



1 A Exhibit 33R-2 (TP R-2) is a view from the entrance to Mr. Lathrop's driveway at  
2 Robinson Canyon Road. This exhibit presents a panoramic view composed of individual  
3 photo frames that have been spliced together. A panorama has been presented because it  
4 best captures the full extent of the view experienced from Mr. Lathrop's property.  
5

6 Q Would you please identify what has been marked as Exhibit 33R-3 (TP R-3)?  
7

8 A Exhibit 33R-3 (TP R-3) is a view from Weaver Road at a point a little less than 1 mile  
9 south of Mr. Lathrop's house. This view was selected to provide a close approximation of  
10 the view seen from the elevation at which Mr. Lathrop's residence is located. This exhibit  
11 presents a panoramic view composed of individual photo frames that have been spliced  
12 together. A panorama has been presented because it best captures the full extent of the  
13 view experienced from this area.  
14

15  
16 Q Would you please identify what has been marked as Exhibit 33R-4 (TP R-4)?  
17

18 A 33R-4 (TP R-4) is a full-page sized reproduction of a photograph looking toward the site  
19 of the existing communications facility on Whiskey Dick Mountain taken on a clear day  
20 from the entrance to Mr. Lathrop's driveway at Robinson Canyon Road.  
21

22 Q Would you please identify what has been marked as Exhibit 33R-5 (TP R-5)?  
23  
24  
25

1 A Exhibit 33R-5 (TP R-5) is a simulation of the Wild Horse project as it would appear from  
2 the entrance to the driveway of Mr. Lathrop's house in the area adjacent to Robinson  
3 Canyon Road.

4  
5 Q Would you please identify what has been marked as Exhibit 33R-6 (TP R-6)?

6  
7 A Exhibit 33 R-6 (TP R-6) is a set of individual photo frames that have been spliced  
8 together to create a panorama of the view from Weaver Road in close proximity to Mr.  
9 Lathrop's house that represents the nighttime viewing conditions from this area. Photos  
10 were taken on a night when the atmosphere was unusually clear, using high speed film  
11 and a range of shutter speeds. A careful review was made of the photos that were shot,  
12 and the photo set that most closely portrayed the actual lighting conditions was selected  
13 for presentation in this exhibit. The panorama in Exhibit 33 R-6 (TP R-6) provides an  
14 accurate sense of the sources and levels of light visible at nighttime in the view toward  
15 the east from Mr. Lathrop's property.

16  
17 Q Did you prepare these exhibits or, if not, did you supervise their preparation or are you  
18 familiar with them?

19  
20 A I supervised the preparation of all of these exhibits, except Exhibit 33 R-5 (TP R-5)  
21 which is a visual simulation prepared by Arne Nielsen under my direction and with which  
22 I am familiar. Exhibit 33 R-5 (TP R-5) is the same as Exhibit 39 R-5 (AN R-5)  
23 sponsored by Arne Nielsen..

1 Q Are these exhibits of the type that reasonably prudent persons in your field of expertise  
2 are accustomed to rely upon?

3  
4 A Yes.

5  
6 Q Do these exhibits accurately portray what they purport to represent?

7  
8 A Yes

9  
10 Q. Please characterize the view from Mr. Lathrop's property.

11  
12 A Mr. Lathrop's residence is sited at the edge of a small escarpment located on the south  
13 side of Robinson Canyon Road in a rural area approximately 2 miles west of I-90 and the  
14 Ellensburg city limits. Mr. Lathrop's property is located 19 miles west of the project  
15 site's western edge, and over 22 miles from the turbines that will be located at the  
16 project's easternmost edge. Exhibit 33R-1 (TP R-1) is a map that indicates the location of  
17 Mr. Lathrop's property in relationship to the project site.

18  
19  
20 Exhibit 33R-2 (TP R-2) is a view from the entrance to Mr. Lathrop's driveway at  
21 Robinson Canyon Road. Exhibit 33R-3 (TP R-3) is a view from Weaver Road at a point a  
22 little less than 1 mile south of Mr. Lathrop's house. This view was selected to provide a  
23 close approximation of the view seen from the elevation at which Mr. Lathrop's  
24 residence is located.

1 As review of Exhibits 33R-2 (TP R-2) and 33R-3 (TP R-3) indicates, Mr. Lathrop's  
2 property commands view over much of the Kittitas Valley. The area in the immediate  
3 foreground of Mr. Lathrop's view includes lands devoted to intense agricultural use that  
4 are characterized by leveled fields, canals and other provisions for irrigation, and the  
5 presence of barns and other agricultural support structures. The city of Ellensburg, with  
6 its tree canopy and multitude of structures, including several visually prominent water  
7 towers, occupies much of the middleground portion of Mr. Lathrop's view. In the far  
8 background the line of ridges that define the valley's northern and eastern edges, starting  
9 with Lookout Mountain on the north, and swinging around to the Boylston Mountains on  
10 the south are visible from Mr. Lathrop's property. The tallest and most visually striking  
11 of these ridges is Table Mountain, the high ridge located in the left half of each of the  
12 panoramas. Whiskey Dick Mountain, on whose slopes a portion of the Wild Horse Wind  
13 Power Project will be sited is visible as the distant ridge in the area at the eastern end of  
14 the alignments followed by Robinson Canyon and Weaver Roads.  
15

16  
17 Q In the view from Mr. Lathrop's property, what can be said about the visibility of the  
18 existing communications towers located on and adjacent to the Wild Horse Site?  
19

20  
21 A Exhibit 33R-4 (TP R-4) is a full-page sized reproduction of a photograph looking toward  
22 the site of the existing communications facility on Whiskey Dick Mountain taken on a  
23 clear day from the area in front of Mr. Lathrop's property. Close scrutiny of the ridgeline  
24 of Whiskey Dick Mountain visible in this photograph suggests that even on clear days, it  
25 is difficult to see the communications towers.

1  
2 Q Mr. Lathrop's property is located 19 miles from the edge of the Wild Horse project site,  
3 and Mr. Lathrop indicates in Ex 60 (DT-L), at page 6, lines 4 through 6, that, based on  
4 his observations of wind turbines in California at distances of 15 to 20 miles, he knows  
5 "...what a direct and substantial impact they have to the viewshed". Please evaluate this  
6 statement.

7  
8  
9 A Mr. Lathrop presents no evidence to support his claims about the visibility and visual  
10 impacts of California wind farms seen at distances of 15 to 20 miles. Review of the  
11 evidence would suggest that Mr. Lathrop's assertion that he knows "what a direct and  
12 substantial impact" wind turbines seen at a distance of 15 to 20 miles have to the  
13 viewshed is not supportable.

14  
15 To put Mr. Lathrop's assertions into context, it is useful to begin with a review of the  
16 distance thresholds Federal land management agencies have adopted for use in their  
17 methods for the classification of landscapes and the assessment of aesthetic impacts for  
18 NEPA compliance purposes. The US Forest Service and the Bureau of Land Management,  
19 for example, divide the landscape up into distance zones related to the degree to which  
20 landscape details are detectable to the viewer. The U.S. Forest Service defines three  
21 zones: the foreground, middleground, and background. The foreground is defined as the  
22 area within ¼ to ½ mile from the viewer, where the maximum discernment of detail is  
23 possible. The middleground is defined as the area from ¼ to 3 to 5 miles from the viewer,  
24 where there is visual simplification of vegetative surfaces into textures, overall shapes  
25 and patterns, and there is linkage between foreground and background parts of the

1 landscape. The background is defined as the landscape zone 3 to 5 miles and further from  
2 the viewer in which little color or texture is apparent, colors blur into values of blue or  
3 gray, and **individual visual impacts become least apparent** (emphasis added) (USDA  
4 Forest Service 1973, pp. 56-57). In the Visual Resource Management (VRM) system  
5 used by the U.S. Bureau of Land Management, the background zone is defined as the  
6 area beyond 3-5 miles and extending to “usually less than 15 miles away.” (BLM VRM  
7 manual 8410, accessible at <http://www.blm.gov/nstc/VRM/8140.html>).  
8

9 Exhibit 33R-5 (TP R-5) is a simulation of the Wild Horse project as it would appear from  
10 the entrance to the driveway of Mr. Lathrop’s house in the area adjacent to Robinson  
11 Canyon Road. This is a page-size single frame view that provides a good sense of the  
12 extent to which the project’s turbines would be visible in this view, and what their  
13 implications would be for this portion of the broader panorama experienced from Mr.  
14 Lathrop’s property. As close review of this simulation indicates, from Mr. Lathrop’s  
15 property, on clear days, the turbines would appear as small, faintly visible features along  
16 a portion of the ridgeline of Whiskey Dick Mountain, located from 19 to over 22 miles in  
17 the distance. The relatively low visibility of the turbines, and their nearly inconsequential  
18 effect on the much larger view that Mr. Lathrop sees from his property stand in  
19 contradiction to Mr. Lathrop’s statement in Exhibit 60 (DT-L), page 6, line 7, of his  
20 certainty that he knows “...what a direct and substantial impact they (wind turbines)  
21 have to the viewshed”.  
22  
23

24 Q Mr. Lathrop asserts in Exhibit 60 (DT-L), page 6, lines 7 through 10, that “..the  
25 appearance of 30 to 53 bladed propellers, 295 feet in diameter, turning at different speeds

1 on the horizon will permanently capture the attention of anyone looking east from my  
2 property.” Is Mr. Lathrop’s assertion accurate?

3  
4 A There are many older (1980’s) wind farms located in California that included turbines  
5 with small rotors, which appeared to spin very rapidly, and because these installations  
6 often juxtaposed wind turbines of widely varying designs and heights in close proximity  
7 to each other, there were situations where, in close views, there were cluttered  
8 assemblages of turbines spinning at different speeds, creating a visual distraction.  
9 However, what may be true in close-up views of some of the older wind farm projects in  
10 California has no relevance for the views from Mr. Lathrop’s property. Review of the  
11 facts indicates that Mr. Lathrop’s concern that in views from his property the appearance  
12 of turbine blades turning at different speeds “...will permanently capture the attention of  
13 anyone looking from my property” are entirely unfounded.

14  
15 The larger blades of today’s turbines appear to turn much more slowly (10-15 RPM vs.  
16 75 RPM) than the shorter blades of the turbines installed during the first generations of  
17 wind power development in California. In addition, the noticeability of blade turning is  
18 strongly affected by distance.

19  
20 Mr. Lathrop’s assumption that the turbines will all be turning at different speeds is  
21 incorrect. Because all of the turbines will have the same design, and will be turning in  
22 response to generally similar wind speeds, their speeds are unlikely to exhibit a great deal  
23 of variation.  
24  
25

1 Q Mr. Lathrop expresses a concern in Exhibit 60 (DT-L), page 6 lines 10 and 11, about the  
2 intrusiveness of the project's aviation safety lights on nighttime views from his property.  
3 Please assess the degree to which Mr. Lathrop's concerns are warranted.  
4

5 A Exhibit 33R-6 (TP R-6) is a set of individual photo frames that have been spliced  
6 together to create a panorama of the view from Weaver Road in close proximity to Mr.  
7 Lathrop's house that represents the nighttime viewing conditions from this area. Photos  
8 were taken on a night when the atmosphere was unusually clear, using high speed film  
9 and a range of shutter speeds. A careful review was made of the photos that were shot,  
10 and the photo set that most closely portrayed the actual lighting conditions was selected  
11 for presentation as Exhibit 33R-6 (TP R-6). The panorama in Exhibit 33R-6 (TP R-6)  
12 provides an accurate sense of the sources and levels of light visible at nighttime in the  
13 view toward the east from Mr. Lathrop's property.  
14

15  
16 Review of Exhibit 33R-6 (TP R-6) indicates that the existing nighttime view from Mr.  
17 Lathrop's property encompasses a landscape with many highly visible sources of  
18 illumination. This illumination includes points of light scattered throughout the rural  
19 north valley, several very intense points of light on agricultural properties in the near-  
20 middleground on the right side of the view, and most notably, an intense concentration of  
21 lights in the area in and around Ellensburg in the center of the view. What is striking  
22 about the view toward Ellensburg is the vast area that is illuminated, the intensity of the  
23 illumination, and the area of skyglow created in the sky above the city. Because  
24  
25 Ellensburg is located between Mr. Lathrop's property and the Wild Horse Wind Power

1 Project site, any project-related aviation safety lights that might be visible from Mr.  
2 Lathrop's property would be viewed through this area of skyglow, and would be  
3 experienced in a context in which the middleground is brightly illuminated. Because of  
4 these existing nighttime light conditions in the middleground of Mr. Lathrop's view  
5 toward the project site, his concern that project-related aviation safety lights that might be  
6 visible in the far background of this view would be "intrusive" appears to be an  
7 unwarranted overstatement.  
8

9  
10 Q In reference to the project's turbines that will be located on the ridgeline, Mr. Lathrop  
11 asserts in Exhibit 60 (DT – T), page 6, lines 18 and 19, that these turbines "...can be  
12 plainly seen." And that "It is not the view of rural community, it is one of a major  
13 industrial complex." Are Mr. Lathrop's assertions correct?  
14

15 A Review of Exhibit 33R-5 (TP R-5), the simulation of the appearance of the Wild Horse  
16 Project as seen from Mr. Lathrop's property, indicates that some of the project's turbines  
17 will be detectable in the far distance in the view. However, review of this simulation  
18 makes it plain that Mr. Lathrop's assertion that his view will resemble the view "...of a  
19 major industrial complex" is very misleading. It is fair to say that the term "industrial  
20 complex" is normally used to refer to large collections of facilities devoted to  
21 manufacturing or resource processing. Use of the term conjures up images of settings  
22 where there are large buildings, large storage tanks, piles of stored materials,  
23 smokestacks, plumes of smoke and steam, trucks, and in some cases, freight trains. As  
24 can be seen in Exhibit 33R-5 (TP R-5), when the Wild Horse project is in place, what  
25

1 will be visible on the project site as seen from Mr. Lathrop's property will not fit this  
2 image.

3  
4 Q How would you assess the accuracy of Mr. Lathrop's statement in Exhibit 60 (DT-L)  
5 page 6, lines 20-22, that "My property I believe to be particularly valuable because of its  
6 aesthetics, its unique setting, and its attractiveness will be degraded in direct proportion  
7 to the visibility of this project."  
8

9  
10 A As it is now written, this sentence is somewhat incoherent. I am assuming that Mr.  
11 Lathrop is trying to make two points: One point appears to be that he thinks his property  
12 is valuable because of its aesthetics and unique setting. The other point that he appears to  
13 be trying to make is that the aesthetic attractiveness of his property will be decreased in  
14 proportion to the visibility of the Wild Horse project.

15  
16 To assess these points, we need to review Exhibits 33R-2 (TP R-2), 33R-3 (TP R-3) and  
17 33R-5 (TP-R5). As review of Exhibits 33R-2 (TP R-2) and 33R-3 (TP R-3) indicate,  
18 although the view from Mr. Lathrop's property encompasses a panorama that is  
19 impressive in scope, the existing view is far from pristine in that it encompasses an  
20 accumulation of land modifications and developed features that reflect the role of the  
21 valley as a place of extensive human activity. Developed features that are a prominent  
22 part of the view include such features as agricultural fields and service structures, several  
23 visually prominent water towers and the area occupied by the City of Ellensburg. All of  
24  
25

1 these features contribute to one degree or another to the existing aesthetic qualities of Mr.  
2 Lathrop's property.

3  
4 As review of Exhibit 33R-5 (TP-R5) indicates, although a portion of the Wild Horse  
5 Project may be detectable under some circumstances in the far distance from Mr.  
6 Lathrop's property, the project will occupy a very small part of the overall view, and will  
7 have relatively little effect on the overall character and quality of the view that Mr.  
8 Lathrop experiences from his property. Given this reality, if one were to apply Mr.  
9 Lathrop's notion that the aesthetic attractiveness of his property would be decreased in  
10 proportion to the visibility of the Wild Horse project, the conclusion would have to be  
11 that because the project will not be highly detectable and will be present in only a very  
12 small portion of his view, therefore potential effects if any, on the attractiveness of his  
13 property would be quite small.  
14

15  
16 Q Please comment on Mr. Lathrop's assertion that "...there will be no way to compensate  
17 me for my loss or enjoyment of my property, let alone mollify a prospective purchaser  
18 who will likely agree that wind farms are ugly"  
19

20  
21 A I suspect that Mr. Lathrop's statement contains a typo, and that rather than referring to  
22 "loss or enjoyment" of his property, he is referring to "loss of enjoyment" of his property.  
23 If this is what he means, this statement seems curious because the presence of the project  
24 19 miles away from Mr. Lathrop's property seems very unlikely to have any direct or  
25 indirect effects that would prevent Mr. Lathrop from continuing to make exactly the same

1 use of his property that he makes at present. I can only assume that Mr. Lathrop is using  
2 the term “loss of enjoyment” in some metaphorical sense to refer to his concern that a  
3 portion of the distant view now visible from his property will be altered in a way that  
4 conflicts with his own aesthetic sensibilities and will thus in some way lead to a decrease  
5 in the aesthetic pleasure he gets from his view.  
6

7  
8 A review of Exhibits 33R-2 (TP R-2), 33R-3 (TP R-3) and 33R-5 (TP-R5) 2, 3, and 5  
9 make it possible to compare the existing view from Mr. Lathrop’s property, and the view  
10 as it would appear after the project is in place. Review of the existing views and the  
11 simulation indicates that after the project is in place, most of Mr. Lathrop’s view will  
12 look exactly the same as it does now, and to the extent that the project’s turbines have an  
13 effect on his view, the effect will be very limited because the turbines will be faintly  
14 visible in the far distance in a relatively small area. Because of their low level of visibility  
15 and the very small portion of the overall view affected, the turbines will, in reality, have  
16 at most a minor effect on the aesthetic qualities of the view from Mr. Lathrop’s property.  
17

18  
19 In terms of prospective purchasers, their views on the relative attractiveness of wind  
20 farms will be of limited relevance, because the Wild Horse turbines will be barely visible  
21 in the view, and will have almost no effect on it. In any case, Mr. Lathrop presents no  
22 evidence to support his assertion that potential property purchasers “..will likely agree  
23 that wind farms are ugly”. Although Mr. Lathrop may believe that wind farms are ugly,  
24 his opinion on the subject is not universally shared. Surveys of populations living in the  
25 vicinity of wind power projects have consistently shown that opinions on this subject are

1 split. Although there are those who may agree with Mr. Lathrop that wind farms are  
2 unattractive, there are some who are indifferent to their appearance, and many who find  
3 them to be not only visually interesting, but attractive as well.<sup>1</sup>  
4

5 Q Please respond to Mr. Lathrop's criticisms in Exhibit 60 (DT-L), page 9, line 21 through  
6 page 10, line 17, regarding the project's impacts on views from the community of  
7 Kittitas.  
8

9  
10 A The assessment of the project's effects on views from Simulation Viewpoint 4, which is  
11 located at the eastern edge of the community of Kittitas that I present in my testimony is  
12 a summary of the more detailed evaluation of the impacts on this view that I presented in  
13 the ASC Visual Resources/Light and Glare analysis. In my testimony I wrote:  
14

15 From Simulation Viewpoint 4 (Exhibit 18B, Figures 4a and 4b), which is located at  
16 the edge of the community of Kittitas, approximately 30 turbines will be visible  
17 running in a line along the distant ridgeline of Whiskey Dick Mountain. The closest  
18

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19 <sup>1</sup> See for example, Pasqualetti, M. and E. Butler. 1987. Public Reaction to Wind Development in California.  
20 International Journal of Ambient Energy, 8:2, August 1987, pp.89-90 cited in Gipe, P. 1995. Wind Energy Comes of  
21 Age. New York: John Wiley and Sons, 1995. This article documents the results of a survey of the perceptions of  
22 residents living in close proximity to wind farms in the Palm Springs area. Subsequent surveys conducted elsewhere  
23 have produced results that are consistent with those found in Palm Springs. For example, see the Taff Ely Residents  
24 Survey (accessible at <http://www.bwea.com/ref/taffely.html>), a survey conducted in 1997 among residents living  
25 within 2 miles of the Taff Ely wind farm in Wales.

1 of these turbines will be 8.3 miles away, and the furthest will be over 11 miles away,  
2 placing all of the turbines well into the background landscape distance zone. The  
3 turbines that will be visible will all be silhouetted against the sky, but, because of  
4 their great distance and because of their light color, the degree of visual contrast will  
5 be low. However because of their scale and form, they will have a moderate degree of  
6 visual salience. The presence of the turbines will reduce the scene's degree of  
7 intactness to some extent by introducing vertical elements along a distant ridgeline  
8 that now has a natural profile, but the degree of change will be limited by the fact that  
9 the turbines are so far away and will be secondary elements in the overall view. The  
10 effect on the scene's visual unity will also be attenuated by the fact that the turbines  
11 will be so far away; in addition, the effect on the scene's degree of visual unity will  
12 be minimized because the line of turbines extending along the ridgeline will have an  
13 orderly appearance. The overall level of visual impact on this view will be low.

14  
15 Mr. Lathrop dismisses my analysis, stating in Exhibit 60 (DT\_L), page 10, lines 15  
16 through 17, that: "About all that can be said for Mr. Priestley's conclusion is that it is his  
17 opinion and it should be afforded no more weight than mine...". In fact, rather than being  
18 opinion, my analysis of the view from Kittitas as well as the views from the other  
19 viewpoints I analyzed is based on close evaluation of the simulation of how the project  
20 would appear in the view, and systematic application of analysis criteria derived from  
21 standard professional approaches to the analysis of aesthetic change. As I indicate in my  
22 testimony (Exhibit TP-T, pages 5-6), in conducting my analysis, I drew on a set of well-  
23 developed and accepted analytic procedures and tools that had originally been developed  
24 by federal land management agencies in response to the aesthetic impact analysis  
25

1 requirements of the National Environmental Policy Act. My testimony includes a detailed  
2 description of these procedures and tools, and the way in which I applied them in my  
3 analysis to produce findings that are professionally sound (Exhibit TP-T, pages 5-12). In  
4 contrast, Mr. Lathrop offers sweeping pronouncements rather than systematic analysis  
5 that is tied specifically to what can be seen in the simulations.  
6

7  
8 Q Please respond to Mr. Lathrop's assertion that your assessment that as seen in views from  
9 the community of Kittitas, the visual impact of the wind turbines will be lessened because  
10 the line of turbines extending across the ridgeline will have an orderly appearance is "just  
11 plain silly."

12  
13 A With this statement, Mr. Lathrop betrays the fact that he has not troubled himself to do  
14 any research on the question of wind power aesthetics. There is now a growing literature  
15 based on the work of specialists in Europe and North America who have devoted  
16 considerable attention to wind power appearance issues and development of principles  
17 for maximizing the attractiveness of wind power installations. For example, landscape  
18 architect Birk Nielsen in Denmark has conducted extensive studies of the appearance of  
19 existing wind farm installations and from these studies he has abstracted design principles  
20 for the arrangement of turbines to create visually attractive wind farms (Nielsen, Birk,  
21 Tegnestue, Landsape Architects. 1996. Wind Turbines & The Landscape: Architecture  
22 and Aesthetics. Søndergade Denmark: Birk Nielsens Tegnestue. American wind pioneer  
23 Paul Gipe has developed a set of guidelines for the aesthetic design of wind power  
24 projects, and the first seven of the principles he proposes, all of which have to do with  
25

1 equipment selection and arrangement, have all been adhered to in the design of the Wild  
2 Horse project. These principles are: “Provide visual order,” “Provide distinct visual  
3 units,” Provide visual uniformity,” Use similar turbines and towers together,” “Use  
4 towers of consistent height,” “Limit the number of turbines per cluster,” and “Use open  
5 spacing.”(Gipe, Paul. 2002. Design As If People Matter: Aesthetic Guidelines For A  
6 Wind Power Future” chapter in Pasqualetti, Martin, Paul Gipe, and Robert W. Righter,  
7 eds. Wind Power in View; Energy Landscapes in a Crowded World. San Diego:  
8 Academic Press). It is not at all “silly” to observe that the project’s adherence to these  
9 design principles will help to reduce the effect the project might have on the landscape’s  
10 degree of visual unity.  
11

12  
13 Q Mr. Lathrop states in Exhibit 60 (DT-L), page 14, line 25, through page 15, line 6, that  
14 the turbines will be painted “essentially white”, a color that he argues will make the  
15 turbines more visually obtrusive. Is Mr. Lathrop correct in his assertion about the turbine  
16 color that has been specified?  
17

18 A Mr. Lathrop apparently did not read either the ASC analysis or my testimony very  
19 closely. In both documents, there is a clear statement that the towers will be will be  
20 neutral gray in color and will be given a finish with a low level of reflectivity. This  
21 approach has been specified because experience has shown that neutral gray is the color  
22 that is most successful in helping infrastructure facilities to be visually absorbed into the  
23 view, particularly in cases when they are seen against the backdrop of the sky.  
24  
25