

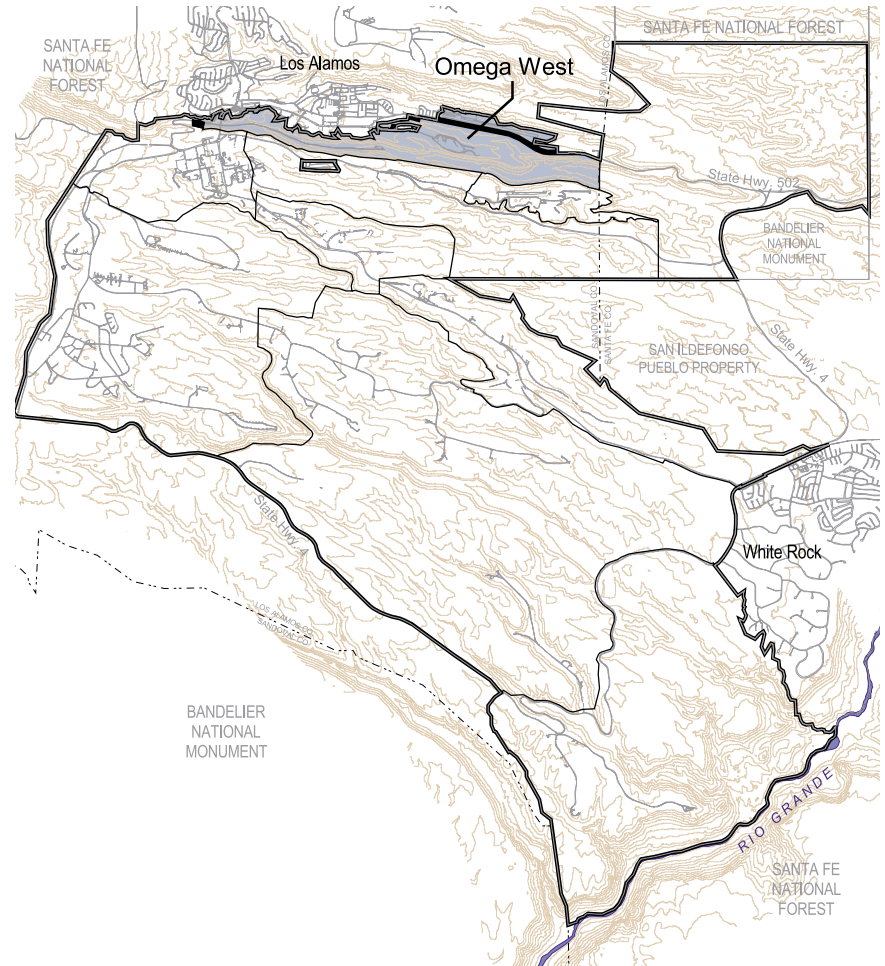
I. Omega West Planning Area

1. General Description

The Omega West Planning Area covers 1.6 square miles. The western half of the planning area incorporates the bottom of Los Alamos Canyon and some limited developable areas along the north rim of the canyon. TA-02, -41, and -43 compose the western half of the planning area. The eastern half also includes the canyon and the two mesas to the north that correspond with TA-21 and -73. The Los Alamos town site extends along the northern boundary. The Core Area, Sigma Mesa, and LANSCE Planning Areas border on the south and a small portion of TA-74 creates the western border of the Omega West Planning Area.

The Omega West Planning Area contains TA-02, -21, -41, -43, and -73.

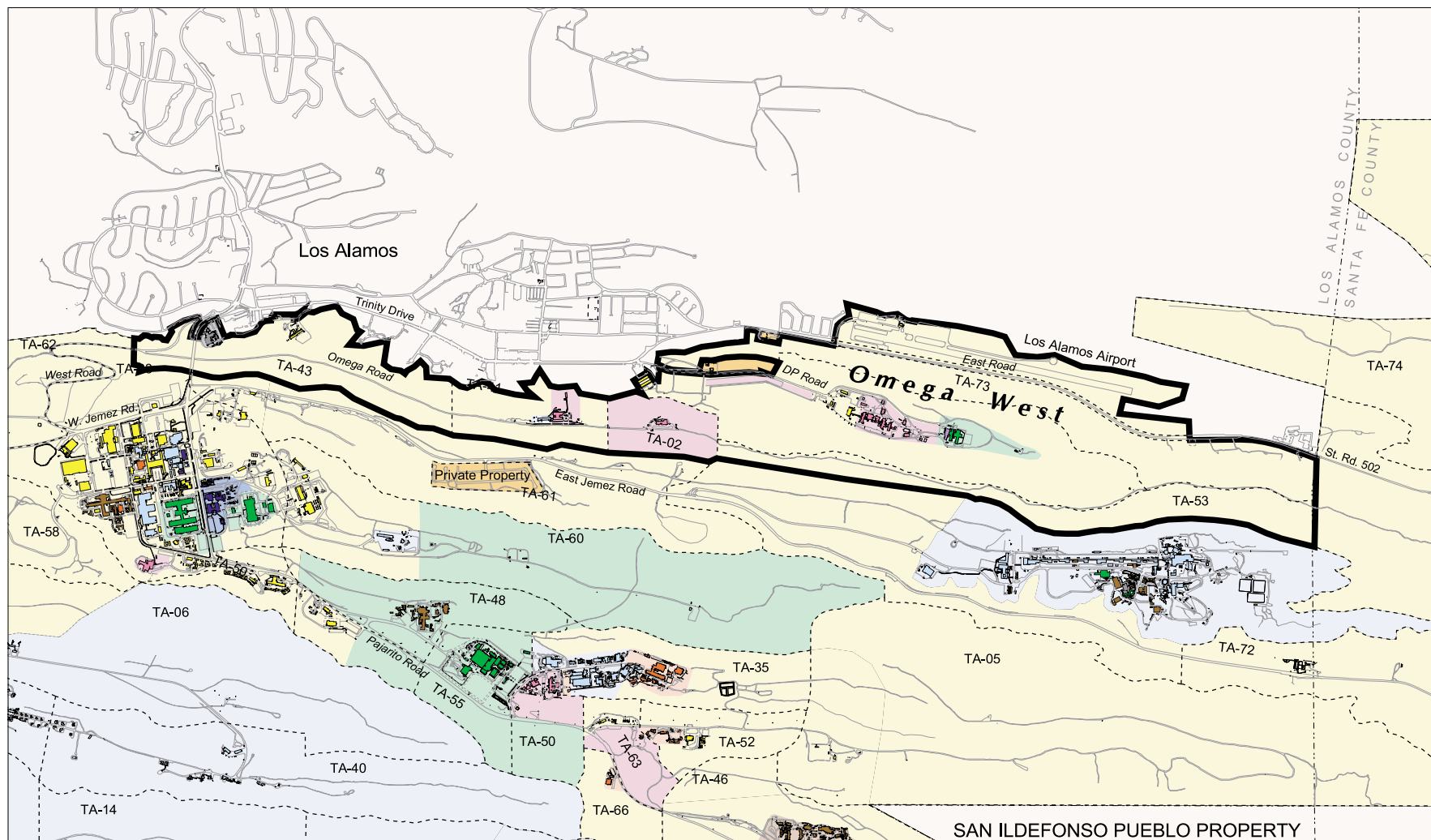
Map IV-11: Key Map



2. *Specific Planning Assumptions*

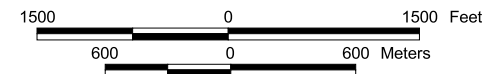
The Omega West Planning Area has some ongoing programmatic functions planned for its land. The land at TA-21 has some existing Material Disposal Areas that will most likely remain closed and fenced into the future. This land will not be available for reuse. The airport tract, DP Road tract, parts of TA-21 and the LAAO building are the key tracts within the Omega West Area considered for transfer to the County of Los Alamos or the Pueblo of San Ildefonso. The airport continues to be used as an airport under the management of the County of Los Alamos through a lease agreement. The Omega West Reactor facility is scheduled for demolition. Although it is proposed the Tritium Facility be relocated out of TA-21 into new facilities, it has a continuing use for the foreseeable future at TA-21. The Bioscience Division is located in Building 1 west of the county hospital. The long-range plan is to relocate them across the bridge into either remodeled facilities or develop new facilities within TA-03, but no timetable has been set. The Omega West Planning Area is an area of land the Laboratory is and has been moving out of for years with no new facilities planned. This migration out has been part of the ongoing long-term plan to relocate all of the Laboratory's facilities south of Los Alamos Canyon and out of the town site.

Map IV-12: Omega West Programmatic Associations



AREA / STRUCTURE	PROGRAM
	Defense Program / Stockpile Stewardship
	Defense Program / Stockpile Weapons Management
	Defense Program / Landlord or Institutional
	Office of Science
	Laboratory Directed Research & Development

AREA / STRUCTURE	PROGRAM
	Multiple Programs
	Nonproliferation & National Security
	Non DOE Programs
	Environmental Restoration & Waste Management
	County or Private within DOE Boundary



3. *Future Trends*

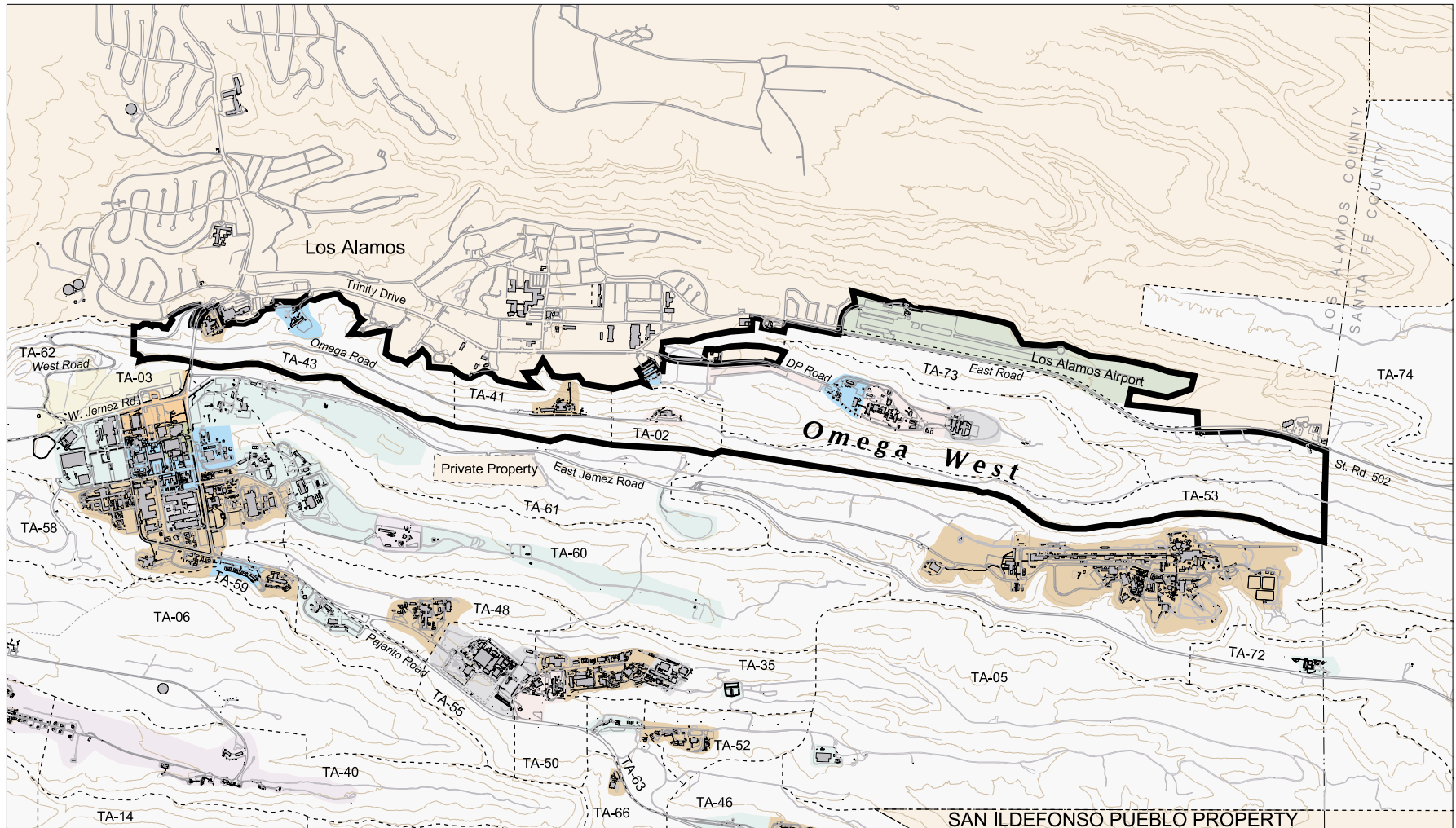
The Omega West Planning Area is an area the Laboratory is and has been slowly moving out of. Relocation is to the south side of Los Alamos Canyon. This trend is planned to continue, although certain Laboratory functions will remain in the town site, such as the Bradbarry Museum and other functions that interact directly and regularly with the general public. Some of the Omega West land will be retained, as a buffer in support of operational missions, but will otherwise remain unused. As future Laboratory facilities are built the Omega West Planning Area is not anticipated as an area for their location.

4. Existing and Future Land Use

a. Existing Land Use

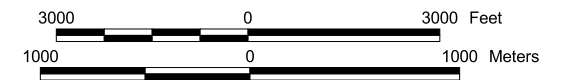
The predominant existing land use for this planning area is Reserve. The other uses are Administration, Experimental Science, Nuclear Materials R&D and Waste Management. The Los Alamos County Airport comprises Airfield land use and is not considered part of this area for planning purposes.

Map IV-14: Omega West Existing Land Use



LEGEND

- | | | |
|------------------------------|----------------------------|-----------------------------------|
| LANL Buildings | Experimental Science | Reserve |
| Non Dept. of Energy Property | High Explosive R&D | Theoretical/Computational Science |
| Planning Area | High Explosive Testing | Waste Management |
| Research Park | Nuclear Materials R&D | |
| Administration | Physical/Technical Support | |
| Airfield | Public/Corporate Interface | |



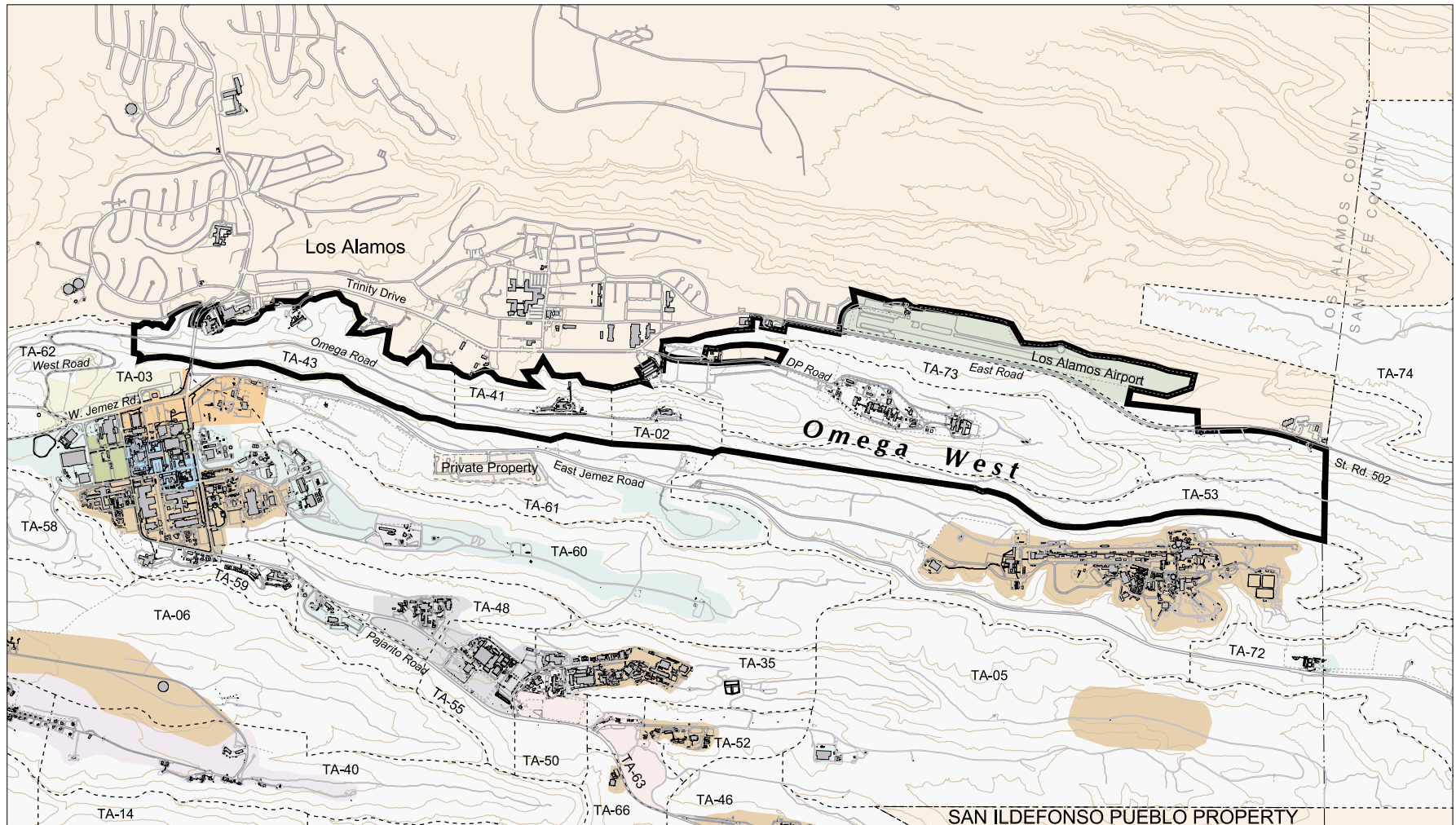
b. Future Land Use

Development opportunities exist in this area. Once the TA-02 research reactor site is decontaminated, the site could be redeveloped. The existing reactor support offices could be reused for light duty Experimental Science. This area would remain Experimental Science land use. TA-41 could be redeveloped for functions that are nonhazardous and require isolation but not a high level of security. This area also would remain Experimental Science land use. The facilities at TA-21 are being decontaminated and the area could be reused. TA-43 is no longer suitable for the Experimental Science undertaken there. The life sciences research should be relocated to TA-58. Existing facilities could then be adapted for Public/Corporate Interface land use.

Table IV.11: Omega West Land Use

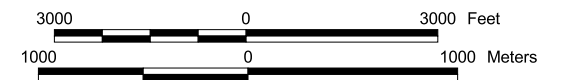
Existing Land Use		Future Land Use	
<u>Land Use Category</u>	<u>Acreage</u>	<u>Land Use Category</u>	<u>Acreage</u>
Administration	38	Administration	38
Airfield	110	Airfield	110
Experimental Science	15	Experimental Science	9
Nuclear Materials R&D	5	Nuclear Materials R&D	5
Waste Management	30	Waste Management	30
Reserve (Capable of development: 75 acres)	<u>830</u>	Public/Corporate Interface	6
		Reserve (Capable of development: 75 acres)	<u>830</u>
Total	1,028	Total	1,028

Map IV-15: Omega West Future Land Use



LEGEND

- | | | |
|------------------------------|----------------------------|-----------------------------------|
| LANL Buildings | Experimental Science | Reserve |
| Non Dept. of Energy Property | High Explosive R&D | Theoretical/Computational Science |
| Planning Area | High Explosive Testing | Waste Management |
| Research Park | Nuclear Materials R&D | |
| Administration | Physical/Technical Support | |
| Airfield | Public/Corporate Interface | |

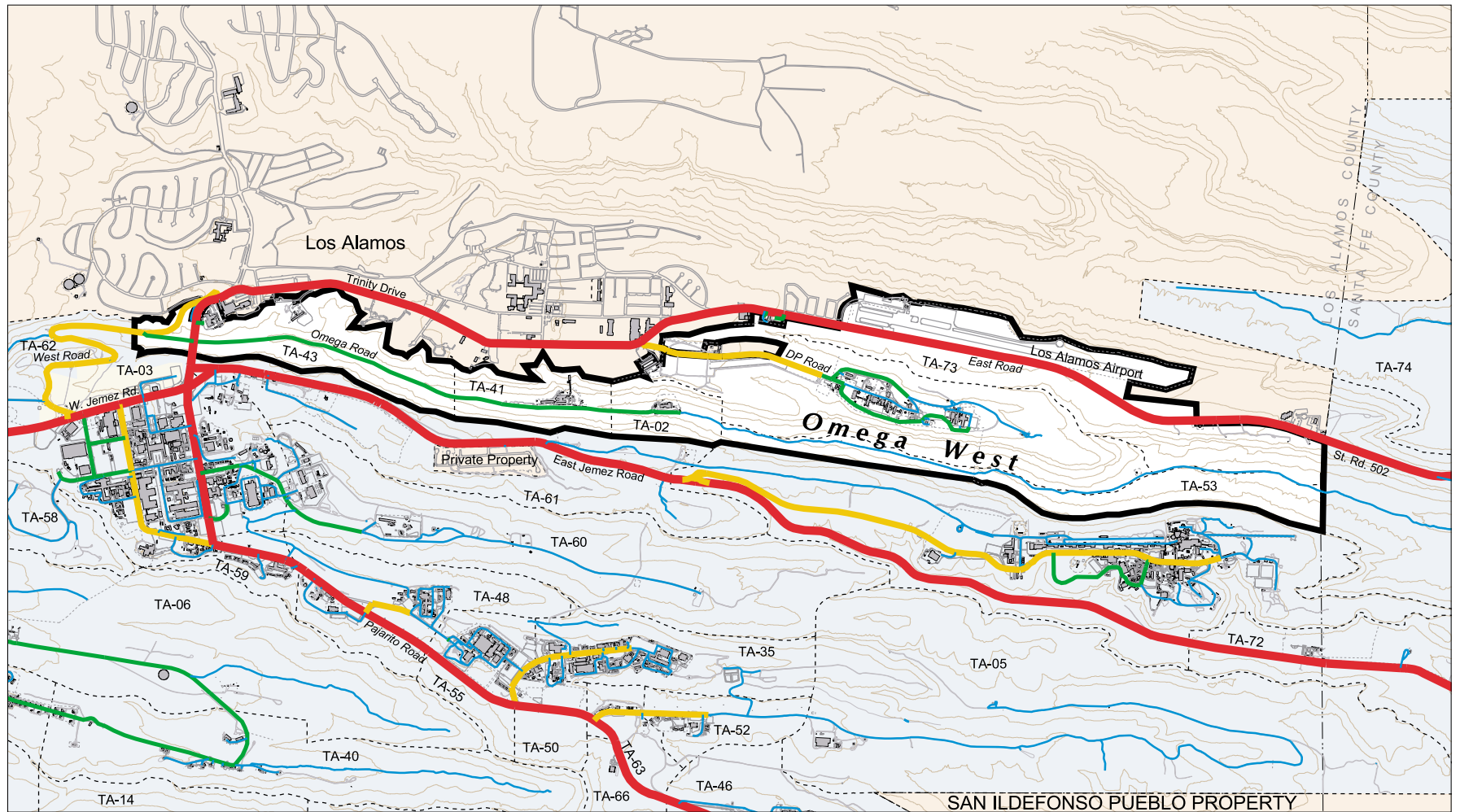


5. *Transportation/Circulation*











a. Existing Transportation/Circulation/Parking

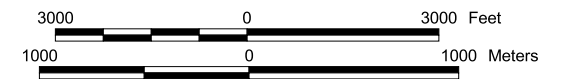
Access to the Omega West Planning Area TAs is gained via either Omega Road along the Los Alamos Canyon bottom or via Trinity Drive, the major entryway to the Laboratory and Los Alamos. Parking and circulation are severely constrained in TA-43. TA-02 and -41 in the canyon are relatively remote. TA-21 is reached via DP Road, a congested road leading past various commercial establishments. Parking and circulation are sufficient in these latter three TAs.

Map IV-16: Omega West Existing Transportation



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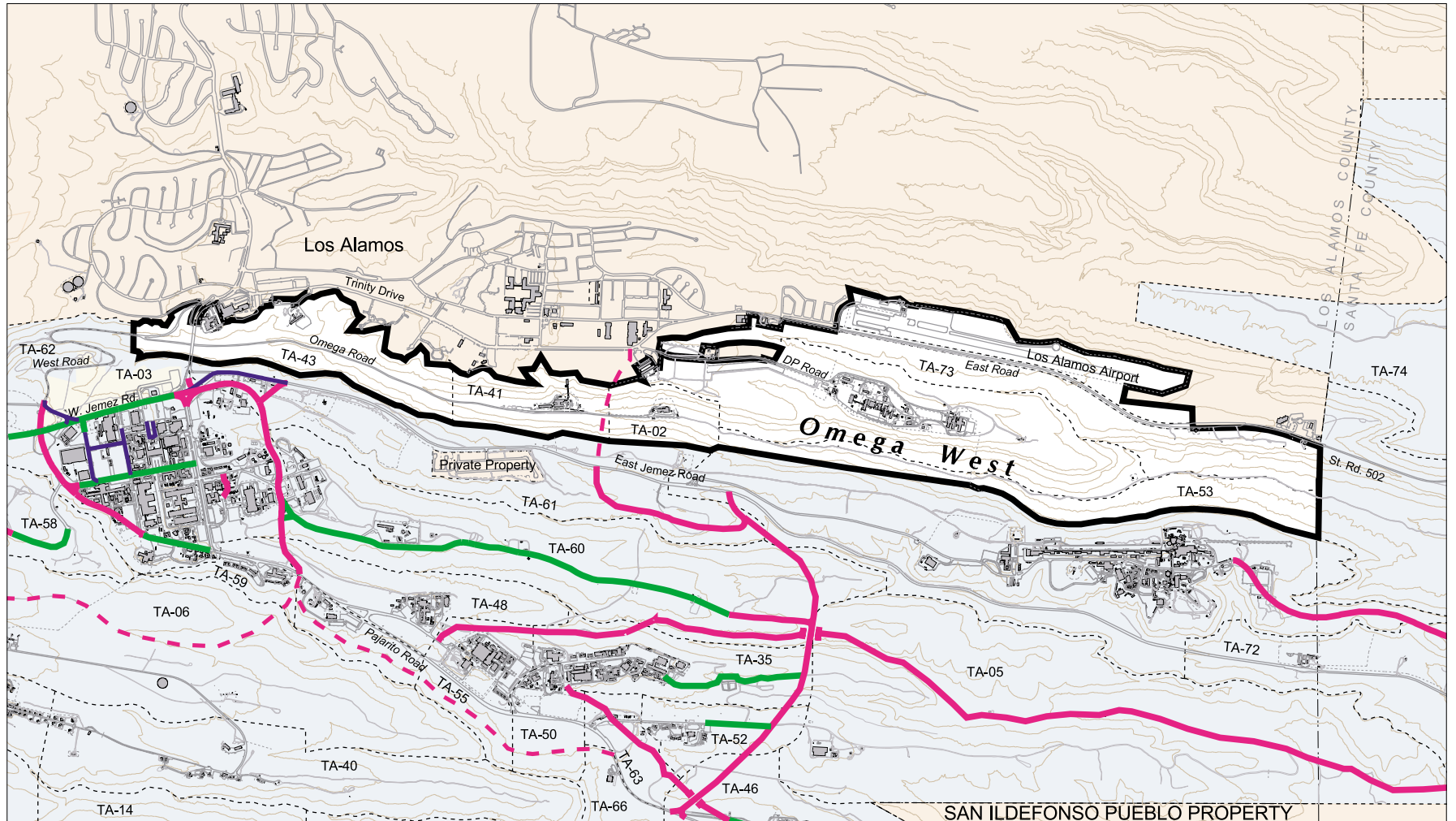
- | | | | |
|---|------------------|---|------------------------------|
|  | Arterial |  | Dept. of Energy Property |
|  | Collector |  | LANL Buildings |
|  | Local |  | Non Dept. of Energy Property |
|  | Access / Service |  | Planning Area |
|  | Emergency Lanes |  | Research Park |



b. Future Transportation/Circulation/Parking

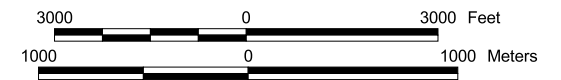
A second bridge linking the town with the Laboratory will enhance circulation. This new bridge should be sited near DP Road at the entrance of TA-21. It will cross Los Alamos Canyon at one of its narrowest points and allow traffic to proceed onto East Jemez Road, to the east of the mobile home park. The new section of road will be approximately 2,400 feet long and will not disrupt any activity occurring on the floor of the canyon. The new road will provide an alternate truck route and a shorter route to White Rock from the Los Alamos town site, greatly reducing the public traffic that now travels to or through TA-03 and other sensitive areas within the Laboratory. However, this construction will occur in areas constrained by threatened and endangered species habitat core zones. Therefore, environmentally sensitive construction techniques will be required.

Map IV-17: Omega West Future Transportation



LEGEND

- | | | | |
|--|--------------------------------------|--|------------------------------|
| | New Construction | | Dept. of Energy Property |
| | Long Range Proposed New Construction | | LANL Buildings |
| | Road Improvements | | Non Dept. of Energy Property |
| | Long Range Proposed Improved Roads | | Planning Area |
| | Road Elimination | | Research Park |



6. *Security*

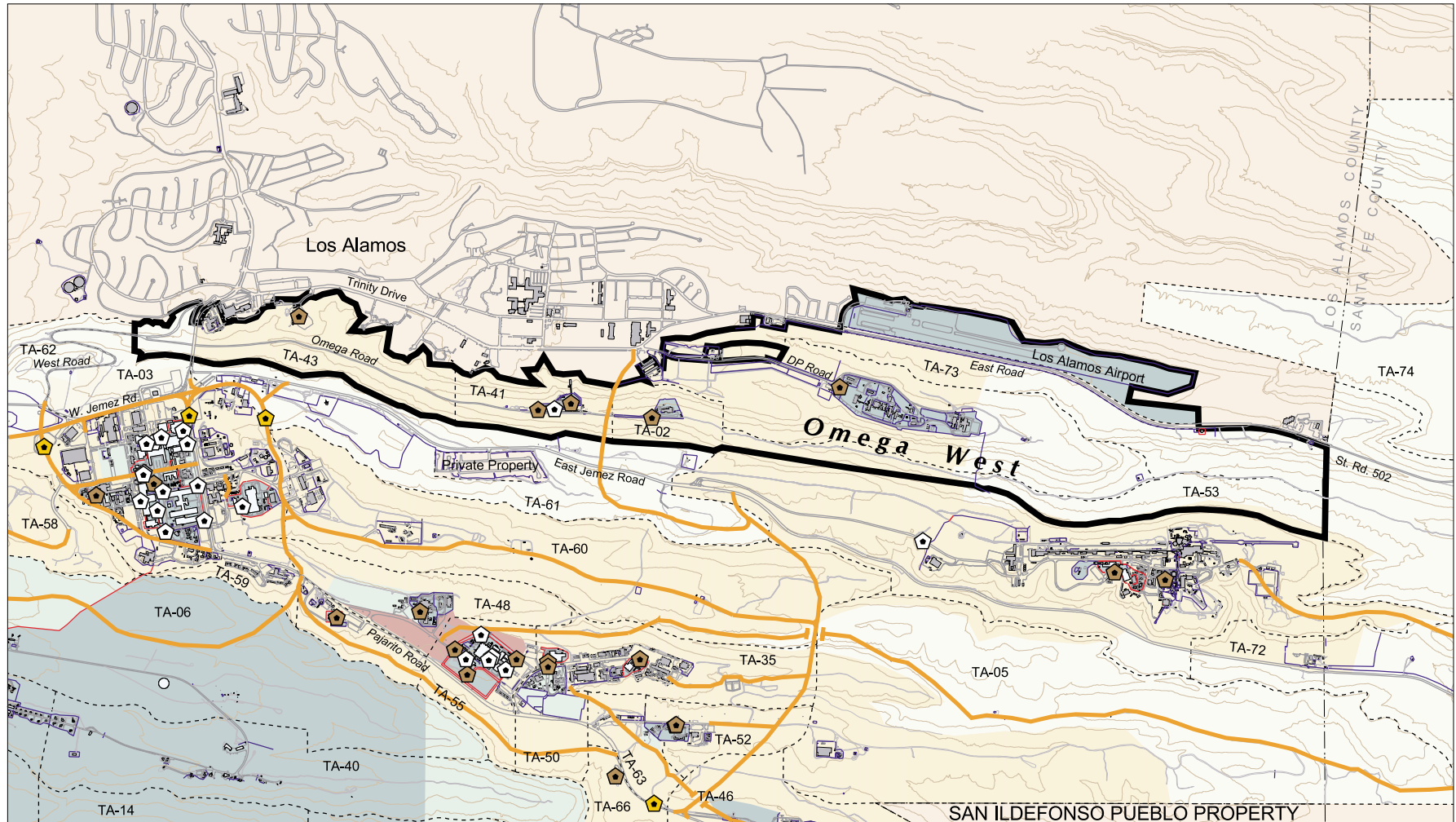
The majority of the Weapons Engineering Development Area is used for high-explosives-related research requiring limited security. Weapons engineering facilities house activities and operations that include high-explosives, special nuclear materials, radioactive gases, radiographic machines and sources, and heavy industrial machinery. Therefore, safety, security, and operational considerations are especially important when planning this area.

There are current plans to consolidate ESA Division operations at TA-16, which will essentially eliminate transportation of hazardous explosive materials on public roads.

a. Recommendations

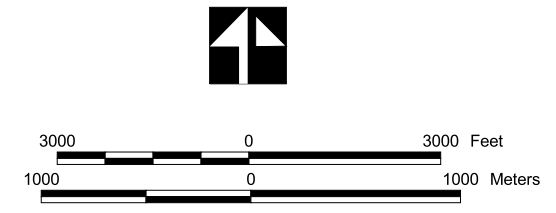
- Site any additional programs requiring SNM security within or adjacent to the existing Category I and II SNM security area at TA-16.

Map IV-18: Omega West Existing and Future Security Areas



LEGEND

- | | | |
|------------------------------|-------------------------|-----------------------------------|
| Industrial Fences | Proposed Guard Stations | Secured Building |
| Security Fences | Active Guard Station | Existing Limited Security Area |
| Proposed/Improve Roads | Closed Guard Station | Existing Property Protection Area |
| Roads | Planning Area | Existing Protected Area |
| Technical Area Boundaries | Research Park | Future Limited Security Area |
| Non Dept. of Energy Property | | Future Protected Area |
| | | Security Buffer |



7. *Utilities*

a. *Water System*

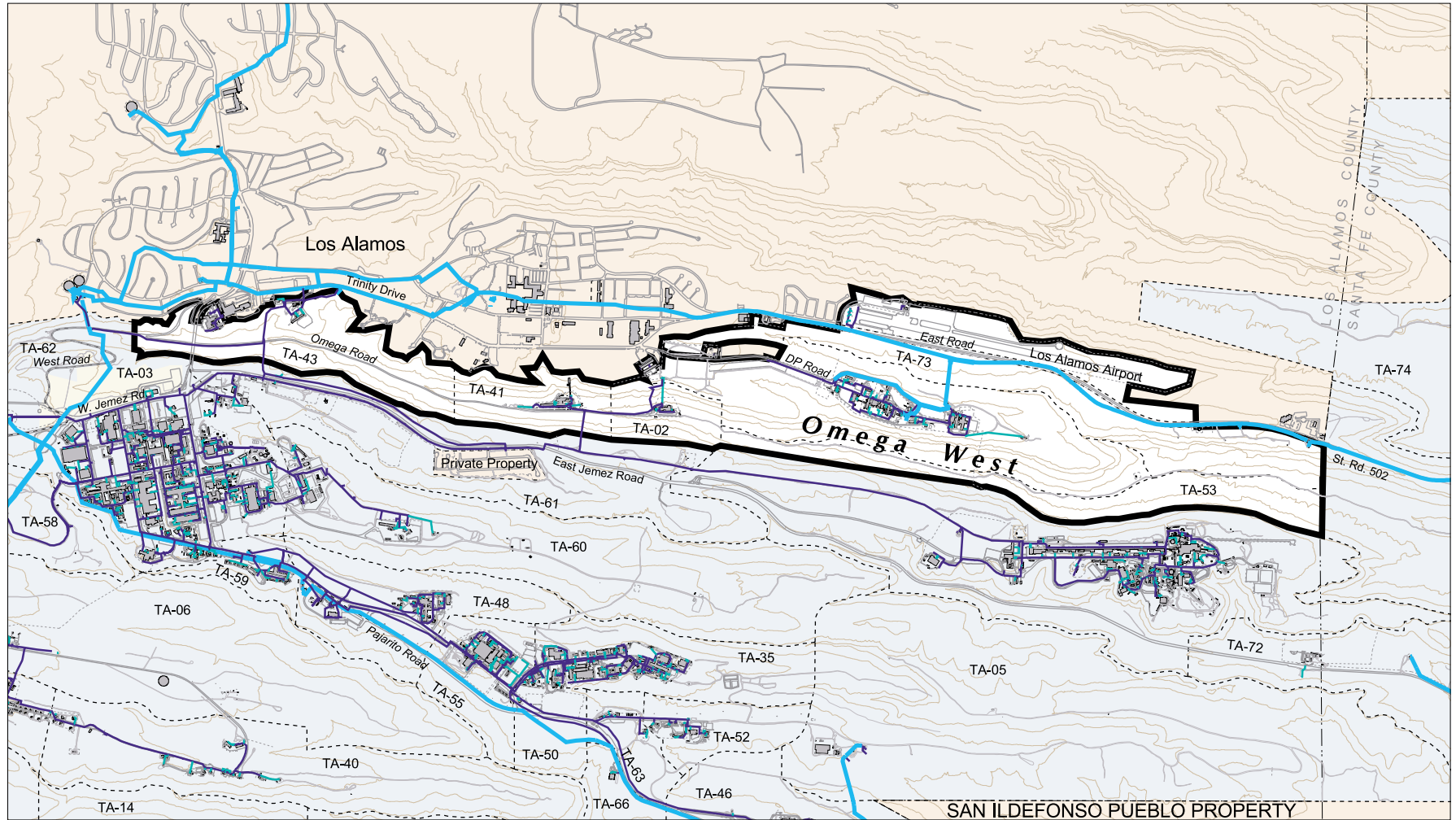
Condition of System: The water distribution system is in good condition throughout the planning area. No projects are required to improve any water system conditions.

System Materials: Pipe materials used in the water distribution system include cast iron, steel, asbestos cement, reinforced concrete, copper, ductile iron, and plastic. Cast iron has been replaced by ductile iron for distribution sized pipe. Steel and reinforced concrete are not common in today's systems of the Laboratory's size (greater than 24 inches diameter). Plastics and ductile iron dominate the water supply market for these sizes and fittings. Concerns regarding materials include:

- Replacement of asbestos cement pipe, particularly in areas where pipe may be disturbed for repair or replacement.
- Replace aged cast iron or steel pipe.

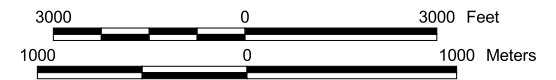
System Capacities: Fire hydrants are typically connected to 6-inch-diameter pipe. Water service lines, less than 6-inches should be replaced if they provide fire protection services.

Map IV-19: Omega West Existing Water System



LEGEND

- Water Distribution Lines
- Water Service Lines
- Water Transmission Lines
- Planning Area
- Dept. of Energy Property
- LANL Buildings
- Non Dept. of Energy Property
- Research Park



b. Sanitary Sewer System

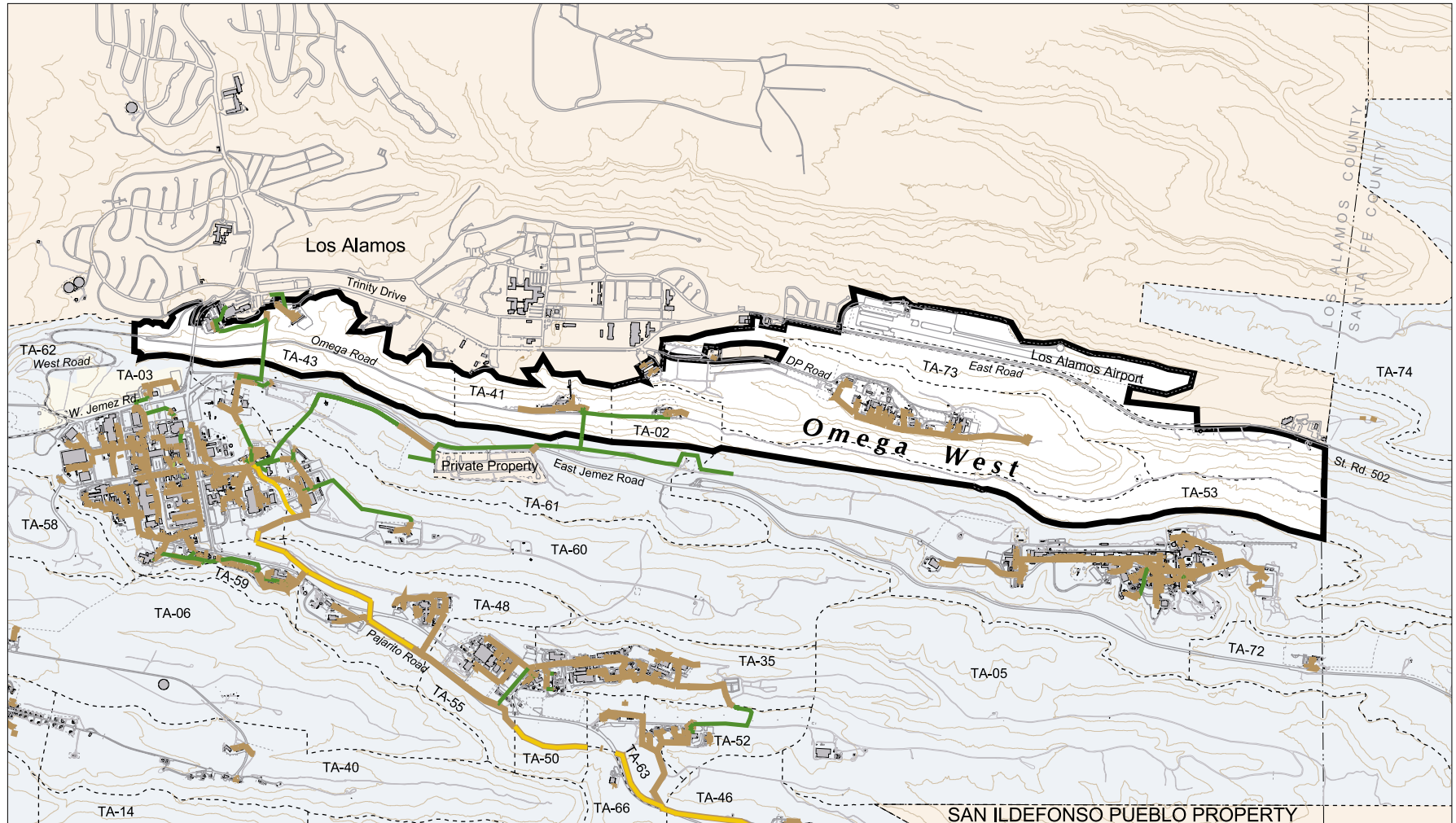
Condition of System: The sewer system is generally in good operating condition.

System Materials: Pipe materials used in the sewer system include cast iron, vitrified clay, steel, asbestos cement, reinforced concrete, copper, ductile iron, and plastic. Material concerns are











- Replacement of concrete pipe that has shown evidence of interior deterioration from exposure to sewer gases.
- Replacement of asbestos cement pipe, especially where it could be disturbed by maintenance operations.
- General condition of aged vitrified clay pipe.

System Capacities: The sewer system has no capacity issues, with exception of limitations set by lift station pumps. There is currently a strategy in place to abandon lift stations where economically feasible and replace them with gravity flow. Those gravity systems will accommodate increased demands and require considerably less maintenance.

Map IV-110: Omega West Existing Sanitary Sewer System



LEGEND

- | | |
|--|--|
|  Gravity Lines |  Dept. of Energy Property |
|  Effluent Lines |  LANL Buildings |
|  Force Main Lines |  Non Dept. of Energy Property |
|  Drain Lines |  Planning Area |
|  Service Lines |  Research Park |

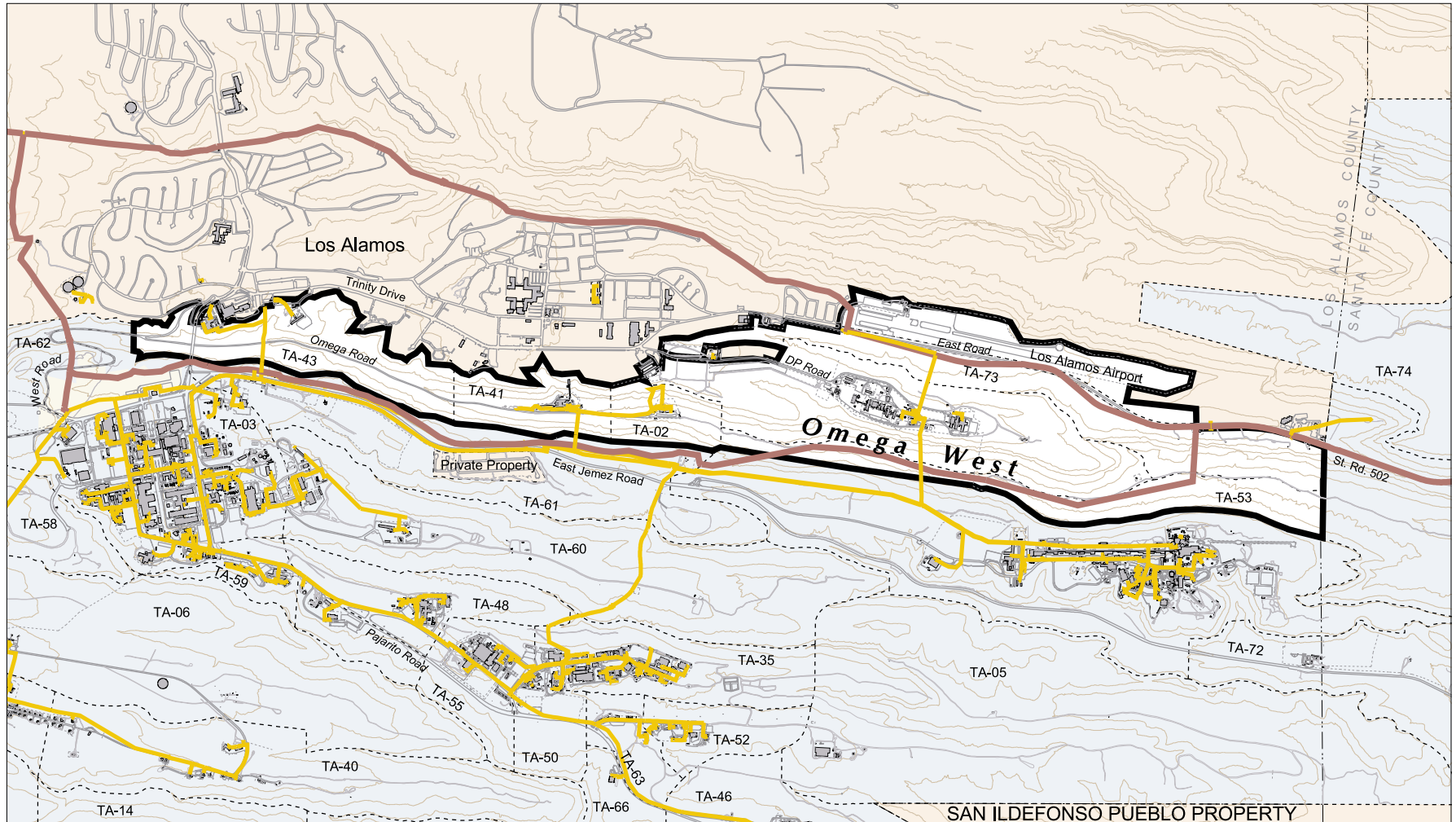


c. Natural Gas System

There is a newly discovered leak in the connection to Tech Meter 2 from the 10-inch steel line on East Jemez Road. This line crosses Los Alamos Canyon and is installed underground. The leak is at the bottom of the canyon and is close to where the line goes under the creek. Current plans are to slip-line the 10-inch pipe with an 8-inch PE. This project is underway pending the selection of a contractor.

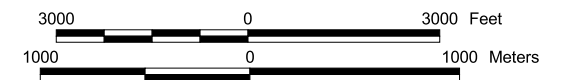
Tech Meter 3 is located across the highway from the airport. It is installed in an 8-inch steel line of good condition. The meter is fed from the east through the 8-inch #600 line. The Tech Meter reduces pressure from 500 psig to 88 psig and supplies the site through a 6-inch pipe. The pipe is in good condition, but passes through a radiation-contaminated area and is inaccessible if repairs should be required. Additionally, the meter is too small to be a fully redundant backup in the event of failure on Tech Meter 1.

Map IV-111: Omega West Existing Natural Gas System



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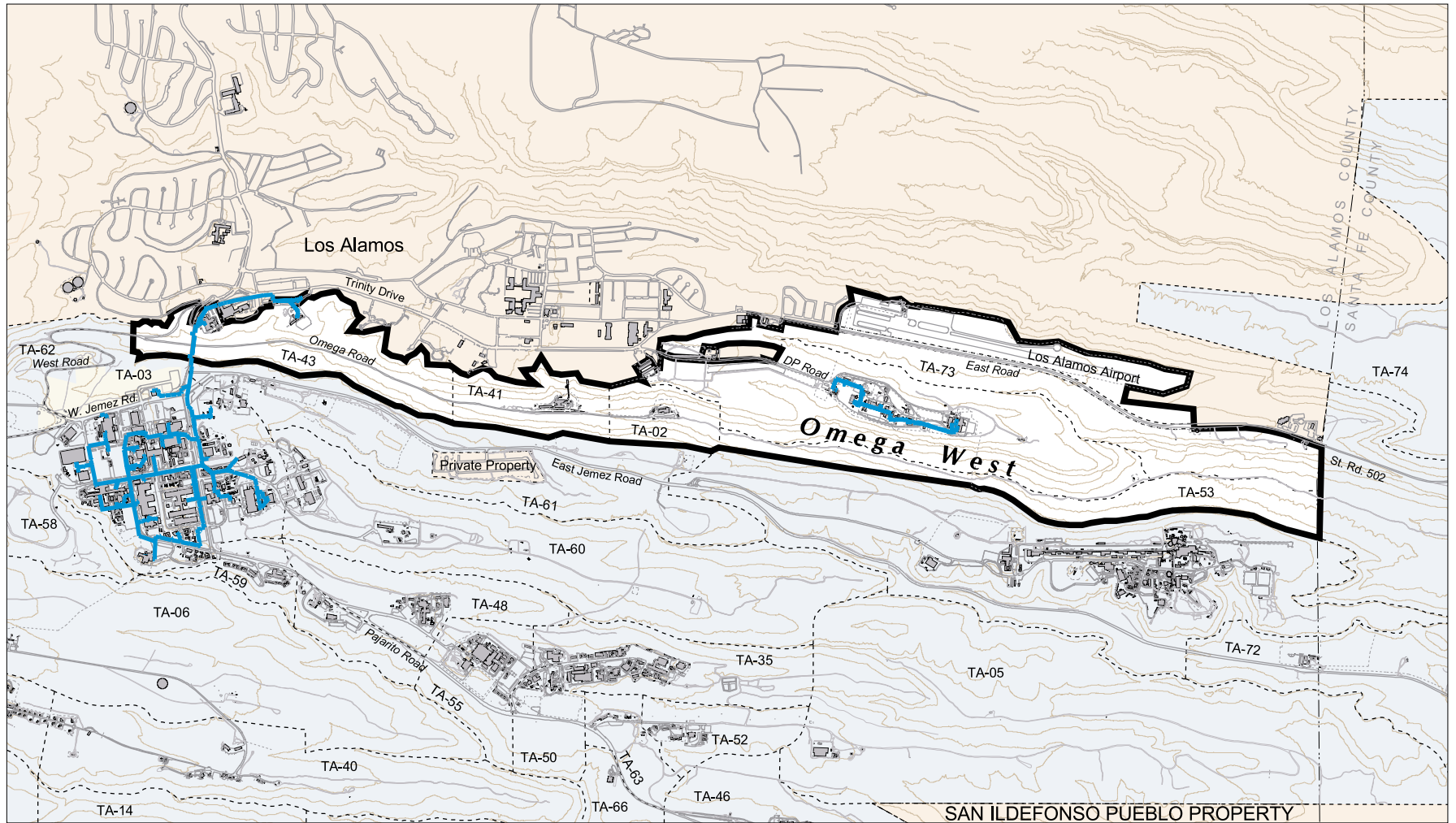
- Natural Gas Distribution
- Natural Gas Transmission
- Planning Area
- Research Park
- Dept. of Energy Property
- LANL Buildings
- Non Dept. of Energy Property




d. Steam System

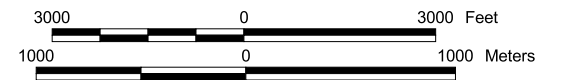
Condition issues are limited to minor valve and fitting leaks in TA-21. Bondstrand condensate pipe needs to be replaced. The generation plant supports current capacity requirements.

Map IV-112: Omega West Existing Steam System



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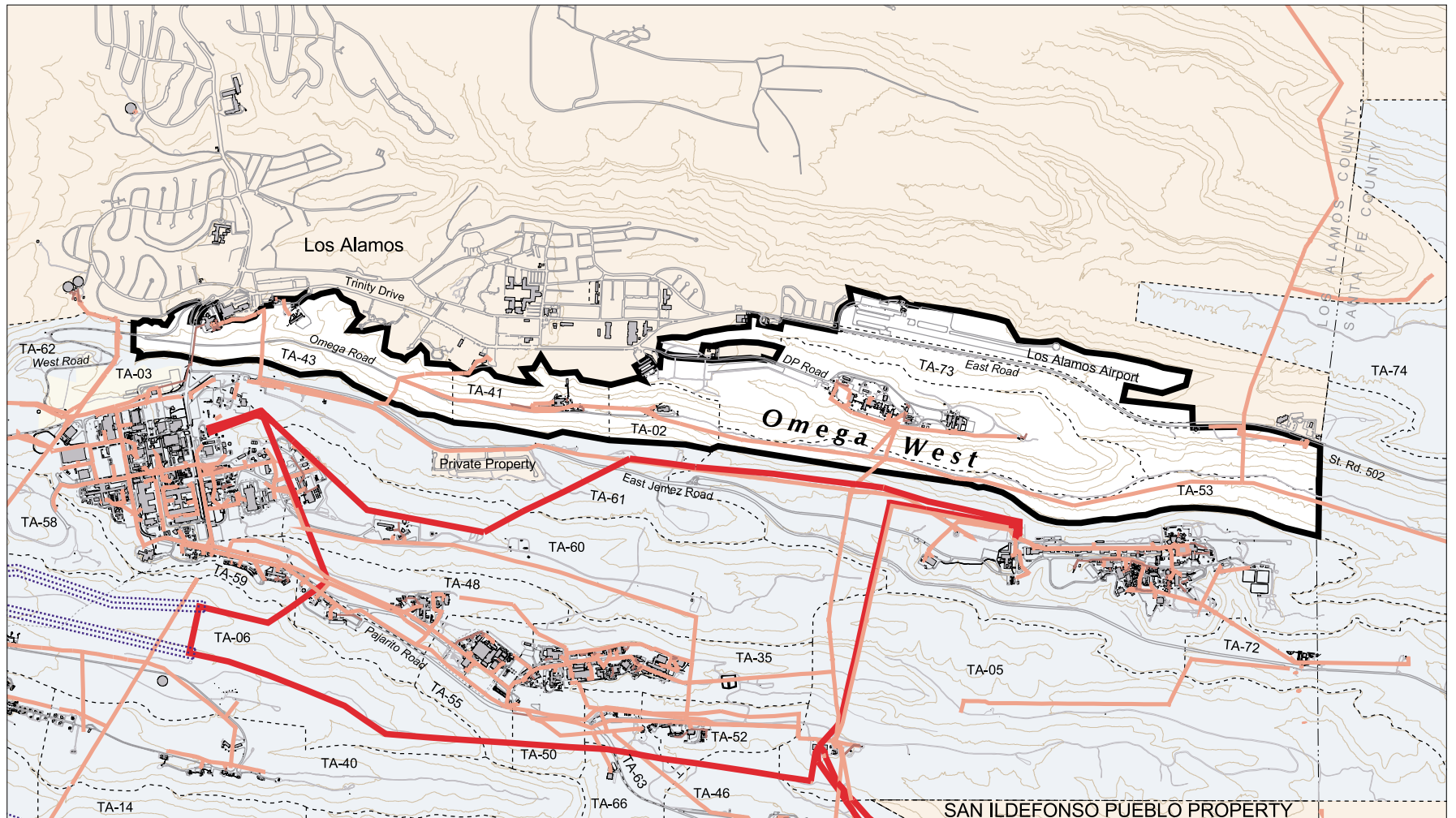
-  Steam Lines
-  Planning Area
-  Dept. of Energy Property
-  LANL Buildings
-  Non Dept. of Energy Property











e. Electric Transmission and Distribution System

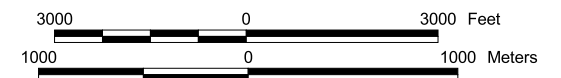
There are four remaining transformers that are PCB contaminated. These transformers should either be replaced or refilled with a suitable dielectric fluid to mitigate the PCB concerns.

Map IV-113: Omega West Existing Electrical System



LEGEND

-  Proposed 155 kv Transmission Line
-  Electrical Transmission
-  Electrical Distribution
-  Electrical Service
-  Dept. of Energy Property
-  LANL Buildings
-  Non Dept. of Energy Property
-  Planning Area



8. Facilities

The facilities within the Omega West Planning Area are old. Because it is the Laboratory policy to be relocating out of these areas, the continued reinvestment into the remaining facilities and infrastructure is highly discouraged. Many of the facilities are actively being demolished, particularly in TA-21. Safety and operational envelopes are being maintained in the facilities being used. Several of the existing facilities, have proposed projects to relocate them to new or remodeled building, such as, the Laboratory archives.

The Omega West Planning area accounts for about 5% of the Laboratory’s on-site population. About 502,000 GSF of space, which accounts for 6% of the Laboratory’s total GSF, is contained in 92 structures. Seventy-eight percent of the employees in this planning area are housed in facilities rated as poor or failing. Over half of the facilities in the Omega West area are used as laboratories.

Table IV-12: Omega West Facilities Condition

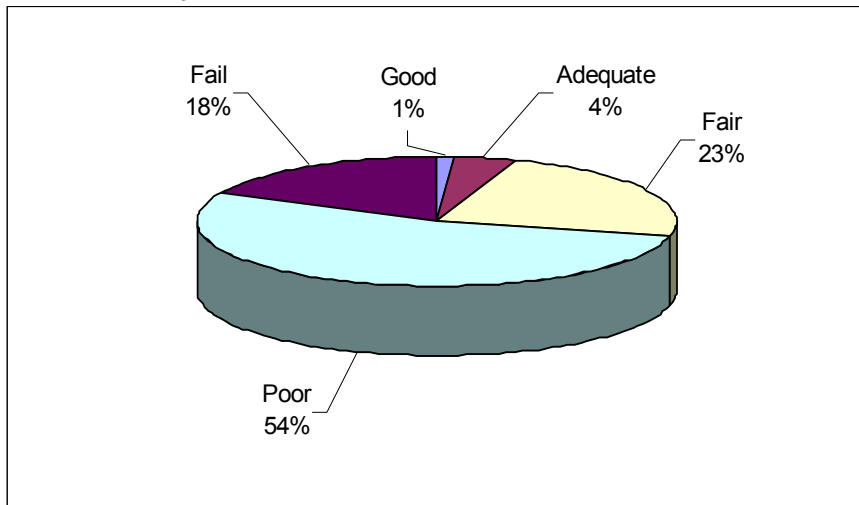


Table IV-13: Omega West Employee Environment Condition

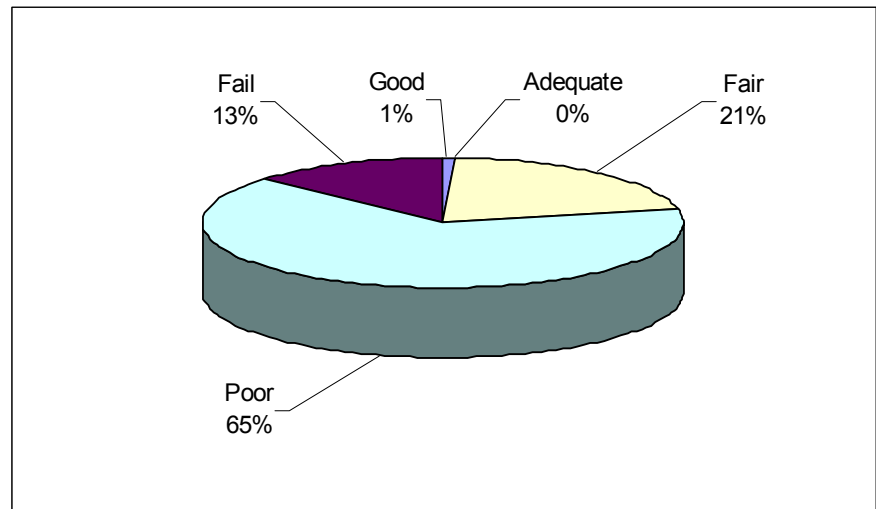
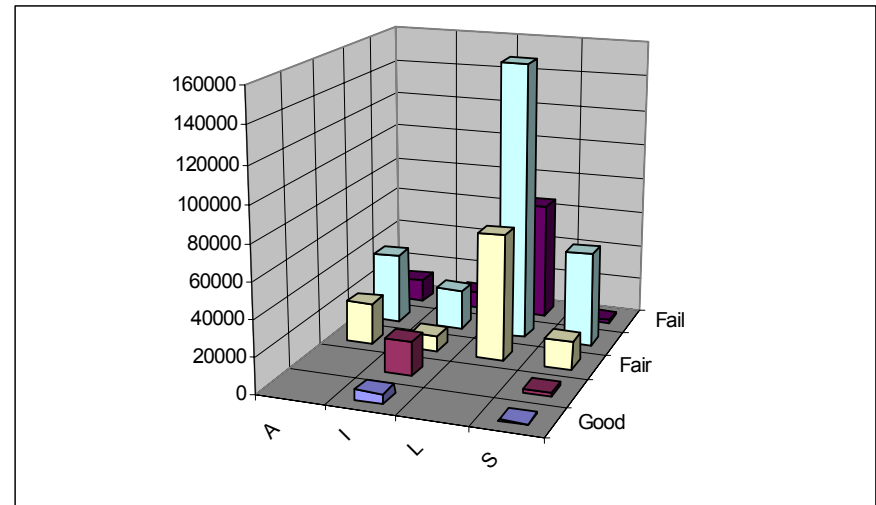


Table IV-14: Omega West Facilities Use & Condition



9. Environment, Safety, and Health

The Omega West Planning Area houses the current Tritium Facility, the closed Omega West Reactor, the Laboratory's closed plutonium processing buildings, bioscience laboratories, Laboratory classified archives, and several office buildings including the DOE/Los Alamos Area Office. Many of these facilities contain hazardous chemicals and industrial hazards of various types. To the south of the Omega West technical areas is the Los Alamos Canyon. Several of the Omega West facilities are located in the canyon. To the north of the technical areas is the Los Alamos town site. All of these surrounding areas contain habitat that supports local wildlife and plant life or developed urban areas occupied by the public. All of these can be impacted by the activities within the facilities of the Omega West Planning Area.

10. Quality Environment

Within the urban areas of the Omega West Planning Area very little is undeveloped. However, a large portion of the planning area is undeveloped canyon. The urban areas are built up with buildings, parking, roads or urban landscape. The urban landscape is very industrial in character with a few small spaces reflecting a human scale environment.

The most notable natural area within the Omega West Planning Area is the Los Alamos Canyon. The Laboratory is built within a forested mountain environment of mesa and canyons. However, the lack of trees within the developed technical areas is indicative of poor development of outdoors-human spaces. For the most part the technical areas such as TA-21 have not been developed in harmony with the surrounding environment. The abandonment and demolition of the Omega West areas and the intent to not redevelop with Laboratory facilities create the long-term opportunity for the areas to once again become environmentally friendly.

<i>Omega West Planning Area Assessment/Needs Summary</i>			
<i>Current Functions/Capability</i>	<i>Current Mission Activity</i>	<i>Forecasted Functions/Capabilities</i>	<i>Plan Discussion</i>
Health Research Labs - HRL			
Research Labs	Health & Environmental Research – Bio Sciences	-Bio Sciences are a growing mission area -Need Class 3 Bio Labs	As this mission grows, new facilities will be needed. Current location is separated from other missions that HRL supports. Funding for facilities not secured.
Ice House Facilities - TA-41			
Material Storage, Offices, & Some Labs	None	None	Current use for some ESA operations to continue until facility can be D&D'ed. D&D not expected for 10 to 15 years. Areas adjacent to town site should not contain hazardous operations. Current uses not as originally intended
LAO Building			
General Offices	DOE Administration	Transfer to the County	This facility and land is expected to be the first to be transferred as part of land transfer. A new home to DOE is being sought in the Gateway of the Core Planning Area.
Airport			
Airport Services	Community Transportation	Continue as current	Airport operation has been transferred to LA County. Land is to be transferred in coming years.

<i>Needed Development</i>	<i>Proposed Projects</i>	<i>Land Use</i>	<i>Transp.</i>	<i>Security</i>	<i>Utilities</i>	<i>Facilities</i>	<i>Quality</i>	<i>ESH</i>
Relocate 13 - Div. to Core Planning Area from HRL.	Need project	●	●	○	○	●	●	●
TA-41 scheduled for D&D	TA-41 Demolition or Reuse Projects (long-term plan)	○	○	○	○	●	●	●
	Replace LAAO Facility into Gateway development at Core Planning Area	●	○	○	○	●	●	●
	None							

<i>Omega West Planning Area Assessment/Needs Summary</i>			
<i>Current Functions/Capability</i>	<i>Current Mission Activity</i>	<i>Forecasted Functions/Capabilities</i>	<i>Plan Discussion</i>
DP West Administrative/Warehouse Facilities			
Administrative Support Offices	ESH Support	Continue as current	New space planned for TA-03 Revitalization will provide replacement space for these support functions. Facilities are anticipated to be D&D'ed but are not scheduled. Prime transfer land adjacent to Los Alamos town-site commercial areas.
Records Warehousing	Lab Records Management for DP & General Administration	Continue as current	Replacement space is being sought in the TA-03 area as part of records consolidation and DP initiatives to improve records access
Crafts Shops	SSS Support	Continue as current but to be evaluated as part of SSS consolidations	Functions will be co-located with other SSS functions on Sigma Mesa.
DP West Plutonium/Uranium Facilities			
One-Time Plutonium Processes	None	None	Facility has been partially D&D'ed. Funding to continue and completion is expected in FY04. Potential land transfer area.

<i>Needed Development</i>	<i>Proposed Projects</i>	<i>Land Use</i>	<i>Transp.</i>	<i>Security</i>	<i>Utilities</i>	<i>Facilities</i>	<i>Quality</i>	<i>ESH</i>
Close TA-21, relocate activities to other sites Land transfer.	Need project None	●	○	●	○	●	●	●
Consolidate records to TA-03	Need project	●	○	●	○	●	●	●
	None							
TA-21 D & D. Land Transfer	TA-21 DP West Facilities D&D None	●	○	●	●	●	●	●

<i>Omega West Planning Area Assessment/Needs Summary</i>			
<i>Current Functions/Capability</i>	<i>Current Mission Activity</i>	<i>Forecasted Functions/Capabilities</i>	<i>Plan Discussion</i>
DP East Tritium Facilities			
Tritium Process	Nuclear Materials	Tritium Processing to continue	Tritium consolidation at TA-16 is being considered. TA-21 is being completely closed at some future time. D&D could start in about 10 years.
Omega West Reactor Facilities			
Reactor	None	None	Facility has been closed for several years. D&D of entire tech area is scheduled to begin in about 10 years.
Infrastructure Facilities			
Utility Supply & Site Access	All missions in this planning area	Continue until D&D for facilities and missions end	<p>Most of the area is to be D&D'ed and maintained as buffer area. Some maintenance projects will be needed to maintain current facilities until relocated and D&D'ed</p> <p>Regional road improvements may affect this area in the long term future such as East Jemez Road upgrades and second access to Los Alamos Town site.</p> <p>Utility systems in support of missions should be minimally maintained. Upgrades to some aged utility feeder systems to the Laboratory that cross LA canyon may affect this area in the future.</p> <p>Land transfer of TA-43, -21 and -02 are potentials.</p>

<i>Needed Development</i>	<i>Proposed Projects</i>	<i>Land Use</i>	<i>Transp.</i>	<i>Security</i>	<i>Utilities</i>	<i>Facilities</i>	<i>Quality</i>	<i>ESH</i>
Close TA-21 & relocate activities to other locations Relocate tritium functions near WETF to TA-16 SNM category I&II move to TA-16 to consolidate security requirements	DP East Facility D&D	●	○	●	●	●	●	●
Areas adjacent to town site should not contain hazardous operations	DP East Facility D&D	●	○	○	○	●	●	●
Second bridge to townsite across TA-02 to enhance regional transportation network. Modifications to TA-21 Steam Plant Boiler and control systems Land transfer portions of TA-43, 21, and -02	Second Bridge Across LA Canyon (long-term plan) TA-21 Steam Plant Boiler and Control Systems Modification. None	●	●	●	○	●	●	●
		○	○	○	○	○	○	○

