

**MOORPARK CITY COUNCIL
AGENDA REPORT**

TO: Honorable City Council

FROM: Yugal K. Lall, City Engineer/Public Works Director *W. Lall*

DATE: May 8, 2008 (CC Meeting of 05/21/08)

SUBJECT: Consider Conceptual Design for the North Hills Parkway Project (Project 8061)

DISCUSSION

A. Background

In July of 2004, the City Council approved the selection of the Parsons Group to prepare a feasibility study to investigate the conceptual alignment/feasibility of North Hills Parkway (the project scope is described below).

B. Feasibility Study Maps & Charts

A set of maps and charts for this project has been distributed to the City Council by separate Memo.

C. Feasibility Study

The Parsons Group has completed an alignment/feasibility study for this project. Key points in that study are summarized as follows:

1. **Executive Summary:** Attachment 1 is a copy of the Executive summary from the study. This brief summary addresses all of the findings and recommendations set forth in the full study.
2. **Project Segments:** Three segments are discussed in the study, described as follows: 1) the north-south segment extending north from Los Angeles Avenue; 2) the main east-west component of the project, extending east to Spring Road; and 3) the Gabbert Road realignment component of the project. A map attached as Attachment 2 shows the entire project.

3. **Highway Width:** The recommended right-way corridor for the project varies with a minimum width of 200 feet. The proposed Phase 1 improvements provide for only one lane in each direction. Phase 2, or ultimate, improvements provide for construction of a four-lane highway. The diagram attached as Attachment 3 shows the cross sections for these phases of construction.
4. **Los Angeles Avenue Intersection:** The north-south segment (at the west end of the project) is proposed to intersect Los Angeles Avenue (SR 118) at a point west of Butter Creek Road.
5. **Railway Grade Separation:** The north-south segment will include construction of an underpass to allow the street to pass under the railroad.
6. **Tee Intersection:** The north-south segment is proposed to intersect the east-west segment at an intersection designed to accommodate a possible future westerly extension of the east-west segment of the North Hills Parkway.
7. **Gabbert Road Intersection:** The preferred alternative provides for a four-way intersection at Gabbert Road. An alternative (not recommended) was studied to provide for a predominant traffic flow between the east leg and the south leg of this intersection.
8. **Gabbert Road Rail Crossing:** The project includes construction of improvements to complement the proposed improvements, as conditioned for Tract 5147 at the Gabbert Road rail crossing. These improvements have been included in order to better handle the anticipated increased traffic volume on Gabbert Road north of the rail crossing. This rail crossing will remain an "at-grade" crossing.
9. **Right-of-Way Acquisition:** Approximately 93 acres of right-of-way will be required for the project, however, most of the required right-of-way will be dedicated to the City as part of development projects (Hitch Ranch, SunCal, AB Properties, Pardee, and Tentative Tract 5505). Construction of a bridge over Walnut Canyon Road will require the acquisition of four residential properties.
10. **Project Cost Estimate:** The project cost estimate is discussed on page 5 of the Executive Summary and in this report under Fiscal Impact.

GENERAL PLAN CONSISTENCY

The Circulation Element of the General Plan calls for an east/west six-lane arterial to extend from the SR 118 Freeway at Princeton Avenue west to Gabbert Road. West of

Gabbert Road, this arterial is planned as a four-lane arterial, ultimately connecting with Los Angeles Avenue on the west side of the City. Gabbert Road is planned as a four-lane arterial from this east/west arterial south to Los Angeles Avenue. The Proposed conceptual design of the North Hill Parkway project is consistent with this plan. The Circulation Element also has an equestrian trail network plan. Any improvements to the road network would have to include improvements consistent with this trail plan.

ENVIRONMENTAL DETERMINATION

The Planning Director has determined that the action of the City Council to find the conceptual design/alignment to be consistent with the Circulation Element of the General Plan is exempt from the provisions of the California Environmental Quality Act, in that this action is not an approval of a project.

FISCAL IMPACT

1. **Estimated Project Cost Summary:** An estimate of total project costs is as follows:

Description	Estimated Cost (\$)
Environmental	1,559,000
Design	6,823,000
Right-of-Way	2,000,000
Construction	66,220,000
Inspection	8,187,000
Total	84,789,000

2. **Project Design Cost Summary:** An estimate of total project costs is as follows:

Description	Estimated Cost (\$)	Approved to Date (\$)	Future Costs (\$)
Conceptual Design	270,548	270,548	0
Preliminary Design	4,000,000	0	4,000,000
Environmental	1,559,000	0	1,559,000
Final PS&E	2,823,000	0	2,823,000
Total	8,652,548	270,548	8,382,000

3. **Feasibility Study Costs Summary:** A summary of feasibility design costs incurred to date, is as follows:

Description	Contract Amount (\$)	Expence to Date (\$)	Unexpended (\$)
Feasibility Study	270,548	256,842	13,706

4. **FY 07/08 Budget:** A re-cap of the FY 2007/08 Budget for this project is as follows:

Project 8061:North Hills Parkway		Current	Total
Description	Prior Years Expenses (\$)	FY 07/08 Budget (\$)	Appropriations (\$)
Design	256,842	43,158	300,000
Relocation	0	0	0
Right-of-Way		100,000	100,000
Construction	0	0	0
Inspection	0	0	0
Total	256,842	143,158	400,000

5. **Current Funding Source:** Project 8061 is funded by Fund 2002: Traffic Mitigation Fund.
6. **Proposed Future Project Funding:** It is anticipated that future project funding will require participation from the private sector with possible assistance from State and Federal highway improvement grants. It is likely that major portions of the improvements would be constructed as part of development approvals. The City previously conducted a preliminary review of the potential use of an assessment district for this route.

D. Next Steps

Parsons' study listed possible "Next Steps" as follows:

1. Meet with Caltrans for informational discussions.
2. Discuss with Caltrans appropriate project initiation documents.
3. Develop Project Study Report (PSR). Seek conceptual approval.
4. Conduct environmental review.
5. Design.
6. Construction.

A major prerequisite to proceeding with the project would be securing a project funding source.

STAFF RECOMMENDATIONS

1. Receive and file the feasibility study for the North Hills Parkway.
2. Find the highway alignment and preferred alternate set forth in said study for the design of the intersection of North Hills Parkway and Gabbert Road to be consistent with the Circulation Element of the General Plan.
3. Direct that any street design incorporate trails consistent with the Circulation Element and maintain existing trail connections.
4. Direct staff as deemed appropriate.

Honorable City Council
May 21, 2008
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Attachments:

- 1 Executive Summary
- 2 Location Map
- 3 Roadway cross sections

Executive Summary

Overview

This report assesses the feasibility of constructing the following three roadway segments to improve the traffic circulation within the City of Moorpark:

1. North Hills Parkway North/South (N/S)
2. North Hills Parkway
3. Gabbert Road Realignment

Exhibit E-1 illustrates the site overview and conceptual alignments of this project.

The primary objective of this feasibility study is to develop engineering alternatives as a means of establishing the basis of horizontal alignments and vertical profiles. This report also assesses the feasibility of each alternative in terms of the constraints and impacts, as well as the costs associated with project development and construction. The feasibility of each proposed alternative is evaluated based on the current and future operational needs for the City in order to expand the vehicular traffic handling capacity within the project limits.

Conceptual Design and Analysis

To improve traffic circulation and safety, two build alternatives were evaluated as part of this study. The major features of two build alternatives differ slightly. Based on the preliminary study and analysis, both alternatives will enhance traffic capacity and are expected to relieve future congestion in this area.

Preferred Alternative

North Hills Parkway N/S

North Hills Parkway N/S is a four-lane arterial and provides a connection southward to Los Angeles Avenue (SR-118). This arterial crosses the Union Pacific Railroad (UPRR) and the SCE high-voltage overhead power lines immediately north of the railroad tracks in a grade-separated underpass (UP) structure. The intersection at North Hills Parkway N/S and Los Angeles Avenue (SR-118) is proposed as a signalized intersection.

North Hills Parkway N/S is designed to increase traffic capacity, enhance the circulation in the city, and relieve traffic impacts to Los Angeles Avenue (SR-118). The proposed UP structure eliminates the train and vehicular traffic conflicts, enhances safety, and minimizes the delay.

North Hills Parkway

North Hills Parkway is proposed as an approximately 4-mi-long arterial with two 12-ft-wide lanes and a 12-ft outside shoulder in each direction to accommodate the expected demand from proposed developments. North Hills Parkway starts near the west side of the city boundary approximately ½ mi north of the existing Los Angeles Avenue (SR-118) and intersects the proposed North Hills

Parkway N/S at this location. One-half mile east of the North Hills Parkway and North Hills Parkway N/S intersection, North Hills Parkway extends to the east and intersects the realigned Gabbert Road at an approximate right angle. This intersection is anticipated to be signalized with the predominant movement along the east–west direction on North Hills Parkway.

An overcrossing (OC) structure is proposed where the proposed North Hills Parkway crosses over the existing Walnut Canyon Road (SR-23). Because of the hilly terrain, the OC structure is 65 ft above the area along SR-23. Four residential properties adjacent to SR-23 would be impacted by the proposed North Hills Parkway OC and would have to be relocated.

Phase 1 of North Hills Parkway initially provides for a two-lane highway with a raised median for left-turn lanes or landscaping. At this stage, North Hills Parkway will primarily accommodate the traffic volumes generated by the current housing developments in the city. Ultimately, Phase 2 of North Hills Parkway will be required to be built out when all residential developments along its reach are completed. For this study, the right-of-way needed for the full buildout is included in Phase 1.

Gabbert Road Realignment

South of North Hills Parkway, Gabbert Road is realigned and upgraded to four lanes and joins the existing intersection of Gabbert Road and Poindexter Avenue. The railroad crossing on the realigned Gabbert Road remains at grade; no grade separation is proposed for this crossing. However, the railroad quad gates system on the grade crossing is upgraded to enhance safety.

The realigned Gabbert Road links North Hills Parkway and Tierra Rejada Road, and forms a loop route through the city while improving the traffic circulation.

Alternative 1

Alternative 1 is a variation of the *Preferred Alternative*. In this alternative, the intersection of North Hills Parkway and realigned Gabbert Road is configured as a Y-shaped intersection instead of the cross-shaped intersection described in the Preferred Alternative to accommodate traffic movements between North Hills Parkway and Gabbert Road. This alternative makes the westbound movement on North Hills Parkway the predominant movement through the intersection. In order for this intersection to operate effectively, a separate signal phase would be necessary for the eastbound traffic on North Hills Parkway going through the intersection.

Investigation and Findings

Environmental

According to the Preliminary Environmental Assessment Report (PEAR) developed as part of the Feasibility Study, no significant impacts are identified and no special permits are required. An Initial Study (IS) leading to a Mitigated

Negative Declaration (MND) is therefore recommended as the appropriate environmental document under California Environmental Quality Act (CEQA) guidelines.

Right-of-Way

Approximately 93 acres of right-of-way (R/W) are required for this project, and four residential properties are impacted by the proposed alignment.

A portion of the R/W has already been dedicated on the west end of the parkway. Developers of the land adjacent to North Hills Parkway would be required to dedicate the remaining R/W. This study assumes that those R/Ws would be contributed by the developers at no cost. Right-of-way acquisition of the four residential properties would require the standard acquisition process, including an approved Environmental Document and the possibility of going through the condemnation process if the properties could not be obtained cooperatively.

Railroad

Two railroad crossings and their pertinent improvements are proposed and identified below:

1. Construct an underpass structure (UP) where North Hills Parkway N/S crosses Union Pacific Railroad (UPRR)/Metrolink (SCRRA) track.
2. Modify the existing at-grade crossing where the realigned Gabbert Road crosses UPRR/Metrolink (SCRRA) track.

Utilities

Most of the project area encompasses undeveloped land; therefore, minimal underground utility conflicts are anticipated. However, overhead high-voltage power lines are found in the project area. As part of the underpass, retaining walls are required to protect an existing SCE electrical tower located on the side slope of North Hills Parkway N/S and to provide access for maintenance.

Existing utilities lines along the rail road property will have to be accommodated in the new underpass.

Hydraulics

The profile of North Hills Parkway N/S at the railroad crossing is approximately 22 ft below the existing ground. A pumping system is needed for the sag locations underneath the UP structure.

The footprint of the North Hills Parkway impacts some natural channels within the project limits and would encroach on some detention basins proposed by the developers. A post-development hydrology analysis is recommended in the next design phase to verify the adequacy of the capacity of those basins and associated storm drain systems to properly determine the proposed culvert types and sizes to satisfy the City's requirement to contain all stormwater runoff on site.

Traffic

A detailed traffic study would be required for the next phase of design to analyze how the intersections along North Hills Parkway and SR-118 would operate in a 20-year horizon period.

Geotechnical

The soil along the alignment of the North Hills Parkway is mainly sandy alluvium; to prevent settlement, it requires 3 to 10 ft of overexcavation for most of the project area. The overexcavated soil should be recompacted and reused as embankment material in order to balance earthwork on site. The existing soil condition also requires deep pile foundations for the North Hills Parkway N/S underpass structure. However, the abutments of the North Hills Parkway OC at SR-23 are located on bedrock, and spread footings can be used there.

Cost Estimate

The total cost for construction, engineering support, and R/W for the project is approximately \$84.9 million. Because of the high degree of similarity between the two build alternatives presented in this report, the costs differences between the Preferred Alternative and Alternative 1 are considered negligible. The details of the cost estimates are listed in Attachment I.

Tabulated below is the cost summary of construction (R/W cost included) and engineering support for each roadway segment and construction phase. Phase 1 costs are for the immediate roadway improvements and Phase 2 costs are the additional costs to improve the roadway for the ultimate buildout.

		Phase 1			Phase 2		
		North Hills Parkway N/S	North Hills Parkway	Gabbert Road	North Hills Parkway N/S	North Hills Parkway	Gabbert Road
Construction	Roadway	\$8,286,000	\$33,307,000	\$3,292,000	\$1,208,000	\$5,280,000	\$691,000
	Structure	\$1,430,000	\$10,660,000	\$0	\$0	\$0	\$0
	Right-Of-Way	\$0	\$2,000,000	\$0	\$0	\$0	\$0
	RR Shoofly	\$2,066,000	\$0	\$0	\$0	\$0	\$0
	Subtotal	\$11,782,000	\$45,967,000	\$3,292,000	\$1,208,000	\$5,280,000	\$691,000
	Subtotal	\$61,041,000			\$7,179,000		
Engineering Support	Environmental	\$1,200,000			\$359,000		
	Design	\$6,105,000			\$718,000		
	CM	\$7,325,000			\$862,000		
	Subtotal	\$14,630,000			\$1,939,000		
Phase Total		\$75,671,000			\$9,118,000		
Use		\$75,700,000			\$9,200,000		
Grand Total		\$84,900,000					

Conclusions and Recommendations

- Based on the engineering analyses and environmental evaluations while preparing this report, no fatal flaws were identified for any alternative.
- At locations where the proposed alignments intersect or approach a state facility, such as over the existing SR-23 and where it connects to the existing SR-118 (Los Angeles Avenue), coordination with Caltrans is required to obtain formal conceptual approval and to determine the pertinent type of document to prepare for the next design phase, which could be a project study report (PSR), project report (PR), or encroachment permit, depending on the nature and cost of the improvements.

Next Steps

- Conduct an informal meeting with Caltrans to discuss the proposed alternatives.
- Develop a project study report (PSR) to obtain conceptual approval and seek project funding for improvements within and outside of state right-of-way.
- After conceptual approval is obtained, proceed with the formal environmental clearance and the final design of the parkway.
- Work with developers to reserve the necessary right-of-way to complete Phases 1 and 2 of the North Hills Parkway as detailed in this Feasibility Study.

City of Moorpark Feasibility Study

North Hills Parkway

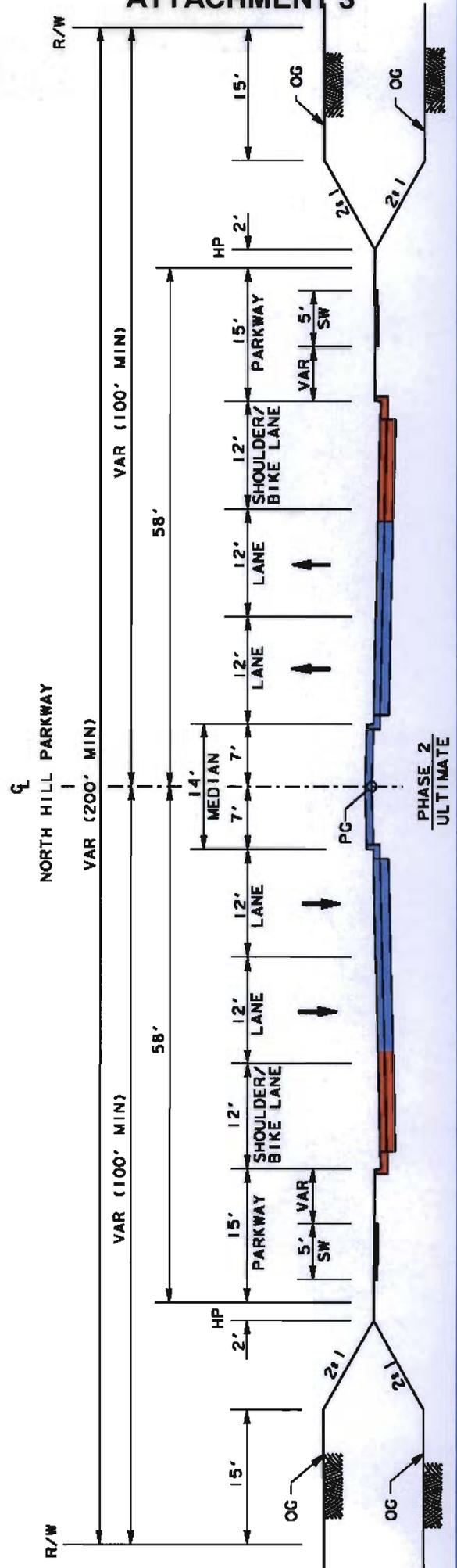
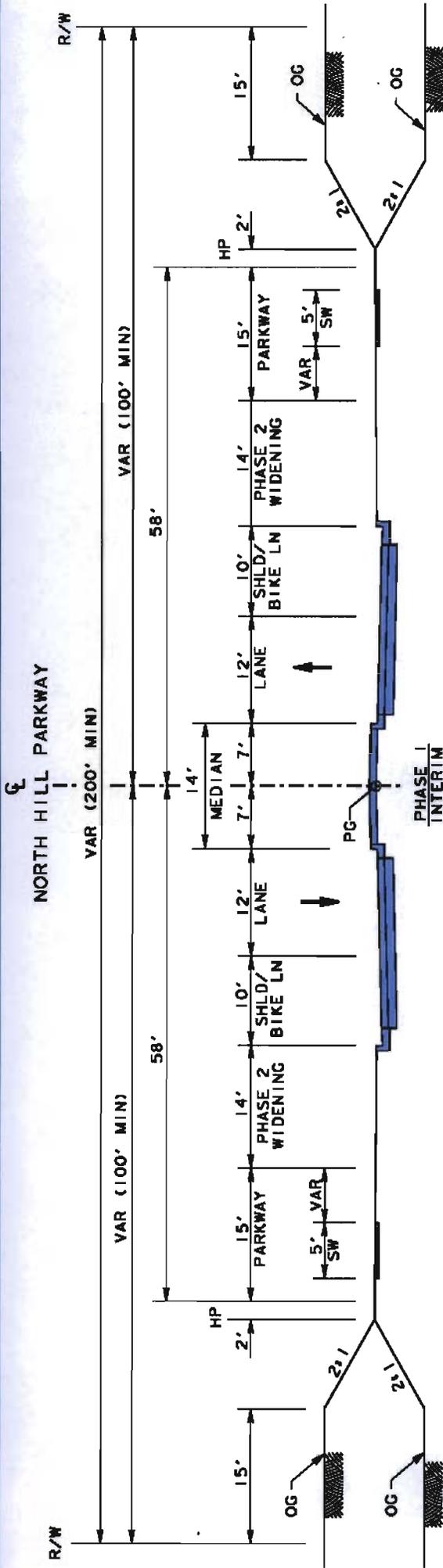


ATTACHMENT 2

April, 2008

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North Hills Parkway



ATTACHMENT 3

Typical Sections - Interim & Ultimate