INTRODUCTION

In many of the situations and most of the case studies in the previous chapters, the need for aesthetic analysts and legal counsel has been shown. Their critical skills and processes lead to the development of defensible visual analyses, ordinances, or other products that will withstand both methodological and legal scrutiny. The authors have been involved in a number of major court cases and hearings, and much of the material presented in this chapter is drawn from these experiences. In addition, several other works concern some aspects of aesthetic analysis for litigation (Atkins and Blair 1983; Brace 1980; Carruth 1977; Murray and Neimann 1979; Schrauman 1982; and Stuart 1980) as well as legal counsel’s perspectives (Sive 1970). Finally, there is a nicely written short book for planners in their role as expert witnesses (Dorram 1982).

THE ROLE(S) OF THE EXPERT WITNESS/ANALYST

When one performs a visual or aesthetic analysis for a specific project or planning study for a local ordinance, there is always the possibility of becoming an expert witness in trial or hearing. Therefore, in scoping the aesthetic analysis, this eventuality should be anticipated, especially for controversial projects.

Beside direct testimony or producing materials for trials or hearings, there are a number of other roles that expert witnesses and analysts play. The co-author Smardon has been involved in literature searches to substantiate defensible legal programs, such as putting electric utility lines underground in New York State or the protection of wetland heritage values as part of coastal zone planning in South Carolina. For this role, the critical skills needed are good access to and knowledge concerning the appropriate literature as well as the ability to screen for the most appropriate or relevant literature or case studies.

The opposite of developing the knowledge base for a regulatory program is critiquing and analyzing a legislative program as it is being implemented. The author Smardon did such for the California Coastal Act of 1976. This 90-page act was analyzed from the perspective of what local governments need to do to develop local coastal programs (Dickert and Smardon 1977). A step-by-step movable flowchart was developed to understand what local governments would have to do, and two glitches in the legal language describing review procedures were discovered.

Sometimes the visual analyst’s role is to produce a written and graphic product that must stand on its own to be submitted to a judge or hearing officer. There is no direct testimony, thus the critical skill is the careful planning and preparation of self-explanatory exhibits linked with written prefiled testimony. An example of this is Figure 15.1, which shows the visual impact of off-road vehicle usage on Cape Cod National Seashore. These are two of several images that were used to elicit reactions of raters and then paired with the statistical analysis on the back of the image. Although depositions were taken from the author as part of this case,1 there was never any direct testimony in federal court — thus

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one can see why self-explanatory exhibits are necessary.

Another role of the expert witness/analyst is to work with legal counsel to articulate points of potential testimony of lay witnesses. One may have lay expert witnesses by virtue of their substantial experience with specific uses of a resource such as fishing, sailing, boating, and so on. In the Shreveport I-220 Highway viaduct case, the co-author Smardon worked with several lay expert witnesses to graphically articulate their key testimony points. Several of these points involved safety and risk of water-related recreational activities near highway viaduct structures. These points were summarized graphically and later became exhibits entered into the court record (see Figures 15.2). This can be an extremely valuable function when counsel is trying to build a solid record of factual points that can be easily retrieved and reviewed later.

Probably the most valuable role of the experienced expert witness/analyst is advising other expert witnesses about what to expect on the witness stand or in the hearing room. It can be an unnerving experience for the uninitiated.

**TYPICAL SEQUENCE OF EVENTS**

The first step is the expert witness/analyst agreeing to work on a specific project. One is usually contacted by legal counsel, although there are now specialists whose sole activity is putting together teams of expert witnesses. The person or firm engaging you will want to know your background, education, training, and exper-

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tise in working with similar projects and situations. This is very important, as it affects your stature as an expert witness in court. The analyst should carefully negotiate the scope of the work to be done, including establishing personal knowledge of the particular site or locale affected.

The next step is the actual study or background preparation prior to testimony. For an expert analyst, this is very important, as you will be asked to both present and defend your results. It is also important to build a step-by-step process or procedure that can be easily followed by a judge or hearing officer who is not an expert in aesthetic analysis. Thus the graphics—maps, photographs, charts, diagrams, and so on—should be extremely well prepared so as to be easily read and comprehended anywhere in the court or hearing room (Appleyard 1977; Murray and Neimann 1979).

Prior to actual testimony there is a little game played
called the discovery process. The game is to discover what the opposition’s testimony and exhibits are before they are presented in court. Tactics include taking lengthy interrogatories and depositions from opposite-side expert witnesses prior to direct testimony and reviewing all exhibits before they are brought into court. Countertactics include not finishing studies or exhibits until just before court date.

In the I-220 Shreveport case, for instance, the Federal Highway Administration (FHWA) legal counsel was shocked to discover the quality and power of Stephen Sheppard’s before and after rendered photographic simulations of the highway viaduct structures which were done for two alternatives from three viewpoints. (See Figures 15.3 and 15.4.) As a result of this early discovery experience, the FHWA counsel spent much effort and time trying to discredit the exhibits so they could not be entered into the court’s record.

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3Id.
FIGURE 15.4 (Continued) Simulation of Cross Lake T-220 viaduct structures from three viewpoints
Setting a court or hearing date is often an exercise in strategic chess-playing, as each side jockey for the advantage in preparation. Setting a date is also contingent on what is found out during the discovery process. If one side can offer "proof" that they will not get a favorable hearing from a specific court or hearing officer, they can argue, in some cases, for a change in venue, judge, or hearing officer.

Finally, we have the actual testimony, when the expert is sworn in with a brief prepared statement and presentation of professional qualifications. The presentation of qualifications is extremely important. Opposite legal counsel, if they are sharp, may attempt to prune your qualifications to a smaller domain, thus limiting the area of expertise that you are deemed qualified to testify on. Thus, as an analyst you want to use your qualifications and training to build a broad base for testimony since the opposite counsel will undoubtedly attempt to diminish your qualifications. Aesthetics is a particularly difficult area in this regard, as no one knows what adequate training, education, and experience is deemed to be that of an expert. Even well-trained landscape architects, architects, planners, and engineers may not have the appropriate education, training or experience in the area of aesthetic impact analysis.

The expert witness will then be asked about knowledge of the specific landscape or project in question. You will be asked whether you have visited the site and have personal knowledge of the area involved. This step can be very important, for if you have not visited the site involved in the litigation, then your credibility, or even the admission any of your testimony, is at risk.

Next you present your direct testimony so that it can become part of the court or hearing record. This is the payoff for all your preparation; you should present the information as clearly and succinctly as possible, without drawing it out or giving a lecture, or discussing tangential points. While you are presenting the results of your aesthetic analysis, you will also identify and introduce into the record your graphic exhibits with the aid of friendly counsel. This can be a critical step, as some of these exhibits can be quite powerful (as, for example, the "before and after" simulations presented during the discovery process, mentioned above). Legal counsel may attempt to keep such exhibits from being entered into the court record by questioning how they were produced. For instance, for a photograph of a landscape or project, you need to know how the photograph was taken, including camera type, lens, aperture, film type, exposure, time of day, and so on. Legal counsel may also question admission of exhibits, if you as an analyst did not personally prepare them, but hired or supervised others in doing so.

While you are giving your direct testimony and introducing your exhibits with the aid of friendly counsel, the opposing counsel and battery of experts are very busy taking and passing around notes about how to disassemble or discredit your direct testimony, or both. Before finishing your direct testimony you will be asked to give a summary. For example, does this project have an acceptable or unacceptable level of visual impact, or can it be mitigated?

During the cross-examination the opposing counsel gets to ask you questions about your direct testimony, in order to impeach or discredit that testimony. Or, if it is a quasi-judicial hearing as, for instance, under New York State's Environmental Quality Review Act, several interveners get to ask you questions in succession until they run out. Cross-examination is when you truly earn your fee as an expert witness, but you may not introduce any new exhibits at this time. The opposing counsel is trying to test your knowledge, procedures, and conclusions by various means, and you may feel as if you are in a verbal sparring match. The co-author has been on the witness stand for one and one-half days on cross-examination alone after direct testimony of one day's duration. Any vague points that you did not quite solidify during direct testimony may come back to haunt you during cross-examination. Also, at this time, expert witnesses on the other side use their collective wisdom to feed questions to cross-examining attorneys. Of course, you can do the same for the other side's expert witnesses too, which is part of your job as an expert witness.

Two general tactics are often used by legal counsel: (1) wear you down until you contradict yourself, and (2) find weak spots in your direct testimony and try to discredit those particular points in the record. Good expert witnesses avoid being backed into verbal corners and use the questions as an opportunity to provide more substantial points if possible.

Finally, the redirect is that portion of the testimony where you get back on the stand "to repair the damage" done during cross-examination. You cannot introduce new evidence or exhibits at this point, but you may provide clarification and rebuttal points if needed.

This is likely to be the full sequence of events in a trial in federal or state court. Some parts of the process, such as direct testimony and cross-examination, are used during regulatory hearings as well. Some hearing formats allow experts to sit together as a panel to answer questions. This is much easier than a single expert witness fielding all questions.

There are a few points about the process that may not appear in textbooks but the author recommends. Peter Dorram's (1982) book is quite engaging and hits some of the same points mentioned here. These items are critical for aesthetic analysis tied to litigation: These items are

1. The aesthetic analyst and legal counsel must have a clear idea of what is involved with the particular project or study scope, and each should know about
the other’s professional requirements and processes.
2. Adequate resources are needed in order for on-site fieldwork and analyses to be defensible in court.
3. Careful analysis, logic, and exhibit preparation are needed, as there may be competing analysis methods and simulations on either side of the issue.
4. Adequate time and preparation should be allocated for rehearsal of the aesthetic expert witness and others so that the needed testimony and exhibits enter the court record in comprehensible fashion.

These are just a few points that can be made about the role of the expert witness/aesthetic analyst. This is a new and exciting field where electronic image-processing and computer simulation techniques for putting projects on the landscape are creating new thresholds of realism and battles over what is an admissible exhibit in court (see Appleyard 1977; Mertes, Smardon, and Miller, 1991; and Sheppard 1989). The case study by Bruce Murray and Bernard Niemann that follows ties together some of the points we have tried to make in this chapter.

Case Study: Ice Age National Reserve, Wisconsin

Introduction and Background

The construction of a 69 kv transmission line in contrast to a larger transmission line, for example, 345 kv, is typically not a controversial item. Nor would it normally be expected that a facility of this type would attract institutional, legal, and professional interest. This was not the situation for this Wisconsin Public Service Commission (PSCW) case. The reasons for the interest in this case are important because they establish a set of opportunitistic conditions for a test of the importance of visual quality. The test was: Under what conditions would the PSCW commissioners be willing to rule for or against construction of a transmission facility solely on visual quality issues?

The following conditions were present. First, Murray and Niemann, as professionals, were asked by an attorney representing a private land owner to visit the site. They responded to two questions. One, if construction of the 69 kv line were to be completed, could there be a deleterious visual impact on the Cross Plains unit of the Wisconsin reserve system? Two, was the PSCW staff in error by not requiring an environmental impact statement because the Wisconsin Environmental Policy Act (WEPA) requires a two-step evaluation? The first step requires the agency staff to determine if a more comprehensive environmental impact statement is necessary. In this case, the PSCW staff determined that an environmental impact statement was not necessary.

Second, the institutional and political makeup of the PSCW appeared to support a test case. The PSCW chairman was a nationally known energy economist recognized for his innovative use of economics in resource-related issues; plus he had conducted research on economics in relation to environmental values.

Third, two competent, aggressive, and committed attorneys were involved. Previous experiences in adversarial settings had proven to be extremely counterproductive when Murray and Niemann had been involved with or represented by inferior and noninvolved counsel.

The adjacent landowner was represented by a tax attorney who typically represented settlement cases. The citizens of Wisconsin were represented by the public intervirer, which is a public-supported office, whose responsibility is to intervene when the citizens’ rights to environmental quality are not being represented by the Department of Natural Resources (DNR). Before becoming the public intervener, he was an aggressive criminal lawyer in the state attorney general’s office.

Fourth, the geological uniqueness of the site would make the case for visual quality more straightforward. From a geological point of view the site was unique.

Fifth, Murray and Niemann’s previous experiences in developing weighted, descriptive, and hierarchical transmission location models show that an array of experts concur that certain unique natural features should be avoided. These studies have documented that one should avoid: (1) areas of recognized national importance, (2) scientific areas, (3) significant scenic areas, (4) unique archeological and historic areas, (5) scenic roads, (6) ridge lines, (7) unique topographic features, and (8) unique geological formations. Also, because one of the studies had involved the utility proposing the construction of the 69 kv transmission facility, it seemed appropriate to determine that the previous conclusions would be admissible and prevail in an adversarial setting.

Sixth, additional conditions made this a compelling situa-

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tion. The PSCW staff had erred, in Murray and Neimann's judgment, in not requiring an environmental impact statement. This, therefore, made the conclusions and recommendations for non-undergrounding suspect. The utility had chosen a highly visible site (the highest point in the region) for the substation; the selection was eventually shown to be insensitive to overall visual concerns. In addition, it was generally concluded that the utility had chosen their route only after being threatened with legal action. It was not their preferred route. Neither the utility nor PSCW had asked the DNR (who manages the reserve) for their opinion concerning the proposed 69 kv transmission facility. Also, the employee responsible for overall planning of the reserve system in Wisconsin was not allowed by his superior to speak out on this issue. This constraint for basically political reasons suppressed public discussion of this visual quality question.

Conditions of the Site

The reserve was created in May 1974 (U.S.D.I., 1973). The enacting legislation provided for a joint planning, management, and ownership arrangement between the National Park Service (NPS) and the Wisconsin DNR. The nine reserve sites were selected to represent different results caused by the glaciers in Wisconsin. The Cross Plains unit is a 160-acre site that includes a unique gorge created by meltwater from the glacial ice. The regional condition makes the site unique. The site is located on the interface between the unglaciated (driftless) and glaciated landscape. The site is elevated and provides views of both landscapes.

The master plan calls for an interpretive center and self-guiding trails. The trails are intended to guide the visitor to both the internal and external glaciation features. The master plan calls for an interpretive center to be located on top of the site. DNR was unable to purchase this site and politically did not want to ask the state legislature for permission to use condemnation authority. This will require the interpretive center to be located in a different place, which would be visually much closer to the proposed 69 kv transmission line. This becomes an important issue in the case.

Procedure

Murray and Neimann used four objectives to assist and guide in the development of the case study materials:

Defensible:
The materials and techniques employed had to be able to withstand cross-examination. The techniques and resultant materials could not be construed as biased, arbitrary, or irrelevant.

Factual:
The data presented had to be factual. Interpretations and expert opinion had to be clearly identified and limited to the findings portion of the case.

Self-descriptive and logical in progression:
The case materials had to be developed and organized in such a way that the contents led the reviewer logically through the materials in a self-describing format. Murray and Neimann assumed that the PSCW staff, the utilities, and the PSCW commissioners would review the materials in detail in private. Because the materials laid the foundation for Murray and Neimann's eventual findings as expert witnesses, they developed them to assist the self-reviewer to understand the basis of their conclusions.

Illustrative:

In addition to being self-descriptive and logical, the materials needed to be illustrative as much as possible to simulate the before and after conditions of the 69 kv transmission facility. The utilities were inadvertently quite helpful in assisting Murray and Neimann to simulate the before and after conditions. As soon as Murray and Neimann knew they were going to be involved, they photographed the site. The utility had been so sure they would eventually be allowed to construct the facility that they proceeded with construction. Thus, they photographed the site again with the facility in place. The presence of structures provided real rather than simulated conditions. Five guidelines were used to prepare case materials. The presentation graphics were to be visually communicative, flexible, interrelatable, attractive, and concise. These objectives were incorporated into the exhibit materials represented in Figure 15.5.

The following is a list of the variables selected and the reasons for their selection. Figure 15.5 illustrates the dimensions of the reserve, the difference between authorized and actual public ownership, and the proposed transmission alignment. Areas within the dashed line are presently owned by DNR. Figure 15.5 also serves as a factual base for illustrating the following features:

Viewshed:
Because one of the primary functions of the site is to provide views of the glaciated and nonglaciated landscape, it was important to document factually the extent that it was possible to view both landscapes from the site (heaviest line).

Proposed and existing 69 kv transmission Route:
The inclusion of all existing 69 kv systems (line with dots) is important to document the extent of these facilities and the distances from which they can be seen from the site (see Figure 15.5).

Associated landscape features:
Relevant associated features were identified, such as adjacent land uses. These were delineated to document the expert witnesses familiarity with the site (see Figure 15.5).

Topography:
The portrayal of this variable was important for three reasons. One, it documents that the substation, to which the 69 kv line connects, is located on a prominent and highly visual elevation. Two, the reserve site is located on a prominent ele-
vation overlooking two distinct landscapes. Three, the delineation of the viewed area on the photograph mosaic base can be verified if desired.

Land ownership:
This variable was included since it documented three things: one, that DNR owned only portions of the totally authorized area; two, the overall ownership patterns; and three, that the expert witnesses were aware of the litigant's property holdings. Murray and Neiman anticipated that the utility would attempt to cloud or discredit the expert witnesses' objectivity by implying that the adjacent landowner was only looking out after his long-term potential development interests and not necessarily the public good. As anticipated, the utility did raise the implication. Murray and Neimann responded by referring to this document.

Open-space corridor:
This variable was included to show that the reserve site was originally designated as an open-space corridor. It reinforced the concept that the reserve site had special qualities that could possibly be altered by visual intrusions.

Photographic locations:
A series of before and after photographs were taken from the reserve, to the reserve, and along Cleveland Road, which parallels the route of the proposed 69 kv transmission line. The location and direction of each photograph were recorded. If the photograph was used in the quantitative change analysis, it was so noted. Murray and Neimann anticipated that the objectivity and representativeness of the photographs would be questioned. This proved to be true. The inclusion of this exhibit was quite important in illustrating the representativeness of the photography (Figure 15.6).

Panorama locations:
To assist further in illustrating the photographic coverage, the panoramic photographs were noted. This variable was in-
cluded to document the location of the scene and cone of visual coverage of each panorama (the land area included in the view). In addition, which the use of other overlay variables, the type of landscape elements visible in the panorama could be verified (Figure 15.7).

View locations with comments:
At this point in the case the type of information changes. The preceding material was straightforward and did not require professional or expert witness interpretation. The materials that follow do. They include the before and after photographs taken from the site with comments. The comments are Murray and Neiman’s reactions, as experts, to visual change resulting from the proposed 69 kv transmission line. The comments were also used to verify again what features were visible from the reserve (Figure 15.8).

Quantitative changes:
This variable was used to document and verify the type and quantity of landscape elements presently visible and the type and quantity of landscape elements potentially visible after the construction of the proposed 69 kv transmission line. The results indicated that construction of the proposed 69 kv line would introduce new visual elements to the landscape. From Murray and Neiman’s experience, it is important to document clearly that visual change will occur. How visually perceptible the change will be or what effect the change will have are separate questions. What is presented for the hearing record is what change will, in fact, occur. A nonverified theory, called a “cobweb” theory, was developed and applied to measure visual change, the assumption being that the combination of conductors created a “cobweb” effect between the viewer and the scene; the net visual change being equal to the distance between the top and bottom conductor. The utility attorney argued the contrary, which was that the net visual change was only equal to the net perceptual diameter of the conductor itself (Figure 15.9).

Photographic sequence along Cleveland Road with comments:
Cleveland Road was important because it served as the entrance road to the interpretive center and visitor parking lot.
Proposed tour route: Effect of utility system traveling north with comments:

This material was included because the interpretive tour route is an official part of the master plan. Travel along the route is potentially affected by the 69 kv transmission line itself and the connecting substation. For example, emanating from the substation is a series of distribution lines parallel with the interpretive tour route and associated glacial features observable from the route (Figure 15.10).

Techniques Employed

The previous discussion covered the source and content of the base materials. We now discuss the techniques employed to ensure that the base materials would be accepted as relevant material. As separate techniques, they are not unusual, but as a composite group they represent the array needed in an adversarial setting. They include:

Site visit:

Familiarity with the site was essential. For example, the PSCW staff had never visited the site even though it was near their office. In addition, the utility's attorney was not familiar with the site. More familiarity with the site proved to be of considerable advantage, particularly of a psychological advantage when the expert witness lacks experience in an adversarial setting.

Logical sequence of base materials:

The use of overlays and a common set of scales plus an ordered sequence proved to be very helpful. Knowing that the material was self-guiding provided a psychological lift during the more intense periods of testimony.

Graphic/overlay procedure:

To assist in conveying content of the base materials, various graphic and overlay techniques were employed. Also the base materials were self-contained and displayed on a mounted panel. All photographs were securely mounted on panels,
therefore requiring others to review the materials in relationship to the testimony.

Random photography:

Because Murray and Neimann anticipated that the utility's attorney would question the representativeness and objectivity of their photography, they employed a random photographic procedure along Cleveland Road. The technique consisted of segmenting the road into 100-foot segments. Numbered coins representing 10-foot intervals were used to assign randomly the photographic location within each 100-foot segment. Murray and Neimann's concern over non-biased photography proved to be very important. As anticipated, the utility's attorney asserted that the photography was purposefully taken to portray only the negative aspects of the 69 kv transmission line. In addition, the attorney argued that "artist's license" was used to accentuate further the negative aspects. Because Murray and Neimann anticipated this form of cross-examination, they were able to respond effectively. It is essential for the expert witness to prevail at this point in the testimony as the photographs were an essential part of the case. If the photographs had been discredited, the case would have been severely damaged.

Before and after photography:

Because Murray and Neimann were able to actually photograph before and after conditions, the task of simulating the 69 kv transmission line was quite easy. The importance of representative simulation cannot be underestimated in an adversarial situation.

Quantitative measurement of change:

This technique consisted of projecting a 35mm slide on a grid. Within each square, the presence of manmade features was measured in percent of the whole grided picture. This procedure was conducted for selected before-and-after photographs. The accumulated cell differences between the before
photograph and after photograph equal the quantitative measurement of change.

Documentation:
Again, to ensure that the base materials would be admissible, Murray and Neimann carefully documented their origins and currency. All maps were documented as to origin, date, and original or actual scale. The location and direction of all photographs were maintained. The type of film, type of camera, type of film processing, type of lens, characteristics of the lens, time of day, and the date of the year were also recorded.

Experience and the adversary mentality:
The experiences that Murray and Neimann have had indicate quite clearly that anticipation, preparation, documentation, and a sort of “gamesmanship” are important factors. The adversarial setting, in which the primary goal of the adversary is to discredit you as an expert, can be painful, particularly to the uninitiated who tend to react as if the cross-examination were a personal attack. In law classes the “art of selecting and using an expert witness” is discussed and taught. Unfortunately, the education of design professionals lacks preparation in the art and science of being an expert witness. Success in these adversarial settings is important. Professionally, it is important to perform well to ensure that your client has been represented effectively. Quite simply, success builds a reputation and credentials as an expert that lawyers and the courts consider fundamental.

Rehearsal:
Some form of “dress rehearsal” in which you and your lawyer develop the questions upon which you will give your testimony is essential. In addition, the lawyer can assist by asking questions expected during the cross-examination from the adversary, and you can assist the lawyer by developing questions to be asked of adversarial witnesses. Since most lawyers will have had no prior experience in visual-quality—contested cases, you will be expected (most likely) to provide the basic strategy. Be aware of other relevant cases, and be familiar with the relevant body of knowledge. The expectation of an expert witness is just what the term implies—an expert.

Findings
1. The quality of the views from the interpretive tour route to the pro-glacial lakes and the unglaciated landscape was adversely affected by the poles and lines.
2. The substation was located on the highest elevation in the area near the reserve, resulting in a visible and incongruous visual object.
3. The utility proposed erecting 69 kv lines adjacent to the reserve, creating a situation deleterious to the visual quality of the reserve.
4. The utility had constructed a 69 kv transmission line in the background adjacent to Highway 143, creating a visual

condition that is deleterious to the visual quality of the reserve.
5. The location of a substation strongly influences the route selected for a transmission line. In this case, there were several alternative routes that would have avoided the reserve.
6. The project was evaluated by the PSCW staff utilizing environmental assessment, and as a PSCW staff member stated, “the overall difference in impacts between routes is not environmentally significant”. This conclusion by PSCW staff, in Murray and Neimann’s opinion, was not justified in the face of the evidence provided.
7. In Murray and Neimann’s judgment, the PSCW lacked educational background and competence in visual quality assessment.
8. The information was known and, presumably, understood by the utility, but staff member chose to ignore the information when locating the transmission line adjacent to the reserve.

Recommendations
From the analysis Murray and Neimann carried out, the following recommendation was given:

Relocate or underground the proposed 69 kv transmission facility from where the Reserve is first visible from Cleveland Road (traveling south) to where the vegetation begins to mask the proposed transmission facility. The northerly burial point must be precipitated upon the location of the interpretive center and the views from the potential interpretive hiking trails within the Reserve. This assures the DNR essential flexibility in determining the most representative and educational hiking trail experience for the visitor. This also provides essential flexibility in determining the location of the interpretive center.

Epilogue: Commission Ruling
The findings of the PSCW commissioners were included in a document entitled “Findings of Fact and Order,” which contains the following statements:

The commission finds that because of the special unique geological features of the Cross Plains Unit, its special significance at National, State and local levels to the public in appreciation and understanding the Ice Age, and the expected extensive use of the Cross Plains Unit by the public in furthering its knowledge of the Ice Age in Wisconsin, the Cross Plains Unit is particularly important from a public interest standpoint. The commission fully understands the relatively high cost of underground versus overhead construction and that underground construction will have some relatively small impact on rates paid by customers of Wisconsin Power and Light Company. Nevertheless, the Commission considers that in this particular case the public interest supports a requirement for underground construction in the vicinity of Cross Plains Reserve Unit. The commission will accordingly herein require that

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Id., pp. 95–96.
Wisconsin Power and Light utilize underground instead of overhead construction. . . .

This determination is not considered to be precedent setting in terms of future transmission line projects, but rather one which reflects the uniqueness and importance of the Cross Plains Unit and the stated, significant public interest considerations involved.¹

Regarding the precedent-setting, one commissioner disented:

My decision is based on a test of balancing these interests (economic vs. environment) in a manner consistent with the overall general public interest which I feel requires undergrounding, considering the uniqueness of the Reserve. There is precedential value in this decision.²

References

¹P.S.C.W. 1978. Findings of fact and order, Case 6689-CE-13, Madison, WI.
²Id., p. 16.