



Appendix C

Biology Survey/Oak Tree Study

BIOLOGICAL CONSTRAINTS EVALUATION

27489 AGOURA ROAD, LLC PROJECT SITE
(APN 2064-006-009)

CITY OF AGOURA HILLS, CALIFORNIA

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REVISED
August 2007

8/28/07

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LIBERTY CANYON PROJECT SITE

CITY OF AGOURA HILLS, LOS ANGELES COUNTY, CALIFORNIA

1.0 INTRODUCTION

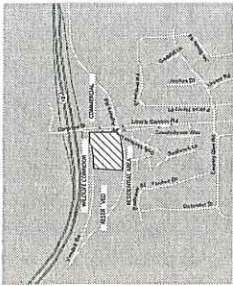
On October 16, 2006, Impact Sciences biologists conducted a habitat assessment on the approximately 4-acre project site located on the northwest corner of the intersection of Liberty Canyon Road and Agoura Road. The purpose of the habitat assessment was to evaluate whether the site contains suitable habitat for supporting special-status plant and animal species and to assess the condition of the Vendell Road, which is located on the northern boundary of the site. As stated in a memorandum prepared by the Department of Community Development of the City of Agoura Hills, dated June 19, 2006, Vendell Road is a potential wildlife movement corridor, which has the potential to provide passage for wildlife between the Santa Monica Mountains to the south and open space located to the north of Highway 101. Biologists also identified whether any water resources regulated by the Army Corps of Engineers (ACOE), the California Department of Fish and Game (CDFG), and/or the Regional Water Quality Control Board (RWQCB) are present on the site.

Because the purpose of this evaluation was to identify *potential* biological constraints to development, focused presence/absence surveys for plant and/or animal species were not conducted, nor was a formal jurisdictional delineation. However, this evaluation does determine whether any focused surveys should be conducted during the appropriate time of year to determine presence/absence. It is Impact Sciences' understanding that a formal protected tree survey had been prepared for the proposed project by a qualified arborist; therefore, this report does not quantify or assess the protected trees located on the site.

2.0 PROJECT DESCRIPTION

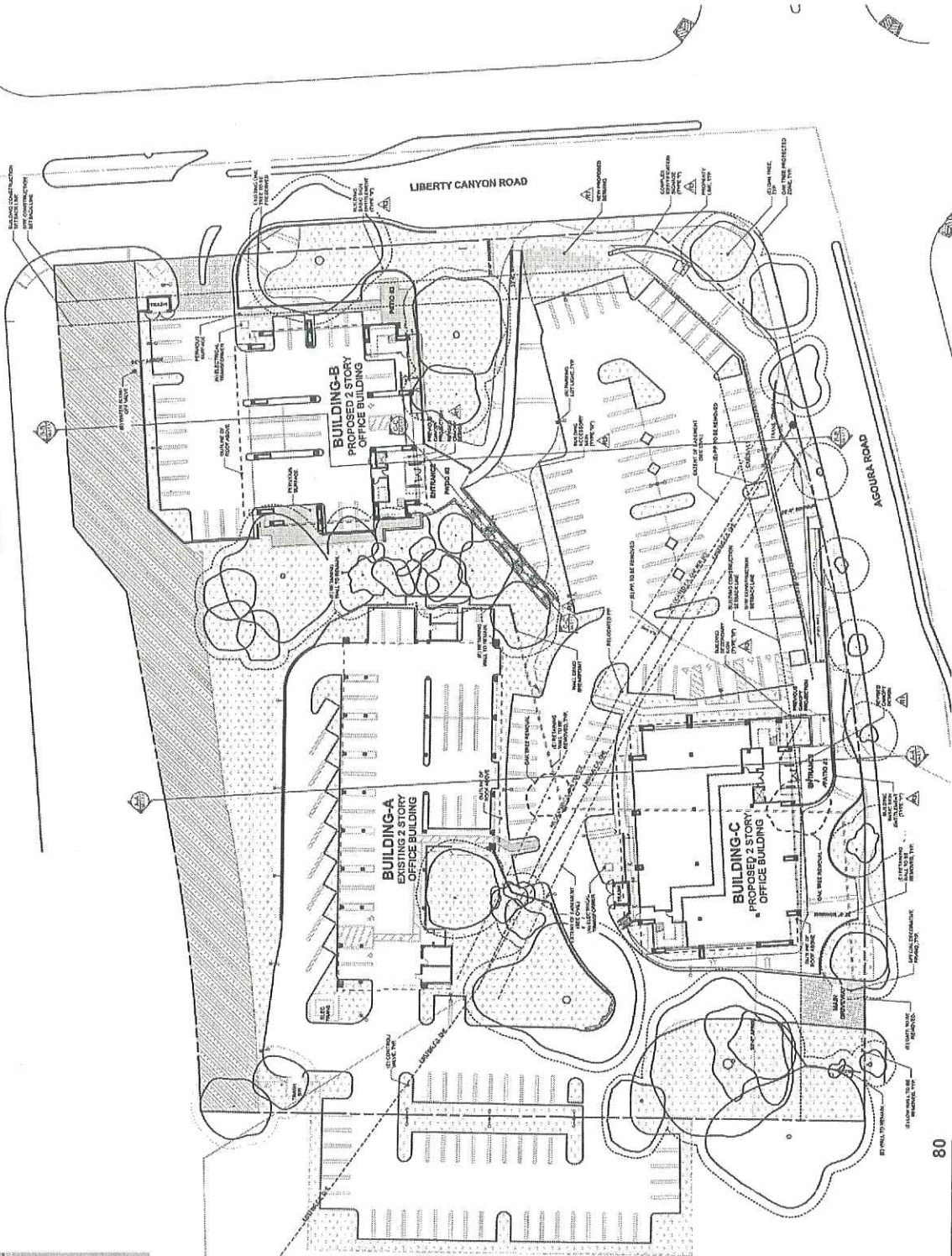
The project applicant is proposing to construct a parking lot to the west of the existing office building; a two story office building (Building-B) and parking lot on the northeast corner of the site; an approximate 28,000 sq. ft. parking lot on the southeast corner of the project site with a second office building immediately to the west of the parking lot; and, construction of a new parking lot on the adjacent Conservancy property located to the west of the site. The applicant is also proposing to enhance Vendell Road by planting native vegetation along the road. A reference site plan is provided below in **Figure 1**.

VICINITY MAP



HWY 101 SB ON RAMP

HWY 101 SB OFF RAMP



APPROXIMATE SCALE IN FEET

SOURCE: Behr Bowers Architects, Inc. - June 2007

FIGURE 1

Reference Site Plan

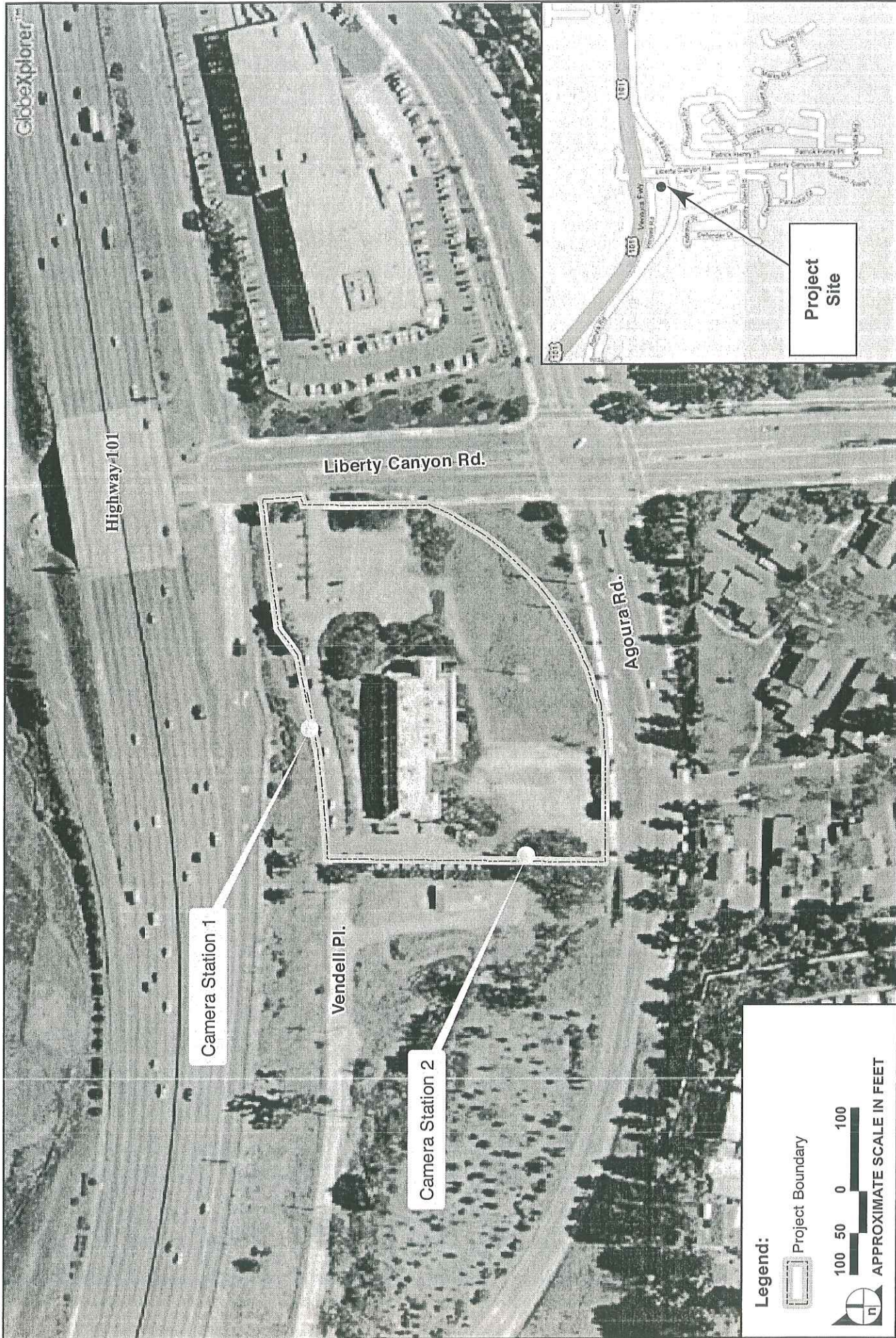
3.0 EXISTING CONDITIONS

3.1 General

The site is located on the northwest corner of the intersection of Liberty Canyon Road and Agoura Road in the City of Agoura Hills. The site is bordered on the south by Agoura Road, beyond which is residential development; to the west of the site is a restoration project with plantings of immature oak trees and above-ground irrigation lines. Beyond this restoration area is Agoura Road and the Santa Monica Mountains Conservancy; to the east is Liberty Canyon Road, beyond which is commercial development; and to the north is Vendell Road, beyond which is a south-facing embankment of Highway 101, which is primarily vegetated with non-native plants. Highway 101 is located immediately north of the embankment. Undisturbed open space within unincorporated Los Angeles County occurs to the north of Highway 101, which further extends to the north to the Simi Valley hills. To the northeast of the site is the Liberty Canyon / Highway 101 underpass, a potential wildlife movement corridor.

The site elevation ranges from approximately 780 to 850 feet above mean sea level (msl). The general topography of the site is flat, with a gradual slope from north to south. In general, on-site soils are compacted and are characterized as loamy clay.

An office building is currently located on the northwest portion of the site. A paved parking lot surrounds the office building to the west, north, and northeast. To the west of the property on the adjacent parcel is an abandoned single-story structure. The southeast corner of the site has been previously disked and is therefore in a disturbed condition, vegetated with non-native grasses and weeds. An ephemeral drainage extends through the site in a north to south direction, and then meanders off the site to the west at the southwest corner of the site. This drainage diverts flows from the unincorporated open space areas to the north through an approximately 5-foot-diameter culvert that extends underneath Highway 101 and underneath the existing building located on the site. The culvert terminates at the south side of the building, where flows are then directed into an open channel (drainage). Native plants, including mature oak trees, are growing on the banks of the ephemeral drainage as it extends through the site. An aerial photograph of the site is provided below in **Figure 2, Project Vicinity, Site Boundary, and Camera Station Locations**. Photographs of the site are provided below in **Figures 3, 4, and 5, Site Photos**.

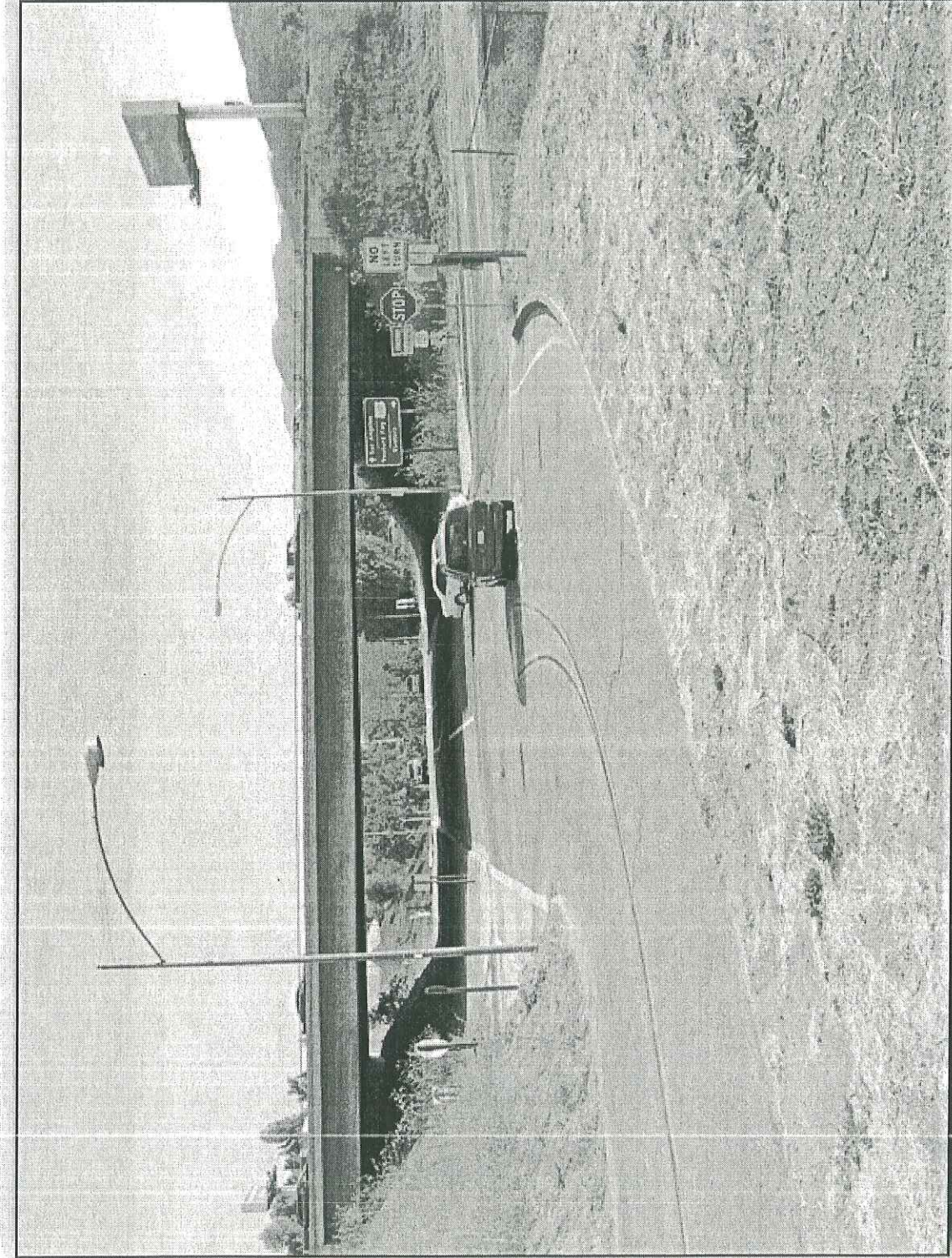


SOURCE: AirPhoto USA – 2006, Google Maps – 2006, Impact Sciences, Inc. – February 2007

FIGURE 2

Project Vicinity, Site Boundary, and Camera Station Locations





Facing south at the Liberty Canyon and Highway 101 underpass.

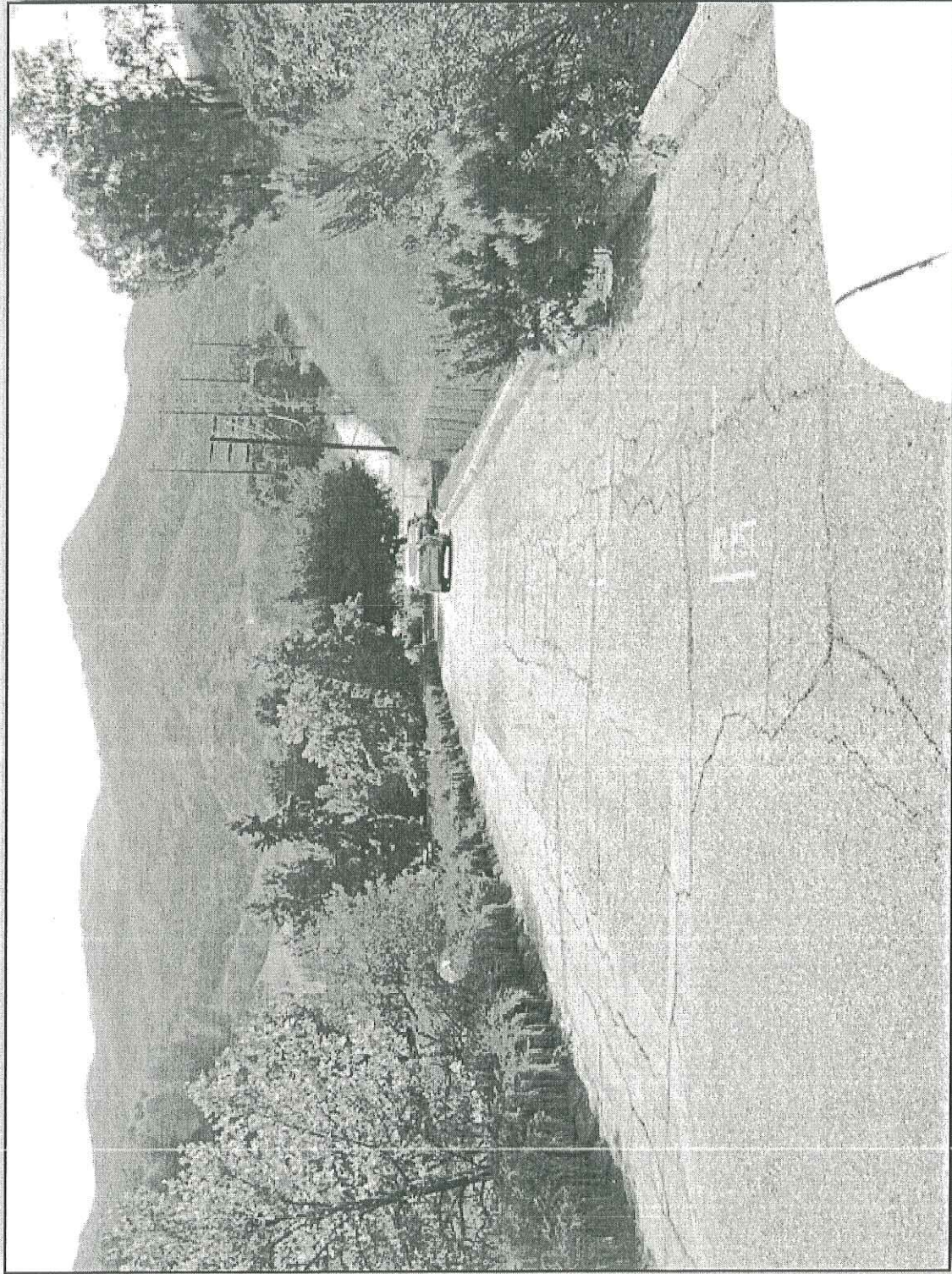
SOURCE: Impact Sciences, Inc. - December 2006

FIGURE 3

Site Photos



874-001-02/07



Facing west on Vendell Road, with Santa Monica Mountains in background and embankment of Highway 101 on right.

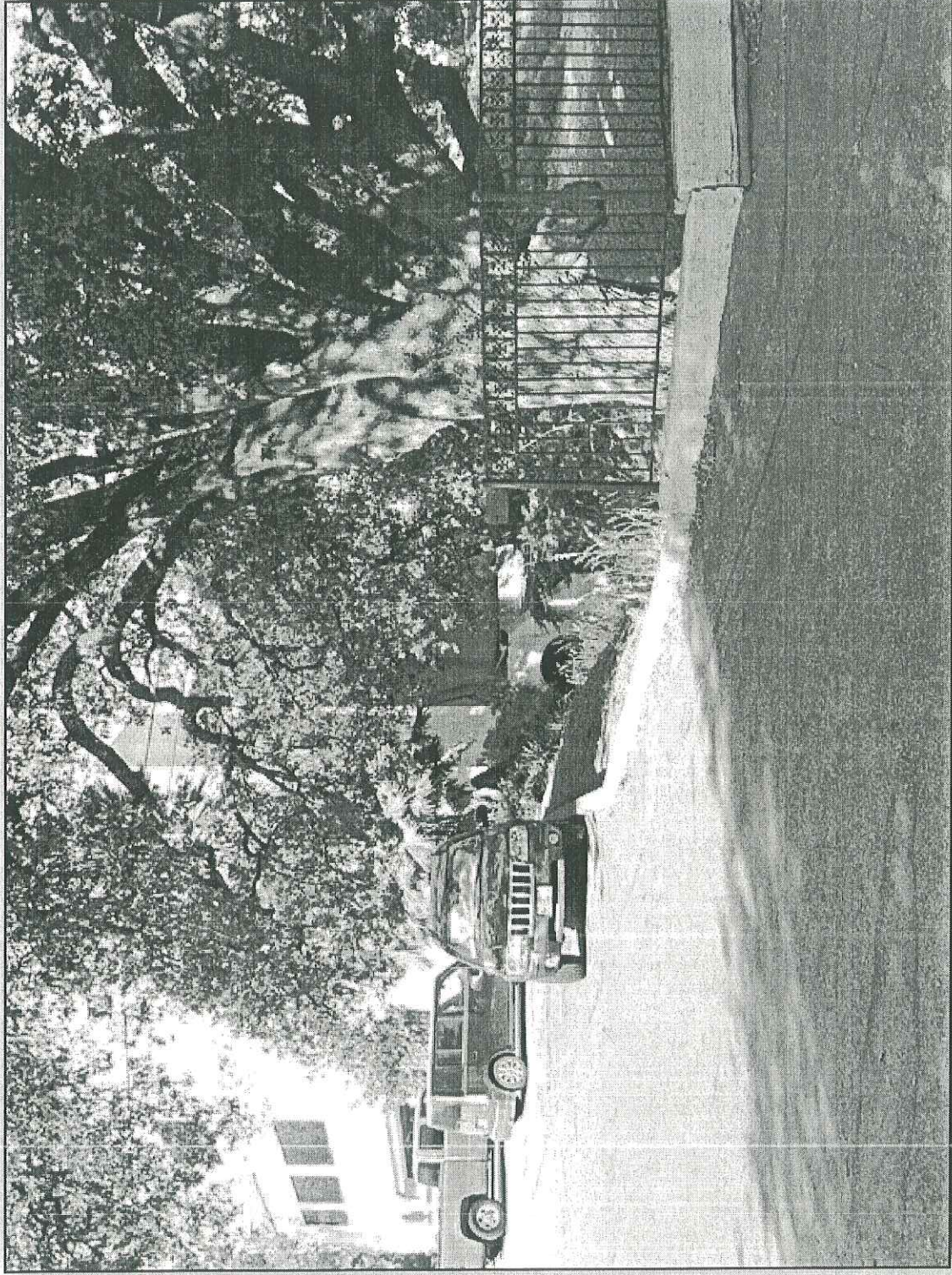
SOURCE: Impact Sciences, Inc. - December 2006

FIGURE 4

Site Photos



874-001-02/07



View of south-side of existing building, parking lot, and culvert with oak tree in foreground.

SOURCE: Impact Sciences, Inc. - December 2006

FIGURE 5

Site Photos



874-001-02/07

3.2 Vegetation and On-site Habitats

On-site vegetation is comprised of ornamental landscape species, such as Peruvian pepper tree (*Schinus molle*), rosemary (*Rosmarinus officinalis*), oleander (*Nerium oleander*), and crape myrtle (*Lagerstroemia indica*). Native species such as California walnut (*Juglans californica* ssp. *californica*), coast live oak (*Quercus agrifolia*), valley oak (*Quercus lobata*), and canyon oak trees (*Quercus chrysolepis*) are also located on the site. Located on the southeast portion of the site are non-native grasses dominated by black mustard (*Brassica nigra*), wild oats (*Avena fatua*), star thistle (*Centaurea melitensis*), Russian thistle (*Salsola tragus*), and red brome (*Bromus madritensis* ssp. *Rubens*). These non-native plants also occur on the south-facing embankment located immediately north of Vendell Road and south Highway 101. A complete list of plant species observed on the site is provided in **Appendix A, Plant Species Observed on the Liberty Canyon Project Site**.

4.0 METHODOLOGY

Impact Sciences' biologists walked the extent of the site boundary (and areas immediately adjacent to the site boundary) to assess all on-site habitats (See, **Appendix B, Site Features and Assessment Boundary**). Prior to visiting the site, a query of the CDFG California Natural Diversity Database (CNDDDB) (CDFG 2006) and the California Native Plant Society database (CNPS 2006) was conducted to identify special-status plant and animal species previously recorded in the area. The CNDDDB lists historical and recently recorded occurrences of special-status plant and animal species. The CNPS database lists historical and recent occurrences of special-status plant species. The areas queried include the U.S. Geological Survey (USGS) 7.5-minute quadrangles for Calabasas, Canoga Park, Malibu Beach, Oat Mountain, Point Dume, Santa Susana, Simi, Thousand Oaks, and Topanga.

The potential for special-status species to occur on the project site is based on the proximity of the site to recorded CNDDDB and CNPS occurrences; known geographic ranges; the quality of on-site habitats, which include, but are not limited to: topography, elevation, and soils; surrounding land uses; and habitat preferences.

Impact Sciences conducted a literature review, which included a master's thesis that examined the Liberty Canyon and 101 Freeway underpass as used by wildlife as a movement corridor, as well as wildlife movement studies prepared for Santa Monica Mountain Conservancy. The literature review also included comparisons of the functions and values of similar corridors occurring in other geographical areas.

Between October 16 and November 6, 2006, Impact Sciences placed two infrared movement cameras on the project site in an attempt to photograph animals that may be utilizing the project site as a movement

corridor. One camera was positioned on Vendell Road, facing to the west, and a second camera was faced towards the south side of the existing building at the culvert. The potential for Vendell Road to serve as a wildlife movement corridor is described in more detail below in Section 5.2, Wildlife Movement Corridors.

5.0 IMPACT ANALYSIS

5.1 Special-Status Plants and Animals

No special-status plant species are expected to occur on site, due to the site’s lack of suitable habitat for supporting special-status plants. Conversely, there are five special-status animal species that could potentially be present on portions of the site. A comprehensive list of special-status animal species that have the potential to occur on site is provided below in Table 1, Special-Status Animal Species with Potential to Occur on the Site. Table 1 also identifies the potential development constraints that each species may pose, and Section 5.1.1, Recommendations, provides recommendations for addressing each potential constraint. It should be noted that several additional special-status plant and animal species have been recorded in the region; however, Table 1 only identified those that have the potential to occur based on the site’s habitat quality and habitat suitability.

Biologists observed an Audubon’s cottontail (*Sylvilagus audubonii*), western fence lizard (*Sceloporus occidentalis*), and the scat of a coyote (*Canis latrans*) during the site visit. Additionally, the following avian species were observed: house finch (*Carpodacus mexicanus*), California towhee (*Pipilo crissalis*), western scrub jay (*Aphelocoma californica*), acorn woodpecker (*Melanerpes formicivorus*), white-crowned sparrow (*Zonotrichia leucophrys*), lesser goldfinch (*Carduelis psaltria*), European starling (*Sturnus vulgaris*), American crow (*Corvus brachyrhynchos*), and mourning dove (*Zenaida macroura*). No special-status plant or animal species were observed during the site visit; however, as previously indicated, focused surveys were not conducted.

Table 1
Special-Status Animal Species with Potential to Occur on the Site

Common Name Scientific Name	Status		On-Site Habitat	Development Constraint
	Federal	State		
Reptiles				
Silvery legless lizard <i>Aniella puchra pulchra</i>	--	CSC	Could occur within leaf litter underneath oak tree canopies and within areas containing friable, sandy soils.	If site disturbance occurs in these on-site habitat areas, and if this species is observed on the site, a potential significant impact under CEQA.

Common Name Scientific Name	Status		On-Site Habitat	Development Constraint
	Federal	State		
California mountain kingsnake <i>Lampropeltis zonata pulchra</i>	--	CSC	Could occur along banks of drainage and within vegetated areas on the site. Known to occur in the adjacent Santa Monica Mountains.	If site disturbance occurs in these on-site habitat areas, and if this species is observed on the site, a potential significant impact under CEQA.
Coast horned lizard <i>Phrynosoma coronatum</i>	--	CSC	Could occur in adjacent areas with sandy, friable soils, such as along the south-facing embankment located to the north of the site.	If site disturbance occurs in such habitat areas, and if this species is observed on the site, a potential significant impact under CEQA.
Two-striped garter snake <i>Thamnophis hammondi</i>	--	CSC	Could occur along banks of drainage and within vegetated areas on the site. Known to occur in the adjacent Santa Monica Mountains.	If site disturbance occurs in these on-site habitat areas, and if this species is observed on the site, a potential significant impact under CEQA.
Bird				
Cooper's hawk <i>Accipiter cooperii</i>	--	CSC	Forages and nests in dense woodlands, preferably near riparian areas.	If site disturbance occurs in such habitat areas, and if this species is observed <u>nesting</u> on the site, a potential significant impact under CEQA.
Mammals				
Pallid bat <i>Antrozous pallidus</i>	--	CSC	Could roost in abandoned building and in culvert that extends underneath exiting building.	If this species is observed roosting in the adjacent abandoned building or in the culvert, a potential significant impact under CEQA.
Mountain lion <i>Felis concolor</i>		SPM	Vendell Road has the potential to provide a movement corridor from the Santa Monica Mountains to open areas to the north of Highway 101.	A potential significant impact under CEQA, if Vendell Road is impacted, and would result in an impediment to the movement of animals.
Mammals (continued)				
Occult little brown bat <i>Myotis lucifugus occultus</i>	--	CSC	Has potential to roost in abandoned building; however, not as likely as the pallid bat.	If this species is observed roosting in the adjacent abandoned building, a potential significant impact under CEQA.
Townsend's western big-eared bat <i>Plecotus townsendii</i>	--	CSC	Has potential to roost in abandoned building; however, not as likely as the pallid bat.	If this species is observed roosting in the adjacent abandoned building, a potential significant impact under CEQA.

Status Key:

State: CSC = California Species of Concern; SPM = Specially Protected Mammal

5.1.1 Recommendations

Silvery legless lizard, California mountain kingsnake, coast horned lizard, and two-striped garter snake: If site disturbance occurs in suitable on-site habitats for these species, prior to ground disturbance activities, a qualified biologist should perform a pre-construction survey in areas where these species may occur, to avoid potential direct and indirect impacts.

Cooper's hawk: Prior to ground disturbance activities, a qualified biologist should perform a pre-construction survey in appropriate on-site habitats that could provide nesting opportunities. Such surveys may be concurrent with nesting bird surveys (see **Section 5.3, Native Bird Nests**).

Pallid bat, occult little brown bat, and Townsend's western big-eared bat: Due to the lack of access into the abandoned structure during the site visit, biologists were unable to confirm whether bats are roosting inside. Therefore, prior to the demolition of the structure (if proposed), a qualified biologist should perform a pre-construction survey to determine whether any bats are roosting inside. If roosting sites are observed, and demolition of the abandoned structure is proposed, measures should be employed to avoid impacts, such as limiting construction to months outside of the roosting season, which is generally during the spring and summer. If demolition of the abandoned structure is not proposed, and it is determined that bats are roosting inside, such measures may include limiting construction to the hours between 7:00 am and 5:00 pm.

Mountain lion: The project applicant should avoid the creation of impediments to Vendell Road, which could inhibit the movement of large mammals along this road. Measures should be implemented to avoid impacts to Vendell Road and migrating animals. Several mitigation measures related to migration corridors are provided in **Section 5.2, Wildlife Movement Corridor**.

5.2 Wildlife Movement Corridors

Wildlife movement corridors are linear landscape elements that serve as linkages between historically connected habitat/natural areas, thereby facilitating wildlife movement between these natural areas. Highway 101 severely fragments open space areas to the north and south of the Highway. The Liberty Canyon underpass has the potential to provide access to animals migrating between open space to the north and south of the Highway. As previously indicated, Vendell Road has the potential to provide linkage between the Santa Monica Mountains located to the south and west of the project and the Liberty Canyon/Highway 101 underpass.

The City of Agoura Hills General Plan - Open Space and Conservation Element of the Plan (1993), addresses the value and need for regulation of existing migration corridors within the City. Implementation Measure 1.8 of this section notes that the "City shall consult with the Santa Monica Mountains Conservancy and other affected agencies in the design of Agoura Road near Liberty Canyon to ensure that a reasonably viable wildlife movement corridor is provided."

According to Paul Edelman's corridor study (1990), the Liberty Canyon underpass is a substantial component for wildlife movement across Highway 101. Edelman's study further explains that because of recent development to the south of Agoura Road, animals must travel either on the paved road system or

approximately 1,000 feet on the embankment of Highway 101. "Liberty Canyon is the only currently viable corridor capable of connecting the biota of the Santa Monica Mountains with the hills of Simi Valley and native populations to the north."

Beier (1995) found mountain lions avoided artificially illuminated corridors, choosing vegetated portions instead. Ng (2000) conducted a study between 1999 and 2000, on the use of the Liberty Canyon underpass by migrating animals. The underpass was monitored for four days each month, with three cameras and a track station. The study focused on potential use of the following target species: mountain lion, bobcat (*Lynx rufus*), coyote (*Canis latrans*), gray fox (*Vulpes cinereoargenteus*), and badger (*Taxidea taxus*). Wildlife crossing data were correlated with passage structure dimensions, habitat, and human activity. Ng (2000) found that during this one-year period, the following mammals used the Liberty Canyon underpass: approximately 500 humans (and three people riding horses), fifteen deer, four dogs, two raccoons, one cat, one coyote, and a squirrel. No target species were determined to be using the corridor during the study period.

Between October 16 and November 6, 2006, Impact Sciences placed two infrared movement cameras on the project site in an attempt to photograph any animals that may be utilizing the project site as a movement corridor. Cameras were set up during the morning of October 16 and removed in the afternoon on November 6. One camera was positioned on Vendell Road, facing to the west, and a second camera was faced towards the south side of the existing building at the culvert. Over a three-week period, no mammals were photographed using Vendell Road or the culvert that extends underneath the existing office building.

5.2.1 Impact Analysis

Although the importance of the Liberty Canyon corridor is broadly accepted by the scientific community, regulating agencies, the Santa Monica Mountains Conservancy, and the City of Agoura Hills (as noted in their General Plan), future development near the project site is continuously risking further degradation of an already underutilized corridor. For example, the County of Los Angeles approved a nearby 161-acre development that is located to the north of the Liberty Canyon/Highway 101 underpass (L. A. County Notice of Preparation April 11, 2005). Commercial development, residential neighborhoods, city streets, Highway 101, and ambient nighttime lighting have cumulatively created barriers that discourage the use of the Liberty Canyon underpass by the target species referenced in the Ng (2000) study.

When considering previous and proposed urban development in the area and existing ambient lighting and noise, the addition of a building and parking lot on the subject property would not significantly contribute to further degradation of the Liberty Canyon corridor or the use of Vendell Road by migrating

animals. Fundamentally, most of the damage (i.e., barriers that impede the movement of animals between open space areas to the north and south of Highway 101) to the Liberty Canyon corridor has already been done as a result of urbanization. It is not possible to quantify the additional effects that would result solely from the proposed project, without conducting an intense “before and after” research study. Nonetheless, the impacts of the proposed project would be insignificant when compared to the imposition of the freeway barrier, and past and proposed developments in the vicinity.

5.2.2 Recommendations

Below are recommended mitigation measures to reduce potential impacts on wildlife movement in the area:

- Limit construction to the hours between 7:00 AM and 5:00 PM.
- Employ Best Management Practices (BMP’s) during construction, such as picking up trash, checking under vehicles for animals before moving, and placement of drip pans under equipment that would be staged for greater than 24-hours.
- Plant native trees, shrubs, and herbaceous plants along Vendell Road. Choose native plants growing in the vicinity of the project site. Plants should be spaced apart adequately enough to allow wildlife movement and to offer a canopy that provides protection and shelter to animals that may use Vendell Road as a movement corridor. Native trees such as oaks and walnuts should be spaced at approximately 30 feet apart; medium-size native shrubs such as bay laurel, toyon, and scrub oak should be spaced at approximately 15 feet apart; smaller sized native shrubs such as deer weed, black/purple/white sage, and buckwheat should be spaced at approximately 10 feet apart; and annual herbaceous plants such as purple needlegrass, California fescue, and common phacelia should be spaced approximately 5 feet apart. Plants should be drip irrigated and monitored until establishment is confirmed. All plants that do not survive through the monitoring period should be replaced with like plant material.
- Where feasible, create a buffer to screen the view from Vendell Road to the project site. Buffers should not inhibit the movement to, or from, Vendell Road. Such buffers could be constructed of mounded soil to create a “berm”, or a single row of densely planted, tall-growing native vegetation to create a screen.
- Avoid any obstruction on Vendell Road, such as buildings, chain-link fencing, cinderblock walls, or hardscape, and do not create any barriers within the drainage or culvert that traverse the project site.
- If feasible, shield nighttime lighting downward to avoid off-site spillage. If free-standing parking lot lights are proposed, install the shortest poles feasible.

5.3 Native Bird Nests

The shrubs and herbaceous plants growing on the project site have the potential to provide suitable nesting habitat for many native bird species. Additionally, the mature trees growing on the site also

provide suitable nesting habitat for such birds, including several raptor species, such as the Cooper's hawk, a state Species of Special Concern.

Breeding birds and their active nests are protected under the Fish and Game Code of California and the Federal Migratory Bird Treaty Act; therefore, impacts on bird nests from grading and/or construction-related activities shall be avoided.

5.3.1 Recommendations

A qualified biologist should conduct a pre-construction nesting bird survey no later than three days prior to the commencement of ground disturbing activities on the site.

Where an active bird nest is located, CDFG guidelines indicate that a 300-foot buffer (or 500-foot buffer for raptors and special-status bird species) should be established around an active nest until the nest is deemed inactive and there is no evidence of a second attempt to use the nest, as determined by a qualified biologist. The buffer area should be delineated with orange construction fencing, and a qualified biologist should verify installation. Most birds breed between the months of February and September; therefore, if construction occurs outside of this time frame, then breeding birds would not be expected to be on site.

5.4 Jurisdictional Resources:

Potential impacts to streams, drainages, and wetlands are regulated by Section 404 of the Clean Water Act as well as by Sections 1600 through 1602 of the Fish and Game Code. The drainage that traverses the site may be considered "waters of the United States" as defined in Section 401 of the Clean Water Act, which are regulated by the ACOE and the RWQCB. The CDFG may regulate the entire riparian corridor, which includes the plant life that is dependent upon the ephemeral drainage for survival. Impacts to jurisdictional water resources are considered potentially significant under CEQA. Appropriate permits (CDFG – Streambed Alteration Agreement, and/or Section 404 – nationwide permit) may need to be obtained prior to executing any direct or indirect impacts to the on-site drainage.

Prior to any activities that may impact the on-site drainage, a jurisdictional delineation should be conducted by a qualified biologist to delineate the precise boundaries of the regulated areas. The delineation would be verified by the regulating agencies, and appropriate mitigation measures would be established in consultation with the agencies.

Often mitigation will require on-site restoration for loss of (or impacts to) regulated areas. At the discretion of the regulating agencies, payment into an in-lieu fee program is occasionally considered acceptable mitigation if on-site mitigation is not feasible.

During a meeting that took place during the week of 28 May 2007 between the project applicant, Paul Edelman (representative of the Santa Monica Mountains Conservancy), and Allison Cook (Senior Planner with the City's Department of Planning and Community Development), it was agreed that the proposed project would drain on-site and would not drain on the adjacent Conservancy property to the west. Drainage on the Conservancy property would remain "as is", with the exception of necessary grading required to accommodate the new parking lot, which would be finished with a pervious paving system. During this meeting, the project applicant also agreed to remove any parking lot lighting from the parking lot on the Conservancy property, to eliminate any potential impacts that nighttime lighting could pose on wildlife.

5.5 Protected Trees

The tree report should identify all protected trees located on the subject property and within 200 feet of proposed daylight grading lines, should describe specific impacts that are proposed on protected trees, and should identify mitigation measures to reduce the overall impact to protected trees that may be impacted. Prior to the commencement of grading activities, a tree permit should be obtained for trees that could be impacted by the project.

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APPENDIX A

Plant Species Observed on the Liberty Canyon Project Site

Table A-1
Plant Species Observed on the Liberty Canyon Project Site

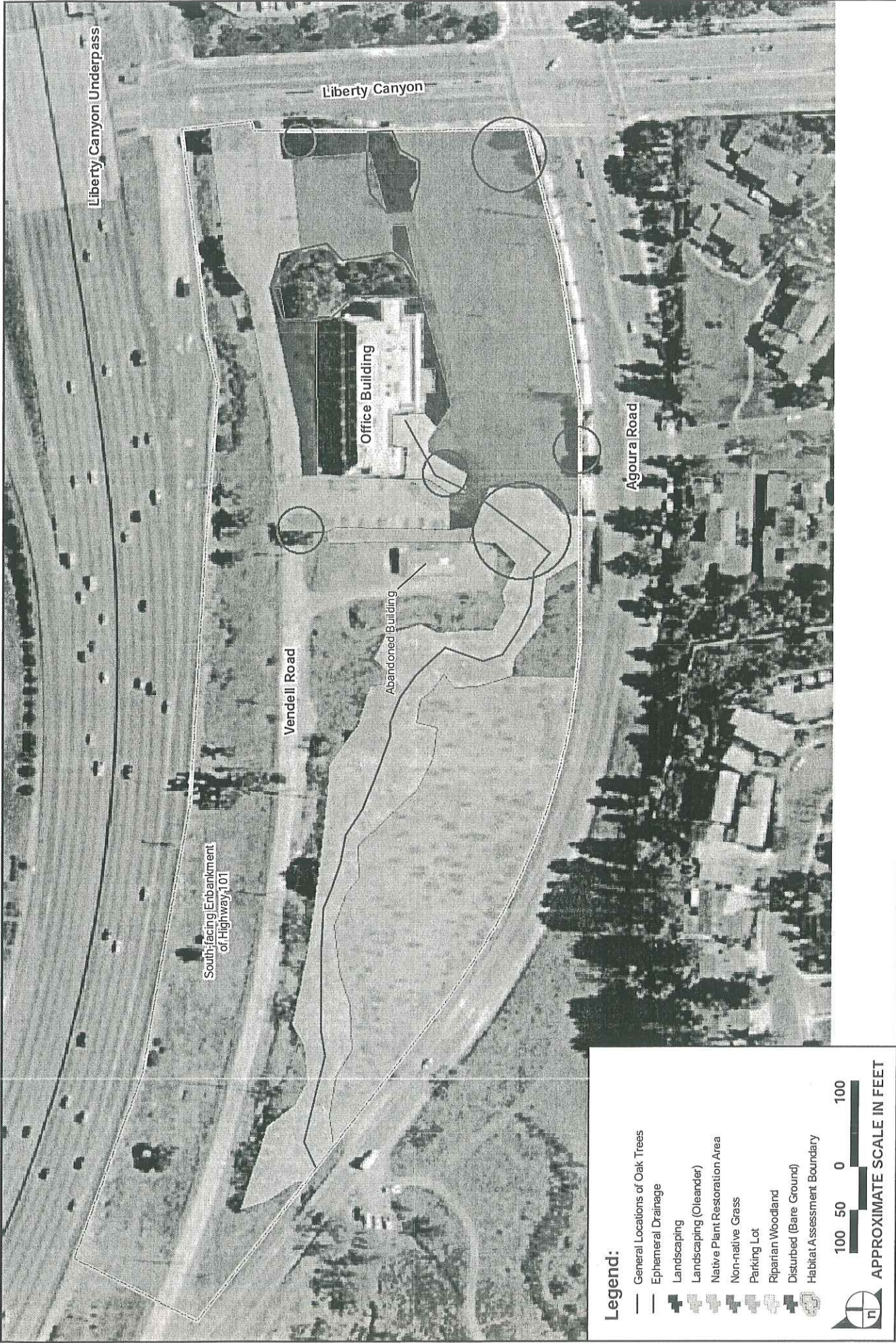
Scientific Name	Common Name	Native Species (Yes/No)
ANGIOSPERMS		
DICOTYLEDONS		
ANACARDIACEAE	CASHEW FAMILY	
<i>Schinus molle</i>	Peruvian pepper tree	No
APOCYNACEAE	DOGBANE FAMILY	
<i>Nerium oleander</i>	Oleander	No
<i>Trachelospermum jasminoides</i>	Star jasmine	No
ARALIACEAE	GINSENG FAMILY	
<i>Hedera helix</i>	English Ivy	No
ASCLEPIDACEAE	MILKWEED FAMILY	
<i>Asclepias fascicularis</i>	Narrow-leaved milkweed	Yes
ASTERACEAE	SUNFLOWER FAMILY	
<i>Baccharis pilularis</i>	Coyotebrush	Yes
<i>Baccharis salicifolia</i>	Mulefat	Yes
<i>Centaurea solstitialis</i>	Yellow star-thistle	No
<i>Conyza canadensis</i>	Horseweed	Yes
<i>Gnaphalium californicum</i>	California everlasting	Yes
<i>Helianthus annuus</i>	Annual sunflower	Yes
<i>Heterotheca grandiflora</i>	Telegraph weed	Yes
<i>Lactuca serriola</i>	Prickly lettuce	No
<i>Stephanomeria virgata</i>	Twiggy wreath plant	Yes
BRASSICACEAE	MUSTARD FAMILY	
<i>Brassica nigra</i>	Black mustard	No
CACTACEAE	CACTUS FAMILY	
<i>Opuntia oricola</i>	Prickly pear cactus	Yes
CHENOPODIACEAE	GOOSEFOOT FAMILY	
<i>Salsola tragus</i>	Russian thistle	No
EUPHORBIACEAE	SPURGE FAMILY	
<i>Chamaesyce</i> sp.	Chamaesyce species	Yes
<i>Eremocarpus setigerus</i>	Doveweed	Yes
FABACEAE	LEGUME FAMILY	
<i>Cercis canadensis</i>	Eastern redbud	No
FAGACEAE	OAK FAMILY	
<i>Quercus agrifolia</i>	Coast live oak	Yes
<i>Quercus chrysolepis</i>	Canyon oak	Yes
<i>Quercus lobata</i>	Valley Oak	Yes
GERANIACEAE	GERANIUM FAMILY	
<i>Erodium cicutarium</i>	Red-stem filaree	No
JUGLANDIACEAE	WALNUT FAMILY	
<i>Juglans californica</i> ssp. <i>californica</i>	California walnut	Yes
LAMIACEAE	MINT FAMILY	
<i>Marrubium vulgare</i>	Horehound	No
<i>Rosmarinus officinalis</i>	Rosemary	

Plant Species Observed on the Liberty Canyon Project Site

Scientific Name	Common Name	Native Species (Yes/No)
LYTHRACEAE	LOOSESTRIFE FAMILY	
<i>Lagerstroemia indica</i>	Crape myrtle	No
MYRTACEAE	MYRTLE FAMILY	
<i>Eucalyptus</i> sp.	Eucalyptus species	No
PLATANACEAE	SYCAMORE FAMILY	
<i>Platanus racemosa</i>	Western sycamore	Yes
POLYGONACEAE	BUCKWHEAT FAMILY	
<i>Eriogonum fasciculatum</i>	California buckwheat	Yes
RHAMNACEAE	BUCKTHORN FAMILY	
<i>Ceanothus integerrimus</i>	Deerbrush	Yes
<i>Ceanothus</i> sp.	Ceanothus species	Yes
<i>Rhamnus californica</i>	Coffeeberry	Yes
SALICACEAE	WILLOW FAMILY	
<i>Populus fremontii</i>	Fremont's cottonwood	Yes
SOLANACEAE	NIGHTSHADE FAMILY	
<i>Datura wrightii</i>	Jimson weed	Yes
<i>Nicotiana glauca</i>	Tree tobacco	No
ANGIOSPERMS		
MONOCOTYLEDONS		
ARECACEAE	PALM FAMILY	
<i>Washingtonia robusta</i>	Mexican fan palm	No
POACEAE	GRASS FAMILY	
<i>Avena fatua</i>	Wild oats	No
<i>Bromus diandrus</i>	Ripgut brome	No
<i>Bromus hordeaceus</i>	Softchess brome	No
<i>Bromus madritensis</i> ssp. <i>rubens</i>	Red brome	No
<i>Hordeum murinum</i>	Foxtail barley	No
<i>Piptatherum miliaceum</i>	Smilo grass	Yes

APPENDIX B

Site Features and Assessment Boundary

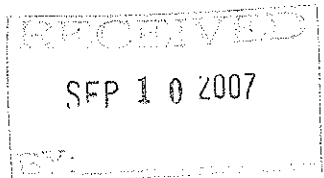


SOURCE: AirPhoto USA - 2008, Google Maps - 2007, Impact Sciences, Inc. - August 2007

LIBERTY CANYON
AGOURA ROAD, L.L.C.

OAK TREE REPORT

**RICHARD W. CAMPBELL
OAK TREE PRESERVATION SPECIALIST**





OAK TREE REPORT

LIBERTY CANYON OFFICES

February 28, 2006
(Revised 03-13-07, 4-10-07 & 6-11-07, 8-6-07, 9-6-07)

27489 Agoura Road, LLC
5000 N. Parkway Calabasas #100
Calabasas, California 91302

Attn.: Marc Spellman & Mark Leonard

SUBJECT SITE:

LIBERTY CANYON OFFICES AGOURA HILLS, CALIFORNIA

GENERAL STATEMENT

Between February 23, *June 8* and July 27, 2007 Oak Tree "Surveys" were conducted at the Subject Site. Ground level field inventory and external details (caliper size, general health, and physical & aesthetic character) were recorded based upon the existing site conditions. *Fifty (50)* Oak Trees (25-*Quercus agrifolia*, 20-*Quercus lobata* and 5 *Quercus ilex*) were evaluated for their present conditions based on "Owner's" concern for the general health and impact potential relative to the proposed new offices grading and building construction. Revised Preliminary Grading and Drainage Plans, dated *06-05-07* and *08-02-07*, were reviewed and this Report has been revised to reflect the changes. The results of the "Survey" and changes from the revised Preliminary Grading and Drainage Plan are shown on the *previously submitted* "Oak Tree Evaluation Summary" forms, Sketch Sections, Oak Tree Map Photo Reference Plan and as outlined herein. *Two Trees (T-29 and T-41) have died and are to be replaced.* It is proposed that *six (6)* of the Oak Trees (*T-11, T-19, T-33, T-48, T-49 and T-50*) be removed and *forty-two (42)* be protected in place, with *eleven (11)* (*T-5, T-6, T-9, T-17, T-18, T-21, T-23, T-27, T-30, T-31 and T-32*) of those proposed to be "protected in place" *have new encroachments and twelve (12)* (*T-4, T-5, T-6, T-12, T-13, T-36, T-37, T-38, T-39, T-40, T-45 and T-46*) *to have some existing encroachments reduced by new improvements* (see Oak Tree Map and sketch sections). It is anticipated that only *ten (10)* Trees (*T-4, T-5, T-6, T-17, T-23, T-30, T-31, T-32, T-42 and T-43*) will be directly impacted, requiring minor to significant clearance and/or root pruning. Field monitoring will direct workers to avoid and preserve the branching and root areas of the Trees, to remain protected in place, during construction.



PURPOSE AND SCOPE

The purpose and scope of this report, in accordance with the City of Agoura Hills Zoning Ordinance #9657 and #9657.5, Appendix A, **Oak Tree Preservation Guidelines**, is to identify native and "planted" Oak species and evaluate their present condition. A report on impacts, if known, and proposed mitigation measures are required for submittal to the City for review by the Planning Department if any work is planned to take place in or within the "PROTECTED ZONE" of any Quercus genus two (2") inches and over in diameter at 42" above grade.

SITE CONDITIONS

The Site for the Trees is located along Agoura Road at the intersection of Liberty Canyon Road (northwest corner). The general topography, **other than the graded pads**, is moderate to steeply sloping upward from the south to the north. There is a natural and improved drainage course running diagonally thru the site, from north-center to the southwest corner. Surrounding the southern portion of the drainage course is a stand of native Oaks **Walnuts** and arroyo Willows. **Where practical, protect existing Walnut Trees in place.** The upper portion of the drainage course flows in a 72" RCP under the existing building. This drainage course flows through the southwest area of the site and joins a westerly off-site drainage course, and thence into a southeasterly coursing storm drain system under Agoura Road.

The high point of the Site is located along the northeasterly area of the property, where an existing paved parking lot and graded "pad" is located. The low point of the site is in the southwest corner, where the drainage course exits the site. A second graded "pad" is located across the lower southerly half of the site. The property is bordered by the 101 (Ventura) freeway to the north, Liberty Canyon Road to the east, Agoura Road to the south and an abandoned residential site and Santa Monica Mountain Conservancy land to the west.

Each of the evaluated Oak Trees has been tagged with an aluminum flag on the northerly side of each Tree at 4'-6" above grade. A few previously installed tags are not necessarily located on the north side of the Trees. Older "washer" tags remain on a few of the Trees, but are not used for this Report. Tree number T-1 is "Registered" Oak #82.

Most of the Oak Trees have either been "planted" or are young volunteers. The others are fully mature and young volunteers. **Seven** of the Oak Trees evaluated are City street trees, in the Agoura Road Right-of-Way sidewalk.

The mature Oak Trees all have minor to moderate Pit Scale or Twig Girdler, depending on their species. Many of them have fill on their trunks and have average shoot growth. Seedlings are generally emerging under most of the mature Oaks. The younger Trees have average to good shoot growth. Some Trees have been pruned in the past for clearance or health. A few of the Trees exhibit signs of minor to moderate fire damage, from the past. Some of the Trees in the drainage course and on the steeper sloped areas have exposed roots. Branch and trunk cavities, included bark, intertwining one with each other, exudation, wire around trunk, galls, exfoliation, broken branch scars, water traps, low branching,

branches on ground, borers, Ehrhorn's scale, beehive in cavity, codominant branching, trunk cankers and deadwood are other conditions observed.

The Oak Trees within this report are located in several areas of the Site. Oak Trees T-1 through T-5, and T-45, T-46 & 49 are located in the southwest corner of the Site along the entrance drive and on-site arroyo, near Agoura Road. Oak Trees T-6 through T-11 are located along the lower drainage course near the existing building. Oak Trees T-12 and T-13 are located in the northwest corner of the site. Oak Trees T-14 thru T-30 are located along the steep slope in the center of the site, near the east side of the existing building. **Tree T-29 has died and is to be replaced.** Oak Trees T-31 through T-33 are located in the northeast quadrant of the property. Oak Trees T-34 through T-44 are **City** Oak Trees located along the Agoura Road Right-of-Way. **Tree T-41 is missing and is to be replaced.** Oak Tree T-47 is located in the south center of the site. Oak Tree 48 is located in the center of the site, near the south side of the existing building. Both Oak Trees T-47 and T-48 are proposed to be removed due to proposed grading, retaining walls, paving and building construction. Of the Oak Trees to remain protected in place, T-5, T-6, **T-9**, T-12, T-13, T-17, T-23, **T-27**, T-30, T-31, T-32, T-34, T-35, T-36, T-37, T-38, T-39, T-40, T-42, T-43, T-45 and T-46 will be encroached upon by the proposed new **demolition**, grading, retaining walls and site construction. See Oak Tree Map, sketch sections and "Oak Tree Evaluation Summary" forms for specific notes and remarks relative to these Oak Trees. Trees **T-5, T-6, T-17, T-23, T-30, T-31 and T-32** are expected to require **minor to moderate canopy and/or possible root** pruning for new **driveways**, Building "B", **grading, walk and retaining wall** clearances.

Although there are a few Oak Trees west of the west **site improvements**, within the two hundred fifty (250') foot reporting zone, they are beyond the "protected" Trees along the west boundary. These westerly boundary Trees "guard" the additional Oak Trees beyond, and thus the additional Trees cannot be impacted without these "guardian" trees being affected. Therefore, the "additional" Trees are not included in this Report.

WORK PROCEDURES (AS APPLICABLE)

All work, as applicable, (construction/maintenance activity) around existing Oak Trees is recommended to follow this work procedures program. This program has been developed to minimize the impacts to each Tree and protect them from unscheduled damage and unauthorized treatment.

1. **All work** within the Oak Tree aerial/root ("protected") zone shall be regularly observed by the Oak Tree Preservation Consultant.
2. The extent of all new construction work affecting Oak Trees shall be staked, where applicable, by field survey and reviewed with the Oak Tree Preservation Consultant.
3. Any approved pruning shall be done by a qualified Tree trimmer, and observed by the Oak Tree Preservation Consultant of record.
4. **Hand dig** vertical trench or fence post(s) at the final location to final grade and "bridge-over," move footing/post or cleanly cut and seal with Tree/root seal, as approved by the Oak Tree Preservation Consultant, any and all roots encountered.

(This procedure shall protect the root system from unnecessary damage by excavation equipment).

5. All footings for wall construction (as applicable) shall be designed to provide minimal impact to the Tree and backfilled with topsoil. Where roots greater in diameter than one inch (1") are encountered, footings must be "bridged" over the affected roots.
6. Unless waived, a minimum five foot (5') high temporary chain link fence shall be constructed at the limit of approved work, prior to the commencement of work, to protect the adjacent Trees from further unauthorized damage and remained in place until completion of construction. A Fencing Plan shall be submitted at the preconstruction meeting. The fence must have four (4) warning signs located equidistant from each other around each Tree or group of Trees. For groves of Oak Trees, the signs must be no further than fifty feet (50') apart around the grove. The signs must be two feet (2') square and contain the following language:

**THIS FENCE SHALL NOT BE
REMOVED OR RELOCATED WITHOUT
WRITTEN AUTHORIZATION FROM THE
CITY OF AGOURA HILLS DEPARTMENT
OF PLANNING AND COMMUNITY
DEVELOPMENT**

Should any work be required within the limit of work, and the temporary fence must be opened, the Oak Tree Preservation Consultant must direct all work at any time the fence is open.

7. No further work within the aerial/root ("protected") zone shall be done beyond that which was approved, without obtaining written approval prior to proceeding.
8. The area within the chain link fence shall not be used at any time for material or equipment storage or parking.
9. No chemicals or herbicides shall be applied to the soil surface within one hundred feet (100') of an Oak Tree's aerial/root (protected) zone.
10. Copies of the following (as applicable) shall be maintained on the site during any work to or around the Oaks, as applicable:

OAK TREE REPORT
OAK TREE PERMIT
OAK TREE LOCATION MAP
ENGINEERING PLANS
INSPECTION TICKET
OAK TREE PRESERVATION AND GUIDELINES
OAK TREE ORDINANCE
APPROVED SITE PLAN
APPROVED PLANTING AND IRRIGATION PLAN

11. Oak Tree preservation devices, such as air ventilation systems, Tree wells, drains, special paving and branch cabling, if required, must be installed prior to completion of grading and prior to the construction phase.
12. A utilities trenching pathway Plan must be submitted, prior to completion of grading and prior to the construction phase, in order to avoid unnecessary damage to the Tree root systems. The Plan shall indicate the routing of all trenching including, but not limited to, storm drains, subdrains, sewers, easements, area drains, gas lines, electrical service, cable TV, water mains, irrigation main lines and any other underground installations.
13. In areas where Trees are in or adjacent to walkways or parking areas, pervious paving shall be employed to mitigate the effects of root air space reduction, as approved.
14. Oak Tree removals shall be replaced as follows:

Commercial properties:

For dead or hazardous Trees, one (1) thirty-six inch box Oak Tree shall be planted on site for each unhealthy Oak Tree approved for removal.

For healthy Trees, (a minimum 4:1 replacement using the total inches of diameter equivalent) and at least two (2) twenty-four inch box specimen Oak Trees and one (1) thirty-six inch box specimen Oak Tree shall be planted on site for each healthy Oak Tree approved for removal. For landmark Trees (forty-eight inch diameter and larger), a nursery grown Oak Tree of equivalent diameter to the Tree removed or two (2) nurse container grown sixty inch box Oak Trees shall be planted on site for each healthy Oak Tree approved for removal.

Residential properties:

For dead or hazardous Trees one (1) thirty-six inch box Oak Tree shall be planted on site for each Tree approved for removal. However, in cases where houses currently exist on the property, the requirement for replacement shall be one (1) fifteen gallon Oak Tree be planted on site for each unhealthy Tree approved for removal. For landmark Trees (forty-eight inch diameter and larger), one (1) nursery container grown sixty inch box Oak Tree shall be planted on site for each healthy Oak Tree approved for removal.

In the case of Trees which are candidates for transplant, a refundable cash deposit, in the amount equal to the cost of purchasing an equivalent nursery grown Oak Tree, shall be made with the City. The deposit will be refunded after twelve (12) months if, in the opinion of the City's Oak Tree Consultant, the transplanted Tree has survived and is considered to be in good health. Should the Tree be in marginal health or physical condition, the deposit will be retained for an additional twelve (12) months. At the end

of the second twelve month period, should the Tree continue to be in a marginal or poor health condition, then the Tree shall be removed and replaced with an equivalent nursery grown Oak Tree and the deposit will be retained for at least an additional twelve (12) months.

15. Whenever any construction work is being performed contrary to the provisions of the Oak Tree Permit/Ordinance, a City inspector may issue a written notice to the responsible party to stop work on the project on which the violation occurred or upon which danger exists. The "Stop Work Order" will state the nature of the violation or danger and no work may proceed until the violation has been rectified and approved by the code enforcement officer or City's Oak Tree Consultant. During any construction and/or treatment, Tree work and impacts must be closely monitored to further mitigate shock symptoms should they occur. If needed, water must be provided to irrigate the Tree(s) and also to wash the dust from foliage.

PROTECTION

Per paragraph 6 above, to preserve Oak Trees in a construction area, a minimum 5' height chain link fence must be installed at the limit of work, prior to any clearing, grubbing, demolition, construction and/or treatment, in order to protect the sensitive "Z.O.N.E.," during all work operations. The Oak Tree Preservation Consultant of record must "function" as the fence for any work necessary within the Z.O.N.E. fenced area, while directing or observing work in and near any Oak Tree.

Z.O.N.E. = "Zone of Nutraire Endemic" (the area of natural or amended planting medium, which may extend to or beyond the dripline of a native Tree). An Oak care and maintenance guideline, as provided by the City of Agoura Hills, should be followed, as well as regular monitoring throughout each Tree's life cycle, by a qualified Oak Tree Preservation Consultant.

EVALUATION CRITERIA

In evaluating Oak Trees, as with any other Trees, the reporting format records the external observation of the Tree(s) at the time of the "survey," including approximate sizes of trunk, height and spread of the branching system to the outer dripline, surface observation of the Trees' condition and other pertinent information. The Rating designation assigns a health/aesthetic value for each Tree. Ratings range from "A" to "F," with "A" as the indicator of a Tree exhibiting the best condition for the species in the area, and the lower letters indicating lesser values. The "C" value represents an average condition for the species. An "F" rating is a candidate for removal for health or hazard reasons. Plus (+) and minus (-) sub-values are assigned where a clear letter designation is not appropriate. The letter "E" is not used in order to avoid confusion with the term "excellent".

CARE AND SAFETY

It must be noted that the Tree(s) referred to in this report is are living organisms, and therefore subject to change. And since internal, crown or subsurface systems could not be investigated, no warranties, neither expressed nor implied, are made that these Trees will be in any condition other than as observed and reported herein beyond the date of the

inventory walk-thru ("survey"). A copy of the OAK TREE CARE AND MAINTENANCE , for the care and maintenance of Oak Trees, is available from The City of Agoura Hills for use in providing guidelines for the "on-going" maintenance of your Oak Trees. The preferred maintenance procedure used in caring for native Oak Trees is to promote and encourage proper vigor within the Tree systems. In this way, the natural defenses are better able to ward-off pests and diseases.

CONSTRUCTION AND MAINTENANCE PROCEDURES

According to the "City" Oak Tree Ordinance, all work, should it be necessary, within the "Protected Zone" (that area enclosed by a line five feet (5') beyond the natural "dripline" of the Oak Tree, but not less than fifteen feet (15'), shall be done using hand tools under the observation of the Oak Tree Preservation Consultant. This also includes pruning/trimming for clearance. Pruning for aesthetics is not permitted per the Ordinance.

Current maintenance/treatment procedures for the Oak Trees at the LIBERTY CANYON OFFICES, consist of the following (also see Oak Tree Evaluation Summary forms, Sketch Sections and Oak Tree Map):

1) GENERAL:

IT IS OUR RECOMMENDATION THAT THE FOLLOWING TREATMENT(S) TO THE APPROPRIATE OAK TREES BE IMPLEMENTED, AS DIRECTED:

OAK TREE PRESERVATION SPECIALIST IS TO MONITOR AND DIRECT ALL WORK NEAR THE TREES TO REMAIN PROTECTED IN PLACE.

REMOVE DEADWOOD FROM APPROPRIATE SPECIMENS.
CLEAN-CUT PRIOR PRUNING/BROKEN BRANCH SCARS, AS DIRECTED.

CLEAN AND SCREEN WATER TRAPS AND CAVITIES, AS DIRECTED.

REMOVE BEE HIVE(S), THEN SCREEN OPENING(S).

REMOVE "WATERSPOUTS" AND CROSSING BRANCHES, AS DIRECTED.

CABLE TRUNKS/BRANCHING ON APPROPRIATE OAK TREES, AS DIRECTED.

PROTECT "DUFF" AREAS TO ALLOW SEEDLINGS TO ESTABLISH.

ALL "L" CONFIGURED WALL FOOTINGS SHOULD BE "TURNED AWAY FROM" THE TRUNK(S) OF ALL IMPACTED OAK TREES; AND, THESE "L" CONFIGURED FOOTINGS SHOULD BE SHOWN ON THE GRADING PLANS.

THE "PROTECTED ZONES" OF EVALUATED OAK TREES MUST BE PROPERLY FENCED TO PROTECT THE TREES FROM CONSTRUCTION AND/OR GRADING, PER CITY ORDINANCE.

CAREFULLY REMOVE TREE STAKES AND TREE TIE WIRES FROM ALL EXISTING PLANTED OAK TREES, AS DIRECTED.

FINAL DETERMINATION OF TREATMENT WILL BE AS DIRECTED IN THE FIELD BY THE OAK TREE PRESERVATION SPECIALIST.

2) IMPACTS:

SIX TREES (T-11, T-19, T-33, T-47, T-48 AND T-50) ARE PROPOSED TO BE REMOVED DUE TO GRADING, PAVING, SITE CONSTRUCTION AND ROAD WIDENING. TOTAL INCHES DIAMETER OF THESE SIX TREES IS 110.5".

TWENTY-TWO OTHER OAK TREES (T-5, T-6, T-9, T-12, T-13, T-17, T-23, T-27, T-30, T-31, T-32, T-34, T-35, T-36, T-37, T-38, T-39, T-40, T-42, T-43, T-45 AND T-46) WILL HAVE ENCROACHMENTS INTO THEIR "PROTECTED ZONES" BY THE PROPOSED DEMOLITION, GRADING AND SITE CONSTRUCTION, AND TEN OF THESE TREES WILL REQUIRE SOME CLEARANCE AND/OR POSSIBLE ROOT PRUNING. OF THESE TEN OAK TREES, EIGHT (T-5, T-6, T-17, T-23, T-30, T-31, T-32 AND T-42) ARE EXPECTED TO HAVE MINOR IMPACT TO THEIR ROOT ZONES, FROM PROPOSED PAVING AND BUILDING COVERAGE; HOWEVER, ONLY TREES T-31 AND T-32 MAY HAVE ROOTS ENCOUNTERED ON THEIR NORTHERLY SIDES. ALL OTHER OAK TREES ARE TO BE MONITORED SO AS TO DIRECT WORKERS TO AVOID DAMAGE TO THE OAK TREES TO REMAIN IN PLACE. ONE TREE (T-29) HAS DIED AND ONE TREE (T-41) IS MISSING AND ARE REQUIRED TO BE REPLACED.

3) REPLACEMENT(S):

THE PROPOSED REMOVAL OF OAK TREES T-11, T-19, T-33, T-47, T-48 AND T-50, TOTALING 110.5" IN TRUNK DIAMETERS, SHOULD BE REPLACED WITH A MIXTURE OF 3/4 QUERCUS AGRIFOLIA AND 1/4 QUERCUS LOBATA TO EQUAL 110.5 INCHES OF DIAMETER IN REPLACEMENT BOXED OAK TREE SPECIMENS; AND, SHOULD BE SHOWN ON THE LANDSCAPE PLANS. THE MUNICIPAL CODE REQUIRES THAT A 4:1 MINIMUM RATIO OF THE REPLACEMENT, BEGINNING WITH TWO 24" BOX, ONE 36" BOX AND ONE 15 GALLON OAK TREES. IN THIS CASE, IT WAS AGREED TO A 1:1 REPLACEMENT OF DIAMETER INCHES. FOR EACH DEAD, MISSING OR HAZARDOUS OAK TREES (T-29 AND T-41), ONE 36" BOX OAK TREE IS REQUIRED FOR REPLACEMENT ON COMMERCIAL PROPERTIES.

4) DISPOSITION / TREATMENT(S):

IT IS PROPOSED THAT THE CANOPIES OF OAK TREES T-4, T-5, T-6, T-17, T-23, T-30, T-31, T-32, T-42 AND T-43 BE PRUNED TO ALLOW FOR TRAFFIC, BUILDING, RETAINING WALLS AND SITE CONSTRUCTION, AS WELL AS, MONITORING FOR ALL CONSTRUCTION AS FOLLOWS:

TREE T-4 = PRUNE UP TO 1% OF THE EASTERLY CANOPY FOR DRIVEWAY CLEARANCE. IN ADDITION TO THE DRIVEWAY CLEARANCE PRUNING, CAREFUL MONITORED HAND WORK IS REQUIRED FOR DEMOLITION, GRADING AND RECONSTRUCTION OF THE DRIVEWAY, AS FOLLOWS:

(1) 6" DIAMETER EAST LOWER CANOPY BRANCH

(1) 6" SOUTHEAST LOWER CANOPY BRANCH

10-15 MISCELLANEOUS UNDER 2" DIAMETER LOWER CANOPY BRANCHES

TREE T-5 = PRUNE UP TO 5% OF THE NORTHERLY CANOPY FOR DRIVEWAY CLEARANCE. IN ADDITION TO THE DRIVEWAY CLEARANCE PRUNING, CAREFUL MONITORED HAND WORK IS REQUIRED FOR

GRADING AND RECONSTRUCTION OF THE WEST PARKING LOT, AS FOLLOWS:

10-15 MISCELLANEOUS UNDER 2" DIAMETER LOWER CANOPY BRANCHES

TREE T-6 = PRUNE UP TO 15% OF THE EASTERLY CANOPY FOR DRIVEWAY CLEARANCE. IN ADDITION TO THE DRIVEWAY CLEARANCE PRUNING, CAREFUL MONITORED HAND WORK IS REQUIRED FOR DEMOLITION, GRADING AND RECONSTRUCTION OF THE DRIVEWAY, AS FOLLOWS:

(1) 4" DIAMETER SOUTH LOWER CANOPY BRANCH

10-15 MISCELLANEOUS UNDER 2" DIAMETER SOUTH LOWER CANOPY BRANCHES

**(1) 14" AND (3) 2 1/2" SOUTHEAST LOWER CANOPY BRANCHES
(1) 12" EAST LOWER CANOPY SCAFFOLD BRANCH**

(1) 4" AND (1) 2 1/2" SOUTHEAST MID-CANOPY BRANCHES

(1) 8 , (1) 3" AND (4) 2" NORTHEAST LOWER CANOPY BRANCHES

TREE T-11 = REMOVE THIS TREE FOR GRADING AND PAVING CONFLICT.

TREE T-17 = PRUNE UP TO 5 % OF THE EASTERLY CANOPY FOR PARKING LOT CLEARANCE. IN ADDITION TO THE PARKING LOT CLEARANCE PRUNING, CAREFUL, MONITORED, HAND WORK IS REQUIRED FOR DEMOLITION, GRADING AND RECONSTRUCTION OF THE WEST PARKING LOT, AS FOLLOWS:

10-20 MISCELLANEOUS UNDER 2" DIAMETER LOWER CANOPY BRANCHES

TREE T-19 = REMOVE THIS TREE FOR GRADING, PAVING AND BUILDING CONFLICT.

TREE T-23 = PRUNE UP TO 10% OF THE EAST CANOPY FOR WALKWAY CLEARANCE, AS FOLLOWS:

10-20 MISCELLANEOUS UNDER 2" DIAMETER LOWER CANOPY BRANCHES

TREE T-30 = PRUNE UP TO 1% OF THE EAST CANOPY FOR WALKWAY CLEARANCE, AS FOLLOWS:

5-10 MISCELLANEOUS UNDER 2" DIAMETER LOWER CANOPY BRANCHES

TREE T-31 = PRUNE UP TO 5 % OF THE NORTHEASTERLY CANOPY FOR BUILDING CLEARANCE, AS FOLLOWS:

5-20 MISCELLANEOUS UNDER 2" DIAMETER LOWER CANOPY BRANCHES

SOME ROOTS MAY BE ENCOUNTERED ON THE TREE'S NORTHERLY SIDE AND MAY REQUIRE PRUNING FOR RETAINING WALL CONSTRUCTION. A FIELD DETERMINATION WILL BE MADE AS TO ROOT PRUNING NEEDS.

TREE T-32 = PRUNE UP TO 5% OF THE WEST CANOPY FOR BUILDING CLEARANCE, AS FOLLOWS:

5-20 MISCELLANEOUS UNDER 2" DIAMETER LOWER CANOPY BRANCHES

SOME ROOTS MAY BE ENCOUNTERED ON THE TREE'S NORTHERLY SIDE AND MAY REQUIRE PRUNING FOR RETAINING WALL CONSTRUCTION. A FIELD DETERMINATION WILL BE MADE AS TO ROOT PRUNING NEEDS.

TREE T-33 = REMOVE THIS TREE FOR GRADING, PAVING AND ROAD WIDENING CONFLICT.

TREE T-42 = PRUNE UP TO 5% OF THE SOUTH CANOPY FOR SIDEWALK CLEARANCE, AS FOLLOWS:

5-20 MISCELLANEOUS UNDER 2" DIAMETER LOWER CANOPY BRANCHES

TREE T-43 = PRUNE UP TO 15% OF THE SOUTHERLY AND WESTERLY CANOPY FOR SIDEWALK AND DRIVEWAY CLEARANCE. IN ADDITION TO THE SIDEWALK AND DRIVEWAY CLEARANCE PRUNING, CAREFULLY MONITORED HAND WORK IS REQUIRED FOR DEMOLITION, GRADING AND RECONSTRUCTION OF THE SIDEWALK AND DRIVEWAY, AS FOLLOWS:

(1) 2" DIAMETER SOUTHEAST MID CANOPY BRANCH

10-15 MISCELLANEOUS UNDER 2" DIAMETER SOUTHEAST LOWER CANOPY BRANCHES

(1) 2 1/2" SOUTH MID CANOPY BRANCHES

5-10 MISCELLANEOUS UNDER 2" DIAMETER SOUTH LOWER CANOPY BRANCHES

5-10 MISCELLANEOUS UNDER 2" DIAMETER SOUTHWEST LOWER CANOPY BRANCHES

(1) 12" EAST LOWER CANOPY SCAFFOLD BRANCH

(2) 3" WEST LOWER CANOPY BRANCHES

(1) 8 , (1) 3" AND (4) 2" NORTHEAST LOWER CANOPY BRANCHES

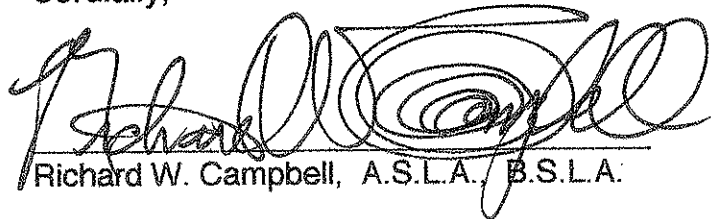
TREE T-47 = REMOVE THIS TREE FOR GRADING, PAVING AND BUILDING CONFLICT.

**TREE T-48 = REMOVE THIS TREE FOR GRADING AND PAVING
CONFLICT.**

**TREE T-50 = REMOVE THIS TREE FOR GRADING AND PAVING
CONFLICT.**

IN ADDITION TO THESE PROCEDURES PERIODIC (AT LEAST QUARTERLY)
MONITORING FOR DECLINING BRANCHING SYSTEMS IS ALSO RECOMMENDED.

Cordially,



Richard W. Campbell, A.S.L.A. B.S.L.A.

LIBERTY CANYON OFFICES OAK TREE EVALUATION SUMMARY (50 TREES)

Tree No	Tree Name	Trunk Diam(s)	N	NE	E	SE	S	SW	W	NW	Ht ±	Hlt h	Aest	Notes/Remarks
T-1	Quercus lobata	54"	45/6'	35/25'	35/30'	45/11'	41/0'	26/2'	39/10'	36/1'	70'	C	B+	BROKEN BRANCH SCARS, BRANCH CANKERS, BRANCH CAVITIES, DEADWOOD, EXUDATION, FILL ON TRUNK, PIT SCALE, REGISTERED OAK TREE # 1, ROT SUSPECTED, SEEDLINGS IN DUFF, WATER TRAP
T-2	Quercus agrifolia	13", 9 1/2", 5"	0/0'	10/14'	28/4'	30/3'	22/7'	30/0'	0/0'	0/0'	30'	B	C	EHRHORN'S SCALE, EXPOSED ROOTS, HORIZONTAL BRANCHING, INTERTWINED WITH TREES T-3 AND T-4, LEANS TO SOUTHWEST AND EAST, NEST IN TREE, PRIOR PRUNING, SEEDLINGS IN DUFF, TWIG GIRDLER
T-3	Quercus lobata	62"	40/22'	40/15'	47/15'	38/16'	34/22'	18/36'	40/4'	42/12'	70'	C-	B	BRANCH CAVITIES, BROKEN BRANCH SCARS, EXPOSED ROOTS, DEADWOOD, GRAINERY, INCLUDED INTO TREE T-4, INTERTWINED WITH TREES T-2 AND T-4, PRIOR PRUNING, PIT SCALE, SEEDLINGS IN DUFF, TRUNK CAVITY, WATER TRAP
T-4	Quercus agrifolia	(2) 14"	11/26'	28/2'	29/6'	32/7'	32/24'	14/20'	23/3'	13/30'	24'	B-	C	BROKEN BRANCH SCARS, EHRHORN'S SCALE, EXPOSED ROOTS, INTERTWINED WITH TREES T-2 AND T-3, LEANS TO SOUTHEAST, PRIOR PRUNING, SEEDLINGS IN DUFF, TRUNK INCLUDED INTO TREE T-3, TWIG GIRDLER, WATER TRAP
T-5	Quercus agrifolia	16"	19/16'	21/11'	15/14'	15/9'	17/8'	17/12'	19/14'	22/14'	36'	B+	B+	INTERTWINED WITH OLEANDER HEDGE, PRIOR PRUNING, TWIG GIRDLER
T-6	Quercus lobata	56"	51/17'	33/11'	40/13'	40/14'	39/11'	42/16'	30/13'	28/14'	65'	C	B	BROKEN BRANCH SCARS, DEADWOOD, EXFOLIATION, EXICORMIC GROWTH, EXPOSED ROOTS, GALLS, INCLUDED BARK, PIT SCALE, PRIOR PRUNING, WATER TRAP
T-7	Quercus lobata	14", 13"	16/12'	12/11'	25/10'	29/12'	26/11'	20/7'	19/12'	18/14'	35'	B	B	GALLS, NEST IN TREE, PIT SCALE, PRIOR PRUNING
T-8	Quercus lobata	1 3/4", 3/4"	0/0'	0/0'	4/7'	18/12'	6/10'	6/6'	3/9'	0/0'	13'	A	A	GALLS, PIT SCALE,
T-9	Quercus lobata	6 1/2"	6/15'	8/9'	6/9'	11/13'	14/14'	9/16'	12/18'	10/16'	30'	A	A	GALLS, PIT SCALE, PRIOR PRUNING

LIBERTY CANYON OFFICES OAK TREE EVALUATION SUMMARY (50 TREES)

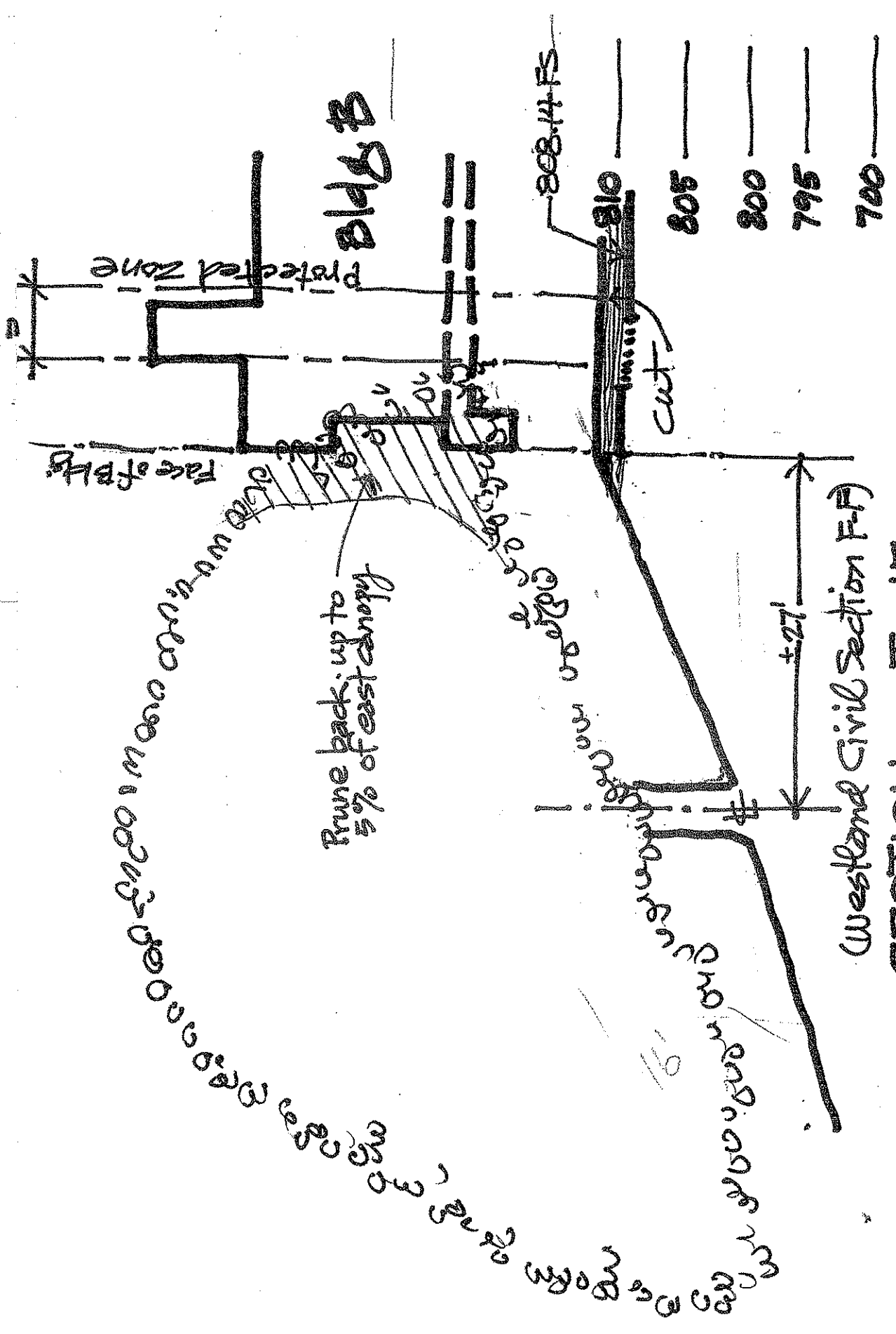
Tree No	Tree Name	Trunk Diam(s)	N	NE	E	SE	S	SW	W	NW	Ht ±	Hlt h	Aest	Notes/Remarks
T-10	Quercus lobata	6"	5/10'	8/14'	13/10'	9/10'	14/12'	10/15'	2/10'	5/9'	35'	A	A	GALLS, PIT SCALE, PRIOR PRUNING
T-11	Quercus lobata	5"	6/11'	8/12'	6/11'	11/8'	10/10'	7/11'	4/10'	2/8'	32'	A	A	GALLS, PIT SCALE, PRIOR PRUNING
T-12	Quercus ilex	11"	15/10'	16/7'	14/12'	14/10'	14/11'	13/11'	14/12'	13/7'	30'	D+	B	PRIOR PRUNING, WIRE IN TRUNK
T-13	Quercus agrifolia	15 1/2"	18/11'	17/11'	14/8'	17/6'	20/7'	22/6'	19/11'	17/7'	28'	C-	B	LEANS INTO CHAIN LINK FENCE, PRIOR PRUNING, TWIG GIRDLER, WIRE IN TRUNK
T-14	Quercus agrifolia	9 1/2", 6"	6/6'	6/6'	6/5'	12/6'	14/4'	21/3'	18/5'	11/4'	30'	B	B	DEADWOOD, FILL ON TRUNK, LOW BRANCHING, TWIG GIRDLER
T-15	Quercus agrifolia	13"	15/4'	10/3'	10/6'	13/4'	16/8'	18/8'	15/3'	16/5'	35'	C-	B	DEADWOOD, FILL ON TRUNK, TWIG GIRDLER, WIRE IN TRUNK
T-16	Quercus agrifolia	8", 6", 4", (2) 2 1/4", 1"	16/10'	16/5'	14/7'	14/6'	12/10'	11/5'	13/5'	15/10'	40'	B	B	DEADWOOD, FILL ON TRUNK, LOW BRANCHING, TWIG GIRDLER
T-17	Quercus lobata	62"	34/22'	28/17'	35/9'	27/1'	28/6'	29/4'	37/6'	31/6'	45'	C	B+	BROKEN BRANCH SCARS, DEADWOOD, FILL ON TRUNK, GALLS, PIT SCALE, PRIOR PRUNING
T-18	Quercus agrifolia	(2) 6", (2) 2", 1 1/2"	12/5'	14/2'	11/3'	9/11'	11/7'	22/13'	19/2'	16/2'	24'	B-	B	DEADWOOD, FILL ON TRUNK, INCLUDED BARK, LOW BRANCHING, TWIG GIRDLER
T-19	Quercus agrifolia	10", 8", 6 1/2", 3"	10/6'	13/0'	18/0'	17/5'	16/11'	9/11'	12/7'	11/4'	30'	B-	B	DEADWOOD, FILL ON TRUNK, INCLUDED BARK, LOW BRANCHING, TWIG GIRDLER
T-20	Quercus agrifolia	11"	7/7'	6/6'	10/1'	8/5'	13/7'	14/8'	12/5'	10/5'	35'	C-	B-	DEADWOOD, EXUDATION, FILL ON TRUNK, LOW BRANCHING, TWIG GIRDLER, WIRE IN TRUNK
T-21	Quercus lobata	2 1/4"	2/3'	2/2'	5/7'	5/8'	4/10'	5/11'	5/3'	2/3'	18'	B+	B+	GALLS
T-22	Quercus agrifolia	8 1/2"	11/6'	11/2'	7/14'	8/10'	9/12'	14/8'	13/5'	9/7'	40'	C-	B	DEADWOOD, FILL ON TRUNK, NEST IN TREE, TWIG GIRDLER, WIRE IN TRUNK

LIBERTY CANYON OFFICES OAK TREE EVALUATION SUMMARY (50 TREES)

Tree No	Tree Name	Trunk Diam(s)	N	NE	E	SE	S	SW	W	NW	Ht ±	Hlt h	Aest	Notes/Remarks
T-23	Quercus agrifolia	13", 8"	12/4'	19/2'	16/0'	22/10'	20/8'	15/8'	16/6'	12/7'	32'	C-	B	BRANCHES ON GROUND, DEADWOOD, INCLUDED BARK, LOW BRANCHING, TWIG GIRDLER, WIRE IN TREE
T-24	Quercus agrifolia	10", 3 1/2"	10/5'	7/6'	7/3'	5/2'	7/7'	13/10'	11/9'	11/7'	22'	C-	B	FILL ON TRUNK, LOW BRANCHING, TWIG GIRDLER, WIRE IN TRUNK
T-25	Quercus agrifolia	(2) 3 1/2"	6/7'	4/5'	6/3'	8/4'	9/8'	8/6'	9/7'	8/9'	16'	D+	C+	EXPOSED ROOTS, FILL ON TRUNK, LOW BRANCHING, TWIG GIRDLER, WIRE IN TRUNK
T-26	Quercus agrifolia	10 1/2", 4"	8/9'	9/6'	11/6'	11/7'	14/15'	16/14'	18/14'	16/11'	32'	C-	C+	DEADWOOD, EXPOSED ROOTS, LOW BRANCHING, PRIOR PRUNING, TWIG GIRDLER, WIRE IN TRUNK
T-27	Quercus agrifolia	7", 5", (3) 2", 1 1/2"	8/6'	10/5'	10/0'	10/4'	10/0'	11/6'	11/7'	10/5'	22'	C-	B-	BORERS, BRANCHES ON GROUND, LOW BRANCHING, EXFOLIATION, EXUDATION, TWIG GIRDLER
T-28	Quercus agrifolia	10", 6"	13/20'	9/10'	13/10'	12/13'	8/12'	13/13'	13/10'	20/15'	40'	C-	B-	DEADWOOD, EHRHORN'S SCALE, FILL ON TRUNK, PRIOR PRUNING, TWIG GIRDLER, WATER TRAP
T-29	Quercus agrifolia	(2) 8", 7", 5"	14/0'	10/0'	15/0'	20/0'	22/4'	22/1'	17/2'	10/3'	35'	F	F	BRANCHES ON GROUND, DEADWOOD, LOW BRANCHING, TWIG GIRDLER, WIRE IN TRUNK, TREE DEAD
T-30	Quercus lobata	15"	13/11'	13/10'	17/5'	18/3'	20/6'	20/6'	19/7'	15/10'	38'	B	B	GALLS, PIT SCALE
T-31	Quercus lobata	11"	24/13'	21/17'	14/6'	15/10'	13/10'	16/2'	10/14'	14/15'	28'	C+	B-	DEADWOOD, PIT SCALE, SEEDLINGS IN DUFF
T-32	Quercus lobata	39"	22/14'	30/0'	30/0'	33/0'	27/0'	27/3'	22/6'	25/10'	50'	C	B+	BASAL CAVITY, BEEHIVE IN BASAL CAVITY, BRANCHES ON GROUND, BROKEN BRANCH SCARS, DEADWOOD, GALLS, EXUDATION, PIT SCALE, SEEDLINGS IN DUFF, TRUNK CANKERS
T-33	Quercus lobata	45"	33/3'	38/10'	42/20'	38/22'	36/0'	26/8'	30/10'	31/5'	60'	C+	B+	BROKEN BRANCH SCARS, DEADWOOD, EXUDATION, GALLS, PIT SCALE, PRIOR PRUNING, ROT SUSPECTED, SEEDLINGS IN DUFF, WATER TRAP
T-34	Quercus agrifolia	11", 8"	18/0'	14/0'	16/0'	16/0'	17/0'	15/0'	16/0'	19/0'	28'	B+	B+	BRANCHES ON GROUND, EHRHORN'S SCALE LOW BRANCHING, TWIG GIRDLER

LIBERTY CANYON OFFICES OAK TREE EVALUATION SUMMARY (50 TREES)

Tree No	Tree Name	Trunk Diam(s)	N	NE	E	SE	S	SW	W	NW	Ht ±	Hlt h	Aest	Notes/Remarks
T-35	Quercus agrifolia	13"	14/7'	18/8'	17/9'	20/16'	17/15'	17/15'	18/11'	18/8'	20'	C-	B	INCLUDED BARK, PRIOR PRUNING, STREET TREE, TWIG GIRDLER
T-36	Quercus agrifolia	14"	15/7'	13/7'	14/7'	19/11'	10/14'	16/14'	16/7'	11/8'	20'	C	C-	MECHANICAL DAMAGE TO TRUNK, PRIOR PRUNING, STREET TREE, TWIG GIRDLER
T-37	Quercus illex	1 1/2"	2/4'	2/4'	2/4'	2/4'	2/4'	2/4'	2/4'	2/4'	8'	B	B	PRIOR PRUNING, STREET TREE
T-38	Quercus agrifolia	2 1/2"	4/6'	4/4'	4/4'	3/4'	3/6'	5/6'	5/6'	3/5'	14'	B+	B+	STREET TREE
T-39	Quercus agrifolia	3 1/4"	4/5'	5/4'	5/5'	6/6'	6/5'	6/5'	6/5'	5/5'	10'	B	B	PRIOR PRUNING, STREET TREE
T-40	Quercus agrifolia	2 1/2"	5/5'	5/4'	6/5'	5/5'	5/5'	5/6'	3/3'	5/5'	13'	B	B	STREET TREE
T-41	Quercus illex	1 1/2"	2/5'	2/5'	2/5'	2/5'	2/5'	2/5'	2/5'	2/5'	8'	F	F	STREET TREE, TREE MISSING
V-42	Quercus lobata	5"	6/5'	6/5'	10/7'	15/7'	10/6'	9/6'	2/6'	3/6'	24'	B	B	CODOMINANT SCAFFOLDS, GALLS, PIT SCALE
T-43	Quercus illex	12"	17/10'	17/10'	16/11'	16/8'	16/11'	16/13'	14/8'	16/9'	30'	A	A	PRIOR PRUNING
T-44	Quercus illex	(2) 3 1/2", (2) 2 1/2"	5/6'	6/6'	7/6'	9/6'	9/6'	8/6'	5/6'	4/6'	20'	C+	C+	PRIOR PRUNING
T-45	Quercus lobata	2 1/4"	0/0'	6/8'	6/7'	7/6'	2/6'	0/0'	0/0'	0/0'	16'	B	B	GALLS, PIT SCALE
T-46	Quercus lobata	2 1/2"	1/7'	1/6'	5/4'	11/10'	4/8'	2/7'	1/7'	1/7'	18'	B	B	PIT SCALE
T-47	Quercus lobata	(2) 8", 4 1/2", 1 1/2"	18/5'	16/7'	15/5'	18/11'	18/10'	16/0'	14/0'	17/0'	35'	B	A	BRANCHES ON GROUND, DEADWOOD, PIT SCALE
T-48	Quercus lobata	5 1/2", 4 1/2"	13/12'	11/14'	12/14'	13/18'	11/18'	12/20'	11/18'	14/11'	22'	B-	B	CODOMINANT TRUNKS, GALLS, PIT SCALE
T-49	Quercus agrifolia	1 1/4"	2/4'	2/3'	2/3'	2/3'	4/3'	4/3'	3/2'	3/2'	7'	A	B	EXPOSED ROOTS



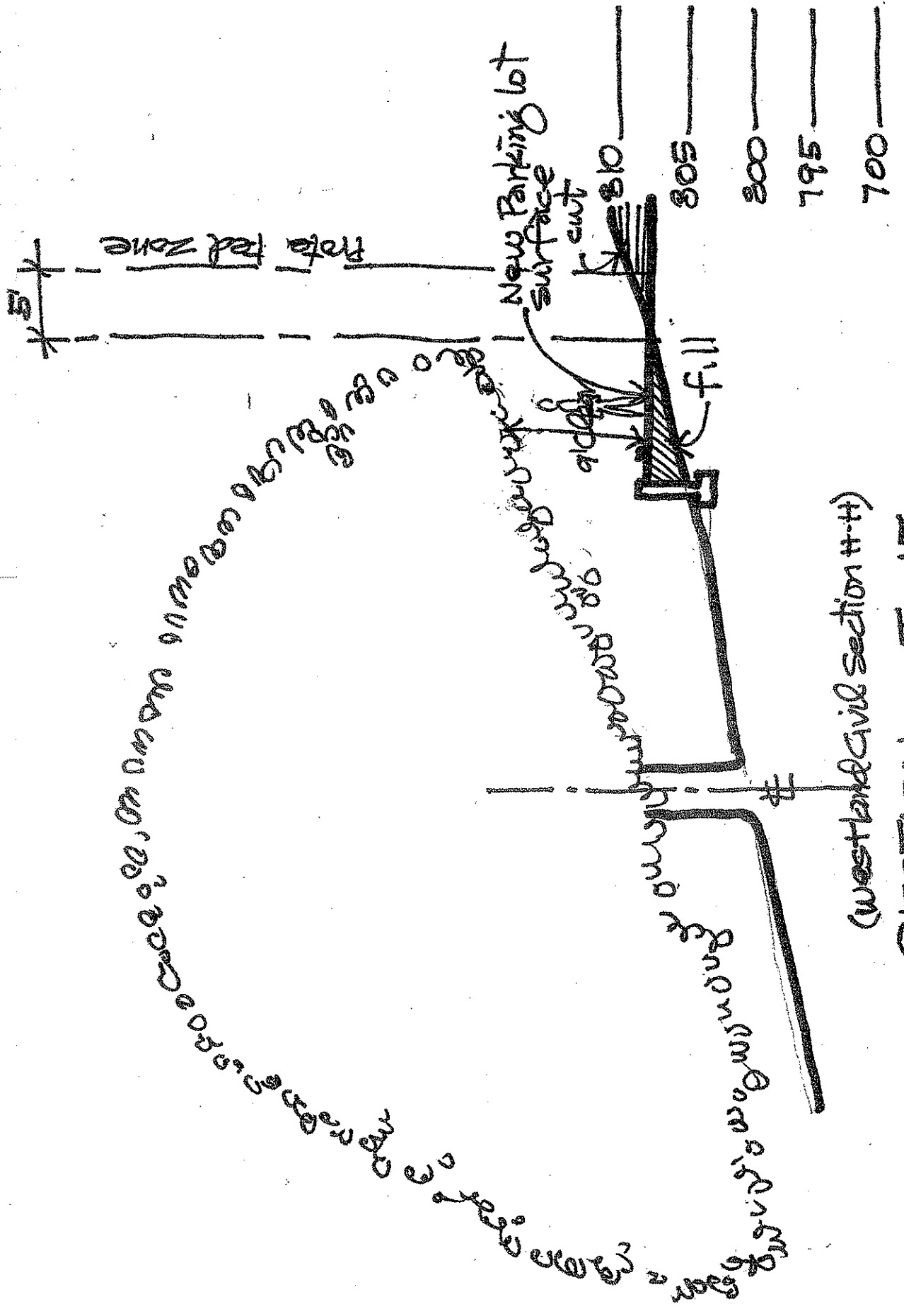
SCALE: 1" = 10'

(Westland Civil Section F-F)

SECTION T-17

LOOKING NORTH

LIBERTY CANYON OFFICES



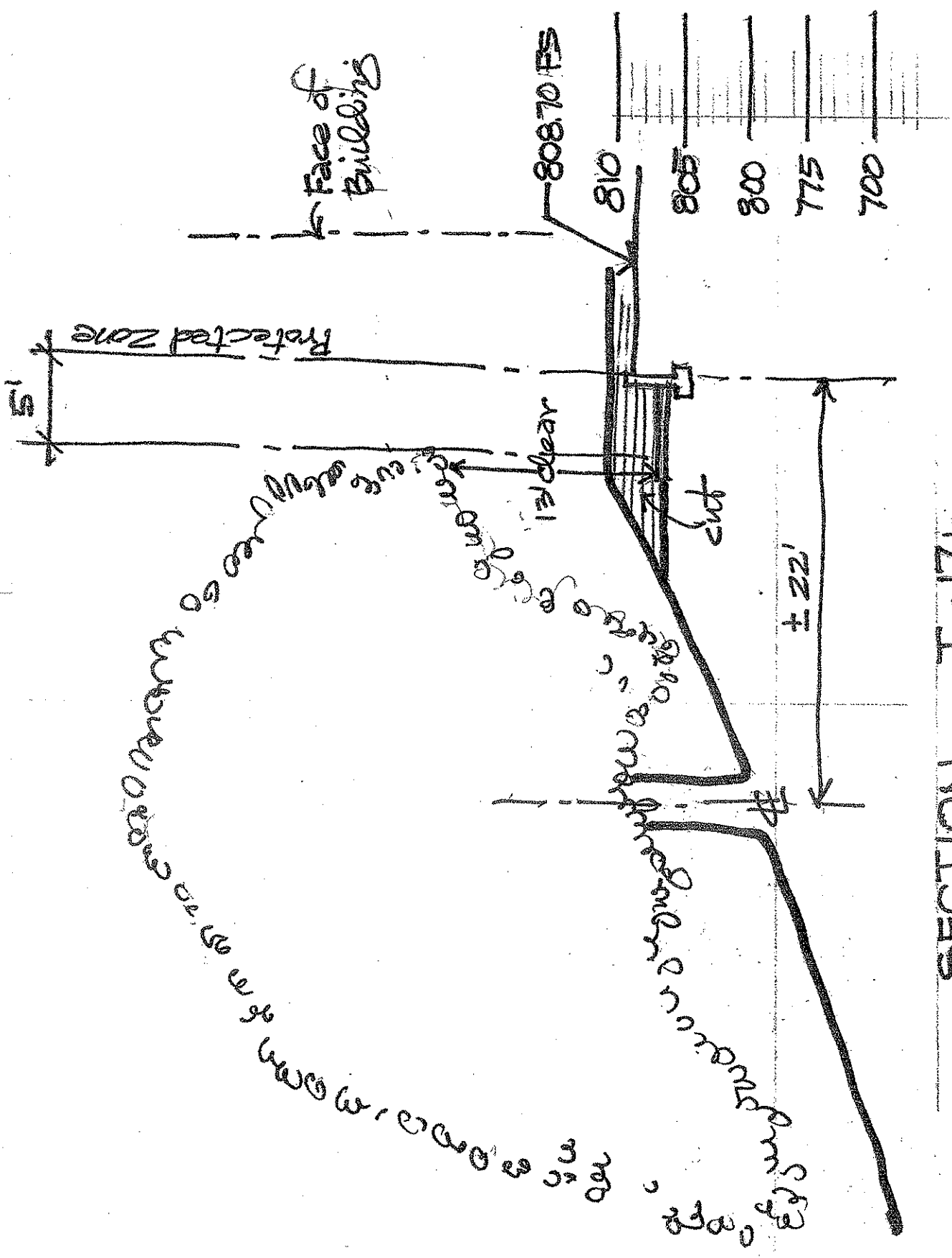
(westland civil section #11)

SECTION T-17a

LOOKING NORTHWEST

LIBERTY CANYON OFFICES

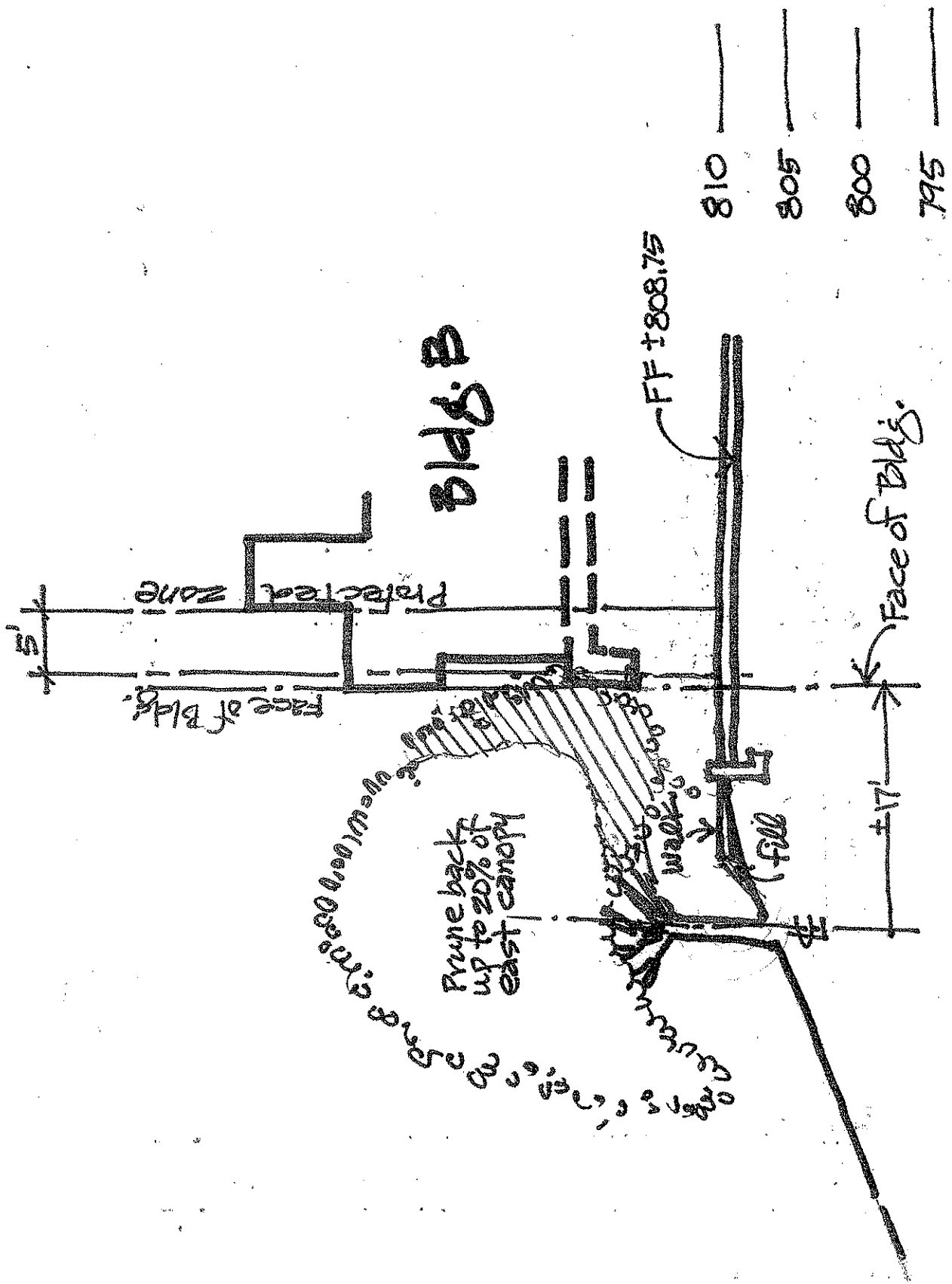
SCALE: 1" = 10'



SECTION T-17b
 LOOKING NORTHEAST

SCALE: 1" = 10'

LIBERTY CANYON OFFICES



Bldg. B

FF ±808.75

810

805

800

795

Face of Bldg.

±17'

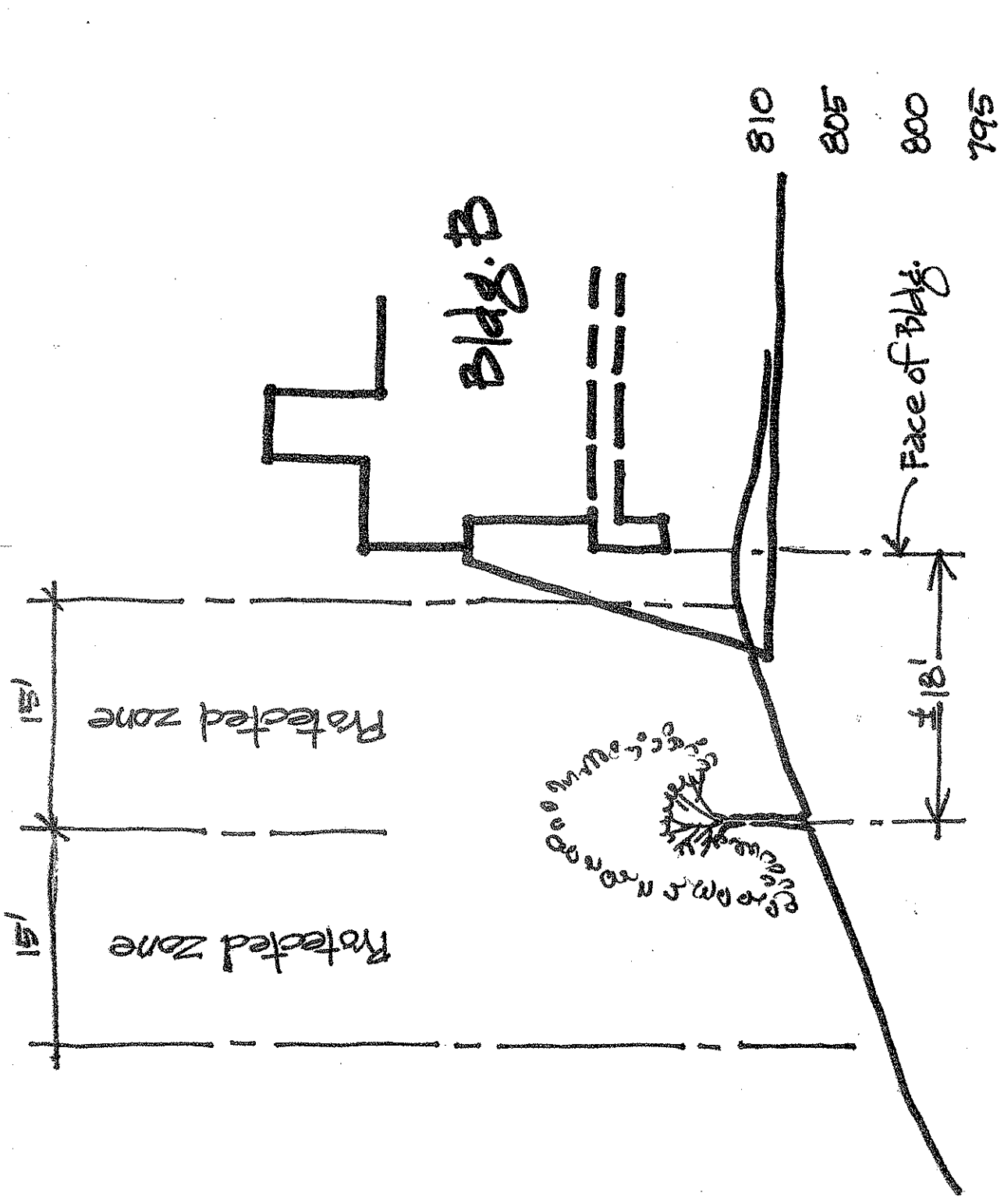
Prune back
up to 20% of
east canopy

SECTION T-19

LOOKING NORTH

SCALE: 1" = 10'

LIBERTY CANYON OFFICES

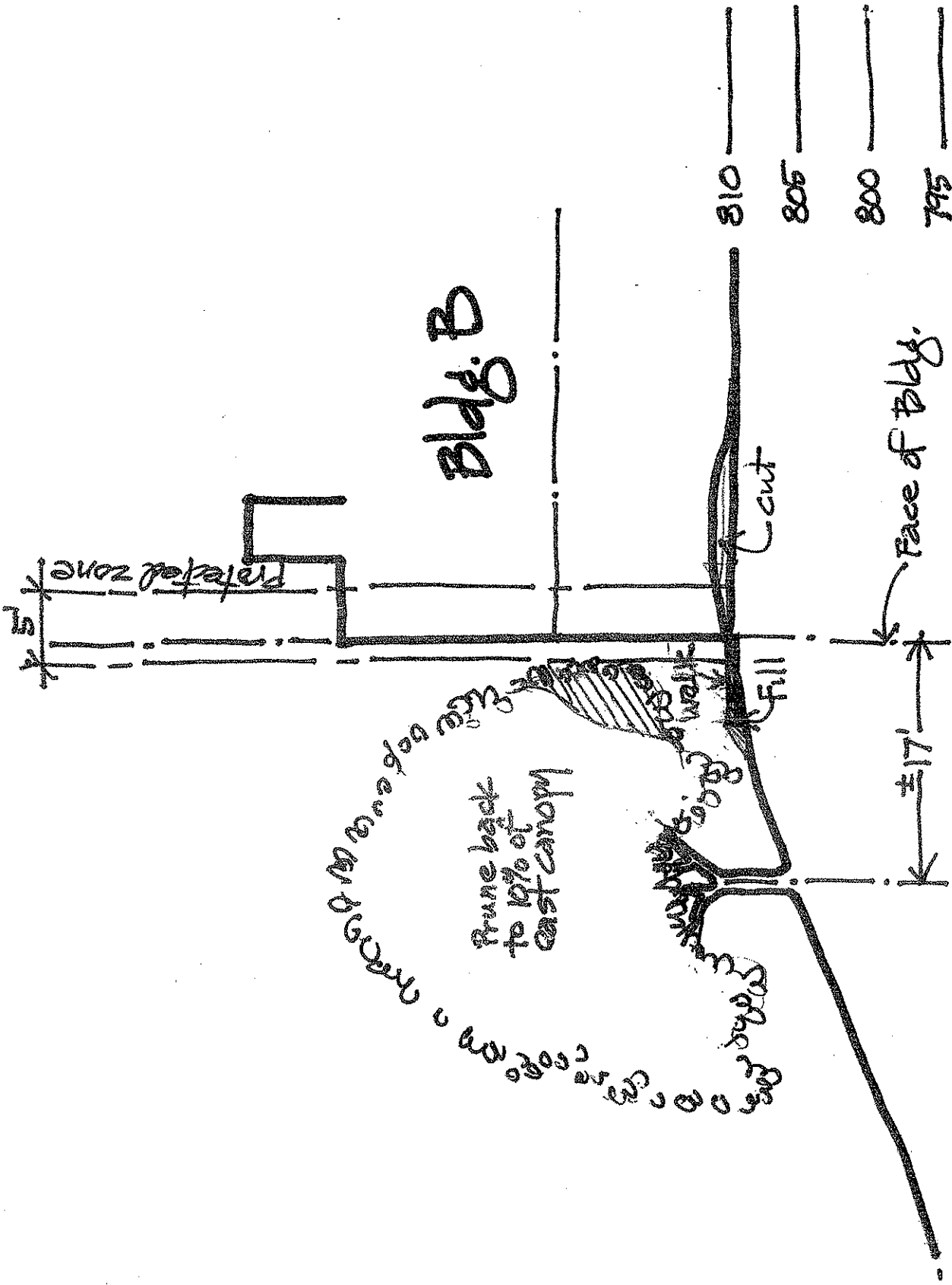


SCALE: 1" = 10'

SECTION T-21

LOOKING NORTH

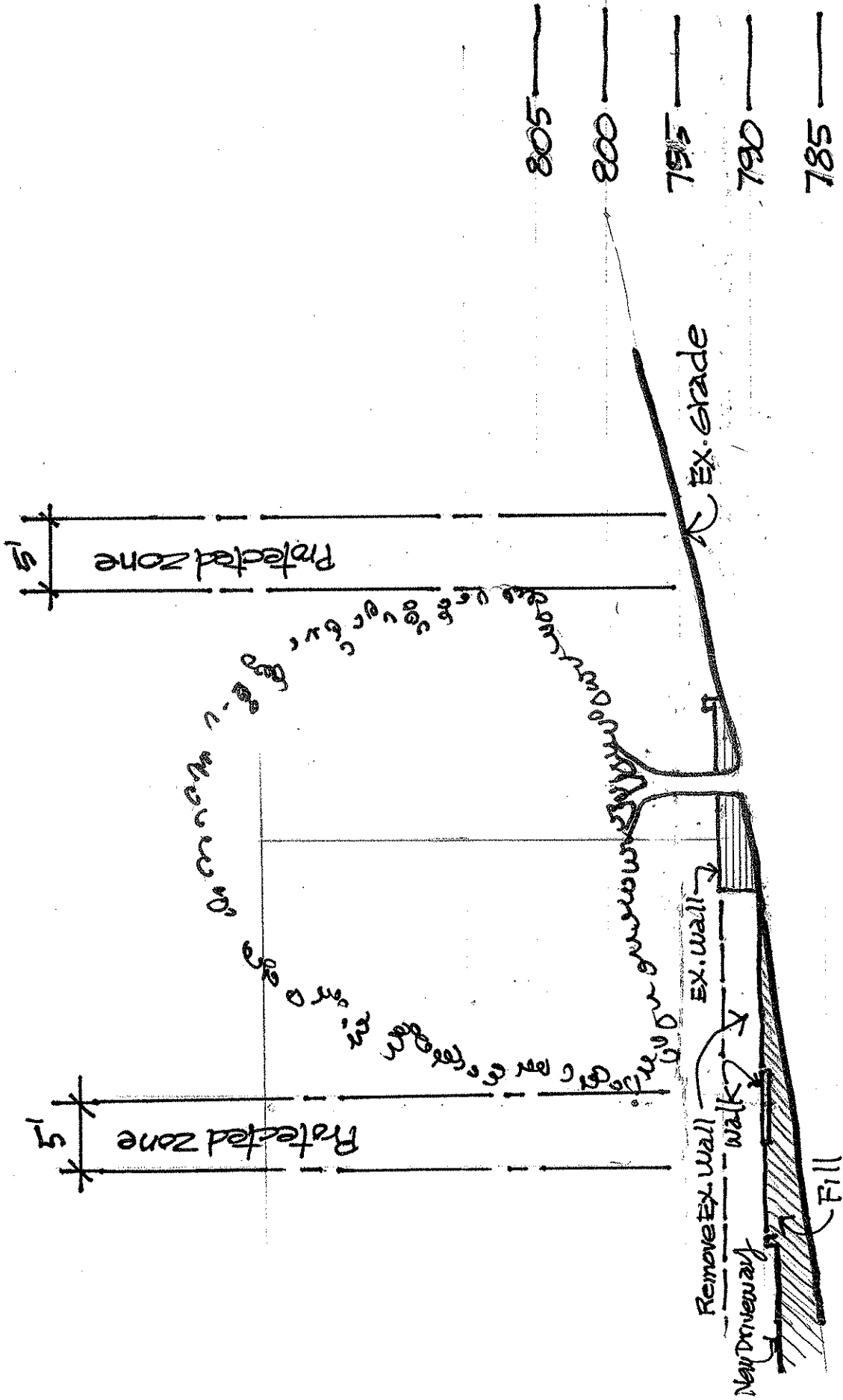
LIBERTY CANYON OFFICES



SECTION T-23
 LOOKING NORTH

SCALE: 1" = 10'

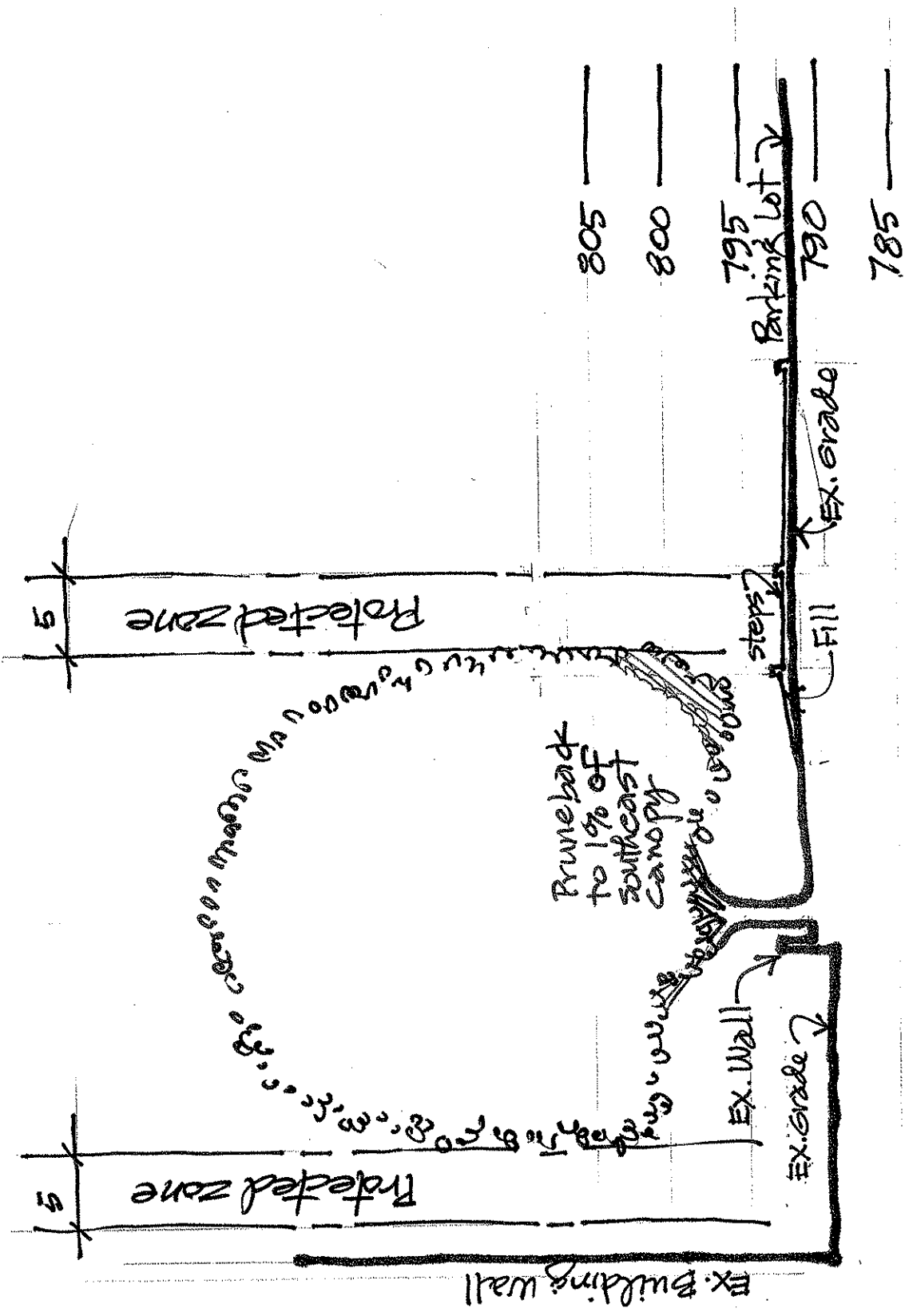
LIBERTY CANYON OFFICES



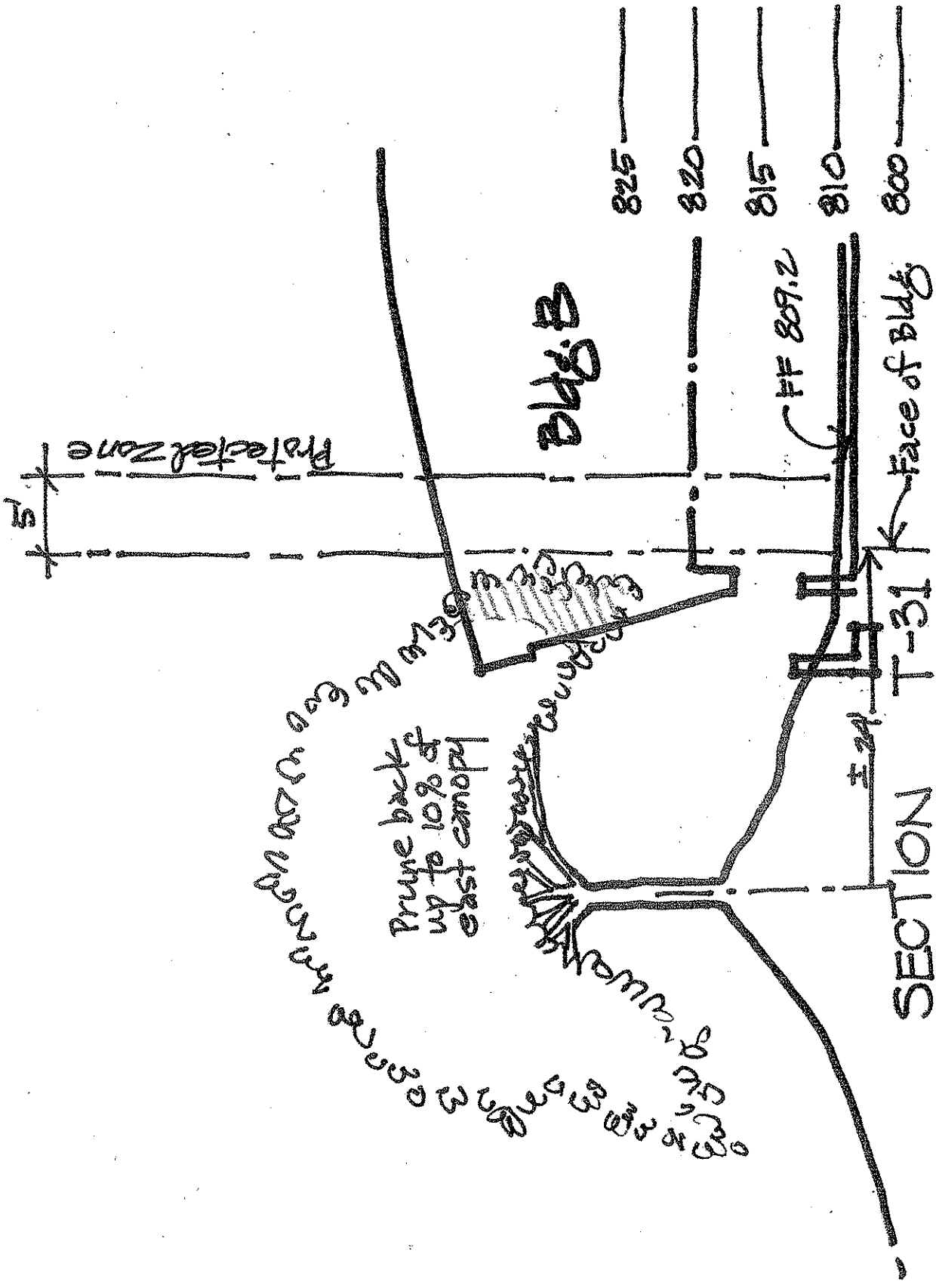
SECTION T-30
 LOOKING NORTHWEST

SCALE: 1" = 10'

LIBERTY CANYON OFFICES

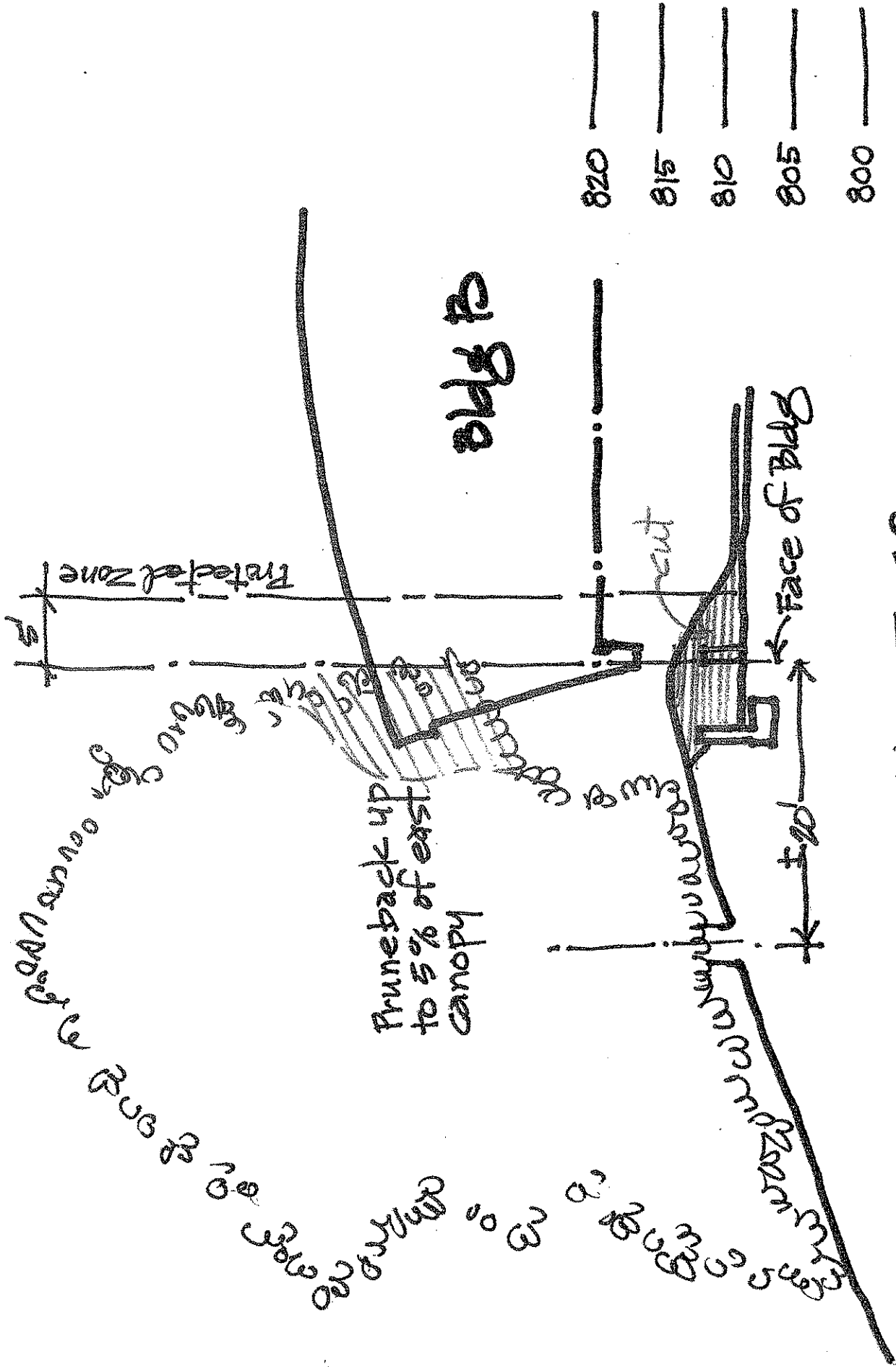


SECTION T-30a
 LOOKING NORTHEAST
 LIBERTY CANYON OFFICES



SCALE: 1"=10'

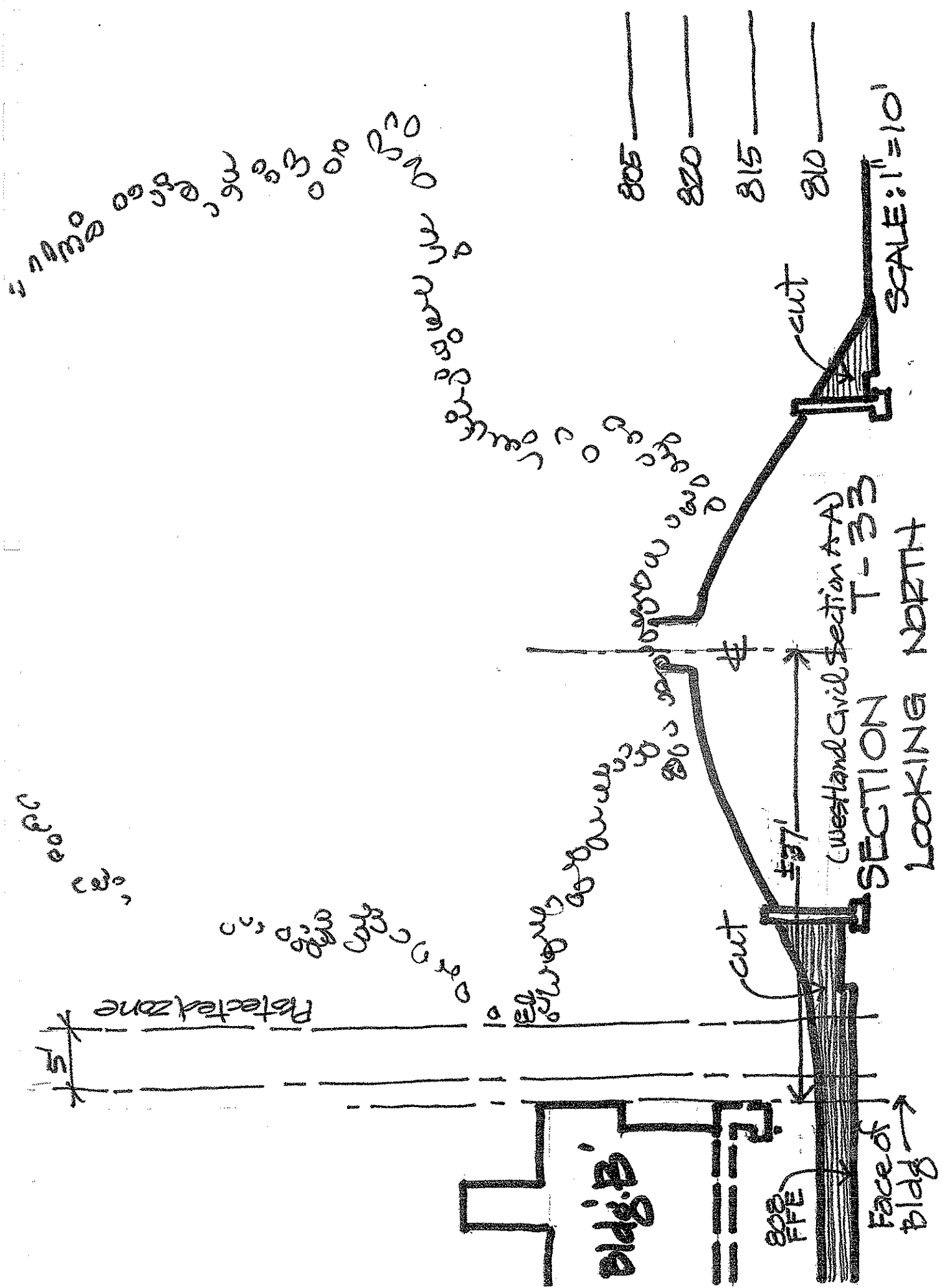
LIBERTY CANYON OFFICES



SECTION T-32
 LOOKING WEST

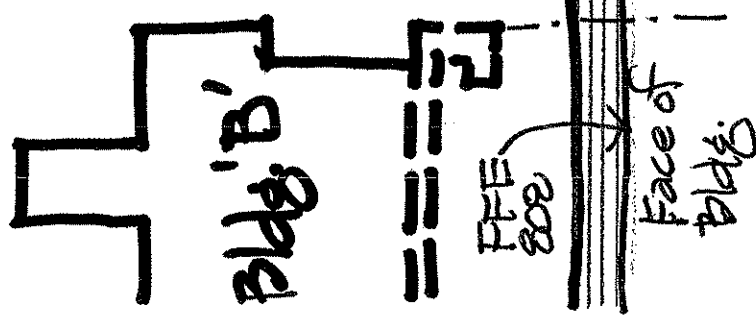
SCALE: 1" = 10'

LIBERTY CANYON OFFICES



LIBERTY CANYON OFFICES

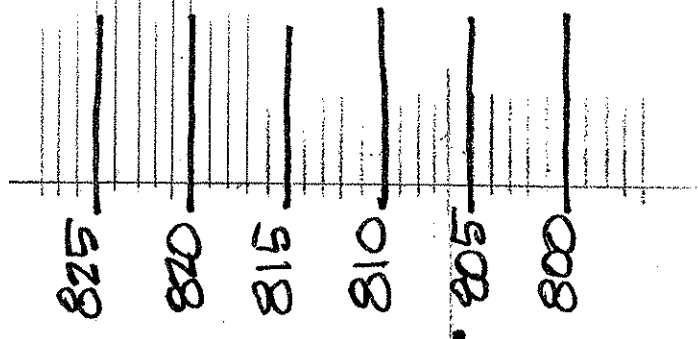
Handwritten notes at the top of the page, including the number '3' and various scribbles.



Remove Tree
T-33

ROW

Handwritten notes along the left side of the profile, including "Remove Tree T-33" and "ROW".



cut

sidewalk

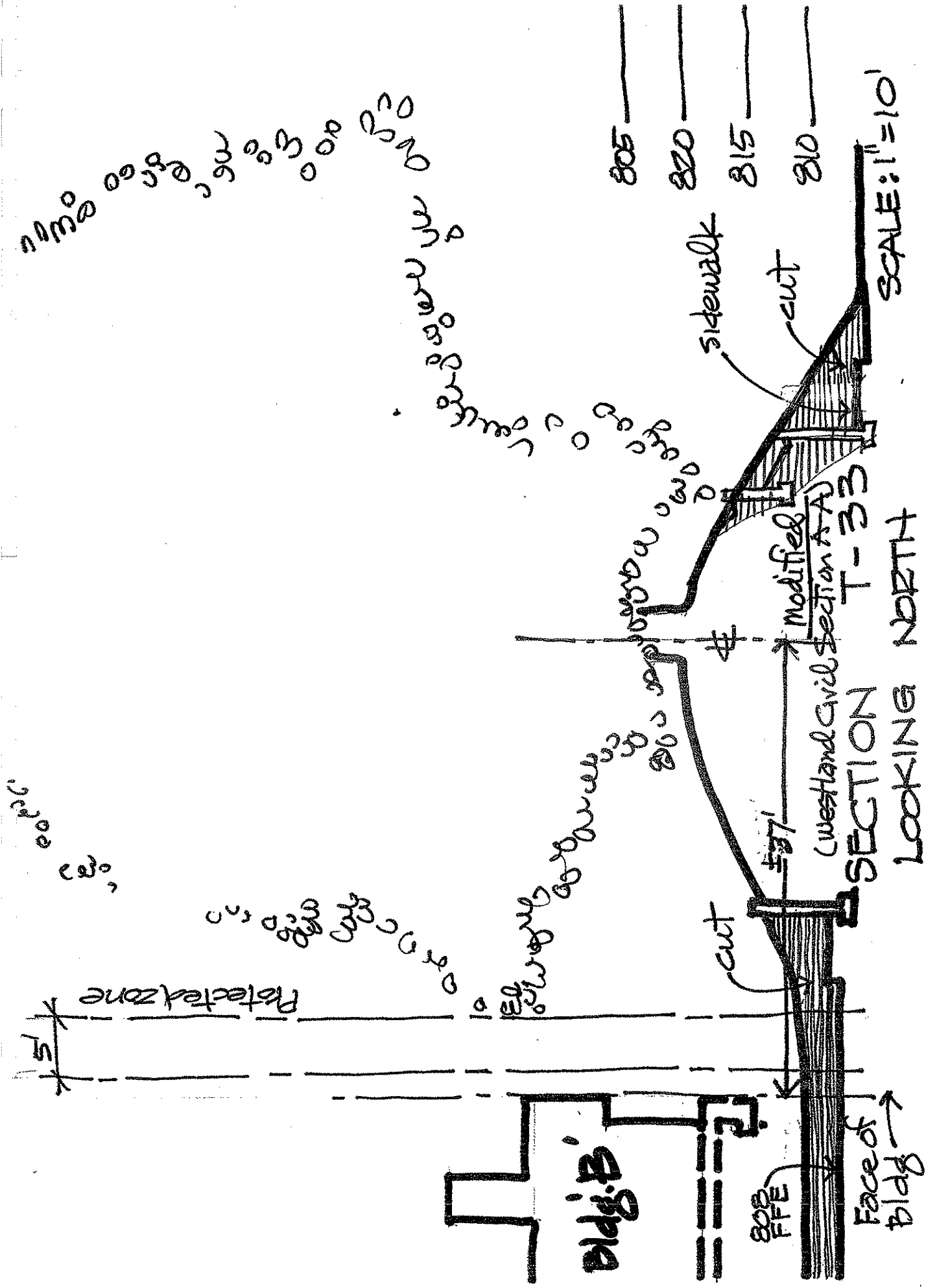
(westhand Civil Section A-A)

SECTION T-33

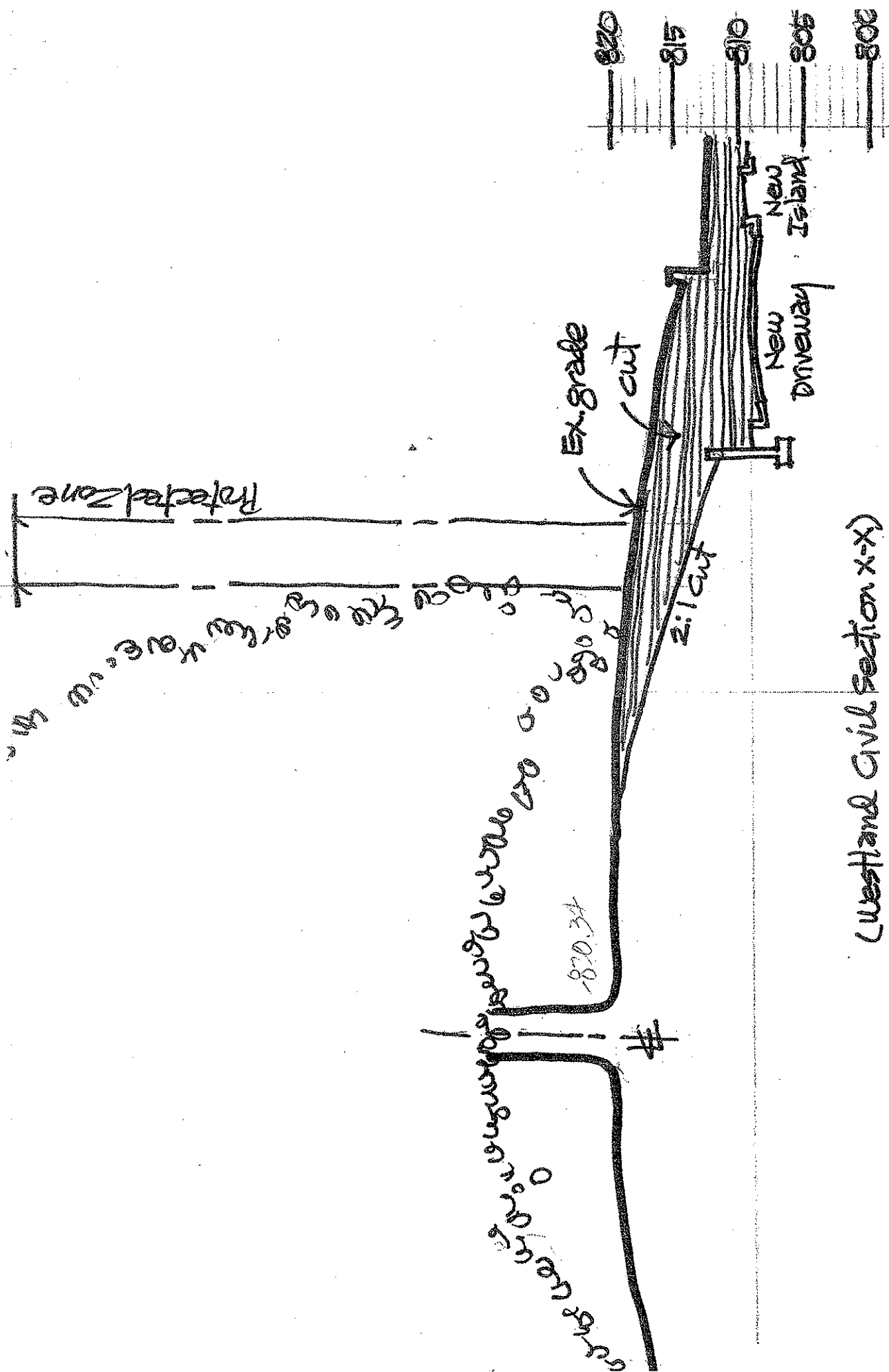
LOOKING

SCALE: 1" = 10'

LIBERTY CANYON OFFICES



LIBERTY CANYON OFFICES



SCALE: 1" = 10'

(Westland Civil Section x-x)

SECTION T-33a

LOOKING

LIBERTY CANYON OFFICES

Appendix D

Drainage Study

