



Agoura Road Green Space Project

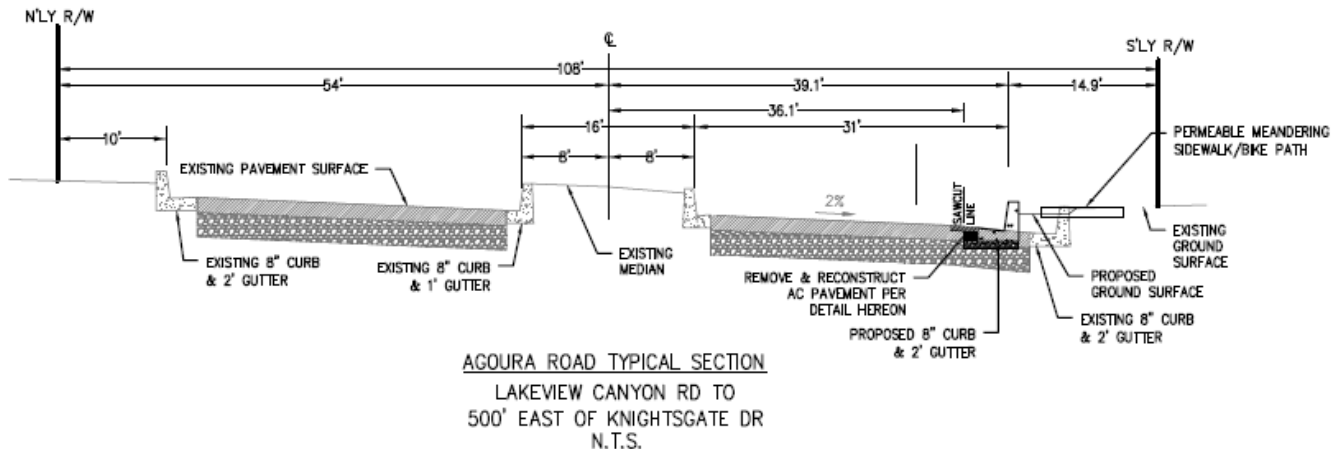
Project Description:

This Agoura Road Green Space project is part of an overall City of Westlake Village streetscape improvement project that creates infiltration and urban pollutant mitigation opportunities along all arterial medians and parkways.

This project proposes to remove a minimum of 11,680 square feet of asphalt concrete (AC), an impervious surface, on east bound Agoura Road which is one of the City of Westlake Village's arterial streets. The project limits are from approximately 500' east of Knightsgate to Lakeview Canyon Road; approximately 3500' linear feet. This will be accomplished by saw cutting AC, and removing a variable width of 3' to 4' of existing roadway and curb/gutter, installing new curb/gutter along new alignment, and backfilling the rest of the disturbed area (behind new curb/gutter) with soil. This will remove a lane on Agoura Road, and the newly created pervious area will be added to an existing variable width landscaped area (grass and trees). Existing grass will be removed, and the widened landscape area will include a permeable meandering pedestrian/bicycle path, smart irrigation controls, and low water use vegetation. Reductions in the Q10 and Q25 due to the net reduction in impervious surface are summarized below, and calculations are provided in the attached.

Project Features:

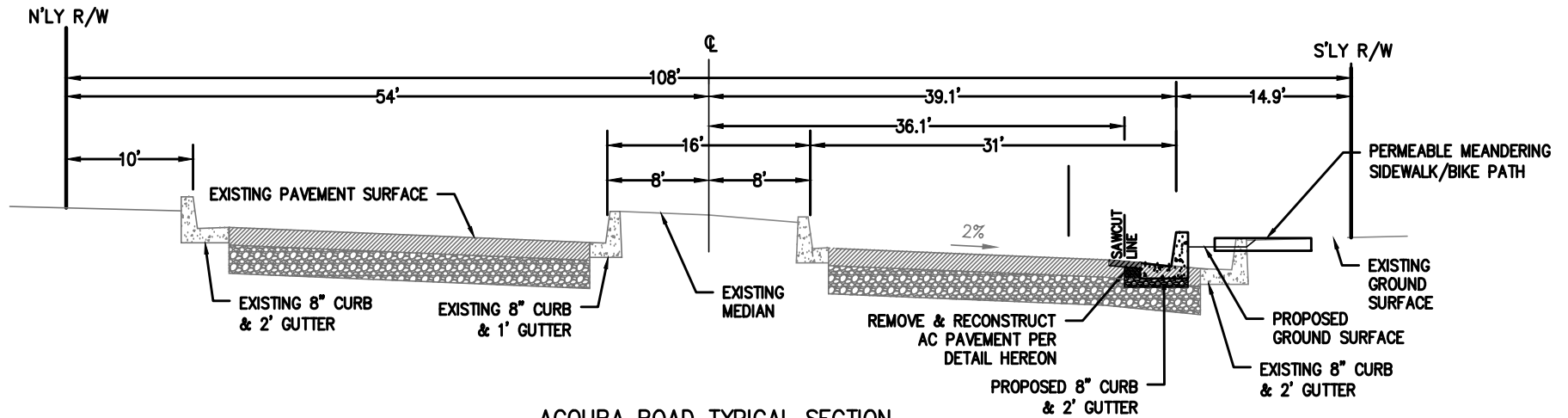
- ✓ Comply with water quality regulations (including TMDLs) by improving the quality of urban runoff, and stormwater
- ✓ Bio-swales and other infiltration galleries to address nuisance flow throughout the year
- ✓ Provides weather based evapo-transpiration (ET) controller which saves 25% or more over conventional Non-ET controllers



RUNOFF REDUCTION SUMMARY

CATEGORY	VALUE
NET REDUCTION IN IMPERVIOUS AREA	11680 SF
NET REDUCTION IN Q10	0.059 CFS
NET REDUCTION IN Q25	0.069 CFS

Estimated Cost:
\$1.25 Million



AGOURA ROAD TYPICAL SECTION
 LAKEVIEW CANYON RD TO
 500' EAST OF KNIGHTSGATE DR
 N.T.S.

RUNOFF REDUCTION SUMMARY

CATEGORY	VALUE
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CITY OF WESTLAKE VILLAGE

AGOURA ROAD SIDEWALK IMPROVEMENTS

TYPICAL SECTION

DRAWN BY: RS/BT	DESIGNED BY: MB	CHECKED BY: RCH
FILENAME:	SHT. 1 OF 1 SHTS.	PLAN NO.



BY _____ DATE _____ PROJECT AGOURA RD SIDEWALK SHEET _____ OF _____

CK'D _____ DATE _____ LOCATION _____

SUBJECT _____ JOB No. _____

PER LA COUNTY HYDROLOGY MANUAL

7.4 inches of RAINFALL (50-YR, 24 hrs)

$$\hookrightarrow 7.4 \text{ in} / 24 \text{ hr} = 0.308 \text{ in/hr}$$

0.714 = 10-YR Conversion Factor
0.878 = 25-YR Conversion Factor

$$Q = CIA$$

$$\underline{C_{\text{undeveloped}} = 0.02}$$

$$\underline{C_{\text{developed}} = 0.96}$$

$$I_{(10\text{-YR})} = 0.308 \frac{\text{in}}{\text{hr}} \left(\frac{1 \text{ ft}}{12 \text{ in}} \right) \left(\frac{1 \text{ hr}}{3600 \text{ s}} \right) (0.714)$$

$$\underline{I_{(10\text{-YR})} = 5.09 \times 10^{-6} \text{ ft/s}}$$

$$I_{(25\text{-YR})} = 0.308 \frac{\text{in}}{\text{hr}} \left(\frac{1 \text{ ft}}{12 \text{ in}} \right) \left(\frac{1 \text{ hr}}{3600 \text{ s}} \right) (0.878)$$

$$\underline{I_{(25\text{-YR})} = 6.25 \times 10^{-6} \text{ ft/s}}$$

$$Q_{\text{devel-10yr}} = 0.96 (5.09 \times 10^{-6} \frac{\text{ft}}{\text{s}}) (11,680 \text{ ft}^2) = 0.06 \text{ CFS}$$

$$Q_{\text{devel-25yr}} = 0.96 (6.25 \times 10^{-6} \frac{\text{ft}}{\text{s}}) (11,680 \text{ ft}^2) = 0.07 \text{ CFS}$$

$$Q_{\text{undevel-10yr}} = 0.02 (5.09 \times 10^{-6} \frac{\text{ft}}{\text{s}}) (11,680 \text{ ft}^2) = 1.19 \times 10^{-3} \text{ CFS}$$

$$Q_{\text{undevel-25yr}} = 0.02 (6.25 \times 10^{-6} \frac{\text{ft}}{\text{s}}) (11,680 \text{ ft}^2) = 1.46 \times 10^{-3} \text{ CFS}$$

$$\text{Net Reduction in } Q_{10} = Q_{\text{devel-10yr}} - Q_{\text{undevel-10yr}} = 0.059 \text{ CFS}$$

$$\text{Net Reduction in } Q_{25} = Q_{\text{devel-25yr}} - Q_{\text{undevel-25yr}} = 0.069 \text{ CFS}$$