

**ESTIMATED VALUE OF MARKET-AND COMMUNITY-INFLUENCED LAND
USE PLAN FOR THE REUSE OF THE FORMER FRED C. NELLES
YOUTH CORRECTIONAL CENTER SITE IN WHITTIER, CALIFORNIA**

A Report to

**State of California
Department of General Services
Real Estate Services Division
Asset Planning and Enhancement Branch**

From

GRUEN GRUEN + ASSOCIATES
Urban Economists, Market Strategists & Land Use/Public Policy Analysts

August 2005

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CHAPTER I

PURPOSE AND CONCLUSIONS

PURPOSE

This report presents the results of a residual land value analysis used to estimate of the value of the former Fred C. Nelles Youth Correctional Center site in Whittier, California (the “Nelles’ Site”). The analysis assumes that the Nelles’ Site will be redeveloped in conformity with a market- and community-influenced plan whose details have been specified by MVE Architects. The residual land value methodology is similar to what is often referred to as an income approach, and provides an estimate of the amount of money a developer could afford to pay for the Nelles’ Site, given an estimate of the net cash flow that results from the development and sale of the uses specified in the market- and community-influenced plan.

The land use plan itself was developed based on inputs received at community meetings, a market study of obtainable revenues for residential, office and retail uses conducted by Gruen Gruen + Associates (GG+A), and a study of the physical constraints of opportunities of the site prepared by MVE Architects. The plan itself is described in Chapter II of this report.

Revenue inputs for the cash flow analysis were taken from the GG+A market study and are detailed in Chapter II for the three major components of the plan: the residential uses, the retail uses, and the office uses.

Cost estimates are taken from work done by MVE Architects and Fuscoe Engineering, Inc. as well as the cost estimating firm of Leland Saylor Associates. These estimates are detailed in the tables contained within Chapter II. The assumptions about financial conditions are also specified in Chapter II. The most important of those financial assumptions is the required hurdle rate or return of 10 percent, which is referred to as the internal rate of return (“IRR”).

The net residual land value is presented below under Conclusions. Its derivation is explained in the remaining chapters of this report. It provides an estimate of the amount of money a buyer/land developer could afford to pay for the Nelles’ Site given the net cash flow anticipated to result from the development and marketing of the plan specified in this report. That same methodology, including the general cost, financial and marketing parameters detailed in this report, could also be used to calculate the estimated residual land value of plans other than the market- and community-influenced plan assumed allowable by the analysis summarized in this report.

The plan calls for three types of uses: residential, office, and retail. The cash flow model used to calculate the values that the development could sustain and return the buyer/developer an



IRR of 10 percent, includes separate sub-models for all three components. Copies of the key calculations in these three models are presented in the appendices to this report. The sub-model dealing with the residential portion of the development includes estimates for all of the infrastructure or general development likely to be associated with preparing the site so that the residential, office and retail development could proceed with only “on-site” improvements. Included in the general infrastructure and development costs are property taxes during the development phase, deconstruction, abatement, and demolition of existing improvements, park and site landscaping and other amenities, and off-site traffic mitigation. The only possible basic infrastructure development costs not included are the costs of potential soil and groundwater remediation. We have also not made deductions for affordable housing because we expect the set aside provisions of the tax increment redevelopment funds can be allocated for such costs.

By including all of the above referenced general development or infrastructure costs in the residential sub-model, it is possible to treat the retail and office uses as additive to the residual land value estimate for the residential portion. In other words, our analysis began with revenues minus costs cash flow analysis of the residential component of the plan that included an assumption of a seven percent builders’ return in addition to the 10 percent internal rate of return for the land developer. In this case, we understand the land developer will also be the residential builder. Because all costs for general land development are included in this model, we add to the cash flow of the land developer/housing builder the estimated proceeds the developer would receive from the resale of the land allocated for nonresidential uses to a retail and office developer or developers. The value received for the retail and office land is based on a separate internal rate of return model that calculates how much the developer or developers of the retail and office uses could afford to pay for the pads on which the retail and office space will be built. We have added the cash proceeds that would flow to the developer from the purchaser or purchasers of these pads to the land developer’s cash flow at the beginning of year two. Thus, in effect, the proceeds from the sale of the pads are discounted another 10 percent or approximately \$867,000 before they are included in the amount the land buyer can afford to pay the State.



CONCLUSIONS

Table I-1 summarizes the total value of the project and estimated residual land value by land use type of the market- and community-influenced plan.

TABLE I-1			
Estimated Land Residual Value by Use and in Totality¹			
Land Use	Total Project Value \$	Land Value Residual \$	Residual Land Value Per Square Foot ³ \$
Office	4,900,000	2,800,000 ²	33
Retail	9,500,000	5,900,000 ²	59
Residential	399,600,000	103,400,000	42
Total Project	414,000,000	112,100,000	43
¹ Figures are rounded. ² The land residual values for office and retail uses have been discounted to provide the initial buyer of the office and retail land with a 10 percent IRR on the sale of the pads for retail and office development. ³ Based on the amount of land devoted to office use of 1.9 acres, retail use of 2.3 acres, and residential uses of 55.9 acres for a total of 60.1 acres. 13.9-acres are used for parks, open space and detention and primary circulation. The residual land value estimate is exclusive of any costs for potential soil and ground water remediation and affordable housing.			
Source: Gruen Gruen + Associates			

The total project value at build-out is estimated at nearly \$414 million. The value of the housing units at build-out is estimated to total \$399.6 million. The value of the office space is estimated to total \$4.9 million while the retail space is estimated to total \$9.5 million.

The office use is estimated to support a land value from the initial land buyer of approximately \$2.8 million or \$33 per square foot of land. The retail use is estimated to support a land value of \$5.9 million or \$59 per square foot of land. The residential use is estimated to support a land value of approximately \$103.4 million or \$42 per square foot of land. In total, the market- and community-influenced plan is estimated to support a land value of \$112.1 million or \$43 per square foot of land devoted to office, retail, and residential uses.

The buyer who pays \$112.1 million for the land not only obtains a ten percent IRR on the land investment for a profit of approximately \$37.1 million. The land developer who is also assumed to be the homebuilder is also forecast to earn a “builder’s profit” of seven percent of the sales prices of the housing units totaling approximately \$27.9 million for a total profit of \$65.0 million.

The residential cash flow does not factor in revenues attributable to lot premiums or options



and upgrades for the residential products. The value the incremental sales revenue from lot premiums, options, and upgrades add to the supportable land value and should be captured for the State along with any future increases in market prices or decrease in costs through a participation clause that should be included in the purchase agreement. Such add-ons should be encouraged to enhance the land value to which the State would share through profit participation.

In addition, the estimate of residual land value for the residential component is conservative because it includes costs of \$9,000 to \$12,000 per unit for front and side-yard landscaping that could be included as an option or upgrade, the revenue of which is not factored into the analysis. In addition, in the absence of information on the schedule or timing of expenditures, we assumed that all general development costs and site engineering, fees, permits, and performance bonds, site work and utilities costs are expended during the first year.

Chapter III contains an analysis and more detailed summary tables (Tables III-1 through III-4) showing the derivation of the estimated net residual land values by land use and product type.



CHAPTER II

**DESCRIPTION OF LAND USES, AND REVENUE
AND COST ESTIMATES UTILIZED**

DESCRIPTION OF LAND USES

Table II-1 describes the types and amounts of land uses and products in the market- and community-influenced plan.

TABLE II-1					
Description of Land Uses and Products					
Land Use	Product	Amount of Space or Number of Units #	Average Size of Housing Units # Square Feet	Average Lot Size for Housing Units # Square Feet	Parking Spaces for Office and Retail Uses #
Residential	Single Family Detached	100	2,200	3,400	
Residential	Single Family Detached	112	2,000	3,500	
Residential	Single Family Detached- Cluster	75	1,800	2,500	
Residential	Court Townhomes	157	1,600	NA	
Residential	Row Townhomes	230	1,600	NA	
Office		8,000 of existing and 12,000 of new	NA	NA	40
Retail		22,000	NA	NA	175
Total		674 housing units 42,000 square feet of commercial space			
Source: MVE Architects					

The plan for the site assumes the development would contain 8,000 square feet of office space in the existing Administration Building plus 12,000 square feet of new office space and 22,000 square feet of new retail space and 215 parking spaces based on five spaces for every 1,000 square feet of office and retail space. The re-use of the 8,000-square-foot Administration Building, while subject to verification of its structural integrity, is assumed to be ready for tenant improvements to accommodate new tenants.

The residential component of the development includes a total of 287 for-sale detached,



single-family units and 387 for-sale attached, single-family (townhome) units. It includes three different types of detached, single-family products. The conventional detached, single-family product type averages 2,200 square feet of space on average lot sizes of 3,400 square feet. The plan includes 100 units of the conventional product type. The detached single-family alley-loaded product type averages 2,000 square feet of space on lot sizes of 3,500 square feet. The development plan includes 112 units of the alley-loaded product type. The detached, single-family cluster type product averages 1,750 square feet of space on lot sizes of 2,500 square feet. The 4-, 6- and 8-plex cluster type product totals 75 units, and includes two types of attached single-family product. The plan includes 157 court townhome units with an average unit size of 1,600 square feet and 230 row townhome units with an average unit size of 1,600 square feet of space. Appendix A contains a diagrammatic exposition of the entire plan.

MARKET PARAMETERS

Net Revenue Inputs for Office and Retail Development

Table II-2 summarizes the market or revenue parameters for the office and retail uses.

TABLE II-2	
Market Parameters for Office and Retail Uses	
Annual Retail Space Net Rent Per Square Foot of Building Space	\$32.00
Annual Operating or Reserve Costs Per Square Foot Incurred by Retail Building Owner	\$1.00
Annual Office Space Gross Rent Per Square Foot of Building Space	\$25.50 Existing \$27.50 New
Annual Fixed and Variable Costs Per Square Foot of Office Space	\$7.50
Annual Rent and Fixed Cost Increase	2%
Retail Occupancy Rate Following Construction Completion	95%
Office Occupancy Rate Following Construction Completion	95%
Retail Space Tenant Improvements Per Square Foot	\$39.00
New Office Space Tenant Improvements Per Square Foot	\$39.00
Tenant Improvements Per Square Foot for Existing Office Space	\$45.00
Retail Space Leasing Commission Costs Per Square Foot	\$5.00
Office Space Leasing Commission Costs Per Square Foot	\$3.00
Sources: CB Richard Ellis; Trammel Crow; CoStar Realty Information; Loopnet.com; Leland Saylor Associates; Gruen Gruen + Associates.	

The estimates of rents, tenant improvement, and leasing commission costs are drawn from the research summarized in prior reports. This research included interviews with developers and brokers and review of secondary real estate market data. We use rental and occupancy estimates consistent with better performing retail centers in the market including The



Whittwood Town Center and Quad at Whittier Shopping Center on Whittier Boulevard in Whittier. The estimates of rents also depend upon the assumption of the development of a high-quality neighborhood on the site and the scale of office and retail uses consistent with the market- and community-influenced plan. Accordingly, for the retail space development, we estimate obtainable annual net rent of \$32 per square foot and an occupancy rate of 95 percent following completion of construction of the building space. Our estimate of the gross office space rent of \$25.50 per square foot for the existing space in the Administration Building and \$27.50 per square foot for newly constructed office space also reflects the best in class in Whittier and assumes an annual occupancy rate of 95 percent following construction of the office space.

We estimate operating expenses or reserves on unleased space of \$1.00 per square foot for the retail use. We estimate \$7.50 per square foot for operating the office use. We assume that operating costs and rental rates will increase at an average annual rate of two percent. Based on information provided by Leland Saylor Associates, tenant improvement costs are estimated at \$39.00 per square foot for retail space and \$39.00 per square foot for new office space and \$45.00 per square foot for the existing office space. The higher tenant improvement costs for the existing space of the Administration Building reflect the assumption that the interior improvements will need to be demolished. Leasing commission costs are estimated at \$5.00 per square foot for retail space and \$3.00 per square foot for office space.

Revenue Inputs for Residential Development

Based on the research summarized in a prior report, we estimate obtainable base prices of \$290 per square foot for the detached, single-family conventional housing units, \$305 per square foot for the detached, single-family alley-loaded units, and \$320 per square foot for the detached, single-family cluster lot units. We estimate an average base price of \$320 per square foot for the row townhouse units. Because of the higher quality of the court townhome unit included in the market- and community-influenced plan, we assume an average sales price of \$330 per square foot for this product.

Table II-3 presents an estimate of the obtainable revenues per unit and for the total number of units by product type based on the base price estimates summarized in the preceding paragraph. Because we do not presently have information on the associated costs, to be conservative, we do not include estimates of options or upgrades and also exclude lot premiums from the sales price estimates. The value the incremental sales revenue adds to the supportable land value can be handled through the profit participation agreement with the buyer of the land.



Estimated Value of Market-and Community-Influenced Land Use Plan For the
Reuse of the Former Fred C. Nelles Youth Correctional Center Site in Whittier, California

TABLE II-3

Estimated Potential Revenue from Development of For-Sale Housing Units¹

	Detached, Single-Family Conventional Lots (100 Units) \$	Detached, Single-Family Alley-Loaded Lots (112 Units) \$	Detached, Single-Family Cluster Lots (75 Units) \$	Row Townhomes (230 Units) \$	Court Townhomes (157 Units) \$
Price Per Square Foot	290	305	320	320	330
Revenue Per Unit	638,000	610,000	576,000	512,000	528,000
Revenue Per Acre ²	5,167,800	4,758,000	6,624,000	9,216,000	8,448,000
Total Revenue ³	63,800,000	68,320,000	43,200,000	117,600,000	82,896,000
Grand Total ⁴	375,816,000				
¹ Excludes revenues attributable to upgrades/options, lot premiums or price escalation during build-out of project. ² Reflects dwelling units per acre of 8.1 for conventional single-family units, 7.8 units per acre for alley-loaded units, 11.5 units per acre for cluster-type units, 16 units per acre for court townhome units, and 18 units per acre for row townhome units. ³ 100 conventional single-family units are allocated 12.4 acres, 112 alley-loaded units are allocated 14.4 acres, 75 cluster type units are allocated 6.5 acres, 157 court townhome units are allocated 9.8 acres, and 230 row townhome units are allocated 12.8 acres. ⁴ Grand total does not include the effect of price escalation.					
Sources: MVE Architects; Gruen Gruen + Associates.					

The sales price per square foot estimates translate into estimates of obtainable prices of \$638,000 for the single-family conventional units, \$610,000 for single-family alley-loaded units, \$576,000 for single-family cluster-type units, \$512,000 for row townhome units, and \$528,000 for court townhome units. Based on the unit densities per acre under the market-and community-influenced plan summarized in Table II-2, the 100 conventional units would produce revenues per acre of nearly \$5.2 million and total revenues of \$63.8 million. The 112 alley-loaded units would produce revenues of \$4.8 million per acre for a total of \$68.3 million. The 75 cluster-type units would produce revenues per acre of approximately \$6.6 million or \$43.2 million in total revenue. The 230 row townhome units would produce revenues of \$9.2 million per acre for total revenue of \$117.6 million. The 157 court townhome units would produce revenues per acre of \$8.4 million or a total revenue of \$82.9 million. The 674 units are estimated to generate total revenue of \$375.8 million.

Absorption Rates and Price Escalation

To forecast the cash flow and net residual value, we estimate that the housing units will be absorbed within 27 months, following one year of general development activity in which no



units are assumed to be built. We assume net price escalation at the rate of six percent per year or 1.5 percent per quarter. To be conservative, the price escalation does not commence until sales start following one year of general development activity.

COST ELEMENTS

Table II-4 summarizes the estimated development costs for the office and retail components.

TABLE II-4		
Cost Elements of Office and Retail Space		
Cost Element	Office	Retail
Hard Construction Costs Per Square Foot	\$88.00 for new space ¹	\$88.00
Soft Costs as Percentage of Hard Costs, Excluding Land	20%	20%
Sitework/Utilities/Parking/Landscaping Per Square Feet of Building Space ² and Total	\$23.33.00 \$466,600	\$23.33 \$513,260
Tenant Improvements for New Space Per Square Foot and Total	\$39.00 \$468,000	\$39.00 \$858,000
Tenant Improvements, Including Demolition of Existing Office Space Per Square Foot and Total	\$45.00 \$360,000	NA
¹ Per MVE Architects, while re-use of Administration Building subject to verification of structural integrity, the Building is potentially ready for tenant improvements to accommodate new tenants. ² This cost estimate is equivalent to a cost of approximately \$7.50 per square foot of land for areas not covered by building space.		
Sources: MVE Architects; Fuscoe Engineering, Inc.; Leland Saylor Associates; Gruen Gruen + Associates.		

As indicated above, because the 8,000 square feet of office space is in an existing building, the Administration Building, no construction hard costs are assumed to be required. Hard costs for the new office space are estimated at \$88.00 per square foot or \$1,056,000. Soft costs of 20 percent are added to cover design and additional costs for the new space. Site work, utilities, parking, and landscaping costs are estimated at \$23.33 per square foot of both new and existing building space (or \$7.50 per square foot of land for areas not covered by building space) for a total of \$466,600. As indicated above, tenant improvements are estimated to cost \$39 per square foot for new office and \$45 per square foot for existing office space for a total of \$828,000. The cost estimate furnished by Leland Saylor Associates includes demolition of existing interior improvements of the Administration Building.

The hard costs for the construction of 22,000 square feet of retail space are estimated at \$88.00 per square foot. Soft costs are estimated to total 20 percent of hard costs. Site work, utilities, parking, and landscaping costs are estimated at \$23.33 per square foot of building space (or \$7.50 per square foot of land for areas not covered by building space) for a total of \$513,300. As indicated above, tenant improvement costs for the retail space are estimated at



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\$39.00 per square foot or \$858,000.

Table II-5 summarizes the estimated development costs for the for-sale residential components.

TABLE II-5

Cost Elements of For-Sale Residential Product Types

Cost Element	Detached, Single-Family Conventional Lots (100 Units) \$	Detached, Single- Family Alley- Loaded Lots (112 Units) \$	Detached, Single-Family Cluster Lots (75 Units) \$	Row Townhomes (230 Units) \$	Court Townhomes (157 Units) \$
Hard Construction Costs Per Square Foot of Built Space	79.33	79.33	79.33	93.47	101.49
Sitework & Utilities Per Unit ¹	25,546	20,908	18,589	19,168	19,161
Site Engineering, Fees, Permits & Performance Bonds Per Unit	16,487	16,487	16,487	16,487	16,487
Landscaping for Housing Units Per Unit	12,500	9,000	9,000	9,000	9,000
Sales, Advertising & Commission, Closing, Model, Warranty, Consultants, Insurance and Other Additional Costs @ 18% Percent of Unit Sales Price ²	114,840	109,800	103,680	92,160	95,040
General and Administration @ 3% of Unit Sales Price ²	19,140	18,300	17,280	15,360	15,840
“Builder’s Profit” @ 7% of Unit Sales Price ²	44,660	42,700	40,320	35,840	36,960
Total Costs Per Unit	407,699	375,855	348,150	337,567	354,872
Total Costs Per Square Foot of Built Space	185	188	193	211	222
Total Costs Per Acre	3,302,362	2,931,669	4,003,725	6,076,206	5,683,200
Total Costs	40,769,900	42,095,760	26,111,250	77,640,410	55,714,904
Grand Total	242,332,224				

¹ Includes site preparation and grading, slope and erosion control, storm drainage, sanitary sewer, water distribution, roadway improvements, and utilities.

² Assuming base unit sales prices per square foot of \$290 for the conventional units, \$305 for alley-loaded units, \$320 per square foot for cluster-type units, and row townhome units, and \$330 per square foot for court townhome units.

Sources: MVE Architects; Fuscoe Engineering, Inc.; Leland Saylor Associates; Gruen Gruen + Associates.

Development costs include the hard costs of building the housing products, the architectural, engineering, and other soft costs related to developing the units, site engineering, fees, permits, and performance bonds, site work and utility infrastructure, landscaping for the housing units, and advertising, marketing, commission, closing, and related costs for the marketing and sales of the units. Based on information provided by



Leland Saylor Associates, hard costs per square foot are estimated to average \$79 for the detached single-family units, \$93 for the row townhome units, and \$101 for the court townhome units. According to Leland Saylor Associates, site work and utilities per unit are estimated to range from \$25,546 for the conventional single-family units to \$20,908 for the alley-loaded single-family unit, to \$18,589 for the cluster-type units, to \$19,161 for the row townhome units, and \$19,168 for the court townhome units. According to Leland Saylor Associates and Fuscoe Engineering, Inc., site engineering, fees, permits, and performance bonds per unit are estimated to total nearly \$16,500 per unit. Landscaping costs for the housing units are estimated by MVE Architects to total \$12,500 per unit for the conventional single-family product and \$9,000 per unit for the other product types.

Sales, advertising, and commission, closing, model, warranty, consultant services, insurance, and other additional costs are estimated to total 18 percent of unit sales prices. Based on the sales prices per square foot estimates for the housing units, this estimate translates into costs of \$115,000 per unit for the conventional single-family product, \$110,000 for the alley-loaded product, \$104,000 for the cluster-type product and \$92,000 to \$95,000 for the townhome products.

We assume general and administration costs of not more than three percent of unit sales prices. This assumption translates into general and administration costs of approximately \$19,100 per unit for the conventional single-family product, \$18,300 for the alley-loaded single-family product, \$17,300 for the cluster-type product, and \$15,400 to \$15,800 for the townhome products.

We estimate a builder's profit or profit margin of seven percent of sales. This profit requirement translates into \$44,700 per conventional single-family unit, \$42,700 for the alley-loaded product, \$40,300 for the cluster-type product, and approximately \$36,000 for the townhome products.

Based on the estimates summarized above, the total costs per unit are estimated to range from \$407,700 for the detached, single-family conventional unit to nearly \$337,600 for the row townhome product. The costs per square foot of built space ranges from \$185 to \$193 for the detached, single-family units to \$211 to \$222 per square foot for the attached single-family units. The total costs by product type are distributed as follows: \$40.8 million for the conventional product type, \$42.1 million for the alley-loaded product type, \$26.1 million for the cluster-type product, \$77.6 million for the row townhome product, and \$55.7 million for the court townhome product. The total estimated costs of the residential products are \$242.3 million. Sales, advertising, general and administrative costs, as well as builder's profit are estimated as a function of sales prices. Therefore, as sales prices are estimated to escalate six percent per year after the first year of development, costs tied to sales prices will increase proportionately.



Table II-6 summarizes the general development costs not directly related or allocable to the production of specific building products.

TABLE II-6	
Additional Development Costs for the Reuse of the Nelles' Site¹	
Cost Element ¹	\$
Traffic Mitigation	1,205,000
Deconstruction, Abatement, Demolition	4,975,000
Historic Resource Park	150,000
Perimeter Landscape Buffer	175,000
Internal Park	600,000
Park & Detention	750,000
Site Amenities and Entry Features	500,000
Erosion Control	900,000
Property Taxes	1,737,100
Total	10,992,100
¹ Figures are rounded. The analysis does not include potential soil and ground water remediation.	
Sources: MVE Architects; Kunzman Associates; CH2MHill; Leland Saylor Associates; Gruen Gruen + Associates.	

Additional general development costs not directly related to or allocable to the production of specific building products include traffic mitigation costs of approximately \$1.2 million, deconstruction, abatement and demolition of existing site improvements of nearly \$5.0 million and park, site landscaping and detention facility costs of approximately \$1.675 million, site amenities and entry features of \$500,000, and erosion control of \$900,000. In addition, we assume property tax expense of approximately \$1.7 million would be credited against the purchase price. These additional general development costs total \$11.0 million.

FINANCIAL PARAMETERS

Office and Retail

Table II-7 summarizes the financial terms stipulated for the investment analysis of the office and retail components.



TABLE II-7

Investment and Financing Assumptions of Office and Retail Space

Equity as Percent of Project Total	20%
Net Present Value (NPV) Discount and IRR	10%
Sale Year for Calculation	10
Mortgage Rate	5.5%
Mortgage/Amortization Term in Years	25
Year Mortgage Taken Out	2
Construction Loan Financing Costs – Annual Interest Rate	4.75%
Construction Loan Fee	0.5%
Capitalization Rate – Going-in and Sale Year	7%
Sales Expense as Percent of Sales Price	2%

Sources: Urban Land Institute, *Capital Markets Update – May 5, 2005*; Integra Realty Resources *Viewpoint 2005*; National Council of Real Estate Investment Fiduciaries *Property Index Results, 1st Quarter 2005*; CB Richard Ellis; RREEF; Gruen Gruen + Associates.

Financial parameters include equity and debt terms, construction and permanent loan arrangements, IRR, and capitalization rates. We assume an equity investment of 20 percent of project costs. For simplicity, we assume the same target IRR for nonresidential space as residential space, even though the capital markets are such that retail investors, for example, will accept a lower IRR threshold than residential developers. We assume the pad site is purchased following completion of the general infrastructure and site preparation development for the overall project and a one-year construction period for the development of the office and retail space beginning in the second year and a resulting construction loan period of one year. We estimate a construction loan interest rate of 4.75 percent and a loan fee of one-half of one point (i.e., one half of one percent of the loan value). We assume a permanent mortgage loan is obtained in year two to take out or retire the construction loan. We estimate an annual interest rate of 5.5 percent for the permanent mortgage and a loan amortization schedule of 25 years. We estimate the capitalization rate, or required yield on the purchase of an income-producing property of seven percent. We assume expenses associated with the sale of the property of two percent of the transaction value.

Residential

For the residential component, we include as a cost a builder’s profit requirement of seven percent of the sales prices of the units. In addition, we estimate an unleveraged IRR return requirement or hurdle rate on the development of the land of 10 percent. The IRR of ten percent provides the land developer not only with a return on its initial purchase of the land but also a return of any cash outflow of costs during any period in which costs exceed revenue.



CHAPTER III

ESTIMATES OF RESIDUAL LAND VALUES

RESULTS FOR OFFICE AND RETAIL USES

Appendix B presents a 10-year cash flow for the office and retail uses. This cash flow has been iterated in GG+A's real estate investment model to calculate the first year price or land value that would permit the buyer to earn a 10 percent internal rate of return, given the forecast cash flows. The tables below present the results of that analysis and indicate the equity and loan arrangements associated with retail and office uses, which we have assumed would be built by a office and retail developer or developers who would purchase the land following completion of the general land development improvements by the land developer and then construct the office and retail space with the built space 95 percent leased following the one year construction period. Because, as mentioned in the Purpose section of this report, all "front end" infrastructure costs would have been put in by the same buyer/land developer assumed to be building the residential component of the development, these retail and office land values after discounting them to provide the buyer/land developer with a 10 percent IRR on its land purchaser from the State can be added to the stream of income earned by the buyer/land developer.

Office

Table III-1 summarizes the results of the investment simulation of the office development.

TABLE III-1	
Land Value and Return Supported by Office Use	
	\$
Land Value Residual	3,028,444
Residual Land Value Per Square Foot	\$37.00
Total Project Value	4,865,946
Equity	973,189
Permanent Loan	3,892,757
Annual Debt Service	290,203
Source: Gruen Gruen + Associates	



The results of the investment analysis indicate that the 8,000 square feet of existing (Administration Building) and 12,000 square feet of new office space specified in the market-and community-influenced plan would produce a land value residual of approximately \$3.0 million or \$37 per square foot of land. In other words, the third party investor-developer could pay the buyer/land developer \$3.0 million for the 1.9-acres of land needed to site the building and 40 parking spaces and earn a 10 percent return on its equity investment. Equity for the total project would approximate \$973,000 and the permanent loan of about \$3.9 million for a total project value of approximately \$4.9 million. Annual debt service would approximate \$275,000.

As indicated above, to estimate the land value the buyer/land developer could afford to pay the State, we discount the proceeds from the sale of the office space paid by 10 percent or approximately \$300,000.

Retail

Table III-2 summarizes the results of the investment simulation of the retail development specified in the market- and community-influenced plan.

TABLE III-2	
Land Value and Return Supported by Retail Use	
	\$
Land Value Residual	6,506,230
Residual Land Value Per Square Foot	\$65.00
Total Project Value	9,506,543
Equity	1,901,309
Permanent Loan	7,605,234
Annual Debt Service	566,965
Source: Gruen Gruen + Associates	

The results of the investment analysis indicate that the retail development including 22,000 square feet of space and 175 parking spaces produces a residual land value of approximately \$6.5 million or \$65 per square foot of land. In other words, the third party investor-developer could pay the buyer/land developer \$6.5 million for the 2.3-acres of land needed to site the building and 175 parking spaces and earn a 10 percent return on its investment.



Estimated Value of Market-and Community-Influenced Land Use Plan For the
Reuse of the Former Fred C. Nelles Youth Correctional Center Site in Whittier, California

Equity for the total project would approximate \$1.9 million and the permanent loan of about \$7.6 million for a total project value of \$9.5 million. Annual debt service would approximate \$567,000.

As indicated above, to estimate the land value the buyer/land developer could afford to pay the State, we discount the proceeds from the sale of the retail space paid by 10 percent or approximately \$591,500.

Residential

Appendix C presents the net cash flow for the residential uses. Table III-3 summarizes the estimated residual land value available for the purchase of the land designated under the market- and community-influenced plan for residential uses given the product types, unit counts, and revenue, cost, and return estimates outlined in the preceding chapters before deductions for general development costs.

TABLE III-3						
Land Residual Value of Residential Product Types, Before Deductions for General Development Costs						
	Detached, Single-Family Conventional Lots (100 Units) \$	Detached, Single-Family Alley-Loaded Lots (112 Units) \$	Detached, Single-Family Cluster Lots (75 Units) \$	Row Townhomes (230 Units) \$	Court Townhomes (157 Units) \$	Total \$
Total Revenues	67,806,092	72,662,618	45,967,354	124,997,406	88,131,491	399,564,962
Total Costs	41,675,706	43,311,782	26,886,156	79,665,267	57,182,071	248,936,944
Gross Residual Land Value	25,914,424	29,350,836	19,081,198	45,332,140	30,949,421	150,628,018
Gross Residual Land Value Per Square Foot of Built Space	118	131	141	123	123	126
Gross Residual Land Value Per Acre ¹	2,099,068	2,044,076	2,925,784	3,547,733	3,154,081	2,694,598
¹ 100 conventional single-family units are allocated 12.4 acres, 112 alley-loaded units are allocated 14.4 acres, 75 cluster type units are allocated 6.5 acres, 157 court townhome units are allocated 9.8 acres, and 230 row townhome units are allocated 12.8 acres for a total of 55.9-acres of land.						
Source: Gruen Gruen + Associates.						



The revenues of sales of the individual product types total approximately \$399.5 million. The total costs attributable to the production of the units total approximately \$248.9 million for a gross land residual value of about \$150.6 million. This total value equates to a per acre value of almost \$2.7 million. The most profitable products are the row townhome and court townhome units, followed by the detached cluster lot units.

Table III-4 presents a summary of the estimated net residual land value (after taking into account general development costs) generated by the residential products included in the market- and community-influenced plan.

TABLE III-4	
Estimated Net Residual Land Value of Residential Uses in Market- and Community-Influenced Plan	
	<u>\$</u>
Gross Residual Land Value	150,628,000
General Development Costs ¹	10,992,100
Net Residual Land Value Unadjusted to Present Value	139,635,900
Net Residual Land Value on a Present Value Basis ²	103,409,000
Net Residual Land Value Per Acre	1,849,892
Net Residual Land Value Per Square Foot of Land	42
Land Development Profit	\$36,226,900
¹ Additional development cost include deconstruction, abatement and demolition- \$4,975,000; traffic mitigation- \$1,205,000; historic mitigation- \$150,000; perimeter landscape buffer- \$175,000; internal park- \$600,000; park and detention- \$750,000; site amenities and entry features- \$500,000; erosion control- \$900,000; and property taxes of \$1,737,100. ² This value reflects the discounting of cash flows at a discount rate of 10 percent. Net residual land value divided by the 55.9 acres the market- and community-influenced plan designates specifically for residential uses. Value is exclusive of any costs for potential soil and ground water remediation and affordable housing	
Source: Gruen Gruen + Associates.	

General development costs are deducted from the gross residual land value shown on Table III-3 to generate a total net residual land value of \$139.6 million and on a present value basis given a 10 percent IRR requirement, a net land residual of \$103.4 million. The estimated residual land value equates to a per acre amount of over \$1,850,000 or a residual value per square foot of land of \$42. The profit on land development of residential uses is approximately \$36.2 million, or approximately \$648,100 per acre. Factoring in the profit from the sale of land for office and retail uses results in an estimate of the total profit from the land purchase and land development of approximately \$37.1 million. Appendix D presents the net cash flow from the land purchase and development, building and sale of residential units and sale of pads for office and retail space development.



APPENDIX A

MVE Architects Plan for Reuse of Fred C. Nelles Youth Correctional Facility Site in Whittier, California



APPENDIX B

**CASH FLOW FROM DEVELOPMENT
OF OFFICE AND RETAIL SPACE**

TABLE B-1										
Cash Flow Resulting from Development of the 20,000-Square-Foot Office Project Assuming a 10-Year Holding Period and a 10 Percent Internal Rate of Return										
	Years									
	1 ¹	2	3	4	5	6	7	8	9	10
	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
Equity ²	973,189	0	0	0	0	0	0	0	0	0
Net Income	0	(485,485)	365,288	372,593	380,045	387,646	395,399	403,307	411,373	419,601
Debt Service	0	290,203	290,203	290,203	290,203	290,203	290,203	290,203	290,203	290,203
Take Out from Sale ³	0	0	0	0	0	0	0	0	0	2,838,262
Cash Flow	(973,189)	(775,678)	75,085	82,391	89,843	97,444	105,196	113,104	121,171	2,967,660
1 Assumes general development occurs in first year.										
2 Assumes equity is 20 percent of total project value.										
3 Assumes loan repayment of \$3,036,146, and seven percent capitalization rate and two percent cost of sale.										
Source: Gruen Gruen + Associates										



Estimated Value of Market-and Community-Influenced Land Use Plan For the
Reuse of the Former Fred C. Nelles Youth Correctional Center Site in Whittier, California

TABLE B-2

**Cash Flow Resulting from Development of the 22,000-Square-Foot Retail Project
Assuming a 10-Year Holding Period and a 10 Percent Internal Rate of Return**

	Years									
	1 ¹	2	3	4	5	6	7	8	9	10
	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
Equity ²	1,901,309	0	0	0	0	0	0	0	0	0
Net Income	0	(272,800)	660,176	673,820	687,736	701,931	716,409	731,177	746,241	761,606
Debt Service	0	566,965	566,965	566,965	566,965	566,965	566,965	566,965	566,965	566,965
Take Out from Sale ³	0	0	0	0	0	0	0	0	0	4,730,798
Cash Flow	(1,901,309)	(839,765)	93,211	106,854	120,771	134,965	149,444	164,212	179,276	4,925,439
1 Assumes general development occurs in first year. 2 Assumes equity is 20 percent of total project value. 3 Assumes loan repayment of \$6,159,856, and seven percent capitalization rate and two percent cost of sale.										
Source: Gruen Gruen + Associates										



APPENDIX C

**CASH FLOW FROM DEVELOPMENT OF LAND
AND OF FOR-SALE RESIDENTIAL UNITS**

TABLE C-1						
Base Case Developer Cash Flow and Profit for Purchase of Land and Development of Residential Uses on 55.9-Acres of Disposition Property						
	Beg. Year 1 Land Cost \$	End Year 1 General Development Costs \$	Year 2 Revenues Less Costs \$	Year 3 Revenues Less Costs \$	Year 4 Revenues Less Costs \$	Total Non- Discounted Net Cash Flow \$
Total Revenues	0	0	168,684,310	182,358,110	48,522,542	399,564,962
Total Costs	103,408,975	34,074,437	97,223,963	101,986,798	26,643,849	363,338,022
Cash Flow	-103,408,975	-34,074,437	71,460,348	80,371,310	21,878,693	36,226,940
Net Present Value of Cash Flow @ 10 Discount Rate			\$0			
¹ The net cash flow or difference between outlays for the land purchase, general development costs and home building costs and revenues from the sale of lots and homes is \$36.2 million.						



APPENDIX D

**TOTAL CASH FLOW FROM LAND DEVELOPMENT,
 BUILDING AND SALE OF RESIDENTIAL UNITS AND SALE
 OF PADS FOR OFFICE AND RETAIL SPACE DEVELOPMENT**

TABLE D-1					
Cash Flow and Value from Residential, Office and Retail Uses to Builder/Developer					
	Year 1 \$	Year 2 \$	Year 3 \$	Year 4 \$	Total \$
Cash Flow from General Development Costs	-34,074,437	0	0	0	-34,074,437
Cash Flow from Sale of Land for Office	3,301,901	0	0	0	3,301,901
Cash Flow from Sale of Land for Retail	6,506,230	0	0	0	6,506,230
Cash Flow from Development of Residential	0	71,460,348	80,371,310	21,878,693	173,710,351
Total Cash Flow	-24,539,763	71,460,348	80,371,310	21,878,693	149,170,588
Net Present Value of Cash Flow Assuming 10% Discount Rate	\$112,076,860				
Profit to Builder/Developer on Land Purchase/Development	\$37,093,728				



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Since its founding in 1970, GG+A has pioneered the integration of behavioral research and econometric analysis to provide a sound foundation for successful land use policy and economic development actions. GG+A has also pioneered the use of economic, social and fiscal impact analysis. GG+A impact studies accurately and comprehensively portray the effects of public and private real estate developments, land use plans, regulations, annexations and assessments on the affected treasuries, taxpayers, consumers, other residents and property owners.

San Francisco:
(415) 433-7598
E-mail: sf@ggassoc.com

Deerfield:
(847) 317-0634
E-mail: midwest@ggassoc.com

www.ggassoc.com

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