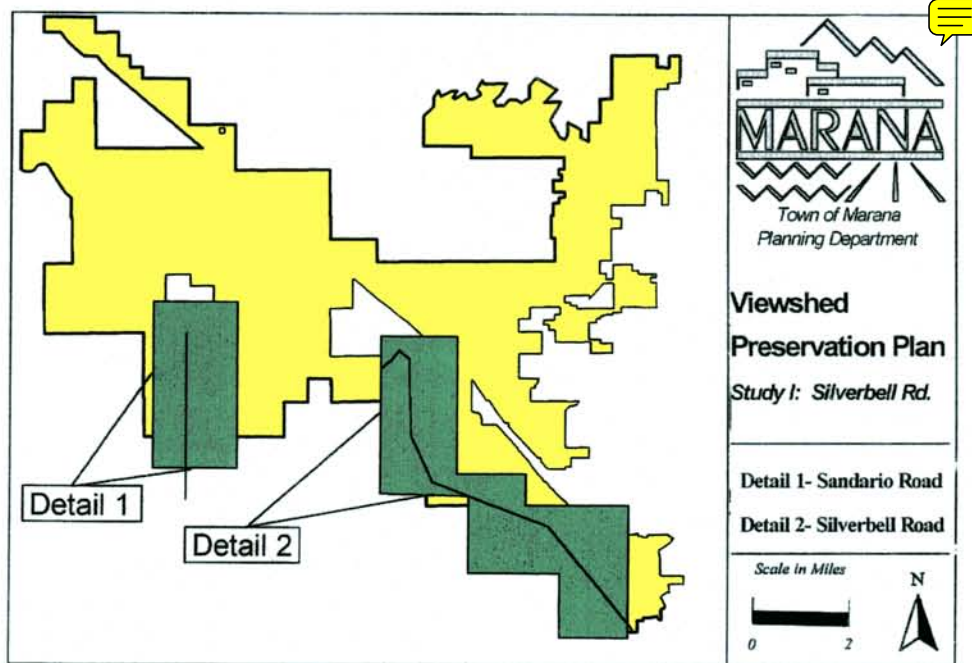


I. Introduction

The Town of Marana is in the process of transitioning from an agricultural community into an urbanizing area. Many planning related elements such as an updated General Plan, an overall Development Code update, and the adoption of new ordinances have been necessary to prepare the municipality for the upcoming future growth. Included in these updates have been additions of current and long range elements, such as a landscape ordinance and hillside ordinance. To facilitate orderly growth, staff has been directed to put together a study that will support the presentation and future adoption of a Viewshed Preservation Plan.

Marana has an opportunity that most other municipalities would envy. Marana is in the unique position to adopt new elements to its code and direct upcoming growth accordingly, as opposed to taking a reactionary stance to unorderly growth after it has already been set into place. The adoption of a Viewshed Preservation Plan will serve as a mechanism to protect viewsheds and preserve the scenic beauty of mountains and geologic features surrounding the town, for residents and visitors alike. It behooves the Town to preserve its scenic views for reasons not only dealing with aesthetics, but also for its future economic growth and vitality. Increasing its livability and attractiveness as an end-destination, such an addition to the Town will make Marana more desirable to residents, commerce and tourism.

Figure 1.1
Area Map of Viewshed Preservation Plan




B. Approach

The approach in this study involves the following elements:

1. Define a system design and information review process that is appropriate for evaluating proposed or existing viewshed areas. The process should be a logical series of tasks a designer can follow when evaluating a viewshed area and selecting necessary locales. It should also recognize and incorporate procedures for design review of roads in rural and urbanizing areas used by other jurisdictions (yet to be determined).
2. Develop a detailed description of methods, procedures, and techniques that can be used to carry out each activity in the design review process. Activities include such items as data acquisition, viewshed and development analyses.
3. Validate the design review procedure by initiating a Pilot Study, in which a corridor(s) will be targeted for full application of the methods to be used to determine viewshed status. This Pilot Study should be used to:
 - a) Demonstrate the use of the review process, and
 - b) Identify potential problems or shortcomings in the design review process in order to identify the needs for further research and testing.
4. Develop conclusions and recommendations based on the information acquired from the literature and the case study of the design process.

C. Research Methods

1. Resource Inventory:
 - a) Mountains /Geological Outcroppings.  Marana is nestled between several mountainous areas, notably the Tortolita Mountains to the north, the Tucson Mountains in the southern area of the town, and the Santa Catalina Mountains to the east. Other identifiable features include Picacho Peak to the northwest along the Interstate-10 corridor, and Kitt Peak observatory to the southwest.

V. Analysis

Silverbell Road has been determined to be the focal corridor for beginning the implementation of the Viewshed Preservation Plan. For the pilot study to be successful and reliable, an alternate corridor required selection to compare and contrast the results found after the analysis of Silverbell Road was complete.

A. Part I - Sandario Road Corridor south of Avra Valley Road

Sandario Road was selected as the alternate corridor for this study, due mainly to its length and situation with respect to viewshed features that differed from that of Silverbell Road. It was determined that Sandario Road would be the first corridor in the analysis, in an effort to “fine-tune” the study and bring any shortcomings into the open before staff applied their efforts toward Silverbell Road.

As was mentioned prior, all viewpoint analyses were to begin from the northernmost point of each corridor, and move southward. Likewise, the viewshed analyses also began from a vantage point of direct north and moved clockwise to the point of origin. Such methods may be noted in the tables and graphics provided in this study. The data recorded from the Sandario Road Corridor analyses is provided in the following tables and graphics. Please note that the lists of viewsheds in the following tables correspond with the graphics provided in this document.

Table 5A.1

SANDARIO VIEWPOINT 1:

1A: Tortolita Mountains	10.1
1B: Catalina Mountains	18.3
1C: Tucson Mountains	16.9
1D: Twin Peaks	4.5
TOTAL:	49.8
VIEWPOINT 1 AVERAGE:	12.45

Viewpoint 1 notes: This beginning point for the study took place just south of the Avra valley Airpark. Many northern and western views were obstructed by development or very dense foliage; resulting from structures in the airpark and development immediately to the west.