Hawaii County
Scenic Resources Inventory and Mapping Project

Scenic Resource Protection Programs and Strategies

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Project Purpose

The County of Hawai'i Planning Department initiated a comprehensive review of the General Plan in February 2015. As required by HRS §226-58 and Hawai'i County Charter §3-15, the Plan must include, among other things, objectives, policies, and implementation actions for land use, natural resources conservation, and the preservation of scenic beauty, open space, and other scenic resources.

The County of Hawai'i contracted Planning Consultants Hawai'i to conduct an inventory of the County's scenic resources along its State Highways and select County roadways. The "*Scenic Resources Inventory and Mapping Project*" accomplished the following objectives:

1. Identified and inventoried Hawai'i County's scenic, viewshed, and open space resources using digital photography and Geographic Positioning Systems (GPS);
2. Mapped the scenic resources using Geographic Information Systems (GIS) and for use with geodesign-based scenario modeling (i.e., CommunityViz); and
3. Described and prioritized the scenic resources using prescribed standards and practices.

The purpose of this element of the study is to document methods that can be developed and implemented to protect the County's scenic resources for future generations. The study will bring forth scenic resource protection programs and methods that are in use elsewhere. The objective is to conduct research on view plane protection strategies that different local, state, and federal government units have adopted that might serve as a model to assist County planners and policy makers in the development of a scenic resources protection program tailored to the unique needs of Hawaii County.

Unique visual landscapes found in Hawaii County.

County Enabling Legislation

Hawaii County Code §25-6-60 establishes that the Hawai'i County Council may designate scenic roadway corridors. The ordinance further states that the County must prepare a Scenic Corridor Management Plan to "preserve, maintain, protect, or enhance the intrinsic character of the corridor." The Management Plan would necessarily include design standards and conditions to implement the purpose of the Plan.

The ordinance states that in the establishment of scenic roadway corridors the following criteria must be met:

1) *Is consistent with the intent and purpose of the Zoning Code and the County General Plan.*
2) *Will not result in a substantial adverse impact upon the surrounding area, community and/or region.*
3) *Will enhance Hawai'i County's significant natural, visual, recreation, historic and/or cultural qualities.*
4) *Will protect and enhance the attractiveness of Hawai'i County to make it a better place to live, work, visit, and/or play.*
5) *Will improve Hawai'i County's economic vitality by enhancing and protecting our unique natural, scenic, historic, cultural, and/or recreational resources.*

6) *Is located on a major or minor arterial highway, or collector road.*
7) *Significantly possesses at least one of the following intrinsic qualities: scenic, natural, historic, cultural, archaeological, recreational, or demonstrates local, private, and public support and participation.*

Moreover, the ordinance establishes a clear process for the establishment of scenic resource corridors. These steps include:

1) *The Planning Director or Council introduces a resolution to initiate the establishment of a scenic corridor.*
2) *Notice is served to all owners and lessees of property within 300 feet of the proposed corridor.*
3) *Within 24 months of the adoption of the resolution, the Planning Director or a corridor advocacy group identified in the resolution completes a corridor management plan and enabling ordinance. A scenic corridor management plan is a written document that assesses the intrinsic qualities of the corridor and specifies actions, procedures, controls, and administrative as well as community strategies that will be pursued to maintain those qualities.*
4) *Within 120 days, the Planning Commission reviews the proposed plan and* ordinance, holds a public hearing, and makes a recommendation to Council.
5) The Council may adopt the plan by ordinance, with or without conditions.

Programmatic Needs

While the County has a strong policy foundation upon which to develop a scenic resources protection program[1], such a program has not yet been developed. Programmatic gaps that currently exist include:

- Establishing scenic roadway corridors pursuant to the requirements of Hawaii County Code §25-6-60;
- Preparing the Scenic Corridor Management Plan;
- Developing application requirements;
- Developing permit conditions, such as design guidelines, landscaping, screening, or structural setbacks from major thoroughfares and highways, to mitigate any visual impacts from development.

[1] See Pages 1 through 3 of the Hawaii County Scenic Resources Inventory and Mapping Project Final Methods Report.

Historic Kailua Kona Town.

Overview of Study

Recognizing the positive economic and quality of life benefits derived from scenic resources, many jurisdictions throughout the United States have implemented programs to protect these resources for present and future generations. Scenic resource protection programs typically arise from strong public policy directives to mitigate development impacts to scenic views.

Planning Consultants Hawai'i has examined view plane protection programs across local, state and federal government jurisdictions in the United States, England and Australia to identify current best practice for protecting scenic resources. A common thread across the programs surveyed is that regulatory controls are preceded by clear policy directives that mandate the protection of scenic resources from development impacts.

The County of Hawaii's General Plan has very clear policy directives to 1) protect its scenic resources from development impacts, 2) identify the scenic resources that are to be protected, and 3) establish regulations to protect these resources. The primary purpose of the "*Hawaii County Scenic Resources Inventory and Mapping Project"* was to inventory, document, and rate scenic views along the County's State and County roadways. The information derived provides the basis for the development of regulatory

Hawaii County's pastoral and agricultural landscapes are an important scenic resource.

interventions to protect these resources. The inventory and mapping study also provides extensive location specific data including written observations, digital photography and GIS mapping that will greatly assist with the development of mitigation strategies tailored to the uniqueness of the landscapes that are to be protected.

This study documents scenic resource protection programs and strategies employed in other jurisdictions that may inform the development of programs appropriate to Hawaii County. The study concludes by providing specific recommendations for actions needed to establish a scenic resources protection program in Hawaii County.

View Plane Protection Programs

State of Hawaii, Coastal Zone Management Act of 1978, HRS Chapter 205A

The Hawaii Coastal Zone Management Act of 1978, HRS 205A, mandates that the Counties implement the ten (10) objectives of the coastal zone management program. Among these objectives, HRS 205A-2 (b) (5) addresses scenic and open space resources by requiring each County to:

"Protect, preserve, and, where desirable, restore or improve the quality of coastal scenic and open space resources".

HRS 205A further provides a number of policies to achieve each objective of the law. HRS 205A-2 (c) (3) lists four policies to achieve scenic and open space resource objectives. These include:

A. Identify valued scenic resources in the coastal zone management area;
B. Ensure that new developments are compatible with their visual environment by designing and locating such developments to minimize the alteration of natural landforms and existing public views to and along the shoreline;
C. Preserve, maintain, and, where desirable, improve and restore shoreline open space and scenic resources; and
D. Encourage those developments that are not coastal dependent to locate in inland areas.

The law further states that the County "shall seek to minimize where reasonable any development which would substantially interfere with or detract from the line of sight toward the sea from the state highway nearest the coast, or from the existing public views to and along the shoreline."

Implementation

Any "development" proposed within a Special Management Area (SMA) must obtain a Special Management Area Minor or Major permit. In issuing the permit, the County must determine that the project is consistent with HRS 205A-2 (c) (3). Thus, it is the County's responsibility to review development within the SMA, and prior to issuing an SMA permit, ensure that the development is consistent with the above-referenced SMA scenic resource objectives and policies. If the development is found not compatible, then it is the County's responsibility to require changes to the project's design and/or location to ensure consistency.

Hawaii County's diverse coastal views are protected by SMA objectives and policies.

Maui County's Experience

HRS Chapter 205A requires that the SMA boundary be located at least 100 yards inland from the shoreline. However, Maui County's Special Management Area typically extends inland to the nearest State Highway paralleling the coastline, which in coastal communities like Kihei, extends nearly a mile inland. In some areas, Maui County's Special Management Area extends inland of the State highway, such as in Kahului, where the boundary extends approximately 3,000 feet inland to the intersection of Wakea Avenue and West Kamehameha Avenue. Because a preponderance of Maui's urban lands are located along the shoreline and inland of the State Highways, much of its urban development has been subject to SMA permitting requirements, which requires an analysis of consistency with HRS 205A-2 (c) (3).

SMA Permitting

Maui County SMA Minor permits are approved administratively by the Planning Department. Maui County SMA Major Permits are processed by the Planning Department, but ultimately approved, approved with conditions, or denied by the Maui Planning Commission. The Planning Department prepares the staff and recommendation reports and transmits these to the Maui Planning Commission for decision making at a noticed public hearing.

Prior to finalizing its staff and recommendation reports, the Planning Department will require that the project be presented to the County's Urban Design and Review Board (UDRB) for comment. The UDRB is a nine member board appointed by the Mayor that has specialized professional expertise in urban design. The UDRB will review the project's site plan, architecture and civil engineering. It is not uncommon for the UDRB to raise concerns pertaining to scenic resource impacts. Thus, the SMA permitting process provides the Planning Department, UDRB and the Maui Planning Commission the opportunity to address development impacts to scenic resources within the coastal zone.

Program Success

It is Planning Consultants Hawaii's professional opinion that SMA policies have had just limited success in protecting scenic resources within Maui County's coastal zone. There are several reasons for the modest performance, including:

1. ***Existing Community Plan and Zoning Designations.*** The bulk of Maui's developed shoreline and coastal lands were community planned and zoned in the early 1970's with little consideration for how such significant development could impact scenic resources. The County's early community plans neither documented the scenic resources warranting special protections nor provided sufficient guidance to help mitigate development impacts. As such, during a period of prolonged and rapid urbanization of the County's coastal lands, SMA permitting was the principal safeguard to address scenic resource impacts, but it was just modestly successful at protecting these resources.

2. ***Lack of Scenic Resources Protection Process, Procedures and Standards*.** Although developments within the SMA are reviewed for consistency with SMA scenic resource objectives and policies, there are no criteria for determining when an impact has occurred, if the impact is acceptable or not acceptable, and what measures should be taken to mitigate scenic resource impacts. The current SMA process relies upon the discretion of the County's staff planner, who most likely has not received formal training nor been provided with sufficient guidance for how best to mitigate scenic resource impacts within the SMA.

Considerable urban development exists within Hilo and Kona's SMA boundaries.

Likewise, the UDRB and Maui Planning Commission have also not received sufficient training on scenic resource impact management and mitigation.

3. ***Maui Coastal Scenic Resources Study (August 1990)***. Recognizing these shortcomings in the SMA permitting process, the County of Maui's Planning Department commissioned the above-referenced study in 1990 to address the following gaps:
    - Inventory and describe scenic resources within the developed and developing areas of the SMA;
    - Propose measures, if necessary, to improve the quality of these resources;
    - Develop a scenic resources design manual; and
    - Establish a training program for Planning Department staff. The study recommended that the design manual be used by the UDRB as well for reviewing coastal developments; and the study recommended the establishment of an in-house evaluation committee to "specialize in the review of coastal projects."

    Unfortunately, the study's recommendations were never implemented by the Department. The study continues to serve as a resource for both SMA Permit Applicants and Planning Department staff to help determine if a development is within an area of the SMA that may contain visual resources. However, the design manual is rarely used to determine appropriate mitigation and the training and evaluation programs were never institutionalized.

Recommendations to Improve the Process

Maui County's reliance upon SMA permitting to protect coastal scenic resources could be significantly improved through enhanced training of Planning Department staff, the UDRB and the Maui Planning Commission. Practices should be put into place to produce more consistent documentation of scenic resource impacts and to identify appropriate mitigation strategies and standards for determining if the development is consistent with the SMA's scenic resources objectives and policies. Maui County could amend its SMA Rules (§12-202) to ensure more effective scenic resource protection through HRS 205A. Such amendments could include the addition of: 1) a design manual to be used for the mitigation of scenic resource impacts; 2) application content requirements for projects that produce scenic resource impacts; 3) criteria for

documenting and evaluating scenic resource impacts; and 4) standards for determining levels of acceptable impact. Maui County could also better protect its scenic resources through on-going training of Planning Department staff, UDRB and the Planning Commission in scenic resource impact evaluation and mitigation.

Applicability to Hawaii County

Much of Maui's urban development has been subject to SMA Permitting, which requires consistency with the SMA objectives and policies. However, the lack of a defined process with supporting procedures, criteria and standards together with training has resulted in only modest protection of the island's coastal scenic resources. Any scenic resources protection program implemented by Hawaii County should ensure that such program weaknesses are not apparent.

It is important to note that while some of Hawai'i County's urban lands are located within the SMA, a larger portion are not. In addition, because of its vast and rural nature, many exceptional and important views in Hawai'i County are mountain (mauka) or agricultural views. Therefore, developments in these areas are not subject to SMA permitting requirements.

For example, the inventory and mapping study identified many important and exceptional views in urban areas, such as the Hilo and Waimea views below that are not located in the SMA. Hawai'i County may want to consider amending its SMA boundary to include some of the coastal exceptional and important views, provided that

Hilo and Waimea urban views.

other criteria for amending the boundaries are met as well. In addition, Hawai'i County may want to consider other protective overlays used in other jurisdictions to ensure its mauka and agricultural views are protected.

County of Napa, California

Napa County has adopted a Viewshed Protection Program to protect the quality of its scenic resources. The program implements the goals and polices of the Napa County general plan including its land use, open space, conservation, circulation and scenic highway elements. The program is codified as Chapter 18.106, "Viewshed Protection Program" of the County's zoning ordinance (**See**: Appendix A, "Napa County Viewshed Protection Program"). Section 18.1206.010 states that the program is intended to accomplish the following:

A. Provide hillside development standards to minimize the impact of man-made structures and grading on views of existing landforms, unique geologic features, existing landscape features and open space as seen from designated public roads within the county;

B. Protect and preserve views of major and minor ridgelines from designated public roads;

C. Create a development review process that maximizes administrative, staff level approval of projects which meet administrative standards, while also providing a vehicle for review by the zoning administrator or planning commission of those projects that do not meet the administrative standards;

D. Minimize cut and fill, earthmoving, grading operations and other such man-made effects on the natural terrain to ensure that finished slopes are compatible with existing land character; and

E. Promote architecture and designs that are compatible with hillside terrain and minimize visual impacts.

Views towards the horizon along the South Kona coast.

Implementation

The Viewshed Protection Program is implemented through the County's zoning ordinance. The ordinance applies to building, erosion control and grading permits located on a slope of fifteen percent or more or on minor or major ridgelines as defined by the ordinance.

The Director of the Conservation, Development and Planning Department, or the Director's designee, is responsible for determining if the project meets the administrative criteria and substantially conforms to the Design Manual. If the project does not meet the criteria, the Director may transmit the application to the Napa Valley Conservation Commission and the Commission must grant an exception pursuant to Section 18.106.070. In order for the Commission to grant an exception, the

Commission must find that conformance would produce greater visual impacts and greater impacts to existing landforms. Moreover, the Commission must find that measures have been taken to mitigate the project's visual impacts.

Program Elements

Major program elements include:

- ***Standardized application and approval process***. The process is codified in the County's zoning ordinance, which clearly describes how visual impacts are evaluated, potential mitigative measures and how applications are processed.

- ***Viewshed Protection Program Application Packet***. Among the program's application content requirements are: 1) Proposed site plan, 2) Topographic map/preliminary grading plan, 3) Building/structure elevations, 4) Landscaping and/or vegetation retention plan, 5) Exterior lighting plan, and 6) Visual impact analysis. The Visual Impact Analysis may include one or more of the following:
  - Story poles (the temporary placement of a mock wooden skeleton in the general shape of the building, then draping plastic orange snow fencing around the roofline to portray the visual prominence and bulk of the proposed structure);
  - Computer simulation;
  - Photomontage;
  - Picture or visual as viewed from designated public road at point(s) where the structure(s) is/are visible;
  - Appropriately scaled model; and
  - Additional views or materials as required by staff from other vantage points.

- **Design Manual.** The Design Manual is defined in the Napa County Viewshed Protection Program ordinance as follows:

> *"Design Manual" shall mean the manual entitled "Viewshed Protection Manual" on file with the Napa County conservation, development and planning*

Hawaii County's historic bridges are important scenic resources for the structures themselves as well as for the scenic integrity of the landscapes seen from the bridges.

> *department. The Design Manual shall contain graphic examples of major and minor ridgelines, projects which do and do not meet the criteria contained in this chapter, and landscape plan provisions.*

Applicability to Hawaii County

The Napa County Viewshed Protection Program may serve as a helpful model for Hawaii County as it develops a program to address its scenic resource protection objectives. The program embodies a standardized application and approval process,

clear application content requirements and a design manual unique to Napa's program objectives.

Stowe, Vermont

The Town of Stowe, Vermont adopted the Ridgelines/Hillsides Overlay District (RHOD) to protect its scenic and ecological resources. The overlay district is implemented through the Town of Stowe Zoning and Subdivision Regulations. Overlay districts are zoning regulations that are typically applied to geographic areas that have unique geographical, environmental or socio-economic conditions that warrant special regulations. These regulations are attached to the existing zoning ordinance and are in addition to and not in lieu of those regulations (**See**: Appendix B, Stowe, Vermont Ridgelines/Hillsides Overlay District"). The purpose of the Stowe overlay district is described as follows:

> *The purpose of the Ridgelines/Hillsides Overlay District (RHOD) is to protect the scenic and ecological resources associated with lands characterized by high elevations, steep slopes and visual sensitivity in a manner that allows for carefully designed, low-impact development.*

Implementation

The RHOD is applicable to any development proposed on lands within the Overlay District. Development within the RHOD must submit a hillside development plan that is reviewed by the Development Review Board (DRB). The DRB determines if the project is classified as "minor" or "significant". There are established criteria that the DRB follows to make this determination. Minor projects may proceed with their development permits. Significant projects are subject to review by the DRB, in accordance with the RHOD process and standards codified by ordinance. The process includes the submittal of an application package, scheduling of a public hearing, review by the DRB and either approval, approval with conditions or disapproval of the site development plan within 45 days of the public hearing.

Program Elements

Major program elements include:

- ***Standardized review and approval process***. The RHOD process is codified in the Town's overlay district ordinance, which clearly describes which projects are considered to have "minor" impacts and which are considered to have "significant impacts"; projects having significant impacts are subject to DRB review. The ordinance also contains standards and guidelines for determining potential impacts to vantage points and for guiding development in a manner that minimizes its impact upon scenic resources.

- ***Application Submission/Content Requirements***. Among the program's application submission/content requirements are materials that may include: 1) Site development plan, 2) Grading plan, 3) Lighting plan, 4) Visibility studies, 5) Stormwater management/erosion control plan, 6) architectural plans and renderings, 7) Access plan, and 8) Slope analysis. Visibility studies may include viewshed analysis, line of site sections, site photography and other means to assess the visual impact of the proposed application. On site measures such as plywood and pole mock-ups, and survey tape layout of site elements may also be required in the event the site is deemed to be sensitive by the DRB.

- **Standards and Guidelines.** The RHOD ordinance contains Standards and Guidelines that the Applicant, Staff and the DRB rely upon to mitigate scenic resource impacts. The ordinance defines the following terms as follows:

> *"Adverse" indicates a negative impact on an identified resource. "Undue Adverse" indicates that the proposed development violates one or more of the Standards set forth in this ordinance and that the impacts cannot be mitigated.*
>
> *Standards are statements that express the development and design intentions of this overlay district. All development within this district must comply with these standards. The Standards reflect*

Hawaii County's scenic resources are dramatically influenced by geology, climate and topography.

> *the visual and environmental concerns of the community in terms of the Town's hillsides and ridgelines.*
>
> *Guidelines are instructive in nature. They suggest a variety of means by which the applicant might comply with the standards. The options for compliance are not limited to the guidelines listed, but the applicant can use the list to aid in the design process.*
>
> *Illustrations graphically portray the prescriptions and concepts conveyed in both the Standards and Guidelines.*

The program's deployment of standards and guidelines supported by illustrations that are used in conjunction with a standardized approval and review process creates the basis for a powerful scenic resources preservation program.

Applicability to Hawaii County

The Town of Stowe's overlay district may serve as a helpful model for Hawaii County as it develops a program to accomplish its scenic resource protection objectives. The overlay ordinance embodies a standardized application and approval process; clear application content requirements; and scenic resource standards, guidelines and illustrations that may serve as a helpful model for the development of a program to protect Hawaii County's scenic resources.

Kailua Kona seaside view.

State Department of Environmental Protection, Maine

The Department of Environmental Protection enacted Chapter 315, "*Assessing and Mitigating Impacts to Existing Scenic and Aesthetic Uses"*, to implement the State's Natural Resources Protection Act (NRPA). The NRPA requires that applicants proposing activities occurring in, on, over, or adjacent to protected natural resources demonstrate that these activities will not unreasonably interfere with existing scenic and aesthetic resources (**See**: Appendix C, State Department of Environmental Protection, Maine Chapter 315, "Assessing and Mitigating Impacts to Existing Scenic and Aesthetic Uses"). The purpose of the Chapter states:

> *This rule specifies State regulatory concerns, defines visual impacts, establishes a procedure for evaluating visual impacts*

generated from proposed activities, establishes when a visual assessment may be necessary, explains the components of a visual assessment when required, and describes avoidance, mitigation, and offset measures that may eliminate or reduce unreasonable adverse impacts to existing scenic and aesthetic uses.

Implementation

Chapter 35 applies *to "the alteration of a coastal wetland, great pond, freshwater wetland, fragile mountain area, river, stream, or brook, as defined in the M.S.R.A § 480-B of the Natural Resources Protection Act, that requires an individual permit or is eligible for Tier 3 review."*

The Chapter requires that the Department determine the following when an activity is proposed:

- Presence of a scenic resource listed in Section 10 of the NRPA;
- Significance of the scenic resource;
- Character of the surrounding environment;
- Expectations of the current viewer;
- Extent and intransience of the activity;
- Project purpose; and
- Context of the proposed activity.

The Department is instructed that *"unreasonable adverse visual impacts are those that are expected to unreasonably interfere with the general public's visual enjoyment and appreciation of a scenic resource, or those that otherwise unreasonably impair the character or quality of such a place."*

The Department's visual impact assessment is based on the following:

- ***Landscape compatibility.*** The project's impact on the color, form, line and texture of the environment by whether it differs significantly from its existing surroundings;
- ***Scale contrast.*** The project's size and scope given its location within the viewshed of a scenic resource; and

- ***Spatial dominance.*** The degree to which an activity dominates the landscape composition or dominates landform, water, or sky backdrop as viewed from a scenic resource.

The rule states that "*an application may be denied if the activity will have an unreasonable impact on the visual quality of a protected natural resources as viewed from a scenic resource even if the activity has no practical alternative and the applicant has minimized the proposed alteration and its impacts through mitigation."*

Program Elements

Major program elements include:

- ***Application Submission/Content Requirements***. The Applicant must describe the location of the activity and provide an inventory of scenic resources within the viewshed. This is accomplished by having the Applicant complete the MDEP Visual Evaluation Field Survey Checklist.

- ***Visual Impact Assessments*****.** If deemed necessary by the Department, the Applicant may be required to have a qualified design professional prepare a visual impact assessment to document the impact of the project. The assessment must illustrate the proposed changes to the environment and the effectiveness of mitigation measures. The assessment must include a narrative of the project, discussion of the significance of the impacts, level of use and viewer expectations, and mitigation measures incorporated into the design. The rule notes that line-of-sight profiles are one acceptable means for documenting impacts. It is also noted that photo simulations and computer generated graphics may be required for more sensitive landscapes.

- ***Mitigation.*** In reviewing an Application, the Department is to consider if the project is compatible with its surroundings, and if mitigation has been incorporated to reduce the project's scenic resource impacts. Design strategies promulgated in the rules include:

    - ***Planning and siting.*** Locate structures in a way on the site to limit the structure's adverse impacts within the viewshed.
    - ***Design.*** Applicants should utilize screening, buffers, earthen berms, camouflage, low profile, downsizing, non-standard

materials, lighting, and alternative technologies to minimize impacts.

- ***Offsets.*** If scenic resource impacts are unavoidable, applicants may propose "offset" improvements within the viewshed that would enhance the scenic resource in other ways. An offset may be developing a scenic overlook to provide greater access to the scenic resource.

- ***Standard Operating Procedures (SOP) for Evaluating Impacts***. The Department's Bureau of Land and Water enacted standards to assist staff in evaluating scenic and aesthetic use impacts. The guidelines require that staff be trained in the use of a visual impact assessment (VIA) form (Appendix C) and Visual Impact Assessment Matrix (VIM) (Appendix C). The VIA form assesses the project's compatibility with various elements of the landscape using descriptive indicators and a ratings scoring. The VIM form determines the significance of the visual impact and appropriate mitigation in response to the severity of the impact.

Applicability to Hawaii County

Maine's Department of Environmental Management has adopted rules to implement State policy to protect the scenic quality found in its rivers, streams, mountains and other environmental resources. The rules establish an application process, submission requirements, appropriate mitigation strategies and guidelines and standards for evaluating scenic resource impacts. The Department's rules may serve as a helpful model for Hawaii County as it develops a program to address the County's scenic resource protection objectives.

Hawaii County is blessed with rural landscapes of a diversity of colors and textures.

Visual Impact Assessment Techniques

As documented in this report, visual impact assessment should be preceded by documenting the scenic resources to be protected. Thereafter, criteria and/or guidelines should be developed to help the assessor evaluate how, and to what extent, a scenic resource is being degraded by a proposed action. Once a standardized process is in place, visual impact assessment methods should be deployed to document project induced impacts. The visual impact assessment techniques most commonly used to document scenic resource impacts include:

1. ***Line-of-sight analysis***. A graphic line between two points on a surface that shows where along the line the view is being obstructed. This analysis can be performed using ARC GIS.

2. ***Story poles.*** The temporary placement of a mock structure or poles at the height and massing of a structure to simulate the impact of the structure on scenic resources.

3. ***Computer simulation.*** The use of computers to simulate pre- and post-project conditions by creating a computerized model of the height, scale and architectural character of a structure together with the existing natural and built environment surrounding it.

4. ***Photomontage.*** Creating a composite photograph by incorporating elements from two or more photographs into a new image. Image editing software is often used and the process is commonly referred to as “photoshopping”.

These techniques are elaborated upon through their application in the following visual impact assessment case studies:

Canyon Oaks Story Poles

The City of Calabasas, California, requires projects to conduct a story pole analysis if they are located within its “Scenic Corridor Overlay Zone”, or if they are requesting height variances. The purpose of installing story poles is to assess the visual impact of the project (**See**: Appendix D, Canyon Oaks Story Poles).

Mauka views from Alii Drive in Kailua Kona document how building height and separation can be used to preserve view corridors towards Hualalai.

The case study described in Appendix D documents an application that was made to the City's Planning Commission to install story poles, in accordance with a proposed story pole plan. The Applicant was seeking an approval from the Planning Commission to proceed with the story pole plan.

The story pole analysis was intended to document the scenic resource impacts of a development comprising 67 single-family residences, two duplexes and a four-story hotel. Approximately 80% of the 77-acre site was to remain in open space. The Application to the Planning Commission comprised the following:

- Development summary;
- Project site plan superimposed onto an aerial photograph;
- Documentation of views from the abutting roadways;
- Architectural Sections of the project;
- Story pole plans; and
- Story pole plan with computer simulation of post development condition. (**See**: Appendix D, pages 14 through 19).

Waikapu Country Town, Computer Generated Photomontage

A Draft Environmental Impact Statement (DEIS) was filed with the State Land Use Commission to assess the impacts associated with the development of a 1,433 unit mixed-use development in Waikapu, Maui. The Hawaii Revised Statutes (HRS),

Chapter 343, trigger for the DEIS was an amendment to the County's General Plan. The project also requires a change in the State Land Use District from Agricultural to Urban and Rural. The project site is within the County's directed growth boundary and is consistent with the County's directed growth plan.

The Maui Island Plan (MIP) identifies the Honoapiilani highway fronting the project as a "scenic corridor" with "high" resource value. The MIP has policies that stipulate the protection of scenic resources including views of the West Maui Mountains, Haleakala, agricultural lands and the Pacific Ocean. In reviewing the Environmental Impact Statement Preparation Notice (EISPN), the Planning Department's staff planner requested that the impacts to views along the Honoapiilani Highway be assessed in the DEIS.

In response to the Planning Department's request, the Applicant prepared a series of computer generated photomontages to document the visual impacts of the development on the landscape (**See**: Appendix E, Waikapu Country Town Visual Impact Assessment). As described in the DEIS, the Applicant incorporated several mitigation measures into the design to help reduce the project's visual impacts, including:

- Increasing the depth of the setbacks along the highway;
- Limiting the scale and height of buildings along the highway;
- Increasing the separation between buildings;
- Aligning internal roadways in a manner to create scenic corridors, where possible; and
- Incorporating canopy shade trees and other landscape planting treatments

Low roof profiles preserve expansive views of Hawaii County's coastline.

within the right-of-way to create a sense of place.

The computer generated photomontages will help to inform the public of the impacts that the project will have upon scenic resources. They will also help decision makers determine if the impacts are acceptable or unacceptable, and if additional mitigation measures are warranted.

The Sill, Landscape and Visual Impact Assessment

A Landscape and Visual Impact Assessment (LVIA) was prepared to assess the visual impacts of constructing a Landscape Discovery Center, 86-bed hostel, parking, and infrastructure within the 400 square mile Northumberland National Park, England.

The study was conducted in accordance with the "*Guidelines for Landscape and Visual Impact Assessment*": Third Edition: 2013, edited by the Landscape Institute and the Institute of Environmental Management and Assessment.

The LIVA is noteworthy for its discussion of the study's methodology and overview of the significance criteria (Chapter 3), description of baseline resource conditions (Chapter 4), and summarization of impacts (Chapter 5). Photomontage was used to demonstrate the project's visual impacts from a variety of locations (**See**: Appendix F). The tables on pages 31 through 34 are especially helpful in documenting the project's visual impacts. Similar tables could be used alongside photomontage and/or computer simulation to document development impacts to Hawaii County's scenic resources.

Increasing shoreline setbacks and minimum lot sizes could help to better protect shoreline views along the South Kona coast.

Village Specific Plan, Visual Impact Assessment

The City of Del Mar, California, Planning and Community Development Department, commissioned a study that was completed in July 2012 to assess the visual impacts of the City's "*Del Mar Village Specific Plan"*. The Visual Impact Assessment thoroughly documents the existing visual resources within the study area and assesses the visual response of the different viewer groups. The study then conducts an assessment of the Plan's visual impacts, proposes mitigation options and assesses the impacts following mitigation (**See**: Appendix G, Village Specific Plan, Visual Impact Assessment).

The Del Mar study utilizes several of the visual impact assessment techniques identified in this report, including: GIS based line-of-site/viewshed analysis, photomontage and computer simulation. GIS based line-of-site/viewshed analysis using a digital elevation model (DEM) was effectively deployed to assess the Plan's overall impact by documenting the following:

- The scope of existing and future ocean viewsheds from residences located to the east (mauka) of the planning area.
- The visibility of existing and future buildings from residences located east (mauka) of the planning area based on existing and planned conditions.
- The degree of visual impact upon residences located east (mauka) of the planning area.
  The presence and types of view corridors through the planning area from residences located to the east (mauka) (**See**: Appendix G, pages 23 to 33).

Computer simulations documenting pre- and post-project conditions were are also used extensively in the Del Mar Study. The study documents existing views from locations where the Plan is proposing changes to building massing and height. Using computer software, such as SketchUp, scale models depicting future building conditions were inserted into existing condition photographs.

Utility clutter is a significant threat to Hawaii County's scenic resources.

The analyst is then able to assess the significance of the project's impact.

Using computer simulation, the scenic resources analyst is able to assess the following:

- Existing visual quality / character;
- Proposed project features;
- Change to visual quality / character;
- Viewer response;
- Resultant visual impact.

See Simulation "D1" on pages 52 through 53, Simulation "E1" on pages 56 through 57 and Simulations "F1" through "F4" on pages 58 through 62 of Appendix G.

Building setback, scale and topography minimize scenic resource impacts above while exacerbating impacts below.

Dust fencing offers suggestions of potential impacts to open space and Hualalai views just east of Waimea along Highway 19, Kawaihae Road.

Recommendations

The purpose of this study was to research view plane protection programs and strategies that different local, state, and federal government units have adopted. These programs and strategies may serve as models that Hawaii County could use to help respond to the programmatic gaps that have been identified within the County's existing planning and regulatory documents.

The County has a solid foundation of existing State and County policy directives to establish view plane regulations to preserve and protect its scenic resources. As documented in this report, there is also sufficient enabling policy to develop a scenic

resource protection program. Any program developed should include the following key elements that are already supported by County policy:

- Identification of scenic view planes, areas of natural beauty, and other visual resources by mapping them (HRS 205A-2(c)(3)(A));
- Establishment of application requirements for all land use and construction reviews to assess potential impacts on view planes and other natural and scenic beauty resources, likely including line-of-sight analysis (GP 7.3 (e), (h), & (i)); and
- Development of permit conditions, such as design guidelines, landscaping, screening, or structural setbacks from major thoroughfares and highways, to mitigate any visual impacts from development (GP 7.3(f)).

The following summarizes this study's recommendations:

1. Identification of scenic view planes, areas of natural beauty, and other visual resources.

   1.A Conduct additional community outreach to support recommendations 1.B and 1.C.

   1.B Rate the viewsheds and roadway corridors documented in the *Scenic Resources Inventory and Mapping Project* (June, 2016); and

   1.C Develop scenic resource and viewshed corridor maps.

2. Develop administrative rules to implement Hawaii County Code §25-6-60. These rules will provide a consistent framework and process for the implementation of HCC §25-6-60. The rules should include: 1. Purpose and intent language; 2. Criteria used to determine significant impacts when reviewing development projects; 3. An application review and approval process for the review of development projects; and 4. Application content requirements.

   Models documented in this report include: Napa, California; Stowe Vermont; and State Department of Environmental Protection, Maine.

In addition, *The Sill, Landscape and Visual Impact Assessment Report* (Appendix F), provides criteria that may be applicable for assessing visual impacts. The visual impact assessment techniques documented in this report, including: computer simulations, photomontages and constructing story poles, should be required of Applicants when it is expected that their project will produce adverse scenic resource impacts.

3. Develop Scenic Corridor Management Plan(s) for specific corridors identified through steps 1.B and 1.C. Prepare and process the Management Plan(s) in accordance with Hawaii County Code §25-6-60.

   3.A Scenic Corridor Management Plan(s) should include permit conditions, such as design guidelines, landscaping, screening, or structural setbacks from major thoroughfares and highways, to mitigate any visual impacts from development.

   3.B Prepare Urban Design and Scenic Resource Protection Guidelines.

   Design guidelines are needed to help both Applicant's and staff identify best practice mitigation for minimizing scenic resource impacts. Design guidelines should address the following:

   - Building density, scale, setbacks, height, separation, placement/orientation, colors, and materials;
   - Landscape planting; and
   - Topography

   The guidelines should demonstrate the application of mitigation to projects of the type to be expected within the unique landscape character districts found within the County.

4. Staff and Planning Commission Training. Institutionalize a scenic resources management and protection training program.

   As described in this report, all development within Maui County's SMA is subject to a determination of consistency with the SMA's scenic resource objectives and policies. Unfortunately, there is very little guidance provided to help distinguish between acceptable and unacceptable impacts, when a visual impact

assessment should be conducted, and the types of mitigation that are most appropriate to specific conditions.

Any program adopted in Hawaii County should include a training element to help ensure that impacts are addressed consistently and in a manner consistent with the purpose and intent of the County's scenic resource protection policies.

Hawaii County's scenic resources enhance the quality of life for its residents while attracting visitors from around the world.

APPENDIX A

NAPA COUNTY VIEWSHED PROTECTION PROGRAM

COUNTY OF NAPA
CONSERVATION, DEVELOPMENT AND PLANNING DEPARTMENT

VIEWSHED PROTECTION PROGRAM

APPLICATION PACKET

1. Applicant's Checklist
2. Viewshed Protection Program Application
3. Indemnification Agreement
4. Application Completeness Requirements and Checklist
5. Adjoining Property Owner's List Requirements
6. Excerpts from Viewshed Protection Program Ordinance
7. Viewshed Protection Manual
8. Slope Determination Methodology

1) [illegible] Determin
2) Administrative Cr.te
3) Reference to a desc. manual

NOTE:

PLEASE INCLUDE THREE COPIES
OF
ALL REQUIRED APPLICATION MATERIALS SUBMITTED.

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NAPA COUNTY
CONSERVATION, DEVELOPMENT & PLANNING DEPARTMENT
1195 Third Street, Suite 210, Napa, California, 94559 • (707) 253-4416

APPLICANT'S CHECKLIST
VIEWSHED PROTECTION PROGRAM

1. ☐ **Completed and Signed Application and Indemnification Form***

   *A signed Indemnification Form will only be required if a public hearing is conducted (i.e. if this is an item before the Zoning Administrator or Commission).

2. ☐ **Vicinity Map**

3. ☐ **Proposed Site Plan**

4. ☐ **Topographic Map/Preliminary Grading Plan**

5. ☐ **Building/Structural Elevations**

6. ☐ **Landscaping and/or Vegetation Retention Plan**

7. ☐ **Exterior Lighting Plan**

8. ☐ **Visual Impact Analysis**

a. ☐ **Title Insurance Company Certified List of Adjoining Property Owners within 300 feet**

9. ☐ **Application Fee** of $_____ (to be determined at time of Pre Application meeting) (Napa County Policy Manual, Part 3 § 80.050). Checks made payable to the County of Napa.

Note:

1) Items numbered 2-4 above may be combined and submitted on the same drawing.
2) A detailed list of all the required submittal items is provided herein under "APPLICATION COMPLETENESS REQUIREMENTS AND CHECKLIST".
3) Many of the items required for review under the Viewshed Ordinance are the same items that would be normally be required for an Erosion Control Plan (ECP) Review. If you are concurrently applying for an ECP Review, provide us with a copy of the appropriate items. Please, do not duplicate your efforts.

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NAPA COUNTY
CONSERVATION, DEVELOPMENT & PLANNING DEPARTMENT

1195 Third Street, Suite 210, Napa, California, 94559 • (707) 253-4416

APPLICATION FORM
VIEWSHED PROTECTION PROGRAM

FOR OFFICE USE ONLY

FILE #:_____-_____ **APN #:**_____-_____-_____ **SUBMITTAL DATE:** ___/___/___

USGS QUAD: _____

TOWNSHIP/RANGE: _____

REQUEST: _____

PROJECT TYPE: Structure ___ Driveway ____ Road ____ Reservoir ____ Mass Grading ____ Other _____

OTHER PERMITS APPLIED/PENDING/REQUIRED:

ECP ___ #_____ Grading Permit ___ #_____ Use Permit ___ #_____ Variance ___ #_____ SDSDS ___ #_____ Groundwater Permit: ___ #_____

REVIEW AGENCIES: CDPD: _X_ County Consultant: ___ Name/Contact:_____

FINAL APPROVAL: CDPD: _X_ Date: _____/_____/_____ Conditions: Yes ___ No ___

TO BE COMPLETED BY APPLICANT

(Please type or print legibly)

Applicant's Name: _____

Telephone #: (___)_____-_____ **Fax #:** (___)_____-_____ **E-Mail:** _____

Mailing Address:_____
No. Street City State Zip

Status of Applicant's Interest in Property: _____

Property Owner's Name: _____

Telephone #: (___)_____-_____ **Fax #:** (___)_____-_____ **E-Mail:** _____

Mailing Address:_____
No. Street City State Zip

Site Address/Location: _____
No. Street City State Zip

Assessor's Parcel #:_____-_____-_____ **Parcel Size:** _____ **acres** **Development Area Size:** _____ **acres**

Slope Range of Development Area: ____ % to ____%

(**NOTE**: Contour map/survey is required for all development areas with an estimated slope of 15% or greater and for all road/driveway projects, Contour map must include all areas within 100'of the cut and fill edges. Percent slope shall be calculated and presented as whole numbers. Please see attached Slope Determination Methodology)

4

I hereby certify that all the information contained in this application, including but not limited to, this application form, the supplemental information sheets, site plan, plot plan, cross sections/elevations, is complete and accurate to the best of my knowledge. I hereby authorize such investigations including access to County Assessor's Records as are deemed necessary by the County Planning Division for evaluation of this application and preparation of reports related thereto, including the right of access to the property involved.

_____ ___/___/___ _____ ___/___/___

Signature of Applicant *Date* *Signature of Property Owner* *Date*

_____ _____

Print Name Print Name

TO BE COMPLETED BY CONSERVATION, DEVELOPMENT AND PLANNING DEPARTMENT

Total Fee: $_____ Receipt. No. _____ Received by:_____

Date:_____

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INDEMNIFICATION AGREEMENT

Pursuant to Chapter 1.30 of the Napa County Code, as part of the application for a discretionary land use project approval for the project identified below, Applicant agrees to defend, indemnify, release and hold harmless Napa County, its agents, officers, attorneys, employees, departments, boards and commissions (hereafter collectively "County") from any claim, action or proceeding (hereafter collectively "proceeding") brought against County, the purpose of which is to attack, set aside, void or annul the discretionary project approval of the County, or an action relating to this project required by any such proceeding to be taken to comply with the California Environmental Quality Act by County, or both. This indemnification shall include, but not be limited to damages awarded against the County, if any, and cost of suit, attorneys' fees, and other liabilities and expenses incurred in connection with such proceeding that relate to this discretionary approval or an action related to this project taken to comply with CEQA whether incurred by the Applicant, the County, and/or the parties initiating or bringing such proceeding. Applicant further agrees to indemnify the County for all of County's costs, attorneys' fees, and damages, which the County incurs in enforcing this indemnification agreement.

Applicant further agrees, as a condition of project approval, to defend, indemnify and hold harmless the County for all costs incurred in additional investigation of or study of, or for supplementing, redrafting, revising, or amending any document (such as an EIR, negative declaration, specific plan, or general plan amendment) if made necessary by said proceeding and if the Applicant desires to pursue securing approvals which are conditioned on the approval of such documents.

In the event any such proceeding is brought, County shall promptly notify the Applicant of the proceeding, and County shall cooperate fully in the defense. If County fails to promptly notify the Applicant of the proceeding, or if County fails to cooperate fully in the defense, the Applicant shall not thereafter be responsible to defend, indemnify, or hold harmless the County. The County shall retain the right to participate in the defense of the proceeding if it bears its own attorneys' fees and costs, and defends the action in good faith. The Applicant shall not be required to pay or perform any settlement unless the settlement is approved by the Applicant.

_____	_____
Applicant	Property Owner (if other than Applicant)
_____	_____
Date	Project Identification

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NAPA COUNTY
CONSERVATION, DEVELOPMENT & PLANNING DEPARTMENT
1195 Third Street, Suite 210, Napa, California, 94559 • (707) 253-4416

APPLICATION COMPLETENESS REQUIREMENTS AND CHECKLIST
VIEWSHED PROTECTION PROGRAM

1. ☐ Completed and Signed Application and Indemnification Form*.
   *A signed Indemnification Form will only be required if a public hearing is conducted (i.e. if this is an item before the Zoning Administrator or Commission).

2. ☐ Vicinity Map.

   A. A 7" by 5 ½" portion of a 7.5-minute (1"=2000') United States Geological Survey (USGS) topography map.
   B. Map shall show improvements in their relationship to abutting properties/structures and major and minor ridgelines.

3. ☐ Proposed Site Plan. A proposed site plan shall be prepared to locate only the proposed site improvements and areas to be disturbed (i.e. building site, graded area). Scale of the plan shall be appropriate to the area disturbed either through grading, construction or clearing of vegetation. The area surrounding the building pad/site shall be scaled at 1" = 20' or finer and roads or driveways at 1"=100' or finer. A scaled Site Plan shall include:

   A. Location of all existing structure(s) to be removed or remain on site; note on plan whether to remain or to be removed.
   B. Location of all existing vegetation six inches in diameter or greater, measured in diameter at breast height (DBH), including variety, height and canopy width.
   C. Location of all proposed impervious surfaces (i.e. driveways, motor courts, patios).
   D. Location of all wastewater disposal systems on site.
   E. Proposed setbacks from property lines(s) and other structures.
   F. Location of all spoils/stock pile area for all excavated and/or imported soils.
   G. Total floor area shown, including all floors, of all structures, regardless of use.

4. ☐ Topographic Map/Preliminary Grading Plan. Map shall note the following:

   A. Existing and proposed contours of the building site before and after all construction is completed, drawn at 2' or 5' intervals at a scale of 1"=20' or better; driveways or access roads must show 5' intervals at a scale of 1"=100' or better.
   B. Map shall include the following section(s) at minimum:
      i. Disturbed areas, including proposed/existing roads;
      ii. Building(s) height(s), measured according to the most recently County adopted California Building Code;
      iii. Roadways/Driveways, shown at intervals as required in County Slope Determination Methodology, Conservation Regulations Exhibit A (Resolution 91-61), shorter intervals may be required in areas of changing topography;
      iv. Retaining walls or man-made embankments and berms, illustrating location and height (scale of ¼" = 1').
   C. Preliminary drainage plans for the site, showing the pattern and direction of flow, as well as any on site natural or man-made drainage/waterways.
   D. Highest point of the proposed structure(s) measured vertically to top of nearest ridgeline.

5. ☐ Building/Structure Elevations.

   A. Elevations shall scaled and include type of building material, color treatment and sample color-chip, roofing material and color.
   B. Include information on window reflectivity and extent of window coverage.
   C. "Building Height(s)," as defined in the most recent County adopted edition of the California Building Code, must also be shown on the elevations (See item #3 C. Determining Building Height in the Viewshed Protection Manual for measurement details).

6. ☐ Landscaping and/or Vegetation Retention Plan. Newly planted vegetation for the purpose of visual screening, must be of sufficient size to adequately screen the proposed structure(s) in two (2) to five (5) years. A complete plan shall include the following:

   A. Identify and locate all the existing vegetation to remain as visual screening for the proposed structure(s), indicate variety, height and canopy width.
   B. Identify initial planting sizes and varieties of all materials to be installed.
   C. Illustrate the size and canopy width of planted materials, as they would appear 10 years after installation.
   D. Distinguish the natural and/or installed landscaping to be included in the visual impact analysis.
   E. Installed landscaping must be compatible with existing vegetation and landscape.
   F. Establish a comprehensive landscape maintenance program, including a protection and pruning program for existing and planted trees.

7. ☐ Exterior Lighting Plan. Identifying the location, type of fixture, focus/purpose, as well as the use of any timers or motion sensor devises

8. ☐ Visual Impact Analysis. One or more of the following may be required to determine the visual impact of the structure(s) and its associated improvements and their conformance with the Viewshed Protection Program.

   A. Story poles (the temporary placement of a mock wooden skeleton in the general shape of the building, then draping plastic orange snow fencing around the roofline to portray the visual prominence and bulk of the proposed structure).
   B. Computer simulation.
   C. Photomontage.
   D. Picture or visual as viewed from designated public road at point(s) where the structure(s) is/are visible.
   E. Appropriately scaled model.
   F. Additional views or materials as required by staff from other vantage points.

9. ☐ Title Insurance Company Certified List of Adjoining Property Owners within 300 feet. Identifying all property owners within 300' of the subject parcel, specifying name, address and parcel number; included on two sets of mailing labels with accompanying Assessor's Pages used to compile the above property owner list. Please see "ADJOINING PROPERTY OWNER LIST REQUIREMENTS" for details on preparing the requested list.

10. ☐ Application Fee of $_____ (to be determined at Pre-App meeting) plus an Initial Environmental Review Fee (if applicable) of $_____ (to be determined at Pre-App meeting) (Napa County Policy Manual, Part 3 § 80.050). Checks made payable to the County of Napa.

NAPA COUNTY
CONSERVATION, DEVELOPMENT & PLANNING DEPARTMENT
1195 Third Street, Suite 210, Napa, California, 94559 • (707) 253-4416

ADJOINING PROPERTY OWNER LIST REQUIREMENTS
VIEWSHED PROTECTION PROGRAM

All applications shall include a list of the current owners of all the properties whose outer perimeters are within **300 feet** of the property boundary of the project site. The list shall include the property owner's names, their addresses and the assessor's parcel numbers of the property owned.

Preparation, verification and submission of this list of property owners is the responsibility of the applicant. Lists of the property owners appearing on County tax rolls in the form required are available from all local title insurance companies. A title insurance company must certify each such list, ensuring that it reflects the most recent County tax roll information.

INSTRUCTIONS TO TITLE COMPANY

Please prepare the property owners' list as follows:

1. Type the property owners' names, parcel numbers and mailing addresses on an 8½" by 11" sheet of Avery #5160 Laser Labels so that this information can be readily used in mailing by the Conservation, Development and Planning Department.

2. Submit a full page copy of the assessors' parcel book page(s) and a copy of the latest equalized assessment roll used to compile the property owners' list. Please indicate the location of all parcels listed, by check mark or colored parcel number circled on the pages.

If you should have any questions, please contact the Conservation, Development and Planning Department at 707/253-4417.

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Chapter 18.106 - VIEWSHED PROTECTION PROGRAM

Sections:

18.106.010 - Purpose.
18.106.020 - Definitions.
18.106.030 - General provisions.
18.106.040 - Projects subject to administrative review.
18.106.050 - Processing of projects subject to review and approval by the zoning administrator or the commission.
18.106.060 - Required public and private notification.
18.106.070 - Exceptions.
18.106.080 - Variances not prohibited.
18.106.090 - Denials and potential takings.

18.106.010 - Purpose.

The purpose and intent of these regulations is to protect the public health, safety, and community welfare and to otherwise protect the scenic quality of the county both for visitors to the county as well as for its residents by ensuring that future improvements are compatible with existing land forms, particularly county ridgelines and that views of the county's many unique geologic features and the existing landscape fabric of the county's hillside areas are protected and preserved. These regulations are consistent with the goals and policies of the Napa County general plan, particularly as specified in the land use, open space and conservation, circulation and the scenic highways elements. Furthermore, it is intended that these regulations accomplish the following:

A. Provide hillside development standards to minimize the impact of man-made structures and grading on views of existing landforms, unique geologic features, existing landscape features and open space as seen from designated public roads within the county;
B. Protect and preserve views of major and minor ridgelines from designated public roads;
C. Create a development review process that maximizes administrative, staff level approval of projects which meet administrative standards, while also providing a vehicle for review by the zoning administrator or planning commission of those projects that do not meet the administrative standards;
D. Minimize cut and fill, earthmoving, grading operations and other such man-made effects on the natural terrain to ensure that finished slopes are compatible with existing land character; and
E. Promote architecture and designs that are compatible with hillside terrain and minimize visual impacts.

(Ord. 1278 § 1 (part), 2006: Ord. 1189 § 3 (part), 2001)

18.106.020 - Definitions.

Unless otherwise specified, the terms indicated below shall have the following meaning:

"Accessory structures" shall mean structures that are subordinate and supplementary to the predominate use of the parcel, be it agricultural, residential, or a combination thereof.

"Agricultural structure" shall mean a structure supportive and/or ancillary to an authorized on-site agricultural use as defined by Section 18.08.040 of the code.

"Benches" or "shelves" shall mean flat areas which could be used as a building site which are otherwise surrounded by slopes of fifteen percent or greater.

"Building height" shall be as defined in the currently adopted edition of the California Building Code used by the county.

"Code" means the Napa County Code.

"Commission" shall mean the Napa County conservation, development and planning commission.

"Defensible space" shall be interpreted pursuant to the requirements of Chapter 3 of Part 2 of Division 4 of the Public Resources Code (commencing with Section 4290).

"Department" shall mean the Napa County conservation, development and planning department.

"Design Manual" shall mean the manual entitled "Viewshed Protection Manual" on file with the Napa County conservation, development and planning department. The Design Manual shall contain graphic examples of major and minor ridgelines, projects which do and do not meet the criteria contained in this chapter, and landscape plan provisions.

"Designated public roads" shall mean scenic highways as identified in Figures 75 and 76 of the scenic highways element of the Napa County general plan, and such other county roads as may be designated by resolution of the board of supervisors.

"Director" shall mean the director of the conservation, development and planning department and/or his designee.

"Floor area" shall be defined to be the area encompassed by the outside surface of the structure foundation.

"Grading" shall be as defined in Section 18.108.030 of the code. Grading includes earthmoving activity as defined in Section 18.108.030 of the code.

"Major ridgeline" shall mean a ridgeline, which is prominently visible from a substantial land area within the county. Major ridgelines are characterized by the lack of a topographical backdrop where the sky is visible beyond the ridge.

"Minor ridgeline" shall mean a ridgeline which is not prominently visible to a large area of the county. Minor ridgelines are typically lower in height, when compared to the surrounding terrain and may be visible only to a limited area, or have a backdrop of a nearby higher topographical feature.

"Predominant portion" shall mean the principal or main part of the structure including architectural features likely to be silhouetted against the sky.

"Ridgeline" shall mean a visually prominent, relatively narrow strip or crest of land, which includes the highest points of elevation within a watershed, that separates one drainage basin from another.

"Slope" shall be determined in the same manner as defined in Section 18.108.030 of the code.

"Structures" shall mean that which is built or constructed, an edifice or building of any kind, or any piece of work artificially built up or comprised of parts joined together in some definite manner. Structure includes, but is not limited to, primary and accessory buildings, single-family residences and improvements, additions, reconstruction and remodeling to said structures.

"Substantial views" shall mean views of a structure wherein fifty-one percent or more of the area facing the designated road(s) can be seen.

(Ord. 1278 § 1 (part), 2006: Ord. 1232 § 1, 2003: Ord. 1189 § 3 (part), 2001)

18.106.030 - General provisions.

A. Applicability—New and Expanded Structures. No building permit, erosion control plan for structural development, grading or other administrative permit shall be issued by any county staff, agency or department for any new structure or improvement to an existing structure if the structure is located on a slope of fifteen percent or more as defined in Section 18.106.020 or if the structure is located on any minor or major ridgeline as defined in Section 18.106.020 except as specifically provided for herein. The ordinance codified in this section shall apply to all new structures located on slopes of fifteen percent or more or located on a minor or major ridgeline. In the event of a conflict among the regulations in this chapter and those elsewhere in this code, the regulations in this chapter shall prevail. The provisions of this chapter shall also apply to projects undertaken by public agencies and special districts except for the maintenance of existing county public roads within existing rights-of-way.

B. Applicability—Grading or Earthmoving Activities. No permit or administrative or discretionary approval shall be issued to authorize any grading or earthmoving activity, including grading or earthmoving necessary to create or improve an existing or new driveway, road or other access, or benches or shelves, if such earthmoving or grading would occur on slopes of fifteen percent or more until the applicant has complied with the applicable provisions of this chapter. Agricultural roads within planted areas subject to erosion control plans under Chapter 18.108 of the code shall not be subject to this requirement.

C. Relationship to the Review of Tentative Parcel Maps, Final Maps, and Subdivision Maps. All future building sites identified on either a tentative parcel map, final map, or subdivision map shall be reviewed and conditions of approval established to ensure conformity with the purpose and intent of this chapter.

D. Relationship to Previously Approved Use Permits and Small Lot Subdivisions. All structures described in a use permit approved prior to the effective date of Ordinance Number 1189 shall not be subject to the requirements of this chapter. Parcels in small lot subdivisions (defined as groups of at least five parcels of less than two acres each for the purposes of this section) established prior to the effective date of Ordinance Number 1268 shall not be subject to the requirements of this chapter.

E. Relationship to Previously Accepted or Approved Building Permits. All residential structures or accessory structures for which a building permit was approved prior to the effective date of Ordinance Number 1189, or for which a building permit application had been accepted and deemed complete for departmental review by the county prior to December 1, 2001, shall not be subject to the requirements of this chapter. Such structures and the accompanying permits may be modified prior to the final occupancy inspection if the predominant portion of the proposed modifications to the structure is screened from view from a designated public road by natural vegetation, landscaping, architectural design, and colortone that is in accordance with the Design Manual and provisions of this chapter.

F. Relationship to Use Permit Applications. Applications requiring the issuance of a use permit or use permit modification, as required by the code, will be reviewed for their adherence to the requirements of this chapter during the application process for the issuance of the use permit or use permit modification.

G. Relationship to Conservation Regulations. The structures or activities referred to in Section 18.108.050, except subsections (A) and (B), shall be exempt from the requirements of this chapter and will be cleared for further processing.

H. Determination of Adverse Effects on Ridgelines. The director shall determine whether the proposed location of a structure could adversely affect a minor or major ridgeline for the purpose of administering this chapter based upon elevation of the proposed structure, the height of its roof line and the location of the structure in relationship to surrounding topography.

I. Application Form and Fee. Applications for new, expanded or remodeled structures subject to this chapter shall be submitted to the department on a form provided by the department accompanied by a fee determined by a resolution adopted by the board of supervisors.

(Ord. 1278 § 1 (part), 2006: Ord. 1268 § 8, 2005: Ord. 1232 § 2, 2003: Ord. 1189 § 3 (part), 2001)

18.106.040 - Projects subject to administrative review.

A. General Provisions. Permit applications which meet the criteria in subsection (A) or (E) of Section 18.106.030, and/or grading or earthmoving activities meeting the criteria in subsection (B) of Section 18.106.030, shall be submitted to the department for review by the director. If the application, either as submitted, or upon the inclusion of specified measures, meets the criteria specified in subsection (B) or (C) of this section, the director shall certify that the project complies with the applicable provisions of this chapter and the project will then be cleared for continuing processing pursuant to Title 15 of the code. The director may require the submittal of additional information including, but not limited to, a photo or computer simulation of the project and associated improvements, prior to determining that the project meets the criteria contained in this chapter.

B. Visibility Determination. If the director determines that the project cannot be viewed from any designated public road, because of its relationship to surrounding topography or existing vegetation, then the project will be cleared for further processing pursuant to the code. If the determination was made based on existing vegetation coverage, then the property owner, prior to the issuance of a building permit, shall be required to execute and record in the county recorder's office a use restriction, in a form approved by county counsel, requiring the existing covering vegetation to be maintained, or replaced with equivalent vegetation, by the owner or the owner's successors, so as to prevent the project from being viewed from any designated public road.

C. Administrative Criteria. A project shall be certified and cleared for further processing, if the director determines that a project meets all of the following conditions:

1. The highest point of the proposed structure is located more than twenty-five vertical feet below a major or minor ridgeline;
2. The project as designed and sited meets all of the following standards and substantially conforms to the Design Manual:
   a. The maximum floor area, including all floors, of the main residence or agricultural structure is four thousand square feet or less and the maximum floor area, including all floors, for accessory structures are a combined total of two thousand five hundred square feet or less,
   b. The height of the structure is twenty-four feet or less as measured from finished grade along fifty percent or more of the longest wall as viewed from any designated public road,
   c. The improvement(s), including any required earthmoving or grading associated with the structure shall minimize removal of existing vegetation with emphasis on preserving mature trees. If the improvements require the removal of any tree with a diameter of six inches or greater, a detailed landscaping plan shall be prepared showing the location and replacement of trees and vegetation in a manner which screens the improvements from substantial views from designated public roads and provides for defensible space in conformance with state law,
   d. A significant portion of natural on-site vegetation has been retained to naturally screen the project from views of designated public roads,
   e. Landscaping will be installed and designed to screen the project from substantial views from designated public roads,
   f. The project lighting, including site lighting, has been designed to minimize off-site visibility and glare,
   g. The exterior color treatment of the structure will blend with the color of surrounding vegetation and landforms,
   h. Exterior windows and trim are nonreflective, and
   i. Roof angles and composition are designed to conform to existing landforms and landscape;
3. If the structure is an addition to an existing residence or an agricultural structure, the total floor area, including all floors shall not exceed four thousand square feet. If the addition pertains to an accessory structure, the total floor area, including all floors, shall not exceed a combined total of two thousand five hundred square feet;
4. The project as sited and designed shall be in substantial compliance with the Design Manual to reduce its visual impact on the views of major and minor ridgelines as viewed from any designated public road and unique topographic or geologic features as viewed from any county road. The following landforms will be considered to be unique topographic or geologic features for the purposes of this subsection: Mt. St. Helena, Stag's Leap, Calistoga Palisades, Round Hill, Mt. George and Mt. St. John;
5. Involves the grading of less than one and one-half acres of land;
6. Future structures, including roads, driveways, wastewater disposal systems, and necessary earthmoving to construct project improvements shall be located to avoid environmentally sensitive areas as defined by Section 18.08.270 of the code;
7. A detailed landscape plan prepared by a qualified landscape professional shall be prepared which incorporates the criteria set forth in the Design Manual for review and approval by the director.

D. Prior to the issuance of a building permit for any project authorized under this section, the property owner shall be required to execute and record in the county recorder's office a use restriction, in a form approved by county counsel, requiring building exteriors, and existing and proposed covering vegetation, as well as any equivalent level of replacement vegetation, to be maintained by the owner or the owner's successors so as to maintain conformance with either subsection (B) or (C) of this section.

E. Projects that do not satisfy the criteria and standards contained in Section 18.106.040 shall be subject to review and approval under Section 18.106.050.

(Ord. 1278 § 1 (part), 2006: Ord. 1232 § 3, 2003: Ord. 1189 § 3 (part), 2001)

18.106.050 - Processing of projects subject to review and approval by the zoning administrator or the commission.

A. If the director determines that a project does not meet the criteria in Section 18.106.040 the project shall not be cleared for further processing until the findings contained in subsection (B) of this section are made and a permit is issued by the zoning administrator, or upon referral, by the commission.

B. The zoning administrator or commission shall make all of the following findings prior to approving a project:
   1. The project as designed or modified is consistent with Chapter 18.108 of the code;

2. If the highest point of the proposed project is located more than twenty-five vertical feet below a major or minor ridgeline, that measures have been included in the project to reduce its visual impact on the major or minor ridgeline through use of existing natural vegetation, landscaping, topographical siting, architectural design, and colortone; or if the highest point of the proposed structure is within twenty-five vertical feet of a major or minor ridgeline, that the existing vegetation, proposed landscaping, topographical siting, architectural design, and colortone screen the predominant portion of the proposed structure;
3. The proposed structure, access roads and other site improvements are sited and designed to minimize adverse effects on views from designated public roads;
4. The proposed structure, access road and other site improvements, including earthmoving or grading, and benches or shelves minimize the removal of vegetation;
5. The siting and design of site improvements and access roads minimize grading and alteration of natural landforms and topography;
6. A landscape and/or vegetation retention plan in conformance with the Design Manual has been submitted and approved for the site that would provide maximum screening from designated public roads through preservation of existing vegetation and the planting of new vegetation and provide for defensible space in conformance with state law;
7. The proposed structure and associated improvements substantially conform with the Design Manual in order to reduce their visual impact on the views of major and minor ridgelines as viewed from any designated public road and unique topographic or geologic features as viewed from any county road. The following landforms will be considered to be unique topographic or geologic features for the purposes of this subsection: Mt. St. Helena, Stag's Leap, Calistoga Palisades, Round Hill, Mt. George and Mt. St. John;

C. Prior to the issuance of a building permit for any project authorized under this section, the property owner shall be required to execute and record in the county recorder's office a use restriction, in a form approved by county counsel, requiring building exteriors, and existing and proposed covering vegetation, as well as any equivalent level of replacement vegetation, to be maintained by the owner or the owner's successor so as to maintain conformance with subsection (B) of this section;

D. If one or more of the findings in subsection (B) of this section cannot be made, the application shall be forwarded to the commission for a possible exception pursuant to Section 18.106.070.

(Ord. 1278 § 1 (part), 2006: Ord. 1232 § 4, 2003: Ord. 1189 § 3 (part), 2001)

18.106.060 - Required public and private notification.

A. Within seven days of the issuance of a tentative decision that the project is subject to administrative approval under Section 18.106.040, the director shall give notice of his tentative decision, including the date on which the tentative decision will become final, which date shall be ten calendar days following the date notice of the tentative decision is mailed.
   1. The notice shall be provided to the city or town closest to where the project is proposed to be built and to all public or private property owners located within three hundred feet of the outer perimeter of the property on which the project would be constructed as shown on the latest equalized assessment roll.
   2. The tentative decision shall be final once the period identified in the notice has expired unless an appeal has been filed by the applicant or any interested person pursuant to Chapter 2.88 of this code, in which case the tentative decision shall become final only if and when the appeal is withdrawn, dismissed or denied. If the appeal is granted, in whole or in part, the decision of the board on appeal shall become final in the manner and within the time set forth in Chapter 2.88.

B. At least ten days prior to a decision by the zoning administrator or the commission under Section 18.106.050 or 18.106.070, notice of a public hearing shall be provided to the city or town closest to where the project is proposed to be built and to all property owners located within three hundred feet of the outer perimeter of the property on which the project would be constructed as shown on the latest equalized assessment roll.

(Ord. 1278 § 1 (part), 2006: Ord. 1232 § 5, 2003: Ord. 1201 § 7, 2002; Ord. 1189 § 3 (part), 2001)

18.106.070 - Exceptions.

Upon application by the property owner of a site, an exception to the requirement contained in subsection (B) of Section 18.106.050 may be granted by the commission. Such exception may be granted if, after conducting a public

hearing and reviewing available building sites on the subject property, the commission makes all of the following findings:

A. Compliance with the provisions of subsection (B) of Section 18.106.050 would result in greater visual impact than would the proposed construction on the proposed building site;

B. Compliance with the provisions of subsection (B) of Section 18.106.050 would result in greater impact on existing landforms and landscape than would the proposed construction on the proposed building site;

C. Measures have been included in the project to reduce its visual impacts as seen from any designated public roads. Such measures include but are not limited to:

1. Installation of landscaping designed to screen the project from view of designated public roads;

2. Low level lighting on buildings and site which minimize off-site visibility and glare;

3. Nonreflective exterior windows and window frames;

4. Use of earth tone colors on building exteriors;

5. Roof angles and composition designed to conform with the existing land forms and landscape; and

6. Building height has been designed to minimize the silhouetting against the sky when viewed from any designated public road or open space owned or managed by a public agency or land trust.

D. Prior to the issuance of a building permit for any project authorized under this section, the property owner shall be required to execute and record in the county recorder's office a use restriction, in a form approved by county counsel, requiring building exteriors, and existing and proposed covering vegetation, as well as any equivalent level of replacement vegetation, to be maintained by the owner or the owner's successors so as to maintain conformance with subsection (C) of this section.

E. The project as designed or modified is consistent with the requirements of Chapter 18.108 of the code.

(Ord. 1278 § 1 (part), 2006: Ord. 1232 § 6, 2003: Ord. 1189 § 3 (part), 2001)

18.106.080 - Variances not prohibited.

Nothing in this chapter shall be construed as prohibiting any person from filing an application for a variance or as prohibiting the board of supervisors or commission from approving a variance pursuant to Chapter 18.128 of the code.

(Ord. 1278 § 1 (part), 2006: Ord. 1189 § 3 (part), 2001)

18.106.090 - Denials and potential takings.

No action shall be taken or a decision made pursuant to this chapter that denies the property owner economically viable use of the land (or the current legal standard in effect for a "takings" claim) under the Fifth Amendment of the U.S. Constitution at the time the applicant seeks project approval.

(Ord. 1278 § 1 (part), 2006: Ord. 1189 § 3 (part), 2001)

NAPA COUNTY
CONSERVATION, DEVELOPMENT & PLANNING DEPARTMENT
1195 Third Street, Suite 210, Napa, California, 94559 • (707) 253-4416

VIEWSHED PROTECTION MANUAL
VIEWSHED PROTECTION PROGRAM

A. Purpose.

The purpose of this manual is to detail the requirements of the Viewshed Protection Ordinance. The manual utilizes text and graphical examples accompanied with brief explanations intended to standardize hillside development and convey the intent of the Ordinance. Where possible, the manual provides examples explains of practices intended to minimize the impact of man-made structures and grading on views of existing landforms and landscape, unique geologic features as seen from designated public roads within Napa County.

B. General Requirements and Conventions.

1. All final grades, including all cut and fill slopes, visible from any designated public road shall be:
   a. Consistent with the existing landscape to the greatest extant possible, avoiding uninterrupted slope surfaces that stand out against existing topographic contours;
   b. Contoured to resemble existing terrain by varying slope increments and breaking the visual surface of banks and inclines both vertically and horizontally as naturally as possible;
   c. Constructed to allow for the creation of berms or mounding at the top of slopes and in other locations for the screening of structures and assurance proper site drainage.

2. Design, height and massing of hillside development shall:
   a. Maintain a balance of scale and proportion using design components that are harmonious with natural landforms and landscaping;
   b. Be small scale and low in height, conforming with hillside topography by stepping or staggering the mass of the proposed building up or down slope, avoiding flat pad construction and vertical massing;
   c. Utilize structural elements, building materials and color tones which blend artificial surfaces with surrounding native elements;
   d. Utilize construction materials, glass, roofing and other surfaces that are of a non-reflective nature;
   e. Ensure articulated walls that utilize reveals, cornice detailing, alcoves or other features which are appropriate to the scale of the building and building projections, trellises, landscaping or other devices, which in total, serve to break up long, continuous building walls which are visible from designated public roads; and
   f. Ensure that the proposed structure is not silhouetted against the sky when viewed from any designated public road.

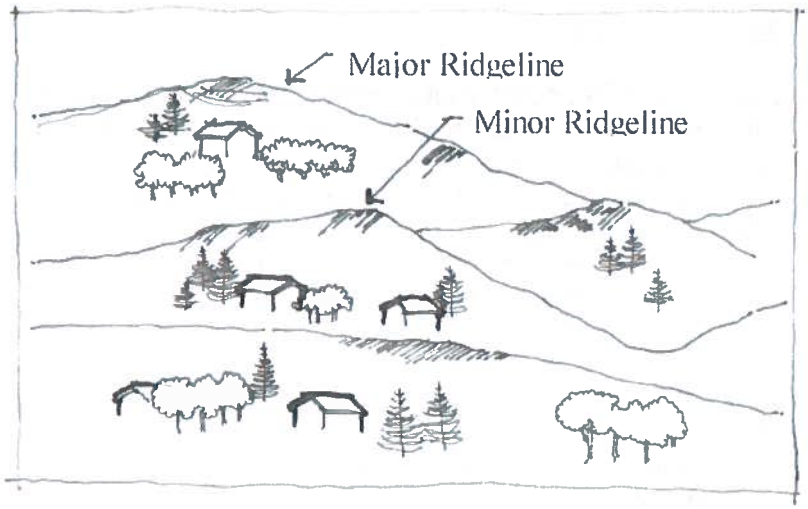
3. Roadways, driveways and utility alignments shall be:
   a. Located to minimize grading and earthmoving activity, by following existing contours and positioned upon gradual slopes whenever possible;
   b. Constructed to blend with the existing landscape, through alignment with the natural curving contour of the land instead of keeping to straight lines or geometric patterns;
   c. Concealed from view through preservation and maintenance of existing vegetation or through planned landscaping that is constant with the natural character of the area.

4. Landscape planting and vegetation preservation shall:
   a. Incorporate trees where appropriate, planted in random groupings or clusters that mimic or maintain natural assemblages rather than in systematic rows;
   b. Maintain vegetation lines which convey the existing slope of the hillside;
   c. Preserve native vegetation, including grasses and open space when ever possible;
   d. Use native materials to the greatest extent possible and/or non-natives that are compatible with indigenous vegetation and confined to the adjacent vicinity of the proposed structure;
   e. Include a sufficient irrigation, maintenance and monitoring program designed to provide species requirements as well as protect against sedimentation, soil loss and land sliding;

5. Exterior and landscape lighting applications shall be:
   a. Designed to minimize nighttime disruption and visual glare by shielding lamp sources downward and away form view of designated public roads;
   b. Controlled by timers and/or motion sensors, to limit the duration of use and reduce prolonged glare;
   c. Sized with the minimum wattage possible to meet desired application.

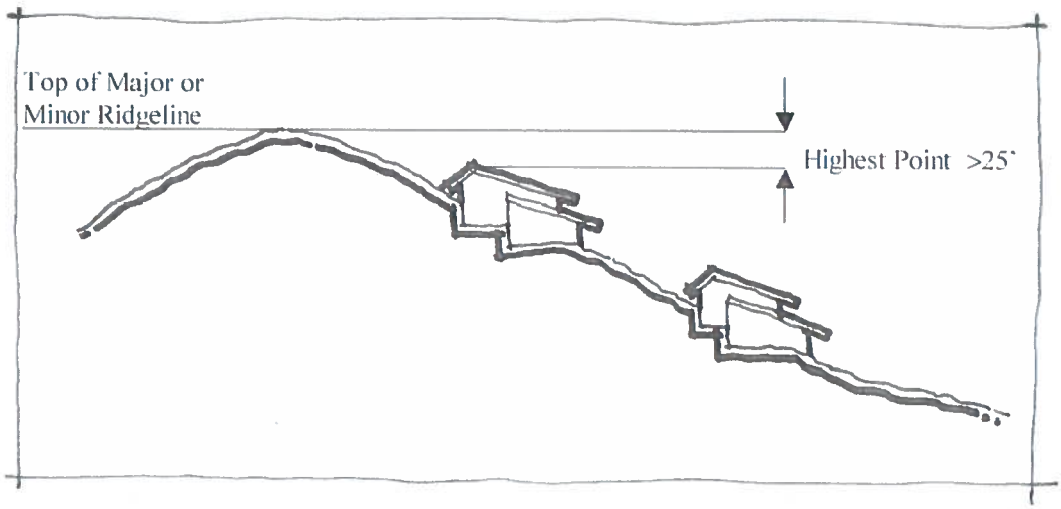
C. Graphical examples.

1. Major and minor ridgelines:



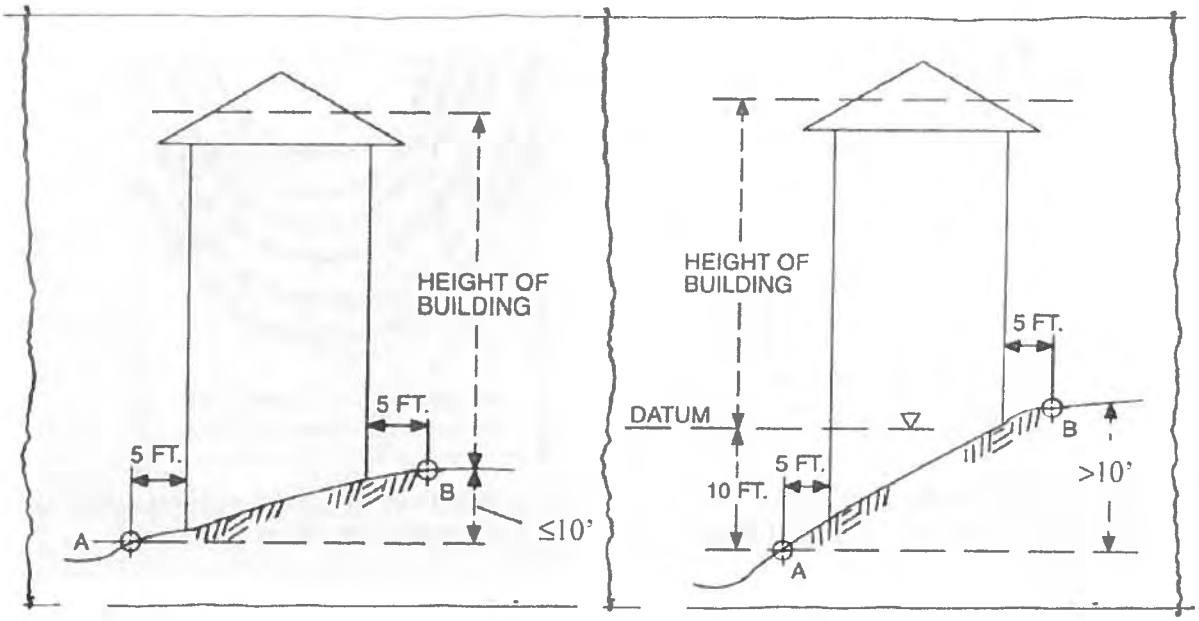
a. "Major Ridgelines" shall mean a ridgeline, which is prominently visible from a substantial land area within the County, characterized by the lack of a topographical backdrop where the sky is visible beyond the ridge;
b. "Minor Ridgelines" shall mean a ridgeline that is not prominently visible to a large area of the County and those typically lower in height, when compared to the surrounding terrain and which may be visible only to a limited area, or have a backdrop of a nearby higher topographical feature.

2. Restricted development area for administrative review:



a. A project shall be certified and cleared for further processing under 18.106.040(B) if the project cannot be seen form a designated public road or under 18.106.040(C) if all the administrative criteria listed in that section are met, including that the highest point of the proposed structure is located more than 25' below a major or minor ridgeline.

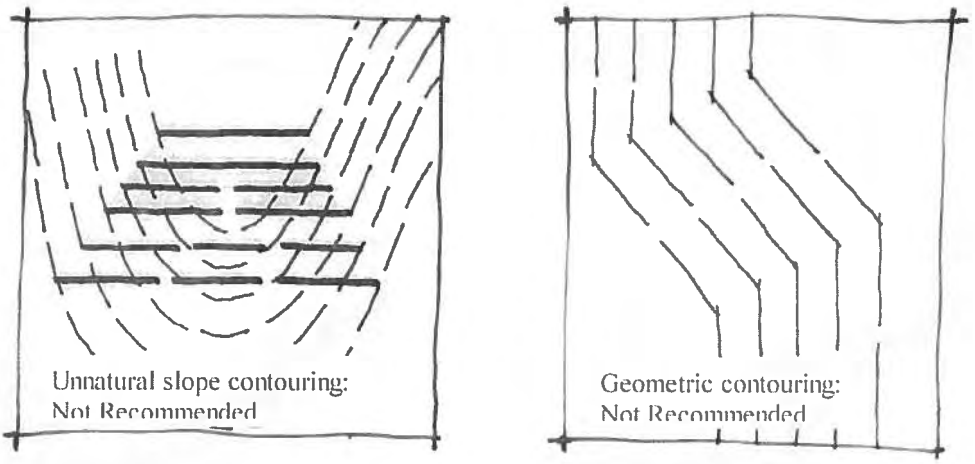
3. Determining height of a building:

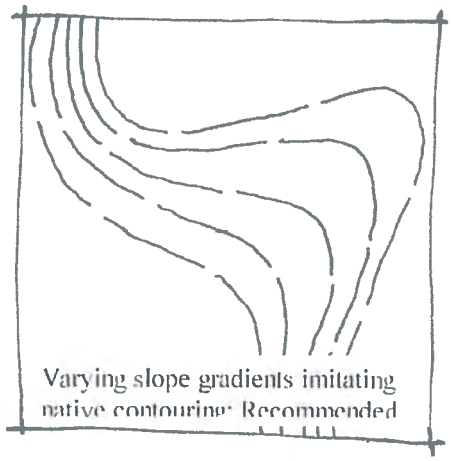


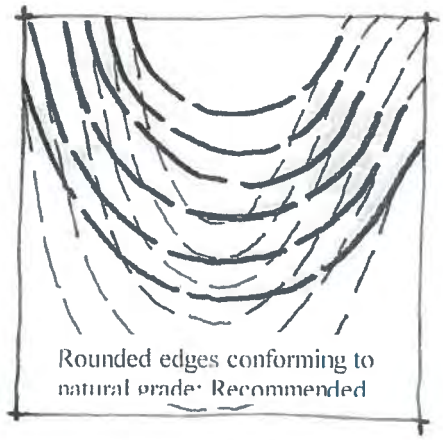
a. Height of a building is the vertical distance above the highest point of the coping of a flat roof or deck line of a mansard roof or to the average height of the highest gable of a pitched of hipped roof. The reference datum shall be either of the following, whichever yields the greater height of building:
   i. The elevation of the highest adjoining sidewalk or ground surface within a 5' horizontal distance of the exterior wall when such sidewalk or ground surface is not more than 10' above lowest grade;
   ii. An elevation 10' higher than the lowest grade when the sidewalk or ground surface described in item a. above is more than 10' above lowest grade;

b. The height of a stepped or terraced building is the maximum height of any segment of the building.

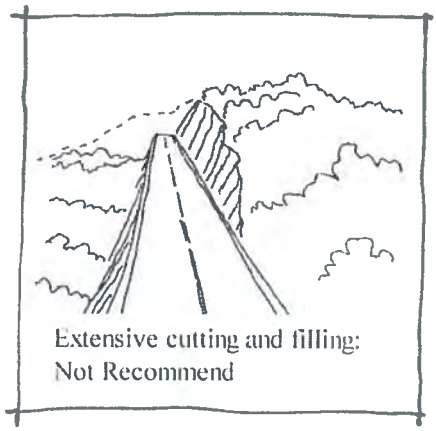
4. Grading cut and fill slopes, roadways and driveways:

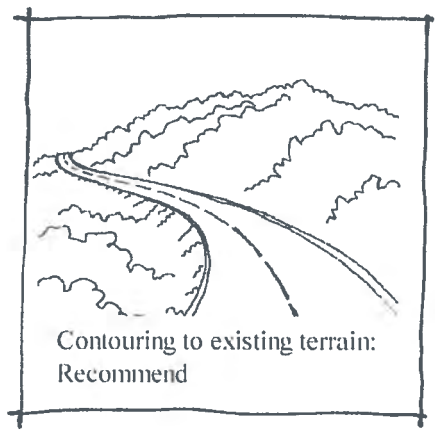




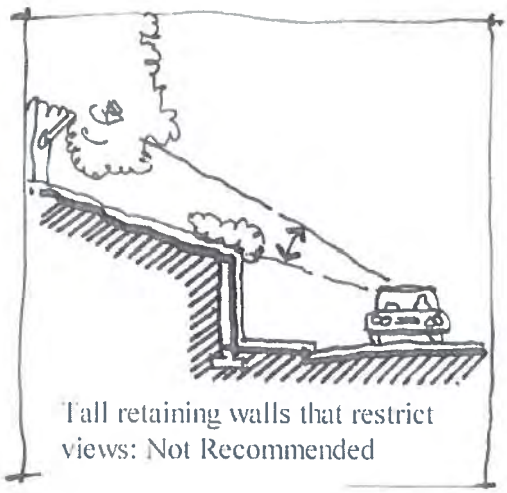


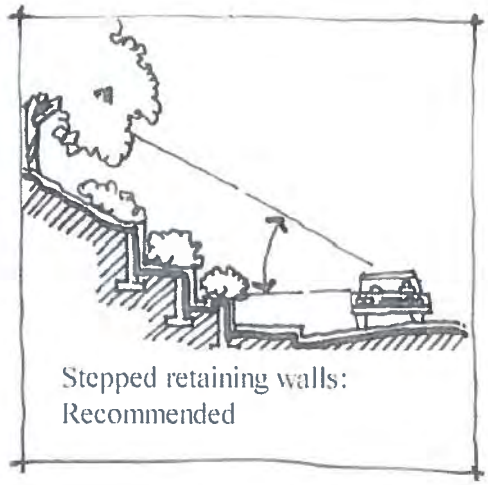
a. Finished cut and fill slopes shall be constructed to blend with the existing landscape, curving with the natural contour of the land, avoiding straight lines and/or geometric patterns;

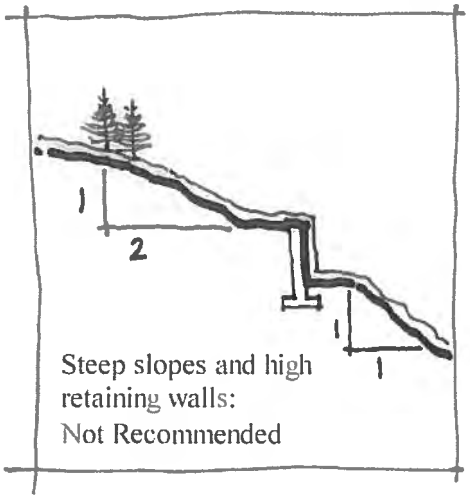




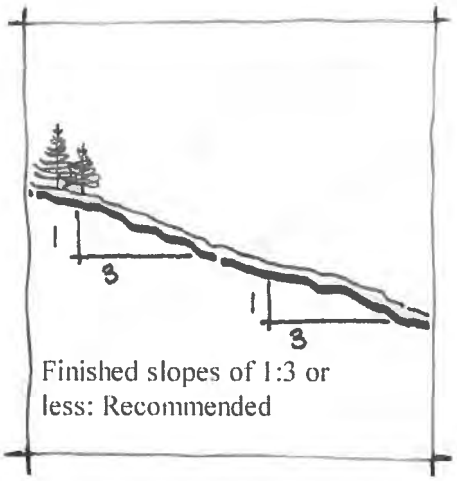
b. Unwarranted cutting and filling should be avoided when constructing roads, driveways and other related structures, using measures such as laterally balancing cut and fills, alignment with natural contours and restricting development to gentle climbing gradients;







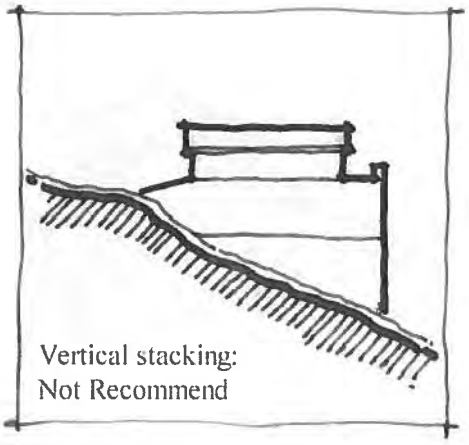
Steep slopes and high retaining walls: Not Recommended



Finished slopes of 1:3 or less: Recommended

c. Retaining walls along roadways or associated with structural developments should be stepped and terraced incrementally, avoiding tall flat surfaces that restrict views and slopes steeper than 1:3;

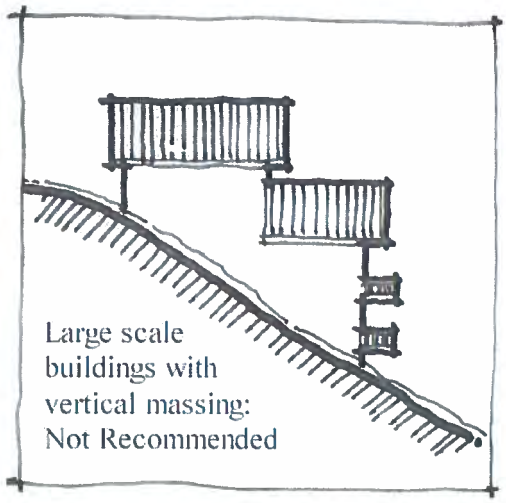
5. Building design, massing and configuration:

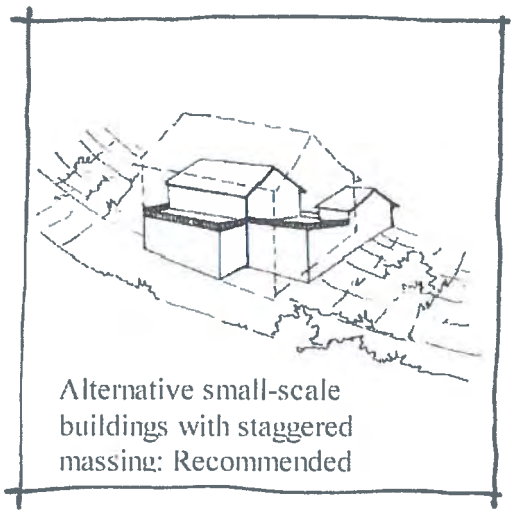

Vertical stacking: Not Recommend

Stepping building vertically with slope: Recommended

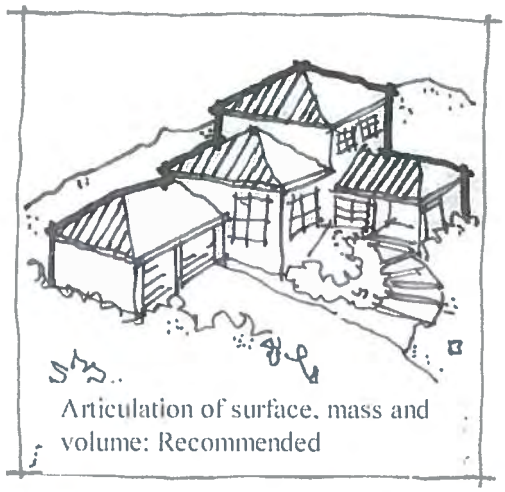
Vertical stacking, massive appearance: Not Recommended

Balanced cut and fill integrates with slope: Recommended

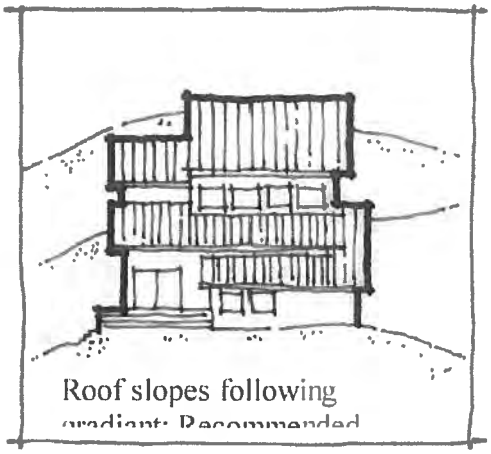


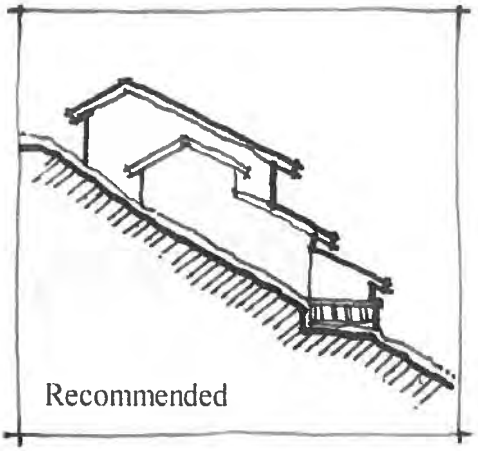


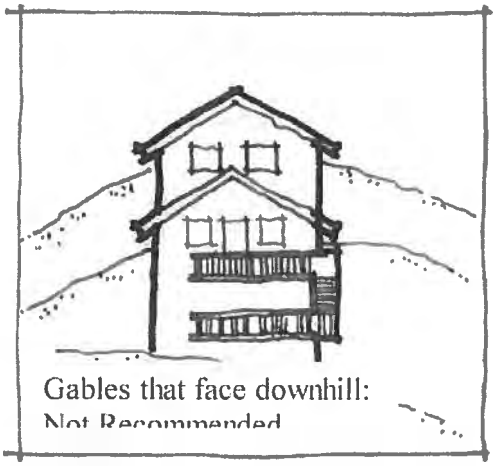
a. Small scale and low in height construction is recommended, conforming with hillside topography by stepping or staggering the mass of the proposed structure up or down slope, avoiding flat pad construction;
b. Maintain a balance of scale and proportion using design components which are harmonious with natural landforms and landscaping;

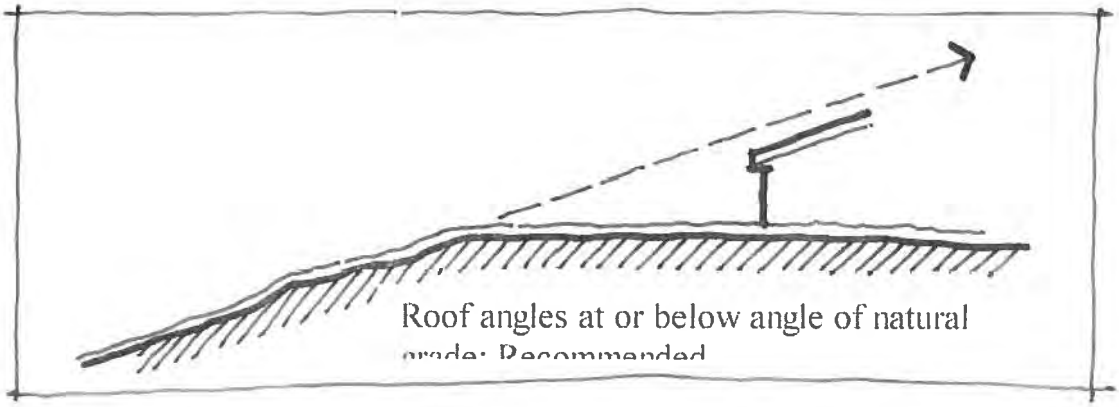


c. Building shall ensure articulated walls and utilize reveals, cornice detailing, alcoves or other features which breakup the scale of the building. Uses of projections, trellises, landscaping or other devices which in total serve to break up long, continuous building walls is encouraged;



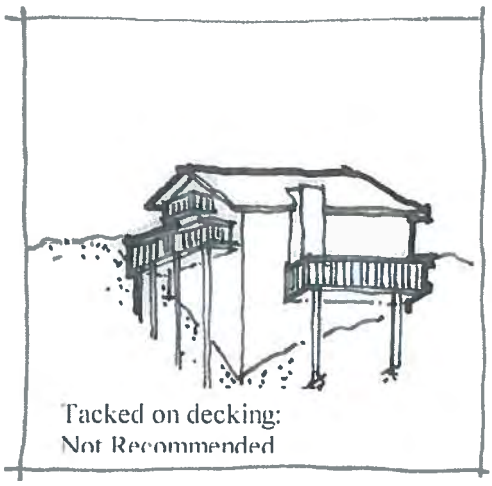


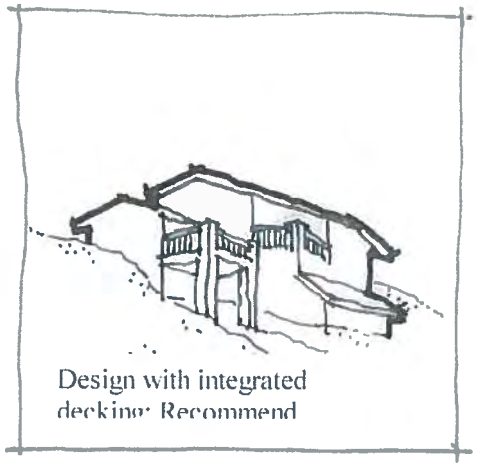




d. Roof slopes that follow the gradient of the site are recommended over those that diverge from the hill slope;

e. Construction materials, glazing, roofing and other surfaces that are of a non-reflective nature are encouraged;

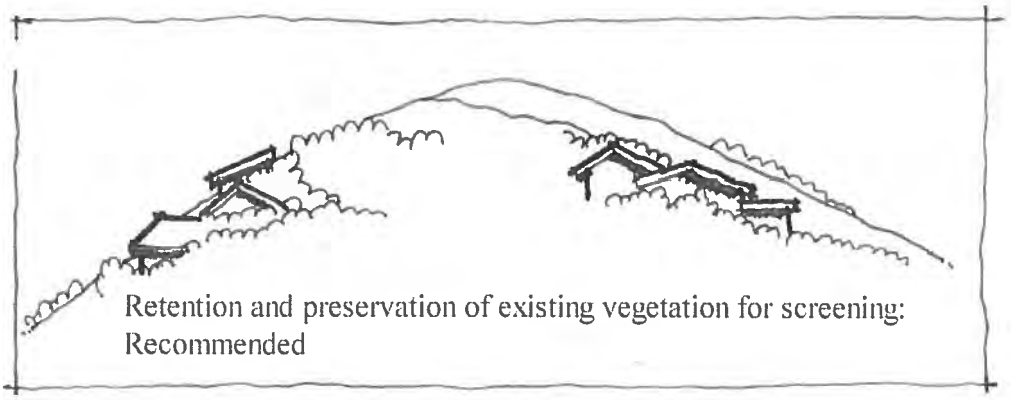




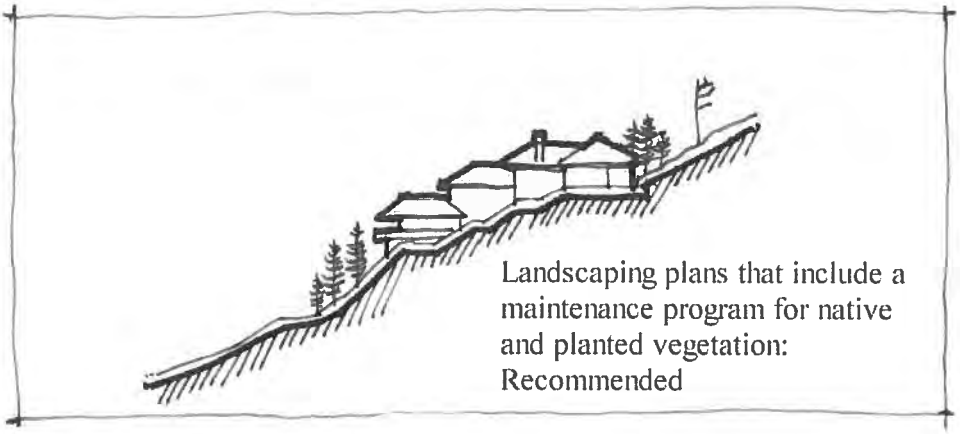
f. Installation of decking that is integrated into the building is recommended over that which is attached or tacked on to exterior walls;
g. To the greatest extent possible, structural elements, building materials and color tones shall blend artificial surfaces with surrounding native elements;

h. Proposed structures shall not be sited atop peaks nor silhouetted against the sky when viewed from any designated public road.

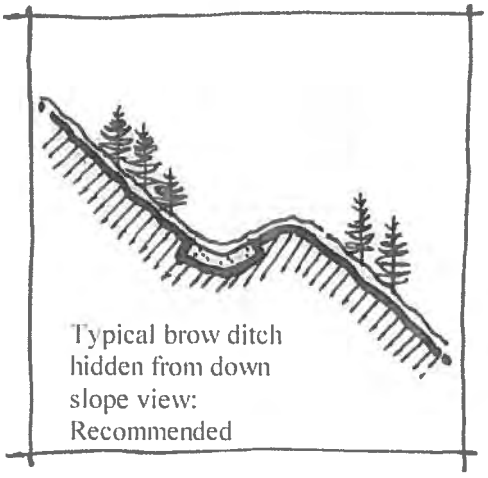
6. Landscape planning and vegetation preservation:



Retention and preservation of existing vegetation for screening: Recommended

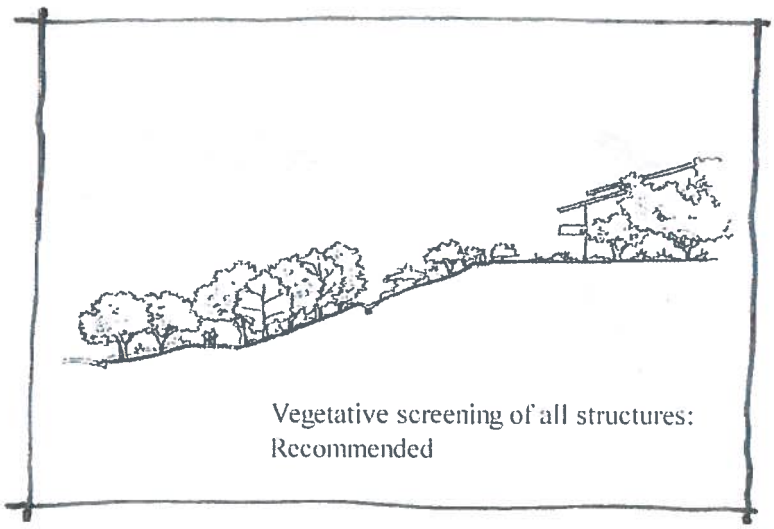


Landscaping plans that include a maintenance program for native and planted vegetation: Recommended



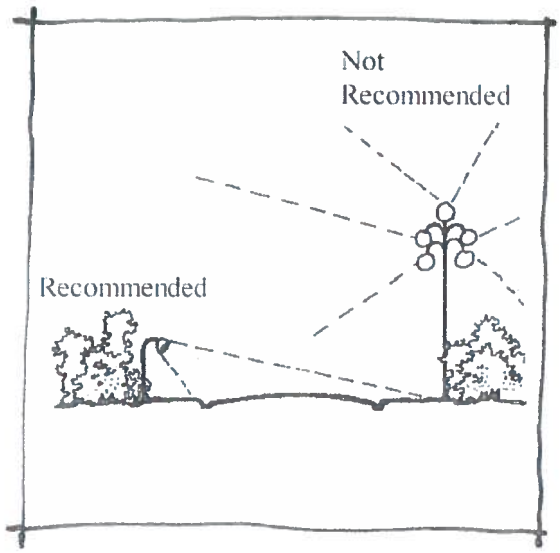
Typical brow ditch hidden from down slope view: Recommended

Use of native rock to naturalize manmade ditch: Recommended



a. Whenever possible, structures, including roads shall be concealed from view through preservation and maintenance of existing vegetation or through planned landscaping that is consistent with the natural character of the area.

7. Exterior lighting of structures and landscaping:



a. Outdoor lighting shall be designed to minimize nighttime disruption. Lamp sources should be shielded from view and light source directed downward. Timers and motion detectors should be used wherever possible.

NOTE: The Viewshed Protection Manual has not been updated to reflect the revisions to the Viewshed Protection Program Ordinance. The Ordinance shall prevail if there's a conflict between the Manual and the Ordinance

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NAPA COUNTY
CONSERVATION, DEVELOPMENT & PLANNING DEPARTMENT
1195 Third Street, Suite 210, Napa, California, 94559 • (707) 253-4416

SLOPE DETERMINATION METHODOLOGY
VIEWSHED PROTECTION PROGRAM

Slope is the ratio of the vertical distance to the horizontal distance, or the elevation change in feet divided by the distance in feet. The percent slope of a development area (ie, the entire contiguous area that will be disturbed by the land clearing, grading, or other earthmoving activities) is **the natural slope of the existing terrain**, **NOT** the finished or proposed percent slope resulting from the project.

Structures & Related Improvements: The percent slope of each contiguous development area shall be measured perpendicular to the contours across the area being disturbed including the driveway when the driveway is less than 50 feet in length. Its average slope shall be determined by averaging at least 3 typical cross sections. The slope determination will be made using a site plan with a contour interval of 2 to 5 feet and a scale of 1"=20' or better.

When a driveway exceeds 50 feet in length, the slope of the "structural development area" is measured perpendicular to the contours across the area being disturbed excluding the driveway. The driveway slope is measured separately as identified in the Roads and Driveways category below.

If the average slope of each development area is less than 30%, an administrative approval may be granted. If the average slope of any development area is 30% or greater, work in that area cannot be undertaken unless a use permit is approved by the Napa Co. Zoning Administrator or Conservation Development and Planning Commission. If the average slope is greater than 50%, approval of a variance will be required (*For further information regarding a variance please contact a planner).*

Roads & Driveways: The percent slope of a road or driveway longer than 50 feet shall be measured using the following procedure:

a) Stations will be established on the plan along the centerline of the proposed roadway at 100 foot intervals with 0+00 being assigned to the point where grading commences (at the new roads juncture with the existing road)

b) Cross sections at a scale of 1" = 10' horizontal and vertical extending **100 feet** from outer limits (edges) of the grading shall be taken at each station (i.e. at 0+00, 1+00, 2+00 etc). When the roadway is less than 200' long, 3 equally spaced cross sections shall be taken. **The axis of each cross section shall be perpendicular to the existing contours pertinent to that section**. The average slope of each cross section shall be calculated by dividing the difference in elevation of the cut and/or fill catch points by the intervening distance.

c) The average slope of the roadway shall be determined by averaging all these cross sections **excluding** those measured at less than 5% slope.

This slope determination will be made by evaluating a site plan with a contour interval of 5 feet or less and a scale of 1"= 100' or better.

If the average slope calculated is less than 30%, an administrative approval may be issued. If the average is 30% or greater **OR** if three (3) or more cross sections exceed 50%, road development cannot be undertaken unless a use permit is approved by the Napa Co Conservation Development and Planning Commission. If the average slope is greater than 50%, approval of a variance will be required *(For further information regarding a variance please contact a planner).*

General Land Clearing: The methodology for determining slope and the criteria applied thereto are the same as those utilized for agricultural projects under the Conservation Regulations (see section below).
Agriculture: The percent slope of each contiguous area cleared (ie, each area not separated by roads, streams, or non-cleared areas) shall be measured perpendicular to the contours across said area. Its average slope shall be determined by averaging at least 3 typical cross sections

The slope determination will be made by evaluating a site plan with a scale of 1"=200' or greater. When the project involves less than 30 acres contour intervals of 20 feet or less shall be used. When the project involves more than 30 acres, contours intervals of 5 feet or an interval acceptable to the CDPD shall be used.

If the slopes of all portions of each contiguous area are less than 30%, an administrative approval may be issued. However, if any portion within each contiguous area to be cleared is 30% or greater in slope, the following standards then apply:

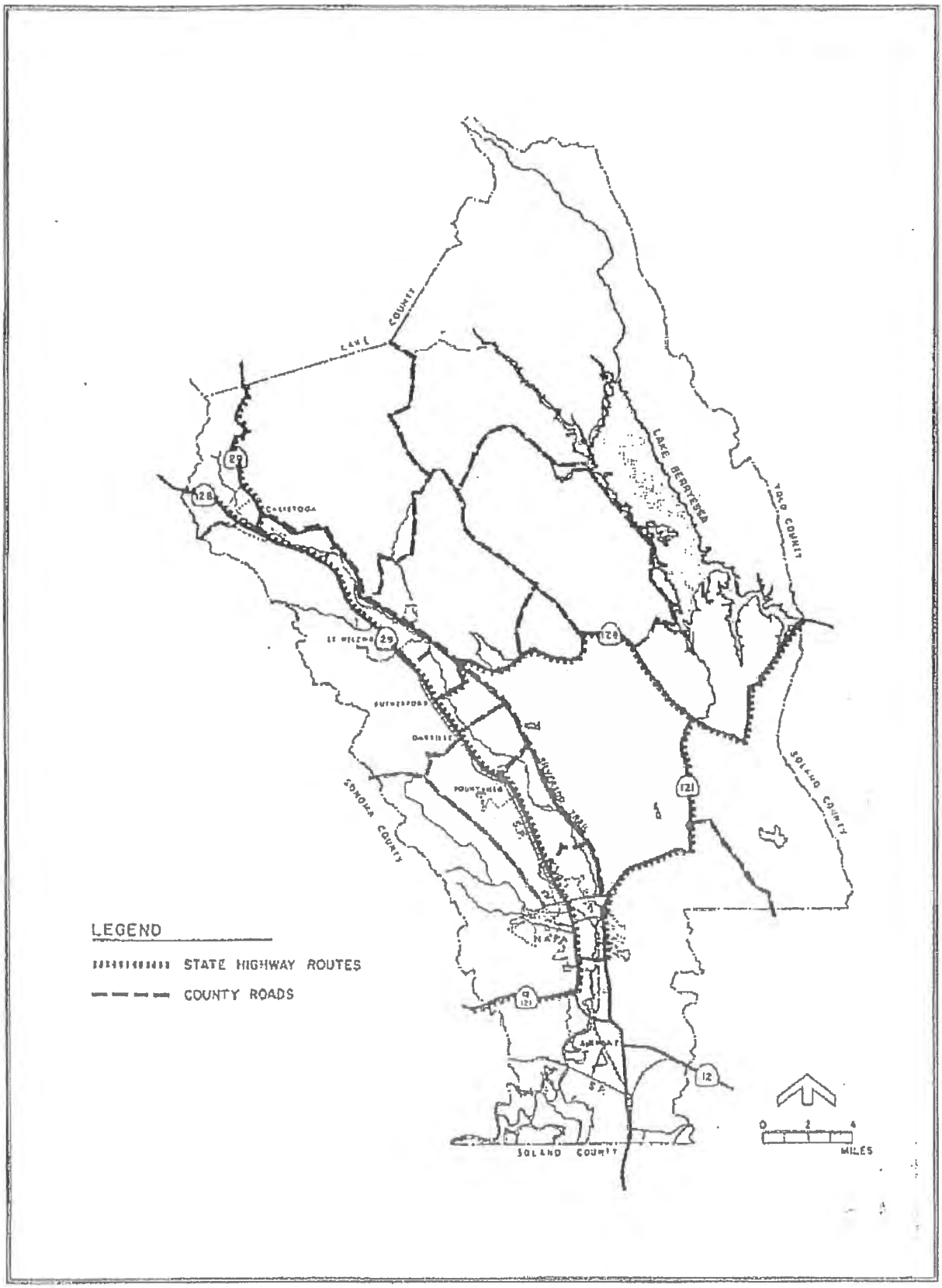
a) If the total area of the contiguous clearing is larger than 1 acre, sub-areas completely inside the boundaries of the area being cleared up to 1 acre in size in the 30%-50% slope range may **upon the recommendation of the Napa Co Resource Conservation District or County Consultant AND written approval by the Planning Director or his designee** be cleared. Clearing of areas in the 30%-50% slope range (1) adjacent to the boundaries of the proposed clearing , or (2) exceeding 1 acre in size will require approval of a use permit by the Napa Co Conservation, Development and Planning Commission.

b) If the total contiguous area to be cleared or graded is less than 1 acre, up to 1/3 of the area to be cleared or graded may exceed 30% in slope **but only upon the recommendation of the Napa Co Resource Conservation District or County Consultant AND written approval by the Planning Director or his designee.**

c) Any area with a greater than 50% slope cannot be cleared or graded unless a variance is approved *(For further information please contact a planner)*

If the average slope of any area is 30% or greater development of that area cannot be undertaken unless the Napa Co Conservation Development and Planning Commission approve a use permit. Moreover, any area with an average slope greater than 50% cannot be cleared or graded unless a variance is approved *(For further information regarding a variance please contact a planner)*.

FIGURE 75: CANDIDATES FOR SCENIC HIGHWAY DESIGNATION



DESIGNATED PUBLIC ROADS
(Figure 76 – Scenic Highways Element Napa County General Plan)

COUNTY ROADS

Silverado Trail
Dry Creek Road – Oakville Grade
Petrified Forest Road
Deer Park Road and Howell Mountain Road (from St. Helena to Pope Valley Road)
Butts Canyon, Pope Valley and Chiles Valley Roads
Pope Canyon Road
Wooden Valley Road
Berryessa Knoxville Road
Oak Knoll Avenue
Yountville Cross Road
Zinfandel Lane
Lodi Lane
Bale Lane
Jameson Canyon Rd from Hwy 29 to the Solano County Line;
American Canyon Rd from Flosden/Fairgrounds Rd. to Interstate 80;
Highway 29 in its entirety;
Mt. Veeder Road;
Partrick Road;
Lokoya Road;
Wall Road;
Larkmead Lane;)
Dunaweal Lane;
Tubbs Lane;
Redwood Road;
Spring Mountain Road; and
Old Sonoma Road

STATE HIGHWAYS

State Hwy 128 (from Rutherford to Monticello Dam)
State Hwy 29 (from American Canyon to Lake County Line)
State Hwy 121 (from Sonoma County to Napa; from Napa to State Hwy 128)

VIEWSHED UPDATES

ORDINANCE #1232 adopted 12-9-03 amended the Viewshed regulations to include the following;

1. The extension of applicability to include "benches and shelves" which are defined as "flat areas which could be used as a building site which are other wise surrounded by slopes of fifteen percent or greater';

2. The definition of "substantially" as "fifty one percent or more of viewable areas as it relates to views or screening of structures and benches and shelves from the designated road(s)"; and

3. A requirement, depending on the project, to execute and record a "use restriction" prior to the issuance of building permit.

Be Advised that the above is only a summary of the amendments. For specific information on the viewshed program and regulations in its entirety, consult Chapter 18.106 of the Napa County Code.

APPENDIX B

STOWE, VERMONT RIDGELINES/HILLSIDES OVERLAY DISTRICT

SECTION 16 RIDGELINE & HILLSIDE OVERLAY DISTRICT (Added 8/3/98)

16.1 Purpose

The purpose of the Ridgelines/Hillsides Overlay District (RHOD) is to protect the scenic and ecological resources associated with lands characterized by high elevations, steep slopes and visual sensitivity in a manner that allows for carefully designed, low-impact development.

16.2 Authority and Effect on Existing Regulations

The RHOD is adopted pursuant to the Act [4405 & 4407]. The adoption of the RHOD shall not repeal or alter any existing ordinances, regulations or bylaws of the Town of Stowe. These regulations establish standards and procedures that are in addition to those contained in the Town of Stowe Zoning & Subdivision Regulations.

16.3 District Boundaries

The RHOD shall apply to all lands in the Town of Stowe designated by the "Ridgelines/Hillsides Overlay District" Map dated September 1997.

16.4 General Submission Requirements and Procedures

No zoning permit for any development within the RHOD boundary shall be issued without the prior approval of the DRB, in accordance with the following procedures and standards.

(1) Review Procedures: All land development in the RHOD shall comply with a hillside development plan reviewed and approved by the DRB in accordance with the following procedures.

A. Preliminary Review: The applicant shall schedule a meeting with the DRB to review the Site Development Plan and set forth in Section 16.4 (2) A. Basic Submission Requirements. The DRB may authorize a committee which includes the Zoning Administrator, Planning Director or any member of the DRB to conduct a preliminary review. The purpose of the preliminary review is to evaluate the conceptual development plans, including the location and general character of the site; to consider whether the proposed development should be classified as minor; and to provide the applicant with clear direction regarding the submission materials needed for review under these regulations. The committee or individual shall recommend to the full DRB whether the proposed development should be classified as minor.

B. Project Classification and Notification of Submission Requirements: The DRB shall

determine whether the application is to be classified as "minor" or "significant", in accordance with the standards included in Section 16.4 (1), C, Project Classification Criteria, below. In the event the application is determined to be "significant", the DRB shall notify the applicant of this determination in writing, and in so doing shall indicate what supplemental submission requirements shall be required for review by the DRB. Projects classified as "minor" may be issued a zoning permit, providing the development is in compliance with all other applicable regulations.

C. Project Classification Criteria: The DRB shall classify a development project as minor upon finding that the project meets the standards of Section 16.5 and that the following conditions are met:

1. The small scale and limited scope of the development project involves a minimal amount of construction, excavation and/or lot clearing and, poses minimal threat to aesthetic or environmental resources. Examples of projects that are small in scale or limited in scope may include outdoor decks and small accessory buildings and additions, and/or;

2. The location and character of the development site is such that the proposed development can take place without adverse aesthetic or environmental impacts. Examples of such sites might include those characterized by gentle slopes, proximity to areas characterized by existing moderate to high development densities, or areas that are not visible from important vantage points because of surrounding terrain, and/or;

3. The proposed project involves the renovation or expansion of a building constructed prior to August 3, 1998, providing said renovation or expansion does not result in an increase in the total aggregate floor area of the building in excess of 125% of the total floor space in existence as of August 3, 1998, or:

4. The proposed project is sited within a previously approved building zone as part of an approved subdivision. A building zone is an area that has been specified on the approved subdivision plans for the placement of a dwelling and lies well within the standard setback requirements.

5. The proposed project is sited on a building lot subject to DRB subdivision approval, dated August 3, 1998 or later, which includes specific findings and conditions regarding compliance with the RHOD development standards and guidelines, and the applicant has clearly demonstrated that the development project meets all of the relevant conditions and related standards.

In classifying a project as minor, the DRB may place appropriate conditions on the scope, scale and general character of the development to ensure compliance with the development standards and guidelines set forth below. Projects classified as significant shall be subject to further review by the DRB, in accordance with the process and standards set forth below.

A project classified as minor may be issued a zoning permit only for the development, landscaping, clearing and related site improvements set forth in the Site Development Plan submitted per the requirements of Section 16.4(2)A. Any deviation from the activities described in the Site Development Plan, including forest management shall require a new zoning permit. Projects re-classified as significant shall be subject to further review by the DRB, in accordance with the process and standards set forth below.

D. Reconsideration of District Boundaries: In the event an applicant questions the determination that a proposed development falls in the RHOD, upon request and following notice and public hearing, the DRB shall determine whether or not such planned development is located within the RHOD. The landowner requesting such determination shall have the burden of proof.

E. Review of Significant Projects: Upon submittal of the development plan, the DRB shall schedule a public hearing in accordance with 24 V.S.A. Chapter 117 [Section 4447]. The DRB shall review the materials submitted, together with other relevant plans and resources, and may elect to visit the proposed development site. The DRB shall act to approve, approve with conditions or disapprove any such site development plan within forty-five (45) days after the date of the final public hearing, and failure to so act within the forty-five (45) day period shall be deemed approval. Upon approval of the site development plan, the Zoning Administrator may issue a zoning permit pursuant to all applicable provisions of this ordinance.

F. Coordination with Subdivision Review: In addition to the provisions of the Stowe Subdivision Regulations, all land to be subdivided within the RHOD shall satisfy the following standards:

1. Density Analysis. Prior to submitting an application for preliminary layout or final subdivision approval, the applicant shall complete a slope-density analysis to determine the allowable density for the subject parcel(s). Such analysis shall include a parcel map showing the average slope and an indication of the total area (in acres or square footage) of the parcel with an average slope steeper than 20%. Density will be calculated based on the minimum lot area for the underlying zoning district, with the minimum lot area for the portion of the parcel having an average slope of 20% being four times that of the underlying zoning district. For example, a 100 acre parcel in the RR-5 district with 60 acres having an average slope of less than 20% and

40 acres in excess of 20% shall have a total allowable density of fourteen (14) lots (i.e. 100 acres = (60 acres < 20%/5 acres = 12 lots) + (40 acres >20%/5 acres x 4 = 2 lots) = 14 units/lots). The applicant may submit an independent density/slope analysis prepared by a registered Vermont surveyor or a registered Vermont Engineer, or the applicant may request that such an analysis be prepared by the Stowe Planning Office using available data and GIS technology.

2. Coordination with Section 5.2 of the Stowe Subdivision Regulations. In addition to the density standards set forth above, the DRB may grant subdivision approval with conditions related to lot clearing, landscaping, house siting, architectural design or other relevant issues necessary to ensure compliance with these regulations. In instances where conditional subdivision approval has been granted within the RHOD, applications for review under these regulations may be classified as a minor application if the DRB or its designee determines that the applicant has complied with all of the conditions of subdivision approval and standards and guidelines of these regulations.

(2) Submission Requirements: In accordance with the standards of the overlay district, any of the following plans and materials may be required. Upon determination by the DRB that a project is to be classified as significant, the applicant will receive a checklist of required documents, plans and information necessary for the DRB to conduct a complete and proper review of the application.

A. Basic Requirements: The following information and materials are required for all applications for review under Section 16.4(1)A. Preliminary Review.

1. Site Development Plan: Two complete sets of site development plans, drawn in an appropriate scale on paper not smaller than 18" x 24". Such plans shall provide adequate information necessary to review the proposed project, including a general indication of the location and design of proposed development; an indication of the physical characteristics of the development site, including areas characterized by steep slopes, existing and proposed drainage patterns and forested and open areas; proposed landscaping, clearing and forest management; road access and driveway location, and any other information relevant to the proposed development and development site.

B. Supplemental Requirements: Upon determination that the project is significant pursuant to Section 16.4(1)C, the DRB may require one or more of the following prior to the review under Section 16.4(1)E:

1. Grading Plan: Existing and proposed contours at a maximum of 5' intervals for the area surrounding the proposed development, such area to be of sufficient size to show the relationship of the development to the surrounding terrain.

2. Lighting Plan: Location, type and height of all exterior lighting (including security lighting) is to be shown on the site development plan. Lighting studies may be required and would include photometric analyses of exterior lighting as well as a review of any impacts interior lighting may have on nighttime visibility through windows, such as the visibility of light through building fenestration.

3. Visibility Studies: Viewshed analyses, line of site sections, site photography and other means to assess the visual impact of the proposed application. On site measures such as plywood and pole mock-ups, and survey tape layout of site elements may be also be required in the event the site is deemed to be sensitive by the DRB or its designee.

4. Stormwater Management/Erosion Control Plan: An adequate stormwater drainage and erosion control plan, prepared by a registered Vermont engineer, shall be requested when the average slope of the site is steep/severely steep or there are major headwater streams and/or major drainage areas and waterways located on the site.

5. Architectural Plans and Renderings: Building design drawings clearly depicting all proposed structures to scale and their location on the site in relation to the physical and natural features of the parcel, including the proposed grade of the building area and finished floor elevations. Drawings should clearly display building elevation and architectural design; building materials, exterior colors and window fenestration. All structures proposed, including outbuildings and garages are to be shown.

6. Landscape Plan: Existing vegetation and proposed landscaping and clearing plans showing proposed type, size and location of all vegetation to be

preserved and/or installed, along with other landscaping elements such as gazebos, berms, fences, walls, etc. Special attention should be given to existing/proposed vegetation adjacent to buildings for visibility and screening purposes (within at least 30'). A species list of existing vegetation and a plan for the maintenance of the existing and proposed landscape should be included. Such a plan shall address specific measures to be taken to ensure the protection and survival, and if necessary, replacement of designated trees during and after the construction and/or installation of all site improvements

7. Access Plan: A plan including existing roads, ROW's and trails; proposed roads, trails, walks, paths, parking areas, etc. Such a plan would include proposed paving materials, slopes of proposed access routes and erosion control measures. This plan might be combined with the Stormwater Management/Erosion Control Plan and should include road profiles as well.

8. Slope Analysis: Prepared pursuant to Section 16.4(1)F. 1.

C. Technical Assistance: The DRB may seek the assistance of technical experts, such as engineering or architectural professionals, to provide independent analysis related to specific applications. Such experts will be compensated in accordance with the Town of Stowe Planning and Zoning Fee Schedule.

16.5 Standards/Guidelines

(1) General Requirements: To protect the unique visual and environmental character of those areas of Stowe within the RHOD, especially those characterized by steep slopes, prominent knolls, ridgelines and significant focal points, all development shall be designed and sited in a manner that does not cause undue adverse impact to the visual/scenic landscape character and the physical environment of the town.

(2) Designation of Vantage Points: For the purposes of the RHOD, vantage points shall be defined as maintained (class 3 or higher) public roads, state highways and municipal properties. In reviewing projects to determine compliance with these standards, and to identity appropriate mitigation to ensure that a project does not result in an undue adverse impact on scenic resources, the DRB shall consider the relative importance of the vantage points from which the project is visible (affected vantage points). Such consideration shall include the number of affected vantage points; the volume of traffic using the affected roads or highways; the length of time that a project would be viewed by motorists traveling on the affected roads or highways; the project's distance from affected

vantage points; and, the visibility of the project from vantage points typically used by pedestrians and/or serving as public observation points.

(3) Standards and Guidelines: The following list of Standards, Guidelines and accompanying illustrations are the basis for guiding development in a visually and environmentally sensible way within the overlay district without an undue adverse impact to scenic and environmental resources. "Adverse" indicates a negative impact on an identified resource. "Undue Adverse" indicates that the proposed development violates one ore more of the Standards set forth in this ordinance and that the impacts cannot be mitigated.

Standards are statements that express the development and design intentions of this overlay district. All development within this district must comply with these standards. The Standards reflect the visual and environmental concerns of the community in terms of the Town's hillsides and ridgelines.

Guidelines are instructive in nature. They suggest a variety of means by which the applicant might comply with the standards. The options for compliance are not limited to the guidelines listed, but the applicant can use the list to aid in the design process.

Illustrations graphically portray the prescriptions and concepts conveyed in both the Standards and Guidelines.

A. Site Development and Environmental Protection

Standard 1.1. All development, including grading, clearing and construction of driveways, shall provide for the retention of native top soil, stabilization of steep hillsides, prevention of erosion, and consequent sedimentation of streams and watercourses. Peak stormwater discharge from the site after development shall not exceed pre-development levels for a two (2) year/twenty four (24) hour storm event and existing drainage patterns will not be altered in a manner to cause an adverse impact on neighboring properties, town highways or surface waters.

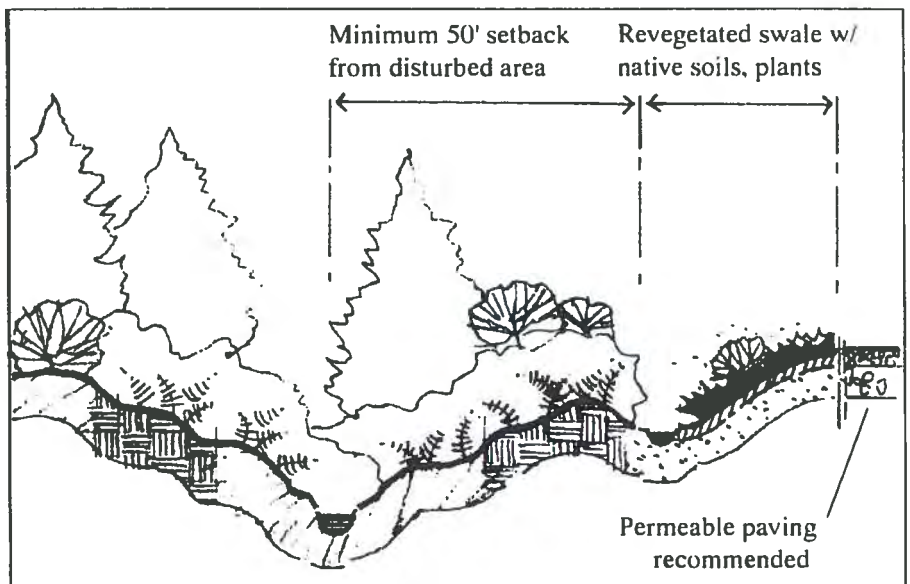


Illustration A1: Section

Use biodegradable erosion control blankets where more intensive stabilization is required

Guideline 1.1. The Vermont Erosion Control Manual for acceptable practices in site hydrology and soil conservation should be followed; where roads or driveways are proposed, culverts should be used at frequent intervals to avoid long, uninterrupted ditches and to disperse stormwater.

Guideline 1.2. On steep slopes, clearing should be avoided to prevent erosion resulting from stormwater runoff, and in areas where streams and intermittent watercourses are found, a buffer(s) area should be established to limit sedimentation or other adverse impacts on water quality.

Guideline 1.3. The flattest portion of the site should be used for locating house sites, subsurface sewage disposal systems and parking areas. (See illust. A1 & A2)

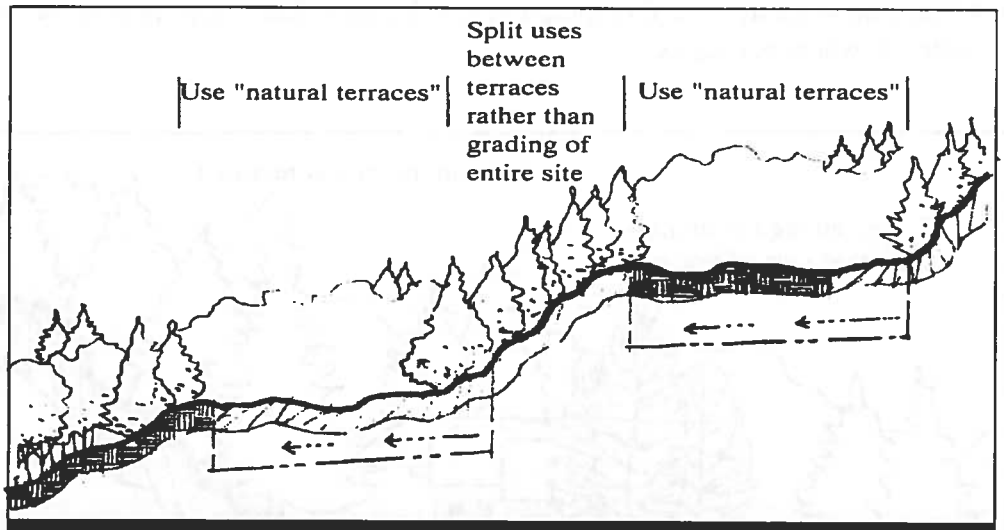


Illustration A2: Section

Maintain filter/buffer strip between terraces for runoff and visual screening. Terraced areas can be regraded w/ proper pitch and curtain/ interceptor drains as necessary

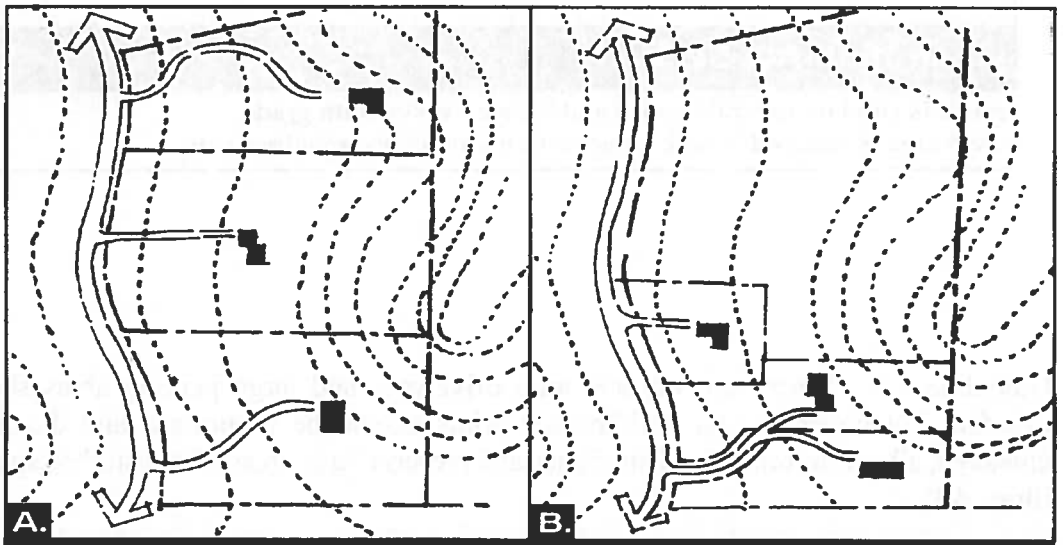


Illustration A3: Plan

Option B uses less road, provides for more open space, uses 33% less land than Option A. Option B concentrates the road cuts in one area and sites structures below the base of the ridge.

Guideline 1.4. Existing vegetative buffers should be employed as filter strips or employ vegetative stabilization methods where necessary.

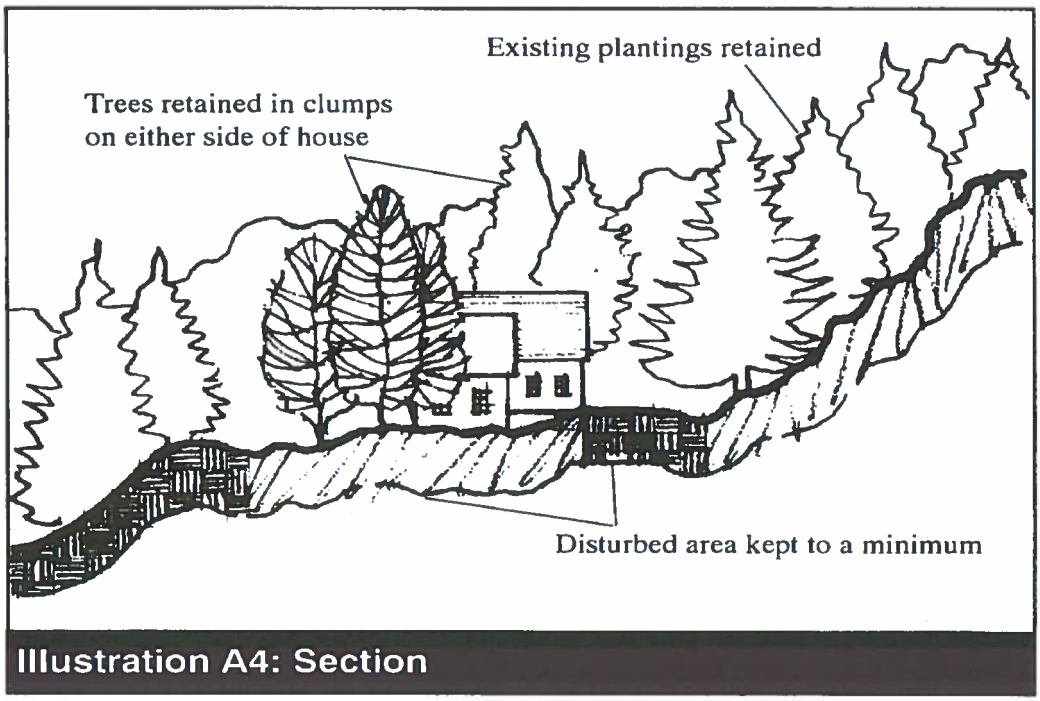


Illustration A4: Section

House is sited on natural terrace and stepped down with grade.
Lawn area is reduced in size along with maintenance requirements.

Guideline 1.5. Where appropriate, long driveways and large parking areas should be avoided. Lot coverage and building footprints should be minimized and development clustered, all to minimize site disturbance and preserve large areas of undisturbed space. (See illust. A3)

Standard 2. Subsequent to the application for a zoning permit within the RHOD, forest management and timber harvesting shall, at a minimum, adhere to the guidelines included in the publication Acceptable Management Practices for Maintaining Water Quality on Logging Jobs in Vermont, published by the Vermont Department of Forests, Parks & Recreation in 1987.

Guideline 2.1. Forest management should maintain the appearance of an unbroken forested canopy as viewed from off-site, should protect aesthetic resources and wildlife habitat, and provide for the sustainable, ongoing management of forest resources.

Standard 3. Forest management activities designed as pre-development site preparation, including road and driveway construction, clearing and/or grading for house-sites and septic systems or related work, shall be reviewed by the DRB under these regulations. Where a landowner fails to submit pre-development site preparation plans to the DRB for review, the DRB may limit development to the non-impacted portion of the property and/or require the site to be restored or revegetated prior to development.

Guideline 3.1. Prior to implementing a forest management plan, the landowner should review the plan with Town Planning and Zoning staff to ensure that forest management activities and future development plans are consistent with the standards set forth in this ordinance.

Standard 4. Development shall not result in an undue adverse impact on fragile environments, including designated wetlands, wildlife habitats, streams, steep and extremely steep slopes and unique features. All efforts will be made to protect/preserve such areas and promote suitable buffers.

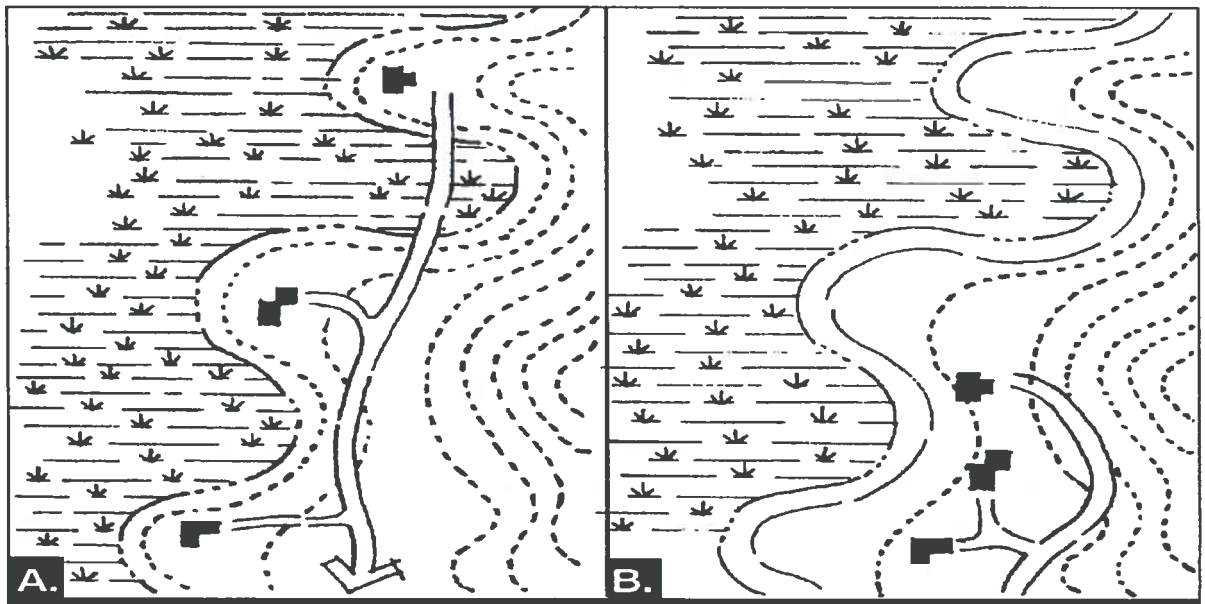


Illustration A5: Plan

Option B avoids crossing the wetlands, clusters the structures on the most suitable land, and avoids construction and road impact on the wetland

Guideline 4.1. Development should be clustered away from all fragile environments.

Guideline 4.2. If roads and bridges must be put in wetlands, they should intersect the wetland at the narrowest part. (See illust. A6)

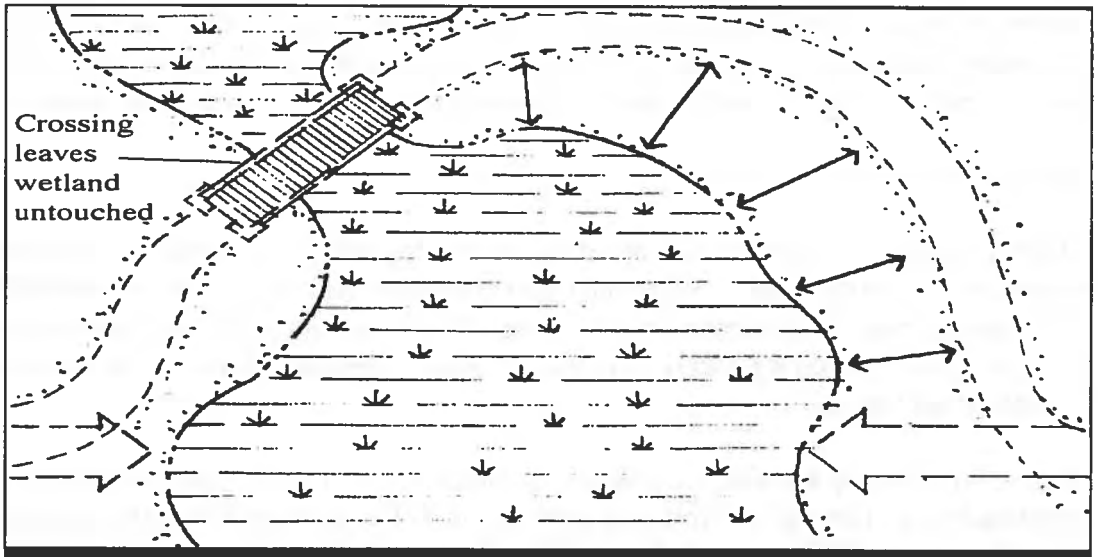


Illustration A6: Plan

Road is re-routed to avoid fill/environmental impact to wetland. A proper setback is maintained between the road and the wetland and the road narrows for wetland crossing.

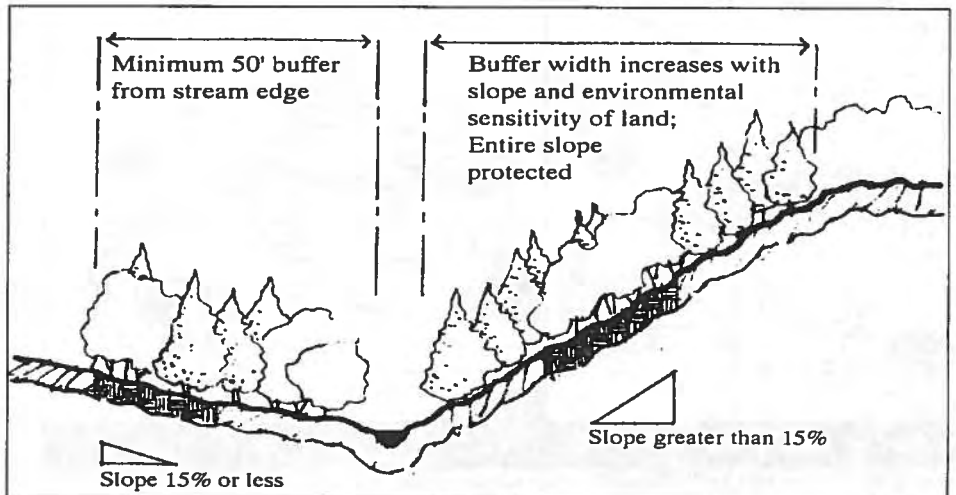


Illustration A7: Section

Guideline 4.3. Existing vegetation should be preserved and, as much as possible, parcels should remain with their undisturbed portions connected to one another.

Guideline 4.4. Buffer widths and setbacks from streams should be established, the width of which should increase with the steepness and length of slopes, and the width of the stream. A general rule is to keep a 50' setback from streams on lands with less than 15% slope, and on steeper slopes the buffer distance should be increased as the slope increases. (See illust. A7)

B. Landscape and Scenic Character

Standard 5. If the project is on a forested hillside, there will be no significant exposure of buildings, and all development shall be minimally visible and blend in with surroundings in winter months. The amount and location of clearing adjacent to structures shall be limited; additional tree planting may be required in instances where such planting is needed to visually interrupt the portion of structures visible from defined vantage points.

Guideline 5.1. Clearing and forest management should be restricted to protect the unbroken forested backdrop. Generally, forest management will be limited to practices which maintain a forested appearance adjacent to buildings. (See illust. A8)

Guideline 5.2. Clearing of vegetation at the edge of the road should be minimal, clearing only as much as necessary to create a driveway entrance with adequate sight distance and proper drainage control. (See illust. B2)

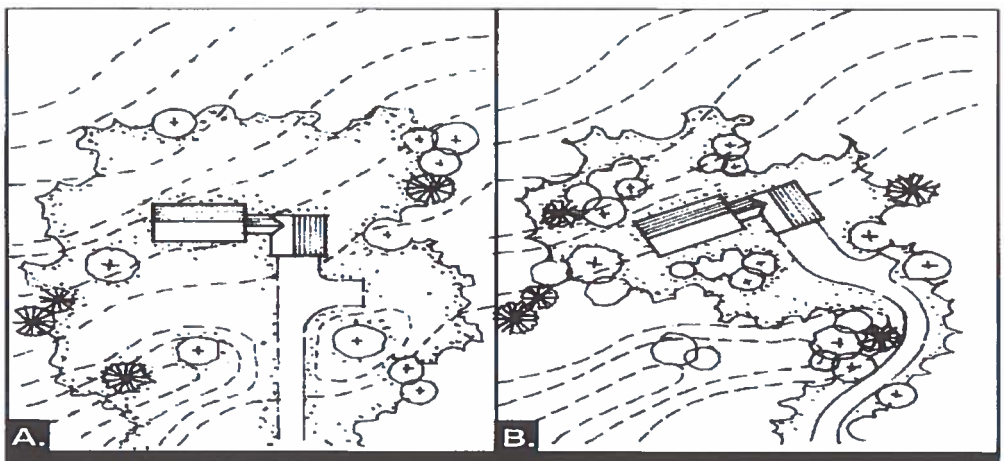


Illustration A8: Plan

In Option B trees are left in "islands" or extensions of the forest rather than as individual specimens. The driveway is routed to eliminate blasting and grading and to protect a section of woodland. The house is oriented with topography.

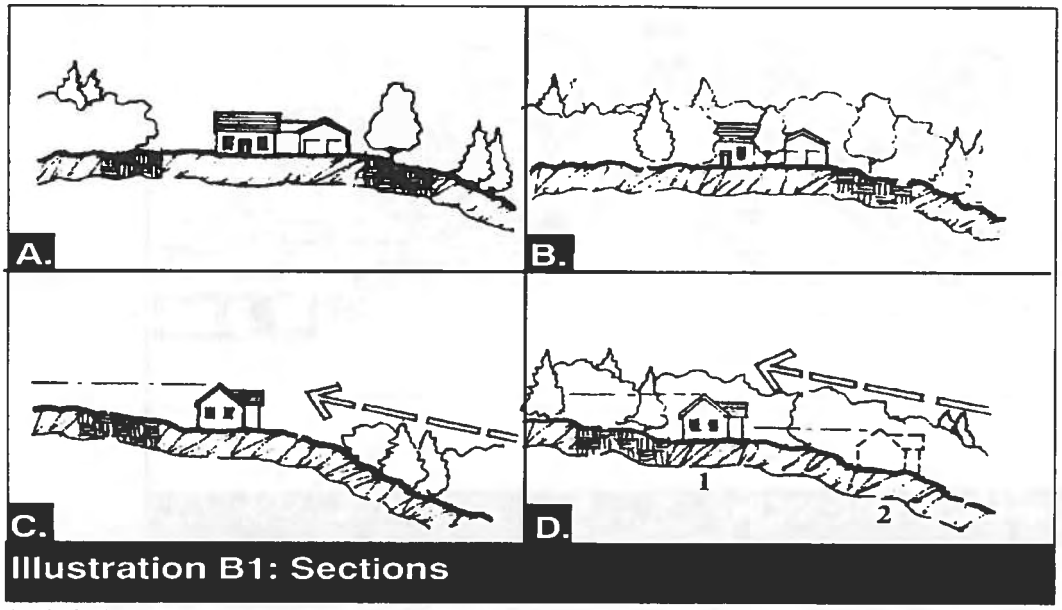


Illustration B1: Sections

In (A) the clearing for the house creates an unnatural pattern on the ridgeline and the interrupted treeline draws attention to the development, creating a visual impact. Drawing (B) shows the same house with existing vegetation retained to maintain the integrity of treeline behind and in front of the structure. In (C) the roofline of the house is visible above the height of land and he clearing has removed most of the screening/buffering trees. Drawing (D) illustrates the same house(1) with vegetation saved to mitigate visual impact, if no other siting alternatives exist. The recommended solution would be siting the house (2) below the height of land, with the treeline intact.

Guideline 5.3. Clearing for views should be limited, with narrow view openings between trees and beneath tree canopies being a desirable alternative to clearing large openings adjacent to building facades. View clearing should involve the selective cutting of small trees and the lower branches of large trees, rather than removing mature trees.

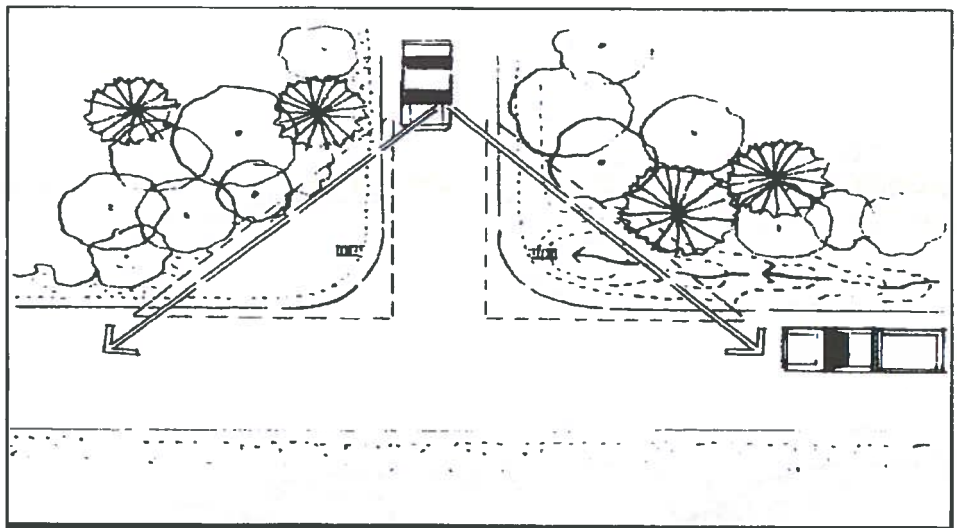


Illustration B2: Plan

It is important to maintain a cleared zone at driveway intersections with roads for safety (visibility) purposes. The clear zone also allows for snow storage and effective stormwater management measures such as small detention basins. Native groundcovers and low vegetation should be esablished in these areas

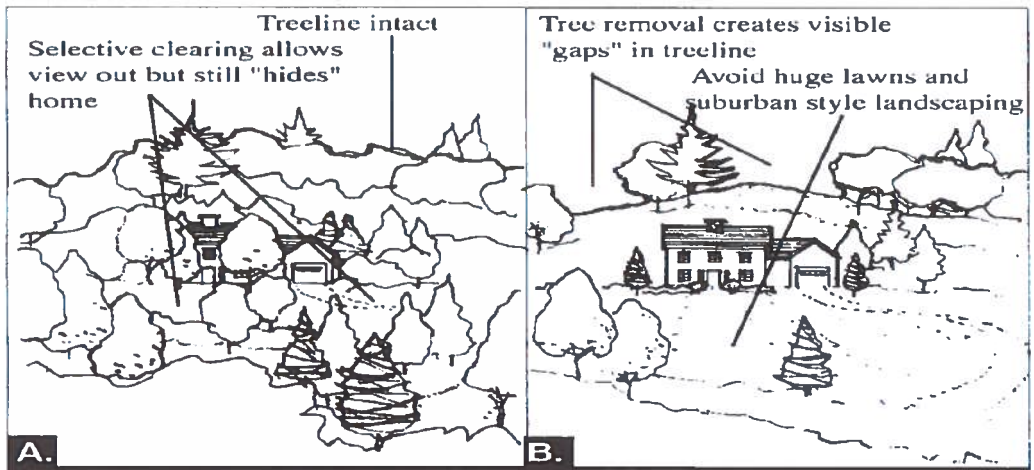


Illustration B3: Perspective

In Option A, the desired approach, existing vegetation is selectively removed and the hillside retains its natural, forested appearance. In Option B, extensive clearing, exposes the home as a visual focal point and undermines the integrity of the landscape pattern. A large lawn and suburban style landscape is not appropriate in this context.

Guideline 5.4. On wooded sites, existing forest cover should be maintained adjacent to proposed building sites to interrupt the facade of buildings, provide a forested backdrop to buildings and reduce or eliminate the visual impact of new development from vantage points. (See illust. B1)

Standard 6. Development shall not detract from the sense of order or harmony of the landscape patterns formed by forests, agricultural fields and open meadows. (See illust. B3-B6)

Guideline 6.1. On parcels characterized by meadows, additional landscaping and/or reforestation may be employed immediately adjacent to proposed structures to interrupt the facade of buildings, provide additional trees as backdrop to buildings and/or soften the visual impact of new development from vantage points.

Guideline 6.2. Trees should be preserved or planted close to structures to provide screening and better blend structures into the wooded perimeter surrounding meadows.

Guideline 6.3. Buildings should be located outside of cleared meadows.

Guideline 6.4. Cleared meadows, reminiscent of historic hillside pastures, may be created but buildings should not be located in them (i.e. clearings should not frame and thereby draw attention to houses located on hillsides and ridgelines).

Guideline 6.5. Using stone walls and hedgerows as property lines is recommended and existing stone walls and hedgerows should be preserved wherever possible. Should additional landscaping be required, it should be consistent with existing patterns such as hedgerows

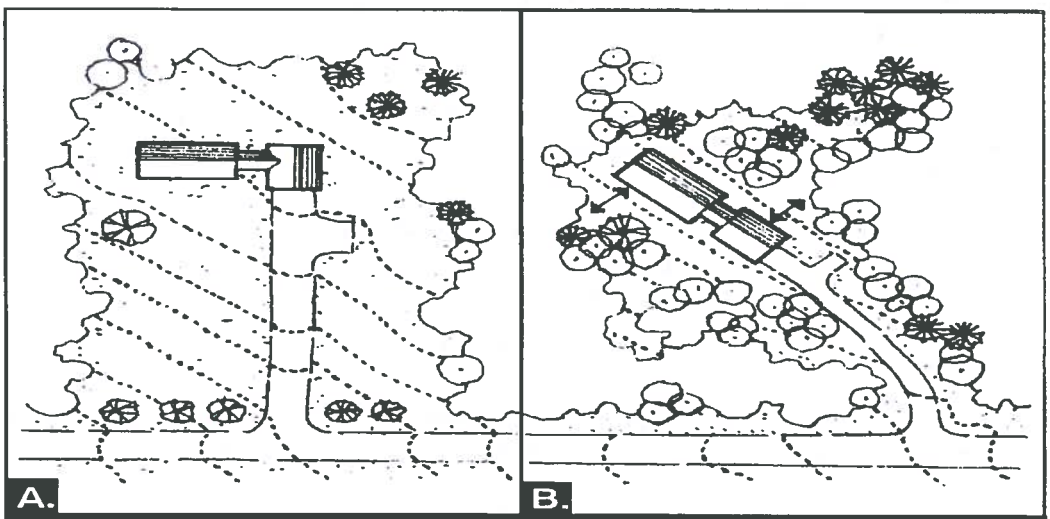


Illustration B4: Plans

Drawing (A) is plan of a typical suburban style house lot with a large lawn, wide driveway and orientation to the road. An occasional mature tree has been saved in isolated locations. The preferred plan (B) sites the house and a narrow driveway/parking area in relation to the contours and maintains existing vegetation in their native groupings, with understory intact as well. A 30 foot clearing limit from the sides of structures may be imposed on visually sensitive sites.

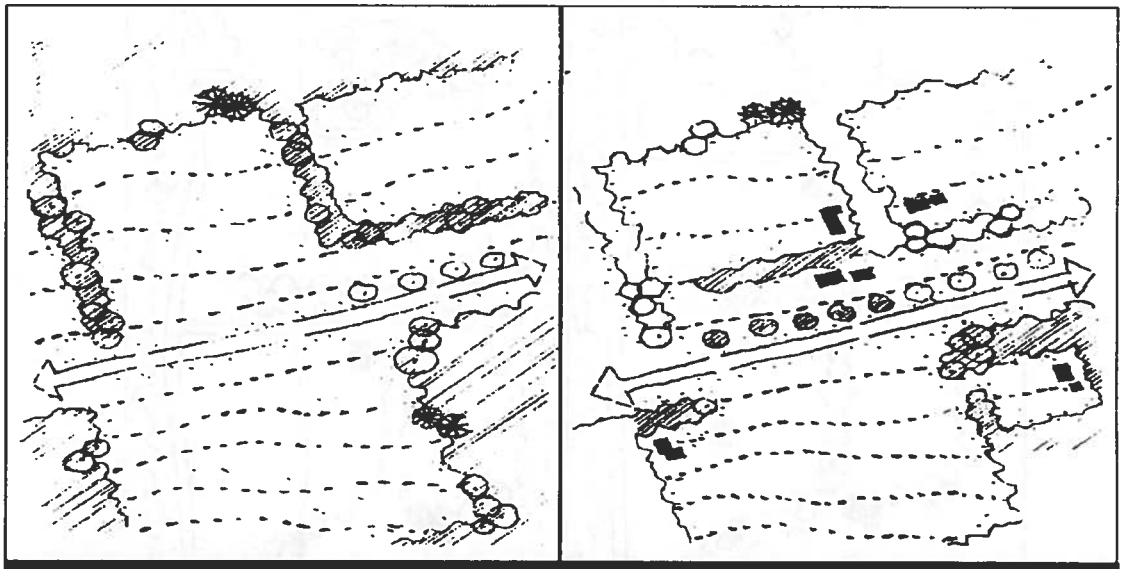


Illustration B5: Plans

These plans illustrate how reinforcing or relating to the existing vegetative conditions create siting possibilities for houses and mainatin the agricultural open space and character of an area. The extension of the treeline along the road and the hedgerow would create a potential site for a vernacular farmhouse and barn design.

Guideline 6.6. For both wooded and meadow sites, landscaping proposed for the project should be of native or naturalized hardy species consistent with vegetation types and patterns appropriate to the site and environs. Invasive, non-native species should always be avoided.

Guideline 6.7. Generally, the minimum caliper for trees is 2" and the minimum shrub size is 1 gallon.

Standard 7. During construction, trees identified on the landscaping plan are to be protected.

Guideline 7.1. Tree protection measure taken during construction should include snow fencing 5' outside of drip line or, with approval, trunk protection and hay bale covering when construction work has to be within canopy.

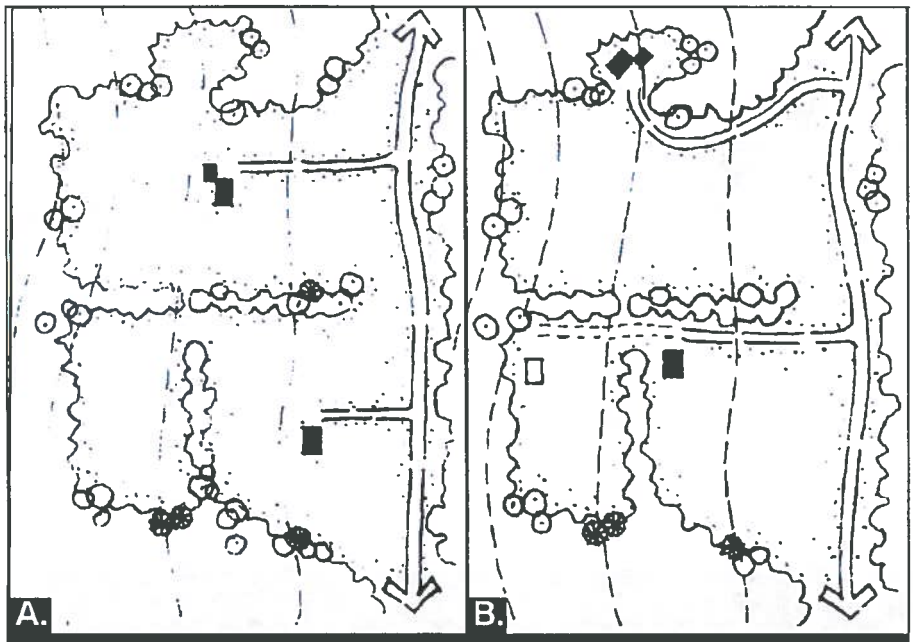


Illustration B6: Plan

In Option B, attention is given to the existing landscape patterns. Houses and driveways are sited along or within the treeline or follow existing hedgerows. Open meadows are not disrupted and future development potential exists without disturbing the open meadows.

Guideline 7.2. Trees should be saved undisturbed in groupings.

Guideline 7.3. Native excavated soils should be stockpiled. Where feasible, transplant existing vegetation, trees, shrubs and ground covers elsewhere on site or near to its original location.

C. Road and Driveway Access

Standard 8. Driveway grades shall not exceed 15% and shall have an average grade that does not exceed 12%. Where necessary, limited steeper grades are acceptable if they serve to better minimize overall erosion potential and environmental/aesthetic impacts, provided adequate access is ensured

for fire and rescue vehicles.

Guideline 8.1 Wherever feasible or appropriate, retain and reuse old farm roads, town roads and trails instead of constructing new roads or driveways to minimize clearing and disruption of the landscape and relate to traditional and historic land use patterns.

Guideline 8.2. Applicant should try to minimize crossing of steep slopes with roads and driveways and should avoid roads "against" the contours; follow contours.

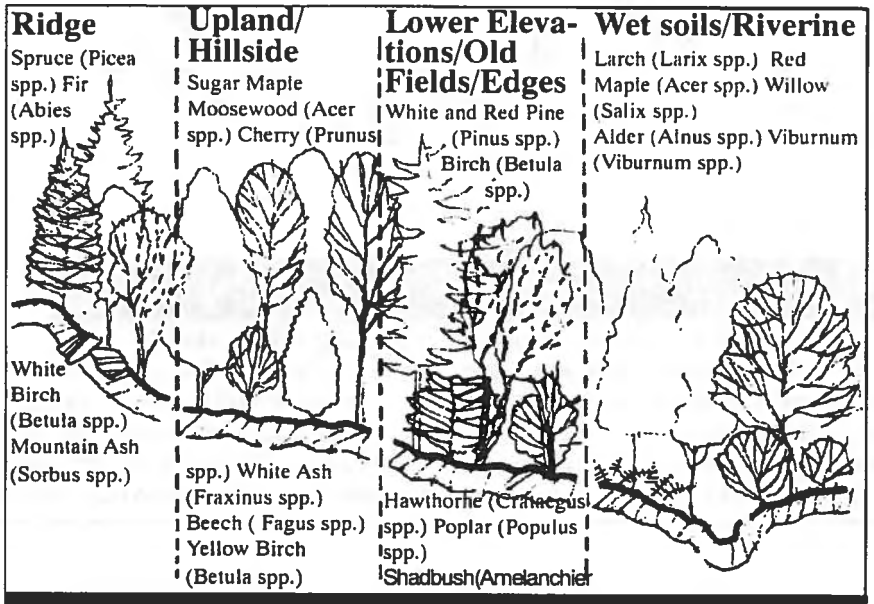


Illustration B7: Section

A site analysis will yield native vegetation patterns in any location. Typical species types and associations in relation to physiography are shown.

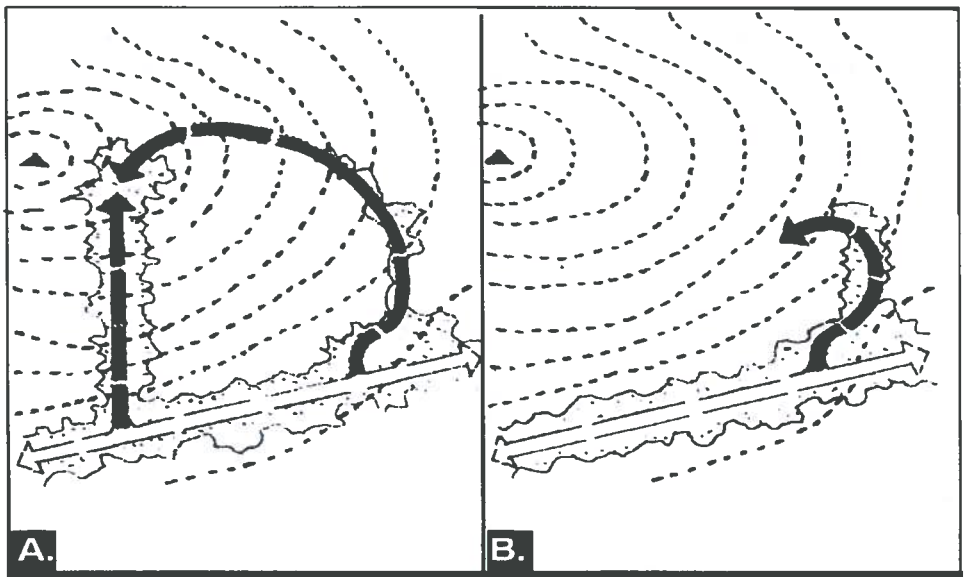


Illustration C2: Plans

If a higher site must be developed, driveways providing access should follow old woods trails/farm roads where available, and in every case, "wrap around" contours or follow a more gradual route, as shown in Road Alignment B, rather than a straight cut as shown in Alignment A. The straight cut makes the whole length of the road visible and results in more cut and fill. Option B, in all cases, is the best approach and minimizes road construction cost and removal of vegetation.

D. Building Design

Standard 9. Development will not result in any building, roof or appurtenant structure being located in a manner which would allow the building, roof or structure to visually exceed the height of land or tree line if it is protected serving as the visual and physical backdrop to the structure as viewed from vantage points. (See illust. D2)

Guideline 9.1. Buildings and structures should not be sited on high points, outcroppings or prominent knolls within the project site. (See illust. D1)

Guideline 9.2. When building on slopes, the preference is to set buildings into topography using partial earth sheltering. Try taking advantage of the topography by building multi-level structures with entrances on more than one level (i.e.: walk-out basements, garages under buildings).

Standard 10. The massing of a project (a single building or a group of buildings) shall be designed to minimize visual impacts and contribute to, and harmonize with, the scenic quality of the surrounding landscape.

Guideline 10.1. Building materials, exterior colors and fenestration that minimize year round visibility, reflectivity, and night-time light impacts should be selected. Oversized picture windows and large expanses of glass should be avoided or the visual impacts mitigated by dividers or other architectural design elements.
Guideline 10.2. A variety of volumes, roof planes and wall planes should be incorporated within a building project.

Guideline 10.3. The main roof line (ridges and eaves) of individual buildings should be broken and varied to reduce the buildings' visual scale.

Guideline 10.4. The surface of vertical walls should be modulated to avoid a single monolithic shape and/or to reduce the visual scale of buildings.

Guideline 10.5. Building design should reflect the natural patterns of the site and should be well integrated with site design and landscaping.

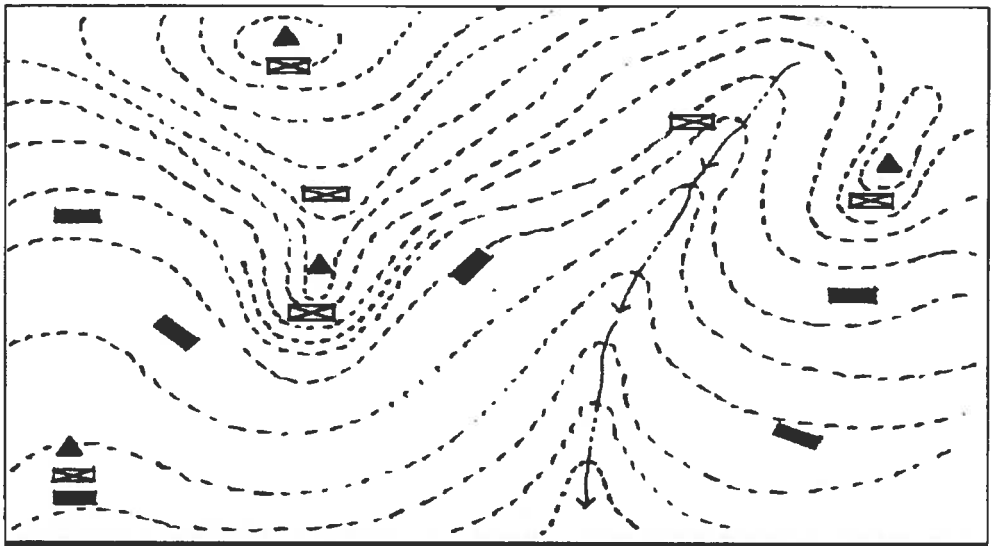


Illustration D1: Plan

Avoid siting in these locations
Indicates better siting option for buildings
High points

Guideline 10.6. Building design should be well integrated into the surrounding neighborhood and be in keeping with the character of the area.

Standard 11. Offsite light impacts shall be minimized. Outdoor lighting shall comply with the standards contained in Section 4.4 of these bylaws.

Guideline 11.1. The use of reflective surfaces and outdoor lighting fixtures higher than 15' should be minimized to limit the visibility of the development from off-site. Bollard, low post lighting and low level, indirect lighting are recommended; spot or flood lights should be avoided. (See illust. D4)

Guideline 11.2. Creative lot layout may also serve to limit off-site glare, visibility and night sky pollution by laying out buildings and structures that shield light fixtures from viewing areas.

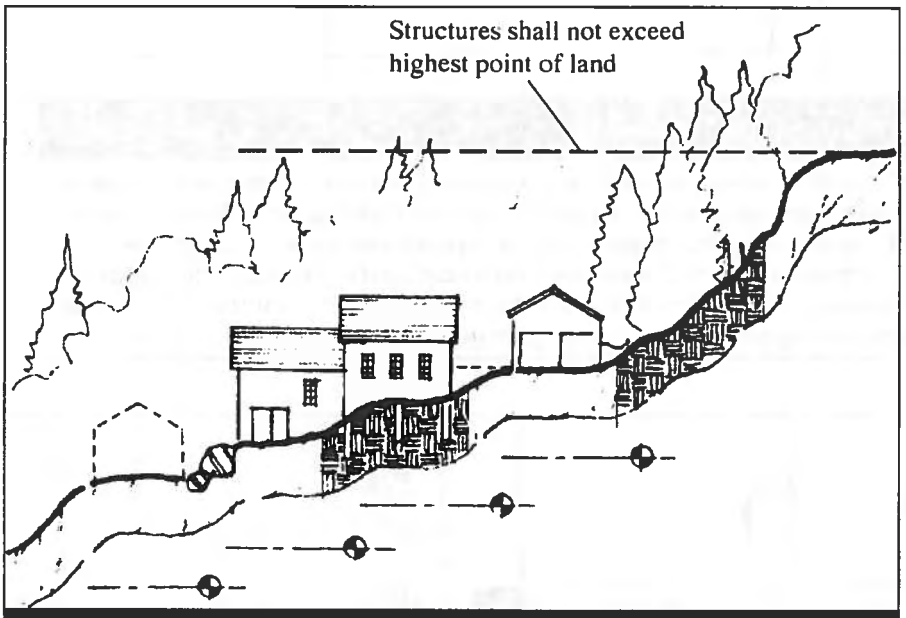


Illustration D2: Section

House is terraced down hillside and not sited on high points. This helps to reduce visual mass. It also takes advantage of the topography by having entrances at different levels. Existing bedrock is maintained as are tree groups.

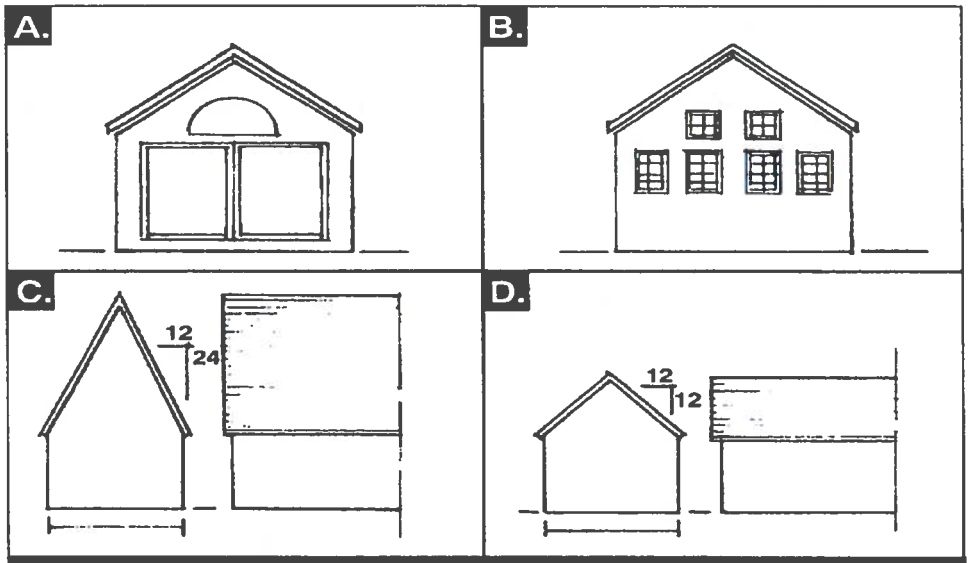


Illustration D3: Section

Options A and B show two different window treatments. Option B helps to reduce glare and reduces the impact of interior lighting or reflection when viewed from the outside. Single pane windows and facades should be avoided. Options C and D show two different roofing types. The moderate pitch illustrateed in Option D avoids the roof becoming another "wall" and decreases the massing of the building in general.

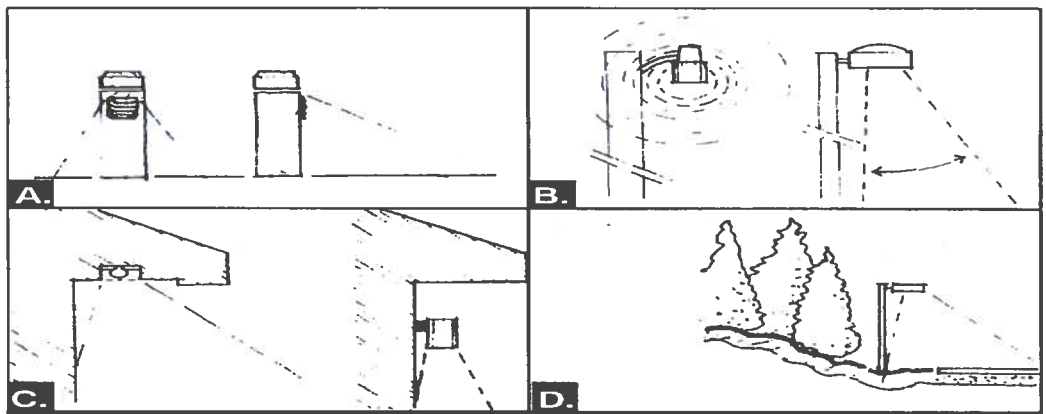


Illustration D4: Sections

Options A and C provide illustrations of low level and pedestrian lighting concepts that help reduce off-site lighting impacts. Option B illustrates a typical metal hallide light fixture that would not be ideal and a fixture with a shield to focus the light. Option D illustrates placing light fixtures using topography, plant material and structures to minimize impact.

E. Development Density

Standard 12. The minimum area for all lots in existence prior to August 3, 1998 shall be as established for the underlying district. Minimum area for any lot created after August 3, 1998 shall be as established for the underlying district, excluding any portion of the lot with an average steepness (slope gradient) in excess of 20%, and shall have an area four times (4x) the minimum lot area identified in the underlying district for that portion of the parcel. .

Guideline 12.1. Where possible, development should take place on the portions of a lot where the slopes are less than 15%. No development should occur on land where the slope is greater than 20%.

(4) Pre-Existing Lots

In the case of lots created prior to August 3, 1998, compliance with the standards of Section 16.5 shall be achieved to the extent that it is possible while still allowing for reasonable use of the pre-existing lot.

(5) Exemptions from these Regulations

A. The DRB may waive the density standards set forth in Section 16.5 (3) Standard 12 thereby allowing a total density not to exceed the density established by the underlying district, in the event that the applicant can demonstrate that, through Section 17. Planned Residential Development, the proposed development can be clustered on the portion(s) of the property laying outside of the RHOD boundaries; and/or on the portion(s) of the property not characterized by steep slopes, other fragile environmental features or high visible locations in a manner that complies with all applicable standards of these regulations. In such a case, the portion of the property not used for the cluster development shall be maintained as open space consistent with Section 17.5 of these regulations and Section 5.3 of the Stowe Subdivision Regulations.

B. Notwithstanding Section 16.4(1)F.1. and Section 16.5(3) Standard 12 of these regulations regarding density and minimum lot area, lands designated as Ski-PUD pursuant to Section 18.4 of these regulations shall have a development density calculated in accordance with Section 18.4(1)(D), regardless of slope gradient.

C. Ski-lifts, ski-lift towers and trail improvements related to the operation of an alpine ski area shall be exempt from review under Section 16. RHOD.

D. Telecommunications facilities located within the 28.4 acre "Co-Location Area" on the summit of Mount Mansfield are exempt from review under Section 16.5 Standard

9. Such facilities must comply with all other applicable standards of the Stowe Zoning Regulations.

APPENDIX C

STATE DEPARTMENT OF ENVIRONMENTAL PROTECTION, MAINE CHAPTER 315, "ASSESSING AND MITIGATING IMPACTS TO EXISTING SCENIC AND AESTHETIC USES

COVERSHEET
STANDARD OPERATING PROCEDURE

Operation Title: **Guidance for Assessing Impacts to Existing Scenic and Aesthetic Uses under the Natural Resources Protection Act**
Identification No.: **DEPLW0541-A2003**
Revision No.: **00**
Originator Name: **Judy Gates**
Reviser: **N/A**
Effective Date: **July 20, 2003**

APPROVALS:

Bureau of Land and Water Quality Director:

Brooke Barnes _____ _____ Date: _____
Print Name Signature

QMSC Chair:

Malcolm C. Burson _____ _____ Date: _____
Print Name Signature

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( ) Quality Management Steering Committee ..... By: _____ Date: _____
( ) Bureau QACs and Lead auditors…… By: _____ Date: _____

Bureau of Land and Water Quality
Division of Land Resource Regulation
Licensing Unit
Standard Operating Procedure
Guidelines for Assessing Impacts to Existing Scenic and Aesthetic Uses
under the Natural Resources Protection Act

1. APPLICABILITY. This standard operating procedure (SOP) applies to all licensing staff in the Bureau of Land and Water Quality's Division of Land Resource Regulation (Division) after December 1, 2002. It applies to the processing of applications filed with the Department under the Natural Resources Protection Act (NRPA).

2. PURPOSE. This SOP is intended to establish consistent procedures for staff assessments of potential impacts to existing scenic and aesthetic uses during the processing of NRPA applications by the Division of Land Resource Regulation.

3. RESPONSIBILITIES.

3.1 COMPLIANCE. All licensing staff in the Division of Land Resource Regulation are responsible for becoming familiar, and complying with, the contents of this procedure prior to processing an application. The attached appendices are to serve as reference materials throughout the processing of applications. Supervisors are responsible for ensuring that licensing staff is familiar with and adhere to the procedures outlined in this SOP. Enforcement & Field Services staff Drafting Department Orders will also adhere to these procedures.

3.2 OTHER. The Licensing Coordinator is responsible for initial development, approval, distribution, and maintenance of the proposed SOP. Policy and Procedures staff in the Bureau of Land & Water Quality will track this SOP. The name of responsible individuals, document title, dates of last revision, and document numbers will be recorded.

4. GUIDELINES AND PROCEDURES.

4.1 ORIGINATION AND CONTENTS. Division Licensing staff will be trained in the use of the Basic Visual Assessment (VIA) form (Appendix A) and Visual Impact Assessment Matrix (Matrix) (Appendix B) associated with this SOP. The appendices will be used by Division Licensing staff when potential impacts on existing scenic and aesthetic uses are identified during the processing of an NRPA application. The VIA and matrix will be used as guidance for determining whether a proposed activity will have an unreasonable adverse impact on an aesthetically significant place, as defined in Chapter 315, Section 9. The completed VIA and matrix will be included in

the project file. Associated definitions included in this SOP apply to the VIA and matrix.

4.2 SOP DEVELOPMENT AND APPROVAL PROCESS. Approval of this SOP follows the preliminary draft cycle and final approval cycle for Bureau-specific SOPs described in SOP No. OC-PE-0001, Standard Operating Procedure Development, Format, Approval, and Distribution, dated June 15, 2001. The Director of the Bureau of Land and Water Quality and the Maine DEP's QAM approve the final SOP.

5. REFERENCES.

5.1 MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION QUALITY MANAGEMENT PLAN (JUNE 2001).

5.2 MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION STANDARD OPERATING PROCEDURE ON STANDARD OPERATING PROCEDURES (OC-PE-0001).

5.3 MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION, BUREAU OF LAND AND WATER QUALITY, STANDARD OPERATING PROCEDURE SUPPLEMENT TO OC-PE-0001 (DEPLW2001-22).

5.4 LANDSCAPE AESTHETICS: A HANDBOOK FOR SCENERY MANAGEMENT. REVISED OCTOBER 2000. U.S. FOREST SERVICE.

5.5 SMARDON, R.C. AND HUNTER, M. 1983. THE FUTURE OF WETLANDS: ASSESSING VISUAL – CULTURAL VALUES. TOTOWA, NJ.

APPENDIX A:Basic Visual Impact Assessment Form

VISUAL ELEMENTS	VISUAL SUB ELEMENTS	INDICATORS/CLUES	ELEMENT RATINGS		ELEMENT SCORES
LANDSCAPE COMPATIBILITY	COLOR	Significantly different color, hue, value chroma	Severe	3	
			Moderate	2	
			Minimal	1	
			None	0	
	FORM	Incompatible 2/3 dimensional shape with landscape surroundings	Severe	3	
			Moderate	2	
			Minimal	1	
			None	0	
	LINE	Incompatible edges, bands, or silhouette lines introduced	Severe	3	
			Moderate	2	
			Minimal	1	
			None	0	
	TEXTURE	Incompatible textural grain, density, regularity or pattern	Severe	3	
			Moderate	2	
			Minimal	1	
			None	0	
			SUBTOTAL →		
SCALE CONTRAST		Major scale introduction/intrusion	Severe	12	
		One of several major scales or major objects in confined setting	Moderate	8	
		Significant object or scale	Minimal	4	
		Small object or scale	None	0	
			SCORE		
SPATIAL DOMINANCE	LANDSCAPE SITUATION BACKDROP	Object/activity dominates or is prominent in whole landscape composition; oris promently situated within the landscape; or dominates landform, water, or sky backdrop	Dominate	12	
			Co-Dominate	8	
			Sub-ordinate	4	
			Insignificant	0	
			SCORE		
TOTAL VISUAL IMPACT SEVERITY →					

Severe	27-36
Strong	26-18
Moderate	17-9
Weak or Negligible	8-0

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of R.C. Smardon

Definitions associated with Appendix A.

A. Backdrop. The distant part of a landscape located from 4 miles to infinity from the viewer.

B. **Color.** The property of reflecting light of a particular wavelength that enables the eye to differentiate otherwise indistinguishable objects. A hue (red, green, blue, yellow, etc.) as contrasted with a value (black, white, or gray).

C. Contrast. Diversity or distinction of adjacent parts. Effect of striking differences in color, form, line, or texture of a landscape.

D. Dominance. The extent to which an object is noticeable when compared to the surrounding context.

E. Form. The structure, mass or shape of a landscape or an object. Landscape form is often defined by the edges or outlines of landforms, rockforms, vegetation patterns, or waterforms, or the enclosed spaces created by these attributes.

F. Landform. One of the attributes or features that make up the Earth's surface, such as a plain, mountain, or valley.

G. Landscape. An area composed of interacting ecosystems that are repeated because of geology, landform, soils, climate, biota, and human influences throughout that area.

H. Landscape Character or Landscape Composition. Particular attributes, qualities, and traits of a landscape that give it an image and make it identifiable or unique.

I. Landscape Compatibility. The elements of color, form, line, and texture that typically determine landscape character.

J. Line. Anything that is arranged in a row or sequence. In landscapes – ridges, skylines, structures, changes in vegetation, or individual trees and branches – may be perceived as line.

K. Scale Contrast. The degree to which an activity or object dominates or intrudes into a landscape or confined setting.

L. Situation. The position of the activity or object within the landscape.

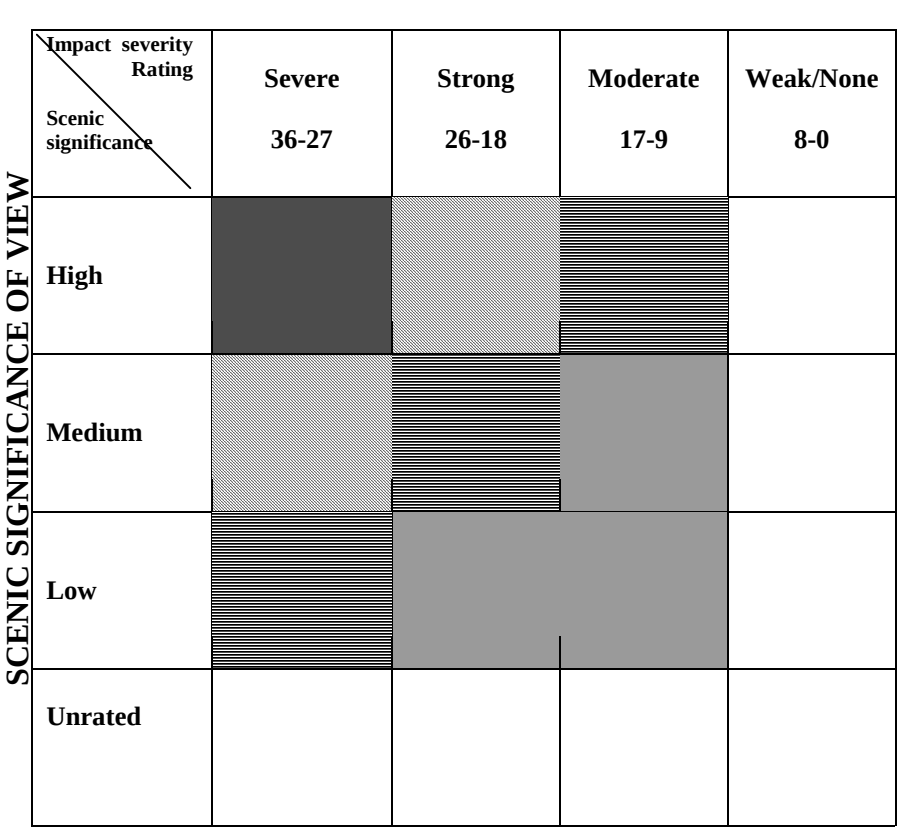
M. **Spatial Dominance.** The degree to which an activity or object dominates the landscape; is prominently situated within the landscape; or dominates landform, waterform, or sky backdrop.

N. Texture. The grain of a landscape or repetitive pattern of tiny forms. Visual texture can range from smooth to coarse.

O. Visual Elements. The landscape's components that make up the overall visual character of a landscape.

P. **Waterform.** One of the attributes or features that make up the Earth's surface, such as a pond, lake, stream, river, waterfall, estuary, or ocean.

APPENDIX B:Visual Impact Assessment Matrix



LEGEND

UNACCEPTABLE. High level of visual contrast in line, form, color, or texture between existing high quality landscape and development proposal; view of water or other significant visual resource obstructed. May be grounds for project denial.

ACCEPTABLE WITH MAJOR MITIGATION. High degree of contrast on landscape of medium significance; moderate degree of contrast on highly significant landscape. Project re-design necessary.

ACCEPTABLE WITH MITIGATION. Some modification to project siting or design necessary to achieve better landscape 'fit.'

ACCEPTABLE WITH MINOR MITIGATION. Relatively minor adjustments to plan or siting necessary to achieve a higher level of project compatibility.

LOW/NO IMPACT. No perceptible change to the visual landscape. No mitigation required.

Chart is recommended method for reviewing visual impacts and determining level of effort required for mitigation and/or reconsideration of project siting and design. Application of the recommended actions should consider length of view and viewer expectation.

Appendix B
Basic Visual Assessment Form
DEPLW0451-A2002
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Chapter 315: ASSESSING AND MITIGATING IMPACTS TO EXISTING SCENIC AND AESTHETIC USES

SUMMARY: This chapter describes the process for evaluating impacts to existing scenic and aesthetic uses resulting from activities in, on, over, or adjacent to protected natural resources subject to the Natural Resources Protection Act, pursuant to 38 M.S.R.A. § 480-D (1).

1. Introduction. In the Natural Resources Protection Act (NRPA), 38 M.R.S.A. §§ 480-A through Z, the Legislature has found and declared that Maine's rivers and streams, great ponds, fragile mountain areas, freshwater wetlands, significant wildlife habitat, coastal wetlands, and sand dune systems are resources of state significance. Section 480-A states that these resources have great scenic beauty and unique characteristics, unsurpassed recreational, cultural, historical, and environmental value of present and future benefit to the citizens of the State and that uses are causing the rapid degradation and, in some cases, the destruction of these critical resources. The Legislature's recognition of the scenic beauty of these protected natural resources through statute distinguishes the visual quality of those resources and its value to the general population.

Applicants for permits under the NRPA are required to demonstrate that a proposed activity meets the standards of the NRPA that have been established by the Legislature. Standard 1 in Section 480-D of the NRPA requires an applicant to demonstrate that a proposed activity will not unreasonably interfere with existing scenic and aesthetic uses.

2. Purpose. This rule specifies State regulatory concerns, defines visual impacts, establishes a procedure for evaluating visual impacts generated from proposed activities, establishes when a visual assessment may be necessary, explains the components of a visual assessment when required, and describes avoidance, mitigation, and offset measures that may eliminate or reduce unreasonable adverse impacts to existing scenic and aesthetic uses.

3. Applicability. This rule applies to the alteration of a coastal wetland, great pond, freshwater wetland, fragile mountain area, river, stream, or brook, as defined in 38 M.S.R.A. § 480-B of the Natural Resources Protection Act (NRPA), that requires an individual permit or is eligible for Tier 3 review. This rule does not apply to an activity that is exempt from permit requirements under the NRPA or that qualifies for a Tier 1 or Tier 2 permit. This rule does not apply to a Permit by Rule unless the Department exercises its discretionary authority to require an individual permit as described in Chapter 305, Section 1 (D). In the review of an application for a permit, the Department must evaluate the potential for unreasonable adverse visual impacts resulting from a proposed activity located in, on, over, or adjacent to a protected natural resource.

4. Scope of Review. The potential impacts of a proposed activity will be determined by the Department considering the presence of a scenic resource listed in Section 10, the significance of the scenic resource, the existing character of the surrounding area, the expectations of the typical viewer, the extent and intransience of the activity, the project purpose, and the context of the proposed activity. Unreasonable adverse visual impacts are those that are expected to unreasonably interfere with the general public's visual enjoyment and appreciation of a scenic resource, or those that otherwise unreasonably impair the character or quality of such a place.

5. Definitions. As used in these rules, the following terms have the following meanings. Other terms used in these rules have the meanings set forth at 38 M.S.R.A. § 480-X and Chapter 310, the Wetlands and Waterbodies Protection Rules.

A. Adverse visual impact. The negative effect of a regulated activity on the visual quality of a landscape.

B. Composition. The arrangement of the component parts of a landscape. Component parts are objects or activities usually described in terms of color, texture, line, form, dominance, and scale.

C. Contrast. Comparing the component parts of a landscape in terms of form, line, color, texture, dominance, or scale.

D. Existing uses. The current appearance and use of the landscape, considering previous human alterations.

E. Landscape. An area characterized by its geology, landform, biota, and human influences throughout that area.

F. Mitigation. Any action taken or not taken to avoid, minimize, rectify, reduce, or eliminate actual or potential adverse environmental impact, including adverse visual impact.

G. Practicable. Available and feasible considering cost, existing technology and logistics based on the overall purpose of the activity.

H. Scenic Resource. Public natural resources or public lands visited by the general public , in part for the use, observation, enjoyment, and appreciation of natural or cultural visual qualities.. The attributes, characteristics, and features of the landscape of a scenic resource provide varying responses from, and varying degrees of benefits to, humans.

I. Viewshed. The geographic area as viewed from a scenic resource, which includes the proposed activity. The viewshed may include the total visible activity area from a single observer position or the total visible activity area from multiple observers' positions.

J. Visual Quality. The essential attributes of the landscape that when viewed elicit overall benefits to individuals and, therefore, to society in general. The quality of the resource and the significance of the resource are usually, but not always, correlated.

6. Application submissions. An applicant is required to demonstrate that the proposed activity will not unreasonably interfere with existing scenic and aesthetic uses of a scenic resource listed in Section 10. Basic evidence must be provided to ensure that visual concerns have been fully addressed in each application. The applicant must describe the location of the activity and provide an inventory of scenic resources within the viewshed of the proposed activity by completing the MDEP Visual Evaluation Field Survey Checklist (doc. #DEPLW0540) provided in the application. The applicant must describe the activity relative to its location and scale within the viewshed of any scenic resource, including a description of the existing visual quality and landscape characteristics. The applicant may request a pre-application meeting during which

the Department can provide guidance for determining the location of the activity relative to scenic resources in the vicinity of the applicant's parcel.

7. **Visual impact assessments.** The Department may require a visual impact assessment if a proposed activity appears to be located within the viewshed of, and has the potential to have an unreasonable adverse impact on, a scenic resource listed in Section 10. An applicant's visual impact assessment should visualize the proposed activity and evaluate potential adverse impacts of that activity on existing scenic and aesthetic uses of a protected natural resource within the viewshed of a scenic resource, and to determine effective mitigation strategies, if appropriate. If required, a visual impact assessment must be prepared by a design professional trained in visual assessment procedures, or as otherwise directed by the Department.

In all visual impact assessments, scenic resources within the viewshed of the proposed activity must be identified and the existing surrounding landscape must be described. The assessment must be completed following standard professional practices to illustrate the proposed change to the visual environment and the effectiveness of any proposed mitigation measures. The radius of the impact area to be analyzed must be based on the relative size and scope of the proposed activity given the specific location. Areas of the scenic resource from which the activity will be visible, including representative and worst-case viewpoints, must be identified. Line-of-sight profiles constitute the simplest acceptable method of illustrating the potential visual impact of the proposed activity from viewpoints within the context of its viewshed. A line-of-sight profile represents the path, real or imagined, that the eye follows from a specific point to another point when viewing the landscape. See Appendix A for guidance on line-of-sight profiles. For activities with more sensitive conditions, photosimulations and computer-generated graphics may be required.

A visual impact assessment must also include narratives to describe the significance of any potential impacts, the level of use and viewer expectations, measures taken to avoid and minimize visual impacts, and steps that have been incorporated into the activity design that may mitigate any potential adverse visual impacts to scenic resources.

8. **Mitigation.** In the case where the Department determines that the proposed activity will have an adverse visual impact on a scenic resource, applicants may be required to employ appropriate measures to mitigate the adverse impacts to the extent practicable. Mitigation should reduce or eliminate the visibility of the proposed activity or alter the effect of the activity on the scenic or aesthetic use in some way. The Department will determine when mitigation should be proposed and whether the applicant's mitigation strategies are reasonable. The Department may require mitigation by requesting that the applicant submit a design that includes the required mitigation or by imposing permit conditions consistent with specified mitigation requirements.

In its determination whether adverse impacts to existing scenic and aesthetic uses are unreasonable, the Department will consider whether the applicant's activity design is visually compatible with its surroundings, incorporating environmentally sensitive design principles and components according to the strategies described below.

A. **Planning and siting.** Properly siting an activity may be the most effective way to mitigate potential visual impacts. Applicants are encouraged, and may be required, to site a proposed activity in a location that limits its adverse visual impacts within the viewshed of a scenic resource.

B. **Design.** When circumstances do not allow siting to avoid visual impacts on a scenic resource, elements of particular concern should be designed in such a way that reduces or eliminates visual impacts to the area in which an activity is located, as viewed from a scenic resource. Applicants should consider a variety of design methods to mitigate potential impacts, including screening, buffers, earthen berms, camouflage, low profile, downsizing, non-standard materials, lighting, and other alternate technologies.

C. **Offsets.** Correction of an existing visual problem identified within the viewshed of the same scenic resource as the proposed activity may qualify as an offset for visual impacts when an improvement may be realized. Offsets may be used in sensitive locations where significant impacts from the proposal are unavoidable or other forms of mitigation might not be practicable. An example of an offset might be the removal of an existing abandoned structure that is in disrepair to offset impacts from a proposal within visual proximity of the same scenic resource. Offsets can also include visual improvements to the affected landscape, such as tree plantings or development of scenic overlooks.

9. **Determination.** It is the responsibility of the applicant to demonstrate that the proposed design does not unreasonably interfere with existing scenic and aesthetic uses, and thereby diminish the public enjoyment and appreciation of the qualities of a scenic resource, and that any potential impacts have been minimized.

The Department's determination of impact is based on the following visual elements of the landscape:

A. **Landscape compatibility**, which is a function of the sub-elements of color, form, line, and texture. Compatibility is determined by whether the proposed activity differs significantly from its existing surroundings and the context from which they are viewed such that it becomes an unreasonable adverse impact on the visual quality of a protected natural resource as viewed from a scenic resource;

B. **Scale contrast**, which is determined by the size and scope of the proposed activity given its specific location within the viewshed of a scenic resource; and

C. **Spatial dominance**, which is the degree to which an activity dominates the whole landscape composition or dominates landform, water, or sky backdrop as viewed from a scenic resource.

In making a determination within the context of this rule, the Department considers the type, area, and intransience of an activity related to a scenic resource that will be affected by the activity, the significance of the scenic resource, and the degree to which the use or viewer expectations of a scenic resource will be altered, including alteration beyond the physical boundaries of the activity. In addition to the scenic resource, the Department also considers the functions and values of the protected natural resource, any proposed mitigation, practicable alternatives to the proposed activity that will have less visual impact, and cumulative effects of frequent minor alterations on the scenic resource. An application may be denied if the activity will have an unreasonable impact on the visual quality of a protected natural resources as viewed from a scenic resource even if the activity has no practicable alternative and the applicant has minimized the proposed alteration and its impacts as much as possible through mitigation. An

"unreasonable impact" means that the standards of the Natural Resources Protection Act, 38 M.R.S.A. § 480-D, will not be met.

10. **Scenic resources.** The following public natural resources and public lands are usually visited by the general public, in part with the purpose of enjoying their visual quality. Under this rule, the Department considers a scenic resource as the typical point from which an activity in, on, over, or adjacent to a protected natural resource is viewed. This list of scenic resources includes, but is not limited to, locations of national, State, or local scenic significance. A scenic resource visited by large numbers who come from across the country or state is generally considered to have national or statewide significance. A scenic resource visited primarily by people of local origin is generally of local significance. Unvisited places either have no designated significance or are "no trespass" places. Sources for information regarding specific scenic resources are found as part of the MDEP Visual Evaluation Field Survey Checklist (doc. #DEPLW0540) provided in the application.

A. National Natural Landmarks and other outstanding natural and cultural features (e.g., Orono Bog, Meddybemps Heath);

B. State or National Wildlife Refuges, Sanctuaries, or Preserves and State Game Refuges (e.g., Rachael Carson Salt Pond Preserve in Bristol, Petit Manan National Wildlife Refuge, the Wells National Estuarine Research Reserve);

C. A State or federally designated trail (e.g., the Appalachian Trail, East Coast Greenway);

D. A property on or eligible for inclusion in the National Register of Historic Places pursuant to the National Historic Preservation Act of 1966, as amended (e.g., the Rockland Breakwater Light, Fort Knox);

E. National or State Parks (e.g., Acadia National Park, Sebago Lakes State Park);

F. Public natural resources or public lands visited by the general public, in part for the use, observation, enjoyment and appreciation of natural or cultural visual qualities.(e.g., great ponds, the Atlantic Ocean).

STATUTORY AUTHORITY: 38 M.R.S.A. § 480-A

ADOPTED DATE:
June 5, 2003

EFFECTIVE DATE:
June 29, 2003 - filing 2003-198

APPENDIX A

GUIDANCE FOR THE PREPARATION OF LINE-OF SIGHT-PROFILES

SCREENS

THE RELATIONSHIP BETWEEN SCIENTIFIC PERSPECTIVE AND A LINE OF SIGHT PROFILE.

Scientific or linear perspective is a geometric procedure that projects space onto a plane. This technique provides the analyst with a simplified way to verify the effectiveness of applicants mitigation proposal.

USE THE DIAGRAM BELOW TO ANSWER THESE SAMPLE QUESTIONS

Q: At what height should a screen be constructed to completely conceal a 23 foot object from an observer standing 80 feet from the object?
Constraint: Screen must be located 10 feet inside property line.

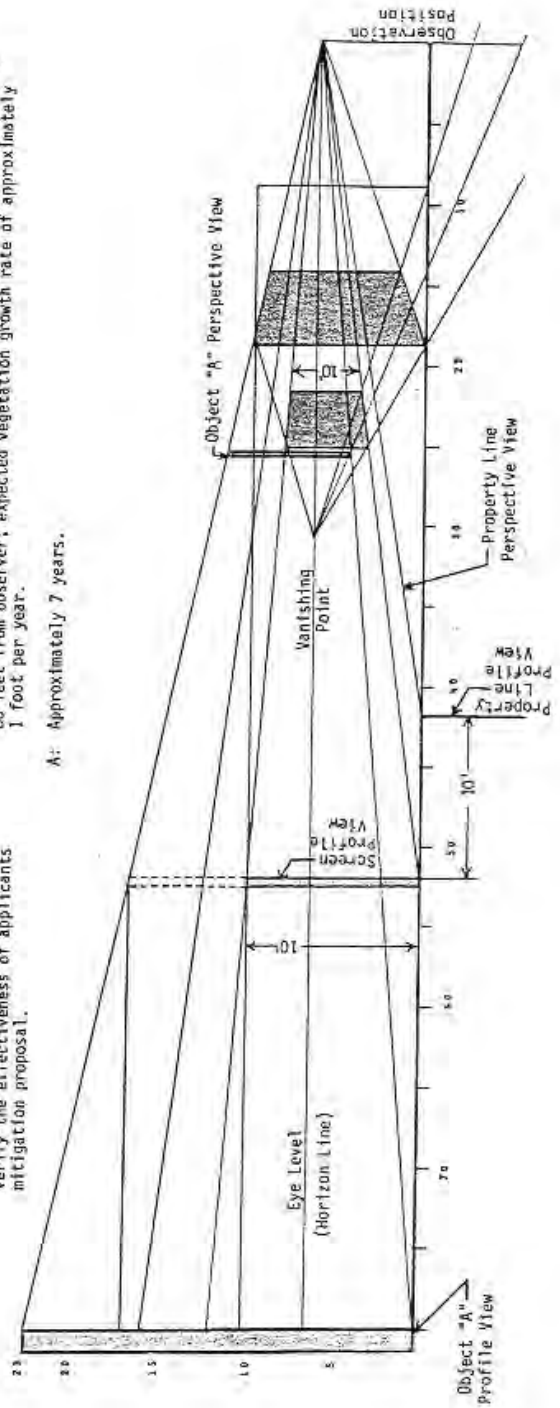
A: About 17 feet.

Q: What is the maximum height of an object to be concealed behind a 10 foot screen that is located 80 feet from an observer?
Constraint: The observer is standing about 181 feet behind the screen.

A: About 23 feet.

Q: In approximately how many years would a vegetative screen 6 feet in height planted on a berm 4 feet in height completely conceal a 23 foot object?
Constraints: Berm must be located 10 feet inside property line; object is 80 feet from observer; expected vegetation growth rate of approximately 1 foot per year.

A: Approximately 7 years.

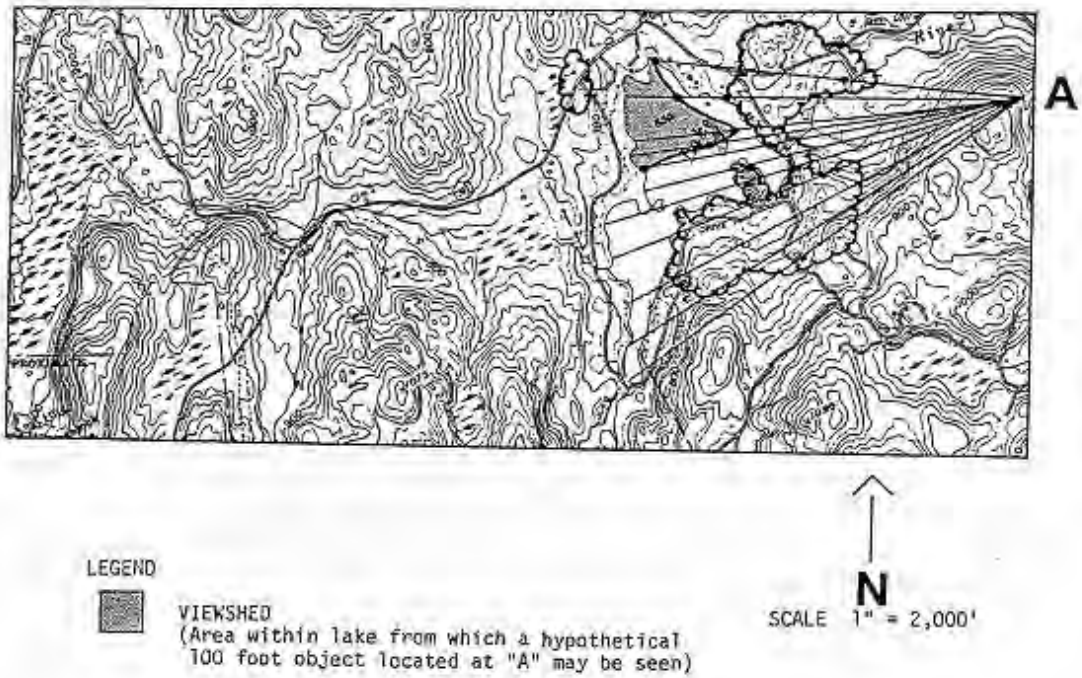


VIEWSHEDS

For illustrative purposes only, a "partial" viewshed has been constructed below. A partial viewshed is distinguished from a full viewshed in that it only shows a selected area from which an object may be seen. A full viewshed shows all such areas.

The shaded area in the northwest corner of the lake is the only area within the lake that a hypothetical object 100 feet in height and situated at A (where the profile radii converge) may be seen.

The defined viewing area has been constructed by connecting each point along each profile where a viewer just begins to see the hypothetical object. To add realism to the viewshed, 40' vegetation has been factored into the lines of sight. The vegetation alters the viewing angle and hence the initial viewpoint indicated by the large black dots at the intersection of the shaded area with each profile radii.



PROFILES

To construct a profile, first position the graph paper parallel and contiguous to the horizontal alignment of the desired profile (indicated by line A-B). Proceed by extending vertical lines (indicated by dashed lines) to the correct height according to any selected convenient vertical scale (in this case 1" = 100'). This must be done from each spot where the horizontal alignment crosses a contour line. It is the elevation of the intersected contour that determines the height of each vertical line. Then, simply connect the top of each vertical line to form the profile (indicated by line C-D). The profile C-D depicts the depressions and elevations one would encounter walking a straight path from Point A to B on the plan map. To add realism add vegetation at the proper locations at the proper height (in this case 40').

Sample Questions and Answers

According to the profile:

Q. Can an observer at location "Z" see the east shore of the lake?

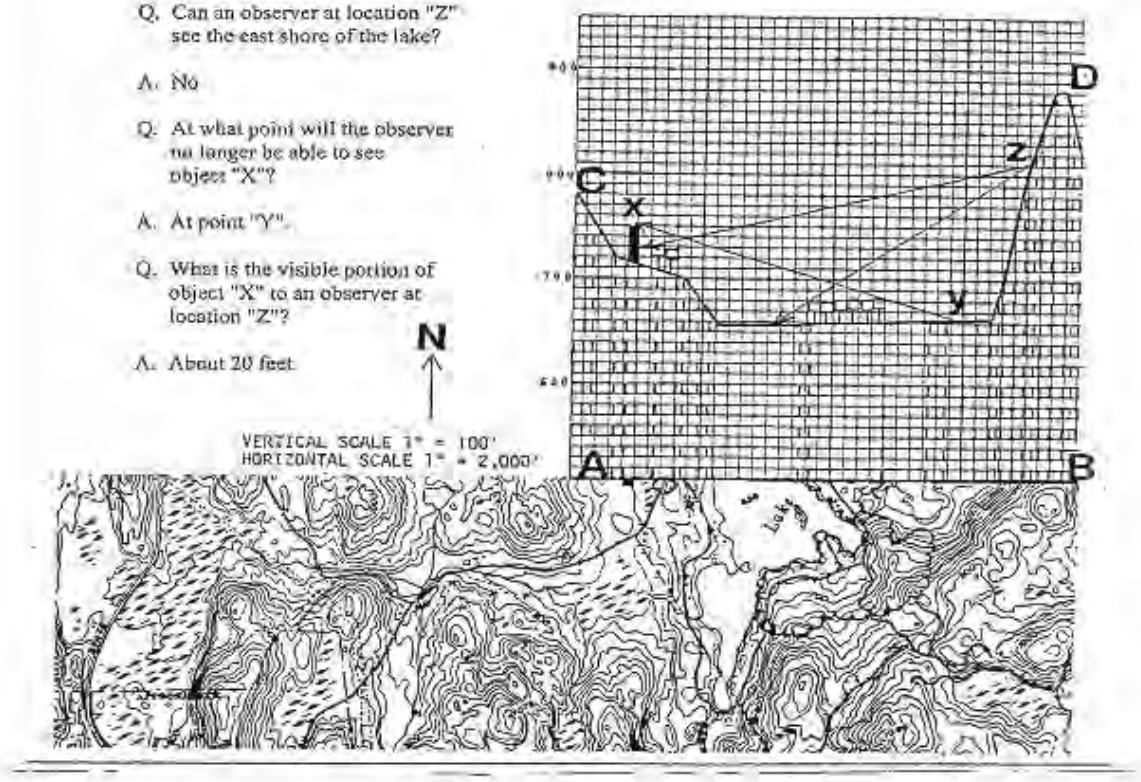
A. No

Q. At what point will the observer no longer be able to see object "X"?

A. At point "Y".

Q. What is the visible portion of object "X" to an observer at location "Z"?

A. About 20 feet



APPENDIX D

CANYON OAKS STORY POLES

Canyon Oaks
Story Poles Discussion

CITY *of* CALABASAS

A request to install story poles, per the attached story pole plan, for the proposed development of a 77-acre vacant site located at 4790 Las Virgenes Road at the eastern terminus of Agoura Road (APNs: 2069078009 and 2069078011). The proposed project includes: (1) a residential component consisting of 67 single-family detached homes and four affordable units located within two duplexes; and (2) a commercial component consisting of a four-story hotel. Approximately 80% of the site would be preserved as permanent open space.

Location Map

500' Scenic Corridor Buffer

Project Site

CITY of CALABASAS

File No. 140000011

A request to install story poles for the proposed development of a 77-acre vacant site located at 4790 Las Virgenes Road.

Planning Commission

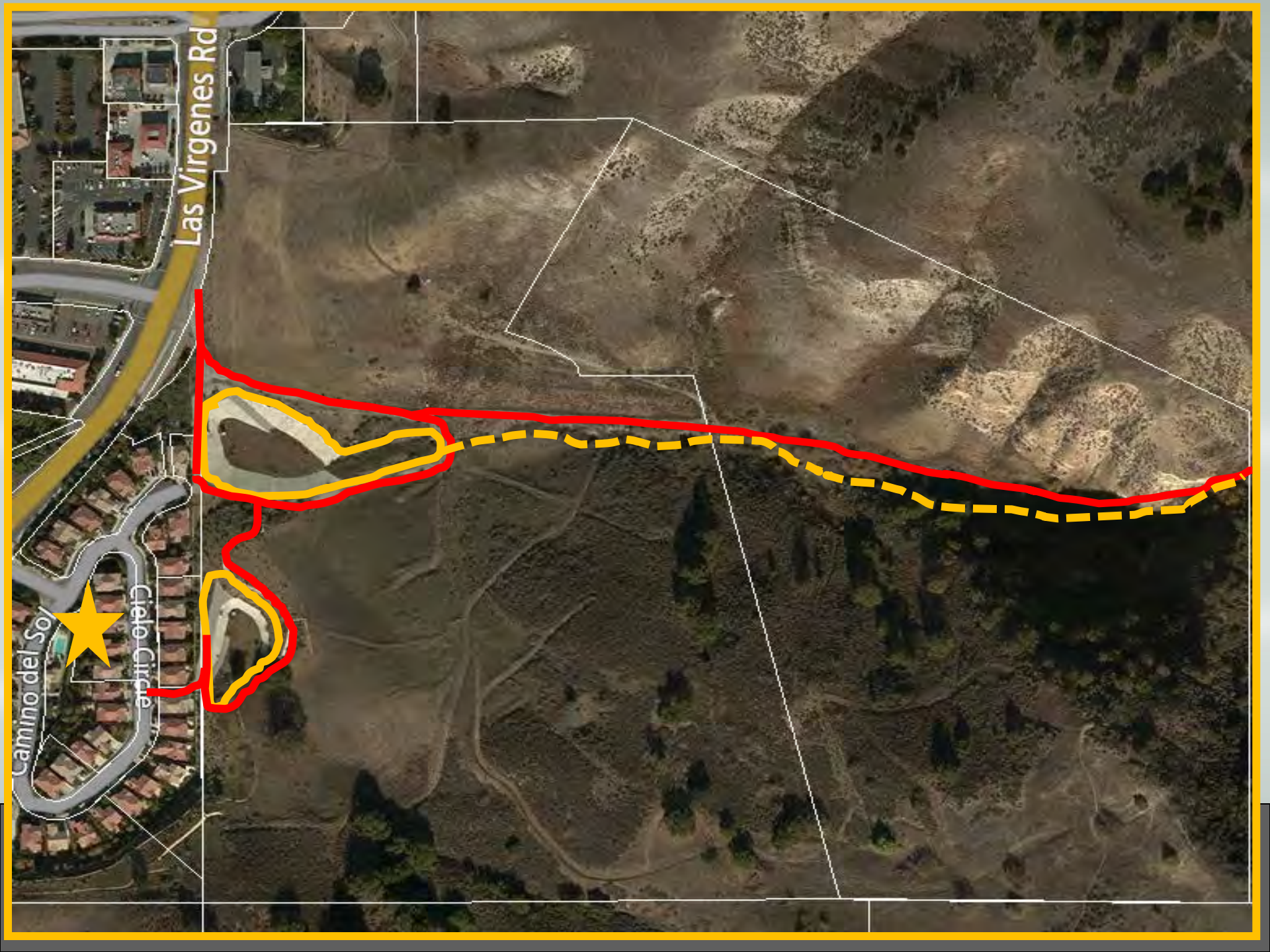
January 21, 2016

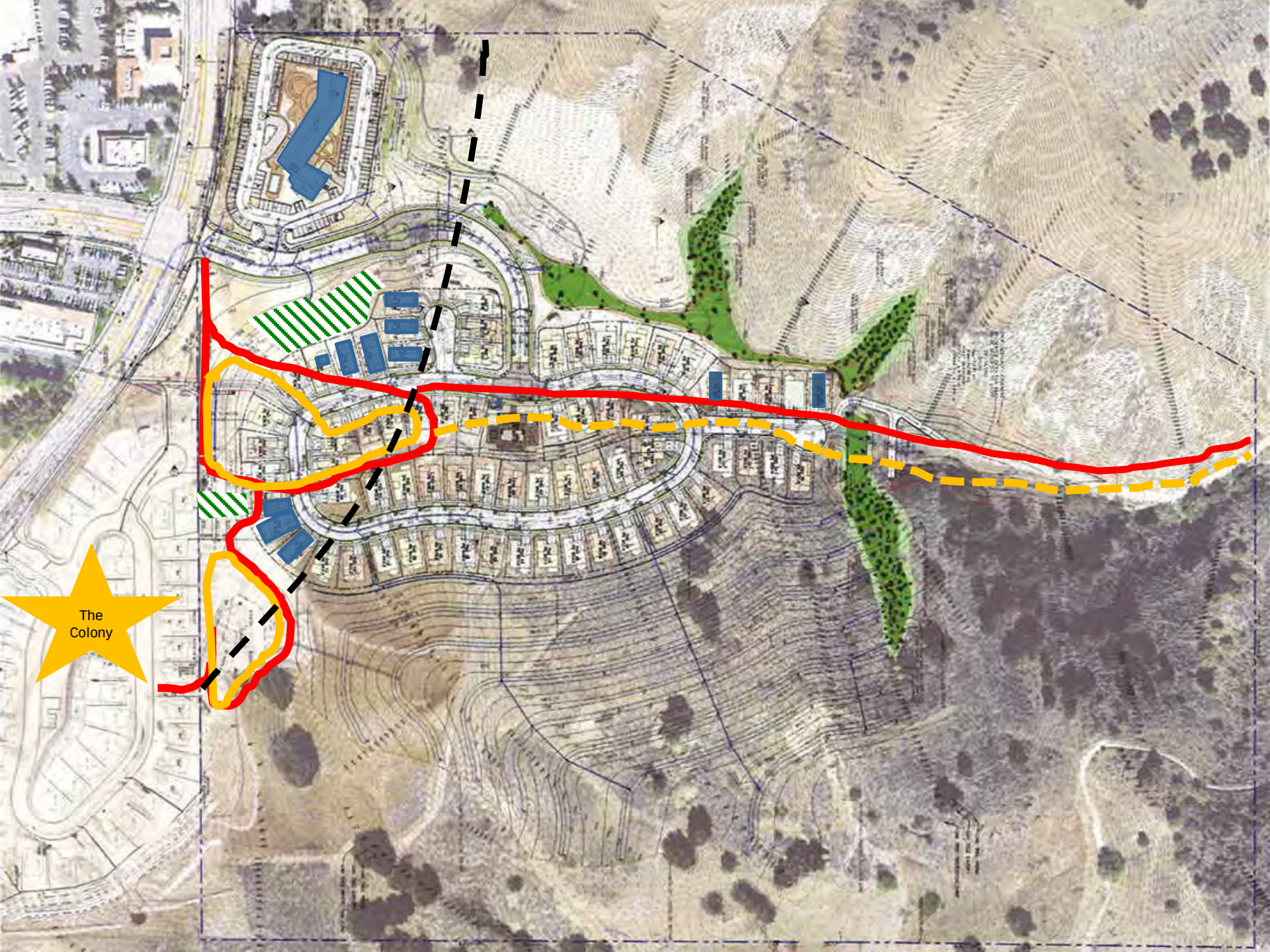
Proposed Development Summary

- The project site is currently zoned PD – RMF (20) – OSDR.
- Commercial component: 120-room, 66,516 square-foot hotel on approximately three acres;
- Residential component: 67 small lot, single-family residences and two duplexes (four units) on approximately 13 acres;
- Approximately 61 acres of dedicated open space.
- The project site is located within the Las Virgenes Road Scenic Corridor. The hotel and 19 of the 71 total residential units fall within the 500-foot Las Virgenes Road scenic corridor buffer.

Review Authority

- Per the City of Calabasas Story Pole Procedures:
  - Story poles are required for all new projects located within a Scenic Corridor Overlay Zone.
  - Story poles are required for all projects seeking an exception in building height by way of variance or development plan, and the subject project does include a development plan request to exceed a height of 35-feet). *Hotel component*
- The Planning Commission is being requested to review the proposed story pole plan due to the impracticability of erecting the poles for the all of the houses in the scenic corridor in complete compliance with the guidelines.
- Story Pole Goals: (1) public notification; (2) assessment of visual impact.


Las Virgenes Rd
Camino del Sol
Cielo Circle

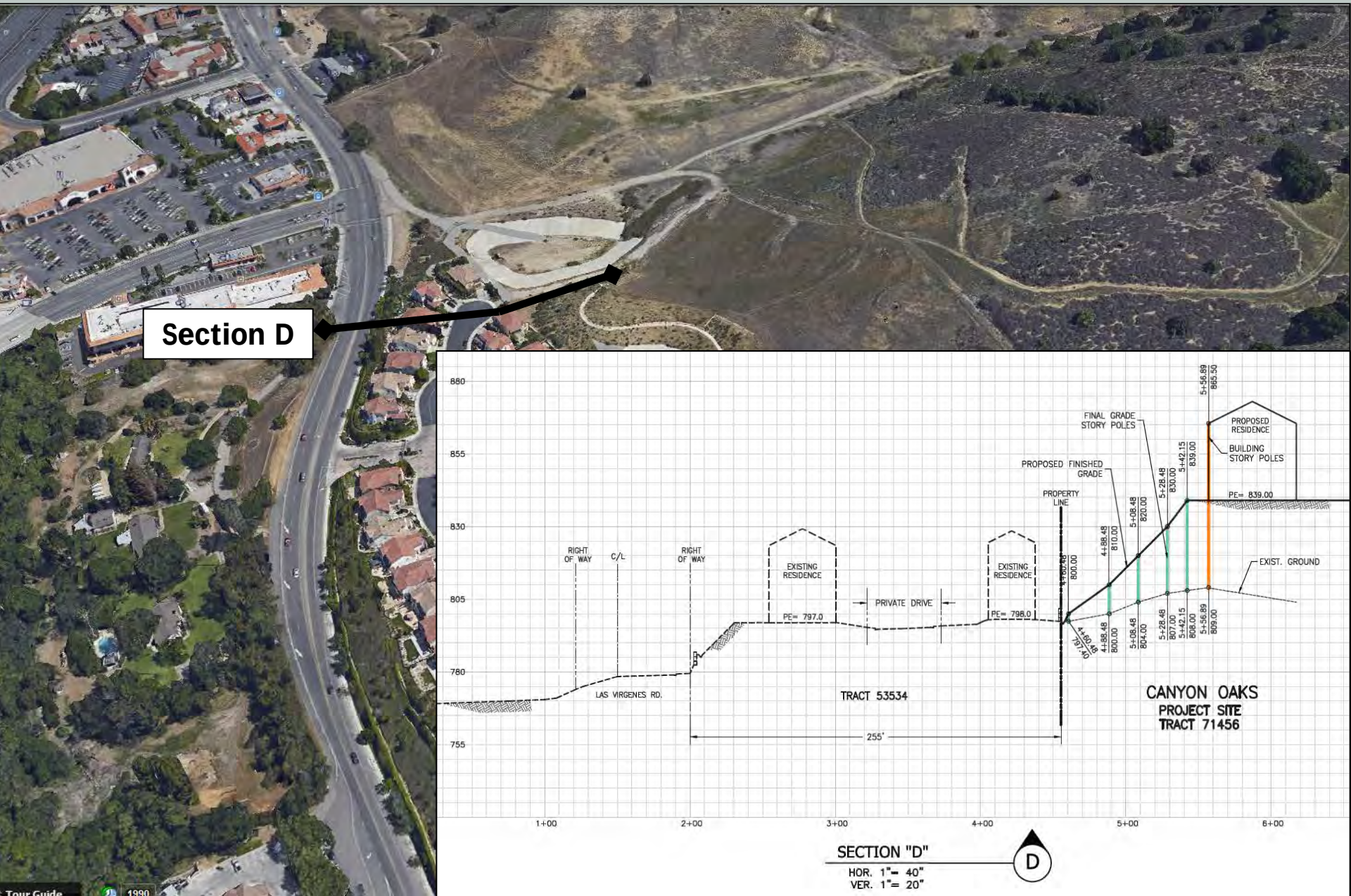

The
Colony

Views from Las Virgenes

Views from Las Virgenes

Views from Las Virgenes

Views from Las Virgenes



Views from Las Virgenes

Views from Las Virgenes

Views from Las Virgenes

Story Pole Plan

Hotel + Story Poles

CITY of CALABASAS

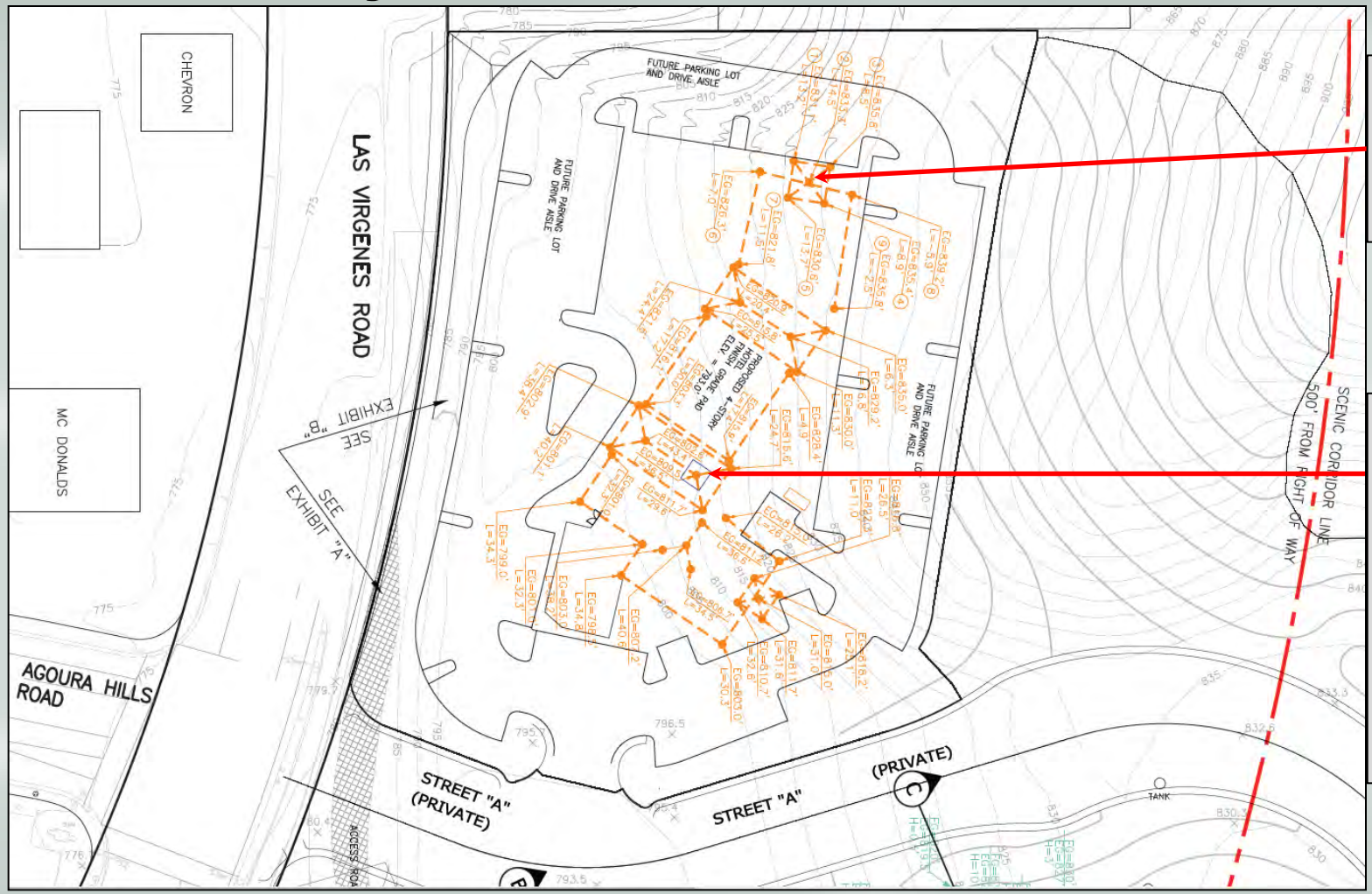
File No. 140000011

A request to install story poles for the proposed development of a 77-acre vacant site located at 4790 Las Virgenes Road.

Planning Commission

January 21, 2016

Story Pole Plan - Hotel



Tallest point of proposed building = 54.9'

Tallest Pole:

Pole Height = 36.5'

Proposed Tower Height = 53'

CITY of CALABASAS

File No. 140000011

A request to install story poles for the proposed development of a 77-acre vacant site located at 4790 Las Virgenes Road.

Planning Commission

January 21, 2016

Proposed Residential Development + Story Poles

CITY of CALABASAS

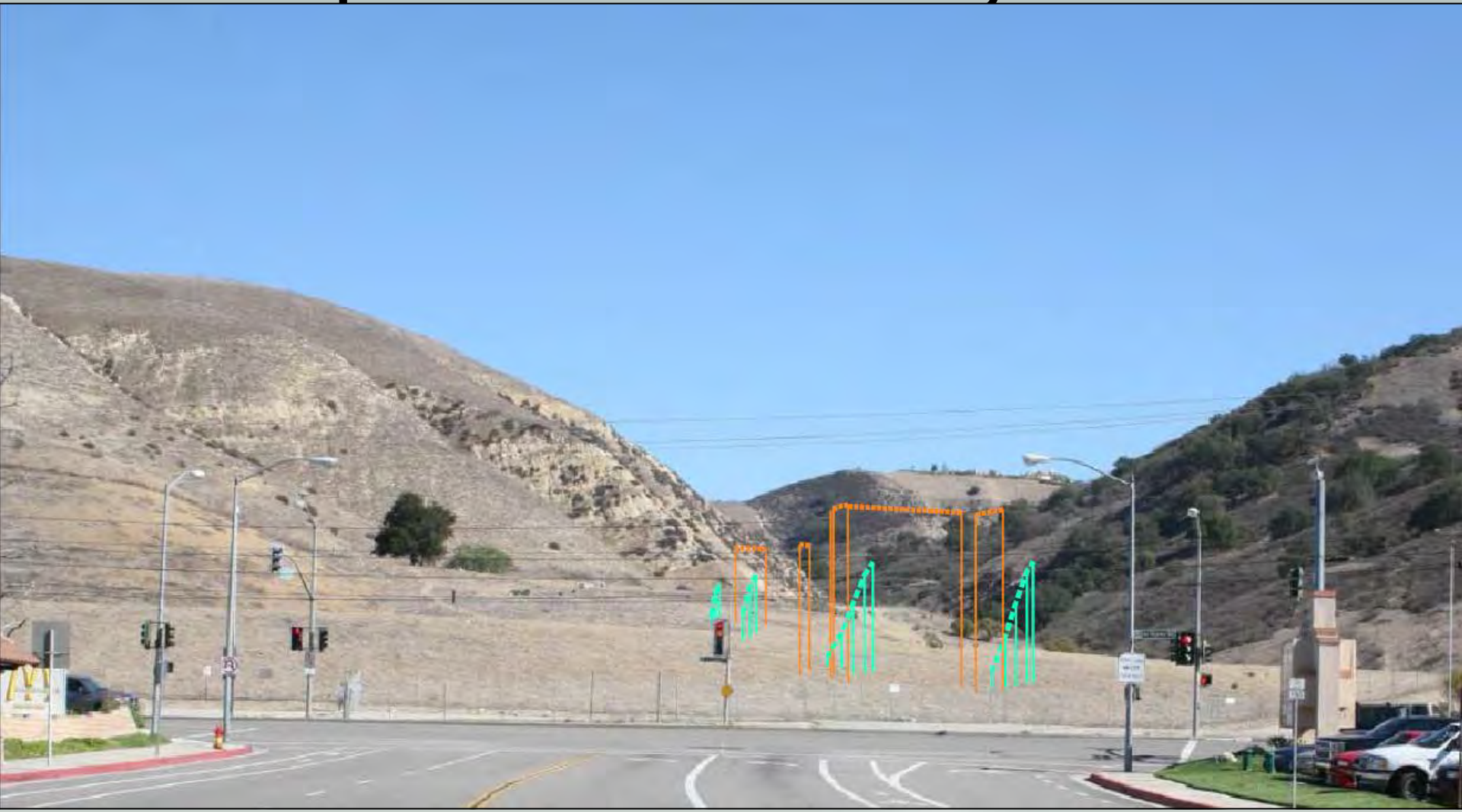
File No. 140000011

A request to install story poles for the proposed development of a 77-acre vacant site located at 4790 Las Virgenes Road.

Planning Commission

January 21, 2016

Proposed Res. Story Poles



CITY of CALABASAS

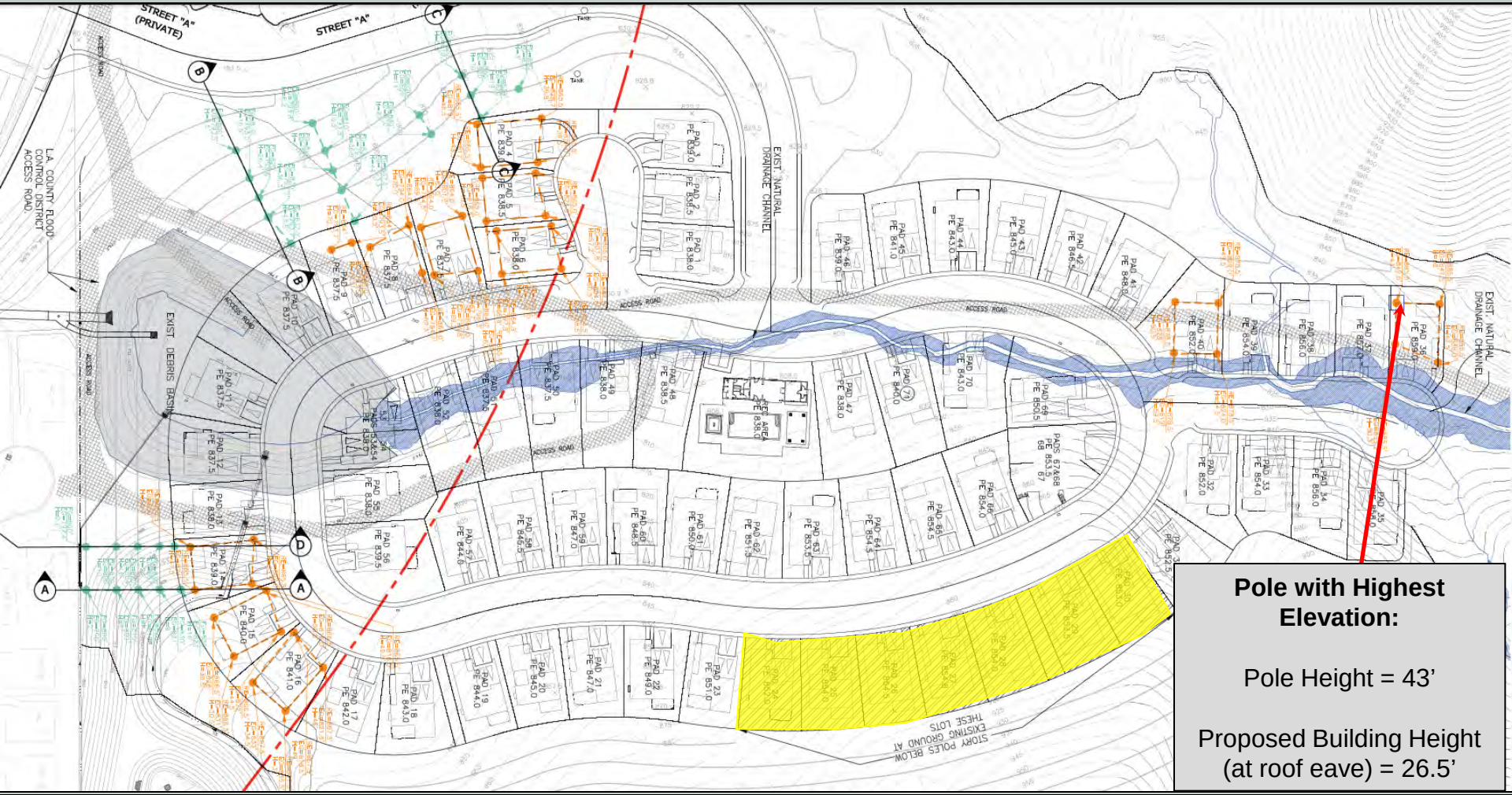
File No. 140000011

A request to install story poles for the proposed development of a 77-acre vacant site located at 4790 Las Virgenes Road.

Planning Commission

January 21, 2016

Story Pole Plan - Residential



Pole with Highest Elevation:

Pole Height = 43’

Proposed Building Height (at roof eave) = 26.5’

CITY of CALABASAS

File No. 140000011

A request to install story poles for the proposed development of a 77-acre vacant site located at 4790 Las Virgenes Road.

Planning Commission

January 21, 2016

Recommended Action

That the Commission authorize the applicant to proceed with the proposed story pole plan.

APPENDIX E

WAIKAPU COUNTRY TOWN VISUAL IMPACT ASSESSMENT

CHAPTER V

Affected Human Environment, Potential Impacts and Mitigation Measures

6. Visual Resources

Existing Conditions. The WCT project area is located between the town of Wailuku to the north and Māʻalaea to the south along the Honoapiʻilani Highway. The project site generally slopes from west to east with a high elevation of approximately 710 feet mean sea level (msl) at the northwesterly corner and a low elevation of about 256 feet above msl at the southerly corner, within the fertile Central Maui isthmus.

Views from within the project site are both diverse and dramatic. Largely unobstructed views of Haleakalā, the West Maui Mountains, the Central Maui isthmus and the Pacific Ocean are available at the mid and upper elevations. At the higher elevations Wailuku and Kahului, East Maui and South Maui are all visible. From the lower elevations largely unobstructed views are available of the West Maui Mountains, Haleakalā, and sugar cane lands that stretch from Honoapiʻilani Highway to Māʻalaea and Kīhei.

These same lower elevation views are presently available from Honoapiʻilani Highway looking into the project site. The existing mauka view from Honoapiʻilani Highway into the project site is of agricultural fields planted in sugar and diversified crops, the MTP, and the valley and ridgelines of the West Maui Mountains. The makai view from the highway, where not obstructed by right-of-way vegetation, is of the existing sugarcane fields and Haleakalā. When the sugarcane has been harvested there are intermittent views of the ocean horizon (**See:** Figure 8 A-N, "Site Photographs").

Potential Impacts and Mitigation Measures. Chris Hart & Partners, Inc. prepared an island-wide Scenic Resources Inventory Study for the County of Maui, Department of Planning, in July 2006 in support of the General Plan 2030 Update. The purpose of the study was to inventory and rate the island's scenic resources so that appropriate advanced planning and mitigation strategies could be employed to protect these resources. The MIP incorporates the study's scenic roadway corridor recommendations into its "Context and Character Map" and references the corridors in policies within Chapter 3, Heritage Resources (**See:** Figure No. 34, "Maui Island Plan, Context and Character Map").

"Registered Historic Parcels" and "Registered Historic Sites" only represent those listed on State or National Registers and included within Maui County's GIS system. Sites shown are not all-inclusive and do not represent all historic sites on Maui. As additional data becomes available it will be integrated into future mapping.

Kahana
Ka'anapali
Lahaina
Wailuku
Kahului
Pa'ia
Ha'iku
Keanae
Hana
Property Location
Olowalu
Pukalani
Makawao
Kihei
Keokea
Kipahulu
Makena

This map is for informational purposes only and subject to change based on future research and findings.

Figure 34: MIP Context & Character Map

Character & Context Map

Island of Maui

Background Map

For Informational Purposes Only

Legend

- Primary Road
- Na Ala Hele or Other Trail
- Stream
- Wetland, Pond or Reservoir
- Waterfall
- Registered Historic Site
- Registered Historic Parcel
- Parks

Scenic Corridor
- Exceptional
- High
- Medium

Boating Facility
- Boat Launch Ramp
- Small Boat Harbor

Aquatic Activity
- Ocean Recreation
- Board Surfing
- Body Surfing
- Canoe Paddling
- Snorkling/Diving

Miles 0 1 2 3 4 5 6

Product Code: M-CET_20120920-a1
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This is not a zoning map. Please contact the Planning Department for Zoning confirmation.

Prepared by:
Long Range Planning Division
Department of Planning
County of Maui
250 South High Street
Wailuku, Hawaii 96793

Map I-1

The Scenic Resources Inventory Study identifies the area along Honoapi'ilani Highway, fronting the project site, as an area of "High" scenic resource value. In the study, areas of "Exceptional" and "High" resource value are described as having "dramatic and diverse resource values consistently throughout the corridor" and are "typically in a natural condition and unmarked by development." The study's GIS inventory provides "field study" notes that describe the character of the subject corridor. The notes describing the Honoapi'ilani corridor, fronting the project site, are as follows:

> *"High concentration of agricultural lands; open space; and distant Haleakalā views. Intact West Maui mountain views and expansive views of Mā'alaea and the Kīhei coastline and Lana`i views exist. There is considerable utility clutter along the highway. Sprawl conditions along the highway between Waikapū and Mā'alaea should be avoided through the establishment of clear boundaries and features such as landscape plantings and entry signage."*

Chapter 3, Heritage Resources, of the MIP contains policies that discourage sprawl and the merging of the island's small towns. MIP policies also protect views of Haleakalā, the West Maui Mountains, the Pacific Ocean and other scenic resources. As such, design strategies are needed to mitigate the impact of the WCT on visual resources from the Honoapi'ilani Highway fronting the project site. The following documents scenic resource impacts and describes proposed urban design strategies to help mitigate these impacts.

- ***Sprawl.*** The WCTs urban and rural development will have approximately 4,700 linear feet of frontage along the Honoapi'ilani Highway. The proposed development pattern will produce a significant change from the largely undeveloped and open space views that currently exist along what will become the frontage of the project. It is unavoidable that the current open space views of sugarcane will be impacted by the development. However, the following urban design and landscape architectural treatments will be implemented to help reduce the appearance of sprawl like conditions and to create an aesthetically pleasing sense of place fronting the project site:
    - ***Large Setbacks along the Highway.*** Setbacks of at least 60 feet, and in some areas significantly more than 60-feet, will be utilized along each side of the

Honoapi'ilani Highway to separate the development from the public right-of-way.

- ***Landscape Planting within the Right*-of-Way**. Within the setbacks, the planting of large canopy Monkey Pod trees, tropical shrubs and ground covers will be maintained to create a sense of separation and definition between the urban development and the highway and to create a green canopy enclosure and greenway as a passage through the town.
- ***Separated Pedestrian and Bicycle Facilities***. An approximate 10-feet wide shared pedestrian and bicycle track, separated from the highway, will meander along the highway frontage. The shared use path will promote non-motorized transportation, while producing more opportunities for the public to experience the pleasant scenery along the highway.

- ***Haleakalā and West Maui Mountains from Honoapi'ilani Highway***. From Honoapi'ilani Highway, the elevation of the project site rises rather gradually, at a 3% to 6% slope, from about 325-feet above msl to about 550-feet above mls where the Waikapū Ditch traverses north to south across the property. From the Waikapū Ditch the slopes increase to between 10% and 15% as the elevation increases to the foot of the West Maui Mountains. The foot of the West Maui Mountains is at an elevation of approximately 1,250 feet at the upper reaches of the WCT property and is about 6,800 feet from the highway.

  In order to mitigate the obstruction of views from the highway to the West Maui Mountains and Haleakalā, buildings will be setback at least 75-feet from the highway and building heights will be limited to a maximum of 30-feet along the highway frontage. Building placement and areas of separation will also help to create view corridors between the highway and the mountains.

  Within the project, roadways are purposefully aligned, where practicable, to capture mauka and makai view corridors. This opportunity exists at each entrance into the project site and along these roads as they travel east to west. In addition, views of the West Maui Mountains, Haleakalā and the Pacific Ocean will also be preserved in various

locations from public spaces within the WCT, including the Village Green, the Waikapū River Park, Waihe'e Ditch Greenway and the Waikapū Station Greenway.

- ***Open Space Resources***. The project will impact views of agricultural lands on each side of the Honoapi'ilani Highway fronting the development. While these views are not unique within Central Maui, they do enhance Maui's beauty and are an important visual resource. In order to mitigate this impact, approximately 800 acres of agricultural land will be preserved in perpetuity as an open space buffer and permanent separation between Waikapū Town and Mā'alaea. Along the section of the highway where agricultural land is to be preserved, largely unobstructed views of Haleakalā, the West Maui Mountains and partial views of the Pacific Ocean exist.

Within the project site, the WCT will transform the current character of the MTP from a visitor oriented attraction to a park-like village center, with its existing lagoon, gardens, open spaces, shops, and restaurant coming together to create a new sense of place. While the existing agricultural and open space ambiance of the lands abutting the MTP will become an urban and rural settlement pattern, the WCT will maintain a rural and agricultural ambiance at its boundaries because of the preservation of agricultural lands and incorporation of agricultural supporting activities, such as a farmers market, within the project site.

From an urban design perspective, the proposed project will complement the unique country-town architectural character that exists in Waikapū, Wailuku, Pā'ia, and Makawao. WCT design guidelines are being developed to control the density, architectural design, and variation of all buildings in the WCT to help preserve scenic resources and the aesthetic character of the development. Goals of the design guidelines will be to preserve views and maintain the aesthetic character of the community. A defining quality of the urban design character of the development will be to create architecturally pleasing streets with landscape planting that frames the travel ways and provides scale around architectural elements. As part of the DEIS, a visual impact assessment was conducted to determine how views might be impacted along Honoapi'ilani Highway, fronting the project site, following the Project's build-out. Figure No. 35 A-E, is a simulation of before project and after project views along Honoapi'ilani Highway.

1. ***Before***. Looking in a south-easterly direction towards sugar land with Haleakala in the background.

1. ***After***. Looking in a south-easterly direction over the makai development with Haleakala in the background and separated pedestrian and bicycle path in the foreground.

Figure 35, A
Visual Simulation of Pre- and Post Project Views

WAIKAPŪ COUNTRY TOWN

HAWAII LAND DESIGN

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2. ***Before***. Looking in a south-easterly direction towards sugar land with Haleakala in the background.

2. ***After***. Looking in a south-easterly direction over the makai development with canopy trees in the background and separated pedestrian and bicycle path in the foreground.

Figure 35, B
Visual Simulation of Pre- and Post Project Views

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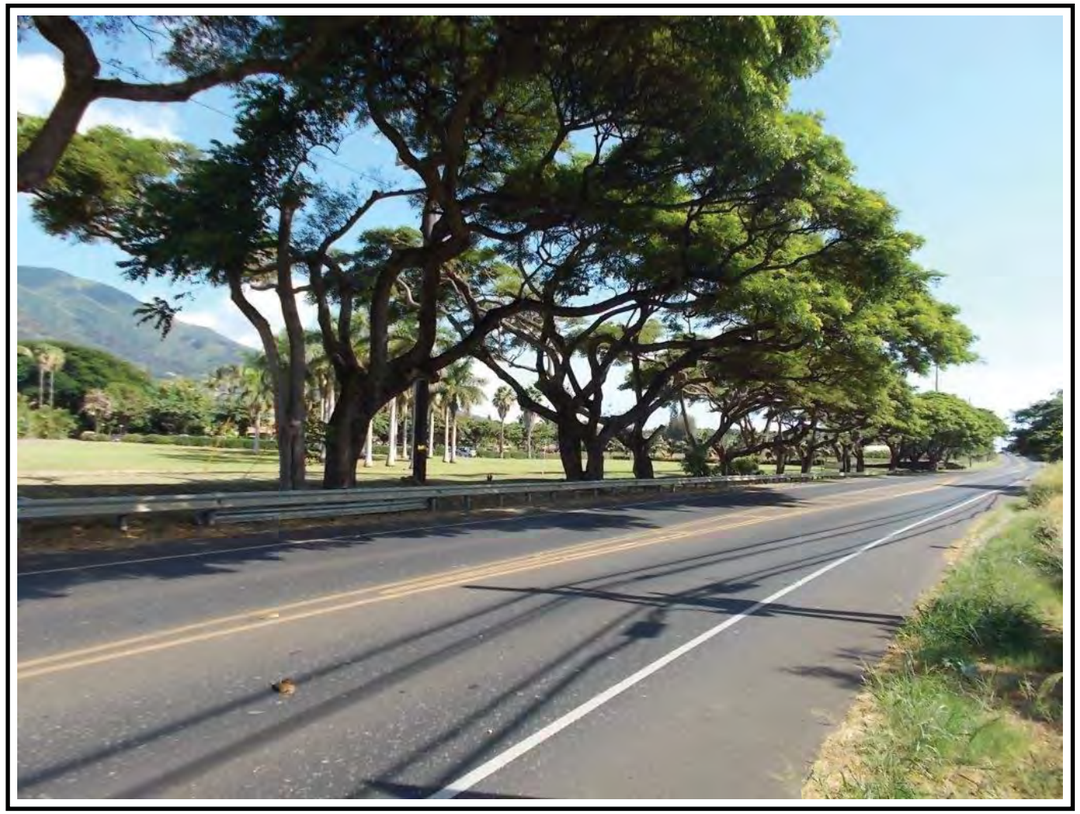

3. ***Before***. Looking in a north-westerly direction with the West-Maui Mountains in the background and the MTP grounds in the foreground.

3. ***After***. Looking in a north-westerly direction through the project with the West-Maui Mountains in the background.

Figure 35, C
Visual Simulation of Pre- and Post Project Views

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4. ***Before***. Looking in a south-westerly direction through the MTP with the West Maui Mountains in the background.

4. ***After***. Looking in a south-westerly direction through the project with the West Maui Mountains in the background and the separated pedestrian and bicycle path in the foreground.

Figure 35, D
Visual Simulation of Pre- and Post Project Views

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5. ***Before***. Looking in a westerly direction through the MTPs agricultural fields with the with the West Maui Mountains in the background.

5. ***After***. Looking in a westerly direction through the project with the West Maui Mountains in the background and the separated pedestrian and bicycle path in the foreground.

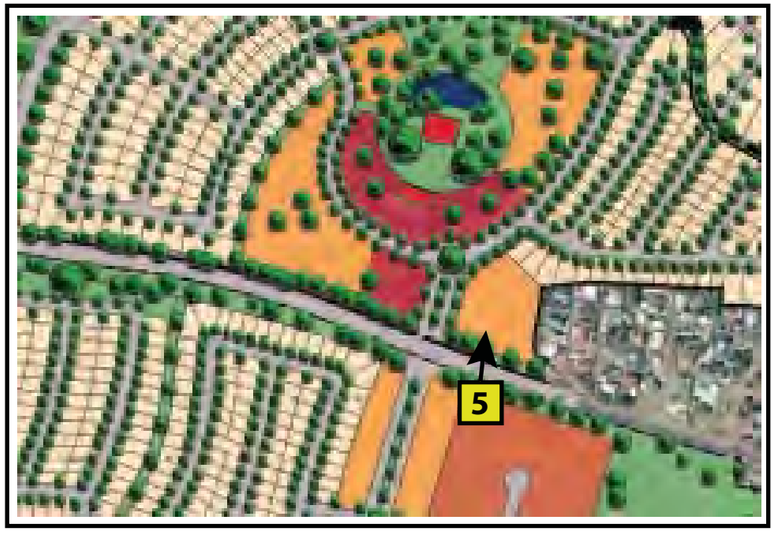

Figure 35, E
Visual Simulation of Pre- and Post Project Views

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APPENDIX F

THE SILL, LANDSCAPE AND VISUAL IMPACT ASSESSMENT

Planning Application for the demolition of existing National Park Visitor Centre (D1), Offices (B1), Retail (A1) and Café (A3) and 79 bed Youth Hostel (Sui Generis) and associated car parking, and redevelopment of site as new Landscape Discovery Centre incorporating Exhibition Space (D1), Retail (A1), Café (A3), Offices (B1) and 86 bed Youth Hostel (Sui Generis) together with 87 Permanent Car Parking Spaces, 93 Overflow car parking spaces, associated landscaping, substation and crossing point across the B6318 Military Road, pedestrian ramp within the roadside ditch and formation of pedestrian refuges and route within wooded copse. Application situated at land South and North of the B6318 at Once Brewed, Haydon Bridge, Northumberland, NE47 7AN

Northumberland National Park

yha be inspired

heritage lottery fund LOTTERY FUNDED

Landscape and Visual Impact Assessment

THE SILL LANDSCAPE DISCOVERY CENTRE AND YOUTH HOSTEL

LANDSCAPE AND VISUAL IMPACT ASSESSMENT:

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1.0 Introduction

1.1 Scope of assessment

1.1.1 This Landscape and Visual Impact Assessment (LVIA) considers the anticipated landscape and visual effects arising from construction of a proposed new Landscape Discovery Centre and Youth Hostel by Northumberland National Park Authority in partnership with the Youth Hostel Association. The new facilities are to replace those currently present on the site at Once Brewed. The assessment has been undertaken by a member of staff at Glen Kemp Ltd. who is a Chartered Member of the Landscape Institute.

1.1.2 Having first established the planning policy context for the site in question, the report sets out the methodology upon which the assessment has been based. It is important that the methodology employed is transparent if the findings are to be interpreted correctly by the reader. In broad terms, both the sensitivity of the landscape / visual receptor and the anticipated magnitude of change resulting from the development are analysed and by combining these two factors, a level of significance of effect (which may be positive or adverse) is predicted.

Effects on the landscape.

1.1.3 A description of the baseline physical and perceptual landscape of both the proposed development site and the broader study area, includes a review of its recognised value. The likely impacts on the landscape resulting from the development are then identified and the resulting effects noted. This includes direct effects on physical elements within the landscape and indirect effects on landscape character and distinctiveness.

Visual effects

1.1.4 In assessing visual effects, this report identifies and examines the nature of the public and private views from the surrounding area which could be affected by the proposed development and predicts the magnitude of the 'degree of change' in view and – taking account of the sensitivity of the visual receptor – evaluates the significance of the anticipated visual impact resulting from the proposed development.

1.1.5 Photomontages and visual impact schedules based on selected viewpoints from within the study area are used to assist the assessment of visual effects.

Cultural heritage

1.1.6 The archaeological and cultural heritage within this part of the Northumberland National Park is of international importance and fundamental to the unique character of the landscape within the study area. While this report makes an assessment of the anticipated effects on the physical landscape and its perceived character, an assessment of the effects on the setting of designated heritage assets such as the Hadrian's Wall World Heritage Site and associated Scheduled Ancient Monuments is specifically excluded. Such an assessment is the remit of the specialist archaeologist or landscape historian using a methodology established by English Heritage ('Seeing the History in the view: A method for assessing heritage significance within views', 2008). Such an assessment is covered in the relevant section of the Environmental Statement prepared for this development project.

Effects and mitigation

1.1.7 The potential landscape and visual effects are identified for the demolition, construction and management stages of the project and, where relevant, an assessment is made of how mitigation measures have been used to minimise the significance of any adverse effects on the landscape or visual amenity. Finally, residual effects – those that would remain after mitigation measures have been employed – are identified.

2.0 Policy Context

2.1 Introduction

2.1.1 This section provides a brief review of existing policy and management strategy frameworks which are directly relevant to landscape issues relating to the proposed development. It concentrates primarily on the Northumberland National Park Management Plan and the Northumberland National Park Local Development Framework (LDF) and the relevant documents contained within it, but also makes reference to the External Lighting Management Plan prepared as part of the successful bid to the International Dark Sky Association for Dark Sky Park status .

2.2 Northumberland National Park Management Plan 2009 – 2014:

2.2.1 The Northumberland National Park Authority (NNPA) was established in 1997 as a special purpose local authority with the role of delivering the specific National Park statutory purposes as set out in law. The two statutory purposes are: i) to conserve and enhance the natural beauty, wildlife and cultural heritage; and ii) to promote opportunities for the understanding and enjoyment of the special qualities by the public - the first purpose taking precedence over the second in instances where the two purposes might conflict with each other.

2.2.2 The NNP Management Plan is the over-arching strategic document setting out the guiding principles, vision, objectives and actions for managing the National Park and outlines the framework which will guide Park's future and ensure delivery of the two statutory purposes. It also identifies an additional statutory duty, that of fostering the economic and social well-being of local communities within the National Park, in recognition of the fact that the living and working landscape and the Park is the result of the interaction of human activity and natural forces. Consequently, local communities need to be empowered to take on an active role as custodians of the landscape and the concept of 'Action Area' working has been adopted by NNPA as a framework to enhance the variation in locally distinctive character throughout the Park. Four Action Areas have been identified, the proposed development site falling with the Hadrian's Wall and South Tyne Action Area.

2.2.3 The four guiding principles identified as underpinning the delivery process are:

i) *sustainable development* – "The National Park will aim to serve as a model of sustainable development within the North East Region".

ii) *equality and diversity* – "Northumberland National Park is for everyone and should be accessible to the whole community regardless of economic social or physical constraints".

iii) *partnership working*

iv) *transparency and openness*.

2.2.4 The 'special qualities of the National Park are identified as being:

i) A distinctive landscape character – a stunning and varied landscape, a key characteristic of which is its "openness, with landscapes and horizons free from significant human intrusions which contribute significantly to the high levels of tranquillity";

ii) A landscape rich in biodiversity and geology;

iii) A rich cultural heritage, reflected in the many layers of historic landscape in the Park ;

iv) A true sense of tranquillity – freedom from noise and visual disturbance is a key component of experiencing the National Park. It is an area with an emotional and spiritual quality. One third of respondents to a visitor survey in 2007 stated that tranquillity was the thing they liked most about the Park.

2.2.5 In addition, a survey by the Campaign for the Protection of Rural England (CPRE) in 2006 identified Northumberland as the most tranquil local authority on England, and this is one of the characteristics most valued by visitors to the Northumberland National Park.

2.2.6 Together, these qualities have helped shape the vision for the National Park which is summarised in the vision statement:

"*Northumberland National Park will be a truly welcoming and distinctive place, easily accessible to all. Its inspiring and changing landscapes, characterised by open spaces, tranquillity, diverse habitats, geology and rich cultural heritage, will be widely recognised and valued. The living, working landscape will contribute positively to the well-being of the thriving and vibrant communities in and around the Park*".

2.2.7 In turn, the vision of the Park is embedded in five Strategic Aims, set out below, with outcomes relevant to this assessment noted as follows:

1) A welcoming Park – i) people who come to the National Park will feel they have had an exceptional experience in relating to the landscape and in finding peace, tranquillity and adventure; ii) the National Park will be accessible to a wider and more diverse audience; iii) a more diverse range of learning opportunities will be available.

2) A distinctive place – i) that will maintain a sense of inspiration and tranquillity; ii) the natural qualities and diverse habitats will be safeguarded and enhanced.

3) A living, working landscape for now and the future

4) Thriving communities

5) A valued asset.

2.2.8 Of particular relevance to this assessment is the Strategic Aim of delivering a 'distinctive place'. This has generated a number of objectives directly relevant to landscape with the most notable means of achieving them outlined below:

Objective	*Means to achieve*
To protect and enhance tranquillity levels as the highest in England	*New development to be in line with policies set out in the LDF.*
To ensure all new development will conserve or enhance the natural and cultural qualities of the National Park.	*Ensure effective design guidance is promoted and good design is celebrated.*
Ensure visitor and recreational use complements the character and capacity of the locations in which it takes place.	*Positively promote and enhance low impact recreational access to tranquil areas.*

2.3 Northumberland National Park Local Development Framework:

2.3.1 The LDF consists of a set of documents which together guide new development in the National Park and assist in delivering the strategy set out in the National Park Management Plan. The three documents within the LDF which are of particular relevance to this LVIA are:

1) *Core Strategy and Development Policies Document*

2.3.2 The following policy extracts are of particular note:

Policy 1 – Delivering Sustainable Development: sustainable development should conserve / enhance the special qualities of the National Park, making efficient use of land, materials and infrastructure. It should provide opportunities to understand and enjoy the special qualities of the Park and demonstrate high quality design, promoting accessibility via public transport, cycling or walking.

Policy 3 – General Development Principles: new development must promote principles of sustainable development, protecting and enhancing local character and distinctiveness through careful integration with the existing built form. It should be sympathetic in terms of scale, height, massing, siting, form, materials, colour and to the protection of open space which contributes to the amenity, character and setting of a settlement. The well being of local communities should be supported by ensuring amenity is not adversely affected in terms of visual impact, pollution, noise and waste and that services and infrastructure can be provided without compromising the quality of the landscape.

Policy 19 – Tranquillity: Development proposals which conserve or enhance the tranquillity of the National Park will be supported. In order to determine the extent to which tranquillity is affected there will be an assessment of the impact on the level of noise, traffic and light generated; on the sense of openness of the National Park and on the quite enjoyment of the landscape.

Policy 20 – Landscape Quality and Character: All proposals will be assessed in terms of their impact on landscape character and sensitivity as defined in the Landscape Supplementary Planning Document. Development which would adversely affect the quality and character of the landscape will not be permitted.

2) *Landscape Supplementary Planning Document*

2.3.3 The above document aims to assist an assessment of the potential impact of development on the landscape of the National Park and is to be considered alongside a broader Landscape Strategy which it is understood is under preparation. It builds on the work of Natural England in assessing landscape character. Consequently, the relevant content of this Supplementary Planning Document is referred to in section 4.3 which considers issues relating to landscape character.

3) *Design Guide Supplementary Planning Document*

2.3.4 This is the current format of a Building Design Guide which has been in use since 1995. Rather than setting out new policy, the Supplementary Planning Document (SPD) helps interpret existing policies. This specific SPD aims to improve the quality of the built environment and safeguard the special qualities of the area, while at the same time promoting sustainable construction. It is intended to help deliver the vision that all development will contribute to protecting, sustaining and enhancing the special qualities of the National Park, and that it will be sensitively located and designed.

2.3.5 Guidance of particular relevance to the development project is noted below:

- Form and hierarchy is evident in individual buildings within the National Park and has traditionally been dictated by function and intended status.
- The building materials used often reflects what materials were locally available, the intended status of a building or even what was fashionable at the time of construction. The material most commonly used was stone, reflecting the diverse granites and whinstone.
- External features help tie a building into the wider landscape and anchor it into its setting, occasionally declaring its status.
- New technologies, designs and materials must be embraced and contemporary design is to be supported, but it must be appropriate and locally distinctive.
- Design quality of new development is of the highest importance and should consider siting, massing, scale, proportion, rhythm, materials and colour, as well as the contribution to sustainable development.

Distinct design considerations for new buildings which are either in the 'open countryside' or in a 'settlement' (both of which are applicable to the Once Brewed site given its position within the hamlet of Twice Brewed) are listed.

New development in *open countryside* should:

- take account of wider views into and out of the development site;
- sit comfortably within the site and not harm views through the use of inappropriate materials;
- reflect the form of the surrounding landscape;
- take care not to break the skyline;
- have boundary treatments that avoid a suburbanising effect.

New development within settlements should:

- look at the form and rhythm of existing buildings;
- consider height, scale and massing in relation to surrounding buildings;
- use boundary treatments to anchor the building into the wider setting;
- consider opportunities for creating new habitats.

With regard to external works:

- site boundaries should reflect surrounding character;
- consideration should be given to the facing material of retaining walls;
- hard surfacing should be kept to a minimum and be permeable where possible;
- soft landscaping should use dominant native species and should aim to connect with other natural features to assist the movement of wildlife.

2.4 Hadrian's Wall Management Plan 2008 - 2014

2.4.1 Hadrian's Wall was designated as a World Heritage Site (WHS) in 1987 by the United Nations Educational Scientific and Cultural Organisation (UNESCO) as the most complex and best preserved of the frontiers of the Roman Empire. In 2005 it became part of the transnational WHS called 'Frontiers of the Roman Empire', being judged to be of universal importance to humanity.

2.4.2 As the whin escarpment on which the Wall sits and, to a lesser extent the Wall itself, are prominent features in the landscape in which the development site is located, policies designed to protect the setting of Hadrian's Wall are directly relevant to the Once Brewed site. Indeed the site sits within a designated 'Buffer Zone', mapped as a visual envelope extending 1-6km from the designated WHS itself, one of the primary objectives of which is to protect the WHS from development that would be detrimental to its visual setting.

2.4.3 The Hadrian's Wall Management Plan notes that the "presence of the Wall has had a lasting effect on the landscape and perceptions of it", and that the particular characteristics of the landscape are "its open aspect, the maintenance of space between rural settlements, the existing patterns of fields and open country, the use of traditional local materials in building, and woodland developed to reinforce the patterns of the landscape".

2.4.4 The Hadrian's Wall Path – a National Trail – opened in 2003, running on or close to the remains of the Wall and in 2006 the Hadrian's Cycleway (National Cycle Route 72) was opened.

2.4.5 Appendix 7 of the Hadrian's Wall Management Plan summarises the policies set out within it, listing amongst other things, the need to maintain and reinforce the special character of the Wall landscape including its beauty and natural heritage, and to retain the vitality of the landscape.

2.5 Landscape Character Assessment for Northumberland National Park 2007

2.5.1 This document has been used to inform the content of the Landscape Supplementary Planning Document referred to above and the character of the landscape around the development site is covered in detail in section 4.3 of this report. However, for each Landscape Character Type (LCT) identified in the above Landscape Character Assessment, an outline strategy principle is defined to help shape future management of the specific landscape and guidelines are offered for what is considered to be appropriate land management and development. The strategy for the LCT within which the site is located is set out as follows:

"*This landscape has a strong identity and many valuable landscape features which remain in good condition. The overall strategy for this area is to conserve and sensitively manage*."

2.5.2 With regard to future management, the following guidelines are relevant:

- Forestry and woodland: Restocking of shelterbelts to increase native species. Planting to have softer outlines with shapes designed to integrate with local topography.
- Field boundaries: Rebuilding and restoration of stone walls should be encouraged.
- Historic sites: conservation of historic sites and their settings and areas of earthworks should be encouraged, particularly where they act as local focal points and create strong landscape patterns and textures.
- Tourism and recreation: Any development should be low key, conserving the wild character of the Wall's setting, with care taken to avoid altering or suburbanising the landscape character. New buildings should respect the local surroundings in terms of materials and scale. New development should not be visually prominent and should not detract from the scenic quality of the area.
- Transport: Any improvements to road safety on the Military Road must have minimum visual impact on the open moorland character and the World Heritage Site. Night lighting should be resisted and signage kept to a minimum.

2.6 Exterior Lighting Masterplan

2.6.1 In December 2013 the International Dark Sky Association (IDA) awarded Dark Sky Park status to the combined areas of the Northumberland National Park and the Kielder Water and Forest Park – a total area of 1,482km2. An essential component of the successful bid for Dark Sky Park status was an Exterior Lighting Masterplan (LMP) prepared by Lighting Consultancy And Design Services Ltd. which aims to provide practical advice on mitigating stray light within the Dark Sky Park for the NNPA, adjacent Local Authorities, local businesses and residents. The document is not regulatory but outlines strategies of best working practice with regard to design and planning guidelines and choice of lighting fixtures and correct installation practice.

2.6.2 The LMP sets out nine Plan Statements which describe how a Basic Light Limitation Plan is to be applied to defined 'Environmental Zones' within the Dark Sky Park. The Once Brewed site falls within the broad Environmental Zone E0-250.

2.6.3 Appendix H of the LMP contains a Planning Application Guidance Note for all new or refurbished exterior lighting installations. It confirms that an assessment of existing and future lighting effects should now form an essential element for planning applications within a designated Dark Sky award area. It makes reference to the Institution of Lighting Professionals (ILP) 'Professional Lighting Guide 04: Guidance on Undertaking Environmental Lighting Impact assessments:2013' which focuses on the external lighting aspects of new development applications and includes design and assessment methodology.

3.0 Assessment Methodology & Significance Criteria

3.1 Introduction

3.1.1 The methodology for this LVIA is based on the 'Guidelines for Landscape and Visual Impact Assessment': Third Edition: 2013 (GLVIA 3, 2013), edited by the Landscape Institute and the Institute of Environmental Management and Assessment. This document is regarded as the industry standard work, setting out the principles for the assessment process. While the accepted methodology for LVIA work is now reasonably well established, qualitative judgements and a degree of subjectivity remain a critical part of LVIA with regard to gauging the significance of identified effects for example, or identifying impacts on perceptual aspects of landscape character. Consequently, it is important that such professional judgement is based on a logical and transparent methodology so that it can be examined and understood by others. This section of the LVIA chapter sets out the framework upon which the assessment has been made.

3.1.2 The 'Landscape Character Assessment: Guidance for England and Scotland' published by the then Countryside Agency (2002) in association with Scottish Natural Heritage, has also been used as a reference.

3.2 Landscape and visual effects

3.2.1 Following the recommendation in the GLVIA, in this assessment the term '**impact**' is used to refer to the action being taken and the term '**effect**' is defined as the change resulting from that action. It is the purpose of the LVIA to assess effects both on the landscape as a resource in its own right, and on views of the landscape and general visual amenity.

3.2.2 It should be noted that issues relating specifically to the potential effects of the proposed development on the historic landscape and the setting of sites of cultural heritage significance have been assessed by specialist landscape historians within the Cultural Heritage chapter of the Environmental Statement. Consequently, a detailed analysis of such effects has been excluded from this report.

3.2.3 The GLVIA defines the assessment of **landscape effects** as "*assessing effects on the landscape as a resource in its own right.*" Components of the landscape that are likely to be affected by a proposed development are referred to as *landscape receptors* and can include individual elements or features, overall character and key characteristics and aesthetic or perceptual aspects. Landscape effects derive from changes in the physical landscape which may give rise to changes in its character and how this is experienced. This may in turn affect the perceived value ascribed to the landscape.

3.2.4 The Guidelines define the assessment of **visual effects** as "*assessing effects on specific views and on the general visual amenity experienced by people.*" People who will be affected by changes in views or visual amenity are referred to as *visual receptors* and visual effects relate to the changes that arise in the composition of available views as a result of changes to the landscape, to people's responses to the changes, and to the overall effects with respect to visual amenity.

3.2.5 Landscape and visual effects can be negative (adverse) or positive (beneficial). They can be direct, indirect, secondary or cumulative and be either permanent or temporary (short, medium or long term). They can also arise at different scales (local, regional or national).

3.2.6 The level of significance ascribed to landscape and visual effects depends primarily on the interaction between, and combination of, the ***sensitivity*** of the landscape / visual receptor and the scale, or ***magnitude*** of the predicted effects of the development.

3.2.7 To assess levels of sensitivity, both the ***susceptibility*** of the receptor to the type of change arising from the specific development proposal and the ***value*** attached to the receptor, need to be considered. In assessing landscape value, a measure of the physical state of the landscape (ie. its *condition* or *quality*) may be made in terms of its intactness from a visual, functional or ecological perspective. It also 'reflects the state of repair of individual features and elements which make up the character in any one place', (Countryside Agency & Scottish Natural Heritage, 2002).

3.2.8 In considering the magnitude of change, judgements need to be made about the size and scale, geographical extent and the duration and reversibility of the effect identified. Once levels of receptor sensitivity and the magnitude of change resulting from a specific effect have been defined, a judgement can be made about the overall **significance** of the landscape / visual effect.

3.2.9 To assist in establishing clarity and transparency of the assessment process used in this LVIA, the criteria for the classification of: i) receptor sensitivity; ii) the value of the baseline landscape and visual receptors, iii) the magnitude of landscape and visual effects, and iv) the resulting significance of the impact identified, are set out in the following tables.

3.3 Landscape sensitivity

3.3.1 The objective of the baseline study of the physical landscape of the development site and its setting is to assemble a comprehensive audit of those landscape character and land use features on and around the proposed development site that could contribute to a distinct 'sense of place'. From such an audit, the more valued landscape receptors that could be directly or indirectly affected and physically altered by the development proposals are identified and the significance of that effect assessed.

3.3.2 *Landscape susceptibility* (the degree to which a landscape can accommodate change without unacceptable detrimental impact on its character) is not an absolute criterion as its definition is dependent on the nature of the potential development in question. Consequently, an assessment of landscape susceptibility is not strictly part of the baseline study, but is considered at the time of assessing landscape sensitivity in relation to specific identified impacts inherent in the specific development proposals.

3.3.3 The criteria for assessing landscape value is set out in Table 1.

TABLE 1 – Criteria for assessing landscape value

Value		*Typical criteria*	*Typical scale*	*Examples*
High	Exceptional	High importance and rarity. No / very limited potential for substitution.	International, National.	World Heritage Site, AONB, National Park, National Scenic Area.
	High	High importance and rarity. Limited potential for substitution.	National, regional, local.	AONB, National Park, National Scenic Area, AHLV / AGLV.
Moderate	Moderate	Medium importance and rarity. Limited potential for substitution.	Regional, local.	AHLV / AGLV, Regional Scenic Area.
	Moderate - low	Medium importance and rarity. Some / good potential for substitution.	Regional, local.	Undesignated but value expressed in demonstrable use.
Low	Low	Low importance and rarity.	Local.	Area identified as having some aspect of local value but with scope for improvement.
	Very low	Low importance and rarity.	Local.	Areas identified for recovery / enhancement.

3.3.4 To assist the understanding of landscape value, landscape designations over a study area defined by a minimum 3km radius from the centre of the site were identified using Defra's 'MAGIC' web-based data base.

3.4 Visual sensitivity

3.4.1 The sensitivity of a visual receptor is defined by the type of viewer (taking into account the expectation and activity of the receptor), viewer numbers, the duration of exposure to the view and the factor of distance. It also takes into account the importance of both the view itself and the point from which the view is experienced (see Table 2.).

TABLE 2 – Criteria for assessing the sensitivity of visual receptors

Level	*Typical criteria*
High Sensitivity:	A strategic view or panorama of acknowledged national or regional importance, in which the proposed development could be clearly seen from a highly sensitive public viewpoint. Communities where the development results in changes to the landscape setting or valued views enjoyed by the community. Users of recreational facilities including public rights of way outside designated areas, whose interest is focussed on the landscape. Occupiers of residential properties with views affected by the development.
Moderate Sensitivity	A moderately valued view or panorama of local importance, reasonably tolerant of change or a strategic view, or view of acknowledged national or regional importance, seen from a less sensitive public viewpoint and / or from a significant distance. People travelling through or past the affected landscape in cars, trains or other transport routes and whose attention might be focused on the landscape. Users of outdoor sports and recreational facilities in designated areas where the landscape is unlikely to be the primary focus.
Low Sensitivity	A relatively unimportant view which is potentially tolerant of change or may benefit from that change or moderately valued view or panorama of local importance seen from less sensitive viewpoint and / or from a significant distance. People engaged in outdoor recreation in non-designated areas whose attention maybe focussed away from the change in the view and where tolerance to change is likely to be high. People at their place of work or engaged in similar activities whose attention maybe focussed away from the change in the view and where tolerance to change is likely to be high.

3.5 Magnitude of change

3.5.1 The *magnitude or scale* of physical or visual change can be measured in terms of the degree of change, whether it is adverse or beneficial and whether it is likely to be permanent or temporary. Criteria for the assessment of magnitude of change are set out in Table 3 below.

TABLE 3 – Criteria for assessing magnitude of change

Level	*Typical criteria*
Substantial:	Total loss of or major alteration to key elements / features / characteristics of the baseline landscape. Introduction of elements considered to be totally uncharacteristic in the context of the baseline landscape. A large number of sensitive receptors experiencing a major or fundamental change in nature of the baseline view, particularly in near views with the baseline urban skyline substantially changed.
Moderate	Partial loss of or alteration to key elements / characteristics of the baseline landscape. Introduction of elements that may be prominent but may not necessarily be considered substantially uncharacteristic in the context of the baseline landscape. A moderate, but not fundamental, change in nature of view affecting a notable number of sensitive receptors. Open, uninterrupted views with some middle distance obstruction of part of that view resulting from the proposed development; baseline urban skyline not adversely infringed in view typically seen over medium / long distance.
Low	Minor loss of or alteration to key elements / features / characteristics of the baseline landscape. Minor but non material change in nature of view; long distance views across urban landscape panorama, or restricted views (upstairs bedroom windows only) with relatively few receptors affected.
Negligible	Very minor loss of or alteration to key elements / features / characteristics of the baseline landscape.Changes unlikely to be perceived by the majority of visual receptors.

3.6 Impact significance thresholds

3.6.1 Significance is not absolute and can only be assessed in relation to each development in its location. The two principal criteria used in determining significance are: i) the sensitivity of the landscape / visual receptor and ii) the magnitude of change anticipated.

3.6.2 For the purposes of this report, the summary range of the significance of the predicted landscape and visual effects has been subdivided into five levels or grades. These 'grades' of significance are defined in Table 4 as follows:-

TABLE 4 – Criteria for assessing levels of impact significance

Sensitivity of Receptor	+ *Magnitude of change*	= *Impact Significance*
High	High	Substantial (Proposals have a large effect within the context of the wider area.)
High	Moderate	Moderate - substantial
High	Low	Moderate (Proposals have a noticeable effect within the context of the wider area.)
Moderate	High	Moderate - substantial
Moderate	Moderate	Moderate (Proposals have a noticeable effect within the context of the wider area.)
Moderate	Low	Low - moderate
Low	High	Moderate (Proposals have a noticeable effect within the context of the wider area.)
Low	Moderate	Low - moderate
Low	Low	Low (Proposals have only a limited effect within the mainly local area.)

3.6.3 No discernible deterioration or improvement in the baseline landscape character or the baseline level of visual amenity would obviously result in no significant or negligible change being attributable.

3.6.4 Impacts may be short term (or temporary), essentially related to changes evident during the construction period of the proposed development, or longer term (or comparatively permanent) resulting in changes in landscape character and to the perception of that landscape after final construction.

3.6.5 For the purposes of this report, impacts which are assessed as being moderate or substantial (adverse) are considered to be of a significance which should influence the design process and mitigation strategy for the proposed development.

3.7 Survey area

3.7.1 The extent of the survey area used for the purpose of assessing landscape and visual effects was defined initially as a result of a desk top exercise, during which a Zone of Theoretical Visibility (ZTV) was established using digital terrain model with an OS raster backdrop. This ZTV was then tested and refined as a result of observations made in the field.

3.7.2 Once a ZTV had been defined, key viewpoints were identified within it (see section 3.8) from which to base the assessment of visual effects on the broader landscape and those moving through it. Analysis of the visual effects has been summarised for each selected viewpoint.

3.8 Consultation

3.8.1 Viewpoints upon which the broader visual assessment has been made have been selected in consultation with the Local Planning Authority.

3.8.2 Of the 13no. viewpoints selected in total, those considered to be of greatest significance have been used to generate a photomontage which aims to show how the proposed development is likely to appear when seen from the viewpoint in question. These viewpoints are identified as PM1-8. In order to show the context of the Once Brewed site in the wider landscape at a scale that could be readily reproduced as part of this document, the baseline photographs were taken using a digital SLR camera with the lens set at a focal length of 32mm. To compensate for the loss of detail in these images when reproduced at A3 size, the specific area of the Once Brewed development site has been increased to a size which, when held at arms length, reflects the size of the image of the development as it wold appear in the field when seen with the naked eye. The viewpoints for which no photomontage has been produced are labelled VP1-5.

3.8.3 It has been agreed with the Planning Authority that landscape and visual effects experienced from a distance of 10km or more are generally likely to have a negligible effect on visual receptors. However, it is acknowledged that an exception to this broad principle could result from the visual effects of night time illumination. Consequently a long distance viewpoint (VP6) located within the North Pennies Area of Outstanding natural Beauty (which comes within 5km of the site at its closest point) has been selected specifically for this purpose at an elevated location on the B6305, just south of Langley Castle and c.10.5km to the south east of the Once Brewed site.

3.8.4 At the RIBA Stage C design stage, the initial design concepts for the building and external spaces where presented to the North East Design Review and Enabling Service (NEDRES) – a panel of professional experts in the field of architectural and landscape design, set up to promote high building design quality within the region. It was their shared opinion that the building should have a 'presence' when seen from the Military Road corridor and that the visual connection with both the Whin Sill and the Vallum should be maximised. In their view, this would contribute to the sense of drama already evident in the broader landscape.

4.0 Baseline Conditions

4.1 The landscape of the study area

(See Figure 1)

4.1.1 In describing the baseline landscape, the aim is to understand the landscape of the area that may be affected by the proposed development. The study area used for the purposes of this assessment has been informed largely by the Zone of Theoretical Visibility (ZTV) - see section 4.6 - backed up by a desktop survey and observations in the field. However, it extends beyond the ZTV in places in order to capture the relevant setting and visual context for the proposed development site, particularly for those visual receptors who experience the site while passing through this distinct and characterful landscape.

4.1.2 The topography of the study area is very much dominated by the form of the Whin Sill, an intrusion of dolorite (known locally as whinstone) which runs from Upper Teesdale to the Farnes on the Northumbrian coast. It forms a ridge running on a generally east – west alignment, reaching a high point within the study area of 345m AOD at Winshield Crags to the north west of the site. Along this section of the Whin Sill, the outcrops at Peel Crag and Steel Rigg present particularly dramatic focal points on the skyline when viewed from the B6318 corridor, the route from which most people are likely to experience the landscape within the study area.

4.1.3 From the Whin Sill, the land falls to the bottom of the valleys formed by Brackies Burn and Bradley Burn, both of which feed into Chainley Burn which enters the River South Tyne at Bardon Mill. South of Brackies Burn and Bradley Burn, the land rises again to form another ridge, not quite as high as the Whin Sill, but running parallel with it. In broad terms, these two ridgelines define the extent of the most significant part of the ZTV for the proposed development.

4.1.4 Rough grazing and semi-improved pasture dominate the landscape, with medium scale fields defined primarily by dry stone walls but also by post and wire fencing. Tree cover is limited to small clumps and individual specimens along the course of Brackies Burn and Bradley Burn and the small blocks around the Once Brewed site and the adjacent Twice Brewed Inn. Elsewhere, tree and shrub cover is restricted to individual specimens growing along field boundaries or along the B6318 road corridor.

4.1.5 Settlement is sparse, being restricted generally to individual farmsteads, the largest group of properties being the loose cluster defined as Twice Brewed. The only other notable elements of urban infrastructure are the road signs associated with the B6318 and in particular, the group located around the junction adjacent to the Once Brewed site.

4.1.6 The proposed development site at Once Brewed is located on the south side of the B6318 (known locally as the 'Military Road') which runs in generally straight sections on an east – west alignment following the line of Hadrian's Wall. Once Brewed is positioned on the south facing slopes of the valley formed by the Brackies Burn and is 2.5 km north of the major transport route of the A69 road corridor and the valley of the River South Tyne along which it runs. The nearest town is Haltwhistle 5.6km to the south west and the village of Bardon Mill lies 3.5km to the south east, both settlements being located on the A69.

4.1.7 Once Brewed is part of the settlement of Twice Brewed, a dispersed group of buildings along the B6318 comprising the existing Once Brewed NNPA visitor centre and YHA building and the neighbouring Twice Brewed Inn, the Winshields camp site, three domestic residences including West Twice Brewed, the Vallum Lodge guest house and a domestic residence and farm stead at East Twice Brewed.

4.1.8 Other isolated properties of note within the vicinity of the site but set back from the B6318 corridor are:

- Seatsides and Smith's Shield on the top of a prominent ridgeline to the south of the site which defines the southern boundary of the National Park designation;
- The National Trust owned holiday cottages of Springwell Cottage and Peel Bothy located on the minor road leading from the B6318 up to the Whin Sill to the north;
- The farm of East Bog on the south facing slope of the Whin Sill escarpment.

4.1.9 The Once Brewed site lies at the point at which one of the occasional minor roads running north – south connecting the A69 with the B6318, intersects the Military Road. Having crossed the Military Road, the minor road continues north over the Whin Sill and provides access to the Steel Rigg car park operated by the NNPA.

4.1.10 Public Rights of Way and designated recreational routes within the study area are shown in Figure 1. The most notable are listed below:

- Hadrian's Wall Path National Trail – follows Hadrian's Wall on the crest of the Whin Sill escarpment but occasionally runs on lower ground to the south of the ridge.
- Pennine Way National Trail – follows the line of the Hadrian's Wall Path before striking off northward at a point 1km west of Houseteads Roman fort.
- National Cycle Routes 68 and 72 – connect the site with the Whin Sill to the north, Vindolanda Roman fort to the east and the A69 to the south.
- Several public footpaths running from the B6318 corridor southward up slope to the ridge south of the Brackies Burn.

4.1.11 Designated heritage sites are covered in the heritage section of the Environmental Statement, however three specific sites or features are of such significance that they should be mentioned here. The first is Hadrian's Wall and the associated linear earthworks of the Vallum. The former follows the ridge of the Whin Sill and the latter runs close to the B6318. Consequently, both have a strong visual profile and play a major part in defining the drama and romance of this ancient landscape. The other two sites are the Roman forts of Housesteads and Vindolanda (4.2km to the north east and 1.8km to the south east of the site respectively), both major tourist destinations drawing visitors to this local area.

Also of note is the specific location on Hadrian's Wall know as 'Sycamore Gap' just to the east of Milecastle 39 and 1.2km from the Once Brewed site. The view of the mature sycamore tree which has established in the centre of a dramatic dip in the Whin Sill ridgeline has become an iconic image in the region, made all the more famous as a result of it being the location for a scene in the film 'Robin Hood Prince of Thieves' staring Kevin Costner (1991).

4.2 The development site

(To be read in conjunction with Figure 2 - 'Existing Site Plan')

Location and topography

4.2.1 The proposed development site is located at the junction of the B6318 Military Road with the minor road which connects it with the A69 at Heshaw and at Bardon Mill to the south. It lies 400m within the southern boundary of the Northumberland National Park on the south facing slope of the valley containing the Brackies Burn flowing in a west – east direction.

4.2.2 The boundaries of the site are clearly defined by the Military Road to the north, the minor road to the east and the Brackies Burn to the south. The western boundary is shared with the Twice Brewed Inn and associated car park at the northern end, and is largely defined by a field boundary and the course of a tributary to the Brackies Burn on its central and southern sections. The northern part of the site currently contains the existing Northumberland National Park Authority's visitor centre (NNPA) and a hostel operated by the Youth Hostel Association (YHA). The central and southern sections are defined by a field owned by the National Trust which is currently used by a tenant farmer for grazing sheep.

4.2.3 From a level of 224.5m AOD at the north eastern corner, the site slopes to 201.3m AOD at the valley bottom. In its central and southern sections, the site is slightly elevated above the minor road to the east along much of its length and there is a marked change in gradient along the western boundary where the land falls more steeply to form a small valley for the stream which flows south into the Brackies Burn.

4.2.4 Similarly, a section of the southern field falls south at a more pronounced gradient before levelling out at the valley bottom to form a distinct landscape character sub-zone within the site.

Site features

The northern part of the site:

4.2.5 All existing built development on the site is restricted to the northern section. The current NNPA visitor centre is a single storey building finished in natural stone cladding and with a pitched slate roof. Glazing and timber cladding on the north elevation facing the service area and car park is of low visual quality but has a low visual profile. On the eastern elevation, signage in the form of large, white individual letters fixed to the plain stone clad wall identify the building as a tourist destination point when seen from the Military Road corridor.

4.2.6 The main entrance to the visitor centre is on the southern elevation and is marked by larger glazed panels. Outside the entrance, riven faced stone flags and dry stone wall raised beds form a patio garden containing a haphazard arrangement of timber picnic tables and benches, steel bike stands, litter bins and interpretation / information panels. Solar panels are located on the roof above the main entrance.

4.2.7 The western elevation of the visitor centre is dominated by a depot area with a large steel container enclosed by a close board fence of low visual quality. Adjacent to this storage area is a pathway to the youth hostel which is largely screened from view by a block of tree and shrub planting.

4.2.8 The hostel building itself takes the form of a stone clad single storey, flat roof building on the east side (separated from the NNPA visitor centre to the south by a narrow paved area) which is connected by a central timber clad single storey block with large glazed panels, to a two storey accommodation block with a slate pitched roof, stone cladding and pebble-dash finish above ground floor level. The main entrance within the central section is accessed via a courtyard garden area paved in precast concrete flags and containing a random arrangement of timber planters, picnic tables and benches. The garden space extends around the western side of the hostel building where it takes the form of an overgrown naturalistic garden dominated by individual mature trees and tree / shrub groups.

4.2.9 Immediately to the south of the YHA garden is a compacted stone footpath linking the neighbouring Twice Brewed Inn site with the main NNPA car park. The path passes between the garden and a fenced off, overgrown area containing septic tanks which once served both buildings on site.

4.2.10 The main car park to the visitor centre is located immediately to the south of the building and is formed in tarmacadam with a stone sett edging and with unmarked parking bays formed in compacted gravel. A grass strip with a couple of picnic tables and timber post and rail fence define the southern edge of the car park area.

4.2.11 A second car park serving the youth hostel is located right in the visually prominent north eastern corner of the site where the large area of tarmac also caters for services vehicles and provides access to timber sheds / garage (in poor condition), a LPG compound and an unfenced bin store. The overall visual effect is one of low visual quality. This car park area has its own entrance directly off the minor road close to the junction with the Military Road. Vehicular and pedestrian access gates are in timber and of an agricultural style.

4.2.12 From this service area, a narrow concrete path runs along the northern edge of the youth hostel, the northern elevation of which is formed predominantly by a single storey stone clad block with a narrow strip of glazing just below the eaves. The path marks the southern toe of the earth mound which is the Vallum – a Roman military earthwork and Scheduled Ancient Monument. Within the site, the Vallum is barely legible, its form being hidden by tree and shrub cover, much of which is in poor condition and is of low visual quality.

4.2.13 A low dry stone wall, generally in good condition, defines the site boundary on the Military Road corridor and on the eastern boundary. Breaks in the wall mark the entrance points into the site and at these locations there is a scattered collection of individual but uncoordinated road signs and site markers relating to the existing facilities.

4.2.14 The stone wall also runs down the northern section of the western site boundary. Although it forms the boundary to the youth hostel garden, for the most part it is well screened from within the site by tree and shrub planting.

4.2.15 Details of the tree cover on site is recorded in a Tree Survey produced by AMR Geomatics, 2013. The survey records 51no. individual trees with a diameter greater than 75mm (the majority of which are assessed as being of fair to poor condition) and 9 tree groups (Groups A – H) of varying sizes. With regard to the individual trees, beech (*Fagus sylvatica*) and cherry (*Prunus sp*) are dominant, although 70% of the cherries are noted as dead or in such poor condition as to warrant felling. Oak (*Quercus petraea*), sycamore (*Acer pseudoplatanus*), Scots pine (*Pinus sylvestris*) and Norway maple (*Acer platanoides*) are also present together with smaller numbers of silver birch (*Betula pendula*), ash (*Fraxinus excelsior*), alder (*Alnus glutinosa*), rowan (*Sorbus aucuparia*) and Norway spruce (*Picea abies*).

4.2.16 In terms of tree groups, the largest by far is the triangular block of woodland on the eastern site boundary to the south of the NNPA car park which comprises an even aged stand of ash, rowan, Scots pine, sycamore and hawthorn (*Crataegus monogyna*) approximately 10m in height. A sign on a timber gate giving pedestrian access into the woodland at its northern end identifies it as a woodland play area, although signs of play activity are limited. Also visually prominent is a younger (but still well established) group of alder, ash, beech and hawthorn which screens the YHA building and its garden from the NNPA car park to the south. A small engraved timber sign suggests this planting was undertaken by the NNPA and the Northumbrian Tourist Board in 1992 as part of 'Beacon Europe'.

4.2.17 Other tree groups of note are the narrow strip of mature Scots pines and overgrown leylandii hedge which form a dense evergreen screen along the western edge of the YHA garden at the north west corner of the site, and the small fenced group of hawthorn and beech marked as a 'wildlife garden' on the edge of the NNPA car park near the northern corner of the triangular woodland block.

4.2.18 As for the pattern of distribution of individually recorded trees within the site, the most prominent grouping is that of the belt of trees which have become established on and adjacent to the Vallum on the site's northern boundary. Small patches of ornamental shrubs such as cotoneaster and rhododendron are also present within this tree belt in which the size and condition of the trees varies enormously. Interconnected groups of individual trees also define much of the character of the YHA garden space and the enclosed

nature of the western end of the NNPA car park. Elsewhere within the site, individual trees are generally seen in isolation, particularly along the north eastern and eastern boundary within the grass verge between the buildings / car parks and the public roads. Of these specimen trees, the only one worthy of particular note is the mature ash tree on the south side of the NNPA site entrance which acts as a focal point and an informal gateway feature. However, this tree leans at a significant angle out over the public highway and the tree survey has identified signs of rot in a hollow at the base of the trunk which merits further investigation if the tree is to be retained.

4.2.19 One impact which is likely to affect the site, regardless of the development proposal, is the spread of Fraxinus chalara, a disease which causes the gradual death of ash trees and which has been detected in mature trees of this species in Northumberland. Once infected, the life span of a tree is likely to be less than 10 years, however it is impossible to predict whether the trees on site will succumb to the disease or show resistance, or at what stage any effects might become apparent.

4.2.20 For the purpose of this assessment it is appropriate to note that the three individual ash trees on site are all located adjacent to the entrance to the NNPA car park and represent the three age classes of 'young, 'middle aged' and 'mature'. In the tree survey, all three are regarded as being of low quality and value (category C) but do provide some screening or softening effect to the locality (subcategory 2). If these three trees were lost, the eastern boundary of the site would become marginally more permeable in terms of views into the site in this location.

4.2.21 The loss of ash trees which are present within the planting block south of the youth hostel and in the triangle of woodland on the eastern boundary (tree groups A and D respectively) is unlikely to have a significant visual effect, on the basis that the space created by dead / dying trees is likely to be filled by the growth of neighbouring trees as they respond to the increased light levels.

The central and southern section:

4.2.22 The remaining two thirds of the main proposed development site comprises a field of semi-improved pasture, together with the triangle of woodland referred to in section 4.2.16 above. A timber field gate in the south eastern corner caters for agricultural vehicular access into the site but pedestrian access is also possible via timber gates in the post and rail fence along the southern edge of the NNPA car park.

4.2.23 A post and wire fence prevents stock from gaining access to the Brackies Burn which flows in a small incised channel along the southern edge of the field. In contrast, access to the tributary which runs through the site temporarily on its western boundary, is not fenced off. The western field boundary is defined primarily by a dry stone wall but with a post and wire fence featuring at the southern end of the site.

4.2.24 Timber poles located at intervals within the field near the top of the tributary's west facing valley slope, support over head electric cables which run from a pole mounted transformer near the western end of the NNPA car park, to a pole in the bottom of the valley. From here they run across the southern section of the field in two directions, both up and down stream on a broadly east – west axis.

Copse north of the Military Road:

4.2.25 Directly opposite the north eastern corner of the site on the north side of the B6318 Military Road, there is a group of alder and rowan which forms a small copse within an area enclosed by a dry stone wall. Believed to be a former garden space associated with a previous youth hostel building, the regularly spaced trees cover gently sloping ground falling towards the back of the Military Road highway verge. The only break in the dry stone wall is on the southern boundary at a former narrow gateway marked by two stone gateposts.

4.3 Landscape character

Broad landscape

4.3.1 Landscape character refers to the distinct pattern of elements relating to geology, soils, topography, land use, vegetation cover, settlement patterns etc. that differentiates one landscape from another and contributes to a recognisable sense of place.

4.3.2 The National Character Areas (NCA) as defined by Natural England, based on the Character Map of England (Countryside Commission, 1998) that fall within the study area are illustrated in Figure 3 and include:

- 11 Tyne Gap and Hadrian's Wall
- 5 Border Moors and Forests
- 10 North Pennies

4.3.2 The site itself lies within the western section of NCA 11 *Tyne Gap and Hadrian's Wall*. Listed characteristics of note include:

- it is visually contained to the north by the parallel scarps of the Whin Sill;
- farmland is pastoral in the west, merging to mixed and arable in the east;
- there is a variety of enclosure patterns, with large, walled enclosures predominant in the west and hedged enclosures in the east;
- north of the Whin Sill there is open, windswept semi-improved and rough grazing on elevated land, with loughs and rushy pastures;
- very evident remains of the Roman wall, forts and associated features occur on the Whin scarp.

4.3.3 The landscape of this NCA has been analysed in more detail by Julie Martin Associates and Alison Farmer Associates with Countryscape as part of their Landscape Character Assessment of Tynedale District and Northumberland National Park, 2007.

4.3.4 This more detailed analysis has identified the Landscape Character Type (LCT) *14: Parallel Ridges and Commons* within the part of the NCA in which the site is located, Landscape Character *Types* being landscapes with broadly similar combinations of basic landscape elements and which can therefore be found in different places.

4.3.5 The key characteristics of LCT 14: Parallel Ridges and Commons are identified as follows:

- repeating pattern of elevated ridges and shallow troughs with strong east-west alignment:
- cuesta landscape;
- dramatic outcrops of igneous rock forming pronounced north-facing scarps and south facing dip slopes;
- open moorland with mat-and purple moor grass, peat bogs, improved pastures and commons and loughs;
- medium to large-scale enclosure pattern defined by stone walls and post and wire fencing;
- extensive Roman archaeology associated with Hadrian's Wall but also earlier archaeology;
- limited habitation of dispersed farmsteads nestling into landform and surrounded by shelter planting;
- limited tree cover of small broadleaved copses and blocks of coniferous plantation;
- significant area for outdoor recreation.

4.3.6 In addition, other observations of note include:

- The outcrops of Whin Sill are seen rising often abruptly from the gently undulating moorland, creating a sense of drama and ruggedness;
- There are extensive areas of open mat-grass moorland and patches of carr woodland, reed bed and bog habitats associated with lower lying areas and glacial loughs and within these areas the landscape has a large scale and exposed character;
- Elsewhere, the land has been enclosed by sandstone walls or fencing (particularly to the south of the Whin Sill and around isolated farmsteads) to create a medium scale pattern of semi-improved pastures, many of which are wet, the rushes creating visual texture.
- Tree cover is limited to small copses of ash and thorn and blocks of coniferous plantation;
- Many of the farmsteads date to the 19thC and are located in a dispersed pattern, nestled into the landform among rocky outcrops.
- More recent man-made features in this landscape relate to the area's importance for recreation and tourism. Signage, car parks, footpaths and interpretation are frequent and characteristic and are particularly concentrated along the Military Road and Whin Sill.
- This landscape character type feels remote because of its narrow roads, sparse settlement, extensive agriculture management, and exposure to the elements. The landscape seems timeless and unmodified since Roman times. The complex, enduring form of the Whin Sill, set within a simple and uniform landscape of gently rolling moorland and enclosed pastures, remains its defining feature.

4.3.7 The LCT is broken down further into Landscape Character Areas – landscape units which share the same characteristics as the LCT but which display their own individual character and identity. The *Parallel Ridges and Commons* LCT is divided into three LCAs, the development site lying close to the centre of the largest of the three – LCA *14b Haltwhistle, Melkridge and Ridley Commons* which is defined primarily for the dramatic escarpment and associated outcrops of the Whin Sill and the overt signs of Roman occupation. Scattered farmsteads are often surrounded by small copses of trees and visitor signage is also prominent in parts.

Site character

4.3.8 At a more detailed level, the proposed development site itself can be divided into 5 sub-character zones as follows:

Zone 1: Military Road corridor – a largely utilitarian area of low visual quality along the north side of the existing buildings, dominated by the service area (bin store, LPG compound, sheds) YHA car park, and the noise and movement of traffic on the B6318. The 'back' of the YHA building is presented to the Vallum Scheduled Ancient Monument and this important earthwork is barely legible in the landscape largely due to the tree and shrub cover growing on it, much of which is in a very poor condition. The proximity of the buildings and the continuous tree cover means much of the area is in shade for prolonged periods and the resulting sense of enclosure is at odds with the proximity of the B6318. In contrast to the immediate surroundings however, this part of the site does give striking views (some filtered) north to the dramatic landscape of the ridge of the Whin Sill, and in particular, the view to Peel Crag.

Zone 2: YHA garden – although similar to the western end of zone 1 in terms of being enclosed and shaded by boundary tree cover and buildings, this 'garden' space is more domestic in character. Signs of a fire pit and the presence of a suspended basket seat from a tree indicate that the space functions as an informal garden. Much of the vegetation appears to be unmaintained giving it a naturalistic appearance which has a certain appeal. Although neglected, the space is secluded, relaxing and a offers a degree of escapism and communion with nature.

Zone 3: NNPA and YHA environs – The sequence of linked, generally small spaces that combine to make up the 'front of house' areas to the existing facilities on site lack visual quality but have a low key charm nonetheless, being domestic in scale and welcoming. The absence of any coordinated design to the layout of the external spaces is apparent but is perhaps appropriate for such a location. The NNPA car park is of low visual impact from the main entrances to both buildings and allows the view south across the valley of the Brackies Burn to dominate.

Zone 4: South facing slope within the southern field – From within this grazed field, the dominant view is to the south and to the ridgeline of the north facing slope of the Brackies Burn valley. Consequently, the presence of the NNPA car park and visitor facilities has a reduced impact on the character of this space which is rural and open. In amenable weather conditions the view can be stimulating. In poor conditions, the openness of the site can translate as being exposed.

Zone 5: Brackies Burn valley bottom within the southern field – With very few urban elements present in the view from this enclosed and secluded spot within the valley, the sense of being in a peaceful rural location is enhanced. Being in an incised channel, the Brackies Burn itself has limited impact on the visual character of the space yet its presence still contributes to the sense harmony in the landscape character.

4.4 The landscape at night

4.4.1 As might be expected in a landscape where buildings are generally isolated and sparsely scattered and where roads are not lit, levels of illumination after sun set are extremely low within the study area. The main sources of light are:

- External security lights to domestic / commercial properties and farm buildings, some of which are temporary, responding to the movement of vehicles / people – generally the most visible light sources being uncovered and bright;
- Internal lighting to domestic properties – generally muted in intensity due to the presence of curtains / blinds used at night;
- Car lights – bright but transient. Catch the eye due to movement.

4.4.2 Light levels for the existing NNPA visitor centre are very low at night as the site facilities only operate between the hours of 10am and 3pm during the months between the end of October and end of March. Pin-point red and green security lighting is visible within the building but only from within the southern car park area of the site itself. The entrance and associated signage into the site are not illuminated.

4.4.3 On the south side of the youth hostel, external spot lighting and a wash of lighting at the main entrance is visible but only from the southern car park where it is largely screened by a combination of existing vegetation and the fenced depot area to the NNPA visitor centre. The visual impact of existing lighting when seen from locations to the south and which are outside the site, is very subtle. What is more noticeable is the orange glow from a wall mounted security light to the Twice Brewed Inn car park.

4.4.4 In views westward into the site from the YHA car park to the north, external wall mounted lighting is more visible but still has a limited visual profile in views from outside the site.

4.4.5 In views south from the road leading up to the Steel Rigg / Peel Crag car park, the regular spacing of uncovered wall mounted external lighting along the length of the north elevation of the youth hostel is uncharacteristic of lighting in the area and gives the impression that there is a large building present, even if the building itself is not visible. On the neighbouring site the Twice Brewed Inn car park security light is dominant and internal lighting to the entrance porch is visible. Together, the Twice Brewed Inn and YHA sites represent the main clusters of lighting visible in the view but the overall effect is not intrusive to a significant degree.

4.5 Landscape value

The broader landscape

4.5.1 Establishing the value of the landscape in which the proposed development site is located and of the landscape features within the site itself, is of direct relevance when it comes to assigning a level of susceptibility to change to those identified landscape receptors.

4.5.2 The role of Northumberland National Park as a 'special place' and a valued resource not just for the North East but for the nation as a whole, has been noted in section 3 above. The NNPA Management Plan itself notes that: "National Parks are the most beautiful, spectacular and dramatic expanses of countryside in England, Scotland and Wales and are landscapes of national importance. They contain a wealth of nationally and internationally important wildlife and cultural heritage." The Northumberland National Park is expansive, covering 20% of the county. However, there is no doubt that the specific landscape within which the Once Brewed site is located is as valued as any within the remainder of the Park. The dramatic topography created by the Whin Sill outcrop inspires and challenges. It can have an emotional and spiritual quality and a sense of tranquillity that is one of the main perceptual qualities valued by visitors to the area.

4.5.3 The Once Brewed site falls within the WHS 'buffer zone,' identified as the area beyond the WHS which defines its setting.

4.5.4 Other heritage assets of the Roman period of national value, designated as Scheduled Ancient Monuments, surround the site and one, the Vallum Earthworks, actually lies within the northern section of the proposed development site.

4.5.5 A Grade II post medieval listed building lies 200m to the west of the site at West Twice Brewed.

4.5.6 The value of the local landscape for recreational activities in which direct experience of the landscape is important is confirmed by the presence of designated routes of national significance such as the Hadrian's Wall Path and the Pennine Way, and National Cycle Routes 68 and 72.

4.5.7 At 'Sycamore Gap' 1.2km to the north east of the site, a single mature sycamore tree growing on the line of the Wall (just east of Milecastle 39) in the centre of a dramatic dip in the escarpment, is associated with a scene in the film 'Robin Hood Prince of Thieves' staring Kevin Costner and many visitors are drawn to that specific point on the line of Hadrian's Wall for that reason.

4.5.8 Although issues relating to ecology are beyond the scope of this report, it is worth noting that there are 2no. National Nature Reserves and 3no. Sites of Special Scientific Interest within 3.5km of the site (see Figure 1). The nearest of these is the Roman Wall Escarpment SSSI on the north side of the B6318.

4.5.9 Consequently, there can be no doubt that the local landscape within which the proposed development site is located is valued at a national and international level. In addition, as of December 2013, the site falls within an area which has been granted International Dark Sky Park (Gold tier) status by the International Dark Sky Association (IDA). It is the largest area of protected night sky in Europe, and amongst the largest in the world.

Landscape receptors on site

4.5.10 This section considers the value of the main individual landscape features within the site in terms of their quality and aesthetic appeal and their contribution to the recognised value of the broader landscape.

4.5.11 The existing buildings themselves are considered to be of little architectural merit and value. Although they generally blend into the landscape as a result of the use of stone and slate in construction, when seen close up, the elevational treatment and detailing and the surrounding external spaces are seen to be of low visual quality.

4.5.12 The Tree Survey for the site prepared by AMR Geomatics notes that: "The mature trees on the site make a significant contribution to the landscape of this part of the Hadrian's Wall corridor and help to blend the existing buildings into the landscape." The value of the trees lies predominantly in the role they perform as a group in terms of their screening function, habitat provision and generating a feature characteristic of a landscape in which trees are generally restricted to groups and clumps associated with individual farmsteads or residential properties.

4.5.13 When considered in isolation, many of the trees are in poor to fair condition, and there are few highly valued individuals. One notable 'landmark' tree is the mature ash at the existing entrance to the NNPA car park. However, there are concerns over its future stability.

4.5.14 Although the trees on the Vallum along the northern site boundary perform a valuable screening role to the existing buildings in views from the north, it is acknowledged that their presence could be detrimental to the condition and preservation of the Vallum Scheduled Ancient Monument.

4.5.15 Tree cover on the site is therefore generally assessed as being of low to moderate value.

4.5.16 The low dry stone wall which defines the extent of the site on its northern and eastern boundaries is generally in good condition. It is a distinctive feature of the site and an element which is characteristic of the broader landscape. It is of moderate value.

4.5.17 The field to the south of the existing NNPA car park is of moderate value, providing an attractive setting to views south across the Brackies Burn valley from the current visitor centre. The southernmost section of this field which forms the valley floor, is visually segregated from the site facilities by the local topography. This isolation and containment generates a distinct sense of place which is of a higher value.

4.5.18 The site feature of most significant value is the Vallum – an earthwork feature from the Roman period which runs along the northern boundary of the site and which is designated as a Scheduled Ancient Monument of national importance.

4.6 Visual baseline

Visual context – broader landscape

4.6.1 A digital terrain model covering the area within a 15km radius of the Once Brewed site has been used to generate a Zone of Theoretical Visibility (ZTV) for the existing site (see Figure 4). This uses elevation data alone to predict points from which ground level of the existing site is theoretically visible assuming a 'bare earth' landscape in which the potential screening impact of vegetation and buildings etc. is not taken into account.

4.6.2 The ZTV in Figure 4 shows that, given the parameters set out above, the areas on the north side of the River South Tyne from which the site may be visible are restricted to a comparatively short section of the Military Road corridor, including the line of Hadrian's Wall and the World Heritage site itself, and a section of road to the south east of the Once Brewed site and due east of the Vindolanda Roman fort site.

4.6.3 Further a field (c. 5+km), on the south side of the river and the A69 road corridor, views of the site are theoretically possible from an area south of Beltingham and a much smaller area north west of Whitfield, and from higher ground to the west, east and south of Langley Castle, including sections of the A686 and B6305. Further south still, the ZTV includes an area of moorland between Ninebanks and Allendale Town, c. 13km from the site. Although further from the Once Brewed site, these potential viewpoints south of the River South Tyne are of particular significance as most fall within the North Pennines Area of Outstanding Natural Beauty (AONB).

4.6.4 Given the theoretical nature of the zone of visual influence illustrated in Figure 4, survey work in the field has been carried out to establish actual levels of visibility from the more distant viewpoints within the North Pennines AONB. As expected, the screening effect of tree cover, buildings and roadside walls and hedges reduces significantly the actual area from which the site can be seen. Photographs in Figure 5 taken at the five key viewpoints VP 6 – 10 identified in Figure 4 give an indication of the extent to which the site is visible at such distances. Clearly, at distances greater than 5km, the existing site has a low visual profile within the broader views north and in most instances there are other landforms or features on the horizon that draw the eye and provide a focus away from the area in which the site is located. One exception is viewpoint VP6 on the B6305 east of Langley, where the Once Brewed site, although virtually indistinguishable in the broader landscape, is located just below one of the most visually prominent ridges (Winshield Crags) on the horizon.

4.6.5 It should be noted that the site is not visible from Langley Castle which is located within the wooded valley of the Langley Burn and the number of public rights of way within the ZTV south of the River South Tyne is limited. The only public footpath providing sustained long distance views northwards to the Once Brewed site is that running on an east-west axis across a grouse moor at Greenrigg Moor south east of Langley.

Visual context – local landscape

4.6.6 A more detailed illustration of the ZTV based upon site ground level covering the area to the north of the River South Tyne is provided in Figure 6

4.6.7 It shows that the site may be visible from a 3km section of the B6318 Military Road corridor between Shield on the Wall to the west, and East Twice Brewed to the east. It also indicates that the ZTV is contained by the ridge of the Whin Sill and the line of Hadrian's Wall to the north, and the ridge formed by the top of the southern slopes of the Brackies Burn valley to the south (and which marks the southern boundary of the National Park).

4.6.8 To the east, the areas from which the existing site might be visible are limited, being restricted mainly to sections of the Whin Sill ridge extending as far as Hotbank Crags and the point at which the Pennine Way leaves the Hadrian's Wall Path, striking off northward, and a strip of elevated ground on the north western edge of Thorngrafton Common, c.300m east of Vindolanda.

4.6.9 Most visual receptors experience the local landscape around Once Brewed from the Military Road corridor and as such, the Once Brewed site must be seen in the context of a broader visual experience which, whether travelling from the east or the west, captures the drama of Hadrian's Wall and the cuesta landscape with which it is associated. Within this setting, the existing site and its features have a generally low visual profile. However, the precise nature of this visual profile depends very much on the direction from which the visual receptor, passing through the landscape, approaches the site.

4.6.10 The existing buildings on the site are most visible when approached from the east, yet due to the screening effect of the dry stone boundary wall on the south side of the B6318, the NNPA visitor centre is not clearly visible in the view from the road until one is comparatively close to the buildings. From a distance, the warm grey of the stone and slate building materials blends well with the surrounding backdrop of tree cover and it is only the large white lettering on the east facing elevation which marks the building as a feature of public note.

4.6.11 Approaching from the west, ridges to the north and south prevent a broader outlook and concentrate views along the road corridor to a greater extent. The other dwellings and agricultural buildings which make up the hamlet of Twice Brewed are notable at stages in the view. The large property at Seatsides on the skyline to the south draws the eye, as does the longer distance view of the ridge formed by Thorngrafton Common. The field to the south of the existing NNPA visitor centre is visible in this view but has a low visual profile. However, as one approaches the Once Brewed site, not only is the Twice Brewed Inn much more dominant in the view than the YHA building, which is largely screened by mature tree cover around the outer edges of the site, but distinctive earthworks to the north of the highway provide a focus for attention together with the profile of the Whin Sill forming the horizon. Consequently, the existing site buildings go almost unnoticed until the receptor is travelling along the northern edge of the site. From this close viewpoint, the stone and pebbledash finish to the youth hostel, which is filtered by vegetation on the Vallum, is of low visual quality. The Vallum itself is barely legible, obscured as it is by existing tree and shrub cover.

4.6.12 When travelling towards the site along the road from Henshaw and Bardon Mill to the south, although the Twice Brewed Inn together with a scattered cluster of other buildings are visible, the existing visitor centre and youth hostel buildings are all but hidden from view by existing tree cover. Once past Smith's Shield, direct and unobstructed views of the field to the south of the existing car park are possible from limited sections of road before it drops down into the bottom of the Brackies Burn valley. When present, vehicles (minibuses in particular) parked in the existing YHA car park and at the western end of the NNPA car park, are notable. These views form part of a broader vista north in which the outcrop of Peel Crag forms a locally distinct focal point. From the point where the road crosses the Burn, views into the lower section of this field are possible, but these are transitory.

4.6.13 Although not a direction from which visual receptors are likely to encounter the existing site for the first time, the visual profile of the site from the north is highly significant as this is the direction from which the site is seen from the Hadrian's Wall World Heritage Site and the Hadrian's Wall and Pennine Way recreational routes. Currently, views of the existing buildings are heavily filtered, even in winter, by tree and shrub cover within the site. Vehicles parked in the YHA car park at the north east corner of the site are visible and are unscreened.

4.6.14 The south facing field south of the existing NNPA car park is hidden from view. In contrast, the Twice Brewed Inn, painted white on its north facing elevation, is clearly visible, as are cars parked in its car park to the east of the Inn. This is the building which most draws the eye, although other buildings such as Seatsides, East Twice Brewed and Smith's Shield are also visible.

Visual receptors

4.6.15 There are only c.11no. residential properties shown to fall within the ZTV illustrated in Figure 6. These include one public house (The Twice Brewed Inn), one campsite (Winshields Farm Campsite), a guest house (Vallum Lodge) and two holiday cottages owned by the National Trust (Springwell Cottage and Peel Bothy). By their very nature, private domestic residences are generally considered to be highly sensitive visual receptors.

4.6.16 Out of these properties, three have direct views of the northern site boundary (East Bog, Springwell Cottage and Peel Bothy) and two (Seatsides and Smith's Shield) have direct views of the field to the south of the existing facilities on site.

4.6.17 The remaining properties which make up the hamlet of Twice Brewed to the west of the Once Brewed site have very restricted views of the site, screened as it is by buildings and tree cover. Some limited views of the field forming the southern part of the proposed development site are possible.

4.6.18 In terms of properties providing accommodation for visitors and tourists, there are no significant views of the site from the Winshields Campsite and the Vallum Lodge Guest House. Unobstructed views of the site's north western boundary are possible from the neighbouring Inn but the boundary vegetation provides a strong filter to views of the YHA building. Similarly, as seen from the Springwell Cottage and Peel Bothy holiday lets, both of which are located on the road up to the Steel Rigg car park. Given that the great majority of visitors to the locality are attracted by the highly valued landscape and heritage assets, properties providing accommodation for tourists (short term and long term) are generally considered to be visual receptors of high sensitivity unless specific site conditions suggest otherwise.

4.6.19 Despite being subservient to the A69 with which it runs parallel, the B6318 still functions as an important transport route for those who live and work in the area, connecting the hamlets and isolated farmsteads along the line of the Whin Sill. Some receptors using this route will be of low to moderate susceptibility to change. However, it is its role in providing both visual and physical access to some of the most significant heritage sites in the North East which is of particular relevance, as it carries the great majority of the c. 50-70,000 people who visit the existing Once Brewed site every year, on average. As previously noted, the quality of the landscape is one of the key factors that attracts visitors to this part of the county, and consequently it should be assumed that potential visual receptors travelling on the B6318 could be moderately to highly sensitive to change.

4.6.20 For the same reason, visual receptors travelling on the road linking the Once Brewed site with the A69 and the road skirting the western edge of Thorngrafton Common, should also be considered to be of moderate to high sensitivity.

4.6.21 It is apparent that the existing site is potentially visible from sections of the Hadrian's Wall World Heritage Site between Turret 37A and Milecastle 41. It is not visible from the Roman fort and Scheduled Ancient Monument at Housteads nor is it visible from the Roman fort and Scheduled Ancient Monument at Vindolanda. However, the site is visible in the background in views of the Vindolanda site as experienced from the elevated ground of Thorngrafton Common.

4.6.22 The visual impact on these and other significant heritage and cultural assets is assessed in detail in the heritage chapter of the ES. For the purposes of this LVIA, the visual effects of the proposed development on views both from and to landscape features of heritage value, are assessed on the basis of selected viewpoints at locations. These are analysed in more detail in section 5 of this report.

4.6.23 Other highly sensitive receptors engaged in recreational pursuits would be those using the National Cycle Route 68 which passes by the site.

4.6.24 Figure 6 identifies a number of public footpaths within the ZTV and although some of these are likely to be used only infrequently, all recreational users should be considered to be potentially highly sensitive visual receptors. Aside from the recreational routes associated with Hadrian's Wall and the Whin Sill ridge, the footpaths providing the most notable views of the existing site are the two routes which run from Twice Brewed (one from the Winshields Campsite) up the south side of the Brackies Burn valley and over the ridge on which Seatsides is located. Although much of the existing buildings are screened or filtered by tree cover, open views of the southern field within the proposed development site are possible from the higher ground.

5.0 Potential Effects

5.1 Introduction

5.1.1 Within this section the effects of the proposed development on both landscape and visual receptors is assessed and the significance of that effect is graded according to the methodology set out in section 4.2. Consideration is given to the generally temporary effects which relate directly to the construction process, such as the movement and noise of heavy plant etc., and to the more long term effects evident once the construction process is completed. For each effect identified, where appropriate, the level of significance is assessed first without, and then with, reference to mitigation measures which have been incorporated into the design proposal.

5.1.2 Some measures taken to mitigate the impact of the proposed new building on the landscape were defined at a very early stage in the design process and are fundamental to the final architectural vision and design concept. These inherent mitigation measures are outlined in section 7.

5.2 Description of the proposed development

5.2.1 The development which has been assessed is illustrated in Figures 7 and 8.

Basic design concept

5.2.2 The new building has a single footprint of c.2,157m2 and is made up of the NNPA's Landscape Discovery Centre (the eastern part of the building) and the new YHA 86 bed hostel (the western section of the building). Understanding the design concept behind the proposed building helps with the interpretation of its complex form which is largely inspired by the undulating cuesta landscape in which it is located. The bold northern elevation captures the drama of the north facing Whin Sill escarpment, while the more gentle profile of the southern elevation reflects the softer south facing escarpment slopes. Similarly, building and landscape are fully integrated at the north eastern corner as the lower section of the sloping roof rises out from existing ground levels at a constant gradient before turning back on itself in order to create a dramatic viewpoint and architectural statement aligned with the vista north towards the local focal point of Peel Crag and the Whin Sill.

5.2.3 In response to the site's sloping topography, the north eastern end of the Landscape Discovery Centre is recessed into the ground while the south western end (the two storey YHA accommodation block which drops half a floor level in relation to the main building mass) appears to project out from the ground. In addition, the provision of a green roof further assimilates the built form with the surrounding green space.

5.2.4 As the building is to function as a 'gateway' to the landscapes of the National Park, it is intended that it should have a presence in the landscape and be legible and distinctive. However, it is also a fundamental part of the design concept that the building should be constructed using materials which are of a local character and provenance as much as possible.

The building

5.2.5 The shared main entrance is central to the southern elevation, much of which supports a projecting canopy at first floor level made up of photovoltaic panels. The Landscape Discovery Centre is two storeys at its north eastern end (8m above existing ground level), with a café at the upper level aligned with the striking vista to Peel Crag and the Whin Sill. Although the YHA accommodation block is two storey, the fact that it is dropped half a floor level in relation to the main building allows the first floor café and viewing terrace to the Landscape Discovery Centre to function as the feature which draws the eye. Much of the northern and western elevation reads as two storey although a pronounced section of sloping roof deliberately breaks up the straight roofline at the centre of the building and brings it down close to ground level.

5.2.6 On the northern elevation which faces out onto the Military Road corridor, the building is to be faced in whin stone filled gabion baskets at the lower levels with timber cladding used at the higher levels. The junction between the two is stepped so as to reflect the block-like profile of the actual Whin Sill outcrop. Window voids are irregular for the same reason. The stepped form of the whin stone gabions will provide opportunities for incorporating appropriate native planting on the building façade. On the south facing elevation, although the principle of using timber cladding at higher levels is repeated, lower levels are to be faced in sandstone as a softer contrast to the darker whin stone on the northern aspect.

5.2.7 On the northern elevation the main area of glazing is that of the café. This glazing continues, running along the length of the south facing elevation of the first floor as it projects above the lower sloping section of the green roof to form an atrium. Below this, much of the central section of the southern elevation is glazed with panels in between stone buttresses formed using dry stone walling techniques. On the YHA accommodation block, glazing is restricted to bedroom windows although a linear skylight is present along the length of the roof to this block.

5.2.8 The green roof to the main body of the building is to be formed using transplanted whin vegetation typical of the rare and threatened plant communities which are associated with the Whin Sill outcrop. Plant plugs are to be planted into a predominantly whinstone gravel – dust and compost mix. A ramp extending from the building at its north eastern end is to continue up on to the roof where it connects with a timber deck walkway. This weaves through the whin vegetation passing seating or rest areas, until it reaches the highest point on the roof which takes the form of a viewing deck over the first floor café. Balustrading to the publicly accessible green roof is to be provided using c.1m high galvanised steel mesh panels of irregular lengths. The green roof to the YHA accommodation block is to be constructed using a basic matrix of appropriate grass species as used on the main green roof. At the southern end, where the accommodation block terminates with the main plant room for the whole building, flues from the plant room will extend 1.5m above the level of the green roof.

5.2.9 The internal lighting for the building has yet to be specified but it is understood that the one of the key objectives would be to minimise light spill by specifying fittings which cast no light above the horizontal plane.

External spaces

5.2.10 The overriding design principle for the treatment of external spaces is that they should be treated with a light touch and blend seamlessly with the surrounding landscape. The main challenge has been to accommodate a requirement for approximately 180no. car parking spaces (87 permanent spaces and 93 overflow spaces, the latter in a grassed field). Prior to fixing the design solution illustrated in Figure 7, a number of alternative layouts were considered before being rejected and these are described in section 6 as part of the early mitigation process.

5.2.11 On the north side of the new building, the demolition of the existing visitor centre and youth hostel sees the removal of the existing car park and service area at the north eastern corner of the site. This is replaced with a green events space and the ramped access to the green roof. The new building line is set further back from the Vallum SAM and active management of the vegetation currently growing on the Vallum would include the removal of much of the lower growing ornamental shrubs including rhododendron, and dead / dying trees. Over a prolonged period, there would be a phased approach to the continued selective removal of vegetation on the Vallum which would run parallel with a programme of new planting designed to recreate some of the screening and filtering function of the removed vegetation but in a more considered location where it would not have an adverse impact on archaeological remains.

5.2.12 Key trees marked for retention along the boundary with the Military Road corridor are identified in Figure 9. At the western end of this green buffer strip between the new development and the SAM, a new woven willow hedge planted behind a dry stone wall would provide privacy and security to the YHA garden space which is laid out in the space between the new youth hostel and the western boundary. Much of the mature coniferous planting along the north western boundary is to be retained. The garden space is to incorporate an informal play space, an open events area and a patio with pergola and seat swing etc. A garden path will connect with the gateway to the Twice Brewed Inn site. The north west corner of the garden is also to accommodate a timber bat loft - a 4x4m x 4.7m high structure with a slate pitched roof. The floor of the loft would be 2.5m above ground and the space below it enclosed for use as a cycle storage facility. This element would be constructed in advance of the demolition of the existing buildings.

5.2.13 To the east of the building, a series of dry stone walls (both free standing and retaining) accommodate changes in levels as the green roof and main building integrate with the external landscape. A new lay-by set back from the highway verge is to be formed to cater for service deliveries. Just south of this lay-by, a covered bin store and cycle storage facility are to be constructed in dry stone walling and with a green turf roof. This storage area marks the eastern boundary of a courtyard area defining the arrival / gathering space outside the main entrance. A feature wall projecting out of the building segregates the main entrance area from the neighbouring outdoor classroom space to the west. This educational gathering space is to be separated from the main circulation route to the south by a hawthorn hedge. To the west of the outdoor classroom is an outdoor dining space for the YHA, the southern edge of which is defined by a dry stone retaining wall at the northern end of the YHA accommodation block. Along the southern edge of this 'front of house' area, a sweeping arc of a footpath connects the main entrance with the parking areas to the south.

5.2.14 Vehicular access to the site remains in its existing southern position and a new timber double leaf field gate is to be provided which can be closed during the movement of livestock along this. The main car park area is located between the new building and the existing triangle of woodland on the eastern site boundary. The space allocated to parking is broken up by the inclusion of new belts and clumps of native tree and shrub planting. A raised hedgebank c. 1m high defines the northern edge ofthe central parking area. All linear planting is to be maintained as informal hedgerow with unrestricted vertical growth. Two low pressure gas tanks are located near the car park entrance, screened by an extension to the existing dry stone boundary wall and by a fence with hedge planting. At the southern end of the upper car park, set against the western edge of the triangular woodland, an electric substation is to be located. It would have a 5x5m footprint, be faced in dry stone walling and have a pitched slate roof, giving it the appearance of an agricultural out-building.

5.2.15 A second tier of car parking is located further down the existing slope and south of the triangle of woodland. It ends on an area of comparatively level ground, approximately 12m back from the top of the crest of a steeper slope down into the Brackies Burn valley bottom. Coach parking bays are positioned alongside the wood's western boundary. Larger planting areas are used to break up the area of hardstanding and a broad belt of native screen planting runs along the southern edge of the car park and up the eastern boundary.

5.2.16 The main circulation route through the car park areas is to have an asphalt surface finish. Most bays within the upper car park, together with the accessible parking and drop-off area are to be top dressed with tar spray and chippings, giving a softer visual texture. Throughout the remaining car park areas, parking bays are formed using a gravel filled plastic grid.

5.2.17 Between the upper and lower car parks lies a play space focusing on naturalistic play. It also includes a concrete platform for astronomical observation. Although a detailed design for the play area has yet to be created, the provision of some fixed play equipment is anticipated but any such structure would be in timber and have a maximum height of c.3m.

5.2.18 South of the YHA accommodation block a ramped compacted whin stone path (together with resting areas and timber benches) connects the car parks and play area with the main building. A retaining wall formed in gabions with hand placed stone to the face would have a maximum height of 1.5m and run between the southern edge of the upper car park and the path which is at the lower level. New embankments are to be formed to tie the ramped path levels into the existing steep slope leading down to the south flowing tributary.

5.2.19 Within the valley bottom, the more level part of the field is to be allocated for dual use as overflow parking and events space. Minor grading of levels together with land drainage will be required to facilitate this as will a visually discreet means of reinforcing the grass surface. Access to the overflow car park is to be via an existing field gate location in the south east corner of the field. To the north of the entrance, a submerged water treatment plant is to be located in the field, discharging into the Brackies Burn.

5.2.20 The existing overhead electric cable mounted on timber poles which runs down the field and along the valley bottom, is to be relocated underground as part of the development works.

5.2.21 External lighting of the pedestrian route from the two car park areas up to the Landscape Discovery Centre and youth hostel is to be in the form of low level, directional timber bollard lighting to give the lowest level of illumination required to allow safe access.

5.2.22 A camera for registration plate recognition purposes is to be installed near the entrance gate at a point along the existing fence line. A clump of new native shrub planting would form a backdrop.

Military Road crossing point

5.2.23 It is proposed that the works on site would include improved access across the Military Road for pedestrians wishing to make the journey up to Hadrian's Wall and the Whin Sill. This is to be delivered in the form of a break in the site' northern boundary wall and millstone flags placed within the highway verge at the north eastern corner of the site (see Figure 7) with millstone flags defining a route along the opposite verge to a step down into the existing ditch, and which then continues along the base of the ditch to an existing gateway into a small rectangular copse enclosed by a dry stone wall on all sides. The millstone flag path runs around the inner face of the southern and eastern boundary walls before crossing over the wall, via a newly formed break near the north east corner, and into the highway verge of the road leading up to Peel Crag.

Junction improvements

5.2.24 Improvements to the sightlines at the junction of the Vindolanda road with the Military Road are also to be carried out as part of the development proposal. This would involve the lowering of the height of the existing dry stone retaining wall that forms the field boundary on the south side of the Military Road on the east side of the junction. The wall would be taken down to the level of the highway verge over a c.30m length and the existing stock proof post and wire fence running in the field immediately behind the wall, would be renewed. On the west side of the junction, the height of the dry stone wall forming the northern site boundary would be reduced by approximately one course over a 30m length.

5.3 Effects during construction

5.3.1 It is anticipated that during the construction process there will be adverse landscape and visual effects of low to substantial significance. These would relate primarily to the effects of construction plant movement (both on and off the site) and noise on the local landscape character and sense of tranquillity but would be temporary. It is expected that the effects would be of greatest significance during the early demolition and earth moving stages of an approximately 18 month construction phase.

5.3.2 Although stockpiles of crushed concrete, stone and brick generated during the demolition process would look out of place until the time they could be re-cycled during the construction phase, they would only be visible from a comparatively limited area. The presence of site cabins and storage containers themselves would represent an urban intrusion into the rural landscape. It is unknown where site cabins are likely to be located, but in the event that they are positioned off-site on neighbouring land to the west, perhaps on the site of the existing Twice Brewed Inn car park, then they would only really have any visual significance in views from the B6318 road corridor when travelling west and from East Bog farm in its elevated location to the north.

5.3.3 Increased levels of illumination are expected to an extent during hours of darkness when the construction site is operational or when site cabins are occupied and the significance of any adverse effects are likely to be low to moderate given their limited duration and would only be visible from a restricted area.

5.3.4 During the construction process, signage and site security fencing would be required, the visual effects of which would be difficult to mitigate. The temporary urbanisation of the landscape character of the site would be a temporary adverse landscape and visual effect of low to moderate significance when experienced closer up.

5.3.5 It is expected that the receptors most affected by the adverse effects would be the few residents around the hamlet of Twice Brewed who live close to the site or who are located in elevated positions overlooking the site from the south. Another group of receptors who are likely to be particularly sensitive to noise are those using the recreational routes on the Whin Sill ridge and for whom noises generated by the construction process could be carried northwards on the prevailing wind, resulting in a transient but moderately - substantially adverse effect on their experience and enjoyment of a landscape otherwise valued for its tranquillity and escapism.

5.4 Effects after completion

Effects on individual landscape receptors within the site

5.4.1 The following sections consider the anticipated effects on the main physical elements that constitute landscape receptors within the site.

Existing buildings:

5.4.2 These have been identified as being of low value and are considered to be of low susceptibility to change and therefore to be of low sensitivity. Their demolition represents a magnitude of change which is assessed as being beneficial to a moderate – substantial degree resulting in an effect of moderate beneficial significance.

The Vallum:

5.4.3 As a landscape feature which is designated as a Scheduled Ancient Monument, it is of high – exceptional value and potentially highly susceptible to change as a result of new built development, making it a

landscape receptor of high sensitivity. The removal of the existing youth hostel building along its southern boundary and the creation of new open space between the new buildings and the SAM boundary would improve the setting of the Vallum. In addition, the proposed initial tree removal on the mound itself would enhance its legibility in the landscape. This represents a magnitude of change which is moderately beneficial. This is likely to increase to a magnitude of substantially beneficial in the longer term as a sensitive vegetation management plan sees the gradual removal of the great majority of the existing tree cover on the Vallum. Consequently, the significance of the effect of the proposed development on the Vallum within the site is assessed as being moderately beneficial, increasing to substantially beneficial over the 20-40 year period after construction of the new facilities on site.

5.4.4 Footpath works proposed for within the copse on the opposite side of the Military Road .would have no significant impact on the visual character of this part of the SAM.

Tree cover:

5.4.5 The tree cover on site has been assessed as being of low to moderate value for the reasons set out section 5.2. It is a resource which can be recreated easily enough, but it is acknowledged that new planting may take slightly longer to reach the levels of maturity currently present on site compared to the majority of development sites due to the exposed nature of the location and more harsh growing conditions. Consequently it is considered to be of moderate susceptibility to change and of low to moderate sensitivity overall.

5.4.6 Despite the generally poor quality of much of the tree cover, its value lies largely in its screening function and the resulting contribution it makes to the character of the local landscape. As much of the most significant tree cover in this regard is to be retained, the magnitude of change as a result of the proposed development is expected to be low adverse. The overall significance of the effect on tree cover across the site is therefore assessed as being low to moderately adverse.

5.4.7 However, as the proposed new native structure planting establishes and makes visual connections with existing mature tree groups on this and adjacent sites, the effect on this landscape receptor is expected to become of low beneficial significance.

Boundary dry stone walls:

5.4.8 Of moderate landscape value, the boundary walls within the site are moderately susceptible to the redevelopment of the site on this scale and are therefore of moderate sensitivity.

5.4.9 Most of the existing walls are to be retained or extended and, where removed, replaced with new walls on slightly different alignments. The new boundary wall construction would match the visual character of the existing walls. In places they would be higher and incorporate pedestrian access gates, perhaps giving the boundary feature a slightly more domestic rather than agricultural character.

5.4.10 On balance, the expected magnitude of change to this landscape receptor is negligible to low adverse, giving an effect of negligible to low adverse significance.

Southern field:

5.4.11 The field to the south of the existing NNPA car park on site is considered to vary in landscape value from moderate to high largely as the result of the subtle change in landscape character between the upper and central part of the field and the more enclosed lower section in the bottom of the Brackies Burn valley. Given the simple nature of this landscape receptor it is highly susceptible to change as a result of new build development making it generally highly sensitivity overall.

5.4.12 For the lower section of the field, the introduction of a camera on the southern boundary as part of the system for administering parking charges and a footpath connecting the proposed overflow car park / events area with the main building, represents a low adverse magnitude of change. The proposed system for providing additional strength to the existing grass sward would have a negligible effect on the visual character of this part of the field.

5.4.13 However, in the central and upper sections a greater magnitude of adverse change is anticipated. A significant proportion of the grass sward would be replaced with hard standing for the vehicular access road and parking bays, although the latter would be formed in reinforced gravel so as to generate a more natural colour and visual texture. Parked vehicles and features associated with the proposed play area would add three dimensional elements currently lacking in the field, although it should be noted that the existing timber poles carrying the overhead power line down the length of the field would be removed as a

result of the development project. In addition, the movement of vehicles within the area of the car park would be very different from that of the sheep which occasionally graze the field. Consequently, the magnitude of change for the central and upper part of the field is expected to be moderate to substantially adverse.

5.4.14 As a result, whereas the significance of effect on the lower section of the field is assessed as being minor adverse, the effects on parts of the more elevated sections are likely to be of moderate to substantial adverse significance within a very local context.

5.4.15 Obviously the proposed new planting which forms part of the mitigation strategy for this landscape effect would take time to establish and fulfil its role as a visual barrier and filter to areas of hardstanding and vehicles on site. Based on apparent growth rates for existing mass planting on site, it is anticipated that the significance of the adverse effect would be reduced to 'moderate' within ten years, and to 'low' within twenty years.

Effects on landscape character

5.4.16 Having considered the effects on individual landscape receptors on the site, the cumulative effects need to be examined alongside other anticipated impacts such as new building construction and potential changes to the way the site is used in order to assess the overall effect on the perceived landscape character of the site and the contribution it makes to the broader landscape. The interrelationship between these elements is complex and in line with good practice it is proposed that the assessment process should focus on what are expected to be the most significant effects on the key aspects of the baseline landscape character.

5.4.17 In Section 3 of this report, the review of planning and management policies relating to the landscape of the Northumberland National Park and of the local area around the Once Brewed site provided an overview of the characteristics of the landscape which are considered to be of most value and therefore most worthy of protection. It is suggested that the key aspects of greatest significance can be summarised as being:

- the sense of tranquillity;
- distinctive local character;
- dark skies and the night time landscape.

5.4.18 In all instances, when assessed in these terms, the landscape around the proposed development site is judged to be of high value, increasing to exceptionally high with regard to distinctive local character.

5.4.19 In the context of the above, the landscape's susceptibility to the potential changes associated with the construction of a new building on the existing site is considered to be moderate due to the scale of the landscape and the visual character of the facilities already on site. In terms of establishing landscape sensitivity, this is assessed as being moderate - high in all instances.

5.4.20 Due to the complexity of establishing the anticipated magnitude of change resulting from the many facets of the development on the key aspects of landscape character, it is proposed that critical aspects of the development project should be assessed individually. A judgement can then be made on the composite magnitude of change.

5.4.21 Using the *Design Guide Supplementary Planning Document* within the NNP's Local Development Framework as a reference, the main aspects of the development selected for assessment are: scale – (building and external works), rhythm, materials – (colour, texture, reflection), signage, function, lighting, movement and noise. Each one is considered in turn, although some are inevitably interconnected.

Scale:

5.4.22 Building - the footprint of the new building (2,157m2) is greater than the combined footprints of the existing buildings (957m2) and it would reach two storeys in height (8m) at its eastern end where currently the visitor centre is only one storey. At its western end the accommodation block to the youth hostel is also two storeys but this part of the structure drops half a floor in relation to the main new building utilising the sloping site to best advantage. Similarly, in the north east corner, the ground floor exhibition space is cut into existing ground level by c.1m.

5.4.23 The observer's perception of scale is influenced to a degree by levels of visual screening, built form and construction materials (see below). In this instance, much of the tree cover on the site boundaries is to be retained, however the tree group currently screening the YHA building on its southern aspect would be lost.

5.4.24 Although larger in size, the designed form of the new building is a more sensitive response to the site topography, rising out of the ground in part at its eastern end with a split level roof which breaks up the visual mass of the building. The proposed use of natural materials such as whin stone, sandstone and timber cladding would help reduce the apparent size of the building, allowing it to blend into the surrounding soft landscaping as is the case with the existing structure. Significantly more glazing is proposed in the new structure than currently exists and this can help reduce the perception of visual mass by reflecting surrounding colours and textures. Magnitude of change in relation to size of building = low to moderate adverse.

5.4.25 External works - an increase in the area of car parking is proposed. The existing site has capacity for c. 77 no. vehicles whereas the new permanent car park facility would accommodate c. 90 vehicles including 3 coaches. The majority of these would be located in a field currently used for pasture to the south of the existing site, resulting in the permanent replacement of soft landscaping with hard standing and static vehicles. The magnitude of change in relation to the scale of the external layout for the upper sections of the field is moderate to substantial adverse but is experienced from a comparatively restricted area locally. In addition, when considering the change in size or extent of car parking, changes in distribution of the areas of parking are also important. The new development would see the removal of parking on one of the most visually prominent parts of the site (that being the north east corner – visible from the WHS and the Military Road corridor) with the area being given over to soft landscaping. This would bring a beneficial change of low magnitude. A further c.90 overflow parking spaces are proposed for the more level lower area at the southern end of the field but as this would be only occasional and is reversible, the net level of change for this more sensitive part of the site is assessed as being negligible.

Rhythm:

5.4.26 The form of the new building's green roofline is intended to flow out of the landscape and the elevational treatments, on the north side in particular, are designed to reflect the rhythm of the Whin Sill escarpment itself. The pattern of level changes in the built form mimics that of the local cuesta landscape as do the lines and terraces in the external layout. This contrasts favourably with the regular geometric patterns of the existing site features and layout. Magnitude of change in relation to rhythm of built structures and external layout = substantial beneficial.

Materials:

5.4.27 Colour – in terms of surface finishes to the new main building, colours would generally be the natural and muted warm / dark / silver greys and browns associated with whinstone, sandstone and timber. These softer colours would extend out into the external surface finishes through the use of natural aggregates and stone flags. Although parking areas would be formed in natural aggregates, main vehicular circulation routes would be formed in black tarmac – as is the case in the existing car park on site. Extensive areas of glazing would generally reflect colours in the surrounding external landscaping. With regard to the colour of materials used for miscellaneous items within external circulation spaces, it is anticipated that a considered and coordinated approach to specification on the new project would generate a more subtle palate of colours than currently exists. There would be a very strong emphasis on the use of appropriate native tree, shrub, herbaceous and grass species throughout the site and it is anticipated that colours of the soft landscaping would blend successfully with the wider landscape. The effects of the colour of the whin vegetation proposed for the green roof are difficult to assess given that the recreation of such specialist and unique plant communities in a green roof location is untested and colonisation / success rates are unknown. However, it is expected that the colour of the vegetation that does establish, although having a resonance with grassland in the wider local landscape, will differ from that of the grazed fields adjacent to the site – particularly as the harsher micro climate of the green roof may result in the rooftop vegetation responding earlier to seasonal changes than the plant communities in the neighbouring fields. In the light of the above, the magnitude of change in relation to the colour of materials for built structures would be expected to be low beneficial. However, when considered together with the introduction of cars into the green field to the south of the existing site, (which is off-set to a degree by the beneficial effect of the proposal to remove vehicles from the northern site boundary) the magnitude of change shifts to being one of moderate adverse.

5.4.28 Texture – the issues are very much the same as those set out above for the colour of materials used on the development, the main exception being that of the proposed glazing. Although large glazed panels do occur on the existing buildings, the proposed glazed southern elevation at the main entrance, the glazed first floor café and the glazed atrium are designed to feature as key elements of the fabric of the building. Long sections of glass present a visual texture which is very contemporary in character and its use in this manner represents a departure from the scale to which it is characteristically used in buildings elsewhere within the local landscape. Consequently, the magnitude of change in relation to the visual texture of

materials used on site is assessed as being low - moderate adverse. However, see section on 'function' below.

5.4.29 Reflection – the issue of light reflection off glazed surfaces within the building and off the metallic surfaces of vehicles is significant given the proposed increase in both these elements within the development proposals. The glare resulting from sunlight reflecting off such surfaces may be only transient but when seen in the context of a landscape which is generally regarded as being free from overt signs of significant human intrusion, the experience is readily interpreted as an indicator of the presence of man-made objects in the landscape. A computer generated sun path model has confirmed that the large area of glazing to the café which faces north east towards the Whin Sill and Hadrian's Wall WHS will not experience direct sunlight and would not therefore result in reflected light being visible from elevated view points to the north.

5.4.30 The glazed south facing elevation is shielded by a canopy of photovoltaic panels that projects 3m from the building and which would therefore screen the windows from direct sunlight. The panels themselves are positioned at an angle that would not result in visible solar glare and which gives them a very low visual profile when seen in views form the south. However, the south and south east facing glazing to the atrium could result in reflected light being seen from points within a restricted area on the south side of the Brackies Burn and Bradley Burn valleys, although this would be occasional and obviously of a transient nature. The same applies to the reflection of light off the metallic surfaces and windscreens of parked / moving cars within the proposed south facing car park. It is also worth noting here that light reflection is not uncommon within the broader landscape depending on weather conditions and time of year. The glare of reflected strong sunlight can be seen across the landscape from multiple sources such as standing water in fields and on roads and from wet black plastic bale wrap. Magnitude of change in relation to increase in reflective surfaces = low adverse.

Signage:

5.4.31 Badly located or poorly coordinated signage can lead to the urbanisation of the landscape. As well as signage proposed for the area within the site, where required, effects relating to the introduction of new signage within the public highways on the approach to the new facilities needs to be taken into account.

5.4.32 Existing signage within the site, although uncoordinated, does not appear to have a significant adverse effect on landscape character. New signage for the Landscape Discovery Centre and Youth Hostel would be kept to a minimum and would be coordinated in terms of form, style and materials. A main site marker for the project could be the subject of an artist's commission and as such no design proposals are available for assessment. However, it is anticipated that part of any design brief would be the requirement that any installation must represent a creative response to the character of the local landscape.

5.4.33 The presence of signage and interpretation along the Military Road is identified as being characteristic of the landscape of the area in the Landscape Character Assessment of Tynedale District and Northumberland National Park (see section 5.3). Existing bus stop signs located in the highway verge either side of the road leading into the site would be removed as part of the project (buses would pick-up / drop-off within the site) bringing some beneficial effect.

5.4.34 A comprehensive review of the existing road signage and the need to replace damaged signs and the size and positioning of signs has yet to be carried out. This process may become linked to the possible introduction of a 40mph speed restriction along the Military Road at Twice Brewed. However, given the level of signage already in place, it is anticipated that the magnitude of change in relation to signage would be negligible.

Function:

5.4.35 The 'Design Guide Supplementary Planning Document' reviewed in section 3.3 above observes that within the National Park, form and hierarchy is evident in individual buildings and that this has traditionally been dictated by function and intended status. It is the case that public knowledge about the function or role of a building will influence how its presence in the landscape is interpreted. In the case of The Sill project, the scale and form of the building and use of contemporary sustainable construction techniques may be regarded more favourably in the knowledge that the building represents a public gateway to the National Park and acts, quite literally as a window to the riches of its landscapes, than if it were a private commercial venture or domestic residence. The Landscape Discovery Centre would be one of the primary visitor destinations in the National Park and possibly the region. The principle that this status should be reflected in its appearance and presence in the landscape is one which has been long established in this ancient landscape. Magnitude of change in relation to the visual interpretation of the intended function of the building = substantially beneficial.

Lighting:

5.4.36 There are three main aspects relating specifically to the issue of lighting in relation to the landscape and visual effects of the development proposal:

Light spill from internal light sources – the existing YHA facility is operational 24hrs a day but between the end of October and the end of March, the NNPA visitor centre closes during the week and is only open between 10am – 3pm at weekends during this period. The new YHA would operate on the same basis as the existing, but the new Landscape Discovery Centre is expected to operate all year round and to provide a venue for evening activities. Whereas the glazing to the proposed first floor café would have black-out blinds, the glazed atrium, the glazed sky light to the YHA accommodation block and the floor to ceiling glazing at the main entrance which provides access to the YHA part of the building and so would be operational 24hrs a day, would not have any screening. Consequently, there is higher potential for light spill to occur at these points. Such light spillage would most likely present itself as a soft glow along the length of these glazed features at a scale and form which would be uncharacteristic of existing patterns of night time illumination in the locality. There is some internal glow within the existing youth hostel but it is generally screened from public view by planting. Without any mitigation measures in place, the expected magnitude of change in relation to light spillage from the building would be moderately adverse, the change being greatest when observed from the south. However, it is expected that internal light fittings in the public circulation space in these areas would prevent any light spillage beyond the horizontal and would comply with the design guidance set out in the Lighting Management Plan. Together with the impact of screen planting as it matures, the magnitude of change would be revised to low – moderate adverse after approximately 10years, and low – negligible after 20 years.

5.4.37 Light spill from external lighting – in section 4.4 it was noted that wall mounted external lighting on the existing buildings are not covered and the main effect of this is experienced in views from the north where the regular spacing of external light units gives the impression of there being a large commercial scale building present in the night landscape. Consequently, their removal would be a change of low beneficial magnitude. All external lighting associated with the new development would be covered to prevent light spill beyond the horizontal and light sources would be orientated so as to face away from primary public view points beyond the site boundary. On the new development proposal, the element most likely to generate adverse effects would be the lighting required for the car park areas and for the pedestrian routes linking the upper, lower and overflow parking area with the main building. Light sources would be present in views from the south where there currently are none and there is the potential for lighting to the footpath route to read as a regular linear feature which is out of keeping with the general distribution pattern of infrequent and scattered light sources across the night landscape. Without mitigation, this would generate a magnitude of change which was moderate - substantially adverse over a limited local area. Again however, it is expected that the design of the external lighting would comply with guidance in the Lighting Management Plan. Lighting to the footpath in particular could be movement activated so that its presence is only temporary and it could be switched off after a certain time in the evenings. On this basis, the potential magnitude of change is assessed as being low - moderately adverse.

5.4.38 The visual impact of illumination from car headlamps – although transitory in nature, the moving glare from car headlamps draws the eye in an otherwise tranquil night time landscape and is visible from a significant distance. The existing car parking for the YHA is on the northern boundary of the site where night time vehicular movement is a feature of the Military Road corridor. The NNPA car parking where vehicles are generally off site by 4pm in winter months is located on the more peaceful southern side of the building.

In contrast, the new development would see all vehicle parking provided on the south facing valley slope. The increase in both the likely duration of periods of night time vehicle movement and the actual number of movements would represent a substantial adverse magnitude of change with regard to the effects of illumination from car headlamps when seen from limited areas within the lower parts of the Brackies Burn valley, but would reduce in significance as one moved up the valley slopes (see schedule 1 – PM5).

Movement:

5.4.39 The movement of objects within a landscape can influence the perceived levels of peacefulness and tranquillity ascribed to its character. It is expected that the new site facilities could attract 80,000 visitors a year – with the potential for this to increase to 100,000 within a three year period from opening and perhaps up to 120,000 over a longer period. Although current visitor numbers are at a level of c. 45,000 a year, in the 1990's they stood at around 100,000, dropping to c. 70,000 by 2005-6. Consequently, the target visitor numbers for the new facility do not represent a significant departure from the numbers of visitors accommodated on the site within the last 20 years. The two main factors associated with higher visitor numbers to the new building are the increase in vehicle movements and the heightened visibility of people accessing the café terrace and green roof. The effect associated with static parked cars is considered under the heading of 'materials' above. The effects relating specifically to moving cars are considered to be secondary but would still be adverse when occurring an a part of the site which is predominantly static in character – apart from when sheep are present in the field. In a landscape where

thousands of visitors walk along visually prominent sections of the line of Hadrian's Wall and along the minor roads adjacent to the Once Brewed site, the presence of visitors to the site walking up the ramped green roof does not represent an adverse change and could even be considered as another feature of interest on the B6318 route. Consequently the magnitude of change relating to issues of increased movement on the site is assessed as being low adverse.

Noise:

5.4.40 Given the presence of the B6318 road corridor immediately to the north of the site and the lack of permanent neighbouring receptors who might be affected by any moderate increase in noise as a result of increased visitor numbers and external events, the magnitude of change in the landscape character relating to increased noise levels is considered to be negligible adverse.

5.4.41 In section 4.2 of this report it was noted that any effects which are assessed as being moderately or substantially adverse should influence the mitigation strategy for the proposed development. Consequently, it is worth looking in more detail at the elements that are believed to generate the most significant magnitudes of adverse change in landscape character – namely: scale of external works; colour of materials, and lighting. In all instances the critical issues relate to the impact of extending car parking into the southern field where the resulting effects have been assessed on the basis of the condition of the site at the time of completion of the construction works. Obviously, the proposed screen planting within the car park areas and particularly along the southern edge will have a significant mitigating effect given time in terms of the screening / filtering of views of parked cars and associated external lighting. Consequently, it is assessed that after ten years growth, effects judged to be moderately adverse will be mitigated to low adverse, diminishing to negligible adverse after 20 years when the planting should be approaching a height comparable to existing tree groups.

Effects on visual receptors – overview

5.4.42 The Zone of Theoretical Visibility (ZTV) for the site containing an 8m high structure (see Figure 4) is only marginally larger than that based on ground level. In the wider landscape it is more extensive in the area to the south of Beltingham and the area north of Whitfield and includes new areas of moorland west of Whitfield and at Blenkinson Common south of Greenfield. Nearer the site (see Figure 6) it is slightly more extensive in the area around Thorngrafton Common, on the southern slopes of Hotbank Crags and south of Sycamore Gap. However, given the nature of the terrain affected, this increase in the ZVT is not considered significant.

5.4.43 For those resident in the cluster of properties making up the hamlet of Twice Brewed, the new building on the Once Brewed site would be hidden by the tree cover around the boundary of the site or by existing buildings. A view of the southern field containing vehicles in the new car park would be possible from a short section of road east of Winshields Farm campsite but would be of low significance in the view. In terms of night time views, the potential effect on residential visual receptors located on the south side of the Brackies Burn valley, from where the impact of lighting is likely to be greatest, is assessed in relation to viewpoint PM 5 in Schedule 1 below.

5.4.44 In the broader landscape within the ZTV, one of the areas potentially most sensitive to increased night time illumination is the higher ground south east of Langley on the basis that this is probably the most readily accessed part of the AONB within the ZTV which gives long distance vistas that include the Once Brewed site. From the viewpoint VP6 (see Figure 4) on the B6305, uncovered light sources associated with the new facilities could potentially be visible. A softer glow arising from light spillage from hidden light sources such as might occur along the line of the glazed atrium, would be much less legible at this distance. However, any lighting would be seen in the context of a night time view which already features bright lights on the horizon to the west of Once Brewed; moving lights on the A69 (and to a lesser extent on the B6318); small clusters of lights generally across the landscape (including Bardon Mill, Humshaugh), and a larger cluster at Haltwhistle. Consequently, the significance of any additional external lighting on views from the North Pennines AONB is assessed as being negligible.

Effects on selected representative visual receptors

5.4.46 The nature of more direct views of the site from within the wider local area is assessed using the selected viewpoints identified in Figure 6. These have been picked on the basis of selecting what are considered to be the most sensitive visual receptors whether they are private properties, public recreational routes or landscape viewpoints of aesthetic, cultural or heritage significance and the selection has been make in consultation with the National Park planning authority. To assist the assessment process, photographs taken from those visual receptors thought to be of highest value have been used to generate photomontages of the proposed development (PM nos. 1-8). Photographs with the development site identified have been used for the remaining viewpoints (VP nos. 1-5).

Schedule 1: Selected viewpoints for assessment of visual effects. (To be read in conjunction with Figures 11-20.)

Ref.	Visual Receptor with OS grid ref.	Distance from site	Assessment of visual effect	Mitigation
PM1	Winshields Crags (Hadrian's Wall Path and Pennine Way) 374211, 567564	1.2km	*Receptor sensitivity*: WHS and national recreational route. High *Magnitude of change*: Extensive views south to the North Pennines AONB are possible from the most elevated point on the Whin Sill ridge. The site is visible in the middle distance. The YHA accommodation block is visible in part above peripheral tree cover but the scale not dissimilar to the neighbouring Twice Brewed Inn which is much more prominent in the view. Negligible. *Significance of effects*: Negligible.	None required.
PM2	Peel Crags (Hadrian's Wall Path and Pennine Way) 375390, 567540	650m	*Receptor sensitivity*: WHS and national recreational route. High *Magnitude of change*: Views south to the North Pennines AONB are possible over the southern ridge of the Brackies Burn Valley. The site is visible in the middle distance. The eastern end of the glazed café is prominent but much of the remainder of the new building is heavily filtered by retained tree cover along the Vallum. The contemporary materials of the visible structure have no strong colours to draw the eye, unlike the Twice Brewed Inn which contrasts strongly with the muted natural colours of the surrounding landscape and which is comparable in scale with the visible sections of the proposed new structure. Vehicles currently visible at the north east corner of the site when present, would be removed from the view. The property of Seatsides is also prominent in the view on top of the ridge just below the skyline. Negligible - Low adverse. *Significance of effects*: Low adverse.	None required.
PM3	Military Road corridor to the west (nr. Twice Brewed Inn) 375110, 566900	100m	*Receptor sensitivity*: This road is the main route for tourists passing through this valued landscape but views of the site are transitory. The eye of travellers is likely to be drawn to prominent views of Peel Crag to the north. Moderate *Magnitude of change*: Like the existing YHA building, the new facility would be largely screened by existing boundary tree cover. A short section of the YHA accommodation block would be visible in views across the eastern end of the Twice Brewed Inn car park. Negligible. *Significance of effects*: Negligible.	None required.

Ref.	Visual Receptor with OS grid ref.	Distance from site	Assessment of visual effect	Mitigation
PM4	Military Road corridor to the east (near junction) 375470, 566986	150m	*Receptor sensitivity*: This road is the main route for tourists passing through this valued landscape and views of the site are less transitory when heading west. For many visitors travelling for leisure purposes, the new building may represent their destination point. Moderate - high *Magnitude of change*: Screened in part on the approach by the boundary wall on the south side of the road for those travelling by car, once visible the building would draw the eye, the glazing and steelwork of the green roof balustrade representing a very contemporary structure. Colours however would be neutral with the possibility of some late afternoon sun reflecting off the café's south facing windows. The lower section of the sloping green roof breaks up the visual mass of the building. The vertical support of the café canopy and vertical balustrade posts are characteristic of other vertical elements such as fence posts, telegraph poles and exposed tree trunks. The bat roost structure in the YHA garden in the north west corner of the site would be screened to a significant degree by a retained oak tree near the corner of the café terrace. Low adverse. *Significance of effects*: Low - moderate adverse.	Specimen tree planting proposed on the eastern boundary of the site would further break up the visual mass of the building and the amount of glazing which can be seen, reducing the significance of the visual effect over time to Low adverse.
PM5	Seatsides residential property and PROW 374933,566131	520m	*Receptor sensitivity*: Private residence and minor recreational route but with clear views of the Whin Sill Ridge and the WHS. High *Magnitude of change*: The new building sits below the skyline but close to the landform of Peel Crag which draws the eye. Much of the new building is visible at this angle of view and would appear as the largest built structure in the local landscape. Although cars in the existing NNPA car park are visible in the current view, the new car parking would be more extensive and coaches parked against the back drop of existing woodland would be visible. The play area would also be seen. As the viewpoint is higher than the new development, it is unlikely that there would be a significant issue relating to sunlight reflecting off the south facing atrium glazing but visual receptors could experience temporary sun glare off vehicles at times. Seatsides is likely to be the private property most affected by the impact of external lighting. However, from this vantage point two bright light sources can be seen on the existing site and lighting from neighbouring properties (Vallum Lodge, East Bog, Twice Brewed Inn, Smith's Field) is also visible. In addition, car headlamps can clearly be seen moving along the Military Road along much of the section from Hotbank Crags to a point past Winshield Farm camp site. Seen in this context, the introduction of vehicle lights into the southern field is less significant than might be first anticipated. Low – Moderate adverse. *Significance of effects*: Moderate adverse.	As it matures, the structure planting proposed within the car park and along its southern and western edges would reduce the significance of this adverse effect to Negligible – Low by eventually screening the car park and providing a heavy filter to views of the building.

Ref.	Visual Receptor with OS grid ref.	Distance from site	Assessment of visual effect	Mitigation
PM6	'Long Stone' view point, minor road and PROW, Thorngrafton Common 377851, 566414	2.58km	*Receptor sensitivity*: This viewpoint represents views gained from a minor road and recreational route but which include views down on to the site of Vindolanda. Moderate - High *Magnitude of change*: The Once Brewed site is visible in the same direction of view as both the Roman heritage site of Vindolanda and Winshields Crag, but any new building would be barely noticeable when seen from this distance, especially when other buildings such as farmsteads are clearly visible as a feature of the local landscape. Negligible. *Significance of effects*: Negligible.	None required.
PM7	'Springwell Cottage', National Trust holiday cottage 375280, 567068	130m	*Receptor sensitivity*: Holiday cottage owned by National Trust. No permanent residents but occupiers likely to be staying for the purpose of recreational engagement with the landscape., although property looks out towards B6318 road corridor. Moderate *Magnitude of change*: Principle view from front of property is south to Military Road which virtually forms the skyline, with no significant distant horizon the draw the eye. Roof of existing NNPA visitor centre is visible above old earthworks on the foreground but is visually indistinct. The eastern end of the new building with its glazed café would be higher and materials more contemporary in appearance. People on the café terrace and the green roof observation point above the café would be visible, introducing colour and movement into the view, with associated possible increased noise levels above the sound of any traffic movements. However, proposed events spaces between the building and the B6318 would be hidden from view. The western end of the YHA facilities would be visible as are the existing, but with slightly less filtering following selected tree removal on the Vallum. This is one view where the screening / filtering of the new building by tree cover would be significantly higher when deciduous trees are in leaf, than during winter months. Low- Moderate adverse. *Significance of effects*: Low - Moderate adverse.	Longer term management of tree removal on the Vallum should be sensitive to the visual effects experienced by this visual receptor. New planting proposed for the space between the new building and the Vallum SAM to maintain light filtering of views of the new building, could be positioned to maximise the screening effect from this property. If necessary, there is scope to plant a hedge for screening purposes along the inner edge of the southern boundary wall to the cottage.

Ref.	Visual Receptor with OS grid ref.	Distance from site	Assessment of visual effect	Mitigation
PM8	Henshaw to Once Brewed minor country road 375409, 566515	160m	*Receptor sensitivity*: Main direction of approach to the Once Brewed facilities for tourists leaving the A69. Views from the road are transient with direct views into the southern field often filtered by roadside vegetation, but the site is seen in the context of the first open dramatic views of Peel Crag and the Whin Sill ridge line as travellers cross the local ridgeline and the NNP boundary and drop down into the Brackies Burn valley. Moderate - High *Magnitude of change*: The NNPA Landscape Discovery Centre would be hidden behind the existing woodland along the eastern site boundary but there would be direct open views of the YHA accommodation block. Whereas the proposed neutral facing materials of stone and timber for the visible part of the building would sit comfortably in the landscape, the colours and reflective nature of parked vehicles in the southern field would draw the eye. Although the far eastern corner of the café is likely to be seen projecting out from behind the semi-mature woodland block, parked vehicles such as cars, vans and minibuses which are currently visible when present in the YHA car park in the north eastern corner, would be removed from view. Other buildings such as the Twice Brewed Inn, West Twice Brewed and East Bog farm are also visible in the view, but the new building is greater in scale. The scale of the new parking area is significantly foreshortened in the view so that cars at the southern end of the car park would screen those further up the slope. Parked coaches would be seen, but against a woodland backdrop. Moderate adverse. *Significance of effects*: Moderate adverse.	The visual effect on receptors at this viewpoint is based on the condition of the site at time of completion of the contracted works and so the effects of mitigating screen planting is not taken into account. It is anticipated that as the planting matures, after 10years the adverse significance of visual effects would be reduced to Low, reducing further to Negligible – Low after twenty years, when the new structure planting would blend seamlessly with the existing tree groups either side.
VP1	Military Road corridor to the west of the Twice Brewed Inn 374872, 566838	320	*Receptor sensitivity*: This road is the main route for tourists passing through this valued landscape but near distance views tend to be transitory. The eye of travellers is likely to be drawn to prominent views of Peel Crag to the north. Moderate *Magnitude of change*: The northern part of the site is screened from view by existing buildings and vegetation cover. Although limited transient views of the upper section of the southern field are possible, even when containing parked cars, this is unlikely to draw the eye. Negligible. *Significance of effects*: Low – Negligible adverse.	In time, screen planting would reduce this level of significance to Negligible.

Ref.	Visual Receptor with OS grid ref.	Distance from site)	Assessment of visual effect	Mitigation
VP2	PROW nr. Melkridge Tilery Campsite 373400, 566040	1.95km	*Receptor sensitivity*: A view from a minor recreational route but which provides open vistas north in which the profile and drama of the Whin Sill escarpment is particularly legible. Moderate - High *Magnitude of change*: The proposed new building would be hidden by existing tree cover in the locality but a limited view of the southern field is possible. Although indistinct in the broader landscape at present, this element of the site is more likely to catch the eye when containing parked cars (which may reflect strong sunlight at times) and the proposed play area. It is worth noting however, that vehicles moving on the B6318 are a regular feature in this view. Negligible – Low adverse. *Significance of effects*: Low adverse.	Proposed native structure planting would reduce the significance of this effect to Negligible
VP3	'Peel Bothy', National Trust holiday cottage 375278, 567410	460m	*Receptor sensitivity*: Holiday cottage owned by National Trust. No permanent residents but occupiers likely to be staying for the purpose of recreational engagement with the landscape. Moderate - High *Magnitude of change*: Principle views from the front of the property are southward across the Brackies Burn valley. From this elevated position, unlike Springwell Cottage, much more extensive views over the southern valley ridge to the North Pennines AONB beyond, are possible. The glazed north-east facing café is likely to be visible in the position where the current visitor centre is seen now. The YHA facility is likely to be less filtered in the view than the existing building due to proposed selective tree removal on the Vallum. The actual scale of the building would be broken up by the retained tree cover with the result that visible sections of the building would be in keeping with the scale of the neighbouring Twice Brewed Inn, but would blend more successfully into the visual texture of the landscape. In this view, other elements such as the North Pennine moors on the horizon and the property of Seatsides in its prominent location on top of the Brackies Burn valley ridge are also likely to register as focal points of interest. Negligible - Low adverse. *Significance of effects*: Low adverse.	None required.

Ref.	Visual Receptor with OS grid ref.	Distance from site	Assessment of visual effect	Mitigation
VP4	Milecastle 39nr 'Sycamore Gap', (Hadrian's Wall Path and Pennine Way) 376150, 567717	1.05km	*Receptor sensitivity*: WHS and national recreational route. Regional visitor destination of contemporary cultural significance. High *Magnitude of change*: The Once Brewed site features in the middle ground of vistas which extend a significant distance to the North Pennines – weather permitting. In this view southward, the landscape appears to be very simple and rolling and the Once Brewed site facilities would register with receptor as a focal point of interest, set within a clump of existing trees. The visible sections of new building would compare favourably in terms of scale compared with the neighbouring Twice Brewed Inn. Negligible. *Significance of effects*: Negligible.	None required.
VP5	Hotbank Crags, (Hadrian's Wall Path and Pennine Way) 378045, 568616	3.3km	*Receptor sensitivity*: WHS and national recreational route. High *Magnitude of change*: Site is only just discernable in long distance views gained from just below the Whin Sill ridge. From the ridge itself the site is hidden by an existing plantation. Negligible. *Significance of effects*: Negligible.	None required.

6 Mitigation Measures

6.1 Introduction

6.1.1 Mitigation of potential significant adverse effects can be addressed through the processes of prevention or avoidance (the preferred option); through reduction, or through compensation (generally considered to be the least favourable option).

6.1.2 This section of the LVIA explains how a review of potential landscape and visual effects has been a fundamental part of the broader iterative design process for The Sill project and that the mitigation of potential adverse effects has been considered from the earliest stages of the first site analysis and identification of site constraints and opportunities. As well as providing an overview to the design development of the project and identifying the main mitigation measures embedded in the final design scheme, it also reviews alternative design options for the car parking element which were rejected on the basis of landscape and visual considerations. It then considers mitigation proposals relating specifically to the potential construction and post-construction phases of the project.

6.1.3 The impact that the mitigation measures incorporated within the development proposal are expected to have on the potential significant adverse landscape and visual effects identified, is taken into account within the assessment process set out in section 5.

6.2 Design evolution

6.2.1. Right from the outset, the design brief for The Sill project has specified that the proposed new facilities on the Once Brewed site (ie. the Landscape Discovery Centre and new youth hostel) should be 'of the landscape' and a landscape architect has been part of the design team working closely with the project architect from the preliminary site analysis stage. Community consultation has also taken place throughout the design process and has informed the final development proposal.

6.2.2 The positioning of the proposed building and its alignment within the site has been influenced by a desire to respond positively to both the detailed site characteristics and the broader landscape character. The alignment of the building maximises the opportunity to bed the structure into the sloping topography, thereby minimising the visual effects of providing a two storey buildings on the site, while at the same time making the most of the visual connection with the dramatic views of Peel Crags to the north east. It also allows the green roof to merge with the existing ground levels in a seamless integration of landscape and building. The green roof itself is also intended to reduce the apparent visual mass of the proposed new built structure.

6.2.3 The positioning of the building avoids adverse physical impact on the Vallum Scheduled Ancient Monument and facilitates the retention of the majority of the key trees on the northern and western site boundaries and the visual screening / filtering function which they perform. Much of the proposed tree removal on the northern boundary is driven by a desire to improve the legibility and interpretation of the Vallum as a heritage asset and promote its preservation.

6.2.4 Similarly, to protect and enhance the setting of the Vallum, a decision was taken to remove any car parking or service / delivery area from the zone between the northern elevation of the building and the Scheduled Ancient Monument.

6.2.5 With regard to the layout of external spaces, the car parking for the new facilities has been located to the south of the building where it is screened from views gained from the Hadrian's Wall and the World Heritage Site. Alternative locations for the car parking were considered during the design process prior to being discounted and these are reviewed in section 6.3 below.

6.2.6 The layout of the final car park design is intended to balance a requirement to deliver as many parking spaces close to the main building as possible with the desire to provide green infrastructure throughout the car park which would break up the visual mass of the associated hard landscaping and integrate it into the landscape. The result is a series of tiers to the parking provision which work with the existing contours.

6.2.7 The existing triangle of woodland on the eastern boundary is retained so as to make the most of its screening potential. Coach parking is located along its western edge so that these larger vehicles are positioned against a backdrop of mature tree cover.

6.2.8 Where potential adverse effects cannot be avoided, in order to minimise the visual effects of proposed car parking within the open field to the south of the existing facilities on site, the southern edge of the parking has been set back from a break in slope which means that parked cars would be screened by the local landform in views up the field from the adjacent public highway as it crosses the Brackies Burn. It also means proposed screen planting can be positioned on subtle mounding along the southern edge of the parking area thereby maximising its screening impact. Where appropriate, hazel or willow hurdles would be used to act as a wind break to facilitate plant establishment and to provide an early screen to parked vehicles.

6.2.9 Throughout the external site layout, native tree and shrub planting has been designed in a manner that will allow it to integrate visually with existing planting beyond the site as it matures when seen in the broader landscape context in views from the south of the Brackies Burn. Similarly, plant species associated with the Whin Sill are proposed for the green roof (rather than commercially available sedum carpets) in order to create visual textures and colours more appropriate to the local landscape.

6.2.10 Proposed materials for the construction of the new building and of the external areas of hardstanding have been selected with a view to minimising adverse visual effects and reflecting existing landscape character. The proposed use of whinstone and sandstone as facing material for the building makes reference to locally available building materials and where practical, external hard surfaces would be formed or surface dressed with granular materials such as gravel or whinstone aggregate.

6.2.11 Where the loss of wildlife habitat in the form of tree and shrub cover or semi-improved grassland is unavoidable, it is intended that new habitats should be fully integrated with the fabric of the building and external structures as compensation. Although 25no. individual trees and 710m2 of native structure planting would be lost, c80no. new individual trees, 1,745m2 of native structure planting and 110 linear m of new hedging would be planted as part of the development. In time, it is proposed that the new development would enhance the biodiversity of the site.

6.2.12 With regard to lighting and the requirement to comply with the Dark Sky Park Lighting Management Plan, external lighting is to be kept to an absolute minimum. A detailed lighting scheme is not currently available but it is anticipated that it will follow the recommendations set out in both the LMP and the Lighting Impact Assessment prepared for the development. Movement activated lighting and cut-off / timing devices are likely to be employed as necessary together with the use of concealed sources of red light for external footpath links with the car parking area.

6.3 Alternative car park options

6.3.1 During the early stages of the design process, a number of options for delivering the appropriate number of parking spaces required were considered before being rejected. These are illustrated in Figure 10.

6.3.2 As an alternative to extending the proposed development footprint beyond the southern boundary of the existing site, options for using the adjacent field to the east of the site were examined. In the past, overflow parking for the existing NNPA facility has been accommodated on occasion in the northern part of the eastern field, but this was rejected as a more formal solution to accommodating increased parking numbers due to the potential adverse effect on views from the World Heritage Site and on known archaeological features.

6.3.3 The use of the lower sections of the same field as an additional or overflow car park where rejected for similar reasons. It also became apparent that the local highway authority was concerned about issues of highway safety with regard to any proposed new vehicle access / exit point to the field. In addition, the permanent use of such a large section of the field for car parking would have compromised the viability of the field for agricultural purposes.

6.4 During construction

6.4.1 Section 5.3 of this report identifies the potentially significant adverse landscape and visual effects that might be associated specifically with the construction phase of the proposed development. Measures to mitigate such effects are generally secondary measures in that they are not an integral part of the proposed development but relate more to the manner in which the construction process is carried out and to working methods or constraints identified within the building contract documentation.

6.4.2 The positioning of site cabins either within the site or on adjacent land should be carefully considered in order to minimise any associated adverse visual effects. This is likely to be most relevant to the construction phase rather than any demolition phase.

6.4.3 The visual effects of the post demolition phase, when existing buildings have been levelled and stockpiles of crushed concrete and stone have been formed for reuse in the construction phase, would be minimised if the construction phase commenced immediately as part of the same contract.

6.4.4 Opportunities to store stripped soils on site in a manner that provides temporary screening to vehicle movement and construction operations should be maximised.

6.4.5 Working methods will be required to address the requirement to reduce external light emissions to the minimum necessary for safe working and restrictions on working hours during winter months may be employed.

6.4.6 The timing of vegetation removal would be restricted so as to avoid the bird nesting season and the building demolition phase would need to be carried out in strict accordance with the bat mitigation strategy forming part of the bat licence issued by English Nature.

6.4.7 Protective fencing compliant with BS 5837:2012 'Trees in relation to design, demolition and construction' would be maintained throughout the construction phase to protect the root protection areas of trees to be retained.

6.5 After Completion

6.5.1 After completion of the construction phase there are certain elements relating to the management of the site which would be required to ensure the delivery of key components of the primary landscape and visual mitigation strategy. One of the most important of these would be the maintenance of the soft landscaping and, in particular, the screen planting to the car park areas. To ensure this is carried out in an appropriate manner, a comprehensive maintenance regime covering an appropriate establishment period for new native structure planting would form part of the soft landscape specification for the project. Issues relating to plant replacements, thinning and pruning operations to promote healthy growth rates and rapid establishment would be covered.

6.5.2 In a similar vein, a management plan for the green roof would be required to ensure that it is adequately maintained and that the necessary expertise is available to monitor and guide the maintenance process so that it responds appropriately to the various evolutionary stages of the plant communities evolving on it. It must also be capable of responding to any unforeseen events - particularly as the process of establishing whin vegetation in the form of a green roof is unique to The Sill project.

7.0 Residual Effects

7.1 After Completion

7.1.1 In section 6 it was noted that the landscape effects assessed as being of moderate to substantial adverse significance at the time of completion of the works are the subject of a mitigation strategy based on reducing the adverse effects identified rather than preventing them. As the mitigation relies on the growth of soft landscape structure planting to perform a screening and filtering function, it would take time for the mitigating benefits to be apparent on site. Plant growth rates on this exposed site are expected to be slower than might be anticipated on most construction projects, but it is suggested that a significant reduction in the relevant adverse effects would be noticeable within 10 years, and continue to reduce for a further ten years after which point the adverse effect would be diminished to a point requiring no further mitigation. This being the case, it is considered that there are no permanent adverse effects of significance relating to landscape and visual effects anticipated for this project.

8.0 Summary and Conclusions

8.1 Summary

Scope of assessment and methodology

8.1.1 This report considers the anticipated landscape and visual effects arising from the construction of a proposed new Landscape Discovery Centre and Youth Hostel to replace the existing Northumberland National Park visitor centre and YHA hostel at Once Brewed.

8.1.2 The assessment methodology used in this report is based on the 'Guidelines for Landscape and Visual Impact Assessment' Third Edition:2013 (LI and IEMA). The level of significance given to identified landscape and visual effects (effects can be adverse or beneficial) depends on the combination of the sensitivity of the landscape element, / landscape character / view or observer, and the scale of the effects predicted. When defining the sensitivity of the existing landscape, one must consider the value attached to it. The criteria for making such judgements are set out in section 4 in order to make the assessment process as transparent as possible.

8.1.3 It should be noted that issues relating specifically to the potential effects of the proposed development on the historic landscape and the setting of sites of cultural heritage significance have been assessed by specialist landscape historians within the Cultural Heritage chapter of the Environmental Statement prepared for the project. Consequently, a detailed analysis of such effects has been excluded from this report.

Existing policy

8.1.4 A brief review of existing planning policy and management strategy frameworks for the landscape in which the site is located concentrates mainly on the Northumberland National Park Management Plan and the Northumberland National Park Development Framework. These documents confirm just how special the landscape is around Once Brewed. It is a landscape with a distinct character and a much valued sense of tranquillity and contains a rich cultural heritage as well as being a landscape rich in biodiversity and geology. The designated Hadrian's Wall World Heritage Site and its associated Management Plan indicates the landscape being considered is of international value. In addition, the landscape around Once Brewed is part of a much larger area which has recently been awarded Dark Sky Park status by the International Dark Sky Association, making it the largest area of protected dark sky in Europe. As such any new project involving external lighting must comply with the Exterior Lighting Masterplan.

The existing landscape

8.1.5 The landscape of the area covered by this report is dominated by the Whin Sill, a well known geological feature in the region, running from Upper Teesdale to the Farne Islands on the Northumberland coast. This high ridge of hard rock defines the northern skyline within much of the study area, the southern skyline being defined by another smaller ridge running parallel with the Whin Sill. This second ridge marks the southern boundary of the National Park. The road B6318 (known locally as the Military Road) follows the line of the landscape corridor formed by these two ridgelines and provides the main route from which to view the dramatic Whin Sill, Hadrian's Wall and the simple landscape dominated by rough grazing in which settlement is sparse and tree cover is generally restricted to small clumps around isolated properties. The area is rich in Roman heritage sites and the line of the Roman Wall is also the route of two National Trails – the Hadrian's Wall Path and the Pennine Way. Two National Cycle Routes connect the area of the development site with the Whin Sill, the local Roman site of Vindolanda and the A69.

8.1.6 The proposed development site itself is located on the south side of the Military Road which forms its northern boundary and extends southwards to the bottom of the Brackies Burn valley. The northern section of the site contains the Vallum Scheduled Ancient Monument but is dominated by the existing visitor centre and YHA building, both of which are of little architectural merit. The majority of trees on site are assessed in the site's tree report as being in fair to poor condition. Their main value is in the screening they provide to the existing facilities on site. South of the existing buildings, a the upper sections of a sloping grazed field provide an attractive setting to views out across the Brackies Burn valley and the lower section is comparatively enclosed at the bottom of the valley, providing a sense of peace and intimacy not available elsewhere on the site.

8.1.7 As might be expected, in the night time landscape, sources of light are limited to isolated properties and car headlamps. Light sources from the buildings are generally hidden, the most noticeable impact resulting from uncovered external wall mounted lights on the northern side of the buildings.

8.1.8 There is no doubt that the proposed development site is located within a highly valued landscape of international importance in terms of its cultural heritage and its dark skies. In addition, it is perceived as a 'special place' with a sense of tranquillity that brings with it a spiritual quality and as such, it is of national importance for the recreational opportunities it provides. Of the existing features on site, the main features of significance are the tree cover, the dry stone boundary walls, the field to the south and the Roman earthwork of the Vallum.

Visual context of the existing site

8.1.9 Using electronic Orndnance Survey data, a map covering the area within a 15km radius of the Once Brewed site is used in Figure 4 to show the area from which the ground level of the existing site can be seen. This is only theoretically as the process by which the map is produced assumes there are no landscape features above ground level which could screen or interrupt the view from any given point.

8.1.10 Because the strong ridgelines in the local landscape contain views of the site to a large degree, on the north side of the River South Tyne and the A69 corridor, the area from which the site can be seen is restricted to a short section of the Military Road corridor (including the line of Hadrian's Wall and the World Heritage Site) and a much smaller area on Thorngrafton Common just east of Vindolanda Roman fort.

8.1.11 In theory, views of the site are also possible from vantage points south of the River South Tyne, mainly from higher ground west of the River Allen and south of Haydon Bridge, most of which fall within the North Pennines Area of Outstanding Natural Beauty. However, fieldwork has shown that at these longer distances (5+km) the Once Brewed site is difficult to identify and has a low visual profile within the broader landscape.

8.1.12 The facilities at Once Brewed are most likely to be seen first when travelling on the Military Road. Because of the existing tree cover around the boundaries of the site to the north and the west which serves to screen the buildings on site, the direction of travel very much influences how much of the site can be seen. When travelling from the east, the existing visitor centre is visible but the YHA building is largely hidden. When travelling from the west, virtually all buildings on the site are screened until the observer is alongside the site. In views from the north (ie. the Hadrian's Wall World Heritage Site, the Hadrian's Wall and Pennine Way National Trails) although vehicles parked in the YHA car park at the north eastern corner of the site are visible, the buildings are well screened by existing trees on the Vallum and it is the neighbouring Twice Brewed Inn which draws the eye. When approaching the site from the south along a minor country lane, again the buildings are well screened by trees and it is the field to the south which can clearly be seen.

8.1.13 Most of the properties within the hamlet of Twice Brewed have no or very limited views of the site. Only three have direct views of the site from the north and two from the south. People in private residences and visitors engaged in recreational activities which focus on this valued landscape are considered to be highly sensitive to changes in the view.

Description of the proposed development

8.1.14 A plan of the proposed Landscape Discovery Centre and Youth Hostel scheme is shown in Figure 7. and images of the building shown in Figure 8.

8.1.15 The design of the proposed building is inspired by the distinctive landforms of the landscape in which it is located. The north face of the building captures aspects of the north facing Whin Sill outcrop itself with the south facing side of the building being softer in form. The main features of the building (which is a maximum of two storeys) are a glazed café facing north east so as to make the most of dramatic views to Peel Crags on the Whin Sill escarpment and to the Roman Wall; a long YHA accommodation block on the west side, and a green roof which takes the form of a long ramp rising out of the ground at the north east corner and which doubles back on itself, eventually ending at a viewpoint above the café. The green roof is to support establishing plant communities associated with the harsh conditions of the Whin Sill outcrop.

8.1.16 The National Park Authority are keen that the new facility should be well integrated with the landscape. However, as the Landscape Discovery Centre is to function as a 'gateway' to the landscape of the National Park, it should still be distinctive, acting as a marker in the landscape.

8.1.17 In terms of the project's external spaces, it is intended that they should blend with the existing rural landscape. On the northern boundary the largest trees would be kept but the poorest quality trees and shrubs would be removed from the Vallum making it easier to see. They would be replaced by new trees planted outside the protected archaeologically sensitive area. On the western boundary, most of the existing tree cover within the YHA garden would be retained as would the footpath link to the Twice Brewed Inn.

8.1.18 On the east side of the site new dry stone walls would form the edge of the building and the existing YHA car park (which is currently in the most publicly visible parts of the site) would be removed. As a result there would be only one vehicle access point into the site and that would be in the position of the existing entrance into the National Park visitor centre car park. Near the south facing main entrance to the new building there would be an entrance courtyard, a cycle store and bin store built in dry stone walling with a green roof, and an outdoor classroom space. Just to the south of these spaces would be an upper car park which would lead past a new play area into a lower car park further down the field which is currently used for grazing sheep. The existing triangle of woodland on the eastern site boundary would be retained.

8.1.19 The field slopes down to the Brackies Burn and at the bottom of the valley it is proposed that the more enclosed flatter ground should be used as both an events space and an overflow car park. This would be done in a manner that allowed this attractive area to stay as a green field.

8.1.20 A new footpath would link all the car park levels to the main building and these paths would have low level lighting activated by movement in hours of darkness when necessary. All external lighting would be kept to a minimum and would be designed so as to prevent light pollution.

8.1.21 Outside the site boundary, on the north side of the Military Road opposite the Once Brewed site, a new path would be made through an existing group of trees surrounded by a wall in order to create a safer route from the site, over the road to the Whin Sill and Peel Crags. In addition, an existing field boundary wall would be lowered to improve sight lines at the existing road junction at the north east corner of the site.

Anticipated landscape and visual effects

8.1.22 During the early phases of the construction process in particular, when the existing buildings are demolished and earthworks are carried out, the movement and noise of construction traffic would have a substantial adverse effect on the sense of tranquillity. Although seen directly without any screening from only a few viewpoints, the construction site would read as an urban feature out of keeping with the character of the local landscape. This would be temporary however, and the impact would generally reduce as the expected c. 18 month construction project progressed.

8.1.23 By the end of the building works, the removal of the existing poor quality buildings and the improvements to the setting of the Vallum would be beneficial landscape effects. The main adverse effect on the landscape within the site would relate to the creation of the new car park on the upper and central sections of the green field south of the existing visitor centre. This is largely due to the introduction of vehicles and man-made materials which are a strong contrast to the natural appearance of the field. Vehicles could also reflect glare from the sun in certain light conditions. The negative impact of this on the field would be moderately to substantially significant so the scheme includes screen planting within and around the car park which, once established would reduce the negative impact to low significance after 10 years. After 20 years the car park would be virtually completely hidden.

8.1.24 In considering the potential impact of the development project on the special character of this highly valued and sensitive landscape, the assessment looks at: the scale of the new building and external facilities; the form of the building; the materials proposed for both the building and the external spaces including the car park in terms of colour, texture and levels of reflection; signage; the function of the building as a potential primary visitor attraction in the region and the impact of the potential increase in the number of visitors to the site; lighting; movement, and noise. The main negative impacts all relate to the impact of extending car parking into the southern field. As noted , once the planting proposed around the car parking has grown enough to form a screen, this negative impact would be reduced to low levels after 10 years and low – negligible levels after 20 years.

8.1.25 The impact of the proposed development on the quality of views from within the surrounding landscape are assessed using selected representative viewpoints which have been agreed with the National Park planning authority. These viewpoints are identified in Figure 11 and include views from key points to the north along Hadrian's Wall / the Pennine Way / Hadrian's Wall Path, as well as views from the Military Road to the east and west, and from near / more distant viewpoints to the south on the south side of the Brackies Burn valley. Where views are considered to be particularly sensitive or significant, photomontages of the proposed development have been produced using computer generated images to show how the building would look in the landscape. These key viewpoints are identified by the reference 'PM'. Other viewpoints labelled 'VP' are shown in a photograph with the location of the Once Brewed site marked.

8.1.26 The impact of the proposed development on the views identified can be summarised as follows:

- The effect on views from within the Hadrian's Wall World Heritage Site and from the two National Trails is assessed as being of negligible significance increasing to low adverse significance at the closest viewpoint (Peel Crags);

- From the Military Road corridor, the scheme would have negligible to low adverse impact when approaching from the west, increasing to low to moderate adverse impact when travelling from the east. The latter effect can be reduced to low adverse in time with the mitigation proposed.
- From properties / public highway on the south side of the Brackies Burn valley the impact on the view would be of low to moderate adverse impact, reducing with time to negligible – low as screen planting established. From holiday rental properties to the north of the Military Road the negative impact would vary from low to moderate depending on distance from the site.
- The impact of the scheme on views in which the site of Vindolanda is visible would be negligible.

Mitigation measures

8.1.27 The main reason for the relatively limited adverse impact of the development proposal on the landscape and its views is that right from the first stages of the design process, the integration of the building and its associated car parking into the landscape has been a primary objective. This is reflected in the way the building and car parking is positioned on site and how it relates to the local landform.

8.1.28 In addition, the materials proposed for the building and the external hard landscape elements have been selected for their natural colours and textures and new planting would be carried out using species that grow naturally in the area.

8.1.29 Although the extension of car parking into the field to the south of the existing buildings is seen to have the potential to generate some of the most adverse impacts on the landscape and certain views in the area, on balance, the layout proposed is considered to be the best option available. Other layouts which explored the potential to provide parking in the field to the east of the site were considered and rejected on the basis that they were likely to have unacceptable levels of negative impact.

8.1.30 It is noted that appropriate management plans for the proposed planting and green roof vegetation must be put in place after the works on site are completed in order that these features can perform the roles intended in terms of screening and integrating the building into the landscape. The planting is required to reduce the few individual effects which have been identified as being of moderate to substantial adverse significance, to an appropriate level. A significant reduction in adverse impact would be seen within ten years with continued reduction occurring during the next ten year period.

8.2 Conclusion

8.2.1 The landscape of the Whin Sill escarpment is indeed a special landscape, prized for its unique landscape character, sense of tranquillity and for its dark skies. A series of policies and management plans have been put in place to protect these aspects and make them relevant to the lives of those who live and work in the area and more accessible to those visitors who wish to engage with the landscape in a manner which is completely sustainable. The fact that the new facility is designed specifically with the aim of delivering this broad objective and that, to an extent, the project represents a re-birth of the existing site facilities, is likely to have a positive influence on the way the building is perceived and interpreted in the landscape by those who visit it or view it without any direct engagement.

8.2.2 That the new building is to function as a 'gateway' to the National Park landscape means it is expected to have a presence worthy of the role and it is this 'public' profile which must be carefully balanced against the requirement to minimise adverse effects on the valued and sensitive landscape and visual character of both the site and the broader landscape of which it is a part.

8.2.3 The fundamental design concept behind the design of the building and the external works appears to have 'built in' a significant component of the mitigation strategy for the development which would assist in integrating it into the landscape to a significant degree. The '*Design Guide Supplementary Planning Document*' within the National Park Local Development Framework notes that sustainable contemporary design is to be supported. The proposed building undoubtedly has contemporary themes but the design follows many of the recommendations, such as using locally available materials; not breaking the skyline; avoiding a suburbanising effect; use of native plant species etc. to help blend it into the local landscape.

8.2.4 There are three principle aspects of the Whin Sill landscape upon which a new building of size and character could potentially have an adverse effect: i) landscape elements within the site; ii) landscape character; iii) visual quality.

8.2.5 With regard to anticipated effects on the physical landscape elements within the site, both adverse and beneficial effects are recorded initially but with time, it is the adverse effects which diminish and the net beneficial effects which are strengthened.

8.2.6 The effects of the project on landscape character have been reviewed in detail against various criteria and it is noted that generally, in instances where an effect of 'moderate adverse' significance is identified, it is in relation to the extension of the car park into the southern field. As above, this adverse effect is one which can readily be mitigated in time (effective within the first ten years) to a level of low and ultimately negligible significance.

8.2.7 Given the recent award of Dark Sky Park (gold tier) status to the area in question, the issue of potential adverse effects on the quality of the night sky and the night time landscape is of particular resonance. This report has found that the potential for greatest adverse impact occurs when the southern part of the site is experienced from the lower parts of the Brackies Burn valley which, by its very nature involves transient views experienced by comparatively few receptors. From more elevated positions, the potential for adverse impact diminishes and it is confirmed that anticipated impact on night time views of the broader landscape as experienced from within the North Pennines Area of Outstanding Natural Beauty, would be negligible. In all instances, the soft landscaping proposed to address mitigation issues relating to the car park in particular, would successfully mitigate against adverse effects on landscape character relating to external lighting.

8.2.8 In terms of the effects of the development project on key views and the visual character of the area, it has been seen that beyond distances of 5km the anticipated change in the view would be negligible. From the viewpoints of international value gained from the line of Hadrian's Wall World Heritage Site, the visual effects are assessed as being of low adverse significance at worst.

8.2.9 From viewpoints closer to the development site where an overall visual effect of moderate adverse significance is anticipated, it is seen that proposed mitigation measures in the form of appropriate planting would reduce this level of significance to 'low – negligible' over time.

8.2.10 Given that much of the secondary mitigation (ie. that which reduces effects rather than prevents them) is dependent on new structure planting, it is important to consider the overall effect of this planting itself and it is concluded that once mature, the belts of native tree and shrub planting proposed for the southern field in particular, would sit comfortably in the view, reading as natural extensions of existing blocks of tree planting either side of the field.

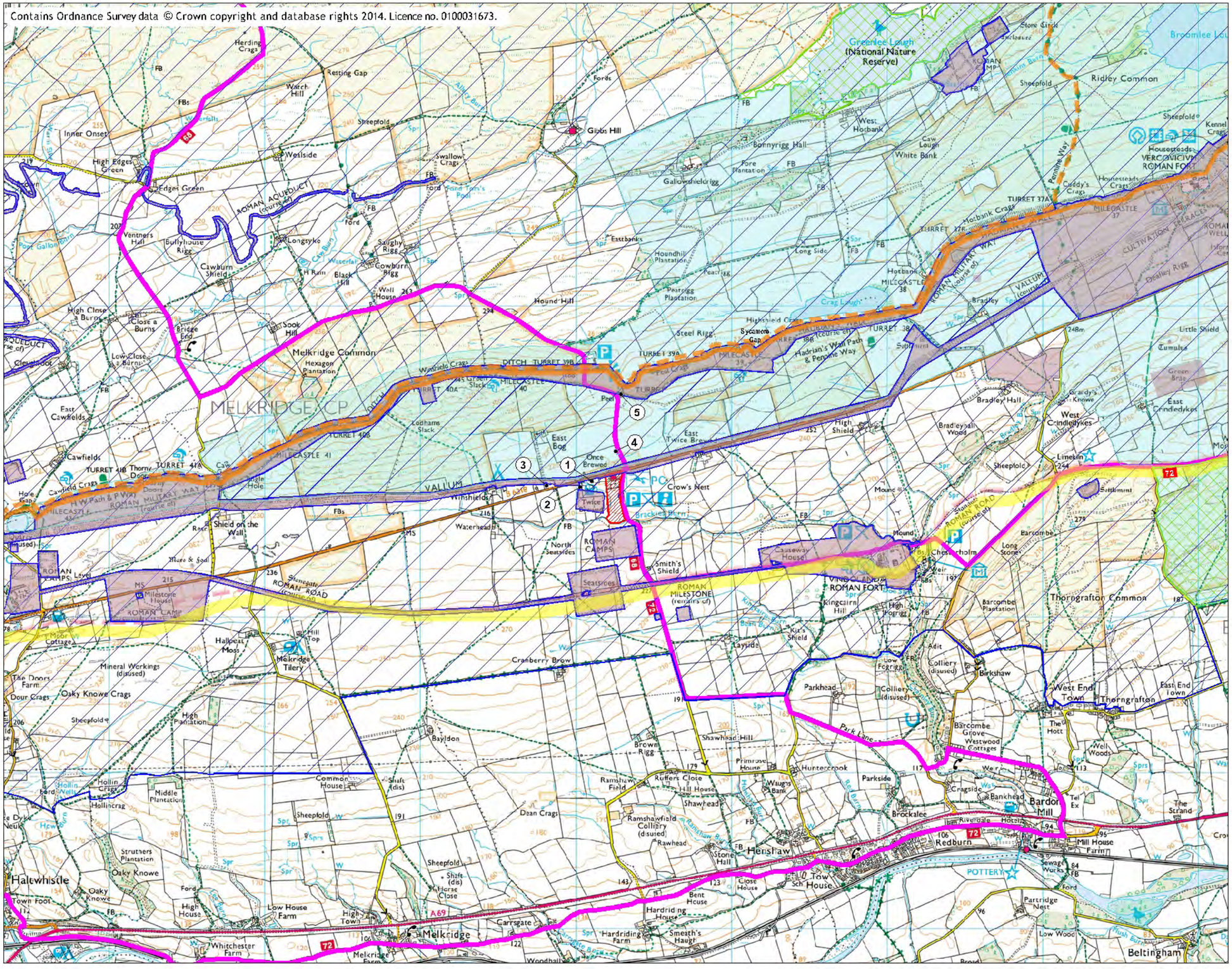
8.2.11 In summary, it is concluded that no enduring adverse landscape or visual effects of substantial or moderate significance are anticipated in association with the development proposal outlined in this report.

THE SILL LANDSCAPE DISCOVERY CENTRE AND YOUTH HOSTEL

LANDSCAPE AND VISUAL IMPACT ASSESSMENT:

SCHEDULE OF FIGURES

Figure 1	Site Context Plan
Figure 2	Existing Site Plan
Figure 3	Landscape Character Areas
Figure 4	Zone of Theoretical Visibility (1:100,000 scale)
Figure 5	Views towards site from Viewpoints VP 6 – 9 within the North Pennines AONB
Figure 6	Zone of Theoretical Visibility (1:25,000 scale)
Figure 7	Proposed Site Masterplan
Figure 8	Proposed Architectural Details
Figure 9	Proposed Tree Retention & Removal Plan
Figure 10	Rejected Car Park Sketch Options
Figures 11 – 18	Photomontage Viewpoints PM1 – PM8
Figures 19 – 20	Viewpoints VP 1-5



KEY

- Proposed development site
- National Park boundary
- Hadrian's Wall Path National Trail
- Pennine Way National Trail
- National Cycle Routes

Public Rights of Way (PRoW's)

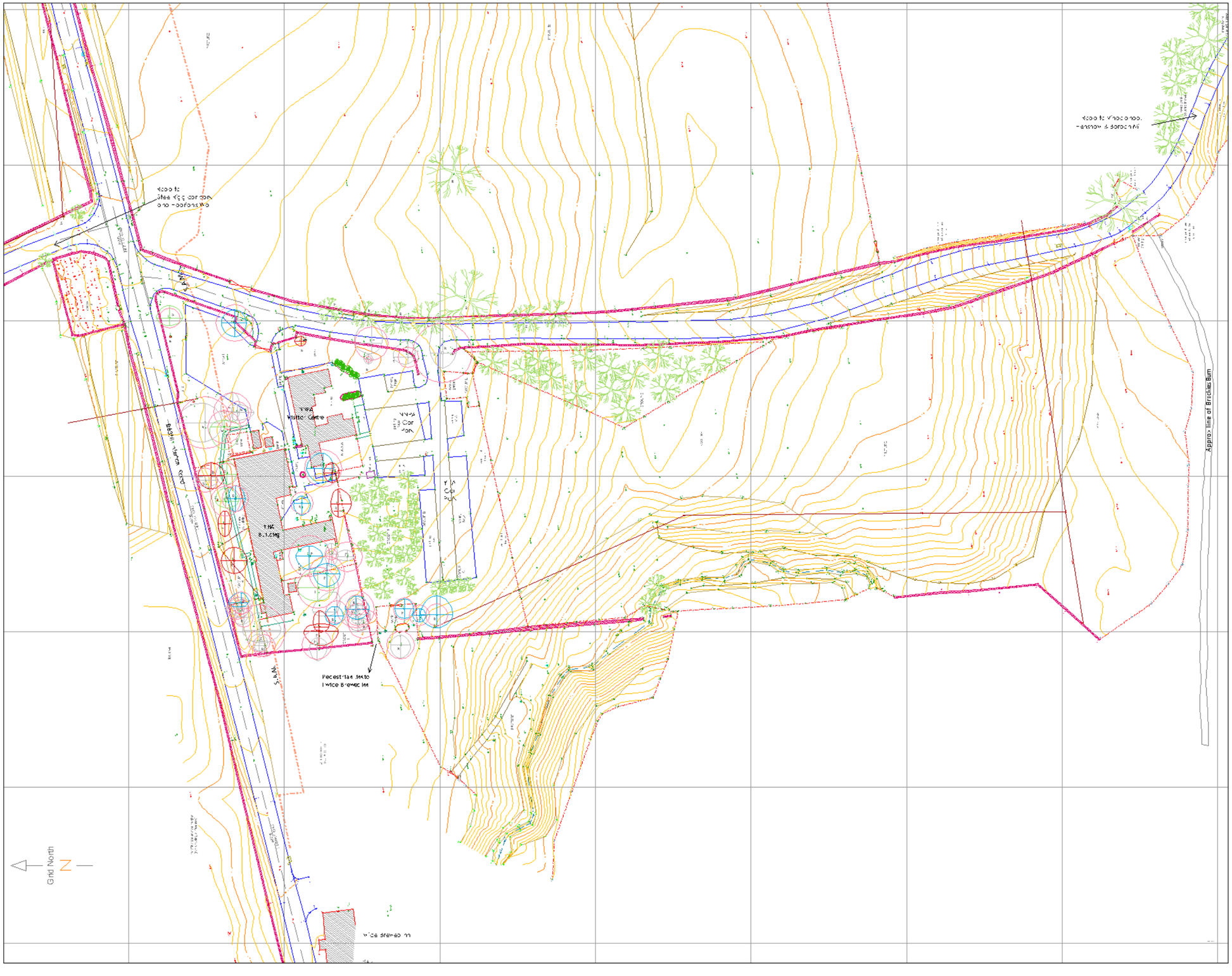
- Footpath
- Bridleway
- Byway open to all traffic (BOAT)
- Restricted byway (no vehicular access)
- National Nature Reserves
- SSSI's
- Scheduled monuments
- World Hertiage Site (includes buffer zone)

NORTH

Properties in Twice Brewed not named on OS plans

1, Twice Brewed Inn
2, West Twice Brewed
3, Vallum Lodge Guest House
4, Springwell Cottage
5, Peel Bothy

FIGURE 1.
SITE CONTEXT PLAN
Scale - 1:25,000



TREE CONSTRAINTS KEY
(see amr tree survey and report)

- Category A tree
- Category B tree
- Category C tree
- Category R tree
- Root protection area

NORTH

FIGURE 2.
Existing Site Plan Scale - 1:1250

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KEY

NORTH

11 National Character Areas
- 2, Northumberland Sandstone Hills
- 5, Border Moors and Forests
- 10, North Pennines
- 11, Tyne Gap & Hadrian's Wall
- 12, Mid Northumberland

Proposed Development Site

Northumberland National Park

North Pennines AONB

Landscape Character Type 14 Parallel Ridges & Commons

14a Landscape Character Areas
- 14a Thirlwall Common
- 14b Haltwhistle, Melkridge & Ridley Commons
- 14c Haughton & Simonburn Commons

Other Local Landscape Character Types
- 6 Moorland Forestry Mosaic
- 10 Upland Fringe Farmland
- 12 Broad Woodland Valley
- 15 Upland Commons & Farmland
- 16 Glacial Trough - Valley Floor
- 17 Glacial Trough - Valley Sides
- 18 Basin Valley & Fringes
- 19 Lower Dale
- 20 Middle Dale
- 22 Moorland Ridges & Summits

FIGURE 3.
LANDSCAPE CHARACTER AREAS
Scale - 1:100,000

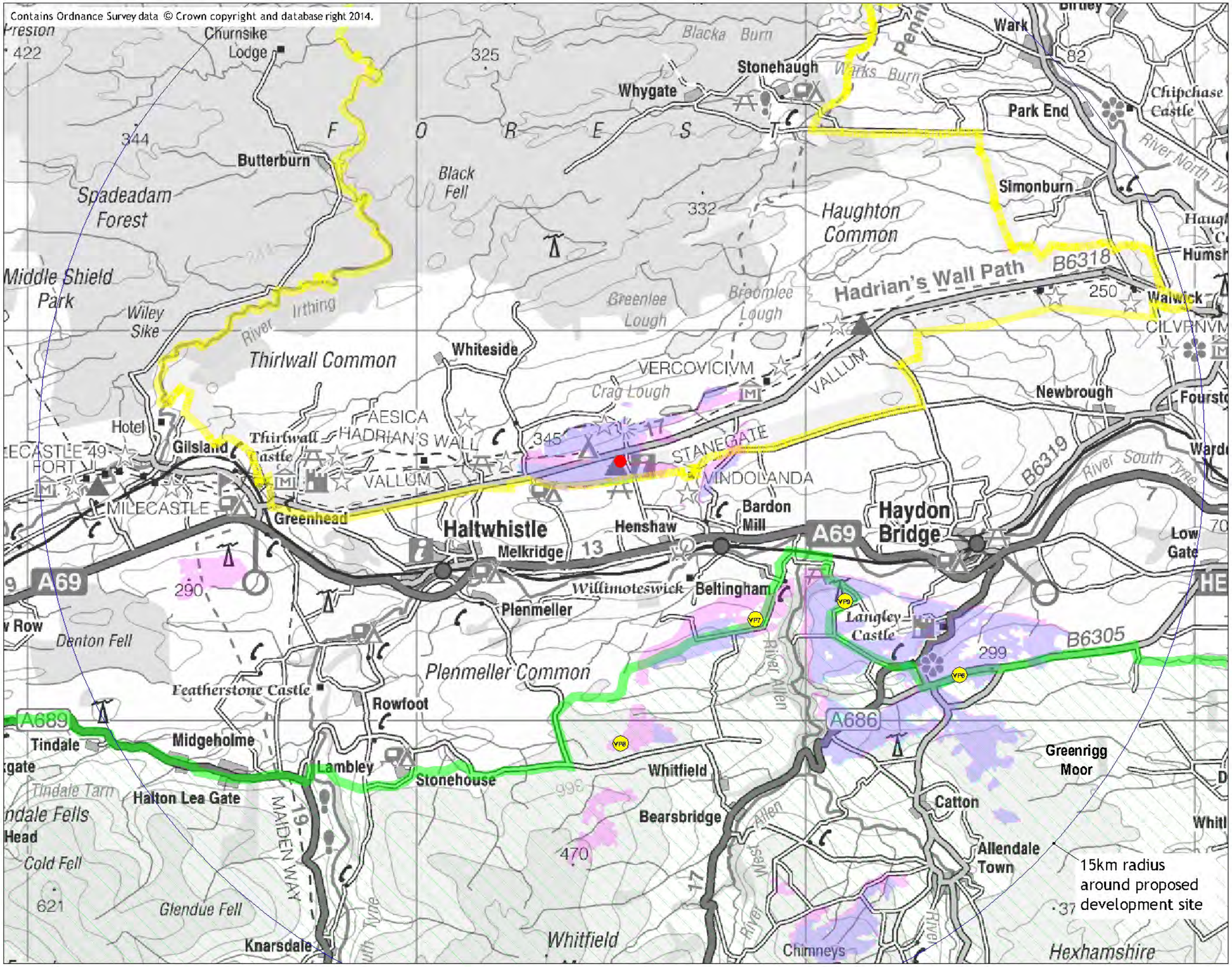

FIGURE 4.
ZONE OF THEORETICAL VISUAL INFLUENCE
(ground level & +8m AOD)
Scale - 1:100,000

VP6 - Location on B6305, 1km east of Langley

VP7 - Location at junction of public footpath with Whinshield Side minor road, 1.5km south of Beltingham

VP8 - Location at Peat Hill. Fellhouse Fell, Whitfield

VP9 - Location on minor road, Morralee Fell, Allendale

FIGURE 5.
VIEWS TOWARDS SITE FROM VIEWPOINTS VP6-VP9

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KEY

N
NORTH

- Proposed Development Site
- Northumberland National Park

Public Rights of Way (PRoW's)

- Footpath
- Bridleway
- Byway open to all traffic (BOAT)
- Restricted byway (no vehicular access)
- Zone of Theoretical Visual Influence showing areas that may be visible from the proposed development site (based on 0m above ground level)
- Zone of Theoretical Visual Influence showing areas that may be visible from the proposed development site (based on 8m above ground level)
- VP5 Viewpoint Locations (for VP 6-9 see fig. 4)

VP1	Military Road coridor to the west of the Twice Brewed inn (nr. Vallum Lodge Guest House)
VP2	PROW nr. Melkridge Tilery Campsite
VP3	Peel Bothy, National Trust Holiday Cottage
VP4	Milecastle 39 near Sycamore Gap (Hadrian's Wall Path & Pennine Way)
VP5	Hotbank Crags, (Hadrian's Wall Path and Pennine Way)

- PM3 Photomontage Viewpoint Locations

PM1	Winshields Crags (Hadrian's Wall Path and Pennine Way)
PM2	Peel Crags (Hadrian's Wall Path and Pennine Way
PM3	Military Road corridor to west (nr. Twice Brewed Inn)
PM4	Military Road corridor to east (nr. junction)
PM5	Seatsides residential property and PROW
PM6	'Long Stone' view point and PROW, Thorngrafton Common
PM7	'Springwell Cottage', National Trust holiday cottage
PM8	Henshaw to Once Brewed minor country road

FIGURE 6.
ZONES OF THEORETICAL VISUAL INFLUENCE (ground level & +8m AOD)
Scale - 1:25,000

FIGURE 7.
THE SILL LANDSCAPE DISCOVERY CENTRE AND YOUTH HOSTEL
- SITE MASTERPLAN
Scale - 1:1000

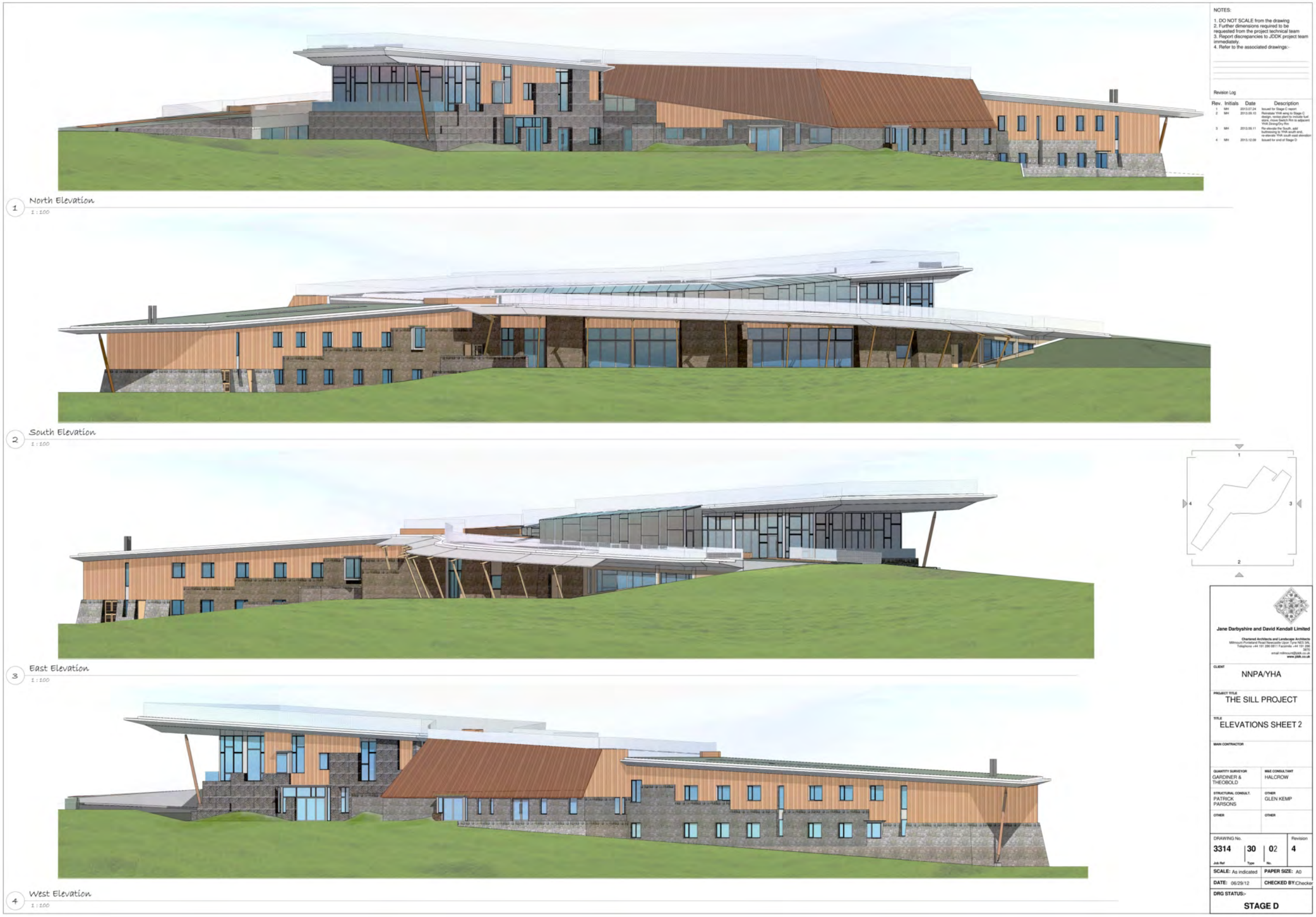
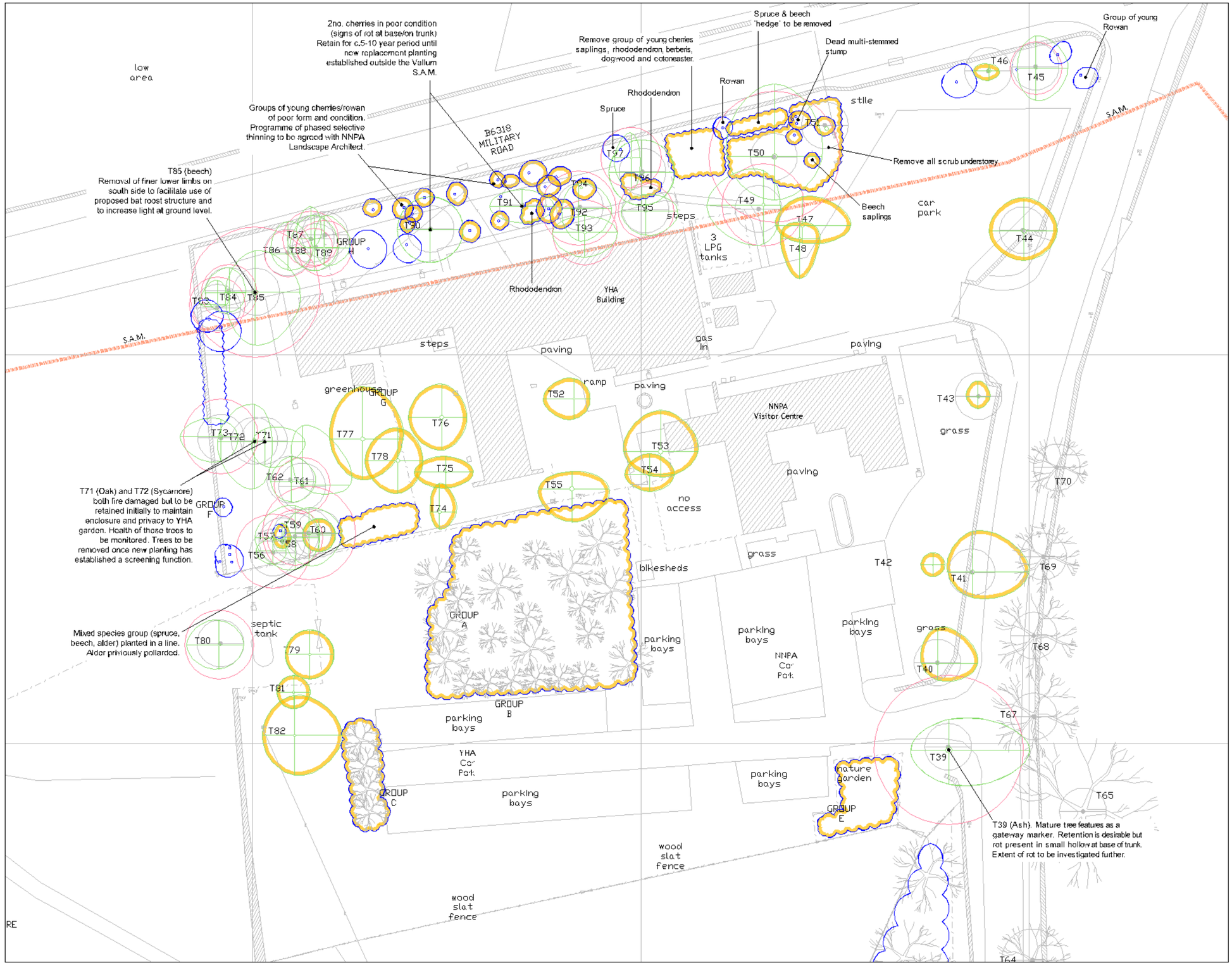


FIGURE 8.
ARCHITECTURAL MODEL
Scale - NTS



KEY

NORTH

- Trees to be retained
- Tree Root Protection Area (RPA) as defined in tree survey by AMR Geomatics
- Trees not included in topographical survey
- T45 — Reference code used in tree survey
- Trees to be removed
- Tree group/understorey to be removed
- SAM — Vallum Scheduled Ancient Monument

NOTES:

- All tree/shrub cover to be removed outside the bird breeding season (i.e. during the period August to February)
- Some trees identified for removal contain bat boxes
- Trees within SAM which are identified for removal are to have stumps ground only to a max. depth of 100mm around the base of the stem (i.e. just enough to prevent regeneration)

FIGURE 9.
Tree Removal & Retention Plan
Scale - 1:500

Car Park Provision:
Sketch option 1.

Car Park Provision:
Sketch option 2.

Car Park Provision:
Sketch option 3.

FIGURE 10.
Rejected Parking Options
Scale - NTS

Photomontage Viewpoint PM1 - As Existing

Photomontage Viewpoint PM1 - Proposed

Photomontage scaled so that when held at arm's length, it reflects the size of the image of the development as it would appear in the field when seen with the naked eye.

FIGURE 11.
PHOTOMONTAGE VIEWPOINT PM1
WINSHIELD CRAGS

Photomontage Viewpoint PM2 - As Existing

Photomontage Viewpoint PM2 - Proposed

Photomontage scaled so that when held at arm's length, it reflects the size of the image of the development as it would appear in the field when seen with the naked eye.

FIGURE 12.
PHOTOMONTAGE VIEWPOINT PM2
PEEL CRAGS

Photomontage Viewpoint PM3 - As Existing

Photomontage Viewpoint PM3 - Proposed

Photomontage scaled so that when held at arm's length, it reflects the size of the image of the development as it would appear in the field when seen with the naked eye.

FIGURE 13.
PHOTOMONTAGE VIEWPOINT PM3
MILITARY ROAD CORRIDOR TO THE WEST (nr. Twice Brewed Inn)

Photomontage Viewpoint PM4 - As Existing

Photomontage Viewpoint PM4 - Proposed

Photomontage scaled so that when held at arm's length, it reflects the size of the image of the development as it would appear in the field when seen with the naked eye.

FIGURE 14.
PHOTOMONTAGE VIEWPOINT PM4
MILITARY ROAD TO THE EAST

Photomontage Viewpoint PM5 - As Existing

Photomontage Viewpoint PM5 - Proposed

Photomontage scaled so that when held at arm's length, it reflects the size of the image of the development as it would appear in the field when seen with the naked eye.

FIGURE 15.
PHOTOMONTAGE VIEWPOINT PM5
SEATSIDES RESIDENTIAL PROPERTY & PROW

Photomontage Viewpoint PM6 - As Existing

Photomontage Viewpoint PM6 - Proposed

Photomontage scaled so that when held at arm's length, it reflects the size of the image of the development as it would appear in the field when seen with the naked eye.

FIGURE 16.
PHOTOMONTAGE VIEWPOINT PM6
'LONG STONE' VIEWPOINT & PROW, THORNGRAFTON COMMON

Photomontage Viewpoint PM7 - As Existing

Photomontage Viewpoint PM7 - Proposed

Photomontage scaled so that when held at arm's length, it reflects the size of the image of the development as it would appear in the field when seen with the naked eye.

FIGURE 17.
PHOTOMONTAGE VIEWPOINT PM7
SPRINGWELL COTTAGE, NATIONAL TRUST HOLIDAY COTTAGE

Photomontage Viewpoint PM8- As Existing

Photomontage Viewpoint PM8 - Proposed

Photomontage scaled so that when held at arm's length, it reflects the size of the image of the development as it would appear in the field when seen with the naked eye.

FIGURE 18.
PHOTOMONTAGE VIEWPOINT PM8
HENSHAW TO ONCE BREWED MINOR COUNTRY ROAD

Photographic Viewpoint VP1 - Military Road corridor to the west of the Twice Brewed Inn (nr. Vallum Lodge Guest House)

Photographic Viewpoint VP2 - PROW near Melkridge Tilery Campsite

Photographic Viewpoint VP3 - Peel Bothy, National Trust holiday cottage

FIGURE 19.
PHOTOGRAPHIC VIEWPOINTS VP1-VP3

Photographic Viewpoint VP4 - Milecastle 39 nr. Sycamore Gap (Hadrian's Wall Path and Pennine Way). NB: Site is not visible from Sycamore Gap itself.

Photographic Viewpoint VP5 - Hotbank Crags (Hadrian's Wall Path and Pennine Way)

FIGURE 20.
PHOTOGRAPHIC VIEWPOINTS VP4-VP5

APPENDIX G

VILLAGE SPECIFIC PLAN, VISUAL IMPACT ASSESSMENT

Village Specific Plan
Visual Impact Assessment

Prepared for:

The City of Del Mar
Planning and Community Development Department
1050 Camino del Mar
Del Mar, CA 92014

Prepared by:

KTU+A Planning and Landscape Architecture
3916 Normal Street
San Diego, CA 92103

March 13, 2012
Revised July 5, 2012

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1.0 PURPOSE OF THE STUDY

The purpose of this study is to assess the visual impacts of the proposed Del Mar Village Specific Plan, also referred to as the Village Specific Plan. The study also proposes measures to mitigate any adverse visual impacts associated with the implementation of the plan and its effect on the visual environment.

2.0 PROJECT DESCRIPTION

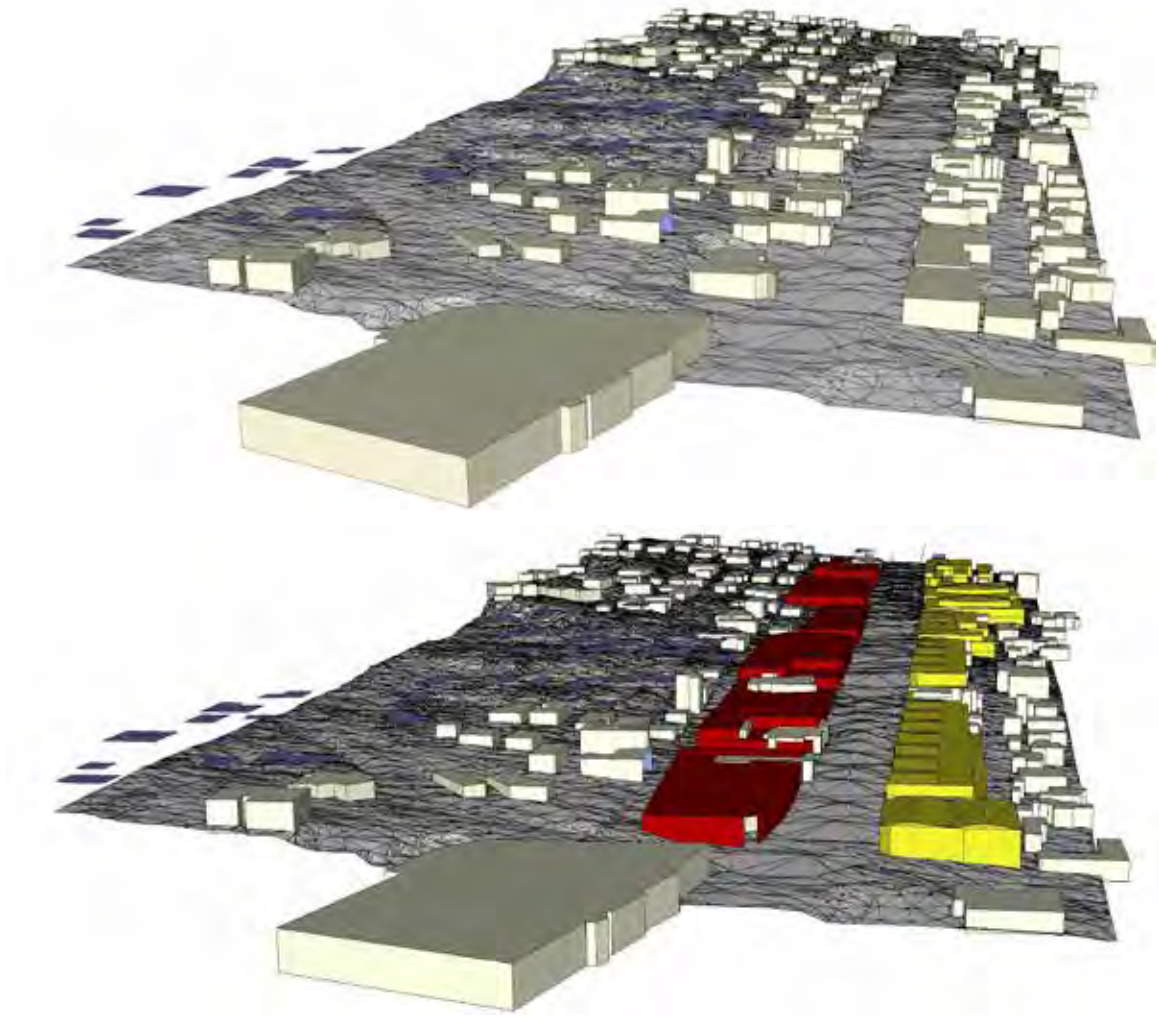
The proposed project consists of a new Specific Plan for the Village that is designed to implement the vision found in the Community Plan. Some of the major policies that may affect the visual environment resulting from implementation of the Specific Plan include:

- increased development potential within the study area;
- requirements for a build-to line requiring a street wall along the walk for storefronts;
- requirements for various setbacks from property lines and stepbacks of upper building elements;
- raised height limit to 26'-0" on the western side of Camino del Mar to match the allowed height limit on the eastern side;
- height limit bonus for an additional 4' 0" on top of the 26'-0" for articulated rooflines;
- creation of a mixed-use zone for commercial properties that also allows residential development at a density of 20 dwelling units per acre;
- permitting parking structures in both the mixed-use and public facilities zones;
- redesigned sidewalks and on-street parking to be continuous and aligned within the public right-of-way; and,
- redesigned Camino del Mar to be a 2-lane roadway with roundabouts at key intersections.

The new Specific Plan would allow building parcels to increase their maximum development potential from the existing .45 Floor Area Ratio (FAR) to a 1.0 FAR. Proposed allowed building heights would be 26 feet above Camino del Mar for properties that face Camino del Mar to allow two stories. Side street parcels within the Specific Plan would be allowed to have a 26'-0" height from their average street front property elevation. Roof articulation features may extend an additional four feet, but would not be allowed to create habitable space.

Three parcel-specific Specific Plans have been previously adopted and fall within the Village Specific Plan boundaries: the Hotel Specific Plan (L'Auberge), the Plaza Specific Plan (Del Mar Plaza and 1435 Camino del Mar), and the Garden Del Mar Specific Plan (941 Camino del Mar and 307 10th Street). Both the Hotel and Plaza have been developed according to their adopted Specific Plans. The Garden Del Mar site remains entitled, but undeveloped and vacant. No build-out is anticipated beyond that which is currently constructed at either the L'Auberge Hotel or the Del Mar Plaza, excluding 1435 Camino del Mar.

Computer model outputs showing existing buildings (top), maximum building envelopes (middle) and theoretical infill buildings (bottom). These views are looking from the north, by the Del Mar Plaza at 15th Street, southward to 9th Street.



3.0 ASSESSMENT METHOD

The study follows Appendix G of the California Environmental Quality Act (CEQA) thresholds for visual impacts identified by the State of California and further defined by the Association of Environmental Planners. In addition, methods used at the federal level have also been included, even though this study is not a NEPA document, they are relevant for visual studies. The processes from the federal level used in this visual impact study generally follow the guidelines outlined in the publication "Visual Impact Assessment for Highway Projects," Federal Highway Administration (FHWA), March 1981, as well as processes known as “Visual Resource Management” methods from the Bureau of Land Management, National Park Service and the National Forest Service.

Local, state, federal guidelines and national standards commonly suggest six steps for conducting visual impacts. They are as follows:

A. Define the project setting and viewshed.

B. Identify key views for visual assessment.

C. Analyze existing visual resources and viewer response.

D. Depict the visual appearance of project alternatives.

E. Assess the visual impacts of project alternatives.

F. Propose methods to mitigate adverse or significant visual impacts.

4.0 VISUAL ENVIRONMENT OF THE PROJECT

4.1 Project Setting

The Village Specific Plan boundary is shown in Figure 4-1. The plan occupies approximately 40 acres within the urbanized town center of Del Mar. The Village Specific Plan generally encompasses the central business district corridor that is along Camino del Mar between 9th Street and approximately the easterly alignment of 17th Street. Additionally, commercial and post office properties along 15th Street west to Stratford Court are included.

Figure 4-1: Project Location and Village Specific Plan Boundary

4.2 Regulatory Setting

4.2.1 State Scenic Highway Program

California's Scenic Highway Program was created by the Legislature in 1963. Its purpose is to preserve and protect scenic highway corridors from change, which would diminish the aesthetic value of lands adjacent to highways. There are no designated or eligible scenic highways in the area listed in the California Scenic Highway Program.

4.2.2 California Coastal Act

Under the California Coastal Act of 1976, scenic and visual qualities of coastal areas are considered and protected as a visual resource. Permitted development should be sited and designed to protect public views to and along the ocean and scenic coastal areas. The act also requires minimizing the alteration of natural landforms, to assure that they are visually compatible with the character of surrounding areas, and, where feasible, to restore and enhance visual quality in visually degraded areas.

The City implements their Local Coastal Plan (LCP) through the Community Plan, various policy reports, the San Dieguito Lagoon Enhancement Program, as well as other goals and policies adopted by the City Council to guide future development within Del Mar. Aesthetic components of the LCP relevant to the Plan area include development of a community center with attractive walkways and landscaped court and open spaces, pedestrian-oriented streetscapes, and architectural style which retains a small-town character and preserves public ocean views and public access to the coastline.

4.2.3 Del Mar Community Plan

The Del Mar Community Plan (1976 amended 1985) includes goals and policies that address aesthetics. The overall goal is to "[p]reserve and enhance the special character of Del Mar, the elements of which are a village-like community of substantially single-family residential character, a picturesque and rugged site, and a beautiful beach." Other goals applicable to aesthetics include minimizing the impact of vehicles on the character of the City, and preserving and enhancing the "special residential character and small town atmosphere with its harmonious blending of buildings and landscape in proximity to a beautiful shoreline." As identified in the Community Plan, Camino del Mar is a scenic roadway and views of the Pacific Ocean and other visual resources such as bluffs and trees are to be protected. Jimmy Durante Boulevard (formerly Turf Road), Crest Road, Carmel Valley Road, Coast Boulevard, and Del Mar Heights Road are also considered scenic roadways; however, the Plan area is not located within the scenic views identified for preservation for these roadways.

4.2.4 Scenic View Protection Ordinance

DMMC Chapter 23.51 provides for protection of trees, scenic views, and sunlight that contribute to the character of the City and benefit to residents. This chapter is informally known as the Scenic View Protection Ordinance and gives residents the right to preserve scenic views or sunlight that existed at the time they purchased or occupied the residence or in the last 10 years, whichever is shorter. Scenic views are defined as "a view of the ocean, lagoons, canyons, the community and its landscapes and urban forest character, or other scenic vistas, from the Primary Living Area of a residence." Primary Living Areas are defined as the "[single] portion of a residence from which a Scenic View is observed most often by the occupants and guests at the residence."

Under this ordinance, vegetation and trees must be properly maintained within 300 feet of residential properties to preserve scenic views and sunlight. The Municipal Code has established a procedure to resolve conflicts regarding protected trees, scenic views and sunlight rights.

4.2.5 Tree Ordinance

The Tree Ordinance (Chapter 23.50 of the DMMC) provides for the orderly protection of trees, including the following measures:

B. In the interest of the public health, safety and welfare, as well as general aesthetics of the community and the importance of the ecology of the area, the City of Del Mar finds it necessary to encourage conservation of trees and the application of management techniques to create a healthy, diverse urban forest, including but not limited to pruning, thinning, trimming, shaping, and selective planting and removal of trees and vegetation within the City of Del Mar on private as well as public property. [Ord. 749]

C. The species Torrey Pine, the species Monterey Cypress, and all species of trees located within the Central Commercial zone and the environmentally sensitive Open Space Overlay zone are of particular significance to the City, and should therefore be protected to conserve the environmental qualities of the City.

To further enforce this protection, the City of Del Mar prepared a Public Tree Policy Manual in 2004. This manual directs tree preservation in order to preserve the community's unique, village-like atmosphere, which is distinguished by its community forest. Trees species of particular concern include Torrey pines and Monterey cypress, although the manual indicates all trees within the Plan area are considered significant. A Tree Removal Permit is required to remove a Protected Tree, except in certain situations outlined in the Municipal Code Chapter 23.50.050. In the case of public trees, a separate Encroachment Permit from the City is also required (this statement does not apply to the City or its contractors). Implemented through the Design Review process, trees are also required to be protected during construction to prevent tree loss.

4.2.6 Design Review Ordinance

The Design Review Chapter 23.08 of DMMC Title 23 (also known as Design Review Ordinance) requires all new construction or major remodeling projects within the Plan area to obtain a Design Review Permit (DRP). The purpose of the DRP is to "to achieve and protect a residential, seaside community which is both beautiful and pleasant in character, by fostering and encouraging good design which encompasses the use of harmonious materials and colors, compatible proportional relationships and appropriate use of landscaping, and to protect the citizens of the City of Del Mar."

The DRP process includes several evaluation components, including many related to aesthetics. Overall, the evaluation components provide the following guidance:

- Minimize the disruption of existing natural features such as trees and other vegetation, natural ground forms, and view. This includes blending proposed grading with existing topography.
- Include landscaping that matches existing landscaping in the area and compliments and visually softens buildings.

- Unattractive features shall be screened from view.
- Minimize blockage impacts to public and private coastal views, and retains scenic resources.
- Development shall be similar in scale and design (including style, materials, or colors) relative to the surrounding neighborhood; however, similar or identical building façades shall be avoided on adjacent parcels.
- Design lighting to reduce adverse impacts to the local neighborhood and be architecturally integrated.
- Views and designs shall be considered in all elevations.

The Design Review section of the Design Regulations (Section 23.08.070) does not allow projects where "design unreasonably blocks significant public coastal views" or "unreasonably encroaches upon primary scenic views of neighboring property." As the above information is only a summary of several pages of evaluation components, please refer to the Design Review Ordinance for more information.

As a part of the Design Review aesthetics analysis, story poles may be required to indicate the proposed alignment and massing of a development. Story poles are required for projects that involve a new structure, a second-story addition to an existing structure, or any addition which, in the estimation of staff or the Design Review Board, may cause concerns about inappropriate bulk and mass, or view blockage. The story pole analysis shall be completed per the City's story poles application guide.

The Design Review Board, or City Council, has the authority to impose conditions on projects to protect and enhance the health, safety, and welfare of the surrounding area, and to ensure that projects fully meet the criteria as set forth in Chapter 23.08 of the Municipal Code. As stated in Chapter 23.08.100, conditions shall be reasonably related to the project.

4.2.7 Historic Preservation Overlay Zone

The DMMC designates the HP-OZ. The HP-OZ protects the architectural and historic integrity of certain historically significant properties located within the City. The Stratford Square and the City Library are the two sites within the Plan area with HP-OZ designations. In addition, the residence at 110 15th Street, the former train station, the Powerhouse Community Center located west of Coast Boulevard, and the "Rock House," a residence located adjacent to the east side of the Plan area are nearby properties with HP-OZ designations.

4.2.8 Other Municipal Code Regulations

Other DMMC regulations also indirectly regulate aesthetic impacts. Supplemental Municipal Code zoning regulations in Chapter 30.86 pertain to undergrounding utilities; fences; screening of unsightly uses including garbage storage space; rooftop structures (chimneys and vents); yard landscaping; and yard projections. The zoning code provides height and density restrictions. Within the Plan area, height restrictions include 26 feet for properties along east side of Camino del Mar and 14 feet along the west side of Camino del Mar. Currently, 70 percent of the structures on the west side of Camino del Mar are nonconforming in that they already exceed this 14-foot building height restriction.

Assignment of a maximum FAR, the amount of building square footage relative to the size of a development parcel is a primary means by which Del Mar and other communities control the visible bulk and mass of structures. The maximum allowable FAR in the Central Commercial Zone is 0.45 and the Public Facilities Zone does not have a FAR limit. Forty percent of the existing buildings in the Village already exceed the current CC Zone 0.45 FAR limitation. In addition, signs are regulated by Municipal Code Chapter 30.84.

~~4.2~~4.3 Visual Character Units

A visual character unit is a portion of the regional landscape that can be thought of as an outdoor room exhibiting a distinct and definable visual character. A character unit will often correspond to a place or district that is commonly known among local viewers. A total of seven visual character units have been identified either within the specific plan boundary or adjacent to the boundary: Civic, Residential, Commercial, Hotel, Plaza, Vacant, Street and Streetscape. These units are important to establish the context of the visual environment. Impacts to a visual environment resulting from project changes, all depend on the visual character setting in which these changes occur.

Civic Character Unit

Civic spaces within the Village Specific Plan boundary include the City Hall, the Library, and the Post Office. All three of these buildings are unique in character and are set off the street. The City Hall site is underutilized and consists of a building on the corner of Camino del Mar and 11th Street and a large parking lot adjacent to Camino del Mar.

Residential Character Unit

The residential neighborhoods are both to the west and east of Camino del Mar. The architecture and landscape ranges in style. The buildings are tucked behind the main streets and are either moderately or highly hidden by mature landscape and trees. The buildings heights are limited to protect views to the oceans and generally follow the topography.

Commercial Character Units

The commercial character unit along Camino del Mar varies in architectural style and character. The buildings are limited and consistent in height because of the current restrictions in the municipal code. The setbacks on the buildings vary and are inconsistent, which creates a variable pedestrian space between the roadway and building façade.

Hotel and Plaza Character Unit

The Plaza development at the north end of the study area includes a variety of view-oriented restaurants and retail that take advantage of the topography. The project is generally oriented around a pedestrian experience. The Plaza includes an underground parking garage at the north end of the character unit. Across the street to the west is the L'Auberge Del Mar Hotel. It creates a visual gateway into the commercial core of Del Mar. Both of these developments include manicured landscape with modernized, well-maintained architecture.

Vacant / Parking Character Unit

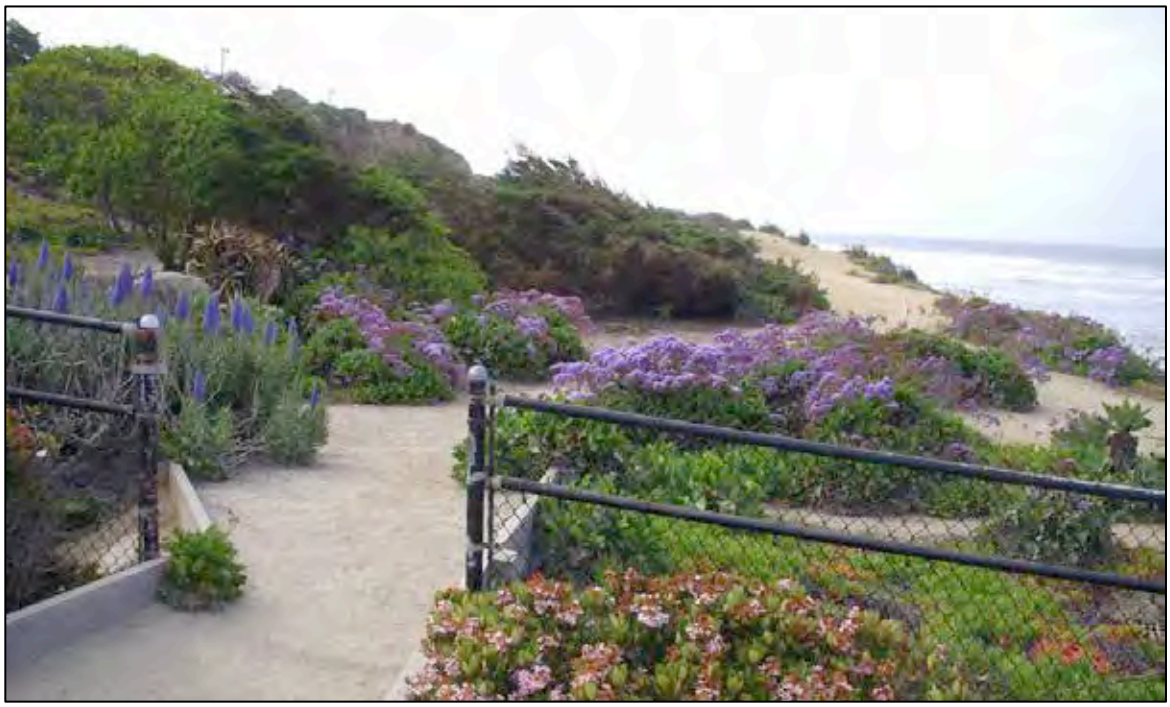
Most of the lots in the Del Mar Village area are developed, though the intensity of development is only moderate compared to many downtown areas of similar size to Del Mar. Much of the land not occupied by buildings is used for surface parking. Large lots are found at the City Hall, and diagonal parking is in front of several businesses along Camino del Mar. There is one parcel that is vacant. This parcel is comprised of an asphalt-paved surface with a wooden fence surrounding the site.

Street and Streetscape Character Unit

The existing right-of-way along Camino del Mar is 100 feet wide with parking, bike lanes, two lanes of travel in each direction and a median. The parking along this street is inconsistent and includes parallel, head-in and diagonal parking. There are mature plantings within the median, which include random groupings of large, mature trees. The pedestrian spaces between the face of curb and buildings fronting Camino del Mar vary greatly because of the buildings setbacks and other unique site constraints. The paving, planting, furnishings, lighting, and signage are inconsistent.

Recreation Character Unit

The recreation character unit includes Powerhouse Park and the bluffs and coastline along the Pacific Ocean. Many local residents and visitors use these areas for a variety of recreational opportunities. Powerhouse Park consists of an expansive lawn with tables and benches. Adjacent to this park heading south, there are pathways on top of bluffs that are covered in native and non-native vegetation with direct views to the ocean below that individuals use for walking and running.



Existing Architectural Form and Street Character

The City of Del Mar has an eclectic and unique character resulting from a mixture of architecture, landscape, parking facilities, and the streetscape elements. Camino del Mar is the main road through the city and development is concentrated on each side of it. It is comprised of two travel lanes in both directions with bike lanes inconsistently located along its length. Parking includes of a variety of parallel and angled parking with some of it within the right of way. Other spaces are arranged in a "town and country" style on private property in front of buildings. The north and southbound lanes are divided by landscaped medians with mature trees and a variety of smaller shrubs and groundcover.

Architectural Character: One of the major contributors to the eclectic style of Del Mar is the variety of architectural styles present along Camino del Mar. The buildings generally take elements from a specific architectural style or period but do not always follow one style consistently. The mixture of styles from lot to lot creates a distinctive style and character. This occurs throughout the Specific Plan area. A good example of this mixture can be seen on the west side of Camino del Mar south of 15th Street. The photograph on the left illustrates three unrelated styles for three different buildings. The building on the far right was built in the Tudor Revival style while the building at the far left has elements of Spanish Revival. The building in the middle has no distinct style but was built during the 1970s. It is this blend of variety of mixed styles that contributes to the eclectic feel and unique character of the Village of Del Mar.

Although the architectural styles of the buildings are different along Camino del Mar, there are consistencies with respect to materials, doors, and windows openings. The buildings incorporate a variety of materials. All types of colors, textures and materials from stucco finishes to brick can be found along Camino del Mar. Doors and windows also have a significant impact on the success of the pedestrian environment and overall streetscape. The buildings that contribute most to the streetscape environment are the ones that activate the pedestrian experience. These buildings typically have doors that are easily identifiable and windows that allow for shop displays starting no more than 24"' above the exterior grade and extend to at least 6' in height. The majority of buildings along Camino del Mar have larger display windows with easily accessible doors. Below are two photographs that illustrate the use of these larger windows and door entries.

The architectural style varies, from Tudor and Scandinavian architecture to Polynesian hip roof styles.

Though of different heights and scales, these two buildings are good examples of period and style consistent structures that add to the sense of place of Del Mar.

Other buildings do not portray much of a style and are either dominated by the front lot parking areas or tend to be modern architecture with limited indoor/outdoor spatial connections.

Street Character: Just as the buildings are architecturally varied, the sidewalk conditions and building placements along Camino del Mar are varied as well. The sidewalk is sometimes constructed of brick pavers, concrete, or a combination of materials. Buildings are sometimes set back to accommodate larger café areas and planting areas and other times buildings are placed in a zero lot line condition. The photograph below (upper left) shows two buildings with two different setbacks. The building on the left has incorporated the additional setback distance for a covered porch and clothing sales rack while the building on the right is utilizing the space for exterior cafe seating. Larger setbacks can also be used to create courtyards or additional exterior space to be shared amongst buildings. The photograph below (right) shows two buildings with a building between that is setback more than 10'. This large setback allows for some relief from the building edge, but also provides an area of larger outdoor sale opportunities or alternatively a café or restaurant. Variations in setbacks enhance the streetscape experience and add interest to the physical environment while creating opportunities for additional exterior uses. The addition of different sidewalk materials and varied building setbacks contribute to the unique character of this area. The variation between design elements indicates that changes to the area will not dramatically contrast or "stand out" by being different. A unifying design element is missing from this portion of Del Mar. Efforts in the future may attempt to provide uniformity through the walkway materials, street lights, benches and plant material found along the corridor. Recently, some efforts have been made in terms of adding a "Del Mar" branding to its benches and trash receptacles. Also, many of the sidewalk areas recently added are providing a consistent exposed chipped rock aggregate that will help to provide a unifying element along the street.

Many buildings along Camino del Mar address the pedestrian experience successfully. Although the average sidewalk width is approximately 10', the sidewalk contains many streetscape elements including, benches, planter boxes with small shrubs, outdoor cafes, clothing racks, signage and other human scaled elements. The photograph at the left illustrates an example of how street elements set the character of the streetscape.

Plazas associated with some of the larger developments are often activated by outside eating and sitting areas. Shade, water features and defined spaces are often included.

Though both examples have outdoor spaces at the front of the buildings, the image on the left lacks activation of its space based on adjacent land uses and lack of seating facilities.

Some buildings do not have clear windows that encourage window-shopping and others are negatively affected by the angle parking that forces the walkways away from the street.

There is a great deal of variety in rooflines and overall forms, as well as setbacks and parking areas.

Many of the streetscapes are highly detailed with plant material, overheads, seating and fountains.

Very nice examples include those with a great integration of interior or exterior spaces or those that have used plant material and seat walls to define a transitional space from public to private.

Some areas have great spatial definition, some created away from the street while others are spatially flat and linear with limited façade variations that define the street wall.

The street wall varies and is often determined by the sidewalk and angle off-street parking. Pedestrians are not always up against the road edge, which makes for a non-contiguous street edge.

~~4.3~~4.4 Project Viewshed and Views

Viewshed Definition: the natural environment that is visible from one or more viewing points (Merriam-Webster). From a Geographic information systems (GIS) standpoint, viewsheds can be described as the determination of visibility of a surface DEM (digital elevation model) by one or more observer points located on that surface. The visibility of each surface cell center is determined by comparing the altitude angle of the cell center (surface) with the altitude angle to the local horizon of each observer point. The local horizon is computed by considering the intervening terrain between the point of observation and the current cell center. If the point lies above the local horizon, it is considered visible (see Figure 4-2). The landform surface model was obtained from an existing digital elevation model. The resolution of each surface cell analyzed in the model is 10 meters by 10 meters, or approximately 1,076 square feet.

Viewshed Processes: A viewshed for a single vantage point may be run across a surface in order to predict what can be seen from that single vantage point. This is valuable in validating whether areas across the surface are visible or not from that specific location. This does not, however, give us quantitative information about the degree of visibility for a given area. To simulate how many project features, or how much project area can be seen, a viewshed can be run from the project features (or area) using this surface. Many visual test points are used in these models and the visible points can be added up to give an idea of the overall extent of the Viewshed.

The dynamics of the Del Mar visual environment requires the development of two distinctively different viewshed types. Views of the Pacific Ocean are an important aspect of living in Del Mar. They affect property values and the quality of life. Though one large body of water, the ocean in visual terms has: a horizon line or background view; an open water view or middle ground view; and a coastal beach / shore view or a foreground view. The proposed buildings on Camino del Mar have the potential of blocking views of the ocean by interceding or piercing the view corridor. A viewshed model was developed first to determine the leading edge of the ocean as seen by all of the residents on the slopes east of Camino del Mar. Then, the leading edge of this view was selected and a viewshed model was developed to show the areas that can see the multiple points along this linear leading edge in the ocean. Interceding buildings along Camino del Mar, as well as other topography in the area, determine what can see this leading edge and what cannot (see Figure 4-4). It should be noted that vegetation and other buildings outside the Specific Plan area are not in the model, so the results should be considered as the worst-case situation. The real viewshed model can be dramatically less than this due to other buildings and vegetation. The computer model was then modified to include increased building heights allowed in the Specific Plan and another viewshed model was calculated (see Figure 4-5). Finally, the difference between the current viewshed and the proposed viewshed based on the building height differences was calculated (see Figure 4-6).

Using the processes above, the viewsheds to the project and from the project were analyzed. As shown in Figure 4-7, the majority of the buildings along Camino del Mar are visible from residences located uphill between Camino del Mar and Luneta Drive and again at the residences to the north and south of Crest Drive. Locations along Camino del Mar also have high visibility of other buildings along Camino Del Mar. The remaining areas within the City have a low to moderate visibility of the buildings along Camino del Mar.

Figure 4-2: Viewshed and Human Eyesight Dynamics

How a viewshed works

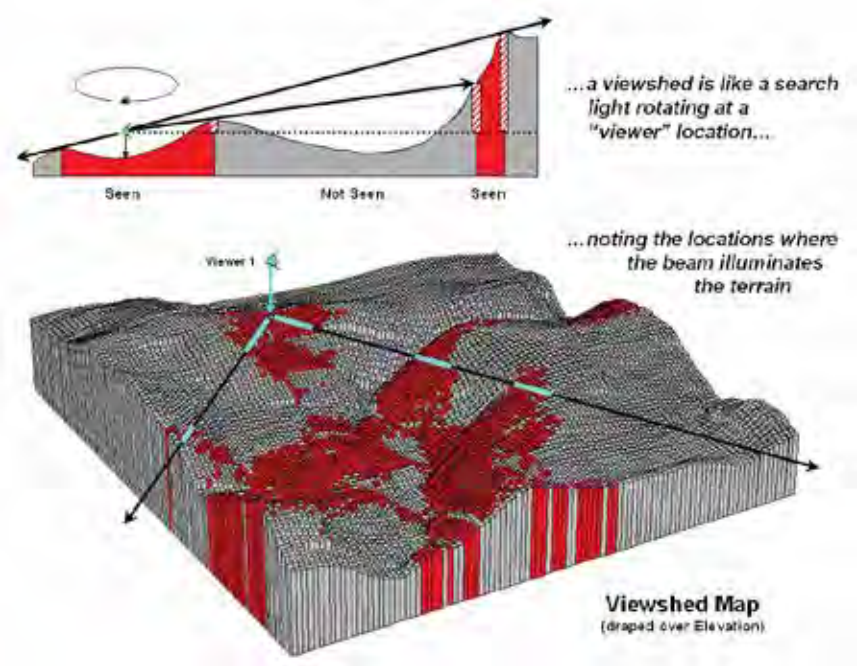
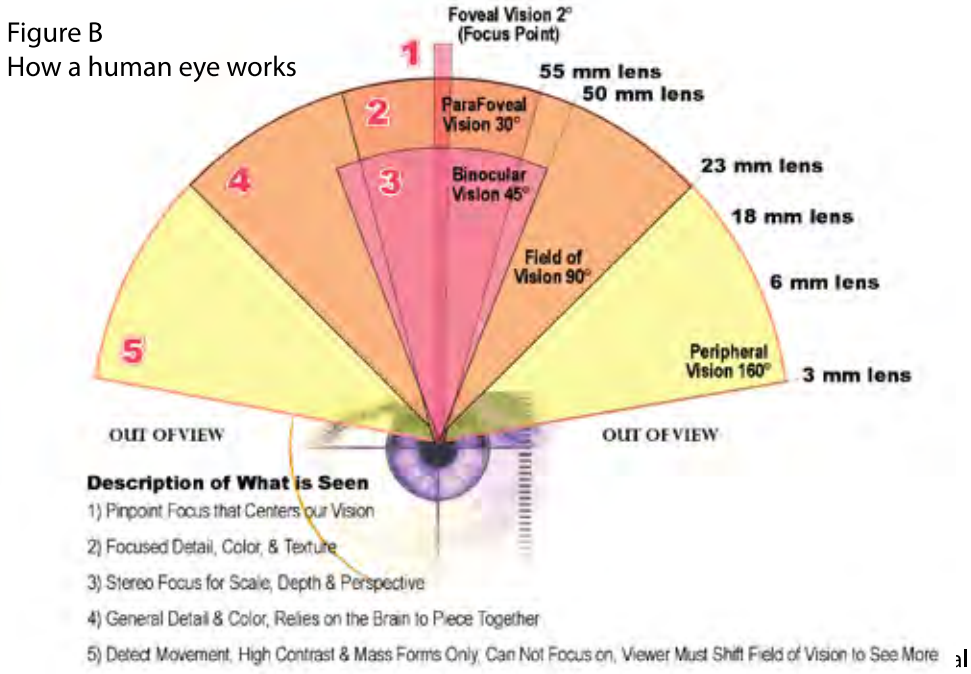


Figure B
How a human eye works



A second series of viewshed models were developed that show the visibility of the buildings themselves, without regard to the background ocean views. This second viewshed model was run showing the areas that can see the current buildings along Camino del Mar. Then the computer model was adjusted by increasing building heights to 30' with variable roof heights from 26' to 30' (see Figure 4-8). The difference between the building heights and their affect on the viewshed extent is shown on Figure 4-9.

The view corridor summary map shown on Figure 4-10, illustrates where view corridors exist through the Specific Plan area to the Pacific Ocean. This analysis indicates locations of primary, secondary, intermittent and partial ocean view corridors. Generally, primary view corridors consist of the east-west streets that extend through the Plan area to the bluffs. The secondary views corridors originate from roadways located to the east of the Plan area along streets that either do not go all the way through Camino del Mar, or where the angle of the streets a few blocks to the east of the Specific Plan area, allow for additional views to the west. The analysis also locates where intermittent views of the ocean are visible from Camino del Mar, generally where buildings are currently missing, or large gaps between buildings are available. In some cases, the elevation along Camino del Mar, affords some minor views towards the northwest, over existing single story buildings. Finally, this analysis determines where private parcels along Camino del Mar, have portals, gaps or plazas on the street that allow users of Camino del Mar to see small portions of ocean views. However, most of these views are very confined or are currently blocked by other buildings and trees.

The Viewshed summary map also indicates areas to the east of Camino del Mar that have been grouped into view categories. Upper slopes east of Camino del Mar above a certain elevation (shown in light yellow), see entirely over the buildings along Camino del Mar. In some cases, they may see the views of buildings in the specific plan area, but they are not blocking middle-ground views of the ocean beyond the beach, nor do they interrupt the horizon line. Whether buildings are 14' or 30' from this area, their presence would not be considered a blocking of a view corridor to the ocean. This zone is overlaid on the Viewshed maps indicating visibility of the trend line in the ocean. Those area that are a very pale yellow, do not have visibility of the ocean, due to interceding topography and canyon landforms. Those that have an orange to red color showing through the pale yellow, have increasing degrees of visibility of the ocean.

The lower slopes show in bright yellow on Figure 4-10, are those from approximately one to two blocks east of Camino del Mar. Depending on topography, these roadway segments and private parcels, potentially have a small portion of their views blocked by buildings that are 26' or taller. Several existing buildings currently block views of the lower portions of the ocean, and dozens of mature trees also interrupt these views. In general, a building between 26' and 30' would be part of the viewing scene of the middle-ground from this area, and the near shoreline out past the trend line (shown on Figures 4-3 to 4-6). The horizon line is not likely to be interrupted by buildings up to 30'.

The next zone shown on Figure 4-10 (in red) includes parcels that are generally from ½ block to 1 block from Camino del Mar. These properties do have views blocked off by buildings on the east side that are greater than 14' in height and buildings on the west side of about 20'-24' in height. Some views do exist from this location, but most of these properties are either commercial properties on the back side of the eastern lots on Camino del Mar, or front the alley. Finally, the green zone shows areas along Camino del Mar that have there views of the ocean completely blocked by any building that is 6' to 14' in height.

Figure 4-3: Determining Ocean Views from Slopes

This figure shows the ocean views as seen from the slopes east of Camino del Mar. The deeper the red, the more houses (indicated with black dots) that can see this part of the ocean.

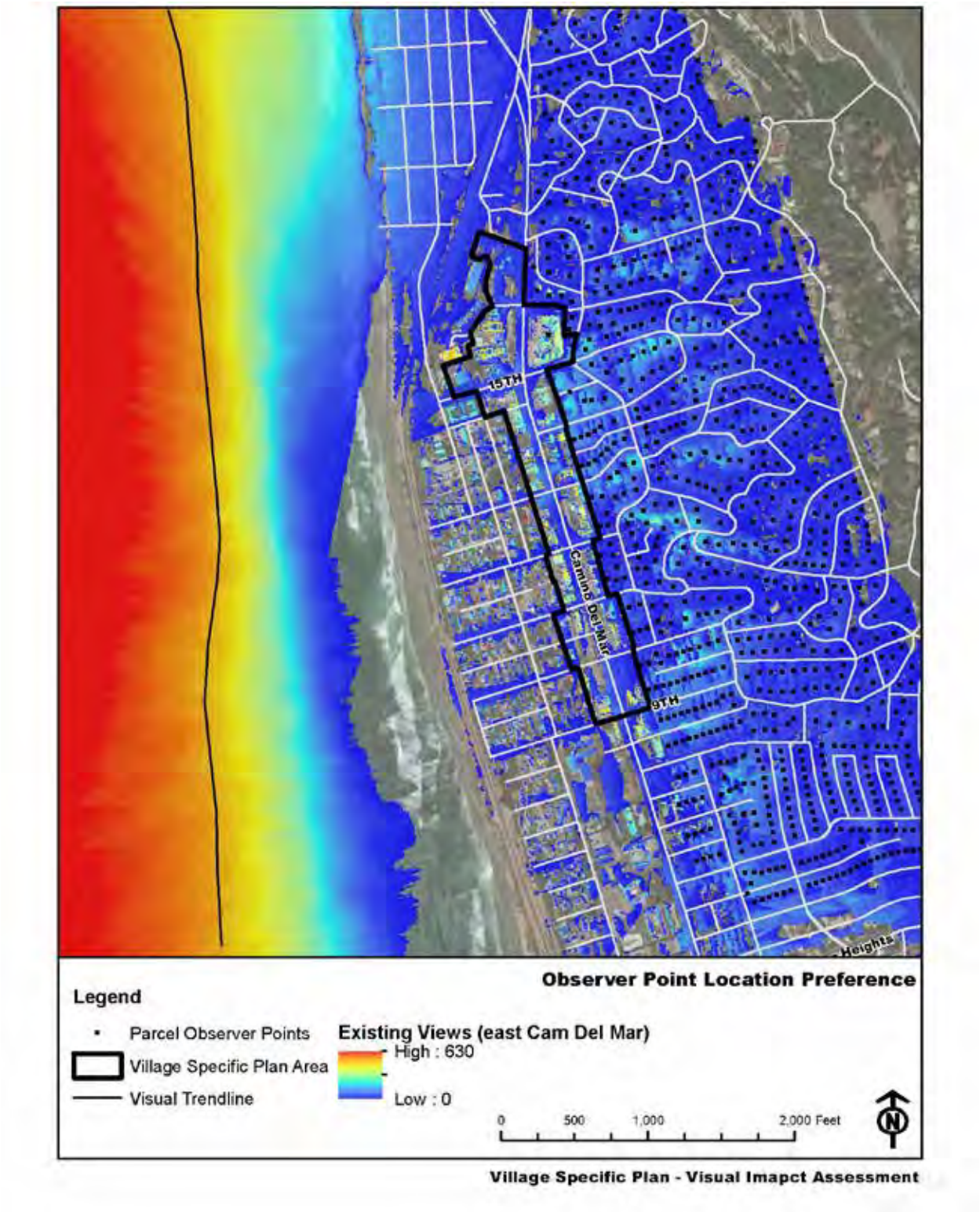


Figure 4-4: Viewshed Trendline with Existing Buildings along CDM

Viewshed of the trendline (dashed line) on the ocean determined to be the most visible part of the near ocean that most structures on the slopes east of Camino del Mar can see (given current buildings and landforms that block views).

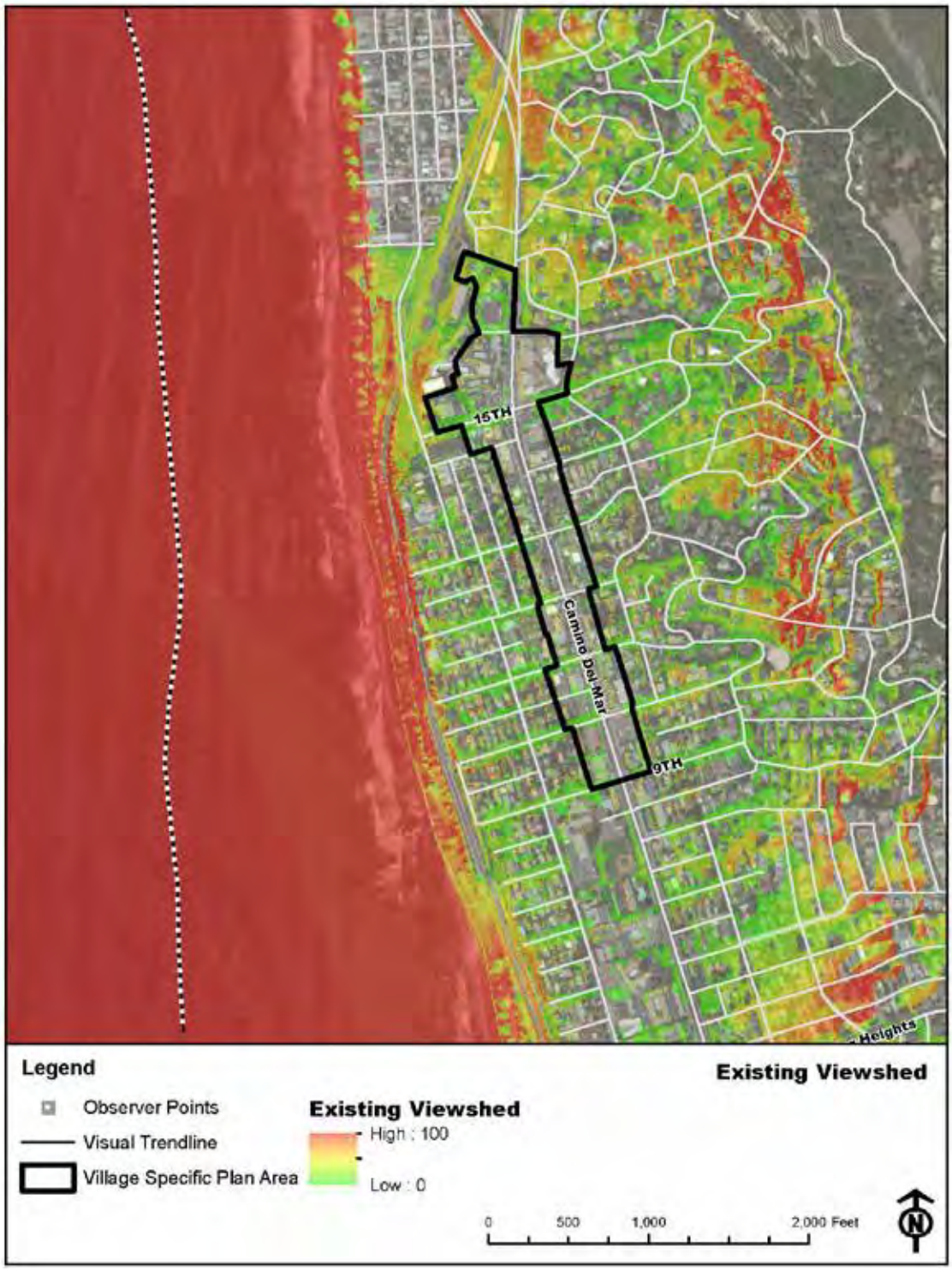


Figure 4-5: **Viewshed Trendline with Proposed Buildings along CDM**

Viewshed of the ocean (trendline) given increased building heights (from 26' to 30' variable roofline) along Camino del Mar.

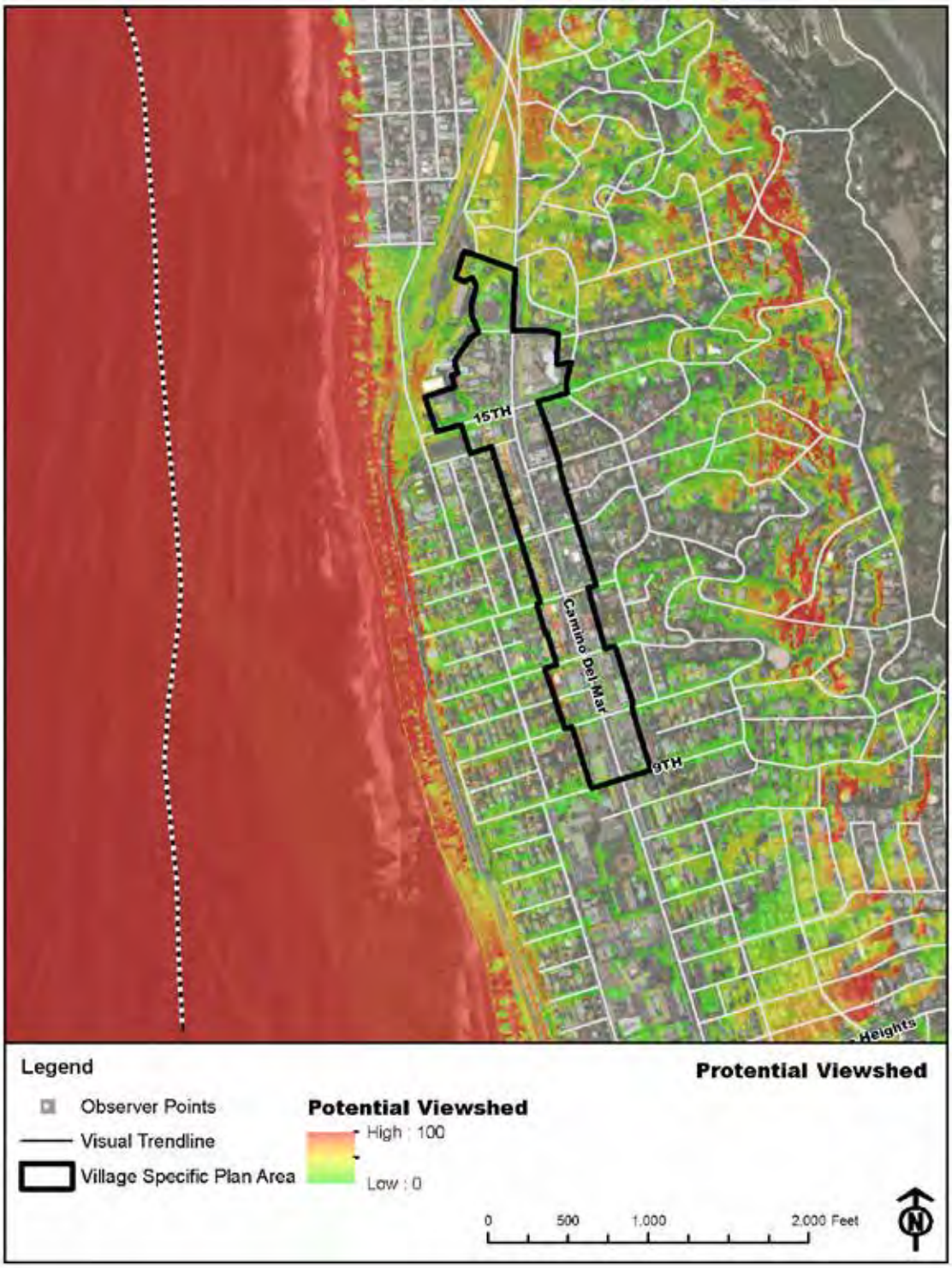


Figure 4-6: Viewshed Trendline Net Difference

Net difference of areas where portions of the view of the ocean (trendline) would be partially blocked by building heights along Camino del Mar versus existing building heights.

Figure 4-7: Viewshed of Existing Buildings along CDM

Areas in color indicate those areas of Del Mar that can see existing buildings along Camino del Mar. Red areas can see most all buildings, whereas areas with no color see no buildings.

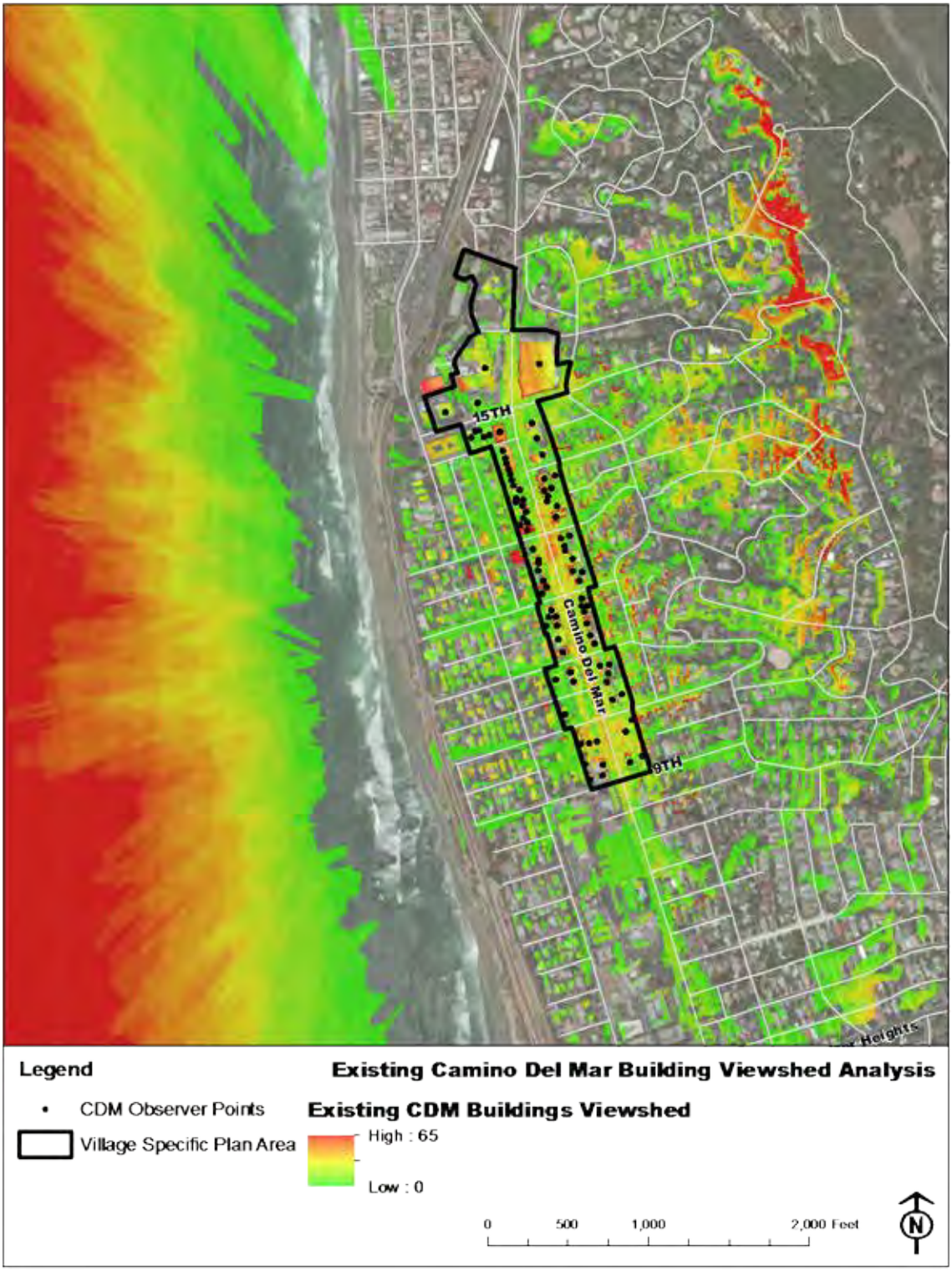


Figure 4-8: Viewshed of the Proposed Buildings along Camino del Mar

The viewshed shown indicates areas that can see the existing and proposed buildings. New buildings have replaced existing buildings where it has been assumed the site would redevelop.

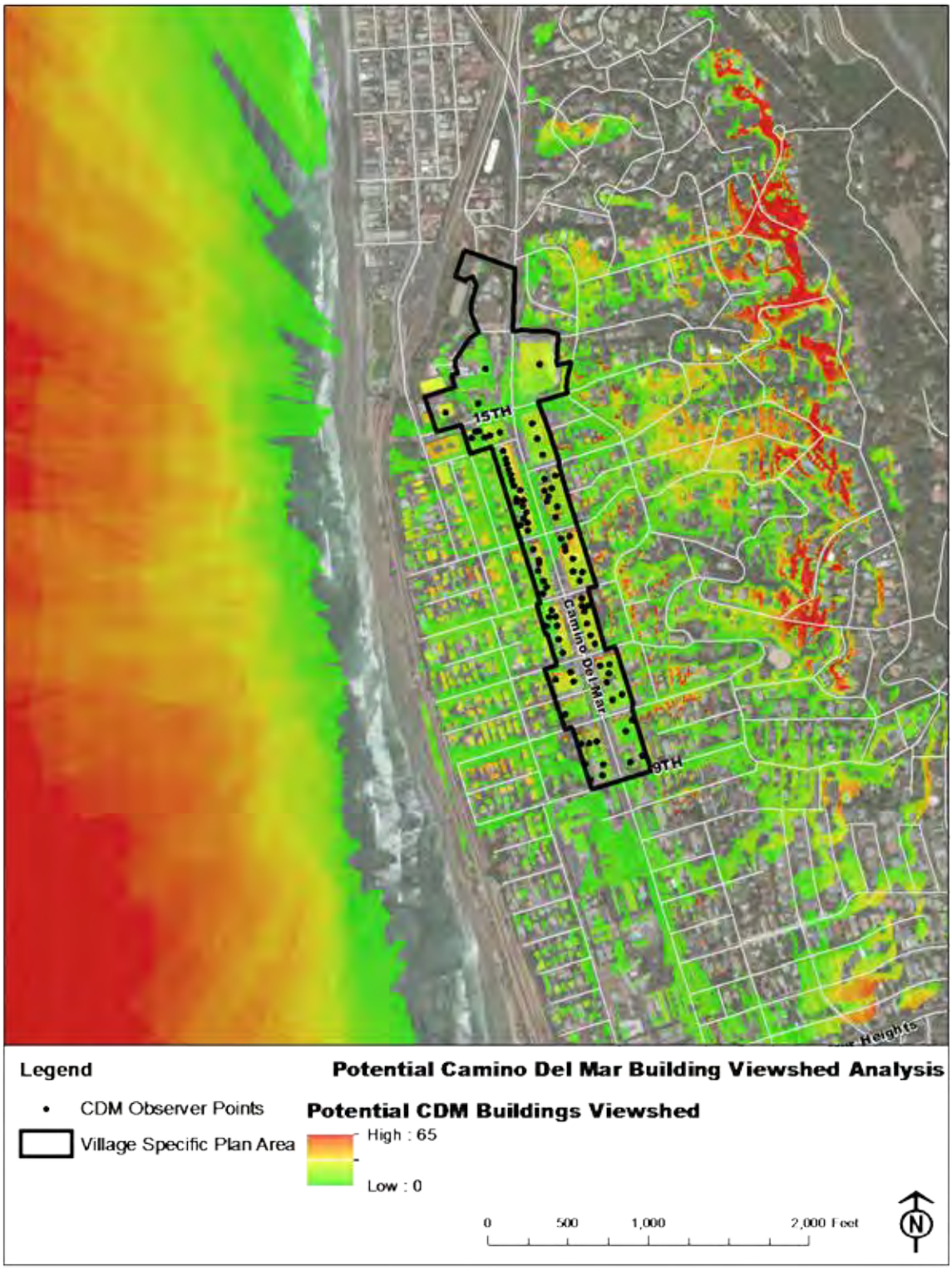


Figure 4-9: Viewshed Net Difference of Building Heights

Net difference of properties affected by changes in building heights (note that blue colors indicate minor change in visibility while orange indicates a more dramatic change).

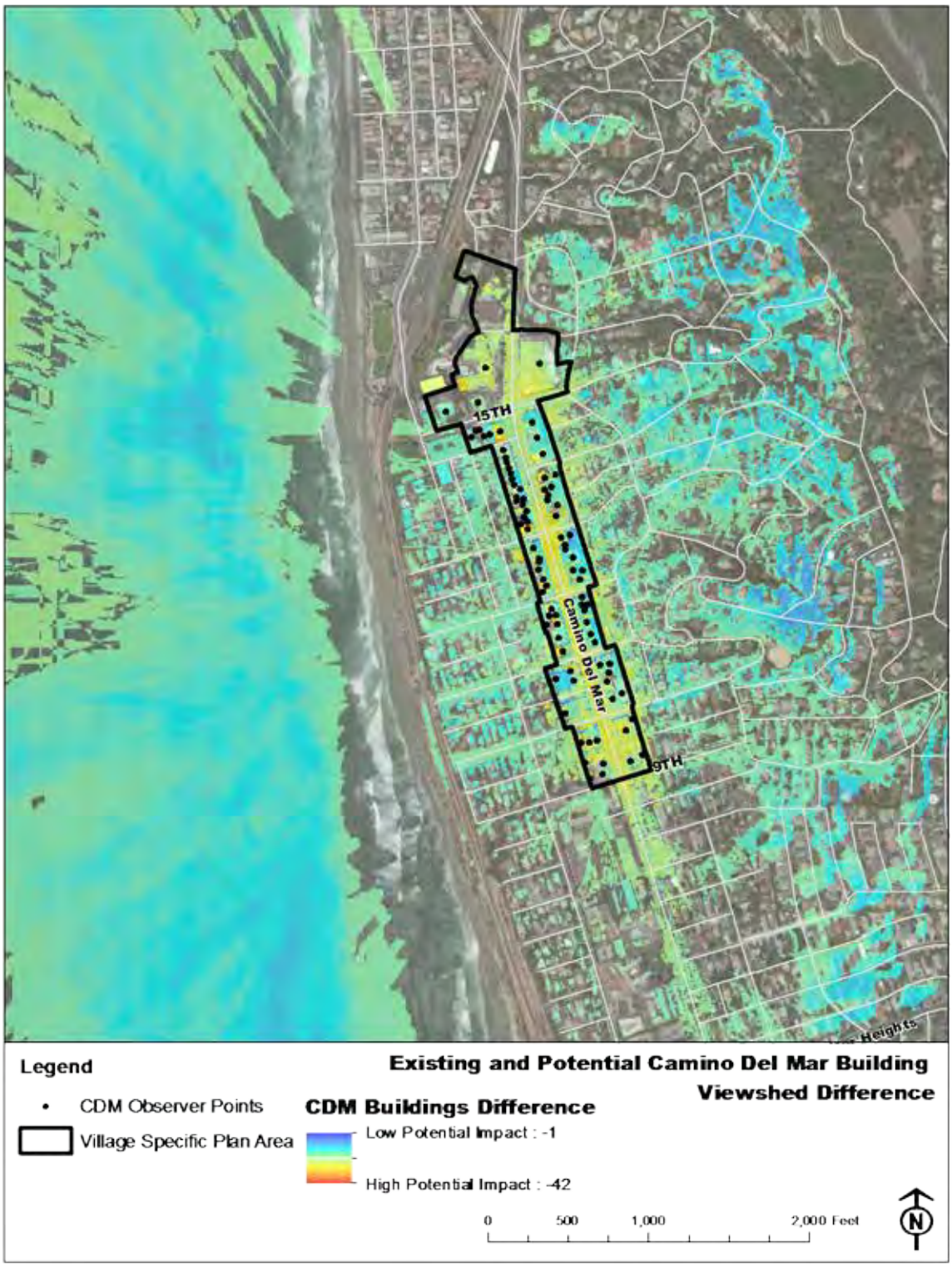
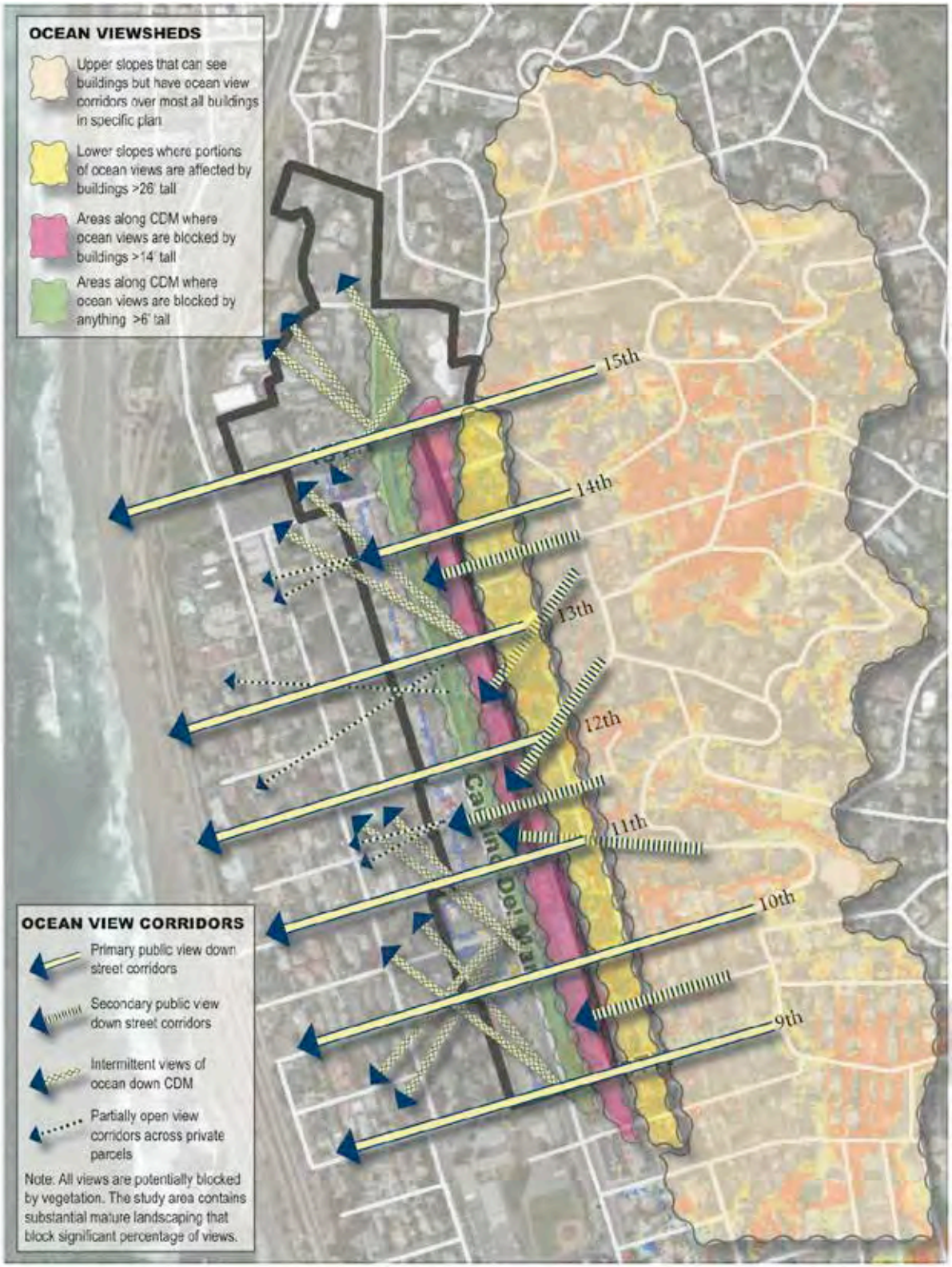


Figure 4-10: Ocean Viewsheds and View Corridors Along and Through Camino del Mar

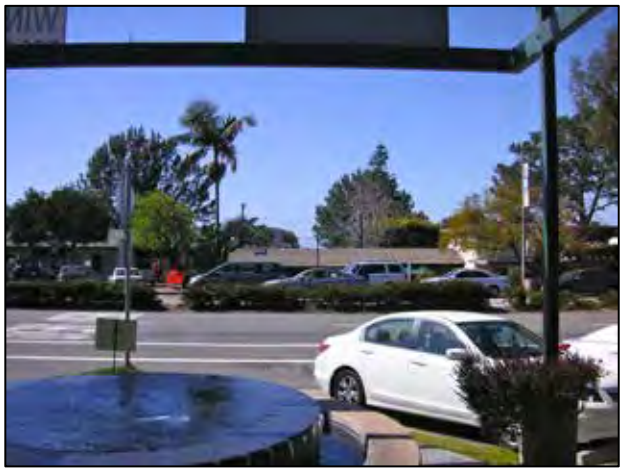


Most of the east to west streets have views of the ocean, but the amount of ocean seen can vary dramatically as you head to the east, where just one block will allow you to see over most buildings.

Views heading north or southbound on Camino del Mar are much more limited. Where they do appear, it is the result of a break in building masses and where mature plant material does not exist.

A few midblock views can be seen between buildings. A portion of the ocean can be seen from across from the east side of the street, though more dramatic views can be seen from the west side.

Other openings exist, but contain a large amount of walls or landscaping that blocks most of the view.



Current buildings block most of the views as seen from the road or sidewalk. Even a depressed 14' building cannot be seen over the top from this side. Where buildings are missing, views do exist.

Views over buildings occur once you head east up the streets and gain altitude. Views over the west side buildings from the first half block eastward only occur over the top of 14' buildings. It is likely that buildings at 26' to 30' will not be seen over unless you travel east of the alleyway.

5.0 EXISTING VISUAL RESOURCES AND VIEWER RESPONSE

5.1 Methods used for Visual Resource Analysis

Individual visual resources, when combined, make up the uniqueness of visual character. The visible individual components of a landscape include landform, landcover, water bodies, vegetation and man-made development.

Step 1: Identify Visual Character – Visual character is descriptive and non-evaluative, which means it is based on defined attributes that are neither good nor bad in themselves. A change in visual character cannot be described as having good or bad attributes until it is compared with the viewer response to that change. If there is public preference for the established visual character of a regional landscape and resistance to a project that would contrast that character, then changes in the visual character can be evaluated.

Step 2: Assess Visual Quality – Visual quality is evaluated by identifying the vividness, intactness and unity present in the viewshed. This method should correlate with public judgments of visual quality well enough to predict those judgments. This approach to evaluating visual quality can also help identify specific methods for mitigating each adverse impact that may occur as a result of a project.

The three criteria for evaluating visual quality can be defined as follows:

Vividness is the visual power or memorability of landscape components as they combine in distinctive visual patterns.

Intactness is the visual integrity of the natural and man-built landscape and its freedom from encroaching elements. It can be present in well-kept urban and rural landscapes, as well as in natural settings.

Unity is the visual coherence and compositional harmony of the landscape considered as a whole. It frequently attests to the careful design of individual manmade components in the landscape.

5.2 Existing Visual Resources

5.2.1 Scenic Resources

The City of Del Mar begins at the edge of the Pacific Ocean and follows the topography up toward the east. Many residences and businesses in Del Mar have views of the ocean. Under the California Coastal Act of 1976, scenic and visual qualities of coastal areas are considered and protected as a visual resource. Permitted development should be sited and designed to protect views to and along the ocean and scenic coastal areas. The act also requires minimizing the alteration of natural landforms to assure that they are visually compatible with the character of surrounding areas, and, where feasible, to restore and enhance visual quality in visually degraded areas.

View of Pacific Ocean from residential neighborhood along 10th Street

There are a diverse collection of street trees in the Village Plan area, including Eucalyptus species, and Monterey Pines and Torrey Pines along Camino del Mar in the medians and throughout the residential neighborhoods. The Tree Ordinance (Section 23.50) of the Del Mar Municipal Code provides for the orderly protection of trees, including the following measures:

B. In the interest of the public health, safety and welfare, as well as general aesthetics of the community and the importance of the ecology of the area, the City of Del Mar finds it necessary to encourage conservation of trees and the application of management techniques to create a healthy, diverse urban forest, including but not limited to pruning, thinning, trimming, shaping, and selective planting and removal of trees and vegetation within the City of Del Mar on private as well as public property. [Ord. 749]

C. The species Torrey Pine, the species Monterey Cypress, and all species of trees located within the Central Commercial zone and the environmentally sensitive Open Space Overlay zone are of particular significance to the City, and should therefore be protected to conserve the environmental qualities of the City.

Specimen Torrey Pines are found throughout the City of Del Mar

The Del Mar Municipal Code designates the Historic Preservation Overlay Zone (HP-OZ). The HP-OZ protects the architectural and historic integrity of certain historically significant properties located within the City, but also provides the means to designate additional properties as historically significant. Within the HP-OZ, no building, improvement, structure, or portion thereof shall be erected, constructed, demolished, relocated, converted, altered, or enlarged, nor shall any lot or premises be excavated or graded unless approved by the Design Review Board.

The City of Del Mar has two designated Historical Sites. Both Stratford Square (1438–1454 Camino del Mar; 225 West 15th Street) and the City Library (1309 Camino del Mar) have HP-OZ designations and have been designated by the City as historic landmark properties.

The Del Mar Library and Eucalyptus trees along Camino del Mar

Stratford Square

Adjacent to the Plan area are other parcels with the HP-OZ designation, including a linear parcel west of the Post Office along the east side of the railroad tracks, the Powerhouse park located west of Coast Boulevard, and the Ivan Gayler Trust located adjacent to the east side of the Plan area, north of 15th Street.

Powerhouse Park

The State Scenic Highway Program lists highways that are either eligible for designation as a scenic highway or are already designated as a scenic highway. Designation as a scenic highway depends on how much of the natural landscape travelers can see the scenic quality of the landscape, and the extent to which development intrudes on the traveler's enjoyment of the view (Caltrans, 2010). While there are no state designated or eligible scenic highways in the area listed in the California Scenic Highway Program, the Community Plan does designate scenic roadways. Camino del Mar is a scenic roadway and views of the Pacific Ocean and visual resources such as bluffs and trees are to be protected. Jimmy Durante Boulevard (formerly Turf Road), Crest Road, Carmel Valley Road, Coast Boulevard, and Del Mar Heights Road are also considered scenic roadways.

5.2.2 Existing Visual Character

The City of Del Mar is made up of an eclectic style of architecture, landscape, parking areas, and streetscapes. Camino del Mar is the visually prominent road through the city. It is made up of two travel lanes in both directions with bike lanes and either parallel or angled parking along much of its edges. In most locations, the north and southbound lanes are divided by landscaped medians with mature trees and a variety of smaller shrubs and groundcover. The pedestrian walkways adjacent to the road have variable widths due to a variety of building setbacks. The walks are sometimes difficult to navigate because they are discontinuous and the widths are inadequate for the number of people along the walk during peak times. The walkway surfaces and landscape along the road is also made up of a variety of materials and includes a few large trees. There is a consistent change in elevation and landform from the ocean moving toward the east. The majority of the buildings in Del Mar are limited to two stories in order to protect ocean views. The architecture is a mixture of historical and modern styles but also contain a few obsolete or poorly detailed buildings that detract from the visual intactness of this corridor. The common design form found along the eclectic collection of architectural treatments, is the dominance of human scale and visual interest provided by the variety of shops and outdoor spaces. The changes in building materials, display of public art or shop items for sale, all carry with it, a very human scale.

The primary concentration of businesses includes office, retail, restaurants, and hotels located along Camino del Mar. The residential areas take advantage of the ocean views and are located to both the east and west of Camino Del Mar. The beach and adjacent bluffs along with Powerhouse Park provide recreational opportunities.

5.2.3 Existing Visual Quality

The visual quality of each character unit is shown in Table 5-1: Visual Quality Assessment of Character Units. This qualitative evaluation takes into account the vividness, intactness, and unity of the study area.

Table 5-1: Visual Quality Assessment of Character Units

Character Unit	Vividness	Intactness	Unity	Overall Visual Quality
Civic	Low to Moderate	Low	Low	Low
Residential	Moderate	Moderate	High	Moderate
Commercial	Moderate	Moderate	Low	Moderate
Hotel and Plaza	High	High	High	High
Vacant / Parking	Low	Low	Low	Low
Street and Streetscape	Moderate	Moderate	Low	Moderate
Recreation	High	High	High	High

5.3 Methods of Predicting Viewer Response

Viewer response is composed of two elements: viewer sensitivity and viewer exposure. These elements combine to form a method of predicting how the public might react to visual changes brought about by a project.

Viewer sensitivity is defined both as the viewers' concern for scenic quality and the viewers' response to change in the visual resources that make up the view. Local values and goals may confer visual significance on landscape components and areas that would otherwise appear unexceptional in a visual resource analysis. Even when the existing appearance of a project site is uninspiring, a community may still object to projects that fall short of its visual goals.

Viewer exposure is typically assessed by measuring the number of viewers exposed to the resource change, type of viewer activity, duration of their view, speed at which the viewer moves, and position of the viewer. High viewer exposure heightens the importance of early consideration of design, art, and architecture and their roles in managing the visual resource effects of a project.

5.3.1 Existing Viewer Groups, Viewer Sensitivity, and Viewer Exposure

A summary of the viewer sensitivity and exposure can be found in Table 5-2 and are described below. A total of 7 viewer groups include pedestrians, bicyclists, motorists, retail workers or customers, and hotel and restaurant workers or customers, office workers, and residents were considered.

Pedestrians are individuals utilizing adjacent walks within the project area. The view of the project would be in the foreground for this group and as a pedestrian moving along the corridor of Camino del Mar, the viewing duration would be short to moderate, depending on their walking speed and dwell time in front of shops and restaurants. Pedestrians using this area have a moderate sensitivity to visual change. Many of the pedestrians are visitors to Del Mar and don't frequently visit the area to notice changes.

Bicyclists are individuals biking along Camino del Mar. Del Mar sits along a popular route that runs along the coast and bicyclists throughout the region use the bike lanes along Camino del Mar. The number of bicyclists is moderate when comparing them to the quantity of other viewer groups such as vehicular drivers, but still significant enough to note. Similar to the pedestrians, the project is in the foreground as bicyclists are travailing through the project area, but the viewing duration is short resulting in low viewer exposure and low viewer sensitivity.

Motorists are drivers and passengers utilizing surface streets in the project area. The viewer sensitivity to change is moderate to low. There are existing views to the ocean along Camino del Mar and through street corridors running in the east/west direction also exist to see views of the ocean. Camino del Mar is sometimes unfavorably used as an alternative route to Interstate 5 which runs in the north / south direction, parallel to Del Mar Village. This roadway is often congested during night and morning commute times. It is also congested during weekends and when special events such as the San Diego County Fair and Del Mar Racetrack are running resulting in a high quantity of viewers. The viewing duration is short and the project is in the foreground of the view resulting in a moderate viewer exposure.

Retail Workers or Customers are individuals working or purchasing goods or service in the project area. This viewer group has a moderate viewer exposure. The quantity of viewers and the viewing duration is moderate, and the view of the project is in the foreground. Retail workers and customers have a moderate sensitivity to the view and changes. They are often concerned with the aesthetic and visibility of storefronts or blockage of business façades and the visual relationship of the immediate visual environment.

Hotel/ Restaurant Workers or Customers are individuals working or procuring services at a hotel or restaurant within the project area. This group has a high sensitivity to changes in the visual environment. They rely on the visual resource of the ocean to create a unique experience for patrons or customers. They are also concerned with the façade of the buildings and visibility of immediate surroundings and aesthetics. The proposed project is in the foreground of this viewer group's view. The viewing duration is moderate and the quantity of viewers is moderate resulting in a moderate viewer exposure.

Office Workers are individuals working in a business within the project study area. There is a low quantity of viewers within this group, but the viewing duration is moderate to high. The view of the proposed project is in the foreground. The viewer exposure and viewer sensitivity to changes are low to moderate. This viewer group does not rely on the visual resources to enhance their business, but it is an added benefit.

Homeowners/Residents are individuals owning homes adjacent to the project. There are no residents within the project boundary; however, due to the topography of Del Mar, the gradual slope up from the ocean in the eastern direction results in residents with views to the project. Residents have a high viewer exposure because of their long viewing duration, and close proximity to the project. The quantity of viewers is high, and under the existing Del Mar Municipal Code, individual residents' private views are protected as seen by an owner's designated primary viewing room. In addition, many of the residents in Del Mar have a partial or full view of the ocean from their residence and so the viewer sensitivity is high to visual changes.

Table 5-2: Summary of Viewer Groups

Viewer Group	Quantity of Viewers	Viewing Duration	Distance from Viewer to Project Corridor	Viewer Exposure	Viewer Sensitivity
Pedestrian	*Moderate*	*Short to Moderate*	*Foreground*	*Low*	*Moderate*
Bicyclist	*Low*	*Short*	*Foreground*	*Low*	*Low*
Motorist	*High*	*Short*	*Foreground*	*Moderate*	*Low to Moderate*
Retail Worker or Customer	*Moderate*	*Moderate*	*Foreground*	*Moderate*	*Moderate*
Hotel / Restaurant Worker or Customer	*Moderate*	*Moderate*	*Foreground*	*Moderate*	*High*
Office Workers	*Low*	*Moderate*	*Foreground*	*Low to Moderate*	*Low to Moderate*
Home Owners	*High*	*Long*	*Foreground to Middleground*	*High*	*High*

6.0 VISUAL IMPACT ASSESSMENT

6.1 Method of Assessing Impacts

The visual impacts of a project under CEQA are determined by assessing the visual resource change due to the project and predicting viewer response to that change. Visual resource change is the sum of the change in visual character and change in visual quality. The first step in determining visual resource change is to assess the compatibility of the proposed project with the visual character of the existing landscape. The second step is to compare the visual quality of the existing resources with projected visual quality after the project is constructed. The viewer response to project changes is the sum of viewer exposure and viewer sensitivity to the project. The resulting level of visual impact is determined by combining the severity of resource change with the degree to which people are likely to oppose the change. This project is particularly interested in impacts to view corridors. The process for view quality impacts is to first determine the extent of view corridors, model a viewshed and then determine if the project is likely to block a view corridor of distant viewing scenes of the ocean.

6.2 Definition of Visual Impact Levels

This document will use the following levels of impact to determine significance:

Low - Minor adverse change to the existing visual resource, with low viewer response to change in the visual environment. May or may not require mitigation.

Moderate - Moderate adverse change to the visual resource with moderate viewer response. Impact can be mitigated within five years using conventional practices.

Moderately High - Moderate adverse visual resource change with high viewer response or high adverse visual resource change with moderate viewer response. Extraordinary mitigation practices may be required. Landscape treatment required will generally take longer than five years to mitigate.

High – A high level of negative change to the resource or a high level of viewer response to visual change such that architectural design and landscape treatment cannot mitigate the impacts. Viewer response level is high.

Based on CEQA thresholds, a High or Moderately High Adverse impact would be considered as a significant impact.

6.3 Analysis of Candidate Key Views

It is necessary to select a number of possible key viewpoints that most clearly display the visual effects of the project. These candidate key views represent the primary viewer groups that would potentially be affected by the project. Based on fieldwork, viewer groups, probable changes, viewing duration, and viewer sensitivity, candidate key views were selected and building massings were draped over the existing conditions to help understand the impacts of the Specific Plan. Descriptions of the candidate key views can be found in Appendix A.

6.4 Analysis of Key View Simulations

Because the study area is visible from a very large area, key views that most clearly display the visual effects of the project have been selected for simulation. These key views represent areas where visually prominent project features would affect existing views. The existing visual quality of each of these key views and the initial contrasts have been evaluated and discussed below.

6.4.1.1 Key View Simulation "A"

This key view looks northbound on the west side of Camino del Mar, south of the 12th Street intersection and is depicted in Figure 6-1.

Existing Visual Quality / Character

The existing visual character of the buildings in the key view are uniform in scale. The mature trees and planting along the street also create a uniform view and are considered to be visual resources contributing to the character of the area. However, large gaps in storefronts along Camino del Mar create a visual environment that is not intact for a pedestrian or motorist.

Proposed Project Features

This series of simulations depicts a transition of the proposed allowable building heights. The first image shows the infill of buildings, which would include the allowable increase 14 feet for the first floor. The second image shows a second story on the west side of Camino del Mar for a total of 26 feet. The third image shows the building with a four-foot maximum articulated roof for a total of 30 feet. Note that a partial parking reconfiguration is shown on this image, representing a probable phasing whereby portions of blocks adjacent to new development will be reconfigured while other portions may remain with "town and country" (storefront parking on private property) parking until redeveloped.

Change to Visual Quality / Character

The proposed changes have a low visual contrast and may actually increase the visual quality of the streetscape as seen by a pedestrian or motorist along Camino del Mar. There is an opportunity to improve the vividness and unity of the space through the design of the pedestrian environment. The building heights are not excessive in terms of scale and massing compared with other buildings along Camino del Mar. The articulated roofline (30') does not increase the appearance of height above the flat roof (26') version. No existing views along this segment of Camino del Mar will be affected by these changes.

Viewer Response

The reaction to the proposed changes will not likely be negative from this view point. The majority of the viewers include motorist bicyclists and pedestrians. Their sensitivity and exposure to the view is low to moderate mostly because of the short viewing duration and with the exception of the motorists, the low quantity of viewers.

Resulting Visual Impact

Overall, the resulting visual impact of this view has a low adverse change and might actually improve the uniformity, intactness, and vividness of the view. The changes to the view would not require mitigation and would be considered less than significant.

Figure 6-1: Key View Simulation "A"

6.4.1.2 Key View Simulation "B"

This view looks north on the east side of Camino del Mar south of the 12th Street intersection and is depicted in Figure 6-2.

Existing Visual Quality / Character

Same as Simulation "A".

Proposed Project Features

Same as Simulation "A".

Change to Visual Quality / Character

Same as Simulation "A".

Viewer Response

Same as Simulation "A".

Resulting Visual Impact

Overall, the resulting visual change of this key view would only have a low adverse change and might actually improve the uniformity, intactness, and vividness of the view. The changes to the visual environment would not require mitigation and would be considered less than significant.

Figure 6-2: Key View Simulation "B"

6.4.1.3 Key View Simulation "C"

This key view looks north on Camino del Mar just south of the intersection at 11th Street and is depicted in Figure 6-3.

Existing Visual Quality / Character

The majority of the buildings on the west side of Camino del Mar are blocked by mature trees and planting in the median. Along the east side of the street, the buildings, landscape and setbacks are not vivid, nor are they uniform. The pedestrian environment is disrupted by the parallel parking along the street and in front of store fronts. For a pedestrian or a motorist, the visual experience is not intact nor would it be considered a high visual quality area.

Proposed Project Features

The proposed project features include the reconfiguration of the street to include angled parking, improved streetscape, infill of buildings, and the roundabout at the intersection. Additional parkway planting is proposed to improve the pedestrian environment, while assuring that the visibility through the traffic circle is open and clear for safety purposes as well as to make sure that trees do not block view corridors from the east to the west on 11th.

Change to Visual Quality / Character

The proposed changes have a low visual impact and may actually increase the intactness of the view as seen by a pedestrian or motorist. The proposed features would eliminate a large mature tree in the existing median reducing the vividness of the median, but it would be replaced by other trees on the parkway side of the street. Overall, the walkway environment and the roundabout itself, will increase the visual quality of the area due to increased landscaping, improved paving materials and the decrease in the scale of the street resulting from the proposed improvements in the street.

Viewer Response

The reaction to the proposed changes will not likely be negative from this view point. The majority of the viewers include motorist bicyclists and pedestrians. Their sensitivity and exposure to the view is low to moderate mostly because of the short viewing duration and with the exception of the motorists, the low quantity of viewers. Overall, the scale to these viewers is positive and the pedestrian and vehicular environments have been clarified and improved in visual quality.

Resulting Visual Impact

Overall, the resulting visual impact of this view has a low adverse change and might actually improve the uniformity, intactness, and vividness of the view and improve the visual environment. Because the large mature tree would be eliminated, the replacement of this tree in the immediate visual area is assumed to be part of the project as proposed.

Figure 6-3: Key View Simulation "C"

6.4.1.4 Key View Simulation "D1"

This view looks west from the library patio adjacent to Camino del Mar and is depicted in Figure 6-4.

Existing Visual Quality / Character

This view is high in intactness and visual quality. This is an important view of the ocean. In addition, the architectural character represented in the view along Camino del Mar is vivid and characteristic of Del Mar in its pedestrian scaled buildings, Spanish style architecture, large storefront windows, and diverse pedestrian environments.

Proposed Project Features

Proposed project features include an extension of the height toward the back of the parcel with an upper level building, while the pedestrian scaled architecture is maintained along Camino del Mar. The preservation of the front portion of these very human-scaled and high visual quality buildings is important and it is assumed that the Design Review Board process would require ~~something similar to what is shown in the simulations~~such design features. Note that the proposed roadway and parking is not simulated in this view, since the primary concern here is of view corridor blockage and building massing and scale and its affect on the existing character.

Change to Visual Quality / Character

The proposed project will have a highly adverse affect on the view corridor from this location due to blockage of the view of the ocean from this public viewing location. However, the number of viewers is considered to be low. But, because of the view quality the impact should still be considered significant. The height difference between a 26' flat roof and the 30' articulated roof would be not different since they both would block the views in this location.

The impact to the existing scale and character of the storefronts and adjacent buildings is considered to be a moderately adverse impact. Much of the character and scale is left intact as seen in the simulation. The overall height increase, though it impacts the view corridor, it does not impact the scale and massing or the visual character of the storefronts.

Viewer Response

This view represents what a person sitting on the library patio would see. The number of viewers and viewer duration is low resulting in a low viewer exposure. The viewer sensitivity would be high. This is an important view of the ocean and the viewers would be concerned and notice this change. Viewer response to the changes in the building massing and scale compared to the adjacent building and streetscape environment would not be considered high.

Resulting Visual Impact

Overall, the resulting impact on the view corridor from a public viewing place would be moderate to highly adverse and considered potentially significant. Though a limited number of viewers are likely to see this, it would still be considered potentially significant. Ultimately, the Design Review Ordinance would not allow future development to substantially block scenic views and the potentially significant view impact would be avoided. The changes to the visual quality and character of the area would also not be considered significant, given the ~~assumptions that the~~ DRB review process requirements~~would result in a similar design as shown in the simulation~~.

Figure 6-4: Key View Simulation "D1"

6.4.1.5 Key View Simulation "D2"

This view looks northwest from the east side of Camino del Mar in front of the library and is depicted in Figure 6-5.

Existing Visual Quality / Character

This view is highly intact. Different from Key View D1, there is not a view of the ocean in this view given the height and position of the existing buildings. Again, the architectural character represented in the view along Camino del Mar is vivid and characteristic of Del Mar in its pedestrian scaled buildings, Spanish style architecture, large storefront windows, and a diverse pedestrian environment. In addition, the streetscape provides uniformity for the character of the area.

Proposed Project Features

Proposed project features include the existing architecture and extended building height on the back side of the parcel. Setback and stepbacks are indicated in the rendering to create visual interest and protect the first floor scaled buildings that do establish some of the character of the village. The pedestrian realm is enhanced with outdoor dining, shopping, seating, and plantings where setbacks occur along Camino del Mar.

Change to Visual Quality / Character

By maintaining some of the existing architectural character, on the front of the parcel facing Camino del Mar, the change to the view scene and visual character is moderate. The pedestrian scale of the buildings are maintained and the visual character remains intact. But the overall change to the visual environment is not considered to be that dramatic.

Viewer Response

Depending on a viewer's outlook and opinion, some viewers may consider this change objectionable while others may not. The reaction to the proposed changes will not likely be overly negative from this viewpoint, but they may be adverse. The majority of the viewers including cyclists and pedestrians, will see this view from a transitory or moving perspective. Their sensitivity and exposure to the view is low to moderate mostly because of the short viewing duration, movement and low quantity of viewers.

Resulting Visual Impact

The resulting impact on the view corridor from this public viewing place would be low and would not be considered significant. The changes to the visual quality and character of the area would not be considered significant, given the assumptions that the DRB review process would result in a similar design as shown in the simulation.

Figure 6-5: Key View Simulation "D2"

6.4.1.6 Key View Simulation "E"

This view looks west to the ocean across Camino del Mar from the north side of 12th Street at Maiden Lane and is depicted in Figure 6-6.

Existing Visual Quality / Character

This view represents a typical view corridor to the ocean found on most of the numbered streets running in an east/west direction. The view is considered to be highly intact, though it is partially blocked by mature vegetation. This is also typical of most of the view corridors in the study area. These views are important to the City of Del Mar and create a vivid view and uniform rhythm of views when driving, riding or walking down the street. This is an important view of the ocean though it is somewhat interrupted by large mature trees in the middle ground and background. However, enough of a view still exists to be of concern. Based on the simple simulations, it can be seen that most of the view to the ocean is maintained with the proposed building heights of 14', 26' or 30'. The side stepback on the second floor is considered to be important to protecting this view corridor.

Proposed Project Features

Proposed features in this view include the new building heights. The chamfer at the corner lots will help to keep some of the view corridor when approaching from the north or south as a pedestrian. In addition, the ten-foot stepback on the upper floor helps to maintain the views to the ocean and the view corridor so it is not excessively blocked.

Change to Visual Quality / Character

The change to the visual quality and character would be moderate to low. The massings of the buildings are similar to the existing forms, though higher. The visual quality of the existing buildings on the west side are not high. Replacement buildings are likely to have a higher visual and design quality. The existing vegetation is already partially blocking the scenic vista to the ocean and would not be affected by the project.

Viewer Response

Currently residents, retail workers and customers have a partial view of the ocean that is interrupted by mature plant material. The viewer exposure and sensitivity to these changes would be low. The extended heights on the buildings do not completely remove the view of the ocean and the scenic vista is maintained. The proposed scale is not out of character with other buildings in the area.

Resulting Visual Impact

The resulting visual impact of this view would be considered low to moderately adverse. The scenic vista to the ocean is mostly preserved, though a small notch would be affected. This blockage would not be considered significant. The change to the visual character and quality is also considered to be low to moderate. Depending on the final design of replacement buildings, the visual character could be improved along with the overall visual quality.

Figure 6-6: Key View Simulation "E"

6.4.1.7 Key View Simulations "F1, F2, F3, and F4"

Key view F1 looks west to Camino del Mar from the south side of 14th Street near the intersection and is depicted in Figure 6-7.

Key view F2 looks west to Camino del Mar from the south side of 14th Street, mid-block and is depicted in Figure 6-8.

Key view F3 looks west to Camino del Mar from the south side of 14th Street at Maiden Lane and is depicted in Figure 6-9.

Key View F4 looks west to Camino del Mar from the intersection of 14th Street and Luneta Drive is depicted in Figure 6-10.

Existing Visual Quality / Character

This series of views is typical of the view corridors to the ocean from the numbered streets running in an east/west direction. This view is consistent along Camino del Mar and is highly intact. These views are important to the City of Del Mar and are typical of residential views on the lower slopes east of Camino del Mar. The view of the ocean is blocked by existing buildings when a viewer is standing at Camino del Mar. Where there are no buildings, the view is partially blocked by mature trees in the background. Moving up the hillside to the east, the views to the ocean open up and more of the vista is revealed.

Change to Visual Quality / Character

The proposed building heights from a massing and scale perspective are not in contrast with other buildings in this area. The changes to the visual quality are also not likely to negatively contrast with the current setting, assuming a Design Review Board process that will assure that elements of the Del Mar Village are repeated and existing high quality architecture and storefronts are preserved.

Viewer Response

Currently residents, retail workers and customers have a partial view of the ocean that is interrupted by mature plant material and overhead powerlines. The viewer exposure and sensitivity to these changes would be moderate. The extended heights on the buildings do not completely remove the view of the ocean and the scenic vista is maintained by the preservation of the view corridor on one of the lots. The view could actually be improved if the background utilities were removed. Also, increased public views would be possible with the development of a Paseo plaza open to the public, between these buildings. The removal of surface parking would also be an improvement.

Resulting Visual Impact

The resulting visual impact of this view would be considered low to moderately adverse. The scenic vista to the ocean is mostly preserved, though a portion would be affected from the lower slope within the first half block from Camino del Mar. A moderately adverse impact that would be considered less than significant would result to the views in this corridor. A low to moderately adverse impact that is also less than significant, would result to the character of the area, assuming that the Design Review Board process would result in a similar form and character of as show in previous simulations.

Figure 6-7: Key View Simulation "F1"

Figure 6-8: Key View Simulation "F2"

Figure 6-9: Key View Simulation "F3"

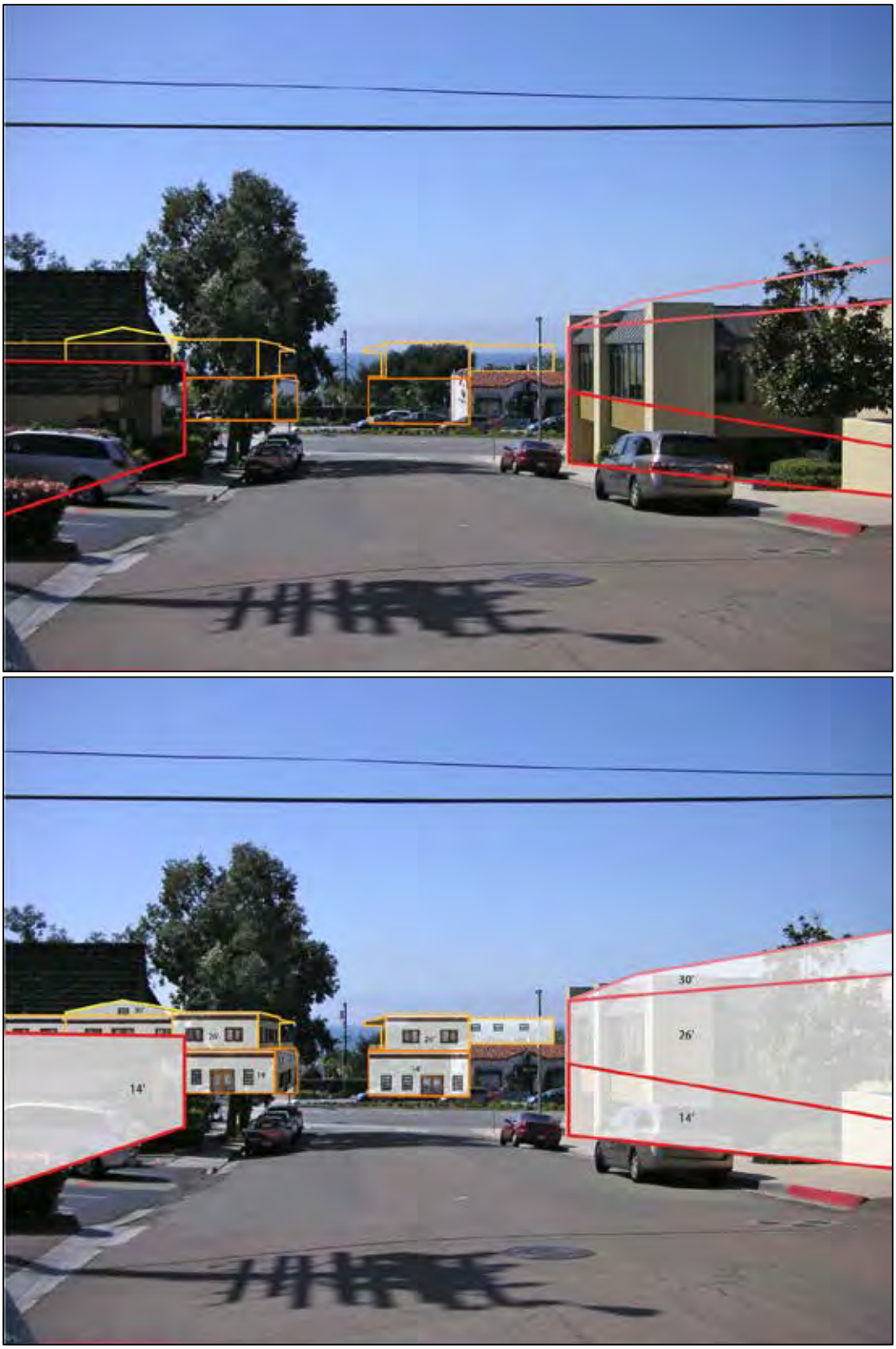


Figure 6-10: Key View Simulation "F4"

6.4.1.8 Key View Simulation "G"

This view looks north to the intersection of Camino del Mar and is depicted in Figure 6-11.

Existing Visual Quality / Character

The majority of the buildings on the east side of Camino del Mar are blocked by mature trees and plantings in the median. Along the west side of the street, the buildings, landscape and setbacks are neither vivid nor uniform. The pedestrian environment is disrupted by the parallel parking along the street and in front of storefronts. For a pedestrian, the visual experience is not intact. In addition, there are gaps in the building storefronts along Camino del Mar. Within the view, the trees in front of the library are an important visual element and enhance the visual character of the area.

Proposed Project Features

The simulation shows a series of images to depict a sequence of potential build out and roadway environment changes. The second image shows the realignment of the street to include angled parking, a bike lane, the realignment of the sidewalk, and one lane of traffic. The last image includes building infill and other enhancements to the pedestrian environment.

Change to Visual Quality / Character

The proposed changes have a low visual impact and may actually increase the intactness of the view as seen by a pedestrian or motorist experiencing the space along Camino del Mar. The overall scale and dominance of the roadway does improve and is not as expansive and vehicular dominant.

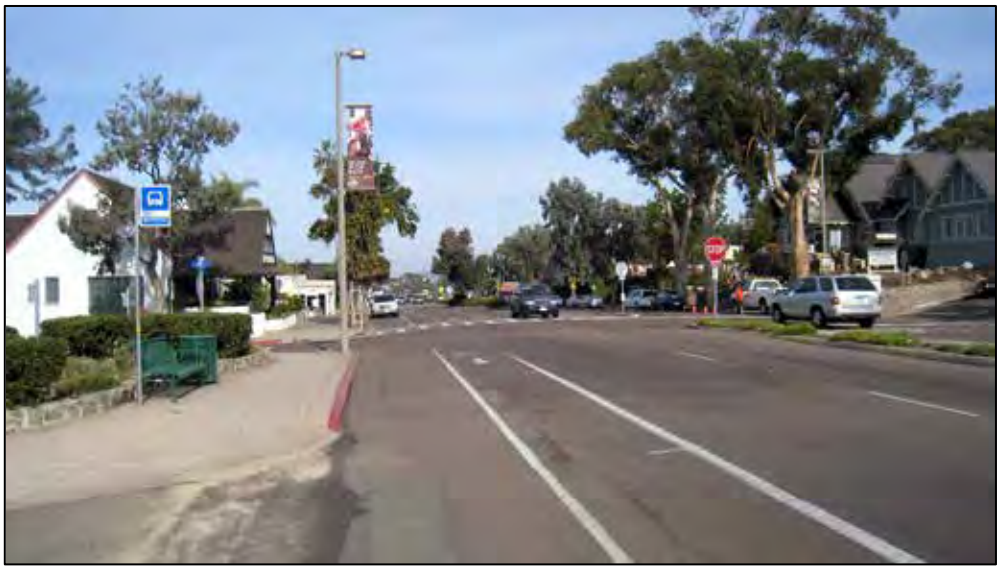
Viewer Response

The reaction to the proposed changes will not likely be negative from this view point. The majority of the viewers include motorists, bicyclists and pedestrians. Their sensitivity and exposure to the view is low to moderate mostly because of the short viewing duration and with the exception of the motorists, a low quantity of viewers.

Resulting Visual Impact

Overall, the resulting visual impact to this key view would be a low adverse change since some of the visual environment would be improved through new design features and new spatial organization and visual interest improvements. The proposed project changes would not be considered to be significant.

Figure 6-11: Key View Simulation "G"



6.5 Impact Assessment Summary

The City of Del Mar does not currently have guidelines for determining significant thresholds. Therefore, CEQA, Appendix G was used to determine the level of impacts the project is likely to cause. The following criteria apply:

Have a substantial adverse effect on a scenic vista?

Many of the vistas in Del Mar are currently blocked by mature shrubs and trees or other existing buildings and landforms. There are scattered scenic vistas throughout Del Mar of the ocean depending on the topographic setting of the viewer. The most substantial scenic vistas of the ocean occur at the streets running west and east. The Village Specific Plan takes these vistas into account by requiring stepbacks from the side streets on the upper levels and a chamfer corner at the first level of proposed corner lots buildings. This design detail helps to reduce the adverse visual impacts associated with view corridor blockage, but does not completely eliminate adverse effects on views not located along the east-west street corridors. The proposed changes would potentially result in a moderate impact on some scenic vistas not located along east-west street corridors, such as View D1 ~~and mitigation may be required~~. Ultimately, the Design Review Ordinance requires projects to be designed so that they do not unreasonably block significant public coastal views or scenic views from the primary living area of residences. With the implementation of the Design Review Ordinance through the Design Review Board review process, potentially significant scenic vista impacts would be mitigated.~~Therefore, the proposed project is considered to have a significant impact on scenic vistas. This impact would be considered unmitigable.~~

Substantially damage scenic resources, including, but not limited to trees, rock outcroppings, and historic buildings within the Village area defined by the Specific Plan Boundary?

The traffic circles and the realignment of the street have the potential to reduce the number of mature trees found along Camino del Mar. Other trees will be removed, but many more will be added as a result of the proposed new developments and streetscape improvements. These tree removals and additions would have the potential for either an adverse or positive change to the visual environment depending on the viewer and the viewer location. The removal of mature trees could potentially open views to the ocean. However, the trees along Camino del Mar are also considered to be characteristic of the Del Mar setting and are a scenic resource and help to strengthen the vividness of the City. The proposed specific plan does not make recommendations to remove or modify any existing historic buildings; therefore, there are no adverse changes to the historic buildings. The view of the ocean must be considered as a scenic resource. The increase in building heights proposed in the Village Specific Plan may result in a full or partial blocked view of the ocean for a variety of viewer groups. As a viewer moves up the hillside to the east, the resulting visual impact becomes less adverse because of the changing perspective resulting from rising topography. The combination of these changes would result in a moderate to high visual impact and would need to be mitigated. Therefore, a significant impact to scenic resources and visual resources would be expected, some of which can be mitigated through replacement of visual resources and the Design Review Board review process.

Substantially degrade the existing visual character or quality of the site and its surroundings?

The existing character of Del Mar is moderate in vividness, intactness, and unity. Most of the existing inconsistencies are the varying building setbacks and the lack of a visually identifiable pedestrian environment. The proposed changes in the Village Specific Plan would create a uniform visual environment. The proposed changes would result in a low visual impact and in some situations, would actually improve the visual character and quality of the site. There may be some circumstances where visual character may be removed and not replaced with the same level of pedestrian scale, building material quality and overall character. However, it is assumed that through the application of design guidelines and the Design Review Board process, that projects will be of a higher quality and will address the visual character of the area and any removal of character elements will be replaced by new improvements. Therefore, the proposed project is not expected to have a significant impact on the visual character or visual quality of the specific plan area.

Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?

Shade calculations on adjacent residential units were completed for the longest day of the year, December 22. Using computer modeling, it has been determined that the proposed increase in the height of the building will not result in a low adverse change to the shadow pattern on adjacent buildings. Existing conditions currently result in a partial shade pattern on the façade of residential buildings at 8am; however, the shade pattern disappears from the façade by 9am. The same is true when the building heights are increased.

Computer modeling was also used to evaluate the shade patterns on Camino del Mar during the equinox and solstice. The models showed an increase in shadow patterns as the building heights increased. During the longest day of the year, shadow patterns form the buildings on the west side of the street stretched to the median by mid afternoon, but did not shade the entire corridor of Camino del Mar. The proposed setbacks and articulation in the buildings will result in more light coming through the buildings to Camino del Mar, and therefore results in a low adverse change.

The proposed building height increase would result in a low adverse change to the glare and ambient light into the nighttime sky. This impact would not be considered to be significant.

7.0 VISUAL MITIGATION

7.1 Visual Mitigation Options

Visual mitigation for moderate to highly adverse project impacts addressed in the key view simulation assessments of the previous chapter, are discussed below. Implementation of the following mitigation measures will reduce impacts of the project.

- Because it is impossible to determine the impact on individual residents within this study, the proposed project is subject to design review to guard against unreasonable view blockage from public areas or from neighboring properties. Story poles will be erected to fully determine visual impact of individual residence as part of the Design Review process. The Design Review Board will review the proposed development's affect on individual residence on a project-by project basis. The views will be evaluated from each residence, based on the property owner's primary viewing location within the residence.

- The proposed Village Specific Plan required stepbacks and the articulation of roofs on buildings. This variety in architecture will result in more light into the project and adjacent residential units as well as increased visual interest.

- Mature trees are considered to be a scenic resource and add to the vividness and intactness of the City. A few of these trees may be disturbed with the realignment of median and the addition of roundabouts per the improvements in the Village Specific Plan. A tree replacement or relocation plan should be created and implemented to reduce the visual impacts because of the tree removal. Any tree requiring removal should be replaced with a tree of similar size or relocated in close proximity to the existing tree without blocking scenic views to the ocean.

- Where setbacks of the proposed building occur on Camino del Mar, the space between the building and curb shall be utilized for the pedestrian. Amenities such as awnings, outdoor dining, seating, shopping, and plant material must be used to enhance the pedestrian scale.

- Cohesive site amenities should be utilized throughout the Del Mar Village to create visual intactness in the urban setting. This will improve the unity and intactness of the Village and enhance the visual pedestrian setting. Consistent site amenities are shown on the following pages.

7.2 Visual Impacts After Mitigations

- ***Substantial impacts on scenic vistas***

  With the implementation of Design Review Board review, the use of story poles, setbacks, stepbacks and corner lot 45 degree chamfers on corner lots, the significant impact on scenic vistas would be avoided. The Design Review Ordinance would ultimately not allow redevelopment that would substantially impact scenic vistas~~can be lessened but they would remain significant after mitigations. Since the view blockage cannot be eliminated, its impacts would be, but not to a level below significance~~.

- ***Substantial impacts on visual resources***

  With the protection of significant tree resources found in the corridor and the replacement of trees that are to be removed in accordance with the Tree Ordinance, this significant impact on visual resources in the specific plan area, would be reduced to below a level of significance. The mitigation assumes that approximately 50% of the biomass removed, would be replaced and that this bio-mass would grown to approximately 75% of the removed tree resources within a 3-5 year period.

Benches with City Branding	
Sidewalks with a consistent finish and a minimum width throughout the Village	
Tree Grates	

Planting	
Signage with City Branding	
Trash and Recycling Receptacle with City Branding	

8.0 REFERENCES

Camino del Mar Streetscape Plan, Andrew Spurlock Martin Poirier Landscape Architects, December 1996.

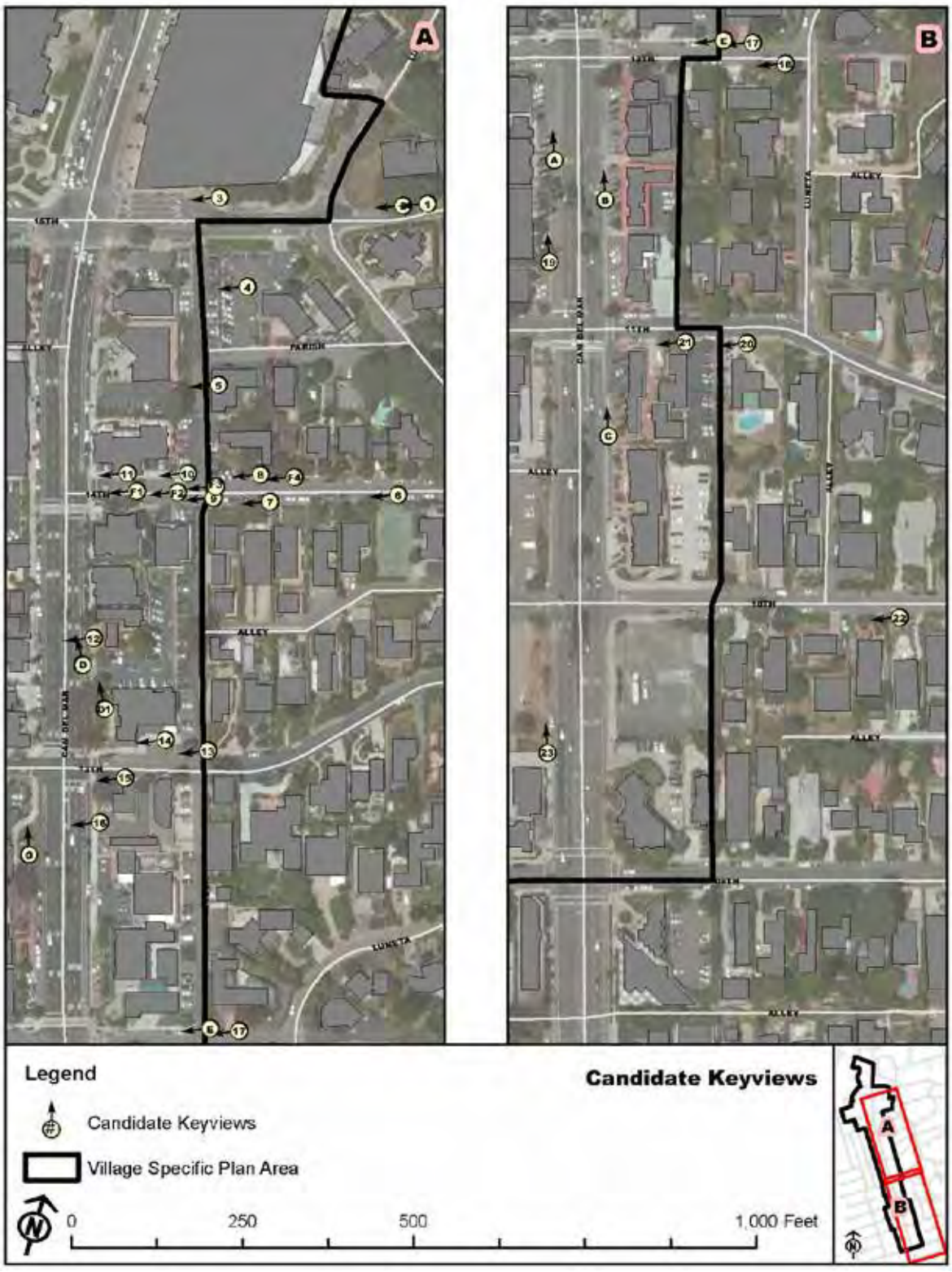
The Community Plan for the City of Del Mar, California, March 1976 with 1985 amendments.

U.S.D.O.T., Federal Highway Administration, Office of Environmental Policy, Visual Impact Assessment for Highway Projects, U. S. Department of Transportation.

APPENDIX A CANDIDATE KEY VIEWS

The locations of these keyviews are shown on the photo location map on the following page. Based on fieldwork, viewer groups, probable changes, viewing duration, and viewer sensitivity, candidate key views were selected and building massings were draped over the existing conditions to help understand the impacts of the Specific Plan. The yellow masses indicate a maximum building envelope for the west side of Camino del Mar, and the red buildings represent the maximum building envelopes on the east side of the street. Please note the massing overlays are not intended to look realistic in any manner, and foreground elements have not been removed, so some perspective distortions do exist in these graphics.

Candidate Key View Photo Location



Candidate Key View #1

This view looks west from the north side of 15th Street at 412 15th. This view is not recommended for simulation. This view shows the affect of the 30' maximum height on the ocean view; it does not interrupt the horizon line.

Candidate Key View #1

Candidate Key View #2

This view looks southwest from the north side of 15th Street at 412 15th. This view is not recommended for simulation since the proposed changes will not interrupt the horizon line.

Candidate Key View #2

Candidate Key View #3

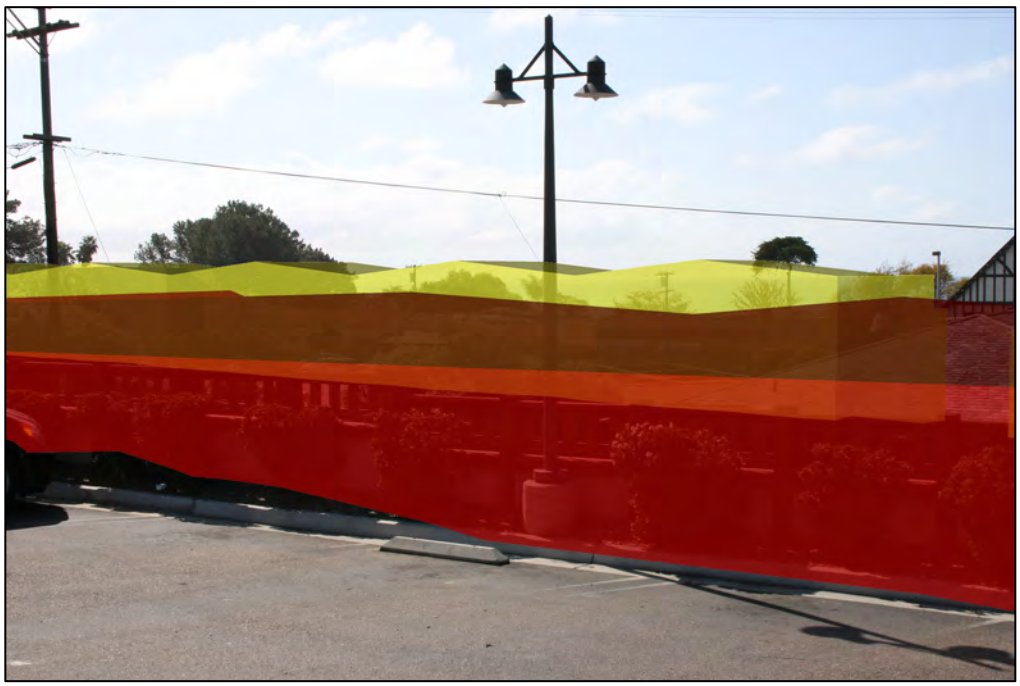
This view looks west from the north side of 15th Street at 383 15th. This view is not recommended for simulation since potential changes do not fully block the horizon.

Candidate Key View #3

Candidate Key View #4

This view looks west from the parking lot east of Maiden between 14th Street and Parish. This view is not recommended for simulation since current regulations would block view.

Candidate Key View #4



Candidate Key View #5

This view looks west from the east side of Maiden between 14th and 15th Street. This view is not recommended for simulation since it would be blocked by current regulations.

Candidate Key View #5

Candidate Key View #6

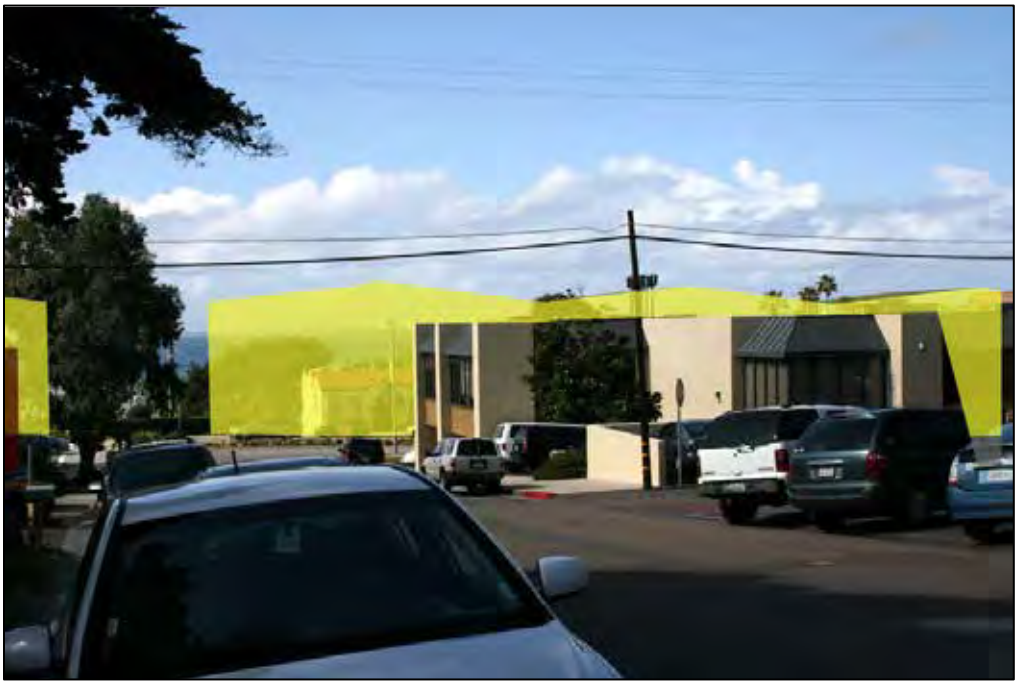
This view looks west from the south side of 14th street at 349 14th. This view is not recommended for simulation because the existing foreground vegetation blocks the proposed changes.

Candidate Key View #6

Candidate Key View #7

This view looks west from the south side of 14th street at 323 14th. This view is not recommended for simulation as a sequence as the building in the foreground will most likely not change.

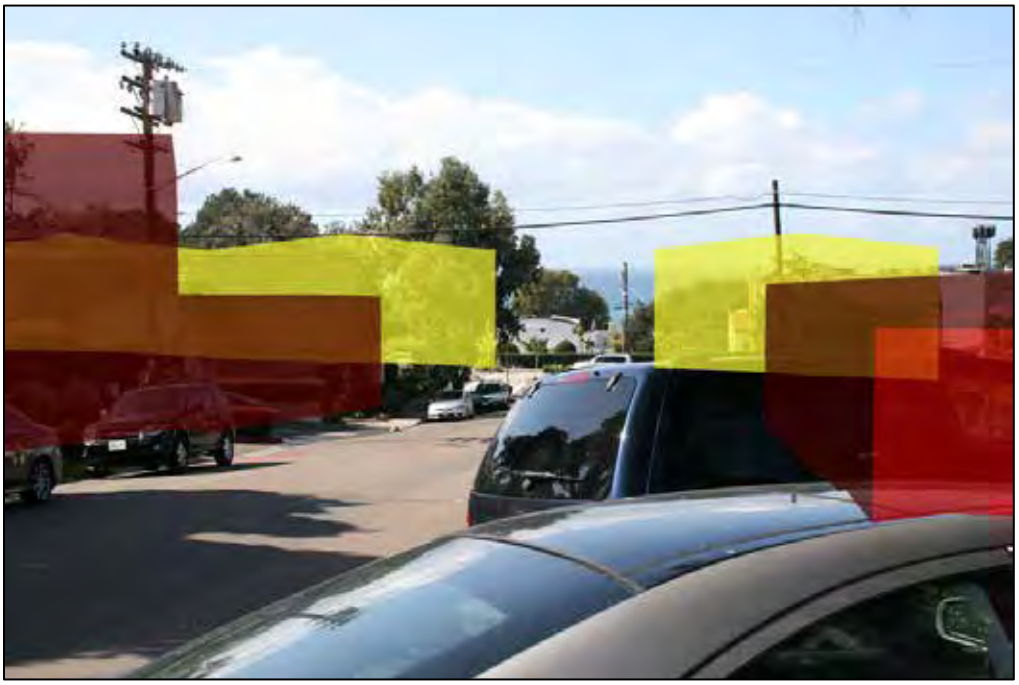
Candidate Key View #7



Candidate Key View #8

This view looks west from the north side of 14th Street at 327 14th. This view is not recommended for simulation it be used in a sequence with **Error! Reference source not found.**and **Error! Reference source not found.**.

Candidate Key View #8



Candidate Key View #9

This view looks west from the southeast side of the intersection of 14th Street and Maiden. This view is not recommended for simulation as the building in the foreground will most likely not change.

Candidate Key View #9

Candidate Key View #10

This view looks west from the northwest side of the intersection of 14th Street and Maiden. This view is not recommended for simulation, but shows a sequence of views to the horizon line the with **Error! Reference source not found.**.

Candidate Key View #10

Candidate Key View #11

This view looks west from the north side of 14th Street at 309 14th. This view is not recommended but shows how the view corridor could be kept open if development was not allowed in the street extension.

Candidate Key View #11

Candidate Key View #12

This view looks west from the east side of Camino del Mar between 13th Street and 14th Street. This view is not recommended for simulation since no ocean view exists.

Candidate Key View #12

Candidate Key View #13

This view looks west from the north side of 13th Street at the Del Mar. This view is not recommended for simulation since only a minor view opening exists.

Candidate Key View #13

Candidate Key View #14

This view looks west from the north side of 13th Street at the Del Mar. This view is not recommended for simulation since only a minor view opening exists.

Candidate Key View #14

Candidate Key View #15

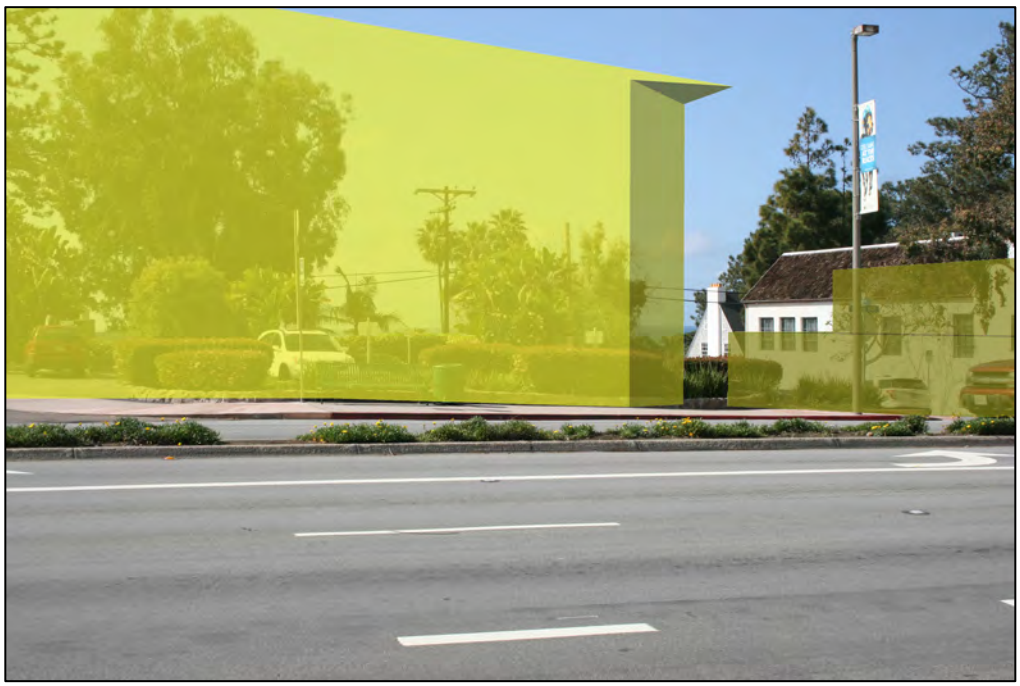
This view looks west from the south side of 13th Street at 305. This view is not recommended for simulation since a 14' building would block the view.

Candidate Key View #15

Candidate Key View #16

This view looks west from the east side of Camino del Mar at 1247 Camino Del Mar. This view is not recommended for simulation since a 14' building would block the view.

Candidate Key View #16



Candidate Key View #17

This view looks west from the north side of 12th Street at 38112th. This view is not recommend for simulation but shows the stepbacks on the side street and the heavy vegetation blocks some views.

Candidate Key View #17

Candidate Key View #18

This view looks west from the south side of 12th Street at 389 12th. This view is not recommended for simulation due to the background vegetation.

Candidate Key View #18

Candidate Key View #19

This view looks south at the intersection of 11th Street and Camino del Mar. This view is not recommended for simulation since the existing buildings most likely will not change with the proposed heights and FAR's.

Candidate Key View #19

Candidate Key View #20

This view looks west from the south side of 11th Street at 331 11th. This view is not recommended for simulation since too much vegetation blocks the view.

Candidate Key View #20

Candidate Key View #21

This view looks west from the south side of 11th Street at 317 11th. This view is not recommended for simulation but shows a corner lot setback and could show a roundabout in the simulation as well.

Candidate Key View #21

Candidate Key View #22

This view looks northwest from the south side of 10th Street at 411 10th. This view is not recommended for simulation, but shows the proposed building are less of an impact moving up the hill.

Candidate Key View #22

Candidate Key View #23

This view looks south at the intersection of 9th Street and Camino del. This view is not recommended for simulation of the roundabout.

Candidate Key View #23