

# III. PLANNING AS A BASIS FOR DESIGN

## A. SITE PLANNING DOCUMENTS

This section of the *Design Principles* describes the Laboratory's three major categories of physical planning documents and how they coordinate Laboratory development into a cohesive design. The three documents are:

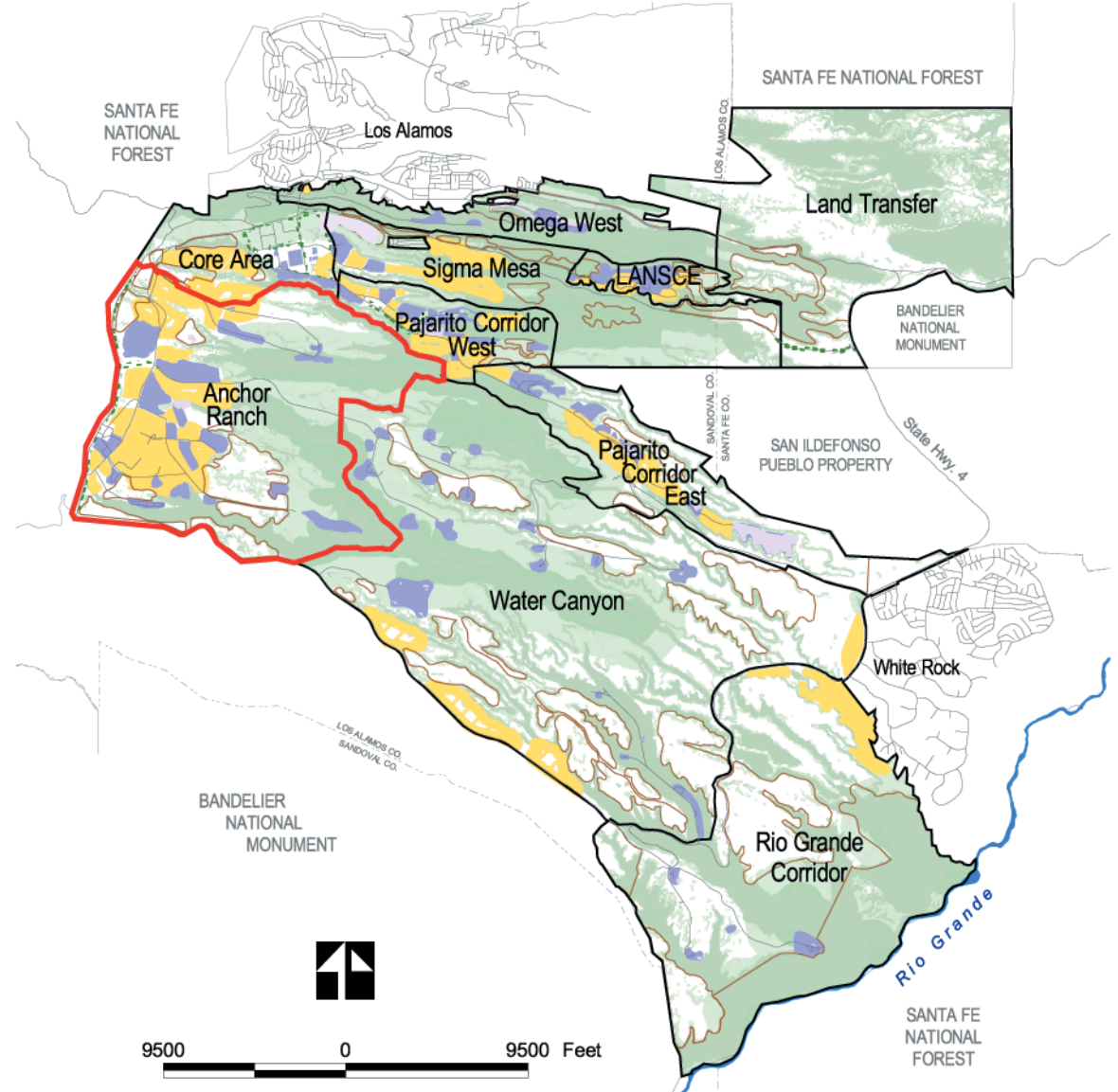
- *Comprehensive Site Plan*
- *Area Development Plans*
- *Specific Area Master Plans*

The documents provide the larger planning and development context within which the *Design Principles* should be applied.

Each document addresses planning and design at a different scale of development. The following pages show examples from each document as it relates to the Anchor Ranch Planning Area or a subarea within that planning area. The examples indicate the range of information available in each document.

PM-1 is responsible for the development, review and updates of physical planning at the Laboratory. The planning documents and maps are available through PM-1.

Figure III-1: Site Wide Planning Area Map w/ Anchor Ranch Planning Area Highlighted



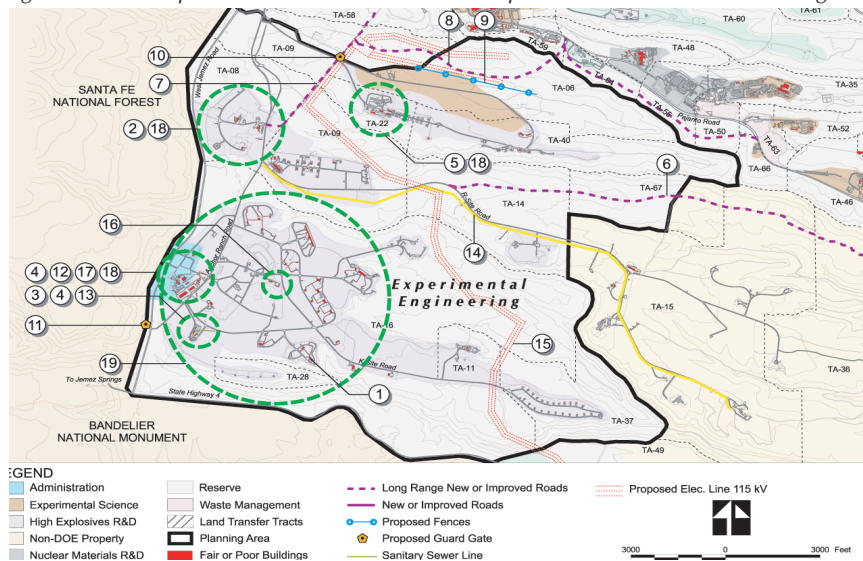
## B. COMPREHENSIVE SITE PLAN EXAMPLE

The *Comprehensive Site Plan (CSP)* is the Laboratory's institutional site-wide physical planning document. It presents the Laboratory's future project development programs and infrastructure improvements, and incorporates planning information from programmatic, administrative and support groups at the Laboratory.

The *CSP* provides a snapshot of the major long-range planning and programmatic initiatives that may affect the design and development of specific projects. The Anchor Ranch Planning Area example in *Figure III-2* provides information on:

- land use preferences or changes
- specific programmatic initiatives
- major infrastructure improvements
- site-wide transportation/circulation improvements
- major security upgrades
- environmental, cultural and landscape projects

Figure III-2: Comprehensive Site Plan 2000 Example for Anchor Ranch Planning Area



## C. PHYSICAL CONSTRAINTS MAP EXAMPLE

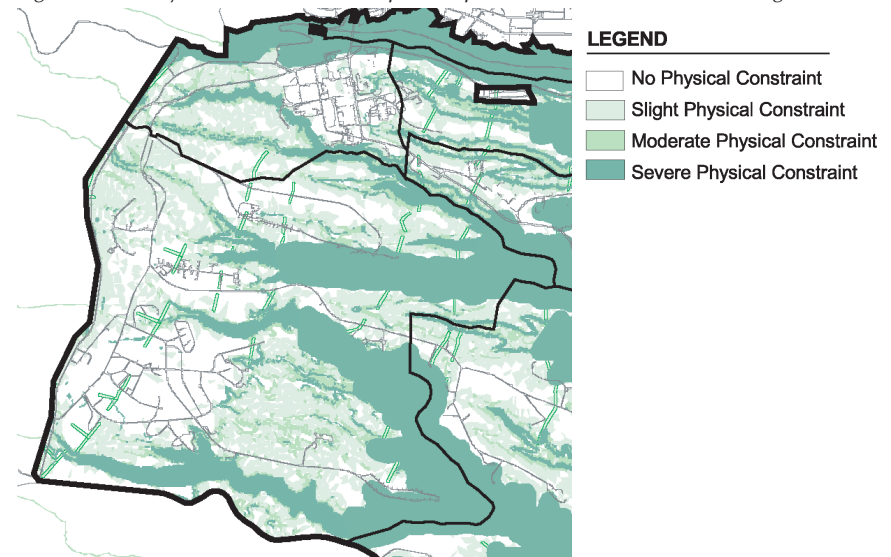
Two types of site analysis maps exist for the Laboratory: physical constraints maps and operational constraints maps.

The constraints maps are useful in the pre-conceptual project scoping and siting. Preliminary studies of site options can be evaluated and initial selections made for more detailed study.

Physical constraints maps incorporate physical and environmental site data and summarize them into four levels of constraint categories. The data compiled in the four constraint categories noted in *Figure III-3* are:

- topography
- seismic potential and fault lines
- slope analysis
- floodplains and wetlands
- wildlife habitat and buffer areas
- other cultural, ecological, or environmentally sensitive areas

Figure III-3: Physical Constraints Map Example for Anchor Ranch Planning Area



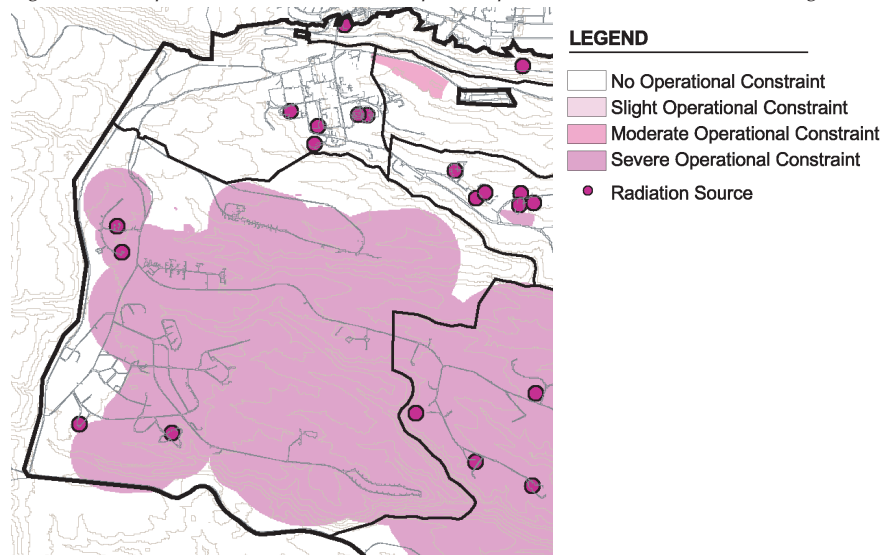
## D. OPERATIONAL CONSTRAINTS MAP EXAMPLE

Operational constraints maps depict operations-based restrictions on development. The restrictions vary depending on the unique activities or conditions associated with the programs at each site.

Restrictions shown in operational constraints maps fall into four constraint levels as depicted in *Figure III-4* below. The elements evaluated to determine the category of restriction are:

- safety buffers
- hazardous areas
- sanitary landfills
- blast zones
- White Rock Canyon Reserve boundaries

Figure III-4: Operational Constraints Map Example for Anchor Ranch Planning Area



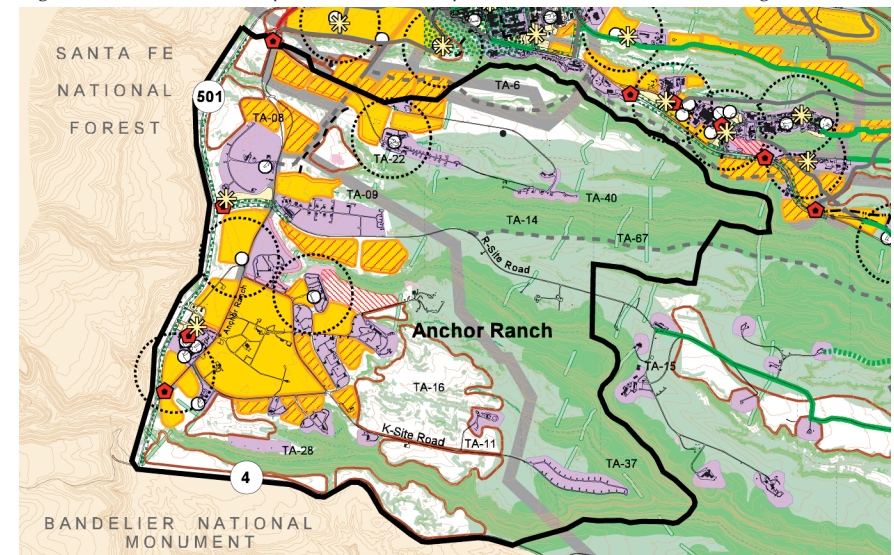
## E. AREA DEVELOPMENT PLAN EXAMPLE

*Area Development Plans (ADPs)* are conceptual physical development plans for each of the Laboratory's 10 planning areas. The *ADPs* rely on an infrastructure perspective to meet the long-range programmatic missions in the planning area. The *ADPs* expand on the development potentials identified in the *CSP*. See *Figure III-5* below.

Plan elements include:

- developable parcels and their priority for development
- reserved and sensitive environmental areas
- primary utility corridors and facilities
- building development zones
- roads and parking development
- transit facilities
- pedestrian and bike systems
- conceptual arrangement of major safety and security improvements

Figure III-5: Area Development Plan Example for Anchor Ranch Planning Area





## F. SPECIFIC AREA MASTER PLAN EXAMPLE

Before a specific area begins development or revitalization, a *Specific Area Master Plan* should be prepared.

The *Specific Area Master Plan* schematically arranges the existing and proposed facility needs of a particular area. The master plan should align with the goals of the *CSP* and the relevant *ADP*, and incorporate the *Design Principles* siting and development guidance in the following areas:

- land use consolidation and efficiency
- security
- safety
- environmental and cultural requirements
- utility corridors and improvements
- road system
- parking system
- transit system
- bike system
- pedestrian system
- open space
- site furnishings and landscape

*Image III-1* and *Figure III-6* are examples of the *Specific Area Master Plan* for the Engineering Sciences and Applications (ESA) location within the Anchor Ranch Planning Area.

Image III-1: Existing Site Photo Example



Figure III-6: ESA Specific Area Master Plan Example

