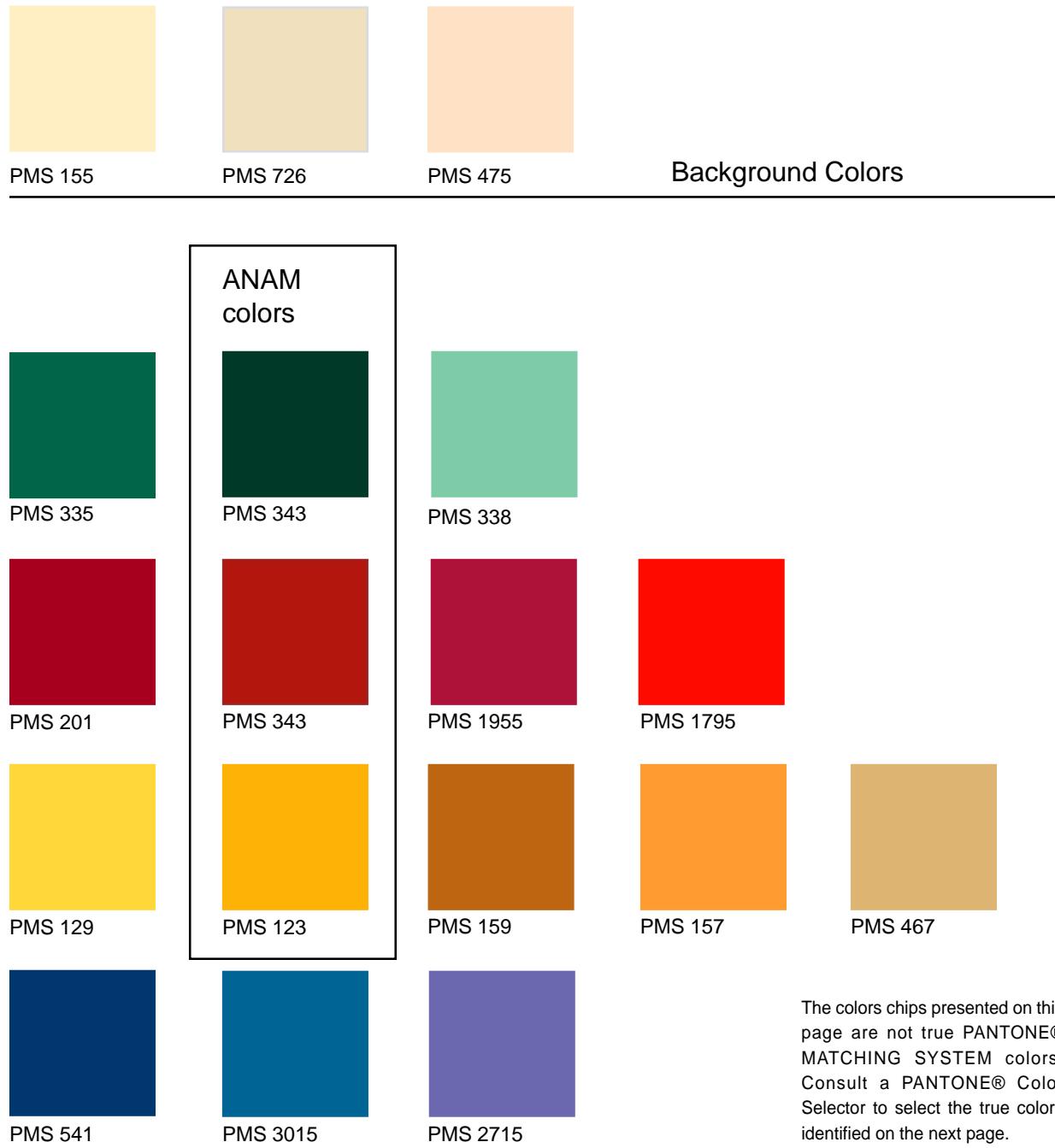


Fig. 31. Color palette for Park orientation, trailhead and interpretive signs

Artwork can be more effective than text in communicating an idea or identify a concept at a single glance.

We recommend vibrant colors and mola-style designs as elements to create a thematic tie between signs.

Fonts can also be used to communicate a certain mood or idea. A good rule is to use no more than two fonts on a sign. For ease of reading, text body is set in serif font Times New Roman. Titles and subtitles should be set in san serif font Impact.

Titles should be short and interesting - this is where a sign can grab the viewer's attention. This is also where a distinct font can be used. Titles should be in Spanish, but we recommend that sign text should be bilingual (Spanish and English). Type size should be no smaller than 96 points.

Text should be short and to the point. For a sign to be read, “less is better”. The idea here is to spark an idea or create a strong mental image in a few well-chosen words.

- Text can be layered, with the principle text short and to the point (a good rule: no more than 50 words); secondary text can be set aside by color change or boxed to present and aside point or provide more details. Text size should be at a minimum 24 points and preferably 36 pt.

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Fig. 32. Example of kiosk containing Park orientation, information, trailhead and interpretive signs

II.e. Park kiosk structures

Park orientation, information, trailhead and interpretive signs should be placed in a system of **Park kiosks** to provide outdoor orientation at a number of separate stations around the Park. Each kiosk contains a piece of the Park story and together present a complete and cohesive information and interpretive system.

What should kiosks look like?

Kiosks are open-sided roofed structures that should be large enough to provide shade and shelter to visitors who will be viewing the signs within. Kiosks are of two basic designs: smaller, simpler structures for Park attraction sites, and a larger more detailed design for the main visitor orientation center at Park administrative headquarters. All kiosks have a hipped roof covered with corrugated roofing material with the appearance of red tile. The roof is supported by vertical posts (at least 6x6").

The smaller site attraction kiosks have three vertical supports, oriented along the center line of the roof. A suggested size for this kiosk is 12'x16'. These structures also have a floor of cut basalt blocks that are dry-laid (for better drainage). All signs are mounted directly to cross-bracing between the vertical supports. A fascia board (10" wide) below the roof, contains the name of the attraction (Fig. 32, 34).

The main visitor orientation kiosk at Park administrative headquarters is a larger and more detailed design (Fig. 35, 36). A recommended size for this structure is 18'x24'. Vertical roof supports are at the corners and edges. These posts are anchored in piers of cut basalt, with wood slab benches connecting piers. The floor is of poured concrete. All signs are mounted to free-floating post-and-cross- bracing structures anchored to the floor within the kiosk. The fascia board mounted below the roof contains the word "Bienvenidos" in large letters.

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Proposed site improvements at Camino de Cruces trailhead



Fig. 33. Site plan with new parking lot, kiosk and painted highway crossing, Camino de Cruces trailhead, Madden Road



Fig. 34. Kiosk concept for Camino de Cruces trailhead, Madden Road

These pages show examples of how existing sites can be improved to accomodate visitors and sign kiosks.

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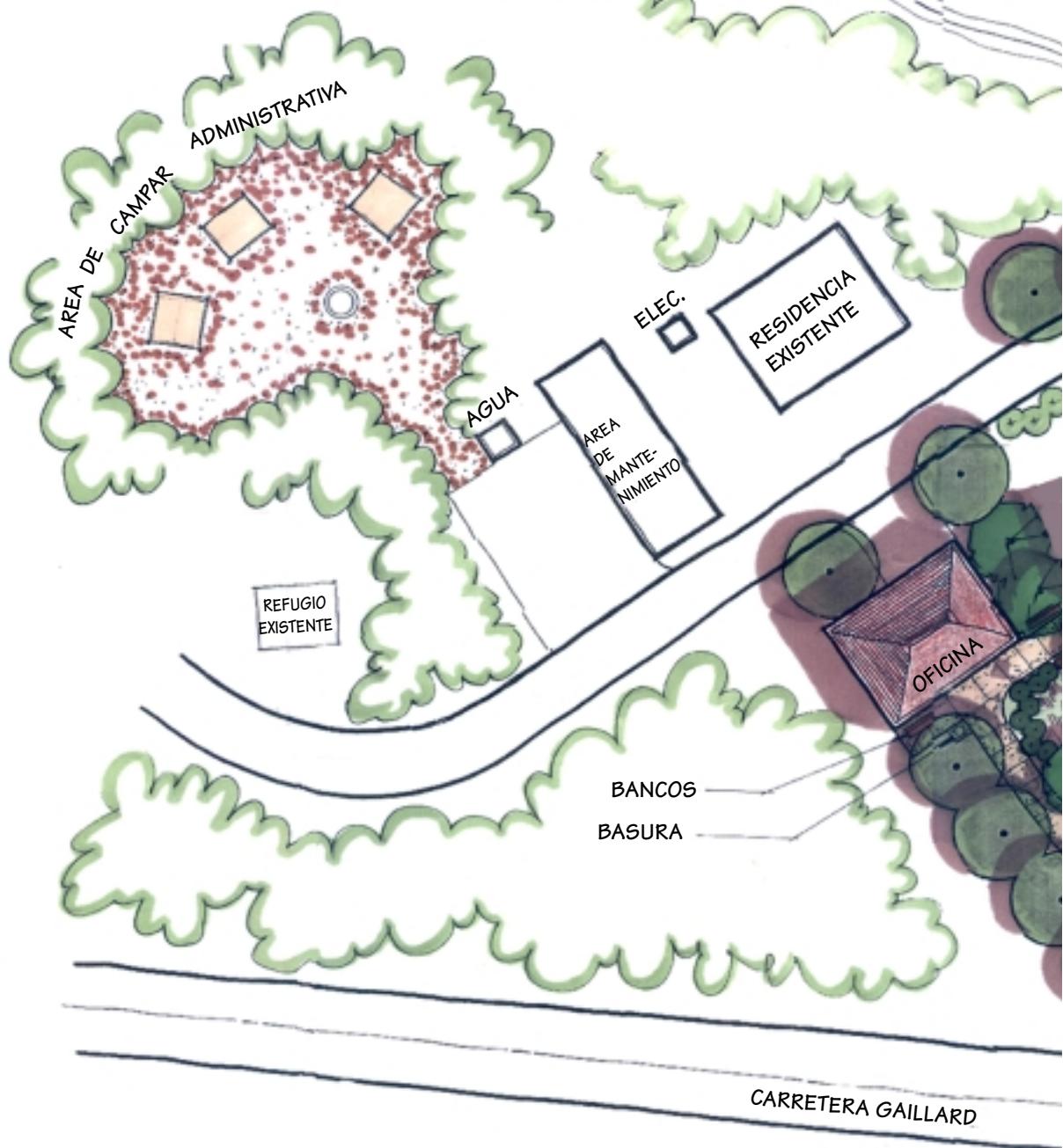


Fig. 35. Kiosk concept for Park administrative headquarters



NORTE

ESC: 1/200



PLANO DE SITIO
SEDE ADMINISTRATIVO Y DE
PARQUE NACIONAL

05/00 R.V.

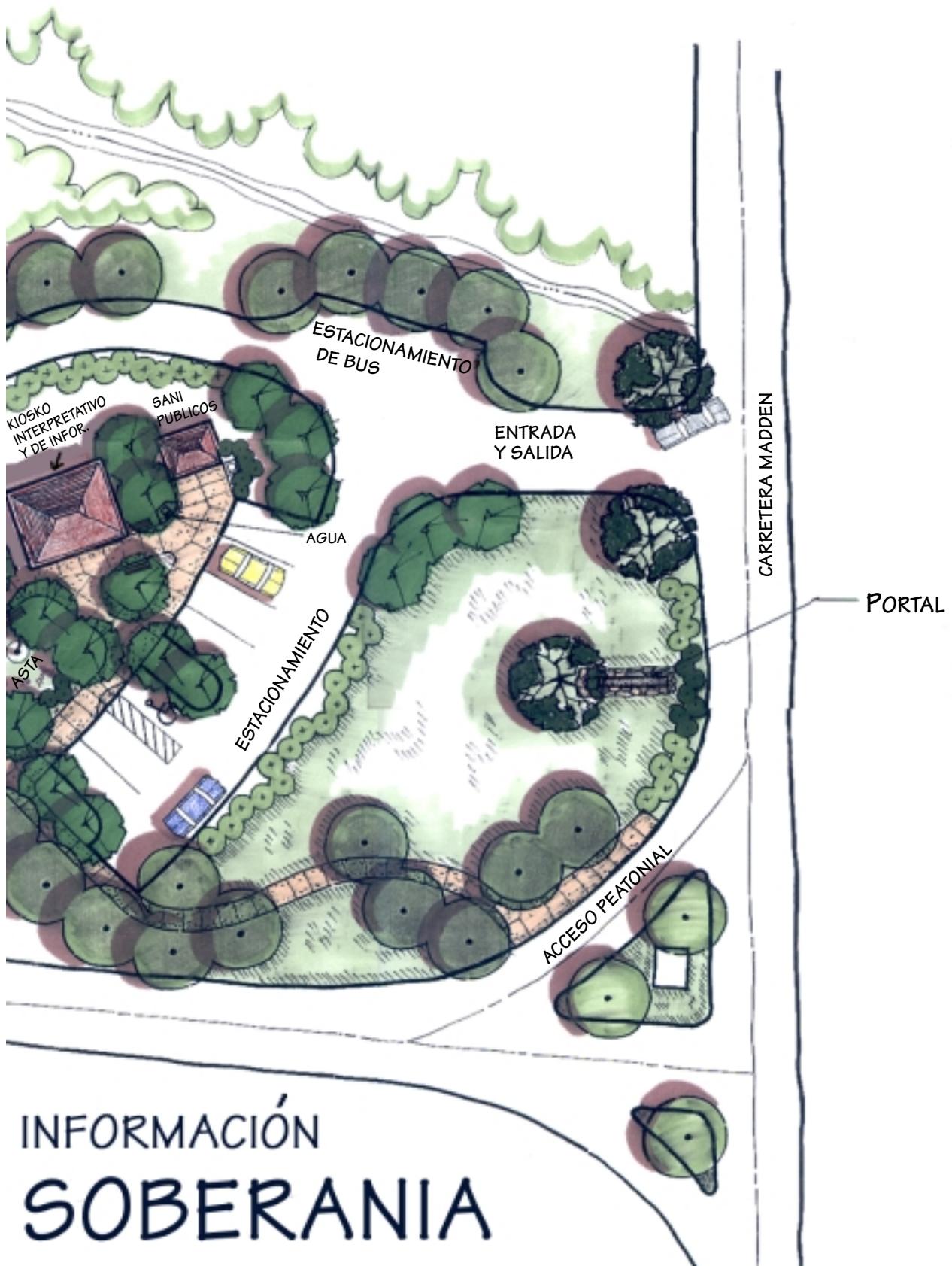


Fig. 36. Site plan for the Park administrative headquarters with new entrance road, parking lot, portal sign, kiosk and toilet

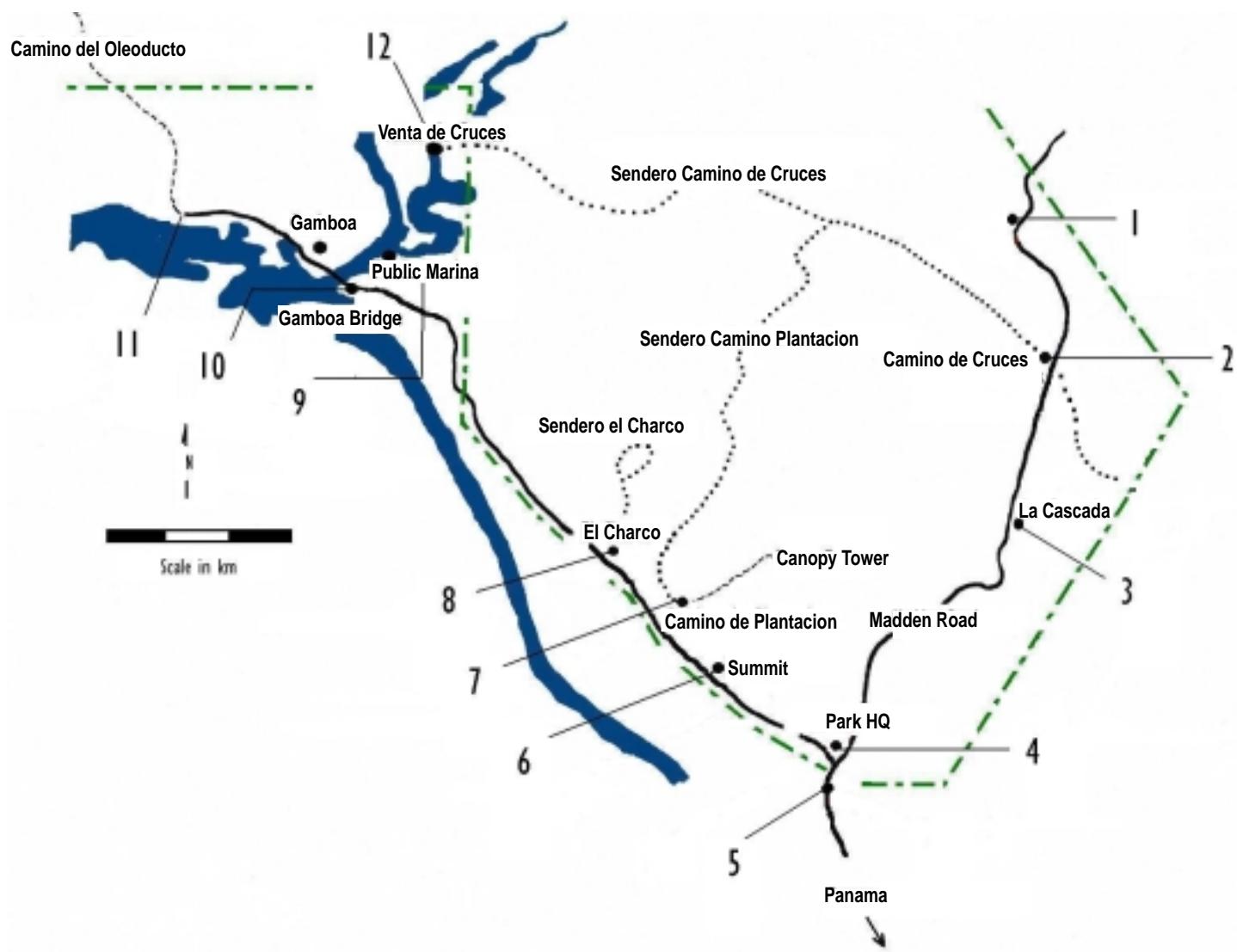


Fig. 37. Map of sign placement recommendations,
south end of Soberania National Park

II.f. Where should signs and kiosks go?

1 - Northeast Madden Road Park entrance

A 10-foot long concrete and rock portal sign structure should be placed at the northeast end of the Park entrance, along Madden Highway (Fig. 38).

2 - Camino de Cruces trailhead, Madden Road

This important location should provide detailed information and interpretation of the trail and its history (Fig. 2-4). Modifications to the existing site plan will allow better visitor service (Fig. 33)

Recommendations here include:

- Replace existing trailhead sign structure with kiosk (Fig. 34) that contains new Park orientation, trailhead and interpretive signs, along with a panel of park information
- Add approach signs along Madden highway that announce the name and distance to the attraction
- Remove existing site name panel along road, and add a simple attraction sign across from site
- Trail markers should be placed sparingly along the trail route

3 - Las Cascada

No kiosk is recommended here: less is better. Signage should be kept to a minimum at this beautiful location. This site contains an attractive structure of cut basalt, but very little parking area (Fig. 5, 6, 42). The placement of signage here should follow additional visitor site development (parking, trail work).

- Remove park sign board from basalt structure
- Add new sign plaque (cast resin with the appearance of metal) to cement face where old plaque was removed



Fig. 38. Proposed location of portal sign,
northeast Madden Road Park entrance



Fig. 39. Railroad overpass near Park administrative
headquarters

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- Add approach signs (with name and distance to site) along the highway
- Add an attraction sign across the highway from the site

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4 - Park administrative headquarters

Site modifications will allow better visitor services here (Fig. 36). This location should provide both welcome and orientation. It is a visitor's introduction to the Park and should include the following components:

- Entrance portal sign
- Large kiosk here, as specified on page 45, will serve as principle Park orientation center (Fig. 35); signs should include Park orientation and interpretation, along with Park information
- Approach signs along the Madden highway, announce the name of the park and record the distance to Park headquarters

5 - Railroad overpass

The railroad overpass near the Park headquarters could make an exciting entrance to the Park (Fig. 39). Murals of mola-style rainforest flora and fauna could cover the front and back of the structure, making a colorful and exciting entrance to welcome visitors into the Park, and inviting visitors to return.

6 - Summit Botanical Park

The zoo currently receives very heavy visitation, and would be a wonderful location to develop a park kiosk in partnership with Park (Fig. 43).

- Kiosk (similar to that at Camino de Cruces trailhead), perhaps placed near zoo entrance should contain orientation sign and park interpretation signs

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Fig. 40. Camino Plantacion trailhead entrance road



Fig. 41. Parking lot at Camino Plantacion trailhead

7 - Camino Plantación trailhead

This key location should include a trailhead kiosk, similar in construction to that recommended for Camino de Cruces.

Placed at the NE edge of the parking lot, this kiosk would be easily accessible to the visitor and would act as the beginning of the trail (Fig. 40, 41).

- Kiosk should contain Park orientation, trailhead and interpretive signs, along with an information panel
- Remove existing trail map sign and structure
- Remove existing empty kiosk panel and structure located along trail
- Replace large wooden sign (indicating trailhead direction from entrance road) with a simple wood sign (“Camino Plantation Trailhead” and arrow) that is more in scale with the setting
- Remove visitor notice sign (facing parking lot, in front of guard station) and incorporate this information into kiosk panel
- Add approach signs and attraction sign along the highway (these could be done in combination with Canopy Towers in order to make less roadway sign clutter)
- Trail markers should be placed sparingly along the trail route

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Fig. 42. Rock structure at La Cascada, Madden Road



Fig. 43. Summit Botanical Park entrance



Fig. 44. Proposed STRI boat dock and kiosk site



Fig. 45. Camino del Oleoducto entrance gate

8 - El Charco trailhead

This heavily used site contains a large roofed kiosk that could be modified with recommended kiosk design elements, and then should incorporate new signage (Fig. 7).

Recommendations here include:

- In kiosk, replace existing signage with new Park orientation, trailhead and interpretive signs, along with panel of Park information
- Remove existing “don’ts” sign and structure: regulations can be included in the new park information panel under the kiosk
- Add approach signs (with name and distance to the site) along the highway
- Remove existing site name panel and structure and add an attraction sign across the highway from the site

9 - Public marina

A Park kiosk could be placed at the public marina located near Gamboa (Fig. 46). The kiosk could contain a Park orientation sign, a waterway map sign (similar to a trailhead sign), and interpretive panel. Also included should be:

- Approach signs on the highway with name and distance to the site
- An attraction sign across from entrance road to the marina

10 - Gamboa bridge

A single sign is suggested at the south end of the Gamboa bridge, for visitors waiting to cross into Gamboa. This sign could address the Canal and railway route. In conjunction with this, there should be some consolidation of the myriad of existing information signs (Fig. 47).

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Fig. 46. View of public marina near Gamboa



Fig. 47. Sign congestion at south end of Gamboa Bridge

11 - Camino del Oleoducto/Gamboa

A park kiosk is needed for Camino del Oleoducto. This could be placed at the north edge of the town of Gamboa, near the turn off road to Camino del Oleoducto. STRI is planning to build a new boat dock for visitors to Barro Colorado in the vicinity of this access to the road. The park's kiosk could be placed alongside or incorporated in an outdoor orientation center STRI is proposing for the visitor's waiting area associated with the dock (Fig. 44, 45).

- Kiosk should include Park orientation sign, trailhead sign and interpretive sign, along with a panel containing Park information
- An approach sign could be placed in Gamboa announcing the attraction; this could also be done in partnership with STRI
- A directional/approach sign should be placed at junctions leading to actual trailhead parking lot
- An attraction sign should be placed at the parking lot to Camino del Oleoducto

12 - Venta de Cruces

This trailhead of the Camino de Cruces will receive increased visitor use as attention is focused on the Madden Road trailhead, and Gamboa Resort. A kiosk here, similar to that at the trailhead on Madden Road, could be developed in partnership with Gamboa Resort. Recommendations include:

- Kiosk with Park orientation, trailhead and interpretive signs, along with a panel of Park information
- In addition to the history of the trail, interpretive sign should address the history of the town and the importance of preserving these ruins

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	Entrance Portal	Highway Approach	Highway Attraction	Kiosk	Information Panel	Park Orientation	Trailhead	Interpretive	Other
1. NE Madden Road Park entrance	X				X	X	X	X	X
2. Camino de Cruces trailhead	X	X	X	X	X	X	X	X	X
3. La Cascada	X	X							
4. ParkAdministrative headquarters	X	X	X	X	X	X	X	X	X
5. Railroad Overpass									Mural
6. Summit Botanical Park	X	X	X	X	X	X	X	X	X
7. Camino Plantacion/Canopy Tower	X	X	X	X	X	X	X	X	X
8. El Charco trailhead	X	X	X	X	X	X	X	X	X
9. Public Marina	X	X	X	X	X	X	X	X	X
10. Gamboa Bridge							X		
11. Camino del Oleoducto /STRI kiosk	X	X	X	X	X	X	X	X	X
12. Venta de Cruces				X	X	X	X	X	X

Fig. 48 Summary
of sign placement
recommendations

II.g. What are the next steps?

Plan implementation stages

The design and implementation of this plan can be carried out in several stages, depending upon the resources that are available. Our recommended order of priority is:

1. Installation of Park portal structures and all highway approach and attraction signs
2. Construct Park administrative headquarters visitor kiosk and install signage, after making modifications to site as recommended in conceptual site plan (Fig. 35, 36)
3. Construct Camino de Cruces trailhead kiosk and install signage, after making modifications to site as recommended in conceptual site plan (Fig. 33, 34)
4. Construct Camino de Plantación trailhead kiosk and install signage. Make El Charco trailhead kiosk modification and install signage
5. Implement the remainder of the Plan projects

Interpretive planning

It will be necessary to complete an interpretive plan for the Park prior to developing kiosk signage. Interpretive planning will be based on natural history and cultural history overviews and information compilations. An historical overview of the Camino de Cruces is an especially urgent need in developing Park interpretive material.

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Directional signs

Exits at the 4-lane highway northeast of the Park should notify visitors of directions to the Park. Directional signs should also guide the visitor coming to the Park from Panama City. As these signs would not be within the Park, they could be of standard highway specifications.

Sign manual

A sign manual, based on the present document, could be developed as a standard for all national parks and other protected areas. As an example, entrance portal sign structures similar to the Soberania model can be applied to all parks; each name could have a distinctive font used as their logo (Fig. 49).

PARK NAME	FONT
SOBERANIA	Impact
CHAGRES	Tekton Bold
CAMINO DE CRUCES	Copperplate 31ab
ALTAS DE CAMPANA	Boca Raton ICG Solid
SAN LORENZO	Trajan
GATUN	Klang MT
Metropolitan	Verdana



Fig. 49 Entrance portal sign structures with recommend type fonts, for parks and protected areas

II.h. Other ideas

The following recommendations stem from our review of previous studies, field observations, and from our professional experience in the area of visitor services and environmental/historical interpretation. We believe that these ideas, some of which could be carried out immediately at little or no cost and others of which are more expensive, support the development of a holistic plan for SNP.

- **Centralized information:** a web page should be set up and maintained to serve as a bulletin board/resource center for Park and eco-tourist activities, interpretive resources, and eco-educational opportunities. A paid web master could operate out of a university, or an NGO to coordinate all pertinent information and to identify participants.
- **Airport kiosk:** tourists arriving by plane should be able to get reliable, up-to-date information on the parks, including maps, interpretive literature, tour opportunities, etc. when they arrive to Panama.
- **Other visitor contact points:** Park information should be available at other parks (including Metropolitan Natural Park), schools and hotels.
- **Jungle van:** a mobile van could circulate on weekends between the watershed parks and the capital, stopping at participating hotels, cultural centers, and other designated drop-off sites, etc. to distribute literature and encourage visits to the parks. During the week, the van could also serve as a floating classroom with visits to schools, etc.

- **Peripheral materials:** site maps and other handouts should be simple, and give an overall view to the watershed area, including sites that are both private and public. This strategy would depend upon partnerships.
- **Partnerships:** all governmental agencies, NGOs, private and international organizations involved in the promotion of eco-tourism, environmental interpretation and environmental education should have an opportunity to collaborate. Potential partners within the Park include Gamboa Rainforest Resort, Summit Botanical Park and Canopy Tower.
- **Garbage:** bags printed with a short statement about responsible treatment of trash should be distributed to cars entering national parks. Bags could also be distributed to families and/or groups entering Summit Botanical Park, with the incentive of a voucher for a free entry to the park for each bag returned.
- **Interpretive skills:** Park employees should receive economic support to attend English-language and interpretive training. An intensive program could be set up locally, followed by a two-month study-abroad program in English, coupled with visits to a National Park, a National Forest, and a historical interpretive site.

Seminar on Interpretation and Visitor Information Services

The ideas contained in this report were presented at a seminar held on June 2, 2000, at Hotel El Panama, Panama City.

Approximately 75 people attended from diverse local institutions, including ANAM (park employees and administrators), IPAT, ARI, ANCON, STRI, Audubon Society, Metropolitan Natural Park, CEASPA, USAID/Panama, Peace Corps, and Gamboa Resort, among others.

This effort, sponsored through the efforts of USAID/Panama (Gerald Bauer) and GreenCom (Jose Ignacio Gamarra Mata), also created a networking opportunity with the idea of expanding intercommunication and future collaboration among institutions and organizations involved in parks, reserve lands, eco-tourism, historical and natural research, and cultural preservation.



Fig. 50. Ramiro Villalvazo (USDA Forest Service)

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Fig. 51. Barbara Loste (Heritage Design Interpretive Services)



Fig. 52. Ricardo Rivera (ANAM), Valerie Belon (US Embassy),
Gerald Bauer (USAID/Panama)

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