

# INTERPRETIVE AND CONSERVATION EDUCATION PLAN

## Why Do You Want A Plan?

Interpretive/Education Planners will tell you that there is no “right” way to write a plan; that there are as many different ways of writing a plan as there are plans. The first and most important step in starting the process is to clearly identify **why** you want an interpretive or education plan, and **what** you want it to do for you.

Here are just a few of the reasons why you might need a plan:

- ✓ Most interpretive/educational efforts are being conducted independently of each other with no continuity or evaluation of needs based on area/Forest goals.
- ✓ There is a need to improve the forest’s public image, and create consistency of key messages and communication strategies.
- ✓ There is a desire to improve the public’s understanding of, and appreciation for, the resources of the national forest and why they are managed the way they are.
- ✓ The forest wants to improve public involvement, garner new partnerships, and/or promote community commitment to public lands management.
- ✓ There is a need to develop a heightened sense of individual stewardship.
- ✓ Current interpretive, educational and information service programs lack adequate funding, prioritization, or integration.
- ✓ Staff needs a tool to assist in recruiting partners in interpretation.

Once you’ve decided why you need a plan, then you can name it!

## Interpretive Master Plan

Interpretation is:

- ✓ A teaching technique
- ✓ A service provided to visitors that entertains and provides meanings
- ✓ A management tool that can be used to increase visitors’ appreciation for, and sensitivity to, the natural and cultural resources of the area.

An Interpretive Master Plan is typically written at the forest level, to bring together the entire forest-wide effort for interpretation. It tiers to other forest programmatic plans, and spells out over-arching goals, objectives, and forest-wide themes. It addresses interpretive programs, facilities, structures, and services.

## Interpretive Plan – for a Facility, Site or Area

These plans are more site-specific than a Master Plan, and focus on a facility, site, or special interest area of the forest. It is more detailed than an Interpretive Master Plan, and often spells out recommendations for specific media. It includes cost estimates for development, design, fabrication, implementation, operations, and maintenance, and outlines a timeframe with assigned responsibilities.

## Exhibit Plan

As you would expect from the title, this type of plan is specific to an exhibit or set of exhibits. It could pertain to a visitor center, a scenic byway, an interpretive trail – anywhere you need specific direction that can then be given to a contractor/fabricator for completion. The plan includes goals and objectives for each exhibit and specific text outlines, recommendations for graphics and images, and cost estimates. Depending on the scope and complexity of the plan, it may include draft text and conceptual designs.

## **Interpretive Prospectus**

An Interpretive Prospectus follows an Interpretive Plan, and is generally used to develop a large concept to the point where it can be “sold” for support through the funding and implementation process. It may even be used to solicit bids for design and/or construction of interpretive media. The Interpretive Prospectus includes:

- Description of, and purpose for project
- Target market or audience
- Objectives/desired outcomes
- Interpretive themes and strategies
- Functional use of space (bubble diagram)
- Design narrative
- Universal Design considerations
- Budget and funding plan (including partners)
- Operations and maintenance costs
- Project schedule
- Project Team (list of skills and areas of expertise)

## **Conservation Education Plan**

Conservation education (CE) programs are distinct from – though closely related to – interpretation programs and information services. Both interpretation and information services provide useful and relevant information about natural resources conservation, but neither provides the structured series of experiences that characterize education. Frequently, education programs are targeted for a specific age group, meet national educational standards and have a captive audience, such as a school group. They may make use of existing educational curricula (such as Project Learning Tree, Project Wild, and Nature Watch) or be specific to a target audience and/or age group.

## **Information Services Plan**

Visitor information services aim to provide information, orientation, and awareness of Forest Service programs, activities, and services. Through both personal and non-personal information, the public is made aware of how they can make use of, and benefit from national forest lands, facilities, and services.

## **Can You Customize a Plan?**

Yes! Your plan can address any combination of the services described above, depending on your specific needs. See the sample outline.

## **How Long Will It Take? How Much Will It Cost?**

You won't like this answer but..... “it depends.” Factors that influence these answers include:

- ✓ Scope and complexity
- ✓ Availability of forest staff to participate in the planning process

- ✓ Amount of research and background information already collected
- ✓ Level of specificity desired

You should expect to pay anywhere between \$5,000 for a simple site plan to \$100,000 for a complex scenic byway or large interpretive center. Most plans take 12-18 months to complete.

# Interpretive and Conservation Education Comprehensive Plan

- I. Introduction
  - a. Executive Summary
  - b. Purpose of Plan
  - c. Need for Plan
  - d. Management Direction: Tiered to Forest Plan, National Conservation Education Strategy, National Interpretive Strategy, National Recreation Strategy, Recreation Facility Master Plan (equivalent to R8/NFF Recreation Alignment)
  - e. Definition/differentiation between CE and Interpretation
  
- II. Background
  - a. Brief narrative about the place and exciting programs
  - b. Planning Assumptions
  - c. Audiences—Visitor Use by Market Segment/Patterns/Analysis
  - d. Trends - Social-economic, social-political, demographics, educational, etc. (National Visitor Use Monitoring – NVUM and National Recreation Realignment Report, Ken Cordell)
  
- III. Existing Conditions
  - a. Inventory of Resources
    - i. Outstanding natural features
    - ii. Compelling cultural stories
    - iii. Unique recreation opportunities (from Recreation Strategy)
    - iv. Proposed facilities/upgrades (Capital Investment Program, etc.)
    - v. School Districts, pre-schools, Universities
  - b. Inventory of Current Interpretation and Conservation Education Efforts
    - i. Developed recreation sites with interpretive components (See Appendix A. Inventory Forms for details)
    - ii. Personal interpretive services
    - iii. Media
    - iv. Conservation education programs and resources
    - v. Matrix of existing programs by district/unit
  - c. Inventory of Resource and Management Issues
    - i. Outstanding natural features
    - ii. Compelling cultural stories
    - iii. Unique recreation opportunities (from Recreation Strategy and Recreation Site Facility Master Plan = R8 Recreation Alignment )
    - iv. Proposed facilities/upgrades (Capital Investment Program, etc.)
  - d. Inventory of stakeholders', partners' and special interest group's existing interpretive services and conservation education efforts.
    - i. State/School District educational standards
  
- IV. Interpretive Services and Conservation Education Opportunities
  - a. Statements of Significance and Niche

- b. Interpretive Theme, Goals and Objectives
  - c. Desired Visitor Experience by Market Segment
  - d. Desired Educational Experiences by Grade-level or audience
  - e. Educational goals, objectives and educational standards
- V. Recommended Interpretive Services and Conservation Education Strategies
- a. Interpretive Services Summary  
(Interpretive Media, Product, Delivery, Location, Capital Costs, Estimated O& M costs, Proposed Funding Mix, Cost per visitor) See Appendix B for detailed Site Inventory Forms
  - b. Conservation Education Programs and Products Recommendations  
(programs and products, delivery method, location and targeted audience, correlation to standards, costs, funding, cost per participant)
  - c. Implementation Schedule
    - i. Marketing strategies
      - Pricing
      - Promotion
      - Placement
      - Packaging
- VI. Monitoring and Evaluation (using NVUM and University Surveys)
- a. Monitoring Schedule and Methods
  - b. Customer Satisfaction by Market Segment
    - i. Families with children
    - ii. Young adults
    - iii. Mature adults
    - iv. Groups
      - Commercial
      - Recreation
  - c. Educational Assessment Strategy
    - i. Educational attainment (teachers, Pre-K, K-4, 5-8, high school, college)
    - ii. Program assessment (based on NAAEE guidelines)
- VII. Annual Operating Plan and Budget

## The Interpretive and Conservation Education Planning Process

Each forest will have a unique planning process tailored to meet their specific needs. However, the following process is shared as an example of how a typical Forest Interpretive or Conservation Education Plan might be developed:

### 1. Identify the Participants

- A. *Core Team* – at a minimum, the team should include an Interpreter, a Landscape Architect, a Recreation Planner, and a Conservation Education Coordinator (or someone involved with CE initiatives)

*Members:* Greg Lussier, Heather Callahan, Bret Bush, Shanon Harvey, Chris Lydick & James Hart

- B. *Technical Advisory Group* – this group needs to be familiar with the area and its resources, and be able to get multi-agency input when appropriate.

- Interpreters
- Education Specialist
- Public Affairs Officer
- Biologist, botanist, geologist, forester, archaeologists (resource experts)
- Engineer
- Frontliners

*Members:* Garth Smelser, Carrie Sekerak, Susan Kett, & Ava Young

- C. *Key Participants* – these are people who need to know what is going on and may participate at certain times. They will review products and support the accomplishments.

- Internal (e.g. leadership team)
- External (e.g. Chambers of Commerce, tourism regions, local/county governments, grantors, potential partners, educators, clubs and organizations) {DOF, Eastern National, UF, FSU, FNST, Visit FL, FWC}

- D. *Decision Maker* – this is the person who will approve progress at various milestones, as well as the final plan.

### 2. Identify the Participation Process

Describe how and when each of the participants will be involved. Contact them with a description of the project and their potential role, along with an invitation to participate. Provide a project timeline and a deadline for their response.

### 3. Inventory

- A. Technical Advisory Group begins inventories:

- Inventories include: existing interpretive and conservation education efforts, key topics to relate to visitors about their resources; list of the best locations to discuss topics with visitors; narrative description of exceptional values related to their resource area and also school district, preschools, day cares, home school programs and specific teachers that are champions; and an analysis of your existing and potential visitors.
- Compile lists and map locations.

- B. Core Team discusses:

- Purpose – brainstorm vision and themes in relation to:

- national interpretive and conservation education strategies
- recreation facility master plans and niche statements
- regional initiatives
- forest and grassland resource plans
- national and state educational standards
- Significance and Topics
- Policy, Goals
- Parameters

Compile and write up for review; edit based on their comments; and distribute for Forest Supervisor review; edit based on comments.

C. Inventory and analyze visitor base, target audience, and existing interpretive and conservation education efforts. Identify the needs that are not currently being met.

D. Compile for Core Team and Decision Maker for their review.

E. Interpretive/CE coordinates and compiles the final inventory and finalizes maps of existing facilities and structures. Distribute results to all participants for their review.

#### 4. **Project Review**

A. Review of information gathered as pre-work for everyone who will be involved in the meeting in step 5.

#### 5. **Draft Plan**

A. Convene a 1 to 2-day meeting of Core Team, resource experts and perhaps some key participants

B. Ensure the involvement of those who will implement the ideas generated

C. Based on identified objectives, themes, topics, parameters, and visitor analysis, the group will brainstorm:

- Program Goals
- Objectives
- Themes
- Media ideas, locations and support facilities
- Possible partnerships
- Design criteria

D. Write up and distribute for review in-house with Forest Supervisor

E. Edit based on their comments

#### 6. **Public Review or Specific Partners**

A. Conduct ½ day public open house to present goals, objectives and themes developed to date

B. Gather input and incorporate comments and ideas as appropriate.

#### 7. **Plan Review** - Conduct a two-day meeting of Core Team to:

A. Review plan to ensure consistency and thoroughness

- Draft final themes, goals and objectives for sites and programs
- Make selection of programs and media ideas, locations and recreation or education support facilities
- Brainstorm additional partnerships
- Brainstorm design criteria

- Write up and input into the Conservation Education Continuum Matrix
- B. Meet with appropriate specialists to develop cost estimates and staffing requirements for proposed media, facilities, structures, and programs
- C. Analyze feasibility
- D. Adjust where necessary
- E. Prioritize and develop budget proposals
- F. Finalize overall design criteria

**8. Final Review**

- A. Decision Maker and Key Participants review draft and provide comments to Core Team.

**9. Draft Final**

- A. Core Team addresses any concerns of Decision Makers and Reviews, finalizes and provides final document to Decision Maker for signature.

**10. Distribute the plan widely!**

## Planning Resources

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# - Sign Sense -

Principals of Planning, Design,  
Fabrication, and Installation



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# - Sign Sense -

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## PART 1 - Basic SIGN"OLOGY"

**A** SIGN is an inscribed surface or space, usually with a **SINGLE MESSAGE**, that provides, guidance (orientation), information or explanation, advertisement, interpretation, or, warning (safety).

There are six major types of signs commonly found in a Park or Forest: Orientation, Information, Trailhead, Interpretive, Traffic Directional, and Safety.

Signs can stir passions and create controversy. People need them, read them, and hate them. There are always too many signs until you need one to show you the way, or explain a question. They make more contacts than all other communication programs combined, are relatively inexpensive, and convey messages to many people at one time. They are on duty 24 hours a day, rain or shine, and do not need to be plugged in or turned on. They can alter or complement landscapes and vistas, as well as the visitor experience. And finally they are connectors to experience, thought, and education.

### **TO READ OR IGNORE?????**

#### **The 3/30/3 rule**

Research shows that you only have three seconds to catch the customer's attention, thirty seconds is usually taken for them to make the decision to read the sign, and they only spend about three minutes in reading and digesting the entire sign message.

Why do people choose to read or ignore a sign? The appearance of a sign, and content are the reason they will either read or ignore the sign. Signs that provoke interest and are simple and inviting will read by more people. The success of a sign or the readership can be weighed with a formula by Wilber Shramm.

### **THE FRACTION OF SELECTION**

$$\text{LOW SELECTION} = \frac{\text{Expectation of reward}}{\text{EFFORT REQUIRED}}$$

$$\text{HIGH SELECTION} = \frac{\text{EXPECTATION OF REWARD}}{\text{Effort required}}$$

Here the **LOW SELECTION** perception is it that will take substantial **energy** to read and the rewards will be **LOW**. In the **HIGH SELECTION**, a sign catches our interest and attention and the amount of **energy needed to read and understand it, is minimal and well worth the expenditure.**

#### **CONSTANTS:**

1. **Too many signs** clutter the view and detract from the visitor experience.
2. **Conflicting and redundant signs** lead visitors to doubt their value and diminishes our credibility.
3. **Inadequate information** leaves visitors frustrated. Unhappy visitors don't stay or return.
4. Signs can form a **lasting memory** and may be the only **impression** travelers ever have of the area, and its resources, or the administering agency.

#### **IMPRESSIONS FROM THE PUBLIC:**

In a popular western song of the 90's: "Mama Knows the Highway By Heart," Hal Ketchum sings the lyrics, "She can gauge a cafe by just looking at the sign." Here, the quality of food and service is conveyed by the appearance of the sign.

#### **From looking at our signs, how does the public gauge us?**

Would you consider buying a home if the real estate sign looks like it was done by a 2<sup>nd</sup> grader? What do our signs tell the public about our facilities, management and service? What type of agency or organization are we? Have we got our act together? What is the **FIRST IMPRESSION**? Do we make people feel **WELCOME**?

Too many of our signs greet the visitor with messages of **prohibitions and restrictions**: E.g. Don't do this! Don't go there!, No pets allowed!, NO!, NO!, NO! Oft times these are the only messages our visitors see. Rules and regulations need to be conveyed, but do it with sensitivity. It is far more important and effective to **WELCOME** the public than to hit them with the rules with the **first** sign they see. (E.g. A sign located as a "Gateway" to an area or byway in a prominent location may state; **WELCOME** To "YOUR" NATIONAL PARK / FOREST...ENJOY YOUR VISIT and **RETURN OFTEN**, in addition to the area's name.)

**Design** the experience from the beginning. The **PACKAGE** is the **PRODUCT**. Be consistent with all signs in an area, E.g. Scenic byway, trails, etc. **Continuity and unity leaves a big impression** with the public. Ask: where do you have a captive audience? Ultimately, your audience is the same one that goes to Disneyland...they want to have fun also. By visiting an area they want to leave their daily lives at home. They seek an experience separate from their daily lives.

Consider the acronym: "**IVES**", IT'S the **VISITOR EXPERIENCE STUPID**

In the design of a sign, the elements that make up a sign are important to understand. Simply put, a sign has **sign face**, the **sign panel** or material on which the message is printed, and finally the **support** or sign base, which is used to hold up, in-frame, and

present the sign. Within the sign face there is a further breakdown of elements into the **header** or title, **body type**, **graphics** or photos and **credits**.

## PART 2. - INTERPRETIVE SIGNS

Interpretive signs are what most people think of when they hear "interpretation." **They are the single most popular form of interpretation.** It is important to have a basic understanding of what interpretation is and how it applies to interpretive signs. One definition is:

*"A communication process designed to reveal meanings and relationships of our cultural and natural heritage to the public. It tells a story and brings meaning and interest of a subject for the enjoyment of the visitor".*

The communication process should be based on enduring interpretive principles, which state that interpretation must:

1. **Provoke** the attention and curiosity of the public. Grab interest quickly and keep it.
2. **Relate** your message to the everyday life of your audience. Why should it matter to them personally?
3. **Reveal** the essence of your subject through a unique viewpoint, a different way.
4. **Address the whole.** Show the connection of an object to a theme or storyline.
5. **Strive for message unity.** Use a variety of repetition of the subject to create or build the mood, feeling or atmosphere.

### **GOOD SIGNS, ESPECIALLY INTERPRETIVE SIGNS, DO NOT JUST HAPPEN.**

Effective and successful interpretive **SIGNS ARE DESIGNED.** People who know and follow basic principles of planning, design, text development and fabrication create them.

#### **A well-designed interpretive sign will:**

- Encourage **resource understanding, respect, awareness, and ethical behavior** of the visitor. What do you want the visitor to know, understand, value, think about, and remember once they have left?
- **Define the site** as primitive, rustic, or urban.
- **Answer questions** that visitors have about a site.
- **Direct the attention of visitors** to features or natural relationships.
- **Explain the cultural significance** of a site. What happened here?
- **Communicate** across languages and cultures
- Increase visitor **enjoyment** through appreciation and understanding.

All of this is a complicated job for a tool that stands by itself and rarely has mechanical parts.

In addition there are some basic **INTERPRETIVE RULES of THUMB**:

- **Don't tell everything.** Leave something for the visitor to discover. Tell less, but tell it well.
- **Be the visitor.** When you are a visitor what are your expectations? How much **time** and **interest** do you have? What **value** does it have for you?
- Steer clear of **agency propoganda**. Visitors are interested in natural and cultural resources. They usually don't give a hoot how great your agency is. Management messages can be woven sensitively into the message if it has relevance to the site.
- **Don't interpret "NEAR HERES."** Stick to what is right at the site.
- **Get the detail.** Refine the level of detail until it has relevance to your audience.
- **Have a Hook.** You have only seconds to catch their attention. Graphics, titles, and appearance all contribute to a visitor's decision to read the sign.

In producing an interpretive sign, it is recommended that you follow four steps: **PLANNING, DESIGNING, FABRICATION, and INSTALLATION**. For the most part it does not make a difference whether the project is small or large, the process is the same. Obviously in a large project, each step can become a major element of its own. Each step is important. They are also closely related and one should not be done without full consideration of the others.

#### **A. PLANNING:**

Effective interpretive planning is the **KEY** to cost effective use of limited resources and to producing attractive and effective signs. Planning can be done in-house or by a consultant. If a professional is hired make certain that they are qualified and experienced and will listen to your input.

Planning should include:

- **GOALS & OBJECTIVES** – The first step is to define the **purpose of the sign**. What do you want the visitor to understand, ponder about, do (behavior), and remember after they have left? Set Educational, Emotional, and Behavioral objectives
- **AUDIENCE ANALYSIS** - Who are the visitors, Why are they there? Etc.
- **SITE DESIGN** – Will there be additional facilities such as trails, parking areas, benches, barriers? Is a site plan necessary?
- **THEME DEVELOPMENT** - What are you going to say? Address the area's major theme with clear thematic sentences rather than topic subjects.
- **BUDGET** – Consider immediate and long term constraints and cost analysis.

Three types of people view our signs: **STREAKERS, STROLLERS, and STUDIERS**. Only about 20% of our visitors are in the last category. We have to plan and design well to capture the interest of the middle group, and especially the first group. It also helps to consider the pattern of circulation and travel. Where do we have an opportunity for a captive audience?

## BEFORE YOU DECIDE TO DESIGN AN INTERPRETIVE SIGN:

- Is a sign the best **medium** or material to convey the interpretive message?
- Should the sign be **located** next to the feature it describes or would it take away from the viewing experience?
- Can **real objects** be used or incorporated in the design?
- Are there **funds** to maintain the sign once installed?
- What are the **expectation** of the visitors? Why are they there? Have we done an **audience analysis**?
- Who will **design** the sign? How much design experience do they have?
- Where will the sign be **located** and in what direction will it be oriented?
- Will the public be **reading the sign** from road or trail? Walking or from a bike?  
Decide on one large sign or a series of small ones, depending on viewing distances and speed of the readers.
- Will enough visitors see the sign to make it worthwhile?
- Does this make one too many signs in the area?

## B. DESIGN:

In this vital and challenging step, you arrange the visual elements of the sign, including: TEXT, GRAPHICS, PHOTOS, SIGN MATERIALS and SUPPORT / BASE. How these elements work together will make or break the effectiveness of a sign. Consider using **1/3rd graphic, 1/3rd in text, and 1/3rd in blank (white) space**. If one overpowers the other, then the smaller parts get lost and the larger may get more emphasis than was intended. However there are cases where the graphics may be designed as the major visual element to convey the theme boldly. Remember that **whatever decision you make about the appearance and combination of these elements will affect the public's desire to read or ignore your message**. Always remember that **a sign must be read and understood to be effective**.

### 1. Text ...

Common mistakes on interpretive signs are **too much text, too small letters, and continuous blocks of text**. Nothing looks more uninviting and loses the reader quicker than big blocks of small letters.

The **title should be bold, catchy, and draw attention** both in content, size and appearance. It needs to aggressively catch the eye and hold attention. (E.g. Instead of Peregrine Falcon, use the title "Nature's Torpedo!") It is important to follow basic rules for choosing typeface, spacing, and fonts for text. (E.g. Do not mix type styles excessively, etc). **Print**, as a rule should be **big, not small**. Using the same size type on an entire sign will lose 90% of the audience. **Use upper and lower case**.

For a sign that is going to be read by the pedestrian the recommended point size on a std. 24"X 36" interpretive sign is 36 pt in the main text, captions italicized at 24 pt, photo credits italicized at 18 pts, and headers large, at 90 -120 pts. or larger, if you have room, but be careful with the visual balance of the sign face.

People do not want to read an encyclopedia. **A sign is not a book nor should it pretend to be.** Ask yourself a question, which comic strips do you read, which do you scan, and which do you avoid? The more the amount of copy, the less likely it is that people will read it. Trying to fill up all the space trying to tell too much turns people off before they even get close enough to read it. Research has shown that people do not want to read more than 125 words, 75 words being most effective on any panel. Leave them hungry for more, don't overdo it. Keep sentences brief but provocative. Break the text up into blocks of 40 or so words.

#### SOME KEYS TO TEXT:

- Text needs **order** and hierarchy of importance or information. "All emphasis" is **no** emphasis. The headers (title), subheads and captions should tell the general story.
- Focus on **one theme** per sign with only 1 or 2 ideas explored.
- Should be written with the "**3-30-3**" **Rule** in mind. Use a hook in the header (title).
- **Research your themes** and topics then write your text. Write a draft of the text, then **edit, edit, edit**, and edit again. Bring extra eyes in at the beginning. **Check and recheck** the facts.
- Avoid unfamiliar terms or bureaucratic jargon. Make your text readable to a wide range of visitors.
- Use **active verbs**. (Words that end in "ED" instead of "ING")
- Use **colorful language**. (No, I don't mean swearing)
- Evaluate the final content by applying a couple of questions: **SO WHAT?** And **WHY** should I want to know this INFORMATION?
- **Write to human beings** as if you are talking directly to them. The best messages often are what you don't say rather than what you do say.
- If it is unnatural or awkward for you to say, then don't say it.
- **Be concise**, as **few words and simple** as possible. Just state it, you don't need to explain it.

## 2. Layout and Graphics...

Sign **Layout** should consider the following:

- Make the sign the **right size**. Consider the location and distance from which it will be read. Use standard sign sizes for cost effectiveness. Make them no larger than necessary and use rectangular, rather than square or unusual shapes
- Allow the right amount of **space around text**, graphics and headings. Do not crowd the text. Leave room for the frame or mount.
- **Avoid diverting attention from the message**. Don't use odd colors, awkward designs, and unusual symbols or words.

**Graphics** will attract and involve the visitor **more than anything else**. They convey stories in concise and dramatic ways. A single **graphic can replace many words**. They also focus attention and lead the eyes through a design sequence. They add beauty and interest to a sign face. Select or produce artwork that is appropriate, professionally executed, and realistic. High contrasting graphics are recommended to easily read by all populations. Use to interpret not to decorate the sign face. Professional graphic artists and designers are highly recommended for layout and illustrations.

### 3. Photos ....

Photographs are most effective in signs of a historical nature. They tell a wonderful story and add great human interest to the sign message. As a rule, photos and graphics should seldom be mixed on the same sign. Don't overdo the number and size. They should balance with text to tell the story. Accuracy of the photo credits is critical. It is very difficult to correct a finished product and we usually end up living with the embarrassment for years.

### 4. Sign Support/Base ....

**You need to give as much consideration and thought to what will support the sign as you do the sign itself.** Supports do more than just hold up the sign. They can also imply permanence and respect for a site and provide a link with site features. It should be attractive, functional, and durable. The understanding of site character is critical here. For example; would you use galvanized steel in a forest setting, or logs along a paved urban trail? Supports are most aesthetically pleasing when they relate to their surroundings.

They may also convey the sign and area interpretive theme, but should blend into and become part of the total site design. The base can make a dramatic contribution and draw attention to the sign. **It is appropriate to use materials that are natural or indigenous to the site.** Seek the advice or services of a landscape architect and consult with the graphic designer of the sign to make sure the **sign support will visually blend** with the sign and environment and not visually dominate and be approachable with 2" for all populations.

Low profile diagonally faced signs are appropriate for trail and overlooks. They should be installed at a height of 24-30 inches with a 30-45 degree angle toward the viewer. Other signs, that may be read from a car or a an introduction and orientation point, easier read at a 90-degree angle

## C. MATERIALS AND FABRICATION

Consider the final selection of the sign material based on research. **No material is a panacea**, and all have their pros and cons. Which material is the best for your application is as controversial to many as religion and politics? The final selection should be based on the major factors of:

- Aesthetics of the material
- Ability to convey the interpretive theme or sign objective effectively
- Durability and maintenance
- Budget (Cost) - both existing and anticipated
- Site character and the ability of the material to blend into the selected site Development Level, Recreation Opportunity Spectrum (e.g. primitive, rural or urban site)
- Amount of vandalism historically occurring in the area
- The amount of people presence or patrols going on in the area

All signs can be vandalized, some more than others. In areas of high incidence of vandalism, an inexpensive "replaceable format" system maybe a good option.

**Don't use a high cost material that does not withstand abuse in a remote area. On the other hand, don't use a cheap, less attractive material, in a show-case or major use area.** If a sign is not going to be maintained, or receives frequent vandalism, then maybe other interpretive media choices should be considered and would be more cost effective. Perhaps a brochure, guide, or personal interpretive programs (walks and talks) would be more effective.

A few scenarios:

- 1) If the site in which you want to locate the sign is in an urban interface, heavy traffic area, such as a nationally recognized scenic byway, or a major destination site, then porcelain enamel, embedded fiber glass, anodized aluminum, digital laminates, embedded digital, or stone imaged materials will do well.
- 2) If the site is remote and off the beaten path with few visitors, then digital laminates or sheets, screened wood laminate, or replaceable format materials of vinyl or elasticized materials are some of the better materials.
- 3) In a site of archeological, or geological resources, then stone imaged materials, ceramic, or even anodized metal may convey the theme and reflect or complement the physical character of the site well

Refer to the attached “**Comparative Guide to A Dozen Interpretive Sign Materials**” and its “**Appendix A**” for a detailed comparison of varied sign materials and how they generally respond to variables of scratch and abrasion resistance, graffiti removal, life expectancy, etc. The ratings are not intended to be absolutes and are those which the author has either personally observed or researched. The intent is to give a general idea of what to expect as the qualities and limitations of varied materials and aid in the consideration and selection of materials that would perform well considering their own criteria.

## **D. INSTALLATION**

This process may be simple or complex. The designer and landscape architect should always be involved in this stage to maintain the overall design integrity. This stage is often thought of as minor and too many times has resulted in a catastrophe. It should not be left to an installer without any instructions or direction.

Location and placement of interpretive signs are critical to their effectiveness. Signs should be installed at locations with sufficient visitor traffic to justify the effort and expense. Consider the resource it is interpreting. Don't use a huge sign in a small spot or tiny sign where it needs to be noticed from the highway. Do not block the feature or ruin the view that is being interpreted. E.g. use of a vertical sign when you're interpreting the view behind it. Other factors must be considered, such as suitable parking, and barrier free accessibility. Popular locations are overlooks, recreation areas, unique features, cultural sites, and water features. Consider sun and glare, wind, shadows, orientation, shelter needs, traffic, and safety when determining the proper placement of the sign.

## **OTHER FACTORS:**

Weather will affect all signs. Some materials such as porcelain enamel, cast metal, and metal microimaging are largely unaffected by the elements. Life will be longer and the signs will be most effective if we use materials that are designed for outdoor use. Indoor materials will not hold up in outdoor applications. Sun and moisture will fade and destroy the images and material. Consider shade or shelter if appropriate. Color photos are susceptible to fading, except on porcelain enamel.. Use proven materials and design techniques to guarantee the effectiveness of the sign.

## **SUMMARY**

If we keep our visitors interest always in mind and do our best to give them an opportunity to see and learn about our resources, we will have taken an important step in conserving those resources for future generations. Information and interpretation presented on signs must be in a form that is meaningful to the audience and that gains and holds attention to be most effective. We need clear objectives that specify what we are trying to accomplish and feedback that indicates to what extent objectives are being achieved.

Like anything of worth and value, an effective sign will only result of the application of right principles, so much the better with the right people. Involve interpreters, graphic designer / illustrators, writer / editors, and landscape architects and others as appropriate. It is better to be very thorough than to race through the proven steps and principles and have to live with a mistake. Your sign is successful if you make it one that visitors will enjoy and remember with pleasure.

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SHARPE, GRANT W. INTERPRETING THE ENVIRONMENT, 1982. John Wiley And Sons

Tilden, Freeman: INTERPRETING YOUR HERITAGE

## Sources of outdoor exhibits:

### FIBERGLASS

<p><b>Crystal Graphics</b>                  Michael Brown                  4225 Drane Field Road #200, Lakeland, FL 33811  <b>888-757-7644</b>; 863-577-2000                  863-644-1534 fax  <a href="mailto:sales@embedments.com">sales@embedments.com</a></p>	<p>Manufacturers of high-resolution digital graphic signs for durable outdoor displays, featuring Colorguard Fiberglass Embedments.</p>
<p><b>GS Images</b>                  David Fitzwater                  P.O. Box 1288, Hagerstown, MD 21741-1288  <b>301-791-6920</b>                  301-733-5379 fax  <a href="mailto:info@gsimages.com">info@gsimages.com</a>  <a href="http://www.gsimages.com">www.gsimages.com</a></p>	<p>Since 1976 GS Images has specialized in the design and production of fiberglass embedded outdoor interpretive exhibits. Our services include:</p> <ul style="list-style-type: none"> <li>• Original Exhibit Layout, Design and Mechanical Preparation</li> <li>• Graphic Illustrations and Renderings</li> <li>• In-house Digital and Screen Imaging</li> <li>• Supervision of Fiberglass Embedment Process</li> </ul>
<p><b>Pannier Graphics</b>                  Robin Heddaeus                  345 Oak Road, Gibsonia, PA 15044-9805  <b>800-544-8428</b> Ext: 220; 724-265-4900 Ext: 220                  724-265-4300 fax  <a href="mailto:marketing@pannier.com">marketing@pannier.com</a>  <a href="http://www.panniergraphics.com">www.panniergraphics.com</a></p>	<p>Pannier has been a leader in the fabrication of wayside exhibits for over 30 years. Manufacturer of indoor/outdoor digital graphic panels. 10 Year warranty.</p>
<p><b>General Graphics</b>                  Bruce Spinnenweber                  12103 Upper Potomac Industrial Park                  Cumberland, MD 21502  <b>301-729-1401</b>                  301-729-0658 fax  <a href="mailto:generalgraphics@mindsprings.com">generalgraphics@mindsprings.com</a>  <a href="http://www.generalgraphicsinc.com">www.generalgraphicsinc.com</a></p>	<p>Offers full services of design, graphic illustrations, digital and screen printing, and quality control of fiberglass embedment.</p>
<p><b>Interpretive Graphics</b>                  Jim Peters (SEE BELOW)</p>	<p>Provides full services of design, editing, illustration, and production using GS Images for printing &amp; embedment.</p>

### HIGH DENSITY LAMINATE

<p><b>Envirosigns, Ltd.</b>                  Bob Blick                  6630 Promler St. NW, North Canton, OH 44720  <b>330-499-1990</b>; 330-499-1995 (fax)  <a href="mailto:bob@envirosigns.com">bob@envirosigns.com</a>;  <a href="http://www.envirosigns.com">www.envirosigns.com</a></p>	<p>Provider of DuraReader High Pressure Laminate and Corian interpretive signs</p>
<p><b>Folia Industries Inc.</b>                  58 York Street, Huntingdon, Quebec                  J0S 1H0 CANADA  <b>888-264-6122</b>; 450-264-6066 fax  <a href="mailto:sales@folia.ca">sales@folia.ca</a>; <a href="http://www.folia.ca">www.folia.ca</a></p>	<p>Indoor/outdoor digital graphic panels: 10-year warranty against UV fading/delaminating.</p>
<p><b>Fossil Graphics Corp.</b>                  Mark DeCesare</p>	<p>Fossil manufactures the most durable and highest image quality high-pressure laminate panels</p>

## NATIONAL FORESTS IN FLORIDA

44 W. Jerfyn Blvd., Deer Park, NY 11729 <b>631-254-9200</b> ; 631-254-4172 fax <a href="mailto:markd@fossilgraphics.com">markd@fossilgraphics.com</a>	available.
<b>iZone</b> Scott McCallum 505 South General Bruce Dr., Temple, TX 76504 <b>254-778-0722</b> , 254-778-0938 fax <a href="mailto:scott@izoneimaging.com">scott@izoneimaging.com</a>	Manufacture of high-resolution digital graphic signs suitable for outdoor interpretive use.

### EXHIBIT BASES

<b>Best-Ex, Inc.</b> 820 Industrial Ct. P.O. Box 454 Baraboo, WI 53913 800-356-4882; 608-356-4883 fax <a href="mailto:bestex@tds.net">bestex@tds.net</a> <a href="http://www.best-exfab.com">www.best-exfab.com</a>	Sign frames, exhibit bases, and custom metal fabrication. We offer aluminum extrusion frames with tamper resistant design, durable powdercoat finish, in standard and custom sizes and mounting styles.
<b>Envirosigns, Ltd.</b> Bob Blick 6630 Promler St. NW, North Canton, OH 44720 330-499-1990; 330-499-1995 (fax) <a href="mailto:bob@envirosigns.com">bob@envirosigns.com</a> <a href="http://www.envirosigns.com">www.envirosigns.com</a>	NPS-style and custom aluminum exhibit bases
<b>Hopewell Manufacturing, Inc.</b> Paul Kramer 11311 Hopewell Road, Hagerstown, MD 21740 301-582-2343; 301-582-2343 fax	Exhibit Base Specialists: <ul style="list-style-type: none"> <li>• Durable Aluminum Construction</li> <li>• Custom Fabrication</li> <li>• Economical Standard Sizes</li> </ul>
<b>Pannier Graphics</b> Robin Heddaeus 345 Oak Road, Gibsonia, PA 15044-9805 <b>800-544-8428 Ext: 220</b> , 724-265-4900 Ext: 220; 724-265-4300 fax <a href="mailto:marketing@pannier.com">marketing@pannier.com</a> <a href="http://www.panniergraphics.com">www.panniergraphics.com</a>	Pannier offers a complete line of wayside exhibit frames and bases. Standard and custom sizes available. Constructed of high-strength aluminum.

### PORCELAIN ENAMEL

<b>Winsor Fireform, LLC</b> Bryan Stockdale 3401 Mottman Road SW, Tumwater, WA 98512 <b>800-824-7506</b> , 360-786-8200 360-786-6631 fax <a href="mailto:info@winsorfireform.com">info@winsorfireform.com</a> <a href="http://www.winsorfireform.com">www.winsorfireform.com</a>	Premier manufacturer of high-resolution porcelain enamel exhibits. Design/illustration services and custom or standard mounting systems.	
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### DESIGN

<b>Interpretive Graphics</b> Jim Peters 3590 Summerhill Drive, Salt Lake City, UT <b>801-942-5812</b> ; 801-943-6008 fax <a href="mailto:JimPeters@InterpretiveGraphics.com">JimPeters@InterpretiveGraphics.com</a> <a href="http://www.InterpretiveGraphics.com">www.InterpretiveGraphics.com</a>	Signage services ranging from planning and design through production, fabrication, and installation.
<b>General Graphics</b> Bruce Spinnenweber (SEE ABOVE)	

## NATIONAL FORESTS IN FLORIDA

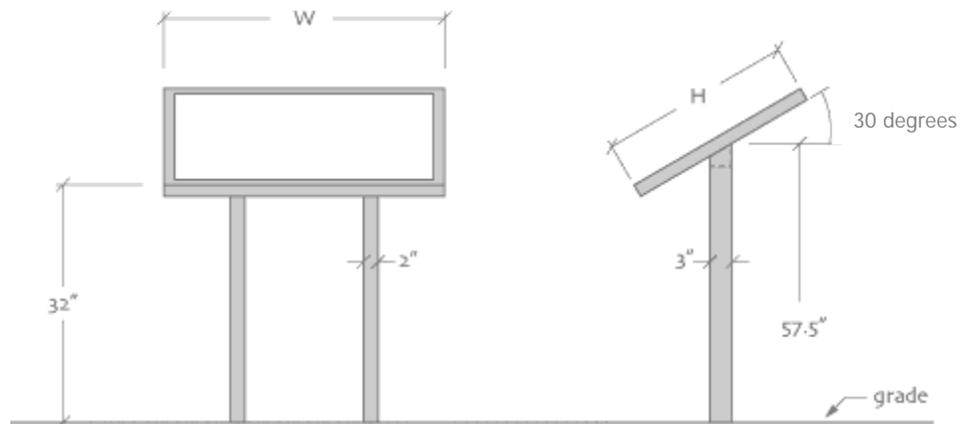
<p><b>GS Images</b> David Fitzwater (SEE ABOVE)</p>	
<p><b>ECOS Communications</b> Jill and Chip Isenhart 2028 17th Street, Boulder, CO 80302 <b>303-444-3267</b>; 303-444-3730 fax <a href="mailto:envcomm@aol.com">envcomm@aol.com</a></p>	<p>Planning, design, research, illustration, writing, and fabrication for exhibits, signs, and publications</p>

## METAL

<p><b>Erie Landmark Company</b> Richard Bamberger 14110 Sullyfield Circle, Suite 100, Chantilly, VA 20151 800-874-7848 703-758-2574 fax <a href="mailto:richie@erielandmark.com">richie@erielandmark.com</a></p>	<p>Cast bronze and aluminum plaques and markers. For permanent, all weather interpretative signage. For high quality donor recognition and dedication. Braille and bas relief capable</p>
<p><b>Horizons</b> Don Sennott 18531 S. Miles Road, Cleveland, OH 44128 800-48207758 216-475-6507 fax <a href="mailto:donsenzip@aol.com">donsenzip@aol.com</a></p>	<p>Make your own high-quality small-format signs and exhibit graphics with ALUMAJET inkjet printable aluminum. Choose METALPHOTO anodized aluminum interpretive signs and plant markings for 20 Year outdoor performance.</p>
<p><b>Interpretive Graphics</b> Jim Peters 3590 Summerhill Drive, Salt Lake City, UT 84121 801-942-5812 801-943-6008 fax <a href="mailto:JimPeters@InterpretiveGraphics.com">JimPeters@InterpretiveGraphics.com</a> <a href="http://www.InterpretiveGraphics.com">www.InterpretiveGraphics.com</a></p>	<p>Long time provider of Novalloy aluminum signs. Signage services ranging from planning and design through production, fabrication, and installation.</p>

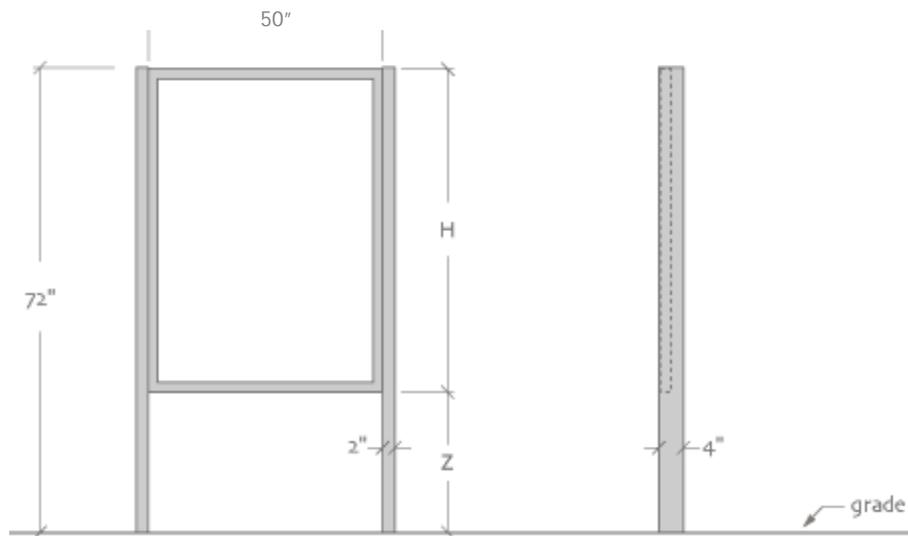
## Fabrication Drawings

### DOUBLE PEDESTAL FRAME



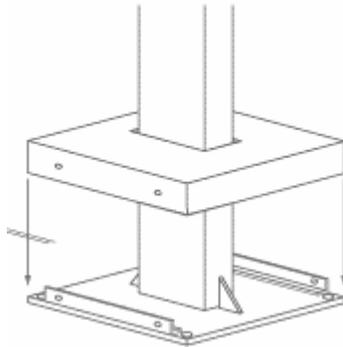
Frame Dimensions: (W x H) 38" x 26"  
Angled 30 degrees  
Exhibit Size : 36" x 24"  
Visible Opening: 35" x 23"  
Bottom of Frame to Ground Level: 32"  
Materials: Powder-coated welded Aluminum

**Single-Sided Upright Frame**



Frame Dimensions: (W x H) 50" x 50"  
Exhibit Size: 48" x 48"  
Visible Opening: 47" x 47"  
Bottom of Frame to Ground Level: 28"  
Materials: Powder-coated welded Aluminum

## ***Surface Mount***



Pedestals will be surface-mounted to cement pads using plates with flanges welded to the pedestal legs and attached to the cement with standard hardware and covered with a metal “boot” to hide the plate/attachments. The boot will be attached to the flanges/plates with security screws.