3.0 PROJECT DESCRIPTION

3.1 INTRODUCTION

This environmental impact report (EIR) evaluates the proposed Highland Estates residential development project (proposed project). The proposed project, located in San Mateo County, consists of the development of a small residential parcel and an approximately 97-acre open space parcel (including 0.21 acre zoned for residential use) into 11 residential lots and remaining open space. The 11 lots, totaling 4.53 acres, would be developed with single-family homes at a density of 2.42 units per acre and 92.43 acres would be maintained as open space and would not be used for the purposes of sale, lease, or financing. No development is proposed for this parcel as part of this proposed project.

As part of the proposed project, the County would also adopt a zoning text amendment to Resource Management (RM) District Zoning regulations in order to allow for reduced setbacks for residential projects in urban areas that preserve open space. This zoning text amendment, if approved by the County Board of Supervisors, would apply not only to the proposed project but to all residential projects proposed in RM District.

3.2 PROJECT LOCATION AND SETTING

3.2.1 Project Objectives

The Project Applicant's primary objective is the development of 11 single-family homes and the preservation of 92.43 acres of open space. Key objectives of the project are to:

- Create residential development compatible with surrounding uses;
- Provide single family housing that fits with the existing neighborhood and is geotechnically safe;
- Provides high quality design and construction;
- Provide open space for benefit as a passive use park;
- Provide on-site drainage consistent with the County's adopted standards;
- Provide additional housing within the County of San Mateo;
- Provide housing in proximity to jobs, services and transportation;
- Implement smart-growth principles by redeveloping underutilized property east of Highway 280; and

- Provide a housing project along an established transportation corridor consistent with the County's housing objectives.

3.2.2 Location

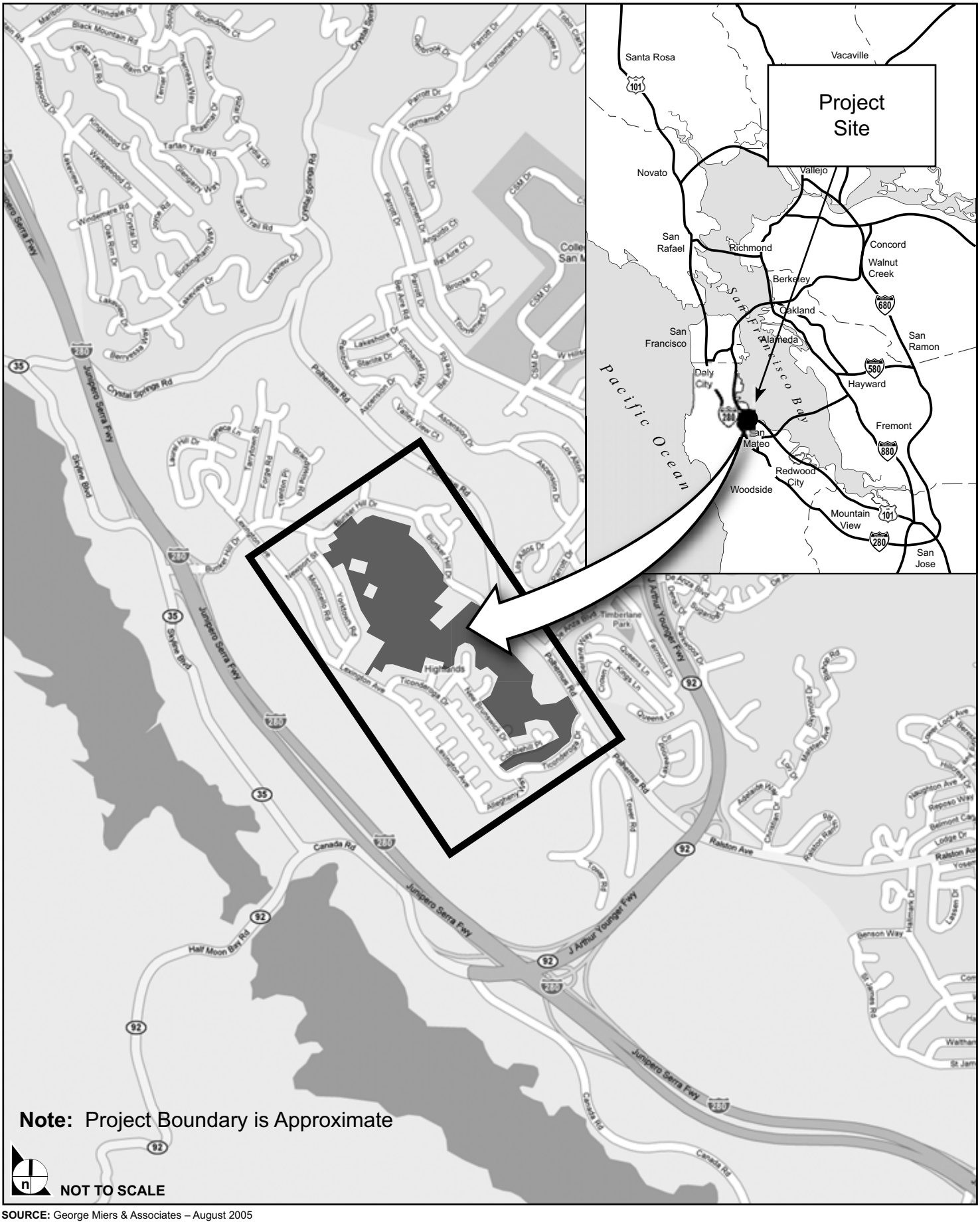
The project site is located within the area known as the San Mateo Highlands in an unincorporated area of San Mateo County, and is west of the San Mateo City limit (see **Figure 3.0-1, Regional and Site Location Map**). Highway 92 and Interstate 280 (I-280) are located south and west of the project site, respectively. The Lower and Upper Crystal Springs Reservoirs are also west of the project site. The project site is bordered by Bunker Hill Drive to the north and northeast; Polhemus Road to the southeast; Ticonderoga Drive and Cobblehill Place to the south; and Ticonderoga Drive, Lexington Avenue, and Yorktown Road to the west.

As shown in **Figure 3.0-2, Aerial Photograph**, the project site is predominately surrounded by single-family residential uses. Other surrounding land uses in the project area include the Crystal Springs United Methodist Church and the Crystal Springs Shopping Center east of the site; the Hillsborough West apartments southeast of the site; and the Highlands Recreation Center west of the site. The Highlands Elementary School is approximately 200 feet northwest of the project site.

Two parcels, owned by the California Water Service, are located off of Yorktown Road surrounded by the project parcel (see **Figure 3.0-1**). They currently contain water storage facilities and connect to the water line along Yorktown Road. An access road from Yorktown Road extends to the two parcels.

3.2.3 Setting

The project site consists of two parcels of undeveloped land, with the first parcel (Assessor's Parcel Number 041-101-290) approximately 96.92 acres in size and the second parcel (Assessor's Parcel Number 041-072-030) approximately 0.05 acre~~s~~ in size as shown in **Figure 3.0-3, Existing Zoning and Density Credits**. The majority of the project site consists of rolling landscape with hills and canyons. Elevations at the site range from 325 to 750 feet above mean sea level (msl). The slope on the project site ranges from 0 percent to 50 percent in some areas; the average overall slope is 40 percent. Numerous sandstone rock outcrops are visible on the site, especially along the upper slopes and ridges. The site is predominately characterized by coast live oak (*Quercus agrifolia)* woodland, coastal scrub, riparian forest, and valley needlegrass grassland. The soil types that exist on the site include clayey soil, greywacke sandstone, sheared bedrock, and bedrock of the Franciscan Formation. Soils associated with previous landslides are also present on the portion of the project site proposed for development along Ticonderoga Drive.



SOURCE: George Miers & Associates – August 2005

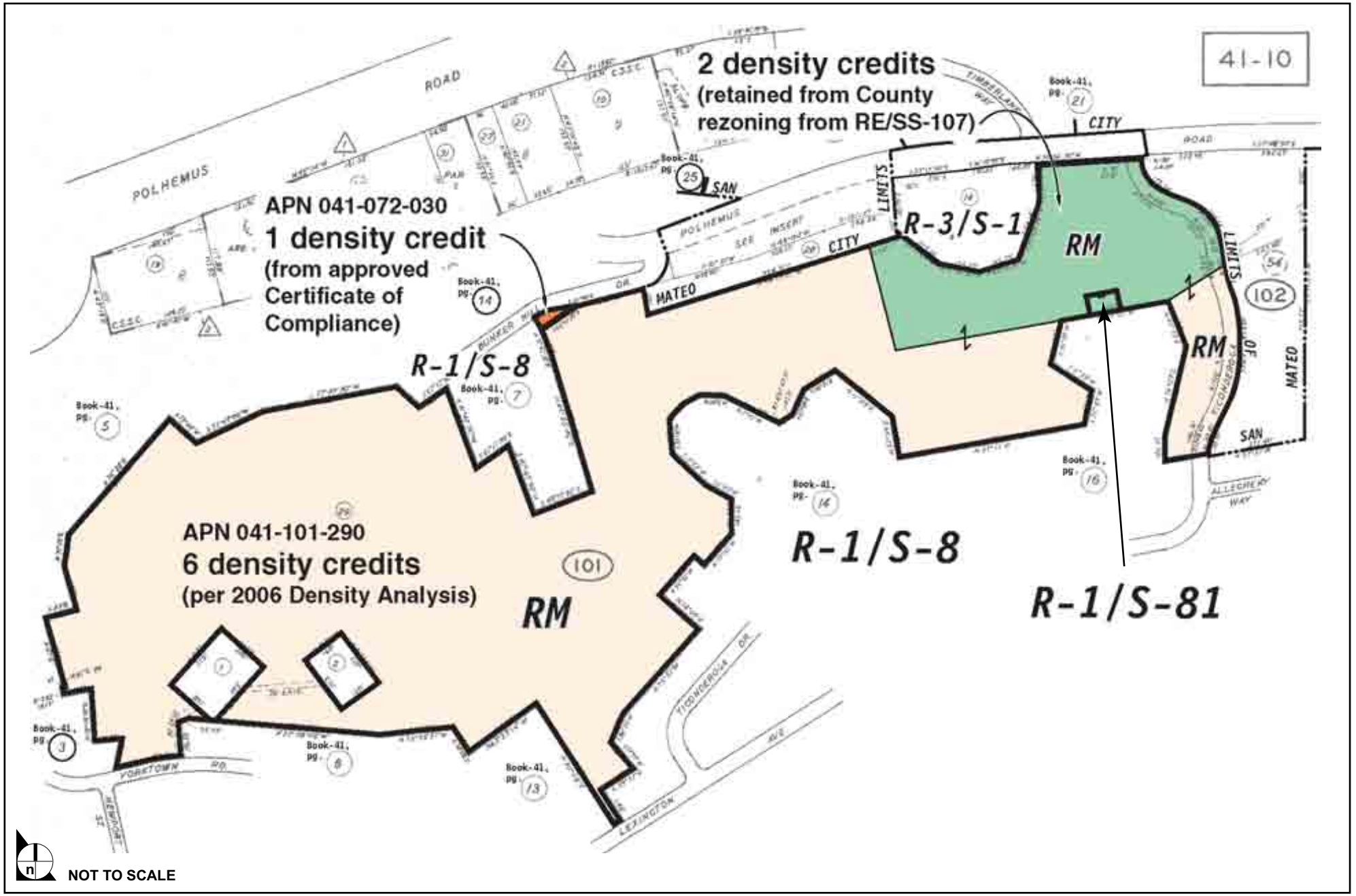
FIGURE **3.0-1**

Regional and Site Location Map

SOURCE: Google Earth – 2007

FIGURE **3.0-2**

Aerial Photograph



SOURCE: County of San Mateo - 2007

FIGURE **3.0-3**

Existing Zoning and Density Credits

3.3 EXISTING LAND USE DESIGNATIONS AND ZONING

The San Mateo County General Plan designates the project site as Open Space, which permits single-family home development. The larger project parcel of approximately 96.92 acres currently carries two zoning designations; R-1/S-81 for a 0.21-acre area located at the base of Cobblehill Place, and Resource Management (RM) for the remaining approximately 96.71 acres of the parcel. The smaller project parcel of approximately 0.05 acre carries a zoning designation of R-1/S-8. The~~is~~ R-1/S-81 zoning designation allows for a minimum lot size of 9,000 square feet per dwelling unit and a minimum lot width of 50 feet, with no more than 40 percent of the lot covered by structures. ~~Two dwelling units are proposed for this area, resulting in a combined total of 11 units for the site.~~

The vast majority of the project site, approximately 96.71 acres, is currently zoned RM by the County's Zoning Map (see **Figure 3.0-3**). The RM zone allows different uses including agriculture, nurseries, grazing land, and single-family dwellings. The density of development allowed within the RM zone varies depending on a number of physical criteria evaluated specifically for each parcel~~, such as steepness or slope~~.

The maximum number of dwelling units allowable on the project site is calculated according to criteria under Sections 6317 and 6318 of the San Mateo County Zoning Regulations. The maximum density calculation was derived by the County through the following process:

- A density analysis conducted by Bohley Engineers and accepted by the County in 2006 for Assessor's Parcel Number (APN) 041-101-290 determined that the RM zoned area (85.47 acres of the project site excluding the once-zoned RE/SS-107 area), is eligible for 6.128 density credits[1].

- In 2007, the San Mateo County Board of Supervisors approved a County-initiated rezoning of the 11.78-acre portion of the parcel from R-E/SS-107 zoning to R-1/S-81 zoning over a 9,000-square-foot portion and to RM zoning over an 11.57 acre portion. The Board of Supervisors acknowledged two density credits for the 11.78-acre area in the approval of the rezoning, as the area would have accommodated two parcels under the R-E/SS-107 zoning designation, which had a minimum parcel size of 5 acres.

- APN 041-072-030 is currently zoned Single-Family Residential (R-1/S-8) and is eligible for one density credit as it is a legal parcel that received a Certificate of Compliance in 2005. This parcel would be rezoned to RM under the proposed project (see **Figure 3.0-3**).

The proposed project density is contingent on the granting of two density bonuses at the time of RM permit issuance, as permitted by Section 6318, Development Bonuses. This section permits an increase in

[1] Section 6317 states that if the fractional portion of density credits (dwelling units) allowed is equal to or greater that 0.5, the number of dwelling units allowed shall be rounded up to the next whole dwelling unit. If the fraction is less than 0.5, it shall be rounded down.

the maximum allowed density where it is demonstrated that the development will further the goals and policies of the Open Space and Conservation Element of the San Mateo County General Plan. The Project Applicant states that the project meets the two listed criteria, each of which grant separate bonuses, as follows:

(a) Development where over 80 percent of the contiguous and compact parcel area is kept free from alteration (except as required for natural resource management purposes) and held in permanent open space through appropriate forms of restriction or public dedication, is encouraged by granting a bonus density of up to 10 percent beyond that permitted by Section 6317.

(b) An additional bonus of up to 10 percent shall be granted if…

2. Building and site design, structural systems, and construction methods will be employed which both reduce the land area to be altered from a natural state and preserve the overall natural appearance and scale of the area.

Development bonus credits are calculated as 10 percent of the total density credits within RM-zoned portions of the project site. There are six density credits for the RM-zoned parcel discussed above (APN 041-101-290), and 10 percent of six density credits is 0.6, which rounds up to one credit for each of the two development bonuses.

The maximum potential density of development allowed on the two parcels, as shown below in **Table 3.0-1, RM District Maximum Density Credits**, is 11 dwelling units.

Table 3.0-1
RM District Maximum Density Credits

Assessor's Parcel Number	Parcel Size (acres)	Description/Zoning	Density Credits	Density Credits (rounded)
041-101-290	85.47	Areas zoned Resource Management District in 2006	6.128	6
041-101-290	11.78	Portion of parcel formerly zoned R-E/SS-107	2	2
041-072-030	0.05	Legal parcel zoned R-1/S-~~38~~	1	1
N/A	N/A	Density Bonus for preservation of 80% of parcel area	0.6	1
N/A	N/A	Density Bonus for minimizing land alteration and preserving natural appearance of area	0.6	1
			TOTAL	***11***

~~According to a density analysis prepared by the County of San Mateo, the allowable density for the RM portion of the project site is eight single-family dwelling units. The 0.05-acre area of the site is zoned~~

~~Single-Family Residential (R-1/S-8). This zoning designation requires a minimum lot size of 7,500 square feet per dwelling unit, with no more than 40 percent of the lot covered. This parcel is also eligible for a density bonus and would be rezoned to RM under the current project, bringing the total to nine residential units proposed. However, the Project Applicant has requested two 10 percent development bonuses for the proposed project in the RM District bringing the proposed development density to 11 single-family units for the RM portion of the site.~~

3.4 PROJECT CHARACTERISTICS

3.4.1 Resource Management District Zoning Text Amendment

As part of the proposed project, the County would adopt a zoning text amendment to RM District regulations in order to allow reduced setbacks for residential projects in urban areas and to promote the preservation of open space. Because RM properties in urban, developed areas are generally surrounded by residentially zoned properties, the proposed text amendment is designed to cluster development and create consistency between RM property setbacks and residentially zoned property setbacks within the County, while allowing more open space to be preserved in the project or subdivision. The amendment would allow a reduction in existing property setbacks for properties that meet the criteria outlined in proposed Section 6319C of the RM District regulations. The criteria require project conformance to existing development, minimization of grading, and compliance with development standards.

3.4.2 Proposed Site Plan

The Project Applicant is proposing a series of actions that would result in the development of 11 residential lots, covering a total of approximately 4.53 acres. The area zoned Resource Management would be subdivided into nine lots, while the other two proposed dwelling units would be constructed on a reconfigured Single-Family Residential portion of the site. The subdivision plus the additional residential lots would result in a total of 11 single-family home lots, and 92.43 acres would be designated as open space. As shown in **Figure 3.0-4, Proposed Site Plan,** lots 1 through 4 would be located along Bunker Hill Drive, along the northern boundary of the site, and lots 5 through 8 would be located along Ticonderoga Drive, along the southern boundary of the site. Lots 9 and 10 would be located at the end of Cobblehill Place in the southern portion of the project site and lot 11 would be located at the end of Cowpens Way in the southwesterly portion of the project site. Additionally, there are 2.08 acres of land owned by California Water Company that are completely surrounded by the 92.43 acres proposed for open space. These 2.08 acres are not a part of this project.

The distribution of the proposed land uses is shown below in **Table 3.0-~~1~~2, Proposed Project Land Use Summary**. A description of each proposed land use is provided after the table.

Table 3.0-~~1~~ 2
Proposed Project Land Use Summary

General Plan Land Use Designation	Existing Zoning District	Proposed Land Use	Acreage	Maximum Dwelling Units	% Total Area[1]
Open Space	RM	Single-Family Residential	4.27	9	4.4%
Open Space	RM	Open Space	92.43	N/A	95.3%
Open Space	R-1/S-81	Single-Family Residential	0.21	1	0.002%
Open Space	R-1/S-8	Single-Family Residential	0.05	1	0.00005%
TOTAL	***N/A***	***N/A***	***96.97***	***11***	***100%***

Single-Family Residential

Figure 3.0-5, Proposed Lot Plan Lots 1–4 (Bunker Hill Drive), Figure 3.0-6, Proposed Lot Plan Lots 5–8 (Ticonderoga Drive), Figure 3.0-7, Proposed Lot Plan Lots 9 and 10 (Cobblehill Place), and **Figure 3.0-8, Proposed Lot Plan Lot 11 (Cowpens Way),** illustrate the layout of the project. As proposed, lots 1 though 7 would range in size from 0.21 acre to 0.25 acre. Lot 8 would be larger (1.64 acres) to contain the area of a potential landslide which cannot be included in the open space parcel as access would be required to repair the landslide if necessary. ~~due to the existing slope and vegetative communities present on that portion of the site.~~ Lots 9, 10, and 11 would range from 0.41 to 0.46 acre. All of the homes would be multi-level structures that would follow the existing terrain of the parcel and would range in size from approximately 2,800 square feet to approximately 3,600 square feet.

As shown in **Figure 3.0-5**, the homes along Bunker Hill Drive, lots 1 through 4, would each have individual driveways. The first level of the homes would be visible from the street; however, the back of the homes would descend along the slope similar to the existing homes north and south of the proposed lots. Given this, only one level would be visible from the street.

As shown in **Figure 3.0-6**, lots 5 and 6 along Ticonderoga Drive would have individual driveways, while lots 7 and 8 would share a driveway to minimize grading. Both levels of these homes would be visible from the street since the land in this portion of the site slopes upwards away from the road.

EXISTING PRIVATE ACCESS ROAD FOR TICONDEROGA PARTNERS

REFER TO SHEET 2 OF 6

Legend:

- Lots 1 through 4
- Lots 5 through 8
- Lot 9 and 10
- Lot 11
- Open Space Parcel

300 150 0 300

APPROXIMATE SCALE IN FEET

SOURCE: BKF - March 2008

FIGURE **3.0-4**

Proposed Site Plan

902-001•12/08

As shown in **Figure 3.0-7**, lots 9 and 10 at the end of Cobblehill Place would include a shared driveway with individual access to each home. Two levels of the home on lot 9 would be visible from Cobblehill Place, ~~since the land~~ even as the land in this portion of the site slopes ~~upward~~ downward away from the road. ~~However, only one level of the home on lot 9 would be visible from Cowpens Way, since the back of the home would descend along the existing downhill slope, and this home would not be visible from Ticonderoga Drive. Two levels of the~~The home on lot 10 would not be visible from Cobblehill Place due to existing vegetation and this home would not be visible from Ticonderoga Drive.

As shown in **Figure 3.0-8**, lot 11 at the end of Cowpens Way would include an individual driveway to access the house. ~~Two~~ The upper level~~s~~ of the home would be visible from Cowpens Way, but the home would not be visible from Cobblehill Place.

Open Space

Approximately 92.5 acres of the site would remain undeveloped and would be kept as open space under a conservation easement. In the establishment and granting of this easement to the County, the Project Applicant would comply with RM District Zoning regulations which require, after any land division, that the property owner grant to the County a conservation easement containing a covenant, running with the land in perpetuity, which limits the use of the land covered by the easement to uses consistent with open space. Subsequently, the land may be dedicated by the County to a public entity (such as the Highlands Recreation District) or a non-profit organization for preservation as open space, with potential for development as a passive use park to serve the neighboring community. With the approval of the 11-unit project, the land would be deeded to such a public entity or non-profit organization within three years after all of the residential units proposed in this project have been occupied.

No public access to the open space is proposed with this project. Currently, access is provided near the intersection of Bunker Hill Drive and Polhemus Road to private maintenance vehicles. This maintenance road provides limited access restricted to vehicles associated with Ticonderoga Partners and would remain in its existing condition as part of the project. The open space may be dedicated to a public entity or non-profit organization, with potential future development as a passive use park to serve the neighboring community. A fire defense zone (FDZ) was initially proposed in the open space portion of the property to the south of lots 1 through 4. However, future property owners of the proposed homes would already be subject to regulation that requires the creation and maintenance of fuel breaks. The San Mateo County Fire Protection Ordinance, Section 3.84.100, requires property owners ~~of~~ to "maintain an effective fuel break for the protection of improvements by removing all hazardous flammable materials or growth from the ground around each improvement for a distance of not less than 30 feet from its

exterior circumference" up to a distance of 100 feet, as may be required by the County Fire Chief to protect improvements.

Project Design

The homes proposed for lots 1 through 11 would be custom design. Conceptual designs for the proposed homes are shown in **Figure 3.0-9, Conceptual Exterior Lots 1–4**, **Figure 3.0-10, Conceptual Exterior Lots 5–8, Figure 3.0-11, Conceptual Exterior Lot 9, Figure 3.0-12, Conceptual Exterior Lot 10,** and **Figure 3.0-13, Conceptual Exterior Lot 11.**[2] As shown, the street elevations of the homes along Bunker Hill Drive would be one story, showing only the garage, entry, and associated windows. The street elevations of homes along Ticonderoga Drive would be two stories, with both levels visible from the street. The street elevations of the houses at the end of Cowpens Way and Cobblehill Place would also be two stories.

Landscape Design

The single-family homes would be constructed with some minimum front yard landscaping that may include lawn, shrubs, trees, and automatic irrigation systems. The landscaping in the rear yards and embellishments to the front yard would be up to the discretion of individual home owners. There are no specific landscaping plans proposed at this time.

Parking

A covered parking garage would be provided on each site for the 11 single-family homes. No off-site parking spaces are proposed for this project.

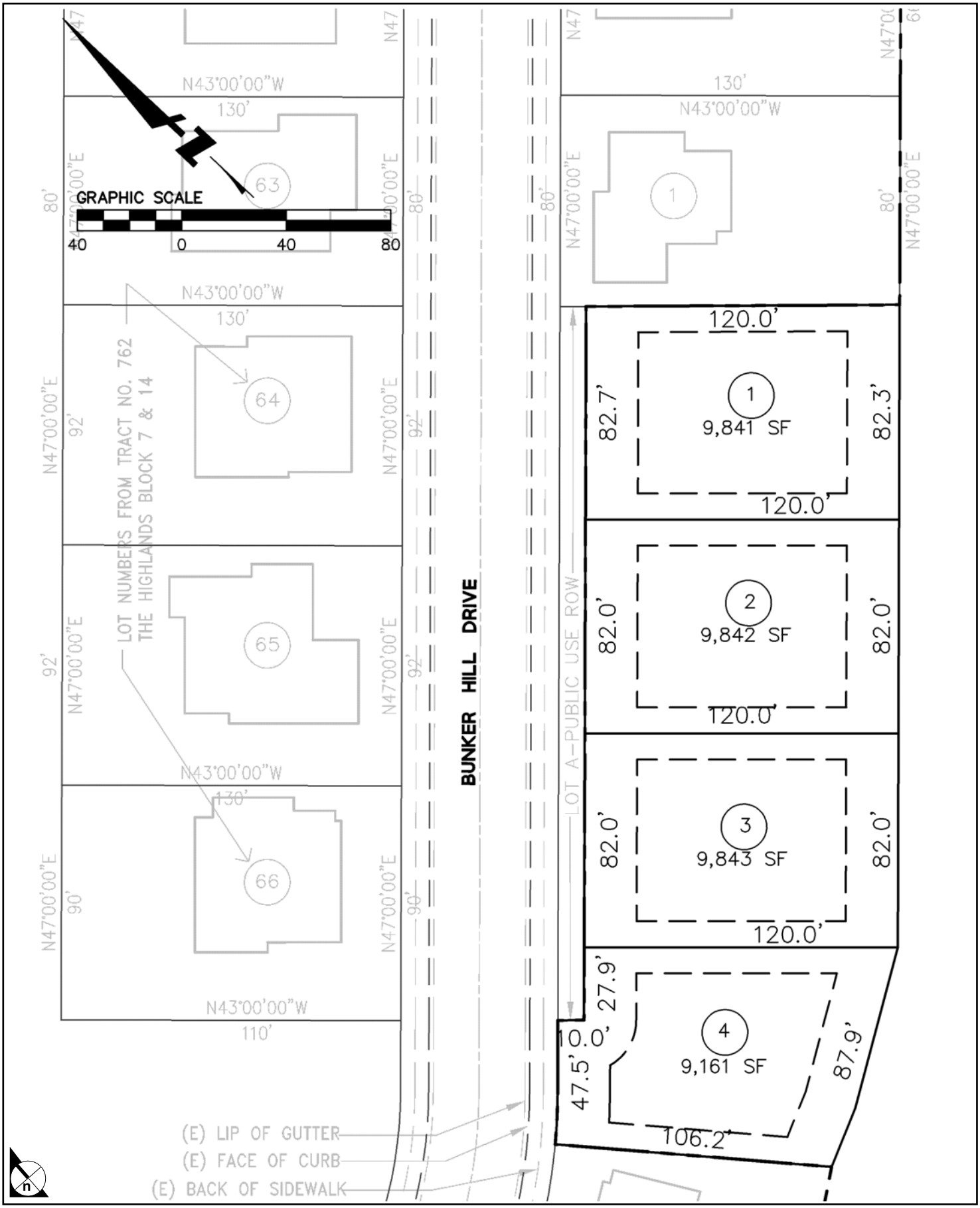
Public Utilities

Sanitary Sewer

Sanitary sewer service would be provided to the project site by the Crystal Springs County Sanitation District. It is proposed that ~~T~~the homes would connect to existing sewer lines that run along Ticonderoga Drive and Bunker Hill Drive. The proposed sewer system would be gravity fed except for the lower levels of the homes along Bunker Hill Drive and for the home on Cowpens Way. The design of these homes would place the lower levels bathrooms below the existing sewer line. Sewer lift pumps would be installed for these homes under the residential structure and would be electrically powered to lift the wastewater up to the level of the existing sewer line.

---

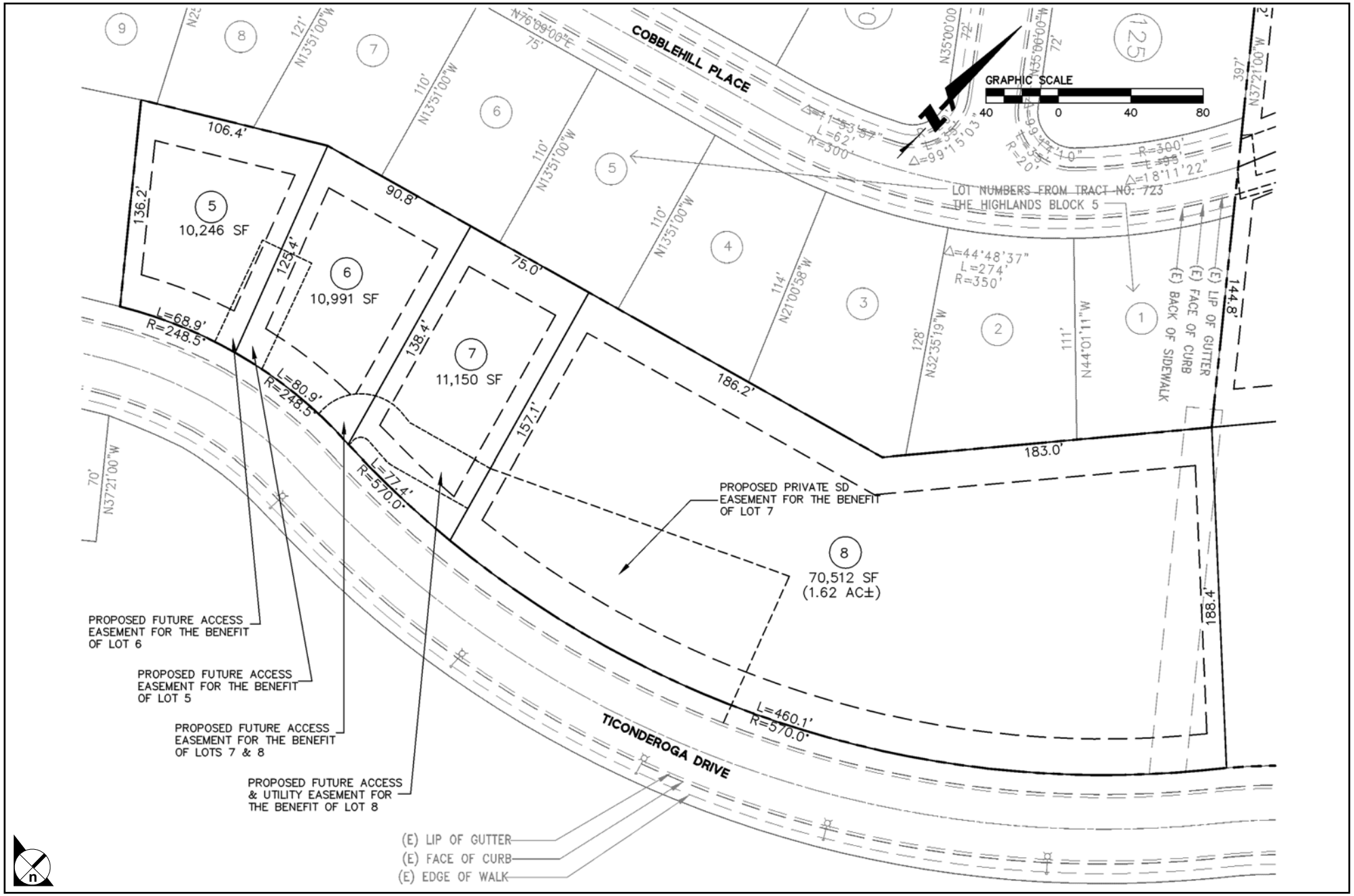
2 The cross section for lot 11 shown in this figure depicts a side view, rather than the front view shown above in this conceptual plan.



SOURCE: BKF - December 2008

FIGURE **3.0-5**

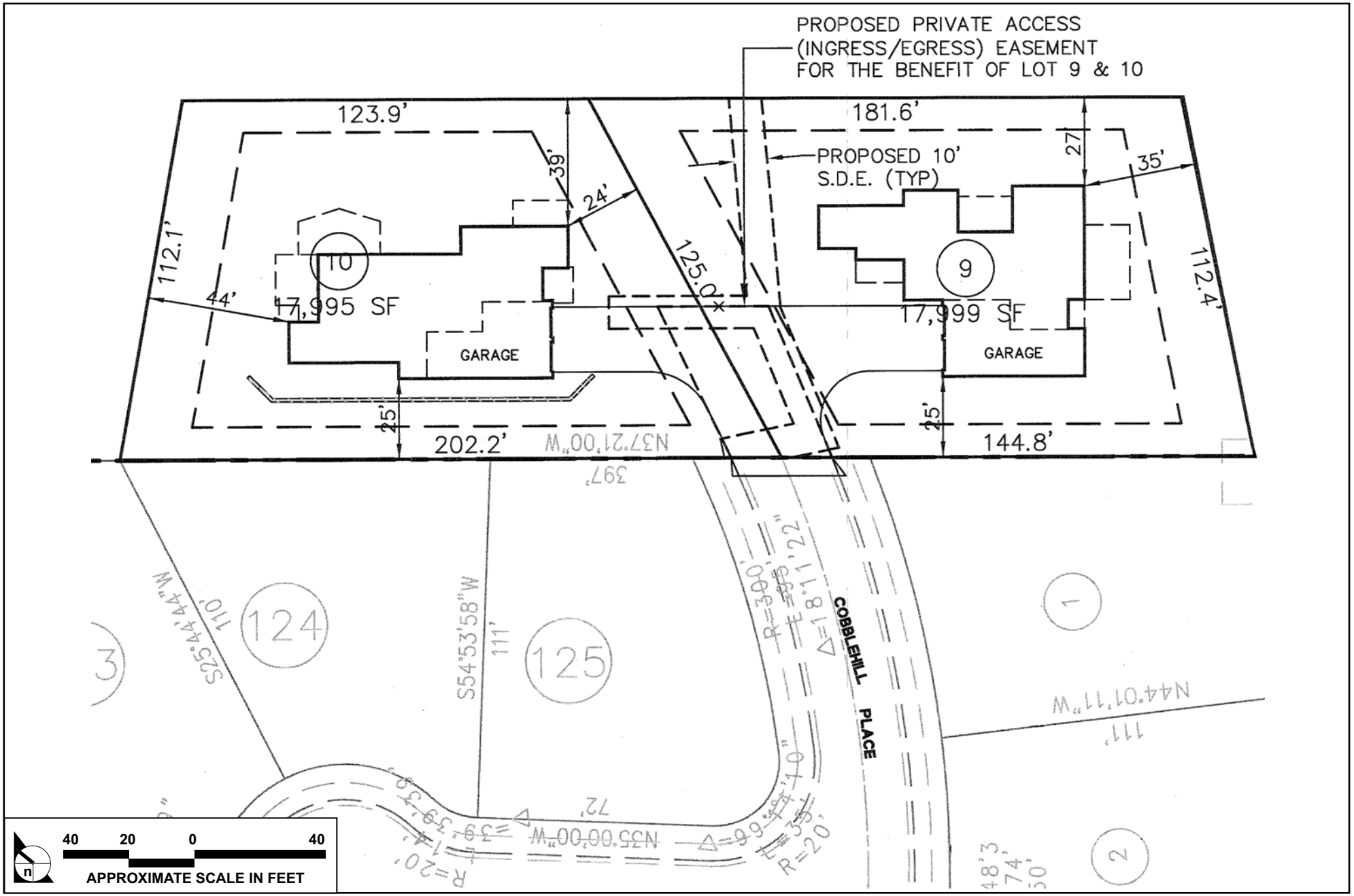
Proposed Lot Plan for Lots 1-4 (Bunker Hill Drive)



SOURCE: BKF - March 2008

FIGURE **3.0-6**

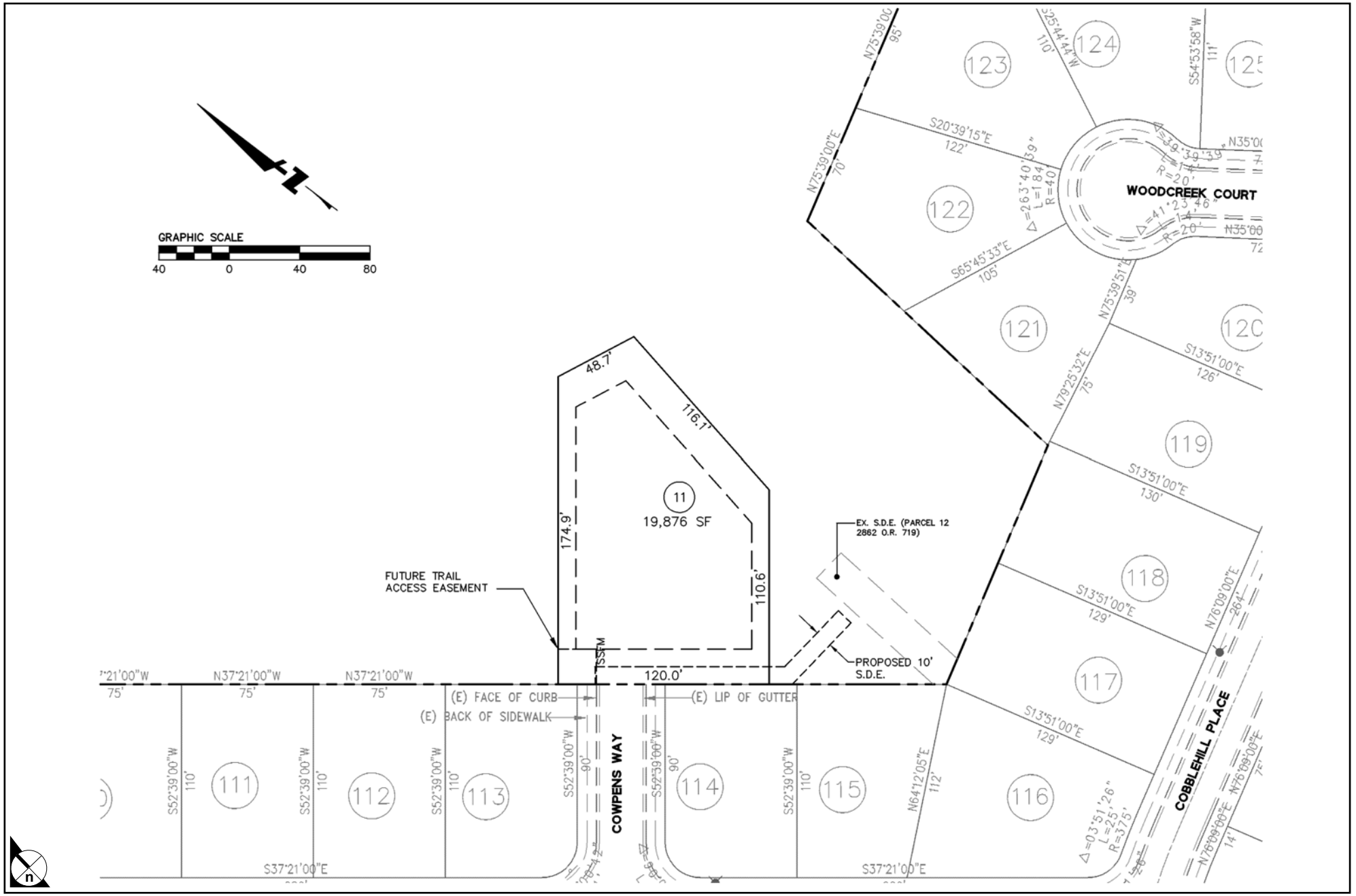
Proposed Lot Plan for Lots 5-8 (Ticonderoga Drive)



SOURCE: BKF - November 2008

FIGURE **3.0-7**

Proposed Lot Plan for Lots 9 and 10 (Cobblehill Place)

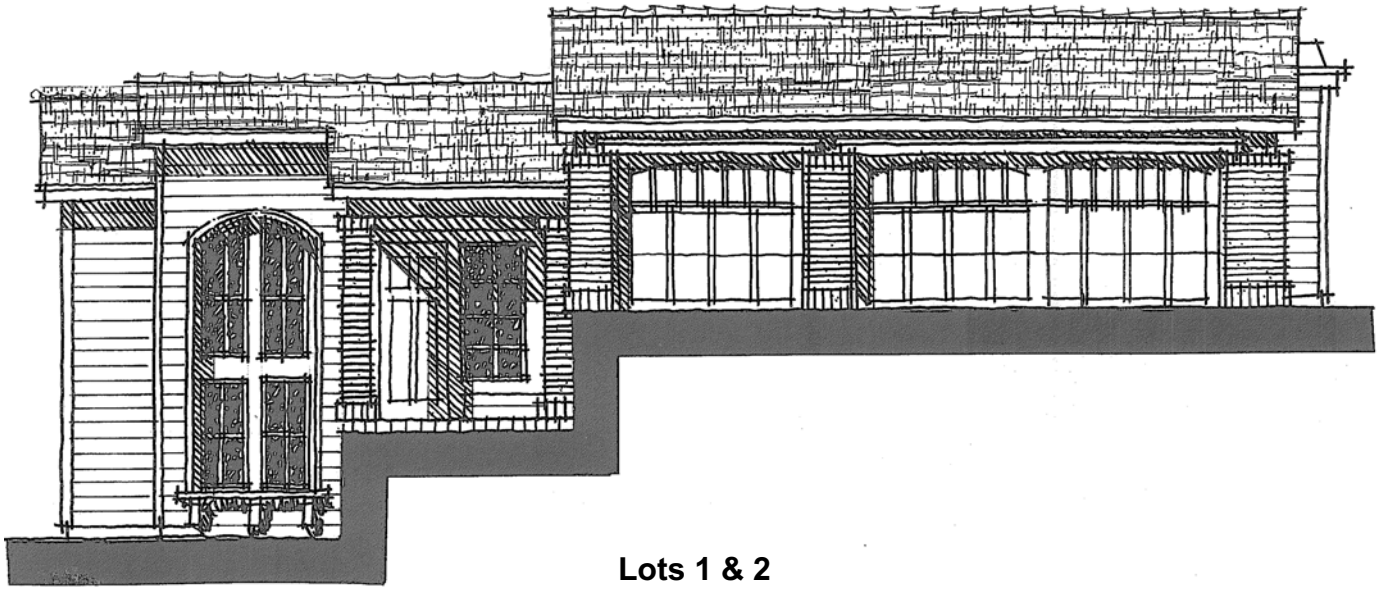


SOURCE: BKF - March 2008

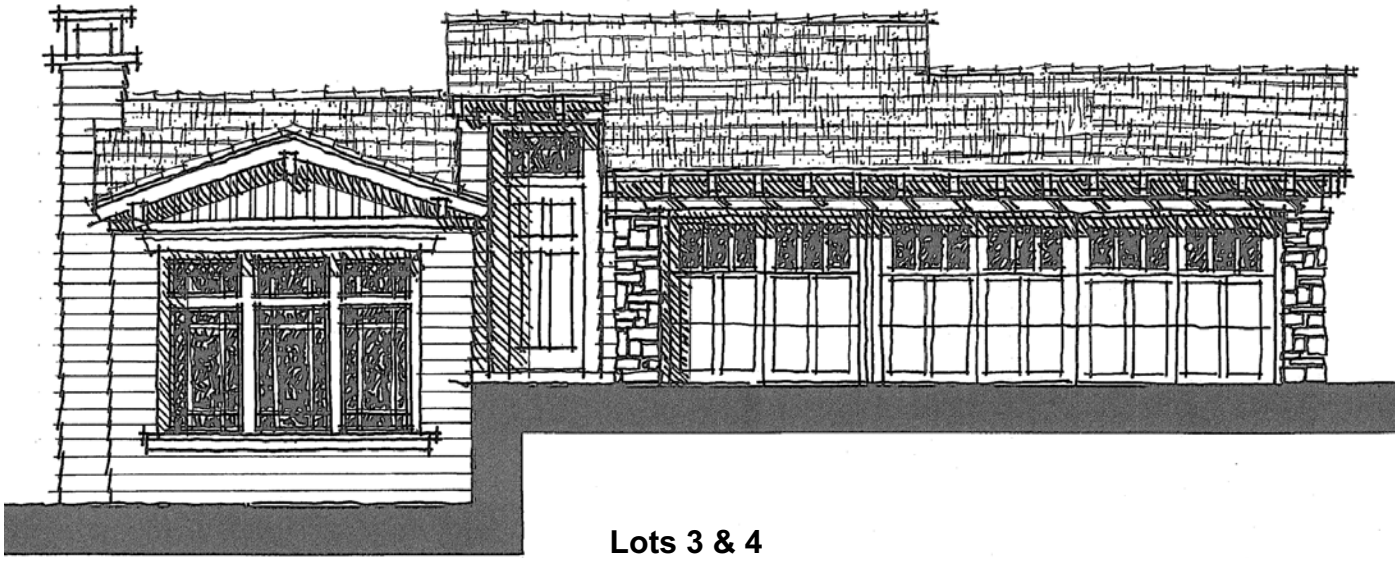
FIGURE **3.0-8**

Proposed Lot Plan for Lot 11 (Cowpens Way)

902-001•10/08



Lots 1 & 2



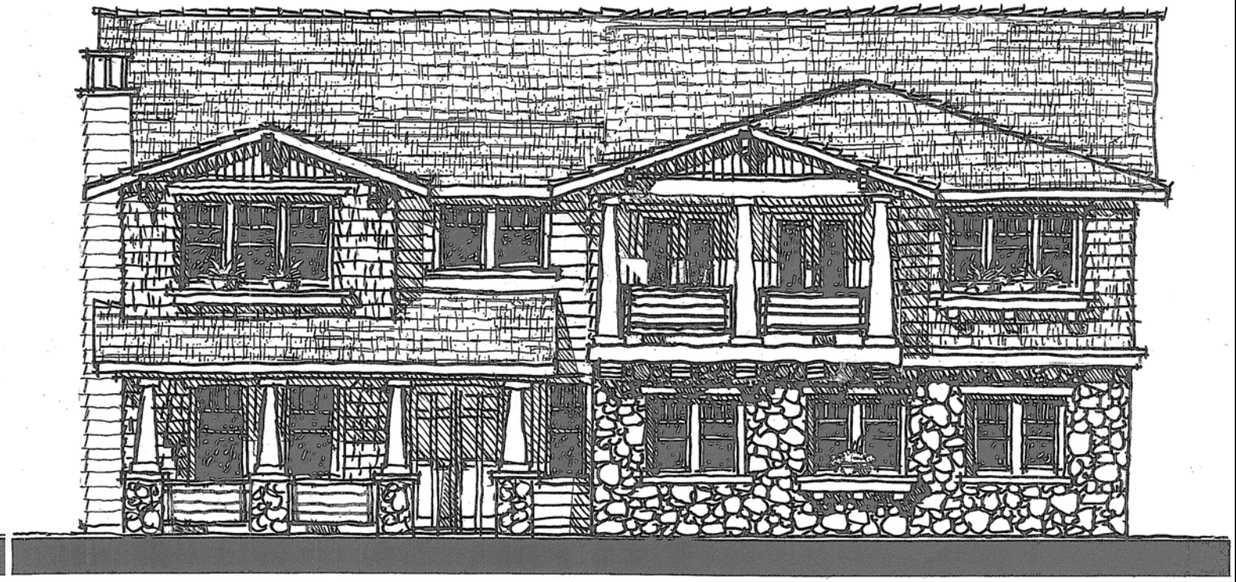
Lots 3 & 4

NOT TO SCALE

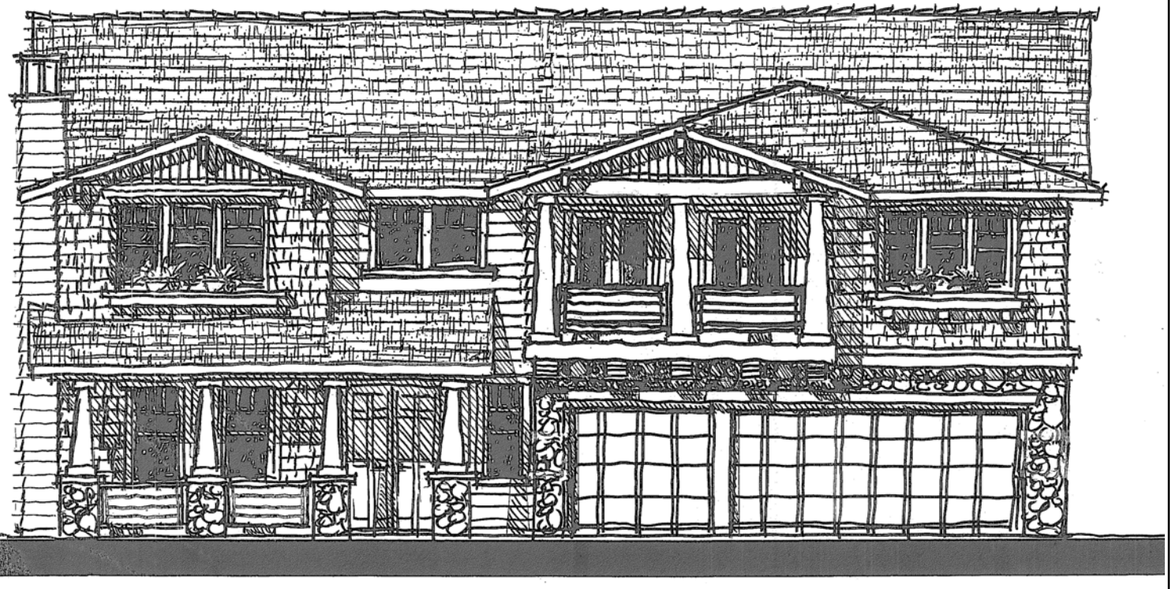
SOURCE: BKF - 2007

FIGURE **3.0-9**

Conceptual Exterior Lots 1-4



Lots 5 & 6



Lots 7 & 8

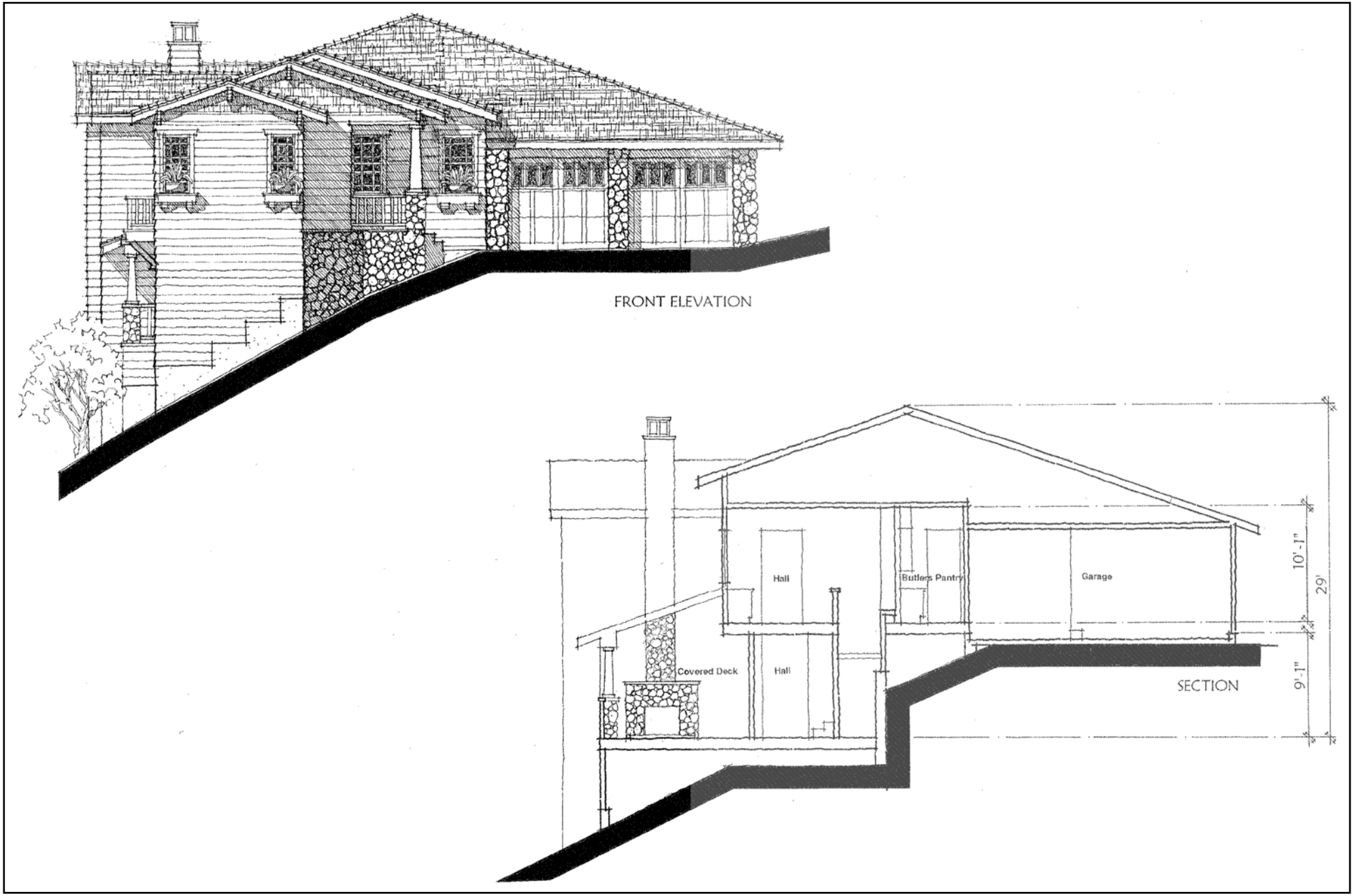
NOT TO SCALE

SOURCE: BKF - 2007

FIGURE **3.0-10**

Conceptual Exterior Lots 5-8

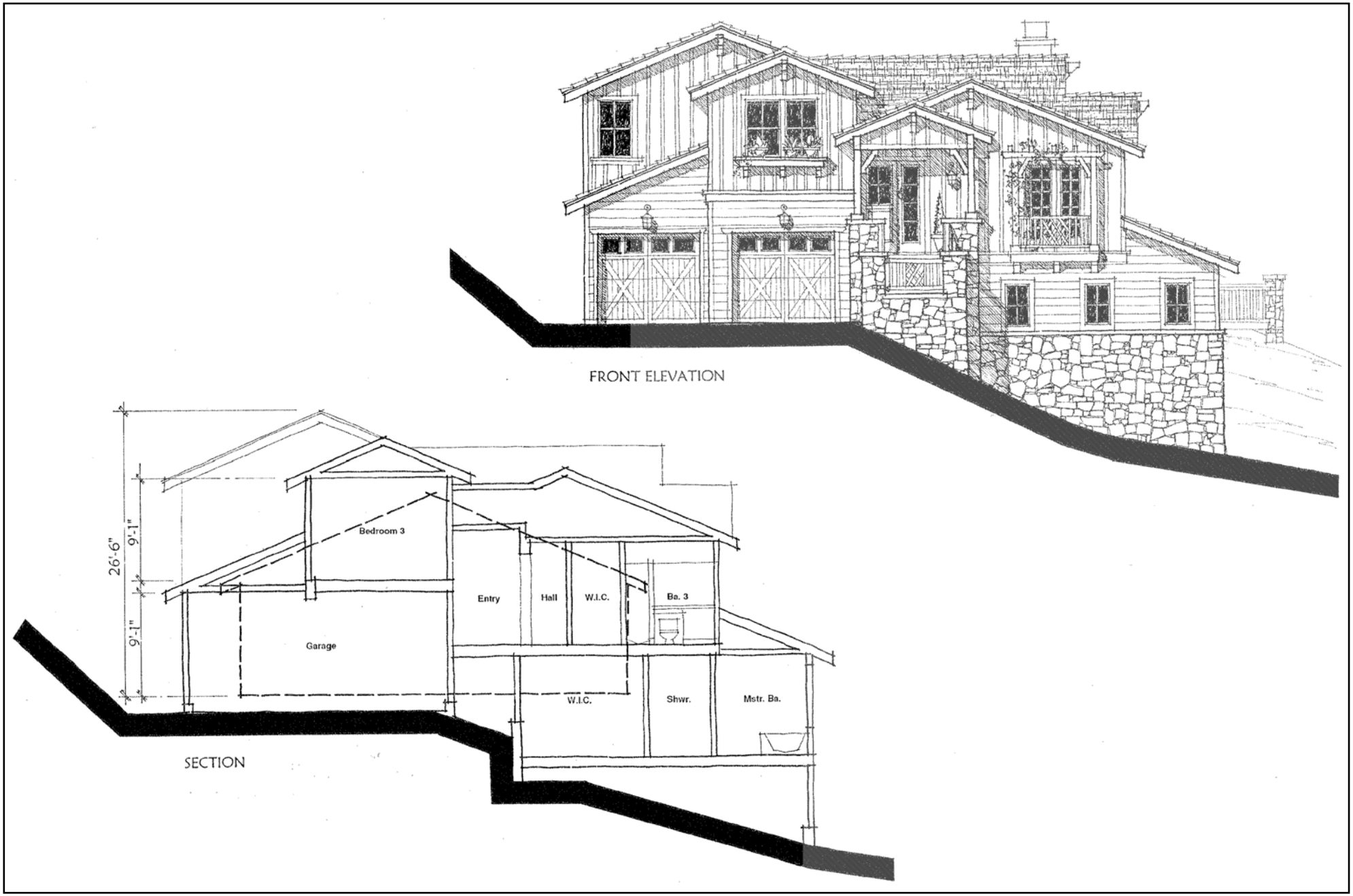
902-01•08/08



SOURCE: Mark Gross & Associates, Inc. - March 2008

FIGURE **3.0-11**

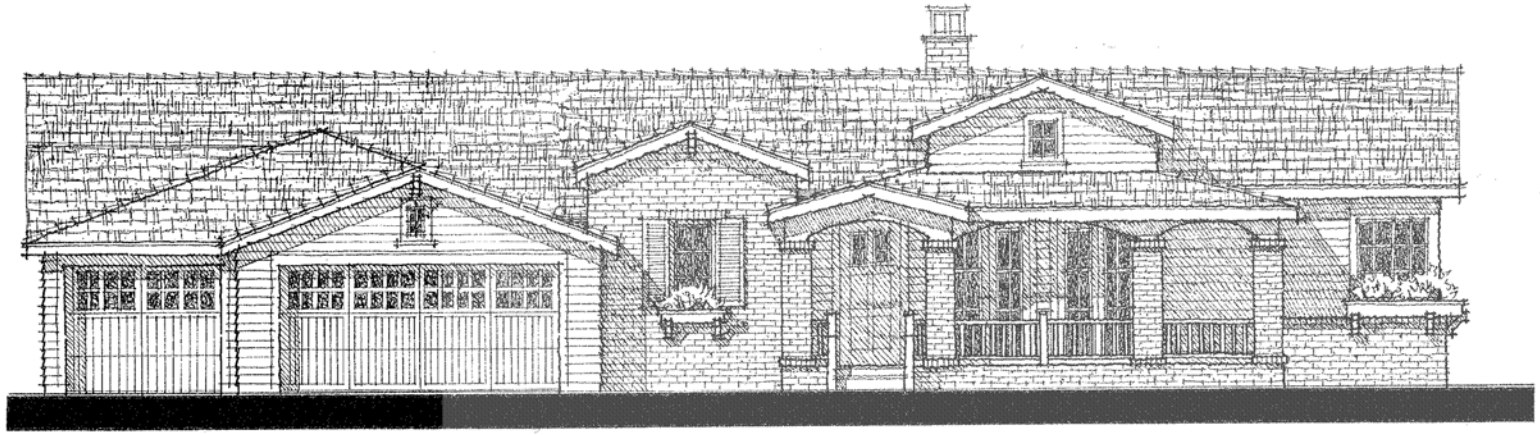
Conceptual Exterior Lot 9



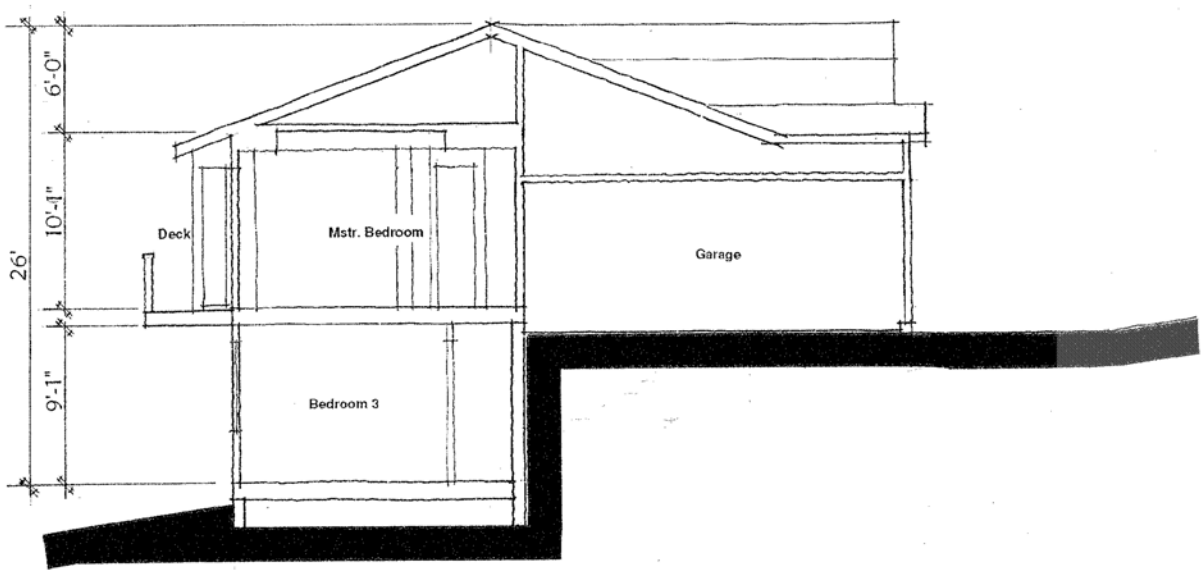
SOURCE: Mark Gross & Associates, Inc. - March 2008

FIGURE **3.0-12**

Conceptual Exterior Lot 10



FRONT ELEVATION



SECTION

SOURCE: Mark Gross & Associates, Inc. - March 2008

FIGURE **3.0-13**

Conceptual Exterior Lot 11

Storm Drainage

Bio-retention planters would be installed for the treatment of roof and driveway storm water runoff for all of the 11 proposed homes. As proposed, no drainage facilities are planned for the open space area. The bio-retention planters would be gravity fed and placed strategically on the project site. The proposed location of the bio-retention planters is shown on **Figure 3.0-14, Proposed Grading and Detention Plan, Lots 1–4 (Bunker Hill Drive)**. **Figure 3.0-15, Proposed Grading and Detention Plan, Lots 5–8 (Ticonderoga Drive), Figure 3.0-16, Proposed Grading and Detention Plan, Lots 9 and 10 (Cobblehill Place),** and **Figure 3.0-17, Proposed Grading and Detention Plan, Lot 11 (Cowpens Way)**.

Four bio-retention planters would be placed in the rear yards of lots 1 through 4 at Bunker Hill Drive. Each approximately 160 square-foot planter would be built along the existing slope contours of each lot. Two approximately 160 square-foot bio-retention planters would be placed in the front yards of lots 5 and 6 along Ticonderoga Drive. Lot 8 would have one approximately 400 square-foot bio-retention planter placed east of the proposed dwelling unit and along the existing slope contour. This planter would treat storm water runoff from lots 7 and 8. Lots 9 and 10 would have two 220 square-foot bio-retention planters placed in the rear yard of each dwelling unit and along the existing slope contour.

The specific design of the bio-retention planters would be finalized at the time of issuance of building permits. The planters are anticipated to be approximately 40 feet in length and approximately 4 feet wide, except for the planter proposed for lot 8, which would be approximately 80 feet long and approximately 5 feet wide. Each planter would be between 4 and 5 feet high depending on the depth of planting material. The plants and associated soil would function to filter storm water runoff from the proposed homes through root uptake. Plants suitable for storm water treatment would be drought-tolerant and would need to withstand ponding for short periods of time. The storm water runoff would be absorbed and filtered by the plants and soil, or <u>discharged</u> to the established street drainage system along Ticonderoga Drive (where appropriate).

Grasses and ferns are examples of plants that may be suitable for bio-retention planters. Maintenance of the planters would be minimal and would become the responsibility of the individual homeowners.

Domestic Water

Domestic water service would be provided to the project site by California Water Company. Upon approval of the project, the Project Applicant would be responsible for securing permits to extend the water lines from their existing termini in Ticonderoga Drive and Bunker Hill Drive to the proposed lots.

Gas and Electric

The Project Applicant proposes that the project be annexed into the Bel Aire Lighting District for repair and maintenance. Pacific Gas & Electric would provide gas and electrical services to the proposed homes. The homes would connect to existing underground gas and electrical lines along Bunker Hill Drive, New Brunswick Drive, and Ticonderoga Drive.

3.5 CONSTRUCTION ACTIVITY

3.5.1 Grading

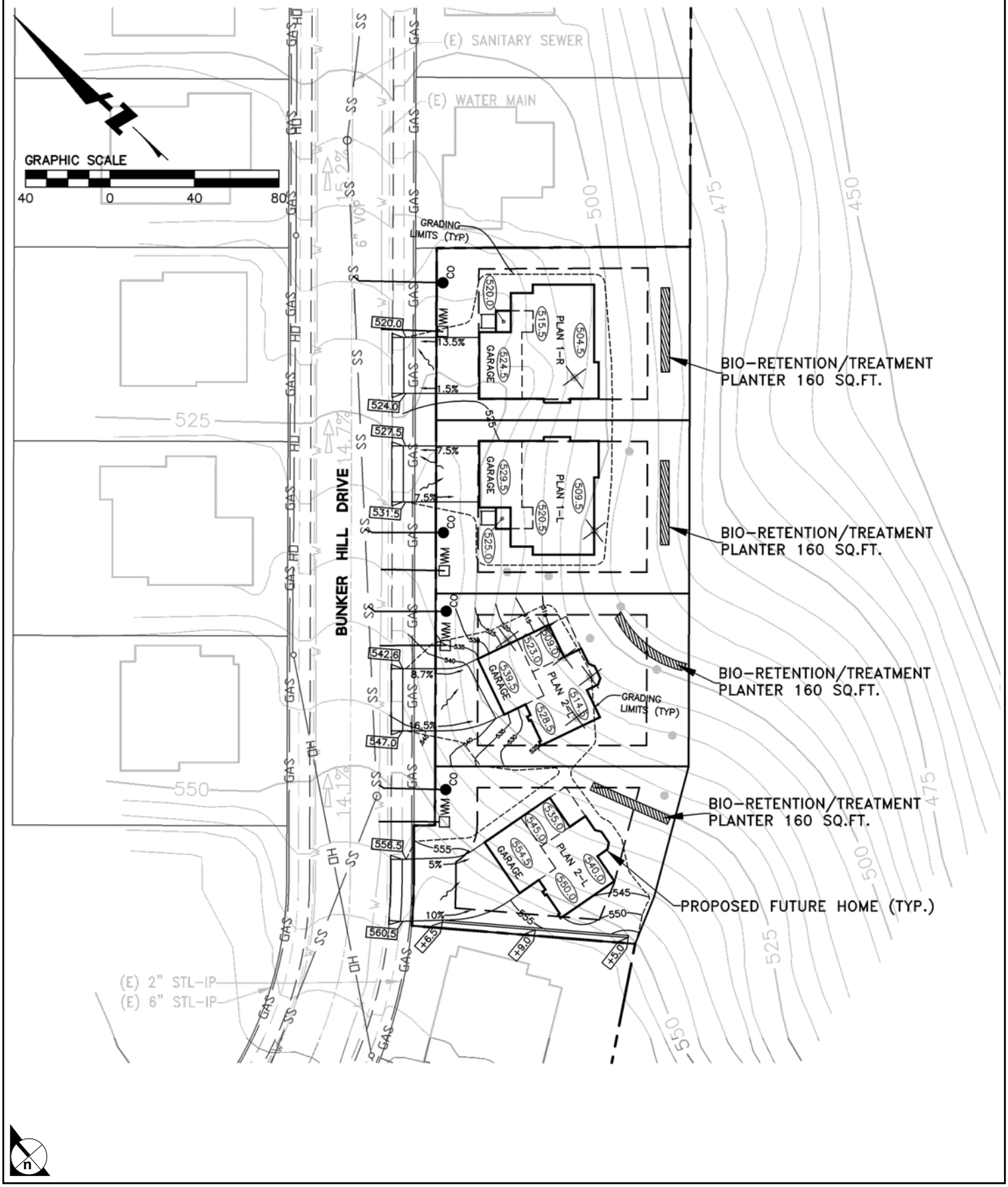
Grading activities include cut (earth removal) and fill of earthwork; creation of engineered slopes and stepped foundations; installation of retaining walls, and drilled piers. These activities would prepare the lots for the building pads and provide slope stability for the foundation of future homes on the lots.

The average slope of the areas proposed for development is 40 percent. In total, there would be 3,700 cubic yards (cy) of cut and 5,700 cy of fill (including a 10 percent allowance for shrinkage, or settling, of dirt). The Project Applicant would use the cut earthwork material as fill on the project site. However, approximately 2,000 additional cy of earth and about 200 cy of drain rock would need to be imported on-site for the project. Piers drilled into the underlying bedrock would be installed for each lot to provide slope stability for the future homes that would be built on each lot. A description of the grading plans for lots 1 through 11 and **Table 3.0-~~2~~ 3, Proposed Earthwork,** showing a breakdown of total proposed cut and fill amounts for each lot, are provided below.

Table 3.0-~~2~~ 3
Proposed Earthwork

Area	Cut (cy)	Fill (cy)
Lots 1–4	500	200
Lots 5–8	1,000	~~800~~1,000[1]
Lots 9 and 10	900	2,900
Lot 11	1,300	1,300
TOTAL	***3,700***	***~~5,700~~ 5,900***
Import	**~~2,000~~ 2,200**	

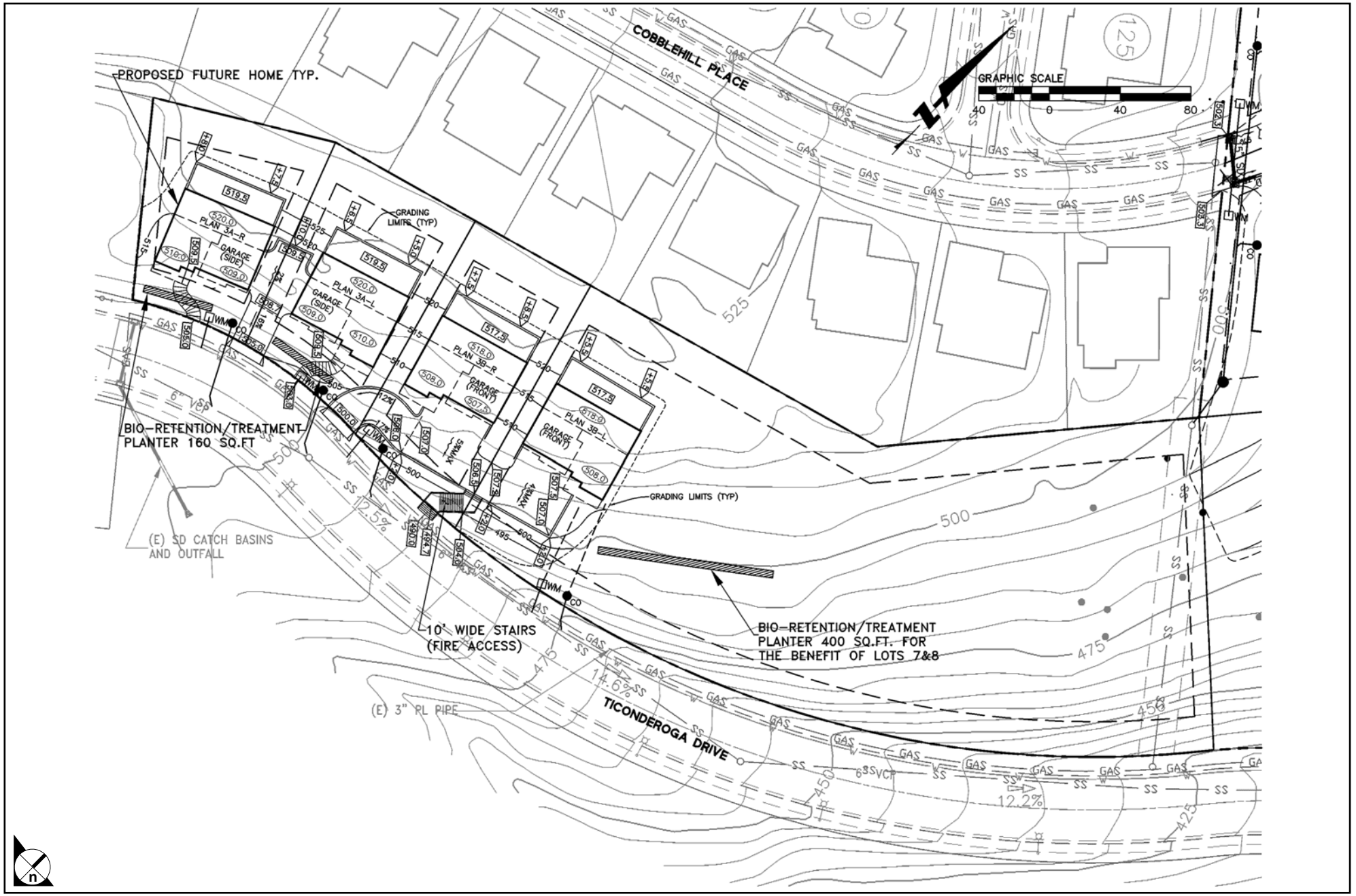
Source: BKF Engineers, 2008. Treadwell &Rollo, Inc, 2009.
[1]Includes 200 cubic yards of drain rock.



SOURCE: BKF - December 2008

FIGURE **3.0-14**

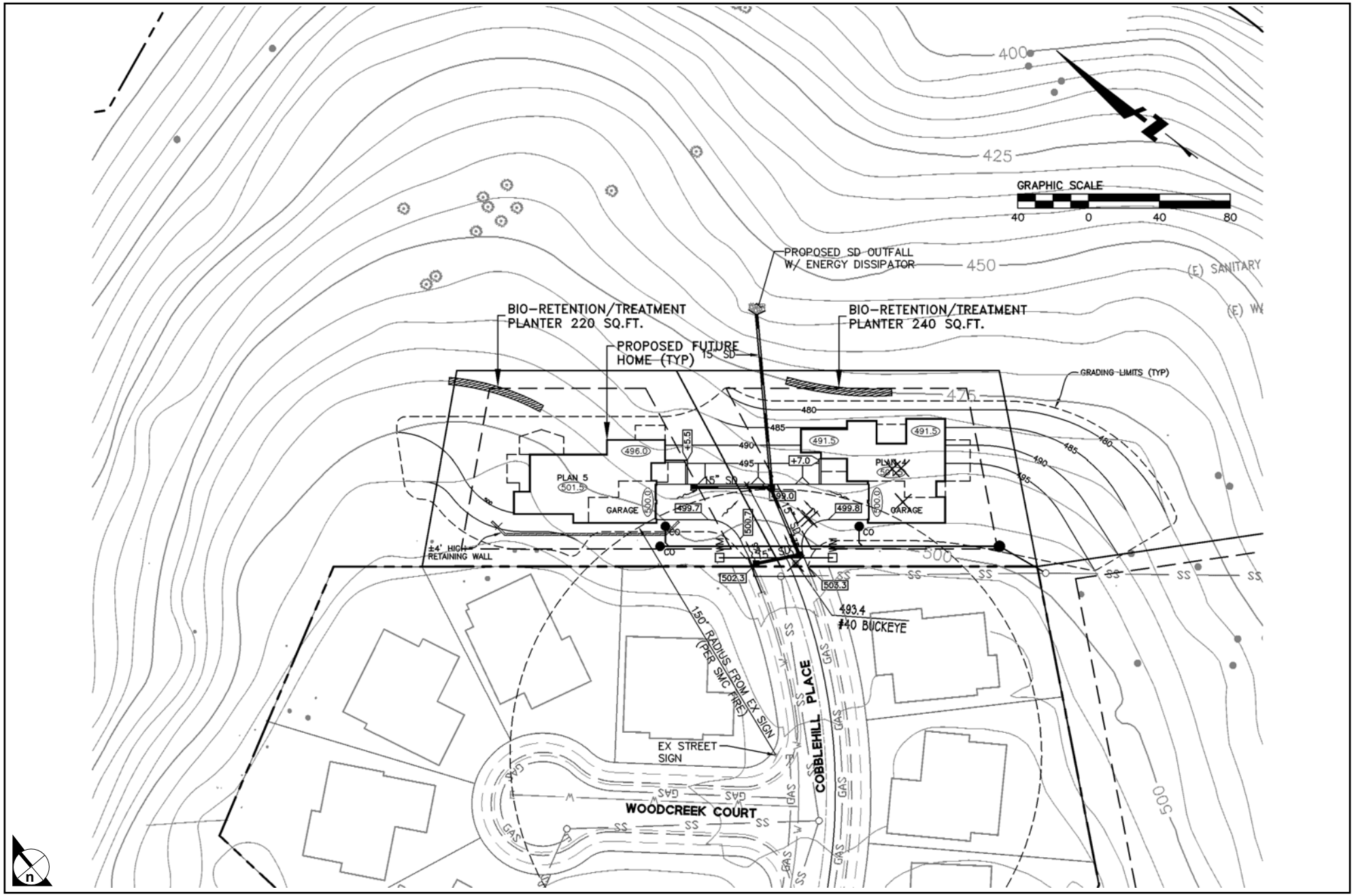
Proposed Grading and Detention Plan, Lots 1-4 (Bunker Hill Drive)



SOURCE: BKF - March 2008

FIGURE **3.0-15**

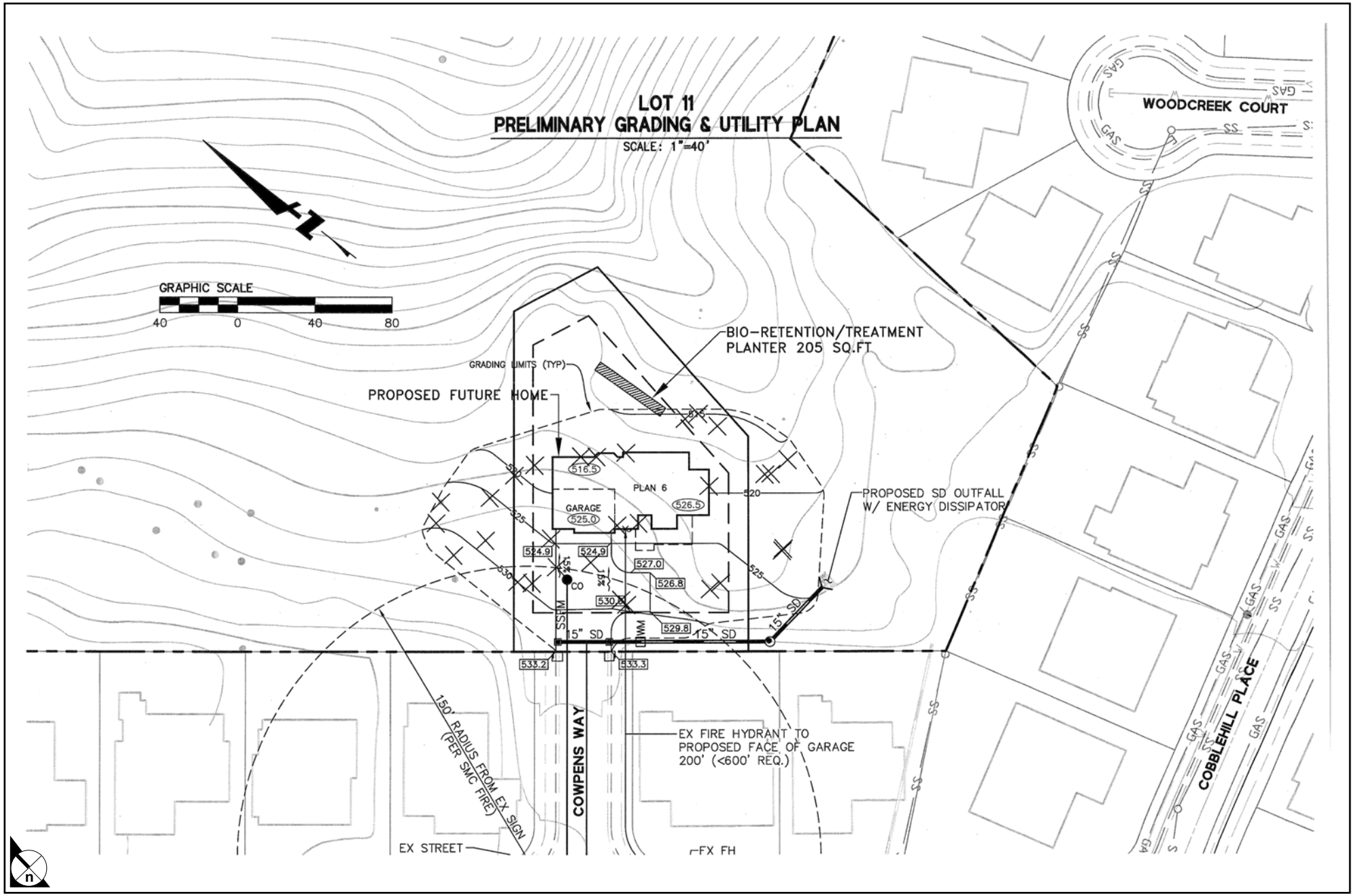
Proposed Grading and Detention Plan, Lots 5-8 (Ticonderoga Drive)



SOURCE: BKF - March 2008

FIGURE **3.0-16**

Proposed Grading and Detention Plan, Lots 9 and 10 (Cobblehill Place)



SOURCE: BKF - November 2008

FIGURE **3.0-17**

Proposed Grading and Detention Plan, Lot 11 (Cowpens Way)

3.5.2 Lots 1 through 4

Lots 1 through 4, along Bunker Hill Drive, would require approximately 500 cy of cut and 200 cy of fill earthwork (see **Figure 3.0-14**). A series of stepped cuts would be created to provide the platform necessary to build the homes. No fill slopes or site retaining walls would be needed for ~~this portion of the site~~ these lots because the ~~terrace cuts and piers drilled into bedrock would fully support the~~ dwelling units will be fully supported by drilled pier foundations with integrated day-lighting basement retaining walls.

3.5.3 Lots 5 through 8

Lots 5 through 8, along Ticonderoga Drive, would require 1,000 cy of cut and 800 cy of fill earthwork (see **Figure 3.0-15**). Any previously identified landslide deposits[3] would be removed from this portion of the site to provide stable slopes for construction. After removal of the landslide materials, the slope in Lots 7 and 8 would be rebuilt using a buttress fill landslide repair keyed and benched into the underlying bedrock. Spoils generated from the excavation will be used as fill, and will not require additional import or export of material other than a minor amount of drainrock for the subdrains associated with the repair. Upon ~~removal of landslide material~~implementation of the landslide mitigation, retaining walls, designed to withstand high lateral earth pressure from adjoining natural materials and/or backfill, as well as from any surcharge loads, would be installed in the rear of lots 5 through 8. These retaining walls would be partially underground. Retaining walls would also be installed in the front of lots 5 and 6 to aide in maintaining the slopes behind the house and the more extensive cut required for lots 5 and 6. These retaining walls would be partially underground. The design of the retaining walls has not been finalized at this time, but would most likely be a solid masonry wall. Cut slopes at a ratio of approximately 4:1 (horizontal to vertical) would be required for lots 5 and 6.

3.5.4 Lots 9 and 10

Lots 9 and 10, at the eastern end of Cobblehill Place, would require 900 cy of cut and 2,900 cy of fill earthwork (see **Figure 3.0-16**). This site is relatively level, with the existing topography sloping slightly to the northeast. Minor cuts of up to 5 feet and fills of up to 8 feet would be made to create the building pads and the driveways and to remove and replace existing undocumented fill under buildings or flatwork. Retaining walls up to 8 feet in height would be used along the front of the property to retain the fill in the residence and driveway areas. Pier-supported, stepped foundations would support the dwelling units.

---

3 See Section **4.3, Geology and Soils** for more detailed information on landslide deposits on the project site.

3.5.5 Lot 11

Lot 11, at the northeastern end of Cowpens Way, would require 1,300 cy of cut and 1,300 cy of fill earthwork (see **Figure 3.0-17**). This site has an existing slope of approximately 2:1 (horizontal to vertical). The site already contains fill that was placed during grading from the existing subdivision ~~developed~~ development in the surrounding area. Cuts of up to 10 feet below the existing grade would be made to create a stepped building pad and the driveway area and to remove and replace existing undocumented fill under buildings or flatwork~~.~~. Retaining walls of up to 10 feet in height would be built through the middle of the house lengthwise, as part of the foundation, to retain the cuts for the proposed residence. Pier-supported stepped foundations would support the dwelling units.

3.5.6 Haul Trucks and Routes

The earth materials would be imported from nearby projects in the San Francisco Peninsula. The County does not have weight restrictions for roads, so the haul routes may differ slightly from what is presented below. ~~From~~ To Ticonderoga Drive, the haul routes would likely be from Highway 92 to Polhemus Drive ~~south~~north. ~~From~~ To Bunker Hill Drive, the haul routes would likely be from Highway 92 and then west to Skyline Boulevard. Given that a typical haul truck can carry approximately 12 cy of earth materials, approximately ~~167~~ 183 trips would be associated with the import of additional earth materials needed for the proposed project.

3.5.7 Erosion Control Plan

Erosion control measures would be implemented as part of the project to ensure stability of the hillsides during construction. As shown on **Figure 3.0-18, Erosion Control Details (Silt Fence and Fiber Roll),** the erosion control plan includes the installation of silt fences and fiber rolls on the perimeter of all lots. The proposed location for the silt fences and fiber rolls for homes along Bunker Hill Drive are shown in **Figure 3.0-19, Proposed Erosion Control Plan Lots 1–4 (Bunker Hill)**; proposed silt fences and fiber rolls for lots 5–8 along Ticonderoga Drive are shown on **Figure 3.0-20, Proposed Erosion Control Plan Lots 5-8 (Ticonderoga Drive)**; proposed silt fences and fiber rolls for houses at the end of Cobblehill Place are shown on **Figure 3.0-21, Proposed Erosion Control Plan Lots 9 and 10 (Cobblehill Place)**; and proposed silt fences and fiber rolls for the home at the end of Cowpens Way are shown on **Figure 3.0-22, Proposed Erosion Control Plan Lot 11 (Cowpens Way)**. An explanation of the erosion control measures and how they function is provided below.

A silt fence is made of a filter fabric that is entrenched and attached to supporting poles placed no more than 6 feet apart. Either steel or wood poles would be used for the fence. The silt fence would be approximately 3 feet high from the ground. Silt fences are suitable for perimeter erosion control and are

placed below areas where sheet water flow discharges from the site. The silt fence traps sediment by intercepting and detaining a small amount of sediment-laden runoff from disturbed areas in order to promote sedimentation behind (upslope) from the fence (California Stormwater BMP Handbook 2003). As a result, the silt fence would be an effective means for controlling erosion at the perimeter of the lots during construction.

Additionally fiber rolls would be used during construction of the houses. A fiber roll consists of straw, flax, or other similar materials bound into a tight tubular roll. Fiber rolls are placed along the face and at the terminus of slopes to intercept runoff, reduce the flow velocity, and provide removal of sediment from the runoff. Fiber rolls of varying lengths would be placed along existing slope contours and at the bottom of the slopes of all proposed lots. The fiber roll aids in reducing erosion by interrupting the length of a slope (California Stormwater BMP Handbook 2003). The fiber roll would be attached to a wooden stake anchor placed at least 12 inches into the ground. The fiber roll would be approximately 10 inches in diameter and would vary in length according to its placement.

3.5.8 Tree Removal

The RM zone regulations restrict the removal of living trees that are more than 55 inches in circumference, measured at 4.5 feet above ground level, except as may be required for development permitted under the Significant Tree Ordinance, or permitted under the Timber Harvesting Ordinance, or for reason of actual or potential danger to life or property. In the residentially zoned portions of the project site, tree removal would be subject to the County's Significant Tree Ordinance. There are presently ~~17~~ 15 coast live oak trees within the proposed project ~~plans~~ site that meet this threshold. ~~Seven~~ Five of these coast live oak trees would be removed within the boundaries of lots 1 through 3 and two trees would be removed in lot 11 during project construction and the other eight trees would be retained. The RM development permit would also cover tree removal as part of the development of the project site. The Project Applicant proposes to replace protected trees that would be removed during construction with ~~nine~~ seven 15-gallon trees as part of the proposed landscaping.

3.5.9 Phasing and Schedule

Construction activities are anticipated to commence in ~~June 2009~~Spring 2010 and be completed by ~~June 2010~~ Spring 2011.

3.6 RELATED DISCRETIONARY ACTIONS

Permits that are required from San Mateo County for the development of the proposed project are discussed below.

Major Subdivision Permit: A major subdivision permit is required when a parcel is divided into five or more parcels. The proposed project consists of the development of a small residential parcel and an approximately 97-acre open space parcel (including 0.21 acre zoned for residential use) into 11 residential lots and remaining open space. Therefore, the Project Applicant is applying for a major subdivision permit from the County of San Mateo. In San Mateo County, in order to be approved, subdivisions must be consistent with the County General Plan, be physically suitable for development, be physically suitable for the proposed density, not conflict with a Williamson Act Contract, and not cause adverse impacts to wildlife or people.

Rezoning: A portion of lots 9 and 10 will be rezoned from RM to R-1/S-81 or rezoned from R-1/S-81 to RM to allow for the establishment of new boundaries for lots 9 and 10, which would facilitate the development of lots 9 and 10 through the subsequent subdivision discussed above. A rezoning from R-1/S-8 to RM of the 0.05-acre portion of the larger parcel (APN 041-101-290) is also proposed, to make its zoning consistent with the remainder of the approximately 92.46-acre RM parcel.

Lot Line Adjustment: Per County Zoning Regulations, a non-conforming parcel may be enlarged through the addition of contiguous land by lot line adjustment, lot consolidation, merger, or resubdivision, provided that the enlargement does not create nonconformities on adjoining property. Lot line adjustment of the existing 0.05-acre (2,178 square foot) parcel would be required in order to create lot 10. The Project Applicant proposes a lot line adjustment between APN 041-072-030 and APN 041-101-290 that would retain the two existing legal parcels but result in a new parcel configuration of 17,995 square feet located at the terminus of Cobblehill Place (see **Figure 3.0-23, Proposed Rezoning, Lot Line Adjustment, and Subdivision**). This action retains the northeast property line of the 0.05-acre parcel along Bunker Hill Drive while reconfiguring the existing rear property line to form the side and rear property lines of lot 10 along Cobblehill Place as shown on the development plan in **Figure 3.0-7**.

Resource Management Permit: A resource management permit is required when development is proposed within the RM zone. The proposed project would involves construction of nine single-family homes and associated structures (e.g., fences, retaining walls, etc.) within the RM zone. The project also proposes the removal of ~~eight~~ seven coast live oak trees with a circumference of more than 55 inches at 4.5 feet from ground surface. The removal of these trees would be included with this permit.

Grading Permit: A grading permit is required when project grading does not qualify for an exemption (i.e., more than 250 cy of excavation is proposed with a building permit). The proposed project would include 3,700 cy of cut and 5,9700 cy of fill (including a 10 percent allowance for shrinkage, or settling, of dirt), and would require a grading permit.

Annexation into Special Districts: As a condition of approval, the project site would need to be annexed into County Service Area 1, which includes enhanced police and fire services (funded by property tax and special taxes). If streetlights are installed in the project area and it is desired that the County of San Mateo maintain the streetlights, the project area would need to be annexed to the County-governed Bel Aire Lighting Maintenance District. If the lands dedicated to open space are transferred to the Highlands Recreation District, the land would need to be annexed to the Highlands Recreation District. The Project Applicant will be responsible for application to the San Mateo County Local Agency Formation Commission for the annexation of the project site into the special districts.

Dedication of Open Space: RM District regulations require the granting of an open space easement to the County for all land division projects. The remaining area of the project site not specified for residential development may be offered for dedication to a public entity or non profit organization for open space purposes, for potential development as a passive use park. This step would occur following the completion of all legal requirements for the residential development.

Resource Management District Zoning Text Amendment: As discussed above, as part of the proposed project the County would also adopt a zoning text amendment to RM District regulations in order to allow for reduced setbacks for residential projects in urban areas that preserve open space. This text amendment would allow the Project Applicant to apply for an RM permit to reduce front and side setbacks for all proposed lots within the RM District in conjunction with the~~ir~~ RM permit application.

3.7 Responsible and Trustee Agencies

As defined by the California Environmental Quality Act (CEQA), "Responsible Agencies" are public agencies other than the Lead Agency that have discretionary approval over the project. Trustee agencies have jurisdiction over resources present in the project area but no permitting authority over the project. The Initial Study and EIR prepared for this project would serve as the primary source of environmental information for each responsible and trustee agency. These agencies and the nature of their approval authority over the project are described below:

San Francisco Bay Regional Water Quality Control Board (RWQCB): The project will require coverage under the Statewide General Permit for discharge associated with construction activities pursuant to National Pollutant Discharge Elimination System (NPDES) requirements. A Storm Water Pollution

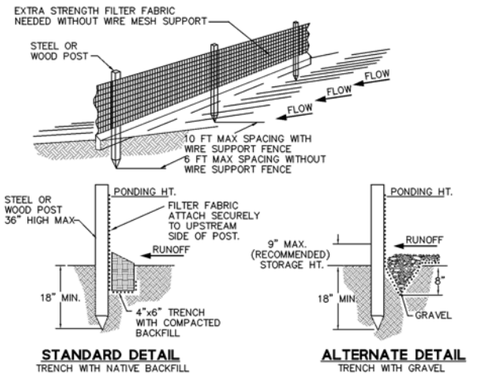
Prevention Plan (SWPPP) would be prepared along with the grading plan to fulfill the requirements of the State of California's General Permit. The project would also be subject to NPDES Provision C3, which requires treatment of project run-off.

California Department of Fish and Game: The California Department of Fish and Game has jurisdiction over natural resources potentially occurring on and near the project site.

Local Agency Formation Council (LAFCO): LAFCO has jurisdiction over any annexation applications for areas on the project site.

EROSION CONTROL NOTES

1. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS AND PROJECT STORM WATER POLLUTION PREVENTION PLAN (SWPPP).
2. ALTHOUGH SPECIFIC LOCATIONS FOR SEDIMENT CONTROL FACILITIES ARE SHOWN ON THESE PLANS, IT IS INTENDED THIS EROSION CONTROL PLAN BE MODIFIED WHEN NECESSARY TO MEET FIELD CONDITIONS. BASIN AND TRAP SIZES AND ELEVATIONS MAY BE ADJUSTED AS LONG AS THE MINIMUM AREAS AND DEPTHS FOR SEDIMENT SETTLING AND STORAGE ARE NOT REDUCED.
3. THE INTENT OF THESE PLANS IS TO PROVIDE THE INITIAL CONCEPT FOR INTERIM EROSION CONTROL. THE CONTRACTOR SHALL UPDATE THE PLANS TO REFLECT CHANGING SITE CONDITIONS. PLAN UPDATES SHALL BE BASED UPON GENERAL SURVEY DATA. EROSION CONTROL EFFECTIVENESS SHALL ALSO BE MONITORED AND THE PLANS UPGRADED AS REQUIRED TO PREVENT SIGNIFICANT QUANTITIES OF SEDIMENT FROM ENTERING THE DOWNSTREAM DRAINAGE SYSTEM.
4. THIS PLAN MAY NOT COVER ALL THE SITUATIONS THAT ARISE DURING CONSTRUCTION DUE TO UNANTICIPATED FIELD CONDITIONS. IN GENERAL, THE CONTRACTOR IS RESPONSIBLE FOR KEEPING THE STORM RUN OFF FROM LEAVING THE SITE. FIBER ROLLS, SAND BAGS, AND SILT FENCES SHALL BE USED BY THE CONTRACTOR ON AN AS NEEDED BASIS TO INHIBIT SILT FROM LEAVING THE SITE AND ENTERING THE STORM DRAIN SYSTEM. ALL EXISTING, TEMPORARY, OR PERMANENT CATCH BASINS SHALL USE ONE OF THE SEDIMENT BARRIERS SHOWN.
5. THE CONTRACTOR WILL BE LIABLE FOR ANY AND ALL DAMAGES TO PUBLIC AND/OR PRIVATE OWNED AND MAINTAINED ROAD CAUSED BY THE CONTRACTOR'S GRADING ACTIVITIES, AND WILL BE RESPONSIBLE FOR THE CLEANUP OF ANY MATERIAL SPILLED ON ANY PUBLIC ROAD ON THE HAUL ROUTE. ADJACENT PUBLIC ROADS SHALL BE CLEANED AT THE END OF EACH WORKING DAY.
6. BEST MANAGEMENT PRACTICES AS DEFINED IN THE SWPPP SHALL BE OPERABLE YEAR AROUND.
7. DURING THE RAINY SEASON, ALL PAVED AREAS ARE TO BE KEPT CLEAR OF EARTH MATERIAL AND DEBRIS. THE SITE IS TO BE MAINTAINED SO AS TO MINIMIZE SEDIMENT-LADEN RUNOFF TO ANY STORM DRAIN SYSTEM.
8. ALL EROSION CONTROL FACILITIES MUST BE INSPECTED AND REPAIRED DAILY DURING THE RAINY SEASON. ALL SLOPES SHALL BE REPAIRED AS SOON AS POSSIBLE WHEN DAMAGED.
9. BORROW AND TEMPORARY STOCKPILES SHALL BE PROTECTED WITH APPROPRIATE EROSION CONTROL MEASURES (TARPS, FIBER ROLLS, SILT FENCES ETC.) OR COVERED WITH VISQUEEN TO ENSURE SILT DOES NOT LEAVE THE SITE OR ENTER THE STORM DRAIN SYSTEM.
10. ALL TRUCK TIRES SHALL BE CLEANED PRIOR TO EXITING THE PROPERTY.
11. DURING PERIODS WHEN STORMS ARE FORECAST – (BETWEEN OCT 15 – APR 15)
    A. EXCAVATED SOILS SHOULD NOT BE PLACED IN STREETS OR ON PAVED AREAS.
    B. ANY EXCAVATED SOILS SHOULD BE REMOVED FROM THE SITE BY THE END OF THE DAY.
    C. WHERE STOCKPILING IS NECESSARY, USE A TARPAULIN OR SURROUND THE STOCKPILED MATERIAL WITH STRAW BALES, SILT FENCE, OR OTHER RUNOFF CONTROLS.
    D. USE INLET CONTROLS (E.G. FILTER MAT) FOR STORM DRAINS ADJACENT TO THE STOCKPILED SOIL.
    E. THOROUGHLY SWEEP ALL PAVED AREAS EXPOSED TO SOIL EXCAVATION AND PLACEMENT.
12. IF NO WORK HAS PROGRESSED FOR A PERIOD OF 6-WEEKS, FINAL DRAINAGE AND EROSION CONTROL IMPROVEMENTS SHALL BE INSTALLED IN ACCORDANCE WITH AN APPROVED WINTERIZATION PLAN.
13. EROSION CONTROL IMPROVEMENTS SHALL BE INSPECTED AFTER EACH STORM AND REPAIRED AND/OR UPGRADED AS REQUIRED BY THE SAN MATEO COUNTY INSPECTORS. SEDIMENT AND DEBRIS SHALL BE RE-MOVED FROM TEMPORARY BASINS AND DRAIN INLETS AFTER EACH STORM.
14. PADS SHALL BE GRADED TO MINIMIZE STANDING WATER. SPECIFIC LOCATIONS REQUIRING SUPPLEMENTAL GRADING TO ACHIEVE ACCEPTABLE DRAINAGE SHALL BE DETERMINED BY THE CONSTRUCTION MANAGER. ALL SPOILS AND SOIL STOCKPILES REMAINING ON SITE SHALL BE ENCIRCLED BY SILT FENCES/FIBER ROLLS.
15. STUBBED OUT ENDS OF PARTIALLY COMPLETED SUBDRAINS SHALL BE WRAPPED WITH AN APPROVED FABRIC TO PREVENT SOIL AND DEBRIS FROM ENTERING THE PIPE.
16. HAUL ROADS ARE CURRENTLY NOT SHOWN ON THE PLANS. EROSION CONTROL MEASURES SHALL BE TAKEN TO MINIMIZE EROSION RELATED TO HAUL ROADS.
17. DISPOSAL AREAS FOR SEDIMENT TO BE DETERMINED IN FIELD. WHEN MATERIAL IS STOCKPILED, IT SHALL BE SURROUNDED BY A SILT FENCE/FIBER ROLLS.
18. TEMPORARY AND PERMANENT SLOPES GREATER THAN 3 FEET SHALL BE SEEDED UNLESS ALTERNATIVE MEASURES ARE USED.
19. THE EROSION CONTROL PLAN IS FOR CONSTRUCTION BETWEEN OCTOBER 15 AND APRIL 15. OPEN SPACE AREAS ARE TO BE PLANTED BY SEPTEMBER 15. IF THESE CONDITIONS ARE NOT MET, THE CONTRACTOR SHALL SUBMIT AN EROSION CONTROL PLAN TO SAN MATEO COUNTY PUBLIC WORKS FOR REVIEW AND APPROVAL. SHOULD THE PROPOSED ONSITE STORM DRAIN SYSTEM NOT BE INSTALLED BY OCTOBER 15, TEMPORARY SEDIMENT BASINS SHALL BE INSTALLED AROUND THE OPENINGS OF ANY EXISTING STORM PIPES WHICH DRAIN IN THE SITE. TEMPORARY SEDIMENT BASINS SHALL BE SIZED TO ACCOMADATE ANTICI-PATED RUNOFF FROM ALL UNPAVED PORTIONS OF THE SITE.
20. GRADING SCHEDULE SHALL BE SUBMITTED FOR APPROVAL TO SAN MATEO COUNTY PUBLIC WORKS BY AUGUST 15.
21. SEED MIX FOR REVEGETATION AND HYDROSEEDING:
    NORTHERN CALIFORNIA COVER MIX BY ACBRIGHT OR EQUAL
    30% BLUE WILDRYE
    30% MEADOW BARLEY
    20% ZORRO FESCUE
    10% PURPLE NEEDLE GRASS
    10% CALIFORNIA NATIVE WILDFLOWERS
    APPLY AT 40 POUNDS PER ACRE MINIMUM
22. THE NAME, ADDRESS,AND 24 HOUR TELEPHONE NUMBER OF THE PERSON RESPONSIBLE FOR IMPLEMENTATION OF EROSION AND SEDIMENTATION CONTROL PLAN SHALL BE PROVIDED TO THE CITY.
23. SHOULD IT APPEAR THAT THE EROSION CONTROL PLAN, OR ANY OTHER MATTER THERETO, IS NOT SUFFICIENTLY DETAILED OR EXPLAINED ON THESE PLANS, THE CONTRACTOR SHALL CONTACT THE BKF PROJECT ENGINEER AT (650) 482-6300 FOR SUCH FURTHER EXPLANATIONS AS MAY BE NECESSARY.

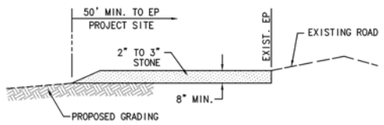


STANDARD DETAIL
TRENCH WITH NATIVE BACKFILL

ALTERNATE DETAIL
TRENCH WITH GRAVEL

NOTES:
1. INSPECT AND REPAIR FENCE AFTER EACH STORM EVENT AND REMOVE SEDIMENT WHEN NECESSARY.
2. REMOVED SEDIMENT SHALL BE DEPOSITED TO AN AREA THAT WILL NOT CONTRIBUTE SEDIMENT OFF-SITE AND CAN BE PERMANENTLY STABILIZED.
3. SILT FENCE SHALL BE PLACED ON SLOPE CONTOURS TO MAXIMIZE PONDING EFFICIENCY.

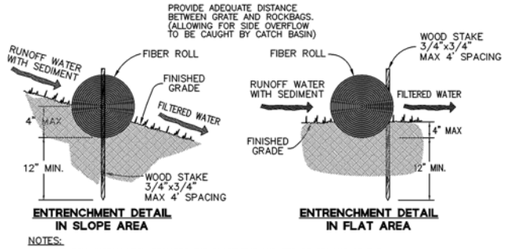
1 **SILT FENCE**
N.T.S.



STABILIZED CONSTRUCTION ENTRANCE

NOTES:
1. THE LOCATIONS SHOWN ARE FOR INFORMATION ONLY. ALL CONSTRUCTION ENTRANCES SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND, AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USE TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY SHALL BE REMOVED IMMEDIATELY.
2. WHEN NECESSARY, WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC RIGHTS-OF-WAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN. ALL SEDIMENT SHALL BE PREVENTED FROM ENTERING ANY STORM DRAIN, DITCH OR WATERCOURSE THROUGH USE OF INLET PROTECTION (E.G. SAND BAGS OR OTHER APPROVED METHODS).
3. THE MATERIAL FOR CONSTRUCTION OF THE PAD SHALL BE 2" TO 3" STONE.
4. THE THICKNESS OF THE PAD SHALL NOT BE LESS THAN 8".
5. THE WIDTH OF THE PAD SHALL NOT BE LESS THAN THE FULL WIDTH OF ALL POINTS OF INGRESS OR EGRESS.
6. THE LENGTH OF THE PAD SHALL BE AS REQUIRED, BUT NOT LESS THAN 50'.

2 **STABILIZED CONSTRUCTION ENTRANCE**
N.T.S.

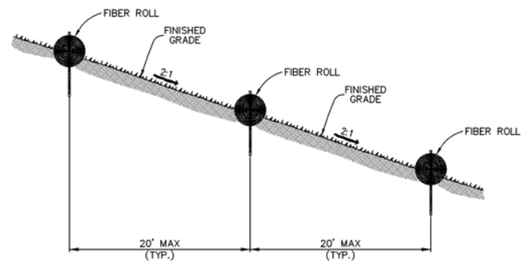


ENTRENCHMENT DETAIL IN SLOPE AREA

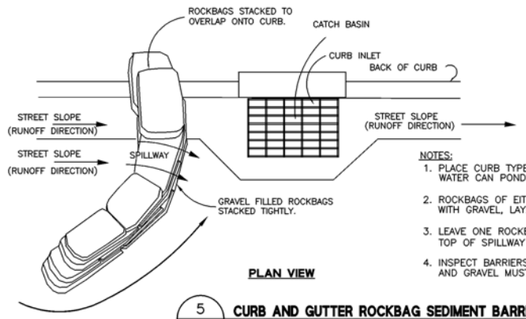
ENTRENCHMENT DETAIL IN FLAT AREA

NOTES:
1. FIBER ROLL INSTALLATION REQUIRES THE PLACEMENT AND SECURE STAKING OF THE ROLL IN A TRENCH, 3" TO 4" DEEP, DUG ON CONTOUR.
2. ADJACENT ROLLS SHALL TIGHTLY ABUT.
3. RUNOFF MUST NOT BE ALLOWED TO RUN UNDER OR AROUND FIBER ROLL.

3 **FIBER ROLL DETAIL**
N.T.S.



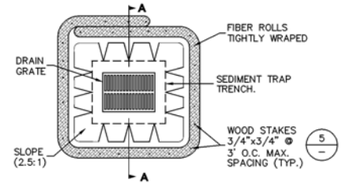
4 **FIBER ROLL INSTALLATION ON SLOPE**
(TIME FRAME: BETWEEN FINAL PAVING OPERATIONS AND PROJECT COMPLETION)
N.T.S.



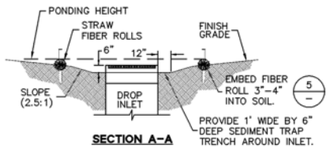
PLAN VIEW

NOTES:
1. PLACE CURB TYPE SEDIMENT BARRIERS ON GENTLY SLOPING STREETS, WHERE WATER CAN POND AND ALLOW SEDIMENT TO SEPARATE FROM RUNOFF.
2. ROCKBAGS OF EITHER BURLAP OR WOVEN GEOTEXTILE FABRIC, ARE FILLED WITH GRAVEL, LAYERED AND PACKED TIGHTLY.
3. LEAVE ONE ROCKBAG GAP IN THE TOP ROW TO PROVIDE A SPILLWAY OVERFLOW. TOP OF SPILLWAY SHALL BE LOWER THAN TOP OF CURB.
4. INSPECT BARRIERS AND REMOVE SEDIMENT AFTER EACH STORM EVENT, SEDIMENT AND GRAVEL MUST BE REMOVED FROM THE TRAVELED WAY IMMEDIATELY.

5 **CURB AND GUTTER ROCKBAG SEDIMENT BARRIER ON SLOPE**
(TIME FRAME: BETWEEN FINAL PAVING OPERATIONS AND PROJECT COMPLETION)
N.T.S.



PLAN VIEW



SECTION A-A

NOTES:
1. PLACE FIBER ROLLS AROUND THE INLET CONSISTENT WITH BASIN SEDIMENT BARRIER DETAIL ON THIS SHEET. (FIBER ROLLS ARE TUBES MADE FROM STRAW BOUND W/ PLASTIC NETTING. THEY ARE APPROX. 8" DIA. AND 20 – 30 FT. LONG.)
2. FIBER ROLL INSTALLATION REQUIRES THE PLACEMENT AND SECURE STAKING OF THE FIBER ROLL IN A TRENCH, 3" – 4" DEEP, DUG ON CONTOUR. RUNOFF MUST NOT BE ALLOWED TO RUN UNDER OR AROUND FIBER ROLL.
3. THE TOP OF THE STRUCTURE (PONDING HEIGHT) MUST BE WELL BELOW THE GROUND ELEVATION DOWNSLOPE TO PREVENT RUNOFF FROM BY-PASSING THE INLET. EXCAVATION OF A BASIN ADJACENT TO THE DROP INLET OR A TEMPORARY DIKE ON THE DOWNSLOPE OF THE STRUCTURE MAY BE NECESSARY.

6 **DROP INLET FIBER ROLLS SEDIMENT BARRIER**
(TIME FRAME: AREA DRAINS – BETWEEN AREA DRAIN INSTALLATION AND PROJECT COMPLETION
CURB INLETS – BETWEEN CURB INLET INSTALLATION AND FINAL PAVING OPERATIONS)
N.T.S.

ALL EROSION CONTROL MEASURES SHALL BE IN PLACE BY OCTOBER 15 AND MAINTAINED DURING ALL PHASES OF CONSTRUCTION.

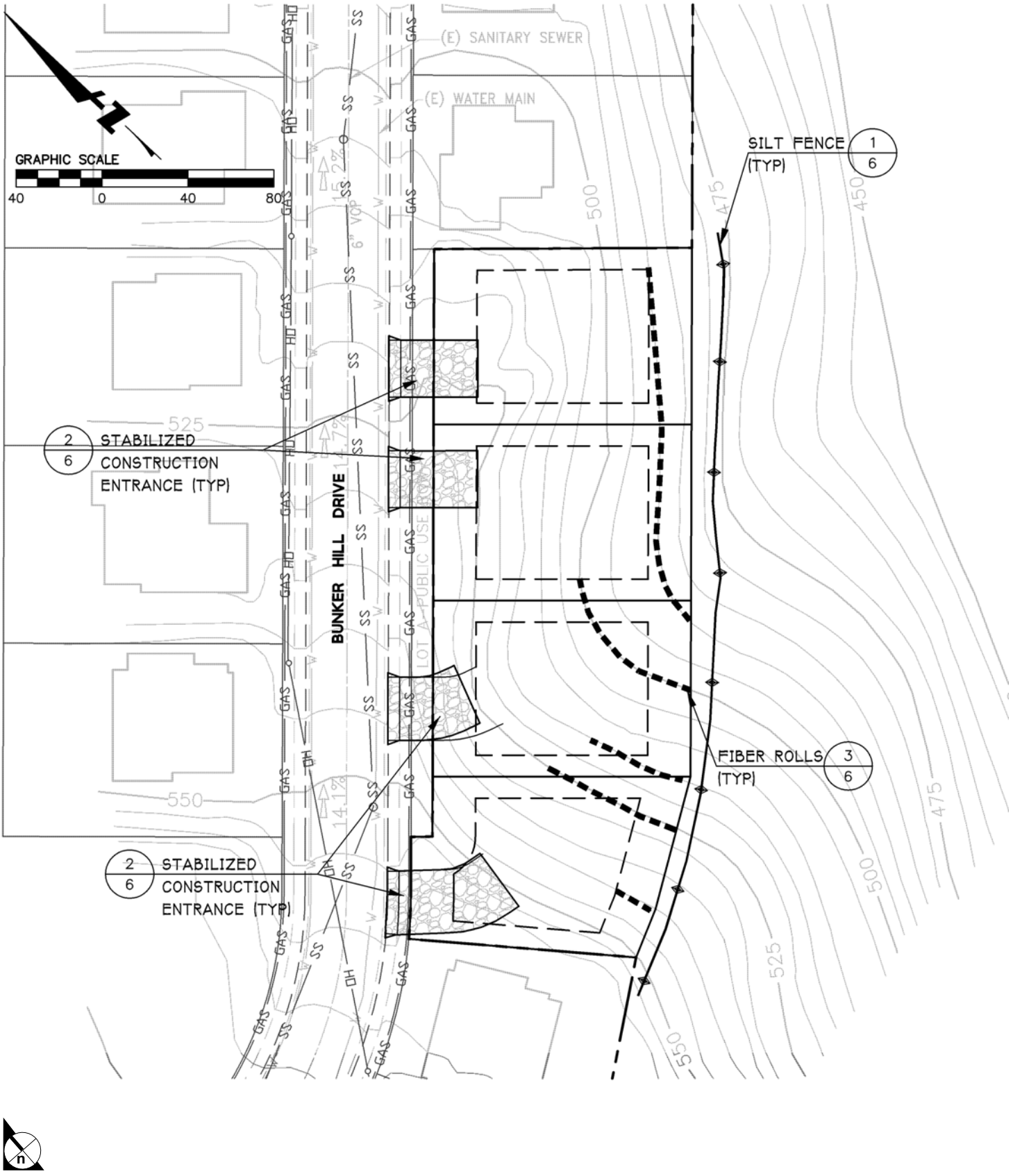
DRAWING NAME: J:\Eng95\9
PLOT DATE: 03-26-08 PLO

VERIFY SCALES: BAR SHOWN IS ONE INCH ON ORIGINAL DRAWING.
0 1"
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

SOURCE: BKF - March 2008

FIGURE **3.0-18**

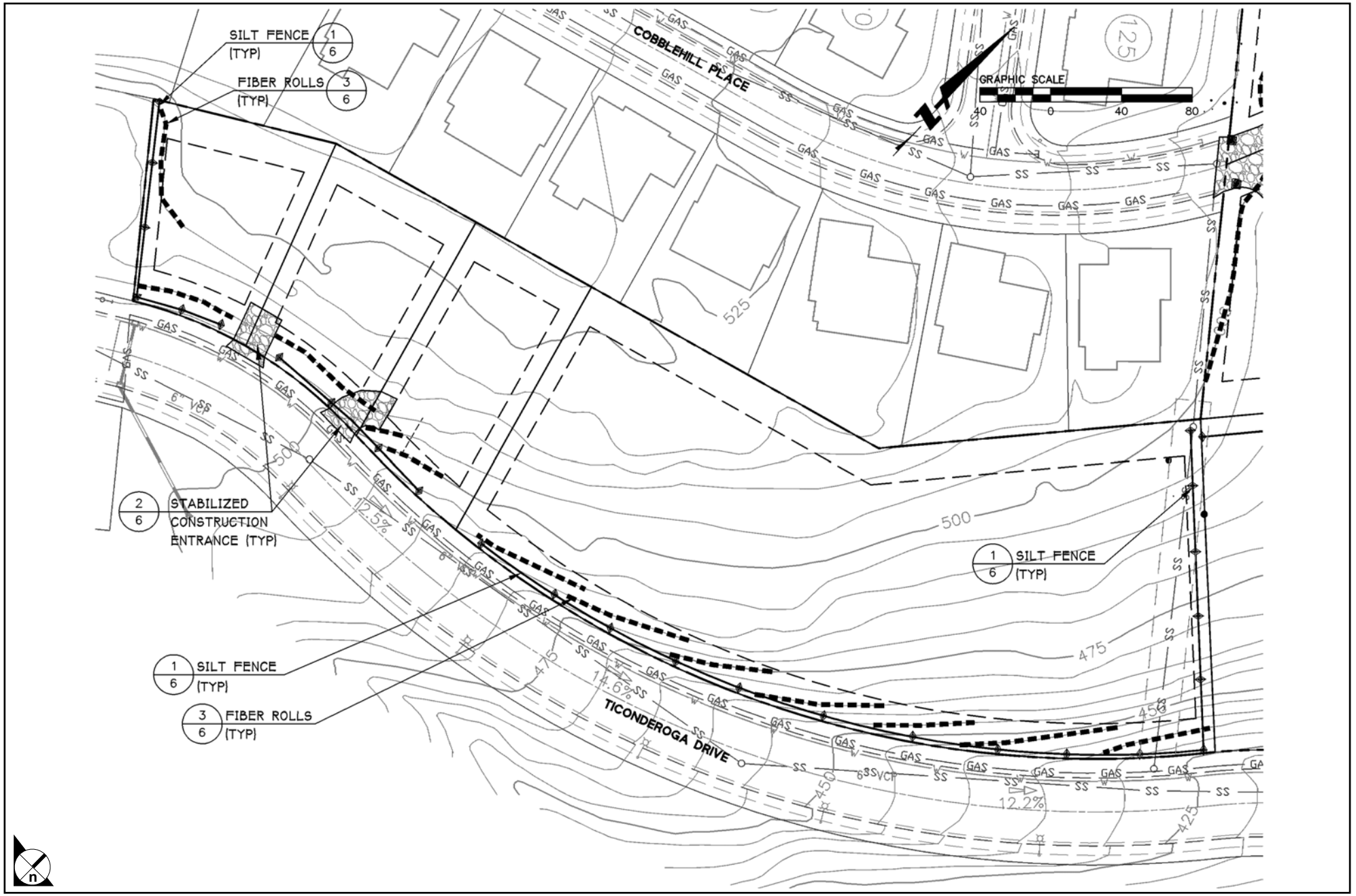
Erosion Control Details (Silt Fence and Fiber Roll)



SOURCE: BKF - December 2008

FIGURE **3.0-19**

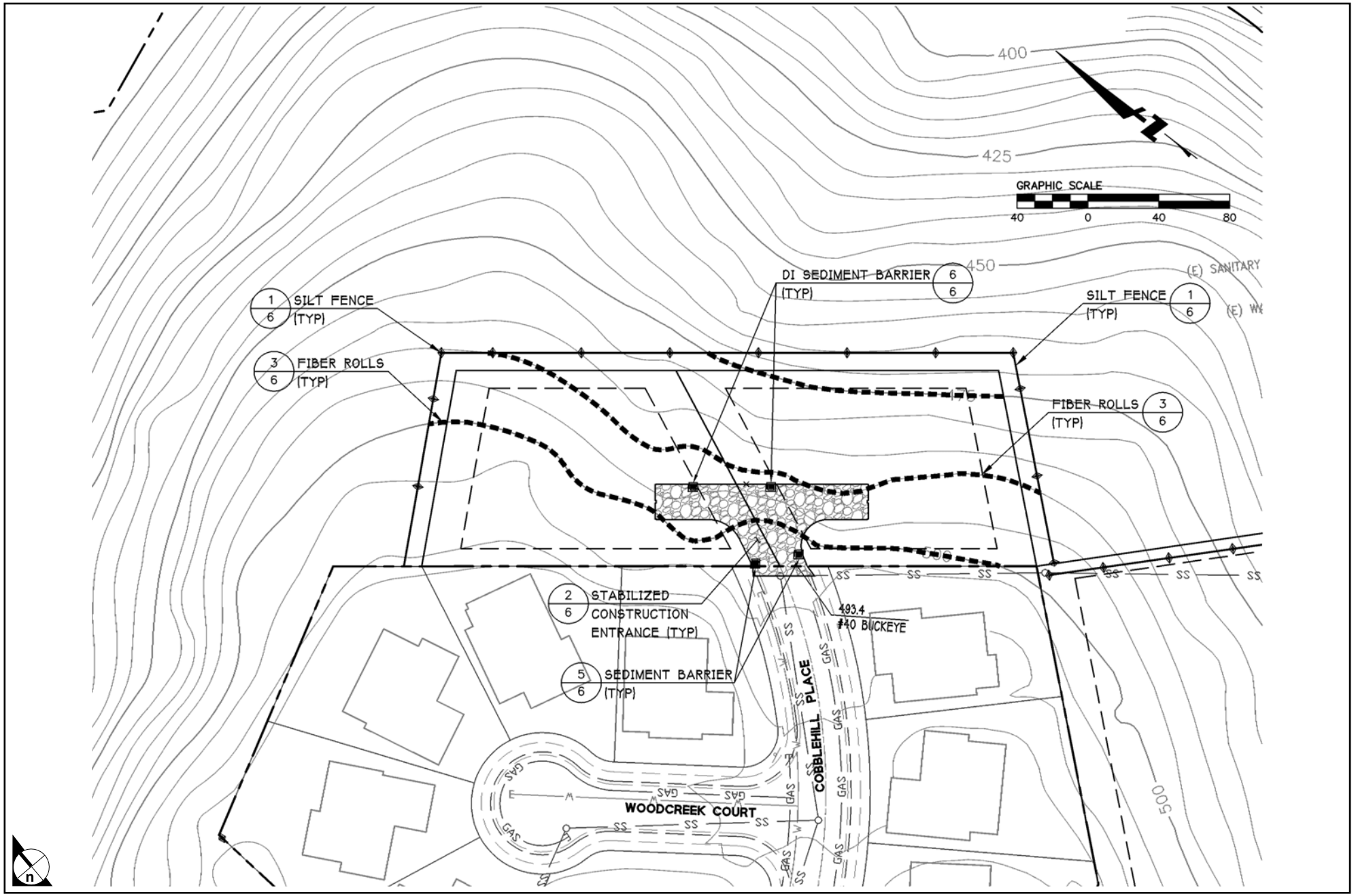
Proposed Erosion Control Plan, Lots 1-4 (Bunker Hill Drive)



SOURCE: BKF - March 2008

FIGURE **3.0-20**

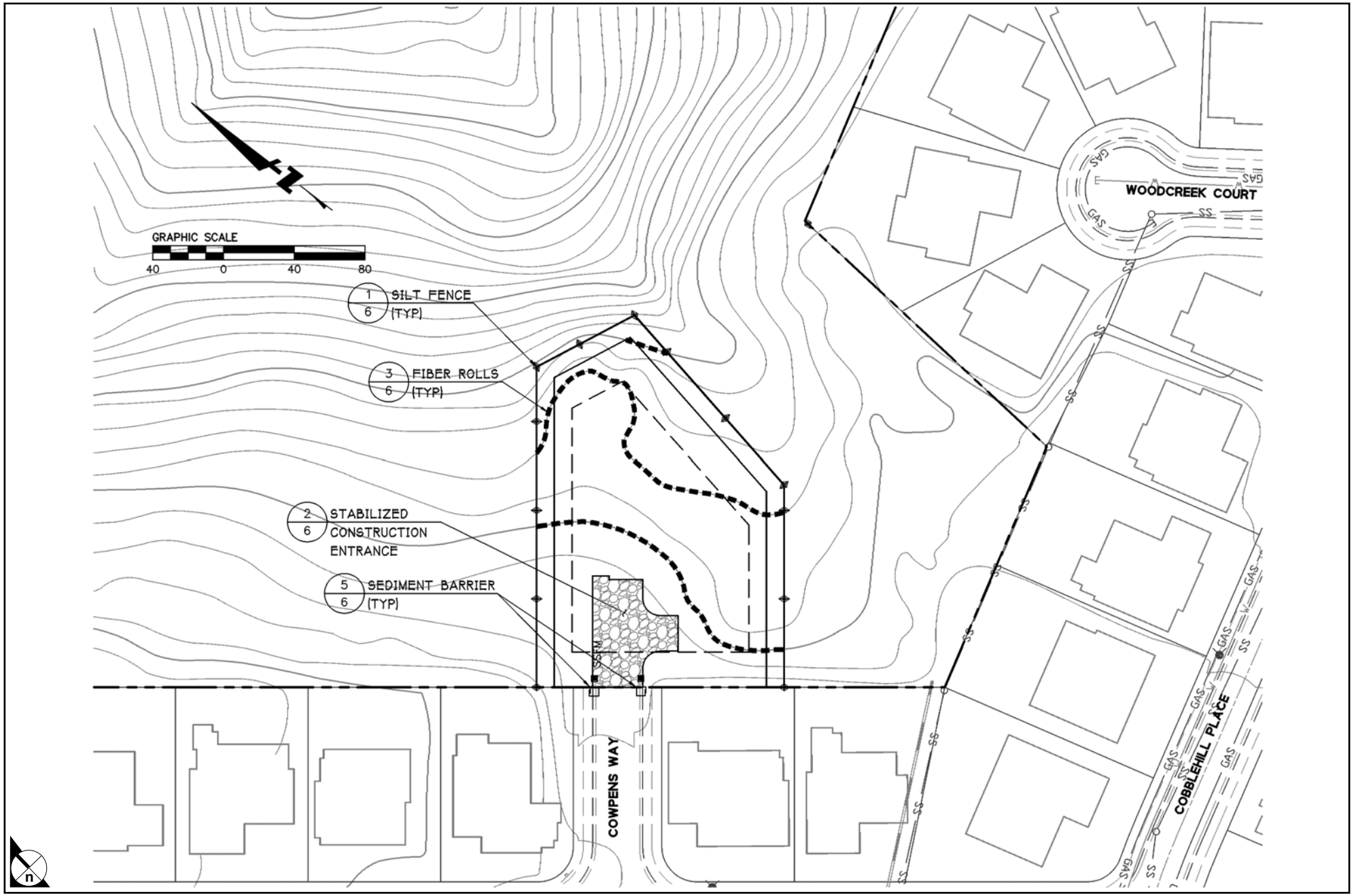
Proposed Erosion Control Plan, Lots 5-8 (Ticonderoga Drive)



SOURCE: BKF - March 2008

FIGURE **3.0-21**

Proposed Erosion Control Plan, Lots 9 and 10 (Cobblehill Place)



SOURCE: BKF - March 2008

FIGURE **3.0-22**

Proposed Erosion Control Plan, Lot 11 (Cowpens Way)

902-001•10/08

SOURCE: County of San Mateo - 2007

FIGURE **3.0-23**

Proposed Rezoning, Lot Line Adjustment, and Subdivision